Contract No FV355/2012/MOVE/D1/ETU/ SI2.659386

Analysis of the EU Combined Transport

Final Report

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"Analysis of the EU Combined Transport"

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Abstract (EN)

This study provides a comprehensive insight into the current economic and legal state of combined transport (CT) operations in the European Union (EU) including all CT sectors and combinations. It establishes an extensive statistical database on CT operations in the reference year 2011 and time series data for recent years. The study also displays the economics of the CT industry with respect to business models, cost structures and socio-economic benefits. The report further investigates trends and forces of change impacting on the evolution of CT sectors and delivers a forecast of CT volumes by 2030.

A key element of the study is to examine the compliance of the national legal framework of Member States (MS) put in place to transpose the Directive 92/106/EEC, which delivers a common definition for CT and provisions for promoting CT. The study analyses the CT Directive itself and identifies the need for its revision. It provides recommendations for how the regulatory framework may be enhanced on EU and MS level. The study also looks at the wide range of incentives applied to promote use of CT in MS and third countries aiming to identify good practice solutions. Based on these findings effective measures for supporting CT operations are proposed.

Abstract / Résumé (FR)

Cette étude fournit un aperçu complet de la situation économique et juridique actuel du transport combiné (TC) prestations dans l'Union européenne (UE), y compris tous les secteurs et combinaisons CT. Il établit une base de données statistiques sur les prestations vaste CT dans les années 2011 et des séries temporelles de données de référence pour les années récentes. L'étude montre également l'économie de l'industrie de la CT par rapport à des modèles d'affaires, les structures de coûts et avantages socio-économiques. Le rapport examine en outre les tendances et les forces du changement impact sur l'évolution des secteurs CT et délivre une prévision des volumes CT en 2030.

Un élément clé de l'étude est d'examiner la conformité du cadre juridique national des États membres (EM) mis en place pour transposer la directive 92/106/CEE, qui fournit une définition commune pour CT et des dispositions pour la promotion de CT. L'étude analyse la directive CT lui-même et identifie la nécessité de sa révision. Il fournit des recommandations pour savoir comment le cadre réglementaire peut être amélioré au niveau de l'UE et MS. L'étude se penche également sur le large éventail de mesures d'incitation appliquées pour promouvoir l'utilisation de la TDM dans MS et les pays tiers visant à identifier des solutions de bonnes pratiques. Sur la base de ces résultats des mesures efficaces pour soutenir les opérations de CT sont proposées.

Executive summary (EN)

The Transport White Paper of 2011[1] described a situation which remains of relevance current and as such provides a suitable introduction to the study. Whilst it is unlikely that anyone would disagree with the aims and objectives of the White Paper, its hope that the performance of supply chains will be optimised and become economically attractive for shippers, remains elusive.

Whilst the White Paper makes no express reference to Combined Transport (CT), it is apparent that the core components of CT should provide the tools for realising these expectations.

The CT sector has been in existence for more than 50 years, since the forerunners of the ISO containers were first introduced into global shipping lanes. The hope would be that, by now, CT would already be addressing the issues outlined in the White Paper, with world-class services continuing to attract customers on the basis of a major (almost dominant) share of freight traffic in Europe over road haulage.

This is very much the case with the North American CT industry, which has seen a dramatic turnaround in fortunes since the 1980's, transforming a virtually bankrupt and dysfunctional rail sector into a key player in the overland freight market, where legislation is now focussed on limiting its scope for market dominance, rather than to try and stimulate the market to make more use of it.

The opposite applies in the EU.

Here, the CT industry has been around for as long as in North America, and the liberalisation of the rail sector from the 1990's onwards was anticipated by policy-makers to achieve a similar transformation. Twenty years have passed since "open access" liberalisation appeared, and whilst the EU's CT industry would hopefully by now have been similarly mature and as successful as in North America, it instead appears at times to remain in adolescence and, at worse, at risk of heading for obsolescence. At present, CT has achieved a market share equivalent to 12% of total road freight, and 9% of all surface freight. To set this further in context, rail freight has a 22% share of the combined volume of road and rail freight – almost half the share achieved in North America.

This is then the fundamental challenge facing CT: most policy-makers wish to see it play a much greater role in addressing the freight-related issues of transport in the EU; many end users would like to see it become much more commercially attractive; but relatively few customers actually use it, and often without any great enthusiasm.

[1] Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system: White Paper, COM(2011) 144 final, Brussels, 28.3.2011

So what is to be done to address this challenge, and what role does (or can) the EU Directive on Combined Transport ("the CT Directive")[2] play in making it happen? This study has been tasked with considering this broad question.

To respond to this question, this study has firstly looked at the existing situation for CT traffic across each of the various modal combinations falling within the provisions of the CT Directive (rail, inland waterway and sea, each in combination with road).

Despite the rather modest role played by CT in the wider freight market, and the impact that the global economic downturn has had on it in recent years, there are areas of the EU where CT makes a considerable impact: for EU major maritime gateways around the coastline, helping decongest the ports from growing traffic volumes which their hinterland road networks could never cope with single-handed; for major north-south freight corridors, providing rail services which can overcome the tremendous logistical and environmental challenges of threading large volumes of freight through narrow and sensitive trans-Alpine corridors; using high-capacity barges to achieve unrivalled container payloads and cost-efficiencies between major ports and the connecting inland waterway networks; high-frequency short sea maritime services linking ports and bridging physical gaps between land masses.

The study has then looked at future prospects for each of the CT's main components. Despite recent economic challenges, as well as external factors outside of the CT sector's control, prospects *should* remain positive, given the clear concerns by policy-makers, end-users and other stakeholders in areas such as: fuel prices and oil dependency; road traffic congestion and its impact on destabilising highly-tuned supply chains; shortages of lorry drivers in some regions; the need to radically reduce GHG emissions in respect of societal (i.e. consumer) concerns; and the risk that these concerns then, in turn, lead to further tightening of the existing regulatory framework.

There is no doubt that CT should be capable of significant growth in the years ahead. The extent to which the various CT stakeholders and actors can realise this growth will be conditioned by various factors, most of which relate to current challenges, which can be grouped into the following broad categories:

- Service providers that still fail to recognise, adopt or improve on the performance benchmarks, or continuous innovation, established by the road haulage industry. Unreliable, unpredictable, inflexible, slow and expensive services, which by their very nature introduce extra risks associated with multiple transport modes and interchanges between them, is unlikely to attract, retain and grow the customer base to any great extent in the face of a road haulage industry which remains agile, aggressive and responsive in spite of its own set of challenges;
- Failure of rail industry liberalisation to achieve the intended full separation of track from trains, with the breakup of former state-controlled monopolies. A large part of the rail and intermodal freight industry is now controlled by DB / Schenker and SNCF

[2] Council Directive 92/106/EEC of 7 December 1992 on the establishment of common rules for certain types of combined transport of goods between MS. See http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:31992L0106 for further information

/ Geodis, state-funded transport conglomerates each much larger and dominant than before the liberalisation process started, and both seemingly intent on preventing any further liberalisation of the rail industry;

- Infrastructure for intermodality, without interoperability. Much of the EU's rail and inland waterway networks are not capable of handling the type of CT traffic which operators and users would like to carry on it. Headroom is insufficient to allow taller load units (or multiple stacks) to be moved by train or barge. Navigation depth prevents larger barges from penetrating further upstream. Route capacity is constrained by lack of passing loops on busy rail routes, by major variations in water levels on rivers and canals, or simply because there are not enough links in the networks. Long and slower CT rail services have to share the tracks with short and faster passenger services. Securing planning consent for new CT terminals may take years due to ponderous national planning processes, compounded by local "environmental" protestors. Solutions are available (e.g. European Rail Traffic Management System, development of new projects to enhance routes or plug missing links) but funding is constrained and lead times may be extended;
- Similar to physical CT transport infrastructure, the lack of electronic ICT infrastructure also impacts on interoperability. The contrast between the giant strides achieved in other parts of society and business, whether in real-time multimodal journey planners for public transport, through to "hard-wired" global production and distribution networks, and the CT industry, cannot be justified. In such a modern ICT-driven world, it is wholly unacceptable for some CT services to still involve the manual re-keying of data between modes and operators, based on hand-delivered or faxed documentation, or for end users to find it challenging to obtain real-time information on services, rates or even the location of their load units. Road haulage is moving forward in this area, the CT sector needs to as well;
- Commercial and public policy towards use of CT can only ever be as good as the data it relies on. This study has highlighted the very poor quality and depth of data on freight moved by CT services, which at present prevents any forensic analysis of existing activity, or the opportunities to enhance and expand that activity. Again, in an age of real-time data communication, it should not be beyond the capabilities of either the existing ICT infrastructure, or the CT service providers with access to it, to develop at least a rudimentary network of "sentinels", autonomous and automatic gatekeepers capable of logging CT load units as they pass through key nodes in multimodal networks. Such a network should be seen not as a bureaucratic intrusion on commercial privacy, but more as a tool with which business and government can better understand the challenges, from which to target scarce resources and best realizing the opportunities.

The study has then looked at the wide range of incentives applied to help promote use of CT at EU and Member State level. This includes the existing provisions of the CT Directive for supporting the road-related aspects of CT at the first or final part of a CT transit, together with wider CT-related incentives introduced by some of the more forward-thinking Member States. From this, it is possible to identify a relatively small number of incentives which could be material to CT growth moving forward.

The analysis of CT-related support programmes shows that two measures may not only deliver strong growth effects for CT operations but could be applied in every MS as well: aids (direct grants) for CT operations; and direct grants for the construction of CT terminal infrastructure. Both incentives can reduce the total costs of CT operations considerably and thus enhance the competitiveness of service offerings when the size of the support is appropriately high. Existing programmes in MS cut terminal-to-terminal transport costs by up to 50% or reduce transhipment cost by €30 or more per load unit handled at CT terminals.

So then to the role of the CT Directive itself. Adopted in 1992, it is apparent that some 22 years have elapsed in the meantime. Some parts of the CT Directive have inevitably been overtaken by wider events, outside and within the CT sector, creating a need to revise or remove parts of the text accordingly. Other parts of the CT Directive have, as will often occur with legislation applied individually in multiple Member States, either not been transposed at all, or only in part, or been subject to various interpretations which, in some cases, may actually depart from the original objectives. This creates a greater administrative burden for CT operators and users managing services across multiple Member States (and in some third countries as well), where the rules at each end may be very differently interpreted and applied.

Yet, the CT Directive still retains a relevant role to play in establishing (or reaffirming) core principles in support of CT, whether with long-established or recent-accession Member States. There is no question that the CT Directive (possibly in an updated form) should be retained as part of the wider promotion of CT within EU transport policy. The majority of stakeholders agree with the need for the CT Directive in supporting CT, as well as the need for it to adapt and improve to support CT in future.

The key lesson learnt here is the need to achieve a delicate balance between, on the one hand, imposing a rigid pan-European “one size fits all” Directive, and on the other, a profusion of different interpretations of the CT Directive which then hinder its overall objectives. This issue is clearly not confined to the CT sector, but alongside efforts to improve quality, ease of access and inter-operability across the CT network, harmonising the application of the key provisions of the CT Directive across MS may be material to achieving further breakthroughs in making CT a more mainstream offer.

Finally, there is the question of improving the data gathering process, to assist with further studies of this type in future. As concerns CT rail/road operations we recommend that consideration is given to changing the methodology. Instead of collecting data from railway undertakings, which commonly run trains on behalf of CT service providers, data should be requested from primary sources, i.e. the CT service providers themselves. They should know their business and be able to provide most of the statistical items required by the EC and policy makers to better assess the situation in this sector. Allied to this is the need to encourage greater use of existing ICT systems and infrastructure, towards greater autonomous / automatic recording of CT load units as they pass through key gateways.

Whilst most stakeholders agree with the need for better data, very few appear willing or able to report it. We therefore recommend that further engagement is undertaken with the CT industry to determine how far an initial high-level data gathering network could

be established by voluntary means alone, before consideration of further measures to gather and analyse data.

Overall therefore, this report sets out a CT sector capable of making a major contribution to commercial and public policy objectives in the coming years. The European Commission has a critical role to play in co-ordinating investment in TEN-T and other cross-border initiatives that will over time suitably enhance the CT infrastructure networks. Alongside this, the CT Directive (with scope for updating and refinement) remains an important and relevant piece of legislation for promoting CT at Member State level. Member States then have a valuable role to play in implementing and enhancing the provisions of the CT Directive and related EU / national policies in support of CT.

Yet all the above measures will count for nothing without radical and real change within the CT sector itself which, in return for continuing to receive scarce public resources (and end user goodwill) on which to build the business, needs to adopt the practices and standards of logistics service providers. The CT sector should then build on these benchmarks, as far as possible, to evolve to a point where (as in North America) support is no longer necessary.

The White Paper concludes that a transformation of the European transport system will only be possible through a combination of manifold initiatives at all levels. For this study and its appraisal of the CT sector, we concur with this conclusion.

Executive summary / Sommaire (FR)

Le Livre Blanc sur les Transports de septembre 2011[3] décrit une situation toujours d'actualité et fournit une introduction approprié à cette étude ainsi qu'un raisonnement qui lui convient.

Pratiquement personne ne serait en désaccord avec les déclarations et le contenu du Livre Blanc. Pourtant, les ésperances y exprimées que la performance des chaînes logistiques sera optimisée et deviendra économiquement attrayante pour les expéditeurs reste insaisissable.

Pendant que le Livre Blanc ne fait aucune référence explicite au transport combiné (TC), il reste apparent que les composants de base du TC devraient fournir les outils qui permettraient la réalisation de ces attentes.

Le secteur TC existe depuis plus de 50 ans, depuis l'introduction des précurseurs des conteneurs ISO sur les lignes maritimes mondiales. L'espoir serait que jusqu'ici le TC répondrait déjà aux préoccupations abordées dans le Livre Blanc, pendant que des prestations de classe mondiale continueraient à attirer leur clientèle sur la base d'une part importante (presque dominante) du trafic de fret en Europe par rapport au transport routier.

[3] LIVRE BLANC Feuille de route pour un espace européen unique des transports – Vers un système de transport compétitif et économe en ressources, COM/2011/0144 final, Bruxelles, 28.3.2011

Tel est vraiment le cas dans le secteur TC nord-américain, qui a connu une revirement spectaculaire de situation depuis les années 1980 qui a transformé le secteur ferroviaire, qui était pratiquement en faillite et dysfonctionnel, dans un acteur clé dans le marché du fret terrestre, situation qui a mené a ce que la législation se concentre actuellement sur la limitation de sa domination du marché plutôt que d'essayer de stimuler l'utilisation du TC par le marché.

Dans l'UE c'est le contraire.

Ici, le secteur TC existe déjà aussi longtemps qu'en Amérique du Nord, et la libéralisation du secteur ferroviaire dès les années 1990 était prévue par les décideurs politiques afin de parvenir à une transformation similaire. Vingt ans se sont écoulés depuis l'arrivée de la libéralisation "accès ouvert" et tandis qu'il y avait l'espoir pour le TC dans l'UE pour la même maturité et le même succès qu'en Amérique du Nord en réalité il semble être resté bloqué dans l'adolescence et, au pire, à risque même d'obsolescence. Au présent, le TC a atteint une part de marché de 12% du total de fret routier, et de 9% du marché terrestre dans l'ensemble. Pour mettre ces chiffres en contexte, la partie du marché de fret ferroviaire lui-même est dans l'ordre de 22% du volume total, c'est à dire de l'ensemble du transport routier et du transport ferroviaire, chiffre qui correspond à presque la moitié de celle applicable à l'Amérique du Nord.

Voici donc le défi fondamental pour le TC. La plupart des décideurs veulent que le TC joue un rôle beaucoup plus importante en ce qui concerne les questions liées au fret dans la domaine de transport dans l'UE; beaucoup d'utilisateurs finaux voudraient le voir devenir beaucoup plus commercialement attractif; mais relativement peu de clients l'utilisent réellement, et souvent sans aucune grande enthousiasme.

Donc, qu'est-ce qui doit être fait pour résoudre ce défi et quel rôle joue, ou peut jouer, la directive de l'UE sur le transport combiné (la directive CT)[4] pour faire bouger les choses? Cette étude a été chargée avec l'examen de cette question générale.

Pour répondre à cette question, d'abord cette étude a examiné la situation existante pour le TC pour chacun des combinaisons modales qui tombe dans le champ des dispositions de la directive CT (ferroviaire, fluvial et maritime, chaque en combinaison avec la route).

Malgré le rôle plutôt modeste joué par le TC dans le marché du fret en générale et l'impact du ralentissement économique mondial dans les années récentes, il y a des régions de l'UE qui peuvent quand-même démontrer un impact considérable: pour des principales portes d'entrée maritimes le longue du littoral, il aide à décongestionner les ports des volumes de trafic en croissance et auxquels leurs réseaux routiers de l'arrière-pays ne pourraient jamais faire face d'une seule main; pour les grands corridors de fret nord-sud, la fourniture de services ferroviaires capables de surmonter les énormes défis logistiques et environnementaux par le filetage des volumes de fret au travers des couloirs étroits et sensibles transalpins; l'utilisation des barges de haute capacité qui

[4] Directive 92/106/CEE du Conseil, du 7 décembre 1992, relative à l'établissement de règles communes pour certains transports combinés de marchandises entre États membres, http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:31992L0106

peuvent atteindre des charges utiles de conteneurs et une rentabilité sans égal entre les grands ports et les réseaux de voies navigables y reliées; services maritimes courte distance à haute fréquence et les services maritimes qui relient les ports et font le pont entre les masses terrestres physiques.

L'étude portait sur des perspectives de l'avenir pour chacun des composantes principales de TC. Malgré des défis économiques récents, ainsi que des facteurs externes et hors du contrôle du secteur TC, les perspectives devraient rester positives, étant donné les préoccupations de la part des décideurs, des utilisateurs finaux et des parties prenantes dans les domaines: prix des carburants et la dépendance au pétrole; congestions de la circulation routière et son impact de déstabilisation des chaînes d'approvisionnement hautement accordés; pénurie de chauffeurs de poids lourds dans certaines régions; la nécessité de réduire radicalement les émissions de GES à l'égard des préoccupations de la société (ce est à dire du consommateur); et finalement le risque que ces préoccupations, à leur tour, conduisent à un nouveau durcissement du cadre réglementaire existant.

Il ya aucun doute que le TC devrait être capable d'une croissance significative dans les années à venir. La mesure dans laquelle les divers intervenants et acteurs du TC peuvent réaliser cette croissance sera conditionnée par des facteurs divers, dont la plupart se rapportent aux défis actuels, qui peuvent être regroupés dans les catégories larges suivantes:

- *Que les fournisseurs de services ne parviennent toujours pas à reconnaître, adopter ou d'améliorer les références, ou l'innovation continue à évoluer, établie par le secteur du transport routier. Des services peu fiables, imprévisibles, inflexibles, lents et coûteux, qui par leur nature même introduisent des risques supplémentaires liés à plusieurs modes de transport et les échanges entre eux, sont peu susceptibles d'attirer, conserver et accroître la base de clients dans une mesure significative face à un secteur de transport routier qui reste agile, agressif et sensible en dépit de ses propres défis;*
- *Échec de la libéralisation du secteur ferroviaire visant à atteindre la séparation complète entre voie et trains avec la rupture des anciens monopoles contrôlées par l'Etat. Une grande partie de la ferroviaire et du secteur fret intermodal est contrôlé par DB/Schenker et SNCF/Geodis, des conglomérats de transport financés par l'état dont chaque beaucoup plus grand et dominant qu'avant la mise en route du processus de libéralisation et apparemment de l'intention d'empêcher à la fois toute nouvelle libéralisation de l'industrie ferroviaire;*
- *Infrastructure pour l'inter-modalité, sans interopérabilité. Une grande partie des réseaux ferroviaires et fluviaux intérieures de l'UE ne sont pas capables de traiter le trafic TC de façon ou dans la forme préféré par les opérateurs et les utilisateurs. Les gabarits ferroviaires ainsi que fluviaux sont insuffisants pour accepter les unités de transport de grand hauteur (ou les unités empilées) pour l'acheminement par train ou par barge. Du profondeur insuffisant empêche la navigation de grandes barges qui ne peuvent pénétrer plus en amont. La capacité est limitée par le manque de voies d'évitement sur les itinéraires ferroviaires achalandées, par les grandes variations dans les niveaux d'eau fluviaux et sur les canaux, ou simplement parce qu'ils*

n'existent pas assez de liens d'interconnexion entre les réseaux. Les convois ferroviaires TC longs et lents doivent partager les voies avec les trains de voyageurs courts et plus rapides. Obtenir le permis de construire pour les nouveaux terminaux TC peut prendre des années en raison des processus de planification nationales lourds, aggravés par des manifestants locaux "environnement". Les solutions sont disponibles (par exemple European Rail Traffic Management System, le développement de nouveaux projets visant à améliorer les itinéraires ou la mise en place des chaînons manquants) mais le financement est soumis de contraintes et les délais peuvent être prolongés;

- *De façon similaire à l'infrastructure de transport du TC physique, le manque d'infrastructure électronique impacte également sur l'interopérabilité. Le contraste entre les pas de géant accomplis dans d'autres parties de la société et des entreprises, soit les planificateurs temps réel multimodales pour les transports publics ou les réseaux globaux de production et de distribution "câblés" globales ainsi que le secteur TC, ne peut être justifié. Dans un monde axé sur les TIC modernes, il est totalement inacceptable que pour certains services TC la ressaisie manuelle des données entre les modes et les opérateurs est toujours nécessaire, sur la base de télécopieur ou de documentation fournie à la main, ou pour les utilisateurs finaux d'avoir de difficulté à trouver des informations en temps réel sur les services ou sur les prix, ou à localiser leurs unités de transport. Le transport routier fait du progrès dans ce champ; le secteur TC doit faire de même.*
- *La politique commerciale et publique vers l'exploitation du TC ne peut être qu'aussi bon que les données dont elle dépend. Cette étude a mis en évidence la très mauvaise qualité et mauvais profondeur des données sur les marchandises transportées par les services TC, ce qui empêche actuellement toute analyse scientifique de l'activité existante ainsi que toute occasion pour améliorer et élargir le champ de cette activité. Encore une fois, à l'ère de services de communication de données en temps réel, il ne devrait pas dépasser les capacités ni de l'infrastructure de TIC existant ni des acteurs TC qui y sont branchés de développer au moins un réseau rudimentaire de "sentinelles", des portails autonomes et automatiques capables de l'enregistrement des unités de transport TC en se déplacent à travers les nœuds clés dans les réseaux multimodaux. Un tel réseau ne devrait pas être considéré comme intrusion bureaucratique dans la vie privée commerciale, mais plutôt comme un outil qui permet les entreprises et le gouvernement de mieux comprendre les défis afin de cibler des ressources rares pour gagner la meilleure réalisation des opportunités.*

L'étude a examiné par suite le large éventail de mesures d'incitation appliquées pour aider à promouvoir l'utilisation du TC au niveau de l'EM. Ceci comprend les dispositions existantes de la directive CT visant le soutien des aspects routières de la première ou la dernière partie d'un parcours TC ensemble avec des mesures incitatives TC plus larges introduites par certains des etats membres visionnaires. De ce point il est possible d'identifier un nombre relativement faible de mesures incitatives qui peuvent être importants à la croissance CT dans avenir.

L'analyse des programmes d'appui TC montre deux mesures qui peuvent non pas seulement délivrer une forte croissance des prestations TC mais qui pourraient

également être appliquées dans tous les MS aussi: des aides (subventions directes) pour les opérations de TC; et des subventions directes pour la construction d'infrastructures de terminaux TC. Ces deux incitations peuvent réduire le coût total des opérations TC considérablement et renforcer ainsi la compétitivité des services lorsque la mesure d'appui est d'une magnitude appropriée. Des programmes en vigeur dans les EM réduisent les coûts de transport terminal à terminal jusqu'à 50%, des autres réduisent les frais de transbordement par € 30 ou encore plus par unité de transport manutentionné aux terminaux de TC.

Passons vers le rôle de la directive TC elle-même, née en 1992. Il est évident que quelques 22 ans se sont écoulés dans l'intervalle. Certaines parties de la directive TC ont inévitablement été dépassées par les événements sur le plan général, à l'extérieur ainsi qu'à l'intérieur du secteur TC, ce qui a créé un besoin de réviser ou supprimer des parties de texte en conséquence. D'autres parties de la directive TC ont, comme souvent se produira avec la législation appliquée individuellement dans plusieurs états membres, pas été transposé de tout ou seulement en partie, ou bien ont subi diverses interprétations, ce qui, dans certains cas, peut se faire écarter des objectifs originaux. Ceci crée une plus grande charge administrative pour les opérateurs du TC et les utilisateurs chargés de gestion des prestations à travers de multiples états membres (et dans certains pays tiers aussi), où les règles à chaque extrémité puissent être différemment interprétées et appliquées.

Néanmoins, la directive TC retient un rôle important à jouer dans l'établissement (ou la réaffirmation) des principes de base à l'appui du TC, soit pour les état membres établis de longue date, soit pour les EM d'adhésion récente. Il ne fait aucun doute que la directive TC (éventuellement sous une forme actualisée) devrait être retenue dans le cadre de la promotion plus large du TC au sein de la politique de transport de l'UE. La majorité des parties prenantes conviennent de la nécessité de la directive de soutenir le TC, ainsi que la nécessité qu'elle s'adapte et s'améliore afin de soutenir le TC à l'avenir.

La leçon clé à tirer ici c'est la nécessité d'un équilibre délicat entre, d'une part, l'imposition d'une directive paneuropéenne standardisée "one size fits all'', et de l'autre part, une profusion de différentes interprétations de la directive TC qui font obstacle à l'ensemble de ses objectifs. Cette question n'est manifestement pas une question limitée au secteur TC, mais à côté des efforts d'améliorer la qualité, la facilité d'accès et l'interopérabilité entre les réseaux du TC, l'harmonisation de l'application des dispositions clés de la directive TC à travers les MS peut être élément significatif pour la réalisation de percées nouvelles dans l'évolution du TC en prestation encore plus dominante.

Enfin, il y a la question d'améliorer le processus de collecte de données afin d'aider d'autres études du présent genre à l'avenir. En ce qui concerne les prestations rail/route nous recommandons prendre en considération la modification de la méthodologie. Au lieu de partir de la collecte de données des entreprises ferroviaires, qui exploitent généralement les trains pour le compte de fournisseurs de services de TC, les données devraient être demandées des sources primaires, à savoir les fournisseurs de services de TC eux-mêmes. Ils devraient connaître leur métier et doivent être en mesure de fournir les éléments statistiques exigées par la CE et par les décideurs afin de mieux évaluer la situation dans ce secteur. Y allié est la nécessité d'encourager l'utilisation plus large des

systèmes et des infrastructures TIC existantes, allant vers un enregistrement autonome/automatique plus large d'unités de transport en transitant des nœuds clés.

Bien que les parties prenantes sont d'accord avec la nécessité d'améliorer les données, ils semblent très peu disposés ou en mesure de le signaler. Nous recommandons l'engagement plus conséquent avec le secteur TC pour déterminer comment établir un réseau initial informatique de haut niveau par moyens volontaires uniquement, avant toute considération de nouvelles mesures de collecte et d'analyse de données.

Dans l'ensemble donc, ce rapport définit un secteur TC capable de faire une grande contribution aux objectifs politiques commerciaux et publics dans les prochaines années. La Commission Européenne a un rôle essentiel à jouer dans la coordination des investissements dans les initiatives RTE-T et d'autres initiatives transfrontalières qui renforceront au fil du temps les réseaux d'infrastructure de TC. Parallèlement à cela, le directive TC (avec des possibilités de mise à jour et de raffinement) reste un morceau de législation important et pertinent pour la promotion du TC au niveau d'état membre. Les états membres auront ainsi un rôle très utile à jouer dans la mise en œuvre et le renforcement des dispositions de la directive TC et des politiques UE et nationales y reliées à l'appui du CT.

Pourtant, les mesures ci-dessus ne compteront pour rien sans radical et véritable changement au sein du secteur TC lui-même qui, en échange pour de ressources publics limitées (et de bonne volonté de la part de l'utilisateur final) sur lesquelles il développe l'activité, doivent adopter les normes et pratiques des fournisseurs de services de logistique. Le secteur TC devrait ainsi construire sur ces critères autant que possible, afin d'évoluer à un point ou (comme en Amérique du Nord) le soutien n'est plus nécessaire.

Le Livre Blanc conclut que la transformation du système de transport européen ne sera possible qu'à travers une combinaison de multiples initiatives à tous les niveaux. Pour cette étude et pour son évaluation du secteur CT nous sommes d'accord avec cette conclusion.

Section 1. Introduction

A consortium of KombiConsult (lead partner), Intermodality, Planco and Gruppo CLAS ("the Consortium") has been retained by the European Commission (EC) to undertake an analysis of Combined Transport (CT) across the European Union (EU).

1.1 Objectives of the study

The overall objective of the study has been to achieve a better understanding of the CT market, within and between EU Member States (MS), and with other European countries as far as possible. This will assist the EC to consider measures for enhancing use of CT in the EU, in the wider development of an EU strategy for freight transport and logistics.

Specific objectives of the study have been to:

- Provide an overview of the state of CT across EU MS and on selected transport corridors;
- Provide a sound knowledge base through relevant statistics and data;
- Assess the transposition of the EU Directive on Combined Transport ("the CT Directive")[5] into MS' law and regulations, and to assess the compliance of the legal and institutional framework put in place to enact the CT Directive with EU legislation;
- Propose and justify potential modifications to improve, modernize and clarify EU legislation aimed at promoting and facilitating the development of CT across the EU;
- Fulfill the requirement of the CT Directive to produce a report on CT in the EU;
- Provide information to support the EC's forthcoming development of an EU strategy for logistics (the subject of a separate parallel study);
- Provide data relevant to a proposed EU Directive on road vehicle weights and dimensions;[6]
- Contribute to the EC's current Regulatory Fitness and Performance (REFIT) programme.[7]

1.2 Scope of the study

Within the objectives set out above, the technical scope of the study has focussed on the following key areas:

- Size and significance of individual CT market sectors and the overall CT industry;
- Systems for collecting statistical data on CT at MS and EU level;

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[5] Council Directive 92/106/EEC of 7 December 1992 on the establishment of common rules for certain types of combined transport of goods between MS. See http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:31992L0106 for further information

[6] Proposal for a Directive of the European Parliament and of the Council amending Council Directive 96/53/EC laying down for certain road vehicles circulating within the Community the maximum authorized dimensions in national and international traffic and the maximum authorized weights in international traffic, dated 15 April 2013. See http://eur-lex.europa.eu/resource.html?uri=cellar:43ff8397-f680-46a0-9aba-8ee3ec1139b9.0014.02/DOC_1&format=PDF for further information

[7] See http://ec.europa.eu/smart-regulation/refit/index_en.htm for further information

- Economic situation of the CT market;
- Expected development of the CT market;
- MS support programmes and incentives for CT operations;
- Compliance of MS national legislation with the CT Directive;
- Review of CT Directive with recommendations for potential modifications;
- Wider policy options which could assist with increasing the use of CT services.

Although the geographic scope of the study is focussed on the current 28 EU MS, this scope is extended where necessary to include other neighbouring countries in Europe, for example trans-Alpine CT traffic through Switzerland.

Within the report, external sources of information are referenced by footnotes at the bottom of the relevant page. Where a reference is not provided, information is based on the in-house data and/or expert assessment of the consortium.

A glossary of terms and acronyms is included at the end of this report.

1.3 Structure of Report

The report is structured as follows:

- Section 2 provides an analysis of the CT market, including the definitions of the various segments of the market, which then form each of the sub-sections in the analysis;
- Section 3 sets out forecasts for the CT market, considering key impacts and trends affecting the outlook for CT, as well as major bottlenecks;
- Section 4 describes the CT industry, looking at business models, key operators, economics and systemic costs / benefits against single-mode operations;
- Section 5 reviews support programmes for CT in MS and third countries;
- Section 6 considers how MS have transposed and applied the CT Directive within national legislation;
- Section 7 reviews the results of the stakeholder workshop held in connection with this study;
- Section 8 sets out the consortium's recommendations on the CT Directive and CT support programmes;
- The Appendix includes a glossary of terms and relevant documents related to the study.

Section 2. CT market analysis

2.1 CT definitions

The study has reviewed several definitions of CT operations, from which to produce a definitive list of terms which can suitably explain the various components of the CT market. The aim has been to provide definitions which can be recognised by the freight industry (which has established its own set of definitions over many decades) and understood by a non-technical audience.

The CT Directive refers to "the transport of goods between Member States," ie the transport of CT load units on CT services between MS.

According to Council Directive 92/106/EEC, combined transport operations shall (*inter alia*) conform to the following provisions:

- The rail, inland waterway or sea sections of the end-to-end journey must exceed 100km as the crow flies;
- In CT rail/road, the initial road leg of the journey must be performed between the point where the goods are loaded and the nearest suitable rail loading station, and the final road leg between the nearest suitable rail unloading station and the point where the goods are unloaded;
- In CT inland waterway/road and CT sea/road, the initial and final road leg of the journey must be performed within a radius not exceeding 150km as the crow flies from the inland port or sea port of loading or unloading.

It should be noted from the outset that the available sources of data on freight traffic flows do not provide sufficient detail on each of the above criteria to enable a clear verification of which traffic flows actually qualify as CT; for example, the statistics on containers moved by rail or inland waterways do not say which of the containers were moved on qualifying road services (e.g. between origin/destination and nearest rail stations or within 150km of the inland port). This study has therefore carried out an evaluation of the individual CT sectors based on an analysis of the available data. The findings are presented below.

In terms of industry definitions and understanding of the CT market, until recently this has tended to be split into two broad segments with distinct equipment and service characteristics, namely:

- **Maritime** CT, primarily related to movement of ISO-standard shipping containers between sea ports and inland terminals, for inter-continental shipments starting or finishing within Europe (e.g. to and from the Far East);
- **Continental** CT, primarily related to movement of CEN-standard European swap bodies between inland terminals in European countries.

One of the significant developments in recent years has been the increasing overlap of services between the two segments above, which now blurs the distinction between the definitions. This has been a result of increasing liberalisation of the railway industry, replacing the previous "duopoly" which operated different sets of services for each segment, with Continental CT operated mainly via International Union for Road-Rail

Combined Transport (UIRR) companies, and Maritime CT mainly through state-owned railway undertakings and the Intercontainer / Interfrigo JV.

Today these services are operated by a much wider range of railway undertakings and logistics providers who, like their customers, are less concerned about market segmentation and associated definitions.

As an example of the challenge in trying to provide clear and distinct definitions, the industry may refer to “domestic” CT when describing movement of an ISO shipping container between a port and an inland terminal located within the same country (e.g. Felixstowe to Birmingham within the UK), or movement of a CEN swap body between inland terminals within the same country (e.g. Dourges to Perpignan in France). Some services actually bridge both segments and cross multiple modes of transport (see section 2.3.3).

The increasing complexity of CT movements within and across the two broad groups then creates significant challenges for the gathering of statistics by MS (as described in more depth within this report), which have struggled to adapt to this evolving CT market.

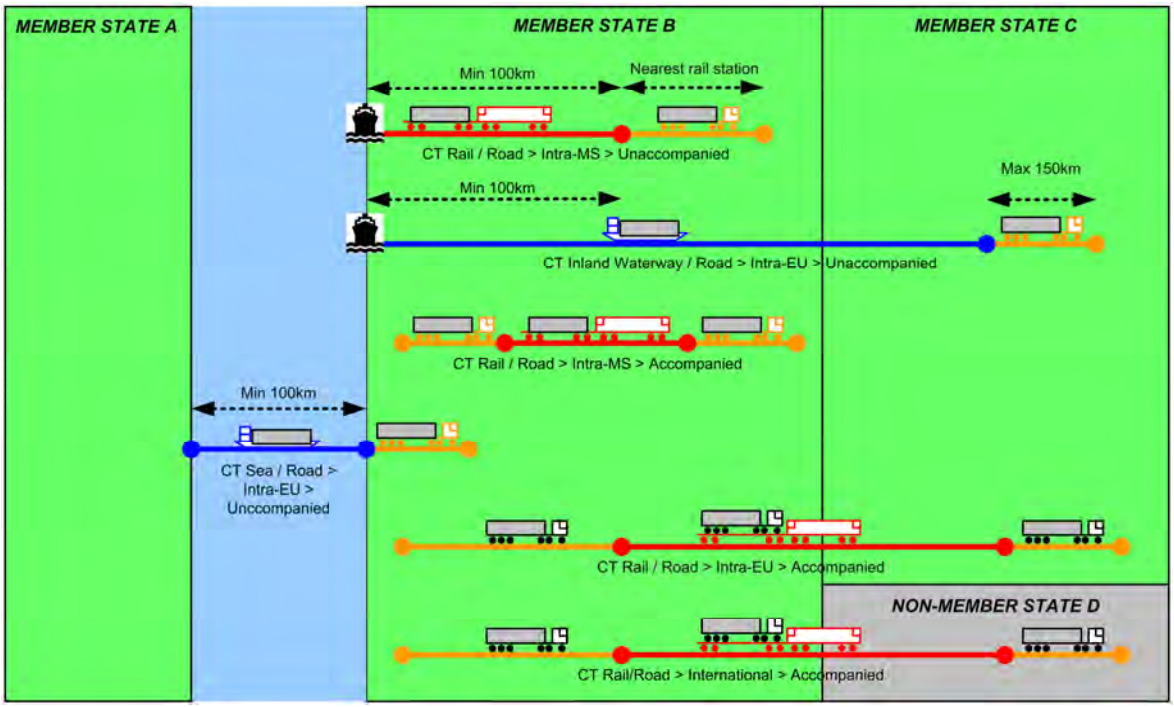
Whilst these segments can be used as one way of describing the current CT market structure, further segmentation is necessary, not only to reflect the available sources of statistics, but also to provide a more transparent analysis of the CT market. We have therefore used the following segmentation within the study:

- By CT modal combination, i.e.:
  - Rail/road (**CT RR**);
  - Inland waterway/road (**CT IWR**);
  - Short sea/road (**CT SSR**).
- By geographic coverage, i.e.:
  - **Intra-MS**: transport of goods exclusively within one MS;
  - **Intra-EU**: transport of goods between two or more MS, which may include transit through a non-EU country (e.g. Netherlands to Italy via Switzerland);
  - **International**: transport of goods between a MS and a non-EU country (e.g. from Slovakia to Ukraine) or between several MS and a third country (e.g. from Germany via Poland to Russia).
- By type of service, i.e.:
  - **Unaccompanied** (UCT) – where the CT load unit moves by rail, inland waterway or sea without being accompanied by the road vehicle driver and/or tractor unit (e.g. a shipping container carried on a railway wagon or barge);
  - **Accompanied** (ACT) - where the CT load unit moves by rail, inland waterway or sea and is accompanied by the road vehicle driver and/or tractor unit (e.g. an entire articulated lorry carried on a Roll-on, Roll-off rail service).

The analysis of the CT market therefore uses these definitions in a consistent format as follows: **modal** (sector) segment > **geographic** segment > **service** segment. For example: CT rail/road > Intra-EU > Unaccompanied.

Examples of the various definitions are shown in Figure 1, Figure 2 and Figure 3. Further segmentation is then provided where relevant to provide additional breakdown of data, e.g. by type of equipment (container, swap body, semi-trailer[8], lorry[9])

Figure 1: Examples of CT market segments (schematic)



Key: blue = inland waterway, red = rail, orange = road, black / grey = CT load unit

Source: Intermodality

[8] Note that semi-trailers may themselves be carrying intermodal units – which may generate double-counting or omissions in CT traffic statistics

[9] Note that lorries may themselves be carrying intermodal units – which may generate double-counting or omissions in CT traffic statistics

Figure 2: Unaccompanied CT rail/road and CT inland waterway services

Unaccompanied CT service carrying swap bodies and piggyback trailers, without road vehicle tractor units or drivers

Unaccompanied CT service carrying maritime containers

Source: Kombiverkehr, Contargo

Figure 3: Accompanied CT rail/road service

Accompanied CT service carrying entire lorries, with lorry drivers travelling in a passenger coach (at the far right-hand end of the train immediately behind the locomotive)

Source: Kombiverkehr

2.2 Methodology

The objective of the data gathering and analysis has been to provide a consolidated picture of CT in the EU through:

- Statistics for the reference year (see below);
- A time series of historical data leading up to the reference year;
- Various indicators of the scale and structure of CT operations.

Separate analysis has been undertaken on the three key sectors of the CT market, each combining two main modes of transport (CT RR, CT IWR, CT SSR). The scope of this

section also takes account, where relevant, of CT operations involving three modes of transport and the pre-haulage and end-haulage of CT load units by road.

The reference year for statistical data is **2011**. This choice of year enables the study to achieve comparisons of the latest data sets against other modes of transport at EU level.

Looking at past performance and trends, historical time series data is used to describe the years leading up to 2011, where available. Moving forward, subsequent sections consider more recent developments in 2012 and 2013, together with longer-term forecasts from available sources.

The methodology for data gathering has been to collate information from published sources at EU and MS level, including Eurostat, national statistical agencies, trade associations and CT operators, along with in-house and third-party research reports and data.

With regard to CT rail/road, the International Union of Railways (UIC) identified a substantial lack of comprehensive and consistent statistics on this sector. The UIC therefore commissioned KombiConsult in 2006 to conduct a European-wide survey to collect relevant data on the size and structure of the CT sector. The reference year for the initial study was 2005. This exercise has been repeated every two years since, the 2012 survey[10] targeting data and information for the year 2011. This data has been used as an input to this study.

The database developed from the KombiConsult research for the UIC has been structured using a "bottom-up" approach. Data has been gathered from primary sources, i.e. CT rail/road service providers. The results have been compared, double-checked and validated, by cross-referencing secondary data from publications and other available sources. The general methodology has comprised the following steps:

- All companies that operated CT rail/road services in the reference year in question were invited to participate in a survey, by completing a brief questionnaire;
- In addition to the data collected from the CT service providers, other information sources were analysed, the most important source being the annual UIRR[11] statistics. Further input came from a network of contacts in the CT industry, sea and inland ports, press releases, annual reports and website information;
- This approach enabled statistical information to be obtained from nearly 90% of all companies providing CT rail/road services in Europe;
- For those companies which did not participate in the survey, the size and structure of their transport volumes was estimated, using information about their services, estimated train capacities and load factors, as well as from the results of previous years' data from the UIC surveys, or other published information;

[10] UIC (ed.): 2012 Report on Combined Transport in Europe. Paris 2012.

[11] International Union of Road Rail Companies

- The data collected was compared, cross-checked and validated. Double or multiple counting of consignments between countries and/or operators was eliminated as far as possible, to avoid significant errors or bias in the results;
- Finally, secondary data published by national statistical offices was compared against the data from primary sources. This provided sufficient evidence that in some countries, CT shipments were assigned to the wrong CT market segment, or volumes of certain companies or trade lanes were not completely registered, presumably due to shortcomings in methodology or regulations. Therefore, national statistics have been primarily used for double-checking the preliminary results of the study, particularly for domestic CT volumes.

The process has created a large statistical database covering CT rail/road traffic between and within all MS, as well as international traffic with third countries.

To further enhance the database, the following additional tasks have been undertaken by this study:

- A concise questionnaire was forwarded to those CT service providers that had not responded to the 2012 survey. The questions related both to the size and structure of their 2011 transport volumes and the evolution of their traffic since 2011 (see Appendix B, C & D). The responses either confirmed the previous estimates were correct, or provided further information with which to update the database;
- A survey was carried out among the national offices for statistics of all MS, in order to analyse the current state of CT data gathering. In addition, websites for each national office were checked for any CT statistical data. Interviews were then undertaken with representatives of the statistical offices where available, using a standard interview template. The full results are included in Appendix E;
- Further, the Eurostat database on CT rail/road was examined. In order to avoid double counting, the data on international CT was not used by the study. Eurostat data on domestic CT operations in European countries was then used where national statistics were not available or incomplete. The investigation also provided evidence that, for some countries, the data sets of the national office and Eurostat, if available at all, are not identical;
- The findings of the above investigations and the 2012 survey were cross-checked, validated and collated. Despite the availability of several statistical sources, some data for certain countries had to be estimated, extrapolated or interpolated.

As a result, the updated database now differs significantly from the results of the 2012 survey in many respects, particularly for unaccompanied CT rail/road.

The statistical information on **CT inland waterway/road** is mainly based on PLANCO's in-house database of inland waterway container transport, developed from national statistical offices and the following primary sources:

- Inland shipping lines;
- Sea ports;
- Inland ports;

- Waterway managers.

The database includes inland transport volumes and cross-border traffic by country-to-country trade lane. Data sets have been harmonised and validated.

As part of this study, an update and further validation of inland waterway container flows has been carried out. Additional information and data has been gathered from sea ports, inland ports and operators. The survey (see questionnaire in Appendix D) among providers of CT inland waterway/road services only yielded very limited additional information. This is regarded as only a minor issue, as the existing database had already been validated based on the primary data sources, particularly inland waterway container volumes reported by inland ports and sea ports. Container transport volumes at selected waterway sections (as reported by waterway managers and national statistical offices) have been used as another means to validate the figures. The official statistics in the main database can therefore be regarded as a reliable source of information.

For the purpose of the study inter-sea port traffic was discounted from total volumes. Inter-sea port traffic relates to the transfer of deep sea containers by barge between ocean vessel services calling at different sea ports, e.g. Rotterdam and Antwerp. As the barge service functions as a maritime feeder service, a very limited share of those containers are carried on or delivered by road. Therefore these container shipments do not fall within the definition of CT as a combination of a road and a non-road leg.

The relatively minor share of containers carried by a transport chain of inland waterway, rail and road is included in the figures of the respective CT sectors.

The limited data availability for **CT short sea/road** and the market structure with diverse submarkets required a cascade of assumptions based on maritime transport statistics from Eurostat, national statistical offices and sea ports. As it is common practice by statistical offices to use figures reported by destination countries for harmonisation purposes, these figures are used in the analysis. Countries have been clustered to different coast regions and selected regions were used to determine a matrix of Intra-EU short sea container transport by trade lanes. CT figures are a subset of Intra-EU maritime transport statistics considering applicable shares of maritime Intra-EU container and RoRo flows.

The classification to different container market segments required additional assumptions by trade lane based on transshipment share of concerned sea ports and traffic characteristics. The sector and submarket approach for determination of CT sea/road volumes is described more detailed in section 2.6.

2.3 Total CT market - summary

2.3.1 Size and structure of total CT in the EU in 2011

Total CT operations in the EU in 2011 reached nearly 27.9m TEU or 18.6m load units, assuming an average ratio of 1.5 TEU per unit.[12]

The amount of cargo carried (tonnes lifted) amounted to 270.8m gross tonnes, i.e. the weight of the load unit and the weight of the cargo.

The corresponding level of tonnes moved is calculated as 153bn tonne-kilometres[13], if only the part of the chain of transport shifted off road is considered (see Table 1). If the sections covered by pre- and/or on-carriage on road vehicles is taken into account, this total increases to 175bn tonne-km. The road distances are calculated to represent an average of 15% of this total.

The consolidated volume of the CT rail/road and inland waterway/road sectors, i.e. excluding CT short sea/road, accounted for approximately 22.4m TEU or 14.9m units, in 2011. They carried 233.6m gross tonnes of goods in the same year. The transport performance of the non-road legs amounted to 126bn tonne-km while it amounted to 144bn tonne-km when the total CT supply chain including the initial and final leg are regarded (see also Table 1).

International CT is clearly the largest single market segment of total CT operations in the EU. It accounts for 51.5% and, respectively, 52.8% of the total CT by TEU and tonnes lifted. Its share of total tonnes moved is smaller with nearly 44%.

The Intra-MS CT is the smallest market segment by all measures. It accounts for 17.4% of TEU, 15.4% of tonnes lifted and 13.1% of tonnes moved.

In 2011, suppliers of CT services in the EU conveyed more than 4.8m TEU or 3.2m units, respectively, in total **Intra-MS CT**. They shipped goods amounting to approximately 41.6m gross tonnes. The tonnage moved amounted to approximately 20bn tonne-kms (see Table 2).

By all performance indicators Germany is clearly the biggest single market for Intra-MS CT in the EU. The country's share of TEU is 26% and reaches 37% for tonnes moved. The next largest Intra-MS markets are Sweden, France and Italy.

[12] Available statistics do not enable a precise figure to be determined. The estimate is therefore based on an analysis of several sources, which together indicate that the average TEU per unit ratio ranges from 1.4 to 1.55 for CT rail/road and 1.52 for CT inland waterway/road.

[13] Not including the performance of CT short sea/road for which data was not available.

Table 1: Total CT in the EU, 2011

CT market segment	Transport volume		Tonnes lifted	Tonnes moved (bn tonne-km)	
	(TEU)	(units)	(gross tonnes)	Only non-road legs [a]	Road and non-road legs
Intra-MS	4.843.100	3.229.000	41.589.800	20	23
Intra-EU	8.687.200	5.791.000	86.198.000	66	76
International	14.339.500	9.560.000	143.026.700	67	77
Total CT	**27.869.800**	**18.580.000**	**270.814.500**	**153**	**175**
Total excluding CT short sea/road	***22.358.800***	***14.906.000***	***233.629.500***	***126***	***144***

a Estimates relating to distances of rail, inland waterway and short sea journeys

Source: KombiConsult and PLANCO analysis

Total **Intra-EU CT** amounted to nearly 8.7m TEU in 2011, corresponding to about 5.8m load units. 86.2m gross tonnes of freight were carried on the underlying CT services, delivering 66bn tonne-km (see Table 3). The study has identified Intra-EU CT volumes on almost 100 bilateral MS-MS trade lanes.

The 30 largest corridors account for almost 56% of TEU (4.9m), 66% of total tonnage (41.6m) and 73% of tonne-km (48.1bn).

The largest single Intra-EU corridor is Germany - Italy via Austria, which accounts for 14% of TEU and 18% of tonnes moved.

The next biggest corridors, Germany - Italy and Belgium - Italy (both via Switzerland), are also trans-Alpine routes, highlighting the importance of trans-Alpine corridors for CT in the EU (see also Table 3).

In 2011, **total international CT**, the largest CT market segment, reached more than 14.3m TEU, corresponding to about 9.6m load units, 143.0m gross tonnes and 67bn tonne-km (see Table 4).

International CT is composed of two distinguished markets or areas of business. One market relates to **trans-European corridors**. It includes the continental transport of goods between MS and third countries and, additionally, the Intra-EU transport of overseas containers between a sea port in one MS and an inland location in another.

The other international CT market covers the **Intra-MS hinterland transport of maritime containers** with goods exported to or imported from non-EU countries. It is significantly larger by TEU and tonnage than the corridor-related international CT.

Owing to a lack of detailed data, CT short sea/road volumes could not be allocated to the individual markets. They are therefore presented in the tables under the category "other volumes".

Table 2: Total Intra-MS CT in the EU by MS, 2011

Member State	Transport volume (TEU)	Tonnes lifted (gross tonnes)	Tonnes moved [a] (m tonne-km)
Austria	205.990	2.575.400	773
Belgium	130.720	549.670	96
Bulgaria	0	0	0
Croatia	6.520	70.700	11
Cyprus	-	-	-
Czech Republic	0	0	0
Denmark	54.800	495.000	124
Estonia	0	0	0
Finland	6.800	36.400	13
France	458.810	3.020.270	2.438
Germany	1.268.920	12.707.280	6.366
Greece	0	0	0
Hungary	2.660	24.000	5
Ireland	0	0	0
Italy	348.000	3.657.510	2.377
Latvia	0	0	0
Lithuania	0	0	0
Luxemburg	0	0	0
Malta	-	-	-
Netherlands	279.300	817.000	179
Poland	7.500	70.000	35
Portugal	112.980	1.333.900	267
Romania	5.920	121.970	62
Slovakia	0	0	0
Slovenia	0	0	0
Spain	100.800	1.130.200	678
Sweden	515.890	5.211.500	2.606
United Kingdom	142.500	2.300.000	1.380
Other volumes [b]	*1.195.000*	*7.469.000*	*2.356*
Total	**4.843.110**	**41.589.800**	**19.764**

a Estimates relating to distances of rail, inland waterway and short sea journeys

b CT short sea/road volumes could not be alloctaed to individual MS

0 No intra-MS traffic volume

- No rail and/or inland waterway system

Source: KombiConsult and PLANCO analysis

Table 3: Total Intra-EU CT in the EU, top 30 corridors, 2011

Intra-EU corridor		Transport volume (TEU)	Tonnes lifted (gross tonnes)	Tonnes moved [a)] (m tonne-km)
Germany -	Italy via AT	1.197.960	16.643.230	11.533
Germany -	Italy via CH	775.820	9.852.700	8.375
Belgium -	Italy via CH	460.970	5.830.000	5.539
Netherlands -	Germany	370.000	2.522.000	876
France -	Italy	214.090	2.644.000	2.115
Netherlands -	Italy via CH	203.110	2.352.000	2.822
Sweden	Germany	191.340	2.560.000	3.072
Germany -	Austria	190.500	2.073.000	1.866
Belgium -	Germany	143.010	798.000	396
Germany -	Spain	112.690	1.290.000	1.806
Luxemburg -	France	109.710	1.104.000	994
Germany -	Czech Republic	108.350	953.000	667
Belgium -	France	101.840	940.000	461
Austria -	Slovenia	98.650	1.243.350	373
Sweden -	Belgium	49.000	666.000	799
Netherlands -	Belgium	47.630	106.000	16
Austria -	Hungary	44.200	530.620	239
Hungary -	Slovenia	43.630	346.000	156
Slovakia -	Slovenia	43.010	275.000	138
Germany -	France	39.230	379.000	322
Denmark -	Italy via AT	37.340	1.010.000	1.414
Belgium -	Italy via AT	36.550	427.000	448
Germany -	Poland	35.560	344.000	344
United Kingdom -	Spain	35.020	389.000	778
Germany -	Hungary	34.990	388.000	466
Sweden -	Netherlands	33.750	330.000	363
Netherlands -	Italy via AT	32.890	413.000	475
France -	Spain	29.000	294.000	382
Sweden	Italy via CH	25.650	327.000	589
Germany -	Slovenia	25.400	271.080	271
Subtotal Top 30 corridors		***4.870.890***	***57.300.980***	***48.093***
Other corridors [b]		*3.816.280*	*28.897.000*	*17.784*
Total		**8.687.170**	**86.197.980**	**65.877**

a Estimates relating to distances of rail, inland waterway and short sea journeys

b Including other CT rail/road corridors, total intra-EU CT short sea/road and CT short sea/ inland waterway volumes that could not be allocated to individual corridors

Source: KombiConsult and PLANCO analysis

Table 4: Total international CT in the EU by sub-markets, 2011

International CT markets	Transport volume (TEU)	Tonnes lifted (gross tonnes)	Tonnes moved [a] (bn tonne-km)
Corridors	4.567.440	45.141.820	30
Within MS	8.280.080	86.208.900	25
Other volumes [b]	1.492.000	11.676.000	12
Total	**14.339.520**	**143.026.720**	**67**

a Estimates relating to distances of rail, inland waterway and short sea journeys

b Total international CT short sea/road volumes that could not be alloctaed to one of the markets

Source: KombiConsult and PLANCO analysis

The volume of international CT operations on trans-European corridors amounted to almost 4.6m TEU in 2011. The CT services shipped over 45.1m gross tonnes and generated 30.2bn tonne-km (see Table 5).

The total traffic results from more than 100 individual trade lanes. The largest corridor by all measures is Netherlands - Germany. It is also the only corridor accounting for more than 1m TEU and 10m gross tonnes (see Table 5). The top 30 corridors account for about 92% of the total volume by TEU and tonnage. Container hinterland transport services feature strongly within the five largest corridors linking the Netherlands with Germany and Belgium, Belgium with Germany, and Germany with the Czech Republic and Austria. These results also reflect the importance of the largest EU sea ports of Rotterdam, Hamburg, Antwerp and Bremen/Bremerhaven.

International CT operations carried out within MS are substantially larger by transport volume and tonnes lifted than the corridor-related international CT market.[14] They only relate to the hinterland transport of overseas containers on inland CT services in MS. In 2011, traffic amounted to approximately 8.3m TEU, 86.2m gross tonnes and an estimated 29.7.bn tonne-km (see Table 6).

Germany is the largest market in this area, with a market share of about a quarter measured by TEU and tonnes lifted and a third by tonnes moved. The next biggest international CT markets within MS are the United Kingdom, where the traffic is dominated by CT rail/road services, and the Netherlands and Belgium where the majority of traffic is in CT inland waterway/road services.

[14] Note that CT short sea/road could not be allocated to international CT markets.

Table 5: International CT in the EU, top 30 corridors, 2011[15]

Corridor		Transport volume (TEU)	Tonnes lifted (gross tonnes)	Tonnes moved [a] (m tonne-km)
Netherlands -	Germany	1.028.000	10.483.000	3.514
Belgium -	Germany	554.590	5.813.000	2.585
Germany -	Czech Republic	383.750	3.377.000	2.364
Germany -	Austria	249.000	2.709.000	2.438
Netherlands -	Belgium	231.880	2.564.000	362
Poland -	CIS States	167.000	1.351.000	2.027
Belgium -	France	161.840	1.750.000	474
Germany -	Switzerland	129.090	1.142.000	571
Belgium -	Italy via CH	108.420	1.371.000	1.371
Germany -	Poland	103.880	1.006.000	805
Hungary -	Slovenia	98.830	784.000	431
Slovakia -	Slovenia	90.790	581.000	407
Germany -	Hungary	87.310	968.000	1.113
Norway -	Sweden	78.900	170.000	51
Netherlands -	Czech Republic	76.810	412.000	371
Czech Republic -	Slovakia	74.820	725.000	254
Germany -	Turkey	73.000	864.200	1.227
Hungary -	Turkey	64.610	972.000	1.361
Belgium -	Switzerland	64.010	580.000	406
Netherlands -	Italy via CH	62.810	727.000	872
Netherlands -	France	55.000	525.000	377
Germany -	Russia	46.150	134.000	322
Austria -	Turkey	40.320	488.620	264
Austria -	Italy	35.640	344.000	172
Germany -	Italy via CH	32.430	390.000	293
Czech Republic -	Russia	32.000	320.000	576
Estonia -	CIS States	31.910	290.000	319
France -	Russia	29.400	265.000	689
Finnland -	CIS States	23.000	259.000	311
Bulgaria -	Turkey	21.440	376.000	188
Subtotal Top 30 corridors		***4.236.630***	***41.740.820***	***26.514***
Other corridors [b]		*330.810*	*3.401.000*	*3.700*
Total		**4.567.440**	**45.141.820**	**30.214**

a Estimates relating to distances of rail and inland waterway journeys

b Including other CT rail/road and CT inland waterway/road corridors; corridor-related data for CT short sea/road not available

Source: KombiConsult and PLANCO analysis

[15] Due to lack of detailed data CT short sea/road volumes not included

Table 6: Total international CT within EU MS, 2011[16]

Member State	Transport volume (TEU)	Tonnes lifted (gross tonnes)	Tonnes moved [a] (m tonne-km)
Austria	0	0	0
Belgium	1.078.660	13.650.730	2.114
Bulgaria	1.990	44.800	12
Croatia	7.960	86.400	9
Cyprus	-	-	-
Czech Republic	0	0	0
Denmark	13.640	154.000	31
Estonia	0	0	0
Finland	27.200	145.600	29
France	420.860	4.037.430	2.378
Germany	2.235.220	21.283.320	10.947
Greece	0	0	0
Hungary	0	0	0
Ireland	14.280	169.000	51
Italy	467.000	4.282.490	942
Latvia	0	0	0
Lithuania	8.260	106.000	11
Luxemburg	0	0	0
Malta	-	-	-
Netherlands	1.517.000	14.587.000	3.589
Poland	158.990	1.319.700	594
Portugal	112.980	1.333.900	233
Romania	247.230	2.924.230	890
Slovakia	0	0	0
Slovenia	65.610	506.000	101
Spain	403.200	4.520.800	2.034
Sweden	217.500	1.957.500	881
United Kingdom	1.282.500	15.100.000	4.820
Total	**8.280.080**	**86.208.900**	**29.666**

a Estimates relating to distances of rail and inland waterway journeys
0 No international traffic volume
- No rail and/or inland waterway system

Source: KombiConsult and PLANCO analysis

As noted earlier, the available data sources do not permit clear verification that the CT operations, for which statistical data is presented above, all fall within the provisions of the CT Directive.

In CT rail/road, the volume of CT load units moved at the distance of 100km or below is negligible. This is mainly due to the strong competition with road haulage in terms of transit time and cost. Although CT rail/road services can benefit from economies of scale,

[16] Due to lack of detailed data CT short sea/road volumes not included

they are unlikely to compensate for the extra handling costs and the costs for pre- and/or on-carriage over such short distances.

As concerns the initial and final leg by road, CT users will be keen to minimise the cost of these operations and therefore will strive to deliver or collect load units at the nearest suitable CT terminal. On the other hand, some CT users have deployed logistics systems where they consolidate large volumes at a single rail station to ensure economies of scale on the long-distance rail journey. In other cases, some CT users may choose to use a more distant CT terminal where this offers a different / wider choice of rail service providers, where handling charges are lower or where the terminal has greater handling / storage capacity available. For these reasons, it is therefore likely that a certain proportion of shipments will not use the nearest suitable terminal. However, the share is expected to be sufficiently small so as not to substantially impact on the overall CT volume as defined by CT Directive.

In CT inland waterway/road, a certain percentage of containers are carried on barge services over distances of less than 100km. This particularly relates to inland services in Belgium and the Netherlands. The volume, however, cannot be quantified. The survey conducted by this study, however, suggests that CT operations generally adhere to the 150km road restriction to/from the inland port.

As concerns CT short sea/road, our analysis suggests that a large proportion of short sea operations do not conform to the provisions of the CT Directive.[17] Therefore the overall volumes were halved as a consequence to take account of this. The results are suitably adjusted in the calculation of total CT in the EU.

Against this background, it is assumed that the total CT in the EU, as defined in the CT Directive, is almost equal to the total Intra-EU CT (see Table 7).

Table 7: Total CT in EU as defined in CT Directive, 2011

	Transport volume		Tonnes lifted	Tonnes moved [a]
	(TEU)	(units)	(gross tonnes)	(m tonne-km)
Total CT	**8.687.170**	**5.791.000**	**86.198.000**	**66**

a Estimates relating to distances of rail, inland waterway and short sea journeys

Source: KombiConsult and PLANCO analysis

2.3.2 Breakdown of CT volume by load unit

In order to understand which types of CT load units are deployed on CT services in the EU, the study has examined a broad range of primary and secondary data sources. Several sources contain information on the market shares of CT load units carried. But the analysis is blurred, as statistics commonly consolidate the volumes for “containers” and “swap bodies” and seldom distinguish them by length. Further the statistics do not

[17] See sections 2.6.1 and 2.6.2, in particular p. 80-82

discriminate ISO maritime containers from domestic (Intra-European) containers, which are typically used for different CT market segments.[18]

The deficits in data, and the comparatively small number of available data sources, do not allow a satisfactory estimate to be made of the breakdown of total CT in the EU by load unit. However, based on the market analysis conducted by this study, it is estimated that around 50% of the total CT volume can be attributed to ISO containers and to "continental" types of load units, i.e. swap bodies, domestic containers, semi-trailers, trailers and lorries.

Revision of Directive 96/53/EC[19] creates a focus for understanding the share of 45' long containers. This is because under the existing Directive, these units are not allowed to be carried by road between EU MS. The maximum permitted length of an articulated road vehicle is 16,500mm. When the lorry carries a 45' long maritime container it exceeds the maximum permitted vehicle length by about 80mm. The situation is different for 45' domestic (Intra-European) containers, which use specially adapted "cutting edge" corner castings that comply with the CT Directive, to enable the containers to be moved by road (see Figure 4).

Figure 4: 45' long domestic European container with special corner casting

Source: Unit 45 (www.unit45.com)

The study has been unable to identify public statistics that clearly indicate the current use of 45' maritime containers in CT operations in the EU. Therefore the data collected during several surveys from primary sources (i.e. providers of CT services by rail and

[18] The majority of ISO maritime containers carried on CT services in the EU arrive or leave by deepsea vessels for the movement of intercontinental goods. Only purpose-built ISO containers such as tank containers tend to be also used for the transport of continental cargo. Domestic containers are exclusively employed on continental CT services.

[19] Council Directive 96/53/EC of 25 July 1996 laying down for certain road vehicles circulating within the Community the maximum authorized dimensions in national and international traffic and the maximum authorized weights in international traffic.

inland waterway) has been analysed. Based on these findings, the total volume of 45' maritime containers carried in respective CT operations in the EU in 2011 has been estimated at approximately 310,000 TEU or 140,000 units.

As concerns CT short sea/road operations, the study could not find any suitable primary or secondary data sources to assess the tonnes lifted or moved in 45' maritime containers. It is therefore estimated that this sector accounts at least for the same amount as the CT operations by rail and inland waterway combined.

Thus the volume of 45' maritime containers transported by CT services in the EU is estimated to total some 620,000 TEU or 280,000 units in 2011. On this basis, 45' maritime containers accounted for 2.2% of the total CT volume by TEU and 1.5% by the number of load units.

2.3.3 Trimodal CT volumes

The increasing integration of supply chains (particularly on a global scale) results in CT load units moving across more than two modes of transport, including during their transit across MS. For example, a deep sea container arrives at an EU port by sea, is then moved inland by rail or by inland waterway, with final delivery made by road.

Trimodal CT services have latterly been understood by the European CT industry as involving each of the three inland modes of transport, i.e. inland waterway, rail and road. Each mode of transport is deployed for the part of a door-to-door service, for which it delivers the most efficient result, particularly in terms of cost per unit, adding up to an optimum solution. If the definition of trimodal is then extended to include maritime transport (deep sea and short sea), the same principles apply, e.g.:

- The latest "Triple-E" deep sea containerships offer capacities of 18,000 TEU (see Figure 8), offering the lowest possible unit cost per TEU on global trade lanes to and from the EU;
- Short sea feeder ships then connect EU main ports with secondary ports and in some cases parts of the inland waterway network, crossing over with the capabilities of barges in offering around 500 - 1000 TEU in capacity per vessel;
- Barges typically provide for capacities of up to 800 - 1,000 TEU on the Lower Rhine section, otherwise 200-500 TEU on other routes;
- Trains offer up to 80 TEU, carrying containers on routes which cannot be served by barges, or only by those with a capacity close to or below that of a train;
- Road vehicles have the smallest capacity (typically 2.25 TEU maximum) but can deliver the containers right to the final destination over relatively short distances.

A number of trimodal combinations fall within the scope of the CT Directive, those most likely to be used in practice being shown in the table below (note also applies to journeys in the reverse direction):

Table 8: Trimodal CT combinations

Intermediate leg (>100km in combination)		Initial/final legs (each to/from nearest rail terminal or <150km of port)
Mode 1	**Mode 2**	**Mode 3**
Deep Sea	Rail	Road
Deep Sea	Inland Waterway	Road
Short Sea	Rail	Road
Short Sea	Inland Waterway	Road
Inland Waterway	Rail	Road

The **Deep Sea + Rail + Road** combination would be largely associated with the industry definition of "Maritime CT", i.e. deep sea containers arriving at an EU port for onward trunk haul by rail and final delivery by road. Using the new definitions adopted within this report, such traffic forms the majority of the CT rail/road international segment, accounting for around 70% of traffic (c.6.4m TEU pa) within the segment.

The **Deep Sea + Inland Waterway + Road** combination is covered within the CT inland waterway / road segment, the entire volume of 5.1m TEU involving the transport of containers which are shipped either by deep sea or short sea vessels to/from the sea port, which the inland waterway service then links into.

The **Short Sea + Rail + Road** combination is estimated to account for around 700-800,000 TEU per annum, the principal components being containers to and from German Baltic ports (c.300,000 TEU pa), together with containers between mainland Europe, the UK and Ireland (c.300,000 TEU pa). These will be mainly unaccompanied containers, although in some cases the containers may be moved on accompanied road vehicles across the short sea leg of the journey (see below). Again, the volumes on the rail leg form part of the CT rail/road segment. An example is the Eddie Stobart service which moves 45' swap bodies by short sea services between Zeebrugge and Tilbury, which then connect into rail services moving the units inland to Daventry.

The **Short Sea + Inland Waterway + Road** combination falls within the CT inland waterway / road / Intra-EU segment and is estimated to account for around 650,000 TEU per annum (see Table 34). An example is the operator Samskip, which runs a dedicated barge service between Duisburg and Rotterdam in connection with its short sea feeder services.

The **Inland Waterway + Rail + Road** combination will tend to be used on parts of a journey where barges have a larger capacity than trains, and where the barge capacity is considerably higher to compensate for the additional handling costs. These prerequisites effectively limit this combination to a small part of the EU. According to the survey findings, the magnitude of these trimodal operations is very limited and amounted to about 30,000 TEU in the year 2011. Examples include barge services moving containers from the sea ports of Zeebrugge, Antwerp and Rotterdam to the inland ports of Emmerich and Duisburg in Germany. From there, connecting rail services then link these

ports to rail terminals at Basel and Stuttgart respectively. From these rail terminals the containers are hauled by road to the destination.

Another example identified in North Germany does not fit into the typical trimodal concept, for although the same combination is used (barge from Bremerhaven to Bremen, rail from Bremen to inland rail terminal, road for final delivery), the inland waterway journey is fairly short (less than 100km), whilst the barges also have a comparatively small capacity (about 70 TEU). The entire solution appears to be viable for two key reasons: firstly, the trimodal CT terminal can consolidate the Bremerhaven containers with containers arriving from other sources to travel to the inland destination; secondly, the domestic CT service is dedicated to a single consignee. The train calls at a terminal close to its site, thus minimising the costs for the road leg.

The total trimodal volumes identified above account for around **13m TEU per annum**.

It is also worth noting that some journeys may involve alternative or multiple combinations of modes which fall outside of (or cross over) the trimodal combinations identified above. Examples include:

- The Omfesa CT service which has operated between the EU and Turkey, where individual swap bodies of automotive components are moved across multiple modes during transit, namely:
    - Leg 1 / mode 1 – individual swap bodies moved by road[20] from separate origins to be consolidated at a CT rail terminal in Cologne[21];
    - Leg 2 / mode 2 - swap bodies moved by CT block train from Cologne to Istanbul;
    - Leg 3 / mode 3 – the train is moved on a train ferry from Istanbul (Sirkeci) to Haydarpaşa;
    - Leg 4 / mode 2 – the train continues to the CT rail terminal at Köseköy;
    - Leg 5 / mode 1 – individual swap bodies are moved by road to the final destination at Kocaeli in Turkey;
- DB Schenker has moved containers arriving by sea at the port of Felixstowe (leg 1 / mode 1) by road to an inland CT rail terminal 20km away (leg 2 / mode 2), from where containers have been moved by rail to another CT rail terminal 250km further inland (leg 3 / mode 3) for final delivery by road (leg 4 / mode 2). The rationale for this service was to circumvent rail handling capacity constraints at Felixstowe;
- Eddie Stobart operates a round trip service between Daventry (UK) and Zeebrugge (B) which spans a number of different types of CT service:
    - Leg 1 / mode 1: swap bodies are delivered by road from (customer) Tesco warehouses to the CT rail terminal at Daventry;

[20] In the case of the leg to/from the UK, road is used in combination with short sea services

[21] Note some of the swap bodies move considerably further than 150km (eg Dagenham to Cologne 590km)

- Leg 2 / mode 2: swap bodies are moved by CT block train from Daventry to the port of Purfleet in London;
- Leg 3 / mode 1: swap bodies are moved by road from Purfleet to the nearby Tesco distribution centre at Thurrock;
- Leg 4 / mode 1: once unloaded, the empty swap bodies are then moved by road to the nearby port of Tilbury;
- Leg 5 / mode 3: the swap bodies are carried on road trailers on a short sea service to the port of Zeebrugge;
- Leg 6 / mode 1: the swap bodies are reloaded at the port of Zeebrugge with goods bound for the UK;
- Leg 7 / mode 3: the loaded swap bodies return to the UK on the short sea service to the port of Tilbury;
- Leg 8 / mode 2: the swap bodies are returned to Daventry by CT block train;
- Leg 9 / mode 1: final delivery is made back to the Tesco warehouses by road.

Current data gathering techniques and sources are not sufficiently detailed to be able to accurately distinguish these trimodal (or multimodal) traffic flows from the aggregated CT traffic data.

2.3.4 Market share of total CT

This section highlights the importance of the CT industry with respect to road and total freight transport in the EU. The relevant performance indicator is the share of total CT in total road freight traffic and total freight traffic, respectively.

Eurostat[22] provides data on total road freight transport in the EU-27 (no data on Malta) and on inland road traffic by MS. By subtracting the consolidated national road transport of all MS from total road traffic, we obtain the volume of international road transport in the EU, amounting to 344bn tonne-km in 2011. Eurostat also provides for statistics on national road traffic, broken down by four classes of transport distances:

- Operations below 50km;
- Operations from 50 to 149km;
- Operations from 150 to 499km;
- Operations of 500km or more.

In order to deliver a broad picture of the importance of CT, three market shares were calculated relating to a different proportion of road-only traffic. Other than for road, data on distance classes of the CT as a whole, or individual CT sectors, are not available. Therefore the total volume has been used.

All market share calculations are based on the respective freight operations by road or CT. For the latter two cases are analysed. In the first case, only the transport

[22] See: http://epp.eurostat.ec.europa.eu/portal/page/portal/transport/data/database

performance of 153bn tonne-km that relates to the non-road leg, i.e. the road-shifted section of the total CT supply chain, was considered. IIn the second case, the entire transport performance of CT operations totalling to 175bn tonne-km including both the road and non-road legs totalled was taken into account.[23] Furthermore, it was assumed that the road legs of CT operations are also recorded under the road traffic statistics.

The analysis shows that in 2011 total CT in the EU had a market share of about 10% of total road traffic in EU-27 when only the non-road part of CT operations is regarded. The modal share of CT amounted to 12% when both road and non-road legs are included. The modal share of CT is slightly higher if the relevant market for CT operations are limited to national road traffic over 150km and total international transport. It accounted for 14% in the first case and 16% when road and non-road legs are taken into account. If the national road markets are limited to journeys over 500km, total CT operations accounted for 27% (31%) of the defined market (see Table 9).

[23] See under section 2.3.1

Whilst in CT short sea/road and CT rail/road the majority of load units are currently likely to be moved over distances of more than 500km[24], a considerable share of CT inland waterway/road services fall below this threshold. The study therefore estimates that the actual share of total CT is well above 14% (16%) but considerably below 27% (31%) and may range between 20% and 22% of the relevant road freight market. This indicator also displays the mode shift effect of the CT industry.

Table 9: Market share of total CT of road freight traffic in the EU, 2011

Transport performance (bn tonne-kms)				Total CT market share (%)	
Road freight traffic		Total CT			
		Only non-road legs	Road and non-road legs	Only non-road legs	Road and non-road legs
International +					
- total national	1,518			10%	12%
- national > 150 km	1,119	153	175	14%	16%
- national > 500 km	558			27%	31%

Source: Eurostat, KombiConsult and PLANCO analysis

In a second step, the market share of CT operations of total freight traffic performed by the three land modes of transport, i.e. road, rail and inland waterway has been analysed.[25] This amounted to 2,047bn tonne-km in 2011. The market share of total CT thus accounted for 7.5% of the entire land-based freight transport in the EU when only the non-road leg is considered and to 8.6% when the entire CT chains of transport including road and non-road legs are accounted for (see Table 10**Error! Reference source not found.**).

Table 10: Market share of CT of total land freight traffic, 2011

Transport performance (bn tonne-kms)			Total CT market share (%)	
Total land freight traffic	Total CT			
	Only non-road legs	Road and non-road legs	Only non-road legs	Road and non-road legs
2,047	**153**	**175**	**7.5%**	**8.6%**

Source: Eurostat, KombiConsult and PLANCO analysis

[24] The average rail distance is 621km.

[25] Pipelines and air freight were disregarded as they do not represent a relevant market for CT services. Short sea traffic was also not taken into account as data was not available.

2.3.5 Total CT market in the EU, 2007 – 2011

In addition to the analysis of the CT market in the EU in the reference year 2011, the study has also established time series of data for 2007 and 2009.

The transport volume of **total CT** in the EU amounted to nearly 27.2m TEU in 2007. By 2009 volumes had declined by 14.3% due to the impacts of the global financial and economic crisis on the freight sector in general, and the CT business in particular. By 2011 the CT industry had recovered from the slump, total volume growing by 19.7% to approximately 27.9m TEU and thus exceeding the 2007 result. The trend between 2007 and 2011 was similar for all CT market segments in tonnes lifted and tonnes moved (see Table 11). The tonnage of total CT in the EU dropped between 2007 and 2009 from 262.5m to 227.2m gross tonnes. Then, it climbed to 270.8m tonnes in 2011. Tonnes moved (for the non-road legs of CT operations) fell to 147bn tonne-km in 2009 against 129bn tonne-km in 2007. By 2011 it had risen to 153bn tonne-km.

The largest single market segment during this period has been **international CT**, accounting for around 50-52% of total CT volume by TEU and tonnes. This segment is essentially composed of the transport of maritime containers on Intra-MS and Intra-EU trade lanes, while continental CT between EU MS and third countries accounts for a relatively small amount.

The **Intra-EU CT** segment has a share of about 31-32% of the total CT market in the EU by TEU and by tonnes lifted. This segment exclusively relates to the movement of goods with origins and destinations in MS. Hence this corresponds to **total CT as defined in the CT Directive**.

The smallest market segment is **Intra-MS CT**, accounting for some 17% of the total CT volume by TEU and 15% of the tonnage carried on CT services within MS.

Table 11: Total CT in the EU, 2011

		CT market segment			
		Intra-MS	Intra-EU	International	Total
Transport volume (TEU)	2007	4.832.600	8.630.400	13.704.900	**27.167.900**
	2009	4.124.300	7.519.300	11.636.400	**23.280.000**
	2011	4.843.100	8.687.200	14.339.500	**27.869.800**
Tonnes lifted (gross tonnes)	2007	39.390.000	84.733.000	138.417.000	**262.540.000**
	2009	33.763.000	75.610.000	117.798.000	**227.171.000**
	2011	41.590.000	86.198.000	143.027.000	**270.815.000**
Tonnes moved [a] (bn tonne-km)	2007	18	64	65	**147**
	2009	16	57	56	**129**
	2011	20	66	67	**153**

a Estimates, distances only relate to non-road legs of rail, inland waterway and short sea journeys

Source: KombiConsult and PLANCO analysis

Based on the historical data several performance indicators can be identified:

- The average load factor of CT load units amounted to about 9.7 gross tonnes per TEU across all three reference years;
- The average travel distance of the non-road legs across all CT sectors was about 565 km;
- Each TEU moved by CT in the EU accounts, on average, for about 5,500 tonne-km.

2.4 CT rail/road market

This section examines the CT rail/road market in the EU. It starts with notes on the methodology which are specific for this sector. The analysis first relates to the findings for the reference year 2011 and subsequently presents data for a time series between 2005 and 2011. The analysis covers the principal market segments (intra-MS, intra-EU and international CT) and further distinguishes results for unaccompanied and accompanied CT where applicable. The analysis then addresses the initial and final road legs in CT rail/road operations. Finally, the market shares of this sector are highlighted.

2.4.1 International comparisons

It is worth pausing at this point to compare the overall performance of the EU rail freight sector against that of North America (United States, Canada and Mexico) as shown in Table 12:

Table 12: Comparison of North America and EU

Indicator	Unit	North America	EU
Area	million km^2	22	4.3
Population	million	467	504
Population density	people per km^2	21	117
Gross Domestic Product	$ trillion	18.1	16.5
Rail network size	thousand km	223	239
Rail freight traffic	**bn tonne-km pa**	**2,501**	**419**
Road freight traffic	bn tonne-km pa	3,626	1,519
Rail mode share (of total road/rail)	% total tonne-km	41%	22%
Rail freight average length of haul	km	1,475	375
Rail freight average train payload[26]	tonnes	3,209	510
Intermodal units moved by rail[27]	**million TEU**	**28.7**	**17.2**

[26] EU figure is for Great Britain only

[27] Source: Intermodal Association of North America, KombiConsult calculations

Rail passengers	bn passenger-km pa	12.8	390

Some of the demographic, geographic and industry differences clearly weigh heavily in favour of rail freight in North America (more dispersed populations separated by greater distances, with a rail network far more oriented towards freight than passenger). However, it remains the case that, for a similar scale of population and GDP, North America has grown its rail freight market from virtual bankruptcy in the 1980's to now generating 6 times the level of rail freight as in the EU, with modal share being twice as high. For intermodal traffic, the difference is less pronounced, with North America carrying 67% greater volumes than the EU. Notwithstanding this, the Association of American Railroads (AAR) claims that according to data from the World Bank and other sources, rail freight rates in the USA (measured by revenue per ton-mile) are less than half those in major European countries.

Whilst some of this relative success may also reflect the deregulation of the railway industry in North America, providing competing networks which are each largely vertically-integrated (ie the railway undertaking and infrastructure manager), the growth in traffic is in no small part due to the considerable economies of scale achieved with rail freight services (average payloads are 6 times those in Great Britain), most clearly demonstrated in double-stack container trains. A maximum-length (750m) maritime CT train in the EU might typically achieve a load factor of 75 TEU, which compares to the 250-300 TEU achieved by double-stack container trains in North America. It is worth bearing this in mind during the analysis of the current performance of the EU CT rail/road sector and its future outlook, particularly when set against current policy objectives as set out in the EC Transport White Paper[28].

2.4.2 Sector-specific observations on data gathering / analysis

The statistical database on the CT rail/road sector presented here has mainly been developed from the 2012 survey of primary sources conducted on behalf of the UIC[29]. An additional research exercise has been conducted for this study, drawing on statistical data of the UIRR, national Offices for Statistics and Eurostat.

Each of the sources features the same breakdown of data. It distinguishes national (inland or domestic) from international traffic. Contrarily to the other sources, the database resulting from the 2012 survey additionally provides for a detailed segmentation by traffic types (container hinterland and continental CT) and a break-down of cross-border traffic by trade lanes. These characteristics helped to disaggregate the data into the market segmentation applied by this study, albeit the process has required a degree of estimation. Further clarifications on the market segmentation used by this study are presented below.

Intra-MS CT rail/road refers to goods carried between sources and destinations within a single MS and therefore essentially comprises the inland transport of continental cargo.

[28] Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system, White Paper COM(2011) 144 final, Brussels, 28.3.2011

[29] UIC: 2012 Report on Combined Transport in Europe. Paris 2012; study conducted by KombiConsult.

It excludes the movement of maritime containers on inland CT services to/from sea ports bound for or arriving from third countries, which are defined as international CT. The analysis, however, takes into account the flow of empty maritime containers, which are repositioned between inland depots to compensate for export-import imbalances. When moved over rail they are carried on services designed for continental freight and therefore recorded in this CT market segment.

The definition of Intra-MS CT also disregards gateway or hub shipments, which are conveyed on inland CT trains and then continue on a cross-border service after being transferred between trains at a hub terminal, or vice versa. They are allocated to the Intra-EU or international CT market segments, depending on the original source and/or the ultimate destination of the goods.

Intra-EU CT rail/road relates to the transport of goods in CT load units between EU MS. Like for Intra-MS, it narrows the market down to continental freight and the repositioning of empty maritime containers.

International CT rail/road is composed of three fields of the CT business. This market segment first of all takes into account the volumes of continental cargo moved between EU MS and third countries, as well as the Intra-MS and Intra-EU transportation of maritime containers with goods exported to or imported from non-EU countries.

Whilst **unaccompanied CT** services are operated on an EU-wide scale, **accompanied CT** is limited to a few lines, mostly on trans-Alpine routes. Accompanied CT services mainly have a “ferry function” to help clients cope with administrative, regulatory or topographical barriers. Therefore road hauliers often perform comparatively long initial and final road legs, whose distances tend to exceed those of the rail journey. The origins and destinations of the journeys are not recorded and are even less obvious than for unaccompanied CT. Based on indications from CT operators it is suggested that the volume of Intra-MS accompanied CT is negligible, if any, even if the underlying service is performed between inland terminals. Therefore the volumes of accompanied CT services are generally allocated to those Intra-EU corridors, on which they are operated.

There is one exception to this general rule. Ökombi, the former operator of accompanied CT services in Austria, reported that some lines were strongly used by Turkish hauliers. This fact was accounted for by allocating half of the volumes recorded for the Austrian-Hungarian lines and the Salzburg (Austria)-Trieste (Italy) service to international CT.

Accompanied CT volumes are recorded by the number of road vehicles carried. A conversion factor of 2.33 TEU per lorry has been calculated from an analysis of traffic volumes of several service providers, as follows: Articulated vehicles accounted for about 65% and drawbar trailers for 35% of the sample. To be consistent with the TEU calculation of unaccompanied CT, only the load-carrying sections of both types of vehicles were taken into account. This means a length of 13.72 m (45’) for semi-trailers (all modern semi-trailers are built to 45’ length) and 14.9 m for drawbar trailers.

The tonne-km of CT rail/road in the EU had to be estimated for every market segment. Where sources are available, the data does not correspond to the CT market segmentation applied by this study. Therefore, average rail transport distances were

estimated based on the consortium's CT market knowledge base and an evaluation of the geographic and economic situation of every CT market segment, MS and freight corridor.

It should further be noted that the tonne-km analysis only covers the distance travelled by rail, i.e. the part of the entire chain of transport shifted off road, and excludes the distance moved by road at either or both ends of the rail movement. This is because statistics on the road legs of CT operations in the EU are not available. In order to assess the situation, however, case studies have been conducted under section 2.4.4 from which estimates have been derived for the average length of pre- and on-carriage by road. The analysis shows a wide range of distances. On average, the initial and final legs account for another 10% to 15% on top of the rail distance.

2.4.3 CT rail/road market in 2011

The 2012 survey conducted on behalf of the UIC identified 135 companies supplying unaccompanied CT rail/road services and five operators of accompanied CT rail/road services in the reference year 2011. The survey carried out by this study has confirmed the findings. No additional CT service provider active in 2011 has been identified. The changes in the CT industry in the meantime, such as mergers, the liquidation of companies or the emergence of new service providers, do not affect the statistical results for 2011.

Total CT rail/road in the EU

In 2011, the total volume of CT rail/road in the EU amounted to more than 17.2m TEU. Tonnes lifted totalled nearly 185.8m gross tonnes while tonnes moved is estimated at around 115bn tonne-kilometres (see Table 13). If the estimated distances covered by pre- and/or on-carriage road vehicles (10-15% of the rail distance) are taken into account the total would amount to 127-132bn tonne-km.

In terms of the relationship between TEU and load units, analysis of several primary and secondary data sources for the respective CT service providers or countries shows a broad range of results between 1.3 and 1.7 TEU per unit. Most values cluster between 1.4 and 1.55 TEU per unit resulting in an average ratio of about 1.5 TEU per unit. Based on this assumption the total transport volume of CT rail/road in the EU is estimated at around 11.5m load units.[30]

International CT is the largest single market segment when measured by volume and tonnes lifted. It accounts for 53.1% (9.1m TEU) of the total CT rail/road volume and 49.6% (92.1m tonnes) of the entire tonnage. In 2011, Intra-EU CT rail/road services had market shares of 28.2% of TEU and 32.5% of tonnes lifted. This CT segment achieved slightly higher tonnes moved than international CT, with 51bn tonne-km, (44.5% of the total), compared to 47bn (40.7%) respectively. Intra-MS CT is the smallest market segment by all measures. It accounts for 18.7% of the volume, 17.9% of the tonnes lifted and 14.8% of the tonnes moved.

[30] Owing to the lack of precise data the further analysis does not include CT volumes measured by units.

The CT load units carried on CT rail/road services in the EU had an average load factor of 10.8 gross tonnes per TEU in the reference year. They travelled a mean distance of 621km, resulting in an average tonnes moved of 6,700 tonne-km per TEU (see Table 14). For each performance indicator (ratio) the Intra-EU CT market segment has by far the largest values. In 2011 the load factor amounted to 12.4 tonnes per TEU carried, the rail journey took 850km on average driving average tonnes moved to 10,564 tonne-km per TEU.

Table 13: Total CT rail/road in the EU by market segments, 2011

CT market segment	Transport volume (TEU)	Tonnes lifted (gross tonnes)	Tonnes moved *) (bn tonne-km)
Intra-MS	3.218.110	33.260.800	17
Intra-EU	4.856.170	60.355.980	51
International	9.133.520	92.141.720	47
Total	**17.207.800**	**185.758.500**	**115**

a Estimates, distance only relates to rail journey

Source: KombiConsult analysis, UIRR, National Offices for Statistics, Eurostat

Table 14: Total CT rail/road in the EU: performance indicators, 2011

CT market segment	∅ load factor (tonnes/TEU)	∅ rail distance (km)	∅ transporrt performance (tonne-km/TEU)
Intra-MS	10,3	514	5.314
Intra-EU	12,4	850	10.564
International	10,1	509	5.135
Total	10,8	621	6.700

Source: KombiConsult analysis, UIRR, National Offices for Statistics, Eurostat

Intra-MS CT rail/road in the EU

CT service providers carried a volume of more than 3.2m TEU in Intra-MS CT rail/road traffic in 2011. They shipped goods amounting to almost 33.3m gross tonnes and over 17.1bn tonne-km (see Table 15). The total volumes relate to unaccompanied CT. Germany is the largest single market for Intra-MS CT rail/road in the EU. It has a share of about 38% in each of the three performance indicators (TEU, tonnes lifted and tonnes moved). The next biggest Intra-MS markets are Sweden, France and Italy, which together account for almost 80% of this CT segment.

Intra-EU CT rail/road in the EU

In 2011, the transport volume of Intra-EU CT rail/road amounted to nearly 4.9m TEU, carrying 60.4m gross tonnes of cargo across 51.3bn tonne-km (see Table 16). The results include both unaccompanied and accompanied Intra-EU CT services. Accompanied CT accounts for around 20% of the entire transport volume and tonnes lifted (938,930 TEU / 14m gross tonnes) but less than 8% of tonnes moved (3.9bn tonne-km). This reflects the comparatively short distances covered by these services.

The survey has identified Intra-EU CT volumes on almost 90 single corridors. The smallest 20 routes accounted for less than 1,000 TEU each in 2011. The top 30 corridors, in contrast, represent 95% of the entire Intra-EU CT rail/road (Table 16).

The largest single Intra-EU corridor is Germany-Italy via Austria, which accounts for about a quarter of the total Intra-EU CT rail/road flows, with approximately 1.2m TEU, 16.6m gross tonnes lifted and 11.5bn tonne-km. The next biggest corridors, Germany-Italy and Belgium-Italy are trans-Alpine routes via Switzerland. The three leading corridors make up about 50% of the total Intra-EU CT rail/road market. This again highlights the importance of trans-Alpine traffic for CT in the EU.

Table 15: Intra-MS CT rail/road in the EU by MS, 2011

Member State	Transport volume (TEU)	Tonnes lifted (gross tonnes)	Tonnes moved [a] (m tonne-km)
Austria	205.990	2.575.400	773
Belgium	29.720	347.670	52
Bulgaria	0	0	0
Croatia	6.520	70.700	11
Cyprus	-	-	-
Czech Republic	0	0	0
Denmark	54.800	495.000	124
Estonia	0	0	0
Finland	6.800	36.400	13
France	412.810	2.928.270	2.343
Germany	1.232.920	12.635.280	6.318
Greece	0	0	0
Hungary	2.660	24.000	5
Ireland	0	0	0
Italy	348.000	3.657.510	2.377
Latvia	0	0	0
Lithuania	0	0	0
Luxemburg	0	0	0
Malta	-	-	-
Netherlands	33.300	325.000	49
Poland	7.500	70.000	35
Portugal	112.980	1.333.900	267
Romania	4.920	119.970	60
Slovakia	0	0	0
Slovenia	0	0	0
Spain	100.800	1.130.200	678
Sweden	515.890	5.211.500	2.606
United Kingdom	142.500	2.300.000	1.380
Total	**3.218.110**	**33.260.800**	**17.089**

a Estimates, distance only relates to rail journey

Key: **0** No Intra-MS traffic
- No rail system

Source: KombiConsult analysis, UIRR, National Offices for Statistics, Eurostat

Table 16: Total Intra-EU CT rail/road in the EU, top 30 corridors, 2011

Intra-EU corridor		Transport volume (TEU)	Tonnes lifted (gross tonnes)	Tonnes moved [a] (m tonne-km)
Germany -	Italy via AT	1.197.960	16.643.230	11.533
Germany -	Italy via CH	775.820	9.852.700	8.375
Belgium -	Italy via CH	460.970	5.830.000	5.539
France -	Italy	214.090	2.644.000	2.115
Netherlands -	Germany	210.000	2.202.000	771
Netherlands -	Italy via CH	203.110	2.352.000	2.822
Sweden	Germany	191.340	2.560.000	3.072
Germany -	Austria	190.500	2.073.000	1.866
Germany -	Spain	112.690	1.290.000	1.806
Luxemburg -	France	109.710	1.104.000	994
Germany -	Czech Republic	108.350	953.000	667
Austria -	Slovenia	98.650	1.243.350	373
Belgium -	France	84.840	906.000	453
Belgium -	Germany	60.010	632.000	316
Sweden -	Belgium	49.000	666.000	799
Austria -	Hungary	44.200	530.620	239
Hungary -	Slovenia	43.630	346.000	156
Slovakia -	Slovenia	43.010	275.000	138
Germany -	France	39.230	379.000	322
Denmark -	Italy via AT	37.340	1.010.000	1.414
Belgium -	Italy via AT	36.550	427.000	448
Germany -	Poland	35.560	344.000	344
United Kingdom -	Spain	35.020	389.000	778
Germany -	Hungary	34.990	388.000	466
Sweden -	Netherlands	33.750	330.000	363
Netherlands -	Italy via AT	32.890	413.000	475
France -	Spain	29.000	294.000	382
Sweden	Italy via CH	25.650	327.000	589
Germany -	Slovenia	25.400	271.080	271
Netherlands -	Poland	20.740	521.000	625
Subtotal Top 30 corridors		***4.584.000***	***57.195.980***	***48.510***
Other corridors		*272.170*	*3.160.000*	*2.830*
Total		**4.856.170**	**60.355.980**	**51.340**

a Estimates, distance only relates to rail journey

Source: KombiConsult analysis, UIRR, National Offices for Statistics, Eurostat

International CT rail/road in the EU

International CT rail/road is by far the biggest market segment of this sector by volume and tonnage, accounting for more than 9.1m TEU, over 92.1m gross tonnes lifted and 47bn tonne-km, slightly less than Intra-EU CT operations (see Table 17).

Table 17: Total international CT rail/road in the EU, 2011

International CT markets	Transport volume (TEU)	Tonnes lifted (gross tonnes)	Tonnes moved *) (bn tonne-km)
Corridors	2.966.440	28.770.820	25
Within MS	6.167.080	63.370.900	22
Total	**9.133.520**	**92.141.720**	**47**

a Estimates, distance only relates to rail journey

Source: KombiConsult analysis, UIRR, National Offices for Statistics, Eurostat

Total international CT rail/road results from two geographic areas of business. The first relates to pan-European corridors. It includes the continental transport of goods between EU MS and third countries and, additionally, the Intra-EU transport of overseas containers between a sea port in one EU MS and an inland location in another. The second covers the Intra-MS hinterland transport of maritime containers with goods exported to or imported from non-EU countries. This business is significantly larger by TEU and tonnes than the corridor-related international CT. More details on both markets are presented below.

The corridor-related international CT rail/road in 2011 reached almost 3m TEU, 28.8m gross tonnes lifted and an estimated 25bn tonne-km (see Table 17).

The traffic is spread over more than 100 individual trade lanes. The top 30 corridors account for about 90% of the total volume and tonnage (see Table 18). The largest three corridors are driven by container hinterland traffic. The trade lanes Germany-Czech Republic and Germany-Austria additionally represent a particular characteristic of this market. The economies of the Czech Republic and Austria are strongly involved in world trade but, being landlocked, do not provide for a sea port of their own. Therefore their exports and imports are processed via ports in other countries. The same applies to Hungary and Slovakia, for which high CT volumes are recorded on Intra-EU corridors, mainly with Slovenia and Germany (see Table 18).

Further important corridors of international CT rail/road and container hinterland transport are the Intra-EU trade lanes between Belgium <> Germany / Italy / France and Germany-Poland. They show that, where competitive CT services are supplied, overseas containers are not only exported and imported via ports in the home country.

The largest single corridor of continental cargo links Poland with Russia and other CIS states. A volume of 167,000 TEU was carried on international CT rail/road services in 2011. The next biggest trade lanes for continental freight are Germany-Switzerland with 129,090 TEU and Sweden-Norway with 78,900 TEU (see Table 18).

Table 18: International CT rail/road in the EU, top 30 corridors, 2011

Corridor		Transport volume (TEU)	Tonnes lifted (gross tonnes)	Tonnes moved [a] (m tonne-km)
Germany -	Czech Republic	383.750	3.377.000	2.364
Germany -	Austria	249.000	2.709.000	2.438
Netherlands -	Germany	245.000	2.569.000	899
Poland -	CIS States	167.000	1.351.000	2.027
Belgium -	Germany	144.590	1.524.000	533
Germany -	Switzerland	129.090	1.142.000	571
Belgium -	Italy via CH	108.420	1.371.000	1.371
Germany -	Poland	103.880	1.006.000	805
Hungary -	Slovenia	98.830	784.000	431
Slovakia -	Slovenia	90.790	581.000	407
Germany -	Hungary	87.310	968.000	1.113
Norway -	Sweden	78.900	170.000	51
Belgium -	France	78.840	842.000	295
Netherlands -	Czech Republic	76.810	412.000	371
Czech Republic -	Slovakia	74.820	725.000	254
Germany -	Turkey	73.000	864.200	1.227
Hungary -	Turkey	64.610	972.000	1.361
Belgium -	Switzerland	64.010	580.000	406
Netherlands -	Italy via CH	62.810	727.000	872
Germany -	Russia	46.150	134.000	322
Austria -	Turkey	40.320	488.620	264
Austria -	Italy	35.640	344.000	172
Germany -	Italy via CH	32.430	390.000	293
Czech Republic -	Russia	32.000	320.000	576
Estonia -	CIS States	31.910	290.000	319
France -	Russia	29.400	265.000	689
Finnland -	CIS States	23.000	259.000	311
Bulgaria -	Turkey	21.440	376.000	188
Germany -	Italy via AT	21.430	267.000	134
Austria -	Slovenia	20.530	222.000	111
Subtotal Top 30 corridors		***2.715.710***	***26.029.820***	***21.173***
Other corridors		*250.730*	*2.741.000*	*3.357*
Total		**2.966.440**	**28.770.820**	**24.530**

a Estimates, distance only relates to rail journey

Source: KombiConsult analysis, UIRR, National Offices for Statistics, Eurostat

The corridor-related international CT rail/road relates mainly to unaccompanied CT, except for small accompanied CT volumes attributed to the corridors Austria-Turkey and Germany-Turkey. It is estimated at 71,250 TEU with 909,000 gross tonnes lifted and 409m tonne-km moved.

The international CT rail/road business within EU MS is not only substantially larger by volume than the corridor-related international CT, but it is also the biggest single market of the entire CT rail/road sector. It relates almost exclusively to the hinterland transport of overseas containers on inland CT services in MS. In 2011 these services accounted for

almost 6.2m TEU, nearly 63.4m gross tonnes and an estimated 22.4bn tonne-km (see Table 19).

Table 19: International CT rail/road within MS, 2011

Member State	Transport volume (TEU)	Tonnes lifted (gross tonnes)	Tonnes moved [a] (m tonne-km)
Austria	0	0	0
Belgium	584.660	6.805.730	817
Bulgaria	1.990	44.800	12
Croatia	7.960	86.400	9
Cyprus	-	-	-
Czech Republic	0	0	0
Denmark	13.640	154.000	31
Estonia	0	0	0
Finland	27.200	145.600	29
France	193.860	1.740.430	783
Germany	2.060.220	19.585.320	9.793
Greece	0	0	0
Hungary	0	0	0
Ireland	14.280	169.000	51
Italy	467.000	4.282.490	942
Latvia	0	0	0
Lithuania	8.260	106.000	11
Luxemburg	0	0	0
Malta	-	-	-
Netherlands	306.000	2.634.000	395
Poland	158.990	1.319.700	594
Portugal	112.980	1.333.900	233
Romania	241.230	2.879.230	864
Slovakia	0	0	0
Slovenia	65.610	506.000	101
Spain	403.200	4.520.800	2.034
Sweden	217.500	1.957.500	881
United Kingdom	1.282.500	15.100.000	4.820
Total	**6.167.080**	**63.370.900**	**22.399**

a Estimates, distance only relates to rail journey

Key: **0** No traffic
- No rail system

Source: KombiConsult analysis, UIRR, National Offices for Statistics, Eurostat

Germany and the United Kingdom clearly dominate this market with a share of more than 50% with respect to all measures. The next largest volumes were recorded for Belgium, Italy and Spain. The aggregate transport volume amounted to 4.8m TEU and the tonnage to 50.3m tonnes, corresponding to shares of 78% and 79% respectively for these five countries.

Other than TEU, the magnitude of tonnes moved by international CT rail/road within MS is remarkably low. This is due to the rather short inland transport distances by rail in many countries. This not only reflects countries with comparatively small territories such as Belgium, the Netherlands or Slovenia, it also results from the rather short distances between the principal container ports and the economic centres of the country, for example, in France or Italy.

Total CT rail/road in EU as defined in CT Directive

As noted in section 2.3.1 earlier, deficiencies in the availability of data prevents a suitable analysis to identify CT traffic moved less than 100km by rail (which is excluded from the provisions of the CT Directive), or to identify whether the nearest suitable rail station was used. Based on available information, it is assumed that the total CT rail/road in the EU as defined in CT Directive is equal to the total Intra-EU traffic (see Table 20).

Table 20: Total CT rail/road in EU as defined in CT Directive, 2011

	Transport volume (TEU)	Tonnes lifted (gross tonnes)	Tonnes moved [a)] (m tonne-km)
Total	**4.856.170**	**60.355.980**	**51.340**

a Estimate, distance only relates to rail journey

Source: KombiConsult analysis

A special case: Eurotunnel shuttle services

For completeness, it should be noted that Eurotunnel's lorry shuttles between the UK and France also operate accompanied CT rail/road services. In 2011 these services carried 1,263,327 lorries and 16.4 m tonnes, considerably exceeding the total for other accompanied services in mainland Europe.

For the purpose of this study the Eurotunnel services are not considered as accompanied CT rail/road. First, the rail distance is clearly below the 100km threshold (closer to 50km) and therefore falls outside of the provisions of the CT Directive. Second, the transport volumes do not represent a modal shift from road, but rather from short sea ferry services. On this basis, the classification of Eurotunnel's services by UK national statistics appears reasonable. This traffic has tended to be grouped in statistics as part of the short-sea ferry sector rather than the CT or rail sector. This may reflect the "captive" nature of the services, given that as the loading gauge[31] considerably exceeds those of Network Rail, HS1 and RFF, the existing shuttle trains cannot run on any other lines.

However, outline proposals by Eurotunnel and others to develop longer-distance accompanied CT services to and from the UK may require a change in how such services are then considered within the framework of CT statistics, as well as the provisions of the CT Directive. For example, a UIC-gauge accompanied service from (for example) Calais to London would be above the 100km threshold in the CT Directive.

[31] Maximum height and width of a railway vehicle and its load (French = *gabarit*)

45' long containers

The particular interest of 45' long containers was noted earlier in this report at section 2.3.2. The survey has not identified any national offices for statistics that gather detailed data to indicate the current state of employment of 45' maritime containers in unaccompanied CT rail/road in the EU. If the statistics provide for any breakdown by type of load unit at all, they typically distinguish only between 20' and 40' units; in some cases they do not even distinguish between containers and swap bodies.

Since the available statistics are not suitable the study has taken another approach. We have analysed the questionnaires completed by CT service providers in the course of the 2012 and the present survey. The findings are as follows:

- 64 companies providing CT rail/road services designed for container hinterland transport in 2011 (most of which are high-volume operators) supplied data relating to the breakdown of traffic by load unit;
- The majority of companies move little or no 45' ISO containers;
- 21 companies indicate that they carry 45' containers. Of these, 19 responded that their use in total container hinterland CT volume ranges from 0.2% to 2.0% of traffic, whilst 2 companies indicate a share of 3.5% and 8.0% respectively. As these service providers are strongly involved in the continental transport of short-sea units from the UK, Ireland and Iceland (where the 45' pallet-wide domestic container tends to be the predominant load unit) these percentages are assumed to include a large proportion of 45' domestic units, as opposed to ISO containers.

The total indicated volume amounts to about 120,000 TEU, corresponding to 55,000 units, including an element of 45' domestic containers. These units account for approximately 1.7% of the respondents' total volume of maritime container transports (7.2 m TEU).

When assuming the same ratio of the employment of 45' containers in total container hinterland CT rail/road in the EU in 2011 (9.0m TEU), the entire volume of 45' ISO containers amounts to 153,000 TEU or, respectively, about 68,000 units. The transport of the above volume is therefore estimated to account for approximately 0.9% of total CT rail/road in the EU (17.2m TEU).

2.4.4 Time series of CT rail/road market in the EU

In 2008 and 2010, KombiConsult conducted surveys on CT rail/road in Europe on behalf of the UIC[32]. The surveys of primary sources delivered a database for the years 2007 and 2009 that was analysed for this study. In order to disaggregate the statistics into the definitions of the CT market segments used for this study, the volumes of some individual markets have had to be estimated, therefore detailed data cannot be displayed. The findings on this time series are presented below.

[32] UIC (ed.): 2007 Report on Intermodal Rail/Road Transport in Europe. Paris, January 2009. UIC (ed.): 2010 Report on Combined Transport in Europe. Paris, December 2010.

Total CT rail/road in the EU

In 2011, the total volume of CT rail/road in the EU was 0.8% higher than in the year 2007, at 17.2m TEU compared to 17.1m TEU four years earlier. Traffic slumped in 2009 due to the global economic crisis, falling by 14.6% to 14.5m TEU. In the following two years, CT rail/road operations made a strong recovery, exceeding 2007 volumes. The shares of the three market segments (Intra-MS, Intra-EU and international) fluctuated over the years but remained fairly stable. International CT has been the largest single market with a share of 51-53% of TEU. Intra-EU CT operations account for 28-29% and Intra-MS operations for about 19% (see Table 21).

By tonnage, the evolution of CT rail/road services between 2007 and 2011 was similar to the growth in TEU, rising from 182.2 to 185.8m gross tonnes. This corresponds to a growth rate of approximately 2% over this period (if the downturn in 2009 is ignored). Tonnes moved are estimated at 112bn tonne-km in 2007, about 3% below the 2011 result, and 98bn tonne-km in 2009 (see Table 21).

Table 21: Total CT rail/road in the EU by market segments, 2007-2011

		CT market segment			
		Intra-MS	Intra-EU	International	Total
Transport volume (TEU)	2007	3.186.600	4.764.400	9.117.900	**17.068.900**
	2009	2.814.300	4.327.300	7.427.400	**14.569.000**
	2011	3.218.100	4.856.200	9.133.500	**17.207.800**
Tonnes lifted (gross tonnes)	2007	31.050.000	59.262.000	91.871.000	**182.183.000**
	2009	26.824.000	53.777.000	75.556.000	**156.157.000**
	2011	33.261.000	60.356.000	92.142.000	**185.759.000**
Tonnes moved [a] (bn tonne-km)	2007	16	50	46	**112**
	2009	14	45	39	**98**
	2011	17	51	47	**115**

a Estimates, distance only relates to rail journey

Source: KombiConsult analysis

Intra-MS CT rail/road in the EU

Total Intra-MS CT rail/road volume increased by 1% from 3,186,600 TEU (2007) to 3,218,110 TEU (2011). By tonnes lifted, the 2011 result topped the tonnage carried in 2007 by about 7%. Whilst CT operations in several MS developed more or less in tandem with the entire Intra-MS market, some countries show striking differences. For example, Denmark, Germany, Portugal, Sweden and the UK made considerable progress and raised both TEU and tonnage disproportionately. By contrast, volumes in Italy and

Austria dropped substantially between 2007 and 2011 (see Table 22). This decrease mainly resulted from a restructuring of the network of inland CT services by the chief national RU, in order to enhance the viability of services

Table 22: Total Intra-MS CT rail/road by MS, 2007-2011

Country	Transport volume (TEU)			Tonnes lifted (gross tonnes)		
	2007	2009	2011	2007	2009	2011
Austria	303.500	257.500	205.990	2.691.200	2.528.000	2.575.400
Belgium	30.100	27.200	29.720	293.000	388.000	347.670
Bulgaria	0	0	0	0	0	0
Croatia	900	800	6.520	10.400	9.000	70.700
Cyprus	-	-	-	-	-	-
Czech Republic	0	0	0	0	0	0
Denmark	18.900	21.600	54.800	147.400	230.300	495.000
Estonia	0	0	0	0	0	0
Finland	29.400	12.200	6.800	114.000	80.000	36.400
France	402.600	402.400	412.810	3.102.100	2.858.600	2.928.270
Germany	971.600	919.400	1.232.920	9.999.400	9.513.000	12.635.280
Greece	0	0	0	0	0	0
Hungary	0	0	2.660	0	0	24.000
Ireland	0	0	0	0	0	0
Italy	708.800	395.100	348.000	7.029.300	4.486.700	3.657.510
Latvia	0	0	0	0	0	0
Lithuania	0	0	0	0	0	0
Luxemburg	0	0	0	0	0	0
Malta	-	-	-	-	-	-
Netherlands	23.400	23.500	33.300	334.000	325.100	325.000
Poland	2.400	2.800	7.500	20.100	26.400	70.000
Portugal	84.200	78.900	112.980	851.700	754.500	1.333.900
Romania	5.000	2.600	4.920	118.700	64.100	119.970
Slovakia	0	0	0	0	0	0
Slovenia	0	0	0	0	0	0
Spain	85.400	65.500	100.800	850.200	670.200	1.130.200
Sweden	444.100	497.500	515.890	4.414.300	4.745.000	5.211.500
United Kingdom	76.300	107.300	142.500	1.074.600	145.200	2.300.000
Total Intra-MS	**3.186.600**	**2.814.300**	**3.218.110**	**31.050.400**	**26.824.100**	**33.260.800**

Key: **0** No Intra-MS transport volume
- No rail network

Source: KombiConsult analysis

Intra-EU CT rail/road in the EU

The transport volume of Intra-EU CT rail/road amounted to 4,764,000 TEU in 2007 but dropped sharply to 4,327,300 in 2009. The volume recovered until 2011 and reached 4,856,170 TEU, corresponding to an increase of about 2% compared to the 2007 result. The volumes include both unaccompanied and accompanied CT (see Table 23).

Table 23 displays the substantial variations in volume for many corridors between 2007 and 2011. The 30 largest corridors accounted for 89% of the total in 2007 and more than 94% in 2011. This suggests an increasing concentration of CT shipments on key corridors. This is confirmed when considering the top 10 corridors. They increased their market share from 2007 to 2011 by five percentage-points to 75.5%. Germany-Italy via Austria and Switzerland, the two largest corridors by TEU, retained their position in this period. The operators on the corridor Belgium-Italy via Switzerland, however, grew volumes by about 50% within four years, to reach third place in the 2011 ranking.

International CT rail/road in the EU

In 2009, international CT rail/road lost nearly 700,000 TEU of volume and 16m gross tonnes compared to 2007. Like most of the other CT market segments the traffic gained momentum in the period to 2011 and achieved a small increase over 2007 (see Table 24).

The corridor-related international CT business did not completely recover from the 2009 decline, with 2011 volumes remaining below the 2007 results (Table 24). By contrast, the share of the Intra-MS market grew in the period from 2007 to 2011 and now accounts for about two thirds of the total volume (see Table 25).

Table 23: Total and top 30 corridors of Intra-EU CT rail/road, 2007-2011

Intra-EU corridor		Transport volume (TEU)		
		2007	2009	2011
Germany -	Italy via AT	1.157.195	1.132.970	1.197.960
Germany -	Italy via CH	772.300	745.700	775.820
Belgium -	Italy via CH	316.700	291.300	460.970
France -	Italy	236.250	112.750	214.090
Netherlands -	Germany	60.200	124.500	210.000
Netherlands -	Italy via CH	205.200	133.500	203.110
Sweden	Germany	68.800	62.500	191.340
Germany -	Austria	346.300	186.000	190.500
Germany -	Spain	198.000	170.200	112.690
Luxemburg -	France	5.000	38.300	109.710
Germany -	Czech Republic	37.400	79.300	108.350
Austria -	Slovenia	129.500	80.900	98.650
Belgium -	France	40.700	85.500	84.840
Belgium -	Germany	17.400	10.400	60.010
Sweden -	Belgium	44.100	46.900	49.000
Austria -	Hungary	176.600	58.600	44.200
Hungary -	Slovenia	11.600	14.600	43.630
Slovakia -	Slovenia	2.800	16.600	43.010
Germany -	France	33.800	27.200	39.230
Denmark -	Italy via AT	20.700	40.700	37.340
Belgium -	Italy via AT	0	27.600	36.550
Germany -	Poland	55.300	33.500	35.560
United Kingdom -	Spain	51.900	55.500	35.020
Germany -	Hungary	76.500	50.400	34.990
Sweden -	Netherlands	0	32.300	33.750
Netherlands -	Italy via AT	0	n/a	32.890
France -	Spain	80.200	80.000	29.000
Sweden	Italy via CH	27.900	23.000	25.650
Germany -	Slovenia	9.900	12.900	25.400
Netherlands -	Poland	58.900	26.300	20.740
Subtotal top 30 corridors *)		***4.241.145***	***3.799.920***	***4.584.000***
Other corridors		*523.255*	*527.380*	*272.170*
Total		**4.764.400**	**4.327.300**	**4.856.170**

0 No traffic volume recorded

n/a Data not avalaible

***)** Top 30 corridors in 2011

Source: KombiConsult analysis

Table 24: Total international CT rail/road in the EU, 2007-2011

International CT markets	Transport volume (TEU)			Tonnes lifted (gross tonnes)		
	2007	2009	2011	2007	2009	2011
Corridors	3.216.320	2.204.340	2.966.440	38.659.000	26.661.100	28.770.820
Within MS	5.901.600	5.223.100	6.167.080	53.212.200	48.894.900	63.370.900
Total	**9.117.920**	**7.427.440**	**9.133.520**	**91.871.200**	**75.556.000**	**92.141.720**

Source: KombiConsult analysis

Table 25: Intra-MS international CT rail/road, 2007-2011

Country	Transport volume (TEU)			Tonnes lifted (gross tonnes)		
	2007	2009	2011	2007	2009	2011
Austria	0	0	0	0	0	0
Belgium	570.900	516.700	584.660	4.113.000	3.105.800	6.805.730
Bulgaria	2.300	2.300	1.990	34.300	43.900	44.800
Croatia	1.200	1.000	7.960	12.700	11.000	86.400
Cyprus	-	-	-	-	-	-
Czech Republic	0	0	0	0	0	0
Denmark	4.700	5.400	13.640	46.600	72.700	154.000
Estonia	0	0	0	0	0	0
Finland	117.500	49.000	27.200	456.000	320.000	145.600
France	189.400	189.300	193.860	1.821.900	1.678.900	1.740.430
Germany	1.605.900	1.506.900	2.060.220	15.465.700	14.713.400	19.585.320
Greece	3.400	4.300	0	13.000	15.000	0
Hungary	0	0	0	0	0	0
Ireland	3.300	4.300	14.280	52.000	86.000	169.000
Italy	866.200	523.800	467.000	8.251.700	5.267.000	4.282.490
Latvia	100	100	0	9.000	4.000	0
Lithuania	800	1.700	8.260	3.000	6.000	106.000
Luxemburg	0	0	0	0	0	0
Malta	-	-	-	-	-	-
Netherlands	310.600	311.500	306.000	2.336.800	2.925.900	2.634.000
Poland	77.700	68.000	158.990	649.600	501.900	1.319.700
Portugal	84.100	78.800	112.980	851.600	754.500	1.333.900
Romania	242.500	129.100	241.230	2.847.700	1.537.900	2.879.230
Slovakia	0	0	0	0	0	0
Slovenia	44.500	67.200	65.610	348.700	360.400	506.000
Spain	341.700	262.100	403.200	3.400.800	2.680.800	4.520.800
Sweden	239.100	268.000	217.500	1.632.700	1.755.000	1.957.500
United Kingdom	1.195.700	1.233.600	1.282.500	10.865.400	13.054.800	15.100.000
Total	**5.901.600**	**5.223.100**	**6.167.080**	**53.212.200**	**48.894.900**	**63.370.900**

Key: **0** No transport volume
- No rail network

Source: KombiConsult analysis

2.4.4 Length of pre- and end-haulage road legs in CT rail/road

The survey on CT statistical data compiled by national offices for statistics, conducted by this study, has not identified reliable information on the length of pre- and end-haulage road legs in CT rail/road operations. This was to be expected, as operators of CT services are neither requested nor interested in gathering this information. In order to assess the distances of pre- and on-carriage road legs, an analysis has been made of representative

cases, from which the average lengths of road legs in CT rail/road operations have then been estimated.

The length of the road legs generally differs between CT market segments and is determined by several factors. They are particularly related to the overall cost-revenue structure of the CT operations and the market prices of competing modes. The main aspects are as follows:

- Compared to long-distance road hauls, where price is typically derived from a rate per kilometre or tonne-kilometre, the costs of shorter pre- and end-haulage road legs are usually determined by the hours consumed for the initial or final leg between a loading place and a CT terminal, or vice versa. The more time the road haulier needs to carry out the trip, the more costs he will charge to his client. The time is not only coupled with the distance of the haul, but is also influenced by the traffic density in the area, the condition of the infrastructure, the time of the day, and especially the waiting times at loading or unloading locations and CT terminals;
- Services are charged by hourly rates. The hourly costs can be calculated based on the variable and fixed costs for the lorry and the lorry driver employed. The hourly rates, however, are not necessarily cost-based. They are impacted by the economic, social and cultural environment of the country and the region in question, the market structure and the intensity of competition. Based on available information, rates can range between about €30 and €50 per hour. Moreover, specific rates or supplements apply if special equipment has to be deployed by the road haulier, such as trailers with tipping mechanisms;
- Services are overwhelmingly carried out by specialised lorry companies and, to a lesser extent, by Logistics Service Providers (LSP) employing their own fleet of road vehicles. Whilst there is no information available on the number of CT road own-account operators, the leading suppliers of CT services in the EU have suggested that the share of own-account operators is very small. Own-account operators and LSPs with own fleets typically apply internal transfer prices for road haulage services. If this fleet is operated as a profit centre, rates will correspond to market prices. If not, the transfer prices may be 2-5% lower, as margins are small in this business.

In unaccompanied CT rail/road operations, the economic opportunities for pre- and/or end-haulage road transport and their potential duration and length of haul are ultimately determined by the following factors:

- The door-to-door market price for the trade lane in question, usually determined by road freight transport, sets the economic framework for the entire CT solution;
- The costs for rail operations, wagons, terminal handling and administration, the profit margin of the CT service provider and its assessment of the competitive situation, are the key factors influencing the price of the rail leg of CT operations;
- The customer to the CT service by rail has to calculate the equipment costs (deployment of load units), the cost of administration and its anticipated margin;
- The difference (if any) between the market price and the sum of the calculated cost items defines the maximum available cost for the pre- and/or end-haulage road legs;

- The fiercer the price competition between CT and road-only transport, the less room remains for CT operations once the costs of pre- and/or end-haulage are accounted for;
- The length of the road hauls in CT operations is also affected by support schemes and incentives such as the 44 tonne derogation;
- Further factors include the density of the terminal network (ie the distance to the nearest suitable terminal) and the scope, attractiveness and efficiency of CT service supply.

Against this background we can distinguish the following typical cases in Intra-MS and Intra-EU unaccompanied CT rail/road for continental freight[33]:

1) CT services with rail distances between 500 and 600km: The origins and destinations of the goods carried by CT load units are likely to be close to the CT terminals on both ends, typically up to about 30km. If waiting times are not excessive and local roads are not congested, the lorry can execute the pick-up or delivery service within about 2-3 hours and perform 3-4 daily rotations to earn the necessary daily revenues. Assuming an average of 20km each for pre- and end-haulage by road, the aggregated distance by road equates to around 7-8% of the rail journey;

2) CT services with rail distances between 600 and 900km: Origins and destinations of the goods are likely to be located up to 75km from the CT terminals. The lorry will likely need 3-4 hours for the pick-up or delivery service and achieve 2-3 daily rotations. Assuming an average of 50km each for pre- and end-haulage by road the aggregated distance equates to around 11-17% of the rail journey;

3) CT services with rail distances between 1,000 and 1,300km: Origins and destinations of the goods are likely to be located up to 120km from the CT terminals. The lorry will need between 4-6 hours for the pick-up or delivery service and achieve 1.5-3 daily rotations. Assuming an average of 80km each for pre- and end-haulage by road the aggregated distance equates to around 12-16% of the rail journey;

However, there is not always a linear relationship between the length of the main haul by rail and the length of pre- and end-haulage by road. Collection and delivery legs by road can also produce situations which may appear paradoxical at first sight. It often happens that, at a terminal, there are two categories of customers using the same CT service, one picking-up and delivering its units over fairly short distances of up to 50km, and the other travelling 300-350km or 600-700km each way. Both logistics concepts are designed to ensure an optimum employment of the road vehicle and the lorry driver. The first category of clients achieves this target by performing three or more daily rotations as shown above, and the second category by deploying a lorry and driver on a single round-trip or a one-way journey in one driver's shift. The economic result can be much the same. Whilst the road legs may account for about 10-15% of the rail distance, in the first case, they may add up to the same length as covered by the train, in the second case.

[33] See also cost calculations under chapter 4 CT Industry.

Taking account of the average rail transport distances of Intra-MS and Intra-EU CT rail/road (amounting to 514km and 850km respectively), the average length of pre- and end-haulage road legs is estimated to equate to 10-15% of the rail leg. We assume that this assessment also generally relates to international CT rail/road services designed for the hinterland transport of maritime containers, although the economic and competitive situation is different than for continental CT operations.

Container hinterland transport usually includes only a single road leg at the inland location, since at the sea ports the containers are transferred between the dock and the train without the costs of any further substantial intermediate movement by road. The CT services can then bear the costs of longer pre- or end-haulage distances than continental CT services, the latter generally involving road legs at both ends. The break-even distance of container hinterland CT services therefore tends to be about 100 to 150km lower than the one for continental shipments, assuming the same level of pre- or end-haulage by road. These conditions are, however, estimated to lead to similar results as concerns the percentage share of the initial or final road leg of the distance covered by rail.

The situation in accompanied CT rail/road differs completely from unaccompanied CT operations. As mentioned earlier, accompanied CT services mainly enable road hauliers to overcome administrative, regulatory or topographic barriers. Like ferry services, they aggregate transport flows originating from a very broad geographic area. The rail distances are comparatively short, between 100 and 500km. As a result, the distances of initial and final road legs often account for several times the length of the rail journey. Owing to a complete lack of statistical sources, however, it would not be possible to deliver an estimate of the road legs at each end.

2.4.5 Market shares of CT rail/road in 2011

This section highlights the importance of the CT rail/road sector with regard to total rail and road freight traffic in the EU.

Firstly, the share of CT rail/road operations of total rail freight traffic in the EU is examined. It is common to use tonne-km for calculating market shares, since this takes account of both the weight of the goods shipped and the distance over which they are transported. This measure, however, can underestimate the market relevance of CT. Conventional wagonload rail freight services primarily ship heavy bulk commodities such as coal, ores, chemical liquids or construction materials. In contrast, the majority of goods carried on CT services are general cargo with a lower density. The results below therefore need to be qualified accordingly.

According to Eurostat data, rail freight traffic in EU-28 totalled 420bn tonne-km in 2011. In the same year total CT rail/road reached an estimated 115bn tonne-km, if only the rail leg is considered, or about 130bn tonne-km including both the rail and road legs[34]. Hence this CT sector achieved a market share of between 27.4% and 31.0% of total rail freight traffic in the EU (see Table 26).

[34] This is the mean average between 127 and 132bn tonne-km (see section 3.3).

Table 26: Market share of CT rail/road of EU rail freight traffic, 2011

	Total rail freight	Total CT rail/road	
		Rail leg only	Rail and road legs
Transport performance (bn tonne-km)	420	115	130
CT rail/road market share (%)	-	27,4%	31,0%

Source: Eurostat, KombiConsult analysis

Another relevant performance indicator is the share of CT rail/road operations of total road freight traffic in the EU. It particularly highlights the mode shift effect of this CT sector.

Eurostat provides data on total road freight transport in the EU-27 (no data on Malta) and on inland road traffic per MS. By subtracting the consolidated national road transport of all MS from total road traffic we obtain the volume of international road transport in the EU, amounting to 344bn tonne-km in 2011.

In order to calculate the market shares of CT rail/road it is critical to define the relevant market as a reference. According to the findings of this study, the mean rail distance of total CT rail/road amounts to 621km within a range of 509-850km across the respective CT market segments.

As noted earlier, Eurostat provides statistics on national road traffic broken down by four classes of transport distances (<50km, 50-149km, 150-499km and >500km). By comparison, CT operations below 150km are considered uncommon, whilst services below 50km are virtually non-existent. Other than for road, data on distance classes of CT rail/road are not available. Therefore the total volume is used.

All market share calculations are based on the tonne-km of the respective freight operations by road or CT rail/road, including the rail and road legs. Further, it has been assumed that the tonne-km relating to the road legs of CT rail/road operations are also recorded under the road traffic statistics.

The analysis shows that, in 2011, CT rail/road had a modal share equivalent to 8.6% of total road traffic in EU-27, including national and international traffic. For traffic moving more than 150km, the CT modal share is slightly higher at 11.6%. For journeys over 500km, the CT modal share is higher still at 23.3% (see Table 27).

The market research has provided evidence that there are numerous CT rail/road services with rail distances below 500km. The study could not evaluate whether they are viable and self-sustained without incentives. Assuming they are, the current relevant market for CT rail/road services is likely to be on distances below 500km. This would lead to a smaller market share, which cannot be accurately determined due to a lack of appropriate data. On the other hand, it should be noted that a substantial proportion of Intra-EU road transport is performed over relatively short distances between adjacent MS, for instance, between Belgium and the Netherlands, Belgium and France, France and Germany, Austria and Slovakia. These operations are generally outside of the scope of CT rail/road services, but the tonne-km are included in international road traffic.

Based on these considerations we estimate that the actual share of total CT rail/road traffic ranges between 15% and 18% of the relevant road freight market.

Table 27: Market share of CT rail/road of EU road freight traffic, 2011

Transport performance (bn tonne-kms)			CT rail/road market share (%)
Road freight traffic		CT rail/road (rail and road legs)	
International +			
- total national	1518		8,6%
- national > 150 km	1119	130	11,6%
- national > 500 km	559		23,3%

Source: Eurostat, KombiConsult analysis

A third indicator for displaying the relevance of CT rail/road only refers to a sub-sector of the market. The volumes of maritime (container hinterland) CT rail/road can be related to the total container hinterland transport of EU sea ports, providing an indication of the modal share of rail of the port in question. Some sea ports, however, only publish the seaborne container throughput and do not deliver data on the volume of transhipment containers. In this case the actual market share of CT rail/road of the total container hinterland volume cannot then be calculated. The key measure for market share calculations is the container volume in TEU. Any other data such as tonnes or tonne-kilometres is not available for hinterland traffic. Table 28 shows the significant differences between sea ports. The modal share of CT rail/road of total container hinterland traffic ranges from 2% in the port of Venice to 61% in the port of Koper. For the largest EU gateway ports, rail accounts for comparatively small shares in Rotterdam and Antwerp whilst all other ports (except for Le Havre and Barcelona) rely strongly on maritime CT rail/road services. This difference is explained by the high modal share of CT inland waterway/road in the ports of Rotterdam and Antwerp.

Table 28: Market shares of CT rail/road through EU sea ports, 2010-2011

Seaport	Seaborne container throughput (TEU)		Share of CT rail/road (%) of			
			Seaborne throughput		Total container hinterland	
	2011	2010	2011	2010	2011	2010
Rotterdam	11.876.921	11.147.572	6,8%	6,8%	11,2%	10,3%
Hamburg	9.014.165	7.895.736	23,3%	24,4%	36,8%	36,5%
Antwerpen	8.638.311	8.468.475	8,1%	8,2%	12,5%	11,7%
Bremerhaven	5.915.487	4.888.655	16,3%	17,7%	45,7%	45,0%
Felixstowe	3.400.000	3.400.000	22,1%	20,9%	26,8%	25,4%
Gioia Tauro	2.338.000	2.852.264	-	0,9%	-	28,7%
Le Havre	2.215.262	2.358.077	4,7%	5,1%	5,7%	6,7%
Zeebrugge	2.206.681	2.499.756	11,0%	10,6%	40,0%	-
Barcelona	2.033.549	1.948.422	7,2%	5,3%	10,7%	7,9%
Genova	1.847.102	1.758.858	-	21,9%	-	23,9%
Southampton	1.600.000	1.540.000	29,0%	-	-	-
La Spezia	1.307.274	1.285.155	25,2%	24,4%	27,6%	28,6%
Marseille	944.047	953.435	8,5%	8,1%	-	-
Göteborg	886.782	879.611	42,6%	42,1%	-	-
Gdansk	685.643	511.876	4,8%	-	-	-
Constantza	662.796	556.694	36,2%	-	-	-
Livorno	637.798	628.489	-	19,9%	0,0%	21,6%
Gdynia	616.441	485.255	21,7%	22,1%	-	-
Taranto	604.404	581.936	-	1,4%	-	16,0%
Koper	589.314	476.731	60,0%	59,7%	-	61,0%
Napoli	526.768	534.694	-	5,2%	-	5,2%
Venezia	458.363	393.913	-	1,9%	-	1,9%
Trieste	393.195	277.058	-	22,6%	-	22,6%
Ravenna	215.336	183.577	-	15,5%	-	15,5%
Ancona	120.674	110.395	-	19,4%	-	19,4%

- data not available

Source: Port statistics, KombiConsult analysis

2.5 CT inland waterway/road market

2.5.1 Overview

The CT inland waterway/road sector has seen strong growth in the hinterland transport of maritime containers owing to increasing vessel size and inland terminal developments. In response to the growing cost advantages of inland waterways and increasing bottlenecks in road and rail infrastructure, a growing number of containers are now being shipped by barge to and from the hinterland of sea ports. This applies in particular to the Rhine corridor, which benefits from very competitive waterway and terminal infrastructure. Infrastructure congestion has encouraged sea ports to strengthen inland waterway links, in order to increase their modal share of hinterland traffic.

CT inland waterway/road is almost completely focused on the unaccompanied transport of maritime containers in the hinterland of sea ports. In the context of this report, our understanding of the CT industry reflects the wider industry view that this sector is regarded as bimodal CT.

Continental movements of containers by CT inland waterway/road are focused on two distinctive cases.

The first case is the transport of short sea containers in the hinterland of sea ports, primarily pallet-wide domestic containers (mostly 45' length), which are shipped by short sea services to/from mainland sea ports and onwards by barge, for example from the UK or Ireland via Rotterdam or Antwerp sea port to mainland Europe. Some of these shipments are even carried by sea-river services, which run across the sea and are able to navigate along rivers such as the Rhine. As this traffic shares the same characteristics as for hinterland transport of intercontinental maritime containers, they are considered in the same hinterland market segment. Moreover, the barge operators do not distinguish between maritime and domestic containers. Based on our analysis, it is estimated that the market share of continental containers is small compared to the volume of maritime containers.

The second case refers to the repositioning of empty containers from one inland port to another. However, since the transport of empty containers is required to compensate for imbalances between export- and import-oriented areas, these are regarded as part of overseas supply chains and not part of European-based logistics.

A very limited number of other continental CT inland waterway/road services exist without any connection to sea transport. Due to the limited extent of these services, our analysis focuses on the maritime market segment.

2.5.2 Sector-specific methodology

The statistical data presented in this section is based on PLANCO's in-house database of inland waterway container transport. The database includes domestic and international traffic flows by country-to-country trade lane. It has been updated and validated in the course of this study. The validated figures are allocated to different CT market segments.

Hinterland transport of containers accounts for almost the entire volume of CT inland waterway/road in the EU. The geographical classification of CT inland waterway/road attempts to distinguish between shipments which remain within one MS (Intra-MS), which have origins/destinations in another EU country (Intra-EU) or outside the EU (International).

As regards the separation of MS from other third countries, the only non-EU countries which are interconnected with the navigable EU inland waterway network are Switzerland and Serbia. The traffic of these third countries passes through MS. The majority of this relates to Swiss traffic which runs along the Rhine to/from EU countries, while Serbia accounts only for a small share of the very limited traffic along the Danube. Only traffic of these two countries with origins/destinations in a MS fall under CT inland waterway/road as defined in this study, eg repositioning of empty containers and hinterland transport of short sea shipments.

2.5.3 CT inland waterway/road market in 2011

Total CT inland waterway/road in the EU

In 2011 the volume of CT inland waterway/road in EU amounted to approximately 5.2m TEU and 48m gross tonnes (see Table 29). In terms of TEU, international traffic dominates with 71% related to intercontinental maritime containers. This finding corresponds reasonably well with Eurostat data, which reports a total volume of 5.7m TEU and 55.4m tonnes for European inland waterway container transport, including inter-port traffic and intercontinental traffic to/from non-EU countries. Disregarding the "internal" transfer of maritime containers between the sea ports of Rotterdam and Antwerp, as well as International traffic with Switzerland and Serbia, similar figures are achieved with both sets of statistics.

Table 29: Total CT inland waterway/road in the EU, 2011

CT market segment	Transport volume (TEU)	Units	Tonnes lifted (gross tonnes)	Tonnes moved [a)] (m tonne-km)
Intra-MS	430.000	286.000	860.000	104
Intra-EU	1.007.000	656.000	7.801.000	1.828
International	3.714.000	2.454.000	39.209.000	8.438
Total	**5.151.000**	**3.396.000**	**47.870.000**	**10.370**

a Estimates, distance only relates to inland waterway journey

Source: PLANCO based on national statistics and data from operators and waterway managers

Official statistics on inland waterway transport include inter-port barge transport of maritime containers between Rotterdam and Antwerp. As noted earlier, this traffic predominantly refers to maritime containers arriving by sea for onward movement by sea and, due to the lack of road legs, does not fall within the definition of CT inland waterway/road. Based on statistical data and information from sea ports, 2011 traffic is estimated at 610,000 TEU, accounting for approximately 90% of barge container traffic between Antwerp and Rotterdam. The remaining 70,000 TEU of traffic refers to the transfer of containers which are collected and distributed in the hinterland of the other sea port. These containers are shipments which arise from the calling patterns of the maritime vessel, where containers which are not discharged / loaded in the sea port of destination / origin (according to the bill of lading) require a transfer. The majority of these containers will be carried by lorry to locations in the vicinity of the sea port. The limited remaining share is carried by CT services in the hinterland and, due to the lack of available information, this traffic is then attributed to the volume of CT inland waterway/road.

Apart from "pure" CT inland waterway/road transport, the figures include a volume of about 30,000 TEU of CT river-sea/road. The main leg is a mix of inland waterway and maritime transport, including river and sea passage, which requires sea-going barges. Containers are carried via the Rhine river corridor and the sea between German inland ports in the Rhine-Ruhr area and sea ports in the United Kingdom such as Tilbury (UK) and Goole (UK) on sea-going container vessels, which are also able to navigate the Rhine.

EU CT inland waterway/road along the EU inland waterway network accounted for 10.4bn tonne-km in 2011. The average distance travelled by barge is 217 km. The average weight is 9.3 tonnes per TEU. Approximately 30% of TEU carried are empty containers. The average weight of loaded containers is therefore 12.6 tonnes per TEU. Overall, 3.4m container units were carried in CT inland waterway/road. The TEU per container unit ratio is 1.5.

CT inland waterway/road refers almost entirely to the hinterland transport of containers. Containers carried by deep sea vessels on intercontinental routes account for the majority of this traffic. Continental shipments include the hinterland transport of short sea containers and repositioning of empty container.

CT inland waterway is clearly limited to those MS and non-EU countries with navigable inland waterways. Traffic volumes have developed differently amongst these countries, depending on the location of European container sea ports and the inland waterway network. The high-capacity Rhine waterway corridor in the hinterland of the sea ports of Zeebrugge, Antwerp, Rotterdam and Amsterdam (ZARA sea ports) is the dominant transport route. It allows the deployment of large vessels, which strengthens the competitiveness of CT services. Maritime containers handled in the ports of Rotterdam and Antwerp can be carried by barge to and from the hinterland. The Rhine corridor container transport is particularly relevant in the Netherlands, Belgium and Germany, and also extends along the Upper Rhine into France and Switzerland.

As the river Rhine is the most important inland waterway for container hinterland transport by barge it should be noted that, in 2011, due to an accident involving the tank barge “TMS Waldhof”, the Central Rhine valley route was closed and blocked the access to the Upper Rhine for weeks. This accident impacted heavily on the transport volume of CT inland waterway/road along the Middle and Upper Rhine. However, the impact on total CT inland waterway/road was comparatively moderate, as container flows shipped along the Middle and Upper Rhine account for a limited share of the total volume only. Moreover, a large share of containers on these routes were carried by barge even after the Rhine closure, albeit discharged and loaded at inland ports located north of the blockade which were still accessible.

The inland waterway network is the main determinant of the structure of CT inland waterway/road flows in the hinterland of EU sea ports. Netherlands and Belgium with their large sea ports, along with Germany’s location on the Rhine corridor, account for the largest volume. The sea ports have strong inland waterway links. A large and growing number of inland waterway terminals exist to serve the hinterland.

Intra-MS CT inland waterway/road in the EU

Intra-MS transport refers solely to repositioning of empty containers in the hinterland. In contrast, empty containers transhipped to/from maritime vessels refer mainly to international CT (maritime transport outside EU) and less to intra-EU CT (maritime transport inside EU). Overall, intra-MS CT inland waterway/road accounted for 430,000 TEU in 2011. 860,000 tonnes were carried on intra-MS CT services equating to an estimated 104m tonne-km (see Table 30).

Table 30: Intra-MS CT inland waterway/road in the EU by MS, 2011

Member State	Transport volume (TEU)	Tonnes lifted (gross tonnes)	Tonnes moved [a] (m tonne-km)
Belgium	101.000	202.000	14
France	46.000	92.000	22
Germany	36.000	72.000	12
Netherlands	246.000	492.000	56
Romania	1.000	2.000	1
Total	**430.000**	**860.000**	**104**

a Estimates, distance only relates to inland waterway journey

Source: PLANCO based on national statistics and data from operators and waterway managers

Intra-EU CT inland waterway/road in the EU

The main market segment of intra-EU traffic is the hinterland transport of Intra-EU short sea containers carried by barge to/from sea ports where the containers are then transhipped to/from short-sea vessels. The remaining share of traffic involves cross-border repositioning of empty containers along inland waterways in the hinterland. In total, intra-EU CT inland waterway/road amounted to 1.0m TEU, 7.8m tonnes and an estimated at 1.8bn tonne-km (see Table 31).

Table 31: Total intra-EU CT inland waterway/road by corridor, 2011

Intra-EU corridor	Transport volume (TEU)	Tonnes lifted (gross tonnes)	Tonnes moved [a)] (m tonne-km)
Netherlands-Germany	83.000	166.000	51
Germany-Netherlands	77.000	154.000	54
Germany-Belgium	48.000	96.000	46
Belgium-Germany	35.000	70.000	34
Netherlands-Belgium	32.000	64.000	9
Belgium-Netherlands	14.000	28.000	4
France-Belgium	11.000	22.000	3
Belgium-France	6.000	12.000	5
Netherlands-France	6.000	12.000	9
France-Netherlands	5.000	10.000	7
Other	41.000	304.000	146
Iww-Shortsea corridor	649.000	6.863.000	1.460
Total	**1.007.000**	**7.801.000**	**1.828**

a Estimates, distance only relates to inland waterway journey

Source: PLANCO based on national statistics and data from operators and waterway managers

International CT inland waterway/road in the EU

International CT is the leading market segment, the traffic being almost entirely comprised of hinterland transport of intercontinental maritime containers. International traffic also includes repositioning of empty containers with Switzerland, together with barge transport between Switzerland and sea ports connected with intra-EU short-sea services.

In total, International CT inland waterway/road accounted for 3.7m TEU and 39.2m gross tonnes of goods (see Table 32). By applying average distances of inland waterway container transport reported by official statistics, tonnes moved were estimated to amount to around 8.4bn tonne-km for the inland waterway journey (ie excluding road legs).

Table 32: Total international CT inland waterway/road in the EU, 2011

International CT markets	Transport volume (TEU)	Tonnes lifted (gross tonnes)	Tonnes moved [a)] (m tonne-km)
Corridors	1.601.000	16.371.000	5.682
Within MS	2.113.000	22.838.000	2.756
Total	**3.714.000**	**39.209.000**	**8.438**

a Estimates, distance only relates to inland waterway journey

Source: PLANCO based on national statistics and data from operators and waterway managers

The majority of international traffic relates to CT within MS, accounting for 2.1m TEU and 22.8m gross tonnes in 2011. Table 33 shows the distribution of international CT volumes between MS. Rotterdam is the main gateway for container transports and largely serves the Dutch market. Due to the limitations of the inland waterway network, CT inland waterway/road flows are much lower in the hinterland of other sea ports. Moreover, the inland waterway CT traffic in these sea ports runs almost entirely within sea port MS. This applies to the French ports of Le Havre and Marseille, the German ports of Hamburg and Bremerhaven as well as Constanta sea port in Romania.

Table 33: International CT inland waterway/road within MS, 2011

Member State	Transport volume (TEU)	Tonnes lifted (gross tonnes)	Tonnes moved [a)] (m tonne-km)
Belgium	494.000	6.845.000	476
France	227.000	2.297.000	561
Germany	175.000	1.698.000	305
Netherlands	1.211.000	11.953.000	1.401
Romania	6.000	45.000	13
Total	**2.113.000**	**22.838.000**	**2.756**

a Estimates, distance only relates to inland waterway journey

Source: PLANCO based on national statistics and data from operators and waterway managers

1.6m TEU of containers were carried along corridors in international CT inland waterway/road in 2011 (see Table 34), carrying 16.4m gross tonnes and an estimated 5.7bn tonne-km.

Of the main EU corridors, Netherlands-Germany is the largest, driven by the scale of container throughput at Rotterdam. In terms of TEU, imports to Germany tend to dominate. However, as the average payload of German export containers is significantly higher, Germany-Netherlands has the largest volume by tonnes. In Germany, a large share relates to North-Rhine Westphalia with its dense network of terminals.

The remaining corridors link sea ports with Belgium, Netherlands and France. Traffic in France relates to the eastern part of the country along the Rhine valley and to the north in the Nord-Pas-de-Calais region. The majority of containers routed via Rotterdam and Antwerp use the Rhine, with Strasbourg as the main inland port. North-South traffic to northern France is rather limited. Due to the missing waterway link between Seine and Schelde, the major potential between Western sea ports and the Ile-de France has yet to be exploited. The situation is unlikely to change in the near future, as the planned construction of a Seine-Schelde-Canal, which would allow competitive inland navigation with larger vessels, has been delayed.

The top 10 EU corridors for international CT inland waterway/road account for 97% of the total international CT inland waterway/road volumes. This shows the concentration of CT inland waterway/road on a relatively small number of corridors. Apart from the Rhine and North-South traffic, CT inland waterway/road services also operate on the Danube in the hinterland of the sea port of Constanta. However, the total international corridor CT volume along the Danube is only about 10,000 TEU.

Table 34: International CT inland waterway/road in the EU by corridors, 2011

Corridor	Transport volume (TEU)	Tonnes lifted (gross tonnes)	Tonnes moved [a)] (m tonne-km)
Netherlands-Germany	406.000	3.495.000	1.068
Germany-Netherlands	377.000	4.419.000	1.547
Germany-Belgium	235.000	2.992.000	1.423
Belgium-Germany	175.000	1.297.000	629
Netherlands-Belgium	156.000	1.738.000	246
Belgium-Netherlands	71.000	783.000	110
France-Belgium	52.000	687.000	90
Belgium-France	31.000	221.000	89
Netherlands-France	28.000	202.000	150
France-Netherlands	27.000	323.000	227
Other	43.000	214.000	103
Total	**1.601.000**	**16.371.000**	**5.682**

a Estimates, distance only relates to inland waterway journey

Source: PLANCO based on national statistics and data from operators and waterway managers

CT inland waterway/road main corridors

Four international corridors are usually highlighted in the analysis of inland waterway transport in the EU:

- Rhine corridor: between ZARA ports and Belgium, Netherlands, France, Germany;
- North-South corridor: between ZARA ports and Belgium, Netherlands and France, along the Seine to/from Le Havre, along the Rhone to/from Marseille-Fos;
- East-West corridor: to/from German North Sea ports;
- Danube corridor: to/from Constanta port.

With respect to CT volumes, significant regional disparities exist between these corridors. Moreover, container transport may only operate on some sections of a corridor. These disparities relate to the location of sea ports and the differing capabilities of inland waterways.

The analysis of these corridors shows the dominance of the Rhine for CT inland waterway/road in the EU (see Table 35). 72% of the total volume by TEU is carried on the Rhine corridor in the hinterland of the ZARA sea ports. Hinterland links of French and Belgium sea ports along the North-South corridor account for 24%. Container transport along the East-West corridor applies only to domestic hinterland transport of German North Sea ports, accounting for 3%. Despite the presence of the port of Constanta, the Danube corridor accounts for only 0.5% of the total. Poor waterway conditions limit the potential of the East-West and Danube corridors. Moreover, in Eastern Europe the low inland terminal density and service quality constrain traffic flows. Irrespective of this, the maritime container volume of Constanta sea port is much lower compared to North Sea sea ports. Therefore, hinterland transport and potential for CT inland waterway/road is far below levels in western sea ports.

Table 35: CT inland waterway/road in the EU by corridors, 2011

iww corridor	2011	
	TEU	Gross tonnes
Rhine	4.017.000	35.889.000
North-South	1.349.000	14.538.000
East-West	170.000	1.465.000
Danube	20.000	93.000

Source: PLANCO based on national statistics and data from operators and waterway managers

Continental CT inland waterway/road

The continental market segment of CT inland waterway/road is very small and limited to a few services. These relate to Intra-MS transport of containerised recycling products in France and the UK and of consumer goods in the UK. The 2011 volume in France amounted to 20,000 TEU, but refers to a distance below 100km. One non-containerised international CT service of semi-trailers, a by-product of RoRo car and vehicle transport, ceased operations in 2012. The 2011 trailer volume of this “floating motorway” is

estimated at only 100 TEU. Overall, the limited continental cargo flows in CT inland waterway/road are therefore negligible.

Empty containers

According to official statistics empty containers account for approximately 30% of total TEU for CT inland waterway/road, estimated at 1.6m TEU. The majority refers to transport to/from sea ports to compensate for imbalances between imports and exports. The repositioning of empty containers between inland ports accounts for approximately 50% (0.8m TEU) of total CT movements of empty containers. As the shipments between continental locations are necessary to compensate for imbalances in global maritime trades, the volumes are considered jointly with sea port traffic as CT of marine containers.

Container size

The survey has confirmed the existing data on the share of container sizes used for CT inland waterway/road. The EU average ratio is around 1.5 TEU per unit, which means that 20' and 40' length containers both account for around half of units carried. The average shares of different container sizes are similar for domestic hinterland and cross-border hinterland CT inland waterway/road services.

According to 2011 figures, slightly more than 50% of containers used are smaller than 40', ie usually 20' length containers. 45' length containers account for 4% in terms of units. 40' containers are increasingly used in maritime transport, accounting for 45%. Corresponding with the larger internal space, the share of longer containers is higher in terms of tonnage, 40' and 45' containers accounting for 46% and 5% of the total tonnes carried, respectively.

The share of 45' containers relates to the total, including continental containers used for short sea shipments and ISO containers used predominantly in deep sea operations. According to indications given by operators in the survey and information of sea ports, ISO containers account for the majority, with approximately 3% in terms of TEU, i.e. half of total 45' containers carried in CT inland waterway/road. The other half applies to continental containers including river/sea transport and hinterland transport of short sea shipments. The figures differ slightly from the assumptions in official German statistics. Containers larger than 40', which are likely to be 45' maritime containers, account for 1.2% and other large containers, which are also likely to be 45' domestic containers account for 5% (see Table 36).

Table 36: CT inland waterway/road in the EU by container sizes, 2011

Container size	2011		
	TEU share	Gross tonnes share	Unit share
20' - <40'	34,4%	48,9%	51,5%
40'	59,5%	46,3%	44,5%
45'	6,1%	4,8%	4,0%

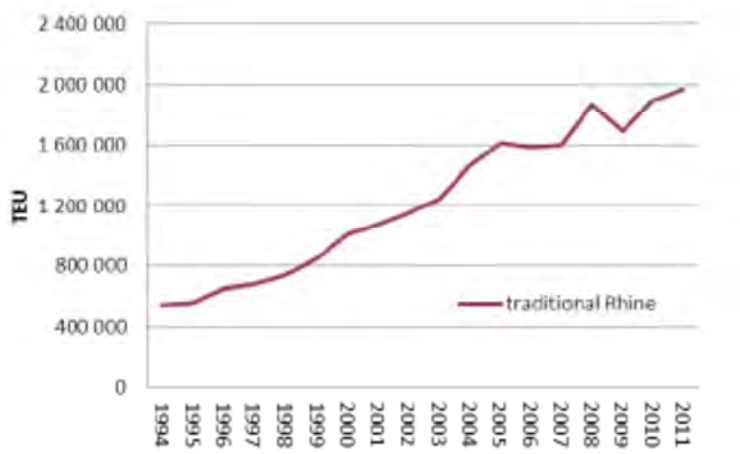
Source: PLANCO based on national statistics and data from operators and waterway managers

2.5.4 Time series of CT inland waterway/road market in the EU

CT inland waterway/road volumes have shown tremendous growth over the last 20 years, related to the development in Western sea ports. In terms of traffic on the Rhine in Germany, volumes increased from approximately 500,000 TEU in 1994 to 2m TEU in 2011 (see Figure 5). Considering other traffic such as domestic Netherlands, reported as 240,000 TEU for 1996, total CT inland waterway/road TEU volume is estimated at 1.2m TEU for 1994. Applying this base, TEU volume grew on average by 9% pa to 5.2m TEU in 2011. However, these figures have not been corrected for changes in the statistical methodology over years.

Developments since 2007 have been influenced by the global economic downturn in 2008/2009. Beginning in 2008, the severe decline in sea port handling led to a decrease of CT inland waterway/road. The decline of sea port volumes was partly compensated by continuous modal shift gains of CT inland waterway/road in the ZARA sea port area. Volumes in sea ports and CT inland waterway/road recovered significantly beyond the pre-crisis level by 2010 and continued in 2011 (see Table 37 and Table 38).

Figure 5: Inland waterway container traffic on the German Rhine, 1994 - 2011



Source: Central Commission for the Navigation of the Rhine

Table 37: Total CT inland waterway/road in the EU by segment, 2007-2011

CT market segment	Transport volume (TEU)				
	2007	2008	2009	2010	2011
Intra-MS CT	437.000	405.000	311.000	358.000	430.000
Intra-EU CT	1.029.000	981.000	839.000	982.000	1.007.000
International CT	3.205.000	3.098.000	3.015.000	3.558.000	3.714.000
Total CT	**4.671.000**	**4.484.000**	**4.165.000**	**4.898.000**	**5.151.000**

Source: PLANCO based on national statistics and data from operators and waterway managers

Table 38: Total CT inland waterway/road in the EU by segment, 2007-2011

CT market segment	Tonnes liftes (gross tonnes)				
	2007	2008	2009	2010	2011
Intra-MS CT	874.000	810.000	622.000	717.000	860.000
Intra-EU CT	7.628.000	7.189.000	6.576.000	7.650.000	7.801.000
International CT	36.028.000	33.630.000	32.378.000	37.488.000	39.209.000
Total CT	**44.530.000**	**41.629.000**	**39.576.000**	**45.855.000**	**47.870.000**

Source: PLANCO based on national statistics and data from operators and waterway managers

2.5.5 Market shares of CT inland waterway/road in 2011

This section examines the market shares of CT inland waterway/road in relation to total inland waterway traffic and total road freight traffic in the EU, based on tonne-km.

The CT inland waterway/road sector accounted for 10.4bn tonne-km in 2011, excluding the road legs. With the road legs included, the total exceeded 11.6bn tonne-km. This result is based on two assumptions. First, the survey conducted by this study identified an average distance of 25 km for the initial or final road leg. Second, since CT inland waterway/road operations almost exclusively relate to container hinterland transport services with sea port terminals, they require either an initial road leg for export containers, or a final road leg for import containers.

According to Eurostat, total inland waterway traffic amounted to 109bn tonne-km in 2011. The market share of CT inland waterway/road of total inland waterway traffic in the EU then amounts to 9.5% if only the inland waterway leg is included, and to 10.6% if both road and waterway legs are taken into account (see Table 39). In this regard, it should be noted that inland waterway freight transport tends to be dominated by heavy bulk commodities, while containerised cargo has a relatively low density.

Table 39: Market share of total inland waterway freight traffic in the EU, 2011

	Total inland waterway traffic	Total CT inland waterway/road	
		Waterway leg only	Waterway and road legs
Transport performance (bn tonne-km)	109	10	12
CT inland waterway/road market share (%)	-	9,5%	10,6%

Source: Eurostat, PLANCO analysis

In order to analyse the share of CT inland waterway/road of total road freight traffic in the EU, Eurostat data on road freight transport in EU-27 was used (no data available for Malta). Here, as for CT rail/road operations[35], market shares were calculated for three

[35] See section 3.4

different aspects of the road freight market. Moreover, it was assumed that the information related to the road legs of CT inland waterway/road operations are also recorded under the road traffic statistics.

The analysis shows that, in 2011, the CT inland waterway/road sector in the EU achieved 0.8% of total road traffic including national and international volumes. The share of CT inland waterway/road amounts to 1.0% if national road traffic below 150 km is excluded, and 2.1% if the national road market under 500 km is excluded (see overleaf).

Table 40: Market share of total road freight traffic in the EU, 2011

Transport performance (bn tonne-kms)			CT inland waterway/ road market share (%)
Road freight traffic		CT inland waterway/road (IWW and road legs)	
International +			
- total national	1518		0,8%
- national > 150 km	1119	12	1,0%
- national > 500 km	559		2,1%

Source: Eurostat, PLANCO analysis

The market relevance of this sector can also be displayed by the modal share of inland waterways of the container hinterland transport volume of EU sea ports. In reality, relatively few ports provide for CT inland waterway/road services, owing to a lack of or constraints on inland navigation systems.

CT inland waterway/road sector reaches the highest modal split shares of total container hinterland traffic in the ports of Rotterdam and Antwerp, with 33.4% and 28.5% respectively. This confirms that the high-capacity Rhine waterway corridor provides conditions for competitive CT services. The port of Le Havre has also significantly grown the modal share of CT inland waterway/road in recent years. Efficient supply chains have been established on the River Seine particularly on links with Paris. The market share of CT over inland waterways is considerably smaller in other sea ports as navigation conditions are less favourable as regards bridge clearance and vessel capacity (see Table 41).

Table 41: Market shares of CT inland waterway/road in EU sea ports, 2010-2011

Port	Seaborne container throughput (TEU)		Share CT iww/road of			
			Seaborne throughput		Hinterland transport	
	2011	2010	2011	2010	2011	2010
Rotterdam	11.876.921	11.147.572	20,4%	21,4%	33,4%	32,8%
Hamburg	9.014.165	7.895.376	1,2%	1,2%	1,9%	1,5%
Antwerp	8.638.311	8.468.475	18,5%	19,3%	28,5%	27,5%
Bremerhaven	5.915.487	4.888.665	1,4%	1,5%	3,9%	3,8%
Le Havre	2.215.262	2.358.077	10,7%	8,3%	13,0%	10,9%
Zeebrugge	2.206.681	2.499.756	2,0%	2,1%	7,3%	
Marseille	944.047	953.435	7,4%	6,5%		
Constanza	662.796	556.694	2,2%	1,8%		

Source: Eurostat, PLANCO analysis

2.6 CT sea/road market

The CT sea/road sector encompasses various service and equipment options, including:

- Deep sea and short sea unaccompanied services with lift-on, lift-off (LoLo) vessels, carrying containers and swap bodies;
- Short sea accompanied and unaccompanied services with roll-on, roll-off vessels carrying road lorries and semi-trailers[36] – some of which may themselves be carrying containers and swap bodies.

The majority of CT sea/road traffic involves the transport of deep sea containers on International routes to and from major ports in the EU. The transport of short sea containers on Intra-MS and Intra-EU routes account for a relatively minor share.

Developing a robust analysis of the CT sea/road sector is made more challenging due to the multiple overlaps between service and equipment types. A container may be carried on both deep sea and short sea services during the course of a transit, sometimes stacked in the hold or carried on a road trailer. It can therefore be difficult to disaggregate traffic statistics between the various components of the industry map.

However, the analysis is helped to a degree by the different types of container which tend to be used in deep sea and short sea services. Deep sea services will tend to carry ISO-standard shipping containers (lengths of 20', 30' and 40'), whereas short sea services will tend to carry CEN-standard pallet-wide containers (mainly 45' length).

EU CT sea/road is a subset of Intra-EU maritime transport. Intra-EU feeder transport of international shipments and short sea transport of continental shipments may be classified as CT sea/road. The classification is conditional on a minimum sea distance of 100km and a maximum distance of road haulage in the port hinterland of 150km.

[36] In this context the definition of "Semi Trailer" includes roll trailers, which are used on some RoRo services to carry 1 or 2 stacks of containers on vessels and quaysides

Maritime statistics tend to provide a comparatively simple aggregated view of traffic patterns, by load category (e.g. container, lorry or trailer) and/or port or country pairings. The focus tends to be on Intra-MS and International movements, although some countries with high levels of maritime traffic (e.g. the UK) also attempt to capture statistics on Intra-MS port-to-port traffic ("coastal" or "coastwise" shipping). There is a general lack of information on the ultimate origin and destination of the cargo itself, as well as any intermediate legs of the transport chain (e.g. pre- and on-carriage by road).

2.6.1 Containerised CT sea/road market in the EU

The breakdown of CT sea/road traffic into the deep sea (feeder container) and short sea (continental container) components requires a considerable level of assumption and estimation, to reconcile as far as possible between individual data sets for MS and/or ports.

The feeder and continental container components of CT sea/road are extracted from the available data from Eurostat and ports, including transhipment traffic and the hinterland modal split. Estimates have been made where third-party data is not available. A cascade of assumptions and estimates has been required due to the limited data availability.

Eurostat provides data covering traffic across the EU countries as well as international traffic with Norway and non-EU Mediterranean and Black Sea countries such as Russia or Turkey. For the total EU volume the double-counting of Intra-MS and Intra-EU short sea services can be eliminated by considering incoming volumes declared by ports only, where both the port of loading and unloading report data. The estimate of total volume including extra-EU short sea traffic is as follows:

- 2009 21.6m TEU;
- 2010 24.1m TEU;
- 2011 27.0m TEU;
- 2012 27.6m TEU.

Of this, Intra-EU short sea container activity is dominated by feeder traffic arising from International deep sea container traffic. As a consequence, this feeder traffic is then concentrated within those MS with major ports, which act as the hubs in International maritime chains (see Table 42).

Table 42: Intra-EU short sea container traffic by MS: TEU & tonnes, 2010-11

Member state	2010				2011			
	Total		intra-EU*		Total		intra-EU*	
	TEU	Gross tonnes	TEU	Gross tonnes	TEU	Gross tonnes	TEU	Gross tonnes
Belgium	4.440.000	43.178.000	1.675.732	16.296.116	4.011.000	47.949.000	1.521.127	18.184.123
Bulgaria	140.000	1.333.000	71.994	685.486	119.000	1.480.000	47.739	593.729
Denmark	665.000	4.559.000	579.402	3.972.171	625.000	4.894.000	541.997	4.244.053
Germany	4.421.000	46.152.000	2.890.679	30.176.570	5.401.000	38.223.000	3.526.337	24.955.967
Estonia	152.000	1.527.000	139.555	1.401.977	198.000	1.297.000	188.496	1.234.744
Ireland	752.000	6.105.000	748.815	6.079.143	713.000	6.305.000	710.302	6.281.142
Greece	801.000	13.188.000	525.754	8.656.234	1.257.000	7.600.000	800.823	4.841.889
Spain	3.990.000	40.999.000	2.692.708	27.668.756	4.460.000	35.479.000	3.030.386	24.106.517
France	1.205.000	9.458.000	1.188.943	9.331.969	1.258.000	9.632.000	1.163.051	8.905.014
Italy	4.205.000	35.361.000	1.910.171	16.063.153	4.202.000	40.534.000	2.103.339	20.289.563
Cyprus	103.000	1.636.000	297.803	4.730.153	245.000	830.000	172.036	582.816
Latvia	256.000	3.123.000	232.276	2.833.586	306.000	2.599.000	300.092	2.548.821
Lithuania	295.000	3.456.000	274.024	3.210.261	382.000	2.889.000	365.972	2.767.783
Malta	79.000	642.000	65.445	531.844	83.000	565.000	71.714	488.174
Netherlands	4.090.000	32.471.000	3.505.658	27.831.839	3.256.000	33.683.000	2.261.232	23.392.223
Poland	850.000	7.429.000	727.654	6.359.696	1.047.000	6.252.000	844.389	5.042.139
Portugal	954.000	9.451.000	895.750	8.873.934	1.619.000	8.111.000	1.553.265	7.781.675
Romania	158.000	1.734.000	33.889	371.921	197.000	1.495.000	32.752	248.549
Slovenia	308.000	2.683.000	87.014	757.982	339.000	2.443.000	91.946	662.608
Finland	1.229.000	9.624.000	1.195.664	9.362.954	1.110.000	10.455.000	1.053.672	9.924.451
Sweden	1.203.000	12.216.000	1.142.943	11.606.144	1.336.000	11.025.000	1.286.747	10.618.552
United Kingdom	2.875.000	22.299.000	2.450.269	19.004.712	3.029.000	20.987.000	2.585.140	17.911.632
Croatia	109.000	856.000	95.158	747.296	111.000	831.000	99.192	742.600
Total with double counting	**33.280.000**	**309.480.000**	**23.427.300**	**217.856.995**	**35.304.000**	**295.558.000**	**24.351.746**	**203.867.928**
Total without double counting	**24.085.000**	**232.203.000**	**14.232.300**	**137.213.318**	**27.015.000**	**211.353.000**	**16.062.746**	**125.667.576**

*intra-EU gross tonnes calculated based on a homogeneous tonnes/TEU ratio

**EU totals compensated for double counting; for Intra-EU the same reduction is applied as for total short sea

Source: Eurostat, PLANCO estimates

In addition to the aggregate traffic volumes by MS, Eurostat also provides data on Intra-EU traffic by major trade lanes. However, separate figures reported by each origin or destination MS can show differences. As it is common practice by statistical offices to use figures reported by destination countries for harmonisation purposes, these figures are used in the analysis to determine a matrix of Intra-EU short sea container transport by trade lanes, as shown in Table 43.

The total Intra-EU container transport amounted to 13.7 m TEU in 2011. This total volume includes both international feeder traffic and Intra-EU continental shipments. Table 43 shows volumes by origin and destination regions. The figures show the strong position of the major ports on the North Sea coast concentrated on Benelux and Germany. In total, 3.6m TEU short sea containers originated in these sea ports and 4.4m TEU were discharged. The majority of these containers are carried to/from ports in Northern Europe and UK/Ireland. However, traffic between sea ports in Benelux/Germany and Southern Europe Atlantic/Mediterranean coast accounted for a total volume of approximately 1.4m TEU.

While these trade lanes are dominated by feeder traffic, the share of Intra-EU container traffic is most significant for UK/Ireland. Continental short sea transport is significant in the UK/Ireland markets, where a sea crossing is required unless the container is carried through the Channel Tunnel.

South Europe Atlantic/ Mediterranean coast ports accounts for large short sea volumes. In 2011, some 5.4m TEU were loaded on short sea vessels and 5.3m TEU discharged. Internal traffic (4.3m TEU) accounts for the majority of short sea container volumes in

this region. A number of hub ports in and around this region are involved in intercontinental maritime chains, which means substantial volumes of feeder traffic.

Table 43: Intra-EU short sea container traffic by MS pairs: 000 TEU, 2011[37]

TEU 2011 [1.000]						
Origin	Destination					
	Benelux / Germany	UK / Ireland	North Europe	South Europe Atlantic / Mediterranean	South Europe Black Sea	Total
Benelux / Germany	352	785	1.657	777	-	3.570
UK / Ireland	1.413	403	103	299	-	2.219
North Europe	2.010	95	455	72	-	2.631
South Europe Atlantic / Mediterranean	617	344	13	4.255	9	5.238
South Europe Black Sea	-	4	-	26	17	47
Total	4.391	1.632	2.227	5.429	26	13.705

Source: PLANCO estimate based on Eurostat data

Official statistics and ports do not distinguish between feeder and other types of service. Customs data, which distinguishes between shipments of goods with origins and destinations in the EU, and other non-EU shipments, may be able to offer a further insight. However, customs data collected from other studies for EU and non-EU goods passing through selected major ports in the EU, has not yielded reliable figures. The distinction between transit and import/export declarations for extra-EU shipments is not always accurate. Moreover, the data usually does not provide separate information for container traffic, which has a higher than average share of non-EU goods related to the high volume of feeder traffic.[38]

The reported short sea volumes include total container flows, irrespective of the pre-/on-carriage of the container. However, the short sea totals provide a starting point for estimation of CT sea/road volumes. The missing maritime data makes it difficult to identify transhipment volumes and allocate container flows to feeder and other Intra-EU short sea services.

Amongst the available information on the share of Intra-EU short sea container traffic, are valuable figures reported by the Port of Rotterdam, based on data from the Dutch national statistical office (CBS) for 2010. With respect to the high-volume trade lanes, the majority of Baltic Sea trade is feeder traffic, with a share of 70%, while trade with the UK and Ireland is dominated by Intra-EU container traffic with a share of 78% of LoLo traffic.

[37] The classification of Member States is as follows: Benelux/Germany: Belgium, Germany, Netherlands; UK/Ireland: United Kingdom, Ireland; North Europe: Denmark, Sweden, Finland, Poland, Lithuania, Latvia, Estonia; South Europe Atlantic/Mediterranean: France, Spain, Portugal, Italy, Greece, Malta, Cyprus, Slovenia, Croatia; South Europe Black Sea: Bulgaria, Romania.

[38] European Commission, Directorate General Energy and Transport, Preparatory study for the Impact Assessment relating to achieving the Internal Market for Intra-European Trade using Maritime Transport, Reference TREN/A1/46-2005, 2007

In addition to LoLo, RoRo container traffic accounts for 21% of total UK and Ireland container traffic. This refers to Intra-EU container traffic and is included in the RoRo figures. Among the lower-volume trade lanes, 76% of traffic with the Iberian Peninsula is feeder traffic, while the Mediterranean is dominated by Intra-EU container traffic, with a share of 80% (see Table 44).

Table 44: Rotterdam short sea container traffic by market segment, 2010

Market segment	Share 2010 by trade lane			
	UK / Ireland	Baltic	Iberia	Mediterranena
Feeder container shipments	18%	70%	76%	20%
Continental container shipments	61%	30%	24%	80%
Container shipments on RoRo	21%	-	-	-

Source: Bilek: Intra European Vision, The Future of ShortSea & RoRo in Rotterdam

Moreover, the Port of Rotterdam has reported 2010 Intra-EU continental short sea container volumes and market shares of leading ports in the Hamburg-Le Havre (HLH) area for different trade lanes. Of these the UK and Ireland show by far the largest volume with 2.6m TEU. Mediterranean and Baltic countries each account for around 1m TEU. Among the HLH ports Rotterdam (Netherlands) is the market leader for trade with UK, Ireland and the Baltic states. The port of Antwerp (Belgium) has traditionally strong ties with the Mediterranean, reflected in its leading position on this trade lane with a volume of 0.8m TEU (see Table 45).

Table 45: Intra-EU short sea traffic, Hamburg–Le Havre: 000 TEU, 2010

Seaport	UK / Ireland	Baltic	Mediterra-nean/Black Sea	Atlantic Coast
Hamburg	52	272	99	9
Bremerhaven	26	68	66	6
Rotterdam	1.273	496	22	90
Antwerpen	286	87	814	65
Zeebrugge	935	49	33	9
Le Havre	26	-	66	7
Total Hamburg-Le Havre Range	2.597	972	1.100	187

Source: Bilek: Intra European Vision, The Future of ShortSea & RoRo in Rotterdam

Identifying the share of hinterland and transhipment container flows is an important input for the separation of feeder and other Intra-EU short sea container traffic. The transhipment volume determines the feeder container volume of a port. Depending on the function of a port in the networks of deep sea container shipping lines, the share of hinterland containers may range from less than 10%, such as in the transhipment hubs of Algeciras (Spain) and Gioia Tauro (Italy), through to more than 90% for EU sea ports which do not act as transhipment hubs. The hinterland container share of the main north

west European hub sea ports is around 70%, which indicates a good mix of transhipment and gateway traffic for the economic centres in their hinterland (see Table 46).

Table 46: TEU share of hinterland containers, 2010

Seaport	TEU share of hinterland containers
Rotterdam	61%
Antwerpen	65%
Hamburg	63%
Bremerhaven	36%
Valencia	50%
Algeciras	7%
Gioia Tauro	6%
Le Havre	84%
Barcelona	67%
Genoa	93%
Zeebrugge	74%
La Spezia	92%
Marseille	92%
Other	95%

Source: Port statistics; PLANCO and KombiConsult analysis; Traffic study and evaluation canal link SMSR, Deliverable 10: Analysis of world trade and sea port policy, 2012; NEA, The Balance of Container Traffic amongst European Ports, 2011.

The figures on short sea traffic by the port of Rotterdam, and hinterland shares for selected sea ports, have been used as the main sources for estimates on the share of feeder and continental containers on certain routes. This allows the separation of feeder traffic from other Intra-EU short sea traffic (see Table 47).

The Intra-EU short sea container feeder traffic is estimated at 8m TEU for 2011. Estimated feeder traffic figures show the dominance of western ports in Benelux countries and Germany with their hub ports. Northern Europe and Baltic countries are notable origins and destinations for this feeder traffic. Transhipment hubs at main ports in southern Europe, such as the Mediterranean, generate high feeder volumes within southern Europe Atlantic / Mediterranean countries.

Table 47: Intra-EU short sea feeder traffic by trade lane: 000 TEU, 2011

Intra-EU shortsea container feeder traffic in TEU [1.000]						
Origin	Destination					
	Benelux / Germany	UK / Ireland	North Europe	South Europe Atlantic / Mediterranean	South Europe Black Sea	Total
Benelux / Germany	334	280	1.180	454	-	2.249
UK / Ireland	505	222	5	120	-	851
North Europe	1.432	5	375	4	-	1.815
South Europe Atlantic / Mediterranean	361	138	1	2.553	6	3.057
South Europe Black Sea	-	-	-	16	10	26
Total	2.631	645	1.560	3.146	16	7.997

Source: PLANCO analysis.

Table 48: Intra-EU continental short sea traffic by trade lane: 000 TEU, 2011

Intra-EU continental container shortsea traffic in TEU [1.000]						
Origin	Destination					
	Benelux / Germany	UK / Ireland	North Europe	South Europe Atlantic / Mediterranean	South Europe Black Sea	Total
Benelux / Germany	18	505	477	323	-	1.322
UK / Ireland	909	181	98	180	-	1.368
North Europe	578	91	80	68	-	817
South Europe Atlantic / Mediterranean	256	206	12	1.702	4	2.181
South Europe Black Sea	-	-	-	10	7	17
Total	1.760	983	667	2.283	10	5.704

Source: PLANCO analysis.

The Intra-EU continental container short sea traffic is estimated at 5.7 m TEU for 2011 (see Table 48). UK/Ireland and ports on the Atlantic and Mediterranean coast account for the largest share of Intra-EU continental short sea container shipments. Northern Europe (including Scandinavian and Baltic countries) also shows significant traffic. The traffic structure is related to the requirement to cross the sea on certain trade lanes, in particular for UK and Irish ports. Moreover, the extensive feeder networks in the Mediterranean and Baltic contribute to the maritime transport of Intra-EU containers.

Virtually all short sea container traffic may be regarded as CT (depending on the hinterland transport arrangements), as the share of container transport with a sea distance below 100km is negligible. The disaggregation of short sea container traffic helps towards identifying the CT component. From this, the hinterland mode then has to be identified. As figures on the hinterland modal split of ports do not distinguish between deep sea and short sea containers, it is not possible to derive an accurate hinterland modal split between feeder and other Intra-EU short sea container shipments. However, the difference may be negligible.

The lack of hinterland transport information further constrains the ability to provide a robust analysis. General data on the hinterland modal split of maritime traffic is available

from port authorities etc., but this does not extend to providing origin / destination details in the hinterland. This means that the reported sea transport volumes cannot be separated between hinterland modes. This could be important, as shipments carried by rail or inland waterway in the hinterland would then be allocated to the respective CT statistics.

However, based on general modal split shares, short sea volumes with pre-/on-carriage by rail and inland waterway can be estimated. This uses the assumption that the same hinterland modal split applies equally to both feeder and to other Intra-EU shorts sea container traffic. Short sea transport between European ports would then make the CT shipments of short sea containers in the hinterland a trimodal operation.

Based on figures for maritime container transport and CT hinterland transport of containers, average modal splits have been estimated. The weighted average considers the market share of each port in a region to determine the modal split for a port region. As rail and inland waterway hinterland volumes are analysed separately, the focus of the following analysis is on containers carried by road in the hinterland. Containers carried by rail and inland waterway transport in the hinterland may be considered as trimodal operations, provided that there is an on-/pre-carriage by road to/from hinterland terminals (see Table 49).

Table 49: Average hinterland modal split of port regions, 2010/2011

Country group	Average hinterland modal split		
	road	rail	iww
Benelux/Germany	57%	23%	20%
UK/Ireland	72%	28%	0%
North Europe	72%	28%	0%
South Europe Atlantic/Mediterranean	81%	18%	1%
South Europe Black Sea	60%	38%	2%

Source: PLANCO analysis.

The average modal split shares for these port regions enables an estimate to be made of the volume of both feeder and Intra-EU short sea container traffic with pre-/on-carriage by road. Whilst feeder short sea transport has a hinterland leg at only one end of the transport chain within the EU, in Intra-EU short sea transport both ends of the chain are likely to involve road haulage. Therefore, in feeder transport the hinterland share of either the origin or destination port is relevant. This is predominantly the region without transhipment hubs. For other traffic an average hinterland structure of origin and destination region is applied. For Intra-EU continental shipments, the hinterland modal split of origin and destination sea ports determine the categorisation as CT. An average of both regions is applied for continental container traffic. These factors are reflected in the estimates of feeder short sea/road and Intra-EU continental short sea/road traffic volumes.

The limitation of data for hinterland road transport is more critical to the definition of CT. The CT Directive considers short sea container shipments carried by road in the hinterland as CT sea/road only if the container is loaded or unloaded within a radius of

150km from the port. As very limited information on the distance of road haulage is gathered, it is impossible to isolate those shipments with origin / destination within a 150km radius of the port. As a significant share of hinterland transport by road is carried over longer distances, only a minor share of short sea container/road traffic is then classed as CT sea/road .

Yet information on the length of road haul is not generally available. Moreover, in contrast to hinterland terminals, the traffic structure is more diverse. An indicator for the share of hinterland transport is the “loco-share” (ie local capture) of ports. However, even this figure is usually not reported by ports. Moreover, there is no exact definition of the radius considered for calculation of the extent of the local hinterland.

In general, the loco-share depends on the economic strength of the port cities and surrounding areas. For instance, the port of Hamburg, which serves an economically strong area, reports a loco-share (defined as 150km radius) of around 20% of the hinterland volume, i.e. around 30% of the container hinterland volume carried by road, as the local area is almost entirely served by lorry.

The port of Hamburg has a high loco-share like Antwerp, due to the strong economy of port cities, while other ports such as Rotterdam, Bremerhaven and Le Havre have lower loco-shares. As the loco-share is different between ports and no reliable overall figures are available, the determination of CT sea/road within a maximum road haul of 150km is not possible.

Considering the figures for Hamburg and its position compared to other ports, an average loco-share of less than 30% of the hinterland container road transport would appear to provide a reasonable assumption. However, it is assumed that a larger share of short sea continental container road hauls does exceed 150km. This implies that only a minor share of short sea continental container traffic carried by road in the port hinterland can therefore be regarded as CT sea/road.

The hinterland modal splits by port region, and a 25% share of lorry hauls which do not exceed 150km, have been used to estimate CT feeder container short sea/road and CT continental container short sea/road.

2.6.2 RoRo short sea/road market in the EU

Roll-on, Roll-off (RoRo) traffic refers to movement of lorries, trailers, semi-trailers etc. on dedicated RoRo vessels and ferries. The short sea transport of RoRo is often required to link MS or areas where no acceptable alternative road link exists (eg tunnels or bridges). Both accompanied and unaccompanied services exist. However, due to the lack of data these market segments cannot be separated for all coastal MS.

The total volume of RoRo short sea cargo within the EU in 2011 totaled 350m tonnes. Leading markets are the United Kingdom, Italy and Sweden. All these countries are located on transport corridors which require a sea crossing. UK short sea RoRo traffic alone accounts for more than 23% of the total EU RoRo short sea volume. According to Eurostat, self-propelled units such as lorries (ie tractor unit and trailer) account for approximately 65% for the majority of RoRo short sea traffic. The remaining 35% share refers to units without their own propulsion such as semi-trailers (see Table 50).

Based on the inward RoRo cargo volumes reported by Eurostat, regional and inter-regional traffic is calculated for trade lanes between five country groups (see Table 51). Intra-EU RoRo short sea/road volume is estimated to amount to 174m TEU.

In order to determine CT sea/road RoRo volumes, sea distance, hinterland modal split and distance of road haulage of RoRo shipments have to be considered. A high share of Intra-EU RoRo traffic refers to ferry crossings. In contrast to other CT sectors, the distance of ferry routes is often comparatively short, although there is a considerable overall range (eg Portsmouth-Isle of Wight = 16km, Dover–Calais = 50km, Portsmouth-Bilbao = 1,200km, Newcastle-Ijmuiden = 1,490km). Nevertheless, for a significant share of RoRo services the maritime leg does not exceed 100km as the crow flies. This traffic does not fall under the CT Directive and is not considered as CT sea/road. As this applies to the main RoRo routes across the English Channel, in the Baltic Sea and across the Strait of Messina, its share of the total is estimated at 50%.

Table 50: Intra-EU RoRo short sea traffic by MS: 000 tonnes lifted, 2010/2011

Member state	Tonnes [1.000]	
	2010	2011
Belgium	17.009	15.019
Bulgaria	-	-
Denmark	21.191	21.189
Germany	21.432	23.305
Estonia	-	2.872
Ireland	12.092	11.910
Greece	17.957	17.596
Spain	11.624	11.910
France	21.815	23.192
Italy	67.594	68.569
Cyprus	-	61
Latvia	1.807	2.385
Lithuania	2.168	2.486
Malta	287	352
Netherlands	12.863	13.728
Poland	5.117	5.491
Portugal	-	2
Romania	-	-
Slovenia	2	2
Finland	12.044	12.554
Sweden	34.985	36.812
United Kingdom	78.825	80.136
Croatia	601	539
Total with double counting	**339.413**	**350.110**

Source: PLANCO analysis based on Eurostat.

Table 51: Intra-EU RoRo short sea traffic by port regions: 000 tonnes lifted, 2011

Origin	Destination					
	Benelux / Germany	UK / Ireland	North Europe	South Europe Atlantic / Mediterranean	South Europe Black Sea	Total
Benelux / Germany	6	12.789	14.967	230	-	27.992
UK / Ireland	8.700	20.687	1.505	8.750	-	39.642
North Europe	12.874	1.766	25.186	63	-	39.889
South Europe Atlantic / Mediterranean	198	16.407	-	49.960	-	66.565
South Europe Black Sea	-	-	-	5	-	5
Total	21.778	51.649	41.658	59.008	-	174.093

Source: PLANCO analysis based on Eurostat.

A key characteristic of RoRo shipments is the opportunity to transport the load units on their own wheels in the hinterland at both ends of the short sea transport. Therefore, a large share of RoRo short sea shipments can be regarded as Intra-EU short sea/road transport. However, there are mobile load units such as unaccompanied semi-trailers with pre-/on-carriage by rail. Ports collect very limited information about the hinterland structure of RoRo transport, even less than for container transport. Therefore, no additional information could be gathered from sea ports.

Although longer hinterland distances might be more likely to be related to the traffic structure and the requirement to cross the sea, no reliable figures are available regarding modal split share and hinterland distance. However, it is assumed that the average share of rail is relatively low, below 10%. This small volume of load units with pre-/on-carriage can be regarded as trimodal CT operations (short sea>rail>road). Among RoRo cargo collected and distributed directly from the sea port, we assume that the majority of the cargo is carried on distances over 150km in the hinterland and the CT short sea/road RoRo element accounts only for a small share (20%) of RoRo short sea traffic. The share of Intra-EU CT sea/road RoRo traffic is estimated at 10%, taking account of the distance of maritime services and road haulage in the sea port hinterland.

2.6.3 Assessment of CT short sea/road market in the EU

The total EU short sea/road container traffic amounted to 10.1m TEU in 2011. Assuming a share of 25% with hinterland origin/destination in a radius of 150km from sea ports, 2011 EU CT sea/road is estimated at some 2.5m TEU. Applying average tonnes per TEU for Intra-EU short sea traffic as reported by Eurostat, we estimate some 19.8m tonnes have been moved in CT sea/road. The average weight per TEU is 7.8 tonnes.

The performance of CT sea/road in tonne-km is not comparable to other CT sectors. Maritime transport is either required, due to missing links across land-based modes, or involves a substantial diversion compared to land modes. However, considering the distance of typical routes for each trade lane, the average distance of short sea container transport, and its share of traffic, the distance can then be estimated. For international feeder container transport, a distance of approximately 1,000km is obtained as weighted average. Due to better competitiveness on longer routes, it is assumed that the average

distance on Intra-EU continental short sea transport is 10% higher, ie 1,100km. However, the distance of Intra-MS continental short sea transport, which almost entirely concerns the Atlantic and Mediterranean Sea coasts in southern Europe with diverse traffic structures, but in general significant shorter sea distances, is estimated to be only 500km. As a result, the tonne-km performance of CT short sea / road disregarding the road leg is estimated at 19.4 billion tonne-km for 2011.

The majority of the 2.5m TEU carried in containerised CT short sea/road in 2011 was international traffic. The estimated volume of 1.5m TEU international traffic is exclusively feeder traffic related to intercontinental shipments. Intra-EU continental container shipments account for around 0.8m TEU, mainly in traffic between MS. Intra-MS CT accounts for only 250,000 TEU (see Table 52).

Table 52: Containerised CT short sea/road in the EU, 2010 - 2011

CT market segment	2010			2011		
	TEU [1.000]	Gross tonnes [1.000]	Tonne-km [m]	TEU [1.000]	Gross tonnes [1.000]	Tonne-km [m]
Intra-MS CT	221	2.135	1.068	250	1.956	978
Intra-EU CT	917	6.709	7.380	785	6.145	6.759
International CT	1.322	12.748	12.748	1.492	11.676	11.676
Total CT	**2.461**	**21.593**	**21.196**	**2.528**	**19.776**	**19.413**

Source: PLANCO analysis.

Feeder containers account for the majority of the EU short sea/road container traffic. The volume of short sea feeder container transport with pre-/on-carriage by lorry in the hinterland is estimated at 6m TEU. About 1.5m TEU can be regarded as CT sea/road. The largest flows pass through northern European and southern European Atlantic and Mediterranean ports. These regions are to a large extent served by feeder services in intercontinental maritime transport (see Table 53).

Table 53: Containerised feeder CT short sea/road by port regions: 000 TEU, 2011

Origin	Destination					
	Benelux / Germany	UK / Ireland	North Europe	South Europe Atlantic / Mediterranean	South Europe Black Sea	Total
Benelux / Germany	48	50	213	78	-	390
UK / Ireland	91	40	1	22	-	153
North Europe	259	1	68	1	-	328
South Europe Atlantic / Mediterranean	73	25	0	517	1	616
South Europe Black Sea	-	-	-	3	2	5
Total	471	116	282	621	3	1.492

Source: PLANCO analysis.

The total Intra-EU container short sea/road traffic is estimated at 4.1m TEU. It is estimated that 1.0m TEU can be regarded as CT sea/road with hinterland

origin/destination within a radius of 150km from sea ports. Leading markets are internal southern Europe Atlantic / Mediterranean, UK / Ireland and northern Europe. Missing land links are one reason behind the large share of continental CT sea/road in these regions. Moreover, existing feeder networks provide extensive capacities, which are partly used for Intra-EU shipments (see Table 54).

Intra-EU RoRo traffic amounts to 174m tonnes. It is assumed that 50% of RoRo cargo is carried by sea over 100km. The share of RoRo cargo with hinterland road haulage in a radius of 150km from sea ports is estimated to be 20%. This means that 10% of RoRo short sea traffic is regarded as CT sea/road. Based on this result, CT sea/road RoRo in the EU amounts to about 17.4m tonnes. Based on official British and German statistics on average tonnes carried per RoRo unit in Intra-EU short sea traffic, the number of RoRo units in CT sea/road is estimated at 1.3m. The average share of road goods vehicles and trailers reported based on British and German official statistics is similar to the figure applied in accompanied CT rail/road.

Table 54: Intra-EU containerised CT short sea/road by port regions: 000 TEU, 2011

CT continental container shortsea/road traffic in TEU [1.000]						
Origin	Destination					
	Benelux / Germany	UK / Ireland	North Europe	South Europe Atlantic / Mediterranean	South Europe Black Sea	Total
Benelux / Germany	3	81	77	56	-	217
UK / Ireland	147	33	18	34	-	231
North Europe	104	16	14	13	-	148
South Europe Atlantic / Mediterranean	49	39	2	345	1	436
South Europe Black Sea	-	-	-	2	1	3
Total	303	170	112	450	2	1.035

Source: PLANCO analysis.

Considering a share of 65% road goods vehicles and 35% trailers, as reported by Eurostat for RoRo short sea traffic, means an average of 2.33 TEU per RoRo unit. Applying this value, the EU CT sea/road RoRo traffic amounts to 3.0m TEU.

Estimates for the tonne-km performance of CT sea/road RoRo are based on a weighted average of sea distances of typical RoRo routes. CT short sea/road RoRo volumes are used as weight. The weighted average of Intra-EU short sea RoRo is approximately 500km. It is assumed that the distance for Intra-MS traffic, which concerns almost entirely Italy and Greece, is only 200km. However, the figures are based on distances over sea, which may include diversions, and are not strictly comparable with other CT sectors. Applying the estimates for average sea distance, the transport of CT short sea/road RoRo is calculated to be 7.3 billion tonne-km.

The average cargo weight carried per RoRo unit is estimated to be 13.6 tonnes, based on official British and German statistics.

A minor share of Intra-EU short sea RoRo traffic is CT sea/road. Due to maritime distances often being below 100km and road haulage often being more than 150km,

most shipments do not comply with the definition in the CT Directive. The CT sea/road RoRo volume in the EU is therefore estimated to account for 10% of the traffic, equating to 17.4m tonnes.

CT short sea/road RoRo in the EU is either Intra-MS or Intra-EU cross border traffic. The latter accounts for the majority of 11.9m tonnes in 2011. The remaining volume of 5.5m tonnes is carried on inland routes within MS (see Table 55).

Table 55: RoRo CT short sea/road by market segment, 2010-2011

CT market segment	2010				2011			
	TEU [1.000]	Units [1.000]	Tonnes [1.000]	Tonne-km [m]	TEU [1.000]	Units [1.000]	Tonnes [1.000]	Tonne-km [m]
Intra-MS CT	929	399	5.345	1.336	945	406	5.513	1.378
Intra-EU CT	2.003	860	11.532	5.766	2.039	875	11.896	5.948
International CT	-	-	-	-	-	-	-	-
Total CT	**2.932**	**1.258**	**16.877**	**7.102**	**2.984**	**1.281**	**17.409**	**7.326**

Source: PLANCO analysis.

The matrix of CT short sea/road RoRo traffic shows the trade structure in this sector. The intra-southern Europe Atlantic / Mediterranean trade is the leading market. The main RoRo market in this country group is Italian cargo. Other leading markets in the United Kingdom and northern Europe derive from the need for sea crossings to overcome physical gaps between land masses. The traffic figures correspond with the networks of dedicated RoRo and ferry services serving the Mediterranean, the UK/Ireland and Scandinavian countries (see Table 56).

Table 56: RoRo CT short sea/road by port regions: 000 tonnes lifted, 2011

CT RoRo shortsea/road traffic in tonnes [1.000]						
Origin \ Destination	Benelux / Germany	UK / Ireland	North Europe	South Europe Atlantic / Mediterranean	South Europe Black Sea	Total
Benelux / Germany	1	1.279	1.497	23	-	2.799
UK / Ireland	870	2.069	151	875	-	3.964
North Europe	1.287	177	2.519	6	-	3.989
South Europe Atlantic / Mediterranean	20	1.641	-	4.996	-	6.657
South Europe Black Sea	-	-	-	1	-	1
Total	2.178	5.165	4.166	5.901	-	17.410

Source: PLANCO analysis based on Eurostat.

The total 2011 volume of CT sea/road in the EU including container and RoRo traffic was 5.5m TEU. In terms of weight, 37.2m tonnes were carried in CT short sea/road, considering net tonnes only for RoRo traffic. The total transport performance of CT short sea/road is estimated with 26.7 m tonne-km disregarding the road leg.

The transport volume of Intra-EU CT short sea/road accounted for a volume of 2.8m TEU. The market segment covers continental container and RoRo shipments involving border crossings. International CT is the next largest segment with a volume of 1.5m TEU. This segment refers exclusively to CT sea/road of feeder containers. Intra-MS CT amounts to

1.2m TEU. RoRo traffic accounts for the majority, while the volume of continental container shipments is rather low (see Table 57).

Table 57: Total CT short sea/road by market segments:, 2010-2011

CT market segment	2010			2011		
	TEU [1.000]	Gross tonnes [1.000]	Tonne-km [m]	TEU [1.000]	Gross tonnes [1.000]	Tonne-km [m]
Intra-MS CT	1.150	7.480	2.404	1.195	7.469	2.356
Intra-EU CT	2.921	18.242	13.146	2.824	18.041	12.707
International CT	1.322	12.748	12.748	1.492	11.676	11.676
Total CT	**5.393**	**38.470**	**28.299**	**5.511**	**37.185**	**26.739**

Source: PLANCO analysis.

2.6.4 Time series of CT sea/road market in the EU

The development of EU short sea traffic can be used as proxy for the development of CT short sea/road volumes. Eurostat reported an increase in EU short sea container traffic from 21.6m TEU in 2005 to 26.7m TEU in 2011. This means an average growth of 3.6% pa. It is a reasonable assumption that CT short sea/road volumes increased at a similar rate. The major growth driver is the feeder segment related to the growth of transhipment in European hub sea ports.

In North European sea ports the transhipment volume increased from 11.1m TEU in 2005 to 15.1m TEU in 2011, including an intermediate decline due to the global economic downturn. As the majority of this relates to feeder traffic within the EU, international CT short sea/road shows a similar development.[39] This is in line with Eurostat figures on short sea container shipping for the 5 leading sea ports, which show an average growth of 3.1% pa. However, in 2009 the global economic downturn led to a sharp decline. Subsequently, volumes recovered in 2010 and then stagnated in 2011. Eurostat reported a similar development for all EU sea ports. Among the leading sea ports, the North Range hub sea ports in Benelux countries and Germany significantly increased their volumes. As Eurostat figures include feeder and continental container traffic, the development of continental container volumes have been less dynamic by comparison.

In the period 2005-2011 Eurostat reported an increase in EU short sea RoRo traffic from 220 to 239m tonnes. The average annual growth of 1.4% is a proxy for the development of the CT short sea/road RoRo market segment. The intermediate reduction in volume due to the global economic crisis started in 2008 and continued in 2009. Subsequently, volumes recovered, but have yet to return to pre-crisis levels. The leading EU sea ports for short sea RoRo traffic show a homogeneous growth trend, which suggests similar development of CT RoRo trade lanes over the period 2005-11.

Overall, 2009 CT short sea/road volume is estimated at 4.5m TEU based on the development of short sea container and RoRo traffic as reported by Eurostat. This represents a substantial reduction compared to 5.4m TEU in 2007. The interim decline is related to the global economic downturn.

Table 58: Total CT short sea/road by market segments, 2007-2011

CT market segment	2007		2009		2011	
	TEU [1.000]	Gross tonnes [1.000]	TEU [1.000]	Gross tonnes [1.000]	TEU [1.000]	Gross tonnes [1.000]
Intra-MS CT	1.209	7.466	999	6.317	1.195	7.469
Intra-EU CT	2.837	17.843	2.353	15.257	2.824	18.041
International CT	1.382	10.518	1.194	9.864	1.492	11.676
Total CT	**5.427**	**35.827**	**4.547**	**31.438**	**5.511**	**37.185**

Source: PLANCO analysis.

[39] Ocean Shipping Consultants (OSC), North European Containerport Markets to 2025, Chertsey, 2012; Ocean Shipping Consultants (OSC), North European Containerport Markets to 2020, Chertsey, 2009.

2.6.5 Market shares of CT sea/road in 2011

The share taken by CT short sea/road of the total short sea container traffic is estimated at 20%. A 10% market share of CT short sea/road is derived from the assumptions made for the RoRo market segment. Further market shares of CT short sea/road cannot be calculated due to limitations of the available data, which also affects the ability of the analysis to achieve a comparable assessment of tonne-km.

Section 3. CT market forecast

This part of the study aims to deliver an outlook on the future evolution of the CT industry. The process starts with a review of recent developments in the CT industry since 2011 (section 3.1), followed by the evaluation of the impacts of anticipated trends on the individual CT sectors (section 3.2). Forecasts for the growth of the three CT sectors have been prepared for the time horizon up to 2030 (section 3.3), followed by an assessment of the most critical bottlenecks for the evolution of CT operations (section 3.4).

3.1 Evolution of CT sectors since 2011

3.1.1 Key impact factors

The recent evolution of the CT sectors in the EU was essentially shaped by the development of key economic indicators and the competitive situation between CT services and road haulage. The main economic factors contributing to this process were the performance of the EU economies, the economic situation in most leading developing countries, the development of world trade and its implications for global container shipping, and in turn for the throughput of containers at EU sea ports.

The global financial and economic crisis has had severe impacts on the EU. According to WTO data[40], the aggregate GDP of the EU-27 declined by 4.2% in 2009 and the external trade lost 14% of the 2008 value. After a moderate recovery in 2010/2011, which saw GDP growth rates of 2.1% and 1.7% respectively, the EU again fell into recession in the following years. GDP fell by 0.3% in 2012 and stagnated in 2013. This result was due to a combination of several factors:

- During and after the global economic downturn, the EU MS in general (and members of the Eurozone in particular) extended public budget deficits and increased additional sovereign debts. Initially, these mainly resulted from the rescue of financially stricken banks. But due to the global economic downturn, state expenditure and debts also rose, as governments firstly set up economic recovery programmes to compensate for the drop of demand from private households and industry and, secondly, to pay the costs of increasing unemployment;
- The increasing debt level in some Eurozone countries was often combined with structural problems, such as an overheated real estate market or rigid market access conditions. Financial investors lost confidence in the capacity of those countries to migrate to a more balanced economic and financial policy, or clearly speculated on the default of states or their exit from the Eurozone. As a result, the interest rates for sovereign bonds of those countries climbed substantially;
- In order to stabilize the financial system, restore confidence in the Euro and safeguard the EU itself, the MS in conjunction with the European Central Bank concluded a set of measures. Key actions on the EU level were the creation of the

[40] All statistical data in this section, if not otherwise indicated, are from 2010 to 2014 press releases and reports of the WTO Secretariat.

European Stability Mechanism (ESM), designed to "finance loans and other forms of financial assistance to euro area MS"[41] and which came into force on 8 October 2012, and the Fiscal Compact that came into effect on 1 January 2013. The most crucial tasks at MS level were the implementation of a strict state household discipline including budget cuts, a programme for reducing new deficits and the stabilization of the national banking systems;

- The measures taken were effectively to approach the agreed fiscal targets, at least in the short-term. The financially stricken countries were able to reduce net new borrowings and restore confidence. As a result their sovereign bonds became attractive again for global investors and interest rates dropped to a level only slightly higher than those for bonds of market leading countries such as Germany or the US;
- The downside of this strict fiscal policy was that it intensified the existing restraining forces of the global crisis and further slowed down the economic activities on the domestic markets of the EU MS and also the Intra-EU trade. In 2012-2013 private consumption, industrial production and fixed investment were stagnating or even declining throughout the EU, with few exceptions. In the same period Intra-EU trade was flat, and the total volume of external trade of the EU-28 was sluggish. Imports into the EU decreased in both years (2012: -1.9%; 2013: -0.8%) due to the tenuous state of the economies and any prospects for growth. On the export side, the EU-28 recorded small increases of 0.5% in 2008 and 1.7% in 2013 although they remained substantially below historic growth rates and forecasts. Apart from the weak EU market the sluggish level of exports can also be attributed to the economies of other rapidly-developing countries (eg BRICS states) losing momentum. As a consequence, their demand for goods produced in the EU slumped.

According to WTO analysis, the weak economies of the developed countries (namely the EU and the US), and the slipping dynamics of the developing markets were crucial for the recent evolution of world trade. After a 13.8% rebound from the crisis in 2010 growth then decelerated in the following year. With a 5.0% increase, however, it remained close to the 20-year average of 5.3% whilst in 2012 and 2013 world merchandise trade was still sluggish, with growth rates of 2.3% and 2.1%, respectively (see Figure 6 overleaf).

The evolution of the container throughput at EU sea ports between 2011 and 2013 was firstly determined by the development of the EU economy and the world trade and, secondly, by the adaptation of sailing and hub strategies of the major shipping lines, in an attempt to ensure more cost-efficient operations in the face of generally falling freight rates. As official data have not been published yet the following section is based on the analysis of primary sources, including the press releases of individual sea ports, along with data from professional organizations and Notteboom[42].

According to preliminary ESPO statistics[43] which still lacks data from several ports, total European container throughput grew by 1.2% in 2012 against 2011 but dropped by 1.8% in 2013. In contrast, Notteboom estimates that the container handling volume of EU sea

[41] http://www.esm.europa.eu/

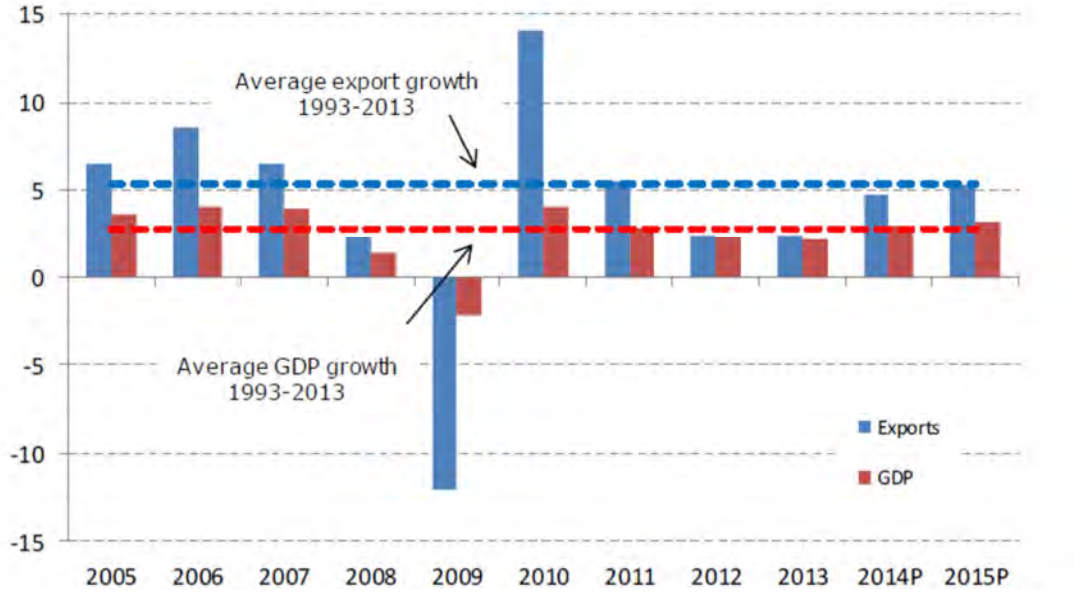
[42] Notteboom, Theo: Economic outlook for ports. Presentation for ESPO 2014, Gothenburg 15-16 May 2014

[43] ESPO: Traffic data of year 2013.

ports (the coverage is virtually the same as ESPO) increased by about 5% in the period from 2011 to 2013.

The analysis of results from individual sea ports shows that container traffic in general was volatile during this period. Whilst one port experienced an increase of handling volume in 2012 and then a drop in the following year, another port experienced the opposite. On the other hand, there are only a few large or medium-sized ports that achieved continuous growth of their container throughput from 2011 to 2013, while many more recorded a loss of handling volumes in every year.

Figure 6: Growth of world merchandise exports & GDP, 2005-15 (% change)



a Figures for 2014 and 2015 are projections.

Source: WTO Secretariat

In the European port system the ports of the Hamburg – Le Havre range, which include the leading container ports of Rotterdam, Hamburg, Antwerp and Bremerhaven, handle almost 50% of the total seaborne container traffic. Moreover they are the major gateway ports accounting for the majority of container hinterland transport volume in the EU, a major determinant of maritime CT volumes. About two thirds of their aggregated throughput are export and import containers, the remaining one third being transhipment traffic. The 2013 container throughput of the North Sea ports was below the 2011 results except for Hamburg and Le Havre which recorded growth rates of 2.7% and 12.2%, respectively.

According to Notteboom, the Mediterranean ports, which account for more than 30% of the European container throughput, performed very differently in the period in question. All transhipment hubs except for Taranto (Italy) recorded substantial increases in their handling volumes, of up to over 20% from 2011 to 2013. However, the growth rates of the hub ports of Algeciras, Gioia Tauro, Cagliari, Marsaxlokk and Piraeus are not representative of the overall evolution of container traffic in the EU. Their main role is to

ensure swift and efficient transhipment of maritime containers between sea-going and feeder vessels; the percentage of containers interchanged reaches up to 95%. The hub ports therefore serve only small percentages of hinterland export and import containers, whose growth rates reflect the evolution of external trade.

Other than the transhipment hubs most Mediterranean gateway ports, which overwhelmingly serve their hinterlands, experienced stagnating or declining container traffic in the years 2011 to 2013. This particularly refers to the large and medium-sized ports of Valencia, Barcelona, La Spezia, Livorno, Napoli or Venice[44]. Against this trend a few ports such as Genova, Marseille and Koper achieved a slight increase of volumes, in the case of Trieste even of 20%.

Official results of the two major UK container ports, Felixstowe and Southampton, were not yet available for this report. Yet maritime transport experts forecast that the 2013 throughput will balance at the 2011 figures.

The Swedish port of Gothenburg has not only lost more than 3% of handling volume in 2013 against 2011 but also its position as the largest EU container port in the Baltic Sea. Gothenburg has been overtaken by the Polish port of Gdansk, which has seen dramatic growth in its container throughput by 72% between 2011 and 2013. This development reflects the comparatively robust economy of Poland, enabling the shipping line Maersk to inaugurate the first direct call of an ocean vessel at a Baltic Sea port, instead of via a feeder service. This is also confirmed by the 18.5% increase of the container throughput of the neighbouring port of Gdynia.

Based on the findings of the above exercise we estimate that the total 2013 container throughput at EU sea ports was slightly above the 2011 figure, although the overall growth rate might be somewhat below the 5% suggested by Notteboom.

Against the background of the above fundamental economic impact factors the freight transport activities in the EU remained weak over the entire period between 2011 and 2013. The evolution of the individual market segments (with an emphasis on the CT-oriented long-distance traffic volumes) can be summarised as follows:

- Container hinterland transport volumes were sluggish both on domestic trade lanes in nearly all MS and on cross-border corridors. The most striking exception is Poland. The two main sea ports, Gdansk and Gdynia, enhanced their combined container throughput by about 50% over the two years in question. The hinterland traffic increased by about the same scale, as currently the ports primarily serve the domestic Polish market;
- The volumes of Intra-MS freight traffic, characterized by goods shipped between origins and destinations located in a single MS, were flat in a few MS and decreased in many more MS, due to weak domestic demand;
- As the Intra-EU trade lost momentum in the second half of 2011 and beginning of 2012, Intra-EU goods traffic was generally sluggish, seeing small growth rates on some bilateral trade lanes and sharp declines on others;

[44] www.hafen-hamburg.de;www.assoporti.it; port statistics

- Land-based international freight traffic between MS and third countries, thus excluding the overseas transport of maritime containers, recorded strong growth rates, particularly in EU export goods on trade lanes with Russia and Turkey.

The state of the EU freight markets has had distinctive impacts on the competitive situation within and between modes of transport, and consequently on the demand for and the supply of CT services in recent years. A key effect has been the substantially increased price competition created within road transport, which has then extended to the entire freight market.

Freight forwarders and road hauliers report that market prices for long-distance transport (particularly in full- and part-load services) came under considerable pressure in 2011, after they had recovered in 2010 from the slump caused by the economic crisis. Since then the prices have declined sharply. This referred both to domestic journeys in many MS and to Intra-EU trade lanes. On the trunk lines of European corridors, however, freight rates fell even below pre-boom prices in the years up to 2006. Hauliers reportedly quoted freight rates of as low as €0.7 per vehicle-km or less. This corresponds to a reduction of some 30% compared to previous market prices of about €0.9 to €1.0 per vehicle-km, depending on trade lane and cargo type. Such low freight rates barely cover the variable cost of haulages, let alone the full cost of the vehicle utilisation (assuming that drivers are employed according to health and safety regulations). The low rates were even more remarkable given that diesel prices climbed and remained at a high level over many months in the period in question.

This development was due to a combination of several main factors. When transport volumes decreased or stagnated due to the global economic downturn, small and medium-sized road operating companies were generally forced to keep their entire vehicle fleets in service. This was necessary to be able to pay leasing or rental rates for the lorries and to earn their living, as other job opportunities were scarce in the hard economic circumstances. As a result, the freight markets had to struggle with overcapacity, and hauliers were prepared to cut rates to obtain a shipment. Competition rapidly led to a downward spiral of price offerings, as shippers had a powerful position from which to re-negotiate transport contracts.

In the next step, road hauliers that could not capture sufficient cargo began to shift vehicle capacities to economies or trade lanes which continued to provide for large volumes. Thus, competition intensified here as well and the pressure on prices ultimately extended to those markets.

Some stakeholders, Western European hauliers in particular, tend to attribute the big drop in freight rates primarily to the liberalisation of cabotage traffic in the EU. They argue that road hauliers established in one MS are prepared to accept nearly any price to catch inland shipments in another MS, if they don't have an immediate backload to their home country. Other non-resident road operators, who arrive at the beginning of the week in the other country, would stay the entire week and conduct several cabotage transports before returning home on the weekend.

Undeniably, both cases exist and it is also a given result of market research that non-resident hauliers can undercut the market price levels for national transports. Yet, this does not necessarily imply that the liberalisation of cabotage activities has caused the

slump of freight rates. To clarify the situation, further information on cabotage is set out below[45]:

- From 2006 to 2011, the size of cabotage activities in EU-27 rose by some 35% to reach about 19 million tonne-km in 2011;
- In 2011, 33% of all EU cabotage transports were performed in Germany and 30% in France. All other EU MS have shares of 7% or less of the total;
- The relevance of cabotage operations "can be assessed looking at the cabotage penetration rate, which is defined as the share of cabotage in the total national market for road haulage in a given country"[46]. The average penetration rate in the EU increased from 1.2% in 2006 to 1.7% in 2011. In 2011, cabotage activities accounted for 2.4% of the total inland road market in Germany and about 3.5% in France. The highest penetration rates were recorded for Belgium and Austria with 6.0% and 3.6%, respectively.

The authors of the study cited above observe that even if the cabotage volume is growing, it is small compared to the total EU road haulage market. The study also shows that the penetration rates are still low except for Belgium, where cabotage has been completely liberalised.

A 2011 analysis of the cabotage traffic in Germany, carried out by the Bundesamt für Güterverkehr [47] (Federal Office for Goods Transport), acknowledges that road hauliers established in the new MS of Poland, Hungary, Estonia, Latvia, Lithuania, Slovakia and the Czech Republic, for whom cabotage was deregulated on May 1st, 2009, can deliver freight transports at considerably lower rates than German companies. The study, however, concludes that the liberalisation "has had a comparatively limited effect so far on the German transport market. (...) Admittedly, cabotage traffic and the cabotage penetration rate in Germany have increased from a low level in recent years. The results (...) do not, however, indicate that this development has caused any significant increase in competition in the domestic German transport market so far." With respect to the then forthcoming liberalisation of cabotage activities for Bulgarian and Romanian hauliers (who are estimated to have a 30% cost advantage compared to German hauliers) the Federal Office does not expect "any significantly negative effects on the German road freight transport market and the prevailing price level".

Against the background of those findings, it seems less likely that the cabotage deregulation has solely triggered this ruinous price competition. Cabotage operations, however, are likely to have contributed to the intensified struggle for cargo, especially in specific freight markets.

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[45] Development and implementation of EU road cabotage. Study for European Parliament, Policy Department B: Structural and Cohesion Policies. March 2013

[46] Ditto, p. 59

[47] The following quotes are from Bundesamt für Güterverkehr: Marktbeobachtung Güterverkehr. EU-Osterweiterung. Köln 2012, p. 4

Regardless of the principal causes, the steep decline in road freight rates has compromised the competitiveness of CT operations on price-sensitive trade lanes. This has particularly applied to CT rail/road.

Other than road hauliers, providers of CT rail/road services have a rather rigid cost structure and thus little downwards flexibility in pricing. They have a very large block of fixed costs mainly comprising of expenses for train operating, infrastructure access and wagons, for which CT operators have sought to recover through annual contracts. They could reduce the number of departures but this would not reduce the cost per shipment (the opposite would apply) and, additionally, threaten the attractiveness of the service. Alternatively they could suspend the entire service. This might relieve service providers from potential financial losses but would then reduce the opportunity to achieve a contribution to overheads. The main leverage for enabling a reduction of prices charged to customers is to cut costs by reducing staff numbers, selling assets or postponing investments. Such a step might improve the economic situation in the short-term, but could ultimately jeopardize the long-term development of the company were the strong price competition to remain.

Such drastic measures have been taken across the CT rail/road sector in recent years. A few service providers have partly or fully withdrawn from the market, or have since been absorbed into other larger logistics companies. Moreover, several railway undertakings have taken on additional risks in a move to enable more competitive service offerings and to maintain CT networks.

Compared to CT rail/road operators the suppliers of CT inland waterway/road services are generally in a more favourable position to face aggressive pricing behavior by competing road hauliers. Container barges, in the first place, are market leaders in terms of cost per container moved, mainly based on their comparatively high transport capacities, not only along the Rhine valley but also on several other rivers and canals. This market position creates downwards degree of price flexibility. Additionally, the leading providers of CT inland waterway/road services typically do not deploy barges of their own. They outsource the physical transport to owner-operators or companies with a small fleet of vessels and thus retain substantial bargaining power against the barge operators.

3.1.2 CT rail/road

In order to highlight the evolution of CT rail/road operations in the years 2012 and 2013 the following sources have been used and analysed:

- Statistics of the UIRR and its members;
- Results of a survey among CT service providers conducted in course of this study;
- Press releases, media and website information of individual CT service providers;
- Statistical data published by Eurostat and national administrations.

It must be pointed out that the above sources – where suitable data exists – are only used to distinguish national from international traffic, and do not allow to applying the CT definitions as explained under section 2.1. The focus here is on unaccompanied CT.

The UIRR member companies, which accounted for about one third of the total CT rail/road in the EU in 2011, recorded an aggregated 9.4% loss of their unaccompanied CT volume from 2,649,485 shipments in 2011 to 2,401,085 shipments in 2012. Whilst international services moved 5% less CT units than a year earlier, domestic CT dropped sharply by 15.6%. The UIRR members Kombiverkehr (Germany), the biggest European CT rail/road service provider by volume, and Hupac (Switzerland), the fourth largest CT operator, experienced a decline of total traffic by 4.7% and 10.7%, respectively. Apart from other factors both companies (as for the UIRR group as a whole and other CT operators) suffered from a series of bottlenecks on the major trans-Alpine rail corridors. In order to rehabilitate a rail section on the Austrian side, the Brenner line was either entirely closed or restricted to limited single-track capacity from June to September 2012. Maintenance works also reduced the train capacity on the Lötschberg corridor in Switzerland for a couple of weeks. The parallel Gotthard axis was hit particularly badly in 2012. Three major landslides brought the entire traffic to a halt, on one occasion for almost one month.

In 2013, the UIRR members improved unaccompanied traffic by 3.7% to 2,489,779 shipments. Despite this growth the group's overall volume still remained 6.0% below the 2011 result. The increase was completely due to international CT services, which carried 6.1% more CT shipments than 2012. The domestic sector, in contrast, saw a slight decrease of 0.2%. Kombiverkehr and Hupac recorded small levels of growth of 1.1% and 1.7% respectively for 2013 over 2012. So they were neither able to fully compensate the 2012 drop of volumes, nor reach the record volumes of previous years. The Belgian Inter Ferry Boats (IFB), ranking second among the UIRR membership in 2011, lost about one third of its total volume by 2013. The operator suffered from the expiry of the national subsidy program designed particularly to promoting domestic container hinterland services. In due course IFB was forced to slash its inland service supply, temporarily closing its biggest CT terminal at Antwerp Mainhub in September 2013.

The feedback obtained from the survey and the data reported by other, non-UIRR service providers show a wide range of traffic results for the recent two years. The volumes of some of the larger "incumbent" CT operating companies, for example, Transfracht (Germany) or the RailCargo Group (Austria), decreased in the period between 2011 and 2013. In contrast, new entrants established in the last 15 years such as TX Logistik (Germany) ERS Railways (The Netherlands), IMS Cargo (Austria) or WBT Weets (Germany), increased their traffic, in some cases experiencing double-digit growth. These CT service providers now carry between 150,000 and 450,000 TEU pa. Other companies of a similar scale, such as boxXpress and ACOS (both from Germany) or PCC Intermodal (Poland) went through a period of mixed results.

The market survey further notes that a number of small-sized new entrants to the CT market between 2008 and 2013 have inaugurated additional services in the past two years, despite the challenging economic conditions. The new trains primarily serve cross-border trade lanes within the EU or with Turkey. Where data has been reported, these new entrants have generally recorded substantial increases in transport volumes. However, as their market shares are tiny, they have not had a substantial impact on the development of the wider CT sector.

Country-related statistical data for the years 2012 and 2013 were only available for about half of the MS. The analysis of preliminary data released by Eurostat and national offices for statistics on inland CT rail/road[48] delivers the following findings:

- In Poland and the Czech Republic, which recorded about 340,000 TEU and 289,000 TEU in 2011, the volume of national CT shipment has increased strongly and continuously in both years by a total of about 50% and 35%, respectively. Slovakia and Lithuania also report growth rates of a similar scale for their inland CT but from a comparatively low 2011 basis of 24,000 TEU and 8,000 TEU, respectively;
- National CT rail/road rose moderately with single-digit growth figures in Germany[49], by far the largest national market in the EU accounting for more than 3.4 million TEU in 2011, and Spain where traffic increased from 504,000 to 542,000 TEU;
- In Great Britain, which was the second largest domestic CT market in the EU in 2011, with more than 1.4 million TEU, the overall development in the past two years was flat, as services (combined with infrastructure constraints on the key West Coast Main Line corridor) have reached saturation point amongst target customers. The small inland markets of Ireland and Slovenia have also seen volumes plateau;
- Other than in the above countries the volumes of inland CT rail/road dropped markedly in Austria, Sweden, Finland and Romania, cutting the number of TEU by half in the latter two MS;
- Finally, two statistical sources were examined that refer to trans-Alpine CT services. The Swiss Bundesamt für Verkehr (Federal Office for Transport) reports that unaccompanied CT through Switzerland decreased by about 4% in 2012 (15.3m net tonnes) compared to 2011 (16.0m tonnes) but grew strongly by 7% in 2013 to reach a new all-time high of 16.3m tonnes[50]. According to the Austrian federal country of Tirol, trans-Alpine unaccompanied CT on the Brenner corridor through Austria declined by 4% from 8.85 to 8.5m gross tonnes in 2012[51]. Official data for 2013 has not been released. Based on our market observation, however, we estimate that traffic rose moderately and thus approached the 2011 volume;

Based on the analysis of the above public statistics and of data of primary sources, we have drawn the following conclusions on the evolution of unaccompanied CT in the EU between 2011 and 2013, disregarding a potential fluctuation in the year 2012:

- We estimate that the overall inland volume of unaccompanied CT rail/road in MS, including both Intra-MS and (international) container hinterland traffic, stagnated;
- In contrast, cross-border unaccompanied CT in the EU comprising both Intra-EU services and those with third countries, achieved a slight increase of 2 to 3%;

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[48] As explained under section 1.3, country-related data on international CT provide small informative value due to double and multiple counts of volumes.

[49] Owing to an extended statistical basis as regards the providers of CT services the data of Destatis, the German Office for Statistics, present higher growth rates for the period 2011-2013. As the present study could build on primary data the 2011 results already took into account the broader statistical basis.

[50] Bundesamt für Verkehr: Güterverkehr durch die Schweizer Alpen 2013. Bern, July 2014.

[51] Amt der Tiroler Landesregierung: Verkehr in Tirol - Bericht 2012. Innsbruck, May 2013.

- With respect to the 2011 shares of the inland and cross-border markets, the entire volume of unaccompanied CT rail/road in the EU is estimated to have grown by about 1.0% to 1.5%. This would represent an all-time high for this CT sector.

3.1.3 CT inland waterway/road

Sea port throughput is a main determinant for CT volumes in terms of the share of maritime CT. This is even more applicable for CT inland waterway/road services which do not have significant continental CT operations. As hinterland transport of ZARA sea ports accounts for approximately 90% of CT inland waterway/road, the container throughput in Rotterdam and Antwerp is a key factor for CT growth. Despite the decline of sea port volumes, growth of CT volumes continued in 2012/2013 due to mode shift initiatives of sea ports to strengthen rail and inland waterway modes in the hinterland.[52]

Due to congestion of sea port terminals and the local road networks in the hinterland, sea ports have sought to maintain and enhance performance by further modal shift, taking the opportunity to transfer substantial volumes of containers quickly to/from the hinterland. For instance, the Port of Rotterdam aims to increase the share of inland waterway transport in the hinterland from 35% in 2013 to 45% in 2035, whilst the new deep sea container port at London Gateway is investing in rail facilities to enable 33% of inland port throughput to be made by rail. As an incentive for sea port terminal operators, the concessions for operating the new Maasvlakte II terminals include modal split objectives and a penalty in case they are not achieved.

In the year 2012, Eurostat reported that CT inland waterway/road increased by approximately 5%. Eurostat reported 6.1m TEU inland waterway container transport including inter-sea port barge traffic in 2012, compared to 5.8m TEU in 2011. However, the growth refers mainly to higher volumes reported by Eurostat for Belgium. The 2012 figures, which imply more than 20% year-on-year growth, might be impacted by one-off impacts, as the 2013 volume of Belgium is now below 2011 levels. The container handling volume in the Port of Antwerp, a main determinant, stagnated around 8.6m TEU in the period 2011-2013.

The other MS figures showed less growth for 2012. For instance, the container volume at the Dutch-German border on the Rhine increased from 1.9 to 2.0m TEU in 2012.[53] Eurostat reports an increase of the total volume from 4.5m TEU to 4.7m TEU for the Netherlands. Despite the growth at the border, the total volume in Germany stagnated due to weaker development of CT inland waterway/road in the hinterland of German sea ports.

The 2012 growth refers partly to a recovery achieved since 2011. In 2011, the Rhine waterway blockade and low water levels had a negative impact on volumes. As the blockade prohibited services on the Middle and Upper Rhine, volumes on these services were particularly affected. This is a contributing factor to the growth of French CT inland

[52] See more details under section 4.2.1.

[53] German Federal Statistical Office Waterway and Shipping Administration, Directorate West, Inland waterway transport statistics traffic report, Munster.

waterway/road. Overall, France reported a growth of inland waterway container transport by 6% to 563,500 TEU in 2012.[54]

The low volume of CT inland waterway/road market along the Danube went into further decline in 2012. Eurostat reports a reduction in inland waterway container transport in Romania of more than 50% in 2012. This might be caused by the weak service quality, reflecting the poor quality of infrastructure and equipment.

The cutback of container handling volumes in the leading North Sea sea ports, and the market share loss of ZARA sea ports, contributed to a decrease of CT inland waterway/road volumes in 2013. Eurostat reported 5.9m TEU in 2013, indicating stagnation compared to 2011. Disregarding localized impacts in Belgium, volumes showed moderate growth compared to 2012. Traffic along the Rhine corridor continued to grow. Traffic in the Netherlands increased by 3.5% year-on-year. At the Dutch-German border on the Rhine the growth continued in 2013 but on a lower level. Official German figures show a moderate growth of 2.3% for container transport along the Rhine corridor in Germany. In contrast, volumes in the hinterland of German sea ports show a decline. Overall, the container traffic volume in Germany stagnated in 2013.[55]

Eurostat reports a substantial decline of CT inland waterway in France 2013. In spite of the container handling growth in sea ports such as Le Havre, international CT inland waterway/road traffic carried within France along Seine and Rhone went down.

According to Eurostat, the traffic decline in Romania continued in 2013, yielding almost negligible volumes on the Danube corridor.

The 2012/2013 figures correspond with expectations of a stagnation or moderate growth of CT inland waterway/road in the short term until 2014.

3.1.4 CT short sea/road

CT short sea/road developed in line with maritime Intra-EU transport of containers and RoRo units. According to Eurostat, the EU container short sea traffic went up by 2.8% in 2012. This corresponds with the growth of sea port container handling. It is a continuation of the recovery after an intermediate stagnation related to the weak economy in 2011. MS figures indicate a further concentration of volumes at hub sea ports in the North Range and the Mediterranean Sea. This means a dynamic development of transhipment volumes and international CT feeder container short sea/road traffic. In contrast to the dynamic feeder business, continental container traffic shows a weaker development. Although neither reliable figures nor estimates are available, there are indications of a cutback of Intra-EU container volumes in important continental container markets such as United Kingdom and Scandinavian countries.

No EU-28 figures are available for 2013 yet, but a weaker development is anticipated, in line with the continued uncertainty in EU economies and sea port container volumes. This is confirmed by the figures of leading sea port countries for Intra-EU container traffic. In total, the volume went down by 2.8%. Among short sea container market segments,

[54] Central Commission for the Navigation of the Rhine, Market observation.

[55] German Federal Statistical Office, Inland waterway transport statistics.

feeder traffic related to global container trade showed better results compared to continental containers. UK volumes went further down in 2013.

The weak EU economy contributed to a reduction of EU RoRo short sea traffic by 2% in 2012 according to Eurostat. According to figures for leading short sea RoRo sea ports, the UK/Ireland market performed weaker than the Baltic Sea market. Country figures indicate a minor overall reduction of RoRo volumes in Southern Europe. In 2013 traffic volumes stagnated in response to the economic climate. This is the conclusion from selected 2013 figures. For instance, United Kingdom and Germany report a cutback of RoRo volumes, while Zeebrugge saw stagnation and Rotterdam even growth of RoRo traffic. However, 2013 figures for EU-28 are not available yet.

3.2 Developments and trends impacting on future CT development

A number of ongoing developments and anticipated trends will affect and determine the future evolution of the CT industry. It is useful to distinguish forces of change, which arise from the CT sectors themselves (internal), from external impacts on CT operations. The forces may stimulate or restrain the future growth of CT operations. In this section the external forces of change are first described and evaluated, followed by the internal trends for each of the CT sectors.

3.2.1 Key external forces of change

The analysis starts with highlighting trends in maritime container traffic and sea ports. Then the impacts of the development of the EU Internal Market on CT operations are assessed. The competitiveness of the entire CT industry particularly is determined by its productivity and cost efficiency in relationship to road haulage. Therefore the impact analysis continues with investigating likely developments in road haulage cost and pricing behaviour. This is followed by identifying and evaluating relevant supply chain trends. The analysis concludes by considering the implications of development of infrastructure capacities, as well as the characteristics and changes in the regulatory framework. Relevant trends are illustrated and the pros and cons examined. Finally, their likelihood of occurrence and their direction and magnitude of potential impact on the CT sectors is assessed. The magnitude is rated from '-3' to '+3' indicating the potential scale of negative or positive impact on the growth of CT volumes for every CT sector.

The following exercise also takes account of relevant trends in third countries, in particular in Switzerland and on the corridor between the EU and the Far East.

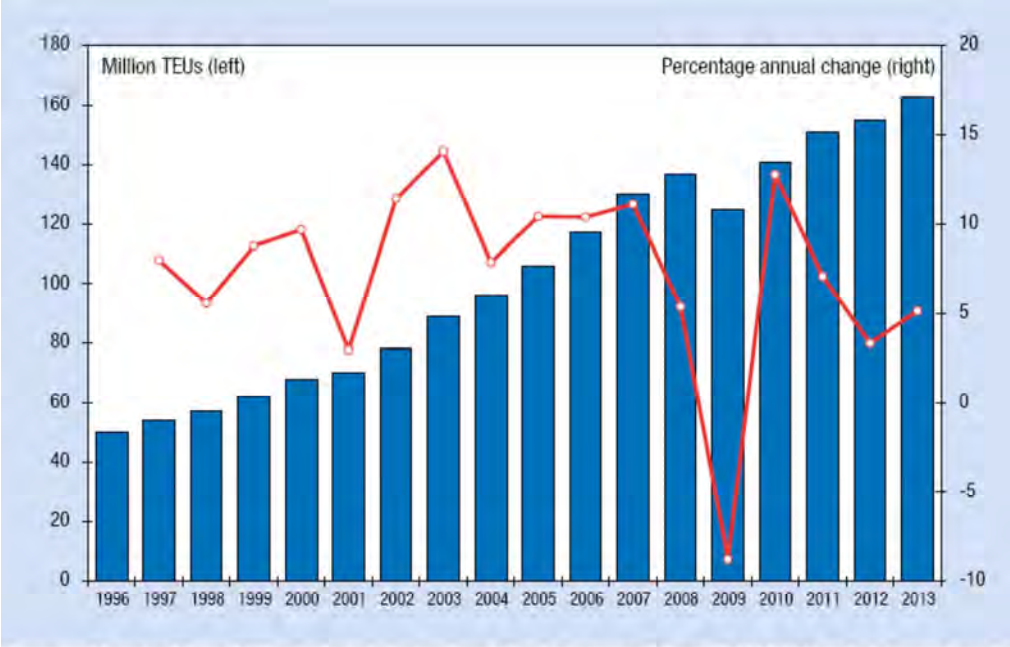
Trends in maritime container traffic

The evolution of maritime container transport from and to EU sea ports is a main determinant for container hinterland CT volumes in the EU. This section therefore investigates growth of world container traffic and its implications for container throughput and the hinterland volumes of European gateway ports.

The globalisation of economic activities, as demonstrated in complex worldwide industrial production processes and their supply chains, is reflected in the disproportionately high growth of maritime container volumes. From 1995 to 2008, world container traffic rose

by 7-15% annually, except for 2001 when the terrorist attacks on the USA led to a slowdown of growth (see Figure 7).

Figure 7: Global container traffic, 1996-2012



Source: UNCTAD: Review of maritime transport 2013, New York/Geneva 2013.

According to the United Nations Conference on Trade and Development (UNCTAD)[56], containerised trade recorded a 9-10% growth during the 30 years prior to 2008. In this period world trade increased about 1.75 times quicker than global GDP but container traffic doubled. [57] The maritime research institute Alphaliner has calculated an average multiplier effect of container traffic growth of 3.4 times global GDP.[58] According to the Organisation for Economic Co-operation and Development (OECD), the multiplier for European container port throughput amounted to about 4.5 times of the European GDP growth in the last two decades before 2008. [59]

The "pessimistic" view on future maritime container traffic

In the aftermath of the global economic crisis, the multiplier effect for world container traffic has dropped to about 1.5. Some representatives of the liner shipping and freight forwarding industry, as well as maritime analysts, argue that the future evolution of container traffic will fluctuate around this ratio. With respect to forecasts of long-term

[56] UNCTAD: Review of maritime transport 2013. New York/Geneva 2013.

[57] Leterme, Yves (OECD): Speech for ESPO conference. Göteborg, 15 May 2014; Institute of Shipping Economics and Logistics (ISL): Shipping Statistics and Market Review, Volume 56 N° 5/6-2012.

[58] Containerisation International: Peaks and troughs. June 2013.

[59] Leterme, Yves (OECD): Speech for ESPO conference. Göteborg, 15 May 2014.

GDP growth, this would result in an average 4-5% annual increase of global containerized trade [60]. These expectations relate to the following impact factors:

- Deceleration of "off-shoring" manufacturing processes from high- to low-cost countries;
- Limited potential for containerisation of additional commodities such as bulk cargoes;
- Persistent uncertainty about EU economic development;
- Growth rates of developing economies being smaller than forecast;
- World GDP and trade growth increasingly determined by services instead of goods;
- Concerns about the potential re-nationalisation of some supply chains and the implementation of various trade barriers, particularly since the WTO's Bali Package[61] has recently failed.

As maritime market analysts forecast that "South-South" container traffic on intra-Asian trade lanes and between Asia and developing countries in Africa and South America will continue to increase more rapidly than average, container throughput at European ports is expected to reach smaller growth rates.

The "optimistic" view on future maritime container traffic

Whilst the above factors indicate a more moderate development of world container traffic than in previous decades, other trends have been identified which could increase growth in containerised trade.

First, the relocation of production is still occurring for certain industries such as the petroleum industry. The Near East (ie Western Asia) is a cost-efficient location for the production of petroleum products. Petroleum products are then shipped as containerised cargo to the market.

Second, further traffic for EU container ports is expected to arise from trade with emerging markets, and with land-locked countries especially in Africa and Asia. A large share of cargo from these areas are currently not containerised as countries often lack logistics facilities and the financial resources needed to establish efficient rail and road hinterland infrastructures. Also, the regulatory framework and cultural habits tend to support conventional road transport. The more these countries improve their logistics competences and infrastructure and create a more competitive market environment the more it is likely that merchandise will be containerised, which will facilitate countries to be better integrated into global container-based supply chains.[62]

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[60] UNCTAD: Review of maritime transport 2013; Containerisation International, June 2013; Deutsche Verkehrs Zeitung, 24 February 2014.

[61] The Bali Package is a trade agreement resulting from the Ninth Ministerial Conference of the World Trade Organization in Bali, Indonesia on 3–7 December 2013. It is aimed at lowering global trade barriers. The package forms part of the Doha Development Round, which started in 2001.

[62] Standing Committee for Economic and Commercial Cooperation of the Organization of the Islamic Conference (COMCEC) (ed.): Developing Multimodal Freight Transport (MFT) among the OIC Member Countries. Ankara 2014 (study prepared by KombiConsult)

Third, the containerisation of cargoes and especially the penetration of the container into bulk cargoes (often believed to have reached its limit) are forecasted to continue. This expectation is based on several considerations:

- On imbalanced trade lanes, bulk commodities reduce the need to ship an empty container on the backhaul and enhance economics – examples include import dry freight containers to the UK being backloaded with scrap metal or waste packaging to the Far East for recycling and reprocessing;
- In order to minimise stocks, buyers of certain bulk commodities, for example in the chemical industry, reduce batch sizes. Thus the employment of containers is becoming increasingly competitive for smaller volume, higher-value shipments;
- The elimination of regulatory barriers may stimulate the containerisation of bulk cargo, as cited by the following example: "Since 2008, when grain trading was deregulated in Australia, the country's containerised wheat shipments increased tenfold"[63];
- The number of container ports across all continents is increasing, and the carriers are working on raising the connectivity between them. Simultaneously, as the frequency of calls of conventional vessels has been declining, so exporters and importers in some areas must employ containers to ship the goods and achieve competitive costs and lead times.

Fourth, supply-side structural changes will influence global container markets. For several years the liner shipping industry has suffered from overcapacity and limited profitability. According to UNCTAD[64], the world demand for seaborne container transport grew by an annual rate of 7.2% pa from 2000 to 2011 whereas container vessel capacity grew by an average of 10.1% pa. As a result, the prices for container movements, especially on the main trade lanes, have come under enormous pressure. Therefore, cost and yield management are key to the survival of container carriers:

- In addition to cutting staff and non-profitable services the shipping lines are keen to reduce fuel costs by reducing the travel speed. Instead of 24-25 knots, vessels move with an average speed of 21 knots (slow steaming), 18 knots (extra-slow steaming), or 15 knots (super-slow steaming). About 80% of the services between the Far East and Europe now are being performed by slow steaming vessels.[65] However, the substantial increase of time to market may lead to a loss of certain trades[66], including to rail-based landbridge services;
- The shipping lines increasingly deploy Ultra-Large Container Vessels (ULCV) of 13,000 to some 18,000 TEU of capacity on the main trades (see Figure 8) to achieve greater economies of scale. According to Drewry Maritime Advisors[67] round-trip slot costs of ULCVs are up to 30% below those of 8,000 TEU ships;

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[63] UNCTAD: Review of maritime transport 2013. New York/Geneva 2013

[64] UNCTAD: Review of maritime transport 2012. New York/Geneva 2012

[65] Ditto

[66] See more below under "near-shoring" and "landbridge traffic with China"

[67] Power, Tim (Drewry Shipping Consultants): Liner alliances: rationale. Speech at ESPO 2014, 15 May 2014.

- The recent years have seen a new wave of co-operation and consolidation in the liner shipping industry. The main goal is to enhance productivity by decreasing the slot cost per TEU and raise the load factor of the vessels deployed. Although the P3 alliance between Maersk, CMA-CGM and MSC has been rejected by China's Ministry of Commerce, observers anticipate that carriers will intensify the search for collaboration models which can be approved by competition authorities.

Apart from the potential drawbacks of extended transit times caused by slow steaming, the above measures should combine to reduce the costs of ocean container transport. Cost advantages may provide an additional momentum for facilitating global containerised trade and off-shoring production processes. Considering that large shippers forward hundreds or thousands of containers per year, rates of $100 or $200 less per TEU would add up to substantial savings in overall logistics costs.

Figure 8: 18,000 TEU container vessel Maersk Mc-Kinney Møller

Source: dpa

Taking account of these potential trends, container throughput at European gateway ports could increase stronger than anticipated. The multiplier effect could rise again to 1.8 or 2.0. This would result in compound annual growth rates ranging between 4.5% and 6.0% in the period from 2015 to 2025. They may occur particularly if the consensus forecasts of world trade, the EU economy and global container traffic do not match. Forecasts are strongly influenced by existing economic, currency and geopolitical concerns, the sovereign debt crisis and the uncertainties about the capabilities of large industrialised and developing economies to rebound from current weaknesses. The situation seems similar to the period after the 9/11 terrorist attacks when pessimism influenced long-term forecasts. Yet, they were immediately overthrown and replaced by optimistic (in fact overrated) expectations when the global economy boomed in the following years.

Within this section it is also worth noting the Sulphur Emissions Control Area (SECA) rules that take effect from 1 January 2015, where all ships operating in the North Sea,

Baltic Sea and English Channel will have to use a fuel with a maximum sulphur content of 0.1% compared to the current limit of 1%. Ship owners can either comply by switching to low-sulphur marine gasoil or continue to use high-sulphur bunker fuel and fit "scrubbers" to filter out pollutant gases before they are released into the atmosphere.

Trade publication Lloyds List reports that P&O Ferries estimates that meeting the new rules will increase its annual fuel bill by £30 million, costs it intends to recover from customers. The company said it had adopted a 'fair share' principle on this and was talking to its freight customers about it as part of annual negotiations on rates. Danish ferry company DFDS Seaways and Swedish counterpart Stena Line believed the surcharge would add, on average, around 15% to freight rates. DFDS has claimed the extra costs will force it to cut its Le Havre-Portsmouth route at the end of the year and put the viability of a range of other services under pressure.

Several container lines have reportedly already outlined their plans to introduce SECA surcharges from 2015. For example, feeder specialist Unifeeder has said it would impose a surcharge of €65 per container, whilst deepsea shipping line MSC has said it will implement a surcharge of up to €130 per TEU on shippers using its North European and North American services as a result of the new bunker rules. Similarly, Maersk Line has warned shippers to expect surcharges of €40-120 per FEU[68] on affected services from the start of next year. Logistics service provider Norbert Dentressangle confirmed that it will be passing these additional costs on to its customers.

In terms of the potential implications for CT, Samskip's chief operating officer Diederick Blom reported to Lloyd's List that introduction of ECA may drive a shift back from maritime to road transport on certain European short sea routes, albeit in the longer term he expects transport by sea and rail will increase and by more than road. On the busy cross-Channel short sea ferry corridor, the increased costs, contrasting with recent reductions in Eurotunnel tolls for through rail freight services, may further stimulate the under-performing CT road/rail market on this corridor.

Near-shoring

Near-shoring or near-sourcing means the relocation of the manufacturing of components (or of an entire production process), which were previously off-shored particularly to China and other Asian countries, closer to the home market. This does not necessarily imply reversing the off-shoring of the production. Often it will not return to its originating country, but set up in Latin America (in the case of products for the North America market) and/or in Central and Eastern European or North African countries (to serve the European market).

The main driving forces for this trend are: shrinking of the cost advantage in the Far East due to increasing labour costs; lower transportation and inventory costs; improved product quality; reduced vulnerability to supply chain disruptions, for example, caused by natural disasters such as those encountered in recent years in Japan, Thailand, Iceland, or New Zealand; better protection of intellectual property (patents, production

[68] Forty-foot Equivalent Unit (ie 2 x TEU)

knowledge); faster supply chain velocity from production to market, particularly for fast-moving consumer goods such as fashion garments.

The argument in favor of near-shoring, for the time being, is supported by several published examples. Inditex, the Spanish retailer of garments, for instance, has shifted parts of its production to countries around the Mediterranean Sea. Varta, a German manufacturer of car batteries, has closed its Chinese factory and returned the production to European plants. More cases have been reported from companies manufacturing machines, high-quality toys or furniture. A 2013 report by Boston Consulting Group (BCG)[69] on the near-shoring trend in the US highlights that 12% of 200 US companies with sales above $1bn have brought back some operations since 2010, and another 38% are considering it. It is likely that research on the European market would deliver similar results. Furthermore, it is anticipated that other companies or industries will make the same move, as fuel prices increase and technologies can be deployed at European plants that allow for the same cost per unit as a more labour-intensive (or indeed automated) production process in Asia.

Other logistics experts suggest that the relocation of production away from Asia is over-stated. Near-shoring may be a solution for individual companies, specific products or stages of production, but they do not believe that it will significantly decelerate the globalisation of supply chains. They stress that production in China and other Asian countries is not only designed to supply global markets but also serve the domestic demand. Economies of scale continue to compensate for the increase of wages and other costs. Observers also forecast that when production turns away from China due to non-competitive costs it will simply be relocated to the next low-cost country rather than to Europe or the US, a practice that companies such as Nike have adopted for several decades.

Near-shoring is a fairly recent trend. In addition to productivity benefits and supply chain security aspects, the disruption of the world economy since 2008 may have contributed to companies questioning globalisation of production and considering new solutions. The near-sourcing trend, however, may fade away as rapidly as it has emerged, when the economic situation starts to improve.

Existing information is not sufficient to comprehensively evaluate the “ifs”, the “whens” and the potential scale of the modification of corporate / global production strategies. Therefore we draw modest conclusions. We assume that the trend to relocate production in Europe or in the vicinity is sustainable, mainly due to the following factors:

- Enhanced automation technologies which will enable cost-efficient production of smaller batches;
- Strong price competition which will require suppliers to continue reducing inventories;
- Proximity to customers.

[69] Behind the American Export Surge: The U.S. as One of the Developed World’s Lowest-Cost Manufacturers, Boston Consulting Group, 2013

Near-shoring may therefore contribute to slowing the rate of growth in container traffic, but it will not significantly affect the direction of growth. In contrast, the near-shoring might also lead to new container trade lanes, as the European factories will then demand supplies and components from other parts of the world.

Conclusions on the evolution of maritime container traffic in EU sea ports

Against the background of the above discussion, we expect that maritime container throughput at EU gateway ports, which are central to the exports and imports of MS, increases by about 3.5% to 4.5% pa over the next 10 to 15 years. This assessment ranges between the various outlooks of maritime research houses and port authorities. The analyst Ocean Shipping Consultants[70], for instance, expects annual growth of between 3.8% and 5.2% pa for gateway traffic in North Sea sea ports until 2020. After 2020, growth is then expected to diminish to between 1.6% and 3.8%. The Port of Rotterdam forecasts CAGR of almost 4.2% for container hinterland traffic at the Maasvlakte in the period to 2035[71] whilst the Hamburg Port Authority foresees an increase of 7.5% pa until the year 2025[72].

In addition to the general trend of container traffic, the regional distribution of the future growth of throughput at EU sea ports is an important factor for the evolution of container hinterland CT services. Yves Leterme, the OECD Deputy Secretary General, observes: “a long-established feature of the European port system is the dominance of North-West European ports, from countries like the Netherlands, Belgium and Germany.”[73] Actually, the main container ports in these countries (in order of volume Rotterdam, Hamburg, Antwerp, Bremerhaven and Zeebrugge) accounted for about 45% of the European container traffic of about 80 million TEU in 2013[74]. Leterme expects that this prevalence will rise in coming years, as the external trade prospects of the hinterland regions of these ports are regarded as being far better than those for Southern European countries.

Leterme’s forecast may appear surprising, as Mediterranean gateway ports see themselves in a beneficial geographic position to capture a larger share of deepsea container traffic. Placed along the route of the largest trade lanes between Europe and China, Southeast and Southern Asia countries, they emphasize that using these ports (in conjunction with inland transport links) can save clients 5-10 days of lead time compared to using North Sea ports. Thus customers receive their merchandise earlier and can reduce inventory cost substantially.

Yet in spite of these apparent benefits, the Mediterranean gateway ports could not raise their market share in recent years. This is because the five North Sea ports, for the time being, have a distinctive competitive edge.

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[70] Ocean Shipping Consultants: North European Containerport Markets to 2025, Chertsey, 2012.

[71] http://www.portofrotterdam.com/en/Business/Containers/Pages/projects.aspx; Port of Rotterdam: Port Vision 2030;

[72] Hamburg Port Authority: The port development plan to 2025.

[73] Leterme, Yves (OECD): Speech for ESPO conference. Göteborg, 15 May 2014

[74] Ditto.

First, their hinterland extends to both the national market and adjacent countries while all other EU gateway ports, except for Koper (see more below), mainly only serve origins and destinations in their home country.

Second, they are important transhipment hubs; about every third container is carried on or arriving by a feeder vessel.

Third, the North Sea ports traditionally have strong connections with North and South America based on the manufacturing industries and import centers in their hinterland.

Fourth, size matters. The bundling effect of the various trades creates a strong market position resulting in several competitive advantages compared to other ports: larger vessels and more carriers serving the ports; lower TEU rates; and higher frequency of sailings. At the end of the day, most import containers from the Far East travel faster and at lower cost[75] to destinations like Austria, the Czech Republic, Slovakia or Switzerland, despite longer sailing times compared to Mediterranean ports.

Fifth, the main seaborne inter-continental trade lanes between Europe and Asia will increasingly be served by ULCVs. It is expected that shipping lines will reduce the number of ports of call. This will likely lead to a concentration of container volumes at a few key ports in Europe that will be called directly per loop, or at transhipment hubs, while more ports will be served by feeder vessels or via land bridges. In this respect the North Sea ports can take advantage of their existing strong market position.

Finally, the ports can rely on efficient hinterland transport systems linking them with both inland and cross-border economic centres. As concerns CT operations the ZARA ports currently focus on inland waterway services and German ports on rail services.

There are no indications that the four largest EU container ports, Rotterdam, Hamburg, Antwerp and Bremerhaven, are not able to retain their leading position as European gateways. They may lose market shares for transhipment and/or hinterland containers from and to adjoining countries (see below). But their service profiles and overall market position are so competitive that, provided the forecast on the hinterland economies is achieved, a decline of the North Sea ports is not likely. Therefore they are expected to match the expected average annual growth rates of EU container ports of 3.5% to 4.5%.

In contrast to Leterme, however, we do not anticipate that they can expand their dominance in the European port system and achieve disproportionate increases of export and import container volumes. It is very likely that they can retain “traditional ties” such as the German ports with the Austrian and Czech export industry, or Rotterdam and Antwerp with the German Rhine-Ruhr region and Switzerland. Sea ports in other EU MS, however, will have to enhance their market shares at the expense of both the North Sea main ports and regional competitors. The port of Gdansk in Poland illustrates how quickly logistics can be re-organized if a more cost-efficient service is delivered. By integrating Gdansk into a Far East loop the carrier Maersk has shifted the pattern for thousands of containers previously moved by rail or road to/from North Sea ports, which are now handled at the Polish port and eventually travel on national CT rail-road services.

[75] See, for example, statement of Swiss retailer Migros in: International Transport Journal, 27-30 2014

Based on these considerations the following main developments are expected:

- The seaborne throughput of all gateway ports will grow or decrease, depending on the performance of the external trade of their home country;
- UK ports maintain their stand-alone position as exclusive gateways for the inland market;
- Container ports in Poland will increasingly get direct calls of ULCVs and, in the long-term, also serve as the hub for feedering Baltic Sea ports. Despite this trend the major North Sea ports will continue to handle export and import containers from trades or carriers, for which the Polish and Baltic markets are too small;
- Swedish, Danish and Finnish ports overwhelmingly receive feeder vessels and will grow their throughput in line with home economies. When the Fehmarn Belt fixed link is finished, however, there would be opportunities for the port of Hamburg to serve locations in Denmark and Sweden by rail-based CT operations;
- France is expected to improve the hinterland connections of its major sea ports thus becoming more attractive for direct calls and ULCVs and, as a result, can reduce the percentage of containers carried by hinterland modes to/from Antwerp or Rotterdam. Yet it is not expected that the French ports will become gateways for neighbouring countries;
- The latter is also anticipated for the ports in Spain and Portugal. If a major carrier decided to only call at Barcelona or Valencia and serve Southern France via hinterland transport, a market potential for cross-border traffic would arise – and vice versa;
- Along the Tyrrhenian and Adriatic Sea coastline a string of container ports are located, which have overlapping catchment areas. All ports are virtually only serving their respective home country except for Koper and, to a lesser extent, Trieste. Koper in particular has been successful in becoming a regional gateway port, handling containers with origins and destinations not only in Slovenia but in several adjacent EU and third countries. Like Koper, some other ports have invested in improving terminal handling facilities and dredging the harbours and/or approach channels to accommodate larger vessels from 10,000 to 14,000 TEU. From today's viewpoint it is not possible to assess whether Koper can retain its position. Yet, we expect that up to two ports can become gateways for an extended catchment area serving both inland and cross-border markets;
- The Greek port of Piraeus has boomed recently as it has been chosen as one of the European hubs of a Chinese shipping line. However, the port is not likely to become an important regional gateway, since the hinterland distances to volume-intensive markets are too large to ensure competitive costs;
- Due to the increasing deployment of large-capacity vessels, the Black Sea ports in Bulgaria and Romania will only be served by feeder vessels and will primarily remain gateways for their domestic markets.

Impacts on CT operations in the EU

For many years it was a common belief that the magnitude of the gateway volume of a container port basically determines the opportunities for CT hinterland services. Meanwhile a new paradigm has been established: both factors are interdependent and can stimulate each other as the capacity and the quality of the hinterland transport system also impacts on the attractiveness of the sea port for being used as gateway. The evolution of container throughput and CT hinterland volumes of the major North Sea ports in the past two decades bears witness to this close relationship. It is also confirmed by a recent econometric study on the early 20 years of global containerisation.[76]

Against this background it is expected that CT volumes will increase stronger than the respective seaborne container throughput in those EU ports:

- Which already can rely on a "mature" and efficient system of CT hinterland services, either by rail or inland waterway or both;
- For which CT service offerings are implemented or enhanced through various actions such as the upgrading of hinterland infrastructure (removal of bottlenecks, more capacity for freight), the improvement of rail or inland navigation access, the set-up of efficient production systems or the application of improved operations and customer information systems.

In those cases the growth of CT services in the hinterland of sea ports is regarded as an almost self-accelerating process. Increasing seaborne container volumes lead to a better utilisation of existing services. This will encourage CT service providers to launch additional services and either supply additional routes, increase frequencies or deploy larger capacity barges or trains when feasible. The related improvement of quality in terms of service frequency and reduced pre-/end-haulage distance will convince additional shipping lines and logistics service providers to use CT services and volumes will increase. This could then be a stimulus for further improvement of CT service levels.

CT hinterland services will gather additional momentum in gateway ports that are included in the loops of ULCVs, provided that the containers are overwhelmingly carried from and to the hinterland.[77] The ULCVs will load and unload even more containers per call than smaller vessels. Some EU port terminal operators recently reported that they handled more than 10,000 TEU per call compared to previous peak levels of about 4,000 to 6,000 TEU. As a result of increasing call sizes, peaks in hinterland transport arise. Considering the already highly-utilised road networks, this will contribute to the use of high-volume transport systems such as CT networks where spare capacity exists.

The evolution of maritime CT rail/road will be positively impacted at sea ports that fulfill the above conditions and have little or no effective, high-capacity inland waterway access such as individual sea ports in France, Germany, Poland, Spain and along the Adriatic coast.

Rotterdam and Antwerp, though providing for most efficient CT inland waterway/road services, will additionally need rail-based CT offerings to address the expected growth of

[76] Bernhofen, D.M. et.al.: Estimating the effects of the container revolution on world trade,3 February 2012.

[77] At transhipment hubs served by ULCVs the containers are forwarded to other ports by feeder vessels where they might continue on CT services to the respective hinterland.

container traffic. Here, CT operators, however, are challenged with comparatively short inland and cross-border transport distances to the areas of largest market volumes. Efficient, industrialised operations (see more under section 3.2.2) can mitigate but not fully compensate cost-differences with road transport. For the foreseeable future, stimulating CT rail/road over distances up to some 300km will likely require incentives, regulatory or contractual measures to make them grow as forecasted. The situation of hinterland CT rail/road services is similar for major ports in England, France and Italy.

The largest impact on CT inland waterway/road is the development in the ZARA ports. These are by far the leading market for this CT sector, with high existing shares of inland waterway transport in the hinterland. The growth of seaborne container throughput will increase the potential for CT services and the pressure to increase modal shift in hinterland transport to CT. The growth expectations for French and German sea ports on the North Sea have a considerably lower impact on total CT inland waterway/road volumes in the EU. The nautical conditions often only allow barge transport capacities of less than 100 TEU. Also, the water level of hinterland rivers is irregular, frequently changing from high to low tides. The same applies to other sea ports with navigable inland waterway connections, such as Marseille and Constanta.

The development of maritime container traffic has no immediate or potential indirect impact on short sea/road operations as, by definition, they concern the continental transport of goods (see Table 58).

Table 59: Trends in maritime container traffic: impact on CT

CT sector	Likeli-hood	Direction and magnitude of impact						
		Negative impact			0	Positive impact		
		-3	-2	-1		+1	+2	+3
Rail/road	High							X
Inland waterway/road	High							X
Short sea/road	High				X			

Source: KombiConsult analysis

Modal shift initiatives by sea ports

Many EU sea ports aim to change the modal split of their container hinterland volumes. The increasing saturation of roads in ports and on links to the hinterland, the congestion of road-side handling facilities[78] and the concern about climate change require sea ports to strengthen non-road modes. Efficient hinterland services, too, are a crucial factor for sea port competition. Sea ports regard the implementation of efficient hinterland services as a self-perpetuating process: high-volume CT hinterland systems enable economies of scale within ports; a cost-efficient operation, including competitive terminal handling charges, attract larger vessels and more service providers; more service providers stimulate competition, which in turn can continue to raise the attractiveness of the port.

[78] See, for instance, topical problems in Hamburg in: Deutsche Verkehrs-Zeitung, 21 and 28 July 2014.

The modal shift ambitions of sea ports have led to a wide range of initiatives to foster the creation and retention of CT services by rail and/or inland waterway:

- Port authorities and container terminal operators engage in enhancing the local infrastructure, for example, by electrifying from the main line into the port, raising the capacity of the connection to the main line or by enlarging locks. These actions contribute to reducing costs and raising reliability;
- Ports build or support the construction of state-of-the-art CT rail/road terminals or, if applicable, establish dedicated container barge facilities to accelerate the service for inland waterway operations;
- Ports and terminals aim to strengthen the co-operation with inland terminals to improve hinterland accessibility;
- Some stimulate cost and service competition by liberalising the rail access for every authorized railway undertaking ("open access") or taking over rail infrastructure and operation from - typically – the national IM or RU;
- Some container terminal operators play a particularly active role in raising the modal share of rail. They establish CT rail/road operators and implement hinterland services of their own, or control container barge services [79];
- Ports offer financial incentives to launch new CT hinterland services or raise their frequency[80];
- The Port of Rotterdam has taken a unique approach. Terminal concessions for the new Maasvlakte 2 area are linked with modal share targets and state penalties, if shares of CT services do not reach their targets. This aims to achieve the port's modal split objectives of increasing the market shares of barge from 40% to 45% and rail from 13% to 20% and thus bringing down road's share to 35%[81];
- Finally, many ports carry out promotion tours in hinterland economic centres to encourage shippers and forwarders to increase the utilisation of CT services by rail and barge.

The latter marketing activities are fairly "soft" measures, attempting to raise awareness for existing opportunities and the benefits of using CT services, and have a relatively small effect on modal split. All other initiatives can have a substantial leverage for a modal shift to non-road modes of transport. The first four actions create favourable framework conditions and impact indirectly on the behavior of relevant stakeholders. The next three measures, in contrast, can immediately increase the use of rail and inland waterways. Among them, direct financial aids are regarded as critical in several respects.[82] First, their impact depends on whether the benefit is passed on to clients upfront, or merely gets captured by intermediaries (there is anecdotal evidence of some

[79] For instance: ECT, Eurogate (Egim, boxXpress, Sogemar) or HHLA (Metrans, Polzug).

[80] For example, port of Rotterdam's "Rail Incubator" (http://www.portofrotterdam.com/en/Business/Containers/Documents/Factsheet-Rail-Incubator.pdf)

[81] Port of Rotterdam: Port Vision 2030.

[82] See more details under chapter 5.

train operators in UK increasing their prices to customers who seek or secure Government CT incentives). Second, CT services may be suspended when the incentive expires. And third, financial aids can distort competition between CT service providers and other sea ports. Therefore grants to support CT operations should be applied very selectively.

The scale of modal shift actions, for the time being, varies considerably among EU sea ports. Some apply virtually the entire portfolio, while other ports progress more slowly. This is mainly a result of the opportunities of the respective regulatory framework and the different level of burdens caused by road haulage in ports.

Considering the future growth of container hinterland volumes, it is expected that more and more sea ports will be under pressure to adopt modal shift initiatives. The main gateway ports that are likely to be served by ULCVs might be forced to adopt a multi-faceted set of interventions. If beneficial framework conditions and incentives are not sufficient to induce a modal shift, and improve the environmental performance, sea ports and related container terminal operators may then need to impose restrictions on road haulage, such as time-related driving bans, quotas, or additional handling charges, or limit access to the ports by lorries which qualify under a specific emission standard.

Impacts on CT operations in the EU

While the general strengthening of CT rail/road is relevant for all sea ports, CT inland waterway/road is limited to those with competitive inland waterway links. This means that most of the existing and anticipated modal shift actions are targeting primarily or, in some cases, exclusively CT operations over rail. Therefore we expect that their impacts on the evolution of CT rail/road in the EU are moderately positive while the impetus towards inland waterways will be on a smaller scale. The measures taken by sea ports, in the first place, are not designed to affect CT short sea/road. So their impacts on this CT sector are supposed to be neutral. If, however, major sea ports – in conjunction with public authorities - were forced to restrain road haulage in the port area, short sea/road operations could be negatively impacted (see Table 59).

Table 60: Modal shift initiatives by sea ports: impact on CT

CT sector	Likeli-hood	Direction and magnitude of impact						
		Negative impact			0	Positive impact		
		-3	-2	-1		+1	+2	+3
Rail/road	High						X	
Inland waterway/road	High					X		
Short sea/road	High			X	X			

Source: KombiConsult analysis

EU Internal Market

The lingering economic crisis in most EU MS has slowed down the Intra-EU goods transport between land-based origins and destinations (continental traffic). It has still

remained more dynamic than almost all inland, Intra-MS freight markets. Also, it is expected to see an upsurge again when the EU economy recovers, since the fundamental factors driving the integration of the EU and stimulating Intra-EU trade have not altered:[83]

- The division of work will progress in key manufacturing sectors such as the automotive, machine, electronic, food, home appliances, metal and plastics processing industry. Companies will relocate some parts of the production process or even entire plants to MS in Central and Eastern Europe, taking advantage of significant differences in labour, land and construction cost and taxes, the availability of subsidies and a skilled workforce;
- Apart from outsourcing processes, manufacturing companies will increasingly set up production in the new MS for supplying their domestic markets;
- The standard of living in the new EU-13 MS as concerns, for instance, consumer goods and the penetration rate and the age of consumer durables is considerably below the level in EU-15 MS. Households are oriented towards Western lifestyles and therefore have an enormous backlog of demand for these kinds of goods.

New Intra-EU supply chains are established in every case. In the first two, parts, components or semi-finished products have to be shipped in one direction to be further processed or assembled, and manufactured or semi-finished goods are carried in the opposite or completely different directions. In the third case, continental transport logistics are designed to deliver the goods, which are either produced or (if it is overseas merchandise) stored in distribution centres in Western Europe, to supply retailers in the new MS.

The recent trend of near-shoring is due to convey additional momentum to Intra-EU trade but also to international freight transport with neighbouring third countries. As described above it is forecasted that production of specific goods meant for the EU market will be relocated from Asian developing economies to Central and Eastern European countries, to Turkey or to North African states. This requires setting up appropriate logistics networks to forward supplies to the factories and deliver products to the final customers.

Impacts on CT operations in the EU

Against this background we expect that Intra-EU continental freight between the old and new MS will increase more than the EU average, though at a slower pace than forecasted in the pre-crisis economic boom years.

Except for the regional sourcing of supplies the volumes will tend to be carried over distances of more than 500km and, in some cases, over very large distances of 1,000km or more. This creates large opportunities for CT rail/road, provided that appropriate systems can be implemented to consolidate the individual flows of cargoes and operate

[83] See, for example, UIC (ed): DIOMIS. Evolution of intermodal rail/road traffic in Central and Eastern European Countries by 2020. Paris, arch 2010 (8 country reports). Deutsche Post: Delivering tomorrow. Customer Needs in 2020 and Beyond. A Global Delphi Study. Bonn, June 2009.

efficient direct trains. Thus the further evolution of the EU Internal Market, plus the near-shoring activities will, in general, have a large positive impact on this CT sector. This assessment disregards whether CT services can match customer requirements and the performance of road hauliers, in respect of costs and service level.

CT inland waterway/road is unlikely to benefit from the above trends. Not only is the sector focused on the transport of containers with overwhelmingly overseas goods, also the most effective waterways are in Western Europe. The only major link with the new MS, disregarding the river Elbe, is the river Danube. Past trials have shown that CT services are not competitive owing to the duration and unreliability of service. Only if the navigable conditions were substantially improved, which is unlikely within the forecasting period, a small potential for continental loads would arise.

The trends described above have a slight to medium positive effect on CT short sea/road on Intra-EU and international trade lanes. It will be small if CT rail/road operators are capable of implementing competitive services to/from ferry ports, otherwise medium. The impacts on CT short sea/road mainly result from supply and distribution road hauls that use ferry services between Greece, Turkey and North African countries, on the one side, and Italy, Spain and the UK, on the other side (see Table 60).

Table 61: EU Internal Market: impact on CT

CT sector	Likeli-hood	Direction and magnitude of impact						
		Negative impact			0	Positive impact		
		-3	-2	-1		+1	+2	+3
Rail/road	High							X
Inland waterway/road	High				X			
Short sea/road	High					X	X	

Source: KombiConsult analysis

Trends in road haulage cost and pricing

Apart from service level requirements like transit time and reliability, transport costs have always been a key decision factor in mode choice. Since the liberalisation of the EU goods transport market and the elimination of tariffs and quotas, road haulage generally has set the benchmark price for inland and Intra-EU movements of general cargo. Competitive CT operations must at least match, if not undercut, the costs of a door-to-door road haulage service.

Increasing competition, declining volumes and revenue margins in the aftermath of the economic crisis led shippers, logistic service providers and shipping lines to consider costs even more carefully. This is clearly reflected in the slump of market prices for road haulages since 2008, as described under section 3.1.1. Their evolution also illustrates a sometimes perverse market behavior, reducing freight rates while fuel costs were soaring. Despite a slight recovery of the EU economies, market prices are stagnating.

Research studies and assessments of future EU goods transport forecast a distinct increase in the cost of road haulage. The main considerations are:

- Rising fuel prices;
- Allocation of external cost of transport (polluter pays principle);
- Increased road network congestion leading to longer, more unpredictable transits;
- Increased road vehicle investment cost to comply with stricter emission standards;
- The threatened shortage of lorry drivers requires road transport companies to pay higher wages to retain trained drivers;
- Increasing infrastructure user charges (user pays principle).

The supporters of this assessment argue that rising costs will result in higher market prices for long-distance transport and thus strengthen the competitive position of CT operations. It will reduce the resistance among shippers, forwarders and shipping lines to use CT services and increase their share of modal split. Moreover, the break-even distance of CT services will decrease and CT services will become cost-efficient on additional routes both for container hinterland and continental shipments. Shippers might anticipate this development and intensify their modal shift activity accordingly.

The rationale appears to be compelling at first glance. But even if the underlying assumptions come true, the past development of freight rates quoted by road hauliers shows that there is not a clear linear relationship with the increase of individual cost components. This is due to a combination of several factors, which are expected to impact on the future pricing behavior of hauliers as well.

First, the above argument underestimates the capabilities of the automotive industry to produce engines, wheels and other components that contribute to save fuel and reduce emissions and therefore hold down transport costs. New technologies such as dual-fuel diesel / gas[84] powertrains (and in due course pure gas) With respect to previous innovations in this industry it is also likely that prices will flatten once the new technologies achieve mass production.

Second, the EU road haulage market is highly competitive and price-sensitive because it has been dominated by a large number of small companies and owner-operators. In the past two decades some transport companies have considerably grown and now manage fleets of thousands of vehicles. They may have a stronger negotiation power than small hauliers. This concentration of power with larger hauliers is likely to continue as smaller companies (particularly owner-operators will one or a small number of vehicles) retire or exit the market, or are absorbed into larger operators. The extent to which a smaller number of larger road haulage companies might be able to drive rates up remains open to question.

Third, the argument also underestimates the ingenuity of the road haulage industry to raise productivity and cut costs. This relates to measures designed to improve load factors, reduce fuel consumption, minimise empty runs or recruit lorry drivers from low-wage countries. Medium and larger hauliers are making increased use of ICT and telematics to continually chase marginal improvements in efficiency.

[84] Liquefied Natural Gas (LNG) or Compressed Natural Gas (CNG), including biogas-derived fuels

In the foreseeable future road haulage costs and market prices for long-distance road transports are therefore anticipated to rise gradually and moderately, at the most, as regards the first four factors above. This is also because forecasts on the evolution of fuel costs vary considerably. With respect to the US shale oil fracking industry, development of new oil fields and new means of producing it (e.g. biodiesel from recycled plastic) it is not clear if at all and, if so, to what level the price of oil is going to increase. The comparative cost of road and CT over rail and inland waterway will not fundamentally change, not least as rail is faced with additional costs for reducing noise and other environmental impacts.

What can drive up road freight rates, in contrast, are economic boom times and the implementation of substantial infrastructure user charges. This is a lesson of the years 2005 to 2008. After market prices in the EU had been declining over many years they increased strongly and peaked at up to €1.20 per vehicle-kilometer on Intra-EU and domestic trade lanes. The central factor was an “excess” of demand. Based on the soaring transport volumes on virtually any commodity market, the demand exceeded the capacity that could be supplied by freight operators at requested times (this is still the case for container haulage by road out of some major ports). This led to very high prices quoted to try and choke off demand. To avoid this situation, shippers and logistics service providers were keen to secure capacities and concluded annual or even multi-annual contracts including considerably increased rates (or in some cases by use of CT). The overall market price soared.

The second major impact was the implementation of the electronic tolling system for lorries of more than 12 tonnes using motorways in Germany, which arrived at the same time as the economic recovery. The crucial impacts on road haulage costs and pricing behaviour were as follows:

- There was almost no opportunity to avoid paying the charge, as using the toll-free secondary road network would generally be inefficient in terms of transport times;
- The substantial level of the user charges of about 12 to 15 cents per kilometer, adding between 10% and 20% to the cost per vehicle-kilometre depending on trade lane, meant that these costs could not be fully compensated by productivity gains;
- Shippers and forwarders overwhelmingly accepted the need to reimburse the toll, at least for loaded movements;
- German motorways are a necessary piece of infrastructure, used for a considerable percentage of Intra-EU journeys.

In the past years, several other EU MS that had not tolled road vehicles have established charging systems for top category roads, for example, the Czech Republic, Hungary and Poland. Belgium and the UK are preparing the introduction of user charging schemes. It is expected that, by about 2020, road tolls will be levied on goods vehicles throughout most or all of the EU. Public authorities will be sensitive in determining the level of these tolls, in order not to threaten economic development. Impacts on total road haulage cost could further be mitigated by two factors:

- Secondary roads, which in some countries are the backbone especially of inland traffic, could be excluded;

- Other taxes or fees could be reduced – for example, in the UK, domestic-registered lorries now pay the new road user tax (introduced April 2014) at the same time and in the same transaction as the pre-existing vehicle excise duty (VED), which has itself been reduced. The UK government has stated that as a result of this reduction, over 90% of domestic hauliers will not see any increase in their costs as a result of the new road tax being introduced.

As well as road tolls, road hauliers dependent on Northern European short sea ferry services (e.g. to/from island MS such as Ireland and the UK) are also expected to be hit by additional ferry costs arising from the introduction of ECA (see earlier).

Impacts on CT operations in the EU

Altogether, we expect that the increasing implementation of road infrastructure charging systems (and other costs such as ECA) will lead to a small rise of the general market price level and thus only slightly improve the competitive position of CT operations. This suggests that pre- and on-carriage road legs are short compared to total journey and/or are performed on non-tolled roads, which is typical for collection and delivery of CT units in CT by rail and inland waterway.

Increasing road haulage costs will positively impact on CT inland waterway/road services, both on continental and container hinterland routes, unless the small cost advantage is then offset by price increases. As inland waterways already have a cost advantage, this CT sector will see little or no benefit (eg on low-capacity rivers and canals) from higher road freight rates. CT short sea/road operations, in contrast, will be confronted with increased cost of the road legs (compounded in some areas by ECA), thus reducing its competitiveness accordingly. However, it is not expected to have a significant impact on volumes as the road distances are limited to 150km for CT operations and this sector is supposed to have a considerable cost advantage to rail (see Table 61).

Table 62: Trends in road haulage cost and pricing: impact on CT

CT sector	Likeli-hood	Direction and magnitude of impact						
		Negative impact			0	Positive impact		
		-3	-2	-1		+1	+2	+3
Rail/road	High					X		
Inland waterway/road	High				X	X		
Short sea/road	High				X			

Source: KombiConsult analysis

Trends in supply chain management

Among the wide range of logistics trends, some issues could specifically influence the future demand for and supply of CT services, namely:

- Service level requirements: speed and/or reliability;
- Sustainable and secure supply chains;

- Consolidation vs. fragmentation vs. horizontal collaboration.

Service level requirements

Studies on shippers' decision-making criteria have for many decades arrived at the same findings. The primary **service level requirements** are the promise to meet a requested transit time and reliability; the regular fulfillment of this promise at a defined rate; and to deliver this service at minimum cost.

As with cost, road haulage sets the benchmarks for transit time and reliability, which CT services often cannot meet. CT stakeholders claim that this is because shippers and their LSPs misinterpret lead time and on-time delivery for speed of transportation. If these end users were "really" concerned about reliability and were prepared to slightly widen their time windows, it is argued CT services could deliver in many cases.

Some market observers expect that, except for some high-value goods, the relevance of transit time will decrease in the future, whilst compliance with scheduled arrival times will become paramount. To assess this suggestion the following section examines the current situation of the main freight markets, container hinterland transport and continental cargo traffic, and the likelihood of changes in their supply chains.

Impacts on container hinterland CT in the EU

As concerns container hinterland traffic it is useful to distinguish export from import flows. The huge majority of import containers are not immediately moved to the hinterland but for various reasons remain stocked in sea ports for several days. Once the free demurrage (storage) time expires, they will normally then be carried to an inland depot, where the containers are stored again. According to a study on the German CT market[85], import containers on average remain for another six days at an inland terminal when arriving by container barges and about three days when moved by rail, before they are collected by the consignee. As the hinterland journey is not time-critical, costs determine the modal choice. CT services by rail and inland waterway, if supplied on the respective trade lane, can have a cost advantage based on economies of scale on the main haul, with an integrated service including container storage in the terminal and delivery to the end customer.

Container operators estimate that up to 40% of all import containers at major EU ports become "urgent" despite having stayed several days at the port. This is due to various reasons, such as lack of customs documents, improper co-ordination between actors of the supply chain and last-minute ordering by consignees. Another reason is that exporters in the Far East forward large numbers of containers, estimated at more than 20% of this trade, to big EU ports without a contracted customer for the merchandise. Once the merchandise is sold, the container then needs to be moved to the client as fast as possible. Only lorries can offer a suitably flexible and fast response to make the deliveries to the inland destination on time. Operators report that in these cases freight

[85] Creating a development concept for CT in 2025 to support public policy in Germany, HaCon & KombiConsult, 2012

rates are less crucial and can be quoted considerably above market level.[86] Similarly, "express" export containers may also emerge, where shippers try to recover from delays in production of export goods.

The latter also impacts on the export container market. Road hauliers carrying an import container to the hinterland at a disproportionate high price are prepared to take a full or empty container back to the port at a low rate and still achieve a good margin for the round trip. Thus road transport captures a big share of the export container market, which otherwise tends to be less demanding about speed. Forwarders and CT operators report that the majority of containers for export can be picked up from shippers up to one week prior to the departure of the ocean vessel. This would easily allow CT services to be used, even taking account of interim storage at the inland terminal.

The analysis shows that containers are primarily moved swiftly because of shortcomings in supply chain management, production planning or because the logistics decision maker is keen to retain a high level of flexibility (which in turn could be a flaw of the supply chain). Further, urgent import containers have consequential effects on the export market. They "accelerate" the transport of export containers to ports by inexpensive lorry hauls, even though they would otherwise have had sufficient time to reach the sailing of the vessel.

Logistics analysts expect that global competition will intensify. Shippers are set to further enhance their supply chains and ensure productivity gains. Higher transport costs incurred for the movement of containers, due to poor planning or management, will increasingly be less acceptable.

Improving global logistics will also mean decreasing inventory cost. Supply chain managers will seek to reduce door-to-door transit times by trimming the time allowed for delays or transhipment en route. The largest savings can be achieved on the hinterland legs after unloading of the container on the dock or between origin of the cargo and sailing of the vessel, respectively. Shippers, however, will not completely eliminate these reserve margins, in order to ensure that the goods are delivered reliably. Hence, reducing existing interim storage by two or three days would still leave sufficient time for using CT services by rail and, in many cases, even inland waterway. Enhancing supply chains can therefore substantially increase demand for container hinterland CT rail/road services, and to a lesser extent for CT inland waterway/road. The trend has no impact on CT short sea/road (see Table 62).

Impacts on continental CT in the EU

Continental cargo transport comprises of two distinct market segments, the full/part-load traffic and groupage/parcel services.

The latter business requires extraordinary service parameters: fast transit times corresponding to an average travel speed of lorries from 65 to 75km/h and a >99% level of reliability. Logistics service providers offer overnight services on all inland trade lanes guaranteeing a 24-hour door-to-door transport and a 48-hour service on virtually all

[86] See e.g. Implementation Plan Rail Freight Corridor 1, IP RFC 1_V1.0, dd. 03.12.2013 1 (Public Version)

cross-border trunk routes in the EU, with few exceptions. CT rail/road operations can rarely comply with this service level, due to the time required for pick-up and delivery and terminal handling. In Germany, DHL and Hellmann operate a few tailored domestic services. To match the requested schedules, CT trains are running at up to 140km/h on certain rail sections.

Service levels are very much alike among forwarders supplying groupage cargo or parcel services. As competition is intense, production costs are critical. Therefore service providers have optimised and industrialised their operations. It is not expected that these requirements will relax in future with less demanding service profiles. In contrast, the current trends as concerns, for example, e-commerce or the reduction of stocks at supermarkets rather indicate an acceleration of the transport of small shipments. The e-commerce sector is increasingly moving towards next-day or same-day delivery networks. A mode shift potential for any CT sector is therefore not likely to emerge from these markets, save for very high-speed (>140km/h) rail services.

The situation is very different in the full/part-load business. First of all, the transport volume is several times larger than groupage/parcel services, though the latter is growing faster. Secondly, the service parameters are generally less demanding. Whilst the scope of this study cannot cover the whole range of commodities and their supply chains, the existing competitive situation with CT rail/road services and potential trends therefore are exemplified for the largest market segments.

Today's standard logistics concept for long-distance hauls starts with a road vehicle loading goods in the afternoon of day A. The cargo can be delivered early on day B within a typical single driver shift on national and cross-border trade lanes between 600 and 900km, depending on topography, speed restrictions and other factors. Day C morning deliveries are performed on routes of up to about 1,500km. CT trains might easily match the average lorry speed but the critical factors for CT operators to supply a competitive service are as follows:

- Road operators seek to register at the place of unloading early in the morning at 6-7 AM in order to be able to take up a return load on the same day. Therefore CT trains must arrive well before then at the receiving terminals, to allow hauliers to pick up the load unit and carry it to its destination;
- To operate cost-efficient services trains must aggregate a diverse range of shipments and can only leave late afternoon or in the evening. This can challenge an early time of availability next morning. On longer distances an early morning day C or day D arrival may be impeded when favorable train paths are allocated to passenger trains, to the detriment of CT services.

Against this background, big volumes of goods, which "virtually" do not require a rapid transit, are conveyed by road, as the arrival times of CT trains are too late, or departure times too early. For the time being, CT continental services are mainly used where schedules absolutely fulfill the requirements of the LSP providing the door-to-door transport, or logistics solutions have been designed to efficiently fit into their operations and serve shippers properly. The approach provides for the following main characteristics:

- CT users have ensured a “critical mass” of shipments on a specific trade lane allowing them to employ the key resources (CT load units, pick-up road vehicles and drivers) efficiently: multiple daily shipments, balanced traffic both ways;
- A good share of full-load cargo does not require overnight services or early morning delivery. But competition requires road hauliers to secure their revenues by employing their vehicles on loaded journeys as often as possible. CT users, recognising the diversity of shippers’ requirements, make benefit of the key characteristic of CT trains, i.e. the high transport capacity. They combine shipments with distinct service requirements on the same CT service. For instance, shipments with time-sensitive cargo such as Fast Moving Consumer Goods (FMCG) or automotive components, which must be delivered at defined time-slots, are picked up by lorries first in the morning at the terminal. During the following rotations the lorry distributes units containing goods that allow for extended lead times, such as packed chemicals, metal products, recycling materials or category B and C consumer goods;
- The CT terminals are used as consolidation and distribution points for CT load units ahead and after the rail journey.

What are the trends in the full/part-load continental business? Here, the targets of shippers are similar to those in the other freight markets: total logistics costs must decrease and reliability must improve. A further reduction of stocks and the improvement of logistics processes will be critical to achieving these objectives. In the case of high-value goods, this may translate into a reduction of the time between loading of cargo and time-sensitive delivery. But faced with an increasing saturation of the primary road networks, shippers are keen to ensure a reliable service and retain reserve margins. So what is fundamental is a better co-ordination among actors of the supply chain, such as nomination of a lead LSP controlling the entire procurement and/or distribution of goods; regular exchange and update of information between receiver, manufacturer and lead LSP on order processing and schedule of shipments; extended opening times at warehouses; warehouse slot management.

These developments can stimulate continental CT rail/road services provided they are reliable. Economies of scale on rail and an efficient integrated door-to-door solution controlled by the CT user, as described above, can contribute to deliver the productivity gains expected by shippers. Road shuttle services to/from CT terminals can supply big warehouses, which are relieved from queues of waiting lorries. Good practices exist in the chemical industry, along with food retailers and furniture stores. It is obvious that the application of integrated solutions requires a certain size of enterprise, market penetration and the capability - and willingness - to design and control more complex intermodal transport chains. With an increasing concentration in the LSP business, more and more companies may reach the critical mass of volumes (see Table 62).

Table 63: Trends in logistics: impact of service levels

CT sector	Likeli-hood	Direction and magnitude of impact						
		Negative impact			0	Positive impact		
		-3	-2	-1		+1	+2	+3

Rail/road	Medium						X	
Inland waterway/road	Medium					X		
Short sea/road	High				X			

Source: KombiConsult analysis

Sustainable and secure supply chain logistics

Demand is increasing for sustainable transport services with low environmental impacts. A small environmental "footprint" is important for a growing number of customers, so that suppliers of goods and services are forced to consider the environmental impact. Consumers require retailers to sell more environmentally-friendly products and, as a consequence, similar "low carbon / carbon neutral" logistics. Correspondingly, suppliers and retailers increasingly use low emissions of goods and services in marketing. The carbon footprint as a measure for the impact on climate change is a key factor. Logistics usually accounts for a significant share of the environmental impact related to products. Therefore, suppliers are keen to consider the environment in transport decision-making. Moreover, shippers experience increased insurance fees reflecting the impacts of climate change and get increasing pressure from investors and rating agencies to invest in sustainable logistics.

Major UK-based retailer Tesco noted the following in its 2009 Corporate Social Responsibility (CSR) report:

"Distribution accounts for 11% of our carbon footprint. We aim to halve our CO2 emissions per case delivered from our distribution network by 2012 (from a 2006 baseline)… As well as [using] double-decker [road trailers], we are using more alternatives to road transport and now save 2,909 tonnes of CO2 each year compared to a 2006 baseline by transporting goods by rail. This year we increased the train link between our distribution centres in Daventry and Grangemouth, which saves us 4.2 million road miles a year. In October we also introduced a train operating between Grangemouth and Inverness which will save still more road miles and CO2e."

By 2012 Tesco reported the following:

"In 2007 we also set ourselves the very ambitious target of halving the emissions per case of goods delivered by 2012 across the Group. We have met this target in the UK which accounts for 65% of the cases we deliver….These reductions have been achieved in a number of ways [including] alternative modes of transport. In the UK we have transferred significant volumes from road to rail. Our four dedicated rail services save 15,000 tonnes of CO2 per year taking 14 million miles [22m km] off the road."

These developments might lead to further modal shift to "green" CT services, which have less environmental impact than road transport. However, the dynamic technological development of engines in road transport (eg low emission and dual-fuel / hybrid power trains) will reduce the disadvantage in the future. This could be a threat for CT services considering the longer lifetime of locomotive and barge engines, which imply that the implementation of modern technologies with less pollution will take more time to achieve widespread application.

Shippers and LSPs are concerned of ensuring reliable supply chains, which may be threatened by increasingly congested roads or other irregularities. Therefore they are keen to spread traffic (and delivery risks) amongst various transport options. Depending on the particular situation, LSPs will decide on transport mode and route. The implementation of CT services is an option to increase the flexibility of supply chains.

Impacts on CT operations in the EU

Every CT sector and both container hinterland and continental CT will benefit from the trend towards more sustainable and secure logistics. A stronger positive impact is expected for CT rail/road services, as the continental cargo market provides for the largest mode shift potential. The magnitude of impacts, however, needs to be carefully considered. Firstly, the pace of innovation in the automotive industry is higher than in rail and inland waterway. Secondly, improving the ecological performance provides the momentum to re-think supply chains, but CT-based logistics will only be implemented if they are competitive in terms of cost and service level (see Table 63).

Table 64: Trends in logistics: impact of sustainable & secure supply chains

CT sector	Likeli-hood	Direction and magnitude of impact						
		Negative impact			0	Positive impact		
		-3	-2	-1		+1	+2	+3
Rail/road	High						X	
Inland waterway/road	High					X		
Short sea/road	High					X		

Source: KombiConsult analysis

Consolidation vs. fragmentation

Reduction of stocks and customization of products are key trends not only in business-to-consumer (B2C) markets but also for intermediate industrial goods as inputs for further manufacturing processes. As a result, suppliers are faced with a decreasing size of shipment per order and the request for an increased frequency of delivery. Transport and logistics costs then rise. Yet in many cases, tough competition means these costs cannot be passed on to clients.

In this situation shippers are looking for logistics solutions which enable consolidation of small shipments into full lorry loads at the earliest possible stage of a long-distance journey, using LSPs that can fulfill the target. By improving load factors, economies of scale and a reduction in the cost per tonne of freight moved can be ensured. This task requires LSPs which can serve a range of freight markets, which can already provide a critical mass of shipments and an industrialised, highly standardised production system, and which operate a European-wide network of services.[87]

[87] Presentation on cross-country transport by F. Zehetleitner, Panalpina, 2013.

The past 10 to 15 years have seen a trend to mergers and acquisitions both on the side of shippers and LSPs. This results in an increasing volume of small shipments being controlled by a single company, and thus facilitates the consolidation process.

On the side of shippers this includes chemical, petro-chemical and pharmaceutical companies, the automotive, food, electrical and mechanical engineering industries, as well as the wholesale and retail sectors. In a very competitive environment, economies of scale and market share are critical for the success of these corporations. This is not to ignore the opposing trends, as in recent years major FMCG producers have sold entire divisions or split up into separate companies. Irrespective of the motives for such moves, they usually result in a fragmentation of supply chains and transport volumes. It is expected, however, that the trend towards larger industrial and commercial corporations will remain and be considerably stronger than the trend towards demergers. Otherwise, in most manufacturing industries and in the retail sector the forwarding industry in Europe is still strongly fragmented.

Despite a growth in acquisitions in recent years the leading LSPs are supposed to control less than 15-20% of the total freight market. Market analysts forecast that the pace of mergers and acquisitions will accelerate in future. Like in the manufacturing industry corporate size translates into economies of scale and market power. Thus they can meet the concerns of big shippers to hand external logistics over to a few lead LSPs that control inbound and/or outbound shipments and contract carriers, unless they do not provide part of the transport operations themselves.

In addition to mergers, the logistics market also features an increasing number of alliances composed of small/medium-sized road hauliers and forwarding companies. Operating under a common brand and supported by central marketing activities and IT tools they aim to raise the capacity load factors of their vehicles and ensure balanced round trips.

Impacts on CT operations in the EU

These trends will enhance the competitive situation for CT services, in particular continental rail/road transport and, to a smaller extent, CT short sea/road operations. This is because rail requires large volumes to ensure economies of scale. The larger the market volume on a trade lane, the more cost-efficient rail freight services can be produced. Moreover it is expected that the LSPs consolidation hubs will be located in or close to agglomerations, which can generate suitable volumes for rail in any case, since here the LSPs can achieve synergies between local and gateway shipments.

Moreover the collaborations of road hauliers, which are aimed at improving the load factors of their fleet of road vehicles, ironically can also make themselves “CT-compatible”. As a single company they may be too small in volume and capability to operate unaccompanied intermodal transport chains. Co-operation creates the necessary critical mass and the network of partners to carry out efficient initial and final road legs. It is therefore likely that, in the medium-term, these alliances will tend to shift high-volume routes to CT rail services, to ensure additional productivity gains.

Containerised CT short sea/road services can also benefit from consolidation of small shipments. This allows for use of stackable domestic containers between consolidation /

distribution hubs and shipping them on cost-effective feeder or ferry vessels. Any impacts on CT inland waterway/road are unlikely, as this sector remains less suitable for moving continental cargo (see Table 64).

Table 65: Trends in logistics: impact of consolidation/fragmentation

CT sector	Likeli-hood	Direction and magnitude of impact						
		Negative impact			0	Positive impact		
		-3	-2	-1		+1	+2	+3
Rail/road	High						X	
Inland waterway/road	High				X			
Short sea/road	High					X		

Source: KombiConsult analysis

Landbridge traffic with the Far East

In the aftermath of the global economic downturn when world trade and maritime container volumes slumped, cost management became even more important for shipping lines than before. Slow steaming was and still is one of the most effective measures. Yet, the substantial increase of time to market concerns shippers. It leads to increased inventory levels, threatens the capacity to serve customers reliably and impacts on cash flow.[88]

Therefore, manufacturers of high-value goods or components (e.g. electronics and automotive) that are integrated into just-in-time (JIT) production networks have developed a growing interest in rail-based container transport services between Europe and China or South Korea. To date a few CT landbridge services have been established, though their frequency can be irregular. These services enable a considerably faster transport saving about 40-50% of the time of a door-to-door transport including ocean vessels. Their key benefit is the reduction of inventories and working capital cost.

One example is LSP DHL Global Forwarding, which earlier this year introduced what it describes as the first temperature-controlled China-Europe rail service, providing customers with precise climate control of containers, regardless of weather, via the West corridor between Chengdu and Lodz. DHL has recently launched a new scheduled block train route between Suzhou in China and Warsaw, along the trans-Siberian North Corridor, which offers an average transit time of 14 days. The expansion complements the existing daily wagonload service from Shanghai to Europe via the North Corridor and the weekly block train service from Chengdu to Europe along China's West Corridor rail line through Kazakhstan to Europe.

[88] See for instance: Managing Your Supply Chain: What companies are saying about the impact of slow steaming practices: A survey by Centrx, BDP International and St. Joseph's University What companies are saying about the impact of slow steaming practices, A survey by Centrx, BDP International and St. Joseph's University

For the time being, the high rail freight rates remain a major obstacle for growing land-based CT rail/road services between Europe and the Far East. Total costs are about two to three times higher than supply chains based on sea transport. Landbridge services further are faced with several additional interfaces. Trains are crossing several borders resulting in changes of railways, locomotives and track gauges, along with multiple customs clearance procedures. Though the existing services reportedly perform reliably, potential users may be concerned that an increase in regular services could lead to operational disruptions and thus decrease the transit time advantage.

In recent years shippers have adapted their supply chains to slow steaming practices. Only a few companies have tested and still are using landbridge CT services. Their number might rise if ocean freight rates were to increase or prices for rail transport reduce. Neither can be anticipated yet. With ongoing overcapacities in liner shipping and the deployment of more and more ULCVs on the Far East - Europe trade container freight rates likely will not increase substantially in the medium-term. Rail freight prices could significantly go down if the railways enhanced operational collaboration and were prepared to calculate a through-rate. This would attract new business and also mitigate the current imbalance between westbound and eastbound shipments. However, there are no indications that this will occur in the short term.

Therefore, the expectations for container traffic by rail to grow between Europe and the Far East are low. Compared to an estimated volume of less than 20,000 TEU in 2011 the increase may be significant within the next 5 to 10 years, but the market share of the entire container traffic on this trade lane and against total CT rail/road in Europe will remain marginal. No impacts are anticipated for the other CT sectors (see Table 65).

Table 66: Impact of landbridge traffic with the Far East

CT sector	Likeli-hood	Direction and magnitude of impact						
		Negative impact			0	Positive impact		
		-3	-2	-1		+1	+2	+3
Rail/road	High					X		
Inland waterway/road	High				X			
Short sea/road	High				X			

Source: KombiConsult analysis

Infrastructure development

Countless infrastructure deficits are hampering CT operations across all sectors, in particular on Intra-EU trade lanes. The new guidelines for the development of the trans-European transport network (TEN-T)[89] specifically aim to eliminate bottlenecks for cross-border traffic and addressing missing links. Priority actions relate to nine core network corridors. Altogether they correspond to the existing and likely future trunk routes of CT service offerings in the EU, and are the backbone for links with adjacent third countries. It is expected that the national and TEN-T infrastructure improvement plans, which are in the process of being co-ordinated with EU MS, will be realised by 2030. Due to public budget constraints and often lengthy planning processes, however, it is expected that most CT-related enhancements will not become operative until the period from 2020 to 2030.

The CT short sea/road sector will benefit from the enlargement of quay-side handling capacities in main sea and ferry ports and the implementation of faster handling technologies. Beyond this, it is imperative that the processing of CT units in ports between check-in gate and ship is accelerated. This requires an improved exchange of booking and operational data among all stakeholders involved in the transport chain (which would also help with wider data gathering of statistics) and an early notification of irregularities, for example, from the haulier or forwarder to the port and vessel operator when the lorry is delayed. These enhancements can help raise the rotations for the equipment and thus reduce transport costs per tonne shipped. This leads to a small or moderate impetus for CT operations over the entire period up to 2030 (see Table 66).

The limited extension of the inland navigation network is a natural barrier for the implementation of CT inland waterway/road operations. Competitive services cannot be established on rivers or canals with weak infrastructure characteristics which then restrict the load capacity of container barges. Limited budgets and growing concerns about environmental impacts remain major obstacles for infrastructure improvements. Authorities are likely to focus on a few priority projects expected to achieve a high yield in container volumes. Essential enhancement measures include the increase of bridge clearances and the enlargement of locks. Due to their limited scope they are expected to have a small positive impact on CT inland waterway/road in the EU (see Table 66).

The rail network is supposed to have the most bottlenecks of all modes, impeding the growth of rail freight and CT operations in particular. Yet, once realised, rail can benefit most from the TEN-T and national infrastructure programmes. First of all, there are three large projects. The Gotthard base tunnel is scheduled to be inaugurated in 2016. Whilst its full potential of additional trans-Alpine rail capacity can only be exploited when the north and south access lines are completed after 2020, the base tunnel significantly improves the operational parameters. Heavy CT trains only need a single locomotive instead of two or three and can therefore save on journey time. Similar effects are expected from the Brenner base tunnel and the Fehmarn link, expected to be completed

[89] REGULATION (EU) No 1315/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2013 on Union guidelines for the development of the trans-European transport network and repealing Decision No 661/2010/EU.

around 2025. Apart from these major projects, small- and medium-scale measures will also be key to creating more capacity for CT trains and raising the reliability of services. These investments include, for instance, the extension of the capacity of nodes and border stations, the building of missing links and passing loops (extra tracks to allow faster trains to overtake slower trains), and extending electrification of the rail network.

Limited loading gauges are a major barrier for providing competitive CT rail/road services especially in western and southern Europe. This particularly refers to the continental business and the transport of semi-trailers, which are overwhelmingly employed for cross-border and inland goods transports. While the clear majority of standard general cargo semi-trailers, excluding purpose-built types, feature an external height of 4m the rail infrastructure in the respective countries just allow heights from about 3.52m to 3.85m.

New prospects exist for catching a larger share of the EU semi-trailer market for CT operations on three main trans-European corridors. The establishment of CT rail/road services between London and the European mainland for the movement of semi-trailers is imminent. In England, services will use HS1, the high-speed line to the Channel Tunnel, which is built to a larger continental (UIC) loading gauge. Further rail infrastructure managers are set to upgrade the loading gauges to accommodate 4m or more high semi-trailers:

- In France, the Rhone corridor will be prepared for moving 4m semi-trailers between the port of Barcelona (via the standard track gauge / UIC loading gauge line into France) and Belgium, Germany and Luxembourg in the north. In addition, the Atlantic corridor from the Belgian border to the Bordeaux area is to be improved, though here the benefit may be primarily related to the Modalohr horizontal loading technology;
- Switzerland has committed to build a corridor for 4m high semi-trailers on the Gotthard axis linking Germany with North Italy and the main CT terminals in the Milano and Novara region.

These measures seek to boost the unaccompanied transportation of craneable (and using the Modalohr system, non-craneable) semi-trailers on the respective corridors. Altogether, the rail infrastructure investments are expected to stimulate CT rail/road services (see Table 66).

Table 67: Infrastructure development: impact on CT

CT sector	Likeli-hood	Direction and magnitude of impact						
		Negative impact			0	Positive impact		
		-3	-2	-1		+1	+2	+3
Rail/road	High							X
Inland waterway/road	High					X		
Short sea/road	High					X	X	

Source: KombiConsult analysis

Increased vehicle weights and/or dimensions

In conjunction with the revision of Directive 96/53/EC[90], stakeholders have submitted several proposals for increasing the permitted weights and/or dimensions of road vehicles operating Intra-EU services. The most far-reaching proposal is to raise the maximum length to about 25.25m and the gross weight to 60 tonnes. According to the outcome of consultations among policy-makers and stakeholders in the freight industry this proposal is very unlikely to be adopted. This may also be due to the findings of studies that forecasted a major shift of tonnage from CT rail/road back to road.[91]

Among the other policy options, two are particularly sensitive to the competitive position of Intra-EU CT: an increase of the maximum permitted vehicle length to 25.25m but retaining the 40 tonnes limit; and raising the maximum vehicle gross weight to 44 tonnes without a change of length.

These options would alter the comparative costs between road and CT operations on two distinct markets. An increase of the maximum permitted vehicle length alone affects the transport of low-density goods, which account for a significant share of traffic in 40' maritime containers. Within the 40 tonnes limit, lorries could then move combinations of a full 40' and an empty 20' container, or three empty 20' containers. The implementation of this policy option would threaten the competitive position both of maritime CT rail/road and CT inland waterway/road, where the repositioning of empty units is of great importance. This would lead to a moderate loss of volumes and limit even more the future growth potential. The risk is even more acute where limitations of the inland terminal infrastructure (and urban road networks) then restrict the use of longer lorries for pre- and end-haulage. This would further increase break-even requirements for CT services.

An increase of the weight limit to 44 tonnes has similar or even stronger impacts in the high-density goods market segment. The strongest effects are expected for continental CT rail/road, as the share of heavy goods in the total freight market and in the CT market is disproportionately high. Companies operating CT services within MS such as Austria and Germany, which have a 40 tonnes limit and a 44 tonnes derogation for CT, and on corridors with other countries with higher limits, report that about 30% of their total shipments must be carried by lorries with more than 40 tonnes gross weight. An increase of the weight limit may also affect the transport of 20' maritime containers shipping heavy goods like chemicals or paper.

A counter-argument exists in a current 10-year trial in the UK of longer semi-trailers (2012-22), where the Government has granted permission for 1,800 trailers to be used on UK roads with an increase in length of 1-2 metres. The longer semi-trailers are still required to operate within the UK's existing domestic weight limit (44 tonnes for vehicles

[90] Council Directive 96/53/EC of 25 July 1996 laying down for certain road vehicles circulating within the Community the maximum authorized dimensions in national and international traffic and the maximum authorized weights in international traffic

[91] Doll, C., D. Fiorello, E. Pastori, C. Reynaud, P. Klaus, P. Lückmann, J. Kochsiek, K. Hesse: Long-Term Climate Impacts of the Introduction of Mega-Trucks. Study to CER. Karlsruhe, July 2008; TIM Consult: Competitive effects of the introduction of the Gigaliners on Combined Transport, study for UIRR and Kombiverkehr, Mannheim/Bruxelles/Frankfurt/Main, Sep 2006

with six axles). Whilst this gives a semi-trailer extra load space compared to a standard-length swap body, one CT operator in the UK (Malcolm Group) has gained permission to use the longer semi-trailer to carry a purpose-built longer swap body, not only to achieve parity against a standard semi-trailer, but also to make better use of the rail wagons used for domestic CT rail services. These "Megafret" wagons were imported from mainland Europe when the Channel Tunnel opened, in the hope that the UK would, like mainland Europe, make greater use of short swap bodies as well as longer units (the Megafret wagons capable of taking both types of unit). In the event, very few operators in the UK have taken up the short swap bodies (and little or no such units are moved by rail in the UK), leaving a legacy of long (13.6m) swap bodies being carried on wagons with a 16m load platform – when multiplied by typical train lengths for domestic CT rail services (i.e. c.34 units per train), some 15% (80m) of the train length is then wasted space, the equivalent of an extra 6 swap bodies which could otherwise have been carried. The Malcolm Group initiative therefore is an attempt to make better use of both road and rail vehicles within CT.

The possible deployment of lorries with higher length and payload will influence the competitive situation of CT services compared to road. Although infrastructure restrictions might limit the operation of these lorries on a limited number of corridors, it is regarded as a threat in particular for continental CT rail/road, but also for maritime CT operations linked to inland waterway and rail services.

In contrast, CT short sea/road operations may be slightly stimulated, where they can benefit from productivity gains on the road hauls to/from ports due to increased vehicle lengths or weights (see Table 67).

Table 68: Increased vehicle weights and/or dimensions: impact on CT

CT sector	Likeli-hood	Direction and magnitude of impact						
		Negative impact			0	Positive impact		
		-3	-2	-1		+1	+2	+3
Rail/road	Medium		X					
Inland waterway/road	Medium			X				
Short sea/road	Medium					X		

Source: KombiConsult analysis

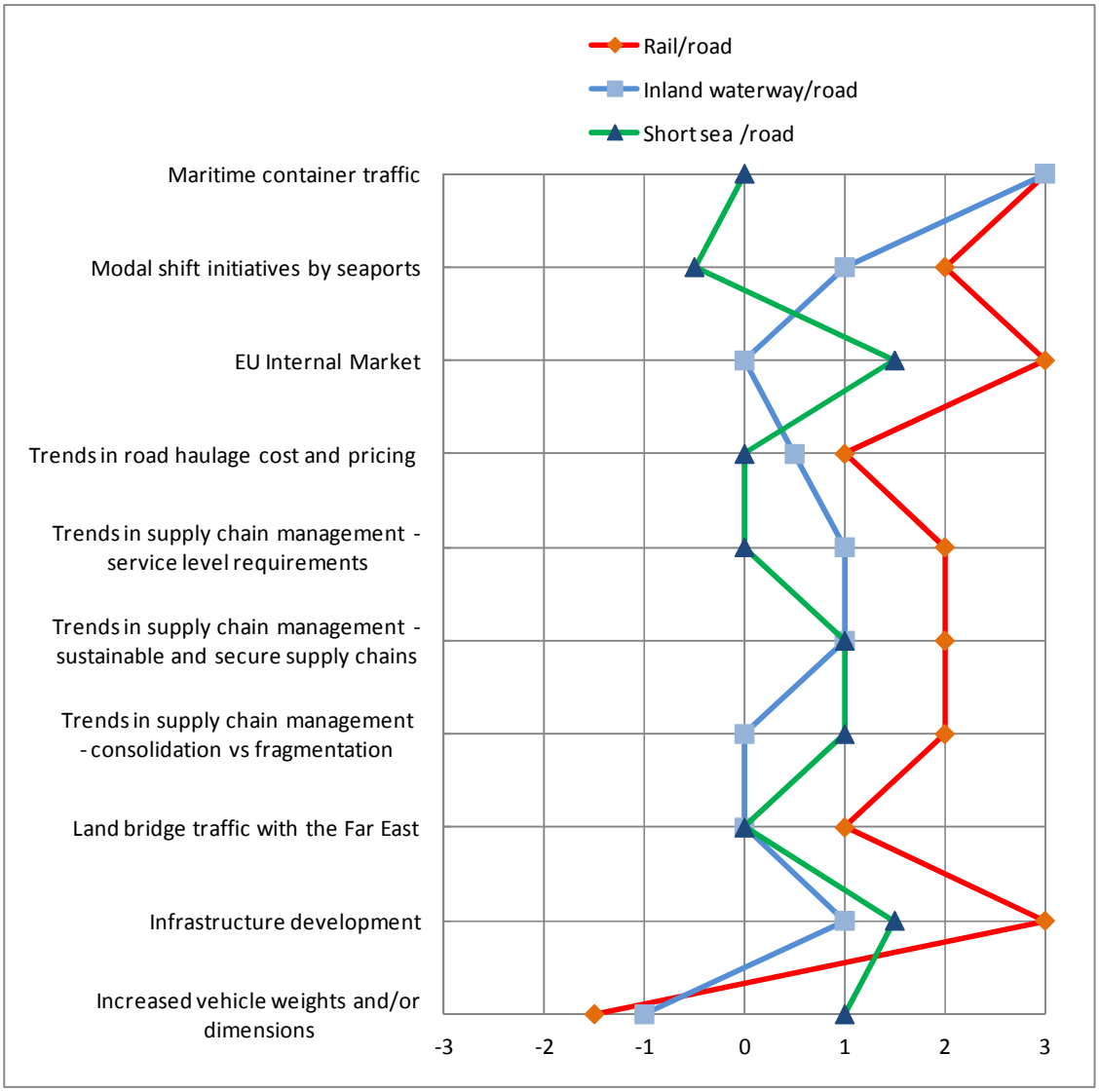
Summary: impacts of external forces of change on CT sectors in the EU

Overall, the anticipated external forces of change have positive impacts on the entire CT industry in the medium to long-term.

Among the CT sectors, CT rail/road operations will gain the biggest momentum. The growth will mainly be stimulated by the impacts from developments in maritime container traffic, the EU Internal Market, improvements to rail infrastructure and trends in supply chain management. CT services targeting the continental freight market will benefit more than container hinterland services from the likely external forces of change. On the other hand, continental CT rail/road operations would be affected more negatively

if the weights and/or dimensions of road vehicles were increased in future. The consolidated positive effect of all factors on the CT rail/road sector is estimated at medium to high (see Figure 9).

Figure 9: Direction & magnitude of impacts of external forces on CT



Source: KombiConsult analysis

The focus of CT inland waterway/road services is and will likely remain on the hinterland transport of maritime containers, which are exported to or imported from third non-EU countries. Therefore the sector will get its largest impetus from trends in maritime container traffic. All other external forces of change have small positive impacts, are neutral or, in the case of increased vehicle weights and/or dimensions, slightly negative. Altogether, the effect on this sector will be moderately positive (see Figure 9).

A consolidated small positive impact is anticipated for CT short sea/road operations (see also Figure 9). Growth will essentially be stimulated by the further integration of the EU and improvement of port-related infrastructures. Some trends in supply chain

management, along with an increase of weights and/or dimensions of road vehicles, contribute to a positive evolution of this sector. Several trends do not affect CT short sea/road transport, while the modal shift initiatives of sea ports may even lead to a small decrease of volumes.

3.2.2 Key internal forces of change in CT rail/road

The external environment for CT rail/road operations is favourable and expected to provide momentum to the medium to long-term growth of this sector. Moreover in terms of cost, CT services benefit from economies of scale. The high capacity of block trains generally leads to lower cost per unit than in road transport. In spite of that, the growth of this sector will not come about automatically. It will require substantial improvements within the sector itself. Key prerequisites for an intensified modal shift of cargo from road to CT rail/road services are:

- Efficient service offerings geared particularly to the "base loads" of LSPs, shipping lines and shippers;
- Truck-competitive reliability and consistency of services;
- Road-competitive door-to-door costs;
- Inter-connected networks of services to ensure a large geographic coverage for clients.

Being aware of these challenges, CT stakeholders are expected to mobilise various internal changes that are due to improve the competitiveness of services and stimulate the growth of this CT sector. The factors are highlighted below.

Enhancement of service quality and productivity

Transport costs are critical for CT services in competing with road. Since it is not expected that the comparative costs of road haulage will increase significantly in future, it is therefore apparent that CT operations must become more efficient. Stakeholders in the CT industry consider improvement of punctuality and the consistency of rail operations to be even more important.[92] The current lack of reliability is a particular threat to continental CT rail/road services. Customer requirements for transit times and performance are more demanding than for container hinterland CT, which has longer rail transits and terminal storage times.

Costs and performance are actually very inter-related. Unreliable services create extra costs both on the supply side and on the demand side, leading to an inefficient employment of resources (staff, lorries, load units, wagons, locos, terminals). The expectation of delays also makes users provide for additional time buffers and equipment redundancy. Finally, performance deficits cause additional costs for mitigating impacts or compensating shortcomings, such as a decreased shelf-life of consumer goods or the halting of a production process due to lack of components.

[92] See, for instance, press releases and position papers of UIRR (www.uirr.com)

The deployment of industrialised rail operation systems[93] is one of the most encouraging approaches, combining the enhancement of the service quality with an increase of productivity. It can also enable CT service providers to catch additional road traffic and grow volumes. Initial schemes have already been applied, for example, by Hupac and Kombiverkehr on trans-Alpine corridors for continental cargo, and by Metrans for maritime CT services between German sea ports and the Czech Republic. Such measures are forecast to become smarter and more effective. Industrialised rail operation systems for CT rail/road services seek to provide the following main characteristics:

- Implementation of shuttle trains with dedicated locomotives and engine drivers;
- Deployment of standardised wagons and train consists thus optimising the transport capacity within maximum permitted train lengths and weights;
- Deployment of market-oriented train consists on specific trade lanes;
- Increased frequency of services with 2-3 or more daily departures in both directions, depending on the total market volume of a trade lane;
- Standardised processing of inbound and outbound load units at CT terminals;
- ICT-supported capacity and revenue management systems.

Industrialised production systems can be deployed virtually on any trunk route linking economic centres or sea ports and inland agglomerations.[94]. They also facilitate the modal shift of high-volume, medium-distance trade lanes between 250 and 500km. Here the industrialisation of CT services can almost match the performance of lorries when a daily rotation of the train set is achieved. Provided appropriate train paths are available, it ensures competitive schedules and unit costs. Industrialisation is also a requirement for CT to capture more demanding freight markets such as FMCG or temperature-controlled cargoes, where service / performance levels must match or exceed those of the incumbent road service (Tesco has insisted that its UK rail services match the same performance regime as for its road services, with significant penalties for late arrivals).

Industrialised CT production systems are expected to be increasingly implemented in the second half of the current decade when CT service providers and train operating companies will have executed the necessary preparations.

Improved hub production systems and consolidation of flows

Whilst industrialisation offers benefits for high-volume trade lanes, smart hub production systems are designed to address routes with less-than-trainload market potential. The core component of the “vertical hub” or gateway production scheme is the CT terminal. Inbound trains carry both local shipments, which are due to be delivered by lorry, and load units that will be transferred to another outbound service, and vice versa. Thus the terminal shuffles load units between all trains calling at the facility. This is similar to a railway marshalling yard, except the terminal handling relates to CT units instead of wagons and usually is more cost-efficient.

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[93] Based on T. Levitt: Production-Line Approach to Service. Harvard Business Review, Sep-Oct 1972.

[94] Production systems for less-than-trainload routes are covered by the following section.

Gateway production systems may be dedicated to continental or container hinterland CT, depending on the location and market positioning of the terminal. Moreover, at some hubs the integration of continental and maritime CT services contributes to consolidation of volumes beyond market segments. The bundling of flows in hubs allows the use of larger equipment on trunk routes. Depending on the additional handling costs at the hub, this consolidation can then lead to economies of scale, strengthening the competitiveness of CT services.

Improvements to hub production systems will be increasingly relevant to capturing less-than-trainload markets for CT rail/road services. Better synchronisation of incoming cargo with outbound trains, extended storage areas under the cranes, the deployment of faster handling technologies and IT booking and capacity management systems will increase performance of the hubs. This will lead to an improved connectivity of CT services and an enlarged geographical coverage.

It is expected that CT stakeholders will continuously enhance the gateway system and gradually extend its deployment. It will be the central component for consolidating single shipments, integrating trade lanes not able to generate full-trainload market volumes into a European CT network, thus reducing market entry barriers for new clients.

Establishment of container hinterland hubs

Hub terminals are increasingly implemented in the hinterland of sea ports. They may be related to gateway production systems as described above, or established as stand-alone extended gate terminals (i.e. effectively moving the sea port gateway further inland).

The establishment of hubs as extended gates contributes to increasing CT volumes via the hub terminal. Recent takeovers have contributed to the emergence of shipping lines and CT operators with larger volumes. This allows cost savings from better utilisation of networks and facilitates the feasibility of hub terminals. The consolidation of containers beyond operator level could then further strengthen CT services and the feasibility of hub terminals. The growing involvement of sea ports will contribute to this development.

Extended gates contribute to reducing capacity pressure in sea port terminals and the local road network. Often they are related to a quick dispatch and short notice reception of containers in sea ports. Storage of containers and supplementary services are relocated to hinterland hubs with frequent connections. This relocation provides additional room for maritime services as the primary focus of sea ports.

The importance of extended gate terminals will grow with the increasing deployment of ULCVs. Sea port terminals must handle 10,000 TEU or more per call compared to today's 5,000 to 6,000 TEU. The container throughput of such a vessel will then claim a significant proportion of the storage area of a sea port container terminal.[95] Sea ports will then increasingly need to rely on high-capacity transport systems such as rail and barge to deliver export volumes on short notice and take import containers to the hinterland rapidly, particularly where quayside space may be at a premium.

[95] Mr Peters,CEO of Hamburg-based HHLA, said that the handling volume of a ULCV can claim up to 40% of the HHLA container terminal Altenwerder (in: Deutsche Verkehrs-Zeitung, N° 63, 8 August 2014).

Extended gate terminals are currently created in the near hinterland of sea ports, for example, in Belgium and the Netherlands. It is suggested that they will increasingly be located in more distant economic centres which provide for a strong local container market. Here gateway production systems can also be implemented or utilised to forward or consolidate container flows on trade lanes with less-than-trainload market volumes.

Implementation of smart ICT systems

The wider use of information and communication technologies (ICT) in CT services is fundamental to improving service quality and efficiency. Compared to the technology standards of LSPs and shippers, the CT rail/road industry lags significantly behind. This particularly applies to the use of ICT planning tools, the visibility of the transport chain, customer information and the co-ordination and ICT-based communication among actors. Considering the relations between CT operators, RUs and IMs in the EU it will likely take more time to overcome existing barriers to common communication standards of operations-related data. Much progress, however, is expected in the other fields as it can often be achieved on a corporate level. This should strengthen the performance of CT services and contribute to a smoother co-ordination of CT operations and seamless transport chains.

Improved ICT management tools are being implemented for dispatching and deployment of operational resources such as wagons and locomotives. They will be complemented by effective contingency plans, as the vulnerability of transport systems designed to tight schedules has been increasing. The application of ICT management systems ensures productivity gains and enhances the reliability of services. Improved planning of operations reduces those delays which normally result from the lack (or late supply) of resources. This may contribute to a better utilisation of the rail infrastructure, making more train path capacity available for CT services.

Apart from co-ordination, LSPs and shippers require real-time information on the position of a shipment and the estimated time of arrival (ETA). They need to be prepared for the arrival of goods and plan subsequent supply chain stages. If they can be made aware of delays as soon as possible, alternative arrangements can then be initiated.

Advanced ICT systems including an ETA function are being implemented by CT operators. They provide valuable information for operators and shippers. The seamless information chain from booking to customer information facilitates CT operation. The transparency with real-time information on the operational status of CT shipments matches customer requirements and road transport performance. Moreover, it reduces market entry barriers and makes the sector more attractive for new clients.

Improved wagon maintenance concepts

The implementation of new wagon maintenance concepts is another internal driver of change for CT rail/road. They mainly relate to preventive maintenance and repair of wagons and include the implementation of sensor technology, remote monitoring and ICT systems. These concepts can contribute to minimising wagon failures and help with cost reductions. A significant reduction of wagon failures then strengthens service quality and improves the utilisation of line capacity.

Better integration in intermodal chains

The integration of rail transport within intermodal chains is critical for the competitiveness of CT services. Co-ordination of rail on the one hand and road on the other hand can be continuously improved. Growing supply chain management skills and "door-to-door thinking" facilitates the use of CT services. The seamless integration of rail contributes to modal shift to CT services.

The integrated door-to-door thinking of CT operators includes the provision of alternative transport services in case of irregularities. When service interruptions occur, clients expect operators to arrange alternative transport services to comply as much as possible with the pre-defined arrival time.

3.2.3 Key internal forces of change in CT inland waterway/road

The external environment for CT inland waterways in the hinterland of sea ports is favourable. Additionally, service providers and sea ports aim to improve their performance and further increase market share. Competitive services, in terms of cost, reliability and frequency, are essential. This requires efficient CT inland waterway/road operation in the hinterland, as well as at the sea ports.

Enhancement of service quality and productivity

CT inland waterway/road operators work jointly with sea ports on the improvement of barge handling in sea ports. The need to call at an increasing number of sea port terminals is time-consuming. The increasing number of calls also leads to higher risks of substantial waiting times, as maritime vessels have priority. Call patterns in sea ports and likely delays then threaten CT performance. Productivity and (even more critical) reliability will go down. Rising cost and delays would lead clients to choose other modes than CT inland waterway/road services. Efforts to improve performance are therefore essential. These include dedicated barge quays in sea ports, better planning with ICT and consolidation of flows beyond operator level. For instance, the Port of Rotterdam and hinterland partners have set up the project Nextlogic to improve information flows among stakeholders in the inland waterway container transport chain.[96]

Apart from sea ports, CT inland waterway/road will also benefit from growing service quality related to higher service frequencies and more non-stop shuttle services, as well as directly-served terminals. Moreover, additional inland terminal locations and capacity will improve the market coverage. Growing container volumes will contribute to the feasibility of these quality enhancements.

Establishment of container hinterland hubs and consolidation of flows

The establishment of hinterland hubs for inland waterway container transport working as extended gateways will strengthen the potential for CT inland waterway/road. The implementation of hinterland hubs contributes to consolidation of CT flows and allows cost savings. Consolidation facilitates better handling in sea ports, as a larger number of

[96] www.nextlogic.nl

barges can then serve a limited number of sea port terminals, and the overall number of container barges serving sea ports could then be reduced. Hubs acting as extended gates then provide complementary services for maritime container transport. These services and efficient barge links contribute to a relocation of container storage to hinterland hubs. This development will accelerate again when maritime container traffic volume hits capacity constraints at sea ports. As CT inland waterway/road is very competitive in terms of cost, this market segment will strongly benefit from hub development.

Moreover, hinterland hubs will help achieve feasible CT services on routes with lower volumes. The bundling of flows in hubs allows the use of larger equipment on trunk routes serving sea ports and transhipment to/from smaller units in the hinterland. Conditional on additional handling costs at the hubs, the consolidation leads to economies of scale and strengthens the competitiveness of CT services. Additional handling is an important cost factor and such costs may be prohibitive for a hub concept.

Better integration in intermodal chains

The integration of inland waterway transport in intermodal chains is essential for the competitiveness of CT services. The limited integration of barge services with respect to CT inland waterway/road had been regarded as a barrier for modal shift in the past. Growing supply chain management skills and door-to-door thinking of CT inland waterway/road operators has facilitated the use of CT services. Operators will further improve the coordination of different modes in CT chains. Sea port handling will be a particular focus of integration work by CT operators. The seamless integration of modes with “one-stop-shop” services for clients will strengthen CT inland waterway/road.

Facilitation of information flows

The facilitation of information flows by ICT will contribute to strengthening CT inland waterway/road services. The co-ordination with sea port terminals is an important factor. Inland waterway operators have jointly set up the position information system MIS-Cobiva. Operators and shippers have access to the information and use it for supply chain co-ordination. Operators will further work on ICT applications, which improve internal (among transport operators) and external (with clients) information flows. Moreover, the further implementation of River Information Services (RIS) will contribute to valuable applications such as e-freight and a move towards paperless transport in inland waterway transport. The application of ICT will increase the performance of CT services and reduce barriers to use these services.

3.2.4 Key internal forces of change in CT short sea/road

The CT short sea/road sector will be stimulated in particular by increasing feeder flows related to growing global container transport. Internal sector developments will strengthen CT short sea/road markets.

Reduction of bureaucracy

The “Blue Belt” and “e-maritime” initiatives of the European Commission will reduce the administrative burden for short sea shipping. The ease of Customs formalities and implementation of National Single Windows for electronic reporting will contribute to a

single EU transport area for shipping. This will facilitate Intra-EU maritime transport and improve the competitive position compared to Intra-EU road transport, which does not require any customs formalities.

Strengthening of service networks and ensuring economies of scale

Maritime shipping lines will continue to open feeder services for continental containers. This extends the short sea networks for continental cargo significantly in terms of routes and frequency. Moreover, economies of scale may lead to increasing competitiveness for feeder and in particular continental containers. Another factor leading to economies of scale is the ongoing vessel growth in short sea operation. With the emergence of large vessels such as Ultra Large Container vessels, larger vessels are replaced on deep sea routes and cascaded onto short sea services. Subject to the ability of short sea ports to accommodate them, the use of larger vessels then allows more efficient short sea services.

Feeder volumes will increase due to a further concentration of global container flows in a limited number of hub ports by maritime shipping lines. Therefore, transhipment is expected to grow stronger than gateway demand. The concentration will lead to additional feeder demand in the global maritime liner networks. Moreover, higher traffic volumes will make CT feeder short sea/road services more competitive.

CT RoRo markets will further benefit from an increasing focus of ferry lines on cargo. This will strengthen CT RoRo networks and facilitate operation.

Enhancements in sea ports

The improvement of sea port facilities and the establishment of dedicated short sea terminals at hub ports will facilitate short sea operation. Dedicated terminals avoid waiting times for short sea vessels and provide equipment adapted to the requirements of short sea vessels.

Deployment of 45' pallet-wide containers

The wider use of 45' long pallet-wide containers will strengthen CT services of continental shipments. They allow an increased cargo volume equal to a standard lorry load. Compared to a 40' long container, an additional eight pallets can fit into a 45' container. However, there are a few barriers for a wider use of 45' containers such as availability and handling on vessels and at terminals.

3.3 The outlook for CT in the EU

3.3.1 CT rail/road

This study could not identify a contemporary "post-crisis" outlook for EU-wide CT rail/road operations, which has taken account of the most recent developments and new trends. Yet, there are several forecasts carried out at MS level for public authorities. They clearly focus on the evolution of the national CT industries and lack a comprehensive view on all CT market segments and EU trade lanes. Therefore their results can only be considered as a tentative indication of the evolution of CT rail/road in the EU. This assessment shall be exemplified with prognoses for two MS:

- Germany: A 2012 study[97] commissioned by the Federal Ministry for Transport forecasts total volume of unaccompanied CT rail/road in Germany achieving a compound annual growth rate (CAGR) of 5.3% in the period between 2008 and 2025. While maritime CT is expected to grow by 4.9% pa, continental CT is expected to reach a CAGR of 5.8%;
- United Kingdom: A 2013 long-term study by Network Rail[98] estimates that CT rail/road in the UK will achieve an average annual growth rate of between 6.4% (lower scenario) and 8.4% (higher scenario) in the period from 2011 to 2033. Maritime CT (called "port traffic" in the study) is forecast to increase by about 5.5% per annum in this period. A disproportionately high CAGR of 13.2% is forecasted for continental (i.e. domestic non-maritime) CT services, albeit starting from a comparatively low level of transport volume.

The research results under section 3.2 highlight that the environment is principally positive for the evolution of the CT rail/road sector in the EU and thus confirm the assessments of the national studies. Freight transport volumes may be driven by the rebound of containerised world trade and the EU Internal Market. Costs of road haulage are expected to rise more than for CT services due to increased road tolls and stricter regulations on driving behaviour. Energy-efficient and climate-friendly CT rail/road service offerings also benefit from an increased demand for "green logistics".

On the downside, there are uncertainties about MS economies, the economic stability of developing countries and increased political conflicts. They would impact negatively on Intra-EU freight transport, global trade and maritime container traffic. In the past, the pace of innovation in road haulage was higher than in rail and CT, mainly owing to differences in mindsets and the longer economic lifetime of CT assets. Therefore, technological and process improvements in the road haulage industry can compensate for CT's forecasted cost and environmental benefits. Moreover, the CT rail/road sector cannot expect substantial enhancements of the EU rail infrastructure to supply more capacity and facilitating operations much before 2025. Yet the main exception is the investment into the enlargement of loading gauges on the trans-Alpine Gotthard corridor through Switzerland and on the main North-south rail routes in France. These improvements will boost the transport of 4m high semi-trailers, the "standard" equipment in Intra-EU freight traffic, on continental CT rail/road services.

External factors will also drive the growth of CT rail/road operations irrespective of another downturn of the EU and world economy. But as the road haulage industry does not sleep, it is primarily in the hands of the CT industry to use these opportunities. In order to highlight the growth perspectives of the CT rail/road sector but also the risks, this study has developed three scenarios: "Performance"; "Complacency"; "Trend". They mainly differ in the scale of CT stakeholders' changing existing commercial and operational patterns, to deliver services that match the needs of shippers and logistics service providers. The key characteristics of the scenarios and their impacts on the

[97] Creating a development concept for CT in 2025 to support public policy in Germany, HaCon & KombiConsult, 2012

[98] Network Rail: Long term Planning Process: Freight Market Study. London, October 2013

forecasted development of CT rail/road by 2020 and 2030 are described below (see also Table 68 overleaf).

"Performance": The enhancement of the punctuality and reliability of services and improved efficiency will be key to achieving disproportionately high growth. The CT rail/road industry as a whole, including CT service providers, rail infrastructure managers and train operating companies, achieves a step-change in performance. Quality contracts designed to stimulate continuous enhancement – and not penalise poor service – become standard. This also results in productivity gains, as redundancies can be minimised, and less failures occur. Costs per CT load unit are further reduced by more resource-efficient production systems and preventive equipment maintenance concepts. Improved service quality and increased transparency of the rail journey (based on ICT management tools) contribute to facilitate market entry and extend the customer base.

As a result, the CT rail/road sector will grow more than the total freight market and ensure a "real" modal shift. CT rail/road services in the EU can reach a compound annual growth rate of about 5.5% in the period from 2011 to 2030. The transport volume increases by 180% from 17.2 to 48.1m TEU. Long-distance Intra-EU and international corridors are forecast to be the more dynamic markets. The improvements in service quality and cost, however, would also help CT service providers to penetrate medium-distance inland and Intra-EU trade lanes over about 300km. They will particularly contribute to disproportionate growth rates.

"Complacency": This scenario assumes a business-as-usual behaviour in the CT rail/road sector. The majority of stakeholders are either not willing or able to translate the market opportunities into new business. Existing business models, service profiles and operational systems are not challenged. The pace of innovation is low. Performance and productivity are not fundamentally and sustainably improved.

CT services then remain primarily of use for the transport of "non-sensitive" goods and for strategic reasons. This leads to a CAGR of about 2.7% for CT rail/road services in the EU. The total transport volume rises by 60% to 28.5m TEU in 2030. This would not induce any real modal shift. In contrast, CT rail/road services may even lose market shares, especially in the Intra-MS and Intra-EU market segments.

"Trend": The CT rail/road stakeholders enforce several improvements. They mainly relate to technology and operational systems to better adapt to standards in the road haulage industry. Yet innovation continues to be gradual and just enough to outweigh enhancements in road transport and supply chain logistics. The critical questions of productivity and reliability remain unsolved into the 2020s, when a regulatory framework is established to commit the rail freight and CT industry to raise the service quality on a lasting basis.

The volume of CT rail/road services increases from 17.2m TEU (2011) to 36.1m TEU (2030). Volume will likely grow slightly more than the total freight market in the EU and thus ensure a modest modal shift. The CAGR amounts to 4.0%, mainly due to significant enhancements in the second half of the forecasting period.

Table 69: Forecast of CT rail/road by 2020 & 2030 against 2011

CT market segment	Volume 2011 (m TEU)	"Performance"			"Complacency"			"Trend"		
		2020 (m TEU)	2030 (m TEU)	CAGR (%)	2020 (m TEU)	2030 (m TEU)	CAGR (%)	2020 (m TEU)	2030 (m TEU)	CAGR (%)
Intra-MS	3.2	5.0	8.1	5.0%	3.8	4.7	2.0%	4.2	5.7	3.0%
Intra-EU	4.9	8.2	14.7	6.0%	6.1	7.8	2.5%	7.2	11.2	4.5%
International	9.1	14.8	25.3	5.5%	11.9	16.0	3.0%	13.0	19.2	4.0%
Total	**17.2**	**28.0**	**48.1**	**5.5%**	**21.9**	**28.5**	**2.7%**	**24.4**	**36.1**	**4.0%**

Source: KombiConsult analysis

3.3.2 CT inland waterway/road

Reasonable growth expectations for CT inland waterway/road can be derived from the study "Medium and Long Term Perspectives of Inland Waterway Transport in the European Union".[99] The study provides inland waterway transport forecasts, among others for container transport, adapted from results of the TEN-CONNECT 2 study. The TEN-CONNECT 2 results are based on the EU-iTREN integrated scenario for 2030 and consider the effects of the financial and economic crisis. Moreover, the model considers trends in the market environment and assumes policies communicated in the EU White Paper 2011 as being implemented through to 2030. Amongst the most important trends are the growth of global container trade and modal shift objectives of sea ports, which then have a strong impact on CT inland waterway/road growth. Other important model inputs are the development of the EU and world economies, prices of resources and demographic developments, as well as the transport policy environment in the EU.

The growth factors for inland waterway transport, including container transport, have been reviewed and adjusted with respect to relevant supply chain developments. A major factor for consideration is the modal shift target of up to 45% for CT inland waterway/road set by ZARA-sea ports. As a result of review and adaptation of TEN-CONNECT 2 growth rates, a range of low and high growth scenarios could be determined for inland waterway container transport. The container transport corresponds with CT inland waterway/road. The study provides forecasts for 2020 and 2040. Homogeneous growth is assumed between 2020 and 2040, which then provides the basis for forecasts to 2030.

[99] NEA/Panteia, PLANCO, via donau, CE Delft, MDS Transmodal, Medium and Long Term Perspectives of Inland Waterway Transport in the European Union, 2012.

Table 70: Forecast CT inland waterway/road to 2040 by EU corridor: TEU

CT iww/road	Transport volume (m TEU) 2011	Growth p.a. until 2020	Transport volume (m TEU) 2020	Growth p.a. 2020 - 2040	Transport volume (m TEU) 2040
Total	**5,2**	**2,8% – 4,4%**	**6,6 - 7,6**	**3,1% – 4,7%**	**12,2 – 19,0**
by inland waterway corridor					
Rhine	4,0	2,8% - 4,8%	5,2 – 6,1	2,8% - 4,8%	8,9 – 15,6
North-South	1,3	3,0% - 3,7%	1,8 – 1,9	4,5% - 5,5%	4,2 – 5,5
East-West	0,1	1,8% - 3,7%	0,2	2,1% - 3,7%	0,3 – 0,5
Danube	0,02	2,2%	0,02	2,0%	0,03

Source: PLANCO analysis based on NEA/Panteia et al.

The expected range of growth forecasts corresponds with the likely development in European sea ports. In sea ports, gateway container growth is expected to stabilise at levels of around 4% pa in the long term.[100] The development of gateway traffic to/from hinterland locations is the main determinant for CT inland waterway/road growth. However, modal shift is another factor for CT growth. This will apply in particular in the long term, where despite a slowdown of growth in sea ports, a continuation of high CT growth is expected. Applying the growth rates to 2011 CT inland waterway/road volumes of 5.2m TEU, the volume will increase up to 7.6m TEU by 2020 and to up to 12m TEU by 2030. Even the low boundary of growth expectations leads to a substantial increase of CT volumes to 6.6m TEU by 2020 and 9.0m TEU by 2040.

These projections assume a functioning CT inland waterway/road market with good service quality and the achievement of modal split objectives by sea ports. The sea ports of Rotterdam and Antwerp aim to increase the modal share of inland waterway transport in the hinterland: Rotterdam to 45% in 2035 and Antwerp to 42% in 2030. Taking account of congestion, delays and the increasing number of terminals in sea ports, the consolidation of sea port services would improve service quality. Functioning of waterway and terminal infrastructure is another requirement for CT growth. This requires sufficient waterway maintenance and terminal development. Irrespective of waterway maintenance periods, low and high water levels can occur, which impede inland waterway transport. Low water levels particularly threaten the competitiveness of CT inland waterway/road, as the reduced load capacity of barges leads operators to impose a low water surcharge. The projections assume that no substantial negative impact on CT inland waterway/road volumes arises from water level fluctuations.

A breakdown of growth expectations by inland waterway corridor shows that the Rhine corridor will remain the growth pole for CT inland waterway/road. Container trade in ZARA-sea ports will continue to grow and sea ports have the objective to shift substantial container volumes to inland waterway transport in the hinterland. This will lead to an above-average growth of CT inland waterway/road compared to sea port volumes. Related to the planned construction of the Seine-Schelde canal, higher growth is

[100] Ocean Shipping Consultants (OSC), North European Containerport Markets to 2025, Chertsey, 2012.

expected on the north-south corridor in the long term. The canal would substantially increase the potential for inland waterway transport, by creating a competitive waterway link between ZARA-sea ports and the Ile-de-France. However, as the planning of the Seine-Schelde canal has been put on hold, the growth expectations are threatened. East-west and Danube waterway corridors will show lower growth of CT inland waterway/road, the main cause being the weak characteristics of the waterways along these corridors, which results in comparatively high cost and low reliability. Moreover, lower commitments by sea ports and lower service quality of inland shipping lines, compared to the western European waterway networks, create further barriers for CT inland waterway/road.

3.3.3 CT short sea/road

The outlook for CT short sea/road is different among market segments. The feeder market segment will benefit from the growth of global container transport and in particular transhipment. Market observers such as Ocean Shipping Consultants (OSC) expect transhipment growth in the North Range by up to 5.0% pa until 2025.[101] In other regions lower growth rates apply. Despite the emergence of transhipment hubs in the Mediterranean, the development will be less dynamic due to lower handling volumes. Considering the North Range development and lower growth prospects in other regions, we estimate growth of 4.0% pa until 2030. This requires suitably functioning facilities, in particular at hub sea ports, but also in regions served by feeder vessels. Moreover, hub-and-spoke networks with transhipment to/from feeder vessels will remain the standard for global container transport. ULCVs serving typical feeder regions such as the Baltic Sea directly will remain exemptions.

Increasing cost due to the use of cleaner fuels to achieve sulphur emission limits of only 0.1% from 2015 in the Sulphur Emission Control Areas (SECA) of the North Sea, Baltic Sea and The Channel, is regarded as less threatening for feeder demand. However, continental short sea volumes in North Europe will go down. For instance, ISL expects a reduction of continental volumes in the Baltic Sea by 10% between 2012 and 2020, with no return to 2012 levels until 2030.[102] With UK/Ireland and the Baltic Sea, important markets for continental containers are affected by the challenging Sulphur Emission Limit. Considering this and lower growth of EU internal trade as well as the fierce competition of other modes, average growth of continental container CT is estimated at maximum 1.0% pa until 2030. Smooth handling of short sea vessels in sea ports is a requirement to realise this growth.

Similar to the continental container market, the RoRo business is strongly affected by SECA requirements. Some operators have announced the closure of ferry lines already. The Baltic Transport Outlook, which does not incorporate rising cost due to enhanced SECA requirements, expects a growth of approximately 2.2% pa for RoRo in the Baltic

[101] Ocean Shipping Consultants (OSC), North European Containerport Markets to 2025, Chertsey, 2012.

[102] ISL, Short Sea Shipping in the Baltic Sea Region: Freight volumes and the potential of 45' containers, Bremen, May 2014.

Sea between 2010 and 2030.[103] MDS Transmodal reports similar prospects for the UK/Ireland, the most important RoRo market in the EU. RoRo business is expected to show less dynamic growth than global container markets related to Intra-EU trade prospects. Taking account of increasing costs arising from SECA, the average CT RoRo short sea growth is estimated at 1.5% pa until 2030.

The application of these growth prospects on 2011 volumes yield a total CT short sea/road volume of 6.7m TEU by 2020 and 8.4m TEU by 2030 (see Table 71). This means an average growth of 2.2 % pa over all market segments. Growth is driven by the international market segment, which is exclusively feeder container traffic. Volumes will increase to 2.1m TEU by 2020 and double to 3.1m TEU by 2030. Intra-MS and Intra-EU CT of continental containers and RoRo units are expected to grow slower. Intra-MS CT will increase to 1.4m TEU by 2020 and 1.6m TEU by 2030. Projections for Intra-EU CT are 3.2m TEU by 2020 and 3.7m TEU by 2030.

Table 71: Forecast of CT short sea/road in the EU

CT market segment	Volume 2011 (m TEU)	Volume 2030 (m TEU)	Growth rate p.a. %
Intra-MS	1,2	1,6	1,5%
Intra-EU	2,8	3,7	1,0%
International	1,5	3,1	4,0%
Total	**5,5**	**8,4**	**2,2%**

Source: PLANCO analysis.

3.4 Main bottlenecks for CT evolution

3.4.1 General bottlenecks

The availability of inland terminals within a short road distance is a main prerequisite for users of CT services to ensure competitive door-to-door costs In some MS the density of CT inland terminals, however, is low resulting in prohibitively high costs for pre- and on-carriage by road.

Handling costs are another barrier for development of CT services. This applies in particular to continental shipments with at least two additional handlings compared to road transport. Substantial cost savings on the rail and inland waterway leg are required for the feasibility of CT services. For instance, handling costs are prohibitive for the implementation of continental CT inland waterway/road. Apart from double handling, continental flows only allow limited economies of scale. Technological developments to facilitate handling may contribute to the implementation of additional CT services in the future.

[103] Baltic Transport Outlook, Helena Kyster-Hansen, Peter W. Cardebring, Olaf Meyer-Rühle, Presentation at final conference, 2 December 2011.

3.4.2 Bottlenecks for CT rail/road operations

Lack of operational service quality

The above analysis on the future evolution of CT rail/road services shows that the deficits in service quality and cost-efficiency are critical and particularly threaten the growth of CT volumes. The lack of performance and productivity are due to a combination of several factors. Train operating companies often fail to deploy locomotives and/or drivers on time. Departure delays cause consequential knock-on delays, resulting in costs for mitigating the impacts and the inefficient employment of resources. Further deficits relate to the supply side of CT services and most notably to the state of the rail infrastructure in MS, the operational rules for the network and to train operations. The major existing bottlenecks in this respect are presented below, though the list is not necessarily exhaustive.

Interoperability deficits of rail infrastructure

The legacy of the patchwork of national rail infrastructure characteristics requires CT operators to accept the least common denominator for the parameters of cross-border CT trains. The constraints especially refer to train weight, axle weight, train length, and loading gauge. A further barrier is the patchwork of energy and signaling systems in the EU requiring a change of locomotives at borders, or use of more costly multi-system locomotives.

The deployment of European Train Control System (ETCS) has, for the time being, not helped but rather hindered the situation on some corridors. This is because different ETCS levels are used and MS impose different national specifications. Moreover train operating companies must invest hundreds of thousands of euros to install ETCS into their locomotives.

Insufficient train path capacity for CT trains

Virtually all trunk routes of CT over rail are employed both for passenger and freight. The prioritisation of passenger services reduces the available train path capacity for CT services and generally penalises them in terms of scheduling and reliability. Harmonisation of the speed of freight and passenger trains (or creating secondary / dedicated rail routes where freight trains have priority) would help reduce such conflicts. The lack of service quality reduces the available train path capacity even more, as infrastructure managers will tend to construct train paths with additional ”recovery” time.

Lack of maintenance of rail infrastructure

A lack of maintenance of rail infrastructure on large sections of the EU network results in low average speeds (or significant disruption due to planned / unplanned maintenance works), which are not competitive with road haulage.

Non-harmonised terms and conditions for rail access

The general terms and conditions of rail infrastructure managers are generally not harmonised, leading to service disruptions and extra costs for train and CT operators. The lack of harmonisation relates to numerous aspects such as train numbering, train

path definitions, handover procedures at borders, exchange of operational data, or train monitoring.

Lack of service level guarantees

The rail industry has largely failed to establish a system of effective service guarantees between infrastructure managers, railway undertakings and in turn with CT service providers.

Costly last mile

Disproportionately high last-mile costs arise if terminals are located off the main line.

Constraints on loading gauges

In addition to other infrastructure-related bottlenecks, limited loading gauges also constrain the market coverage for CT service providers. 4m high semi-trailers, the standard piece of equipment for Intra-MS and Intra-EU freight traffic, cannot be carried on the larger part of national rail networks in southern and western MS. Many rail lines also do not allow the transport of 9'6" high-cube containers on standard rail wagons and/or require the deployment of more specialised container wagons, which typically have lower payload capacities (e.g. 2 rather than 3 TEU per 20m wagon) and/or investment and operating costs.

Lack of open-access terminals

Market entry barriers are high in some countries as state-of-the art and/or open access terminals are missing.

Insufficient ICT capabilities

Finally, the CT rail/road sector in the EU lacks an "open data" ICT platform for exchanging booking, operational and tracking and tracing data between relevant companies involved in the CT supply chain. "Open data" means that the system has standardised interfaces and is not determined or controlled by a single actor. The US company Railinc, a subsidiary of the Association of American Railroads, provides a good practical example for such an approach.[104]

3.4.3 Bottlenecks for CT inland waterway/road operations

Extension and performance of the inland waterway network

The limited extent of the inland waterway network is a natural barrier for the implementation of CT inland waterway/road services. Services cannot be established in regions without waterway access. The same applies for lower-quality waterways with weak infrastructure characteristics, where limitations on vessel dimension, depth and bridge clearance restrain the economies of density, so that handling costs may be prohibitive high, affecting the competitiveness of CT inland waterway/road.

[104] See https://www.railinc.com

The network of navigable inland waterways in Europe is limited. This situation is not expected to change in the future, as construction of new waterways is becoming increasingly unlikely, due to limited public budgets and, ironically, growing concerns over the environmental impacts of building new routes. The only likely construction of inland waterways in Europe will be to complete missing links in the network. France in particular has been very keen to complete such projects, with the Seine-Schelde and Saone-Mosel/Saone-Rhine links being among the few being considered for implementation. Despite the advanced planning status of the Seine-Schelde link, French projects have since been put on hold due to insufficient funding. The implementation of the Seine-Schelde Canal would establish a competitive waterway link between ZARA-sea ports and the Ile-de-France. This means a large potential for CT inland waterway/road. It may be that the TEN-T programme can contribute to the realisation of these missing inland waterway links.

TEN-T might also be able to improve conditions at waterways with lower capabilities, such as the Danube and Elbe. Measures to increase the scale and reliability of inland waterway container transport are essential to establish sustainable CT services with significant volumes on these river corridors. Water levels, lock dimensions and bridge clearances are the most important issues. Moreover, the reliability of conditions such as water levels is critical. Deficits exist throughout the inland waterway network and hamper the development of CT services.[105] For instance, along the German canal network adjacent to the high-performance Rhine, low bridge clearances allows containers to be stacked only two-high. Three-high stacking is regarded as the minimum for achieving competitive inland waterway container transport. Bridge clearances need to be increased, a time-consuming and costly process, as experience from Germany shows. A clearance programme has been launched for the canal network, but it will take a long time to be completed. Again, waterway upgrades are difficult due to the limitation of public budgets and environmental concerns, as dredging to increase navigation depth is regarded to have a particularly adverse impact on the environment.

Apart from investment to improve conditions, maintenance is required to preserve the conditions of waterways. For instance, water levels and locks require continuous maintenance. Therefore, a reduction of maintenance budgets for waterway authorities threatens the competitiveness of CT inland waterway / road.

Handling in sea ports

Barge handling at sea port terminals is an obstacle for CT inland waterway/road services. In addition to the need to call at different sea port terminals, barges often need to wait a long time for slots at sea port terminals. Limited mooring areas at sea port terminals, and the priority given to maritime vessels over barges, leads to extended waiting time for barges. Waiting times can be to up to 60 hours, causing severe delays in barge schedules. Given the importance of this issue, industry organisation CBRB has established an index to monitor waiting times at sea ports. Such delays threaten CT services as cost increases and reliability decreases. Indeed, CT operators have

[105] NEA/Panteia, PLANCO, via Donau, CE Delft, MDS Transmodal, Medium and Long Term Perspectives of Inland Waterway Transport in the European Union, 2012.

established a congestion surcharge to compensate for the cost increase. Increasing prices and delays could lead shippers to choose other modes.

Avoiding multiple sea port calls by barges is one objective of plans to better co-ordinate and consolidate traffic flows of inland waterway CT. The establishment of hubs for sorting containers, and barge shuttle services serving only a limited number of terminals, might contribute to the improvement of barge handling in sea ports. Moreover, major sea ports are working on the establishment of dedicated terminals and berths for barges to reduce waiting times. Moreover, ICT has been applied to optimise berth planning at sea port terminals based on real-time information.

Vulnerability of inland waterway transport

Concerns among shippers about the vulnerability of inland waterway transport may be a barrier to greater use of CT inland waterway/road services. Long periods with low water levels (or at the other extreme, flooding) limits the vessel load, while waterway blockages impact on the reliability of services. Apart from low water surcharges imposed by operators, decreasing vessel loads may lead to insufficient barge capacities on high-demand routes and shippers will have to wait for available barge slots. Delays for CT inland waterway/road caused by blockages are unavoidable. Long lasting disruption, such as after the Waldhof accident on the Rhine in 2011, will require (in part) the deployment of alternative modes.

Continuous maintenance by waterway authorities contributes to the stability of water levels. Therefore, sufficient budgets for maintenance will be important to achieve high service levels and reduce concerns among shippers. Moreover, CT operators will need to provide alternative arrangements when low water levels do occur, to avoid waiting times becoming unacceptable to shippers. This is even more important in the case of waterway blockades and the complete cessation of inland waterway transport. During the Rhine blockade in 2011, containers had to be carried by other modes on the complete route (or just the affected part) by deploying a landbridge. Despite the difficulties to find capacity at short notice on other modes, extensive efforts by CT operators will be required to avoid undermining the confidence of shippers in the reliability of CT inland waterway/road services.

Availability of container equipment

Container equipment is becoming increasingly scarce, particularly in regions with imbalances between import and export, where repositioning of a large level of equipment is necessary. Such shortages of equipment then create problems for CT services, in particular inland waterway/road with comparatively long transit times. To increase turnover of equipment, the “free” dwell time for container equipment is reduced by maritime shipping lines and surcharges apply after a lower number of days. The time limitation and related surcharges may then be a barrier for shippers to use CT services. The implementation of inland terminals as extended gates distant to sea ports may contribute to a reduction of the problem, as the restitution of containers then takes less time.

Limited co-operation of operators

Customer requirements for high-frequency CT services lead to parallel networks of similar services by independent operators. The large number of vessels then serving sea port terminals contributes to waiting time. Moreover, the utilisation of some services is rather weak and limits the potential for cost savings. Co-operation among operators, eg by an exchange of slots on barges, may lead to less congestion of sea port terminals and increase load factors. The result would be an improvement of quality and decreasing cost of CT inland waterway/road. However, such co-operation should be controlled, so that sufficient competition exists between CT operators. Irrespective of co-operation among inland waterway operators, CT rail/road and road transport remain strong competitors. Therefore, CT inland waterway/road operators will remain under pressure not to lose business to other modes. Moreover, competitive authorities will monitor developments carefully and, if required, strengthen competition.

Despite the positive development of CT inland waterway/road, particularly along the Rhine corridor, deficits still exist with respect to the professionalism of operators and commercialisation of services. Some inland waterway transport operators lack commercial knowledge and experience. Door-to-door thinking, including multimodal integration and service orientation, may leave scope for improvement. The limited commercialisation often coincides with low performance of services, due to an old fleet and weak inland terminal facilities. Moreover, the lack of qualified personnel in inland waterway transport remains a challenge.

Large scale CT inland waterway/road operation along the Rhine corridor shows a high degree of professionalism and commercialisation of services. Moreover, modern fleets and inland terminals contribute to the high performance. However, deficits exist in particular on lower-density corridors such as in Eastern Europe. Related to the natural extension and characteristics of the inland waterway network, the limited terminal density is particularly a problem at the lower-class waterways of the East-West and Danube corridor. Although the lower terminal density reflects the weaker waterway performance and lower traffic potential, it then further exacerbates the weak performance.

Investment in barges and inland terminals is required to achieve high-performance CT services. However, a lack of funding in inland waterway transport then requires support programmes. In general, the weak financial capability hampers the implementation of innovations in inland waterway transport. However, financial support should be focused for feasible CT services with sufficient traffic potential.

Marketing of the inland waterway sector is an area with particular scope for improvement. Marketing could be more focused on communicating of existing advantages, commercially and environmentally. This would contribute to better exploitation of the existing potential, as shippers still may not be aware of the advantages of inland waterway container transport. Those objecting to new waterway construction or enhancement projects may also not be aware of the environmental advantages of inland waterways. Although the awareness of inland waterway transport is improving, limited awareness is a barrier for CT inland waterway/road.

Limited human resources

Inland waterway operators are strongly affected by a shortage of qualified human resources. Apart from the number, the qualification of personnel is a particular concern. Insufficient human resources could adversely impact the development of CT inland waterway/road services.

Initiatives have been launched to improve the image of inland waterway transport amongst the younger generation and facilitate the recruitment of qualified personnel.[106] Education and training courses can address the professionalism and commercialisation of inland waterway transport through consideration of business and logistic related issues. Noting the limited awareness and knowledge among shippers, marketing and communication skills therefore require particular attention. Another important way to improve awareness of inland waterway transport is its consideration in wider education of transport and logistics.

Feasibility of continental CT inland waterway/road

The establishment of substantial continental CT inland waterway/road in the near future is doubtful, despite the substantial potential identified by studies such as the PLATINA project.[107] Double transhipment and pre-/end-haulage are the major obstacles. They often lead to higher costs compared to CT rail/road and direct road haulage, in particular for transport between locations distant from the waterway network.

Apart from the cost situation, the complexity of CT inland waterway/road is regarded as a barrier for continental shipments. The complexity arises from the need for co-ordination of services and consolidation of cargo from multiple shippers. Moreover, different stock and purchasing schemes have to be implemented by users, to reflect the longer transit times of CT services. These factors make it quite challenging to establish competitive continental CT service, compared to the flexibility and simplicity of road transport and the potential of CT rail/road services. However, general trends in favour of CT, such as increasing cost of road haulage, road congestion and the growing awareness of carbon footprints, may facilitate the feasibility of continental CT inland waterway/road. There have been experiments and pilot projects in the past, but they did not prove to be a sustainable competitive solution.

3.4.4 Bottlenecks for CT short-sea/road operations

CT short sea/road operations are challenged by a number of factors which impact on performance. Bottlenecks mainly concern cost of service, and lead either to a cost increase or prevent operators from realising cost savings. Apart from cost, bottlenecks may negatively impact service quality.

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[106] A European Inland Waterway Transport recruitment campaign has been set up within the PLATINA project. Moreover, a strategy for the integration of Inland Waterway Transport knowledge in general logistics education is implemented. <http://platina1.naiades.info>

[107] The PLATINA project was created as platform for the implementation of the European action programme for Inland Waterway Transport "NAIADES". See European Commission, Communication from the Commission: On the Promotion of Inland Waterway Transport, "NAIADES", An Integrated European Action Programme for Inland Waterway Transport, COM (2006) 6 final, Brussels, 2006; <http://platina1.naiades.info>. NAIADES and PLATINA ran until 2013 and as successors NAIADES II and PLATINA II has been launched. See European Commission, Communication form the Commission: Towards quality inland waterway transport, NAIADES II, COM (2013) 623 final, Brussels, 2013, <www.naiades.info>.

Limited use of 45' pallet-wide containers

In terms of cost a wider use of 45' long pallet-wide containers for continental shipments would improve the competitive situation of CT short sea/road services. So far, the limited use of 45' pallet-wide containers does not allow full exploitation of the better loading capacity compared to 40' containers. The overall number of available 45' units is low. As individual units belong to certain shipping lines, the regional availability for certain trades is worse in some areas than others. The relatively high cost of repositioning empty 45' units is a barrier to increased market penetration.

Moreover, there are operational barriers at sea ports and vessels for the handling of 45' units. Vessels and terminals are usually designed to accommodate ISO-containers, therefore some deep sea terminals and shipping lines do not accept 45' containers. This is a barrier to better integration of feeder and continental short sea networks, which would increase vessel utilisation and improve service quality.

Sea port handling of short sea vessels

Efficient sea ports are very important for CT short sea/road, in keeping handling costs low compared to lorry transport. Weak service quality and high charges in sea port threatens the competitiveness of CT short sea/road. Moreover, sea port handling is a particular bottleneck for short sea operation in leading sea ports with high traffic volumes. Without dedicated short sea terminals, congestion and priority given to deep sea vessels may then lead to extended waiting times. Moreover, short sea vessels often need to call at different terminals, which can be time-consuming and increases the risk of delays.

Sulphur emission limits in SECA

The lower sulphur emission limits of only 0.1% in SECA from 2015 are a bottleneck for the short sea markets in the Baltic Sea, North Sea and across The Channel. The rising cost associated with the requirement to use alternative fuels will threaten CT short sea / road competitiveness compared to other modes. The use of Heavy Fuel Oil (the standard marine fuel) in SECA will only be possible if vessels are equipped with a scrubber to clean emissions. Alternative low-sulphur fuels such as Marine Gas Oil are much more expensive. As noted earlier, some shipping lines have already announced SECA supplements or an increase in fuel surcharges.

Due to a lack of new-build short sea vessels and a relatively new RoRo fleet, technological vessel developments including scrubber technology or LNG propulsion will not help in the short and medium term, given the long lifetime of vessels. For a wider penetration of cleaner LNG propulsion, bunkering infrastructure is required in the ports. Support programmes in this area to improve LNG infrastructure, similar to those used for improving take-up of LNG in road haulage, would be of assistance here too.

Administrative requirements

Another deficit for short sea operation, which has been addressed by the European Commission, are the administrative requirements for customs formalities and ship reporting. Different national authorities are involved in traffic monitoring and information

management. The lack of automated formalities and data exchange between countries contributes to the administrative burden for authorities and operators.

Problems exist in particular with custom formalities. The regular shipping service scheme needs enhancement. This scheme allows the classification of cargo onboard vessels leaving the territorial waters of EU member states to classify cargo as EU goods and benefit from a single European market without custom formalities. Despite recent improvements of the scheme, authorisation is still time consuming. Moreover, authorisation is not sufficiently flexible for the fast-changing route networks of maritime shipping lines. Even an additional port of call in a loop requires a new authorisation.

Another major shortcoming of the regular shipping scheme is that it does not help vessels travelling on loops with calls in EU and third country sea ports such as Russia, Norway and North Africa. An electronic cargo manifest would improve custom formalities. Shipping companies using this tool could more easily provide the required information on the status of goods to customs authorities. It would facilitate the determination of the required custom procedure for cargo onboard a vessel and avoid inspection of Intra-EU cargo declared as EU goods. However, harmonisation of the electronic cargo manifest will be required, which might be challenging as MS have so far not implemented such a system for customs declaration.[108]

This extensive administration is a cost factor for CT short sea/road compared to lorry transport, which does not have comparable requirements. Moreover, customs inspection may increase port time and the risk for delays.

[108] European Commission, Communication from the Commission: Blue Belt, a Single Transport Area for Shipping, COM (2013) 510 final, Brussels, 2013.

Section 4. CT industry

4.1 Overview

This chapter is designed to investigate the market structure, the importance and the economic situation of combined transport combinations in the EU, summarised under the term "combined transport industry" in the following. It basically relates to the following issues:

- Business models and overview of key operators;
- Evaluation of the economic importance of the CT industry in the EU;
- Analysis of the cost-revenue structure of CT operations;
- Comparison of systemic costs and benefits of CT against single-mode operations.

There are many ways of describing how commercial CT services are provided. This section attempts to describe and simplify the complexity around the various commercial structures, from which to provide a defined set of business models applicable to existing industry stakeholders and capable of being understood by a non-technical audience.

It is worth noting that most CT services (particularly on rail and certain short sea routes) have evolved through a high degree of state control or historic government intervention.[109] The focus for the report will be on the current environment, where traditional boundaries between actors are becoming increasingly blurred, and how this new environment might further evolve in the medium to long term.

In order to describe the various business models, it is worth starting by defining the various "actors" involved in the operation of commercial CT services. Table 72 (overleaf) attempts to show the discrete types of organisation and the principal roles which each will tend to adopt within the CT service framework.

A list of current services is appended to this report (Appendix F) to provide examples of how each of these groupings work in practice and showing in each case the combination of actors and services provided. It should also be noted that, in addition to the "customer-facing" components of CT services there are some additional support functions, notably infrastructure managers (e.g. rail and waterway networks) and equipment suppliers.

Despite the apparent complexity of the framework within which CT services are operated, various groupings of actors and services exist as the predominant business models as applied to CT. These core models can be defined as presented in Table 73 (see overleaf) based around how much of the overall "door to door" CT transport chain is procured and/or managed by the actor(s) concerned. As with these definitions, it is proposed to focus on these principal business models to make best use of available statistics and

[109] Prior to liberalisation of the rail network through Council Directive 91/440/EEC of 29 July 1991 on the development of the Community's railways the majority of CT rail services were operated by state-owned railway undertakings. In some cases this link is still retained through the ultimate ownership of the operators (eg DB Schenker Rail and SNCF Geodis).

provide a clear analysis, albeit to reference additional facets which may exist within each model as appropriate.

Table 72: Matrix of CT actors and activities

Type of actor (below) CT service activity (right)	Supply of CT load units	Pre/on carriage by road	Intermodal interchange	Rail / water transport
Consignor of goods				
Recipient of goods				
Third-party logistics provider				
Train operator				
Deep sea / short sea shipping line				
Inland waterway operator				
Port / quay operator				
Inland terminal operator				

Key to table:
Red unlikely to be a core activity
Orange provided as a value-added / non-core service by some actors
Green highly likely to be a core activity for most actors

Source: Intermodality analysis

Table 73: Principal CT business models

Type of business model (below) CT service activity (right)	Supply of CT load units	Pre-/on-carriage by road	Intermodal interchange	Rail / water transport
Door-to-door Complete service package, collecting the goods from the consignor and delivering by CT to the address given by the consignor. Mainly provided by third-party and fourth-party[110] logistics providers, particularly those specialising in CT (eg Ambrogio, GTS, Malcolm Group)	Included			
Port-to -door Full service package provided between consignor and sea port and vice versa, eventually provision of CT load units. Mainly supplied by shipping lines and sea freight forwarders.	Limited in-house capability and/or outsourced to third-parties	Included		
Terminal-to-terminal Service provided between CT terminals only, no provision of load units or pre- / end- haulage by road. Mainly provided by rail/water CT operators.	Limited in-house capability and/or outsourced to third-parties		Included	

Source: Intermodality analysis

[110] Third-party providers typically provide a managed logistics service with physical assets such as vehicles and warehouses which they own or lease, whereas fourth-party providers typically provide only the management service, outsourcing all other aspects to other third-party providers

4.2 CT rail/road industry

4.2.1 Business models of unaccompanied CT rail/road service providers

In the early days of CT in Europe in the 1960s, the railways were not only state-owned monopolies but also fully vertically-integrated companies providing rail infrastructure, locomotives and rolling stock, supplying both freight and passenger services. The private transport industry, forwarders, road operators and shipping lines often hesitated to ship containers or other CT load units with the railways, suspecting the latter would use the waybill information to intercept their customers.

In this situation, a new category of specialized LSP was created, the CT or intermodal operator. It was designed to provide a connecting link or arbitrator between the state railways as monopolistic suppliers of rail operation services, and the demand side, ie the shippers and the private forwarding and road transport industry.

At the time, the initial business model was comparatively straightforward. The task of the CT operator was to analyse customer requirements, negotiate CT services with the railways, procure resources from railways (eg wagons, terminal handling) and secure train capacity as a “broker” and sell this on to its customer base. It was and still is essential that the operator provides the services, not on its own account, but for third parties. In the continental CT business, the CT operators were used to supplying terminal-to-terminal services, since their clients preferred to deal with pre- and end-haulage themselves. Operators serving the container hinterland market, in contrast, typically offered a port-to-door service to match customer expectations for a full-service package.

The basic division of labour, the roles of actors and the respective scope of logistic services for continental and maritime CT services, has largely been maintained to date. What has changed, first of all, is that CT operators have strengthened their responsibilities and involvement in the intermodal supply chain. The second substantial change relates to the regulatory framework. The liberalisation of the EU rail freight market has required state railways to separate the management of the infrastructure from commercial train services and ensure a non-discriminatory access to the public rail network for every authorised railway undertaking (RU), including private new entrants. The situation is similar with regard to CT terminals.

This separation of track and trains has resulted in fairly complex organisational structures and business models for CT rail/road services.

Business model for continental CT rail/road

The typical business model for continental CT rail/road still sees the CT operators as the brokers between demand and supply side. The main customer groups are forwarders, road operators, and other logistic service providers that design and carry out the door-to-door logistics services for shippers, use their own or rented CT equipment and also care for the pre- and on-carriage of the CT load units by road. The key value proposition of CT operators is to deliver cost-efficient CT services to enable their customers to compete successfully for door-to-door logistics on the market (customer value). Based on customer requirements, the CT operators define the service level of CT services and

implement them on their behalf. This concept corresponds to the principal terminal-to-terminal business model comprising the following components (see Table 73 above):

- Rail transport of the clients' load units including the provision of wagons;
- Terminal handling of load units at both ends of the rail journey;
- Administrative clearance of pick-up and delivery lorries (check-in/check-out) and the technical and safety check of load units at both terminals.

The CT operators commonly buy block trains, ie the full capacity of a train, from RUs and thus take on the economic risk of selling the train capacity. The contracts typically are concluded on an annual basis. The CT operators retail the train space to their customers and thus pass on and distribute the risk of filling the train capacity. In most cases they operate multi-user services: any customer can book space on the train. On the other hand, "company" trains are dedicated services to a single user that also takes over the entire economic risk from the operator.

On the supply side, CT operators purchase most supply services either for regulatory reasons or in an effort to keep assets low. They procure the rail traction service from RU - both state-owned and private - that in turn must buy the train path (the right to operate the train on the allotted route / time), from the rail infrastructure manager (IM). CT operators frequently purchase the terminal slot (the time for handling the in and outbound trains) from terminal operating companies on their own. Even though many CT operators control their own fleet of intermodal wagons, they overwhelmingly employ wagons rented from RUs and leasing companies.

In recent years, owing to increased competition, more and more CT operators have reconsidered their approach, especially with regard to improving their control of the intermodal supply chain and increased their content of the value chain. Thus it becomes more important to own or operate key terminals, gain experience in traction services, or even offer pick-up and delivery road haulage services.

Business model for container hinterland CT rail/road

The business model for container hinterland CT rail/road features the same basic architecture as the business model for continental services. However, there are two main differences (see Table 73 above).

First, the target customer groups: container hinterland transport has two types of processing the movement of the container, depending on the type of customer which controls the inland haulage. In the case of "merchant haulage", a shipper (merchant) takes control of the door-to-door transport services and negotiates the terms of both sea and hinterland transport directly with a shipping line. Most typically, the shipper contracts the operations out to a sea freight forwarder who – in case of CT rail/road – becomes the client of a CT operator. "Carrier haulage" is the movement of the container under the control of the shipping line (carrier) using a haulage contractor nominated by the shipping line. If the carrier uses a CT rail/road service, he may procure from the CT operator the full port-to-door logistics service, or only some components such as the port-to-(inland) terminal transport.

Second, the scope of service: customers expect CT operators serving the market for maritime containers to offer a full-service package of a port-to-door service. They should be able to deliver each component of this supply chain even if not every client demands it. So, in addition to the scope of service in continental CT rail/road, the CT operator should provide customs clearances and the pre- and on-carriage of containers by road at the inland terminal including the pick-up or delivery of empty containers. The CT operator further should operate or have access to empty container depots at or close to inland CT terminals.

For a long time the demand and supply side of CT services could clearly be distinguished and actors attributed to one side or the other. Since the liberalisation of the rail freight and CT market in the EU[111] and owing to recent trends in supply chain logistics we observe that the market of CT rail/road service providers, previously completely dominated by CT operators, is becoming more versatile, with new business models having emerged over the past 15 years.

Logistics service provider as CT operator

LSP such as forwarders or shipping lines, which used to only belong to the demand side, have now entered the CT market. Their business model, the LSP as CT operator, essentially corresponds to the door-to-door transport business model (see Table 73 above).

Armed with knowledge of the CT sector from being long-time customers of CT operators and, encouraged by the liberalisation of the CT market, they initially started CT services to convey shipments of their own. Yet they often adopted the operator role by offering spare transport space to other users in order to improve the capacity utilisation. With the extension of the business, they now specifically plan CT services to take account of third party volumes. Where such companies also operate road haulage services, some then use a mixture of road and CT services to best effect, as well as being able to provide contingency arrangements in the event of disruption to rail services. Some of these new operators even push the integration further by obtaining a licence as a RU or secure terminal handling facilities.

By establishing CT services the companies have extended their existing value chain and accomplished a vertical integration of the supply chain. At the same time they have taken on the broker function of the CT operator. They offer full door-to-door logistics solutions but, depending on customer requirements, also deliver terminal-to-terminal services.

Railways as CT operator

We can also observe a trend towards horizontal integration of the transport chain. A number of state-owned and private RU have cut their “bonds” from being constrained to the carrier role for CT operators, and initiated CT services on behalf of third parties.

[111] See Council Directive 91/440/EEC of 29 July 1991 on the development of the Community's railways.

Their business model resembles very much the model adopted by LSPs. They make the classical CT operator redundant and establish a direct connection with customers. The railways as CT operator may supply the full range of CT services, or may focus on certain market segments and services. Consequently, door-to-door or port-to-door services can also be part of their service portfolio as terminal-to-terminal transport. Furthermore, they may operate multi-user CT services as well as company trains.

Recent years have provided evidence that integration of the CT supply chain is not limited to RUs and LSPs. Shippers and operators of sea port terminals or inland ports, which typically remained customers or suppliers of sub-services for CT trains but never operated them in their own right, have also entered the market. In most cases the parent company does not keep the CT service activity within its organisation, but seeks to establish a specialised subsidiary, which then takes on the role of a CT operator.

Regardless of the institutional set-up, the motivation for such a model is apparent. The terminal and port operators primarily intend to secure and stimulate their core business by implementing more and improved CT services to and from their operating locations. With regard to shippers we have observed two developments at present. Some shippers, especially those within the construction industry that forward or receive large volumes of cargo by conventional rail, have taken the opportunity of liberalised rail access to establish a RU, with an aim of reducing the logistics costs of their own volumes. Some of them have extended their portfolio and started to offer rail traction services to third parties and then moved on further into the CT business. Other shippers may have felt compelled to facilitate CT services when existing service providers or railways were not able to offer suitable tailor-made services. As with terminal operators, they have usually outsourced the CT activities and established a CT service provider. In order to enhance the capacity utilisation of CT trains they have then “opened” the services for other users and as a result have taken on the role of CT operators.

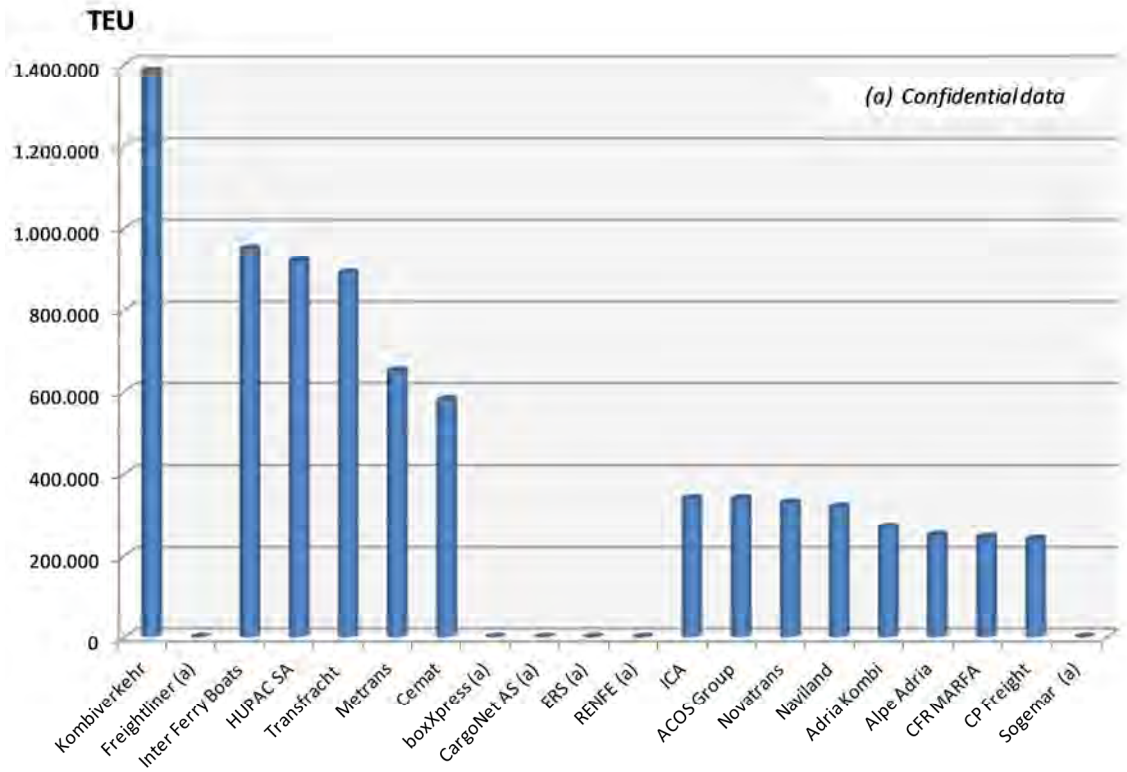
According to the results of the 2012 survey, about 27% of a total of 135 CT rail/road service providers can be allocated to the group of “classical” CT operators for continental and/or container hinterland CT services. They are now almost the smallest group. This illustrates the considerable change of market structure, as their share was close to 100% about 20 years ago. Nowadays the largest group in the CT industry are the LSPs supplying dedicated CT services. Their proportion of the number of CT companies has increased to 38%. RUs account for some 30% and shippers and terminal operators for less than 5% of the total market. Notwithstanding this change of the CT market structure, it should be noted that the “classical” CT operators continue to have the largest impact on CT volumes. In 2011 they carried more than 50% of the total volume of unaccompanied CT in the EU.

4.2.2 Key operators of unaccompanied CT rail/road services

Figure 10 presents an overview on the 20 biggest providers of CT rail/road services in the EU by transport volume. As several CT service providers have disclosed the information on their volumes under confidentiality agreements, the figure can only display their ranking. In the following the top five companies are briefly characterized.

Kombiverkehr, headquartered in Germany, has been the largest provider of CT rail/road services in the EU for many years. Its equity is equally shared amongst 230 European logistics and forwarding companies (50%) and a subsidiary of the German state-owned railway, Deutsche Bahn (50%). Kombiverkehr is a founding member of the UIRR. According to published data the company handled 1.95m TEU on domestic and international services in 2011. Adjusted for double counts arising from collaborative CT services (mainly with other UIRR members) the volume amounted to approximately 1.39m TEU. Kombiverkehr clearly represents the main business model for continental CT rail/road services; the share of maritime containers is marginal. In co-operation with various partners the company probably operates the largest network of CT rail/road services in the EU. It offers CT block train services between Germany and almost every other European country. Kombiverkehr carries about 75% of its entire volume on international corridors and 25% on domestic services in Germany.

Figure 10: Top 20 unaccompanied CT rail/road service providers, 2011



Source: KombiConsult analysis (figures adjusted for double counts)

In 2011, Freightliner was the second largest provider of CT rail/road services in the EU. Established in the UK the completely private-owned company has latterly entirely focused on domestic container hinterland CT services in Great Britain and more recently acquired the European Rail Shuttle (ERS) business in the Netherlands, as well as developed a bulk trainload operation in Poland. It is the clear market leader in the CT industry in Great Britain. Freightliner is essentially a train operator which emerged from the privatised British Rail, and is used to deliver the full package of port-to-door services including rail

traction, provision of wagons, terminal handling and the pre- or end-haulage by road. It represents the business model “railway undertaking as CT operator”.

The Belgian CT operator Inter Ferry Boats (IFB) came in third place in the ranking of European CT rail/road service providers in 2011. The company, owned by a subsidiary of the Belgian state-owned railways, carried almost 1m TEU in that year. Adjusted by double counts the volume amounted to about 950,000 TEU. Until a few years ago IFB had been a representative of the main business model for container hinterland CT rail/road services. It overwhelmingly operated domestic services in Belgium from and to the key container ports in Antwerp and Zeebrugge. In co-operation with the pan-European (state-owned joint venture) operator Intercontainer it also served a few international trade lanes with these ports. In 2009, the company took over the business of TRW, the other major Belgian operator. As the latter had specialised in continental CT services, IFB has therefore served both CT market segments.

Hupac Intermodal, headquartered in Switzerland, is also is a founding member of the UIRR. A majority of 72% its shares are held by private LSPs while RUs have a stake of 28% in the company. Hupac reached an adjusted transport volume of about 920,000 TEU in the reference year. Unadjusted volume totalled to 1.45m TEU. Like Kombiverkehr, Hupac had adopted the business model as an operator of continental CT services. Mainly in the aftermath of Intercontainer’s liquidation, Hupac took over a couple of container hinterland CT services. This market segment now represents about 10% of the company’s total number of shipments. Hupac’s strongholds are cross-border trans-Alpine services, mainly on corridors through Switzerland and, to a lesser extent, via Austria. Yet Hupac has considerably extended its geographic scope in recent years and implemented new services, especially on east-west trade lanes. What is unique among all CT service providers is that Hupac supplies domestic services in three countries, in Germany, Italy and Switzerland.

The fifth largest supplier of CT rail/road services in 2011 was Transfracht. Previously established as a joint venture between Deutsche Bahn (DB, the German state-owned railways) and HHLA (the major operator of container terminals in the port of Hamburg), it is now wholly-owned by DB. The business model of Transfracht is very similar to the one IFB had adopted prior to the integration of TRW. Transfracht offered domestic container hinterland CT services in Germany and provided the full package of port-to-door services to its clients on its own, whilst the company executed the cross-border movement of maritime containers to/from Germany as the national “agent” of Intercontainer. As the market position of Intercontainer grew weaker Transfracht launched international container hinterland CT services between German ports and Austria and, later on, from and to Swiss terminals.

4.2.3 Operators of accompanied CT rail/road services

In 2011, six companies provided accompanied CT rail/road services in the EU. The five largest operators were all members of the UIRR:

- The Austrian Ökombi, then a subsidiary of Rail Cargo Austria, was completely focused on accompanied CT and by far the largest operator in this market. Adjusted for double counts arising from collaborative CT services with other UIRR members

Ökombi carried nearly 274,000 lorries corresponding to about 638,000 TEU. Ökombi operated trans-Alpine lines on the Germany-Austria-Italy corridor and along the Danube corridor between Austria and Hungary. The Ökombi activities have since been fully integrated into Rail Cargo Austria;

- RAlpin, headquartered in Switzerland, has five shareholders: BLS AG, Hupac SA, SBB Cargo AG und Trenitalia spa. It is also fully dedicated to accompanied CT rail/road and operates two trans-Alpine services through Switzerland, Basel (CH) – Lugano (CH) and Freiburg (DE) – Novara (IT). In 2011, RAlpin moved more than 104,000 road vehicles, equivalent to 243,000 TEU;
- Adria Kombi, headquartered in Slovenia, operates a single accompanied CT service between Maribor (SI) and Wels (AT). In 2011 the company, whose core activities are in the unaccompanied CT rail/road segment, carried nearly 18,000 lorries or 42,000 TEU;
- Hungarokombi, established in Hungary, achieved a transport volume in 2011 of 15,900 road vehicles, corresponding to more than 37,000 TEU. Like Ökombi, the CT operator has recently been integrated into Rail Cargo Austria;
- The Italian Alpe Adria clearly has its focus on container hinterland CT rail/road services within Italy. The shareholders are the Trieste Port Authority, Friulia spa and Trenitalia spa. The company serves one line of accompanied CT between Trieste and Salzburg. In 2011 it carried 14,300 lorries, equivalent to more than 33,000 TEU;
- The RU SNCF Geodis and Trenitalia operate a CT service based on the Modalohr technology between Aiton (FR) and Orbassano (IT) under the name Autoroute Ferroviaire Alpine (AFA). This service carries both unaccompanied and accompanied vehicles. In 2011 the latter accounted for about 30% of the total transport volume according to the operator of the service. Based on this indication the accompanied CT volume is estimated at approximately 17,000 TEU.

4.2.4 Economic importance of CT rail/road

Unlike manufacturing or service industries including, for example, forwarding agents or port operators, the CT industry has not yet compiled key indicators of its economic importance. Such indicators typically refer to the production value or revenues of the business, the employment effects, the capital stock or the net investments. This study therefore proposes methodologies of how to assess some performance indicators of the CT rail/road sector in the EU.

Revenues

The total revenues of CT rail/road operations are composed of two parts, the earnings from the rail services and from the road leg of door-to-door or port-to-door CT services.

The revenues that CT operators create from the rail leg relate to the price for the terminal-to-terminal transport of CT load units. The price is intended to cover the cost of supply services such as train operation, wagon rent and terminal handling as well as overhead costs and margin. The key source to determine the magnitude of this part of the total revenues is the data supplied by several key CT service providers for the 2012

and 2013/2014 surveys. Based on their corporate revenues an average income was computed, which amounted to €296 per TEU carried in 2011. Assuming that this value is representative for the entire sector, the total revenues generated by the rail leg of CT rail/road services accounted for nearly €5.1bn in this year (see Table 74).

The revenues incurred by the road leg of CT rail/road operations had to be estimated as statistical data was not available. For a start, it must be taken into account that the logistics of container hinterland and continental CT services vary fundamentally. Continental CT operations typically involve an initial and a final road leg. Few continental services are handled at a rail terminal at only one end of the journey. CT operators consider the percentage share as marginal. Container hinterland CT services, in contrast, basically create only a single road leg to move an export or import container to or from an inland CT terminal.[112] Based on the analysis of several cases the average revenue for an initial or final road leg was estimated at €150.[113] This results in revenues of €100 per TEU, assuming that a lorry on average hauls 1.5 TEU per initial or final leg. Revenues from the road leg of CT operations then total €2.6bn (Table 74).

The earnings from the rail and road legs add up to total revenues of CT rail/road services in the EU of €7.7bn in the year 2011 (Table 74).

Table 74: Revenues from CT rail/road services in the EU, 2011

Section of CT service	CT volume (m TEU)	∅ income/TEU (€)	Total revenues (€ bn)
Rail leg	17.2	296	€ 5.1
Road legs		100	€ 2.6
Total door-to-door service			**€ 7.7**

Source: KombiConsult analysis

Employment

This study has evaluated the employment effect of CT rail/road in the EU relating to the marketing and operations activities of this sector. A specific approach should be designed in future to estimate the employment created by investments into CT rail/road services (see also below on investments).

The employment effect displayed in this study is composed of the five main categories of business, which are involved in the execution of CT rail/road services: CT service providers; train operators; rail infrastructure managers; terminal managers; road hauliers. Their specific contribution to the overall employment in this CT sector is explained below.

[112] If containers are transferred between container terminals in sea ports the costs are usually not attributed to CT operations.

[113] See also section 4.2.4.

Based on employment figures collected from CT service providers by the 2012 and 2013/2014 surveys, a mean transport volume of 1,440 TEU per employee was computed. It was assumed that this ratio is representative for the entire business as the sample includes companies which represent different scopes of integration of the intermodal transport chain.[114] At one end are CT operators with a small size of staff. Typically, they are brokers of terminal-to-terminal CT services without any contributing ancillary logistics services. At the other end are companies offering the full range of port-to-door services including, for example, customs clearance and the planning (but not the execution) of lorry services. The average figure was extrapolated for all CT service providers, delivering an aggregate employment effect of 11,950 persons in 2011 (see Table 76).

The employment of CT terminal operating companies was assessed based on practical indications of terminal managers concerning the average annual handling volume per employee. This value was extrapolated with the total transport volume of CT rail/road in the EU resulting in an employment impact of 4,900 persons. Continental CT services supplying about 50% of the total volume, however, usually require terminal handling at both ends of the rail journey. Therefore the level of personnel attributed to this CT market segment was doubled[115]. Based on these assumptions, the total employment effect of terminal operation activities is estimated at 7,350 persons (see Table 76).

The labour force of train operating companies in CT rail/road strongly relates to the magnitude of CT trains operated. The number of staff specifically employed for this sector is estimated to amount to 7,400 persons based on the following inputs and assumptions (see also Table 75):

- According to the results of the surveys mentioned above, the total CT rail/road volume was moved in some 295,350 full trains;
- CT service providers often calculate 240 departures or annual traffic days per trade lane and direction. This results in an average daily number of 1,230 full trains;
- It is estimated that, on average, it requires five employees for operating a single train: two locomotive drivers; two operational staff (eg wagon manager, shunting personnel, dispatcher); and one employee for overhead functions. This calculation takes account of the average transport distance in CT rail/road, the working hours of locomotive drivers, the need for other operational staff and in overhead departments. A further 20% reserve capacity is included, totaling the number of employees per full train to six.

[114] See also section 4.2.1 on business models.

[115] The small employment effect created outside the EU based on international continental CT services was disregarded as the applied methodology can only deliver an approximation of the “real” impact.

Table 75: Employment effect of train operators providing CT services, 2011

Total number of CT full trains	295,350
∅ annual traffic days	240
∅ daily number of CT full trains	1,230
∅ employment effect per CT full train	6
Total employment effect	**7,400**

Source: KombiConsult analysis

According to rail IMs, CT services require below-average labour force compared to passenger and conventional rail freight. This is especially because the huge majority of CT services are operated as block trains and contracted at least for a full timetable period. Other than in wagonload traffic, CT operators rarely request train paths for ad-hoc or seasonal trains.

In the course of the 2012 survey commissioned by the UIC, IMs indicated that about 5% of their total staff may be attributed to CT rail/road services. This argument was based on estimating CT rail/road services providing for a share of 15% to 20% of the total rail freight market by tonne-kilometres. This study shows that the transport performance of total CT rail/road (measuring only the rail leg) in fact accounts for 27.4% of the rail freight traffic in the EU.[116] Therefore it is assumed that about 7.5% of the total staff of EU infrastructure managers can be allocated to CT operations. According to RNE, the rail infrastructure companies employ nearly 300,000 persons. Then the employment effect of CT rail/road operations is estimated at about 22,500 persons (see Table 76).

In pre- and on-carriage road haulage CT rail/road services lead to an estimated employment effect of 24,590 persons (see Table 76). This result is based on the following assumptions:

- A lorry driver achieves two daily rotations within one shift. Assuming an average shipment of 1.5 TEU per haul and a fully balanced rotation one driver moves 6 TEU per day;
- A driver operating on 210 days annually, considering vacation, public holidays and sick leave, carries a total volume 1,260 TEU pa;
- About 6,830 lorry drivers must be employed to pick up and deliver the maritime containers at inland CT terminals while double as many drivers are required for the initial and final road hauls for continental shipments. The total need for drivers amounts to 20,490;
- Further it is estimated that a back office staff of 4,100 persons or 20% of the driver workforce is required to organize the road haulage services.

The aggregate employment effect of the five business areas involved in the execution of CT rail/road services amounts to 73,790 persons in the year 2011 (see Table 76).

[116] See section 3.3

Table 76: Total employment effect of CT rail/road operations, 2011

Business area	Employees related to CT rail/road
CT service providers	11,950
Terminal managers	7,350
Train operating companies	7,400
Infrastructure managers	22,500
Initial/final road haulage	24,590
Total	**73,790**

Source: KombiConsult analysis

Investments

Generally, investments that may be used by CT services (such as the rail network) can be distinguished from those investments which are exclusively or overwhelmingly dedicated to CT services. Yet it is not feasible to assess the magnitude of CT investments in the reference year without further in-depth research. If a database on CT-related investments is established in future, the following investment objects should be taken into consideration as a minimum:

- CT wagons;
- CT terminals;
- Handling equipment (gantry cranes, reachstackers etc);
- Container depots;
- CT load units: containers, swap bodies, semi-trailers;
- Locomotives.

In this respect it is suggested to review the methodologies applied at MS level for evaluating the expected benefits of rail-and road-related infrastructure investments.

4.2.5 Cost-revenue structure of CT rail/road operations

According to suppliers of CT rail/road services, LSPs i.e. forwarders, road operators and shipping lines, are overwhelmingly the users of CT services. They integrate them into door-to-door supply chains, which they plan and carry out on behalf of shippers. Shippers, however, are very rarely direct clients of CT operators. Against this background, the cost-revenue structures of CT rail/road operations are presented from the perspective of LSPs. Further it is useful to distinguish continental from container hinterland CT shipments, as the scale and composition of costs varies considerably.

The revenues of a LSP correspond to the rates contracted with a shipper for organizing and delivering logistics services including the door-to-door transport of goods. The rates depend upon a variety of factors, from the type of cargo to the scope of ancillary logistics services. They generally are not related to CT services.

A LSP using CT rail/road services within a wider supply chain solution principally has to take into account the following cost components:

- The **costs of load units** is the write-down, the renting or leasing cost for the piece of CT equipment deployed for the duration of the door-to-door transport;
- The **costs of the initial and final road leg** are the costs for the pre- and on-carriage of CT load units. They are either internal costs if the LSP employs its own lorries, or the freight rate being paid to a road haulage company;
- **Terminal handling costs** arise from the transhipment of the CT load unit between lorry and train at the departure (export) and the arrival (import) terminals;
- The **costs of the rail leg** include the train operating costs, the infrastructure access charges and the wagon employment costs. Together with the terminal handling costs

(plus overhead charge and profit margin) they are embedded in the rate quoted by a CT service provider to the LSP.

The study has examined the cost structures of several representative supply chains on cross-border trade lanes in the EU both for continental and container hinterland CT services.[117] The analysis of continental CT rail/road operations includes four trade lanes featuring different lengths of the rail journey from comparatively short (250km) to very long (1,300km). All cases refer to the deployment of semi-trailers to ensure consistent results. The analysis displays the following structures of the costs of door-to-door transports (see Table 77):

- The share of the costs of load unit is small at 3% to 4% of the total costs of operation;
- Terminal handling costs vary considerably from country to country. They decrease with the length of the rail and total journey. Examples range from 12% of the total costs of the 250km rail trip between the Netherlands and Germany, down to 5% on a long-distance trade lane from Belgium to Spain;
- The initial and final road legs are a critical cost factor for continental CT rail/road operations. They account for almost 50% of the total door-to-door costs of short-distance trade lanes and around 30% of a rail journey of 950km. Considering the average rail distance of 621km in total CT rail/road in the EU, this highlights how important it is to optimize road operations to ensure competitive CT services;
- The relevance of the cost of the rail leg grows with increasing transport distances, rising from 35% on short routes to 77% on longer routes, eg between Belgium and Spain.

Table 77: Cost-revenue structure of Intra-EU CT rail/road operations

Trade lane		Rail leg (km)	CT load unit (LU)	Door-to-door cost						
				Total	Cost of LU	Road leg		Terminal		Rail leg
						Initial	Final	export	import	
Netherlands	- Germany	250	Semitrailer	**515 €**	4%	29%	19%	8%	4%	35%
Germany	- Italy	435	Semitrailer	**787 €**	3%	15%	19%	3%	6%	55%
Belgium	- Czech Republic	950	Semitrailer	**1.008 €**	4%	12%	18%	4%	2%	60%
Belgium	- Spain	1300	Semitrailer	**1.629 €**	4%	7%	7%	3%	2%	77%

Source: KombiConsult analysis

The analysis of container hinterland CT rail/road operations refers to the port-to-door transport of a 40' container on three trade lanes with different rail distances. It shows that the cost structures vary substantially from the situation in continental CT rail/road services (see Table 78, overleaf):

[117] This is because inland CT services are often subject to specific national impact factors with respect to policy objectives, pricing and cost allocation.

- The costs of using maritime containers are insignificant[118];
- CT services are usually not charged for the loading of the container on the train at sea ports. This service is usually included in the terminal handling charge (THC) paid by the shipping line to the sea container terminal. No export handling costs are incurred. As containers are normally directly transferred from the container terminal to a near- or on-dock CT terminal, the costs for the initial road leg are also omitted;
- Against this background the port-to-door movement of the 40' maritime container only involves three cost components. The largest is the cost for the final road leg on a short trade lane, eg between a Dutch sea port and a consignee in inland Germany. The proportion of the road leg drops to 31% on a 520km and to 14% on a 1,170km corridor;
- The share of the import handling costs is small. The scale mainly depends on whether the construction or operation of CT terminals is supported by public budgets;
- As for continental CT operations, the share of the rail costs increase in line with the transport distance. Rail accounts for 48% of the total port-to-door costs on a short-distance trade lane and increases to 77% on the 1,170km long route between a German port and Hungary.

The analysis also displays that container hinterland CT rail/road operations can be performed at considerably lower total costs than continental CT operations on trade lanes with similar rail distances. This is because they do not bear the costs of export handling and pre-carriage by road.

Table 78: Cost-revenue structure of container hinterland CT rail/road operations

Trade lane		Rail leg (km)	CT load unit (LU)	Port-to-door cost						
				Total	Cost of LU	Road leg		Terminal		Rail leg
						Initial	Final	export	import	
Netherlands	- Germany	280	40' container	352 €	0%	0%	46%	0%	6%	48%
Belgium	- Germany	520	40' container	520 €	0%	0%	31%	0%	6%	63%
Germany	- Hungary	1170	40' container	1.260 €	0%	0%	14%	0%	9%	77%

Source: KombiConsult analysis

4.2.6 Systemic cost and benefits of CT rail/road

This section is about the social and environmental impacts of CT rail/road operations, complementing the section above on the economic importance of this CT sector.

First of all, CT rail/road services are recognised for being more energy-efficient and environmental-friendly than through-road haulage. The most important impact is the reduction of greenhouse gas (GHG) emissions. They are primarily held responsible for contributing to climate change. As specific emission factors for CT rail/road services, are not yet available, the study has alternatively applied EU data for rail freight services on

[118] Costs are reportedly below $1 per day.

general. For calculating the total GHG reduction impact of the CT sector the transport performance only related to the rail leg of the operations is used.[119] CT rail/road operations accordingly show significant benefits in terms of savings of emissions of CO_2, NO_x and particles. CO_2 emissions alone were reduced by more than 7.6m tonnes (see Table 79).

Table 79: Savings of GHGs by CT rail/road operations against road, 2011

Greenhouse gas	CT transport performance (bn tkm)	Specific GHG saving (g/tkm)	Total GHG savings (tonnes)
CO_2	115	66.27	7,621,050
NO_x		0.81	93,150
Particles		0.01	1,150

Source: KombiConsult analysis based on specifications of German Ministry for Transport

By saving GHG emissions CT rail/road operations reduce the social costs of freight transport. CT rail/road services further contribute to cutting social costs as they have a better safety record than road haulage and thus reduce the indirect costs to society for accidents. According to the European Commission's former Marco Polo Programme, rail's advantage over road is estimated to amount to €0.02 per tonne-km. Based on this indication and the transport performance of CT rail/road operations, the total social benefits of this sector accounted for €2.3bn in 2011 (see Table 80).

Table 80: Social benefits of CT rail/road operations against road, 2011

Transport performance (bn tonne-kms)	CT benefit over road (€/tkm)	CT mode shift benefit (€bn)
115	**0.02**	**2.3**

Source: KombiConsult analysis based on specifications of Marco Polo Programme

4.3 CT inland waterway/road industry

4.3.1 CT inland waterway/road operations

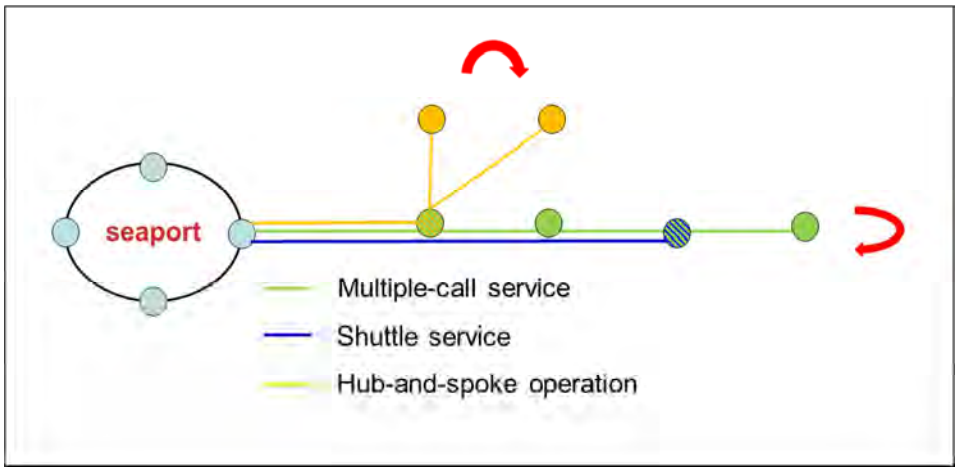
Inland terminals are similar to other CT industries in forming an essential part of the CT inland waterway/road operation. Waterway access is required for handling of barges. A large number of inland ports and terminals have trimodal access, so that both CT waterway/road and CT rail/road can be handled. Corresponding to the requirements of shippers, inland waterway operators provide frequent liner services. Container vessels usually operate continuously (24/7) and run round trips on a specific route according to published schedules. Therefore, the frequency of services depends on transit time and number of vessels deployed. Transit times of barge services are longer than rail and road

[119] The road legs of CT operations do not involve GHG savings.

transport. The time disadvantage increases with the distance. This is one reason for decreasing container volumes towards the Upper Rhine. In particular the transit time for import containers travelling upstream against the river current may be prohibitively long. Therefore some inland waterway container operators offer rail and even trimodal products complementary to inland waterway transport, in order to better meet customer requirements.

In sea ports inland waterway transport operators usually serve different terminals. However, the time-consuming calls at different terminals (including waiting time due to terminal congestion and priority for maritime vessels) has led to plans for more efficient container services to/from sea ports. “Transferia” or “Megahubs” near to sea ports may contribute to the implementation of services with limited calls in sea ports. They are used for a consolidation of hinterland containers by sea port terminals. A “Transferium” is under construction close to Rotterdam sea port. Moreover, plans exist to establish a Megahub at the Lower Rhine in Germany near to the Dutch border. Apart from a Transferium near to the sea port, dedicated barge terminals within sea ports may improve the situation.

Figure 11: CT inland waterway/road service patterns



Source: PLANCO

In the hinterland of sea ports, different network structures exist in inland waterway container transport. There are shuttle services which call at one port only, eg Duisburg, and services with multiple subsequent stops in a region (eg Lower Rhine, Middle Rhine, Upper Rhine). At the final stop vessels turn around and sail back to the sea port, calling at the same terminals in opposite order. Services are designed to call at different affiliated and co-operating terminals of one operator. The integration of destinations allows the servicing of hinterland markets at lower cost, resulting from a better utilisation of barges. Services may include the modification of convoys at intermediate stops by leaving a barge behind. Changing waterway characteristics may also influence loading capabilities, eg the influence of bridge clearances on the number of layers of containers carried by barge. Waterway characteristics contribute to the network structure with different regional services. Large vessels and convoys serving the Lower Rhine may not operate on the Upper Rhine. Some operators use hubs to tranship containers between sea port services and connecting spoke services to/from regional inland terminals. An

example is Contargo, which has set up a hub in Koblenz to serve terminals along the Main such as Frankfurt. However, the additional transhipment cost has to be compensated by cost savings on the main leg, which arise from the use of larger vessels and a better utilisation of vessels.

Vessel size is an important factor for cost and feasibility of CT inland waterway/road services. Depending on the river and service characteristics, different vessel types are deployed. Vessel type and hence capacity is related to the market potential and waterway dimensions. Navigational conditions along the Rhine corridor are beneficial and only minor restrictions apply to vessel size and utilisation compared to other waterways. This helps explain the significant share of CT inland waterway/road on this corridor. In contrast, CT inland waterway/road services are less competitive on other corridors, where waterway dimensions are more restrictive.

The largest vessels reflect market demand and waterway characteristics in place along the Rhine corridor in the hinterland of the ZARA sea ports. In particular, on the Lower Rhine routes large vessels are employed in the JOWI-class with capacities of up to 600 TEU on 6 layers and convoys with up to 800 TEU on 4 layers. Restrictions on water levels may apply, which can then reduce the effective capacity. Convoys consist either of push tugs and barges, or self-propelled vessels and barges. While large vessels are better suited for high-density shuttle services, convoys provide more flexibility as single barges can be left behind at intermediate ports. The increase of transit time due to intermediate stops is compensated by lower cost resulting from a bundling of flows without additional transhipment. Use of larger vessels and better utilisation of vessels leads to lower unit cost per container. An additional transhipment in the hinterland is another option to reduce shipping cost resulting from lower unit costs on the main leg, but requires additional handling cost.

Apart from large capacity vessels, there are a wide range of vessel sizes in operation for container services along the Rhine. Restrictions increase towards the south along the Middle and Upper Rhine. The effective limitation due to waterway dimensions and bridge clearances depends on water level and the weight of containers carried. Despite the restrictions, even on the Upper Rhine vessels and convoys with a capacity of up to 700 TEU on 4 layers are in operation. However, capacity utilisation typically decreases towards the South, as a number of ports are served on the route to discharge containers.

Even small vessels are in use on certain routes with lower volumes or to/from adjacent lower-class waterways along the Rhine corridor. Discharging of container layers at intermediate stops (which can be accessed without restrictions) is carried out by operators to enable direct services to/from waterways with limited bridge clearance. In the hinterland of the ZARA ports, smaller vessels are in operation on routes along the north-south corridor.

Compared to the Rhine, container vessel size is much smaller on other waterway corridors. In France, along the North-South corridor including Seine and Rhone river basins, vessel and push convoys with a capacity of up to 352 TEU are deployed. In the hinterland of German sea ports along the east-west corridor between Bremerhaven and Bremen, vessels and convoys with a capacity of up to 384 TEU are in operation. However, on other routes smaller vessels and convoys are in operation with a maximum

capacity of 144 TEU. The limited volumes along the Danube are carried on barges with a capacity of up to 144 TEU. Along the Danube, container barges are usually joined with other cargo in convoys.

4.3.2 Business models of CT inland waterway/road service providers

The growing CT traffic on waterways is carried by a limited number of operators. Corresponding with the traffic pattern, operations are aligned to the hinterland transport of maritime containers. In particular, inland shipping lines, inland terminals or sea port terminals all act as operators of CT inland waterway/road services. Most of these operators are subsidiaries of global LSPs or regional forwarders. As in maritime CT rail/road, services are provided to LSPs and large shippers (merchant haulage) or maritime shipping lines (carrier haulage). Related to the shipping terms, maritime shipping lines are responsible for the collection and distribution of containers in the hinterland under carrier haulage. In contrast, shippers are responsible for the hinterland transport, where merchant haulage applies. However, shippers often do not organise the transport themselves but instead assign this to logistic service providers.

Typical business models of CT operators are analysed on the basis of the organisation of the CT chain and provision of services. The CT chain consists of the complementary services of sea port terminal handling, inland waterway transport, inland terminal handling and pre-/and end-haulage. While some clients organise pre- and end-haulage themselves, a port-to-door service is in general offered by CT operators or co-operating terminal operators. For pre- and end-haulage, terminal operators provide their own lorry fleets or co-operate with local lorry operators. Inland terminals also provide supplementary services.

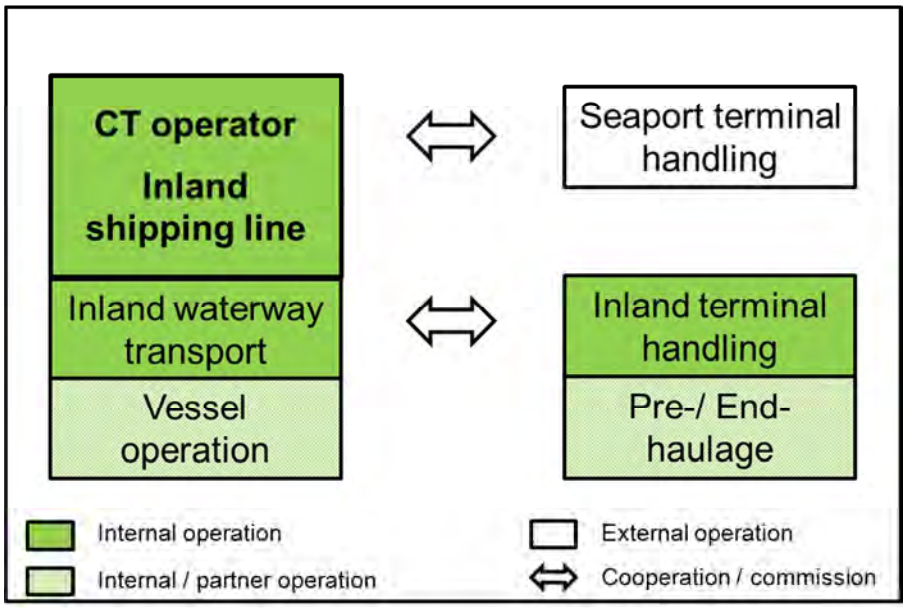
The CT operator markets the CT service and closes a contract with the client. Depending on the client's demands, different services complementary to the pure inland waterway transport are included, typically inland terminal handling. The CT operator is liable for the provision of the services as specified in the contract. However, the CT operator does not necessarily provide all the services by itself. Related to the core activity of the CT operator, different business models have emerged with complementary services carried out internally, either by the CT operator itself, by co-operating partners, or externally by independent service providers.

Inland shipping lines act as CT operator, marketing their container liner service capacity to clients. The CT chain may be organized by clients and partners of inland shipping lines. However, due to demand of customers large operators in particular increasingly offer solutions for the complete transport chain and are responsible for the intermodal component (see Figure 12).

As CT operator, inland shipping lines run the service, however, as typically in inland waterway transport only a minor share of these companies actually own vessels. The majority of vessels are chartered from a large number of small enterprises with a limited number of vessels such as owner-operators. The contracted vessels run according to the requirements of the shipping line. It determines network and schedules, markets services and takes the commercial risk.

As CT operator, the shipping line markets integrated container transport services, including terminal handling. This is achieved by serving a network of selected inland terminals. These inland terminals may either be affiliated to the shipping line, or through co-operation based on contractual agreements between shipping line and inland terminal. In certain special cases, inland shipping lines and inland terminals are integrated (see below). Sea port handling is a component of the integrated service and commissioned to sea port terminal operators. Danser shipping line provides an example of this business model. The consolidation within the inland waterway container transport industry facilitates the supply of integrated supply chain solutions by different types of operators.

Figure 12: Inland shipping line as CT operator



Source: PLANCO analysis

Some inland terminals act as CT operator and have set up a business model with integrated CT inland waterway/road, including hinterland container transport services (see Figure 13). Inland terminal operators with a network, and regional operators with only one terminal, also exist. Terminal operators are often affiliated to forwarders. This applies to terminal network operators and operators of a single terminal, which are often subsidiaries of local forwarders.

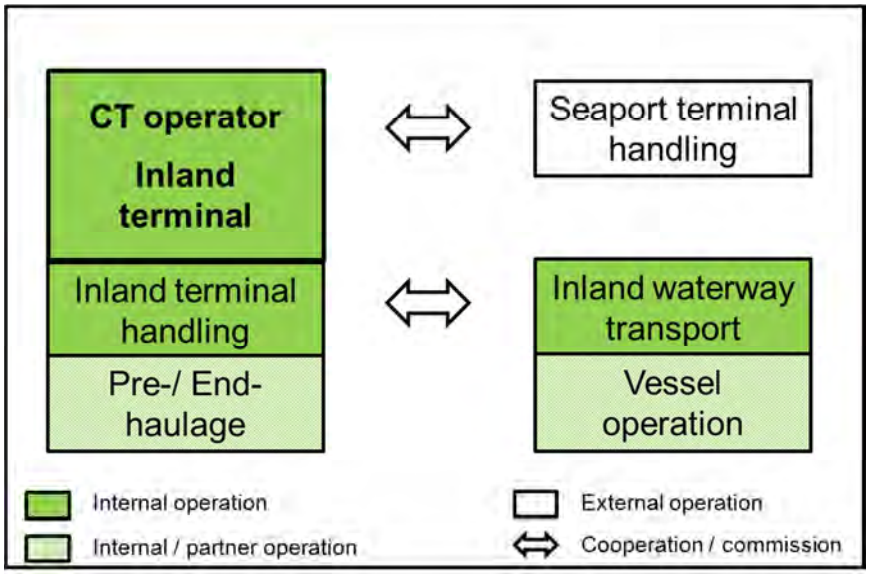
The inland terminal CT operator caters for a dedicated container liner service. The terminal is either served by vessels of a co-operating inland shipping line running between terminal and sea port, or vessels are contracted to run dedicated liner services between terminal and sea port.

For terminals contracting dedicated services, the inland waterway transport activity is limited to the set-up of sea port services. A partner is then in charge of vessel operation. The dedicated service is intended to ensure a regular sea port connection and CT inland waterway/road services in the catchment area of the terminal.

Sea port terminal handling is part of the CT service, but provided by sea port terminal operators externally. Inland terminal operators such as BCTN and Frankenbach, which

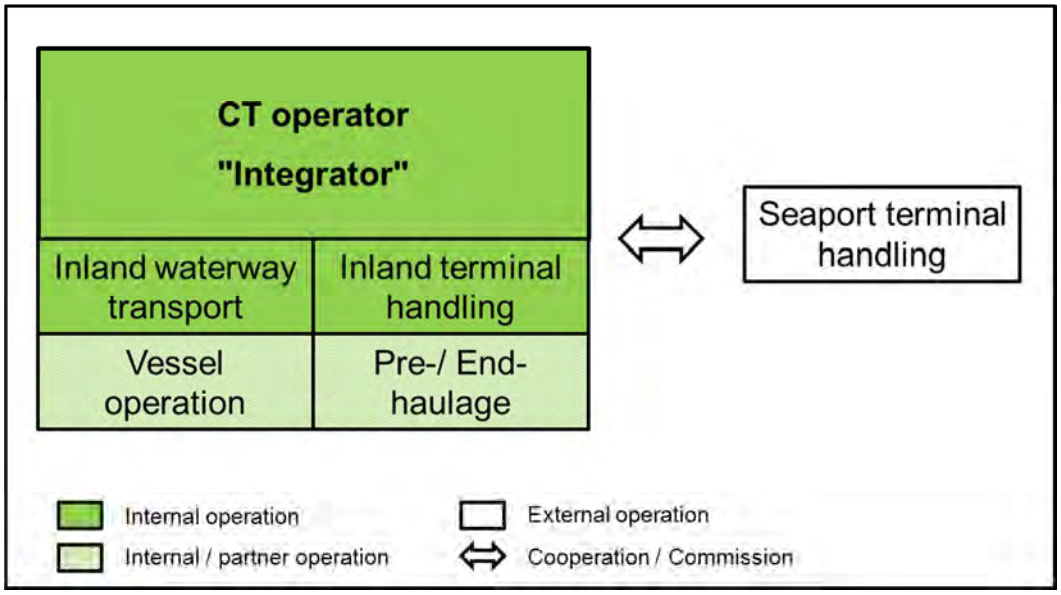
launched inland waterway services to connect their terminals with sea ports, are examples of inland terminals acting as CT operators.

Figure 13: Inland CT terminal as CT operator



Source: PLANCO analysis

Figure 14: "Integrator" as CT operator



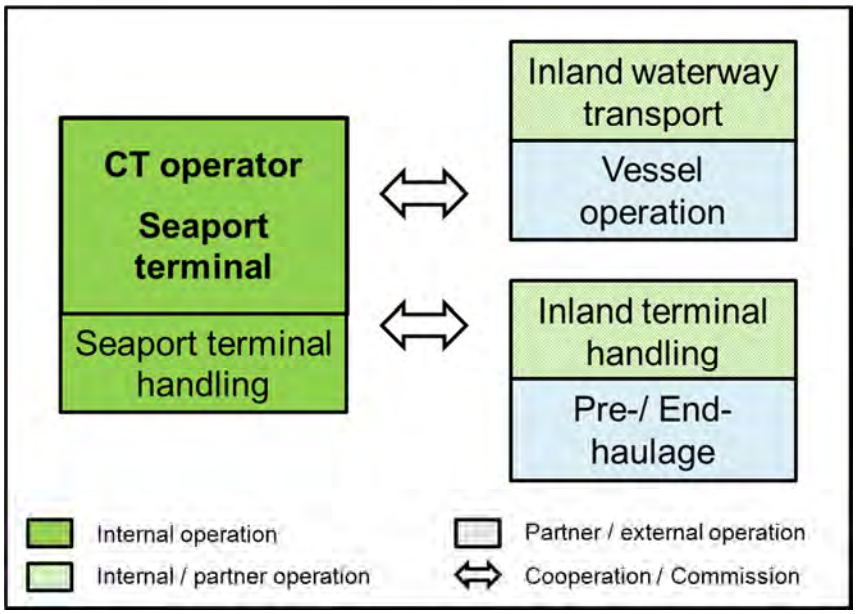
Source: PLANCO analysis

In some cases, the inland terminal operator and inland shipping line are integrated. Leading operators such as Contargo and Imperial are integrated operators with inland terminal and inland shipping line subsidiaries. They serve a network of affiliated inland terminals with their own liner services to/from sea ports. As clients either approach the shipping line or local terminal branches, integrated operators are regarded as a special

case of either an inland shipping line, or an inland terminal operator supplying CT services (see Figure 14).

Increasingly, sea ports have moved into the hinterland to strengthen their position in sea port competition. High-performance hinterland links including CT services and terminals are of growing relevance. Related to modal shift objectives (and to avoid road and rail congestion at the quayside) sea ports have particular interest in CT inland waterway/road services. Correspondingly, sea port terminals act as CT operators of inland waterway/road. They have either integrated services or have joined forces with independent terminal and inland shipping operators to market integrated services. Considering the case of a company both operating sea port and inland port terminals such as DP World, this business model can be regarded as a special case of the inland terminal operator as CT operator. The integrated service provider operates terminals in the hinterland and has established dedicated liner services by barge. The alternative is to organise integrated hinterland container transport, in co-operation with partner terminals and inland shipping operators. The co-operation may include contracting fixed slot capacities on barges of the co-operating inland shipping operator. European Gateway Services, a subsidiary of ECT Terminal, is an example of a sea port terminal acting as CT operator. The integration of sea port terminals allows the inland terminal to act as an extended “gateway”, which facilitates customs formalities (see Figure 15).

Figure 15: Sea port terminal as CT operator



Source: PLANCO analysis

Apart from sea port terminals, maritime shipping lines may also act as CT inland waterway/road operators. At the very least, the inland waterway transport may be integrated by maritime shipping lines. CMA-CGM, with its affiliated operator Greenmodal (including former River Shuttle Containers), is an example of this rarely-practiced business model. Although inland waterway transport is an important component of the maritime shipping line service, in terms of the share of carrier haulage, they usually do not integrate CT inland waterway/road operations. Instead, they commission

independent operators. However, maritime shipping lines such as MSC may have fixed slot capacities on the barges of co-operating inland shipping lines.

4.3.3 Key operators in CT inland waterway/road

The recent consolidation has contributed to a further reduction of independent market players within inland waterway container transport. For instance, Contargo took over Rhinecontainer, the container subsidiary of Wincanton, and Danser acquired the container activities of French shipping line CFNR. Only a few independent operators still exist. Contargo, the leading integrated CT inland waterway/road operator, is a subsidiary of global logistic service provider Rhenus. Other operators are affiliated to regional forwarders, which have implemented CT inland waterway/road services. Moreover, sea port and inland terminal operators act as intermodal service providers, including barge services. However, enterprises such as ECT (with its European Gateway Services subsidiary) and DP World do not operate vessels themselves, but co-operate with inland shipping lines' respective barge operators. Apart from a few very large dominating companies, some small operators are active. Some of them are niche operators serving waterway networks distant to the Rhine with much lower volumes. Despite the rather consolidated supplier structure, some operators co-operate in alliances. An example is the Container Alliance Lower Rhine by Contargo and Haeger & Schmidt Containerline.

Table 81: Key operators of CT inland waterway/road services

Operator	River Basin	Volume TEU
Contargo	Rhein / North-South	1.700.000 (incl. rail)
Danser	Rhein / North-South	>1.000.000
BCTN	Rhein / North-South	700.000
Alcotrans	Rhein	390.000
H&S Container Line	Rhein	300.000 (incl. rail)

Source: PLANCO analysis

The majority of CT inland waterway/road (more than 50%) is handled by inland waterway transport and terminal integrators such as Contargo. Another business model which accounts for large volumes is the sea port terminal-driven operation. An example is the ECT Delta Terminal Rotterdam subsidiary European Gateway Service (EGS) with its partner Danser Containerline as inland waterway transport operator. In general, operators concentrate on certain river basins and respective waterway corridors. Corresponding with the large waterway volumes, most operators serve the Rhine corridor. Due to the orientation on sea port traffic and weak waterway conditions distant to trunk routes, waterway container transport along the other corridors and rivers is rather isolated. This applies to container traffic along the Seine, the Rhone, the northern German waterways and the Donau. Consequently, specialised operators serve these waterways. Only in the hinterland of ZARA-ports do operators offer integrated networks, including Rhine corridor and north-south corridor services. However, along the Rhine larger vessels are deployed than on the north-south routes.

4.3.4 Economic importance of CT inland waterway/road

The CT inland waterway/road sector does not publish indicators on its economic importance. There are a wide range of possible indicators. We illustrate the economic importance of the CT inland waterway / road industry with the following indicators: revenues, employment and investment.

Revenues

Based on the cost calculation and information from operators for typical CT inland waterway/road routes average revenues are estimated at €250 per TEU. According to operator information the base rate of an average distance route between sea ports Antwerp (Belgium) / Rotterdam (The Netherlands) and locations in the hinterland of Duisburg inland port (Germany) is €280. Depending on surcharges the price may increase to €320. Compared to these figures private cost calculations show around €216 for CT inland waterway/road between Antwerp (Belgium) and the Duisburg area (Germany) with a waterway distance of 310km. (see 6.2.5). This shows that rates include a margin to compensate for weaker utilisation and retain the ability to make profit.

For the estimation of average revenue we consider that approximately 75% of EU CT inland waterway/road refers to shipments carried over shorter routes in the hinterland compared to the Antwerp-Duisburg (Belgium-Germany) example. There is a link between distance and cost respectively rate, so that average revenues might be lower than in the example. Moreover, the share of empty container shipments repositioned due to operational reasons to compensate for trade imbalances do not generate revenues at all. Therefore, we regard €250 as a reasonable estimate for average CT IWW/road revenues per TEU carried. Applying this figure on the total CT inland waterway/road volume, overall 2011 revenues are estimated at around €1.3 billion.

Employment

Initial indications show that direct employment differs significantly between CT operators. Depending on the range of integrated services provided with their own staff, operators report labour intensities between 1.5 and 4.5 staff per 10,000 TEU of volume. An average figure of 3 staff per TEU is applied for CT operation including inland terminal handling. This would mean approximately 1,600 staff related to CT inland waterway/road. Additionally, employment related to road transport has to be considered. Assuming that a lorry driver works on 220 days a year and on average carries 5 TEU per shift, the total number of drivers related to CT inland waterway/road is estimated at 4,700 based on 2011 volumes. An overhead of 10% for road haulage organisation is assumed, so that the total employment related to collection and distribution to/from inland terminals is calculated at 5,200.

The employment of CT operators does not include navigational staff. The required level of navigational staff is determined based on regulations for inland navigation. According to the relevant regulation by the Central Commission for the Navigation on the Rhine (CCNR) a minimum crew of five is required for a self-propelled inland vessel and convoys

with up to two barges. Larger convoys require a minimum crew of up to seven.[120] Due to competitive pressure barge operators are forced to save cost and operate with the minimum number of crew required. Therefore an average of six crew members is assumed. In inland waterway container transport, vessels run continuously 24/7. This means more than 50,000 staff hours per vessel per year.

Depending on the maximum working time, which is 2,340 hours per worker per year in the German trade agreement, at least 23 staff are required for the operation of an inland vessel over one year. Apart from the staff on board it is assumed that additional staff at inland shipping lines are required for organisation and administration of operations. Tasks include marketing, sales, operational planning of barges and coordination with clients respectively other actors of the CT chain. Moreover, barge operators need personnel for administration of staff, in particular the navigational staff. The additional overhead required for these tasks is estimated as 10% of navigational staff, so that the total number of employees is 25 per vessel.

A reliable figure for the number of container inland barges in operation does not exist, as both dedicated container barges and standard dry cargo barges are used for container transport. Assuming an average vessel load of 250 TEU and an average round trip length of a half week, a fleet of approximately 100 vessels is required to carry the 2011 volume of 5.2 m TEU. Considering the employment of 25 staff per vessel per year, overall some 2,500 employees are related to the barge operation of CT inland waterway/road services. This figure corresponds with a recent CCNR analysis. According to CCNR market observation around 26,000 people are employed onboard vessels in inland waterway cargo transport.[121] Container transport accounts for approximately 10% of total cargo transport. Assuming a corresponding share of employment, 2,600 vessel personnel would then relate to container transport.

Apart from organisation, terminal handling and vessel operation, infrastructure operation is required. The infrastructure manager is among others responsible for waterway maintenance and lock operation. The staff of infrastructure managers can only be partly attributed to CT inland waterway/road employment, as container transport accounts for only a small share of inland waterway transport. The relevant employment is estimated from staff figures of the Dutch infrastructure manager Rijkswaterstaat and German infrastructure manager Waterway Directorate. Employment is attributed to CT inland waterway/road based on the shares of container traffic in total transport.

Related to the distribution of budget for inland waterways, it is assumed that 13% of the 9,300 employees of Rijkswaterstaat, which is also infrastructure manager of the Dutch highway network, relates to the inland waterway infrastructure. As container transport accounts for 13% of tonne-km in inland navigation, 13% of the inland waterway staff is attributed to container transport. This means that on average 0.03 personnel are employed by the Dutch infrastructure manager per million tonne-km of container transport.

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[120] Central Commission for the Navigation of the Rhine (CCNR), Regulation for Rhine Navigation Personnel, Strasbourg.

[121] CCNR, Inland Navigation Europe, Market Observation 2013,Strasbourg, September 2013.

A corresponding figure is derived for Germany assuming that 50% of the approximately 10,000 jobs are related to main inland waterways with cargo transport. 10% of the staff are attributed to container transport, as 10% of traffic along German inland waterway refers to container transport. This means on average 0.09 staff per million tonne-km of container transport are employed by the German waterway manager.

Considering the Dutch and German estimate, an average of 0.05 personnel per million tonne-km is applied to determine the employment at infrastructure managers related to container transport in Europe. Based on the total container transport performance of 10.7 billion tonne-km, it is estimated that overall 540 personnel at infrastructure managers of European inland waterways are related to container transport.

Considering all services required for CT inland waterway/road operation, the direct employment related to this sector is estimated at 9,840. Additionally, indirect employment of input providers for CT operations and secondary employment related to consumption could then also be associated with CT inland waterway/road.

Investment

Investment by CT operators is another indicator of economic importance. However, the available information is very limited and an estimation of investment volumes is not possible. It is recommended that in future, data should be gathered on investment for CT. Operators should be asked to report investment in infrastructure, equipment and tools for CT inland waterway/road. In addition to the basic terminal facilities, equipment for related services also should be considered, as clients demand additional services from terminal operators supplementary to handling and transport. Apart from hardware, investment may also relate to software such as ICT to facilitate the management of container flows in CT inland waterway/road.

The following objects are relevant for investment data collection with respect to CT inland waterway/road:

- Container barges;
- Inland terminal infrastructure with inland waterway access;
- Inland terminal handling facilities such as gantry cranes, reachstackers);
- ICT for terminal and transport chain management;
- Container depots;
- Dedicated barge facilities in sea ports.

Key investments related to CT inland waterway/road are inland vessels and terminal infrastructure. Specialised container vessels and conventional vessels for dry cargo are deployed in container transport. A new vessel is a large and long-term investment given the long lifetime of the hull. According to information gathered from operators and shipyards, prices for typical inland container vessels (depending on size) range between €6-8m. Due to the difficult economic environment, current investment activity is low. However, the growing volume of container transport on inland waterways might enhance container vessel investments to replace old vessels and add additional capacity in the future.

Terminal infrastructure is another essential area for investment both inland and at sea ports. While container terminal infrastructure with waterside handling in the hinterland can be attributed to CT inland waterway/road, in sea ports principally existing equipment for maritime operations can be used. Therefore, inland terminals are the main part of terminal investment referring to CT inland waterway/road. However, due to the inconvenience of barge handling at maritime terminals, increasingly dedicated barge terminals in sea ports are being established. Investment for such dedicated barge facilities in sea ports can be attributed to the CT inland waterway/road industry.

The dense terminal network established along main European waterways is a result of extensive terminal investment. New terminals require significant investment as examples from Germany show. The investment volume for the trimodal terminal opened 2011 at the Rhine in Mainz (Germany) with 250,000 TEU capacity was €30m. A smaller trimodal facility with 50,000 TEU capacity opened 2012 at the river Neckar in Heilbronn (Germany) required an investment of €17m.[122] However, terminal investments may be subsidised by the Federal Government. For instance, in Germany between 1998 and 2011, some 57 inland terminal projects with waterway access were supported. In total terminal operators received grants of €320m. Among grants awarded by the Federal Ministry of Transport as part of the CT terminal support programme, €9m refers to the terminal in Mainz and €11m to the terminal in Heilbronn. Assuming an average share of 70% support, the total investment of the 57 terminals which have received grants is estimated at €450m. In 2011, €44m of support was awarded to 6 terminal projects in Germany. This means a total investment of approximately €60m.

4.3.5 Cost-revenue structure of CT inland waterway/road operations

Cost calculation for CT inland waterway/road services has to consider the complementary service components: sea port terminal handling, inland waterway transport, inland terminal handling and pre- and end-haulage. With respect to the inland waterway transport, cost depends mainly on the length of the waterway leg and the size of barges employed. Cost per TEU-km decreases with increasing distance and container load. Cost calculations are provided for one representative domestic and international CT inland waterway/road route. The comparison of two routes with different distances will give an indication of the impact of the transport distance on average TEU-km cost. Moreover, the consideration of vessels with different sizes indicates possible cost reduction resulting from the use of larger vessels. However, the realisation of economies of scale and density requires the utilisation of additional capacity on larger vessels.

For domestic CT inland waterway/road we consider hinterland container transport between Rotterdam (The Netherlands) and locations within a 25km radius of the inland terminal in Nijmegen (The Netherlands). Motor vessels with a capacity of 208 TEU on 4 layers operate on this 120km route along the Maas and Waal waterways. We have analysed container transport between Antwerp sea port (Belgium) and a location within a 25km radius of an inland terminal in Duisburg (Germany) as a representative example for international CT inland waterway/road. The largest inland container vessels of the

[122] German Transport News (DVZ), 20th May 2011, Frankenbach verlegt Hafen in Mainz rheinabwärts; City of Heilbronn, Containerterminal, < https://www.heilbronn.de/wir_inn/zukunft/containerterminal/ >

JOWI class are deployed on this route. They can carry up to 484 TEU on 4 layers. The waterway distance is 310km along the Rhine corridor. Related to the large volumes in hinterland transport, a 90% utilisation of TEU capacity is assumed for domestic and international container transport. This figure has been confirmed by stakeholders. However, it should be regarded as best case and a large share of container barges may have a weaker utilisation. For instance, a study on inland waterway infrastructure in the framework of the PLATINA project assumes a vessel utilisation of only 65%.[123]

The cost calculation for waterborne transport follows the methodology developed by PLANCO for project evaluations for the German Federal Transport Infrastructure Planning.[124] The cost calculation refers to a round trip journey sea port-inland terminal. The main cost factors of inland waterway transport are vessel, staff, fuel burn and trans-shipment. Vessel costs are calculated based on estimates of current vessel price, depreciation periods of 25 years for the hull and 10 years for the engine, and an interest rate of 8.5%. Staff costs are based on crew requirements and trade agreements. Costs for a round trip journey results from the duration of the journey, which is calculated based on average travelling speed, waiting time at locks, sea ports and inland ports and duration of handling. Fuel consumption is determined from the required energy for one round trip considering waterway and vessel characteristics. Fuel costs are calculated based on the 2011 average CBRB gasoil index of €79.3.[125] The resulting private cost for the inland waterway transport is €107 per TEU for the domestic transport route Rotterdam-Nijmegen (The Netherlands) and €120 per TEU for the international transport route Antwerp-Duisburg (Belgium-Germany).

Although maritime shipping lines impose uniform Terminal Handling Charges (THC) at some sea port terminals irrespective of the hinterland mode, the complexity of barge handling at sea port is the reason for higher costs compared to road and railway transport. Even if maritime shipping lines/sea port terminals do not pass on the additional cost to an operator or shipper, a higher charge for barge handling may apply amongst others due to the fact that often a transfer between terminals is required in the sea port. Therefore, handling costs are calculated at €70 per move at sea ports and €45 per move at inland terminals. These figures, which have been applied in cost calculation of the recent PLATINA[126] study, are regarded as reasonable estimate and correspond with PLANCO's experience. For comparison, the PLATINA study calculates CT rail/road handling costs of €45 per move in sea ports and €25 per move in inland terminals.[127]

CT services often benefit from subsidies. Subsidies for CT inland waterway/transport usually refer to inland terminal investment. For instance, in Germany CT inland terminal

[123] PLATINA, Report of working group on European IWT infrastructure: Concretisation of the EC transport policy for IWT infrastructure needs on the Rhine corridor – a first approach, 2012.

[124] German Federal Ministry of Transport, Federal Transport Infrastructure Plan 2003, The socioeconomic evaluation methodology, 2005; PLANCO et al., Update of evaluation methodology for feasibility studies in the Federal Transport Infrastructure Planning, 2010; PLANCO et al., Economical and Ecological Comparison of Transport Modes: Road, Railways, and Inland Waterways, 2007.

[125] CCNR, Inland navigation in Europe, Market Observation 2013, September 2013

[126] Platform for the implementation of NAIADES

[127] PLATINA, Report of working group on European IWT infrastructure: Concretisation of the EC transport policy for IWT infrastructure needs on the Rhine corridor – a first approach, 2012.

investments for CT inland waterway/road are supported by the Federal Government. The subsidy contributes to a reduction of capital cost and allows operators to impose lower handling charges. An analysis for Germany has shown that without the subsidisation of inland terminal investment, handling cost would rise by €22 per inland move.[128]

For both transport routes a typical pre-/end-haulage distance of 25km is assumed. PLANCO's cost model is applied considering fixed and variable cost of lorry operation including fuel consumption. Truck costs are dependent on the duration of a round trip and distance of the haulage. With respect to the duration it is assumed that the lorry on a round trip carries a container to the final destination and another container back to the inland terminal. It is calculated that a container round trip takes approximately 3.5 hours including 2.5 hours for discharging and loading of containers as well as waiting. Fuel cost is calculated based on average 2012 diesel prices reported by the Association of the German Petroleum Industry. The total cost of one lorry round trip is approximately €195. The average utilisation of distribution/collection is calculated with 2 TEU per round trip. Approximately half of units are 20' and 40' containers, so that a loaded lorry carries on average 1.5 TEU. Assuming that at least one third of lorries combine distribution and collection of containers the average lorry load is 2 TEU. Based on this utilisation the costs for pre-/end-haulage are calculated with on average of approximately €100 per TEU.

In total, costs for domestic CT inland waterway/road between Rotterdam (The Netherlands) and Nijmegen (The Netherlands) are calculated to be €203 per TEU. International transport between Antwerp (Belgium) and Duisburg (Germany) is more expensive, at €216 per TEU. The large share of handling and pre-/end-haulage determines a significant difference of TEU-km cost between €1.69 for short-distance domestic routes and €0.69 for the longer-distance international routes (see Table 82).

The cost calculation does not consider possible surcharges imposed by maritime shipping lines, such as for the late return of container equipment (demurrage). Due to long transit times of CT inland waterway/road, demurrage is common for Upper Rhine services. Another cost component imposed by maritime shipping lines, which applies to both CT sectors inland waterway/road and rail/road, are collection charges, which result from imbalances of regional trade flows and refer to the cost for the repositioning of container equipment.

[128] KombiConsult information based on study for German Ministry for Transport.

Table 82: Cost structure of CT inland waterway/road services

	Domestic CT iww/road Rotterdam-Nijmegen (The Netherlands)	International CT iww/road Antwerpen-Duisburg (Belgium-Germany)
Total cost	**203 €**	**216 €**
Cost category	**Share of total cost**	
Vessel	10%	13%
Staff	5%	4%
Fuel	1%	2%
Handling seaport	22%	22%
Handling inland terminal	14%	14%
Pre-/End-haulage	47%	45%

Source: PLANCO

Revenues of CT operators are determined by base rates and surcharges. Operators impose bunker and congestion surcharges referring to additional operational cost. These surcharges are based on the bunker adjustment factor (BAF) and sea port congestion. Moreover, surcharges imposed by maritime shipping lines such as demurrage and collection are passed through by the CT operator.

The price for a 20' container between Rotterdam/Antwerp sea ports and Lower Rhine inland ports is approximately €320, including the base rate as well as €30 bunker surcharge and €10 sea port congestion charge. Corresponding prices for containers to/from Upper Rhine locations (depending on waterway distance) are approximately €450 including €20 demurrage. Indicative prices for 40' containers are €400 for the Lower Rhine and €650 for the Upper Rhine. Despite the likely difference in distance and operational cost, the sea ports of Antwerp and Rotterdam are similar in respect of pricing.

Comparing the indicative prices and cost figures, it transpires that CT operations are profitable. However, comparing profit margins between international and domestic routes shows that the profitability of CT services is strongly related to vessel size and associated economies of density, as well as the transport distance. Despite being less than half as long in distance on the analysed domestic CT route, costs are only €13 lower per TEU. This is a result of the deployment of smaller vessels and the high cost share of handling and pre-/end-haulage, which are not related to the transport distance.

With respect to competition between CT inland waterway/road services and road transport, subsidies are very important for the feasibility of lower-density and shorter distance CT services. These services in particular might not be feasible without subsidies. With savings of €22 per TEU arising from inland terminal investment subsidies in Germany, an absence of such support would mean a cost increase of approximately 10%. Moreover, vessel utilisation is a critical factor for profitability. For instance, a reduction of vessel utilisation from the assumed 90% to only 50% would increase cost per TEU by 10% on the analysed international CT route.

4.3.6 Systemic cost and benefits of CT inland waterway / road

The comparison of transport options from a socio-economic point of view is based on social cost. As well as internal cost categories, external cost components are considered.

Apart from internal cost components (vessel, staff, fuel, handling and pre- and end-haulage), CT inland waterway/road operations also cause external costs related to climate change, air pollution and accidents. Moreover, from a socio-economic perspective, a lower opportunity cost of capital applies.

The externalities refer to barge operation and lorry haulage for collection and distribution. Table 83 shows cost calculations for representative routes between Rotterdam sea port (The Netherlands) and the Nijmegen (The Netherlands) area as well as Antwerp sea port (Belgium) and the Duisburg area (Germany).

Social costs are calculated based on the official German methodology developed by PLANCO for the German Federal Infrastructure Plan.[129] Compared to the private cost calculation, a longer period for depreciation and a lower interest rate of 3.0% is applied.

The social costs of climate change are determined, based on CO_2 emissions related to fuel consumption. For instance, a barge running on a round trip between Antwerp and Duisburg (Belgium-Germany) consumes 3,700 litres of fuel and emits around 10t of CO_2. This means 11 kg per TEU considering the assumed barge utilisation.

Barge CO_2 emissions are relatively low compared to lorry emissions in pre- and end-haulage. The latter are calculated with approximately 20t CO_2 per TEU for an average roundtrip distance of 50km.

Barge emissions of air polluting gases are calculated either based on fuel consumption or on average vessel emissions per kWh. Average vessel emissions have been determined for different vessel sizes based on data for the European inland navigation fleet.

Apart from the inland waterway transport leg, lorry emissions in pre-/end-haulage are considered. Values applied in the official German methodology are used as shadow prices of pollution in the social cost calculation. For instance, a shadow price of €70 per tonne is applied for CO_2 emissions.

External cost accounts for a very low share compared to internal cost categories. Climate change cost accounts only for about 1% of social cost per TEU and air pollution cost even for only 0.01% on the analysed representative routes.

Apart from pollution, accident costs are a relevant externality. For the routes analysed, accidents account for up to 1.5% of social cost. The results are based on average accident rates and the average damage applied in the official German methodology. The low external cost of CT inland waterway/road is an indicator of its social advantage compared to direct lorry haulage.

[129] German Federal Ministry of Transport, Federal Transport Infrastructure Plan 2003, The socioeconomic evaluation methodology, 2005; PLANCO et al., Update of evaluation methodology for feasibility studies in the Federal Transport Infrastructure Planning, 2010; PLANCO et al., Economical and Ecological Comparison of Transport Modes: Road, Railways, and Inland Waterways, 2007.

Overall, social costs of CT inland waterway/road are calculated at €178 per TEU for domestic CT inland waterway/road between Rotterdam (The Netherlands) and Nijmegen (The Netherlands). This leads to a cost of €1.48 per TEU-km. The social costs for international CT inland waterway/road between Antwerp (Belgium) and Duisburg (Germany) are €190 per TEU and €0.61 per TEU-km. Social costs of CT inland waterway/road are lower compared to private costs. This is related to the fact that private enterprises expect a larger rate of return, so consequently a higher opportunity cost of the capital employed applies.

Moreover, external costs related to climate change, air polluting gases and accident per TEU are rather low compared to internal costs. The social cost would be even lower, if positive externalities resulting from a modal shift from road to CT inland waterway/road and associated external cost savings were taken into account.

Table 83: Internal and external costs of CT inland waterway/road

	Domestic CT iww/road Rotterdam-Nijmegen (The Netherlands)	International CT iww/road Antwerpen-Duisburg (Belgium-Germany)
Total cost	**178 €**	**190 €**
Cost category	**Share of total cost**	
Vessel	9,2%	7,4%
Staff	4,9%	5,5%
Fuel	1,8%	1,3%
Handling seaport	25,0%	25,2%
Handling inland port	16,1%	16,2%
Pre-/End-haulage internal	40,1%	42,1%
Total internal	**97,2%**	**97,8%**
Climate Change	1,3%	1,2%
Air pollution	0,01%	0,01%
Accidents	1,5%	1,0%
Total external	**2,8%**	**2,2%**

Source: PLANCO analysis

However, consideration of external cost savings as a positive externality is not appropriate for the social cost of CT inland waterway/road. A comparison of social costs between CT and direct lorry haulage shows the positive externality related to modal shift.

On a global level these positive externalities determine the welfare gain related to modal shift from road to CT inland waterway/road. They may be used for the assessment of policy measures which aim to shift cargo from road to CT.

Comparing emissions of CT inland waterway/road with lorry haulage on selected transport routes, on average a saving of 856g CO_2 per TEU-km is achieved. The reduction of other emissions such NO_X and Particles resulting from modal shift is rather low by comparison.

Table 84 Emission reductions using CT inland waterway/road services

Emission	emission reduction compared to truck haulage g/TEUkm
CO_2	856
NO_X	0,82
Particles	0,02
Other	2,53

Source: PLANCO analysis

The reduction on emissions means a saving of approximately €10/TEU for the selected transport routes. By far the majority of social cost savings concerns CO_2 emission reduction. Considering the lower accident cost of inland waterway transport, social cost savings of CT inland waterway/road reach up to €12 per TEU for analysed services.

Table 85: External cost savings of CT inland waterway/road

	Domestic CT iww/road Rotterdam-Nijmegen (The Netherlands)	International CT iww/road Antwerpen-Duisburg (Belgium-Germany)
Cost category	social cost savings compared to truck haulage € / TEU	
Climate Change	9,85	9,59
Air pollution	0,06	0,06
Accidents	2,09	0,84
Total	**12,00**	**10,49**

Source: PLANCO analysis

4.4 CT short sea/road industry

The CT short sea/road industry is rather fragmented. The sector has a complex structure with diverse submarkets and a wide range of different operators. Another challenge for the analysis of this sector is that operators usually do not consider CT services separately and operators may be involved in different maritime transport and CT short sea/road market segments. Therefore, a more detailed analysis of the CT short sea/road sector would require an extended, specifically targeted study.

4.4.1 Business models of CT short sea/road service providers

The CT short sea/road container business is comparable to other CT sectors organised by shipping lines and forwarders. In the container business, dedicated short sea operators and deep sea shipping lines provide short sea container services. Among short sea operators, there are operators either with a focus on feeder containers or continental containers.

Feeder service networks are strongly influenced by deep sea shipping lines and maritime forwarders. The hinterland lorry transport is integrated and organised by the maritime shipping line for shipments in the carrier's haulage. The offer of "door-to-door" transport of containers is the industry standard both for feeder and continental containers. In contrast to carrier haulage, forwarders or shippers themselves organise it under merchant haulage. Forwarders often act as integrator and sell the entire chain to shippers.

Similar structures apply for continental container short sea transport. The physical operation of lorry haulage is contracted to predominantly small companies with a limited number of lorries, such as owner-operators. In some countries co-operatives organise the services. They are usually contracted by shippers, maritime shipping lines and forwarders to collect and distribute containers, but may organise the entire CT chain.

The feeder and continental container business is increasingly merged. Feeder operators utilise spare capacity with continental containers. Even some deep sea shipping lines are prepared to carry continental containers on their vessels serving short sea markets, such as the Baltic Sea, during their turnaround in Europe on intercontinental routes.

The "integrated" business models offering door-to-door transport dominate where the organisation of the road hinterland transport of containers is in the hands of shipping lines or forwarders. Short sea shipping lines offer the complete chain as increasingly demanded by shippers. This applies in particular to continental container services. In the feeder business short sea operators are to a large extent only the carrier contracted by maritime shipping lines.

The short sea RoRo business is dominated by specialised shipping lines including ferry operators. Apart from forwarders, road haulage companies are the main suppliers of CT RoRo short sea/road services. They combine sea transport and road haulage as an integrated service. Shipping lines usually act as carriers only.

4.4.2 Key operators of CT short sea / road

There are a wide range of maritime shipping operators in the different market segments. Among container shipping lines there are dedicated short sea operators such as Teamlines and Unifeeder. Short sea shipping may be affiliated to certain deep sea shipping lines such as Seago or Maersk. The three leading shipping lines in the Baltic Sea region provide a capacity of 4m TEU pa including services serving adjacent Non-EU countries such as Russia. This accounts for 70% of total capacity of short sea shipping lines in the Baltic Sea region. Although feeder traffic is the main business, most operators offer door-to-door transport of short sea containers.[130] For instance, feeder containers accounted for 86% of Unifeeder`s short sea business in 2011. Unifeeder carried 1.7m TEU feeder containers and 0.3m TEU continental containers.[131]

Short sea shipping container operators usually focus on certain trade regions. However, after the merger with Feederlink, Unifeeder has strong ties with the UK market. Samskip is one of the leading operators focused on the North Sea region serving a dense network including the British Isles. Among leading container operators serving the Iberian Peninsula is OPDR. In the Mediterranean only a few small dedicated short sea shipping container lines operate. However, deep sea lines such as CMA-CGM, with a dedicated network in the Mediterranean, are leading operators. In general, deep sea lines provide short sea container services, partly as a by-product filling spare capacity on intercontinental loops which subsequently call in different EU ports. For instance, MSC and CMA-CGM run short sea services in the Baltic Sea region. These two leading lines jointly provide an annual capacity of 3m TEU, representing 70% of the capacity provided by deep sea lines in the Baltic Sea region. The service portfolios of the deep sea lines usually include door-to-door transport of continental short sea containers. However, in

[130] ISL, Short Sea Shipping in the Baltic Sea Region: Freight volumes and the potential of 45' containers, Bremen, 2014.

[131] Unifeeder, Annual Review 2011, Aarhus 2012.

contrast to short sea operators, deep sea lines rarely handle 45' container equipment of benefit to CT continental container short sea/road services.[132]

The RoRo short sea market is served by RoPax and RoRo vessels through specialised operators and dedicated shipping lines. However, in contrast to container transport, shipping lines are usually not in charge of the entire chain, but only the sea transport element. LSPs organise the entire RoRo chain. Among leading operators are the Grimaldi group, with a dense network focusing on the Mediterranean. For instance, the Baltic Sea Network of Finnlines belong to the Grimaldi group. Transfennica is another operator with a widespread network reaching from the Baltic Sea to the Iberian Peninsula. Stena Line is among the leading RoPax operators with services in the Baltic Sea region and the North Sea. P&O and Brittany Ferries are among RoRo operators between the Iberian Peninsula and the UK.

Due to the specific characteristics of this sector it is not possible to obtain relevant statistical information on the volume and performance of the companies.

4.4.3 Economic importance of CT short sea / road

The economic importance of the CT short sea/road market is difficult to assess. Shipping lines rarely publish revenue information. This is particularly valid for short sea trades by deep sea lines. There are no separate feeder revenues reported as freight rates and hence revenues refer to intercontinental container trades including feeder transport. One of the leading short sea container operators Unifeeder reported a turnover of €430m for 2011. Feeder services account for 75% and continental short sea services for 25%. This indicates higher revenues per TEU in continental trades.

Employment of CT short sea/road operation is mainly determined by vessel and sea port operation. However, the estimation of employment related to CT short sea operation is not possible due to specific characteristics of the diverse short sea sector. Moreover, separation between short sea and deep sea is often not possible.

The same reasons do not allow a quantitative estimation of investment related to CT short sea/road. Investment related to CT short sea/road may include:

- Short sea vessels;
- Short sea terminals;
- Short sea load units such as 45' containers;
- Scrubber technology to reduce sulphur emissions.

4.4.4 Cost-revenue structure of CT short sea / road

The different market segments and service characteristics of CT short sea/road make a cost calculation difficult. A study for the European Commission, DG Environment, calculated the cost down to €0.006 per tonne-km for short sea depending on market segment, vessel type and route distance. A cost increase of up to 30% is expected

[132] ISL, Short Sea Shipping in the Baltic Sea Region: Freight volumes and the potential of 45' containers, Bremen, 2014.

resulting from lower sulphur emission limits for vessels operating in SECA Baltic Sea and North Sea areas from 2015. Irrespective of the cost increase, short sea operations are regarded as competitive in terms of cost with an advantage over lorry transport.[133]

In general, transhipment is a critical cost factor for the feasibility of continental container CT short sea/road as it is not required for lorry transport. This is a minor issue for feeder containers. In contrast to continental trades, shipping lines care for transhipment of feeder containers in their networks. Transhipment of feeder containers is usually included in the freight rate for the complete sea journey. However, feeder transhipment may cause additional costs for the shipping line due to the possibility of transfer of containers between sea port terminals.

4.4.5 Systemic cost and benefits of CT short sea/road operations

The overall market structure makes it difficult to determine the systematic cost of CT short sea/road compared to pure road haulage. A recent study for the comparison of selected short sea trade lanes against corresponding lorry operations showed a mixed picture with respect to external impacts. Carbon dioxide emissions and external costs from climate change are lower for CT short sea/road. However, lorries perform better on emissions of sulphur, particulate matter and nitrogen oxide. However, in SECA the introduction of a stricter sulphur emission limit will improve performance of short sea vessels. Despite this positive effect, it will simultaneously challenge the feasibility of CT short sea/road services in these regions. Apart from the environmental assessment, non-emission external costs, e.g. accident costs, are lower for CT short sea/road than for lorry transport on the selected transport routes.[134]

[133] Transport & Mobility Leuven, Nautical Enterprise, COMPASS, The COMPetitiveness of EuropeAn Short-sea freight Shipping compared with road and rail transport, on behalf of European Commission DG Environment, Service Contract: 070307/209/545506/SER/C3, Brussels, 2010.

[134] Transport & Mobility Leuven, Kris Vanherle, Eef Delhaye, Road versus short sea shipping : comparing emissions and external cost, Leuven, 2012.

Section 5. CT support programmes

The key objective of this part of the study is to identify good practice of programmes and incentives designed to support CT operations and highlight less successful examples. The study has carried out a comprehensive survey among all MS and in third countries to collect and analyse respective support schemes. The technical scope and the methodology of this survey is explained in section 5.1. Section 5.2 presents the results of this survey and provides a full analysis of the CT support programmes identified. The main types of incentives are assessed by several key criteria under section 5.3. The final section 5.4 delivers a resume of the exercise and highlights good practice of support programmes for CT.

5.1 Technical scope and methodology of survey

The technical focus of the survey was on CT incentives beyond those provided in the CT Directive within Articles 6.1 and 6.2. The study also illustrates those MS which have transposed the provisions of the CT Directive into national law and, if so, how. Otherwise, the technical scope of the survey was broad, searching for any type of CT incentive targeted at stimulating and/or facilitating CT operations directly.

Therefore all kinds of research, co-operation or dissemination projects were disregarded. This is because they are commonly intended to widen the knowledge about CT services, or develop and assess new technologies or ICT in the area of CT. The economic risks of the projects are shared between public authorities and private investors. They are not aimed at directly supporting CT operations but attempt to contribute to the progress of the industry. The survey also did not take into account measures executed by authorities of MS, which involve capital contributions to public enterprises or state-owned companies (e.g. rail infrastructure managers). This reservation, however, does not relate to programmes where state-owned enterprises may be beneficiaries, for example, of grants for operations.

As the investigation was designed to reveal good practice in MS and third countries, aids to CT operations arising from EU programmes such as Marco Polo (which has recently ceased) or TEN-T were out of the scope of the survey. Yet support granted for CT sectors in the framework of EU Structural and Investment Funds outlined in EU MS operational programmes has been taken into account. Measures targeting at CT operations must be recognisable in programmes having a broader scope or purpose. Hence, any national or regional programme relating to, for example, "sustainable transport" or "sustainable energy" has not been examined, unless it includes specifically-targeted actions or priorities for the promotion of CT services.

The survey examined incentives that are still in place or expired in the past three years prior to this study. It was executed in three steps. First, it drew on several sources to obtain an overview on ongoing or recently expired incentives for CT:

- Recent studies carried out by members of the consortium on CT incentives in MS and neighbouring countries; [135]
- The database on state aids published by DG Competition;[136]
- The European Inland waterway transport funding database initiated by the PLATINA project, the Commission's "Funding guide for inland waterway transport in Europe", and the funding scheme database for inland waterway transport; [137]

Supported by the findings of this analysis, the study conducted a comprehensive field research in the 28 MS, in Switzerland and the US. A standard template was prepared to describe and specify every CT incentive identified in a consistent form. The completed templates (see Appendix G) provide an insight into each of the incentives, their main characteristics, the budgets (if earmarked for the respective measure) and the expected impacts on CT operations. The templates were then analysed to deliver an overview on the state of support programmes and other incentives for CT. Based on these results, the ex-post impact assessment could then be carried out and conclusions drawn on good practice examples in the following sections.

5.2 Analysis of support programmes for CT in EU MS

The analysis of CT support programmes, first of all, displays the extent of types of incentives identified by the survey. The study then provides an overview on the main results of the survey as concerns the patterns of CT incentives implemented by MS. The section is concluded with an examination of the individual types of CT incentives with respect to their scope of application and characteristics among MS.

5.2.1 Types of CT incentives

In addition to the obligatory provision of the CT Directive to reimburse road vehicle taxes for CT operations, the survey has identified a wide range of other measures designed to support CT in the EU. They can be attributed to one of the following types of CT incentives:

- Exemption from road vehicle tax (extending the scope of Article 6.2 of the CT Directive);
- Exemption from or reimbursement of road infrastructure charges;
- Derogation from Directive 96/53/EC allowing higher weights or dimensions of heavy good vehicles in CT operations;
- Exemptions from driving bans for road vehicles;
- Reduced rail network access charges;

[135] Eg HaCon/KombiConsult: Report on the evaluation of public programmes for transhipment facilities for combined transport, Hannover/Frankfurt, February 2011 (Study commissioned by German Ministry for Transport)

[136] http://ec.europa.eu/competition/elojade/isef/index.cfm?clear=1&policy_area_id=3

[137] EC DG TREN, "Inland Waterway Transport Funding - Funding Guide for Inland Waterway Transport in Europe", Brussels, 2008; http://www.naiades.info/funding/

- Aids (direct grants) for CT operations;
- Aids (direct grants) for investments in CT terminal infrastructure;
- Aids (direct grants) for investments in CT equipment;
- Measures specifically targeted at accompanied CT rail/road services.

5.2.2 Main findings on the structure of CT incentives applied

A full picture of all support measures implemented in MS is presented in Table 85. The templates used to analyse every single measure in MS are appended in Appendix G.

The overview indicates that three MS have not implemented any incentive for CT operations. Ireland, Lithuania and Malta have not even transposed the provisions of Article 6.1 of the CT Directive on the reduction of road vehicle tax into national legislation.

17 out of 28 MS fully comply with Article 6.1 of the CT Directive and have adopted schemes for the reimbursement of vehicle taxes. This is also the type of incentive mostly applied in the EU. Moreover Romania has prepared a vehicle tax incentive but has not yet implemented this, due to public budget constraints.

Seven MS (Cyprus, Estonia, Finland, Greece, Luxembourg, Romania, Sweden) have not enforced any other incentive for CT operations except for the measure provided under the CT Directive.

Apart from this measure, the survey has identified a total of 42 existing CT incentives in MS. Five measures expired recently and a further four programmes have been legally prepared but not enforced due to financial constraints. The following analysis primarily refers to the 42 measures in place. They are distributed by types of incentives as follows, in descending order of popularity:

- Ten MS have funded investments in CT terminal infrastructure through implementing programmes or supporting projects on a discretionary basis;
- Seven MS have given derogations from the Directive 96/53/EC on the weights and dimensions of lorries and exemptions of CT operations from road driving bans;
- Five MS currently grant aids to CT operations, while programmes in three other countries recently expired;
- Three MS apply a vehicle tax exemption scheme, which extends the scope of Article 6.2 of the CT Directive;
- One MS allows the pre- and on-carriage road legs to be exempted from road tolls;
- One MS has implemented specific measures designed to promote accompanied CT services.

Table 86: Overview on CT incentives in EU MS

Member State	Reimburse-ment vehicle tax	Exemption vehicle tax	Exemption road toll	Derogation from Dir. 96/53/EC	Exemption from road driving bans	Reduced rail network access charge	Direct grants for			Measures for accompanied CT
							CT operations	CT terminal investment	CT equipment investment	
Austria	X 1)	X		X	X		X	X		X
Belgium							X 2)	X 3)		
Bulgaria			X			X				
Croatia	X 1)				x					
Cyprus	X 4)									
Czech Republic	X 5)	X			X	X		X	X 2)	
Denmark						X		X		
Estonia	X									
Finland	X 6)									
France	X 7)						X	X	X 2)	
Germany	X 1)	X		X	X			X		
Greece	X									
Hungary	X 9)			X			X 2)			
Ireland										
Italy	X				X		X			
Latvia	X 10)						X			
Lithuania										
Luxembourg	X 17)									
Malta										
Netherlands	X 10)							X		
Poland	X 1)					X		X		
Portugal				X						
Romania	11)									
Slovakia	X 12)			X 13)	X		X 14)	X	X 14)	
Slovenia				X	X		X 15)		X 15)	
Spain				X 16)			X 2)			
Sweden	X 1)									
United Kingdom							X	X		

Notes:

1) Tax can be reimbursed up to 100%.
2) Support scheme expired.
3) Aids granted for individual measures
4) Max 80% of tax paid
5) Max 90% of tax paid
6) € 50 refund per rail journey
7) Max 75% of axle tax paid
8) *deleted*
9) Max 20% of tax paid
10) Reimbursement in proportion of days spent in CT on rail (in LV), or on rail or water (in NL)
11) Vehicle tax reimbursement scheme foreseen but not implemented due to overriding principle of state debt reduction.
12) Max 50% of tax paid
13) 44t for all types of CT load units. Further vehicles carrying 45' containers may have 15 cm more total length.
14) Incentives legally prepared but not implemented yet due to lack of budget according to Ministry of Finance.
15) Incentive legally prepared but not implemented yet due to lack of budget since 2003.
16) 44t/42t increased gross weight and increased max height of 4.5m.
17) €3 per initial or final leg of CT operations by rail or inland waterway.

Source: KombiConsult analysis

With respect to CT sectors all measures relate to CT rail/road operations. It goes without saying that the four schemes designed to reduce track access charges implicitly only benefit this sector. 21 of the remaining 38 measures also support CT inland waterway/road operations. Most of these incentives relate to grants for operations and terminal investments, exemptions from driving bans and the derogation from Directive 96/53/EC. The scope of incentives for CT sea/road is similar as for CT inland waterways/road. With a total number of 12 measures, however, the scale is somewhat smaller. Yet it should be noted that four MS are landlocked countries with no direct sea access.

Austria is the leading MS in terms of the scale and diversity of CT incentives. The survey has identified eight measures targeting directly at the promotion or facilitation of CT services. They relate to six types of incentives. CT services are supported by five measures implemented in Germany and four in the Czech Republic. All other MS support CT operations with up to three different measures each.

5.2.3 Analysis by type of CT incentive

This section examines all types of CT incentives implemented in EU MS. It describes the main characteristics and their scope of application as concerns CT sectors. It also shows the countries in which the incentives have been implemented, with significant differences in the way they have been applied. The impacts on the promotion of CT operations are briefly evaluated, as well as the potential downsides of the measure applied.

Exemption from road vehicle tax

Three MS (AT, CZ, DE) allow road hauliers to exempt their road vehicles from vehicle tax if they are exclusively used in initial or final road legs of CT operations. The measure is clearly aimed at unaccompanied CT services as it is specified that the vehicles must move containers, swap bodies or semi-trailers. The measure applies to every CT sector in Germany, but is limited to CT rail/road in Austria and The Czech Republic. Though the haulier is exempted from 100% of the tax to be paid this incentive likely has only small positive impacts on CT operations:

- The level of the road vehicle tax level is fairly low in MS. [138] Therefore the benefit may amount to just €1-2 per CT shipment, assuming 250 working days and 2-4 daily rotations per lorry;
- The exclusive use of vehicles for CT constrains the flexibility for road hauliers. They can only dedicate vehicles to CT operations if they have identified sufficient volumes.

Otherwise, downsides of this measure have not been identified.

Exemption from road infrastructure charges

Only Bulgaria provides for this incentive. It specifies that vehicles are exempted from the road toll on sections between the border to Romania and the nearest CT terminal in Bulgaria. This measure currently has little or no effect. There are only a few CT services, and the length of haul to the nearest terminal in Sofia is so long that the costs are likely to be prohibitive. Irrespective of the situation in Bulgaria, the measure itself can stimulate CT operations strongly if the level of the road infrastructure charge is significant.[139]

This incentive, however, has a major system-inherent flaw. Tolls are supposed to be charged to recover the costs for the wear and tear of the road infrastructure caused by the lorry and possibly allocate external costs to the causer. The respective impacts of a lorry operating in initial and final legs of CT operations do not differ from other lorries.

[138] For example, in Germany the tax for a standard 40t vehicle amounts to €556.

[139] See also section 5.3

Therefore the reimbursement of a road toll, though effectively promoting CT, may not be in conformity with the "user-pays" and "polluter pays" principles of the White Paper.[140]

Derogation from Directive 96/53/EC

Seven MS (AT, DE, ES, HU, PT, SI, SK) which have adopted the 40 tonnes weight limit of the Directive 96/53/EC for national road traffic, permit road vehicle to operate at up to 44 tonnes in the initial and final leg of CT operations. The national legislation generally relates to the transport of all kinds of CT load units and thus extends the provision of the Directive, which otherwise confines 44 tonnes to the movement of 40' ISO containers. The Spanish legal act, however, seems to exclude semi-trailers, and in Portugal the gross weight derogation only applies in case of the transport of two 20' containers.

An increased maximum gross weight is permitted in every country for CT rail/road operations and, except for Austria, also in CT inland waterway/road. The scope of the incentive is extended to the CT sea/road sector in Germany, Portugal, Slovenia and Spain.

The national laws, in part, specify different requirements on the initial and final road legs. While some MS adopt the definitions of the CT Directive, Hungary limits the distance to 70km. The Austrian and Slovenian legislation requires road hauliers to use a CT terminal in the respective country.

The measure has large stimulating effects on CT services, not only in the home country where it is implemented but also on Intra-EU operations with MS that also apply gross weights of 44 tonnes or more for inland haulages:

- The measure is relevant for the high percentage of goods with high density (eg chemicals, metal products, paper, recycling products);
- The additional gross vehicle weight helps overcome the significant combined additional tare weight of a road trailer and intermodal unit compared to the equivalent standard trailer;
- Depending on the type of CT load unit deployed and the axle load provisions the vehicle can have 5-15% more payload capacity;
- A higher payload entails increased freight revenues for the LSP compared to road-only transport, although the benefit is likely to be shared between LSP and shipper.

A potential downside of this incentive is an increased strain on road infrastructure particularly if vehicles travel on longer distances from and to terminals.

In Spain, CT operations can benefit from a derogation from the maximum height of 4.0 m. Road vehicles are permitted up to a maximum of 4.5 m in pre- and on-carriage road operations.

This provision allows hauliers to employ standard chassis for the transport of high-cube containers instead of more costly low-platform chassis, or use of high-cube swap bodies

[140] European Commission: Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system, COM(2011) 144 final, 28 March 2011.

especially in the case of the transport of automotive components. This is because the automotive industry generally expects hauliers to deploy megatrailers, i.e. semi-trailers with 3 m internal height. In a country like Spain the loading gauge is generally too low to move such semi-trailers by rail. The alternative is to deploy high-cube swap bodies. But this results in vehicle heights of more than 4 m in pre- and on-carriage road legs. Therefore the incentive can have a substantial effect to use CT services by rail.

Exemptions from driving bans for road vehicles

This incentive is applied in seven MS (AT, CZ, DE, HR, IT, SI, SK). The initial and final road legs of CT operations are exempted from driving bans imposed on road freight traffic on Sundays, weekends and/or public holidays. The measure generally applies to all CT sectors except that CT sea/road is disregarded in landlocked countries.

The conditions as regards the length of haul from and to CT terminals vary between MS. They conform to the CT definition in the CT Directive in some countries but are more constrained in others, for example, limiting the benefit to the use of a terminal in the home country. Only Germany applies a wider definition for CT rail/road operations: the haulier can operate between the place of loading/unloading and the nearest possible CT terminal within a distance not exceeding 200km.

Exemptions from driving bans for road vehicles are currently supposed to have small positive impacts on CT operations:

- The road vehicles deployed for initial and final legs of CT operations can be employed more hours per week. They achieve more rotations and thus ensuring slight economies of scale;
- The benefits, however, remain limited when many logistic sites (warehouses, DCs) may not open on weekends or public holidays;
- Further, the road driving bans are watered down as hauliers increasingly seem to obtain exceptional approvals for road-only movements.

A potential downside of this measure is increased road vehicle traffic on weekends or public holidays in urban areas. But as the scale of this kind of traffic seems to be comparatively low in MS applying this measure, it is considered reasonable.

Reduced rail network access charges

This measure, which is in place in four MS (BG, CZ, DK, PL), only applies to CT rail/road services. The track access charges are either explicitly only reduced for CT block trains or for all freight trains (BG) compared to the standard tariffs.

The level of support varies considerably between MS. In Poland rail network access charges are reduced by 25%, in Bulgaria by 30-37%, and by 45% in the Czech Republic. Train operators in Denmark can even recover the total access charges if they achieve the required amount of tonne-km.

The scale of impact of this incentive on CT operations primarily depends on the general level of access charges and its relationship with taxes and fees charged on road freight transport. If the track access charges were high prior to the reduction even a strong cutback may not contribute to increase CT volumes notably. In Bulgaria and Poland, for

instance, the rail infrastructure access charges for all freight train services were at a high level compared to the majority of MS. Therefore CT operators, although welcoming the measure, are concerned that the scale of reduction may not be sufficient to capture more cargo. This appraisal, however, must also be considered against the background of extraordinarily low freight rates in road haulage at present. Conversely, when the general track access rates are more of the average across the EU, a moderate reduction can already take CT services below the breakeven point. This is even more so if charges can be completely reduced, as in the case of Denmark.

On the downside, a potential distortion of competition with "conventional" rail freight services can occur. Authorities should examine when implementing such an incentive that it does not "cannibalize" existing wagonload traffic. It will also be important to ensure, as far as possible, that train operators do not deliberately inflate their haulage prices, so as to capture the benefits that would otherwise be passed onto the users.

Aids (direct grants) for CT operations

Five MS (AT, FR, IT, LV, UK) currently grant aids for CT operations while support programmes in three other countries (BE, ES, HU) expired in recent years. Each of the eight incentives include measures for CT rail/road while the CT inland waterway/road and CT sea/road sectors only benefit from three existing programmes each.

The rationale of the operational aids is to ex-post remunerate train, barge or vessel operating companies or CT operators for moving a certain amount of CT load units on CT services during a defined period. The grant shall compensate for environmental benefits and/or economic disadvantages of CT operations. The reference basis for the aid varies among the national support programmes, exemplified for four MS:

- In Austria, the aid is related to the number of load units or lorries moved by CT over rail. In unaccompanied CT the aid is related to the number of intermodal load units carried on rail in Austria. The scale of grant depends on length and weight of load units, the type of traffic (domestic, transit, export/import) and the rail distance performed in Austria. A supplement is paid for mountainous rail sections. In accompanied CT the aid is related to the number of shipments (lorries) and the transport corridor. For the Brenner corridor, for instance, the grants for using day trains is twice as high as for night trains;
- The French programme rewards modal shift impacts according to the amount of throughput at CT terminals in France. Hence, operators obtain twice as much financial support for units carried on inland than on cross-border CT services. Transit shipments are not rewarded by this scheme unless they are transhipped in the course of gateway services at terminals in France;
- In Latvia, the aid relates to the costs of the CT operator for train operation, infrastructure access, terminal and administration and is paid in proportion to the days annually spent on CT services by rail within Latvia. CT service providers must commit to pass on the benefits to clients;
- The UK scheme of aids for CT operations provide grants up to 50% of the external costs saved in the modal shift from road to rail, inland waterway or sea. The size of

grant also depends on the competitive situation of the respective CT sector in relation to road on the trade lane in question.

According to analyses conducted by this study the aid intensity ranges from €10-100 per CT unit carried. Even if the financial benefit is in the lower range it enhances the competitiveness of CT operations as margins are small in the freight transport business. The positive impact on CT is extraordinarily strong if the grant is in the upper range; costs of the non-road leg may be cut by half. Yet, the survey also shows that aids for operations are only effective, i.e. release a modal shift impact, if the benefit is passed on to users of CT services upfront or if the clients can be confident in obtaining the remuneration ex-post. They are then in a position to recalculate the costs of logistics services planned to be supplied to shippers and effectively compete with other LSPs.

Direct grants for CT operations are ambivalent. On the one side, they can boost the shift of road traffic to CT services by rail, inland waterway or sea. On the other side, they can have several drawbacks:

- CT services benefiting from grants are then under threat of suspension when the aid expires. If the service does not become economically viable during the period of funding, the users will likely shift volumes back to road once the higher, non-subsidised freight rate enters into force. In this respect the Belgian programme of operational aid for CT rail/road services delivers a spectacular example. When it expired in 2013, IFB, the major beneficiary of this aid scheme, lost the majority of its inland container hinterland traffic and was forced to shut down Antwerp Mainhub, the largest CT terminal in Belgium;
- Direct grants tend to be maintained permanently to avoid the rebound effect as experienced in Belgium. However, this then provides no incentive for the CT operator to enhance the efficiency of the CT service. This negative impact can be mitigated if the funding is designed to decline over the years;
- Aids for CT operations can distort competition. This is the case when CT operators serving the same or a similar trade lane receive a different funding rate, or when a start-up CT service benefits from a grant while an existing service must be operated without support;
- The financial support of CT operations can also strengthen the existing structure of the CT industry. If big, market leading service providers obtain the largest overall contributions they can provide a financial boost to impede competition from smaller companies or new entrants.

Aid (direct grants) for investments in CT terminal infrastructure

Ten EU MS (AT, BE, CZ, DE, DK, FR, NL, PL, SK, UK) provide direct grants for investments in CT infrastructure. Hence this is the most popular CT incentive.

According to the findings of the survey, Belgium, Denmark and the Netherlands, for the time being, have mainly funded individual projects, whilst the majority of the MS have set up specific programmes. Under these programmes private investors may receive financial support for constructing a new CT terminal or for enlarging or enhancing

existing facilities. In the "new" MS of the Czech Republic, Poland and Slovakia, the support is granted in the framework of operational programmes on transport.

Almost all measures are targeted at terminals for CT rail/road, CT inland waterway/road or trimodal rail/barge/road terminals. A few countries such as the UK also support investments into CT sea/road facilities.

The funding conditions vary among the national support measures. This, first of all, relates to the "positive" and "negative" lists of components that are eligible for being funded. The evidence (eg business plan, cost statement) which an investor has to submit may be as different as the requirement on when an investment shall become viable. Authorities commonly request investors to commit to a minimum period of operation of the facility. For instance, the period is 11 years in Austria and, in most cases, 20 years in Germany.

The most crucial differences, however, are in the funding rates. They range from 10% to 80% of the eligible costs of an individual component or the entire investment. In some MS the intensity of the aid further is coupled with the expected environmental benefits of the planned measure.

The magnitude of impacts of direct grants for investments in CT terminals is strongly linked to the intensity of the aid. Cost analyses[141] suggest that the transhipment cost can be reduced by €30 or more per load unit (which in most cases is more than the actual cost of transshipment itself). In continental CT operations with two handlings at the departure and arrival terminal the cost reduction would add up to €60 to €70 per unit moved. But even if the benefit is smaller, the aid enables prices to be reduced for terminal handling and the terminal-to-terminal transport, and thus strengthens the competitiveness of CT services. This type of incentive has some further advantages:

- The aid contributes to create handling capacity by reducing the economic risks of a private investor;
- The investment in handling facilities has a long-lasting effect of reducing the costs of CT supply chains;
- If the support programme requests investors to guarantee a non-discriminatory access to the terminal, the aid then also fosters greater competition between users of the facility and may contribute to strengthen the entire industry.

On the downside, this type of incentive particularly implies the risk of a misallocation of funds. The CT terminal may not match the planned transhipment volume and misses the modal shift objective due to an insufficient market analysis or business plan, or owing to a poor performance of terminal operations or external factors (eg poor rail service quality). Moreover market changes can evaporate market potentials, for example, when a manufacturer closes a production site or when a key CT user is acquired by a "road-oriented" competitor. In all cases the CT terminal will remain idle or under-utilised.

[141] For instance in: HaCon/KombiConsult: Report on the evaluation of public programmes for transhipment facilities for combined transport, Hannover/Frankfurt, February 2011 (Study commissioned by German Ministry for Transport)

Investments in the infrastructure will be lost or devalued, while cranes or reachstackers might be sold on second-hand markets.

Aid for investments in CT equipment

The survey has not identified a single measure designed to support the procurement of CT equipment, which is still in place. But two programmes that expired only recently seem worthy of being presented in the context of good practice.

France defined 25 energy-saving actions in the freight transport sector, which were eligible for so-called energy saving certificates.[142] The programme explicitly related to CT operations. The beneficiaries were road hauliers operating CT load units in pre- and on-carriage road legs, barge operators and operators of wagons for rolling motorways. The operating mode of this funding scheme is as follows:

- A haulier who purchased a new CT load unit (ISO containers excluded) and deployed it on CT services at least for 12 months would be rewarded with energy saving certificates for every single trip. The certificate amounts to 16,000 kWh in case of load units of more than 9m length and to 8,000 kWh for shorter load units. The energy certificates are tradeable on a market. Its maximum value is €0.02 per kWh CUMAC. CUMAC is a specific estimate of the number of kWh saved during the life cycle of the investment, actualised at the investment date.[143]
- The characteristics of this incentive are distinctive. The programme couples two policy objectives, saving of energy and modal shift, via the investment into CT equipment. Further the support of CT operations is not conveyed as a direct grant. Instead, it is a bill of exchange for the future. Depending on the development of the trade for energy saving certificates, the investor may then win a large or small financial return on its investment. This risk, however, may be a major barrier for hauliers or barge operators unless they had not planned to buy CT equipment. In the latter case they would gain windfall profits.

The Czech Republic executed a programme in recent years aimed at stimulating continental CT rail/road services in the country. Investors obtained a direct grant when they bought CT load units. Bohemiakombi. The Czech operator of CT rail/road services, reports that this programme has been successful, though small by the size of the budget. For the first time, forwarders established in the Czech Republic purchased piggyback semi-trailers and deployed them on Intra-EU CT services.

The analysis of both support programmes for CT shows that the overall impacts on CT operations are likely to be moderate. This is particularly because CT load units are not the most costly components of CT operations. Yet grants may bring down the market access barriers for new CT users, especially in countries where low-cost road operators dominate the market environment.

It is anticipated that aids for the procurement of rolling stock (e.g. wagons, barges) would have a stronger impact on CT as the economic risks are much larger. The absolute

[142] Certificats d'économie d'énergie (CEE)

[143] The value of a CEE amounted to €0,00429/kWh CUMAC at the time of the survey.

financial volume is higher for every piece of equipment, for example, €25,000 for a piggyback semi-trailer against €50-75,000 for a new wagon. Moreover assets deployed on rail or inland waterway services have a significantly longer economic lifetime of 15-50 years compared to 5-8 years for road vehicles. Such aids, however, are not permitted under EU law.

Measures specifically targeted at accompanied CT rail/road services

Austria has implemented incentives aimed at facilitating the use of accompanied CT rail/road services. They apply to road hauliers from non-EU countries. The country, firstly, has established liberalised road corridors for rolling highways services. Road hauliers do not require a bilateral authorisation if they are on pre- and on-carriage road legs to/from terminals in Austria that provide accompanied CT services. The roads and routes are defined by order of the Ministry for Transport.

The second incentive is the quota of reward for the use of rolling highway services. Road hauliers established in third countries obtain additional transport authorizations for bilateral road traffic with Austria when they have used inland or cross-border accompanied CT services in Austria previously. The quotas are arranged based on bilateral agreements between Austria and the non-EU countries affected.

Both incentives are designed to stimulate the use of rolling highway services and reduce the road transit journeys of non-EU hauliers through Austria. They are effective as long as quotas are in force and hauliers cannot use a bypass solution. The relevance of the measures, however, has decreased sharply in recent years following the enlargement of the EU. Therefore the restrictions on road transport and also the CT incentives now mainly concern hauliers from Turkey and Serbia.

5.3 Analysis of support programmes for CT in third countries

This section examines CT incentives implemented in Switzerland and in the US. In Europe, Switzerland is the only third country that has implemented a range of notable CT incentives. The US has been selected to display how a country, which in contrast to the EU features a private railway system and explicitly refuses state intervention, provides support to CT rail/road operations. The investigation in these two countries has identified two more categories of incentives in addition to those implemented in the EU: reimbursement of road tolls, and public-private-partnership models.

5.3.1 Switzerland

Switzerland has a long-standing reputation for stimulating modal shift from road to inland waterway and rail in particular. The country has established several programmes specifically targeting at promoting CT operations:

- Direct grants for trans-Alpine unaccompanied CT rail/road services;
- Support of investments in CT terminals and CT equipment;
- Reimbursement of road toll for pre- and on-carriage road legs in unaccompanied CT operations.

Switzerland awards direct grants for CT operations through the so-called "Tendering procedure for trans-Alpine unaccompanied CT rail/road services". The current programme runs from 2011 to 2018. The Swiss government has already announced an extension until at least 2022. The programme has the following key objectives: to achieve a sustainable shift of trans-Alpine road traffic to rail, with a target of reducing the volume by 650,000 lorry journeys pa by 2018; moreover the aid shall compensate CT by rail for increased operating costs arising from the Alpine topography.

Beneficiaries of the aid are operators of unaccompanied CT trains. The published list of awards shows that the majority of funds are allocated to "classic" CT operators operating multi-user services. Further beneficiaries are railway undertakings and LSPs operating "company trains".

The support is only granted for unaccompanied CT services, which contribute to reduce the number of trans-Alpine road trips to/from Italy via Switzerland. Therefore certain trade lanes are excluded from funding. Services and beneficiaries are selected by an annual public tendering procedure against key requirements. If selected, the operator enters into an agreement with the Swiss Federal Office for Transport (Bundesamt für Verkehr - BAV) to operate the respective service and associated volume targets.

The grant has two components: a contribution of CHF 95 per consignment (UIRR definition) shifted; a contribution per train operated from CHF 1,000-2,300 depending on the trade lane served. The aid is paid to balance the deficit between expected revenues and costs of CT service. The maximum aid per CT service is determined by the deficit incurred and the respective subsidy scheme. Moreover the grant is limited to, on average, 30 consignments per train. The financial contribution is cut by half if an average of less than 20 consignments were carried per train. The intensity of the aid amounts to about €110 -150 per consignment assuming an average load factor of 25 consignments per train.

According to an analysis of the Federal Office for Transport, this programme, in combination with other measures, has helped reduce the number of lorry journeys on trans-Alpine roads through Switzerland from 1.4m in 2000 to 1.14m in 2013. Without these measures implemented, 650,000-700,000 more lorries would transit the Swiss Alps annually.[144] Though the positive impact of this support programme is unquestioned, its perpetuity also underlines the reservations expressed under the aids for CT operations in MS.

The second incentive is exclusively aimed at CT rail/road operations. Switzerland supports investments in CT terminals and CT equipment. Beneficiaries of the aid are terminal investors (owners, operators), CT operators or train operating companies unless they obtain direct grants for CT operations as well as shippers or forwarders for starting up the use of CT services.

The financial support is provided as a mix of grants and loans for the construction of new or enlarged CT terminals and the procurement of mobile handling equipment. Loans are

[144] http://www.bav.admin.ch/verlagerung/index.html?lang=de

given for the procurement of shunting locomotives for terminals, wagons for unaccompanied CT and other equipment such as swap bodies.

The Swiss funding scheme generally expects investors to contribute 40% or more from their own resources of which at least 50% must be in equity. A reduced cap is applied for investments in CT terminals in Switzerland and foreign countries. If they are mainly used for shifting trans-Alpine road traffic, investors need only contribute 20% from their own resources. CT terminal owners are further obliged to secure a non-discriminatory access to the facility.

A set of criteria is applied to assess applications for funding. Projects that contribute to fulfil the Swiss transport and environmental goals are prioritized.

In the case of terminal investments, the maximum aid intensity of 80% of eligible costs is highly effective in significantly reducing handling costs. This contributes to retain the competitiveness of CT rail/road services compared to road-only operations and also reduces market entry barriers for new CT users. The aid for investments in equipment is particularly effective if it comes to the procurement of wagons.[145] The mix of loan and grant likely is intended to raise and prove the self-interest of the applicant. Zero- or low-interest loans may be helpful in periods of high market rates but do not stimulate investments currently.

The third main leverage of Swiss modal shift policy is the reimbursement of road toll (LSVA)[146] for pre- and on-carriage road legs in unaccompanied CT operations by rail and inland waterway. The reimbursement relates to the number of load units picked up or delivered at CT terminals and amounts to €30 (CHF 37) per load unit of more than 20' length and €19.50 (CHF24) per load unit between 18' and 20' length.

The total amount must not exceed the toll paid for vehicles used for CT operations during the respective taxation period. The reimbursement must be applied for through the Swiss customs authority, based on evidence of pre- and on-carriage legs.

It is suspected that this measure has a strong positive impact on using CT services in Switzerland. The cost reduction is significant, amounting to nearly €40 in the case of a lorry and trailer combination carrying two swap bodies of 7m length. This provides CT operations with a relevant competitive benefit compared to road-only haulages, or can contribute to compensate existing disadvantages.

5.3.2 United States

The conditions of CT in the United States and North America are very different from the situation in the EU. First, relevant CT operations are only performed by rail. Second, the rail system is completely private with seven so-called "Class I" railways moving nearly the entire CT rail/road volume. Third, these railways are supposed to raise the funds for investments from their own resources or credits and deliver CT services without any state aid.

[145] See above under 5.2.3

[146] LSVA = Leistungsabhängige Schwerverkehrsabgabe

Since the deregulation of the American railway system in 1980 the railways could not rely on any specific incentive for CT operations. This is only changing slowly, in limited areas and since a few years. The relevant measures relate to some kind of public-private partnership (PPP) models of infrastructure investments.

The breakthrough was the construction of the Alameda corridor in Los Angeles. It went into operation in April 2002. It is a 32km long, triple-track rail line dedicated to freight and linking the ports of Long Beach and Los Angeles with the transcontinental rail networks of Burlington Northern and Union Pacific, the two largest railways in North America.

The investment of $2.4bn was financed by loans taken out by the city administrations of Los Angeles and Long Beach. Their interests in building this line were of social and environmental nature. They wanted to replace more than 200 level crossings, which increasingly caused congestion on the road network (given the length of time the crossings were closed due to the length of the trains), noise and pollution in the communities affected and traffic accidents.

The railways have also earned several tangible benefits. Intermodal trains can now travel at speeds of 70km/h or more, whereas before they lost time on the existing tracks because of level crossings. As a result the railways could improve the rotation of rolling stock and upgrade the service level.

As both sides expected to benefit from the construction of the Alameda corridor they were prepared for a PPP deal. The cities have pre-financed the entire investment. The refinancing results from corridor access charges paid by the railways for using the line. It is related to the loading status of the containers moved and has been increased since the inauguration of the corridor. The rates now are $22.58 for a loaded and $5.41 for an empty container movement.

Meanwhile more PPP projects are under way in the US. Most of them involve improvement measures to enable or facilitate CT services. One of the most prominent examples is the Heartland Corridor. It is a $290m PPP involving the railway Norfolk Southern, which provides a more efficient link between the US east coast and the midwest. The key improvement was the clearing of the loading gauge to make way for double-stack intermodal trains. [147]

What is remarkable about this recent development is that the private railway sector in the US, which was set to retain its full independency, and the public sector, which has been keen not to interfere market economy, have found a solution to justify state funding of private rail infrastructure. All PPP measures are justified by their substantial social and environmental benefits (decongesting of ports and highways, reduction of greenhouse gas emissions, enhancement of traffic safety). In this respect we can observe a convergence of the approach to state aids between North America and MS.

[147] http://www.nscorp.com/

5.4 Ex-post assessment of support programmes for CT

The ex-post assessment of CT incentives is carried out on the basis of five criteria:

- Relevance: Is the measure still relevant?
- Effectiveness: Has the measure delivered?
- Efficiency: What is the ratio between costs and benefits of the measure?
- Coherence: Is the measure coherent with other EU policy measures?
- Added value: Does the measure provide an added value to EU policy supporting the CT?

The following evaluation exercise (Table 87) relates to the general types of support measures recognised and does not examine every single action identified in EU MS.

Table 87 Assessment of CT support measures

Incentive	**Exemption of vehicle tax for unaccompanied CT**
Relevance	Measure is relevant as vehicle taxes are charged in every MS
Effectiveness	Small positive impact on CT operations: since the level of vehicle taxes is low throughout the EU the cost benefit is estimated at about €1 to €2 per load unit moved
Efficiency	Very cost-efficient by using a plain standardised application form
Coherence	Corresponds to Article 6.2 of the CT Directive 92/106/EEC
Added value	Extends the scope of Article 6.2 of the CT Directive to unaccompanied CT operations
Incentive	**Exemption from/reimbursement of road toll**
Relevance	Measure is relevant as tolls are levied on an ever increasing network of roads in the EU and the cost of pre- and on-carriage road legs critically impact on the competitiveness of CT services
Effectiveness	Small to large positive impact on CT operations depending on the level of road toll.
Efficiency	Fairly cost-efficient if evidence of CT operations can be provided electronically. High administrative costs if evidence is on paper and checks are manual. In the case of exemption from road toll additional costs for control authorities.
Coherence	Measure does not conform to the “user pays” and “polluter pays” principles
Added value	-
Incentive	**Increased vehicle gross weight of 44 tonnes for transport of any CT load unit**
Relevance	Measure is relevant as 15 out of 28 MS still have a weight limit of 40 tonnes for national road haulage.
Effectiveness	Large stimulating effects on inland CT services and Intra-EU operations with MS that apply weight limits of 44 t or more as a high percentage of goods carried by road have a high density
Efficiency	On general fairly cost-efficient: lorries can be approved for increased weight limits when licensed; no administrative cost for exceptional permits. However, additional costs for checks of vehicles by authorities.
Coherence	Corresponds to the “spirit” of Directive 96/53/EC and leads to a substantial modal shift
Added value	Extends the scope of Directive 96/53/EC

Incentive	Exemption from road driving bans
Relevance	Measure is relevant as most MS apply weekend, Sunday and holiday driving bans
Effectiveness	Positive impacts as CT users achieve more efficient use of resources and can reduce average cost. Effects limited as most logistics sites are closed during periods of driving bans
Efficiency	Very cost-efficient, no cost for special permits. However, additional costs for checks of vehicles by authorities
Coherence	Corresponds to the “spirit” of White Paper to make EU economy more competitive and raise efficiency of logistics
Added value	Complements the scope of CT incentives provided by CT Directive
Incentive	**Reduced rail network access charge**
Relevance	Measure is still relevant since track access charges for CT trains in several MS are considerable above EU average
Effectiveness	Impact of measure depends on whether the reduction allows CT service providers to supply cost-competitive services
Efficiency	Measure is easy to be implemented and administrated after approval by rail regulator
Coherence	Measure coherent with EU policy aimed at harmonizing technical and commercial items and create a single railway area
Added value	Complements the scope of CT incentives provided by CT Directive
Incentive	**Aid for CT operations**
Relevance	On many trade lanes CT operations have higher costs than road haulage. This is because, first, CT services are not operated cost-efficiently and, second, road does not bear the full external costs. In regard of the latter reason the measure is relevant
Effectiveness	Measure can strongly stimulate modal shift but aid often does not lead to viability of underlying CT services
Efficiency	Low administration cost but overall efficiency of measure is questionable. The aid was provided in vain if CT service is suspended or volumes shifted back to road after expiry of funding. If aid is provided permanently to retain services and compensate for disadvantages of CT vs road it should be looked whether the same impact cannot be ensured with a less costly measure (opportunity cost)
Coherence	Coherent with Marco Polo Programme but not with objectives of White Paper as measure does not lead to a sustainable use of more energy-efficient and environmental-friendly modes of

	transport
Added value	No
Incentive	**Aid for investment in CT terminal infrastructure**
Relevance	Highly relevant as creating terminal handling capacity is a prerequisite for supplying CT services and ensuring further growth of CT operations
Effectiveness	Large positive impact on CT operations. Funding reduces economic risk of investors. Further it enables to provide handling at reduced charges and thus partly compensates for the system-immanent drawback of CT operations (transhipment) vs road
Efficiency	Very efficient as aid has long-lasting impacts on CT over the entire technical lifetime of terminal (aid provided once delivers returns on investment for 20 plus years). High costs for application procedure but efforts are considered necessary to minimise risk of misallocation of aid
Coherence	Coherent with TENT-T guidelines and objectives of White Paper as measure leads to a substantial modal shift and sustainable use of more energy-efficient and environmental-friendly modes of transport
Added value	No
Incentive	**Aid for investment in CT equipment**
Relevance	Lack of CT load units can be a market entry barrier for potential users especially medium-sized companies with limited equity
Effectiveness	Positive impact with regard to SME as aid can eliminate or reduce cost difference between lorries and special CT equipment
Efficiency	Comparatively small funds required to reduce cost difference of CT equipment. Windfall gains of larger companies should be avoided
Coherence	Coherent with Marco Polo Programme and White Paper. Measure reduces market entry barriers and facilitates the use of more energy-efficient and environmental-friendly modes of transport
Added value	Complements the scope of CT incentives provided by CT Directive
Incentive	**Measures targeted at accompanied CT services**
Relevance	Exception from lorry driver time and rest period is still relevant. Specific measures for non-EU hauliers of decreasing importance
Effectiveness	Significant positive effects of all measures but the sustainability of the modal shift is questionable. From the viewpoint of a user an accompanied CT service is a continuation of road transport with other means (“hop on, hop off”). It does not require re-organising

	logistics like unaccompanied CT
Efficiency	Very efficient as no additional costs are incurred
Coherence	Does not lead to a sustainable use of more energy-efficient and environmental-friendly modes of transport
Added value	Complements the scope of CT incentives provided by CT Directive

5.5 Conclusions on good practice

The analysis of CT-related support programmes shows that two measures may not only deliver strong growth effects for CT operations but could be applied in every MS as well: aids (direct grants) for CT operations; and direct grants for the construction of CT terminal infrastructure. Both incentives can reduce the total costs of CT operations considerably and thus enhance the competitiveness of service offerings when the size of the support is appropriately high. Existing programmes in MS cut terminal-to-terminal transport costs by up to 50% or reduce transhipment cost by €30 or more per load unit handled at CT terminals.

Direct grants for CT operations can be administrated cost-efficiently both for applicants and authorities when terms & conditions and documentation are standardised and remain unchanged over time, and the requested evidence is minimised. In this respect the Swiss programme on trans-Alpine unaccompanied CT rail/road delivers particularly good practice.

MS usually transfer financial aids for CT operations ex-post when the expected modal shift effect can be controlled. The analysis, however, shows that the aid will only be effective if the users of CT services recognise the cost/benefit of having a reduced freight rate upfront. This conveys economic risks to the CT service provider (if it is not the client of the service itself). The company bears the cost of the service but depends on its clients to produce the necessary shift of volumes. In addition to this uncertainty the survey has identified further downsides of this type of incentive:

- Lack of sustainability of services when aid expires;
- Permanent aid does not provide incentives for enhancing the efficiency of service;
- Potential distortion of competition between CT service providers.

Against this background, direct grants for CT operations are not considered good practice. They are prone to waste taxpayers' money. This type of incentive tends to conserve existing structures and behaviours and does not contribute to strengthen or encourage innovation in the CT industry. Aids for CT operations may be justified for a transitional period, to compensate for disadvantages arising from authorities failing to allocate external costs to all modes of transport appropriately. But even then the aid scheme should include an inherent incentive for beneficiaries to improve. This could possibly be ensured with a declining scale of funding.

The administration of **direct grants for investments in CT infrastructure** requires significantly more effort than aids for CT operations. Applicants necessarily have to prepare and submit comprehensive documentation on the technical, economical and legal components of the envisaged investment. The authorities are obliged to review and

verify the information precisely as terminal investments commonly involve large costs and the request for millions of euros of funding.

By scrutinizing applications a misallocation of funds (the key risk of this type of incentive) can be minimised, but not completely avoided. A misallocation occurs if the terminal capacity is not employed as planned over a long time, or not used at all. If the under-utilisation is "only" due to poor terminal operations, funding authorities should have "step-in rights" to replace the management or stop / recover the grant payments. But when the terminal services are not used owing to changed market conditions, the grant is effectively a misdirected investment.

In spite of these risks and a costly, lengthy and sometimes laborious application process, direct grants for investments in CT infrastructure are considered good practice in support programmes for CT operations. This is because the positive impacts of this type of incentive can be substantial by the scale of cost benefits, comprehensive as concerns the scope of beneficiaries and sustainable:

- With respect to the comparatively high costs for terminal investments grants reduce the investment risk substantially. Thus they ensure that handling capacity is created, which is a prerequisite for establishing CT services in the first place;
- The aid has long-lasting and sustainable impacts on CT. The terminals can be used for 20 or more years and the aid makes sure that the handling costs for CT operations are reduced for the entire lifetime of the facility;
- Grants for terminal investments foster cost and quality competition in the CT industry, provided that a non-discriminatory access to the terminal is guaranteed;
- At the same time the aid is neutral in terms of effect on competition, as the same cost benefits should be made available to every user.

Two more incentives may have strong positive impacts on CT services but their effectiveness depends on the specific legal and economic situation in the respective MS. An **increased gross weight of 44 tonnes** for road vehicles in pre- and on-carriage road legs of CT operations is only relevant in countries that have adopted the 40 tonnes limit of the Directive 96/53/EC and if this derogation is extended to all types of load units. The **reduction of rail infrastructure access charges** only stimulates CT rail/road services if the previous level was disproportionately or prohibitively high and the reduction is sufficiently large to allow supplying cost-competitive service offerings. These are also considered good practice in aid management, although their geographic scope of application is limited.

Section 6. CT Directive transposition and application

The key objective of the work packages in this section has been to firstly determine whether (and if so, how) each MS has transposed the overall provisions of the CT Directive into national legislation, and secondly to determine how each of the main Articles within the CT Directive have been interpreted and implemented.

6.1 Analysis by MS

For this study, the analysis has started from the summary information provided by the EUR-lex website[148] on how MS have transposed the CT Directive. Individual reports have then been produced on each MS in a common format (see Appendix H).

Table 87 below shows the current status of transposition based on the results of each MS surveyed, indicating that most MS have transposed the CT Directive in full with the exception of Denmark (no transposition), Romania, Portugal and the United Kingdom (only partly-transposed). The information on the detail of the transposition as noted in Eur-Lex appears to be largely incorrect.

Table 88: Current status of transposition by MS

MS	CT Directive transposed?	Is Eur-Lex correct?	Transposition into single or multiple acts / legislation?	Definition of CT adopted at face value?
Austria	Yes	No	Multiple (4)	No
Belgium	Yes	No	Single	No
Bulgaria	Yes	Yes	Single	Yes
Cyprus	Yes	No	Single	Yes
Czech Republic	Yes	No	Multiple (4)	Yes
Germany	Yes	No	Multiple (2 principle + 4 subsidiary)	Yes
Denmark	No	N/A	N/A	N/A
Estonia	Yes	No	Multiple (2)	Yes
Greece	Yes	No	Single	Yes
Spain	Yes	Yes	Single	Yes
Finland	Yes	No	Multiple (2)	Yes
France	Yes	No	Single	Yes
Croatia	Yes	No	Single	Yes
Hungary	Yes	No	Multiple (2 principle and 2 subsidiary)	Yes

[148] http://eur-lex.europa.eu/en/index.htm (Celex document number 71992L0106)

Ireland	Yes	No	Multiple (1 principle and 2 subsidiary)	Yes
Italy	Yes	Yes	Multiple (3)	Yes
Lithuania	Yes	No	Multiple (1 principle and 1 subsidiary)	No
Luxembourg	Yes	N/A	Multiple (2)	Partly
Latvia	Yes	No	Multiple (1 principle and 1 subsidiary)	Yes
Malta	Yes	No	Multiple (2 principle and 1 subsidiary)	TBC
Netherlands	Yes	No	Multiple (1 principle and 1 subsidiary)	No
Poland	Yes	No	Multiple (2 principle and 2 subsidiary)	Yes
Portugal	Partly	No	Multiple (2 which partly reference)	No
Romania	Partly	No	Multiple (3 principle and 2 subsidiary)	Yes
Sweden	Yes	No	Multiple (1 principle and 1 subsidiary)	Yes
Slovenia	Yes	No	Multiple (1 principle and 1 subsidiary)	Partly
Slovakia	Yes	No	Multiple (2 principle)	Yes
United Kingdom	Partly	No	Multiple (1 principle and 1 subsidiary)	Yes

6.1.1 Definition of CT (Article 1)

Most MS have adopted the definition of CT as noted in the CT Directive, but some MS have not, raising potential issues of interpretation of the CT Directive as a consequence. Examples include:

- Bulgaria: the definition has not been transposed literally but retains the meaning;
- Denmark: the CT Directive has yet to be transposed;
- Slovenia: the definition of CT largely follows Article 1, but deviates from it due to the regional traffic characteristics as follows:
  - The definition is not restricted to MS (i.e. would apply to non-EU countries);
  - The non-road leg threshold of 100km is not applied;
  - The radius of road transport to/from port is reduced to 100km.

6.1.2 Nearest possible rail station (Article 1)

Table 88 below summarises how each MS has interpreted the CT Directive as relates to “nearest possible rail station” in Article 1.

Table 89: Interpretation of "nearest possible rail station" (Article 1)

MS	Definition of “nearest possible rail station”	Any specification (criteria) of “nearest possible rail station”	Any general restriction on “nearest possible rail station”

Austria	Yes	Yes	No
Belgium	Yes	No	No
Bulgaria	Yes	No	No
Cyprus	Yes*	No*	No*
Czech Republic	Yes	No	No
Germany	Yes	Yes	No
Denmark	N/A	N/A	N/A
Estonia	Yes	No	No
Greece	Yes	Yes	No
Spain	Yes	No	No
Finland	Yes	No	No
France	Yes	No	No
Croatia	Yes	Yes	No
Hungary	No	No	No
Ireland	Yes	No	No
Italy	Yes	No	No
Lithuania	No	No	No
Luxembourg	Yes	No	No
Latvia	Yes	No	No
Malta	N/A*	N/A*	N/A*
Netherlands	Yes	Yes	Yes
Poland	Yes	No	No
Portugal	No	No	No
Romania	Yes	No	No
Sweden	Yes	No	No
Slovenia	Yes	Yes	Yes
Slovakia	Yes	No	No
United Kingdom	Yes	No	No

* No rail network within MS

22 of the MS (78%) include the definition, but only 6 (21%) apply criteria and only 2 (7%) apply a restriction. Those countries applying criteria or restrictions are as follows:

- Austria: The nearest possible rail station is the station:
  - Which is located in Austria – a departure from Article 1;
  - Which has technical facilities to ensure handling of the load units in question;
  - Which provides for the shortest, usually used, legally permitted and economically reasonable road leg to/from the point of loading or unloading;
- Germany: Similar to Austria, the nearest possible rail station is the station:
  - Which provides for facilities to ensure handling of CT operations in question;
  - At which regular CT services in terms of type and direction are supplied;
  - Which provides for the shortest and usually used road leg to/from the point of loading or unloading;
- Greece: The nearest possible rail station is the station:
  - Which has appropriate infrastructure for loading / unloading and implementation of service;
  - Which is the nearest geographically;
- Croatia: Similar to Austria and Germany, the nearest possible rail station is the station:
  - Which provides for facilities to ensure handling of the CT operations in question;
  - At which regular CT services in terms of type and direction are supplied - the term “regular” is not defined in the legislation;
  - Which provides for the shortest, usually used road leg to/from the point of loading or unloading;
- Netherlands:
  - The loading/unloading station must be located in NL and included in the list contained within the national legislation – a departure from Article 1;
  - The 150km radius applied in the CT Directive to CT IWW/R and CT SS/R is extended to include CT R/R – another departure from Article 1;
- Slovenia:
  - National legislation defines the nearest loading / unloading station as a place where inter-modal transport units of combined transport are loaded and unloaded and the mode of transport is changed;
  - Additionally the legislation lists the stations within the Republic of Slovenia.

6.1.3 Inclusion of modes, road legs and 100km threshold (Article 1)

Table 89 below sets out how each MS has included elements of Article 1 related to CT inland waterway/road, CT short sea/road, the initial/final road legs and the 100km threshold for all CT operations.

Table 90: Reference to Article 1 criteria on modes, road legs, 100km limit

MS	CT IWW/R covered by national law	CT SS/R covered by national law	Specification of initial/final road legs	100km limit applies to all CT combinations
Austria	Yes	No	No	N/A
Belgium	Yes	No	No	No
Bulgaria	Yes	Yes	No	Yes
Cyprus	Yes*	Yes	No	Yes*
Czech Republic	Yes	N/A	No	Yes
Germany	Yes	Yes	No	N/A
Denmark	N/A	N/A	N/A	N/A
Estonia	Yes	Yes	No	Yes
Greece	N/A*	Yes	Yes	Yes
Spain	Yes	Yes	No	Yes
Finland	Yes	Yes	No	Yes
France	Yes	Yes	No	Yes
Croatia	Yes	Yes	No	N/A
Hungary	Yes	Yes	No	Yes
Ireland	Yes*	Yes	Yes	Yes*
Italy	Yes	Yes	Yes	Yes
Lithuania	Yes	Yes	No	No
Luxembourg	Yes	N/A	Yes	Yes
Latvia	Yes	Yes	N/A	Yes
Malta	Yes*	Yes	Yes	Yes*
Netherlands	Yes	Yes	Yes	No
Poland	Yes	Yes	No	Yes
Portugal	Yes	Yes	No	No
Romania	Yes	Yes	No	N/A
Sweden	Yes	Yes	Yes	Yes
Slovenia	Yes	Yes	Yes	No
Slovakia	Yes	Yes	Yes	Yes
United Kingdom	Yes	Yes	Yes	Yes

* No rail /inland waterway network within MS

The majority of MS specifically reference CT IWW (25 MS / 89%) and CT SS/R (23 / 82%) within the transposition of the CT Directive.

The initial and final road legs are referenced in only 9 MS (32%), which as noted earlier in other aspects of the CT Directive could then create potential legislative gaps or uncertainties for other MS, given that use of road transport at one or both ends forms an integral part of the definition of CT and thus the scope of the CT Directive. In these cases it could be argued that accepting the definition of CT as set out in the CT Directive presumes inclusion of the initial / final road leg(s).

The 100km threshold for all non-road CT legs is referenced by 17 MS (61%), exceptions including:

- Belgium: 100km limit only applies to the maritime leg;
- Lithuania: no threshold;
- Netherlands: 100km limit only applies to the maritime leg, but the text of the legislation is not completely clear and could be interpreted as applying to all non-road CT legs;

6.1.4 Cabotage (Article 4)

Cabotage, meaning the national carriage of goods for hire or reward carried out by non-resident hauliers on a temporary basis in a host MS, is governed by Regulation 1072/2009[149]. Article 8 of the Regulation provides that every haulier is entitled to perform up to three cabotage operations within a seven day period starting the day after the unloading of the international transport.

A haulier may decide to carry out one, two or all three cabotage operations in different MS and not necessarily the MS in which the international transport was delivered. In this case only one cabotage operation is allowed in a given MS to be carried out within three days of entering that MS without cargo.

Table 90 below shows the position on cabotage in each MS:

Table 91: Road cabotage and taxation within CT (Articles 4, 6 & 9)

MS	Exemption of road leg of CT operations from cabotage ban for companies established in MS	Any restrictions of CT operations as concerns cabotage journeys	Reduction of vehicle tax for road vehicles in CT operations
Austria	Yes	No	Yes
Belgium	No	No	No
Bulgaria	Yes	No	No
Cyprus	Yes	No	Yes

[149] Regulation (EC) 1072/2009 of the European Parliament and of the Council of 21 October 2009 on common rules for access to the international road haulage market, OJ L 300, 14.11.2009

Czech Republic	No	Yes	Yes
Germany	Yes	No	Yes
Denmark	N/A	N/A	N/A
Estonia	Yes	No	Yes
Greece	Yes	No	Yes
Spain	Yes	No	No
Finland	Yes	No	Yes
France	Yes	No	Yes
Croatia	Yes	No	Yes
Hungary	Yes	No	Yes
Ireland	Yes	Yes	No
Italy	Yes	No	Yes
Lithuania	Yes	No	No
Luxembourg	Yes	Yes	Yes
Latvia	Yes	No	Yes
Malta	Yes	No	No
Netherlands	Yes	Yes	Yes
Poland	Yes	No	Yes
Portugal	Yes	No	No
Romania	No	No	No
Sweden	Yes	No	Yes
Slovenia	Yes	No	No
Slovakia	No	Yes	Yes
United Kingdom	Yes	No	No

22 of the MS (79%) exempt the road leg of CT operations from any cabotage ban for companies established in EU MS (Table 90). Only 3 MS (11%) place any restrictions on CT operations as regards cabotage journeys by road, namely:

- Czech Republic: cabotage is only allowed according to Regulation 1072/2009[150];
- Netherlands: cabotage is only allowed according to Regulation 1071/2009[151];

[150] Regulation (EC) No 1072/2009 of the European Parliament and of the Council of 21 October 2009 on common rules for access to the international road haulage market

[151] Regulation (EC) 1071/2009 Of the European Parliament and of the Council of 21 October 2009 establishing common rules concerning the conditions to be complied with to pursue the occupation of road transport operator and repealing Council Directive 96/26/EC

- Slovakia: cabotage is only allowed according to Regulation 1072/2009.

6.1.5 Road vehicle taxation (Article 6)

Table 90 above shows the position in each MS with regard to road vehicle taxation.

16 MS (57%) transpose the provision in Article 9 for a reduction of vehicle tax for road vehicles engaged in CT operations. The provisions vary between MS, as follows (see also Section 5 on support programmes):

- Austria: two main schemes:
    - Tax exemption on monthly basis for vehicles exclusively used for pre- and on-carriage by road;
    - Reimbursement of 15% of monthly vehicle tax for every rail journey; if vehicle is exempted from tax, discount is transferable to another vehicle being taxed.
- Cyprus: no specific measures identified from the research;
- Czech Republic: according to national legislation the following tax reduction schemes apply:
    - 100% for vehicles used exclusively for the initial or final leg of CT;
    - 90% for vehicles carrying out more than 120 journeys during taxation period;
    - 75% for vehicles carrying out 91 to 120 journeys during taxation period;
    - 50% for vehicles carrying out 61 to 90 journeys during taxation period;
    - 25% for vehicles carrying out 31 to 60 journeys during taxation period;
    - If the rail distance within the Czech territory exceeds 250km the journey counts twice;
- Germany: two main schemes:
    - Exemption from annual tax for vehicles exclusively used for pre- and on-carriage of CT load units by road (unaccompanied CT);
    - Reimbursement of tax according to number of rail journeys for unaccompanied semi-trailers and accompanied road vehicles;
- Estonia: no specific measures identified from the research;
- Greece:
    - Vehicle taxes for road vehicles (lorries, trailers, semi-trailers) that perform CT are reduced with a proportion of the route that the vehicles are traveling by rail within the country and according to the provisions and the special conditions determined by Common Ministerial Decision of the Ministers of “Finance” and of “Infrastructure, Transport and Networks”, after they have asked for the opinion of the EC;
    - Nevertheless, no process has been developed to record the distance that a road vehicle travels performing CT and non-CT from which to then estimate the proportion undertaken inside Greece. The definition does not apply to rail

transport performed in other MS. Also there are no road vehicles used exclusively for road haulage in feeder or final delivery carriage by CT. As CT also includes maritime modes, road vehicles that perform CT by use of ferry/short-sea modes, on routes longer than 100km, may also be beneficiaries of tax reductions, yet no such provision exists. Thus, there is effectively no tax reduction for road vehicles performing CT operations;

  - It must be noted that the existing loading gauge in Greece does not allow for the transportation of road vehicles by rail;

- Finland: no specific measures identified from the research;
- France: the axle tax for the tractor unit may be reduced by 75% for CT operations;
- Croatia: no specific measures identified from the research;
- Hungary: vehicle tax is reimbursed for vehicles registered in Hungary if the rail or inland waterway section exceeds 100km, as follows:
  - 10% of annual tax in case of 40 – 60 journeys;
  - 20% in case of more than 60 journeys.
- Italy: no specific vehicle tax reductions (see also Section 5);
- Latvia: lorries or semi-trailers moved by CT rail services within Latvia shall have vehicle tax refunded in proportion to the number of days using rail services during the year;
- Luxembourg: hauliers that deploy vehicles on the initial or final leg of CT operations by rail or inland waterway get a reimbursement of the road infrastructure charge of €3 for every leg;
- Netherlands: vehicle tax reimbursement is granted for every day a road vehicle is used in CT operations under the following conditions:
  - CT operations by rail or water are only eligible where an alternative route by road is available;
  - Use of CT load units as defined by CT Directive;
  - CT loading/unloading station located in NL;
  - Minimum operating period of 3 months;
- Poland: road vehicles are exempted from tax if exclusively used for CT operations within a maximum 150km radius to/from the nearest suitable rail station, as follows (does not apply to international CT operations):
  - 100%: >100 rail journeys;
  - 75%: 70-99 rail journeys;
  - 50%: 50-69 rail journeys;
  - 25%: 20-49 rail journeys.
- Sweden: if a lorry or a semi-trailer is transported by rail in Sweden, vehicle taxes may be reimbursed:

- 100% if the vehicle has been carried on rail at least 120 days during the tax period;
- 50% if the vehicle has been carried on rail at least 60 days and less than 120 days during the tax period;

- Slovakia: 50% of vehicle tax may be reimbursed for road vehicles which have been used at least 60 times per annum within CT operations.

The UK provides an example of a MS which has sought to transpose the provisions of Article 6 whilst having no practical means for implementing them. In 1996 the UK government was asked in Parliament to confirm whether it considered it obligatory to implement the CT Directive. The government replied that implementation of the CT Directive was obligatory and that all the articles had been implemented, except Article 6, as Article 6.1 (road vehicles carried by rail) could only be implemented when it is possible to carry taxed goods vehicles (i.e. tractor units as semi-trailers are not taxed in the UK) by rail in the UK. It did not consider it practical to implement the permissive provisions of Article 6.2 (exemption from taxes for road vehicles engaged in initial / final haulage to/from CT terminals) in a cost effective way.[152]

A report produced by the Commission in 1997[153] confirmed that, in the case of the UK, the provisions of Article 6 of the CT Directive had no practical effect, as tax rebates for whole vehicles used in "rolling road" CT road/rail services had not been applied, due to such services not being possible in the UK because of loading gauge restrictions which have largely prevented accompanied lorries being carried by rail.

The obvious exception to this is Eurotunnel's accompanied lorry shuttles through the Channel Tunnel, although as noted earlier, these only operate over a 50km section of track between England and France so currently fall outside of the CT Directive.

6.1.6 Extension of scope of CT Directive by MS

The MS surveys identify 19 MS that provide additional measures which extend or complement the provisions of the CT Directive, typically in areas such as permitting higher gross vehicle weights for goods vehicles moving CT load units to and from CT terminals; grants and incentives for promoting mode shift of freight from road to alternative modes; and relaxation from national and/or local driving bans. Including some measures already discussed in Section 5, examples identified include:

- Bulgaria: national legislation makes additional provisions on CT, including the licensing of carriers, contracts and liability regimes;
- Czech Republic: road vehicles executing the initial or final leg of CT operations are exempted from driving bans on Saturdays, Sundays and national holidays if they comply with the general restrictions on CT, that is using the nearest suitable terminal and complying with the 150km limit;

[152] http://www.publications.parliament.uk/pa/ld199596/ldhansrd/vo960416/text/60416w03.htm

[153] COM(97) 372 final - REPORT FROM THE COMMISSION TO THE COUNCIL on the application during the years 1993 to 1995 of Council Directive 92/106/EEC, 18/07/1997

- Spain:
    - 44 tonne gross vehicle weight for 3-axle motor vehicle with 2 or 3-axle semi-trailer carrying in CT a closed container or swap body of 20 feet or more and approved for CT use;
    - 42 tonne gross vehicle weight for 2-axle motor vehicle with 2 or 3-axle semi-trailer carrying in CT a closed container or swap body of 20 feet or more and approved for CT use;
    - 4.5m maximum vehicle height for vehicles transporting containers approved for combined or intermodal transport;

- Croatia:
    - Reduction of road infrastructure charges for CT operations;
    - 44 tonnes permitted for vehicles carrying 40' containers;
    - Complete exemption from road driving bans;
- Hungary:
    - Road vehicles carrying out CT operations are exempted from holiday driving ban valid from 1 July until 31 August, between the point of loading or the border crossing and the nearest possible rail station or inland port;
    - Road vehicles involved in operations in CT rail/road or inland waterway/road, where the road leg between the point of loading/unloading and the rail station or inland port does not exceed 70km, can exceed the maximum permitted gross or axle weight by 10% (from 40 to 44t) but are exempted from paying the respective “overweight fee” and the cost for authorisation. Road hauliers must apply for individual/permanent authorisation;
    - Provision that hauliers deploying vehicles not registered in Hungary may obtain a “tax-free” authorisation (bilateral traffic, transit) if the initial or final leg is between the point of loading or the border crossing and the nearest possible rail station or inland port, where the road leg does not exceed 70km as the crow flies. The goods, however, shall not be imported from or exported to the country from which the road vehicle has entered Hungary. (We assume that this provision can only relate to hauliers/vehicles from non-MS though this could not entirely be clarified);
- Italy: National regulations provide for exemptions from road driving bans for vehicles employed in CT operations. The ban on circulation on Sundays and bank holidays ends 4 hours earlier for vehicles bound for freight villages (Interporti) of national relevance or located in a strategic position near Alpine crossings ((Bologna, Padova, Verona Quadrante Europa, Torino-Orbassano, Rivalta Scrivia, Trento, Novara, Domodossola and Parma Fontevivo) and to the intermodal terminals of Busto Arsizio, Milano Rogoredo (now dismantled) and Milano Smistamento. This exemption applies also to all vehicles employed in CT services;
- Poland:

- 25% discount on rail infrastructure access charges for CT rail services from 15 December 2013 to 13 December 2014;
- Maximum authorized vehicle weight of 44 tonnes for articulated vehicles with a three-axle motor vehicle and a three-axle semi-trailer carrying a 40' ISO container as a combined transport operation, conforming to Directive 96/53/EC of 25 July 1996 - there are plans to extend this provision to other types of CT load units;

- Portugal:
  - The relevant legislation also includes a reference to CT air/road;
  - 44 tonne gross vehicle weight for a tractor / semi-trailer combination with 5 or more axles carrying two ISO containers of 20 feet or a single ISO container of 40 feet;
- Slovenia:
  - Increase of maximum gross weight of vehicles up to 44 tonnes in pre-carriage and on-carriage operations in the context of CT;
  - Exemptions from road traffic restrictions for road vehicles - traffic restrictions on holidays, weekends and during tourist season do not apply to freight vehicles or groups of vehicles whose maximum permissible weight exceeds 7,500 kg and which are engaged in road transport combined with transport by rail or ship, to a terminal, reloading station or port if they are on the way to using a piggyback train or a ferry and would otherwise not reach their destination on time, or from a terminal, reloading station or port to the nearest border crossing if they arrived using piggy-back transport or ferry and if they are able to proceed with their journey to their destination abroad;
- Slovakia:
  - Derogation from weight limit for road vehicles (generally 40 tonnes) operating in CT: permitted up to 44 tonnes for the transport of all types of intermodal load units;
  - Vehicles carrying 45' containers may have 15 cm more total vehicle length.
  - Road vehicles executing the initial or final leg of CT operations are exempted from driving bans on Saturdays, Sundays and national holidays if they comply with the restrictions on CT (nearest suitable terminal; 150km limit).

6.2 Conclusions and lessons learnt

The CT Directive has been transposed in principle by most MS into national legislation, but it is apparent that considerable differences exist in how (and how far) each MS has interpreted the various Articles in practice.

Whilst there should be a degree of flexibility for MS to tailor Directives to best suit local conditions (e.g. geographic, social, economic, environmental and political), the long-distance / cross-border nature of the CT sector (and the alignment with the Transport White Paper objectives for mode shift of freight from road for transits over 300km)

suggests that end users and transport undertakings should be able to plan Intra-EU CT transits without having to navigate such differences in policies at each end. These differences can create unnecessary administrative complexity (or even unwillingly expose users and operators to legal challenge from road-based competitors), generating a reluctance and inertia from the wider freight market to make more use of CT.

The key lesson learnt here is the need to achieve a delicate balance between, on the one hand, imposing a rigid pan-European “one size fits all” Directive, and on the other, a profusion of different interpretations of the Directive which then hinder its overall objectives. This issue is clearly not confined to the CT sector, but alongside efforts to improve quality, ease of access and inter-operability across the CT network, harmonising the application of the key provisions of the CT Directive across MS may be material to achieving further breakthroughs in making CT a more mainstream offer.

Section 7. Stakeholder workshop and public consultation

7.1 Stakeholder workshop

In connection with this study, a workshop was organised on 27th June 2014 in Brussels for key stakeholders in CT to attend, the objective being to update stakeholders on the work being undertaken on the study, and to discuss the CT Directive and other possible measures to encourage greater use of CT within the EU. Invitations were sent to MS representatives and other organisations (see Appendix I), those initially accepting the invitation comprised the following:

- Transport sector associations 36 (86%);
- End user associations 3 (7%);
- Transport undertakings 2 (5%);
- Other organizations 1 (2%);

Of the transport sector associations and transport undertakings, the various modes of transport were represented as follows:

- All 16 (42%);
- Road 3 (8%);
- Rail 10 (26%);
- Rail / Road 1 (3%);
- Water 8 (21%).

In total, 33 individuals from a total of 83 confirmed attendance at the event.

The invitation stated as follows:

"The promotion of Combined Transport (CT) for freight is an integral part of European Commission policy. The 2011 White Paper on Transport restated the Commission's objectives for CT, with greater intermodal integration and seamless door-to-door mobility for freight, towards achieving a modal shift of 30% of road freight over 300 km by 2030, and more than 50% by 2050.

The Commission is planning to evaluate the effectiveness and efficiency of the current legal framework for CT, as part of the Regulatory Fitness and Performance Programme (REFIT) initiative. In parallel, the Commission has commissioned a study analysing the CT market in EU and assessing options for future EU policy. As part of this study, the Commission has recently launched a public consultation on CT in general and the provisions of the CT Directive 92/106/EEC in particular.

Further to the public consultation[154], the consultancy team carrying out the study is organising a stakeholder workshop in co-operation with the Commission, to provide a parallel opportunity for key representatives of transport operators, end users and interest

[154] See later in this section

groups to discuss the CT Directive. These discussions will provide a valuable input into the study process. You are therefore cordially invited to attend the workshop and contribute to the discussions."

The workshop was structured as follows:

- Presentations:
  - Welcome introduction (EC);
  - Setting the scene - challenges and opportunities for CT in the EU (UIRR);
  - The CT Directive - initial study findings (KombiConsult & Intermodality);
- Discussion topics (led by KombiConsult & Intermodality):
  - The current state of CT - strengths, weaknesses, opportunities, threats;
  - The CT Directive - how far does it address current or future challenges;
  - Moving forward - how can we all help improve the take-up of CT;
- Conclusions and closing comments (EC).

A range of views were given by attendees during the discussion session, which are summarised below, in alphabetical order:

Bureau International des Containers et du Transport Intermodal (BIC):

- Within the CT Directive (92/106/EEC) the term "and/or" relating to the road leg of CT operations is not clear. The CT definition is not precise enough;
- It should be examined if load units of less than 20' length should also be taken into account;

Deutsche Post DHL:

- Backloads are critical to the success of CT but there is nothing in the CT Directive which addresses this issue;
- Article 1 – 100km / 150km thresholds – these need to be reviewed as this creates significant issues for securing backloads, which are critical to the overall efficiency of the supply chain and CT within it. It may often be necessary to travel more than 100-150km from delivery of a CT load unit to collect another CT load unit as backload;
- There needs to be a focus on CT service quality and reliability as the most important Key Performance Indicators (KPI);

European Chemical Industry Council (CEFIC):

- The chemical industry already moves a high share of total tonnage by CT. Use of can be intensified (the industry is looking to achieve 30% modal shift of freight from road) if appropriate services were supplied;
- The chemical industry needs reliable services at reasonable, competitive costs;

- Improving use of CT should not look at subsidies but instead invest in appropriate infrastructure, including in terminals and corridors, which would then allow the market to play its role;

Community of European Railway and Infrastructure Companies (CER):

- Support CEFIC comments about quality of CT services;
- Welcome work being undertaken by the EC and consultants on the CT Directive;
- CT Directive needs a clearer framework and definitions;
- Any changes to the CT Directive needs to be co-ordinated with proposed changes to the Weights and Dimensions Directive[155,156] to maximise take-up of CT;
- The priorities of CER are on the harmonization of provisions among MS (including railway standards, to speed up approval of rolling stock) and on incentives for infrastructure investments;

European Association for Forwarding, Transport, Logistics and Customs Services (CLECAT):

- LSPs are users of CT services and would like to intensify use of such services;
- Some CLECAT members think the CT Directive is outdated and ambiguous and should be adapted to current logistics;
- The goals of the 2011 Transport White Paper are also considered ambiguous. An open market should be created across all modes, in particular rail, yet the 4th Railway Package[157] remains considerably behind this goal. The liberalization of rail freight is a prerequisite for an increased use of CT - rail freight quality and productivity needs to be improved;
- The CT Directive (and the CT industry itself) is too complex, the definitions of CT are confusing;

The Association of European Vehicle Logistics (ECG):

- ECG has 90 members, of which 40 are "very" multimodal, in the sense that they use all modes for the transport of finished vehicles, but these do not fall under the current definition within Article 1 of the CT Directive of a CT load unit (*"the lorry, trailer, semi-trailer, with or without tractor unit, swap body or container of 20 feet or more"*);

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[155] Council Directive 96/53/EC of 25 July 1996 laying down for certain road vehicles circulating within the Community the maximum authorized dimensions in national and international traffic and the maximum authorized weights in international traffic

[156] Proposal for a Directive of the European Parliament and of the Council amending Directive 96/53/EC of 25 July 1996 laying down for certain road vehicles circulating within the Community the maximum authorised dimensions in national and international traffic and the maximum authorised weights in international traffic, COM(2013) 195 final – report / debate in the European Parliament on 27 March 2014

[157] Communication from The Commission to The European Parliament, The Council, The European Economic and Social Committee and The Committee of the Regions on "The Fourth Railway Package – Completing The Single European Railway Area to Foster European Competitiveness and Growth", COM(2013) 25 final, 30.1.2013

- The scope of the definition of CT within the Directive should be extended to include a finished vehicle as a qualifying CT load unit;
- The CT Directive needs to consider the entire supply chain, not just the CT component;
- Given the number of different terms used in and around CT (e.g. intermodal, multimodal, co-modal) policy-makers need to provide one legal definition of CT to avoid misunderstandings – this would be a major step forward;
- The focus should be more on "carrots" rather than "sticks", need to find a simple system and efficient incentives to make best use of CT;
- Incentives should always go to the user not the provider of CT services;
- New statistical data gathering systems for CT should consider and integrate other EU actions such as e-freight and e-manifest;
- Review ECG contributions to the Ecobonus scheme in Italy and the consultation on the replacement of the Marco Polo programme;[158]

European Intermodal Association (EIA):

- An awareness campaign is needed to better promote use of CT;
- The CT Directive should look to encourage industrial users of transport to make more use of CT;
- Start by considering the wider supply chain, then use of load units, then use of the respective techniques;
- Needs some common values or pillars, looking at issues such as capacity, energy use and CO_2 emissions;
- The opportunity exists to use data mining systems to help rebalance freight flows and make more use of CT, but needs better information;
- EUROSTAT has an intermodal task force (EIA is a member) but where is the support for getting better data? MS and CT operators simply complain that "it all costs money";
- Innovative data collection systems should therefore be applied to prepare statistics;

European Sea Ports Organization (ESPO):

- The CT Directive needs better definitions;
- Needs to review data on the relevance of the 100km / 150km thresholds to the objectives of the CT Directive;
- ESPO will check if there are statistical data on short-sea/road operations, which account for the 100 km sea leg threshold and the 150 km road leg restriction;
- ESPO will also check if the high volume of containers carried by short-sea in the Mediterranean area is plausible;

[158] http://ec.europa.eu/transport/themes/sustainable/consultations/2014-04-02-funding-scheme-freight-transport-services_en.htm

European Federation of Inland Ports (EFIP):

- Need to review the 150km threshold from inland ports;

International Road Transport Union (IRTU):

- CT Directive is outdated and should be modernized to reflect industrialised supply chains and multimodal logistics;
- What is the objective of the CT Directive and its relationship to the 2011 White Paper on Transport? With regard to the key objective of the White Paper to create a resource-efficient transport system, modal shift should be encouraged and not forced;
- Economics, environment and social equity form the cornerstones of sustainability, CT must align with these cornerstones;
- Various provisions of the CT Directive should be clarified, eg:
    - Need to clarify the EU definitions of "Combined Transport" and "Intermodal Transport";
    - Need to bring air transport within the scope of the CT Directive, as airlines use trucks to move products between airports (under airline documents rather than road documents);
    - Article 1 – "*uses the road on the initial or final leg of the journey*" - have spoken with enforcement authorities, who do not know (or do not agree) whether "or" should be interpreted as "and", "or" or "and/or". In Malta (which only has sea and road transport available) they have a problem in this regard with traffic to and from Italian ports;
    - Article 1 – "*nearest suitable rail loading station*" – what is meant by this? Needs clearer criteria;
    - Article 1 – "*within a radius not exceeding 150 km as the crow flies*" – how can enforcement authorities check if a road vehicle has met (or exceeded) this criteria;
    - Cabotage: the IRU has had lengthy internal discussions on this point, taking account of Regulation 1072/2009[159] . The CT Directive is used to circumvent cabotage restrictions. Article 9 of 1072/2009 contains some specifications which need to be considered. It is suggested that the CT Directive should apply the rule that the cabotage provisions of the host MS should also be valid for CT operations;
- How innovative do you want to go with the CT Directive? For example, feeder road haulage to and from rail, sea and inland waterway terminals would benefit from being allowed to carry greater payloads - the "modular concept" [longer articulated lorry combinations];
- External relations with non-MS, e.g. how many countries have agreements on CT with countries like Turkey;

[159] Regulation (EC) 1072/2009 of the European Parliament and of the Council of 21 October 2009 on common rules for access to the international road haulage market, OJ L 300, 14.11.2009

- The importance of data for policy-makers is acknowledged but CT will not stand or fall with the quality of statistics – there are more important priorities than data gathering;
- Priorities according to IRU are as follows:
    - A new modern legal framework should provide legal certainty to all service providers in the supply chain;
    - Needs clear alignment across MS to avoid 29 MS then making individual interpretations;
    - The provisions should be enforceable (see remark above on "as the crow flies");
    - The provisions should give stakeholders flexibility but without infringement of fair competition (ie by circumventing other Directives);
    - Should not be used as a tool to place restrictions on individual modal activities;
- The introduction of road toll systems often used by railway undertakings to raise rates;
- IRU requests for a realistic cost calculation of external costs against the background that, according to Directive 2011/76/EU[160] rail can only be charged for externalities if competitors are also charged;

Slovak Republic:

- CT Directive transposed into national legislation in 2004, with CT road legs exempted from weekend driving bans, and 44 tonne road vehicles permitted for CT road legs. The 20' length threshold has been modified within national legislation, to enable shorter (5m) ACTS swap bodies[161] to fall within the provisions of the CT Directive, particularly at weekends;
- Overall the CT Directive is alright but 1992 was a long time ago and the "novelty" has worn off. The key issue is the terminology, as the definitions have been produced by academics and law-makers. The CT Directive also doesn't solve the issue of how to encourage development of terminals;
- In terms of how far any new or revised Directive should go, it first needs to address the operational issues and then the infrastructure issues;
- The terms combined, intermodal and multimodal should be clarified and distinguished;
- A new directive should also enable to provide state aids for the construction of terminal infrastructure;
- Load units of less than 20' length should also be taken into account;

International Union for Road-Rail Combined Transport (UIRR):

[160] Directive 2011/76/EU of The European Parliament and of The Council of 27 September 2011 amending Directive 1999/62/EC on the charging of heavy goods vehicles for the use of certain infrastructures

[161] Abroll Container Transport System

- The excise duty regulation must be revised to promote CT;
- As long as the total external costs are not allocated to road, the necessity for (temporary) CT benefits remains.

7.2 Public consultation

In parallel with the stakeholder workshop, an online public consultation was carried out between 23rd May and 15th August 2014, hosted by the European Commission. The consultation took the form of a series of 44 questions, which combined multiple-choice, alternative choice and free-form responses across the following key sections (see Appendix J):

1 **Introduction** – explaining the purpose of the survey and user instructions;

2 **Respondent details** – including the option of making all or parts of the responses confidential;

3 **Objectives of the CT Directive** – awareness of the CT Directive and the extent to which the CT Directive and its provisions encourage greater use of CT;

4 **Definition of CT** (Article 1 of the CT Directive) – the extent to which the existing scope, definitions and criteria should be amended or enhanced;

5 **Authorisation schemes for CT** (Article 2 of the CT Directive) – extent to which users and operators of CT services had experience of such schemes in the EU;

6 **Transport documentation** (Article 3 of the CT Directive) - the extent to which the existing documentary requirements should be amended or enhanced (e.g. with electronic documents);

7 **Cabotage** (Article 4 of the CT Directive) – the extent to which the existing provisions relate to current cabotage restrictions across the EU;

8 **Financial incentives in CT operations** (Article 6 of the CT Directive) - the extent to which the existing provisions (and other relevant incentives) are deployed across MS;

9 **Improving knowledge of the CT sector** – the extent to which better data gathering measures could / should be implemented;

10 **Boosting freight transport by alternative modes** – in the context of increasing the use of CT, the extent to which amendments to the CT Directive, and/or other measures, could / should be implemented;

11 **Closing comments** – an opportunity for respondents to note other relevant views or information;

12 **Contact details for additional submissions / queries** (optional).

Section 2: Responses

A total of 102 responses were received via the online portal, plus a further 5 position papers. A report by the European Commission on the results is set out in Appendix J.

Respondents included individuals and organisations from 18 EU Member States: Austria, Belgium, Bulgaria, Czech Republic, Denmark, Germany, Finland, France, Italy, Netherlands, Poland, Romania, Slovenia, Slovakia, Spain, Sweden, UK, as well as 6 non-EU countries.

The survey achieved a good representation from a range of key stakeholder groups, as follows:

- Business associations 28%;
- Large companies 19%;
- Small / medium-sized companies 15%;
- Individuals 7%;
- Non-governmental organisations 17%;
- Public authorities 14%.

At MS level, respondents who are users/operators of CT services have the largest concentrations in Germany (17), Italy (16) and Belgium (15) and Netherlands (11).

Section 3: Objectives and performance of the CT Directive

The vast majority of respondents (88%) were aware of the CT Directive (**Question 3.1**), indicating that awareness is not a major issue amongst the sample, albeit noting that the majority of respondents are from organisations that are involved in transport and/or more likely to be aware of EU policies and Directives to promote CT.

In considering whether the CT Directive has achieved its objectives of encouraging modal shift of freight away from road to more environment-friendly modes of transport (**Question 3.7**), 40% agree but 45% disagree. In terms of alternative options to the CT Directive (Question C8), 37% do not believe that the same objectives could have been achieved with less burdensome / less costly measures, 29% were of the opposite view, whilst the remaining 34% did not know.

A narrow majority of respondents (58%) indicated that the CT Directive helped them in running their businesses (**Question 3.2**). However, note that 29 out of the 95 respondents do not represent the private sector and thus would not benefit from any of the incentives provided by the CT Directive. Taking this into account, the responses suggest that the CT Directive has brought advantages to an overwhelming majority of respondents representing the industry (55 out of 66, 83%).

This view is supported by the response to the question of whether the EU should continue supporting CT operations (**Question 3.12**), with 93% in agreement, 3% of the opposite view and 4% who did not know. To a lesser degree, a narrow 56% majority did not believe that CT operations would be economically viable / competitive without the CT Directive (**Question 3.10**), against 29% of the opposite view and 15% who did not know. A similar level of response was obtained on the impact of the main Articles of the CT Directive (**Question 3.3**), with an average of 63% (49-73%) of respondents indicated that the provisions within the Articles increased the respondents' likelihood of using CT.

At MS level (**Question 3.4**), users/operators were least able to benefit from the provisions of the CT Directive in Italy (8), Germany (7), Belgium (7) and France (7). This is an interesting finding given the concentration of user/operator respondents in the first three MS, reasons cited as follows:

- Where the provisions of the CT Directive were not respected, e.g.:
    - None of the incentives within the CT Directive applied in a MS (EL);
    - Cabotage liberalisation for CT operations (Article 4) was only partly applied by the MS (FR);
    - CT operations were not exempted from cabotage regulations due to non-recognition of transport documents by the MS (DK, IE, NL, UK).
- Cases where the CT operation did not fall within the scope of CT Directive, e.g.:
    - Intermodal transportation of new vehicles;
    - CT operations within a single MS;
- A lack of necessary information about the benefits granted under the CT Directive.

The overall advantages and disadvantages of the CT Directive (**Question 3.6**), as cited by respondents, can be grouped into the following broad categories:

Advantages

- Creating a legal framework for supporting use of CT across the EU through regulatory and fiscal measures;
- Raising awareness of the EU's support for modal shift of transport of goods from road to rail and waterborne transport;
- Assisting climate and environment protection through promotion of CT as a more sustainable alternative to pure road haulage;
- Facilitation of cabotage and cross-border transport, in combination with other modes of transport;

Disadvantages / areas for improvement

- The current wording lacks clarity and in places is out of date or confusing, which leads to different application by each MS (or a lack of awareness / understanding), undermining its effectiveness and in some cases leading to undeserved fines;
- The directive establishes some complex requirements for hauliers to understand in order to remain compliant, current documentation requirements are not workable;
- The definition of CT is too narrow, focused only on the transport of goods in containers, trailers and swap bodies, excludes conventional rail wagon traffic and transport of new vehicles (i.e. cars, vans, lorries);
- The CT Directive should explain the difference (if any) between "intermodal" and "combined transport", as well as the term "intermodal loading unit". These terms should then be applied across other EU instruments e.g. the Weights and Dimensions Directive[162] to ensure harmonised interpretation;

[162] Council Directive 96/53/EC of 25 July 1996 laying down for certain road vehicles circulating within the Community the maximum authorized dimensions in national and international traffic and the maximum authorized weights in international traffic

- Distance thresholds and “nearest suitable” are arbitrary terms, resulting in eligible CT flows being excluded, contrary to the objectives of the CT Directive;
- Current arrangements lock end users into dealing with particular operators for an entire CT service, rather than allowing individual arrangements for each leg;
- The CT Directive should apply to CT with third countries, at least where the larger part of the operation is carried out within the EU;
- CT Directive should promote CT through authorising a higher road vehicle weight limit (the same maximum or additional vehicle weight) for CT road legs in all MS;
- CT Directive should promote CT through requiring open-access arrangements to terminals to prevent discriminatory behavior by operators;
- CT Directive provisions on cabotage are now outdated and may be used by operators in some MS to circumvent subsequent road haulage regulations, distorting competition.

Section 4: CT Directive Article 1 (definitions)

Question 4.1 asked whether the definition of CT in Article 1 requires revision. 60% of respondents agreed, twice as many as the 30% who disagreed, whilst 9% did not know.

Question 4.2 asked whether additional types of CT operation should be included in any future definition of CT. Of the three options presented, the following responses were made:

- Inclusion of domestic (intra-MS) CT: 46% in favour;
- Inclusion of international (to/from non-MS): 36% in favour;
- Remain as per current definition (inter-MS): 19% in favour.

Question 4.3 asked about which types of intermodal load unit should be included in any future definition of CT. In summary, the “classic” types of load unit (i.e. containers, swap bodies and piggyback / huckepack trailers) achieved higher cumulative scores across all unit lengths (c.150-160 responses per load unit type) than for standard road trailers and articulated combinations (c.120-130 responses per load unit type). With regard to unit length, again the “classic” unit lengths (i.e. 20’ – 45’) secured 70% of the responses per load unit type, compared to shorter units (i.e. <20’) and longer units (i.e. >45’) which each attracted only 15% of the responses per load unit type.

Question 4.4 asked about which modal combinations should be included in any future definition of CT. The responses were as follows in order of importance:

- Rail/road 72%;
- Inland waterway / road 64%;
- Short sea shipping road (where a road alternative exists) 56%;
- Short sea shipping road (where no road alternative exists) 45%;
- Maritime shipping / road 37%;
- Aviation / road 20%.

Question 4.5 asked whether combinations of three or more modes should be included in any future definition of CT, in addition to the existing specific bimodal combinations. 43% believed that the definition should be extended to include additional combinations of road and at least one additional mode of transport. Several respondents suggested that a broadening of the definition would provide greater flexibility, allowing customers to decide how best to make use of the various combination of modes for a given operation. Only 2% believed the definition should remain unchanged whilst 13% expressed no view.

Question 4.6 asked whether the existing conditions on road legs should be retained (i.e. CT rail/road = nearest suitable loading station, CT inland waterway or sea / road = 150km from the inland waterway port or sea port). 79% did not consider that any changes were necessary, whilst 15% took the opposing view.

Question 4.7 asked whether the existing conditions on road legs should be the same across all CT combinations. 57% believed they should apply equally, 6% disagreed and 27% had no view.

Question 4.8 asked whether the road leg for CT road/rail should be limited to an exact kilometre distance or (as at present) to the nearest suitable loading station? 52% believed that the existing condition should remain without any distance threshold, 29% for the existing condition should be retained but with a maximum distance threshold, whilst 14% suggested replacing the existing condition with an exact distance threshold.

Question 4.9 asked respondents to consider, were road legs to be limited by distance, what the preferred choice of measure would be. In order of popularity, the responses to the options were as follows:

- Distance driven by road using appropriate motorways and major roads 59%;
- Distance by road as a percentage of the total CT journey 25%;
- Straight-line distance (as the crow flies) 16%.

Question 4.10 then asked that, in the event that a distance limit was used, what the distance should be. Against the options given, the following responses were made:

- Around 40% suggested limiting the road leg to between 100 and 300 km (most indications suggested a 150 km limit, as for CT inland waterway/road and CT sea/road);
- Around 40% believed that the road leg should not be limited by distance at all, as this would impact the viability of intermodal operations and the flexibility needed by logistics service provider to develop CT routes;
- Around 20% suggested that road legs should be limited to a percentage of the total CT journey.

Question 4.11 asked how the term "suitable" (i.e. nearest suitable terminal) should best be defined. Responses were grouped around the following definitions:

- 31% based on availability of rail, inland waterway or maritime services;
- 25% based on frequency of rail/inland waterways/maritime services;
- 23% based on availability of handling facilities;

- 21% based on quality of the terminal services.

Section 5: Authorisation schemes for CT (Article 2 of the CT Directive)

Question 5.1 asked users or operators of CT services whether they had encountered any authorisation schemes (licences, permits, registration requirements etc.) for CT. 71% of the respondents (39 of 55) had encountered such schemes and 29% had not. Those respondents listing MS where such schemes had been encountered included France (4), Germany (3), Belgium (2), United Kingdom (1), Italy (1) and Austria (1).

Question 5.2 then asked whether CT users of operators had encountered any authorisation schemes or other limitations (licences, permits, registration requirements, approved lists of terminals, approved lists of providers etc.) for operations which had an influence on CT. 65% of the respondents (34 of 52) had encountered such schemes and 35% had not, MS where schemes were encountered including Germany (5), France (3), Austria (3), United Kingdom (2), Italy (1), Belgium (1), Poland (1), Ireland (1), Romania (1), Bulgaria (1), Greece (1).

Section 6: Transport documentation (Article 3 of the CT Directive)

Question 6.1 asked whether the conditions for documentation in the existing CT Directive caused any problems for CT services. Main problems cited were delays

(37%) and additional costs (32%), as well as other unspecified problems (31%).

In terms of alternatives to the current documentation (**Question 6.2**), the following responses were made to the options given in the question, ranging from 1 (not effective) to 5 (very effective):

Table 92 Public consultation question 6.2

Option	< not effective – very effective >					Don't know
	1	2	3	4	5	
Mode-related waybill without stamp	17%	13%	13%	9%	16%	32%
A single transport document for all CT	5%	8%	8%	11%	52%	16%
Other electronic clearing system	7%	2%	9%	17%	39%	25%

This suggests that a single transport document or an electronic clearing system (or a combination of the two) would be the preferred option.

Question 6.3 then asked what other alternatives might be considered. Responses included:

- Single check-in /check-out intermodal terminal documentation;
- Rail, Inland waterway or short sea waybill;
- e-waybills / paperless documentation;

- CIM consignment note[163];
- E-Freight document.

Section 7: Cabotage (Article 4 of the CT Directive)

Question 7.1 asked to what extent CT operations were considered to be completely free from cabotage rules. 48% believed that they were, compared to 37% who did not, with 15% who did not know. However, 69% of respondents considered that the same rules did not apply to CT operations as to non-CT operations, a view supported by almost half of respondents (48%) who indicated that the application of cabotage rules on CT is inconsistent.

Question 7.2 asked whether respondents had encountered problems with cabotage liberalisation in any MS, with a number of respondents citing the United Kingdom (7), Italy (7), France (3), Finland (3), Sweden (3), Spain (2), Austria (2), Croatia, Slovenia, Ireland, Netherlands, Denmark, Hungary and Germany.

Question 7.3 asked whether the liberalisation of cabotage for CT operations created labour market/social problems within MS. Respondents were divided, with 39% of stakeholders agreeing with this view, compared to 31% who did not. Those respondents who found cabotage liberalisation for CT to be troublesome, cited "social dumping" practices from operators based in Central and Eastern European MS, which employ low-paid drivers to perform cabotage operations in Western European MS. Several respondents noted that the rules of the CT Directive are often used to circumvent the restrictions imposed on cabotage by Regulation (EC) No 1072/2009[164].

Question 7.4 asked whether the cabotage liberalisation for CT operations be continued if the Directive were to be reviewed. The majority of respondents (60%) agreed that this should be reviewed, compared to less than a quarter of responses (22%) who disagreed and a similar level who did not know.

Section 8: Financial incentives in CT operations

Question 8.1 asked for opinions on the use of incentives for road vehicles used in CT operations. The majority of respondents agreed that road vehicle tax reductions (58%) and reimbursements (61%) are available for road vehicles used in CT.

Question 8.2 asked whether respondents had encountered problems in any MS related to these incentives, with Belgium, France and Romania being cited.

Question 8.3 asked whether respondents were aware of any other fiscal incentives relating to road vehicles used in Combined Transport. The overwhelming majority (92%) were not aware. Only 7 respondents were aware of any such incentives, including: state aids for new vehicles used for combined transport; aid for investment in intermodal load

[163] The International Rail Transport Committee (CIT) has developed the Contract of International Carriage of Goods by Rail (CIM) consignment note, which confirms that the rail carrier has received the goods and that a contract of carriage exists between trader and carrier.

[164] Regulation (EC) no 1072/2009 of the European Parliament and of the Council of 21 October 2009 on common rules for access to the international road haulage market

units / road trailers; incentives for CO2 reduction in the process applied on investments; incentives for road vehicles using ferry services; and energy reduction schemes.

Section 9: Improving knowledge of the CT sector

Question 9.1 asked whether respondents agreed with the need to obtain better data on the CT market to provide a better understanding of its operations, challenges and opportunities. The large majority of respondents (73%) agreed with this statement, compared to 12% which disagreed and 15% who did not know.

Question 9.2 asked if respondents gathered information on CT movements as part of their normal business operations. A small majority (57%) do, either electronically (46%) or in paper (11%). The remaining 43% do not collect any information on CT operations on a regular basis.

Question 9.3 then asked if respondents would be willing or able to (or already did) gather data on various types of CT traffic and equipment. Overall, the majority of respondents (59%) were unwilling and/or unable to gather such data, compared to 25% who already did and 16% who would be willing to.

Similarly, when asked in **Question 9.4** whether respondents would be willing to report regularly on non-sensitive data, over three-quarters (76%) were unwilling and/or unable to gather such data, compared to 24% who would be willing to.

This suggests an apparent conflict between the answers given to Questions 9.1 and 9.2 on the one hand, and to 9.3 and 9.4 on the other.

Other proposed enhancements and measures

A number of questions were asked within the survey asking for other comments and measures which could be used to enhance the CT Directive and/or promote greater use of CT within the EU. Responses can be grouped under the following headings:

- Clarifying and harmonising public policy, legislation and regulation, to provide a clear and transparent framework which supports CT and facilitates greater use;
- Strengthening the cabotage liberalisation provisions with the CT Directive to prevent its use to circumvent other regulations in the wider road haulage market;
- Broadening the scope of the CT Directive, to include other types of unitised / unitload traffic over a wider range of distances, including within each MS;
- Improving the awareness, application and enforcement of measures to promote CT, both within and between MS, to minimise differences of interpretation;
- Encouraging greater trans-national co-operation for CT services, as much for infrastructure investment as for reducing/removing border crossing procedures;
- Altering the core economics of CT over pure road haulage to achieve greater cost-neutrality, by altering relative usage charges and/or by use of incentives;
- Increased investment in rail, inland waterway and sea port facilities and transport corridors, to enhance the capabilities and efficiencies of CT services;
- Further liberalisation of the rail market to facilitate greater open access to services and terminals, and achieve better harmonisation of infrastructure access charges;

- Reflecting the relative socio-environmental impacts of road haulage and alternative modes of transport within taxation and usage charge regimes;
- Reducing the costs of road haulage legs within CT, including use of incentives and derogations on vehicle weights and dimensions, provided this would not then benefit the wider road haulage market;
- Assisting with the start-up phase of new CT services, supporting initial capital investment in infrastructure (eg terminals and equipment) and/or the initial operating costs of the services up to a particular time / load factor;
- Reducing the extra administrative burden of CT compared to pure road haulage, by simplifying documentation and harmonising procedures across MS, with an emphasis towards greater use of ICT-based solutions;
- Promoting greater innovation in CT (longer trains, faster terminal processing, improved ICT infrastructure and services).

7.3 Conclusions and lessons learnt

The combined results of the workshop and public consultation firstly provide clear evidence that support for greater use of CT remains strong, as does the awareness of, and need for, the CT Directive.

The results also deliver a reasonable consensus that the CT Directive, and to an extent EU policy on CT, needs to evolve. Improving clarity, awareness and harmonisation across MS will help maximise the potential of CT and minimise any unintended consequences, e.g. hauliers being fined unnecessarily for otherwise eligible road legs, or other hauliers using the CT Directive to allegedly circumvent wider cabotage restrictions.

Beyond this, the responses become more disparate and, at times, contradictory.

Whilst there is undoubted support for CT, the extent to which the CT Directive has achieved its objectives is less clear: less than half of the public consultation respondents believe it has, whilst nearly 60% believe that without the CT Directive, CT would not be viable. Such responses highlight (and help perpetuate) a view of CT as being “well-meaning” rather than well-regarded; a system that, whilst being undeniably more sustainable in environmental terms, will never be truly sustainable in commercial terms. Care will therefore be needed in any future revision of the CT Directive and/or wider EU policy, to encourage the CT sector to evolve into an increasingly self-supporting means of transport, as in other parts of the world.

There is considerable interest by the participants in reviewing and expanding the scope of the CT Directive, not least to clarify what is actually meant by the term CT itself and related terms such as “intermodal load unit”. Extending the scope to include other types of unitised load (and even conventional rail or inland waterway services) could encourage greater use of CT, provided this does not then lead to greater scope for (mis)interpretation at MS level.

Several respondents suggested one way to improve CT would be to make the road legs more efficient through use of longer and/or heavier vehicles than allowed for pure road haulage – again care would be needed to ensure that MS road infrastructure could cope

with such vehicles, and that such derogations did not simply open the door to use by pure road haulage (as occurred in the UK with the brief 44-tonne derogation for CT road legs, which was quickly widened to include all road haulage on the grounds of an apparent inability to police the derogation).

Other suggestions included extending the scope to cover domestic (intra-MS) services, as well as CT services involving more than 2 modes of transport. That said, there was little apparent enthusiasm for including air transport (which would then undermine the overall sustainability argument in favour of CT).

In terms of the distance thresholds for CT, the majority seemed satisfied to retain the existing arrangements, albeit to replace the “crow flies” measure with actual road mileage. The definition of the “nearest *suitable* terminal” was also felt to be in need of improvement, to clarify what is actually meant by “suitable”.

Documentation requirements associated with the CT Directive were also considered to be in need of simplification, towards a single document in an electronic format.

Cabotage liberalisation was also considered to be in need of improvement, to prevent the provisions being used by unscrupulous road hauliers to circumvent wider regulations on cabotage.

The questions on data gathering for CT raised an interesting contrast of opinions. On the one hand, almost three-quarters of the public consultation respondents believed that better data on the CT market was needed. More than half of the respondents already gathered such data, the majority of these by electronic means. Yet when asked if they would be willing or able to gather (and report) such data, between two-thirds and three-quarters said they were unable or unwilling to, as opposed to only a quarter willing or already able to.

Despite these contradictions, the feedback from the workshop and public consultation still achieved a strong view in favour of using and promoting CT, with a wide range of positive suggestions on how to achieve greater use of CT, within and outside of the CT Directive itself.

Section 8. Conclusions and recommendations

8.1 Conclusions

EU transport policy sees the CT sector playing a critical role in managing growth in trade and demand for freight transport, whilst helping de-carbonise the transport sector through greater use of rail and water transport.

This report has noted the comparison between the current level of CT rail services in the EU against North America, where across a similar-sized network and population, CT rail services carry 67% more traffic than in Europe.[165] Some of the difference can no doubt be explained by the respective population clustering and overland lengths of haul, but it remains the case that the infrastructure and services operated in North America have much greater levels of capability than in the EU. This particularly applies to CT services which benefit from the extraordinarily cost-efficient operation of double-stack container trains.

To achieve EU transport policy objectives in the medium to long term, let alone exceed them, similar step-changes will be required in the overall capabilities of the CT sector across all modes. The CT Directive forms an important, if somewhat fragmented and outdated, component of sustaining and developing these capabilities. With over 20 years having passed since being issued, our expert opinion is that the CT Directive is in need of updating, for the following main reasons:

- To reiterate the principles of EU support for CT and, as far as possible, ensure that all MS better adhere to these principles in the transposition and implementation of the Articles within the CT Directive;
- To ensure the CT Directive is aligned as far as possible with changes in wider EU and MS policies since 1993, in areas such as road vehicle cabotage, weights, dimensions and fiscal instruments (e.g. taxes, licences etc.);
- To improve the clarity of the text and hence reduce scope for misinterpretation;
- To reflect the consensus view of stakeholders where appropriate in setting of key criteria within the Articles (e.g. definition of CT and the threshold, measure and calculation of pre- / end haulage distance by road from CT interchanges).

From the work undertaken on this study, our recommendations focus on potential improvements in the areas relating to the provisions of the CT Directive, gathering of CT statistical data and CT support programmes.

8.2 Assessment of the need for revision of CT Directive

This section firstly provides an ex-post assessment of the impacts of the provisions of the CT Directive, with respect to five key criteria:

- Relevance: Is the measure still relevant?
- Effectiveness: Has the measure delivered?

[165] See section 2.5.1

- Efficiency: What is the ratio between the costs and benefits of the measure?
- Coherence: Is the measure coherent with other EU policy measures?
- Added value: Does the measure provide an added value to EU policy supporting the CT?

Based on the findings of this exercise, this section then puts forward suggestions as to whether, how and to what extent the CT Directive should be amended or revised. Both the evaluation and the recommendations take into account the feedback received from the stakeholder workshop, stakeholders' position papers and the public consultation. It further takes into consideration the 1998 proposal for a CT Directive amendment and the contractors' expert assessments.

8.2.1 Article 1 – definitions and criteria

> For the purposes of this Directive, 'combined transport' means the transport of goods between MS where the lorry, trailer, semi-trailer, with or without tractor unit, swap body or container of 20 feet or more uses the road on the initial or final leg of the journey and, on the other leg, rail or inland waterway or maritime services where this section exceeds 100km as the crow flies and make the initial or final road transport leg of the journey;
>
> - between the point where the goods are loaded and the nearest suitable rail loading station for the initial leg, and between the nearest suitable rail unloading station and the point where the goods are unloaded for the final leg, or;
> - within a radius not exceeding 150km as the crow flies from the inland waterway port or sea port of loading or unloading.

Geographical scope of CT definition

The scope of the definition of CT in the existing CT Directive is limited to "the transport of goods between MS". The study shows that many MS that have implemented measures to support CT operations, have extended the geographical scope to any inland and cross-border movement of CT load units. This approach corresponds to the common understanding among actors in the CT industry. Further, participants at the stakeholder workshop and a majority of stakeholders participating in the public consultation process emphasized that the scope of the Directive should not be constrained to intra-EU operations. Therefore, it is recommended that the current definition is amended to "transport of goods **within and** between MS **and between MS and third countries**". This is also to ensure that Intra-MS and international CT operations are unequivocally enshrined within the scope of the CT Directive. However, it would be necessary to specify that the provisions of a CT Directive can only apply to the part of the CT operations, particularly the road legs, carried out on EU territory.

CT as a distinguished logistics concept

The existing CT Directive stipulates that combined transport is essentially about the transport of defined load units in a logistics chain involving two modes of transport, with the entire load unit transferred between transport modes at interchanges as required during the journey. One of the major benefits of the CT Directive was to distinguish this type of logistics concept from other "multimodal" transport chains involving several

modes of transport but where the very goods are transhipped between modes, eg grain or construction material in bulk from an inland waterway vessel to a lorry. We agree on the opinion of the huge majority of stakeholders that this distinction should be retained in case of a revision of the Directive.

Many stakeholders attending the June workshop and/or participating in the public consultation exercise, in addition, call for taking into account CT operations including the combinations of three or more modes in any future definition of CT. They suggest that a broadening of the definition would provide greater flexibility, allowing customers to decide how best to make use of the various combination of modes for a given operation. It is recommended to consider this request if the Directive were revised in future.

A transport policy that is designed to stimulate more energy-efficient and environmental-friendly modes of transport and facilitate the modal shift from road to alternative modes should be keen to constrain the road sections of a door-to-door transport. The definition of CT in the current Directive is exactly based on this idea. The rail, inland waterway or sea modes are used for the majority of the journey, with use of road haulage limited to a relatively short distance.. The majority of stakeholders agree with this opinion. It is therefore recommended to generally retain this basic concept of CT.[166]

Finally, it should be considered to replace the term “combined transport” by “intermodal transport”. It would provide more clarity for the industry that applies “combined transport” and “intermodal transport” synonymously and create more consistency with other EU legislation and other non-binding, non-legislative official documents.

CT load units

The restriction of the CT Directive to load units of 20’ (6m) length or more could hinder the opportunity to introduce smaller CT load units. A number of attempts have been made over the last 30 years to use smaller units for smaller shipments and/or urban deliveries (see Figure 16). Although past initiatives overwhelmingly failed and the smaller units did not become market-effective in the EU, such units could become increasingly important in future. They could extend the scope of CT into urban areas, reflecting increased emphasis by retailers on smaller, “local” store formats.

The stakeholder event and public consultation held in connection with this study also generated debate about what length (and type) of load unit should fall within the scope of the CT Directive. If the 20’ threshold were completely removed, actors might have more flexibility in terms of load unit types to serve specific markets as in other countries (e.g. 10’ length containers widely used in Japanese CT services), whilst still falling within the CT definition in order to benefit from incentives. On the downside, this move could reduce the opportunity to deploy standardised CT load units. ISO, CEN and UIC standards generally only refer to load units of 20’ length or more[167]. Standardisation is a main lever to create economies of scale and thus reduce the cost per CT unit shipped.

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[166] The issue of the length of road legs is discussed further below.

[167] Note ISO 668 - Series 1 freight containers: Classification, dimensions and ratings includes shorter container lengths of 10’ (Type 1D), 6½’ (Type 1E) and 5’ (Type 1F)

Costs are supposed to remain critical for ensuring road-competitive CT services. Therefore we recommend the existing length limit should be retained within the CT Directive. This would not hinder individual MS to permit smaller units falling under the CT definition where they expect these would create modal shift benefits.

Figure 16: Smaller CT load units in UK

Photo obtained from website

Initial or final road leg

Transposition of the CT Directive to MS level has not always carried across the point that this phrase includes CT operations with both an initial **and** final road haul and only a single road leg for pre- **or** on-carriage. The wording is recommended to be clarified, for example, by stipulating that "a CT operation shall include an initial and/or final road leg".

CT sectors, 100km threshold and road distance limitations

The 100km distance threshold for the non-road leg of CT operations and the distance specifications for the extent of the road legs relate to the modal shift objective of the existing Directive. The movement of load units shall only benefit from specifically targeted incentives like tax reductions or cabotage exemption when the ratio between the non-road and the road leg is "reasonable". Rail, inland waterway and sea shall be used for the majority of the total journey and road haulage limited to distances as short as possible.

CT operations over rail and inland waterway overwhelmingly fulfil these requirements. The study shows that the average non-road transport distances in these sectors are clearly above the **100km threshold** (612km in CT rail/road; 217km in CT inland waterway/road). Too, the distances covered in pre- and/or on-carriage by road typically are in a range up to 50km for CT over inland waterways and up to 100 km for CT by rail.

Despite that, a range of waterborne and rail CT services operate over significantly shorter distances than this, e.g. the Malcolm Group rail service moving containers from the Port of Grangemouth to Glasgow over 46km, or barge services feedering containers between the ports of Antwerp or Rotterdam and terminals in the immediate hinterland. Those operations, however, contribute to decongest the road networks in sea ports and in the hinterland and reduce environmental burdens in agglomerations.

It therefore seems inappropriate not to acknowledge this fact and exclude those operations from CT-oriented incentives. This is even more so as the road haulages are

over very short distances and thus the total CT journey ensures a reasonable ratio between the road and non-road legs. We also expect that the share of rail- and water-borne CT operations below 100 km will remain very small due their specific economics. The handling costs have a comparatively high share of the costs of the total journey. In spite of economies of scale on the non-road leg the CT operation can match the costs of a single road transport only under exceptional conditions. Thus there is a strong argument to withdraw the 100km threshold at least for CT over inland waterways and rail.

The situation in the CT short sea/road sector differs considerably from the other two sectors. Large volumes are moved on services below 100km distance, e.g. channel crossings or Baltic Sea ferry lines. The removal of the threshold would reduce the share of the non-road leg of the total CT journey. On the other hand, the existing provisions of the Directive already allow an "inverse" ratio with respect to the modal shift objective. The road legs can amount to 300km (2x150km) and thus be three times larger than the short-sea distance. The removal of the minimum threshold therefore would not significantly change this situation.

The study further shows that some MS have chosen to adapt or exclude this threshold. Too, MS generally are not prepared or not willing to monitor if CT operations match the 100km threshold. A legal provision, whose compliance cannot be verified, appears to be obsolete.

Despite differences in the logistics between the three CT sectors it is recommended to establish a common rule. Against the background of the above findings we propose to withdraw the 100km threshold for all CT sectors. In order to ensure a "reasonable" ratio between the non-road and the road legs consideration shall be given to limit the road legs accordingly. This issue is discussed below.

The existing Directive stipulates that the **road leg** of CT rail/road journeys shall be constrained to the nearest suitable rail station and CT operations by inland waterway and sea to 150km as the crow flies. At first sight it appears reasonable to dispose of this inconsistency. It would imply that either the 150km limit, the "nearest suitable" provision or another criterion would be applied for all sectors.

A new criterion, which has been proposed previously and also was favoured by several stakeholders during the consultation exercise, is to limit the road leg in proportion to the non-road leg. Such a criterion principally allows for determining a "just" ratio between road and non-road legs to meet the modal shift target of the EU transport policy. On the downside, it would, however, complicate processes and put additional bureaucratic efforts on control authorities, users and suppliers of CT services. Users were forced to establish an individual paper - or electronic - document, which would indicate the distances for each section of the entire journey, for every single CT operation. CT service suppliers likely were required to check and validating these details although they generally will not be in a position to verify the truth of the road leg as concerns the source or destination of a CT shipment. Finally, the control procedures would become lengthy as authorities were requested to check indications and re-calculate transport distances and ratios. Therefore we do not recommend any criterion that is based on a percentage of the non-road leg of the entire CT journey.

We also suggest to refusing proposals that are calling for extending the general distance limit for the road leg of CT operations to 200km or 300km. Such a provision is contradictory to the environmental and modal shift objectives of the EU transport policy. In particular, it would threaten the goal of the 2010 White Paper on Transport aiming to shift 30% of freight traffic over 300km from road to rail and waterborne modes of transport by 2030, and 50% by 2050.

There is a strong argument in favour of limiting the road leg in CT rail/road operations to an exact kilometre distance and align it with the 150km cap for CT by inland waterway and sea. Such a provision would define the geographic scope for CT operations performed under support schemes and facilitate the monitoring by control authorities. The current specification, on the other hand, provides greater flexibility both for policy-makers and users of CT rail/road services. A 150km limit for the road leg could be too "generous" in countries or regions with a dense network of CT terminals and service offerings, while it might be too narrow in emerging regions with only limited supply of CT services. It is therefore suggested to retain the existing provision.

The study, however, has also highlighted the wide range of interpretations placed on this criterion by policy-makers and those who would seek to challenge it. Against this background the examples used by countries such as Austria, Croatia or Germany deliver a pragmatic basis to enhance the definition of "nearest suitable" provided that the choice is not limited to stations within the MS. We would recommend that consideration is given to adopting this approach and amend it with criteria such as the availability of handling facilities, the availability and frequency of respective CT services and logistics aspects such as the minimisation of empty running.

Today the huge majority of the total EU volume of CT inland waterway/road operations accounts for the traffic between inland ports along the Rhine valley and the ZARA ports. Forecasts anticipate a strengthening of this market position due to the economic advantages of deploying high-capacity barges. Not only that many centres of production and population are located at or close to the river Rhine the 150km distance limit also allows to reach several other economic centres. The conditions are similar along other inland waterways like the rivers Seine, Schelde or Elbe used for CT services although the barge capacities permitted here are considerably smaller than on the river Rhine.

According to the assessment of market actors, the 150km limit for the road sections of CT operations over inland waterways has proved itself. With respect to the Rhine valley it may even be considered too large as it impacts on the competition with CT rail/road operations in regions far off the Rhine. Here the providers of CT inland waterway/road services can offer unbeatable rates due to the extraordinary economies of scale ensured by high-capacity container barges. A reduction of the road distance limit to, for example, 100km could be justified. The economic and competitive situation for CT inland waterway/road services, however, is much more demanding for almost all other navigable waterways in the EU. If the road distance limit were decreased those services might be constrained as concerns their geographic market coverage.

Another option is to adopt the "nearest suitable" criterion for CT inland waterway/road services and thus ensure a harmonization of legal provisions among CT sectors as well. If clients were allowed to use the nearest suitable inland port terminal it would

extraordinarily expand the permitted catchment area for this sector. It could qualify to carry a CT load unit over hundreds of kilometres. For instance, an export container from Wien that shall be loaded on a container vessel in Rotterdam could be carried by road to Karlsruhe or Mannheim. The very idea of CT operations as a means for ensuring a shift of traffic off the road would be clearly undermined.

The “nearly suitable” criterion would only be suitable for ensuring the modal shift objective if it were applicable across the three CT sectors. Then a CT user who seeks to benefit from a CT-related incentive would have to compare and assess the available options of CT services under this criterion. Yet this raises several critical issues:

- Is information on all service offerings available and transparent?
- Must the user evaluate any potential service of every CT sector?
- How can trade-offs between several criteria and across CT sectors be resolved?
- How can authorities control if the road trip is permitted?

We believe that the relationship between time and cost efforts and environmental benefits for the society is not reasonable and therefore do not recommend to transfer the “nearest suitable” criterion from CT rail/road services to the other CT sectors.

Based on these results it is proposed to retain the existing 150km limitation for the road leg in CT inland waterway/road operations. It seems to foster this sector and create the least negative impacts of all options analysed. We, however, suggest to replace the specification “as the crow flies” by “the road distance covered”. This figure is much easier to be controlled by authorities.

The main objective of the CT Directive is to foster the shift of road traffic to non-road modes of transport and thus contribute to enhancing the environmental balance sheet of freight transport. Unlike CT by rail and inland waterway, CT short sea/road operations, however, do not necessarily imply a modal shift off the road. This is the case when the freight operator does not provide for an alternative route by road and is forced to use a short-sea vessel, for example, for shipments between Ireland and continental MS.

If the CT Directive were to be revised it would need to constrain the CT definition to those CT short sea/road operations for which a parallel routing by road is available. This qualification, however, might not be sufficient. For there are road and short-sea alternatives on several intra-EU trade lanes, for example, between Finland and Central European MS, where the road routing is not considered reasonable in terms of cost and/or transit time. Yet we must be cautious about introducing criteria such as “the routing by road must be reasonable” for distinguishing CT short sea/road from non-CT operations. The distinction is blurred and would require authorities to determine on a case-by-case basis which transport flow would fall under this definition.

Neither the recent stakeholder and public consultations nor previous investigations have delivered convincing criteria for clearly defining CT short sea/road operations in the context of the modal shift objective of the CT Directive. It is therefore suggested to further reflect on appropriate criteria, which would reward “real” modal- shift short

sea/road operations[168]; . Alternatively, the existing wording and the 150km limit for the road leg could be maintained.

The above findings are summarized as follows:

- The 100km distance threshold for the non-road leg shall be withdrawn for all CT sectors;
- Like today, the road leg in CT rail/road operations shall be limited to routes between the loading/unloading location and the nearest suitable rail station. The term "nearest suitable", however, shall be specified by technical, economic and logistics criteria;
- The road leg in CT inland waterway/road operations shall be limited to a distance of 150km "as covered by road;
- Search for appropriate criteria for CT short sea/road operations..

8.2.2 Article 2 - liberalisation of CT operations

Each of the MS shall, by 1 July 1993, liberalize the combined transport operations referred to in Article 1 from all quota systems and systems of authorisation.

Ex-post assessment of Article 2	
Relevance	Article 2 is not relevant anymore for CT in the EU as goods transport between MS has been fully liberalised. Several MS, however, have extended the scope of this provision to CT operations with third countries and concluded respective agreements. Therefore, Article 2 may have a kind of "trigger function" beyond its proper objective.
Effectiveness	The liberalisation of intra-EU CT operations was only effective in MS that transposed this provision into national legislation within given deadline and in the period prior to the full liberalisation of goods transport in the EU.
Efficiency	The benefits of this provision were limited for a short period of time (see above). The measure did not incur substantial additional cost
Coherence	The provision is coherent with EU policy aiming at establishing an Internal Market and enabling an unrestricted access to the market of goods transport.
Added value	Not anymore.

Based on the findings of the above assessment exercise it is recommended to remove Article 2 or reword it by cross-referencing with the relevant EU legal act(s) on the liberalisation of EU goods transport.

[168] Actually, a few MS exclude CT short sea/road operations from benefiting from CT incentives explicitly or implicitly, e.g. by not providing for the necessary administrative framework.

8.2.3 Article 3 – documentation

In the case of combined transport for hire or reward, a transport document which fulfils at least the requirements laid down in Article 6 of Council Regulation No 11 of 27 June 1960 concerning the abolition of discrimination in transport rates and conditions, in implementation of Article 79 (3) of the Treaty establishing the European Economic Community, shall also specify the rail loading and unloading stations relating to the rail leg, or the inland waterway loading and unloading ports relating to the inland waterway leg, or the maritime loading and unloading ports relating to the maritime section of the journey. These details shall be recorded before the transport operation is carried out and shall be confirmed by means of a stamp affixed by the rail or port authorities in the railway stations or inland waterway or sea ports concerned when that part of the journey carried out by rail or inland waterway or by sea has been completed.

Ex-post assessment of Article 3	
Relevance	Evidence is required in pre- and on-carriage to confirm that the road leg is performed in the course of a CT operation if the latter is carried out under exceptional conditions (e.g. tax reduction, exemption from cabotage regimes). Monitoring or control authorities cannot judge without any proof whether the road haulage is performed in the course of CT operations and under preferential conditions. Therefore Article 3 principally was and is relevant, though it should be modernised in terms of the requirements on documentation.
Effectiveness	The provisions are basically suitable to enable authorities to determine how/if road haulage is carried out in the course of CT operations. The requested documentary proof, however, is not standardised among MS, CT sectors and CT service providers. Authorities may therefore be confronted with various types and formats of documents (e.g. waybill, transport order, company-related consignment note or collection statement). This creates confusion and potential issues for Intra-EU and International CT services where the requirements at either end of the rail or waterway movement may differ between MS.
Efficiency	The costs for establishing the documentary evidence are small and reasonable related to the purpose of this measure. Yet efficiency could be increased by harmonising the documentary proof and enabling the application of state-of-the-art technologies (see below).
Coherence	The provision is coherent with other EU legislation, for example, Regulation (EC) 1072/2009 on cabotage transport, where evidence is required in case of special haulage conditions.
Added value	No added value.

Documentary proof is still considered necessary when CT operations are carried out under preferential conditions. Yet it is recommended to modify Article 3 in order to achieve a common basis for the determination of documentation (paper based or, ideally,

electronic), taking account of wider EC initiatives such as "e-freight".[169] The evidence should be smart and only refer to information essential for enabling checks and controls. The provision on affixing a stamp is not state-of-the-art and should be removed.

With respect to the liberalisation of goods transport in the EU, which has also aligned the conditions for own-account transport and transport for hire and reward, it is further recommended to merge Articles 3 and 7 into a single provision. In line with the majority opinion of the public consultation exercise, it should be examined whether a single transport document for all CT operations could be established.

8.2.4 Article 4 - cabotage

All hauliers established in a MS who meet the conditions of access to the occupation and access to the market for transport of goods between MS shall have the right to carry out, in the context of a combined transport operation between MS, initial and/or final road haulage legs which form an integral part of the combined transport operation and which may or may not include the crossing of a frontier.

Ex-post assessment of Article 4	
Relevance	CT was a precursor of the liberalisation of road cabotage. Article 4 allowed MS to fully exempt CT operations from the cabotage ban. Most MS have transposed Article 4 in this respect. The liberalisation of cabotage for pure road haulage came later. Regulation (EC) 1072/2009 as of 14 May 2010, replacing Regulations (EEC) No 881/92 and (EEC) No 3118/93 as well as Directive 2006/94/EC, limits the number of cabotage journeys. Only a minority of MS apply the respective provisions. Article 4 is still relevant to support the national legislation of the first group of MS and strengthen CT operations.
Effectiveness	According to the findings of this study and stakeholders of the CT industry, the provisions under Article 4 have been very effective in promoting CT operations. They have stimulated the cost and quality competition for pre- and on-carriage road legs. Furthermore, they enable road hauliers to deploy their own lorries in initial and final road legs in other MS than where they are established and thus facilitate the control of these operations. This has also contributed to enhance the economics of CT operations.
Efficiency	The benefits of the cabotage liberalisation have been considerable (see above). On the other hand, several stakeholders suggest that this measure creates a distortion of competition and "social dumping". The study has not identified any comprehensive evidence that would confirm this argument. In contrast, national authorities in MS such as Germany could not identify a significant negative impact of cabotage on inland road transport markets.[170] The study therefore assumes that

[169] http://ec.europa.eu/smart-regulation/impact/planned_ia/docs/2013_move_001_e_freight.pdf

[170] See more details under section 3.1.1

	the costs of this measure are small and the measure has been very efficient.
Coherence	The provision is coherent with Regulation (EC) 1072/2009.
Added value	Article 4 extends the scope of the liberalisation of cabotage compared to Regulation (EC) 1072/2009.

Based on the results of the ex-post assessment it is recommended to retain Article 4. The wording, however, should be enhanced to clarify that MS are allowed to fully liberalise CT operations and thus extend the scope of Regulation (EC) 1072/2009.

8.2.5 Article 5 – reporting and statistics

1. Every two years and in the first instance by 1 July 1995 the Commission shall draw up a report to the Council on:

- the economic development of combined transport;- the application of Community law in this area;
- the definition, where necessary, of further measures to promote combined transport operations.

2. When drawing up the report referred to in paragraph 1, the Commission shall be assisted by representatives of the MS to collect the information necessary for this purpose.

The report shall analyze the information and statistics relating in particular to:

- transport links used in combined transport operation;
- the number of vehicles (a road train counting as a single vehicle), swap bodies and containers transported over the various transport links;
- transported tonnages;
- services carried out, in terms of tonnes-kilometres.

The report shall, where appropriate, propose solutions for the subsequent improvement of such information and the situation in the combined transport sector.

Ex-post assessment of Article 5	
Relevance	A regular reporting on CT operations is required to enable the EU, MS and CT actors on the demand and supply side to assess the current situation, the progress (or setback) and the outlook on the CT sectors and also to identify potential needs for policy measures. This is particularly needed with respect to the substantial economic geo-political changes on a global level. There is also a complete lack of data which could be used to provide Key Performance Indicators (KPI) which might be of use to CT users, operators or policy-analysts and policy-makers. Against this background Article 5 is regarded relevant but needs to be amended accordingly.
Effectiveness	The existing provisions have not been effective. The EC has not complied with the requirement to deliver a report on a bi-annual

	basis, not least because MS have not provided sufficient information and data. Data gathered from individual MS to date indicates that only a few come even close to providing a suitably comprehensive means of gathering information from CT in most of its various components.
Efficiency	n/a
Coherence	The measure is coherent with other EU activities for market observation.
Added value	This report is central to EU transport policy making. There is no other activity which would currently fulfil this task.

This study has highlighted the challenges associated with obtaining good-quality data on the CT sector, against a background of rapid change and liberalisation. The public consultation also shows that, whilst stakeholders agree on the need for better data, only a few are prepared to deliver data on a voluntary basis. These challenges occur at the same time as the cost and functionality of ICT systems are improving dramatically, suggesting an opportunity to deploy existing / off-the-shelf ICT infrastructure to achieve a much better map of CT activity across the EU and the interfaces with global trade lanes.

It is recommended to retain the principles of Article 5. The period for comprehensive reports, however, could be extended to five years to better acknowledge and assess structural changes in the CT industry and its environment. Additionally, an annual report should be prepared by the Commission that presents the development of the transport volume of all CT sectors. It must be based on an improved and compulsory data collection methodology. Recommendations are given under section 9.4.

8.2.6 Article 6 – taxes for road vehicles engaged in CT operations

1. MS shall take the measures necessary to ensure that the taxes listed in paragraph 3 which are applicable to road vehicles (lorries, tractors, trailers or semi-trailers) when routed in combined transport are reduced or reimbursed either by a standard amount, or in proportion to the journeys that such vehicles undertake by rail, within limits and in accordance with conditions and rules they fix after consultation with the Commission.

The reductions of reimbursements referred to in the first paragraph shall be granted by the State in which the vehicles are registered, on the basis of the rail journeys effected within that State.

MS may, however, grant these reductions or reimbursements on the basis of the rail journeys which take place partially or wholly outside the MS in which the vehicles are registered.

2. Without prejudice to the provisions resulting from a possible reorganization of national taxation systems for commercial vehicles at Community level, vehicles used exclusively for road haulage in feeder or final delivery carriage by combined transport may be exempted, if they are taxed separately, from the taxes listed in paragraph 3.

3 [list of taxes in place at the time]

Ex-post assessment of Article 6

Relevance	Both measures are still relevant as vehicle taxes or similar charges are applied in every MS.
Effectiveness	In the 1990s annual vehicle taxes were rather high in some MS such as Germany (> €5,000 per lorry). Tax reductions or exemption therefore had a considerable positive impact on CT operations by reducing the total cost of CT chains and thus enhancing their competitiveness. Meanwhile the level of vehicle taxes has decreased for various reasons (introduction of road tolls, increase of excise duties). Now the cost benefit of vehicle tax reduction schemes is small compared to total cost of CT operations. Depending on MS tax level it is estimated to be well below €1 per load unit moved to/from a terminal.[171] The measures do not significantly stimulate CT operations any more.
Efficiency	The measures are cost-efficient by using a plain standardised application form.
Coherence	The measures acknowledge the external benefits of CT operations compared to pure road haulage and – slightly – contribute to create a level playing field between modes of transport. This is in line with the objectives of the latest White Paper on Transport
Added value	There is no other comparable measure.

The study highlights that several MS have failed to implement the provisions of Article 6.1.[172] It also shows that the current level of vehicle taxes in MS is not particularly high. Reimbursement schemes do not therefore substantially impact on the competitive situation of CT rail/road operations. They do, however, contribute (albeit slightly) to acknowledge the environmental benefit of this sector. It is therefore recommended to retain this provision and encourage MS to transpose it into national legislation.

The opportunity offered by Article 6.2 to exempt eligible road vehicles engaged in CT operations from taxes, which might otherwise be applied, is only used by three MS. Consideration should be given to making this provision compulsory.

Article 6 contains the only financial incentives of the CT Directive for CT operations. As their impact is relatively small, the study recommends other measures in section 8.4.

8.2.7 Article 7 – exemption from Article 3 documentation

> Where a trailer or semi-trailer belonging to an undertaking engaged in own-account transport is hauled on a final section by a tractor belonging to an undertaking engaged in transport for hire or reward, the transport operation so effected shall be exempt from presentation of the document provided for in Article 3; however, another document shall be provided giving evidence of the journey covered or to be covered by rail, by inland waterway or by sea.

[171] See calculation under section 5.4.

[172] See section 5.2.2

Ex-post assessment of Article 7	
Relevance	Article 7 governs the documentation requirements for own-account transport in the framework of CT operations. It is the equivalent to Article 3, which relates to the transport for hire and reward. As documentary evidence for the latter type of transport is considered necessary furthermore (see under 9.2.3) it will also be required for pre- and on-carriage operations in own-account transport.
Effectiveness	The current provision is vague and has left room for interpretation by MS leading to different types and formats of documents (as for the evidence required for hire and reward transport operations). This might result in confusion and disagreement with control authorities if the road leg is across borders. Despite this, the study has not identified major implementation barriers except for the typical remarks about "red tape" (additional cost, delays). This may also be explained by the small volume of own-account transport in CT operations and the small scale of cross-border pre- and on-carriages.
Efficiency	Stakeholders complain of the additional costs for establishing documentary proof. According to the findings of the study, however, various standard documents are used for this purpose (waybills, consignment notes etc.). Therefore the extra costs, if any, are small and considered reasonable against the purpose of this measure. Yet efficiency could be increased by harmonising the documentary proof.
Coherence	The provision is coherent with other EU legislation, for example, Regulation (EC) 1072/2009 on cabotage transport, where evidence is required in case of special haulage conditions.
Added value	No added value.

The recommendations for Article 7 are analogous to those for Article 3. Documentary proof is still considered relevant. With respect to the existing regulatory framework for own-account and hire and reward transport, however, consideration is recommended to merge Articles 3 and 7 in a single provision. Further, the requested evidence should be more clearly defined and preferably a single transport document for all CT operations be established.

8.2.8 Article 8 – exemption from compulsory tariff regulations

Initial or final road haulage legs forming part of combined transport operations shall be exempted from compulsory tariff regulations.

Ex-post assessment of Article 8	
Relevance	Article 8 principally is no longer relevant, as compulsory tariff regulations have been removed for entire goods transport in the EU.

Effectiveness	Article 8 was not particularly effective as tariff regulations for goods transport by road were already reduced when the CT Directive entered into force and abrogated completely shortly afterwards.
Efficiency	The benefits of this provision were limited, if at all, to a short period of time. The measure did not incur additional costs.
Coherence	The provision is coherent with EU policy aiming at establishing an Internal Market and enabling an unrestricted access to the market of goods transport.
Added value	Not anymore.

Whilst Article 8 does not appear to have created any specific benefits for CT operators, it nevertheless establishes an important principle. Therefore it would appear sensible for this either to be retained, assuming that this has not since been superseded by the provisions of other legal acts, or to cross-reference with the relevant legal act(s) on the liberalisation of EU goods transport.

8.2.9 Article 9 – own account operations

Where, as part of a combined transport operation, the dispatching undertaking carries out the initial road haulage leg for its own account within the meaning of the First Council Directive of 23 July 1962 on the establishment of common rules for certain types of carriage of goods by road (7), the undertaking which is to receive the goods transported may, notwithstanding the definition given in the said Directive, carry out for its own account the final road haulage leg to transport the goods to their destination using a tractor owned by it, bought by it on deferred terms or hired by it pursuant to Council Directive 84/647/EEC of 19 December 1984 on the use of vehicles hired without drivers for the carriage of goods by road (8), and driven by its employees, even though the trailer or semi-trailer is registered or hired by the undertaking which dispatched the goods.

The initial road haulage leg in a combined transport operation which the dispatching undertaking carries out using a tractor owned by it, bought by it on deferred terms or hired by it pursuant to Directive 86/647/EEC and which is driven by its employees, whereas the trailer or semi-trailer is registered or hired by the undertaking which is to receive the goods transported, shall also, notwithstanding the Directive of 23 July 1962, be considered an own-account carriage operation if the final road haulage leg is carried out for its own account in accordance with the latter Directive by the recipient undertaking.

Ex-post assessment of Article 9	
Relevance	The provisions of Article 9 were reasonable when own-account transport operations were constrained. Due to the liberalisation of this type of transport and the alignment to the regulations governing the transport for hire and reward, Article 9 is unlikely to be considered relevant anymore.
Effectiveness	Article 9 was intended to facilitate the co-operation of own-account operators and thus enable cost-competitive CT operations. According to the findings of this study, however, own-account operators use virtually no CT inland waterway/road services and CT rail/road services marginally. But this results less from regulatory constraints

	than from the characteristics of this type of transport (e.g. mostly short- and medium-length transport distances; often imbalanced, one-way traffic). Due to a lack of information, their involvement in CT short sea/road cannot be assessed. Altogether it is assumed that Article 9 has not significantly stimulated the use of CT services by own-account operators.
Efficiency	The benefits of Article 9 for CT operations were likely to be small. The measure also has not entailed any apparent costs.
Coherence	The measure was intended to foster use of environmentally-friendly modes of transport and thus is coherent with EU transport policy.
Added value	The measure helped to overcome authorisation constraints imposed on own-account transport operators. This added value is removed due to the liberalisation of road freight transport.

The study could not identify a positive impact of or a need for the provisions under Article 9. It is therefore recommended to review Article 9 with respect to Directive 2006/1/EC[173], replacing Directive 84/647/EEC, and either remove or amend it accordingly.

8.3 Options for amended / new CT Directive

8.3.1 Introduction

The study recommendations have so far focussed on the existing CT Directive, but it is apparent that many of the proposed amendments and/or enhancements could instead be incorporated into a new Directive to replace 92/106/EEC.

This section of our recommendations seeks to review how (and by how much) the implementation of policy options connected to the possible revision of the CT Directive might impact on modal split, and other specific environmental, economic and social aspects.

The following statements describe the problem to be tackled by the policy options:

- The environmental impact of transport has to be reduced, in order to match the goal of reducing CO_2 emissions by 20% until 2030 compared to 2008 levels;
- The shift of freight transport from road to CT operations can contribute to this goal. The White Paper sets the specific goal of reducing 30% of road freight over 300 km by 2030 and more than 50% by 2050;
- CT has yet to exploit its full potential, in part due to competitive disadvantages compared to road transport, for regulatory and economic reasons. The competitive disadvantages of CT are enhanced by a number of subsidiary factors, including:
    - Regulatory and market failures;

[173] Directive 2006/1/EC of the European Parliament and of the Council of 18 January 2006 on the use of vehicles hired without drivers for the carriage of goods by road

- Infrastructure bottlenecks;
- Lacks of interoperability in international rail and CT;
- Non-competitive costs, and a need for investment in assets specific to CT;
- Perception of (or actual) lower levels of service quality.

- General and specific bottlenecks for the evolution of CT, reported in section 3.4.

The CT Directive was issued in 1992 with the goal of improving the competitive situation of CT, ie for increasing the CT share in modal split. This section considers potential modifications (grouped into policy options) to improve, modernize and clarify EU law aimed at promoting and facilitating the development of CT across the EU.

8.3.2 Baseline scenario

In parallel with the problem definition, the EC's impact assessment guidelines[174] require the definition of the baseline scenario. According to the guidelines, we define the baseline scenario as the current situation as it would evolve without additional public intervention, i.e. the "no policy change" scenario.

The "no policy change" scenario would mean that no change in the CT Directive would be issued, with no implementation of related policies. In other words, the baseline scenario represents the continuation of the CT Directive without any new or additional EU intervention.

The baseline scenario provides the basis for assessing the impact of the alternative policy options described below. Elements of the baseline scenario reflect the situation assessed for "Policy Option 0" as defined in the following sub-sections.

The baseline also includes actual traffic assessments made in Section 2 and forecasts made in Section 3, assuming that the latter integrates exogenous trends and market factors not related to any policy connected with the revision of the Directive.

The approval of the CT Directive, and the implementation of connected policies by MS, is aimed at increasing the competitiveness of CT in Europe. In addition to the ex-post assessment of the effectiveness of the CT Directive outlined above, Section 2 of the report describes the market share currently achieved by CT in terms of the share of traffic performed in CT operations (both road and non-road legs) on the total road freight traffic.

The analysis provides no direct indication of the current modal split in freight transport at EU-28 level. However, the impact assessment has to indicate the role that policy options may have on shifting freight from road to rail, inland waterway or sea via the increased use of CT, and the magnitude of the modal shift. Thus variables giving an indication of the current and foreseen modal split in freight transport in EU have to be included in the baseline scenario.

[174] http://ec.europa.eu/smart-regulation/impact/commission_guidelines/commission_guidelines_en.htm

The baseline scenario has to include figures on the current status of CT and related variables, and corresponding figures for the future scenario. Thus the time scale of the baseline scenario comprises:

- Current figures for 2011 and, where available, 2012: this is the most common year of updating the CT traffic figures used in the study;
- Scenario figures 2030: the proposed time horizon is the most common one used in traffic forecast studies, in line with most of the 2011 White Paper goals.

As concerns the geographical scope of baseline scenario, data is aggregated at EU-28 level, where a more detailed specification (eg per MS) is not available or is not in line with the approach followed in this study.

The baseline scenario is composed by the indicators in Table 93 below, which includes the source used in the present study.

Table 93 Baseline scenario - list of indicators and sources

Indicator	Meas. unit	Source (current data)	Source (2030 scenario)
Modal split of freight transport (road, rail, Inland waterways)	% of total tkm	Eurostat	Analysis based on Freightvision, iTREN 2030
Market volume of CT (rail-road, IWW-road)	Tkm and % of total tkm of road freight traffic	Section 2	Section 3
CO2 emissions due to freight transport	Tonne CO2	Eurostat	White Paper IA
Delay in transposition of the Directive in MS legislation	Average years	Section 8	not pertinent

Source: Gruppo CLAS analysis

As concerns the modal split of freight transport, the current Eurostat data is combined with the most recent forecasts available at EU level on freight traffic to 2030. Freightvision[175] and iTREN 2030[176] studies have been used to inform the analysis, as they seek to account for the effects of the recent global economic crisis on the future trends in freight traffic growth, needed for assessing the baseline scenario in 2030.

The market volume of CT has been assessed in Section 1 and Section 2. The combination of current traffic figures and forecasts (tonne-km) is used to determine the baseline scenario. Some assumptions arise in the calculations, reflecting the specific analyses made in this study:

- CT rail/road and CT inland waterway / road traffic have been estimated as a share of total road freight traffic, in terms of tone-km. However, the assessment of the CT market at 2030 is made in terms of tonnes and TEU. A conversion factor (as used in Section 2) has been used to assess traffic forecast at 2030;

[175] http://www.transport-research.info/web/projects/project_details.cfm?id=36661

[176] http://ec.europa.eu/research/transport/projects/items/__itren_2030__en.htm

- The average share of road leg on the total distance of CT rail / road distance (as used in Section 2) has been used to allow the assessment of market shares of both modes of rail-road CT on the respective total traffic per mode;
- The 2030 scenario of CT rail / road is assessed in three scenarios, which also have to be assumed in the baseline scenario;
- The average distance of CT inland waterway / road is assessed for the inland waterway leg only. It allows the assessment of market share of CT inland waterway / road on total and inland waterway traffic, in terms of tonnes and tonne-km;
- Data on the current market and 2030 scenario of CT sea / road are expressed in TEU only. The baseline scenario for CT sea / road can also only be expressed in TEU.

The current figures of CO_2 emissions due to transport are reported by Eurostat. Figures for 2030 are assessed in the 2011 White Paper as a result of various policy options. The baseline scenario of the present study assumes the 2030 CO_2 figures relate to the implementation of Policy Option 3 of the White Paper. This choice is made because Policy Option 3 places more emphasis on the implementation (and the related impact) of technological changes, "rapid deployment of new powertrains, by imposing very stringent CO_2 standards on new vehicles and by accompanying them with appropriate innovation policies putting in place the necessary framework conditions."

8.3.3 Policy options

This section defines the policy options which are evaluated in several impact dimensions and categories. Policy options (PO) are defined as packages of measures, each of which imply actions by the EC or MS for their implementation.

The following policy options have been selected and hereby described.

Policy Option 0 – Do nothing

PO-0 is defined as the policy option connected with no action by the EC for amending the CT Directive, and no further action by MS for further implementation of its provisions. MS carry on with policies already in place for the implementation of the CT Directive in their legislation, and with the CT support schemes currently under way.

"Do nothing" implies that no impact is foreseen on the selected indicators, which then follow the paths defined in the baseline scenario.

Policy Option 1 – Repealing the CT Directive

In PO-1 it is assumed that the CT Directive is repealed by the EU. MS are free to keep, withdraw or amend their national legislation connected to the CT Directive. It is assumed that MS would likely keep the current legislation, with some changes in the laws which would otherwise disadvantage or favour CT.

PO-1 represents the situation in which MS are free from legislative guidelines and enforcement from the EU, and free to implement policies which may favour the general road transport market, and/or issue mechanisms that, although in line with EU legislation on internal market, may favour local operators.

Examples of policies issued by MS after the repealing of the CT Directive might include:

- Interruption of tax exemption/reimbursement for vehicles deployed in CT operations, after the repealing of Article 6;
- Halting any harmonisation process for documentation proving CT operations for road vehicles;
- Halting any process to fulfill the provision in Article 5 to issue statistics on combined transport;
- Ending exemptions from cabotage rules for vehicles used in CT, in MS where practices against the liberalisation of cabotage still exist.

PO-1 may also be seen as the "retrograde" option to assess the negative impact on CT development derived by the absence of any EU policy on CT.

Policy Option 2 – Amendment of the CT Directive

PO-2 represents the decision which the EU may take to amend the CT Directive. Amendments are then transposed into MS legislation within 3 years.

PO-2 includes several measures which represent possible ways to amend the CT Directive, in line with suggestions and recommendations made in this study via the public consultation and stakeholder workshop. The list of measures proposed is of course not exhaustive in possible amendments which could be made, especially where deemed necessary to integrate external changes in the EU legislation not in force in 1992.

The following measures are proposed for PO2:

a) Enlarged scope for incentives beyond current Article 6: This measure comprises possible provisions to extend the scope of Article 6, which currently limits the range of CT support schemes provided by the CT Directive to tax reimbursement and exemption for vehicle used in CT. Possible drivers to amend Article 6 include:

  - Revision of Article 6 to encourage (or direct) MS to exempt eligible road vehicles engaged in CT operations from taxes which might otherwise be applied (e.g. vehicle licenses and/or road tolls), both for accompanied vehicles moved on CT road / rail services, and for vehicles engaged in CT feeder services to from rail stations, ports and inland waterway terminals;
  - Inclusion of financial support for CT operations and aids for terminal improvements, provided that they are compatible with state aid rules.

b) Less paper documentation for CT vehicles: The measure comprises amendments to Article 3 aimed at creating a common basis for determination of documentation (paper based or, ideally, electronic), taking account of wider EC initiatives such as "e-freight". The measure is aimed at harmonising the documentation requested to prove that a vehicle is involved in CT operations during the journey to/from terminals/ports. The goal is to facilitate business for CT operators, especially for road hauliers that are frequently called to terminals without any release of paper documents;

c) Harmonisation on the provision on the road leg length: The measure has to be split into the following sub-options, which represent the possible ways to harmonise the maximum road leg length among CT modalities:

- Road leg length is harmonised to 150 km;
- Road leg length is harmonised to 300 km;
- Road leg length is harmonised to the "nearest suitable terminal/port";

d) Removal of irrelevant or outdated provisions/articles: The measure comprises proposals of amendment to several Articles of the CT Directive which are considered outdated either because of market changes in the interim, or because some provisions have been superceded by other Directives. Proposals include:

- Removal of 100 km thresholds for non-road modes (Article 1);
- Removal of Article 2 on the implementation of the CT Directive by MS;
- Amendment of Article 4, since cabotage is now governed by Regulation (EC) 1072/2009 as of 14 May 2010, replacing Regulations (EEC) No 881/92 and (EEC) No 3118/93, as well as Directive 2006/94/EC;
- Removal of Article 7, which wording creates confusion with Article 3;
- Amendment of Article 8, taking into account that Directive 84/647/EEC was subsequently replaced in 2006 by Directive 2006/1/EC.

Policy Option 3 - Improved implementation and enforcement

In PO-3, the CT Directive remains the same and no further regulatory intervention by the EC is foreseen. However, PO-3 entails key roles both for the EC and MS. The EC takes the role of providing guidelines and recommendations to MS for improving the implementation of the CT Directive, and the implementation of targeted CT policy and measures, for example:

- Enforcement of the provision of statistics and monitoring foreseen in Article 5;
- Provision of guidelines, incentives and other soft measures to exploit the opportunities given by automatic monitoring devices, that have to be applied in a co-ordinated way throughout MS;
- Measures mentioned earlier to support CT, via the deployment of European CEF, where applicable;
- Other soft measures to raise awareness of opportunities given to operators by CT.

In parallel, MS develop further policies both for a better enforcement of the CT Directive provisions, and to support CT even out of the scope of Article 6 of the CT Directive. It is assumed that MS implement a package of measures such as:

- Improvement of policing processes, in agreement with terminals, to monitor the fulfillment of key provisions of the CT Directive (e.g. weight limits derogation and other exemptions applied on road legs of CT);

- Implementation of aids for terminal improvement and the start-up of new CT services;
- Measures mentioned earlier to support CT, via the deployment of national funds of European CEF, where applicable.

Table 94 below gives an overview of the policy options and measures described above.

Table 94 Overview of policy options and measures

ID	Policy option	Description	Measures	Sub-option
0	Do nothing			
1	Repealing the Directive	The Directive is repealed whilst MS are free to keep, withdraw or amend their national legislation	- MS keep the current legislation - some MS change their laws, disadvantaging CT or favouring local CT	
2	Amendment of the Directive	EU will amend the Directive	a) Enlarged scope for incentives beyond current Article 6	
			b) Less paper documentation for CT vehicles	
			c) Harmonisation on the provision on the road leg length	Measure c) is split into the following sub-options: - road leg length is harmonised to 150 km - road leg length is harmonised to 300 km - road leg length is harmonised to the "closest suitable terminal/port"
			d) Drop of useless or outdated provisions/articles	
3	Improved implementation and enforcement	Directive remains the same and no regulatory intervention by the EC is foreseen.	- The EC provides guidelines/recommendations to MS for improving the implementation of the Directive - targeted CT policy measures are implemented by MS	

8.3.4 Cost assessment

Once the POs and measures have been defined, this section then seeks to provide a qualitative assessment of costs connected to the implementation of the POs.

Whilst this study does not provide quantification of costs connected to each PO and measure, a qualitative assessment is possible for costs directly borne by categories of stakeholders due to the implementation of each PO.

The present cost assessment is made per relevant categories of stakeholders, ie:

- Transport / logistics operators;
- Public Authorities (MS);
- Public Authorities (EU).

As concerns the category of "Transport / Logistics operators" which will be taken into account in the impact assessment phase, it is assumed that this category bears no cost directly connected to the issuing of policy options.

Costs have been assessed qualitatively by means of high-level indicators, represented by "€": the higher number of €, the higher the cost over the baseline scenario (represented by PO-0).

Table 95 below shows the results of the assessment:

Table 95 Cost assessment of policy options and measures

ID	Policy option	Measures	Cost assessment	Main stakeholder categories affected
0	Do nothing		0	
1	Repealing the Directive	- MS keep the current legislation - some MS change their laws, disadvantaging CT or favouring local CT	€€	Transport/logistics Op. Public Authorities (MS)
2	Amendment of the Directive	a) Enlarged scope for incentives beyond current Article 6	€€€	Public Authorities (EU/MS)
		b) Less paper documentation for CT vehicles	€€	Transport/logistics Op. Public Authorities (MS)
		c) Harmonisation on the provision on the road leg length	€€€	Transport/logistics Op. Public Authorities (EU/MS)
		d) Drop of useless or outdated provisions/articles	€	Public Authorities (EU)
3	Improved implementation and enforcement	- The EC provides guidelines/recommendations to MS for improving the implementation of the Directive - targeted CT policy measures are implemented by MS	€€€€*	*Public Authorities (EU): € *Public Authorities (MS): €€€€

As evidenced in the Table above, PO-3 is assessed to be the most expensive option for public authorities, due to the significant financial action anticipated by MS, to provide new incentives for terminal development and other aids and promotional measures. PO-3 foresees a minimum administrative expense by the EC for the preparation of new guidelines and better enforcement.

PO-1, which assumes the repealing of the CT Directive, is seen to cause a "medium" level of additional costs, strongly concentrated on Transport / logistics operators, which would have to comply with new (and different in each MS) CT regulations. Whilst no quantitative assumption is possible on the expenses borne by each transport operator, the magnitude of costs throughout EU-28 would depend on the number of MS which

decided to change their legislation after the repealing of the CT Directive. The same applies for administrative costs to be borne by MS.

As concerns measures included in PO-2, the removal of outdated provisions from the CT Directive (Measure d) above) implies a very small amount of costs, mainly connected to the approval process of the new Directive. Costs may be near to zero if those provisions are included in a broader Directive revision process.

Measure b) of PO-2 is assumed to imply a medium amount of additional costs, mainly borne by Transport / logistics operators, and mainly connected to the adaptation of vehicles, rolling stock, terminals etc. to ICT-based paperless documentation systems.

Measures a) and c) imply both a medium-high cost for their implementation: the inclusion of CT support schemes in Article 6 would imply the (mandatory) provision of a budget for such schemes within the MS national budget, costs for tendering and other connected administrative costs.

Nevertheless, the harmonisation of road leg length would cause additional costs both for public authorities (costs for implementation of the new measure), and - moreover - to transport operators. Despite the way in which the road leg length is harmonised, additional costs for re-organising the company logistics scheme (fleet and personnel turnover, vehicle stock, opportunities to open new terminals etc) would arise for operators of the CT combinations that would see the change in the current distance.

8.3.5 Assessment of impacts

This section provides a qualitative assessment of impacts of PO per relevant impact category. The assessment has been made on the basis of internal knowledge and the outcome of the public consultation.

Relevant categories of impact have been selected in order to express (by means of high-level qualitative indicators) the impact foreseen by the implementation of each PO, and to cover properly a broader panel of economic and social aspects on which each PO may have impact.

Such impact categories are:

- Employment;
- Internal market, and external trade of EU economy;
- Operational costs for business.

As concerns the second category, it is assumed that both components included in the definition are enhanced in parallel by the development of a more integrated CT market in Europe. In other words, the development of CT could be seen as a factor of the attractiveness of the European logistics sector, and of development both of internal market (intra-EU and intra-MS) and of external trade (sea-road CT and hinterland repositioning of containers).

Table 96 below gives an overview of impact assessed per category for each PO.

Table 96 Overview of impact assessment per category and policy option

ID	Policy option	Measures	Market share of CT	CO2 emissions	Employment	Internal market, and external trade of EU economy	Operational costs for business
0	Do nothing		baseline scenario	baseline scenario			
1	Repealing the Directive	- MS keep the current legislation - some MS change their laws, disadvantaging CT or favouring local CT	- -	- -	0	- -	- - -
		a) Enlarged scope for incentives beyond current Article 6			++	++	+++
		b) Less paper documentation for CT vehicles			+	+	++
2	Amendment of the Directive	c) Harmonisation on the provision on the road leg length	+	+	0	++	+
		d) Drop of useless or outdated provisions/articles			0	0	0
3	Improved implementation and enforcement	- The EC provides guidelines/recommendations to MS for improving the implementation of the Directive - targeted CT policy measures are implemented by MS (terminal improvement aids, aids for the start-up of new CT services within the state-aid rules, soft measures for better awareness of CT services) - EC intensifies infringement procedures if Directive provisions are not implemented by MS	+	+	++	++	+++

The impact per category and PO is detailed and justified by the results of the public consultation, and judgement made among the contractors, following the content and the results of the study.

Impact on CT modal share and environment

The present analysis, whilst recognising the negative impact that the repealing of the CT Directive would have on the diffusion of CT, cannot judge quantitatively the magnitude of modal shift generated by PO-2 and PO-3, ie by amendments to the CT Directive vs. improved implementation of measures introduced.

According to the substantive input given by the public consultation and its outcome, the stakeholders are almost unanimous that the CT Directive has created a framework of conditions for the CT sector, which has helped foster development of CT.

However, the majority of respondents to the consultation indicated that:

- The CT Directive has not achieved its objectives of encouraging modal shift to more environment-friendly modes of transport, although the view is balanced by 40% of opposing views;
- Achieving the same objectives would not have been possible with less burdensome and/or less costly measures;
- CT operations would not be viable without the CT Directive.

Whilst the majority of stakeholders want the EU to continue supporting CT operations, respondents also suggested that both a stronger enforcement of provisions already included in the CT Directive, and an improvement of such provisions via amendments (e.g. a new definition of CT) would encourage further development of CT.

Finally, according to the public consultation, the CT Directive has played a substantial role in limiting CO_2 emissions, traffic congestion, reducing noise/pollution due to freight traffic and fuel consumption. The CT Directive is then considered as a tool for reaching the targets set by the 2011 White Paper in terms of reducing transport greenhouse gas emissions.

Thus, it could be concluded that the repealing of the CT Directive (PO-1) would have a strong negative impact on the CT market share and on CO_2 emissions against the baseline scenario.

The different opinion of stakeholders on the effectiveness of amendments to the CT Directive vs a stronger enforcement of existing provisions leads to a positive but equal judgement between PO-2 and PO-3 on the impact of both policies on CT market share and CO_2 emissions.

The impact of the different measures included in PO-2 can be judged in a more detailed way on the following impact categories, for which each measure proposed may have different effects in the business and on operators.

Impact on employment

The current employment effect of CT has been estimated earlier in the report. However, figures on the evolution of employment in CT arising from the implementation of the CT Directive are difficult to assess.

The impact on employment of PO-1 may be considered as neutral; the repealing of the CT Directive in favour of national and different legislations on CT in MS may have the effect of decreasing the workforce employed in international CT, as a consequence of the negative impact assessed on CT market share. However, the expected stop of exemptions from cabotage rules for vehicles used in CT, and other possible practices to favour national road hauliers in MS may have the effect of increasing employment in road transport.

PO-2 is expected to generate different degrees of impact on employment depending on measures included in the policy option:

- The extension of the scope for incentives beyond current Article 6 is assumed to have a very positive impact on employment, due to the fostering effect of CT achieved through a wider panel of incentive schemes and tax reductions;
- The reduction of the need for paper documentation is assumed to have a positive impact on employment mainly due to the increase of market share of CT. A large majority of respondents in the public consultation attach considerable importance to the revision of Article 3 of the CT Directive, since - in the most common opinion - currently there is no clear information on the documentation to be presented as set out in Article 3. Although a negative impact on jobs connected to the paper document preparation and transmission may be foreseen, the adoption of a single transport document and/or the introduction of electronic clearing systems (asked by the majority of stakeholders) may foster the development of specific jobs and skills among transport enterprises;
- A neutral impact on employment is assessed for the remainder measures of PO-2. No evidence, nor expert opinions, suggests the possibility of increasing jobs through the harmonisation of road leg length and/or the drop of outdated provisions of the CT Directive.

PO-3 is expected to have a very positive impact on employment, due to the combination of extended incentive schemes and aid for terminal development, and a better enforcement of current provisions of CT Directive, above all a stricter policing of alleged malpractices in road legs.

Impact on internal market and external trade

The CT Directive is reported to have widely stimulated the creation of a common framework for CT in EU, as an element of the development of a more integrated internal market.

The repealing of the CT Directive foreseen in PO-1 is expected to have a very negative impact on internal market. The risk is to cancel the framework conditions achieved through the CT Directive, making the possibility of operating in a foreign MS more difficult for CT operators and road transport companies involved in CT operations. Once

again, the creation of some form of market protection against the liberalisation of cabotage may be foreseen if the CT Directive is repealed, to the detriment of internal market.

PO-2 is expected to generate different degrees of impact on the internal market depending on the measure included in the policy option:

- The extension of the scope for incentives beyond current Article 6 is assumed to have a very positive impact on the internal market. According to the public consultation, stakeholders are almost unanimous in requesting the continuation of fiscal incentives and tax reductions for CT vehicles, and the extension of scope of Article 6 towards the subsidising terminals, inclusion of reduction of the carbon footprint in incentive schemes, and the aid to cross-border transnational cooperation to share the cost of long term investments in CT infrastructure. Although some of the measures proposed are already included in EU funding programmes (e.g. CEF), there is no doubt that an extended scope of Article 6 would encourage the start of business of CT operators in MS different from their own, and in turn the strengthening of the internal market;
- The reduction of the need for paper documentation is assumed to have a positive impact on internal market, due to the wider harmonisation of documents required by companies in MS different from their own. It is worth noting the strong request made in the public consultation towards a simplification of documents required under Article 3. 37% of respondents underlined the delay caused to CT supply chains by meeting the conditions for documentation as described in the CT Directive and the existence of different documentation throughout MS;
- The harmonisation of road leg length is assumed to have very positive impact on the internal market. The purpose of the definition of the same criteria for road leg lengths across all combinations of CT modes would then facilitate even greater comprehension of the CT rules across MS. Although the majority of respondents to the public consultation do consider any revision of road leg length criteria to be required, the positive impact in terms of market integration would be evident. The risk connected to the implementation of such a measure is the different interpretation - and the different opinions still existing - on how to implement the concept of "nearest suitable terminal/port". A lack of clarity and a lack of enforcement from EU to MS to apply the same meaning of the concept would hinder the positive impact on the internal market;
- A neutral impact on the internal market is assessed for the removal of outdated provisions of the CT Directive. No evidence, nor expert opinions, suggests the possibility of strengthening the internal market through such a measure.

PO-3 is expected to have a very positive impact on internal market, mainly due to a clearer and more effective enforcement of current provisions of the CT Directive. In this case too, the most evident example of such a measure is the stricter policing of alleged malpractice in road legs. The reduction of the frequency of tax exemptions and traffic bans exploited by non-CT operating vehicles would help towards creating a fair internal market.

Moreover, the extension of incentive schemes, the implementation of policies for a higher awareness of CT potential, and the enforcement for statistics provision would all help foster the business of companies out of their own MS, and provide an even more common framework for CT in EU.

Impact on operational costs for business

As already mentioned, according to more than half of respondents to the public consultation, CT operations would not be viable without the CT Directive. This is the most effective demonstration of the impact achieved by the CT Directive on operational costs for business.

This view enhances the importance of the CT Directive provisions having direct economic effects on the balance sheet of companies, such as the tax exemption schemes for vehicle used in CT, but also the relevance of measures allowing companies to run without limitations, such as those imposed on road transport with traffic bans on weekends.

The public consultation reports a direct impact on costs due to the documentation requirements. The lack of clarity and the different documents required across MS cause additional costs, suggesting an urgent need for revision of Article 3.

PO-1 is evidently very negative in terms of the impact on operational costs. The repealing of the CT Directive would lead to a direct increase of costs for CT operations, if the EU legislation is replaced by national legislations not favouring CT, eg if tax exemptions and derogations are repealed as well.

PO-2 is assumed to have a broadly positive impact on operational costs, in different degrees across measures:

- The extension of the scope for incentives beyond the current Article 6 is assumed to have a very positive impact on the internal market. The request for continuation of the tax reduction process and incentives initiated by the CT Directive is widespread among stakeholders, which perceive the importance of fostering CT vs the less costly (but less environmentally-friendly) road transport as fundamental;
- The reduction of the need for paper documentation is assumed to have a very positive impact too, matching the above-mentioned request for revision of Article 3 expressed by stakeholders. Such revision, and the implementation of measures such as the single document, or other electronic forms of documentation, would reduce the additional costs perceived to relate to documentation;
- The harmonisation of road leg length is assumed to have a positive impact on costs for business, especially if the "nearest suitable terminal/port" concept is applied in the most flexible and relevant way to market requirements;
- A neutral impact is assessed for the removal of outdated provisions from the CT Directive. No evidence, nor expert opinions, suggests the possibility of reducing costs through such measures.

PO-3 is expected to have a very positive impact on costs, and perhaps the biggest cost impact compared to the other policy options.

In particular, the implementation of targeted incentive policies by MS beyond Article 6 of the CT Directive, although very expensive, would lead to structural cost effects on CT operations. In particular, as already described earlier in the report, measures such as increased vehicle gross weight for transport of any CT load unit, aids for investment in CT terminal infrastructure and CT equipment, can have a large positive impact on business costs. In particular, aid for terminal construction reduces the economic risk for investors. Furthermore, it enables terminals to provide handling at reduced charges, whilst aids for purchasing CT equipment are expected to have positive impact on SME operators as they may eliminate or reduce the cost difference between Lorries and special CT equipment.

Needless to say, stakeholders are widely requesting such kind of incentive schemes in the public consultation.

8.4 Recommendations on CT support programmes

This study has noted that, whilst CT services generally appear to be making good progress in terms of growth, Intra-EU and international CT operations continue to struggle. There are several causes for this, but a good example of the challenges faced is demonstrated by continental rail between the UK and mainland Europe via the Channel Tunnel. After 20 years of operation, and despite train lengths being extended out to 650-750m, CT rail services through the Tunnel have achieved little more traffic than carried by the Train Ferry services which preceded them. The principal constraints are the highly-unpredictable quality of rail access and services through France, expensive track access through the Channel Tunnel[177] and HS1 and unnecessary, lengthy delays at border crossings on either side of the Tunnel, contrasting with the seamless crossings achieved by Eurostar passenger trains.

In this regard, this study has also highlighted the importance of economies of scale in making CT more efficient and attractive, whether by barge, ship or by train (demonstrated at its extreme in North America). The key to unlocking greater scale economies in either mode will inevitably require considerable trans-national investment in infrastructure, e.g. higher bridge clearances, higher-capacity interchanges, more and longer passing loops, longer handling tracks and more efficient handling equipment at terminals.

At present, MS individually seek to provide CT support programmes which may extend over several years and involve significant levels of resource / bureaucracy to administer amongst multiple customers / operators, providing a mixture of capital and/or revenue support.

Whilst the individual levels of support provided may be small, a key question to be considered is whether (and when) it could become more cost-effective, from a whole-life investment perspective, to focus the same combined level of resource on more fundamental issues relevant to the success of CT, to achieve a greater impact.

This study also shows that CT operations provide substantial external benefits for society. External cost savings result from modal shift to CT. Over longer distances, CT services

[177] Eurotunnel has recently announced proposals to reduce access charges for freight trains

substitute road transport with modes with significantly lower external cost such as rail and inland waterway. Against this background, the implementation of CT support programmes which reduce the cost of CT operations can be justified, at least for the time being.

According to the findings of the study (confirmed by the key stakeholders to the CT industry), consideration should therefore be given at both EU and MS level to prioritising aid directly to existing or new CT customers. Such aids are then "visible" to companies that have implemented CT-based supply chains or plan to use CT services, and can be taken account of in their annual or multi-annual logistics planning. They immediately reduce the cost of CT operations and strengthen the competitiveness of CT against single road operations.

- It is therefore recommended to apply one of the following support schemes or a combination of both. Direct grants on terminal infrastructure development appear to be the most effective incentive and can substantially promote CT operations, for the following reasons. The handling of CT load units is an essential CT system component and, at the same time, an inherent disadvantage of CT services compared to pure road haulage. Therefore direct grants for terminal investments are central to reduce the handling costs of CT operations and enhance the competitive situation;
- Authorities should ensure that beneficiaries of the aid make the cost benefits available to every user and at the same scale, to avoid distortion of competition;
- With respect to the comparatively high costs for terminal investments, grants reduce the investment risk substantially. Thus they ensure that handling capacity is created, which is a prerequisite for establishing CT services in the first place;
- The aid has long-lasting and sustainable impacts on CT. The terminals can be used for 20 or more years and the aid makes sure that the handling costs for CT operations are reduced for the entire lifetime of the facility;
- Grants for terminal investments foster cost and quality competition in the CT industry, provided that non-discriminatory "open access" to the terminal is guaranteed.

In order to facilitate the implementation of such CT support programmes at MS level, consideration should be given by the EU as to whether and how the notification process of state aids can be facilitated and accelerated, by establishing a provision in a potential new CT Directive.

An alternative to grants for terminal investments – or a component of a wider strategy - is a direct aid to users of CT operations. Companies that forward their cargo on CT services obtain a fixed amount per load unit or TEU (as per the UK's Mode Shift Revenue Support scheme). The amount could relate to the savings of external costs incurred but should not exceed this effect. In order to ensure a simple scheme, however, it is recommended to define a single average amount for every load unit instead of a complex system differentiating the aid by distance, type of load unit or other characteristics. Such

a proposal could be based on the Swiss support scheme, in which the road toll is reimbursed for pre- and on-carriage road legs.[178]

In addition to these CT-specific incentives the following measures should be taken into account for supporting the development of CT operations:

- Cross-border infrastructure enhancement of core routes, to enable much greater carrying capacity per shipment moved by rail or inland waterway;
- Unblocking border crossings and interoperability barriers to allow CT services to cover much greater distances at speeds / costs competitive with road haulage, without requiring unnecessary multiple transhipments (eg due to incompatible track gauge, navigation depth or structural clearances through bridges, locks etc);
- Equalising the costs of infrastructure access across the EU based on best practice with infrastructure maintenance and management. As an example, the costs of rail track access for freight trains vary enormously between MS; the access charge in Sweden is less than a quarter of the level charged in the UK and less than 5% of the level charged in Ireland;
- Equalising the costs of pre- and end-haulage by road at either end of a CT rail or inland waterway shipment, to provide greater transparency and simplicity for CT operators and end users on road haulage movements, which otherwise could have disproportionate (and differing) impacts on the overall door-to-door economics;
- Assisting the CT sector to develop a common ICT platform. In North America, the "Railinc" platform (collectively owned by the private rail operators) provides a critical core ICT network on which all parts of the rail services are planned, marketed, operated and administered, interfacing with other modes of transport and end users through Electronic Data Interchange (EDI). No such equivalent mainstream platform has been developed to the same extent in Europe.

CT support schemes could therefore be better focused on a more co-ordinated approach between the EC and MS, to achieve a trans-national step-change in the capacity of CT rail and inland waterway networks (through combined investment), whilst also seeking to equalise the cost of infrastructure access on these networks (through best practice amongst IMs) and the cost / regulation of pre- and end-haulage at each end.

A number of stakeholders have called for a further measure, to raise the general weight limit for road vehicles in the EU from 40 to 44 tonnes, following the policy taken by several MS, and allow 46 or 48 tonnes for the initial and final road legs in CT operations. The rationale for the proposal is that in broad terms, a standard semi-trailer (.ie. a boxvan solid-sided or curtain-sided construction) has the same tare weight as a flat-bed semi-trailer used for carrying CT load units in pre- and on-carriage. Therefore the additional tare weight of the CT load unit (which can be up to 4-6 tonnes) then reduces the net payload which can be carried on the road network compared to a standard semi-trailer.

[178] See section 5.3.1 for more details.

An increase in road vehicle gross weight would therefore create particular benefits for manufacturers shipping high-density goods (e.g. chemicals, ores, metal products, paper) where the current 40 tonne limit, combined with the additional tare weight of the CT load unit, constrains the payload. Unit costs would decrease accordingly.

Though some MS such as France and the UK have increased the maximum permitted gross weight for inland transport to 44 tonnes, it must be noted that more than half of MS (15 of 28) still comply with Directive 96/53/EC. Of these, 7 which have adopted the 40 tonne weight limit permit road vehicles to operate at up to 44 tonnes in pre- and on-carriage of CT operations. The study has shown that this measure promotes CT services substantially, as it overcomes the additional tare weight of the CT load unit. This relates not only to CT operations in the home country but also on Intra-EU services with MS that provide for higher weights limits than 40 tonnes. Semi-trailers (whether craneable or non-craneable), which do not have a significant extra tare weight when moved by road compared to swap bodies or containers, would be particular beneficiaries.

Several MS like Germany that apply the 40 tonnes weight limit are concerned that an increase of the maximum gross weight would seriously damage their road infrastructure and in particular bridges. Driving bans or reduced weight limits for heavy goods vehicles have already been implemented on many roads. In addition, some MS administrations point out that increased use of the 44 tonnes exemption for CT operations would pose a significant threat to road infrastructure. Similar statements are put forward in various Central and Eastern European MS where particularly the secondary road network could not bear the additional tonnages. Against this background these MS are more than hesitant to allow more than 44 tonnes for CT operations. At least in Austria and Germany, governments have strictly refused to go into this direction.

The UK government (which increased limits from 41 tonnes to 44 tonnes, initially for CT road movements and shortly afterwards for all road movements) addressed such fears at the time by suggesting that a 44 tonne articulated vehicle operating on 6 axles with air suspension would cause no more damage than a 41 tonne vehicle on 5 axles without air suspension.

Apart from the potential additional damage to the road network, the proposed measure would have further potential drawbacks:

- The capacity of the handling equipment in many CT terminals especially in southern and eastern European MS is not designed to transfer heavier load units. In several terminals the capacity is restrained to 30, 32 or 35 tonnes;
- If the weight limit for CT operations were increased to 48 tonnes craneable semitrailers could provide for a gross weight of up to 39 to 40 tonnes. A considerable share of the existing fleet of pocket wagons, which are designed to carry semitrailers by rail, can only carry a maximum of 37 tonnes. And even the most modern types of pocket wagons would reach their capacity limits leaving almost no tolerance for overloaded units;
- The UK government chose to remove the 44 tonne derogation for CT after a very short period as it considered it would not be possible for enforcement agencies to be able to know whether a particular vehicle was being used to carry CT traffic or not

(which would particularly be the case if semi-trailers were moved by rail). The risk would then be that any wider extension of the derogation to allow even heavier vehicles to operate on CT services would then again lead to the eventual removal of the derogation for CT, which could then further weaken the competitiveness of CT against pure road haulage.

Based on these findings, it would be difficult to recommend a simple increase in road vehicle gross weights for CT pre- and on-carriage as the practical benefits would appear limited. Alternative approaches would be to either investigate what scope might exist through technological innovation to reduce the combined tare weight of road trailers and CT load units, and/or measures which could remove concerns about damage to road networks and enforcement of derogations for CT-related road haulage services.

It is fully acknowledged that there is only so much that the EC and MS can achieve collectively to encourage greater use of CT; equal responsibility must be placed on CT actors to improve the awareness, efficiency and quality of CT services and facilities. The challenge for public bodies will be to determine the most cost-effective means of deploying limited resources to best effect in supporting CT, taking account of both the direct (e.g. commercial / fiscal) and indirect (e.g. socio-economic and environmental) benefits arising from mode shift of freight from road to CT.

8.5 Recommendations on gathering of CT statistics

The survey among national offices for statistics conducted by this study has shown that only 13 MS collect and analyse statistical data on CT operations by rail and/or inland waterway on a systematic and regular base. Several other MS provide statistics on CT rail/road supplied only by the national rail carrier. This may lead to an underestimation of traffic volume where other railway undertakings operate CT services. CT short sea/road traffic data are gathered and published by various MS. The study, however, cannot display a complete picture of the statistical situation in this CT sector. The reports on CT data gathering in MS are appended in Appendix E.

The findings of the survey indicate that the methodology, the scope of statistical items and the comprehensiveness of CT data gathered vary substantially among MS. There are some countries such as the Czech Republic or Germany, which provide for a comparatively good database. Yet the study could not identify a single MS that collects data by scope and terminology, which would allow the preparation of a statistical report on CT operations as requested by the CT Directive and the scope of this study. The existing statistics in particular lack the following information:

- The national statistics as well as the Eurostat statistics, which are based on the deliverables of the national offices for statistics, commonly distinguish national/inland, international and (if any) transit traffic. They are not broken down by the CT market segments Intra-MS, Intra-EU and International CT;
- They do not distinguish maritime from continental traffic volumes;

- If the breakdown by the type of CT load units is provided at all it does not differentiate between containers and swap bodies of different lengths. Sometimes the volume of semi-trailers is neglected or allocated to containers/swap bodies;
- The survey indicates that in some countries cross-border CT rail/road volumes have been allocated to the inland category. The study assumes that in those cases two co-operating railways changed trains at the border and established national waybills, which are the basis for the data collection;
- Data does not allow the recognition of gateway traffic, ie inland movements as part of a cross-border CT chain of transport;
- Double or multiple counts of cross-border CT volumes occur as every country prepares their statistics on the national level in an autonomous manner. It appears that double counts have yet to be eliminated within Eurostat data;
- Current data gathering does not take account of the 100km threshold;
- In addition, the statistics do not or cannot recognise whether the road legs were carried out within the 150km limit or the nearest suitable rail station;
- There is also a complete lack of data which could be used to provide Key Performance Indicators (KPI) which might be of use to CT users, operators or policy-analysts and policy-makers.

The data situation is particular poor for CT rail/road and short sea/road operations. As concerns CT rail/road operations we recommend consideration is given to changing the methodology. Instead of collecting data from railway undertakings, which commonly run trains on behalf of CT service providers, data should be requested from primary sources, i.e. the CT service providers themselves. They should “know” their business and be able to provide most of the statistical items required by the EC and policy makers to better assess the situation in this sector.

Allied to this is the need to encourage greater use of existing ICT systems and infrastructure, towards greater autonomous / automatic recording of CT load units as they pass through key gateways. The major ports and some inland CT terminals use management systems such as Autostore, Navis and Tideworks (other systems are available) to record information on road vehicles and CT load units. It should therefore not be beyond the scope of the CT industry to develop greater integration between these various systems through common data protocols, as much to help with operations as with data gathering for MS and the EC. We recommend that further engagement is undertaken with the CT industry to determine how far an initial high-level data gathering network could be established by voluntary means.

Appendices

Appendix A: Glossary

Appendix B: Manual for survey on combined transport statistics

Appendix C: Questionnaire for CT rail/road service providers

Appendix D: Questionnaire for CT inland waterway/road service providers

Appendix E: MS reports on CT statistics

Appendix F: Examples of CT services and actors

Appendix G: MS reports on CT support programmes

Appendix H: MS reports on CT Directive transposition

Appendix I: Stakeholder workshop invitation & list of invitees

Appendix J: Public consultation summary results

Appendix K: List of references

Appendix L: English translation of legal acts of MS transposing CT Directive into national legislation

Appendix A Glossary

ACTS	Abroll Container Transport System
BAF	Bunker Adjustment Factor
bn	billion
CAGR	Compound annual growth rate
CIS	Commonwealth of Independent States
CSR	Corporate Social Responsibility
CT	Combined Transport
CT IWR	Combined Transport Inland Waterway/Road
CT RR	Combined Transport Rail/Road
CT SSR	Combined Transport Sea/Road
EC	European Commission
ETCS	European Train Control System
EU	European Union
FEU	Forty-foot Equivalent Unit
FMCG	Fast Moving Consumer Goods
GHG	Greenhouse Gas
ICT	Information and Communication Technologies
IM	Infrastructure Manager
Intra-EU	Within the European Union
Intra-MS	Within Member State
IWW	Inland Waterway
JIT	Just-In-Time manufacturing / logistics
JOWI	Barge classification
km	kilometre
LSP	Logistics Service Provider
m	million
MS	Member State
OECD	Organisation for Economic Co-operation and Development
PPP	Public-private partnership
RoPax	Roll-on, Roll-off freight / passenger vessels
RoRo	Roll-on, Roll-off vessels
RU	Railway Undertaking
SECA	Sulphur Emissions Control Area
TEU	Twenty-foot Equivalent Unit
Tonne-km	Tonne-kilometre
UIC	International Union of Railways
UIRR	Union Internationale pour le transport combiné Rail-Route
ULCV	Ultra-Large Container Vessel
WTO	World Trade Organization
ZARA	Ports of Zeebrugge, Antwerp, Rotterdam and Amsterdam

Appendix B Manual for survey on combined transport statistics

On behalf of the European Commission, DG MOVE, a consortium of four consultancy companies is conducting a study into combined transport (CT) in Europe. Among other issues the study will investigate if and how EU Member States (MS) collect data on CT operations. For the purposes of this analysis the following definition of **CT sectors** shall be applied:

- **CT rail/road**: CT in the combination of rail and road where a CT load unit is lifted on or off a train in the respective MS;
- **CT inland waterway (IWW)/road**: CT in the combination of inland waterway and road where a CT load unit is lifted on or off a barge in the respective MS;
- **CT sea/road**: CT in the combination of sea and road where either a deep-sea (marine) container is lifted on or off a road vehicle at a seaport in the respective MS and the container is moved between port and inland location completely over the road (container hinterland CT sea/road), or where a CT load unit is moved in the combination of a short-sea (ferry) and road journey (typically Ro/Ro transport).

For this analysis the following definition of CT market segments shall be applied

- Container hinterland CT: the transport of deep-sea containers usually conforming to ISO standards between seaports and inland locations;
- Continental CT the transport of CT load units moving goods between land-based origins and destinations in Europe, it may also include ferry (short-sea) journeys;
- Domestic CT: in the case of CT rail/road and IWW/road the CT load unit is lifted on and off a train or barge at points (terminals) located in a single country, in the case of sea/road origin or destination of the road journey is in the same country as the port;
- International CT: the CT load unit is lifted on and off a train, a barge or a road vehicle at points/terminals located in different countries and thus moved across minimum one border.

COUNTRY		
CONTACT INFORMATION	Organisation	
	Contact Name	
	Position	
	Phone	
	Email	

A. Overview

A1. Does the Member State collect statistical data on CT operations, and has it set up a statistical database?

	YES	NO
CT rail/road	☐	☐
CT inland waterway/road	☐	☐
CT sea/road	☐	☐

A2. Please identify the reasons if the Member State does not record data on CT at all or individual CT sectors.

Not applicable/no traffic ☐

Lack of legal basis ☐

Data published by CT operators ☐

Other reasons : .....

B. Characteristics [only if CT statistics are set up]

B1. Which characteristics of CT operations are regularly collected with respect to the three CT sectors (see definitions above)?

Transport volume	TEU			Domestic CT	
	Gross tonnes			International CT	
	Net tonnes			- By country	
	Units			Container hinterland CT	
	- Loaded			Continental CT	
	- Empty				

Transport performance *)	Domestic traffic			Container hinterland CT	
	International traffic			Continental CT	
	- By country				

Breakdown of loading units	Container			Swap bodies	
	- By length/size?			- By length/size?	
	- Share 45'?			Semi-trailers	

Other features?					

**) Please inquire if the transport performance relates to the transport distance in the respective country or, in the case of international journeys, also to the mileage in other countries.*

C. Methodology

C1. What are the sources for collecting data on CT operations? If various sources are used please indicate which data are delivered by whom?

	Source	Characteristics (if not exclusively collected from a single source)
	Railway undertakings	
	Intermodal operators	
	Container barge operators	
	Seaports	
	Inland (River) ports	
	Terminal operators	
	Others	

C2. Can the authorities confirm that every CT operation (movement of a CT load unit) is recorded? If so, please describe the measures taken.

C3. How do the authorities make sure that double/multiple counts are avoided?

C4. Do the authorities register trimodal CT operations that are the transport of an intermodal load unit in a chain of transport comprising rail, inland waterway and road (independent of sequence of modes)? How do they achieve that?

Appendix C Questionnaire for CT rail/road service providers

On behalf of the European Commission an international consortium of consultancy companies is conducting a study, which aims at analysing the current state of combined transport (CT) in Europe. For this purpose we are also collecting statistical data from CT service providers. The reference year for this survey is 2011. We would like to ask you to support the survey and return the completed questionnaire. Any data and information you provide will be treated with strictest confidentiality and only be used in an anonymous and aggregated form.

Definitions:

Container hinterland CT: the transport of deep-sea containers usually conforming to ISO standards between seaports and inland locations;

Continental CT: the transport of goods between land-based origins and destinations in Europe; it may also include ferry/short-sea journeys;

Domestic CT: transport of an intermodal loading unit between two terminals located in a single country

International CT: transport of an intermodal loading unit between two terminals located in different countries crossing at minimum one border.

A. COMPANY INFORMATION		
Company		
Address		
Contact name		
Function		
Phone		
E-Mail		
Staff employed for combined transport (by 31 Dec 2011)		Employees
Revenues from combined transport in 2011		Euro

B. COMBINED TRANSPORT VOLUMES IN 2011

B1. If available, please provide CT volumes in the year 2011 in TEU or shipments (equivalent to a full-truckload), tonne-kilometres and tonnes and indicate if tonnes refer to the weight of goods (net) or also include the tare weight of the loading unit (gross).

	TEU	Shipments	Tonne-kilometres	Tonnes	Net	Gross
Domestic services in *(indicate country)*					☐	☐
International services					☐	☐
Total CT volume	0	0	0	0	☐	☐

B2. Please indicate the percentage shares of container hinterland and continental CT volumes (see definition above) per market segment.

	Container hinterland CT	Continental CT	Total CT
Domestic services			0%
International services			0%

B3. If you have operated international CT services in the year 2011, please provide the transport volumes per country-to-country trade lane. Please give the total volume (both directions).

Country A	- Country B	TEU	Shipments	Tonnes

B4. Please indicate the percentage shares of the type of intermodal loading units, if possible separately for container hinterland and continental CT services (if applicable). Otherwise indicate the break-down for total CT.

		Container hinterland CT	Continental CT	Total CT
Container	20'			
	30'			
	40'			
	45'			
Swap body	7 - 8 m	-		
	30'	-		
	45'	-		
Semi-trailer		-		

C. EVOLUTION OF COMBINED TRANSPORT VOLUMES 2012/2013

Please indicate the CT volumes of your company for the year 2012 and provide an estimation for 2013 (in TEU or shipment).

	2012		2013	
	TEU	Shipment	TEU	Shipment
Domestic services				
International services				

Thank you very much for your co-operation.

Appendix D Questionnaire for CT inland waterway/road service providers

This survey is carried out within the study "Analysis of EU combined transport". On behalf of the European Commission an international consortium of consultancy companies is conducting this study, which aims at analysing the current state of combined transport (CT) in Europe. We would like to ask you to support the survey and to return the completed questionnaire with as much information as possible. If you cannot provide exact figures, we kindly ask you for estimates. The reference year for this survey is 2011. Any data and information you provide will be treated with strictest confidentiality and only be used in an anonymous and aggregated form, unless you explicitly allow to report the total container volume separately (see end of questionnaire). In case of questions regarding the questionnaire, please contact Mr. Henrik Armbrecht (PLANCO) (phone: +49 (0)201 - 43771 - 17).

Company information	
Company name	
Address	
Contact person	
Function	
Phone	
e-mail	

Routes (Seaports / Terminals etc.)		
Business model (port-to-door / iwt only, own vessels / charter, hub-and-spoke / point-to-point etc.)		
Total inland waterway container transport volume (TEU / gross tons)		
Staff employed for combined transport inland waterway / road (by 31 Dec 2011)		
Revenues from combined transport inland waterway / road in 2011		
Investment for combined transport operations inland waterway / road over the last 5 years		

Container flows inland waterway transport

International Container transport flows by country to country tradelane 2011 (Please indicate inter seaport traffic separately!)

Origin country / seaport	Destination country /seaport	TEU	shipments	gross tons	gross tonkm	share of empty containers
TOTAL						

Evolution international container transport

Figure	2012	2013
TEU		
shipments		
gross tons		
gross tonkm		

Time series international container transport

Figure	2005	2006	2007	2008	2009	2010
TEU						
shipments						
gross tons						
gross tonkm						

Structural developments of international container transport flows 2005-2011	

Domestic container transport (Please indicate intra and inter seaport traffic separately!)

Country	TEU	shipments	gross tons	gross tonkm	Share of empty containers

Evolution domestic container transport

Figure	2012	2013
TEU		
shipments		
gross tons		
gross tonkm		

Time series domestic container transport

Figure	2005	2006	2007	2008	2009	2010
TEU						
shipments						
gross tons						
gross tonkm						

Structural developments of international container transport flows 2005-2011	

Trimodal (iwt/rail/road) operations

Origin	Transshipment	Destination	shipments	TEU	gross tons

Characteristics of container transport operations

Container size	Share of 20'	Share of 30'	Share of 40'	Share of 45'	Remarks

IWT leg	Average distance	Share of haulage < 100 km	Remarks

Pre- / Endhaulage	Average distance	Share of haulage >= 150 km	Remarks

Type of consignment	Share	Characteristics
Merchant's haulage		
Carrier's haulage		

Cost combined container transport inland waterway / road

Container transport cost typical routes

Typical route	Cost per TEU	Remarks (consideration of handling / haulage / water level / seaport congestion?)

Combined transport inland waterway / road cost breakdown

route	

cost category	share
vessel capital	
vessel staff	
fuel	
maintenance	
insurance	
handling	
pre-/endhaulage	
intermodal organisation	
other	

Do you allow to report your aggregate container transport volume?	YES	NO

Thank you very much for your support!

Appendix E MS reports on CT statistics

COUNTRY	**BG Bulgaria**	
CONTACT INFORMATION	Contact Name	**Krassimir Anguelov**
	Position	Consultant
	Phone	+ 359 877984114
	Email	krassiangel@hotmail.com

A. Overview

A1. Does the Member State collect statistical data on CT operations, and has it set up a statistical database?

	YES	NO
CT rail/road		**X**
CT inland waterway/road		**X**
CT sea/road		**X**

A2. Please identify the reasons if the Member State does not record data on CT at all or individual CT sectors.

Not applicable/no traffic	
Lack of legal basis	
Data published by CT operators	

Other reasons : The traffic data for each individual transport mode - rail, water, road freight – separetly - are sent from the sea ports and transport operators to the respective Agency (by node of transport) in the Ministry of Transport and Communications (MoTC) in parallel to the National Statistical Institute (NSI). Each

Executive Agency (Railway Administration, Road Administration, Maritime Administration) collect the "own" data (for its transport mode). NSI collect and keep the same data, too.

Some managers/experts are thinking that the available data for the Transports of the Loading Units By Mode of transport are the same or are sufficient to have information for CT. Often is it not understandable that the CT-data could NOT to be achieved as simple arithmetical sums of the individual transport modes data.

There is applicable CT-traffic.

There is legal basis (*Article 2 in the last chapter of the Bulgarian Regulation 53: there are definition of CT-operator and his DUTIES, incl. concerning statistics gathering.)*.

B. Characteristics [only if CT statistics are set up]

B1. Which characteristics of CT operations are regularly collected with respect to the three CT sectors (see definitions above)?

The CT statistics are NOT set up.

Transport volume	TEU			Domestic CT	
	Gross tonnes			International CT	
	Net tonnes			- By country	
	Units			Container hinterland CT	
	- Loaded			Continental CT	
	- Empty				

Transport performance *)	Domestic traffic			Container hinterland CT	
	International traffic			Continental CT	
	- By country				

Breakdown of loading units	Container			Swap bodies	
	- By length/size?			- By length/size?	
	- Share 45'?			Semi-trailers	

Other features?					

**) Please inquire if the transport performance relates to the transport distance in the respective country or, in the case of international journeys, also to the mileage in other countries.*

C. Methodology

C1. What are the sources for collecting data on CT operations? If various sources are used please indicate which data are delivered by whom?

The sources of the collected data for the transports of intermodal loading units (not – CT !) are:

	Source	Characteristics (if not exclusively collected from a single source)
	Railway undertakings	Yes (mainly – Bulgarian State Railway – Cargo.) For the characteristics – see the attached file with the official data from NSI.
	Intermodal operators	
	Container barge operators	
	Seaports	Yes (mainly – Black Sea Ports of Varna and Burgas. For the characteristics – see the attached file with the official data from NSI.
	Inland (River) ports	
	Terminal operators	
	Others	The data for the ROAD freight traffic (in general, incl. containers) come from all freight operators (cariers). For the characteristics – see the attached file with the official data from NSI.

C2. Can the authorities confirm that every CT operation (movement of a CT load unit) is recorded? If so, please describe the measures taken.

The authorities could NOT confirm that every CT operation (movement of a CT load unit) is recorded.

C3. How do the authorities make sure that double/multiple counts are avoided?

C4. Do the authorities register trimodal CT operations that are the transport of an intermodal load unit in a chain of transport comprising rail, inland waterway and road (independent of sequence of modes)? How do they achieve that?

More or less, for the gathered / available data for the Transports of the Loading Units by Mode of transport is it possible to say that the double/multiplate counts are avoided in the sence of a single mode. But the lack of CT-chain operation data is the reason, that is not possible to (re)calculate and consolidate available data without avoiding double/multiple counts risks.

COUNTRY	CZ Czech Republic	
CONTACT INFORMATION	Organisation	Výskumný ústav dopravný, a. s.
	Contact Name	Renata Dzimkova
	Position	Research worker
	Phone	00421 41 5686 328, mobil: 00421 907 209 605
	Email	dzimkova@vud.sk

A. Overview

A1. Does the Member State collect statistical data on CT operations, and has it set up a statistical database?

	YES	NO
CT rail/road	x	
CT inland waterway/road		x
CT sea/road		x

A2. Please identify the reasons if the Member State does not record data on CT at all or individual CT sectors.

Not applicable/no traffic (no sea)	x

B. Characteristics [only if CT statistics are set up]

B1. Which characteristics of CT operations are regularly collected with respect to the three CT sectors (see definitions above)?

Transport volume	TEU	X		Domestic CT	X
	Gross tonnes	X		International CT	x
	Net tonnes	X		- By country	
	Units	X		Container hinterland CT	

	- Loaded	X		Continental CT	
	- Empty	x			
Transport performance *	Domestic traffic	X		Container hinterland CT	
	International traffic	X		Continental CT	
	- By country				
Breakdown of loading units	Container	x		Swap bodies	x
	- By length/size?			- By length/size?	
	- Share 45'?			Semi-trailers	x
Other features?					

** likely only domestic mileage*

C. Methodology

C1. What are the sources for collecting data on CT operations? If various sources are used please indicate which data are delivered by whom?

	Source	Characteristics (if not exclusively collected from a single source)
x	**Railway undertakings**	
x	**Intermodal operators**	Only selected companies in selective statistical survey

C2. Can the authorities confirm that every CT operation (movement of a CT load unit) is recorded? If so, please describe the measures taken.

no

C3. How do the authorities make sure that double/multiple counts are avoided?

no

C4. Do the authorities register trimodal CT operations that are the transport of an intermodal load unit in a chain of transport comprising rail, inland waterway and road (independent of sequence of modes)? How do they achieve that?

no

COUNTRY	**DE Germany**	
CONTACT INFORMATION	Organisation	Destatis
	Contact Name	Andrea.Huetter@destatis.de

A. Overview

A1. Does the Member State collect statistical data on CT operations, and has it set up a statistical database?

	YES	NO
CT rail/road	**X**	
CT inland waterway/road	**X**	
CT sea/road	**X**	

Statistical data are separately collected for every CT mode of transport and not for entire CT services (including both the road legs and railway/inland waterway/sea legs).

A2. Please identify the reasons if the Member State does not record data on CT at all or individual CT sectors.

Not applicable

B. Characteristics [only if CT statistics are set up]

B1. Which characteristics of CT operations are regularly collected?

Transport volume	TEU	X		Domestic CT	X
	Gross tonnes	X		International CT	X
	Net tonnes	X		- By country	X
	Units	X		Container hinterland CT	(X)

	- Loaded	X		Continental CT	
	- Empty	X			
Transport performance *	Domestic traffic	X		Container hinterland CT	(X)
	International traffic	X		Continental CT	
	- By country				
Breakdown of loading units	Container	X		Swap bodies	X
	- By length (20'/40'	X		- By length/size?	X
	- Share 45'?			Semi-trailers	X

*** Performance (tkm) only relates to transport distance in DE;**

C. Methodology

C1. What are the sources for collecting data on CT operations?

CT rail / road	
Methodology	- CT data collection is part of a monthly survey on rail freight transport, data shall be supplied within 20 days following reporting month; - Railway undertakings (RU) performing rail freight services on German network must report according to national legislation (Bundesstatistikgesetz, Verkehrsstatistikgesetz); - Reporting is expected from main carrier in case of collaborative operations; - Basically full-scale survey but thresholds are applied: RU must have min. 10m tonne-km of rail freight services and, for CT, min 1m tonne-km of CT; - Data collection by standard electronic questionnaire..
Specific findings	- Separate transport volumes for containers and swap bodies are not collected hampering to distinguish container hinterland from continental CT; - Survey inquires for 20', 25', 30' and 40' containers/swaps; - Containers/swaps recorded by units and TEU, semi-trailers only by units; - Statistics supply data on seaport hinterland CT. This is not the same as container hinterland CT as it includes swaps and also

	seems to include traffic from/to dry inland terminals close to sea. Origin/destination trade lanes(O/D) sometimes not reasonable according to market knowledge. Further considerable lack of traffic volumes with foreign North Sea ports, especially Antwerpen; - O/D matrices both for domestic and international traffic are not comprehensive and contain certain flaws: there are NUTS zones especially close to borders without any CT terminals, for which high volumes are recorded. It is supposed that RUs have reported the point (station) where they took over rail operation based on waybill data. This may also have an impact on the shares of domestic and international traffic; - Small volumes of accompanied CT allocated to O/Ds for which information on accompanied services are not available.

CT inland waterway / road	
Methodology	- CT data collection based on standard paper questionnaire (Zählkarte) to be completed by barge operators for every calling at an inland port and the loading/ unloading of containers, vehicles or goods. Document has to be handed over to port authorities that gather documents and deliver them to Destatis; - Collection is carried out within framework of general inland waterway survey. Barge operators must report according to national legislation (see above); - Methodology basically ensures full coverage of all CT operations.
Specific findings	- Break-down of volumes by 20', 20'-40' and 40' containers, container larger than 40' - likely 45' marine ct. (share 1.2%) - and other large container - likely 45' domestic ct (share: 5%).

CT sea /road	
Methodology	- CT data collection based on standard questionnaire to be completed by vessel operators for every calling at a port and the loading/unloading of containers, vehicles or goods. Document has to be handed over to seaport authorities that gather documents and deliver them to Destatis; - Collection is carried out within framework of general seaport survey. Vessel operators must report according to national legislation (see above);

	- Methodology basically ensures full coverage of all operations of containers, unaccompanied and accompanied road vehicles.
Specific findings	- Destatis approach to deep-sea and short-sea CT: short-sea traffic defined for trade lanes, which might also be served by road, while deep-sea traffic refers to trade lanes for which there is no alternative to sea transport; - The statistics don't fully match this distinction: there are trade lanes, for instance, Germany-North Europe, which are included in both categories; - CT by sea also includes (small amount of) rail wagons carried by train ferries; - Statistics on road transport of containers/swap bodies with seaports show distribution of traffic over ranges of transport distances. Data is based on statements of vehicle owners corresponding to a KBA sample of < 1% of registered German road trucks. Data are consolidated and relate to traffic with German and foreign ports impeding assessing port-related 150 km threshold. No trucks registered in other countries having a high market share in container hinterland transport especially in Hamburg, are included in sample;

General remark on statistics: Extensive presentations of bimodal transport chains for a selection of NUTS zones (ports and inland locations). Road data are based on KBA sample and often deliver irritating results.

C2. Can the authorities confirm that every CT operation (movement of a CT load unit) is recorded? If so, please describe the measures taken.

NO for CT rail/road due to methodology; basically YES for other CT sectors.

C3. How do the authorities make sure that double/multiple counts are avoided?

Double counts are supposed to be avoided by double-checks and validations but can't be excluded entirely.

C4. Do the authorities register trimodal CT operations that are the transport of an intermodal load unit in a chain of transport comprising rail, inland waterway and road (independent of sequence of modes)? How do they achieve that?

NO. Only single-sector related data is collected.

COUNTRY	DK Denmark	
CONTACT INFORMATION	Organisation	Tetraplan
	Contact Name	Søren Saugstrup Nielsen
	Position	Transport planner
	Phone	+45 3373 7135
	Email	sn@tetrapaln.dk

A. Overview

A1. Does the Member State collect statistical data on CT operations, and has it set up a statistical database?

	YES	NO
CT rail/road	**x**	
CT inland waterway/road		**x**
CT sea/road		**x**

A2. Please identify the reasons if the Member State does not record data on CT at all or individual CT sectors.

Not applicable/no traffic	
Lack of legal basis (In other areas than rail transport)	**x**
Data published by CT operators	

Other reasons : .....

B. Characteristics [only if CT statistics are set up]

B1. Which characteristics of CT operations are regularly collected with respect to the three CT sectors (see definitions above)?

Rail transport of intermodal CT units - by domestic/international, load unit and CT unit

Transport volume	TEU	x		Domestic CT	x
	Gross tonnes	x		International CT	x
	Net tonnes			- By country	
	Units	X		Container hinterland CT	
	- Loaded	X		Continental CT	
	- Empty	X			
Transport performance *	Domestic traffic	X		Container hinterland CT	
	International traffic	X		Continental CT	
	- By country				
Breakdown of loading units	Container/Swap bodies **(**same category- no split)	x			
	- By length/size?			- By length/size?	
	- Share 45'?			Semi-trailers	x

** Please inquire if the transport performance relates to the transport distance in the respective country or, in the case of international journeys, also to the mileage in other countries.*

YES

C. Methodology

C1. What are the sources for collecting data on CT operations? If various sources are used please indicate which data are delivered by whom?

The data is collected by Statistics Denmark – the national statistical bureau

	Source
	The Statistics are mainly based on reports from Danish and foreign operators on the Danish rail network, as well as the owners of the rail network. Including

	intermodal operators.

C2. Can the authorities confirm that every CT operation (movement of a CT load unit) is recorded? If so, please describe the measures taken.

The statistics are based on a full count of units. There are no sampling errors as the statistics are based on a full count of all units

C3. How do the authorities make sure that double/multiple counts are avoided?

There are no other statistics in the CT area – no possibility of double counts

C4. Do the authorities register trimodal CT operations that are the transport of an intermodal load unit in a chain of transport comprising rail, inland waterway and road (independent of sequence of modes)? How do they achieve that?

There are no tri-modal CT operations in Denmark

COUNTRY	EE Estonia

		Containers total	Containers transported in Estonia	Exported containers	Imported containers	Exported transit containers	Imported transit containers	Transit containers total
2003	Number of full containers, TEU	5547	0	345	112	..	..	5090
	Number of full containers	4215	6	211	88	..	..	3910
	Transported goods, thousand tonnes	82.6	0.4	5.1	3.6	..	..	73.5
	Freight turnover of full containers, thousand tonne-km	..	..	..	..	..	..	..
	Number of empty containers, TEU	359	32	18	148	..	..	161
	Number of empty containers	189	16	12	76	..	..	85
2004	Number of full containers, TEU	8115	43	475	382	819	6396	7215
	Number of full containers	5293	35	251	288	539	4180	4719
	Transported goods, thousand tonnes	68.9	0.5	2.1	5	7.7	53.6	61.3
	Freight turnover of full containers, thousand tonne-km	..	..	..	..	..	..	..
	Number of empty containers, TEU	336	72	106	61	74	23	97
	Number of empty containers	230	40	90	39	38	23	61
2005	Number of full containers, TEU	10668	26	284	219	430	9709	10139
	Number of full containers	6768	26	160	165	308	6109	6417
	Transported goods, thousand tonnes	88.9	0.4	1.5	2.8	5.1	79.1	84.2
	Freight turnover of full containers, thousand tonne-km	..	..	..	..	..	..	..
	Number of empty containers, TEU	400	48	16	230	75	31	106
	Number of empty containers	256	24	16	134	61	21	82
2006	Number of full containers, TEU	15182	60	405	217	468	14032	14500
	Number of full containers	9857	40	244	154	416	9003	9419
	Transported goods, thousand tonnes	133.9	0.6	2.9	2.4	6.6	121.4	128
	Freight turnover of full containers, thousand tonne-km	..	..	..	..	..	..	..
	Number of empty containers, TEU	988	0	84	490	260	154	414
	Number of empty containers	686	0	80	270	182	154	336
2007	Number of full containers, TEU	13531	4	720	104	318	12385	12703
	Number of full containers	9380	3	475	85	281	8536	8817
	Transported goods, thousand tonnes	170.8	0.1	9.3	2.5	3.7	155.2	158.9
	Freight turnover of full containers, thousand tonne-km	..	..	..	..	..	..	..
	Number of empty containers, TEU	2778	4	57	1495	1017	205	1222
	Number of empty containers	1868	4	57	944	678	185	863
2008	Number of full containers, TEU	17344	10	507	92	58	16677	16735
	Number of full containers	868	1	25	5	3	834	837
	Transported goods, thousand tonnes	207.4	0.1	5.8	1.1	0.6	199.8	200.4
	Freight turnover of full containers, thousand tonne-km	..	..	..	..	..	..	..
	Number of empty containers, TEU	3846	2	0	1902	1934	8	1942
	Number of empty containers	192	0	0	95	97	0	97
2009	Number of full containers, TEU	14403	7	0	0	1641	12755	14396
	Number of full containers	9933	5	0	0	1132	8796	9928
	Transported goods, thousand tonnes	167.3	0.1	0	0	19.2	148	167.2
	Freight turnover of full containers, thousand tonne-km	..	..	..	..	..	..	..
	Number of empty containers, TEU	2952	0	0	0	339	2613	2952
	Number of empty containers	2036	0	0	0	234	1802	2036
2010	Number of full containers, TEU	20441	1	371	3	0	20066	20066
	Number of full containers	15228	1	247	3	0	14977	14977
	Transported goods, thousand tonnes	217.9	0.1	4.3	0.1	0.1	213.3	213.4
	Freight turnover of full containers, thousand tonne-km	59815	6	1178	18	29	58584	58613
	Number of empty containers, TEU	2043	0	1768	275	0	0	275
	Number of empty containers	1928	0	0	1758	170	0	170
2011	Number of full containers, TEU	25335	83	222	12	21	24997	25018
	Number of full containers	16295	83	144	10	14	16044	16058
	Transported goods, thousand tonnes	244.6	2.1	2	0.1	0.2	240.2	240.4
	Freight turnover of full containers, thousand tonne-km	66317	155	490	15	55	65602	65657
	Number of empty containers, TEU	9632	82	61	8024	1444	21	1465
	Number of empty containers	5691	82	30	4730	834	15	849
2012	Number of full containers, TEU	34102	4	133	234	1066	32665	33731
	Number of full containers	21187	2	75	135	857	20118	20975
	Transported goods, thousand tonnes	261.9	0	0.9	1.9	11.8	247.3	259.1
	Freight turnover of full containers, thousand tonne-km	71848.4	5.4	213	531	2400	68699	71099
	Number of empty containers, TEU	14761	2	55	4999	9623	82	9705
	Number of empty containers	10274	2	25	4999	5207	41	5248

TEU (Twenty-foot Equivalent Unit) - a standard unit for counting containers of various capacities and for describing the capacities of container ships or terminals. One 20-foot ISO container equals 1 TEU.

Changes in the 2009 container transport volumes concerning goods imported from and exported to foreign countries and those concerning transit goods can be explained by the closure of Tallinn cargo terminal and by the operation of Vaivara terminal as transit terminal.

The data on freight turnover of full containers for 2003-2009 are too uncertain for publication.

The data of 2011 on containers total, number of empty containers have been revised on 20.09.2012.

LAST-U 2013-04-09

COUNTRY	ES Spain

A. Overview

A1. Does the Member State collect statistical data on CT operations, and has it set up a statistical database?

	YES	NO
CT rail/road		**X**
CT inland waterway/road N.A.		
CT sea/road		**X**

Spain does not have specific statistical data on CT. But it has the statistical data on rail transport of RENFE, and the statistical data on port traffic of Spanish Ports Authority. The information that is showed below (B1) corresponds to this statistical data.

The Ministry of development has just launched the "Observatory of Transport and Logistics in Spain" that aims to collect all kind of data and indicators related with transport and logistics, but until now it does not include combined transport data.

A2. Please identify the reasons if the Member State does not record data on CT at all or individual CT sectors.

Not applicable/no traffic ☐

Lack of legal basis ☐

Data published by CT operators ☐

Other reasons : .....

B. Characteristics [only if CT statistics are set up]

B1. Which characteristics of CT operations are regularly collected with respect to the three CT sectors (see definitions above)?

		RR[1]	SR[2] *			RR[1]	SR[2]*
Transport volume	TEU		X		Domestic CT	X	X
	Gross tonnes		X		International CT	X	X
	Net tonnes	X			- By country		
	Units				Container hinterland CT	X	
	- Loaded	X	X		Continental CT	X	
	- Empty	X	X				
Transport performance * *relates to the transport distance in the own country*	Domestic traffic	X			Container hinterland CT	X	
	International traffic	X			Continental CT	X	
	- By country						
Breakdown of loading units	Container				Swap bodies		
	- By length/size?		X		- By length/size?		
	- Share 45'?				Semi-trailers		
Other features?							

** Please inquire if the transport performance relates to the transport distance in the respective country or, in the case of international journeys, also to the mileage in other countries.*

1) Statistics of RENFE

2) Statistics of Spanish Ports Agency

** It is not known if the land leg is by road or by rail*

C. Methodology

C1. What are the sources for collecting data on CT operations? If various sources are used please indicate which data are delivered by whom?

	Source	Characteristics (if not exclusively collected from a single source)
	Railway undertakings	X
	Intermodal operators	
	Container barge operators	
	Seaports	X
	Inland (River) ports	
	Terminal operators	
	Others	

C2. Can the authorities confirm that every CT operation (movement of a CT load unit) is recorded? If so, please describe the measures taken.

Every movement of a CT load unit is recorded in the respective intermodal terminal.

C3. How do the authorities make sure that double/multiple counts are avoided?

C4. Do the authorities register trimodal CT operations that are the transport of an intermodal load unit in a chain of transport comprising rail, inland waterway and road (independent of sequence of modes)? How do they achieve that?

COUNTRY	FR France

Figure M3.1 Transport intérieur ferroviaire de marchandises

en milliards de t-km, évolutions en %

	2010	2011	2012	2012/ 2011	2012/ 2008
Ferroviaire	30,0	34,2	32,6	-4,8	-19,5
national	22,6	25,4	22,1	-13,0	-15,3
international	5,7	6,6	7,4	11,2	-32,4
transit	1,7	2,2	3,1	40,5	-10,5

Figure M3.2 Transport ferroviaire conventionnel et combiné par conditionnement

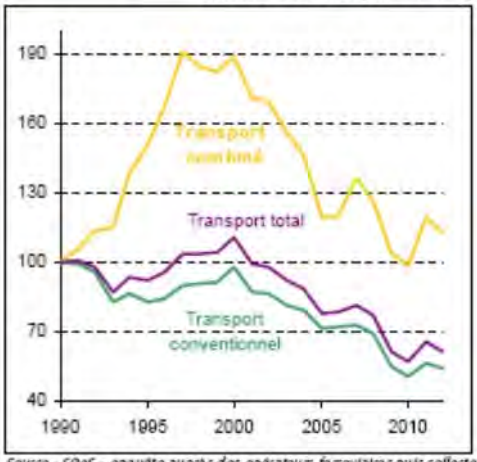
t-km intérieures, évolutions en %

	2010	2011	2012	2012/ 2011	2012/ 2008
Conventionnel	22,8	25,5	24,3	-4,8	-22,1
Combiné	7,2	8,7	8,3	-4,9	-10,7
dont conteneurs	5,7	5,7	5,4	-5,3	-23,5
semi remorques (non accompagnés)	1,4	3,0	2,8	-6,4	29,1

Source : SOeS -enquête auprès des opérateurs ferroviaires puis collecte dans le cadre du décret 555/2012

Figure M3.3 Transport ferroviaire combiné et conventionnel

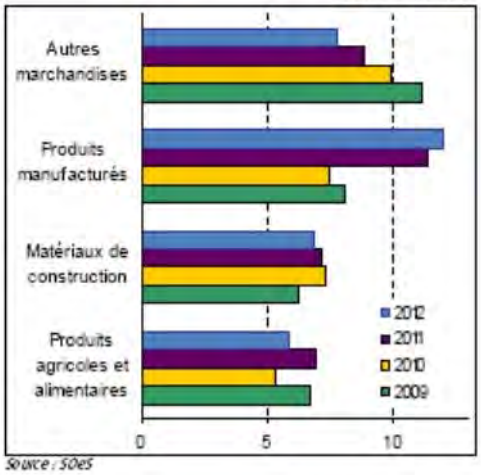
Indice base 100 en 1990 (t-km intérieures)



Source : SOeS - enquête auprès des opérateurs ferroviaires puis collecte dans le cadre du décret 555/2012

Figure M3.4 Principales marchandises transportées

En GT-km intérieures



Source : SOeS

COUNTRY	**HR Croatia**

A. COMPANY INFORMATION

Company	HŽ CARGO d.o.o.		
Address	Tomislavov trg 11		
Contact name	Boris Gobac		
Function	Zamjenik direktora Prodaje (deputee of salesdirector)		
Phone	00385 1 4551 322		
E-Mail	boris.gobac@hzcargo.hr		
Staff employed for combined transport (by 31 Dec 2011)		Employees	2
Revenues from combined transport in 2011		Euro	3,464,796

B. COMBINED TRANSPORT VOLUMES IN 2011

B1. If available, please provide CT volumes in the year 2011 in TEU or shipments (equivalent to a full-truckload), tonne-kilometres and tonnes and indicate if tonnes refer to the weight of goods (net) or also include the tare weight of the loading unit (gross).

		TEU	Shipments	Tonne-kilometres	Tonnes	Net	Gross
Domestic services in	*(indicate country)*	6,327	4,364	4,964,840	18,191	☐	☑
International services		39,944	27,547	176,109,802	596,794	☐	☑
Total CT volume		46,272	31,911	181,074,642	614,985	☐	☑

B2. Please indicate the percentage shares of container hinterland and continental CT volumes (see definition above) per market segment.

	Container hinterland CT	Continental CT	Total CT
Domestic services			15%
International services			85%

B3. If you have operated international CT services in the year 2011, please provide the transport volumes per country-to-country trade lane. Please give the total volume (both directions).

Country A	- Country B	TEU	Shipments	Tonnes

B4. Please indicate the percentage shares of the type of intermodal loading units, if possible separately for container hinterland and continental CT services (if applicable). Otherwise indicate the break-down for total CT.

		Container hinterland CT	Continental CT	Total CT
Container	20'			60%
	30'			2%
	40'			38%
	45'			
Swap body	7 - 8 m	-		
	30'	-		
	45'	-		
Semi-trailer		-		

C. EVOLUTION OF COMBINED TRANSPORT VOLUMES 2012/2013

Please indicate the CT volumes of your company for the year 2012 and provide an estimation for 2013 (in TEU or shipment).

	2012		2013	
	TEU	Shipment	TEU	Shipment
Domestic services	6,389	4,524	6,300	4,406
International services	31,355	21,839	35,704	24,968

COUNTRY	HU Hungary

A. Overview

A1. Does the Member State collect statistical data on CT operations, and has it set up a statistical database?

	YES	NO
CT rail/road	X	
CT inland waterway/road	X	
CT sea/road (N/A)		X

A2. Please identify the reasons if the Member State does not record data on CT at all or individual CT sectors.

B. Characteristics [only if CT statistics are set up]

B1. Which characteristics of CT operations are regularly collected with respect to the three CT sectors (see definitions above)?

Transport volume	TEU	X		Domestic CT	X
	Gross tonnes			International CT	X
	Net tonnes	X		- By country	
	Units	X		Container hinterland CT	
	- Loaded	X		Continental CT	
	- Empty	X			

Transport performance *	Domestic traffic	X		Container hinterland CT	
	International traffic	X		Continental CT	
	- By country				

Breakdown of loading	Container	X		Swap bodies	X

units	- By length/size?	X		- By length/size?	
	- Share 45'?	**(a)**		Semi-trailers	X

(a) For CT rail/road respondents shall submit breakdown by 20', 30' and 40' whilst for CT IWW/road companies additionally shall indicate the amount of containers larger than 40' (like in DE).

C. Methodology

C1. What are the sources for collecting data on CT operations? If various sources are used please indicate which data are delivered by whom?

	Source	Characteristics (if not exclusively collected from a single source)
X	**Railway undertakings**	
	Intermodal operators	
	Container barge operators	
	Seaports	
X	**Inland (River) ports**	
	Terminal operators	

C2. Can the authorities confirm that every CT operation (movement of a CT load unit) is recorded? If so, please describe the measures taken.

All registered RUs are obliged to supply data annually. This also applies to registered inland ports.

C3. How do the authorities make sure that double/multiple counts are avoided?

There are no double counts since every CT transport in HU is carried out only by a single company.

C4. Do the authorities register trimodal CT operations that are the transport of an intermodal load unit in a chain of transport comprising rail, inland waterway and road (independent of sequence of modes)? How do they achieve that?

No.

COUNTRY	**IE Ireland**	
CONTACT INFORMATION	Organisation	Central Statistics Office
	Contact Name	
	Position	
	Phone	353-21-4535000
	Email	information@cso.ie

A. Overview

A1. Does the Member State collect statistical data on CT operations, and has it set up a statistical database?

	YES	NO
CT rail/road		**X**
CT inland waterway/road		**X**
CT sea/road		**X**

A2. Please identify the reasons if the Member State does not record data on CT at all or individual CT sectors.

Not applicable/no traffic	**X**
Lack of legal basis	
Data published by CT operators	

Other reasons : Data is not separated as shown under A1, but as a whole.

B. Characteristics [only if CT statistics are set up]

B1. Which characteristics of CT operations are regularly collected with respect to the three CT sectors (see definitions above)?

Statistics on containers through Ports are captured, information available at http://www.cso.ie/en/media/csoie/releasespublications/documents/transport/2012/spt_2012.pdf

PORT ONLY					
Transport volume	TEU	X		Domestic CT	
	Gross tonnes	X		International CT	X
	Net tonnes			- By country	X
	Units			Container hinterland CT	
	- Loaded	X		Continental CT	X
	- Empty	X			
Transport performance *	Domestic traffic			Container hinterland CT	
	International traffic	X		Continental CT	
	- By country	X			
Breakdown of loading units	Container			Swap bodies	
	- By length/size?	**20', 40', Other**		- By length/size?	
	- Share 45'?			Semi-trailers	
Other features?					

** Please inquire if the transport performance relates to the transport distance in the respective country or, in the case of international journeys, also to the mileage in other countries.*

C. Methodology

C1. What are the sources for collecting data on CT operations? If various sources are used please indicate which data are delivered by whom?

	Source	**Characteristics (if not exclusively collected from a single source)**

	Railway undertakings	Rail CT traffic is included within Government statistics as "general freight". Irish Rail has estimated that in 2012 the company carried 163,750 tonnes of intermodal freight, but note this is only based on what they contractually agree to carry rather than the actual tonnages carried.
	Intermodal operators	Main customers for CT Rail are IWT and DFDS.
	Container barge operators	
	Seaports	Information is gathered from port operators.
	Inland (River) ports	
	Terminal operators	
	Others	

C2. Can the authorities confirm that every CT operation (movement of a CT load unit) is recorded? If so, please describe the measures taken.

-

C3. How do the authorities make sure that double/multiple counts are avoided?

-

C4. Do the authorities register trimodal CT operations that are the transport of an intermodal load unit in a chain of transport comprising rail, inland waterway and road (independent of sequence of modes)? How do they achieve that?

-

COUNTRY	LT Lithuania

Tonne-kilometres of intermodal transport units by rail, Weight of intermodal transport units carried by rail, Intermodal transport units carried by rail

		Tonne-kilometres of intermodal transport units by rail | thousand tonne-kilometres	Weight of intermodal transport units carried by rail | thousand tonnes	Intermodal transport units carried by rail | units		
				Intermodal transport units	Intermodal transport units loaded	Empty intermodal transport units
Total intermodal tranport units	2012	404.431	1,036.3	75.107	44.001	31.106
	2011	408.087	1,041.2	71.444	43.861	27.583
	2010	306.887	785.9	53.383	32.076	21.307
	2009	243.791	632.3	45.008	27.694	17.314
	2008	402.533	1,071.6	57.924	34.438	23.486
	2007	325.574	935.6	71.309	44.671	26.638
	2006	197.673	618.6	43.454	29.503	13.951
	2005	261.704	438.1	33.071	23.275	9.796
Containers	2012	404.431	1,036.3	75.107	44.001	31.106
	2011	408.087	1,041.2	71.444	43.861	27.583
	2010	306.887	785.9	53.383	32.076	21.307
	2009	243.791	632.3	45.008	27.694	17.314
	2008	402.533	1,071.6	57.924	34.438	23.486
	2007	325.574	935.6	71.309	44.671	26.638
	2006	197.581	618.0	43.436	29.485	13.951
	2005	142.758	433.6	32.947	23.151	9.796
Road vehicles, accompanied	2012					
	2011					
	2010					
	2009					
	2008					
	2007					
	2006	92	0.6	18	18	
	2005	1.609	4.5	124	124	

Intermodal transport units carried by rail

			Intermodal transport units carried by rail | units
Total intermodal tranport units	Intermodal transport units	2012	75.107
		2011	71.444
		2010	53.383
		2009	45.008
		2008	57.924
		2007	71.309
		2006	43.454
		2005	33.071
	Intermodal transport units loaded	2012	44.001
		2011	43.861
		2010	32.076
		2009	27.694
		2008	34.438
		2007	44.671
		2006	29.503
		2005	23.275
	Empty intermodal transport units	2012	31.106
		2011	27.583
		2010	21.307
		2009	17.314
		2008	23.486
		2007	26.638
		2006	13.951
		2005	9.796
Containers	Intermodal transport units	2012	75.107
		2011	71.444
		2010	53.383
		2009	45.008
		2008	57.924
		2007	71.309
		2006	43.436
		2005	32.947
	Intermodal transport units loaded	2012	44.001
		2011	43.861
		2010	32.076
		2009	27.694
		2008	34.438
		2007	44.671
		2006	29.485
		2005	23.151
	Empty intermodal transport units	2012	31.106
		2011	27.583
		2010	21.307
		2009	17.314
		2008	23.486
		2007	26.638
		2006	13.951
		2005	9.796
Road vehicles, accompanied	Intermodal transport units	2012	
		2011	
		2010	
		2009	
		2008	
		2007	
		2006	18
		2005	124
	Intermodal transport units loaded	2012	
		2011	
		2010	
		2009	
		2008	
		2007	
		2006	18
		2005	124
	Empty intermodal transport units	2012	
		2011	
		2010	
		2009	
		2008	
		2007	
		2006	
		2005	

Additional information about indicators

Intermodal transport units carried by rail			
Updated at: 2013-06-28			
Next update:			
Responsible person: Jelena Selivonec			
Email: Jelena.Selivonec@stat.gov.lt			
Phone number: (8 5) 236 4696			
Organization: Statistics Lithuania			

COUNTRY	LV Latvia	
CONTACT INFORMATION	Organisation	UIC
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	Email	doc@uic.org

A. Overview

A1. Does the Member State collect statistical data on CT operations, and has it set up a statistical database?

	YES	NO
CT rail/road		
CT inland waterway/road		
CT sea/road		

Neither YES nor NO have been confirmed within this thesis.

A2. Please identify the reasons if the Member State does not record data on CT at all or individual CT sectors.

Not applicable/no traffic

Lack of legal basis

Data published by CT operators

Other reasons : Data or statistics could not be found.

B. Characteristics [only if CT statistics are set up]

B1. Which characteristics of CT operations are regularly collected with respect to the three CT sectors (see definitions above)?

Transport volume (CIS States – Latvia 2011)	TEU	95.795		Domestic CT	
	Gross tonnes	1.053.745		International CT	
	Net tonnes			- By country	
	Units			Container hinterland CT	
	- Loaded			Continental CT	
	- Empty				
Transport performance *	Domestic traffic			Container hinterland CT	
	International traffic			Continental CT	
	- By country				
Breakdown of loading units	Container			Swap bodies	
	- By length/size?			- By length/size?	
	- Share 45'?			Semi-trailers	
Other features?					

** Please inquire if the transport performance relates to the transport distance in the respective country or, in the case of international journeys, also to the mileage in other countries.*

C. Methodology

C1. What are the sources for collecting data on CT operations? If various sources are used please indicate which data are delivered by whom?

	Source	**Characteristics (if not exclusively collected from a single source)**

	Railway undertakings	
	Intermodal operators	
	Container barge operators	
	Seaports	
	Inland (River) ports	
	Terminal operators	
	Others	http://www.uic.org/IMG/pdf/2012_report_on_combined_transport_in_europe.pdf

C2. Can the authorities confirm that every CT operation (movement of a CT load unit) is recorded? If so, please describe the measures taken.

-

C3. How do the authorities make sure that double/multiple counts are avoided?

-

C4. Do the authorities register trimodal CT operations that are the transport of an intermodal load unit in a chain of transport comprising rail, inland waterway and road (independent of sequence of modes)? How do they achieve that?

COUNTRY	NL Netherlands

Unfortunately there are no structured public statistics in the Netherlands for Combined Transport. For years the railways companies supplied to CBS (= Centraal Bureau voor Statistiek, Central Office for Statistics), fairly differentiated overviews of what they transported. As well in the field of types of trains (bulk, CT, single wagon transport, etc.), types of goods, weights, sources and destinations. These figures are supplied to CBS and collected by CBS. However, up to January 1st 2014, CBS was not allowed by the railway companies to publish these figures. The only provided information, CBS reflects in STATLINE (www.cbs/statline.nl) and in this overview, figures are presented of the rail transport concerning cargo weight and ton kilometres.

Based on the delivered figures by the railways companies, CBS supplies figures concerning rail transport according to European appointments to EUROSTAT.

Meanwhile the railway companies did give up their objections. CBS is now busy to make more differentiated statistics for 2013 and 2012, but it will take some months before the results of this new set-up are available.

COUNTRY	PL Poland	
CONTACT INFORMATION	Organisation	Central Statistical Office of Poland (CSO)
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	Position	Head of Unit; Consultant
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	Email	e.alke@stat.gov.pl; b.barcikowski@stat.gov.pl

A. Overview

A1. Does the Member State collect statistical data on CT operations, and has it set up a statistical database?

	YES	NO
CT rail/road		x
CT inland waterway/road		x
CT sea/road		x

A2. Please identify the reasons if the Member State does not record data on CT at all or individual CT sectors.

Not applicable/no traffic[1)]	x
Lack of legal basis[2)]	x
Data published by CT operators	

Other reasons :

Notes:

1) CT operations do not exist in inland waterways transport.
2) Lack of legal basis in the EU Regulation as well as in national law for statistical surveys in the scope of CT operations.

B. Characteristics [only if CT statistics are set up]

B1. Which characteristics of CT operations are regularly collected with respect to the three CT sectors (see definitions above)?

CSO has regularly collected data on transport of containers, mainly for rail and maritime transport. Information on containers in road transport concerns only gross tonnes breakdown by national transport and international transport.

Transport volume	TEU	x		Domestic CT	x
	Gross tonnes	x		International CT	x
	Net tonnes			- By country	
	Units	x		Container hinterland CT	
	- Loaded	x		Continental CT	
	- Empty	x			

Transport performance *1)	Domestic traffic	x		Container hinterland CT	
	International traffic	x		Continental CT	
	- By country				

Breakdown of loading units	Container	x		Swap bodies	x
	- By length/size?	x		- By length/size?	
	- Share 45'?	x		Semi-trailers	x

Other features?					

** Please inquire if the transport performance relates to the transport distance in the respective country or, in the case of international journeys, also to the mileage in other countries.*

1) Rail transport includes tonne-kilometres on the Polish territory not only in domestic traffic but in international traffic.

C. Methodology

C1. What are the sources for collecting data on CT operations? If various sources are used please indicate which data are delivered by whom?

	Source	Characteristics (if not exclusively collected from a single source)
	Railway undertakings	Rail transport data is collected according to Regulation (EC) No 91/2003 of the European Parliament and of the Council of 16 December 2002 on rail transport statistics. It is disseminated by CSO in annual publication e.g. "Transport – activity results"
	Intermodal operators	At the moment Poland is carrying out a pilot study on intermodal transport, which allows to implement such a regular survey in the near future. There will be observed total volume of freight transport (goods loaded and unloaded in maritime-land terminals and land (rail-road) terminals) by transport mode presented in: TEU, size of containers (in units), gross tonnes, empty units, loaded units, type of mobile units, distance travelled. Sources of collected information are intermodal terminals operators (maritime and land), rail undertakings, freight operators and road carriers.
	Container barge operators	Container transport by inland waterways does not exist.
	Seaports	Maritime transport data is collected according to Directive 2009/42/EC of the European Parliament and of the Council of 6 May 2009 on statistical returns in respect of carriage of goods and passengers by sea (Recast). It is disseminated by CSO in annual publication e.g. "Transport – activity results" and "Statistical Yearbook of Maritime Economy".
	Inland (River) ports	Container transport by inland waterways does not exist.
	Terminal operators	At the moment Poland is carrying out a pilot study on intermodal transport, which allows to implement such a regular survey in the near future. There will be observed total volume of freight transport (goods loaded and unloaded in maritime-land terminals and land (rail-road) terminals) by transport mode presented in: TEU, size of containers (in units), gross tonnes, empty units, loaded units, type of mobile units, distance travelled. Sources of collected information are intermodal terminals operators (maritime and land), rail undertakings, freight

		operators and road carriers.
	Others	Road freight transport data is collected according to Regulation (EU) No 70/2012 of the European Parliament and of the Council of 18 January 2012 on statistical returns in respect of the carriage of goods by road (recast). It is disseminated by CSO in annual publication e.g. "Transport – activity results"

C2. Can the authorities confirm that every CT operation (movement of a CT load unit) is recorded? If so, please describe the measures taken.

It does not concern. According to the currently obliged law solution in transport statistics area the statistical observation unit is active transport mode, but not every CT operation.

C3. How do the authorities make sure that double/multiple counts are avoided?

It does not concern. According to the currently obliged law solution in transport statistics area the statistical observation unit is active transport mode, but not every CT operation.

C4. Do the authorities register trimodal CT operations that are the transport of an intermodal load unit in a chain of transport comprising rail, inland waterway and road (independent of sequence of modes)? How do they achieve that?

It does not concern. According to the currently obliged law solution in transport statistics area the statistical observation unit is active transport mode, but not every CT operation.

COUNTRY	PT PORTUGAL	
	Organisation	Instituto Nacional de Estatística
	Contact Name	Rute Cruz
	Position	Head of unit (Distributive trade, tourism and transport statistics)
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	Email	rute.cruz@ine.pt

A. Overview

A1. Does the Member State collect statistical data on CT operations, and has it set up a statistical database?

	YES	NO
CT rail/road		X
CT inland waterway/road N.A.		X
CT sea/road		X

Portugal does not have specific statistical data on CT. The Portuguese Transport statistics reflect the EU statistical legislation, plus some aspects not related to this subject.

Terrestrial transport statistics relevant for this matter concern ports traffic (from ports administrations; including ro-ro), road traffic (from a sample survey to the road transport companies) and railway traffic (data from transport companies and rail system administration).

There is no data collection about freight transported in inland waterways (only about passengers) since this kind of transport in Portugal is below the statistical threshold.

A2. Please identify the reasons if the Member State does not record data on CT at all or individual CT sectors.

Not applicable/no traffic	
Lack of legal basis	X
Data published by CT operators	

Other reasons : .Strong statistical burden to NSI and respondents

C. Methodology

C1. What are the sources for collecting data on CT operations? If various sources are used please indicate which data are delivered by whom?

	Source	Characteristics (if not exclusively collected from a single source)
	Railway undertakings	X (potential)
	Intermodal operators	
	Container barge operators	
	Seaports	X (potential)
	Inland (River) ports	
	Terminal operators	
	Others	

C2. Can the authorities confirm that every CT operation (movement of a CT load unit) is recorded? If so, please describe the measures taken.

-

C3. How do the authorities make sure that double/multiple counts are avoided?

-

C4. Do the authorities register trimodal CT operations that are the transport of an intermodal load unit in a chain of transport comprising rail, inland waterway and road (independent of sequence of modes)? How do they achieve that?

-

COUNTRY	RU Romania

A. Overview

A1. Does the Member State collect statistical data on CT operations, and has it set up a statistical database?

	YES	NO
CT rail/road	X	
CT inland waterway/road	X	
CT sea/road	X	

Statistical data are separately collected for every transport mode and not for entire CT services (including both the road legs and railway/inland waterway/sea legs).

A2. Please identify the reasons if the Member State does not record data on CT at all or individual CT sectors.

Not applicable

B. Characteristics [only if CT statistics are set up]

B1. Which characteristics of CT operations are regularly collected with respect to CT sectors ?

Transport volume	TEU	X		Domestic CT	X
	Gross tonnes			International CT	X
	Net tonnes	X		- By country	
	Units			Container hinterland CT	
	- Loaded	X		Continental CT	
	- Empty	X			

Transport performance *	Domestic traffic	X		Container hinterland CT	
	International traffic	X		Continental CT	
	- By country				

Breakdown of loading units	Container	X		Swap bodies	X
	- By length/size?			- By length/size?	
	- Share 45'?			Semi-trailers	X

Transport performance relates to distances in Romania.

C. Methodology

C1. What are the sources for collecting data on CT operations? If various sources are used please indicate which data are delivered by whom?

Source	Characteristics (if not exclusively collected from a single source)
Railway undertakings	- CT data collection is part of survey on rail freight transport based on Order of President of the National Institute of Statistics no. 665 of 10 Oct 2006; - Full-scale survey; - Observation unit is the company, number of observation units: 20; - Data sources are CFR Marfa and other providers of rail freight services; - Data collection by standard questionnaire (TR1 M-CF) including chapter on CT (chapter 2 in annex 1); - Data are collected at every trimester, deadline for delivery is the 18th day of the month following trimester.
Seaports	- CT data collection is part of survey on seaport throughput based on Order of President of the National Institute of Statistics no. 443 of 26 April 2006; - Full-scale survey; - Observation unit is the sea vessel, number of observation units: 8; - Data sources are seaport and inland canal authorities; - Data collection via a standard electronic format (TR2 E MARITIM); - Data are collected at every trimester, deadline for delivery is the 18th day of the month following trimester, see Annex 2.

Inland (River) ports	- CT data collection is part of survey on inland waterway transport based on Order of President of the National Institute of Statistics no. 446 of 27 April 2006; - Full-scale survey; - Observation unit is the barge, number of observation units: 10; - Data sources are inland canal and Donau ports administrations, local port authorities, Ministry of Transports and Romanian Naval Register. - Data is collected in a standard electronic format (TR2 E). - Data are collected at every trimester, deadline for delivery is the 27th day of the month following trimester, see Annex 3.

Road companies	- CT data collection is part of survey on road haulage based on Order of President of the National Institute of Statistics no. 696 of 10 Oct 2006; - Survey carried out as sample; - Observation unit is the road vehicle, number of observation units: 33,000; - Data sources are road hauliers for hire and reward and own-account operators, Ministry of Interior and Romanian Road Authority also involved; - Data collection by a standard questionnaire on paper (ASTRM) or online via eSOP application of National Institute of Statistics; - Data collection during a reference week in every trimester, deadline for delivery is the 8th day following the reference week (see Annex 4).

C2. Can the authorities confirm that every CT operation (movement of a CT load unit) is recorded? If so, please describe the measures taken.

Statistics related to road transport that is part of a CT service are based on a sample Therefore not all CT operations are recorded. The Methodology includes procedures of data checks and validation to be performed by the staff of the National Institute of Statistics allowing the transmission to Eurostat of data that meet requirements of EC regulation regarding quality and precision (especially the percentage standard error of the annual estimates).

Checks and validations are also carried out for rail, inland waterway sea traffic.

C3. How do the authorities make sure that double/multiple counts are avoided?

Double/multiple counts can be avoided through checks and validations imposed in the methodologies mentioned.

C4. Do the authorities register trimodal CT operations that are the transport of an intermodal load unit in a chain of transport comprising rail, inland waterway and road (independent of sequence of modes)? How do they achieve that?

No

Enclosed: Annexes 1-4

ANNEX 1 - DATA COLLECTED FROM COMPANIES PROVIDING SERVICES OF TRANSPORT OF GOODS BY RAILWAYS

(Chapter 2 of the Questionnnaire TR1 M-CF)

Chapter 2. Combined transport on the railway network

Row no.	Indicator name	Pieces	TEU	Tons[1)]	Tons-Km
A	B	1	2	3	4
I	LOADED MOBILE UNITS		X		
1	National transport		X		
2	- containers and swap bodies				
3	- semitrailers (unaccompanied)		X		
4	- road vehicles (accompanied)		X		
5	International transport – incoming (arrivals)		X		
6	- containers and swap bodies				
7	- semitrailers (unaccompanied)		X		
8	- road vehicles (accompanied)		X		
9	International transport – outgoing (departures)		X		
10	- containers and swap bodies				
11	- semitrailers (unaccompanied)		X		
12	- road vehicles (accompanied)		X		
13	Transit		X		
14	- containers and swap bodies				
15	- semitrailers (unaccompanied)		X		
16	- road vehicles (accompanied)		X		
II	EMPTY MOBILE UNITS		X	X	X
17	National transport		X	X	X
18	- containers and swap bodies			X	X
19	- semitrailers (unaccompanied)		X	X	X
20	- road vehicles (accompanied)		X	X	X
21	International transport – incoming (arrivals)		X	X	X
22	- containers and swap bodies			X	X
23	- semitrailers (unaccompanied)		X	X	X
24	- road vehicles (accompanied)		X	X	X
25	International transport – outgoing (departures)		X	X	X
26	- containers and swap bodies			X	X
27	- semitrailers (unaccompanied)		X	X	X
28	- road vehicles (accompanied)		X	X	X
29	Transit		X	X	X
30	- containers and swap bodies			X	X
31	- semitrailers (unaccompanied)		X	X	X
32	- road vehicles (accompanied)		X	X	X

[1)] Gross weight of the goods carried, including containers and road vehicles

ANNEX 2 - FORMAT FOR THE DATA RELATED TO THE TRAFFIC THROUGH THE SEA PORTS

Number of the current field	Indicator name	Field format and size an=alfanumerical n=numerical	Codification/ remarks
1	Unique Identification Code of the responding company Romanian Border Police	n10	
2	Code of the port for which is performed the reporting activity	an5	According to the list of ports in Annex 1, UNECE website
3	Reference month	n2	Code 1-12
4	Vessel type / Name of the vessel for the transport of passengers (an60)	an2	According to the EU classification (Annex no. 2
5	Vessel nationality	an4	According to the list of vessel nationalities (Anne no.3)
6	Direction (arrival in port or departure from port)	n1	1 – arrival for unloading; 2 – departure after the loading
7	Gross weight of the goods loaded or unloaded – total	n15	In tons
8	Number of passengers that stat the cruise	n15	
9	Number of passengers of cruise, 'in excursion'	n15	
10	Number of containers or mobile units with load	n15	Only for specific types of load, in Annex no. 4
11	Number of containers or mobile units without load	n15	Only for specific types of load, in Annex no. 4
12	Vessel deadweight navă , in tons	n15	In tons
13	Gross wight of the vessel in tons	n15	In tons
14[1)]	Port of loading for direction coded 1 or port of unloading for direction coded 2. Port of disembarkation for passengers that start the cruise or for passengers of cruise 'in excursion'	an5	According to list of ports i Annex no. 1
15[1)]	Type of load	an2	According to Annex no. 4
16[1)]	Type of commodities according to the NST 2007 Classification	an2	According to NST 2007 (Annx no.5)
17[1)]	Gross weight for the division of commodities requested at point 16 or number of passenges	n15	In tons
18[1)]	Number of containers or mobile units with load	n15	Type of specific loads, Annex no. 4

1) If a vessel carries more types of commodities in the NST 2007 Classification and / or the goods are carried to more ports of loading / unloading, the indicators 14 – 19 will be repeated for every port of loading / unloading and for every type of commodity, the field being getting continuing numbers (20,21,...).

ANNEX 3 - FORMAT OF THE DATA RELATED TO THE TRAFFIC OF GOODS ON INLAND WATERWAYS

Field no.	Indicator name	Format and size an=alfanumerical n=numerical	Codification/ Remarks
1	Code of the company providing data	n10	
2	Code of the port for which is performed the data submission	an5	According to the list of ports
3	Month of reference	n2	Code 1-12
4	Type of vessel	n1	According to list of vessels
5	Nationality of the vessel	an2	According to the list of countries
6	Number of accidents	n2	
7	Număr of accidents involving dangerous goods	n2	
8	Direction (arrival in the port, departure from the port or transit)	n1	1 - arrival (vessels to be unloaded or empty vessels) 2 - departure (vessels after the loading or empty vessels) 3 - transit
9*	Port of loading - direction code 1 or 3 Port de unloading - direction code 2 Port of departure/destination for row 10 = 0	an5	According to the list of ports
10*,**	Load type	n1	0 – empty vessel 1 – goods carried in containers 2 – goods not carried in containers or empty containers 3 – dangerous goods
11*	Type of containers	n1	0 1 – container 20’ (and <20’) 2 – container 40’ 3 – container 20’- 40’ 4 – container >40’
12*	Number of loaded and empty containers	n3	
13*	Gross weight of the loaded / unloaded goods	n15	0 – empty vessels tons – loaded vessels
14*	ADN Class dangerous goods	an3	00 sau Conform clasificării ADN Anexa nr. 5
15*	Type of goods according to NST 2007 Classification of goods	n2	00 or according to NST 2007
16*	Distance on the inland waterways	n4	km
17	Port of unloading / destination – direction code 3	an5	According to the list of ports

ANNEX 4 - DATA COLLECTED FROM COMPANIES PROVIDING SERVICES OF ROAD TRANSPORT OF GOODS

EXTRACT FROM THE ASTRM QUESTIONNAIRE

CHAPTER VI. JOURNEY WITH 4 OR LESS STOPS

Reserved			JOURNEY						DISTANCE			GOODS' WEIGHT	GOODS PACKING [3]	IDENTICAL JOURNEYS	INTERMODAL	
D.R.S			DAY FROM THE REFERENCE WEEK	Write the nearest settlement, or for carriage inside the same settlement, write its name in both columns (town, village codified according to NUTS 3 within 5 digits, of		TRANSIT COUNTRIES [2]	COMMODITY NAME [3]		- Km -			- Kg -		-NUMBER-	TRANSPORT	
(D.R.S.B.)/D.J.S.				(See notes 16, 17)		(see note 18)	(see note 19)					(see note 21)	(see note 22)	(see note 8)	Write the loading / unloading place (country) of the road vehicle or/if connected transport mean	
				Origin[1]	Destination[1]										(see note 23)	
									Loaded	Empty					Loaded[4]	Empty[4]
A	B	C	1	2	3	4	5		6	7		8	9	10	11	12

				JOURNEY					TOTAL WEIGHT OF THE DELIVERED GOODS	NUMBER OF STOPS FOR DELIVE-RIES	TOTAL WEIGHT OF THE GOODS	NUMBER OF STOPS FOR PICKING-UP GOODS			
Reserved				Write the nearest settlement, or for carriage inside the same settlement, write its name in both columns (town, village codified according to NUTS 3 with 5 digits, of which the first 2 digits represent the country code					- Kg -	(see	PICKED-UP	(see		INTERMODAL	
D.R.S			DAY FROM THE REFEREN-CE WEEK	(See notes 16, 17)		GOODS' NAME 2)	TOTAL DISTANCE		(see	note 28)	- Kg -	note 28)	GOODS' PACKING 2)	TRANSPORT	
.(D.R.S.B.)/						(see note 19)	- Km -		note 21)		(see		(see note 22)	Write the loading / unloading place (country) of the road vehicle on/from another transport mean	
D.J.S.							(see note 26)				note 21)			(see note 23).	
				Origin 1)	Destination 1)		Loaded	Empty						Loade 3)	EMPTY 3)
A	B	C	1	2	3	4	5	6	7	8	9	10	11	12	13

NOTES RELEVANT FOR INTERMODAL TRANSPORT

22. In GOODS PACKING column, it must be described the manner in which the goods are carried, throught their inclusion in one of the following categories corespunding to the packing system used during the carriage.

- Liquid bulk goods 10
- Solid bulk goods 1
- Big containers 2
- Other containers 3
- Palettised goods 4
- Suspended goods 5
- Mobile units, selppropelled 6
- Other mobile units 7
- Other systems (crates, cellars, etc.) 9

23. In INTERMODAL TRANSPORT column, it be filled the place (country) where the road vehicle is loaded on, respectively unloaded from the vehicle belonging to another mode of transport, without operations of stuffing / unstuffing of goods when changing the transport mode. Intermodal transport does not refers to the commodities transhipment in / from the road vehicle from / in another mode of transport, but to the cases in which the road transport is loaded / unloaded together with the goods in / from another mean of transport. Only if there are such situations, the respective columns must be filled with the name of the place (country(in hich the loading / unloading of the road vehicle on / from another mean of transport is performed.

CONTACT INFORMATION	Organisation	Trafikanalys – Rapport 2012:8
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	Position	Head of department
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A. Overview

A1. Does the Member State collect statistical data on CT operations, and has it set up a statistical database?

	YES	NO
CT rail/road	**X**	
CT inland waterway/road (a)		
CT sea/road (a)		

(a) Presumably no statistics (no data supplied).

A2. Please identify the reasons if the Member State does not record data on CT at all or individual CT sectors.

Not applicable/no traffic	
Lack of legal basis	
Data published by CT operators	

B. Characteristics [only if CT statistics are set up]

B1. Which characteristics of CT operations are regularly collected with respect to the three CT sectors (see definitions above)?

		Mton			
Transport volume	TEU			Domestic CT	X
	Gross tonnes	X		International CT	X
	Net tonnes			- By country	
	Units			Container hinterland CT	
	- Loaded			Continental CT	
	- Empty				
Transport performance *	Domestic traffic	X		Container hinterland CT	
	International traffic	X		Continental CT	
	- By country				
Breakdown of loading units	Container			Swap bodies	
	- By length/size?			- By length/size?	
	- Share 45'?			Semi-trailers	
Other features?					

** Gross tonne-kms based on national distances.*

C. Methodology

C1. What are the sources for collecting data on CT operations? If various sources are used please indicate which data are delivered by whom?

	Source	Characteristics (if not exclusively collected from a single source)
X	**Railway undertakings**	
X	**Intermodal operators**	
	Container barge operators	
	Seaports	
	Inland (River) ports	
	Terminal operators	
X	**Others**	Infrastructure managers, County traffic organizers (Länstrafikhuvudmän)

C2. Can the authorities confirm that every CT operation (movement of a CT load unit) is recorded? If so, please describe the measures taken.

-

C3. How do the authorities make sure that double/multiple counts are avoided?

-

C4. Do the authorities register trimodal CT operations that are the transport of an intermodal load unit in a chain of transport comprising rail, inland waterway and road (independent of sequence of modes)? How do they achieve that?

-

COUNTRY	SI SLOVENIA	
CONTACT INFORMATION	Organisation	Statistical office of the Republic of Slovenia (SURS)
	Contact Name	Gregor Zupan
	Position	
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	Email	gregor.zupan@gov.si

A. Overview

A1. Does the Member State collect statistical data on CT operations, and has it set up a statistical database?

	YES	NO
CT rail/road		**X**
CT inland waterway/road		**X**
CT sea/road		**X**

A2. Please identify the reasons if the Member State does not record data on CT at all or individual CT sectors.

Not applicable/no traffic *	**X**
Lack of legal basis	**X**
Data published by CT operators	

Other reasons : National users didn't express any need for the data.

** Not applicable' refers to CT inland waterway/road.*

The above answers are very strange as you can find statistical data on CT rail/road on the website of the Statistical Office. A further inquiry has prompted the following message (English translation) from the Statistical Office, which does not really clarify the situation:

The original answers to the questionnaire are correct. Beside the data which are collected according to the European Directives on transport statistics, that the Statistical Office of Slovenia does not gather any additional data on combined transport. The data published on the internet site of the Statistical Office refer only to the intermodal transport units transported by the railway operator (note IH: Slovenian Railways) – number, tons, ton-kilometer. The data does not represent the volume of the combined transport rail/road. The same table you can find also in the Eurostat database shoving the data for all member states: Annual number of empty and loaded intermodal transport units carried on railways (number, TEU) http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database)

According to the Slovenian Decree on combined transport, all agents involved in combined transport in Slovenia must collect and forward the data on combined transport to the ministry responsible for transport.

The Statistical Office recommended contacting special Task Force on Intermodal Transport Statistics (contact person angel.simone@ec.europa.eu)

COUNTRY	SK SLOVAK REPUBLIC

A. Overview

A1. Does the Member State collect statistical data on CT operations, and has it set up a statistical database?

	YES	NO
CT rail/road	**x**	
CT inland waterway/road	**x**	
CT sea/road (no sea)		**x**

A2. Please identify the reasons if the Member State does not record data on CT at all or individual CT sectors.

Not applicable/no traffic (no sea)	**x**

B. Characteristics [only if CT statistics are set up]

B1. Which characteristics of CT operations are regularly collected with respect to the three CT sectors (see definitions above)?

Transport volume	TEU	x		Domestic CT	x
	Gross tonnes	x		International CT	x
	Net tonnes	x		- By country	
	Units	x		Container hinterland CT	
	- Loaded	x		Continental CT	
	- Empty	x			
Transport performance *	Domestic traffic	x		Container hinterland CT	
	International traffic	x		Continental CT	
	- By country				
Breakdown of loading units	Container	x		Swap bodies	x
	- By length/size?			- By length/size?	
	- Share 45'?			Semi-trailers	x

* *domestic mileage*

C. Methodology

C1. What are the sources for collecting data on CT operations? If various sources are used please indicate which data are delivered by whom?

	Source	Characteristics (if not exclusively collected from a single source)
x	**Railway undertakings**	
x	**Intermodal operators**	Selected operators collaborating with terminals
x	**Container barge operators**	
	Seaports	No sea
x	**Inland (River) ports**	Inland river port in Bratislava on the Danube river is CT terminal IWW – rail, IWW – road, rail – road (terminal Palenisko)
x	**Terminal operators**	- TEU (pcs.)
	Others	

C2. Can the authorities confirm that every CT operation (movement of a CT load unit) is recorded? If so, please describe the measures taken.

no

C3. How do the authorities make sure that double/multiple counts are avoided?

no

C4. Do the authorities register trimodal CT operations that are the transport of an intermodal load unit in a chain of transport comprising rail, inland waterway and road (independent of sequence of modes)? How do they achieve that?

no

COUNTRY	**UK United Kingdom (Maritime)**	
CONTACT INFORMATION	Organisation	Department for Transport
	Contact Name	Margaret Talbot
	Position	Maritime Statistics
	Phone	020 7944 4131
	Email	maritime.stats@dft.gsi.gov
COUNTRY	**United Kingdom (Road)**	
CONTACT INFORMATION	Organisation	Department for Transport
	Contact Name	
	Position	Road freight statistics
	Phone	020 7944 2547
	Email	roadfreight.stats@dft.gsi.gov.uk
COUNTRY	**United Kingdom (Rail)**	
CONTACT INFORMATION	Organisation	Office for Rail Regulation
	Contact Name	
	Position	Railway statistics
	Phone	020 7282 2018
	Email	rstats@orr.gsi.gov.uk

A. Overview

A1. Does the Member State collect statistical data on CT operations, and has it set up a statistical database?

	YES	NO
CT rail/road		**X**
CT inland waterway/road		**X**
CT sea/road		**X**

A2. Please identify the reasons if the Member State does not record data on CT at all or individual CT sectors.

Not applicable/no traffic	
Lack of legal basis	**X**
Data published by CT operators	**X**

Other reasons : Data is not separated as shown under A1, but as a whole.

B. Characteristics [only if CT statistics are set up]

B1. Which characteristics of CT operations are regularly collected with respect to the three CT sectors (see definitions above)?

Maritime statistics (show containers carried by sea / inland waterway and through ports) https://www.gov.uk/government/publications/port-freight-statistics-2011-final-figures

Road freight statistics (show % of freight traffic moved in containers by GB-registered road vehicles) https://www.gov.uk/government/collections/road-freight-domestic-and-international-statistics#publications-released-during-2012 (Table RFS0136)

Rail freight statistics (show tonnage moved by rail in intermodal units within GB) http://orr.gov.uk/statistics/published-stats/statistical-releases

PORTS / RAIL					
Transport volume	TEU	X		Domestic CT	X
	Gross tonnes	X		International CT	X
	Net tonnes	X		- By country	
	Units			Container hinterland CT	X
	- Loaded	X		Continental CT	
	- Empty	X			
Transport performance *	Domestic traffic	X		Container hinterland CT	X

	International traffic	X		Continental CT	X
	- By country	X			
Breakdown of loading units	Container			Swap bodies	
	- By length/size?	X		- By length/size?	
	- Share 45'?			Semi-trailers	
Other features?					

** Please inquire if the transport performance relates to the transport distance in the respective country or, in the case of international journeys, also to the mileage in other countries.*

C. Methodology

C1. What are the sources for collecting data on CT operations? If various sources are used please indicate which data are delivered by whom?

	Source	Characteristics (if not exclusively collected from a single source)
	Railway undertakings	Information gathered from Network Rail (including HS1) and Eurotunnel
	Intermodal operators	
	Container barge operators	
	Seaports	Information is gathered from port operators.
	Inland (River) ports	
	Terminal operators	
	Others	

C2. Can the authorities confirm that every CT operation (movement of a CT load unit) is recorded? If so, please describe the measures taken.

-

C3. How do the authorities make sure that double/multiple counts are avoided?

-

C4. Do the authorities register trimodal CT operations that are the transport of an intermodal load unit in a chain of transport comprising rail, inland waterway and road (independent of sequence of modes)? How do they achieve that?

Appendix F Examples of CT services and actors

Service contracted by	From	To	Type	Load unit	Road pre-haulage	Terminal A	Rail wagons	Rail traction	Terminal B	Road end-haulage
Kombiverkehr	Hamburg (DE)	Ludwigshafen (DE)	Domestic continental CT	Multiple	Multiple	DB Netz/ DUSS (open access)	DB Schenker Rail (owned or leased)	DB Schenker Rail (DBSR)	BASF/KTL (open access)	Multiple
Stobart (for Tesco)	Daventry (UK)	Mossend (UK)	Domestic continental CT	Stobart	Stobart	Tesco (run by Stobart)	DRS (leased)	DRS (owned or leased)	DB Schenker	Stobart
Stobart (for Tesco)	Daventry (UK)	Wentloog (UK)	Domestic continental CT	Stobart	Stobart	Tesco (run by Stobart)	DRS (leased)	DRS (owned or leased)	Freightliner	Freightliner
BoxXpress	Port of Hamburg (DE)	Nürnberg (DE)	Domestic maritime CT	Multiple	N/A	Europarc/ Eurokombi (open access)	TX Logistik (owned or leased)	TX Logistik	Nürnberg inland port/ TriCon (open access)	Multiple
Freightliner	UK seaports	UK inland rail terminals	Domestic maritime CT	Multiple	N/A	Ports (run by ports and/or Freightliner)	Freightliner (owned or leased)	Freightliner (owned or leased)	Freightliner or third-party	Freightliner or third-party
Medite Shipping Co	Port of Felixstowe (UK)	Selby (UK)	Domestic maritime CT	MSC	N/A	Felixstowe	GBRf (leased)	GBRf (leased)	Potter Group	Multiple
Messina	Port of Genova (IT)	Milano Smistamento (IT)	Domestic maritime CT	Multiple	N/A	Messina	Trenitalia (owned or leased)	Trenitalia	Terminali Italia (open access)	Multiple
Sogemar	Port of La Spezia (IT)	Padova (IT)	Domestic maritime CT	Multiple	N/A	LSCT La Spezia	Sogemar (owned or leased)	Oceanogate	Interporto Padova SpA	Multiple
Ambrogio	Neuss (DE)	Candiolo (IT)	International continental CT	Ambrogio	Ambrogio	Inland port/ Neuss Trimodal (Open access)	DBSR (owned or leased)	DBSR (lead RU)	Ambrogio	Ambrogio
DB Schenker	Wroclaw (PL)	London (UK)	International continental CT	Multiple	TBC	Poźug	DBSR (owned or leased)	DBSR (owned or leased)	Russell Group	Multiple
DFDS	Novara (IT)	Hams Hall (UK)	International continental CT	DFDS	DFDS	TBC	Train operator	Multiple	ABP	DFDS
Ford Motor Co	Valencia (ES)	London (UK)	International continental CT	Transfesa	Transfesa	Ford (run by Transfesa)	Transfesa	DBSR (owned or leased)	Ford (run by Transfesa)	Ford
Hupac	Köln (DE)	Busto (IT)	International continental CT	Multiple	Multiple	DB Netz/ DUSS (open access)	Hupac	SBB Cargo Int (lead RU) + others	Hupac (open access)	Multiple
Interporto Padova SpA	Piacenza (IT)	Sosnowiec (PL)	International continental CT	Cargo Nord IRIS	Multiple	Terminal Piacenza Intermodale (open access)	Trenitalia (owned or leased) + TOUAX (leased)	Trenitalia (lead RU) + PKP	Spedcont	Multiple
Kombiverkehr	Köln (DE)	Verona (IT)	International continental CT	Multiple	Multiple	DB Netz/ DUSS (open access)	Kombiverkehr (owned or leased)	DBSR (lead RU) + Lokomotion/RTC	Terminali Italia (open access)	Multiple
Kombiverkehr	Duisburg (DE)	Granollers/ Barcelona (ES)	International continental CT	Multiple	Multiple	PKV/DUSS (open access)	DBSR (owned or leased)	DBSR (lead RU) + ECR + Renfe	ADIF (open access)	Multiple
Kombiverkehr	Duisburg (DE)	Poznan (PL)	International continental CT	Multiple	Multiple	PKV/DUSS (open access)	DBSR (owned or leased)	DBSR	HHLA/Polzug	Multiple
Kombiverkehr	Rostock (DE)	Verona (IT)	International continental CT	LKW Walter	LKW Walter	Port of Rostock/RTM (openb access)	DBSR (owned or leased)	DBSR (lead RU) + Lokomotion/RTC	Terminali Italia (open access)	LKW Walter
Stobart	Valencia (ES)	London (UK)	International continental CT	Stobart	Jesus Haulage	Adif	Transfesa	Multiple	Russell Group	Stobart
TX Logistik	Köln (DE)	Verona (IT)	International continental CT	Multiple	Multiple	DB Netz/ DUSS (open access)	TX Logistik (owned or leased)	TX Logistik (single or with Trenitalia)	Terminali Italia (open access)	Multiple
ERS Railways	Rotterdam RSC (NL)	Melzo (IT)	International maritime & continental CT	Multiple	Multiple	RSC	ERS (owned or leased)	ERS + BLS	Sogemar	Multiple
Medlog	Port of Antwerpen (BE)	Frankfurt/Main (DE)	International maritime CT	MSC	N/A	MSC Home	Crossrail (leased)	Crossrail	Frankfurt inland port/ Contargo (open access)	Multiple
Metrans	Port of Hamburg (DE)	Praha (CZ)	International maritime CT	Multiple	N/A	CTA/CTB/CTT or Eurokombi (open access)	Metrans	Metrans or DBSR + CD	Metrans	Metrans & others
Optimodal	Rotterdam Maasvlakte (NL)	Dortmund (DE)	International maritime CT	Multiple	N/A	ECT Delta	Kombiverkehr (leased)	Kombiverkehr Rail Europe (100% KV)	Dortmund inland port/CTD (open access)	Multiple
GTS	Zeebrugge (BE)	Bari (IT) via Piacenza and Bologna (IT)	International maritime CT (with multiple stops)	GTS	N/A	Zeebrugge	GTS Rail (leased)	Crossrail (Zeebrugge-Piacenza) + GTS Rail (Piacenza-Bologna-Bari)	Terminali Italia (open access)	Multiple

Appendix G MS reports on CT support programmes

Support programmes and incentives for combined transport**: Austria**

COUNTRY	**Austria**					
Title of incentive	Reduction of road vehicle tax					
Legal basis (regulation, law, directive)	Bundesgesetz über die Erhebung einer Kraftfahrzeugsteuer 1992, last update: Part I N° 112/2012					
EU notification	Not applicable					
Reference territory	X	State		Region/Province		Place/City
Period of validity	ongoing					
Total annual budget	n.a.					
Max budget per action	n.a.					
CT sectors targeted	X	Rail/road		Inland waterway/road		Sea/road
Type of incentive	Tax reduction					
Objectives of incentive	- Promotion of CT by encouraging the use of both rail-based and water-based modes of transport					
Beneficiaries	- Companies with road vehicles registered in Austria					
Brief description: What is supported? Key prerequisites?	- Tax exemption on monthly basis for vehicles exclusively used for pre- and on-carriage of CT load units in CT rail/road operations; - Reimbursement of 15% of monthly tax for every rail transport of a road vehicle; if vehicle is tax-free discount is transferable to another vehicle being taxed.					
Application and allocation procedure	- Reimbursement must be applied for at tax office					
Intensity of financial aid	n.a.					
Specific provisions	n.a.					
Key impacts on CT operations (*please tick the appropriate boxes*)	X	Reduction of cost of operations				
		Reduction of transhipment cost				
		Reduction of other costs				
		Extension of network of CT services				
		Improvement of service quality				
		Compensation for drawbacks compared to road				
		Acknowledgement of social benefits of CT				
		Other :				

COUNTRY	Austria						
Title of incentive	Derogation from 40 t weight limit on heavy goods vehicles (HGV)						
Legal basis (regulation, law, directive)	§ 4 (7a), § 102 (5) h) and § 2 (1) N° 40 Bundesgesetz vom 23. Juni 1967 über das Kraftfahrwesen, Federal Journal, Part I N° 90/2013						
EU notification	Not applicable						
Reference territory	X	State		Region/Province		Place/City	
Period of validity	Ongoing						
Total annual budget	n.a.						
Max budget per action	n.a.						
CT sectors targeted	X	Rail/road		Inland waterway/road		Sea/road	
Type of incentive	Derogation from Directive 96/53/EC						
Objectives of incentive	Compensation of higher tare weight of CT load units						
Beneficiaries	Road hauliers operating HGVs on pre- and on-carriage road legs						
Brief description: What is supported? Key prerequisites?	- Max. HGV gross weight may amount up to 44 tonnes compared to 40 tonnes rule on pre- and on-carriage road legs from and to the nearest possible and technically suitable CT terminal in Austria; - Truck driver must have document providing evidence on routing and utilization of rail transport.						
Application and allocation procedure	n.a.						
Intensity of financial aid	n.a.						
Specific provisions	n.a.						
Key impacts on CT operations (*please tick the appropriate boxes*)	X	Reduction of cost of operations					
		Reduction of transhipment cost					
		Reduction of other costs					
		Extension of network of CT services					
		Improvement of service quality					
	X	Compensation for drawbacks compared to road					
		Acknowledgement of social benefits of CT					

COUNTRY	Austria		
	X	Other :	Increased payload may generate higher freight revenues in case of heavy goods

COUNTRY	Austria					
Title of incentive	Exemption from road driving ban on weekends and public holidays and from night driving ban					
Legal basis (regulation, law, directive)	§ 42 (2a) and (2b) Straßenverkehrordnung 1960, last update: Federal Journal, Part I N° 39/2013					
EU notification	Not applicable					
Reference territory	X	State		Region/Province		Place/City
Period of validity	Ongoing					
Total annual budget	n.a.					
Max budget per action	n.a.					
CT sectors targeted	X	Rail/road	X	Inland waterway/road		Sea/road
Type of incentive	Exemptions from driving bans for road vehicles					
Objectives of incentive	Shift of road traffic, environmental protection					
Beneficiaries	Road hauliers operating HGVs on pre- and on-carriage road legs					
Brief description: What is supported? Key prerequisites?	- HGVs on pre- and on-carriage road legs may operate during driving bans on weekends and public holidays within a radius not exceeding 65 km as the crow flies from/to CT terminals defined by regulation of Ministry for Transport (last update: Federal Journal, Part II N° 119/2007); - HGVs on pre- and on-carriage road legs may operate during night driving ban on defined road sections based on regulation of Ministry for Transport (last update: Federal Journal, Part II N° 76/2007).					
Application and allocation procedure	n.a.					
Intensity of financial aid	n.a.					
Specific provisions	n.a.					
Key impacts on CT		Reduction of cost of operations				

COUNTRY	Austria		
operations (*please tick the appropriate boxes*)		Reduction of transhipment cost	
		Reduction of other costs	
		Extension of network of CT services	
		Improvement of service quality	
		Compensation for drawbacks compared to road	
		Acknowledgement of social benefits of CT	
	X	Other :	Improved utilization rate of HGV

COUNTRY	Austria					
Title of incentive	Liberalized road corridors for rolling highways services					
Legal basis (regulation, law, directive)	Based on § 2 (1) N° 40 Bundesgesetz vom 23. Juni 1967 über das Kraftfahrwesen, Federal Journal, Part I N° 90/2013					
EU notification	Not applicable					
Reference territory	X	State		Region/Province		Place/City
Period of validity	Ongoing					
Total annual budget	n.a.					
Max budget per action	n.a.					
CT sectors targeted	X	Rail/road		Inland waterway/road		Sea/road
Type of incentive	Exemption from bilateral quota system and authorization					
Objectives of incentive	Shift of road traffic, environmental protection					
Beneficiaries	Road hauliers from non-EU Member States					
Brief description: What is supported? Key prerequisites?	- Road hauliers do not require for a bilateral authorization if they are on pre- and on-carriage road legs from/to terminals providing rolling highway services in Austria; - Roads and routes are defined by order of Ministry for Transport.					
Application and allocation procedure	n.a.					
Intensity of financial aid	n.a.					
Specific provisions	n.a.					

COUNTRY	Austria		
Key impacts on CT operations (*please tick the appropriate boxes*)		Reduction of cost of operations	
		Reduction of transhipment cost	
		Reduction of other costs	
		Extension of network of CT services	
		Improvement of service quality	
		Compensation for drawbacks compared to road	
		Acknowledgement of social benefits of CT	
	X	Other :	Bypass of quota constraints

COUNTRY	Austria					
Title of incentive	Quotas of reward for use of rolling highways services					
Legal basis (regulation, law, directive)	Bilateral agreements between Austria and non-EU Member States					
EU notification	Not applicable					
Reference territory	X	State		Region/Province		Place/City
Period of validity	Ongoing					
Total annual budget	n.a.					
Max budget per action	n.a.					
CT sectors targeted	X	Rail/road		Inland waterway/road		Sea/road
Type of incentive	Quotas of reward for use of rolling highways services					
Objectives of incentive	Promotion of CT, shift of road traffic					
Beneficiaries	Road hauliers from non-EU Member States					
Brief description: What is supported? Key prerequisites?	For the use of domestic or international rolling highway services in Austria road hauliers obtain additional transport authorizations for bilateral road traffic with Austria;.					
Application and allocation procedure	n.a.					
Intensity of financial aid	n.a.					
Specific provisions	n.a.					

COUNTRY	Austria		
Key impacts on CT operations (*please tick the appropriate boxes*)		Reduction of cost of operations	
		Reduction of transhipment cost	
		Reduction of other costs	
		Extension of network of CT services	
		Improvement of service quality	
		Compensation for drawbacks compared to road	
		Acknowledgement of social benefits of CT	
	X	Other :	Increased volume of bilateral road transport authorizations

COUNTRY	Austria					
Title of incentive	Aid programme for supply of rail freight services in Austria					
Legal basis (regulation, law, directive)	Sonderrichtlinien „Beihilfenprogramm für die Erbringung von Schienengüterverkehrsleistungen in bestimmten Produktionsformen in Österreich					
EU notification	SA.33993 (2011/N) of 25 July 2012					
Reference territory	X	State		Region/Province		Place/City
Period of validity	3 Dec 2012 – 31 Dec 2017					
Total annual budget	€220 million (budget constraints may lead to reduction of budget)					
Max budget per action	n.a.					
CT sectors targeted	X	Rail/road		Inland waterway/road		Sea/road
Type of incentive	Direct aid for CT operations (and single-wagon traffic)					
Objectives of incentive	- Safeguarding rail's high modal share in Austria in respect of environmental protection and transport safety; - Severe competition of rail freight services with road.					
Beneficiaries	Railway undertakings supplying rail freight services in Austria					

COUNTRY	Austria		
Brief description: What is supported? Key prerequisites?	- Unaccompanied CT: aid is related to number of intermodal load units carried on rail in Austria; scale of grant depend on length and weight of load unit, type of traffic (domestic, transit, export/import), rail distance performed in Austria; supplement is paid for mountainous rail sections; - Accompanied CT: aid is related to number of shipments (trucks) and depend on corridor; for Brenner corridor grants for using day trains is double as high as for night trains.		
Application and allocation procedure	- Application to SCHIG - Decision by BMVIT		
Intensity of financial aid	- Up to 30% of total cost of rail transport and 100% of eligible costs		
Specific provisions	n.a.		
Key impacts on CT operations (*please tick the appropriate boxes*)	X	Reduction of cost of operations	
		Reduction of transhipment cost	
		Reduction of other costs	
		Extension of network of CT services	
		Improvement of service quality	
		Compensation for drawbacks compared to road	
	X	Acknowledgement of social benefits of CT	
		Other :	

COUNTRY	Austria					
Title of incentive	Programme for the support of the construction of rail sidings and CT terminals					
Legal basis (regulation, law, directive)	Sonderrichtlinien „Programm für die Unterstützung des Ausbaues von Anschlussbahnen sowie von Umschlagsanlagen des Intermodalen Verkehrs"					
EU notification	SA.34985 of 19 September 2012					
Reference territory	X	State		Region/Province		Place/City
Period of validity	1 Jan 2013 – 31 Dec 2017					
Total annual budget	€19 million					
Max budget per action	€2.5 million					

COUNTRY	Austria					
CT sectors targeted	X	Rail/road	X	Inland waterway/road		Sea/road
Type of incentive	Direct grant for investment in CT terminals					
Objectives of incentive	- Promotion of CT by encouraging the use of both rail-based and water-based modes of transport					
Beneficiaries	- EU companies with registered offices or subsidiaries in Austria; - Primarily undertakings with no or minority shares by public authorities, priority on SMEs; - No rail infrastructure managers & railway undertakings.					
Brief description: What is supported? Key prerequisites?	- Grant for infrastructure investments including planning costs (positive and negative list); - Key prerequisites: securing non-discriminatory terminal access; public tracks; project not realized without funding; minimum committed period of operation (up to 11 years)					
Application and allocation procedure	- Application to SCHIG; - Priorities if budget constraints: 1. Rail siding projects; 2. High modal shift + SME as applicant; Terminal projects: priority on fully private applicants or max 30% equity held by public entities					
Intensity of financial aid (max. funding rate)	- Between 10% and 50% of eligible costs depending on type of measure and committed period of terminal operation (most measures: 25% - 30%)					
Specific provisions	n.a.					
Key impacts on CT operations (*please tick the appropriate boxes*)		Reduction of cost of operations				
	X	Reduction of transhipment cost				
		Reduction of other costs				
	X	Extension of network of CT services				
		Improvement of service quality				
		Compensation for drawbacks compared to road				
	X	Acknowledgement of social benefits of CT				
		Other:				

Support programmes and incentives for combined transport**: Belgium**

COUNTRY	**Belgium**					
Title of incentive (English translation)	Promotion of combined transport of intermodal transport units by rail in the period 2009-2012					
Legal basis (regulation, law, directive)	"Arrêté royal relatif à la promotion du transport combiné ferroviaire d'unités de transport intermodal pour la période 2009-2012" of 15 July 2009 (Moniteur Belge, 28 July 2009)					
EU notification	N° 571/2008 of 10 March 2009					
Reference territory	X	State		Region/Province		Place/City
Period of validity	2009 – 2012					
Total annual budget	€25 million					
Max budget per action	-					
CT sectors targeted	X	Rail/road		Inland waterway/road		Sea/road
Type of incentive	Direct grant for CT operations					
Objectives (according to legal act)	- Increase of rail in container hinterland transport; - Compensation of higher costs of CT on shorter distances, particularly caused by transshipment; - Avoidance of negative external effects					
Beneficiaries	CT operators who are obliged to pass on benefits to clients					
Brief description: What is supported? Key prerequisites?	Aid relates to costs of CT operator for train operation, infrastructure access, wagon, terminal and administration. Three measures are supported. Aids for (1) and (2) refer to existing and new volumes of domestic CT and are composed of a fixed amount per load unit (for handling) and an amount related to load unit –kilometres shifted. Aid for (3) is composed of fixed amounts per train and every load unit carried (max €1,000) and limited for max 3 years. The measures: (1) Domestic CT block train: min 40 TEU, min 51 km rail distance; (2) Inter-port traffic between Belgian seaports: CT block train with min 40 TEU over min 51 km rail distance; (3) New and innovative international CT block train service: min 50 TEU, min 120 km rail distance, weekly frequency, 40 weeks p.a. The support for each measure is declining from 2009 to 2012. No cumulation of aids is permitted.					
Application procedure (*please tick the*	X	Continuous application process (no calls for proposals)				
		Call for proposals				

COUNTRY	Belgium		
appropriate boxes)		Public tendering procedure based on terms of requirements	
		Other :	
		Not applicable	
Intensity of financial aid (max. funding rate)	30% of door-to-door costs		
Key impacts on CT operations (*please tick the appropriate boxes*)	X	Reduction of cost of operations	
		Reduction of transhipment cost	
		Reduction of other costs	
	X	Extension of network of CT services	
		Improvement of service quality	
	X	Compensation for drawbacks compared to road	
		Other :	
Specific provisions	n.a.		

Support programmes and incentives for combined transport: **Bulgaria**

COUNTRY	Bulgaria

The legal justification for CT incentives is provided by Article 57 of the Bulgarian Railway Transport Act (Supplemented, SG No. 92/2006, amended, SG No. 47/2011, effective 21.06.2011):
“The Council of Ministers may undertake measures to stimulate combined transport.”

Measures targeted at promoting CT are as follows:

(1) A haulier carrying out an international CT operation may use Bulgarian roads from border crossing to the nearest intermodal terminal without paying road toll/vignette (Article 10Ж (2) of Bulgarian Road Law). Original version: Чл. 10ж. (Нов - ДВ, бр. 39 от 2011 г.) За пътно превозно средство, с което се извършва комбиниран транспорт по смисъла на чл. 56 от Закона за железопътния транспорт, не се заплаща винетна такса при придвижването му от границата до най-близкия интермодален терминал и обратно, ако за конкретния превоз има издадено удостоверение за вътрешен комбиниран превоз на територията на Република България по образец, утвърден от министъра на транспорта, информационните технологии и съобщенията.

(2) Reduction of Railway Infrastructure Charges for CT operations. Track access charges introduced in 2002 were relatively high especially for freight trains. Between 2004 and 2012, container and rolling highway trains got a reduction of about 30% on track access charges. The scheme was abolished as a new track access charging system has been implemented reducing charges for all freight trains by about 37%. On 15 November 2013 the Ministry of Transport has proposed special reductions for CT trains of 10% and Rolling-Road Trains of 30%.

(3) Bulgaria has concluded several international agreements, which adopt rights and obligations of the CT Directive (eg. Armenia, Albania, Lebanon, Serbia, Uzbekistan, Azerbajan)..

There is also a measure impeding CT operations. In 2009 Sofia Municipality has introduced a daily tax/charge (300 BGN = 155 EURO) for the Sofia city center zone for heavy trucks. Though the existing container terminal is outside of this zone road traffic from/to this facility has been included in a wider zone.

Support programmes and incentives for combined transport**: Croatia**

COUNTRY	**Croatia**					
Title of incentive	Exemption from road driving bans					
Legal basis (regulation, law, directive)	Zakon o kombiniranom prometu, NN124/09 of 7 October 2009 (Decision on the promulgation of the law on combined transport)					
EU notification	Not applicable					
Reference territory	X	State		Region/Province		Place/City
Period of validity	Ongoing					
Total annual budget	n.a.					
Max budget per action	n.a.					
CT sectors targeted	X	Rail/road	X	Inland waterway/road	X	Sea/road
Type of incentive	Exemptions from driving bans for road vehicles					
Objectives of incentive	Shift of road traffic, promotion of CT					
Beneficiaries	Road hauliers operating HGVs on pre- and on-carriage road legs					
Brief description: What is supported? Key prerequisites?	Initial or final road haulage legs are exempted from special driving bans.					
Application and allocation procedure	n.a.					
Intensity of financial aid	n.a.					
Specific provisions	n.a.					
Key impacts on CT operations (*please tick the appropriate boxes*)		Reduction of cost of operations				
		Reduction of transhipment cost				
		Reduction of other costs				
		Extension of network of CT services				
		Improvement of service quality				
		Compensation for drawbacks compared to road				
		Acknowledgement of social benefits of CT				
	X	Other :	Improved utilization rate of HGV			

Support programmes and incentives for combined transport**: Czech Republic**

COUNTRY	**Czech Republic**							
Title of incentive	Exemptions from driving bans for road vehicles							
Legal basis (regulation, law, directive)	Act Nr. 361/2000 Coll. about road traffic as amended by later acts, § 43 –							
EU notification	n. a.							
Reference territory	X	State		Region/Province		Place/City		
Period of validity								
Total annual budget	n. a.							
Max budget per action	n. a.							
CT sectors targeted	X	Rail/road	X	Inland waterway/road		Sea/road		
Type of incentive								
Objectives								
Beneficiaries	Road transport operators in CT							
Brief description: What is supported? Key prerequisites?	Driving restrictions for some types of vehicles (not valid for vehicles used) in combined transport of goods on railway or inland waterway and road from the freight forwarder (the point where the goods are loaded) to the nearest CT terminal or from the nearest CT terminal to the receiver (point where the goods are unloaded)							
Application procedure (*please tick the appropriate boxes*)		Continuous application process (no calls for proposals)						
		Call for proposals						
		Public tendering procedure based on terms of requirements						
		Other :	n.a.					
Intensity of financial aid	n.a.							
Key impacts on CT operations (*please tick the appropriate boxes*)	X	Reduction of cost of operations						
		Reduction of transhipment cost						
		Reduction of other costs						
		Extension of network of CT services						
		Improvement of service quality						

COUNTRY	Czech Republic	
	X	Compensation for drawbacks compared to road
		Other :

COUNTRY	Czech Republic					
Title of incentive	Reduction of infrastructure access charge for CT block trains					
Legal basis (regulation, law, directive)	Declaration about national and regional railways, valid for time-schedule 2014 as ammended by Nr. 1/2013 of 27/3/2013, Decision of the Ministry of Transport Nr. 85/2013-130-SPR/5 as amended by modification Nr. 2/2013 of 4/12/2013, Annex "D"					
EU notification	n. a.					
Reference territory	X	State		Region/Province		Place/City
Period of validity	2014 (declared in every year)					
Total annual budget	n. a.					
Max budget per action	n. a.					
CT sectors targeted	X	Rail/road		Inland waterway/road		Sea/road
Type of incentive	Reduction of infrastructure access charges					
Objectives						
Beneficiaries	Railway undertakings operating on rail infrastructure owned by the state of CZ					
Brief description: What is supported? Key prerequisites?	For freight trains entirely composed of wagons for intermodal transport units (loaded or empty) the access charge is reduced to 55% of general rate. Prerequisite: the operator has no debts towards infrastructure manager SŽDC.					
Application procedure (*please tick the appropriate boxes*)	X	Continuous application process (updated every year)				
		Call for proposals				
		Public tendering procedure based on terms of requirements				
Intensity of financial aid	45 % price reduction					
Key impacts on CT operations (*please*	X	Reduction of cost of operations				
		Reduction of transhipment cost				

COUNTRY	Czech Republic	
tick the appropriate boxes)		Reduction of other costs
		Extension of network of CT services
		Improvement of service quality
	X	Compensation for drawbacks compared to road

COUNTRY	Czech Republic					
Title of incentive	Revitalization of rail sidings					
Legal basis (regulation, law, directive)	Operational Programme Transport 2007-2013, Priority Axis Nr 6, Support Area 6.1, EC Decision K(2007) 6367 (10.12.2007); Ev. Nr. Ministry of Finances Czech Republic 127 350 (11. 10. 2007)					
EU notification (reference n°, date)	N° XR55/2008 of 01/04/2008, Official Journal of EU Nr. C 7 on 13 Jan 2009					
Reference territory		State	X	Region/Province		Place/City
Period of validity	2007 - 2013					
Total annual budget	Budget is regularly adjusted (ca. 70 Million CZK p.a.) until now not received enough qualified applications					
Max budget per action	No maximum set, generally small-scale investment actions					
CT sectors targeted	X	Rail/road		Inland waterway/road		Sea/road
Type of incentive	Direct grant					
Objectives						
Beneficiaries	Owners of railway sidings					
Brief description: What is supported? Key prerequisites?	Measure not dedicated to CT but it is possible to apply for investments in CT terminals: construction, installations and mobile equipment on new or current sidings					
Application procedure (*please tick the appropriate boxes*)		Continuous application process (no calls for proposals)				
	X	Call for proposals				
		Public tendering procedure based on terms of requirements				
		Other :				
Intensity of financial aid (max. funding rate)	Max. 40% of eligible costs; fund rate depends on classification, eg. Prague 0% , South-West 30 %, South Moravia 40 %.					

COUNTRY	Czech Republic		
Key impacts on CT operations (*please tick the appropriate boxes*)		Reduction of cost of operations	
	X	Reduction of transhipment cost	
		Reduction of other costs	
	X	Extension of network of CT services	
	X	Improvement of service quality	
		Compensation for drawbacks compared to road	
		Other :	Improvement of capacity of CT

COUNTRY	Czech Republic					
Title of incentive	Aid scheme to support combined transport					
Legal basis (regulation, law, directive)	Návrh usnesení vlády České republiky ke koncepci rozvoje a podpory kombinované dopravy pro období 2006 až 2010 (dále jen ”návrh usnesení“)					
EU notification						
Reference territory	X	State		Region/Province		Place/City
Period of validity	1.1.2006 – 31.12.2010					
Total annual budget	11.200.000 EUR notified (but no budget in 2007)					
Max budget per action						
CT sectors targeted	?	Rail/road	X	Inland waterway/road		Sea/road
Type of incentive	Direct grant					
Objectives of incentive	Development of combined transport					
Beneficiaries	EU combined transport and terminal operators with registered offices in the Czech Republic					
Brief description: What is supported? Key prerequisites?	a) Construction, extension and modernisation of combined transport terminals (Prague region) b) Acquisition of combined transport equipment (vessels, transhipment equipment, telematics) c) Aid for the start-up phase of new combined transport routes					
Application procedure (*please tick the*		Continuous application process (no calls for proposals)				
		Call for proposals				

COUNTRY	Czech Republic		
appropriate boxes)		Public tendering procedure based on terms of requirements	
Intensity of financial aid (max. funding rate)	a) Max. 50% of total cost; b) Max. 30% of total costs; c) Max. 30% of total costs		
Key impacts on CT operations (*please tick the appropriate boxes*)	X	Reduction of cost of operations	
	X	Reduction of transhipment cost	
		Reduction of other costs	
	X	Extension of network of CT services	
		Improvement of service quality	
		Compensation for drawbacks compared to road	
	X	Other :	Reduction of equipment cost

Support programmes and incentives for combined transport**: Denmark**

COUNTRY	Denmark					
Title of incentive (English translation)	Parliament grant for the expansion of two intermodal terminals – Taulov and Høje Taastrup kombi terminals					
Legal basis (regulation, law, directive)	Finance Act 2010					
EU notification						
Reference territory	Taulov , Region Syddanmark, Høje Taastrup, Region Hovedstaden					
Period of validity	2010					
Total annual budget	DKK 66.0 million					
Max budget per action	-					
CT sectors targeted	x	Rail/road		Inland waterway/road		Sea/road
Type of incentive	Greening of freight transport					
Objectives (according to legal act)						
Beneficiaries						
Brief description: What is supported? Key prerequisites?	Expand the terminal areas, laying new tracks, new fences, new gateways with automatic gates and new access roads at both terminals					
Application procedure (*please tick the appropriate boxes*)		Continuous application process (no calls for proposals)				
		Call for proposals				
		Public tendering procedure based on terms of requirements				
		Other :				
Key impacts on CT operations (*please tick the appropriate boxes*)		Reduction of cost of operations				
	X	Reduction of transhipment cost				
		Reduction of other costs				
		Extension of network of CT services				
		Improvement of service quality				
		Compensation for drawbacks compared to road				
	X	Other :	Enlarge capacity at both terminals to allow for more combined transport			

COUNTRY	Denmark					
Title of incentive	Environment-oriented benefit for goods transported on rail					
Legal basis (regulation, law, directive)	Financial Act §28.63.06. 20 Freight train ton-kilometre tax and environmental subsidy					
EU notification						
Reference territory	X	State		Region/Province		Place/City
Period of validity	The incentive entered into force in 2004 and is expected to be continued until a road tax for heavy goods vehicles is introduced.					
Total annual budget	2013: DKK 31.8 m					
Max budget per action						
CT sectors targeted	X	Rail/road		Inland waterway/road		Sea/road
Type of incentive	Reimbursement of track access charges					
Objectives (according to legal act)	- Greening of freight transport					
Beneficiaries	Railway undertakings					
Brief description: What is supported? Key prerequisites?	- Generally, it is intended to reimburse the full amount of track access charges paid by freight trains for using rail infrastructure in DK (not including fixed links) but it may not be neutral for each train or railway undertaking; - Scheme applies to all CT services as well national and international conventional rail freight services (excl. transit) and shall compensate for the disadvantage with road as concerns the allocation of infrastrcuture cost; - Subsidy is DKK 0.0183 per ton-kilometre excl. VAT (2014).					
Application procedure (*please tick the appropriate boxes*)		Continuous application process (no calls for proposals)				
		Call for proposals				
		Public tendering procedure based on terms of requirements				
		Other :				
Intensity of financial aid (max. funding rate)	n.a.					
Key impacts on CT	X	Reduction of cost of operations				

COUNTRY	Denmark	
operations (*please tick the appropriate boxes*)		Reduction of transhipment cost
		Reduction of other costs
		Extension of network of CT services
		Improvement of service quality
	X	Compensation for drawbacks compared to road

Support programmes and incentives for combined transport**: France**

COUNTRY	France					
Title of incentive (English translation)	Aid for the operation of regular combined transport services (Aides à l'exploitation de services réguliers de transport combiné)					
Legal basis (regulation, law, directive)	LOI n° 2009-967 du 3 août 2009 de programmation relative à la mise en œuvre du Grenelle de l'environnement					
EU notification	N°159/2008 of 17 June 2008/22 October 2008					
Reference territory	X	State		Region/Province		Place/City
Period of validity	1st period: 2008-2012; 2nd period: 2013-2017					
Total annual budget	For CT by rail: 24.1 M€ (2011) or 15.2 M€ (2012). Separate budget for CT by inland waterway and sea: 7.9 M€					
Max budget per action	The aid relates to CT load units handled at terminals in France as follows: - €15 per load units handled between modes of transport, eg road -rail; - €12 per load unit transshipped at hubs e.g rail-rail.					
CT sectors targeted	X	Rail/road	X	Inland waterway/road	X	Sea/road
Type of incentive	Grants for CT operations thus reducing costs of infrastructure access					
Objectives (according to legal act)	- Support of combined transport services; - Relieving road from congestions; - Environmental benefits;					
Beneficiaries	Suppliers/operators of CT services					
Brief description: What is supported? Key prerequisites?	Aid only for regular CT service (published timetable), which: - Represents an alternative to a road haulage in France; - Concerns transshipment at terminal in France; - Is supplied on a non-discriminatory basis to every user.					
Application procedure (*please tick the appropriate boxes*)		Continuous application process (no calls for proposals)				
	x	Call for proposals (expression of interest)				
	x	Public tendering procedure based on terms of requirements				
		Other:				
		Not apllicable				
Intensity of financial aid (max. funding rate)	See above					
Key impacts on CT operations (*please tick the appropriate boxes*)	X	Reduction of cost of operations				
	X	Reduction of transhipment cost				
		Reduction of other costs				
		Extension of network of CT services				
		Improvement of service quality				

COUNTRY	France	
		Compensation for drawbacks compared to road
		Other:
Specific provisions	Definition of CT refers to definition of Directive 92/106 without mentioning CT Directive	

COUNTRY	France					
Title of incentive (English translation)	Energy saving certificates (Certificats d'économie d'énergie - CEE)					
Legal basis (regulation, law, directive)	Decret N° 2010-1664, Arreté du 29-12-2010, various Arretés between 2006 and 2013 (see attachment)					
EU notification	No information					
Reference territory	X	State		Region/Province		Place/City
Period of validity	1st period: 2006-2009, Interim period: 2009-2010; 3rd period: 2011-2013					
Total annual budget	Not applicable					
Max budget per action	Not applicable					
CT sectors targeted	X	Rail/road	X	Inland waterway/road	X	Sea/road
Type of incentive	Tradeable certificates					
Objectives (according to legal act)	- Energy savings of large utilities; - Environmental benefits.					
Beneficiaries	- Hauliers operating CT load units in pre- and on-carriage road legs; - Barge operators; - Wagon operators for Rolling motorways					
Brief description: What is supported? Key prerequisites?	State has defined 25 energy saving actions in the freight transport sector, which are eligible for CEE certificates. Example for CT: - Haulier purchases a new CT load unit (not ISO container) and deploys it on CT services at least for 12 months; - For every single trip he is rewarded a CEE amounting to 16,000 kwh) in case of load units > 9m, and 8,000 kwh in case of load units < 9m; - The CEEs are tradeable on a market; its maximum value is 0,02€/Kwh CUMAC, its present value is 0,00429€/Kwh CUMAC (CUMAC is a specific notion of the number of KwH saved during the life cycle of the investment actualized at the investment date).					
Application procedure (*please tick the appropriate boxes*)	X	Continuous application process (no calls for proposals)				
		Call for proposals				
		Public tendering procedure based on terms of requirements				
		Other:				
		Not apllicable				

COUNTRY	France		
Intensity of financial aid (max. funding rate)	Not applicable		
Key impacts on CT operations (*please tick the appropriate boxes*)		Reduction of cost of operations	
		Reduction of transhipment cost	
	x	Reduction of other costs	equipment
		Extension of network of CT services	
		Improvement of service quality	
		Compensation for drawbacks compared to road	
		Other:	

COUNTRY	France					
Title of incentive	Aid for investment in CT terminals					
Legal basis (regulation, law, directive)	Contract between Regional and Central Administration for the development of terminals in Regions (Contrat de Projets Etat-Région)					
EU notification	No information					
Reference territory	X	State	X	Region/Province		Place/City
Period of validity	2007-2013					
Total annual budget	€ 136 m for the entire period from the Central Administration, other funds must be contributed by Regions					
Max budget per action						
CT sectors targeted	X	Rail/road	X	Inland waterway/road		Sea/road
Type of incentive	Direct grant for investments in terminal infrastructure					
Objectives (according to legal act)	- Development of regions; - Promotion of CT					
Beneficiaries	Terminal investor					
Brief description: What is supported? Key prerequisites?	A full study of the expected traffic, of the investment and the impact on the transfer from road with environmental benefits must be presented to be retained in the 5 years programme.					
Application procedure (*please tick the appropriate boxes*)		Continuous application process (no calls for proposals)				
		Call for proposals				
		Public tendering procedure based on terms of requirements				
	x	Other:	Support by regions on a case by case basis			
		Not apllicable				
Intensity of financial aid (max. funding rate)	Global limit likely is 80% of total investment.					

COUNTRY	France		
Key impacts on CT operations (*please tick the appropriate boxes*)		Reduction of cost of operations	
	X	Reduction of transhipment cost	
		Reduction of other costs	
		Extension of network of CT services	
		Improvement of service quality	
		Compensation for drawbacks compared to road	
		Other:	

Support programmes and incentives for combined transport**: Germany**

COUNTRY	Germany					
Title of incentive	Exemption from or reduction of road vehicle tax					
Legal basis (regulation, law, directive)	§ 3 N° 9 and § 4 Kraftfahrzeugsteuergesetz vom 26. September 2002, last update: 5 Dec. 2012, Federal Journal Part I, p. 2431					
EU notification	Not applicable					
Reference territory	X	State		Region/Province		Place/City
Period of validity	ongoing					
Total annual budget	n.a.					
Max budget per action	n.a.					
CT sectors targeted	X	Rail/road	X	Inland waterway/road	X	Sea/road
Type of incentive	Tax reduction					
Objectives of incentive	Promotion of CT					
Beneficiaries	Companies with road vehicles registered in Germany					
Brief description: What is supported? Key prerequisites?	- Tax exemption for vehicles exclusively used for pre- and on-carriage road legs in above CT combinations. Vehicles must be clearly marked with a defined sign. - Up to 100% reimbursement of annual tax for semi-trailers and complete road vehicles in CT rail/road, scale depends on number and length of rail journeys. Evidence of journeys must be supplied.					
Application and allocation procedure	- Reimbursement must be applied for at tax office based on evidence of utilization of CT services					

COUNTRY	Germany		
Intensity of financial aid	n.a.		
Specific provisions	n.a.		
Key impacts on CT operations (*please tick the appropriate boxes*)	X	Reduction of cost of operations	
		Reduction of transhipment cost	
		Reduction of other costs	
		Extension of network of CT services	
		Improvement of service quality	
		Compensation for drawbacks compared to road	
		Acknowledgement of social benefits of CT	
		Other :	

COUNTRY	Germany					
Title of incentive	Derogation from 40 t weight limit for heavy goods vehicles (HGV)					
Legal basis (regulation, law, directive)	53. Verordnung über Ausnahmen von den Vorschriften der Straßenverkehrs-Zulassungs-Ordnung of 2 July 1997, revised on 26 July 2013, Federal Journal part I, p. 2803					
EU notification	n.a.					
Reference territory	X	State		Region/Province		Place/City
Period of validity	Ongoing					
Total annual budget	n.a.					
Max budget per action	n.a.					
CT sectors targeted	X	Rail/road	X	Inland waterway/road	X	Sea/road
Type of incentive	Derogation from Directive 96/53/EC					
Objectives	- Promotion of CT; - Relieving road from congestions; - Environmental benefits; - Compensation of higher tare weight of CT load units.					
Beneficiaries	Road hauliers operating HGVs in pre- and on-carriage road legs					

COUNTRY	Germany		
Brief description: What is supported? Key prerequisites?	- Max. HGV permitted gross weight may amount up to 44 tonnes compared to 40 t rule on pre- and on-carriage road legs: (4) In unaccompanied CT rail/road between the place of loading/ unloading and the nearest possible CT terminal; (5) In accompanied CT rail/ between place of loading/unloading and a terminal within max 150 km distance as the crow flies; (6) In CT inland waterway/road and CT sea/road (water transport over 100 km) between place of loading/unloading and an inland or sea port within max 150 km distance as the crow flies. - HGVs must match provisions on max axle weight; - Road haulier must have document providing evidence that journey is carried out in the course of a CT operation.		
Application and allocation procedure	n.a.		
Intensity of financial aid	n.a.		
Specific provisions	CT definition matches definition of Directive 92/106 without explicit reference to CT Directive		
Key impacts on CT operations (*please tick the appropriate boxes*)	X	Reduction of cost of operations	
		Reduction of transhipment cost	
		Reduction of other costs	
		Extension of network of CT services	
		Improvement of service quality	
	X	Compensation for drawbacks compared to road	
		Acknowledgement of social benefits of CT	
	X	Other :	Increased payload may generate higher freight revenues in case of heavy goods

COUNTRY	Germany
Title of incentive	Exemption from road driving ban on weekends, public holidays and during summer holiday season
Legal basis (regulation, law, directive)	§ 30 Straßenverkehrs-Ordnung (StVO), Federal Journal Part I of 6 March 2013, p. 367; Ferienreiseverordnung vom 13. Mai 1985, last update: Federal Journal Part I of 13 June 2013, p 1577

COUNTRY	Germany					
EU notification	Not applicable					
Reference territory	X	State		Region/Province		Place/City
Period of validity	Ongoing					
Total annual budget	n.a.					
Max budget per action	n.a.					
CT sectors targeted	X	Rail/road	X	Inland waterway/road	X	Sea/road
Type of incentive	Exemptions from driving bans for road vehicles					
Objectives of incentive	Shift of road traffic, promotion of CT					
Beneficiaries	Road hauliers operating HGVs on pre- and on-carriage road legs					
Brief description: What is supported? Key prerequisites?	HGVs on pre- and on-carriage legs may operate during driving bans on weekends and public holidays between place of loading/unloading - and the nearest possible CT terminal within a distance not exceeding 200 km in CT rail/road; - and a port within a distance not exceeding 150 km in CT port/road. An extended weekend driving ban is in force during summer holiday season. The same exemptions for CT are applied except that CT rail/road is not subject to a distance limit.					
Application and allocation procedure	n.a.					
Intensity of financial aid	n.a.					
Specific provisions	n.a.					
Key impacts on CT operations (*please tick the appropriate boxes*)		Reduction of cost of operations				
		Reduction of transhipment cost				
		Reduction of other costs				
		Extension of network of CT services				
		Improvement of service quality				
		Compensation for drawbacks compared to road				
		Acknowledgement of social benefits of CT				
	X	Other :	Improved utilization rate of HGV			

COUNTRY	Germany					
Title of incentive	Support of the construction of CT terminals					
Legal basis (regulation, law, directive)	Richtlinie (Verwaltungsvorschrift) zur Förderung von Umschlaganlagen des Kombinierten Verkehrs nichtbundeseigener Unternehmen of 23 November 2011					
EU notification	SA.33486 (2011/N) of 23 November 2011					
Reference territory	X	State		Region/Province		Place/City
Period of validity	23 Nov 2011 – 31 Dec 2015					
Total annual budget	Approx. € 80-90 million					
Max budget per action	n.a.					
CT sectors targeted	X	Rail/road	X	Inland waterway/road		Sea/road
Type of incentive	Direct grant for investments in CT terminals					
Objectives of incentive	Shift of road traffic to environmental-friendly modes rail and waterway					
Beneficiaries	Private legal entity companies, butcCompanies owned by federal state are excluded.					
Brief description: What is supported? Key prerequisites?	- Grant for infrastructure investments including planning costs (positive and negative list); - Key prerequisites: securing non-discriminatory terminal access; public access tracks; project not viable without funding; ratio of external monetarized benefits to grant > 4; max funding intensity of €33 per unit of handling capacity; provision of financial guarantee					
Application and allocation procedure	- Application to federal authorities EBA or WSV ; - Approval depends on fulfillment of criteria and available budget.					
Intensity of financial aid	Up to 80% of eligible costs					
Specific provisions	n.a.					
Key impacts on CT operations (*please tick the appropriate boxes*)		Reduction of cost of operations				
	X	Reduction of transhipment cost				
		Reduction of other costs				
	X	Extension of network of CT services				
		Improvement of service quality				
	X	Compensation for drawbacks compared to road				
	X	Acknowledgement of social benefits of CT				

COUNTRY	Germany		
		Other :	

Support programmes and incentives for combined transport**: Hungary**

COUNTRY	Hungary					
Title of incentive (English translation)	Promotion of rolling highway system (RO-LA) of CT rail/road					
Legal basis (regulation, law, directive)	Parliament decision 19/2004 (III.26) on Transport Policy in Hungary 2003-2015; Government decision 2025/1996 (II.7) on conception for establishment and operation of Hungarian part of European CT network					
EU notification	N° 78/2008					
Reference territory	X	State		Region/Province		Place/City
Period of validity	2008 - 2011					
Total annual budget	€3.6m (2008), €2.92m (2009), €2.8m (2010), €2.6m (2011), Total: €11.92m					
Max budget per action	n..					
CT sectors targeted	X	Rail/road		Inland waterway/road		Sea/road
Type of incentive	Directaid (grant) for CT operations					
Objectives (according to legal act)	- Compensating the unbalanced allocation of cost rail vs road; - Avoidance of negative external effects					
Beneficiaries	Railway undertakings and CT operators; both were obliged to pass on benefits to clients					
Brief description: What is supported? Key prerequisites?	Whilst Hungary had already implemented a system of infrastructure access charges for rail freight services road haulage was not yet affected at that time. The incentive aimed at compensating the cost differences during a transitional period. The rail IM MAV Zrt was commissioned to execute the measure. RUs and operators operating rolling highway services could bid for public tenders . Max funding was 30% of eligible cost, for example, € 140 per truck carried on the Szeged-Wels service in 2008.					
Application procedure (*please tick the appropriate boxes*)		Continuous application process (no calls for proposals)				
		Call for proposals				
	X	Public tendering procedure based on terms of requirements				
		Other:				
Intensity of financial aid (max. funding rate)	30% of all costs					
Key impacts on CT operations (*please tick the appropriate boxes*)	X	Reduction of cost of operations				
		Reduction of transhipment cost				
		Reduction of other costs				
		Extension of network of CT services				
		Improvement of service quality				

COUNTRY	Hungary		
	X	Compensation for drawbacks compared to road	
		Other:	

Support programmes and incentives for combined transport**: Italy**

COUNTRY	Italy
Title of incentive	Exemption from road driving bans
Legal basis (regulation, law, directive)	Decreto del Ministero delle Infrastrutture e dei Trasporti n.448 del 06/12/2012 "Direttive e calendario per le limitazioni alla circolazione stradale fuori dai centri abitati per l'anno 2013" (Guidelines and schedule of driving bans and limitations outside urban centres, year 2013)
Brief description: What is supported? Key prerequisites?	National regulations provide for exemptions from road driving bans for vehicles employed in CT operations. The ban of circulation during Sundays and bank holidays ends 4 hours earlier for "vehicles bound to freight villages (Interporti) of national relevance or located in a strategic position near Alpine crossings ((Bologna, Padova, Verona Q. Europa, Torino-Orbassano, Rivalta Scrivia, Trento, Novara, Domodossola and Parma Fontevivo) and to the intermodal terminals of Busto Arsizio, Milano Rogoredo *(now dismantled)* and Milano Smistamento" (see Article 2 §3 of "Decreto"). This exemption applies also to all vehicles employed in CT operations as defined by Article 1 of (1), which transposed the definition of CT from the Directive.

Support programmes and incentives for combined transport**: Latvia**

COUNTRY	**Latvia**					
Title of incentive	Promotion of combined transport of intermodal transport units.					
Legal basis (regulation, law, directive)	„Transportlīdzekļa ekspluatācijas nodokļa un uzņēmumu vieglo transportlīdzekļu nodokļa likums “ of 1 Januarl 2011					
EU notification	n.a.					
Reference territory	X	State		Region/Province		Place/City
Period of validity	Not limited					
Total annual budget	n.a.					
Max budget per action	-					
CT sectors targeted	X	Rail/road	X	Sea/rail	X	Sea/road
Type of incentive	Direct grant for CT operations					
Objectives (according to legal act)	- Increase of rail in container hinterland transport; - Environmental benefits - Development of CT; - reduce accidents, road congestion and dependency on energy reserves; - Reduce risk for goods during the transport journeys; - Avoidance of accidents.					
Beneficiaries	CT operators who are obliged to pass on benefits to clients					
Brief description: What is supported? Key prerequisites?	Aid relates to costs of CT operator for train operation, infrastructure access, terminal and administration. Three measures are supported. Measures, which are supported with relief: (7) Carriers, whose trucks are involved in combined transport, are subject to a tax (fee) reduction in accordance with the tax laws.; (8) There is not required specific permission if CT is utilized according to legal act of transportation (Article 6 about cargo licenses); (9) The order how to operate CT, self-sufficiency CT, CT with rental vehicles, requirements for CT cargo documentation must be assessed by the Cabinet.; (10) If the truck or the trailer (semi-trailer) participated in the combined transport by rail in the territory of Latvia. The fee for the following vehicles shall be repaid in proportion to days spent during the year combined transport by rail in the territory of Latvia;					

COUNTRY	Latvia		
Application procedure (*please tick the appropriate boxes*)		Continuous application process (no calls for proposals)	
		Call for proposals	
		Public tendering procedure based on terms of requirements	
	X	Other :	No prescribed procedures in legal acts.
		Not applicable	
Intensity of financial aid (max. funding rate)	n.a.		
Key impacts on CT operations (*please tick the appropriate boxes*)	X	Reduction of cost of operations	
		Reduction of transhipment cost	
		Reduction of other costs	
		Extension of network of CT services	
		Improvement of service quality	
	X	Compensation for drawbacks compared to road	
		Other :	
Specific provisions	n.a.		

Support programmes and incentives for combined transport: **The Netherlands**

COUNTRY	The Netherlands					
Title of incentive (English translation)	Subsidy for public inland terminals					
Legal basis (regulation, law, directive)	SOIT (Subsidieregeling Openbare Inland Terminals), BWBR0011721.					
EU notification	Not known, but accepted by EC according to Dutch Ministery of Infrastructure and Environment					
Reference territory	X	State		Region/Province		Place/City
Period of validity	01-11-2000 – 31-12-2003 with execution before 31-12-2009					
Total annual budget	-					
Max budget per action	Maximum € 2.268901 (Fl 5.000.000) per project, with a maximum of 25 % of the total initial infracosts					
CT sectors targeted	X	Rail/road	x	Inland waterway/road		Sea/road
Type of incentive	Support/improve the infrastructure of CT Terminals					
Objectives (according to legal act)	Increase of CT by rail and inland waterway by funding a part of the infrastructure investment cost for new terminals;					
Beneficiaries	CT terminal investors					
Brief description: What is supported? Key prerequisites?	Shift of road transport to transport by rail and inland waterways deserves the preference from the point of view of exploitation of the available capacity concerning the infrastructure of complete network. Inter- and multimode transport contributes to this. The policy in the field of intermodal transport has been aimed at optimisation and integration of the different links in the transport chain and joining cargo-flows. For this in the first place a spatial structure is necessary of multimodal infrastructure and transhipment points. Public terminals and regional transhipment centres determine an important component of this multimode structure. But investments in terminals are expensive. The development of the turnover comes generally slow, which leads to more than moderate company risks and initial losses. The SOIT aims at the development of regional terminals and transhipment centres. The regulation has been intended for private initiators which invest risk-bearing in terminals. Based on an interim evaluation of the SOIT the parliament has been informed that the SOIT on the initially determined date of 31 December 2003 has been concluded. All submitted claims have been meanwhile laid down in arrangements. The run of all remunerated projects will pass through planning and implementation dependent on according to the expectations up to and including 2009.					
Application procedure (*please tick the appropriate boxes*)	X	Published in the "National Government Paper" (Staatscourant)				
	X	Call for proposals				
	x	Public procedure based on terms of requirements				

COUNTRY	The Netherlands	
Intensity of financial aid (max. funding rate)	See budget per project	
Key impacts on CT operations (*please tick the appropriate boxes*)	X	Reduction of cost of operations
	X	Reduction of transhipment cost
		Reduction of other costs
	X	Extension of network of CT services
		Improvement of service quality
		Compensation for drawbacks compared to road
		Other:
Specific provisions	-	

Support programmes and incentives for combined transport**: Poland**

COUNTRY	**Poland**					
Title of incentive	Investment aid for the development of intermodal transport under Infrastructure and Environment Operational Programme					
Legal basis (regulation, law, directive)	- Rozporządzenie Ministra Infrastruktury z dnia 7 września 2009 r. w sprawie pomocy na projekty w zakresie transportu intermodalnego w ramach Programu Operacyjnego Infrastruktura i Środowisko na lata 2007–2013 (Directive of Polish Ministry of Infratsructure dated 07.09.2009) - Ustawa z dnia 6 grudnia 2006 r. o zasadach prowadzenia polityki rozwoju - art. 21 ust. 3 (Act of Law dated 06.12.2006 about the rules of acting development policy Art 21, point 3) - Program Operacyjny Infrastruktura i Środowisko na lata 2007–2013 (Operational Programme Infrastructure and Environment 2007-2013)					
EU notification	IP/09/1130 13.07.2009					
Reference territory	X	State		Region/Province		Place/City
Period of validity	01.01.2009 – 31.12.2015					
Total annual budget	€ 170 million (not only for CT)					
Max budget per action	n.a.					
CT sectors targeted	X	Rail/road	X	Inland waterway/road		Sea/road
Type of incentive	Direct grant					
Objectives of incentive	Development of intermodal transport through the construction of logistics centres and container terminals and purchase of specialised equipment					
Beneficiaries	Enterprises from EU Member States who perform or intend to perform intermodal transportation operations in Poland					

COUNTRY	Poland		
Brief description: What is supported? Key prerequisites?	- Construction, extension and modernisation of multimodal logistics centres and multimodal transport terminals - Construction, extension and modernisation of technical and operational infrastructure (including transhipment and storage areas) - Purchase or upgrading of equipment used exclusively for the provision of multimodal transport services (including specialised means of transport used in multimodal transport) - Acquisition of patents , licenses and know-how - Work associated with the preparation of the project (research, analysis, technical documentation and support)		
Application and allocation procedure	n.a.		
Intensity of financial aid	50% in the case of port and intermodal infrastructure 30% in the case of equipment and information and communication technologies for intermodal transport		
Specific provisions	n.a.		
Key impacts on CT operations (*please tick the appropriate boxes*)	X	Reduction of cost of operations	
	X	Reduction of transhipment cost	
		Reduction of other costs	
	X	Extension of network of CT services	
	X	Improvement of service quality	
	X	Compensation for drawbacks compared to road	
	X	Acknowledgement of social benefits of CT	
		Other :	

COUNTRY	Poland					
Title of incentive	Reduction of Rail infrastructure access charges					
Legal basis (regulation, law, directive)	Directive of Ministry of Infrastructure, Journal of Laws No 35, pos. 274 of 27 February 2009 (Rozporzadzenie Ministra Infrastruktury z dnia 27 lutego 2009, Dziennik Ustaw No 35, poz. 274					
EU notification						
Reference territory	X	State		Region/Province		Place/City
Period of validity	15 Dec ember 2013 to 13 December 2014					
Total annual budget						
Max budget per action						
CT sectors targeted	X	Rail/road		Inland waterway/road		Sea/road
Type of incentive	Direct grant					
Objectives of incentive	Promotion of CT					
Beneficiaries	Railway undertakings operating CT trains					
Brief description: What is supported? Key prerequisites?	- 25% discount on access charges only for CT block trains; - Execution of measure by rail infrastructure manager PKP PLK					
Intensity of financial aid (max. funding rate)	See above.					
Specific provisions	n.a.					
Key impacts on CT operations (*please tick the appropriate boxes*)	X	Reduction of cost of operations				
		Reduction of transhipment cost				
		Reduction of other costs				
		Extension of network of CT services				
		Improvement of service quality				
		Compensation for drawbacks compared to road				
		Other :				

Support programmes and incentives for combined transport**: Portugal**

COUNTRY	**Portugal**						
Title of incentive	Increased weight of road vehicles						
Legal basis (regulation, law, directive)	Decreto-Lei n.o 99/2005, de 21 de Junho about the regulation establishing the maximum weights and dimensions allowed for vehicles, and transposing into national law Directive 2002/7/EC of the European Parliament and of the Council of 18 February.						
EU notification (reference n°, date)	n.a.						
Reference territory	X	State		Region/Province		Place/City	
Period of validity	Ongoing						
Total annual budget	n.a.						
Max budget per action	n.a.						
CT sectors targeted	X	Rail/road		Inland waterway/road	X	Sea/road	
Type of incentive	Derogation from Directive 96/53/EC						
Objectives (according to legal act)	Compensation of the loss of payload due to the tare weight of containers						
Beneficiaries	Road hauliers in pre- and end-haulage						
Brief description: What is supported? Key prerequisites?	The maximum gross weight for a combination with a tractor and a semi-trailer with 5 or more axles carrying two ISO containers of 20 feet or a single ISO container of 40 feet: 44 tonnes						
Application procedure (*please tick the appropriate boxes*)	X	Continuous application process (no calls for proposals)					
		Call for proposals					
		Public tendering procedure based on terms of requirements					
		Other :					
Intensity of financial aid	n.a.						
Key impacts on CT operations (*please tick the appropriate boxes*)		Reduction of cost of operations					
		Reduction of transhipment cost					
		Reduction of other costs					
		Extension of network of CT services					

COUNTRY	Portugal		
		Improvement of service quality	
	X	Compensation for drawbacks compared to road	
		Other :	
Specific provisions	n.a.		

Support programmes and incentives for combined transport**: Romania**

COUNTRY	**Romania**					
Title of incentive (English translation)	Sectoral Operational Programme Transport 2007 – 2013 (SOPT), Priority axis 3: Modernization of transport sector aiming at higher degree of environmental protection, human health and passenger safety; Key area of intervention 3.1: **Promotion of intermodal transport**					
Reference territory	X	State		Region/Province		Place/City
Period of validity	2007 – 2013					
Max budget per action	-					
CT sectors targeted	X	Rail/road		Inland waterway/road		Sea/road
Type of incentive	Direct grants for investments in CT terminal infrastructure					
Objectives (according to legal act)	Development of combined transport in Romania through the development of CT Terminal and Logistic Centers\					
Beneficiaries	Compania Nationala de Cai Ferate "C.F.R." – S.A. (Romanian National Railway Company)					
Brief description: What is supported? Key prerequisites?	Funds will be granted for: - Drawing up projects of rehabilitation of intermodal infrastructure; - Construction and rehabilitation / modernisation of intermodal infrastructure; - Supervision of construction works; - Technical assistance during project implementation; - Technical assistance for development of administrative capabilities of beneficiary through the assurance of material resources necessary during SOPT project implementation. Construction of terminals carried out by national rail infrastrucure manager, operation could be leased to private companies. Key prerequisite: conclusion of a joint venture contract between rail infrastrucure manager and local public authorities. In this partnership, public authorities will provide land for terminal and build the external road access to this terminal.					
Application procedure (*please tick the appropriate boxes*)	X	Continuous application process (no calls for proposals)				
		Call for proposals				
		Public tendering procedure based on terms of requirements				

COUNTRY	Romania		
Intensity of financial aid (max. funding rate)	85% of eligible costs.		
Key impacts on CT operations (*please tick the appropriate boxes*)		Reduction of cost of operations	
	X	Reduction of transhipment cost	
		Reduction of other costs	
	X	Extension of network of CT services	
		Improvement of service quality	
		Compensation for drawbacks compared to road	
	x	Other :	Modal shift , Creation of new jobs
Specific provisions			
REMARKS	**Funds were not spent during period 2007 – 2013, deadline for submission of applications prolonged to 30 June 2014.**		

Support programmes and incentives for combined transport**: Slovakia**

COUNTRY	**Slovak Republic**					
Title of incentive (English translation)	Operational Programme Transport for 2007 – 2013, Priority Axis Nr 3 Infrastructur of Intermodal Transport:					
Legal basis (regulation, law, directive)	Uznesenie Vlády SR č. 1007 zo 6. decembra 2006 k návrhu Operačného programu Doprava na roky 2007 – 2013					
EU notification (reference n°, date)	Notification of the Commission from 17. 7. 2013 about state aid SA.34369 – 2013/C Construction and operation of public intermodal transport terminals (ex 2012/N), which the Slovak Republic plans to realise; Brussels17.7. 2012, C(2013) 4423 final					
Reference territory	X	State		Region/Province		Place/City
Period of validity	2007 – 2013 (2015)					
Total annual budget						
Max budget per action	€ 29 m					
CT sectors targeted	X	Rail/road		Inland waterway/road		Sea/road
Type of incentive	Direct grant					
Objectives	Based on Operational Programme Transport 2007 - 2013					
Beneficiaries	Licensed terminal operators (Concession)					
Brief description: What is supported? Key prerequisites?	Plan was for construction of four public CT terminals ensuring non-discriminatory access: Zilina-Teplicka nad Vahom, Bratislava-Palenisko (inland port), Leopoldov-Sulekovo (HUB), Kosice-Bociar (trimodal terminal with access to broad gauge rail line, 1520 mm).					
Application procedure (*please tick the appropriate boxes*)		Continuous application process (no calls for proposals)				
	X	Call for proposals				
	X	Public tendering procedure based on terms of requirements				
		Other :				
Intensity of financial aid	100%: 85 % by EU, 15% by Slovak Republic					
Key impacts on CT operations (*please tick the appropriate boxes*)		Reduction of cost of operations				
	X	Reduction of transhipment cost				
	X	Extension of network of CT services				
	X	Improvement of service quality				

COUNTRY	Slovak Republic
NOTE	**Only Zilina will be realized, otherwise programme suspended owing to failed EU notification.**

COUNTRY	Slovak Republic					
Title of incentive (English translation)	Grants for the operation (start-up) of new transport services in accompanied and unaccompanied CT					
Legal basis (regulation, law, directive)	§ 22 of Zákon o doprave na dráhach NR SR č. 514/2009 Z. z. of 28 October 2009 (Act on railway traffic)					
EU notification	n. a.					
Reference territory	X	State		Region/Province		Place/City
Period of validity	Not restricted, given by national law					
Total annual budget	Planned € 1.66 m p.a. but until now not accepted by Ministry of Finance for national budget -					
Max budget per action	Planned: € 660,000					
CT sectors targeted	X	Rail/road	X	Inland waterway/road		Sea/road
Type of incentive	Direct grant					
Objectives	Support of start-up of CT services.					
Beneficiaries	CT stakeholders, operators or forwarders resident or registered in SK					
Brief description: What is supported? Key prerequisites?	- Co-financing of costs of operation of new accompanied and unaccompanied CT services by rail and inland waterway; - Beneficiary must contribute min. 70% of total costs					
Application procedure (*please tick the appropriate boxes*)		Continuous application process (no calls for proposals)				
	X	Call for proposals				
	X	Public tendering procedure based on terms of requirements				
		Other :				
Intensity of financial aid	30% of eligible costs					
Key impacts on CT operations (*please tick the appropriate boxes*)	X	Reduction of cost of operations				
		Reduction of transhipment cost				
	X	Extension of network of CT services				

COUNTRY	Slovak Republic	
		Improvement of service quality
	X	Compensation for drawbacks compared to road
NOTE	**Incentive not yet implemented due to lack of budget (see above)**	

COUNTRY	Slovak Republic					
Title of incentive (English translation)	Promotion of the purchase of technical equipment for the operation of CT services					
Legal basis (regulation, law, directive)	§ 22 of Zákon o doprave na dráhach NR SR č. 514/2009 Z. z. of 28 October 2009 (Act on railway traffic)					
EU notification	n. a.					
Reference territory	X	State		Region/Province		Place/City
Period of validity	Not restricted					
Total annual budget	No budget yet (not accepted by Ministry of Finances)					
Max budget per action	- Special CT wagons: € 330,000; - Vehicles for container transport: € 20,000; - Semi-trailer: € 33,000; - Swap bodies: € 100,000.					
CT sectors targeted	X	Rail/road	X	Inland waterway/road		Sea/road
Type of incentive	Direct grant for the purchase of CT equipment					
Objectives	Support of start-up of CT services.					
Beneficiaries	CT stakeholders, operators or forwarders resident or registered in SK					
Brief description: What is supported? Key prerequisites?	- Direct aids for the purchase of equipment deployed for operations of CT services or the pre- and on-carriage by road in the context of accompanied or unaccompanied CT: CT wagons, load units,vehicles for transport of containers or swap bodies; - Beneficiary must contribute min. 85% of total costs; - Grants for the purchase of CT waggons only to authorized railway undertakings					
Application procedure (*please tick the appropriate boxes*)		Continuous application process (no calls for proposals)				
	X	Call for proposals				
	X	Public tendering procedure based on terms of requirements				

COUNTRY	Slovak Republic	
Intensity of financial aid	15% of eligible costs	
Key impacts on CT operations (*please tick the appropriate boxes*)	X	Reduction of cost of operations
		Reduction of transhipment cost
	X	Reduction of other costs equipment
	X	Extension of network of CT services
		Improvement of service quality
	X	Compensation for drawbacks compared to road
NOTE	**Incentive not yet implemented due to lack of budget (see above)**	

Support programmes and incentives for combined transport**: Slovenia**

COUNTRY	**Slovenia**						
Title of incentive (English translation)	Exceptions to traffic restrictions for freight vehichles engaged in road transport combined with transport by rail or ship						
Legal basis (regulation, law, directive)	Decree on Combined Transport (UL RS, 4/01)						
EU notification (reference n°, date)	N.a						
Reference territory	X	State	-	Region/Province	-	Place/City	
Period of validity	unlimited						
Total annual budget	n.a.						
Max budget per action	n.a.						
CT sectors targeted	X	Rail/road	X	Inland waterway/road	X	Sea/road	
Type of incentive	Exemption from driving bans for raod vehicles						
Objectives (according to legal act)	Not defined in the legal act.						
Beneficiaries	Road hauliers involved in CT						
Brief description: What is supported? Key prerequisites?	Suport of ombined transport by exemping road freight vechicles using piggy- back train or a ferry following the traffic restrictions						
Application procedure (*please tick the appropriate boxes*)		Continuous application process (no calls for proposals)					
		Call for proposals					
		Public tendering procedure based on terms of requirements					
	X	Other :	no application necessary				
Intensity of financial aid (max. funding rate)	n.a.						
Key impacts on CT operations (*please tick the appropriate boxes*)		Reduction of cost of operations					
		Reduction of transhipment cost					
		Reduction of other costs					
		Extension of network of CT services					
	X	Improvement of service quality					

COUNTRY	Slovenia
	Compensation for drawbacks compared to road
Specific provisions	The traffic restrictions on holidays, weekends and during tourist season (Art. 2 and 3 of the Order on Traffic Restrictions on roads in the Republic of Slovenia (UL RS, 75/11)) do not apply to freight vehicles or groups of vehicles whose maximum permissible weight exceeds 7,500 kg an which are engaged in road transport combined with transport by rail or ship: - to a terminal, reloading station or port, if they journey using a piggy-back train or a ferry and would otherwise not reach their destination on time - from a terminal, reloading station or port to the nearest border crossing, if they arrived using piggy-back transport or ferry and if they are able to proceed with their journey to their destination abroad.

COUNTRY	Slovenia					
Title of incentive (English translation)	Increase of total permissible weight of vechicles in pre-carriage and on-carriage					
Legal basis (regulation, law, directive)	Decree on Combined Transport (UL RS, 4/01)					
EU notification (reference n°, date)	n.a.					
Reference territory	SI	State	-	Region/Province	-	Place/City
Period of validity	unlimited					
Total annual budget	n.a.					
Max budget per action	n.a.					
CT sectors targeted	X	Rail/road		Inland waterway/road	X	Sea/road
Type of incentive	Derogations from Directive 96/53/EC on max. weights and dimensions of heavy good vehicles					
Objectives (according to legal act)	Not defined in the legal act.					
Beneficiaries	Road hauliers involved in CT					
Brief description: What is supported? Key prerequisites?	Increasing the total permissible weight of road freight vechicles involved in CT up to 44 tons					
Application procedure		Continuous application process (no calls for proposals)				

COUNTRY	Slovenia		
(*please tick the appropriate boxes*)		Call for proposals	
		Public tendering procedure based on terms of requirements	
	X	Other :	no application necessary
Intensity of financial aid (max. funding rate)	Not a financial incentive.		
Key impacts on CT operations (*please tick the appropriate boxes*)		Reduction of cost of operations	
		Reduction of transhipment cost	
		Reduction of other costs	
		Extension of network of CT services	
		Improvement of service quality	
	X	Compensation for drawbacks compared to road	
		Other :	
Specific provisions	The total permissible weight of the vehicles can be up to 44 tons for the road vehicles performing pre-carriage and on-carriage in combined transport, i.e.: - a towing vehicle with three axles accompanied by an articulated semi-trailer with two or three axles if it transporting intermodal transport unit, or is strengthened for transport in unaccompanied combined transport, - a group of vehicles with five or more axles, if the group of vehicles is adapted for the transport of swap bodies.		

COUNTRY	Slovenia					
Title of incentive (English translation)	Partial comensation for the costs of transport services, research and investments for railway undertakings					
Legal basis (regulation, law, directive)	Decree on partial compensation for the costs of transport services, research and investments in respect of undertakings which provide specific transport services in railway transport (UL RS, 108/2000)					
EU notification (reference n°, date)	n.a.					
Reference territory	X	State	-	Region/Province	-	Place/City
Period of validity	unlimited					
Total annual budget	Not defined. Annual budget allocation.					

COUNTRY	Slovenia						
Max budget per action	Not defined..						
CT sectors targeted	X	Rail/road	X	Inland waterway/road	X	Sea/road	
Type of incentive	Aids (grants, loans) for investments in CT terminal infrastructure						
Objectives (according to legal act)	- Increasing the competitiveness of combined transport and encouraging the use of modern technologies in combined transport - Enforcing the performance of specific services as long as they are in a public interest						
Beneficiaries	Transport undertakings registered in Slovenia, which provide specific transport services in rail an/or combined transport						
Brief description: What is supported? Key prerequisites?	Supported are the transport costs, research activities and investments of undertakings providing CT						
Application procedure (*please tick the appropriate boxes*)	X	Continuous application process (no calls for proposals)					
		Call for proposals					
		Public tendering procedure based on terms of requirements					
		Other :	no application necessary				
Intensity of financial aid (max. funding rate)	n.a.						
Key impacts on CT operations (*please tick the appropriate boxes*)	X	Reduction of cost of operations					
		Reduction of transhipment cost					
		Reduction of other costs					
		Extension of network of CT services					
		Improvement of service quality					
		Compensation for drawbacks compared to road					
		Other :					

COUNTRY	Slovenia
Specific provisions	The state may partially compensate the costs of transport services, research activities and investments of undertakings providing CT, if recognising special interests, if thereby achieving equal economical status wit other carriers of goods and passengers in other transport modes as well as providing that costs are incurred in transport operation, which is not in pure economical interest. Only transport operators registered in Slovenia are entitled to be granted the state aid. Public interest is the key criterion for partial compensation.
NOTE	**No budget allocated for the compensation scheme since 2003.**

Support programmes and incentives for combined transport**: Spain**

COUNTRY	**Spain**					
Title of incentive (English translation)	Direct grants for CT operations					
Legal basis (regulation, law, directive)	ORDEN Ayudas para el transporte combinado de mercancías of September 19, 2012, of the Basque Country Minister of Housing, Public Works and Transport.					
EU notification (						
Reference territory		State	X	Region/Province		Place/City
Period of validity	2008 to 2012					
Total annual budget	€ 200,000 (2012)					
Max budget per action	€ 100,000€ per beneficiary during 3 years					
CT sectors targeted	X	Rail/road		Inland waterway/road	X	Sea/road*
Type of incentive	Direct grant for CT operations					
Objectives (according to legal act)	Promote the use of combined transport among road freight companies					
Beneficiaries	Road hauliers of Basque Country					
Brief description: What is supported? Key prerequisites?	- Support of hauliers using Ro-Ro maritime or semi-trailers on rail CT services, only Ro-Ro cargo; - Reimbursement of a percentage of freight costs; the percentage increases the more journeys executed;					
Application procedure (*please tick the appropriate boxes*)		Continuous application process (no calls for proposals)				
	X	**Annual** Call for proposals				
		Public tendering procedure based on terms of requirements				
Intensity of financial aid	30% of maritime or rail freight costs if more than 100 journeys					
Key impacts on CT operations (*please tick the appropriate boxes*)	X	Reduction of cost of operations				
		Reduction of transhipment cost				
		Reduction of other costs				
		Extension of network of CT services				
		Improvement of service quality				
		Compensation for drawbacks compared to road				

COUNTRY	Spain

(1) ORDEN PRE/3298/2004 of 13 October, amending Annex IX "Weights and Dimensions', the General Vehicles Regulation approved by Royal Decree 2822/1998 of 23 December: Maximum Authorized Gross Weight:

- **3 axles motor vehicle with 2 or 3 axles semitrailer carrying in combined transport a closed container or swap body of 20 feet or more and approved for combined transport: 44 tons.**
- **2 axle motor vehicle with 3-axle semitrailer carrying in combined transport a closed container or swap body of 20 feet or more and approved for combined transport: 42 tons.**

(2) ORDEN PRE/52/2010 of 21 January, amending Annexes II, IX, XI, XII and XVIII of the General Vehicles Regulation approved by Royal Decree 2822/1998 of 23 December.

Maximum Authorized Height:

- **Vehicles transporting containers approved for combined or intermodal transport: 4.50 m**

Original Spanish versions:

ORDEN PRE/3298/2004, de 13 de octubre, por la que se modifica el Anexo IX «Masas y Dimensiones», del Reglamento General de Vehículos, aprobado por Real Decreto 2822/1998, de 23 de diciembre.

Masa Máxima Autorizada:

Vehículo motor de 3 ejes con semirremolque de 2 ó 3 ejes llevando, en transporte combinado, un contenedor o caja móvil cerrados, igual o superior a 20 pies y homologado para el transporte combinado: 44 tons.

Vehículo motor de 2 ejes con semirremolque de 3 ejes llevando, en transporte combinado, un contenedor o caja móvil cerrados, igual o superior a 20 pies y homologado para el transporte combinado: 42 tons

Orden PRE/52/2010, de 21 de enero, por la que se modifican los anexos II, IX, XI, XII y XVIII del Reglamento General de Vehículos, aprobado por Real Decreto 2822/1998, de 23 de diciembre.

Altura Máxima Autorizada: Vehículos que transportan contenedores cerrados homologados para el transporte combinado o intermodal: 4,50m

Support programmes and incentives for combined transport**: United Kingdom**

COUNTRY	United Kingdom (applies to England, Scotland, Wales)					
Title of incentive (English translation)	Mode Shift Revenue Support (MSRS)					
Legal basis (regulation, law, directive)	Forms part of Departmental programmes and budgets in England (Department of Transport), Scotland (Transport Scotland) and Wales (Welsh Assembly Government). In Wales responsibility for administration of the scheme transferred from the UK Department of Transport to the Welsh Assembly Government on 1st April 2007. The scheme is based on: (a) Railways Act 2005, Part 2, Sections 6, 8 and 10; (b) Transport Act 2000, Part 5, Section 272; (c) Transport (Scotland) Act 2001, Part 4, Section 71.					
EU notification (reference n°, date)	MSRS replaced previous Company Neutral Revenue Support (CNRS) scheme, approved by: (a) Brussels,16.12.2003 C(2003)4705fin, Subject: State aid N 464/ 2003 – United Kingdom Company Neutral Revenue Support Scheme (CNRS). MSRS approved by: (b) Brussels, 02.07.2009, C(2009) 4998 final Subject: State aid Case No. N247/2009 – United Kingdom.					
Reference territory	X	State	X	Region/Province		Place/City
Period of validity	1 April 2010 to 31 March 2015					
Total annual budget	Information provided by Government across all UK freight grants: (a) The estimated annual budget amounts to GBP 19 million, i.e.GBP 95 million in total over the 5 year duration of the scheme for England, and up to GBP 8 million annually for Scotland, where the same budget will cover both the MSRS and the Waterborne Freight Grant schemes (as stated in Case No. N247/2009); (b) The overall budget from January 2013 to 19 December 2017 will be GBP 20.75 million, rising from GBP 0.75m to GBP 4.5m per year (as Stated in Case No. SA.34604 (2012/N)); (c) The budget for Mode Shift Revenue Support (MSRS) and Waterborne Freight Grant schemes (WFG) is £18.632m for 2013 to 2014 and and is expected to be a similar amount for 2014 to 2015 (Department for Transport website 2014).					
Max budget per	Grants will not exceed 30% of the total cost of rail transport					

COUNTRY	United Kingdom (applies to England, Scotland, Wales)					
action	or the total cost of inland waterway transport, up to 50% of the avoided external costs compared with road transport. Each application will be vetted to ensure compliance with this requirement. The aid can not be cumulated with aid received from other local, regional, national or Community schemes to cover the same eligible costs.					
CT sectors targeted	X	Rail/road	X	Inland waterway/road	X	Sea/road
Type of incentive	Revenue support for movement of freight by alternative transport modes to road, where it can be demonstrated that a) the total cost of the alternative is greater than by road and b) where the quantified environmental benefits (as determined by the State) exceed the amount of revenue support required, by a ratio of at least 2:1. MSRS has a competitive bid process, with the State negotiating with bidders on the level of revenue support provided, dependent on available budget and the applicants' respective ratios between revenue support and environmental benefits.					
Objectives (according to legal act)	The objective of the scheme is to cover part of the rail or inland waterway costs in order to shift freight from road to these modes of transport. The scheme aims in particular to: - Secure the environmental benefits associated with the retention and growth of rail and inland waterway freight traffic; - Provide incentives to shipping lines, ports, logistics providers, train operators and inland waterway operators to take demand risk and to increase the use of rail and/or inland waterway for freight; - Allocate the available budget to those services which offer the greatest environmental benefits.					
Beneficiaries	Transport service providers and end users.					

COUNTRY	United Kingdom (applies to England, Scotland, Wales)	
Brief description: What is supported? Key prerequisites?	The additional combined operational cost of providing an end-to-end movement of freight using multiple modes of transport (which must include at least one alternative mode to road haulage), above the cost of a pure road haulage service. Applicants must demonstrate: - Evidence of the combined costs (actual price quotations from operators); - Evidence of the road-only alternative (3 separate quotes from third-party road hauliers); - Evidence of environmental benefits (using State-operated online mileage / benefits calculator); - Evidence of actual traffic carried (quarterly returns to State).	
Application procedure (*please tick the appropriate boxes*)	X	Continuous application process (no calls for proposals)
		Call for proposals
		Public tendering procedure based on terms of requirements
		Other :
Intensity of financial aid (max. funding rate)	Grants will not exceed 30% of the total cost of rail transport or the total cost of inland waterway transport, up to 50% of the avoided external costs compared with road transport. Each application will be vetted to ensure compliance with this requirement. The aid can not be cumulated with aid received from other local, regional, national or Community schemes to cover the same eligible costs.	
Key impacts on CT operations (*please tick the appropriate boxes*)	X	Reduction of cost of operations
	X	Reduction of transhipment cost
		Reduction of other costs
	X	Extension of network of CT services
	X	Improvement of service quality
		Compensation for drawbacks compared to road
		Other :
Specific provisions	See key prerequisites above.	

COUNTRY	United Kingdom (applies to Scotland and Wales)					
Title of incentive (English translation)	Freight Facilities Grant					
Legal basis (regulation, law, directive)	(a) Section 8 of the Railways Act 1974; (b) Section 139 of the Railways Act 1993; (c) Section 249 of the Transport Act 2000; (d) Section 10(4) of the Railways Act 2005. In **England** the FFG scheme was closed in January 2011. In **Wales** responsibility for administration of the scheme transferred from the UK Department of Transport to the Welsh Assembly Government on 1st April 2007. In **Scotland** the legal bases for the scheme are: (a) Section 71 of the Transport (Scotland) Act 2001; (b) Section 272 of the Transport Act 2000 as modified by article 3 of the Scotland Act 1998 (Transfer of Functions to the Scottish Ministers, etc.) Order 2003.					
EU notification (reference n°, date)	(a) European Commission Case No N162/93, 1993 (no further information available); (b) Brussels, 20.12.2001 C(2001)4512fin Subject: State aid N° N 649/2001 – United Kingdom Freight Facilities Grant (FFG); (c) Brussels, 18.12.2012 C(2012) 9834 final Subject: State aid SA.34604 (2012/N) – United Kingdom Prolongation of the Freight Facilities Grant scheme.					
Reference territory	X	State	X	Region/Province		Place/City
Period of validity	1 January 2013 to 19 December 2017.					
Total annual budget	Information provided by Government across all UK freight grants: (d) The estimated annual budget amounts to GBP 19 million, i.e.GBP 95 million in total over the 5 year duration of the scheme for England, and up to GBP 8 million annually for Scotland, where the same budget will cover both the MSRS and the Waterborne Freight Grant schemes (as stated in Case No. N247/2009); (e) The overall budget from January 2013 to 19 December 2017 will be GBP 20.75 million, rising from GBP 0.75m to GBP 4.5m per year (as Stated in Case No. SA.34604 (2012/N)); (f) The budget for Mode Shift Revenue Support (MSRS) and Waterborne Freight Grant schemes (WFG) is £18.632m for 2013 to 2014 and and is expected to be a similar amount for 2014 to 2015 (Department for Transport website 2014).					
Max budget per action	Up to 50% of eligible capital expenditure subject to budget availability and ratio of environmental benefits to level of					

COUNTRY	United Kingdom (applies to Scotland and Wales)					
	grant required.					
CT sectors targeted	X	Rail/road	X	Inland waterway/road	X	Sea/road
Type of incentive	Capital support for investment in freight facilities needed for movement of freight by alternative transport modes to road, where it can be demonstrated that a) the total cost of the alternative is greater than by road and b) where the quantified environmental benefits (as determined by the State) exceed the amount of capital support required. FFG has a competitive bid process, with the State negotiating with bidders on the level of capital support provided, dependent on available budget and the applicants' respective ratios between capital support and environmental benefits.					
Objectives (according to legal act)	The objective of the FFG scheme is to encourage companies to take heavy lorries off the road by helping them invest in freight facilities where, in absence of a grant, the commercial decision would be to use road transport. The FFG scheme provides subsidies only for the extra capital cost of using a less environmentally damaging mode of transport and does not provide aid to meet mandatory Union environmental standards.					
Beneficiaries	Transport service providers and end users					

COUNTRY	United Kingdom (applies to Scotland and Wales)		
Brief description: What is supported? Key prerequisites?	The additional cost (due to investment in freight facilities) of providing an end-to-end movement of freight using multiple modes of transport (which must include at least one alternative mode to road haulage), above the cost of a pure road haulage service. Most facilities of a capital nature needed to handle or carry freight on rail are eligible for grant. Some examples are: - Internal rail sidings; - Handling equipment; - Rail wagons and locomotives; - Associated buildings; - Intermodal systems; - Design and project management costs associated exclusively with the rail freight facility. Grant will normally be paid on the initial purchase of equipment and not on any subsequent replacements within the life of the project. Grant can be paid towards leased capital assets, for example rail wagons provided the assets are specifically purchased or refurbished by the lessor to meet the requirements of the lessee. In such cases, the grant will be paid to the lessor on condition that the leasing charges reflect the full benefit of the grant. The Government will wish to see the proposed terms of the leasing agreement before making any offer of grant to the lessor. Facilities are unlikely to be eligible for FFG if they are not to be used exclusively fo or in connection with the carriage, loading and unloading of freight by rail, for example, industrial processing equipment, or land purchase. Each case will be considered on its merits. Applicants must demonstrate: - Evidence of the combined costs (business plan and tender quotes for supply / installation of freight facilities); - Evidence of the road-only alternative; - Evidence of environmental benefits (using State-operated online mileage / benefits calculator).		
Application procedure (*please tick the appropriate boxes*)	X	Continuous application process (no calls for proposals)	
		Call for proposals	
		Public tendering procedure based on terms of requirements	
		Other :	

COUNTRY	United Kingdom (applies to Scotland and Wales)	
Intensity of financial aid (max. funding rate)	Up to 50% of eligible capital expenditure subject to budget availability and ratio of environmental benefits to level of grant required.	
Key impacts on CT operations (*please tick the appropriate boxes*)	X	Reduction of cost of operations
	X	Reduction of transhipment cost
		Reduction of other costs
	X	Extension of network of CT services
		Improvement of service quality
		Compensation for drawbacks compared to road
		Other :
Specific provisions	See key prerequisites above.	

COUNTRY	United Kingdom (applies to Scotland and Wales)					
Title of incentive (English translation)	Waterborne Freight Grant (WFG)					
Legal basis (regulation, law, directive)	(a) Section 8 of the Railways Act 1974 (b) Section 139 of the Railways Act 1993 (c) Section 249 of the Transport Act 2000 (d) Section 10(4) of the Railways Act 2005. In **Wales** responsibility for administration of the scheme transferred from the UK Department of Transport to the Welsh Assembly Government on 1st April 2007. In **Scotland** the legal bases for the scheme are: (c) Section 71 of the Transport (Scotland) Act 2001; (d) Section 272 of the Transport Act 2000 as modified by article 3 of the Scotland Act 1998 (Transfer of Functions to the Scottish Ministers, etc.) Order 2003.					
EU notification (reference n°, date)	(a) European Commission Case No N162/93, 1993 (no further information available); (b) Brussels, 20.12.2001 C(2001)4512fin Subject: State aid N° N 649/2001 – United Kingdom Freight Facilities Grant (FFG); (c) Brussels, 18.12.2012 C(2012) 9834 final Subject: State aid SA.34604 (2012/N) – United Kingdom Prolongation of the Freight Facilities Grant scheme.					
Reference territory	X	State	X	Region/Province		Place/City
Period of validity	1 January 2013 to 19 December 2017					
Total annual budget	Information provided by Government across all UK freight grants: (g) The estimated annual budget amounts to GBP 19 million, i.e.GBP 95 million in total over the 5 year duration of the scheme for England, and up to GBP 8 million annually for Scotland, where the same budget will cover both the MSRS and the Waterborne Freight Grant schemes (as stated in Case No. N247/2009); (h) The overall budget from January 2013 to 19 December 2017 will be GBP 20.75 million, rising from GBP 0.75m to GBP 4.5m per year (as Stated in Case No. SA.34604 (2012/N)); (i) The budget for Mode Shift Revenue Support (MSRS) and Waterborne Freight Grant schemes (WFG) is £18.632m for 2013 to 2014 and and is expected to be a similar amount for 2014 to 2015 (Department for Transport website 2014).					
Max budget per action	Any grant offered will be limited to the lower of: - The value of the Environmental Benefits generated by transferring the relevant freight from road to water, or;					

COUNTRY	United Kingdom (applies to Scotland and Wales)
	- The financial need for grant determined by a financial appraisal comparing the costs of transporting freight by water with the costs of the road alternative, or; - 30% of the total operating costs of the water movement of the relevant freight, or; - € 2,000,000.
CT sectors targeted	Rail/road:		X	Inland waterway/road:	X	Sea/road:
Type of incentive	WFG can assist a company with the operating costs associated with running waterborne freight transport instead of road, where transport by water is more expensive. The grant applies to coastal and short sea shipping and can assist a company for up to 3 years.
Objectives (according to legal act)	WFG is designed to facilitate and support modal shift to waterborne freight services, generating environmental and wider social benefits from reduced lorry journeys on Britain's roads. The Government recognises that making the shift from road to water can sometimes be expensive and WFG is intended to offset some of the additional costs of switching to a more environmentally friendly mode of transport. In exceptional circumstances, WFG can be used to support existing services; however its primary aim is to provide time limited support for the inception of new services.
Beneficiaries	Transport service providers and end users
Brief description: What is supported? Key prerequisites?	WFG can support coastal or short sea shipping services, on condition that, after a period of grant aid (maximum 3 years), the service will be economically viable without grant support. Applications should demonstrate that this is the case. The applicant will also need to demonstrate that in the absence of the waterborne grant, the freight would be moved by road. Operating costs directly attributable to the freight being transferred from road to water will be eligible for WFG. These may include: - the cost of hiring or leasing combinations of vehicles (lorries, trailers, semi-trailers, swap bodies or containers of 20 feet or more); - the cost of hiring or leasing a vessel(s); - the cost of hiring or leasing of installations enabling transhipment between shipping routes and roads; - the cost of using maritime infrastructures; - harbour dues, fuel and crew costs; - administration costs including additional accountancy fees and the cost of staff training.

COUNTRY	United Kingdom (applies to Scotland and Wales)	
Application procedure (*please tick the appropriate boxes*)	X	Continuous application process (no calls for proposals)
		Call for proposals
		Public tendering procedure based on terms of requirements
		Other :
Intensity of financial aid (max. funding rate)	See max budget per action above.	
Key impacts on CT operations (*please tick the appropriate boxes*)	X	Reduction of cost of operations
	X	Reduction of transhipment cost
		Reduction of other costs
	X	Extension of network of CT services
		Improvement of service quality
		Compensation for drawbacks compared to road
		Other :
Specific provisions	See key prerequisites above	

Appendix H MS reports on CT Directive transposition

COUNTRY	AUSTRIA

A. State of transposition

	YES	NO
A1. Has the Member State transposed the CT Directive?"	X	

A2. If no, please investigate the reasons and inquire if and when the Member State plans to fulfil its obligations. Not applicable.

A3. If yes, please analyse the form of transposition: as one piece or incorporated in various legal acts. Please also investigate the following aspects:

- Is the information provided by Eur-lex correct? Does it reflect the latest state?

- If not, please identify the latest versions, provide the document(s) in the original language and indicate the date(s), on which acts came into effect.

Eur-Lex data	Not latest version
Type of transposition	CT Directive has not been transposed in one piece. Main contents are contained in the legal acts below. Further references to contents of Directive are in legal acts relating to CT incentives (see under WP 4).
Legal act(s)	(1) § 2 (1) N° 40 Bundesgesetz vom 23. Juni 1967 über das Kraftfahrwesen, last update: Federal Journal, Part I N° 90/2013 (2) § 7 (2) Bundesgesetz über die gewerbsmäßige Beförderung von Gütern mit Kraftfahrzeugen, last update: Federal Journal, Part I N° 96/2013 (3) 399. Verordnung über die Befreiung des grenzüberschreitenden Kombinierten Verkehrs von Bewilligungen (Kombifreistellungs-Verordnung), Federal Journal, Part II, 16 December 1997 (4) § 2 (1) N° 14 and § 2 (3) Bundesgesetz über die Erhebung einer Kraftfahrzeugsteuer 1992, last update: Part I N° 112/2012

B. Technical analysis of transposed CT Directive

	YES	NO
B1. Has the definition of combined transport according to Article 1 of the Directive been adopted at face value?		X

B2. Do national laws cover the main provisions of the CT Directive, and do they provide for specific clarifications?

	YES	NO
Definition of “nearest possible rail station”	X	
Any specification (criteria) of “nearest possible rail station” (a)	X	
Any general restriction on “nearest possible rail station”		X
CT inland waterway/road covered by national law	X	
CT sea/road covered by national law		X

Any specification of initial and final road leg		X
Exemption of road leg of CT operations from cabotage ban for companies established in EU Member State	X	
Any restrictions of CT operations as concerns cabotage journeys		X
Reduction of vehicle tax for road vehicles in CT operations (b)	X	
Document providing evidence for CT operations	X	
Does 100 km limit apply to all CT combinations? (c)	(X)	

(1) The nearest possible rail station is the station:

- Which provides for technical facilities to ensure handling of the load units in question;
- Which provides for the shortest, usually used, legally permitted and economically reasonable road leg (route) to/from the point of loading or unloading.

(2) Two main schemes vehicle tax reduction:

- Tax exemption on monthly basis for vehicles exclusively used for pre- and on-carriage by road;
- Reimbursement of 15% of monthly vehicle tax for every rail journey; if vehicle is exempted from tax, discount is transferable to another vehicle being taxed.

(3) No reference to 100 km limit in legal acts (1), (2) and (4) but only in (3), and here it applies to all CT combinations.

B3. Do national laws or regulations extend the scope of the obligations and options of the CT Directive? If so, please provide detailed information here or under WP 4.

Yes, see under WP 4.

COUNTRY	BELGIUM

A. State of transposition

	YES	NO
A1. Has the Member State transposed the CT Directive?"	X	

A2. If no, please investigate the reasons and inquire if and when the Member State plans to fulfil its obligations.

Not applicable.

A3. If yes, please analyse the form of transposition: as one piece or incorporated in various legal acts.

Eur-Lex data	Not latest version
Type of transposition	The legal act clearly refers to the CT Directive
Legal act(s)	Arrêté royal du 20/05/1997 modifiant l'arrêté royal du 25 novembre 1992 portant le règlement général relatif au transport rémunéré de choses par véhicules automobiles , Moniteur Belge, 20 June 1997, p. 16542-16543

B. Technical analysis of transposed CT Directive

	YES	NO
B1. Has the definition of combined transport according to Article 1 of the Directive been adopted at face value?		X

B2. Do national laws cover the main provisions of the CT Directive, and do they provide for specific clarifications?

	YES	NO
Definition of "nearest possible rail station"	X	
Any specification (criteria) of "nearest possible rail station"		X

Any restriction (e.g. distance) on "nearest possible rail station"		X
CT inland waterway/road covered by national law	X	
CT sea/road covered by national law	X	
Any specification of initial and final road leg		X
Exemption of road leg of CT operations from cabotage ban for companies established in EU Member State	?	?
Any restrictions of CT operations as concerns cabotage journeys	?	?
Reduction of vehicle tax for road vehicles in CT operations	?	?
100 km limit applies to all CT combinations (a)		X

(1) 100 km limit only applies to maritime journey (Article 1).

B3. Do national laws or regulations extend the scope of the obligations and options of the CT Directive?

Yes, see under WP 4.

COUNTRY	**BULGARIA**	
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A. State of transposition

	YES	NO
A1. Has the Member State transposed the CT Directive?"	X	

A2. If no, please investigate the reasons and inquire if and when the Member State plans to fulfil its obligations.

Not applicable.

A3. If yes, please analyse form of transposition: one piece or incorporated in various legal acts.

Eur-Lex data	Yes
Type of transposition	CT Directive basically is transposed in a single legal act (see below). The legal basis for this Ordinance is Article 58, Section 4 of the Railway Transport Act.
Legal act(s)	Ordinance N° 53 of the Minister for Transport on the combined transport of good, published in Official Journal N° 18, 25 February 2003 (*Наредба № 53 за комбиниран превоз на товари*)

B. Technical analysis of transposed CT Directive

	YES	NO
B1. Has the definition of combined transport according to Article 1 of the Directive been adopted at face value?	X	

Definition has not been transposed literally but the full meaning.

B2. Do national laws cover the main provisions of the CT Directive, and do they provide for specific clarifications?

	YES	NO
Definition of “nearest possible rail station”	X	
Any specification (criteria) of “nearest possible rail station”		X
Any restriction (e.g. distance) on “nearest possible rail station”		X
CT inland waterway/road covered by national law	X	
CT sea/road covered by national law	X	
Any specification of initial and final road leg		X
Exemption of road leg of CT operations from cabotage ban for companies established in EU Member State	X	
Any restrictions of CT operations as concerns cabotage journeys		X
Reduction of vehicle tax for road vehicles in CT operations		X
100 km limit applies to all CT combinations	X	

Note: The Ordinance comprises much more provisions on CT than the CT Directive such as the following issues: licensing of carriers, contracts, liability regimes.

COUNTRY	CYPRUS

A. State of transposition

	YES	NO
A1. Has the Member State transposed the CT Directive?"	X	

A2. If no, please investigate the reasons and inquire if and when the Member State plans to fulfil its obligations.

Not applicable.

A3. If yes, please analyse the form of transposition:

Eur-Lex data	Not latest version
Type of transposition	CT Directive is transposed as amendment in the "basic law" concerning Motor Vehicles and Road Traffic.
Legal act(s)	Low 98(I)2001 published on 5.7.2001 in the Official Gazette of the Republic of Cyprus, number 3513 of 13th July 2001

B. Technical analysis of transposed CT Directive

	YES	NO
B1. Has the definition of combined transport according to Article 1 of the Directive been adopted at face value?	X	

B2. Do national laws cover the main provisions of the CT Directive, and do they provide for specific clarifications?

	YES	NO
Definition of "nearest possible rail station" (a)	X	
Any specification (criteria) of "nearest possible rail station" (a)		X

Any restriction (e.g. distance) on "nearest possible rail station" (a)		X
CT inland waterway/road covered by national law (a)	X	
CT sea/road covered by national law	X	
Any specification of initial and final road leg		X
Exemption of road leg of CT operations from cabotage ban for companies established in EU Member State	X	
Any restrictions of CT operations as concerns cabotage journeys		X
Reduction of vehicle tax for road vehicles in CT operations	X	
Document providing evidence for CT operations	X	
Does 100 km limit apply to all CT combinations?	X	

(1) Not applicable, no railway or inland waterway exists in Cyprus.

B3. Do national laws or regulations extend the scope of the obligations and options of the CT Directive, ie further CT incentives beyond tax reduction? If so, please provide detailed information here or under WP 4.

No further CT incentives.

COUNTRY	**CZECH REPUBLIC**	
CONTACT INFORMATION	Organization	Ministerstvo dopravy ČR – Ministry of transport of the Czech Republic
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A. State of transposition

	YES	NO
A1. Has the Member State transposed the CT Directive?"	X	

A2. If no, please investigate the reasons and inquire if and when the Member State plans to fulfil its obligations.

not applicable

A3. If yes, please analyse if it was transposed as one piece or if provisions of the CT Directive were adopted in laws or regulations.

Eur-Lex data	Not fully actual version
Type of transposition	CT Directive is not transposed in one piece. CT definition and main refences to CT Directives are in acts (1) and (2).
Legal act(s)	(5) Zákon č. 111/1994 Sb., o silniční dopravě, Official Journal: Sbírka Zákonů ČR, Publication date: 26/04/1994; Reference MNE(2003)56513, last modification Zákon č. 102/2013 Sb (Act on road transport); (6) Zákon č. 102/2004 Sb., kterým se mění zákon č. 16/1993 Sb., o dani silniční, ve znění pozdějších předpisů, zákon č. 588/1992 Sb., o dani z přidané hodnoty, ve znění pozdějších předpisů, a zákon č. 248/1992 Sb., o investičních společnostech a investičních fondech, ve znění pozdějších předpisů, Official Journal: Sbírka Zákonů ČR, Publication date: 05/03/2004; Reference MNE(2004)50631 (Act on road vehicle tax); (7) Zákon č. 361/2000 Sb. o provozu na pozemních komunikacích a o změnách některých zákonů, ve znění pozdějších předpisů of 14

	September 2000, last modification Zákon č. 133/2011 Sb. (Act on road traffic) (8) Zákon č. 56/2001 Sb. o podmínkách provozu vozidel na pozemních komunikacích a o změně zákona č. 168/1999 Sb., o pojištění odpovědnosti za škodu způsobenou provozem vozidla a o změně některých souvisejících zákonů (zákon o pojištění odpovědnosti z provozu vozidla), ve znění zákona č. 307/1999 Sb of 10 January 2001, last modification by Zákon č. 169/2013 (Act on conditions of road traffic and modification of Act N° 168/1999)

B. Technical analysis of transposed CT Directive

B1. Has the definition of combined transport according to Article 1 of the Directive been adopted at face value?

YES	NO
X	

B2. Do national laws cover every main provision of the CT Directive, and do they provide for specific clarifications?

	YES	NO
Definition of “nearest possible rail station”	X	
Any specification (criteria) of “nearest possible rail station”		X
Any restriction (eg. distance) on “nearest possible rail station”		X
CT inland waterway/road covered by national law	X	
CT sea/road covered by national law		n. a.
Any specification of initial and final road leg		X
Exemption of CT operations from cabotage ban (a)		X
Any restrictions of CT operations as concerns cabotage	X	

journeys		
Reduction of vehicle tax for road vehicles in CT operations (b)	X	
Does 100 km limit apply to all CT combinations?	X	

(a) Cabotage is only limited allowed according to Regulation 1072/2009 and 1073/2009.

(b) According to § 12 of Zákon č. 102/2004 Sb., kterým se mění zákon č. 16/1993 Sb., o dani silniční, ve znění pozdějších předpisů, zákon č. 588/1992 Sb (= legal act (2)) the following tax reduction schemes apply

- 100% for vehicles used exclusively for the initial or final leg of CT;
- 90% for vehicles carrying out more than 120 journeys during taxation period;
- 75% for vehicles carrying out 91 to 120 journeys during taxation period;
- 50% for vehicles carrying out 61 to 90 journeys during taxation period;
- 25% for vehicles carrying out 31 to 60 journeys during taxation period;
- If the rail distance on the Czech territory exceeds 250 km the journey counts twice.

B3. Do national laws extend the scope of the obligations and options of the CT Directive?

(1) According to §43 of Zákon č. 361/2000 Sb as amended by Zákon č. 133/2011 Sb (=legal act (3)) road vehicles executing the initial or final leg of CT operations are exempted from driving bans on Saturdays, Sundays and national holidays if they comply with the general restrictions on CT that is using the nearest suitable terminal and complying with 150 km limit (see also under WP 4).

(2) Reduction of infrastructure access charge for CT block trains (see under WP 4)

(3) Revitalization of rail sidings (see under WP 4)

COUNTRY	GERMANY

A. State of transposition

	YES	NO
A1. Has the Member State transposed the CT Directive?"	X	

A2. If no, please investigate the reasons and inquire if and when the Member State plans to fulfil its obligations.

Not applicable.

A3. If yes, please analyse the form of transposition: as one piece or incorporated in various legal acts. Please also investigate the following aspects:

- Is the information provided by Eur-lex correct? Does it reflect the latest state?
- If not, please identify the latest versions, provide the document(s) in the original language and indicate the date(s), on which acts came into effect.

Eur-Lex data	Not latest version
Type of transposition	CT Directive is not transposed in one piece. Main content is in legal acts (1) and (2). Further references to contents or to Directive are in legal acts (3) to (6) relating to CT incentives (see WP 4).
Legal act(s)	(9) §§ 13-17 Verordnung über den grenzüberschreitenden Güterkraftverkehr und den Kabotageverkehr of 28 Dec 2011, Federal Journal, Part I, N° 2 of 4 Jan 2012 (10) Kraftfahrzeugsteuergesetz of 26 Sep 2002, last update: 5 Dec 2012 (11) 53. Verordnung über Ausnahmen von den Vorschriften der Straßenverkehrs-Zulassungs-Ordnung of 2 July 1997, last update: 26 July 2013 (12) Richtlinie zur Förderung von Umschlaganlagen des Kombinierten Verkehrs nichtbundeseigener Unternehmen of 23 November 2011 (13) Straßenverkehrsordnung of 6 March 2013 (14) Verordnung zur Erleichterung des Ferienreiseverkehrs auf der Straße of 13 May 1985, last update: 13 June 2013

B. Technical analysis of transposed CT Directive

	YES	NO
B1. Has the definition of combined transport according to Article 1 of the Directive been adopted at face value?	X	

B2. Do national laws cover the main provisions of the CT Directive, and do they provide for specific clarifications?

	YES	NO
Definition of “nearest possible rail station”	X	
Any specification (criteria) of “nearest possible rail station” (a)	X	
Any restriction (e.g. distance) on “nearest possible rail station”		X
CT inland waterway/road covered by national law	X	
CT sea/road covered by national law	X	
Any specification of initial and final road leg		X
Exemption of road leg of CT operations from cabotage ban for companies established in EU Member State	X	
Any restrictions of CT operations as concerns cabotage journeys		X
Reduction of vehicle tax for road vehicles in CT operations (b)	X	
Document providing evidence for CT operations	X	

(4) The nearest possible rail station is the station:

- Which provides for facilities to ensure handling of CT operations in question;
- At which regular CT services in terms of type and direction are supplied;

- Which provides for the shortest and usually used road leg to/from the point of loading or unloading.

(5) Two main schemes vehicle tax reduction:

- Exemption from annual tax for vehicles exclusively used for pre- and on-carriage of CT load units by road (unaccompanied CT);
- Reimbursement of tax according to number of rail journeys for unaccompanied semi-trailers and road vehicles (accompanied CT).

B3. Do national laws or regulations extend the scope of the obligations and options of the CT Directive (If so, please provide detailed information here or under WP 4.

Yes, see under WP 4.

COUNTRY	DENMARK

A. State of transposition

	YES	NO
A1. Has the Member State transposed the CT Directive?"		(x)

"The Ministry of Transport informs that The Commission by a letter dated 9th of August 1993 sent a formal notice to Denmark about (among others) the Directive 96/102/EØF. Following the attached notification (not included – in Danish) of 30th of September 1993 was sent to the European Commission, which declares that the implementation of the Directive does not require modification of the Danish legislation or regulations."

The EU CT directive is implemented in the Danish freight transport law LBK nr 1051 af 12/11/2012 (see attachment: https://www.retsinformation.dk/Forms/r0710.aspx?id=143489)

COUNTRY	ESTONIA

A. State of transposition

	YES	NO
A1. Has the Member State transposed the CT Directive?"	X	

A2. If no, please investigate the reasons and inquire if and when the Member State plans to fulfil its obligations.

Not applicable.

A3. If yes, please analyse the form of transposition: as one piece or incorporated in various legal acts. Please provide the document(s) in the original language.

Eur-Lex data	Not latest version
Type of transposition	CT Directive is not fully transposed in two pieces. Main reference is legal act (1).
Legal act(s)	(1) "Autoveoseadus " (Road Transport Act) of 07 Jun 2000 (Last update 12 March 2012) (2) „Võlaõigusseadus" (Law of Obligations Act) of 26 Sept 2001 (Last update 09 Dec 2013)

B. Technical analysis of transposed CT Directive

	YES	NO
B1. Has the definition of combined transport according to Article 1 of the Directive been adopted at face value?	X	

B2. Do national laws cover the main provisions of the CT Directive, and do they provide for specific clarifications?

	YES	NO
Definition of "nearest possible rail station"	X	

Any specification (criteria) of “nearest possible rail station”		X
Any restriction (e.g. distance) on “nearest possible rail station”		X
CT inland waterway/road covered by national law	X	
CT sea/road covered by national law	X	
Any specification of initial and final road leg		X
Exemption of road leg of CT operations from cabotage ban for companies established in EU Member State	X	
Any restrictions of CT operations as concerns cabotage journeys		X
Reduction of vehicle tax for road vehicles in CT operations	X	
Does 100 km limit apply to all CT combinations?	X	

If applicable, please provide details for any of the above aspects.

B3. Do national laws or regulations extend the scope of the obligations and options of the CT Directive (e.g. reduction of road infrastructure charges for CT operations; exemptions from road vehicles’ weight, height or other restrictions; exemptions of CT operations from road driving bans)? If so, please provide detailed information here or under WP 4 (manual on CT incentives).

Yes, see legal acts (2) which is described under WP 4.

COUNTRY	GREECE

A. State of transposition

	YES	NO
A1. Has the Member State transposed the CT Directive?"	X	

A2. If no, please investigate the reasons and inquire if and when the Member State plans to fulfil its obligations.

Not applicable.

A3. If yes, please analyse the form of transposition:

Eur-Lex data	Not latest version
Type of transposition	CT Directive is transposed in one piece (see below).
Legal act(s)	Presidential Decree 431/95, in Government Gazette Series 1, N° 245, 24 November 1995

B. Technical analysis of transposed CT Directive

	YES	NO
B1. Has the definition of combined transport according to Article 1 of the Directive been adopted at face value?	X	

B2. Do national laws cover the main provisions of the CT Directive, and do they provide for specific clarifications?

	YES	NO
Definition of "nearest possible rail station"	X	
Any specification (criteria) of "nearest possible rail station" (a)	X	

Any restriction (e.g. distance) on "nearest possible rail station"		X
CT inland waterway/road covered by national law (b)		
CT sea/road covered by national law	X	
Any specification of initial and final road leg	X	
Exemption of road leg of CT operations from cabotage ban for companies established in EU Member State	X	
Any restrictions of CT operations as concerns cabotage journeys		X
Reduction of vehicle tax for road vehicles in CT operations (c)	X	
Document providing evidence for CT operations	X	
Does 100 km limit apply to all CT combinations?	X	

(1) Specifications are as follows:

- appropriate infrastructure for loading/unloading and implementation of service;

- geographically nearest distance.

(2) Not applicable, no inland waterway exists in GR.

(3) Article 6 of PD245/95 defines that vehicle taxes for road vehicles (lorries, trailers, semi-trailers) that perform combined transport, are reduced with a proportion of the route that the vehicles are traveling by rail within the country and according to the provisions and the special conditions determined by Common Ministerial Decision of the Ministers of "Finance" and of "Infrastructure, Transport and Networks", after they have asked for the opinion of EC.

Nevertheless, no process has been developed till now in order to record the distance that a road vehicle travels performing combined transport and non-combined transport routes to estimate the above "proportion" inside Greece. The definition does not apply to rail transport performed in other Member State. Also there are no road vehicles used exclusively for road haulage in feeder or final delivery carriage by combined transport. As combined transport includes also maritime modes, road

vehicles that perform combined transport by use of ferry/short-sea modes, on routes longer than 100 km, may also be beneficiaries of tax reductions, yet no such provision exists. Conclusively, there is no tax reduction in road vehicles performing combined transport operations.

As far as the vehicles "…. traveling by rail" option, which covers the case of trucks and semi-trailers travelling on railway wagons (piggyback transportation), it must be noted that the existing gauges in Greece does not allow for the transportation of road vehicles by rail.

B3. Do national laws or regulations extend the scope of the obligations and options of the CT Directive, ie further CT incentives beyond tax reduction? If so, please provide detailed information here or under WP 4.

No further CT incentives exist.

COUNTRY	SPAIN

A. State of transposition

	YES	NO
A1. Has the Member State transposed the CT Directive?"	X	

A2. If no, please investigate the reasons and inquire if and when the Member State plans to fulfil its obligations.

Not applicable.

A3. If yes, please analyse the form of transposition: as one piece or incorporated in various legal acts.

Eur-Lex data	Latest version
Type of transposition	CT Directive transposed in one piece and almost completed adopted.
Legal act(s)	Orden de 30/09/1993 por la que se establecen normas especiales para determinados transportes combinados de mercancías entre Estados miembros de la CEE. Boletín Oficial del Estado n° 246, 14 Oct 1993, p 29000-29001

B. Technical analysis of transposed CT Directive

	YES	NO
B1. Has the definition of combined transport according to Article 1 of the Directive been adopted at face value?	X	

B2. Do national laws cover the main provisions of the CT Directive, and do they provide for specific clarifications?

	YES	NO
Definition of "nearest possible rail station"	X	
Any specification (criteria) of "nearest possible rail station"		X

Any restriction (e.g. distance) on “nearest possible rail station”		X
CT inland waterway/road covered by national law	X	
CT sea/road covered by national law	X	
Any specification of initial and final road leg		X
Exemption of road leg of CT operations from cabotage ban for companies established in EU Member State	X	
Any restrictions of CT operations as concerns cabotage journeys		X
Reduction of vehicle tax for road vehicles in CT operations		X
Document providing evidence for CT operations	X	
Does 100 km limit apply to all CT combinations?	X	

B3. Do national laws or regulations extend the scope of the obligations and options of the CT Directive? If so, please provide detailed information.

(3) ORDEN PRE/3298/2004 of 13 October, amending Annex IX "Weights and Dimensions', the General Vehicles Regulation approved by Royal Decree 2822/1998 of 23 December: Maximum Authorized Gross Weight:

- 3 axles motor vehicle with 2 or 3 axles semitrailer carrying in combined transport a closed container or swap body of 20 feet or more and approved for combined transport: 44 tons.
- 2 axle motor vehicle with 3-axle semitrailer carrying in combined transport a closed container or swap body of 20 feet or more and approved for combined transport: 42 tons.

(4) ORDEN PRE/52/2010 of 21 January, amending Annexes II, IX, XI, XII and XVIII of the General Vehicles Regulation approved by Royal Decree 2822/1998 of 23 December.

Maximum Authorized Height:

- Vehicles transporting containers approved for combined or intermodal transport: 4.50 m

Original Spanish versions:

ORDEN PRE/3298/2004, de 13 de octubre, por la que se modifica el Anexo IX «Masas y Dimensiones», del Reglamento General de Vehículos, aprobado por Real Decreto 2822/1998, de 23 de diciembre.

Masa Máxima Autorizada:

Vehículo motor de 3 ejes con semirremolque de 2 ó 3 ejes llevando, en transporte combinado, un contenedor o caja móvil cerrados, igual o superior a 20 pies y homologado para el transporte combinado: 44 tons.

Vehículo motor de 2 ejes con semirremolque de 3 ejes llevando, en transporte combinado, un contenedor o caja móvil cerrados, igual o superior a 20 pies y homologado para el transporte combinado: 42 tons

Orden PRE/52/2010, de 21 de enero, por la que se modifican los anexos II, IX, XI, XII y XVIII del Reglamento General de Vehículos, aprobado por Real Decreto 2822/1998, de 23 de diciembre.

Altura Máxima Autorizada: Vehículos que transportan contenedores cerrados homologados para el transporte combinado o intermodal: 4,50m

COUNTRY	FINLAND

A. State of transposition

	YES	NO
A1. Has the Member State transposed the CT Directive?"	X	

A2. If no, please investigate the reasons and inquire if and when the Member State plans to fulfil its obligations.

Not applicable.

A3. If yes, please analyse the form of transposition: as one piece or incorporated in various legal acts. Please also investigate the following aspects:

Eur-Lex data	Not latest version
Type of transposition	CT Directive came into effect on 1st of June 2000 (1). References to Directive are also in other legal act (2) related to tax refund of the vehicle tax. The latter is described in detail under WP 4 CT Support programmes.
Legal act(s)	(15) "Laki eräistä kansainvälisistä yhdistetyistä kuljetuksista 2000/440" (Law for certain types of international combined transport of goods). The law come into effect on 1st of June 2000. (16) "Ajoneuvoverolaki 1281/2003" (Law of the vehicle tax) - last update on 21st of December 2004.

B. Technical analysis of transposed CT Directive

	YES	NO
B1. Has the definition of combined transport according to Article 1 of the Directive been adopted at face value?	X	

B2. Do national laws cover the main provisions of the CT Directive, and do they provide for specific clarifications?

	YES	NO
Definition of “nearest possible rail station”	X	
Any specification (criteria) of “nearest possible rail station”		X
Any restriction (e.g. distance) on “nearest possible rail station”		X
CT inland waterway/road covered by national law	X	
CT sea/road covered by national law	X	
Any specification of initial and final road leg		X
Exemption of road leg of CT operations from cabotage ban for companies established in EU Member State	X	
Any restrictions of CT operations as concerns cabotage journeys		X
Reduction of vehicle tax for road vehicles in CT operations	X	
Does 100 km limit apply to all CT combinations?	X	

If applicable, please provide details for any of the above aspects.

B3. Do national laws or regulations extend the scope of the obligations and options of the CT Directive (e.g. reduction of road infrastructure charges for CT operations; exemptions from road vehicles’ weight, height or other restrictions; exemptions of CT operations from road driving bans)? If so, please provide detailed information here or under WP 4 (manual on CT incentives).

Yes, see legal act (2), which is described under WP 4.

COUNTRY	FRANCE

A. State of transposition

	YES	NO
A1. Has the Member State transposed the CT Directive?"	X	

A2. If no, please investigate the reasons and inquire if and when the Member State plans to fulfil its obligations.

Not applicable.

A3. If yes, please analyse the form of transposition: as one piece or incorporated in various legal acts. Please also investigate the following aspects:

- Is the information provided by Eur-lex correct? Does it reflect the latest state?
- If not, please identify the latest versions, provide the document(s) in the original language and indicate the date(s), on which acts came into effect.

Eur-Lex data	Not latest version
Type of transposition	The CT Directive was transposed in the French legislation by adapting an existing governmental decree of the Minister of Transport of 1991. This was done in 1995. Finally this Decree was adjusted in 2010 to take into account the evolution of the EU Legislation
Legal act(s)	(1) Arrêté du 25 septembre 1991 relatif à l'exécution des transports combinés de marchandises entre les Etats membres de la Communauté économique européenne (2) Arrêté du 21 février 1995 modifiant l'arrêté du 25 septembre 1991 relatif à l'exécution des transports combinés de marchandises entre les Etats membres de la Communauté économique européenne (3) Arrêté du 22 avril 2010

B. Technical analysis of transposed CT Directive

	YES	NO
B1. Has the definition of combined transport according to Article 1 of the Directive been adopted at face value?	X	

B2. Do national laws cover the main provisions of the CT Directive, and do they provide for specific clarifications?

	YES	NO
Definition of “nearest possible rail station”	X	
Any specification (criteria) of “nearest possible rail station”		X
Any restriction (e.g. distance) on “nearest possible rail station”		X
CT inland waterway/road covered by national law	X	
CT sea/road covered by national law	X	
Any specification of initial and final road leg		X
Exemption of road leg of CT operations from cabotage ban for companies established in EU Member State	X	
Any restrictions of CT operations as concerns cabotage journeys		X
Reduction of vehicle tax for road vehicles in CT operations (a)	X	
Does 100 km limit apply to all CT combinations?	X	

(a) The axle tax for the tractor (towing vehicle) can be reduced by 75%.

B3. Do national laws or regulations extend the scope of the obligations and options of the CT Directive?

Yes, see under WP 4.

COUNTRY	CROATIA

A. State of transposition

	YES	NO
A1. Has the Member State transposed the CT Directive?"	X	

A2. If no, please investigate the reasons and inquire if and when the Member State plans to fulfil its obligations.

Not applicable.

A3. If yes, please analyse the form of transposition: as one piece or incorporated in various legal acts. Please also investigate the following aspects:

- Is the information provided by Eur-lex correct? Does it reflect the latest state?
- If not, please identify the latest versions, provide the document(s) in the original language and indicate the date(s), on which acts came into effect.

Eur-Lex data	Not latest version
Type of transposition	The Protocoll of EMCT was transposed official in the NN 12/93 in the year 1993
Legal act(s)	(1) „"Zakon o kombiniranom prometu" NN124/09 from 07.10.2009 (2) . „Pravilnik o terminalima za kombinirani prijevoz i pretovarnim kolodvorima" NN 30/10 from 10.02.2010 Verordnung über Terminals und Umschlagbahnhöfen

B. Technical analysis of transposed CT Directive

	YES	NO
B1. Has the definition of combined transport according to Article 1 of the Directive been adopted at face value?	X	

B2. Do national laws cover the main provisions of the CT Directive, and do they provide for specific clarifications?

	YES	NO
Definition of "nearest possible rail station"	X	

Any specification (criteria) of "nearest possible rail station" *(a)*	X	
Any restriction (e.g. distance) on "nearest possible rail station"		X
CT inland waterway/road covered by national law	X	
CT sea/road covered by national law	X	
Any specification of initial and final road leg		X
Exemption of road leg of CT operations from cabotage ban for companies established in EU Member State	X	
Any restrictions of CT operations as concerns cabotage journeys		X
Reduction of vehicle tax for road vehicles in CT operations	X	

If applicable, please provide details for any of the above aspects.

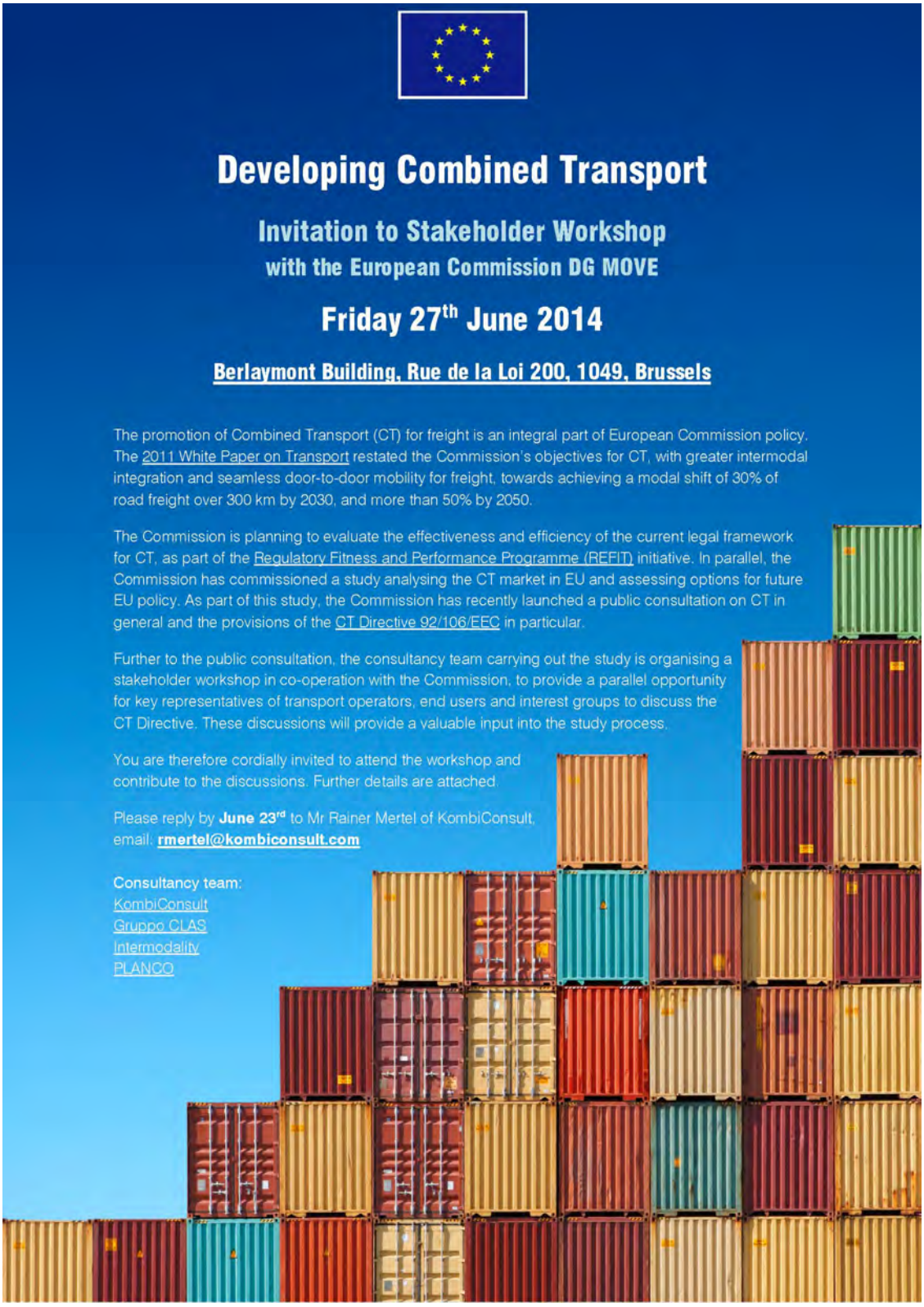
(a) *The nearest possible rail station is the station:*

- *Which provides for facilities to ensure handling of the CT operations in question;*
- *At which regular CT services in terms of type and direction are supplied;*
- *Which provides for the shortest, usually used road leg to/from the point of loading or unloading.*

B3. Do national laws or regulations extend the scope of the obligations and options of the CT Directive (e.g. reduction of road infrastructure charges for CT operations; exemptions from road vehicles' weight, height or other restrictions; exemptions of CT operations from road driving bans)? If so, please provide detailed information here or under WP 4 (manual on CT incentives).

Yes, reduction of road infrastructure charges for CT operations, gross vehicle weight allowed for 40` container up to 44 tonnes, complete exemption from road driving bans.

Appendix I Stakeholder workshop invitation & list of invitees



Developing Combined Transport

Invitation to Stakeholder Workshop with the European Commission DG MOVE

Friday 27th June 2014

Berlaymont Building, Rue de la Loi 200, 1049, Brussels (click for map)

Agenda

09:00 – 09:30	Registration and coffee
09:30 – 09:45	Welcome introduction (DG-MOVE)
09:45 – 11:00	**Presentations** a) Setting the scene - challenges and opportunities for CT in the EU (UIRR) b) The CT Directive - initial study findings (Intermodality & KombiConsult)
11:00 – 11:30	Coffee
11:30 – 13:15	**Discussion topics** a) The current state of CT - strengths, weaknesses, opportunities, threats? b) The CT Directive - how far does it address current or future challenges? c) Moving forward - how can we all help improve the take-up of CT?
13:15 – 13:30	Conclusions and closing comments

Note that the workshop language is English and translation services will not be provided.

We hope your organisation will be able to contribute to this stakeholder consultation. You may nominate a maximum of two persons to attend the event. We ask you to confirm your attendance at the workshop preferably by **June 23rd** by email to:

Mr Rainer Mertel, KombiConsult: rmertel@kombiconsult.com

Please note that due to security reasons, only pre-registered guests can attend the meeting. Further details will be distributed shortly before the event. Owing to a limited room capacity participation to the workshop will be granted on a first-come, first-served basis.

We hope that you can attend and look forward to seeing you in Brussels on 27th June.

KombiConsult intermodality transport strategy & delivery

Stakeholder workshop list of invitees				
Type	**Prefix**	**Firstname**	**Surname**	**Organisation**
End user association	M	Erik	Jonnaert	European Automobile Manufacturers' Association (ACEA)
End user association		Fuensanta	Martinez Sans	European Automobile Manufacturers' Association (ACEA)
End user association	M	Jos	Verlinden	European Chemical Industry Council (CEFIC)
End user association	M	Gordon	Moffat	European Steel Association (Eurofer)
End user association	M	Tom	Antonissen	The Association of European Vehicle Logistics (ECG)
MS representative	Ms	Orla	Corrigan	Department of Transport, Tourism and Sport (DTTAS)
MS representative	M	Christian	Eisner	European Commission Transport Attaché (AT)
MS representative	M	Olivier	Marchal	European Commission Transport Attaché (BE)
MS representative	Mrs	Anna	Kardzheva	European Commission Transport Attaché (BG)
MS representative	M	Demos	Demosthenous	European Commission Transport Attaché (CY)
MS representative	M	Jiri	Vesely	European Commission Transport Attaché (CZ)
MS representative	M	Johann Friedrich	Colsman	European Commission Transport Attaché (DE)
MS representative	Mme	Signe Marie	Finderup Neilsen	European Commission Transport Attaché (DK)
MS representative	M	Karlis	Goldstein	European Commission Transport Attaché (EE)
MS representative	M	Christos	Dionelis	European Commission Transport Attaché (EL)
MS representative	M	Carlos	Ortiz Bru	European Commission Transport Attaché (ES)
MS representative	M	Hannu	Laurikainen	European Commission Transport Attaché (FI)
MS representative	M	Pascal	Luciani	European Commission Transport Attaché (FR)
MS representative	Mme	Ana	Knez	European Commission Transport Attaché (HR)
MS representative	Mme	Dóra	Kriston	European Commission Transport Attaché (HU)
MS representative	Mme	Annemarie	Smith	European Commission Transport Attaché (IE)
MS representative	M	Giuseppe	Izzo	European Commission Transport Attaché (IT)
MS representative	M	Gytis	Mažeika	European Commission Transport Attaché (LT)
MS representative	M	Sam	Weissen	European Commission Transport Attaché (LU)
MS representative	Mme	Marika	Simanovica	European Commission Transport Attaché (LV)
MS representative	M	Daniel	Azzopardi	European Commission Transport Attaché (MT)
MS representative	Mme	Brigide	Kisters	European Commission Transport Attaché (NL)
MS representative	Mme	Anna	Krukowska	European Commission Transport Attaché (PL)
MS representative	Mme	Marta	Capelo Gaspar	European Commission Transport Attaché (PT)
MS representative	M	Florin	Tarasila	European Commission Transport Attaché (RO)
MS representative	Mme	Nataša	Boškovic	European Commission Transport Attaché (SE)
MS representative	M	Darko	Trajanov	European Commission Transport Attaché (SI)
MS representative	M	Ján	Krak	European Commission Transport Attaché (SK)
MS representative	Mme	Eve	Elwell	European Commission Transport Attaché (UK)
MS representative	M	Pavol	Marusinec	Ministry for Transport, Slovakia
MS representative	Mme	Sabine	Pontzen	Permanent Representation of Austria to the EU
Other association	M	Nathan	Menton	United Nations Economic Commission for Europe (UNECE)
Transport association	Mme	Andrea	Demadonna	Association of the European Rail Industry (UNIFE)
Transport association	M	Dirk	Saile	Bundesverband Güterkraftverkehr Logistik und Entsorgung (BGL)
Transport association		Ilja Lorenzo	Volpi	Community of European Railway and Infrastructure Companies (CER)
Transport association	M	Jacques	Dirand	Community of European Railway and Infrastructure Companies (CER)
Transport association	M	Jens Bang	Larsen	Danish Transport and Logistics Association (DTL)
Transport association	Mme	Nicolette van der Jag	van der Jagt	European Association of Freight Forwarders & Logistics Service Providers (CLECAT)
Transport association	Mme	Theresa	Hacksteiner	European Barge Union (EBU)
Transport association	M	Steven	Dijkstra	European Community Shipowners' Association (ECSA)
Transport association	M	Mélissa	Gléyo	European Community Shipowners' Association (ECSA)
Transport association	M	William	Todts	European Federation for Transport and Environment (T&E)
Transport association	Mme	Kathrin	Obst	European Federation of Inland Ports (EFIP)
Transport association	Mme	Marian	Lodewijckx	European Intermodal Association (EIA)
Transport association	M	Peter	Wolters	European Intermodal Association (EIA)
Transport association	M	Jos	Marinus	European Logistics Association (ELA)
Transport association	Ms	Julia	Lamb	European Rail Freight Association (ERFA)
Transport association	M	Pierre	Tonon	European Rail Freight Association (ERFA)
Transport association	Mme	Monika	Monika Heiming	European Rail Infrastructure Managers (EIM)
Transport association	M	Marcel	Verslype	European Railway Agency (ERA)
Transport association		Eugenio	Quintieri	European Sea Ports Organisation (ESPO)
Transport association	Mme	Isabelle	Ryckbost	European Sea Ports Organisation (ESPO)
Transport association	M	Patrick	Verhoeven	European Shipowners Association (ECSA)
Transport association	M	Nik	Delmeire	European Shippers Council (ESC)
Transport association	M	Wily	de Decker	European Shortsea Network (ESN)
Transport association	M	Henk	van der Velde	European Skippers Organisation (ESO)
Transport association	Mme	Isabelle	Maitre	Fédération Nationale des Transports Routiers (FNTR)
Transport association	Mme	Saara	Miettinen	Finnish Transport and Logistics (SKAL)
Transport association		Pasi	Moisio	Finnish Transport and Logistics (SKAL)
Transport association	Mr	Don	Armour	Freight Transport Association (FTA)
Transport association	M	Peter	van der Sterre	Greenfreight Europe
Transport association	Mme	Karin	de Schepper	Inland Navigation Europe (INE)
Transport association	M	Marco	Sorgetti	International Federation of Freight Forwarders Associations (FIATA)
Transport association	M	Marc	Billiet	International Road Transport Union (IRU)
Transport association	M	Michael	Nielsen	International Road Transport Union (IRU)
Transport association	M	Akos	Ersek	International Union For Road-Rail Combined Transport (UIRR)
Transport association	M	Erik	Feyen	International Union For Road-Rail Combined Transport (UIRR)
Transport association	M	Ralf-Charley	Schultze	International Union For Road-Rail Combined Transport (UIRR)
Transport association	M	Jean-Pierre	Loubinoux	International Union of Railways (UIC)
Transport association	M	Heiko	Fischer	International Union of Wagon Keepers (UIP)
Transport association	Mme	Anna	Gawlik	Polish Road Transport Association (ZMPD)
Transport association	M	Olaf	Krueger	Rail Freight Forwarders Association (IBS)
Transport association	Mrs	Maggie	Simpson	Rail Freight Group (RFG)
Transport association	M	Feriel	Saouli	The Alliance for European Logistics Secretariat (AEL)
Transport association	Mme	Myriam	Jans	Transport & Logistics Netherlands (TLN)
Transport association	M	Philippe	Citroen	Union of the European Railway Industries (UNIFE)
Transport undertaking	Ms	Mitra	Qurban	Deutsche Post DHL
Transport undertaking	M	Chris	Vanhoegaerden	UPS

Appendix J Public consultation summary results

1. Introduction

The promotion of Combined Transport (CT) for freight is an integral part of European Commission policy. The 2011 White Paper on Transport restated the Commission's objectives for CT, with greater intermodal integration and seamless door-to-door mobility for freight, towards achieving a modal shift of 30% of road freight over 300 km by 2030, and more than 50% by 2050.

Combined Transport is promoted within the European Union (EU) through the Council Directive 92/106/EEC of 7 December 1992 on the establishment of common rules for certain types of Combined Transport of goods between Member States (**CT Directive).** The Combined Transport Directive is the main instrument to shift long distance road transport to other modes and contributes to the achievement of the White Paper on Transport's goal of shifting 30% of road freight over 300 km to alternative modes such as rail or waterborne transport by 2030.

The CT Directive aims at fostering the competitiveness of CT by providing a definition, common rules and fiscal incentives for operators using Combined Transport. CT Directive seeks to promote Combined Transport operations through inter alia liberalisation of road cabotage, the elimination of authorisation procedures for CT, as well as financial support through fiscal incentives for certain Combined Transport operations. The CT Directive is supported by other EU policies, such as the **Weights and Dimensions Directive** (Council Directive 96/53/EC) which currently provides for Member States to permit movement of heavier intermodal load units by road when used in Combined Transport operations.

The Commission is planning to evaluate the effectiveness and efficiency of the current legal framework for CT and assess the options for future EU policy. As part of this exercise, the Commission seeks to obtain an overview of the transposition of the CT Directive in Member States, in general, and its respective provisions, in particular.

In order to meet that objective the Commission launched a **public consultation based on an online questionnaire,** which took place from 23 May 2014 to 15 August 2014[179]. It aimed to collect respondents' views regarding the Combined Transport Directive and its implementation. The respondents were asked to assess whether a revision of the CT Directive would be desirable and, if so, what possible enhancements could be made in future revisions of Combined Transport policy. The respondents were also asked to evaluate the present measures and express their views on the potential future measures which could be progressed, to increase the use of Combined Transport within the EU.

This report summarizes contributions from respondents to the online consultation. *The opinions presented in this note do not reflect the Commission's official position.*

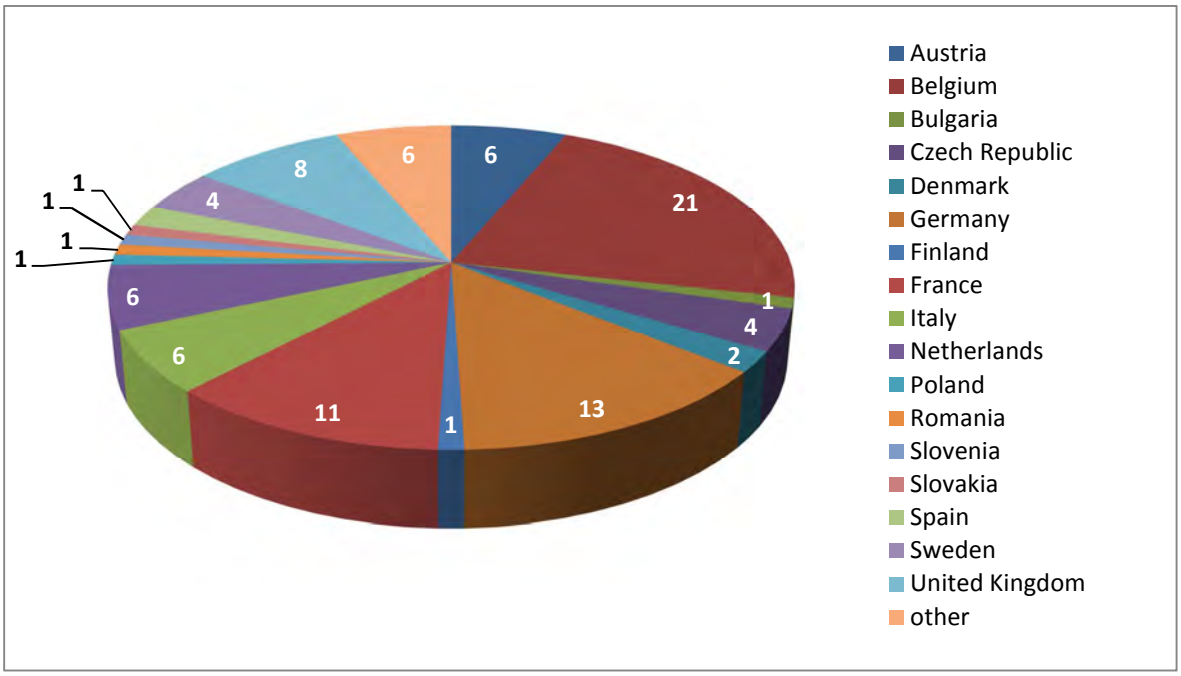
[179] http://ec.europa.eu/transport/media/consultations/2014-combined-transport_en.htm

2. Respondents

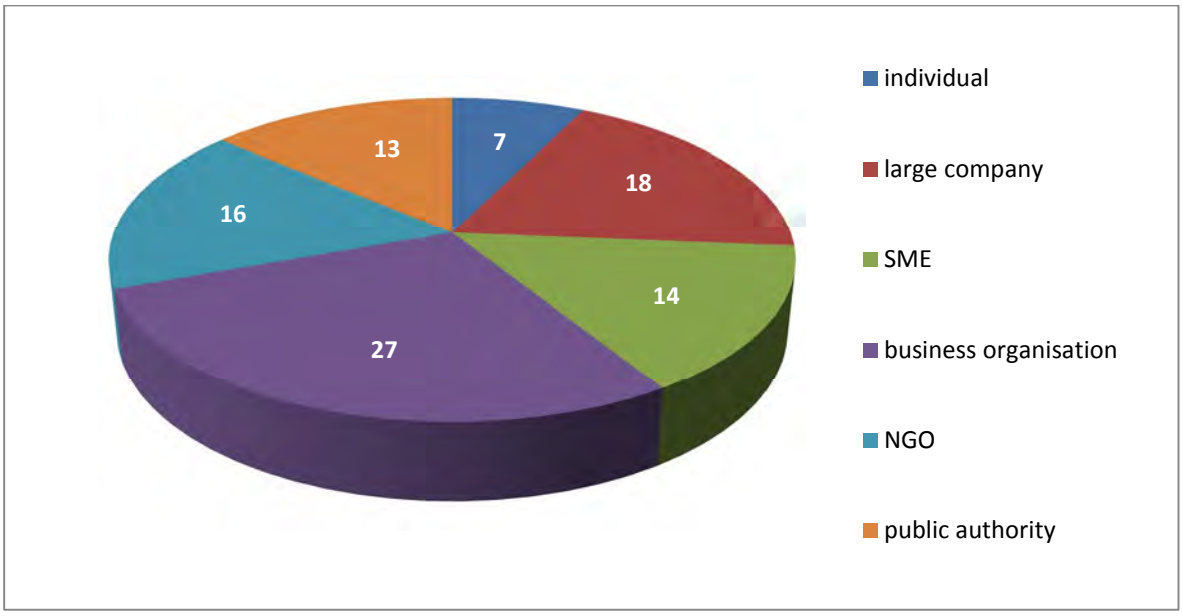
In addition to the **102 answers** to the online questionnaire, **5 position papers** were received.

The majority of respondents (95) agreed to provide their name and contact details, whereas
7 respondents chose to provide a general comment only without disclosing their personal data.

Respondents included individuals and organisations from **18 EU Member States**: Austria, Belgium, Bulgaria, Czech Republic, Denmark, Germany, Finland, France, Italy, Netherlands, Poland, Romania, Slovenia, Slovakia, Spain, Sweden, UK, as well as 6 non-EU countries:



All types of respondents were represented amongst the respondents, with a strong representation from the private sector (large companies and SMEs) and business organisations:



3. General comments on Combined Transport Directive

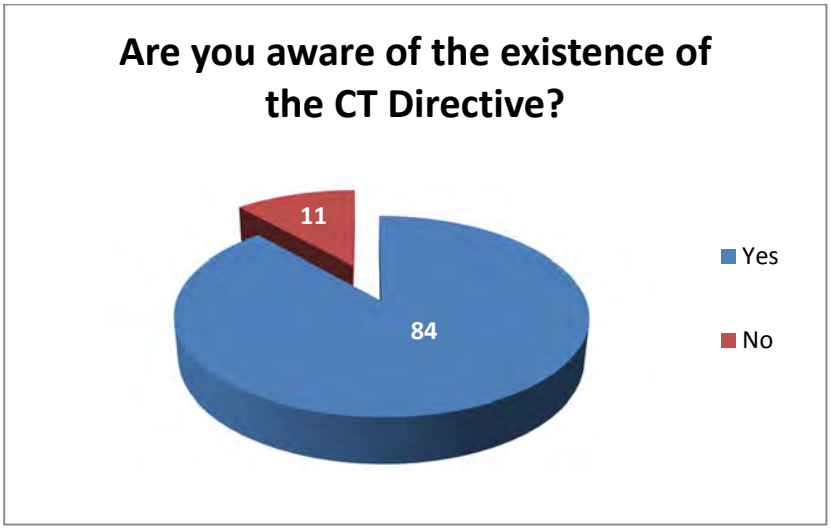
The following points were raised by respondents who chose to share a general comment on CT Directive:

- Need for further promotion of CT to reduce CO_2 emissions;
- Misuse of CT Directive measures by certain companies which allegedly employ underpaid lorry drivers to carry out road transport operations in Western EU Member States;
- Selective use of road cabotage liberalisation provision in several Member States and subsequent need to ensure uniform enforcement of Article 4 of CT Directive;
- Enhanced promotion of CT through financial aid and investment infrastructure. More aid targeted at development of new rail lines crossing the mountains and for railway lines on short distances up to 300-400 km.
- Financial support to cover the initial losses of new CT rail services operating below their volume breakeven point, to counterbalance the price competition of road sector.
- Improvement of the CT Directive provisions in accordance with the EU transport modalities evolution;
- Need to expand the definition of CT in the CT Directive by including the types of loading units such as new cars, vans and lorry tractor units.

4. Objectives of the CT Directive

Question 1 - Are you aware of the existence of the CT Directive?

The vast majority of respondents were aware of the existence of CT Directive, as a tool to liberalise Combined Transport services in the EU and to stimulate their use, with the aim of reducing road congestion and negative environmental impacts.

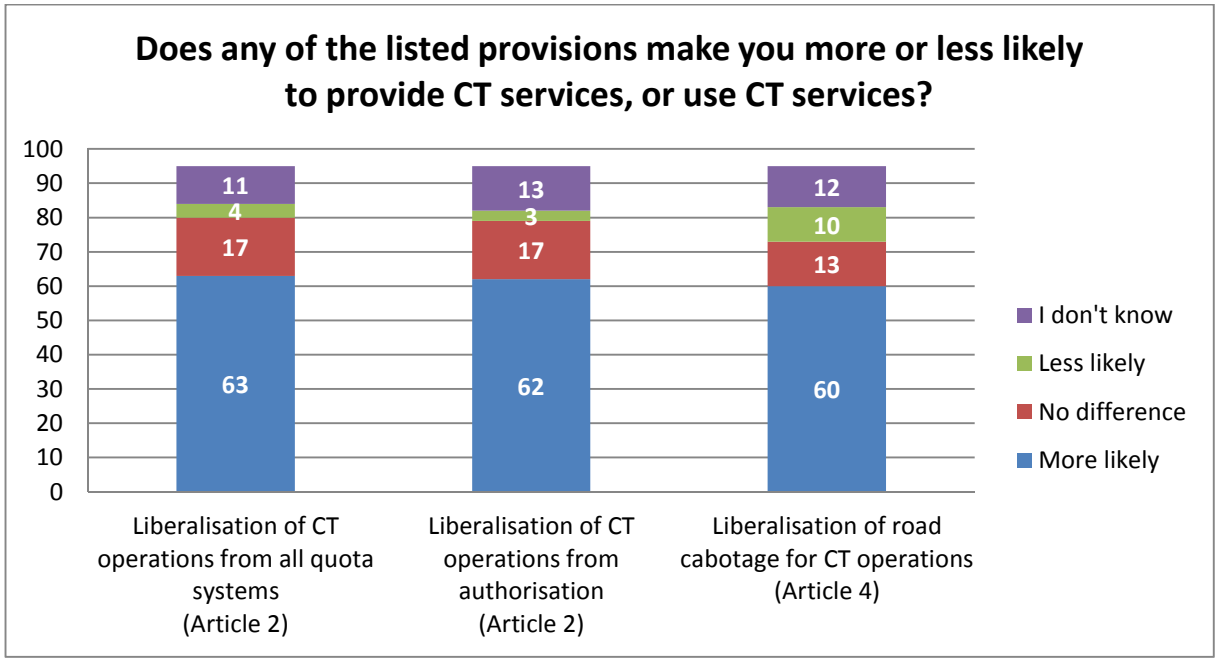


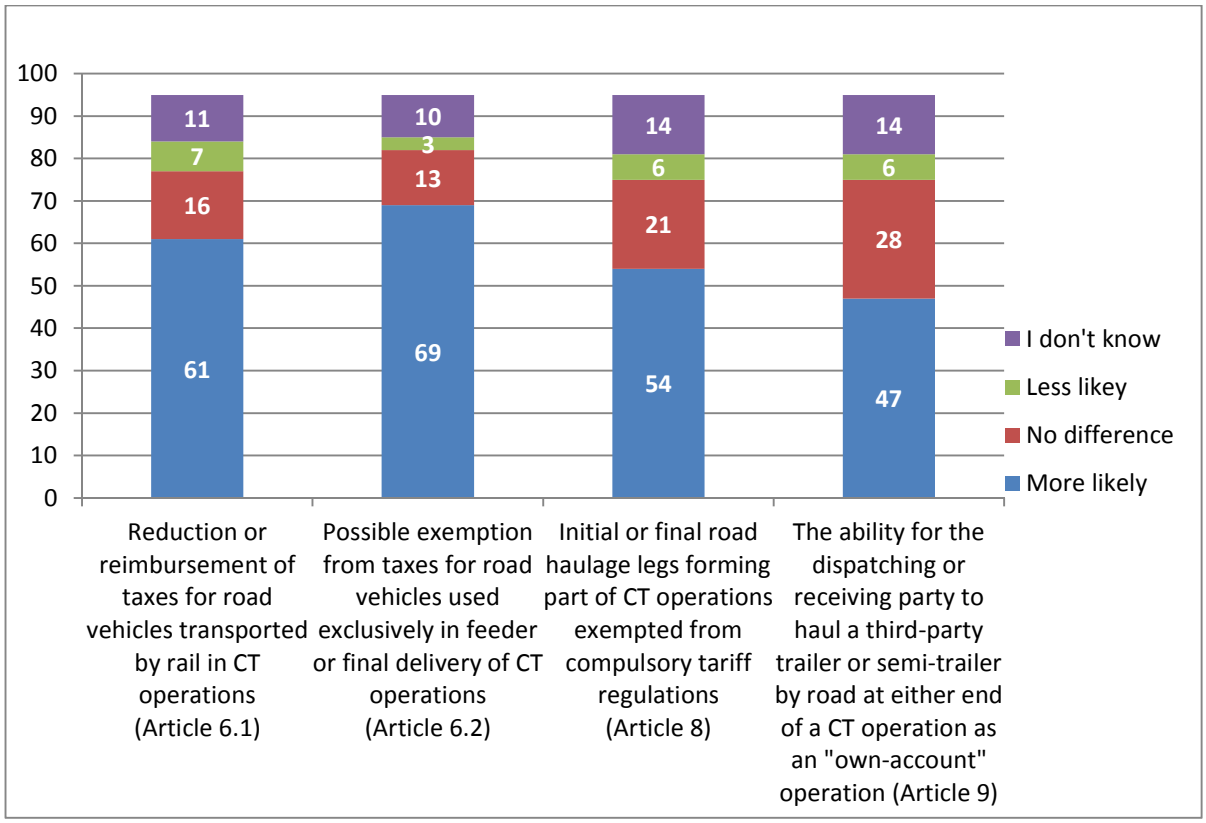
Question 2 - Has the CT Directive helped you in your business?

A narrow majority of respondents indicated that the CT Directive helped them in running their businesses. It should be noted however that 29 out of the 95 respondents did not represent the private sector and thus could not benefit from any of the incentives provided by the CT Directive. Taking this into consideration, the answers suggest that the CT Directive has brought advantages to the majority of respondents representing the industry and industry associations (55 out of 66).

Question 3 - Please assess whether any of these provisions make you more or less likely to provide Combined Transport services, or use Combined Transport services?

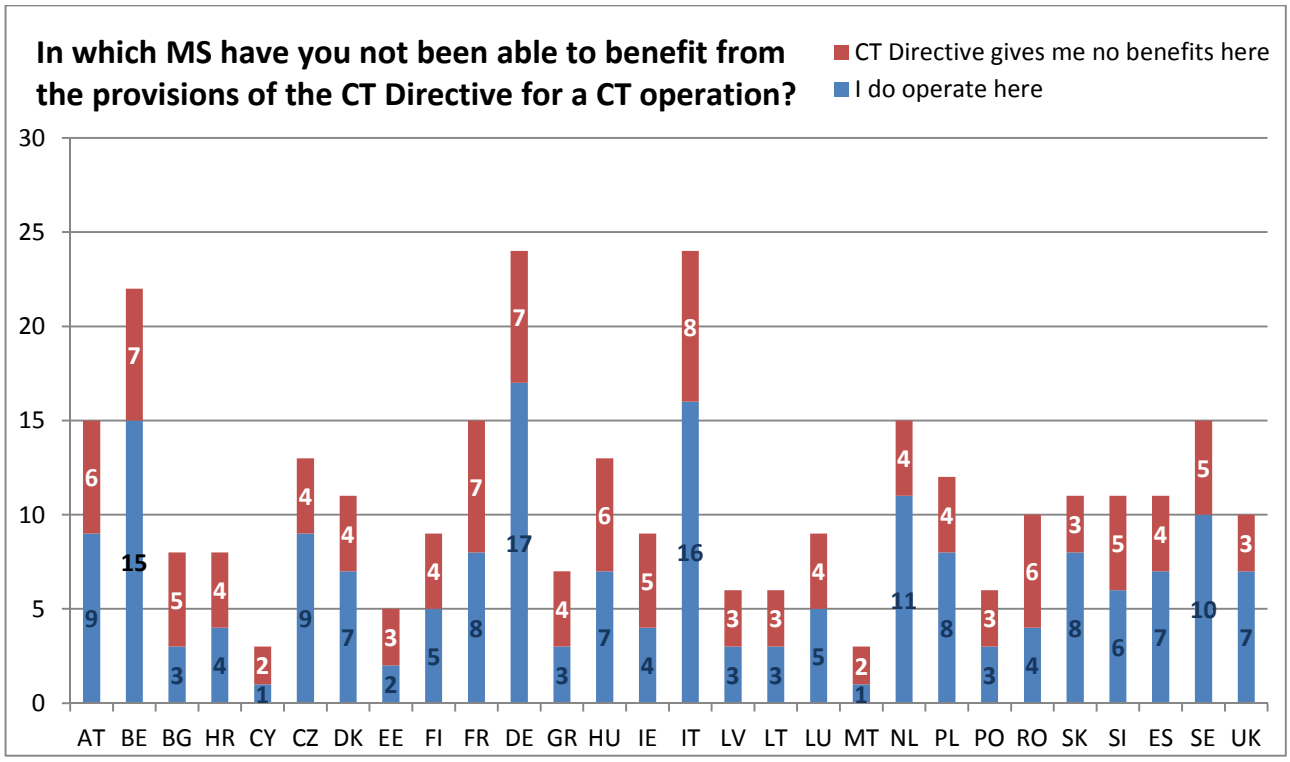
The respondents were presented with the list of CT Directive Articles, which set out provisions for individual Member States to promote use of Combined Transport. They were then asked to assess whether any of the listed provisions would make them more or less likely to provide Combined Transport services, or use Combined Transport services.





Question 4 - In which MS have you not been able to benefit from the provisions of the CT Directive?

The users/operators of Combined Transport services which responded to the survey operate mainly in Germany, Italy and Belgium. These countries, along with France, were also indicated as Member States where users/operators have been least able to benefit from the provisions of the CT Directive.



Question 5 - If you cannot benefit from the CT Directive in a Member State, please clarify why?

The respondents who were unable to benefit from CT Directive incentives in one or several Member States pointed out to the situations:

i) where the provisions of Directive were not respected;
ii) where the Combined Transport operation does not fall within the scope of CT Directive.

With regard to i), the following cases were cited by the respondents:

- None of the incentives foreseen by CT Directive applied in a Member State (GR);
- Exemption for heavier loads for road legs in CT operations guaranteed by the Weights and Dimensions Directive[180] applied only for 40-foot containers and not for the other types of loading units such as semi-trailers, swap bodies and 20´-30´ containers (PL, HU);
- Cabotage liberalisation for CT operations foreseen by Article 4 of Directive only partly applied by official authorities (FR);
- Combined Transport operation not exempted from cabotage regulation due to non-recognition of transport document by the national authorities (NL, DK, IE, UK).

Concerning ii), the following cases were cited:

[180] Directive 96/53/EC laying down for certain road vehicles circulating within the Community the maximum authorised dimensions in national and international traffic and the maximum authorised weights in international traffic

- Intermodal transportation of new vehicles not covered by the definition of CT Directive;
- Combined Transport operations within a single Member State not covered by the definition within the CT Directive;

Additionally, two respondents pointed out the lack of necessary information about the benefits granted to Combined Transport under the CT Directive.

Question 6 - What are in your view the advantages or disadvantages created by the CT Directive?

Taking account of respondents' responses, the most important advantages of the CT Directive can be grouped as follows (some original answers from the respondents are quoted in bullet points):

a. Creating framework conditions for Combined Transport sector in EU

- Directive provides a framework for Combined Transport operations at European level;
- CT Directive establishes clear legal framework for CT operations;
- The CT Directive provides a framework for Combined Transport operations. It acknowledges the specificities of CT services via few regulatory advantages. It also provides for the possibility of granting fiscal incentives for Combined Transport services. All in all, the CT Directive is the only existing tool promoting Combined Transport and more in general rail freight transport, which is ultimately the lowest generator of 'external costs' if compared to the other transport modes;
- CT Directive is the only existing legal framework for Combined Transport operations and provides some regulatory advantages. If eligible, it provides rules for monetary incentives for Combined Transport services;
- CT Directive developed conditions for Combined Transport;
- CT Directive clarifies the road traffic operations and fosters the Combined Transport;
- The Combined Transport directive provides a framework for Combined Transport operations, including fiscal incentives for the use of Combined Transport services. The latter represent a useful tool for the promotion of combinations of transport modes that are less harmful to the environment than road transport.

b. Support for modal shift of transport of goods from road to rail and waterborne transport

- Directive is effectively fostering Combined Transport;
- CT Directive has risen awareness and stimulus towards Combined Transport;
- CT Directive facilitates the use of road transport in combination with other modes and creates incentives to do so;
- Possibility of granting fiscal incentives for Combined Transport is a positive element aimed at promoting alternative transport modes solutions. CT Directive represents a support for those transport modes seen as lower generator of external costs;
- Liberalisation from quota system, fiscal incentives for Combined Transport, support for environmentally-friendly alternative solutions to pure road transport;

- CT Directive encourages the use of Combined Transport, which is more sustainable than pure road transport and thus helps reduce external costs related to transport;
- Thanks to the CT Directive there are less heavy lorries on the roads;
- Directive helps to further strengthen the financial benefit of Combined Transport solutions;
- CT Directive stimulates the transport of goods by using eco-friendly modes of transport;
- Without the CT Directive, which takes into account some of the economic, safety and environmental benefits of rail freight over road and air, it would be even more difficult for rail to compete on price as it has to do;
- Increased awareness of the capabilities and potential of Combined Transport has been the greatest advantage of the CT Directive;
- The advantage lies in the possibility to advocate more transport on environment-friendly platforms and reduce road traffic.

c. Climate and environment protection

- The advantages of CT Directive are less CO2 emissions, less traffic congestion on the roads, better efficiency gains by the use of CT;
- Main advantages are driving trucks off the road and reducing noise/pollution;
- CT Directive helps to reduce fuel consumption, i.e. is good for the environment;
- CT Directive might be considered as a positive instrument for the economic development of Combined Transport services and for reaching the targets the European union sets itself in terms of transport greenhouse gases emissions decrease (-60% by 2050 compared to the 1990 level in the 2011 White Paper on transport).

d. Facilitation of cabotage and cross-border transport

- Easier cross boarder transport;
- Facilitation of road transport in combination with other modes of transport across the EU;
- The advantages are the possibility to allow EU-registered operators to perform road transport services within one member state (different from their own) as long as the road service forms a part of a Combined Transport operation.

On the other hand, disadvantages created by CT Directive could be categorised as follows (some original answers from the respondents are quoted in bullet points):

a. Restrictive definition of Combined Transport

- The definition of "Combined Transport" is restrictive as it includes only the transport of goods in containers, trailers and swap bodies;
- Additional weight allowance and cabotage exemption should also apply to multimodal transport, i.e. long distance haul by conventional rail wagon and first/last mile by truck, where the cargo is actually reloaded from rail truck;
- The distances used (initial and final leg and minimum distance for transport by rail, IWT or maritime services) are fairly arbitrary. It does not take into account whether usable IWT and short sea services are available within the distance of

150 km. In some cases, an initial or final leg may be longer than 150 km before making use of the mentioned alternatives to road transport is possible. Rail terminals, even at close range, sometimes are not suitable because of the lack of usable services and/or high costs;

- In some Combined Transport operations, the initial and final road leg may be longer than 150 kilometres, but the costs and CO_2 emissions of a door-to-door operation for the intermodal operation might be lower than for the sole road option, which is not taken into consideration by the CT Directive;
- Disadvantage of CT Directive is the restriction of the length of the road transport leg to 150km (applicable where intermediary transport is carried out by sea). There should be no restriction in km but a "nearest suitable" rule is sufficient;
- Under the current CT Directive a shipper cannot choose the operators for each leg. He only may choose one operator (e.g. freight forwarder) who will determine the whole route and other operators. Shippers would benefit from the possibility to enter into various unimodal contracts of carriage, whereby the entirety of contracts providing for transportation of goods door-to-door would still qualify as Combined Transportation;
- CT Directive should promote Intermodal Transport by authorizing a higher weight limit in all the countries where goods are transported, in comparison with road transport;
- Despite being a truly multi-modal industry the finished vehicle logistics sector cannot benefit from the CT Directive at all because the transport of new vehicles (i.e. cars, vans, trucks etc.) is not included in the definition of Article 1. CT Directive scope is far too restrictive. It should encourage all industries equally and not discriminate as it currently does against the European finished vehicle logistics sector;
- The restriction on the size of the load prohibits new vehicle transportation to benefit from any help. The consequence is a trend to use more the road than the other mode of transports;
- Limitation of the road leg according to the CT Directive does not give a logistic service provider the flexibility which is needed in order to create a sustainable door-to-door transport solution for the customer. Any attempt to limit the road leg impacts the viability of intermodal operations. Arbitrary limits on the road leg will compromise the ability to develop intermodal connections. Limits are consequently counter-productive against the ambition to facilitate intermodal transport in order to optimise environmental performance along the entire transport chain;
- CT Directive should not limit Combined Transports to specific load carriers. The CT Directive should apply regardless of load carrier used or whether the cargo is off- and on-loaded during transport.

b. <u>Vagueness and obsolesce of CT Directive provisions</u>

- The current Directive is rather weak and often confusing. Stronger and clearer measures would be necessary to have more impact;
- The current Directive lacks clarity and is applied in different ways;
- The present CT Directive aimed at promoting Combined Transport as environment-friendly alternative to road transport. Its main advantage, when first introduced, was the liberalisation of CT operations from quota systems and

authorizations. In the meantime, however, many stipulations of this directive have become obsolete;
- Current CT documentation requirements are not workable;
- The requirements set in CT Directive are far too strict and ambiguous;
- The CT Directive establishes some complex requirements for hauliers to understand in order to remain compliant. Clarity should be provided over the remit of the CT Directive and the Cabotage provisions afforded to national operators;
- The CT Directive is too ambiguous and does not set the right incentive scheme to use intermodal/ Combined Transport in general.

c. Missing provisions in CT Directive

- There is no definition for free access public terminals of Combined Transport or legal definition of non-discriminated access to the infrastructure of the terminal;
- CT Directive should define the correlation between intermodal and Combined Transport and introduce and define the term "intermodal loading unit";
- There is no clear definition of "nearest suitable rail station";
- Directive does not foresee a maximum weight higher than that of normal vehicle;
- The CT Directive should be able to be applied to Combined Transports to / from third countries, at least where the larger part of the operation is carried out within the EU.

d. Use of CT Directive to circumvent cabotage rules

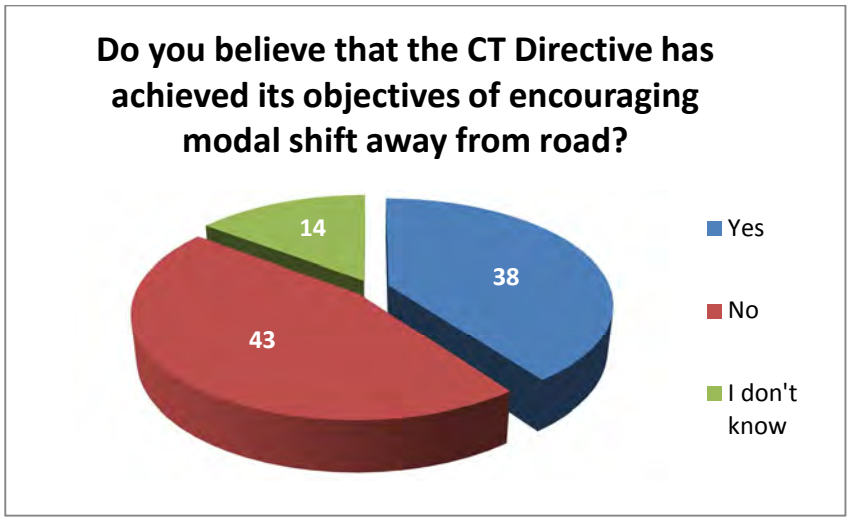
- Directive is not compatible with the rules on access to the road haulage market (Regulation 1072/2009). Companies established in some countries circumvent the cabotage rules of Regulation 1072/2006 to avoid having to apply to the social rules and regulations applying in the Nordic countries, which distorts the competition;
- Directive, in its current form opens the door for excessive cabotage and therefore unfair competition;
- Liberation of the market might make it difficult for some countries to survive competition from the others;
- Possibility that wages in the sector will be too low and will create social dumping;
- Strong competition from some European companies which outcompete Norwegian companies that follow Norwegian laws and regulations;
- CT Directive was created in 1992 at a time when international journeys were limited by the ECMT quota regime. That regime no longer exists for EU member states and international journeys are fully liberalised. Therefore, the CT Directive is of no benefit, especially now that cabotage has been updated and liberalised, which was not allowed in 1992. The CT Directive has been used by opportunistic hauliers to get round the cabotage regime, which at present at least 7 member states think is too liberal anyway and hard to enforce;
- Dumping wages during initial and final legs to and from German terminals.

e. Lack or inappropriate implementation and application of CT Directive provisions across the MS

- Directive is not well known by the control authorities and the interpretation and application in practice are not harmonized which leads to undeserved fines and practical problems;
- Weights and Dimensions Directive 96/53 does not refer to the definition of Combined Transport of 92/106. This is highly advised as currently every member state uses its own definition;
- Advantages such as maximum allowed gross vehicle weight (44 tons) or lower vehicle taxation should be harmonised in EU Member States.
- There should be a harmonization of the maximum allowed gross vehicle weight (44t) across all EU Member States;
- CT Directive was implemented differently in the Member States which leads to additional administrative burdens and bureaucratic costs;
- Lack of clarity and harmonisation of the current Directive leads to different application by the single Member States (control authorities);
- Diverse implementation and interpretation of the CT Directive from Member State to Member State has undermined the potentially achievable benefits;
- Implementation is different from member state to member state and therefore not effective;
- The current Directive is complex as well as creates administrative burden and costs due to different implementation in the EU Member States. For example, the mere implementation of Article 3 concerning transport document is not only administratively burdensome but also the different Member States have interpreted it very differently with high costs for compliance;
- Rules for Combined Transport should be harmonised across Member States, including a maximum allowed gross vehicle weight of 44 tons, and lower vehicle taxation, among others.
- The CT Directive is often applied in different ways.

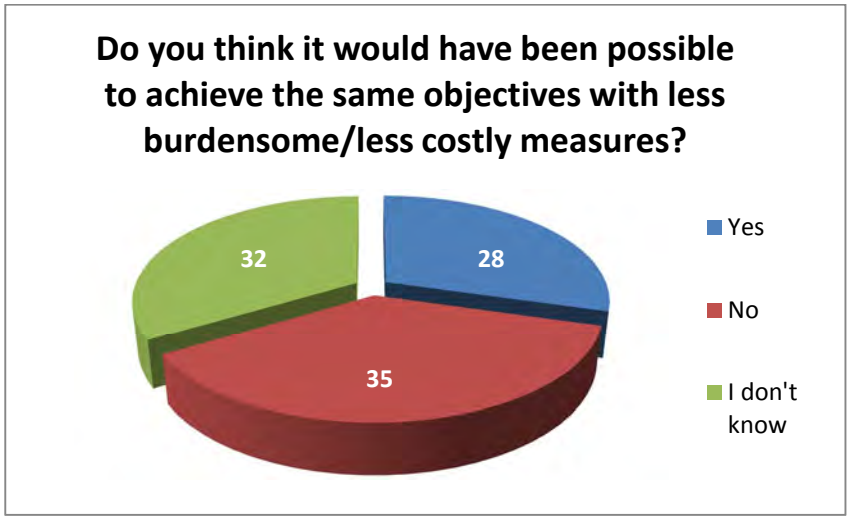
Question 7 - Do you believe that the CT Directive has achieved its objectives of encouraging modal shift away from road and associated reduction in road-related impacts?

Less than a half of respondents (45%) did not believe that the CT Directive had achieved its objective of encouraging modal shift of goods away from road to more environmentally-friendly modes of transport. Some 40% of respondents had the opposite view.



Question 8 - In your view, do you think it would have been possible to achieve the same objectives with less burdensome/less costly measures?

The majority of respondents believed that achieving the same objectives would not have been possible with less burdensome and/or less costly measures. Around one third of respondents (34%) were not sure of the answer, while only 29% claimed that the objectives of CT Directive could have been attained at a lesser cost.



Respondents who were of the opinion that the same objectives could have been effectively achieved at a lower cost indicated the following alternative measures:

- Allowing longer trucks in the initial and final leg;
- Lifting weight restrictions for the units using Combined Transport road leg;
- Removing the 150 km limitation for road legs in Combined Transport;
- Introducing lower taxes and excise duties;
- Minimising the administrative burden;
- Better preparation for the implementation of rules by the authorities;

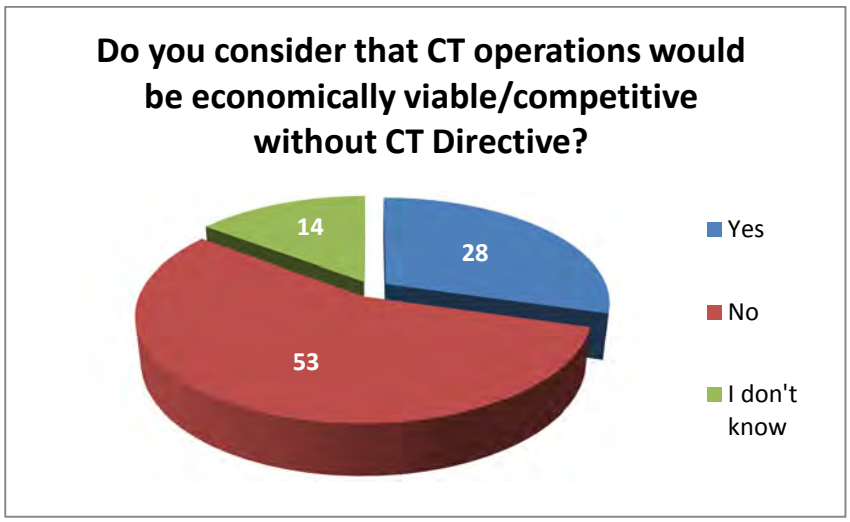
- Sufficient and predictable funding for rail infrastructure, as well as transhipment terminals and feeder lines into the main freight corridors;
- Regulatory measures to remove technical and administrative bottlenecks;
- Turning around the unfavourable framework conditions for rail;
- Promoting innovative solutions (for instance a more widespread use of longer trains);
- Widening the scope of Combined Transport definition;
- Creating incentive schemes based on a sustainable intermodal business case solution against a pure road transport solution (e.g. comparison of costs and CO_2 emissions of a door-to-door operation could be made for the CT option versus the road option);
- Granting subventions to compensate the competitive gap of the intermodal solution against the road solution;
- Linking Combined Transport to the EU initiatives for the reduction of the carbon footprint in the supply chain;
- Increasing use of European Modular System (EMS) for specific transport operations.

Question 9 - How would you assess the cost of implementation of the CT Directive? If possible, give a quantitative value of annual costs (Question for public authorities only).

None of the respondents representing public authorities was able to present the cost of implementation of the CT Directive in his respective MS. The authorities stressed their problems with quantifying and calculating the external costs generated by all transport modes.

Question 10 - Do you consider that the CT operations would be economically viable/competitive without the CT Directive?

Most respondents (56%) think that CT operations would not be viable without the CT Directive. Around one third of respondents (29%) believe the contrary, while some 15% of is indecisive.



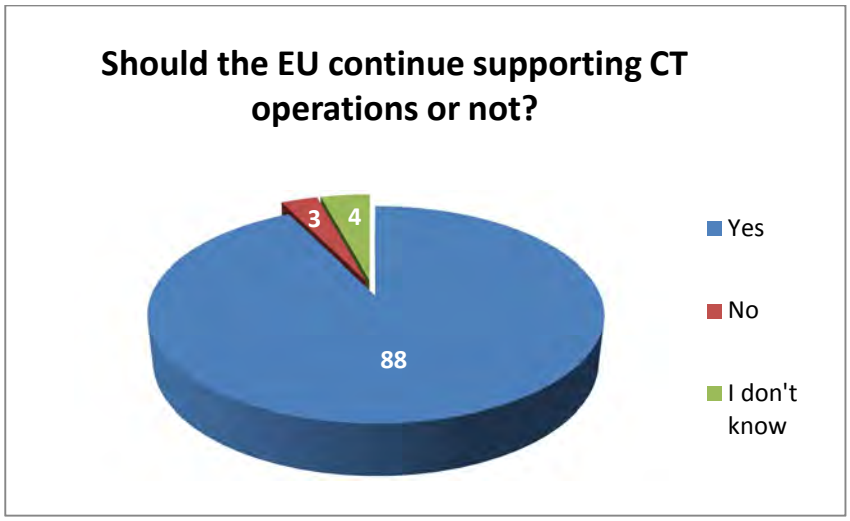
Question 11 - Please clarify why or how?

Respondents who believe that CT operations would be economically viable /competitive without the CT Directive indicated the following reasons to support their opinion:

- Combined Transport is viable in itself for long haul transport, i.e. more than 300km;
- Companies use Combined Transport systems only if they find it profitable and effective, the CT Directive contains too insignificant measures to make any difference;
- The market system of supply and demand is the main catalyst of using CT not the CT Directive itself;
- CT Directive has very little impact on the economic viability of Combined Transport. Other elements play a much larger role, such as operational efficiency, customer service, price, reliability, capacity, frequency and technique used;
- Road freight liberalization has generally eliminated market access barriers, so except for completely free cabotage there are no major advantages of CT Directive;
- Tax benefits are meaningless in magnitude where offered, while they are not offered in several Member States. MS have generally reduced tax levels;
- The CT industry is innovative by its very nature and ways and means of operating across Europe would have been looked at and worked out anyway;
- Costs competitiveness of CT can be improved in the medium term by optimisation measures such as integrated site logistics (7/24 operations) in rail terminals with further elimination of waiting times, reduction of terminal costs or liberalisation in the rail freight market;
- The current CT Directive entails administrative burdens and the bureaucratic hurdles due to the different implementation in the Member States and makes it difficult for a logistics service provider to benefit from the incentive scheme of the CT Directive;
- CT requires the balancing of regulatory framework conditions in the long run: the prevalence of the user pays and polluter pays principles in infrastructure access charging and internalisation of external costs would be envisaged.

Question 12 - In your view, should the EU continue supporting CT operations or not?

The overwhelming majority of respondents wanted the EU to continue supporting CT operations. Only three respondents thought otherwise, with another four not having an opinion on the subject.



Question 13 - Please clarify why or how?

According to the respondents, the following measures should be used by the EU to support Combined Transport operations:

- **Creating transparent, simple and aligned EU legal framework for Combined Transport** facilitating CT operations and encouraging operators and clients to use them;
- Further **internalisation of external costs** generated by road transport to ensure fair conditions and level-playing field between all modes of transport;
- Financial **support for projects shifting freight** transport away from congested roads;
- Time and budget-limited **funding for start-up CT services**;
- **Investment in rail, inland waterways and sea infrastructure** to remove bottlenecks and complete missing links;
- **Subsidising transhipment terminals** for the use of Combined Transport operations;
- Continuing to incentivise Combined Transport operation through **tax reductions**;
- Inclusion of **reduction of the carbon footprint of the supply chain** in the new incentive scheme;
- Encouraging **cross-border transnational cooperation** to share the cost of long term investments in CT infrastructure;
- Supporting Combined Transport services by **maintaining the maximum allowed dimensions of road vehicles**;
- **Increasing the maximum allowed vehicle weight** for Combined Transport operations;

- **Harmonizing the regulation, practices, interpretation and application of CT provisions** across all the EU Member States;
- **Better control and enforcement of CT Directive rules** in all Member States**;**
- **Raising awareness of benefits of CT solutions** among operators and customers;
- Further **liberalisation of EU rail freight market** to boost competitiveness of railway services;
- **Widening the scope of CT definition** by including more types of cargo (e.g. new vehicles);

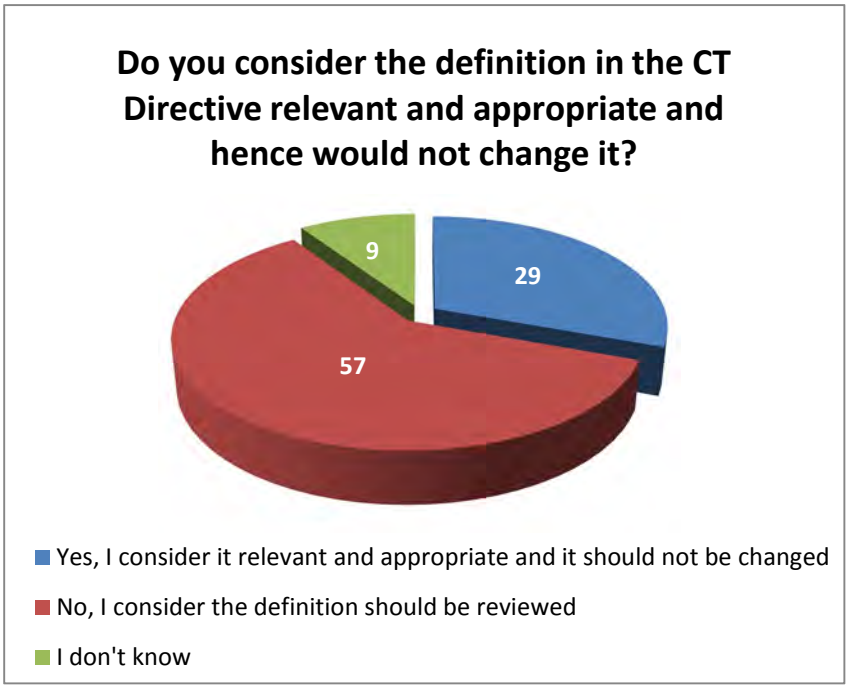
5. Definition of Combined Transport (Article 1 of the CT Directive)

The definition of "Combined Transport" in the CT Directive currently limits the scope to transportation of goods between Member States, where the goods are carried in a load unit (lorry trailer or semi-trailer with or without the tractor unit, a swap body or container of 20 feet or more in length) by a combination of road and rail, inland waterway or maritime transport which meets the following criteria:

- Rail or inland waterway or maritime transport - where this section exceeds 100km as the crow flies; and
- Road transport on the initial and/or final leg of the journey – either:
  - between the point where the goods are loaded and/or unloaded and the nearest suitable rail loading station; or
  - within a radius of 150 km as the crow flies from the inland waterway port or seaport of loading or unloading.

Question 1 - Do you consider the definition in the CT Directive relevant and appropriate and hence would not change it, if the CT Directive were to be revised?

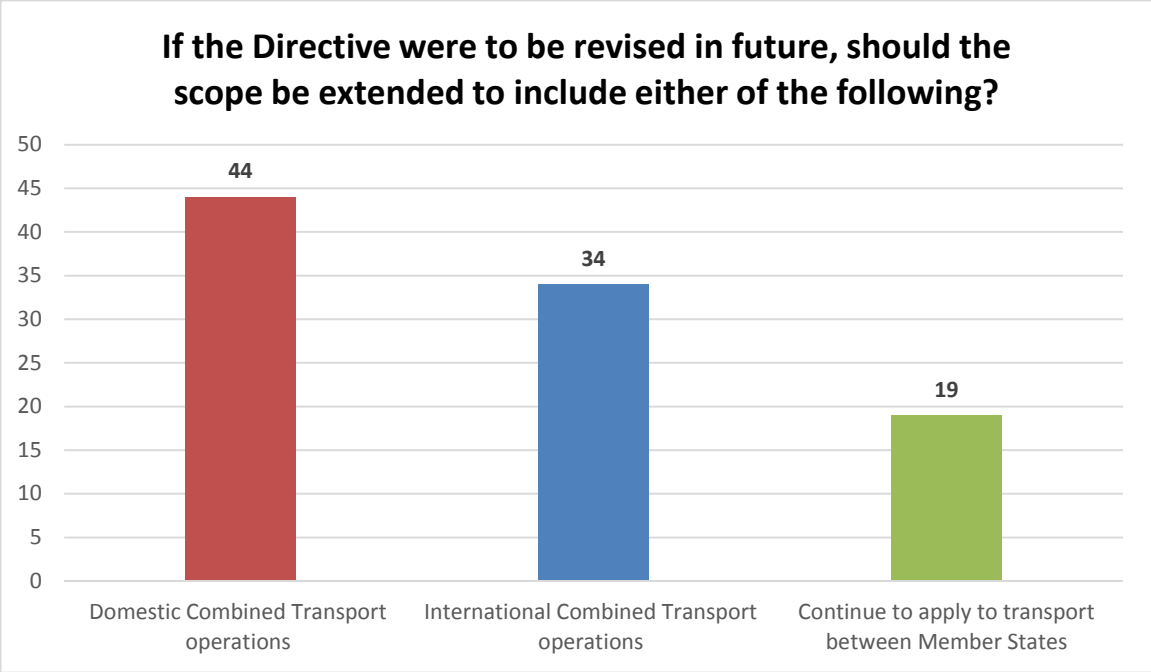
The majority of respondents (60%) were of the opinion that the definition in the CT Directive requires revision. A third of respondents (31%) considered the current definition appropriate and relevant and did not see the need to change it.



Question 2 - The CT Directive limits the scope of Combined Transport to the transport of goods between Member States. If the CT Directive were to be revised in future, should the scope be extended to include either of the following?

- ***Domestic Combined Transport operations (i.e. those within one Member State)***
- ***International Combined Transport operations between an EU Member State and third countries (i.e. those outside of the EU)***
- ***The CT Directive should continue to apply to transport between Member States***

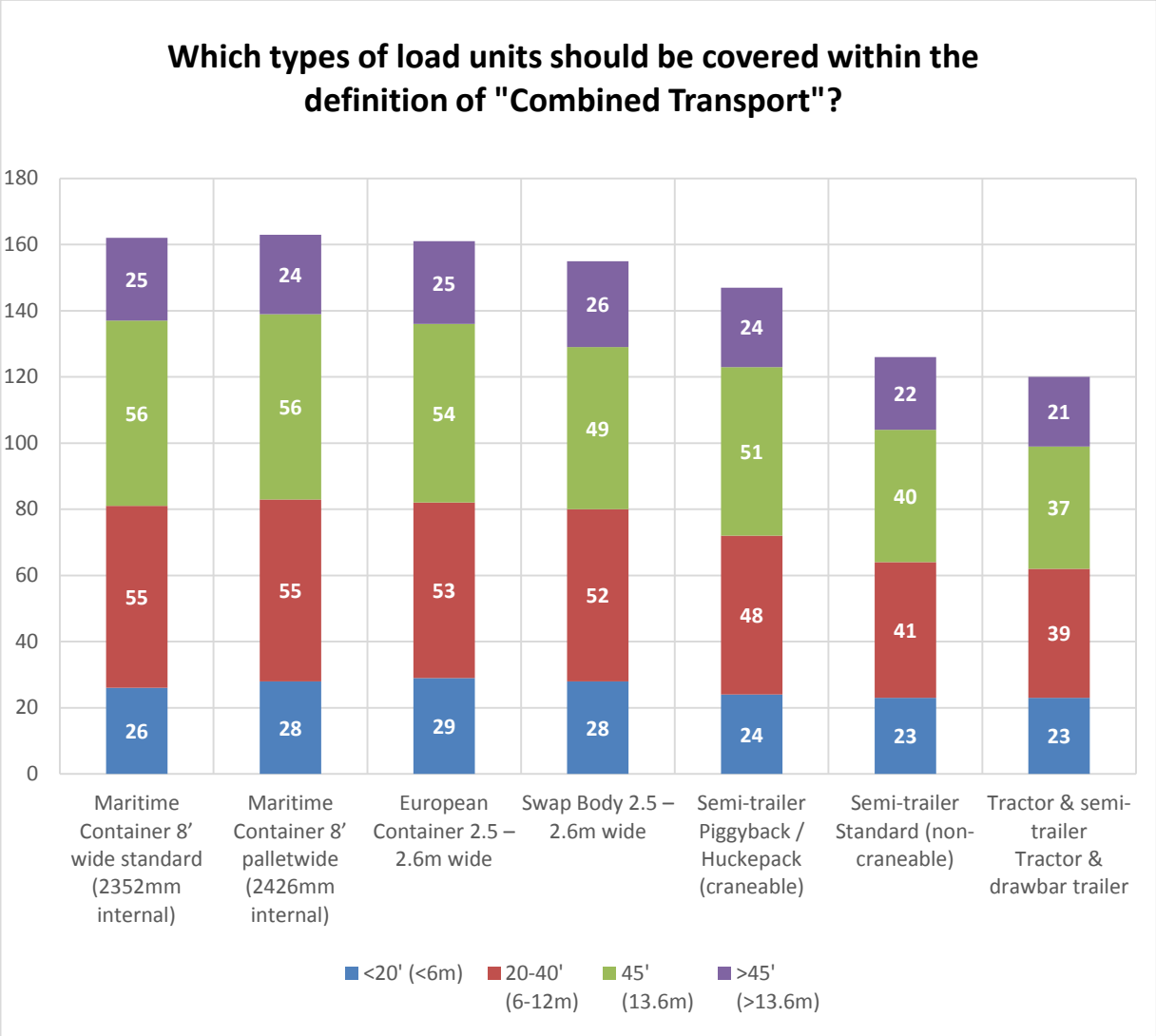
44 respondents suggested that domestic Combined Transport operations should be included in the future definition of Combined Transport. 34 respondents wanted to see International Combined Transport operations added to the definition of CT. Only 19 respondents considered that the current scope of the CT Directive was sufficient and did not consider any extension of scope to be necessary.



Question 3 - If the CT Directive were to be revised in future, which types of load units should be covered within the definition of "Combined Transport"?

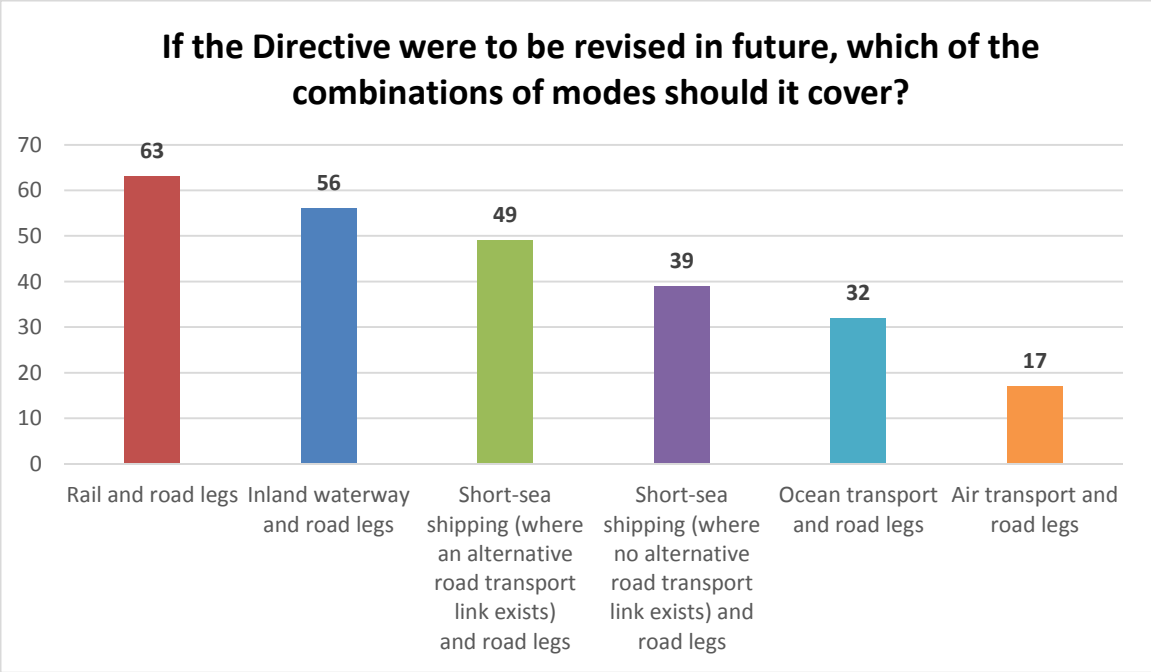
The equal distribution and high number of indications per each type and size of load unit suggest that respondents were generally in favour of including a broad range of load units within the definition of Combined Transport. Containers seemed to be particularly important for the industry with over 160 responses for each type. Swap bodies and craneable semi-trailers were almost equally important for respondents, with 155 and 147 responses respectively (all sizes). Standard semi-trailers, trailers and their combinations with tractor unit were indicated less often, gathering between 120 and 130 responses. Load units between 20' and 45' stand out as the most frequently chosen units. Smaller and larger units were less popular among the responses.

Respondents who selected loading units either <20' or >45', believe the CT Directive should consider all the possible lengths of load units starting from 2.5 m up to 53'. One of the respondents underlined that the market constantly innovates and develops new types of loading units. In his opinion, the legislation should keep pace of market developments and these innovations should be envisaged in the revised CT.



Question 4 - The CT Directive refers to Combined Transport operations involving a combination of road legs with rail / inland waterway / maritime legs. If the CT Directive were to be revised in future, which of the combinations of modes should it cover?

Rail / road was considered to be the most important Combined Transport combination by the majority of respondents (63 responses). The combination of road with waterborne transport modes (inland waterway / road and short-sea shipping / road where an alternative road transport link exists) which are currently covered by CT definition should be maintained in the CT Directive according to 56 and 49 respondents, respectively. The respondents were less eager to involve deep sea shipping / road in the revised Directive as evidenced by only 32 responses for this combination. The air / road combination did not seem to be significant for most of the respondents, being indicated only 17 times.



Question 5 - At present the CT Directive only includes specific provisions on bi-modal combinations (e.g. road + rail, road + sea, road + inland waterway). Do you believe that the CT Directive should also include specific provisions for tri-modal (or more) combinations (e.g. sea + rail + road)?

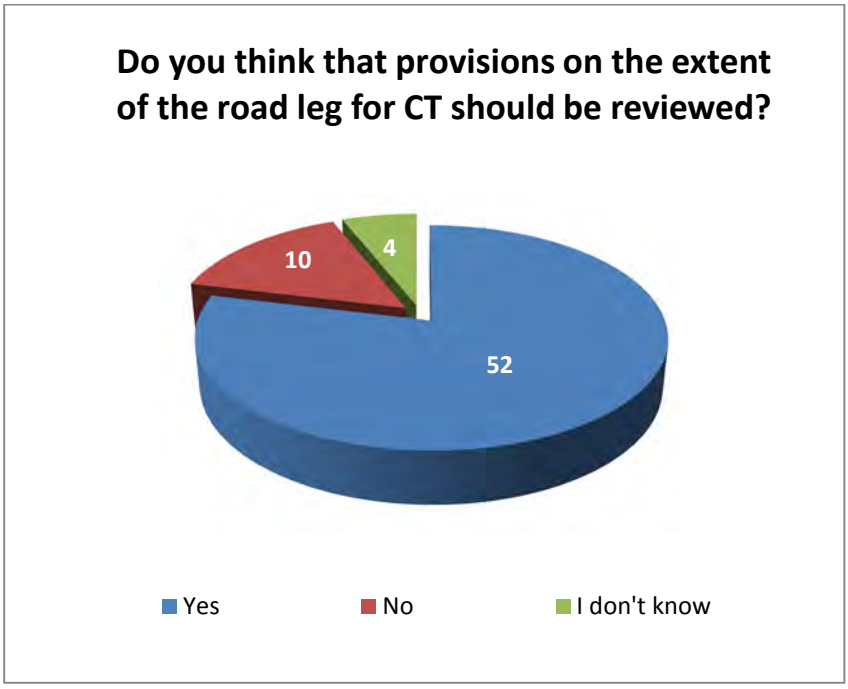
The overwhelming majority of respondents were of the opinion that the CT Directive should contain provisions for tri-modal combinations, in particular involving road with short sea shipping-rail and/or inland waterway-rail. According to several respondents, this broadening of CT definition would provide the necessary flexibility to the sector and allow customers to decide which combination of modes to use in the best way for a given operation. Few respondents argued that the provision for tri-modal (or more) combinations was not necessary, as the underlying principle of the CT Directive might simply assume that goods should be carried on the longer land transport leg by sustainable transport modes (rail and inland waterways).

Question 6 - The CT Directive provides different requirements for the extent of the road leg for Combined Transport operations, depending on the combination of modes involved:

- ***Rail + Road: Nearest suitable loading station***
- ***Inland Waterway + Road or Sea + Road: 150km from the inland waterway port or seaport***

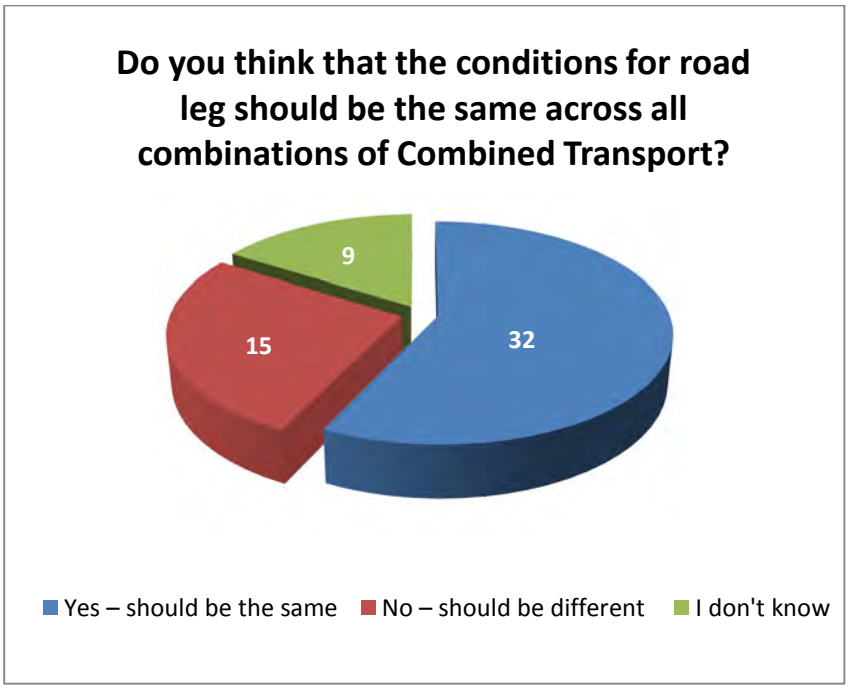
Do you think that these provisions should be reviewed?

The majority of respondents (79%) did not consider the revision of provisions on the extent of the road leg for Combined Transport operations necessary. Only 10 respondents (15%) considered that the above provisions required modification.



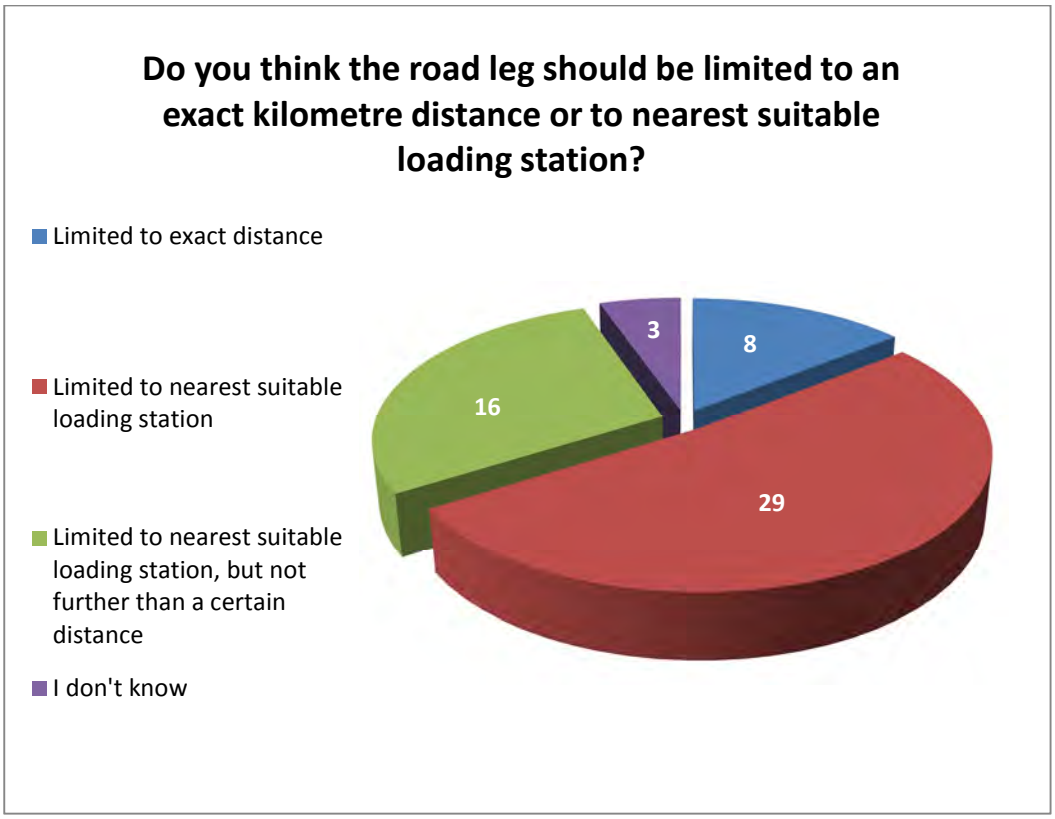
Question 7 - Do you think that the conditions for road leg should be the same across all combinations of Combined Transport?

More than a half of respondents (57%) considered that the conditions for the road leg should remain the same across all combinations of Combined Transport. The opposite view was shared by only 9 respondents (16%), with 15 (27%) respondents not having a view.



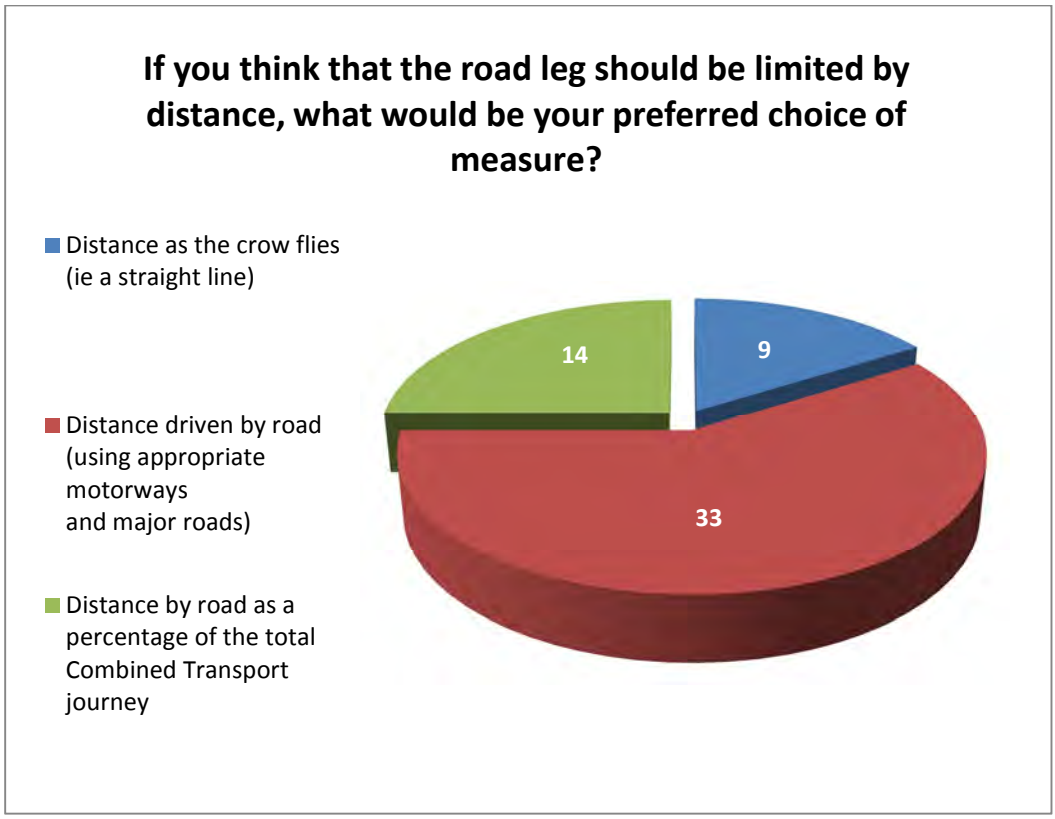
Question 8 - Do you think the road leg should be limited to an exact kilometre distance or to nearest suitable loading station?

Most of the respondents would like to see the road leg limited to the "nearest suitable loading station" without any distance limitation (52%) or a maximum distance (29%), rather than limited to an exact kilometre distance (14%).



Question 9 - If you think that the road leg should be limited by distance, what would be your preferred choice of measure?

The distance driven by road using appropriate motorways and major roads is perceived as the most suitable measure of distance by the majority of respondents (59%). Distance by road as a percentage of the total Combined Transport journey is the second preferred option indicated by a quarter (25%) of respondents. The measure used in current definition (as the crow flies) raised least support, as only 9 respondents (16%) chose it as preferred choice of measure.

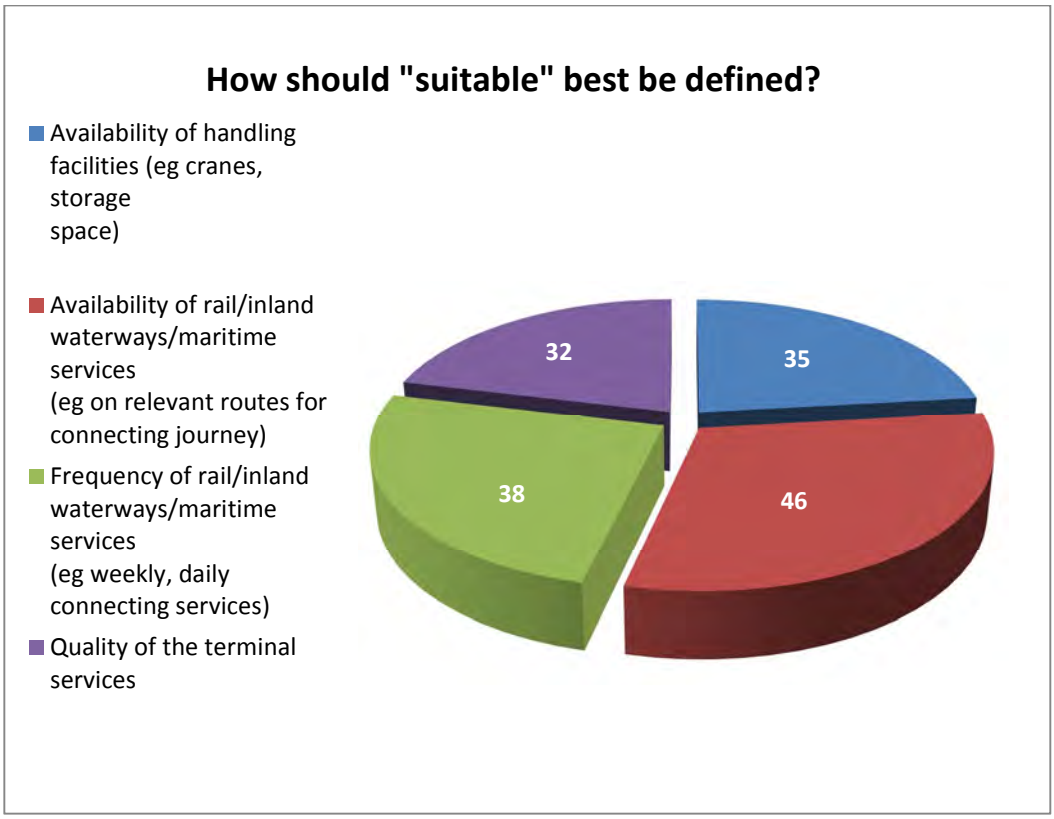


Question 10 - If you think that the road leg should be limited by distance, what should this distance be? Note that the road leg distance could be limited either by minimum or maximum kilometres or by percentage of the total journey or by combination of the two.

The respondents seemed divided with regard to the road leg limitation need and method. Approximately 40% one of the respondents suggested limiting the road part of the CT operation by distance from 100 to 300 km (most indications suggested 150 km limit). Another important group (*circa* 40%) believed that the road leg should not be limited by distance at all as this would impact the viability of intermodal operations and the flexibility needed by logistics service provider to develop CT routes. Lastly, around one fifth of respondents considered the limitation by percentage of the total journey as most viable way to define road leg distance in CT operation.

Question 11 - How should "suitable" best be defined?

The answers to the question of best definition of “suitable” terminal were equally distributed between different options with “Availability of rail/inland waterways/maritime services” coming first (31%), followed by “Frequency of rail/inland waterways/maritime services” (25%) and “Availability of handling facilities” (23%). The definition of “suitable” by the quality of the terminal services was considered relevant by 32 respondents (21%).



Question 12 - If you think the quality of the terminal services should be taken into account for "suitable", how should "quality" be assessed or measured?

The respondents indicated *inter alia* the following criteria to assess/measure the quality of the terminal services:

- Acceptable time and costs for handling;
- Sufficient capacity;
- Operations timing;
- Level of safety issues, level of security issues;
- Just in time capacity;
- Frequency of CT journeys;
- Intermodal container disposal;
- Hub connections/services;
- Technical parameters of connecting railway lines
- Selection of services available at terminal (customs, warehousing, storage);
- Equipment age;
- Availability of facilities and the size of the terminal.

Question 13 - Do you have any other comments on the definition of CT?

Comments from respondents included the following (some original answers from the respondents are quoted in bullet points):

a) General

- Less specific rules but one common rule for all is the best;
- I would change the name of Combined Transport to Intermodal Transport. Nobody understands Combined Transport;
- Directive 92/106 is the appropriate framework to define the right definition of combined transport, but also of intermodal transport. Directive 92/106 should be indeed the legislative framework dealing with intermodal transport in general. For legal clarity and consistency, the definition of combined transport and intermodal transport should not be addressed in other legislations, for example as it was proposed by the Commission in Directive 96/53 which addresses road transport only;
- The directive could also include other intermodal combinations, while remaining the only framework dealing with intermodal transport. Furthermore, the term "combined transport" can be considered to be too much related to transport operations involving a road leg. In order to take into account the wide variety of possible combinations involving various transport modes, the term "intermodal transport" should be used instead;
- CT directive should favour higher payload (ex 50 t) giving the opportunity to make attractive and competitive this multimode of transport;
- We have seen that the Swedish version and the English version are different in one rather major aspect. The English version states that the CT Directive applies where the load carries uses road on the ""initial or final leg"" whereas the Swedish version states in the same place ""initial and final leg";
- Road transport is defined as ""and / or"" in Article 4 of the present CT Directive, which deals with rights to carry out operations, but not in the actual definition in Article 1. This should be changed in the revised CT Directive and we would favour language as the present Article 1, i.e. that the road shall be ""and / or"" which should give transport operators the necessary flexibility needed in order to fully carry out these operations."
- Due to the problems of circumvention of regulation 1072/2009 concerning cabotage [we] do not want to widen the access to CT bases circumventions. So [we] prefer to stick to only transport between member states and strongly avoid opening up for third country operations (outside EU).

b) Definitions of CT

- Maybe little modernised the terminology and defined the correlation between intermodal and combined transport and introduce and define the term "intermodal loading unit;
- The present definition causes one of the major problems in using CT: is it a 1 or 2 leg operation;
- The present definition of combined transport is ambiguous and has led in practice to many difficulties, since some Member States define the road transport part of

combined transport as a 1 leg operation and other Member States define combined transport as a 2 leg operation, while all mentioned countries refer to the same definition of article 1. The article seems indeed ambiguous and unclear and gives room for flexible interpretation;

- According to [us] it's only natural that it is basically a 2 leg road transport operation. However, to [us] it's obvious that the road transport part in combined transport always contains a 2 leg operation: road transport on the initial leg and road transport on the final leg If it were to be only a 1 leg road transport operation, combined transport would be impossible, since it would presuppose that transport companies or shippers dispose of a direct harbour of railway connection at their own premises, which only very few companies have in the EU. This would make the whole CT directive redundant;
- The interpretation of the definition in the current questionnaire (allowing road transport in the first and final leg of combined transport) does not seem compatible with what the text of Directive 92/106/EC is stipulating. The Directive only mentions "or" when it comes to road being used in the first / last leg of combined transport. So, the lack of clarity of the current definition has led to different interpretations and applications. More clarity is needed. It should be indicated in a clear way that road freight transport can be used in the first and/ or last leg of a combined transport operation;
- Multimodal transport of cargo in conventional rail on main leg and road for last mile should be considered as well;
- The reasoning behind the CT Directive is to support CT as an alternative to pure road transport because of the benefits this brings in terms of congestion and environmental performance, on the one hand by bundling traffic flows, on the other hand by moving them onto more sustainable modes of transport. For this policy to remain meaningful, the definitions have to be restrictive enough to ensure that the largest part of the transport operation is in fact done by rail, inland waterway or short sea shipping. Combinations of maritime and road or air and road transport do not seem to fit under this general objective;
- It should include a door-to-door solutions without fragmenting the transport legs into small pieces, unloading and loading by another company is waste and brings a lot of quality and ecological burdens;
- The Council of Ministers of Transport reached a political agreement for amending directive 96/53/EC in June 2014, which also includes a definition for intermodal transport: This definition refers to the definition of combined transport as laid down in directive 92/106/EC on the one hand, but adds further stipulations on the other hand. Any change of the CT definition as now contained in the directive 92/106/EC would significantly alter the scope of application of directive 96/53/EC, which is why the CT-definition of directive 92/106/EC should remain unchanged from [our] point of view;
- Make the definition of CT less ambiguous: CT means the transport of goods in or between member states (and Turkey, Russia, Switzerland, Iceland, Ukraine, Belarus) where the 45ft container, swapbody or Huckepack trailer uses the road on the initial and/or final leg of the journey and.....etc.;
- The definition of CT in the Weights and Dimensions Directive 96/53 should be taken over from the definition of CT in 92/106;

- The CT directive does not privilege transports with a rail/barge/vessel leg on the European continent versus transports with a road leg on the continent. For example Sweden-London by rail or short sea to Rotterdam is treated equally as Sweden-London by road to Rotterdam/Zeebrugge/Calais;
- UNECE definitions should prevail.

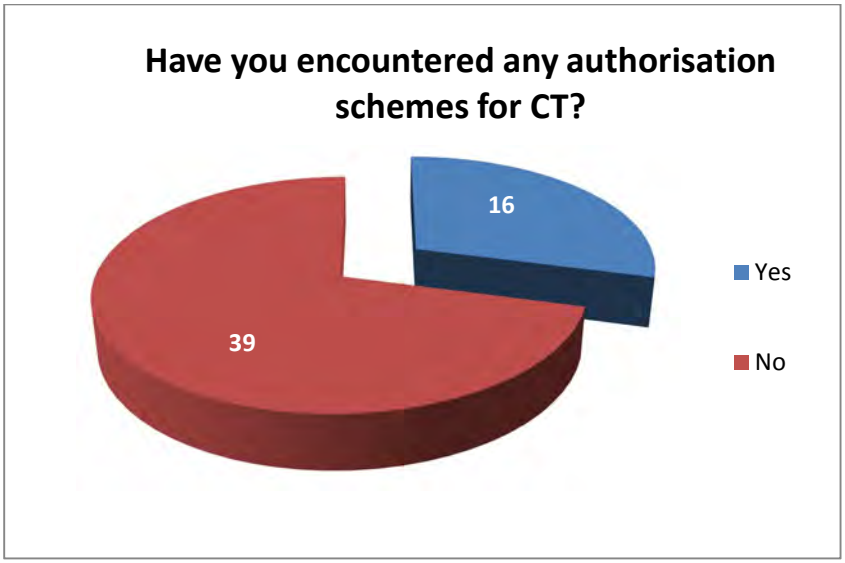
c) Distance criteria within CT Directive
   - Rail or inland waterway or maritime transport - where this section exceeds 100km as the crow flies; and road transport on the initial and/or final leg of the journey – either: between the point where the goods are loaded and/or unloaded and the nearest suitable rail loading station; or within a radius of 150 km as the crow flies from the inland waterway port or seaport of loading or unloading. To the Above shall be added the weight issue (increasing from 40 tons gross weight to 44 tons gross weight) in order to improve competitiveness of CT vs road based transport chains;
   - Concerning the requirements for the extent of the road leg for Combined Transport operations Rail + Road, e.g. ""Nearest suitable loading station"", [we] believe that the term 'suitable' should not be defined at all in the legislation. The market decides which terminal is suitable;
   - Overall, [we] consider the currently-defined length of the initial/terminal road legs to be appropriate. If the directive was to be reviewed, changes could however be introduced: its scope could be extended so as to include operations involving third countries and the range of loading units could take into account the development of containerisation. The term ""suitable"" could then also be defined by the availability of handling facilities, the availability of rail/inland waterway and maritime services, the frequency of rail/inland waterway/maritime services as well as by the quality of terminal services;
   - Concerning the requirements for the extent of the road leg for Combined Transport operations Rail + Road, e.g. "Nearest suitable loading station", we believe that the term 'suitable' should not be defined at all in the legislation. The market decides which terminal is suitable;
   - It does not make sense to limit a certain distance to the terminal, when this terminal does not offer the rail-connections the customers need;
   - Economic and logistics criteria should be taken into account such as the economic acceptability (reduction of empty hauls, km, full load units both ways by triangle traffic instead of full/empty if using geographically nearest terminal);
   - Elimination of 100 km threshold for CT by rail and IWW: nobody can/will check and it's not particulartly relevant anyhow with respect to terms of competition with road (obsolete provision);
   - As mentioned above arbitrary limits on the road leg will compromise the ability to develop intermodal connections in general. Freight forwarders need the flexibility with no limitation of the road leg in order to create sustainable supply chain solutions combining different modes of transport;
   - The focus should be to move goods from road to rail and this can only be achieved by offering high quality services at terminals. If the nearest terminal has to be used, regardless of quality on offered service, there is a risk that the unit never

end up on a rail at all. Therefore, the percentage of total distance should be preferred or to take quality into consideration when saying “suitable”;

- An allowance should be made to reflect that the crow-fly distance will in almost all cases be shorter than the distance to be travelled on the strategic road network. Government policy recognises the benefits of encouraging freight traffic to travel on strategic inter-urban routes on roads designed for larger vehicles;
- "The definition of “Combined Transport” in the Directive currently limits the scope to transportation of goods between Member States to certain conditions such as that the goods must be moved by road transport on the initial and / or final leg of the journey within a radius of 150 km, from inland waterway and / or seaport of loading or unloading. In Europe, there are too many destinations, which are not reachable within 150 km from a port. As a result, [we] believe that the current restrictive definition of Combined Transport outlined in Article 1 will discourage the use of sea transport for parts of the transport operation. In most cases, this will be to the benefit of road transport, as rail alternatives are not in place everywhere. In addition, limitation of the road leg of the journey results in limiting of the logistic service provider to provide tailored sustainable solutions for its customers. Consequently, [we] consider that in order to encourage Combined Transport in Europe, where all modes of transport are used efficiently, there should be no kilometers limit on the road leg from the port or the inland waterway. This is particularly the right approach because combined transport can be used depending on the available infrastructure: rail, inland waterways are viable alternatives for some journeys of less than 150kms, but very often there is no alternative infrastructure and the only way of transporting those cargoes is by road. By way of example extended gateways in EU ports make it increasingly interesting for freight to travel using rail or waterborne transport regardless of the distance. To illustrate, the port of Rotterdam is linked to a number of destinations both via rail and inland waterways including with Willebroek in Belgium (120 kms), Venlo and Moerdijk in the Netherlands (40 kms and 170 kms respectively), as well as by rail to Duisburg in Germany (200 kms). Likewise, the port of Barcelona will be linked to Lyon (France) via rail links covering a distance of approximately 600 kms. Last but not least, back-loads are key element to the economic viability of CT routes. In [our] experience, it is cost-effective to establish intermodal routes only when sufficient backloads of approximately 80% are ensured.
- The distance needs to take into account the different geography of the member states. In some member states the whole country is covered if the distance is 150 km. In these cases the distance must be reduced to avoid distortion of competition.

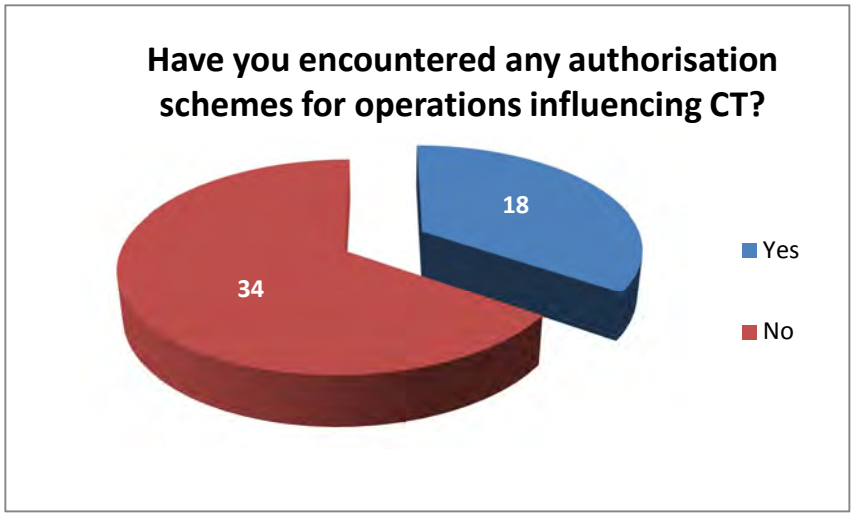
5. Authorisation schemes (Article 2 of the CT Directive)

Question 1 - If you are a user or operator of Combined Transport services, have you encountered any authorisation schemes (licences, permits, registration requirements etc.) for Combined Transport?



The respondents who declared having encountered authorisation schemes for Combined Transport pointed out the following Member States: France (4), Germany (3), Belgium (2), United Kingdom (1), Italy (1) and Austria (1).

Question 2 - If you are a user or operator of Combined Transport services, have you encountered any authorisation schemes or other limitations (licences, permits, registration requirements, approved lists of terminals, approved lists of providers etc.) for operations influencing Combined Transport?



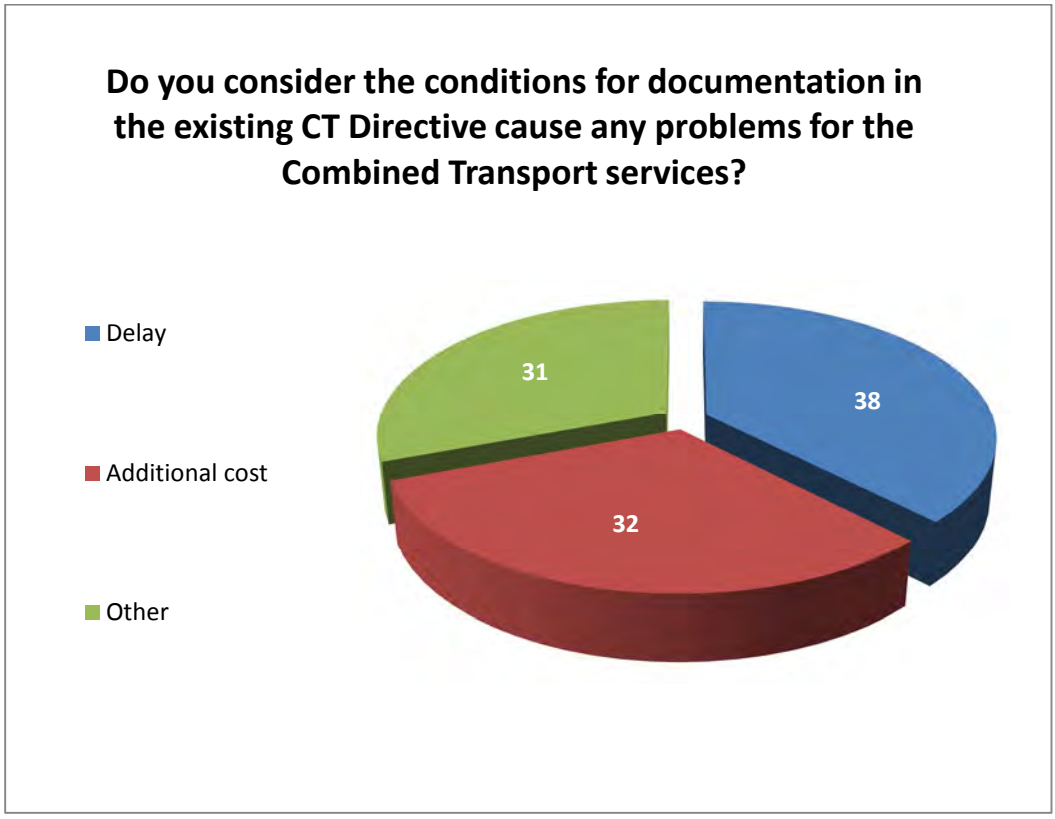
The respondents who declared having encountered authorisation schemes for operations influencing Combined Transport cited the following Member States: Germany (5), France (3), Austria (3), United Kingdom (2), Italy (1), Belgium (1), Poland (1), Ireland (1), Romania (1), Bulgaria (1), Greece (1).

6. Transport documentation (Article 3 of the CT Directive)

In the case of Combined Transport for hire or reward, a transport document is required to provide evidence that the road leg is being performed as part of a Combined Transport operation, specifying details of the rail station, inland port or sea port used for delivering or picking up a load unit. The details relating to this operation must be confirmed by the respective authority(s) by means of a stamp after the relevant leg has been carried out.

1. Do you consider the conditions for documentation in the existing CT Directive cause any problems for the Combined Transport services?

Most of the respondents (37%) indicated "delay" as the most frequent problem caused by the conditions for documentation described in the CT Directive. One third (32%) of respondents consider additional costs as important problem. A considerable number of respondents suggested there was an urgent need for revision of Article 3 of CT Directive. In their view, Article 3 does not provide clear information on the document to be presented as a proof. This vagueness results in different interpretations in the Member States and often leads to administrative burden, high costs and even unjustified penalties, if the proof is considered inadequate by control authorities.



2. If the documentary evidence of the Combined Transport journey could be available by other means, which of the following documentation / channels do you consider could replace the current documentation? Please rate from 1 (Not effective) to 5 (Very effective)

Respondents voiced very strong support (48 indications) for the establishment of a single transport document for all Combined Transport operations as well as introduction of electronic clearing system (37 votes). Documentary evidence in the form of mode-related waybill without stamp was considered the least effective option by the respondents.

	Not effective	Somewhat effective	Moderet. effective	Effective	Very effective	I don't know
Evidence by mode-related waybill without stamp	16	13	13	9	15	29
Establishment of a single transport document for all CT operations	4	7	7	15	48	14
Other electronic clearing system	6	2	9	17	37	24

Question 3 - Please list any other documentation / channel options that the CT Directive should consider?

Respondents named several other documentation / channel options that could be considered by the CT Directive:

- single check-in /check-out intermodal terminal documentation
- Rail, Inland waterway or short sea waybill
- e-way-bills / paperless documentation
- CIM consignment note
- E-Freight document

Question 4 - Do you have any other comments on the transport documentation of CT?

The respondents expressed several comments on the transport documentation of CT:

- Electronic clearing system with electronic documents could strongly reduce the administrative burden but may be difficult to implement in all EU Member States as some have already indicated their opposition to any e-documents for road freight transport;

- Every tool and measure aimed at enhancing the electronic exchange of data between operators and uniform management of transport data shall be encouraged and promoted;
- Existing solutions, which allow for good integration of modes, such as the CIM consignment note developed in the rail sector can be used in Combined Transport services;
- Integration of transport modes to promote inter-modality could further be improved, in terms of streamlining processes;
- Paperless documentation for customs and dangerous goods is necessary;
- A unified generally accepted document by all parties involved in CT is most welcome;

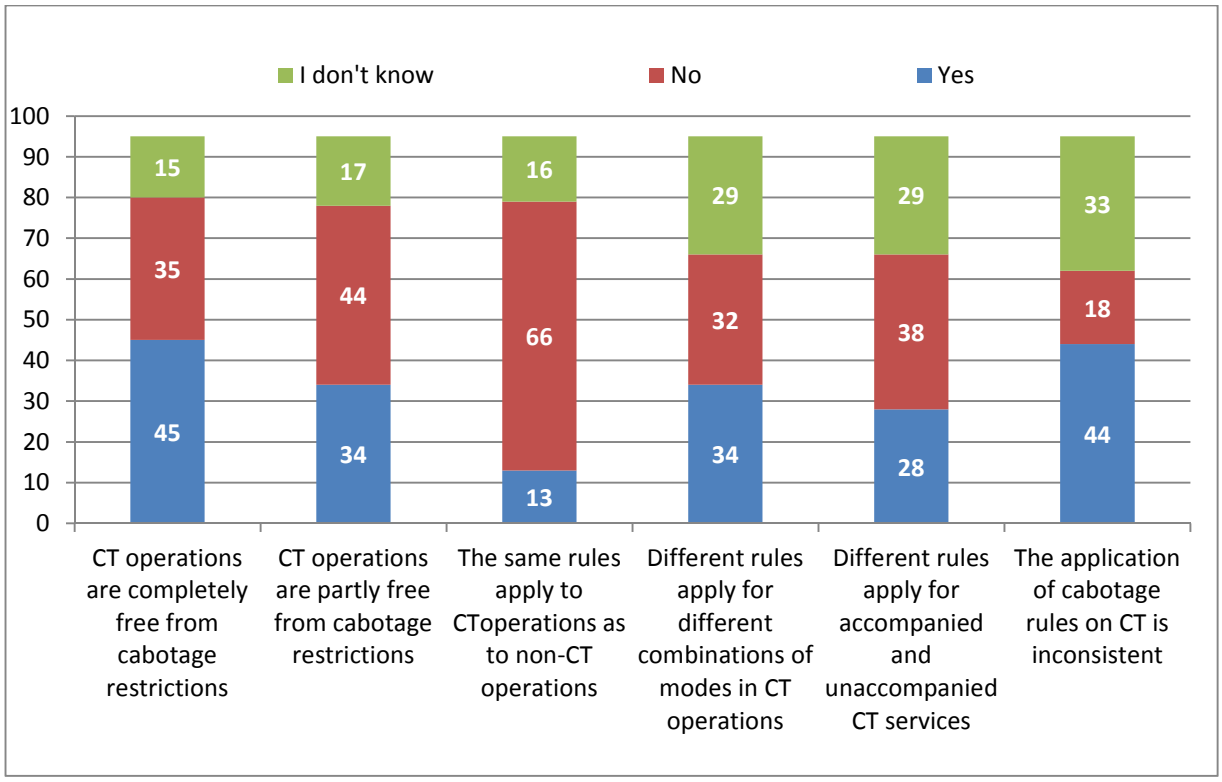
6. Cabotage (Article 4 of the CT Directive)

According to Article 4 of the CT Directive, all road hauliers established in a Member State who meet the conditions of access to the occupation and access to the market for transport of goods between Member States shall have the right to carry out, in the context of a Combined Transport operation between Member States, initial and/or final road haulage legs which form an integral part of the Combined Transport operation, and which may or may not include the crossing of a frontier. Essentially, this provision exempts Combined Transport operations from the limitations on road transport cabotage.

When this provision was established, cabotage was generally prohibited in the EU. Regulation (EC) 1072/2009 now establishes a general framework for road cabotage in EU whereby every haulier is entitled to perform up to three cabotage operations within a seven-day period, starting the day after the unloading of the international transport, however this limitation does not apply to Combined Transport operations as per Article 4 of the CT Directive.

Question 1 - How far would you agree with the following statements on cabotage within the CT Directive?

The majority of respondents considered that CT operations were free from cabotage rules and enjoyed the cabotage liberalisation as opposed to non-CT operations. On the other hand, a slim majority of respondents believed that different rules apply for different combinations of modes in Combined Transport operations. This finding is confirmed by a high number of responses suggesting that the application of cabotage rules on Combined Transport is inconsistent.

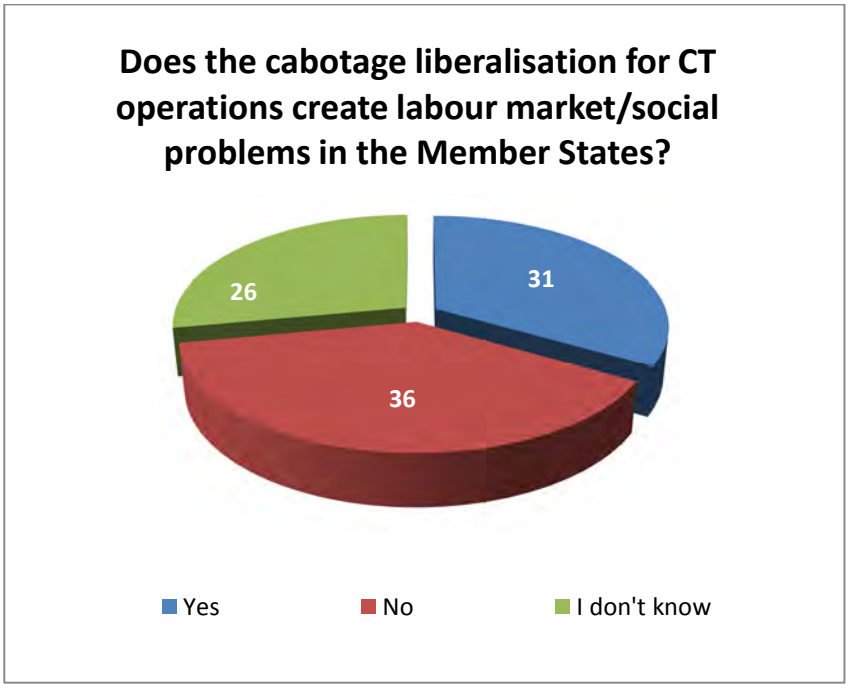


Question 2 - If you have encountered problems with any of these statements in particular Member States, can you please clarify in which Member States you have encountered and which problems?

The respondents who declared having encountered problems related to the application of cabotage liberalisation rules cited the following Member States: United Kingdom (7), Italy (7), France (3), Finland (3), Sweden (3), Spain (2), Austria (2), Croatia, Slovenia, Ireland, Netherlands, Denmark, Hungary and Germany.

Question 3 - In your view, does the cabotage liberalisation for CT operations create labour market/social problems in the Member States?

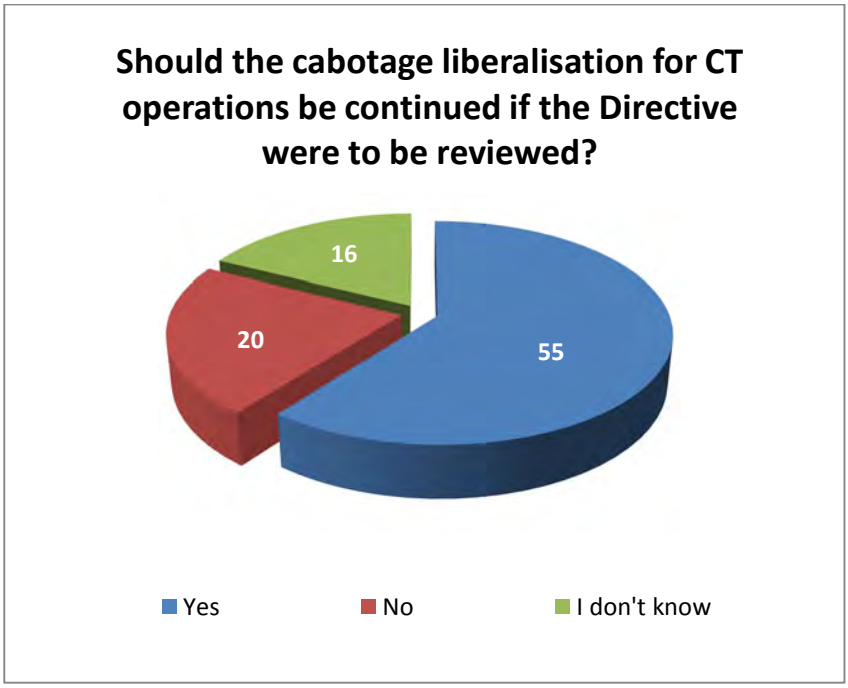
Respondents were divided with regard to the question of market/social problems caused by the cabotage liberalisation for CT operations. The majority (39%) of respondents believed this statement to be true, while almost a third (31%) disagreed.



Respondents who found the cabotage liberalisation for CT troublesome reported alleged social dumping practices from Central and Eastern European Member States where operators employ underpaid drivers to perform cabotage operations in Western European EU MS. Several respondents noted that the rules of the CT Directive are often used to circumvent the restrictions imposed on cabotage by the Regulation (EC) No 1072/2009 on access to the road haulage market.

Question 4 - In your view, should the cabotage liberalisation for CT operations be continued if the CT Directive were to be reviewed?

In the view of a large majority of respondents (60%), the cabotage liberalisation for CT operations should be retained in the CT Directive. Less than a quarter of responses (22%) indicated the opposite view.



Question 5 - Do you have any other comments on the cabotage liberalisation of CT operations?

The main comments expressed by the respondents concerned the need to counter the unfair competition from the hauliers using Article 4 of CT Directive to circumvent the cabotage restrictions laid down in Regulation (EC) No 1072/2009. Some respondents urged the EU to work together with the Member States on proper enforcement of the social rules on rest and driving time, so as to ensure fair competition in the overall road freight. Two respondents called for social harmonisation.

Many respondents called for further liberalisation of cabotage rules, which in the opinion of some, should go as far as lifting all the quantitative restrictions for the entire road freight transport sector.

Several respondents considered that the cabotage liberalisation for CT operations should be continued if the CT Directive were to be reviewed in the future, as CT operations are generally less flexible and competitive than pure road haulage. They considered that the cabotage liberalisation for CT operations helps to balance out these difficulties and incentivise the CT business and is therefore welcome and necessary.

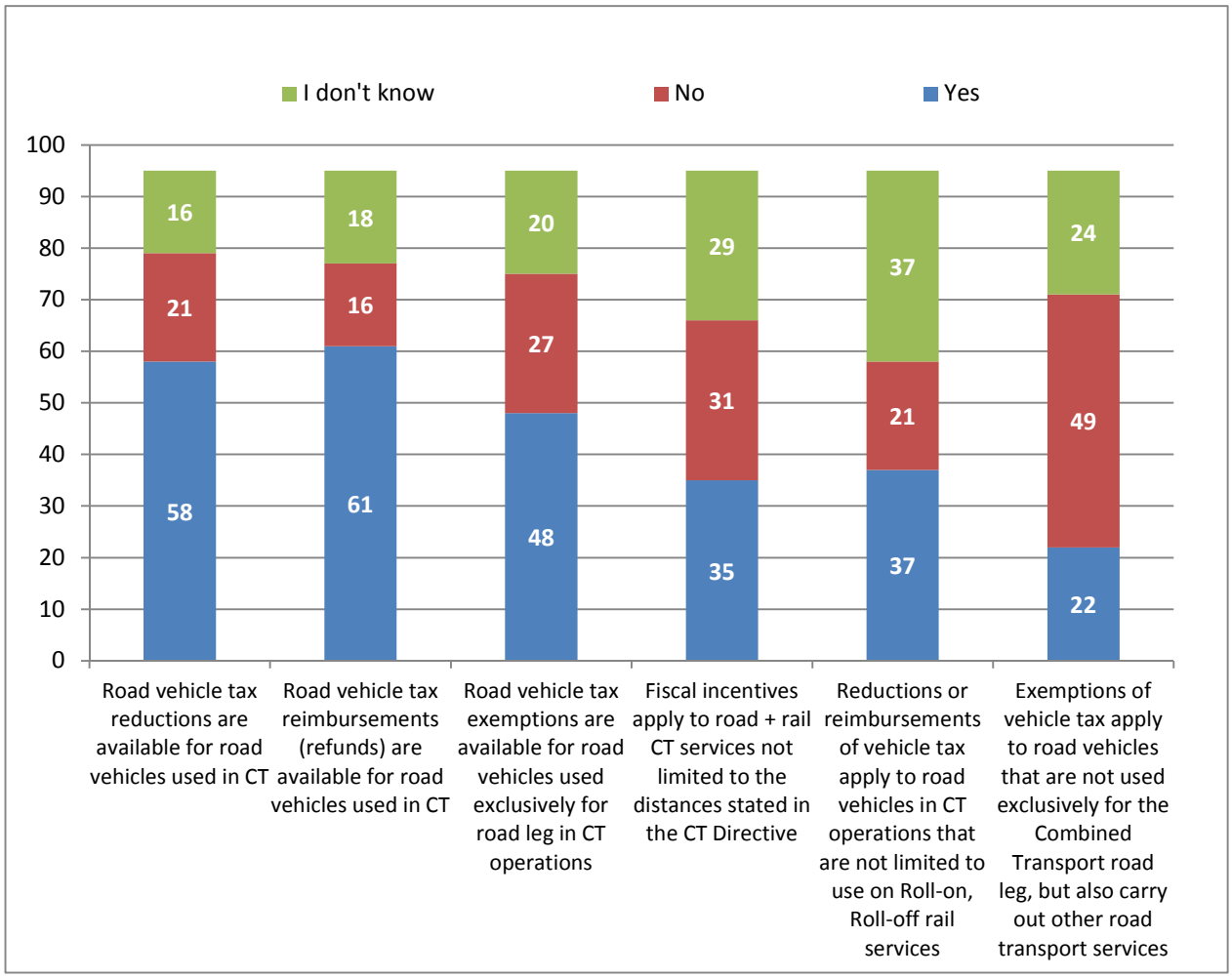
7. Financial incentives in Combined Transport operations

The CT Directive provides two types of financial incentives for vehicles engaged in Combined Transport, namely:

- Reduction or reimbursement of taxes for road vehicles in the country where the vehicles is registered, when these vehicles are transported by rail in Combined Transport operations (Article 6.1);
- Exemption from taxes for road vehicles used exclusively in collection or final delivery of Combined Transport services (Article 6.2).

Question 1 - How far would you agree with the following statements on fiscal incentives within the CT Directive?

A vast majority of respondents agreed that road vehicle tax reductions (58) and reimbursements (61) are available for road vehicles used in CT. More than half of the respondents did not believe that exemptions of vehicle tax should also apply to road vehicles that are not used exclusively for the Combined Transport road leg, but carry out other road transport services.

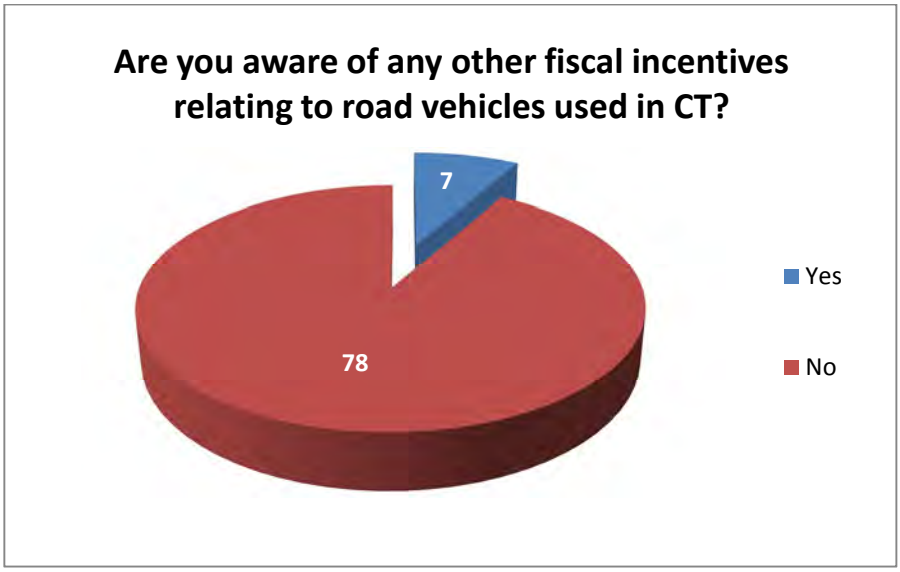


Question 2 - If you have encountered problems with any of these statements in particular Member States, can you please clarify in which Member States you have encountered and which problems?

The respondents who declared having encountered problems related to financial incentives in Combined Transport operations cited the following Member States: France, Belgium and Romania.

Question 3 - Are you aware of any other fiscal incentives relating to road vehicles used in Combined Transport?

The vast majority of respondents (92%) did not have any knowledge of other fiscal incentives relating to road vehicles used in Combined Transport. Only 7 respondents were aware of such incentives, including: State aids for new vehicles used for Combined Transport, aid for investment in intermodal containers/trailers, Incentive for CO_2 reduction in the process applied on investments (CEE) incentives for road vehicles using ferry services and energy reduction schemes.



Question 4 - Do you have any other comments on the fiscal incentives provided for in CT Directive?

Some of the respondents reported **inefficiency of currently existing fiscal incentives** for CT operations. According to them, the incentives contained within the CT Directive were comparatively insignificant and did not provide adequate support to grow CT operations. One respondent stressed that taxation remains part of Member States competence and therefore, the **financial incentives differ substantially** depending on the Member State. In a few reported cases there was in practice no possibility of receiving the reduction in vehicle tax, since the **criteria of the CT Directive were too vague** and **subject to MS' individual interpretation**.

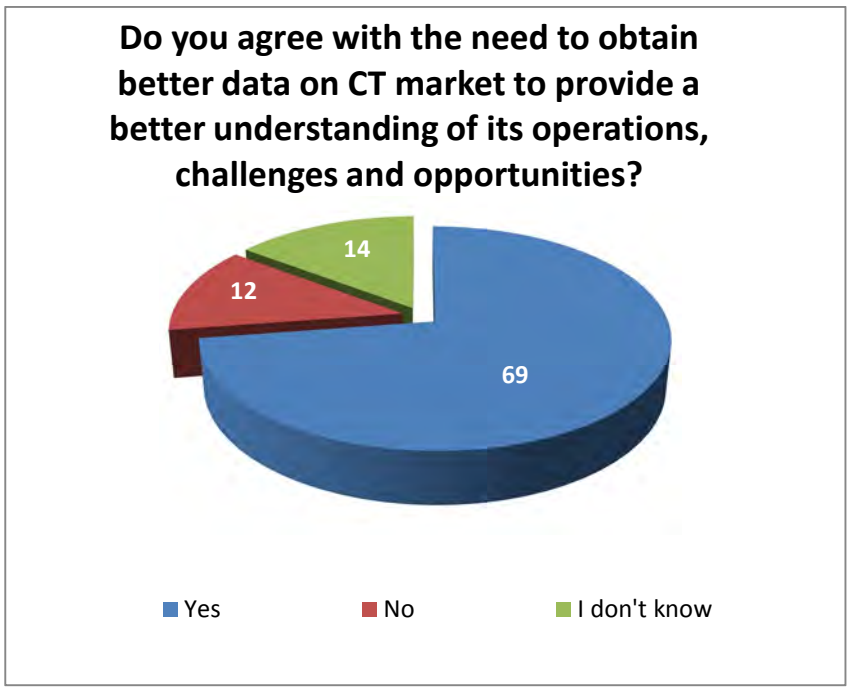
A considerable number of respondents called for additional financial incentives for CT operations in a revised Combined Transport Directive. According to some, the discounts should also be applied to **vehicle excise duty for lorries** performing positioning legs of CT transport chains. Other respondents suggest focusing on **incentivising innovations** in CT sector.

8. Improving knowledge of the Combined Transport sector

At present the volume and quality of statistics related to Combined Transport movements in the EU is not sufficient, which impacts on the ability of Member States and the EC to assess the operation of the Combined Transport market.

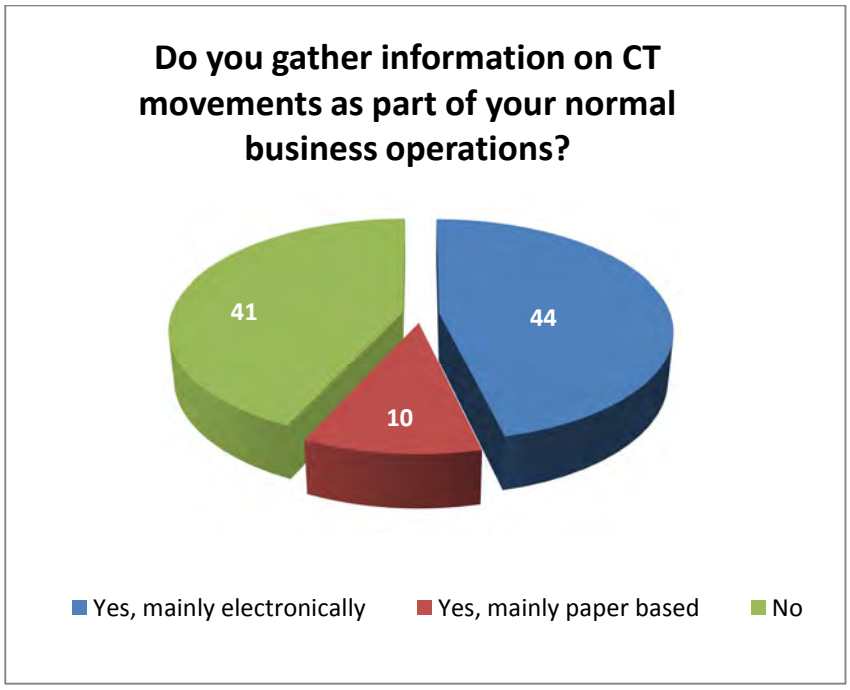
Question 1 - Do you agree with the need to obtain better data on the Combined Transport market to provide a better understanding of its operations, challenges and opportunities?

A large majority of respondents (73%) recognised the need for better data on CT market. Only 12 respondents (12%) disagreed with a further 14 (15 %) not having an opinion.



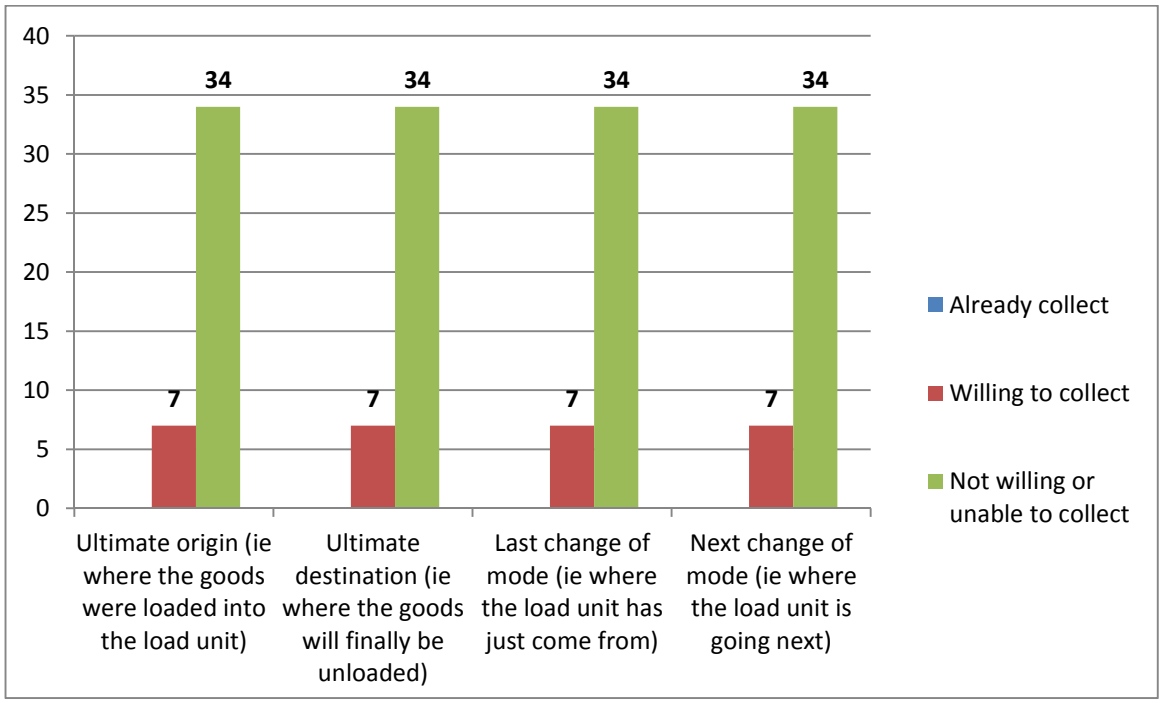
Question 2 - Do you gather information on Combined Transport movements as part of your normal business operations?

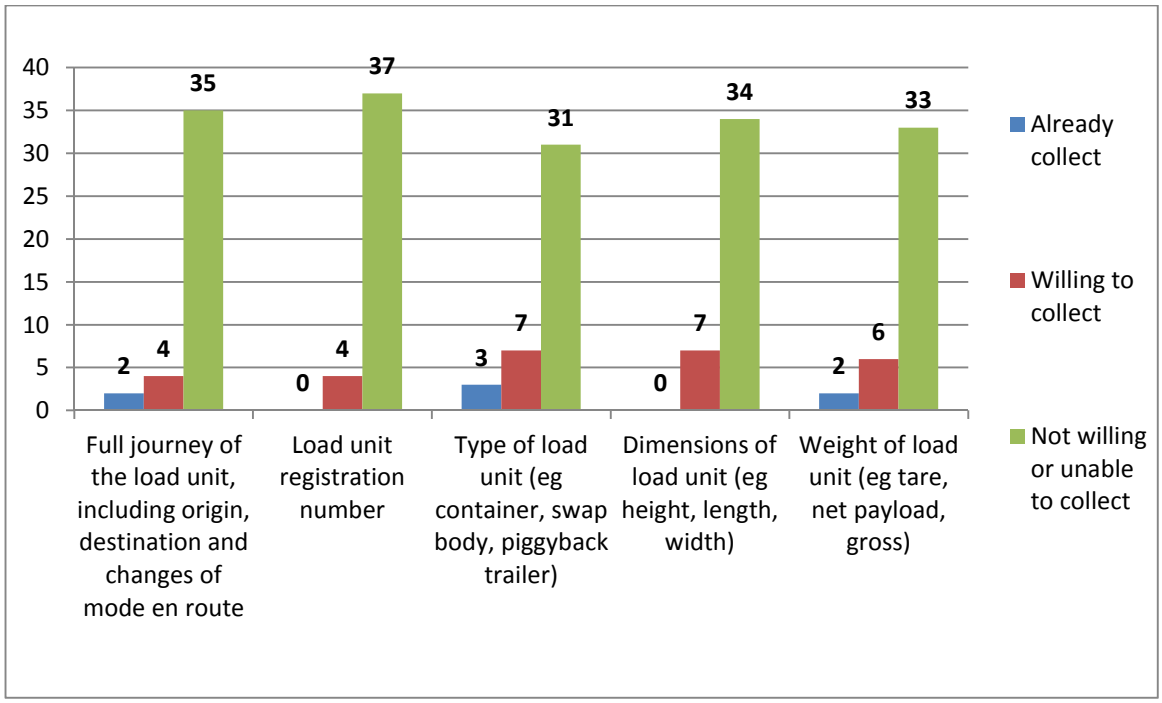
A narrow majority of respondents (57%) confirmed that they gathered information on CT movements as part of their business operations, either electronically (46%) or in paper (11%). 41 respondents (43%) did not collect any information on CT operations on a regular basis.



Question 3 - Do you gather information on Combined Transport movements as part of your normal business operations?

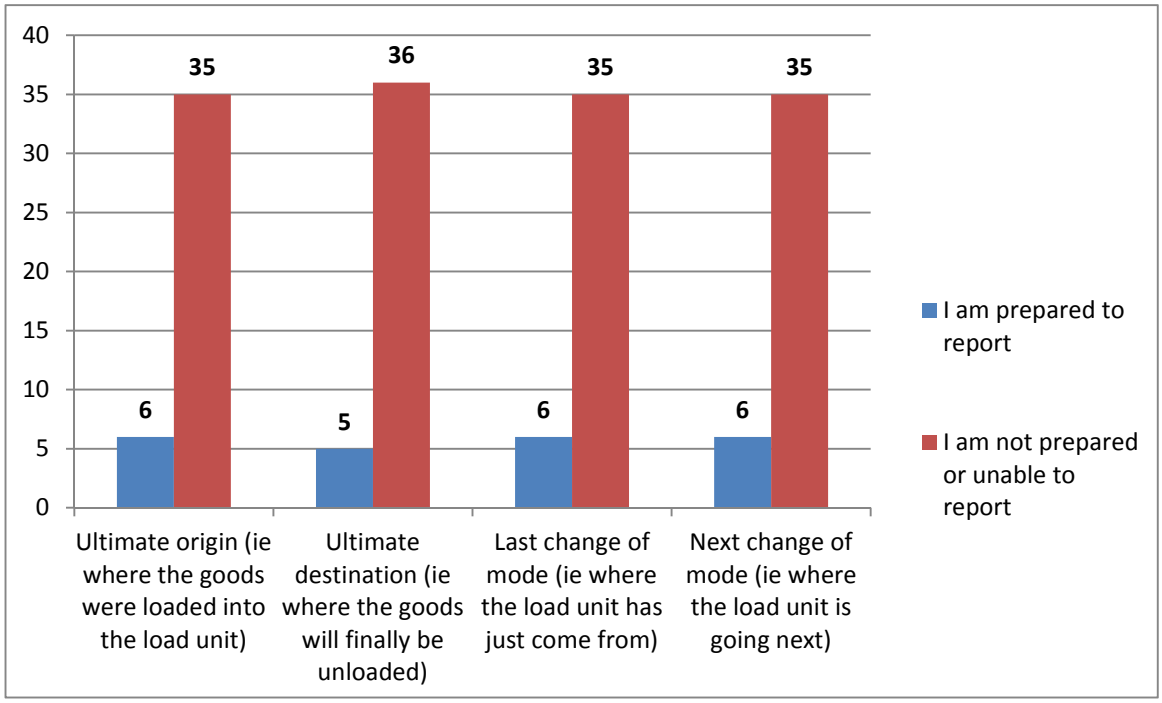
In total, only 7 respondents indicated that some kind of information on CT movements was gathered as part of the respondents' normal business operation. The overwhelming majority of respondents are unable or unwilling to collect any type of information.

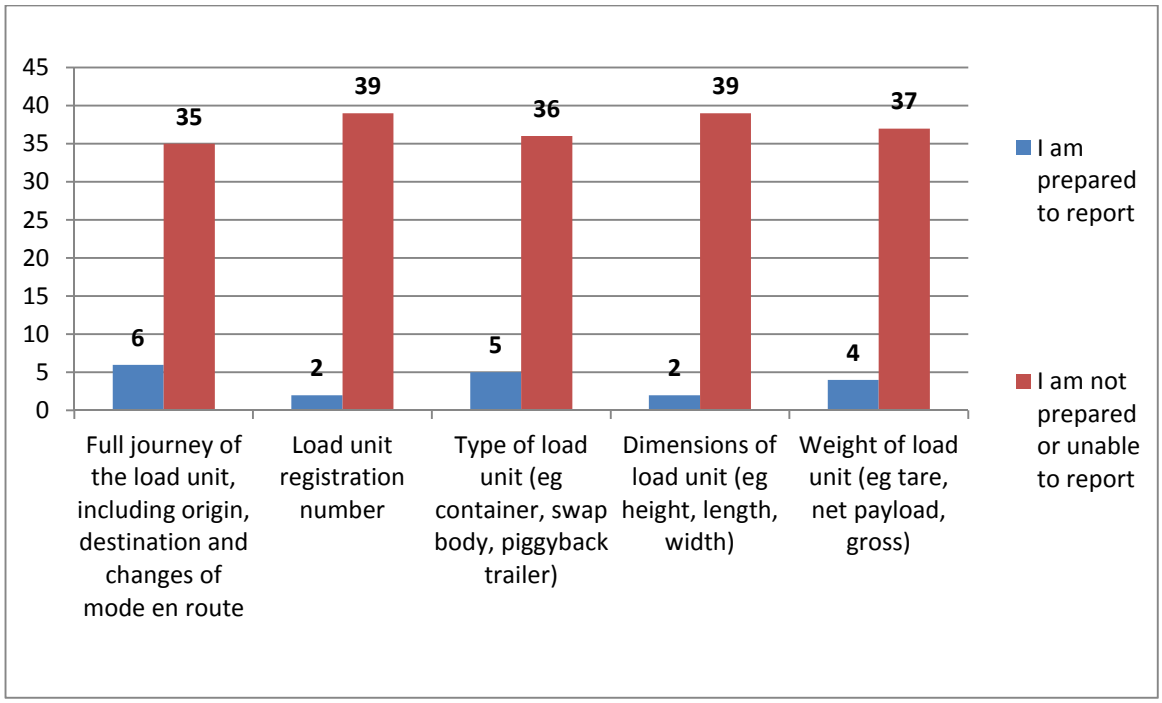




Question 4 - Which of these would you be prepared to report regularly (assuming appropriate solution has been found for safeguarding commercially sensitive data)?

Only a small number of respondents were prepared to regularly report the data on each of the indicated CT operation components. The vast majority of respondents were either not ready or were unable to report such information on a regular basis.





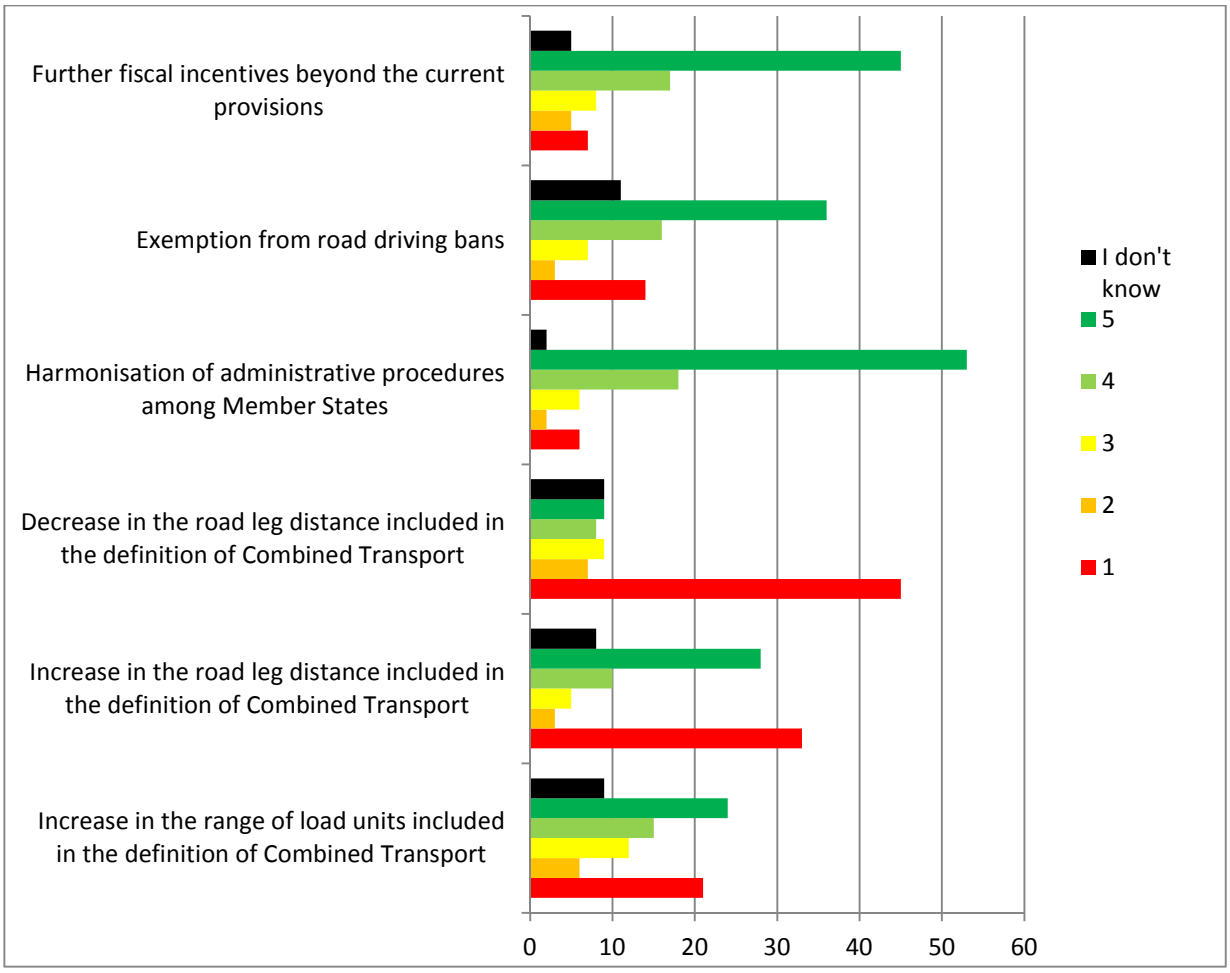
9. Boosting freight transport by alternative modes

Question 1 - Do you consider that the CT Directive should be reviewed to further boost Combined Transport?

The majority (75%) of respondents agreed with the statement, compared to 13% who did not.

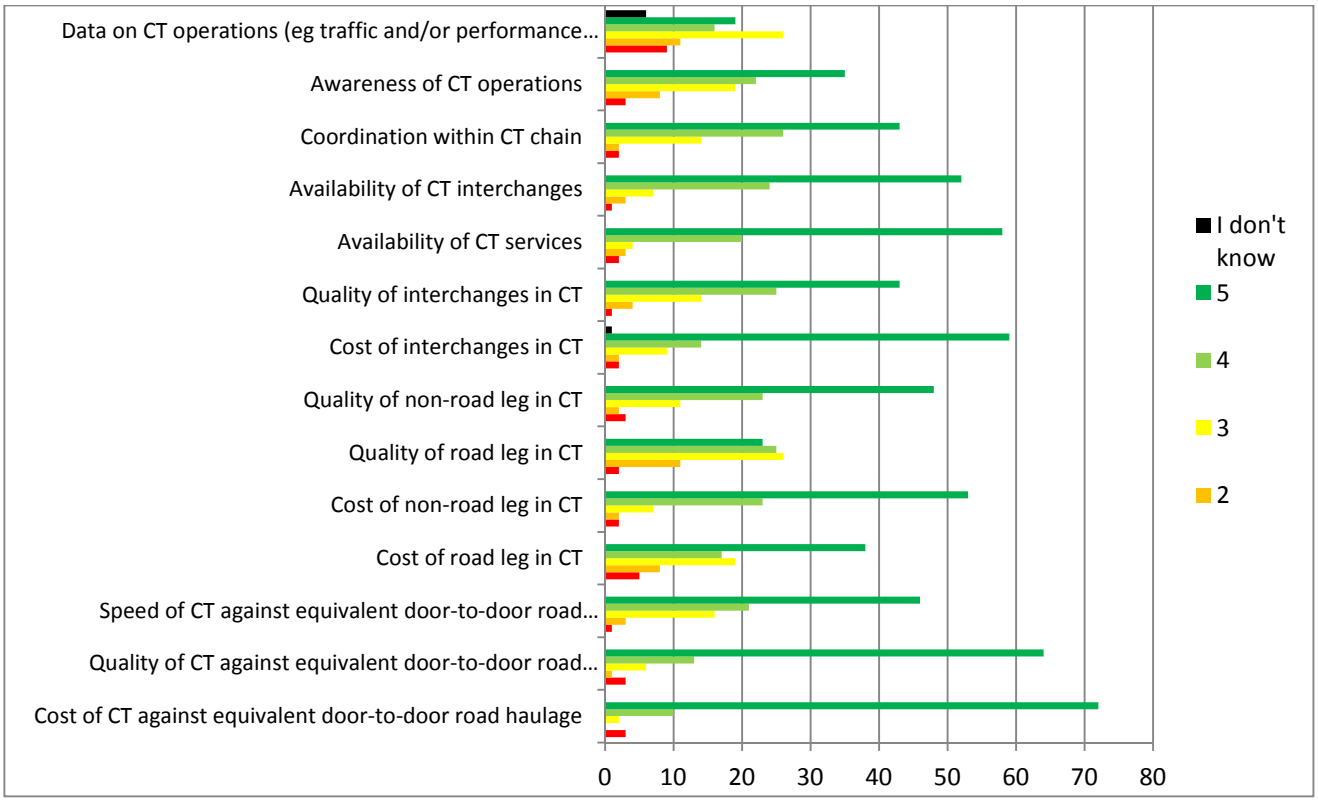
Question 2 - If the CT Directive were to be revised in future, which areas of the CT Directive would most help increase the use of Combined Transport within the EU? Please rate from 1 (Least relevant) to 5 (Most relevant)

On the basis of these responses, the most favoured options were (in order of responses) harmonisation of procedures between Member States, further fiscal incentives and exemptions from driving bans.



Question 3 - Beyond the provisions of the CT Directive, how far do you consider the following issues to be of importance to increasing the use of Combined Transport within the EU? Please rate from 1 (Least relevant) to 5 (Most relevant)

Whilst most of the issues were considered by most respondents to be relevant, not surprisingly the most relevant issues were related to the cost, quality and speed of CT (particularly the non-road leg) against road haulage, as well as the availability of CT interchanges.



Question 4 - Are there other issues which you consider important to increasing the use of Combined Transport within the EU?

Comments from respondents included the following (some original answers from the respondents are quoted in bullet points):

a) <u>General comments:</u>

- Ensuring that the total cost of the Combined Transport proposition is priced competitively against the door-to-door road haulage alternative is crucial to increase the use of Combined Transport within the EU. There are compelling economic and environmental benefits to grow rail freight volumes. Currently the externality and productivity benefits of delivering freight by rail, rather than road are worth over £1.5bn to the UK economy. However, despite these significant benefits rail freight customers are exceptionally price sensitive and with low switching costs between modes, rail freight operators must strive to minimise costs to ensure inland distribution by rail freight is competitively priced to the road alternative. As minimising the cost of the logistics chain is absolutely paramount in most organisations' mode choice a level playing field between modes is crucial to ensure that Combined Transport is an attractive proposition. Currently road haulage internalises far less of its externalities than rail freight does which gives road a cost advantage. Furthermore road pricing is far more predictable than access charges for rail networks, where charges are subject to frequent change. This uncertainty adds unnecessary risk and cost to the rail freight proposition making it less likely that companies will make the investments required to move part their logistics chain to rail;

- [CT] cannot compete with road below 250km, sometimes even more, and is a waste of resources to encourage. Rail particularly cannot meet its operational targets of cost and punctuality;
- HGVs not internalising all the costs they impose on society which makes it very difficult for rail and water to compete;
- Single transport two languages documentation in one common language and one from 22 languages. It doesn't matter if paper or non paper (electronic). With combined transport work namely a lot of people who don't know more languages;
- Returning of an empty container by combined transport (even above the 150 km road leg) , should benefit of the same exemptions;
- Qualified consulting of stakeholders, which are currently not using CT by neutral consultants not CT-operators;
- Revising the CT Directive shouldn't affect further liberalization of road transport (e.g. limiting weights and dimensions for promoting CT), as this liberalization also will contribute to lower emissions and more efficient transport. In particular where there are no suitable alternatives for road transport;
- Depending on the supply chain, speed of service may not necessarily be a significant variable (so long as the additional time was not significant). Reliability and punctuality of service is likely to be more significant when considering long-distance transport, especially within a 'just-in-time' supply chain;
- Tracking and tracing of shipped goods;
- Harmonisation of processes and best practice by using elaborated statistics and report system for standardisation of processes and technology;
- Exemption from road driving bans should not be regulated at EU level.
- Increase the marketing and information.

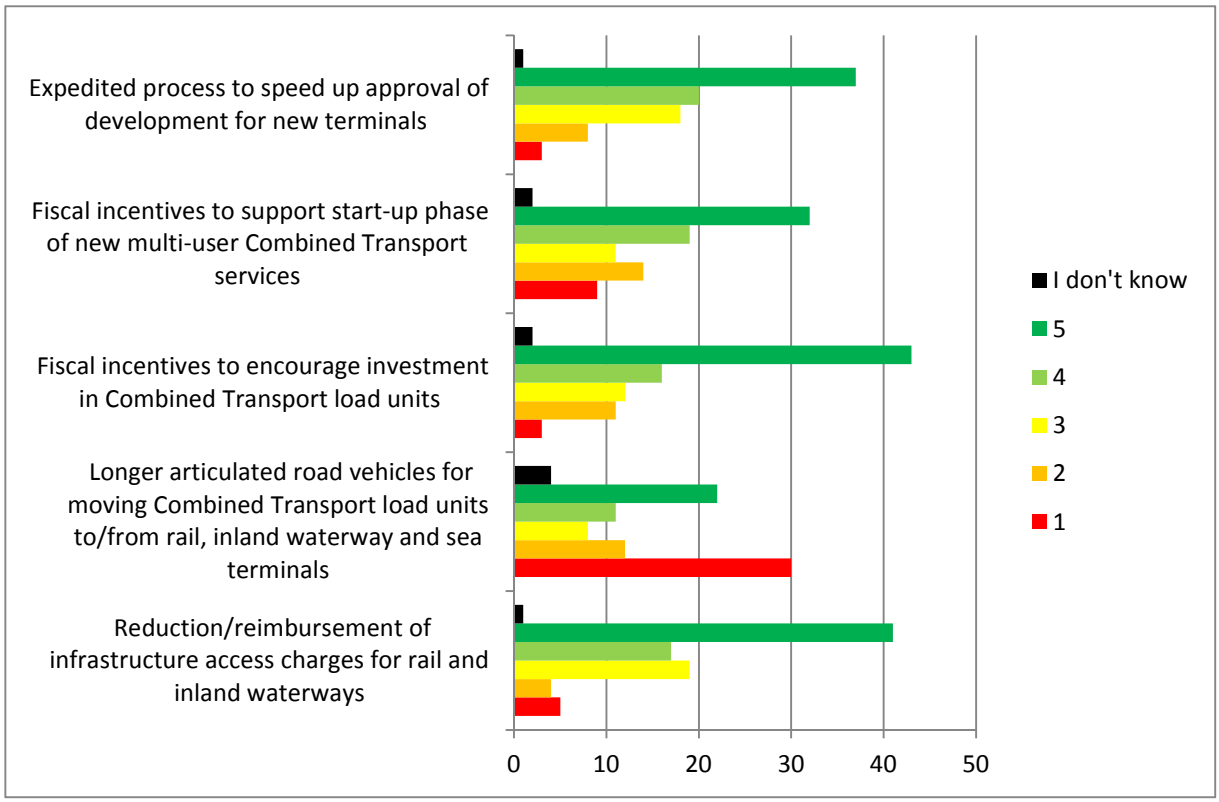
b) <u>Increase in vehicle dimensions for CT road legs:</u>
- The maximum total weight which is allowed to be carried in CT should be increased from 40 gross weight to 44 tons gross weight allowing users of CT to accommodate more payload in the respective Intermodal Transport Units thus gaining competitive advantages versus pure road based transportation;
- With regard to the EU directive mass and dimensions: allow 44 tonnes in combined transport for all types of load units (not only 40' ISO) and for 2 and 3 axle motor vehicle (not only 3 axle as is now the case in 96/53/EC) ;
- The capacity of the combined transport interchanges should be able to receive vehicle combinations longer than the current EU maximum authorised length of 18.75m. These longer and higher capacity vehicles reduce the number of trucks needed to service the non-road part of the operation, and therefore makes intermodal transport more effective (8 responses).

c) <u>Investment in infrastructure and terminals:</u>
- Investments in infrastructure is another important variable that should be taken into account when dealing with quality, which is a major point (i.e removing of bottlenecks, better overall capacity).
- Increasing the limiting train parameters e.g. length and weight. This is based on infrastructure possibilities;

- The most important thing is to build a good infrastructure for rail. This infrastructure must be cheap to use for the operators;
- Railway companies' ongoing efforts are continuously aimed at improving reliability and punctuality of freight train. That's why investments to remove bottlenecks should be further encouraged. Quality is in fact strictly linked to the historic underinvestment in rail infrastructure. This consultation should avoid putting an emphasis on possible legislative initiatives on quality standards in the rail sector. Quality standard can not be imposed via legislation, in fact, but should be based on voluntary standards set up by the sector;
- Availability of Combined Transport interchanges in public terminals with "free access" and with guarantee of nondiscriminatory acces for all users of CT. This problem is acute in the new member states of the EU;
- Although part of ""road leg"" and ""interchanges"", specific attention could be paid to the final mile to serve urban areas - i.e. quality, cost and availability of wharfage or Strategic Rail Freight Interchange facilities. As described previously the Commission could consider how to support operators / clients and public authorities in establishing more, or enhanced, inter-modal facilities.

Question 5 - What other incentives do you think would make the most difference to the increased use, or provision, of Combined Transport in the EU? Please rate from 1 (Least relevant) to 5 (Most relevant)

The various incentives attracted similar levels of positive responses, with the exception of longer road vehicles which divided opinions, with a total of 42 for “1” or “2”, 8 for “3” and 33 for “4” or “5”.



Question 6 - Are there other incentives which you consider important to increasing the use of Combined Transport within the EU?

Comments from respondents included the following (some original answers from the respondents are quoted in bullet points):

a) General comments:

- As railway services are increasingly international and relevant at European scale by nature, interoperability is absolutely essential to the development of rail freight. The technical pillar of the fourth railway package is deemed to address this issue and [we] fully supports this objective. Other types of barriers, such as regulatory ones, should be removed. This applies in particular to longer trains, the use of which should be promoted in order to make intermodal operations more competitive. Action also needs to be undertaken in order to ease international operations that suffer form such obstacles as different national practices or language barriers;
- It is further important to promote intermodal transport by dynamically pursuing EU-wide rail freight liberalisation. In fact, in most EU countries there is still no competition between railway undertakings and intermodal transport is operated by dominant railway operators who are not business oriented but rather manage their operations like state owned companies with a lack of efficiency as a result;
- Harmonization with minimum constraints - ratification of the Rotterdam Rules: Harmonisation of applicable rules to the contract of carriage in different modes of transport, including carrier's liability and claims period where otherwise national law would have applied;
- To further promote the use of combined transport operations the initial and final leg of the transport operation should be exempted from traffic bans. All other competing modes of transport are allowed to fully make use of the infrastructure, 24/7, whereas in most Member States road transport is subject to driving bans during weekends and holidays. In order to promote combined transport an exemption from these bans in the road transport legs should be created, as to fully use the potential of combined transport;
- Expressly non-discriminatory access to the intermodal terminals and mainly to the terminal service. The best with state guarantee;
- Development of ports to make sea transport more competitive;
- Road and rail charging on level playing field;
- Easier access and more information/training using CT;
- Expedited process to speed up infrastructure provisions enabling operation of longer trains on the main corridors (at least 750 m) with profile P/C 400;
- Increase the train length up to 850m or 1000m to make CT cheaper;
- Gratis consulting for the stakeholders by neutral consultants. But who will pay the consultants;

b) Increase in vehicle dimensions for CT road legs:

- It is essential to further encourage the use of European Modular Concept combinations in national and cross-border combined transport operations as this contributes to a considerable reduction of the number of veh/km of trucks used in combined transport. To realise the full potential of the Modular Concept in

creating more efficient transport, it is crucial to harmonise and standardise rules for weights and dimensions across all countries to ensure effective compatibility between all transport modes;

- EMS (European Modular System) offers good solutions for specific transport operations. They are efficient, sustainable and well-tested. [We] would encourage trials with EMS combinations in intermodal transport operations;
- [We] support the free circulation of the 45' containers as they facilitate Combined Transport. In order to further promote efficient circulation of the 45' containers with the maximum allowed gross vehicle weight of 44t transport throughout the EU, removal of any administrative burden is key: the extra 4t in comparison to 40t allows increased container loading for the entire length of the logistics chain including any rail or short sea shipping leg;
- It is necessary to revise the weight and dimension Directive (96/53/CE) because it is unacceptable that the extra-weight (up to 44 t) is limited to 3 axles vehicles and for carrying only 40' containers. It is very important that is made possible in all EU member states that 44 tonnes as maximum weight is allowed in Combined transport. In many cases 45 ft containers and piggyback trailers exceed 40 tonnes and are now e.g. in Poland not allowed on the road leg to/from inland terminal!

  One regulated rule will be the most efficient;
- To make combined transport more attractive the Gross Vehicle Weight (GVW) in the road transport leg should be lifted from 44 to 46 ton and combined transport should be applied to all types of containers (20"-30"-40"-45" foot) and also other cargo carriers (lorry, trailer, semi-trailer, swap bodies) provided that the technical requirements of the vehicle combination allow a 46 ton GVW;
- 46 ton GVW should also be possible with 2 axle tractors and 3 axle semitrailers, provided that the technical requirements of the heavy goods vehicle allow a 46 ton GVW;
- 46 ton GVW, when using combined transport, should be allowed in the initial and final leg of road transport also when vehicles execute cross border transports;
- The ongoing revision of directive 96/53 on weights and dimensions of certain road vehicles foresees the possibility of exceeding the maximum allowed dimensions through the addition of aerodynamic devices at the rear of those vehicles and a modification of trailer cabins' design. Any modification of these vehicles should not hinder their full compatibility with all the stages of intermodal transport operations. In particular, their compatibility with the rolling stock used on rolling highways needs to be guaranteed;
- [We] would oppose the use of longer articulated vehicles (also referred to as Longer, Heavier Vehicles - LHVs) even if through Combined Transport operations. Currently road operations have proven capable of integrating well with rail and waterborne freight. Lorries can carry containers and other bulky loads broken down for onward transport by road. Permitting use of LHVs could partially undermine the relative benefits of using rail and water; although restriction to CT operations would avoid this, it could represent a potential consequence which we would look to avoid;
- Allowing longer heavier trucks will further undermine rail freight and result in more road congestion, pollution and accidents. Rail has to compete on price and if

heavier longer lorries are allowed it increases their breakeven distances and erodes rail's distance advantage;

- While it is advisable that the financial incentive continues to be targeted at the road leg of the journey the incentive must not allow longer, heavier vehicles to operate. Doing so would have significant consequential impacts in terms of intrusion, noise and road damage and would have serious safety implications. Furthermore any increase in the length and weight of vehicles solely for Combined Transport operations risks leading to the future use of such vehicles for other commercial operations, as the road haulage industry will argue that lorries that can just be used on Combined Transport is not efficient either in terms of design or utilisation. There is case history in the UK. In 1994 44 tonne, 6-axle lorries were allowed on UK roads if they were part of a Combined Transport journey, by 2001 these vehicles were permitted on UK roads without the restriction that they be part of a Combined Transport journey. Increasing the weight or length of vehicles would adversely affect the competitiveness of the rail freight sector and would therefore hinder the growth of Combined Transport in the EU.

c) Investment in infrastructure and terminals:

- Overcoming the chronic underinvestment in rail infrastructure, coupled with solid, sufficient and predictable funding, would certainly support the ongoing initiatives of the railway sector to strengthening the intermodal transport solution with a strong rail component; This means that at European level, co-funding should be provided with national and regional authorities for the building and maintenance of rail infrastructures (via structural funds and CEF - Connecting Europe Facility). At the same time, a mechanism should be set up to attract private investment in heavy-loaded traffic infrastructures (e.g. freight links to ports);
- The European Commission declared its intention to develop a new funding scheme for freight transport services in the 2014-2020 financing period - de facto a successor to the Marco Polo programme. [We] would like to stress the importance of giving priority to the focus of modal shift. Should road transport be funded, this should always be done for the purpose of improving combined transport, where road is used for a minimal part of the journey. Transhipment is often a practical and financial barrier to combined transport: co-funding the development and uptake of transhipment technologies to transfer goods to rail, as well as co-funding proper connections between rail-road/inland waterway terminals and rail corridors would therefore be very useful;
- [We] would like to underline the need for incentives other than fiscal ones. The latter may be financial, and [we] welcomes the inclusion of innovative, efficient and sustainable freight services as part of the trans-european transport network (TEN-T) policy. In that respect, [we] favour a successor to the Marco Polo programme that would provide support to projects such as works at rail freight terminals and innovative projects;
- Some Member States support investments in infrastructure for combined transport (e.g. in DE: Foerderrichtlinie fuer den kombinierten Verkehr). This kind of scheme seems to be very sustainable in its effects and lowers the additional transhipment costs of CT, thus making it more competitive compared to pure road

transport. Other Member States (e.g. AT) also provide operational aid for combined transport to value external cost savings. Drawing on these experiences and in the absence of a harmonised EU-level approach, the EC should use the Connecting Europe Facility to offer additional financial incentives for CT, on the one hand through supporting investments in multi-modal terminals and their equipment (which would be relevant mainly for those countries that do not have such schemes themselves), on the other hand through support to sustainable freight services in accordance with Art.32 of the TEN-T Guidelines;

- Minimising the cost of the logistics chain is crucial for most organisations and therefore the Combined Transport proposition must be competitively priced against the door-to-door road equivalent. Financial incentives are required to boost the use of Combined Transport and ensure that Combined Transport can effectively compete against the road alternative. We believe that these financial incentives should focus on the road leg of the journey. Given the short distances involved the road segment is often disproportionately expensive and therefore minimising the cost of this part of the journey is crucial to ensure Combined Transport is an attractive proposition. For the incentive to be effective it has to provide sufficient value. In the UK the current reduction in Vehicle Excise Duty is minimal and commercially does not provide sufficient incentive to exclusively allocate vehicles to Combined Transport operations for 12-months. Aligning the incentive to a reduction or exemption in fuel duty would provide a more effective means of boosting the use of Combined Transport and would ensure that the discount is directly linked to the amount of Combined Transport work undertaken. We note that the rail infrastructure costs are already dealt with by Directive 2012/34-EU and therefore it would be confusing to include reference to infrastructure charges in the scope of any revision to the Combined Transport Directive. Therefore the incentives to boost the use of Combined Transport should remain directed at the road leg of the journey.
- At European level, the continuation of the Marco Polo programme in the framework of CEF (Connecting Europe Facility) therefore seems essential for developing and offering ct-services which are economically viable and which can successfully compete with road transport. Measures are, of course, also needed at national level. Some of these measures (ct-cabotage and fiscal incentives) are regulated by directive 92/106/EC;
- Priority should be given to modal shift. Hence, a follow-up to the Marco Polo facility is necessary. This should be helping hand in order to overcome the chronic underinvestment;
- Other support measures are offered by individual member states. Austria has introduced a number of measures for supporting combined transport as an environment-friendly alternative to road transport. Financial support is offered in the framework of different programmes, ranging from an “Innovation Programme” supporting innovation and investment in combined freight transport and a “Programme for the support of transhipment facilities for intermodal transport (road/rail/ship)” to a “Financial support for CT-operations”;
- The comparison of costs and CO^2 emissions of a door-to-door operation should be made for the intermodal option versus the pure road option. If the intermodal

solution has a better carbon footprint, there should be subvention to compensate the competitive gap of the intermodal solution against the road solution;

- Some member states support investments in CT infrastructure, others provide operational aid to cover the external cost savings. In order to create a more harmonised approach on EU level, the EC could use the CEF to offer additional financial incentives for CT. Via the CEF, multimodal terminals and equipment can be supported, as well as sustainable freight services;
- From our point of view it is not necessary for all member states to offer exactly the same support measures to the same extent. Regional and administrative differences as well as financial possibilities may well require different solutions adapted to national needs. The important thing is to offer effective support;
- Fiscal support: craneable semi-trailers at the price of non-craneable ones;
- Fiscal support: transformation of shippers' logistics facilities to become capable/optimised to handle intermodal loading units;
- Terminal development: both new and existing terminals should benefit from fiscal and financial support;
- The market has selected CT to the extent it has. Further support/subsidy would be money wasted without a proper and transparent business case. In our view it will require considerable resources to incentivise industry to change, and this is before we know where the money is coming from.

Question 7 - Do you have any other comments incentives to boost Combined Transport?

Comments from respondents included the following (some original answers from the respondents are quoted in bullet points):

a) <u>General comments:</u>

- Successful intermodal operations require long-term contracts with logistics suppliers to allow them the confidence to develop and invest in specific routes. Sufficient back-loads (to ensure intermodal traffic balance) and the provision of a regular service at a railway terminal are central elements to achieve this;
- If the EU is to reach the target for modal shift to rail and water in its EU Transport White Paper, it needs to support rail and water. Upgrade rail infrastructure and terminals and reduce access charges taking into account the full external benefits of rail and water;
- The definition of CT in the Weights and Dimensions Directive 96/53 should be taken over from the definition of CT in 92/106;
- Better EU promotion of CT by the member states governments;
- Translation of the existing book "Kombinierter Verkehr Europa" into english (and maybe other languages) to spread Information about the Advantages and opportunities of CT throughout Europe;
- The creation of a level playing field between transport modes is key to boost combined transport. The application of the 'polluter pays' principle to fully internalize external costs of transport, such as CO2 emissions, air pollution or congestion is far from being a reality. Against this background, a swift revision of the Directive 2011/76/EU on road infrastructure charging should be launched, also

in order to align road and rail infrastructure charges for freight and to ensure that funds collected through the road tolls are spent, at least partially, towards the development of environmentally friendly transport solutions, such intermodal transport services with a strong railway component;

- Better understanding of the external costs (health, accidents) and internisation of the real cost of road transport. Better understanding of the dynamics of multimodal transport: as multimodal transport requires longterm asset commitments, shippers should evolve their sourcing processes from short term tenders focused on costs towards mid/long term supply chain optimization projects that also include the external transport costs;
- Though "an exemption from road driving bans" effectively might boost combined transport, it remains doubtful if this could be accepted from a societal point of view, whereas such measure also may require a solid and easy-to-enforce (legal) framework;
- The removal of technical and administrational bottlenecks is of utmost importance. Adopting the technical pillar of the 4th railway package would be a first step to improve interoperability. Interoperability should furthermore be considered when dealing with other modes of transport, notably trucks;
- The internalization of external costs has not yet taken place, thus a revision of Directive 2011/76/EU on road infrastructure charging should be considered;
- One key aspect is the removal of technical and administrative bottlenecks. At European level, this means achieving a single European Area through the harmonization of technical requirements across Europe, including for the homologation of rolling stock. A swift adoption of the technical pillar of the fourth railway package provides a great opportunity to obtain harmonised and faster procedures to improve vehicles' availability for all operators and to increase the number of efficient operations. This will provide customers and society with even more efficient intermodal products while improving the competitiveness of the railways;
- A few examples of negative experiences that underline the need for harmonized rules: 1.Antwerp-Duisburg (maximum authorized weight 44 ton). A freight forwarder wasn't willing to exempt road transport to Duisburg as in his opinion the rail terminal in Duisburg was not the nearest and suitable terminal. 2.The transport of unaccompanied trailers and loading units arriving in the UK and to be transported by road transport isn't accepted in the UK as combined transport. Combined transport only is acknowledged if there is an unimodal alternative (road transport). However, because of the UK being an island no road transport is possible without the use of a ferry or rail;
- Harmonization of CT infrastructure and legislation in Europe, but this should also go beyond the current EU borders (TR, RU, UA, BY);
- Help to put in place structures that improve box availability (or means of transport) in certain areas providing a "shared resource" whatever the colour of the supplier in a fair and competitive way;
- It is also important to further open access to the rail freight markets. In many countries, rail and combined transport services are still carried out by state-owned operators with little respect for customer service;
- Market liberalization of national railway companies (DB, SNCF);

- [We] are supportive of planning policy which designates land for use for intermodal operations. Designations should be in appropriate locations with good access to water, rail and road networks, plus the catchment areas of the final mile of transportation. However, any efforts to speed-up the approval of development of new terminals should be respectful of the principle of subsidiarity and the needs of local residents, in addition to other interest groups and businesses;
- It is important to find more efficient ways to operate, e.g. by optimizing the payload of trucks and reducing the number of trucks and trips required to satisfy transport demand and addressing recurring skilled drivers shortages;
- The European Commission should aim to extend the provisions of the recast Directive 92/106 within the bilateral agreements which tie it to its neighbours of the Union;
- Compatibility with existing loading equipment (cranes) at terminals and with the existing wagon fleet is essential; more standardisation would be welcome. Maximum height and exterior width of loading units should also be defined in the Directive. Automobiles could be considered an intermodal loading unit;

b) <u>Increase in vehicle dimensions for CT road legs:</u>

- It is important to limit at the European level changes in masses and dimensions of road vehicles and trailers which would hinder combined transport and the use of rolling motorways. In this regards, the European Commission and the co-legislators should clarify that any derogation to lorry length aiming at improving the aerodynamic performance of the vehicles, as proposed in the revision of Directive 96/53, should be compatible with both accompanied combined transport and unaccompanied combined transport. If compatibility is not ensured, the alleged efficiency gains for road vehicles would be offset by the forced modal back shift from rail to road due to incompatible road vehicles with combined transport wagons.
- It is essential to further encourage trials with the use of European Modular Concept combinations in national and cross-border combined transport operations as this contributes to a considerable reduction of the number of veh/km of trucks used in combined transport;
- [We] believe that in order to allow more efficient ways to operate, optimize the payload of trucks and to reduce the number of trucks and trips required to satisfy transport demand and addressing recurring skilled drivers shortages, the more EMS vehicles should operate more widely in and throughout Europe. Therefore [we] would encourage trials with EMS (European Modular System) combinations in combined transport operations;
- It is essential to further encourage trials with the use of European modular concepts combinations in National and Cross-border CT operations as this contributes to a considerable reduction of the number of vehicles per kilometre of trucks used in CT;
- [We] welcome the decision in Brussels to permit free circulation of the 45' container which is increasingly used in intercontinental and European intermodal transport. The right regulatory framework is needed in order to promote intermodal transport operations as it is an efficient solution to reduce CO2

emissions and fuel consumptions. A precondition is therefore the removal of any administrative burden by allowing the 45' container with the maximum allowed gross vehicle weight of 44t transport throughout the EU – this is essential for efficiency and compensatory reasons. Efficiency: The extra 4t in comparison to 40t allows increased container loading and if this were to be prohibited, the loss of efficiency would not just occur during any road leg, but also along the entire length of the logistics chain including any rail or short sea shipping leg; Compensatory: The 4 extra tonnes was initially permitted to compensate for the fact that a rigid steel box container is significantly heavier than a soft-sided curtain trailer of equivalent capacity. Without it, intermodal transport would have been at a disadvantage;

- We believe that in order to allow more efficient ways to operate, optimize the payload of trucks and to reduce the number of trucks and trips required to satisfy transport demand and addressing recurring skilled drivers shortages, the more EMS vehicles should operate more widely in and throughout Europe. Therefore we would encourage trials with EMS (European Modular System) combinations in combined transport operations;
- It is essential to further encourage trials with the use of European Modular Concept combinations in national and cross-border combined transport operations as this contributes to a considerable reduction of the number of veh/km of trucks used in combined transport;
- Higher payloads for CT versus road transport, also for 45ft containers, cross-border traffic, and 2 axle trucks;
- Although payload is more important, restrict the use of longer and heavier trucks also for CT;

c) Investment and incentives:

- Basically the choice to use a certain mode of transport is market driven. One could question why incentives should be given at all. If the product is good, consumers will buy it. If not, it will stay in the shelves. You don't give an incentive to a product which is apparently not accpeted by the market. This parallel should be drawn to CT operations. These operations should from itself be interesting enough for the market to use. Incentives as a start up premium are ok, but the concept itself should be able to live without incentives;
- The important incentives should be completed by appropriate policy measures at European and national/local level;
- Incentives must be granted and paid more quickly;
- Fiscal incentives should be concentrated on the non road part of the transport. Based on the principle of level playing field mentioned earlier, an analysis aimed at reviewing the charging system currently in use in different transport modes is necessary, being the basis for a possible introduction of an internalisation of external costs policy at EU level;
- Some menber states support investments in CT infrastructure, others provide operational aid to cover the external cost savings. In order to create a more harmonised approach on EU level, the EU could use the CEF to offer additional incentives for CT;

- Via CEF multimodal terminals and equipment can be supported as welll as sustainable freight services;
- The current financial incentives designed to promote Combined Transport are insufficient and do not have a material effect on modal share. The reduction in Vehicle Excise Duty for vehicles registered and used exclusively for Combined Transport operations in the UK equates to £600 per year. As a freight operator specialising in the transport of freight by rail it makes sense that a proportion of the road fleet is registered for Combined Transport. However, despite nearly 95% of [our] UK road haulage journeys qualifying as 'combined transport' trips only 58% of [our] UK vehicles are registered for Combined Transport. The decision not to register nearly half the fleet for Combined Transport is a commercial one, driven by the view that the financial incentives are not sufficient to exclusively allocate the vehicles solely to Combined Transport operations. For other organisations, without such a strong presence in the rail sector, the current financial incentives to boost Combined Transport are likely to be even less appealing. If the aim of the Commission is to increase the use of Combined Transport, and create incentives to achieve this, then the value of the current incentive package must be addressed. The cost of transfer between modes and final delivery or pick up by lorry has a major impact on the overall competitive position of rail versus road. It is often the cost of transfer and road delivery that renders the movement of freight by rail noncompetitive rather than the cost of the rail transfer itself. In a typical 300 km combined road and rail movement the road costs are the same as the rail costs despite covering a much shorter distance. A more effective way of incentivising the use of Combined Transport would be to discount fuel duty. By exempting vehicles used exclusively in Combined Transport from fuel duty there would be a significant financial incentive for organisations to make better modal choices – using waterborne and rail modes for long-hauls and limiting road haulage to the initial and final legs of the journey. Being aligned to fuel duty payments the incentive would be directly linked to the volume of Combined Transport work undertaken and not merely a fixed annual figure. This discount would provide a real and material incentive to grow intermodal volumes and offer a far more effective boost for modal shift to rail through the use of Combined Transport.

10. Other comments

Question 1 - Any other relevant matter not covered by the above questions you would like to bring to our attention?

Comments from respondents included the following (some original answers from the respondents are quoted in bullet points):

Respondent 1:

- It would be very wholesome to make from Directory the Regulation direct valid in member states;

Respondent 2:

- Urgent CT modifications are necessary to support Combined Transport. Financial supports must be display to companies involved in new projects;

Respondent 3:

- To promote combined transport, besides, for instance, a revision of the maximum acceptable weight, a boosting of state aids, financial incentives, etc., it would be necessary to eliminate the circulation bans in the holidays for the vehicles used in CT;

Respondent 4:

- Requests of new CT Regulation:
    - Extend the scope of CT Directive to Domestic field in order to get uniformity in every country of EU;
    - Exoneration of taxes on road vehicles devoted to combined transport, first and final leg. This measure could help increase this kind of traffic but it is not a decisive drive;
    - The objectives for the rail freight included in the 2011 White Paper to shift freight transport form road to rail to achieve 30% of road freight transport over 300 km by 2030 and 50% by 3050 will be impossible to fulfill unless the cost of rail transport will be lower. Therefore, in our point of view, the only way to achieve those objectives is to exonerate the combined transport from track access charges in order to apply the same rules to road, rail, inland waterway and mitigate the cost of transhipment from track to wagon/boat. The main hindrance of CT is the cost of transhipment. Therefore, it is necessary to increase investment and innovation in order to reduce the transhipment burden;
    - Trying to internalize external road cost through the directive 2011/76/EU on road infrastructure charging it will not be the best way to improve CT traffic and will cause a great discontent between road transporters like peripheral UE countries who use mainly track as freight transport;
    - Regarding the Directive 96/53 “lorry’s weights and dimensions” it is not advisable increase the hauling weight and tracks dimensions because safety reasons, traffic jams in secondary roads and road infrastructure damages;

Respondent 5:

- There a desperate need for an overview how member states deal with this directive. UK i.e considers transports to and from a harbour basically as a cabotage operation. Other MS not. Many MS allow 44 t with 2 axled tractors and other types of containers or other loading units than only the ISO 40" containers;

Respondent 6:

- Directive 92/106 must also be analysed in conjunction with Directive 96/53 on lorry's weights and dimensions, as well as with Directive 2011/76/EU on road infrastructure charging. In fact, combined transport is put under threat with the emergence of vehicles with sizes and dimensions that are not compatible with their transhipment onto rail wagons, as proposed in the revision of Directive 96/53. The risk is not only to waste the huge potential that a shift to rail could bring to Europe, in terms of energy efficiency and energy savings, but to fail to create a truly efficient transport system;
- The proposed revision of Directive 96/53 could be detrimental to accompanied combined transport as the European Commission did not impose compatibility of new lorry cab's design with wagons used in rolling motorways. In the same proposal a new definition of intermodal transport would grant unlimited haulage for road vehicles as part of an intermodal transport journey with a short sea shipping component, even where road-rail and/or road-inland waterway combined transport operations are available;
- Furthermore, road infrastructure pricing remains voluntary, as opposed to railways, as a result of existing legislation, namely Directive 2011/76/EU. As mentioned above, a great deal can already be done by amending Directive 2011/76/EU for the creation of adequate linkages with railway legislation so as to put transport infrastructure pricing on a path of cross-modal convergence;
- Transport modes do not exist in isolation from each other. This is why regulating the conditions governing the interactions between transport modes is key. These interactions are a mix of competition and cooperation, as transport customers make modal choices in favour of specific modes as well as in favour of specific combinations of modes. Ensuring a level playing field between competing transport modes as well as facilitating win-win inter-modal cooperation are essential priorities;
- Due to road congestion and the development of maritime containerised transport, intermodal transport has developed dramatically in the past decades, becoming the fastest growing freight transport segment in Europe. Volumes transported by rail-road combined transport have consistently increased since 2005, with the exception of 2009, market by the economic crisis. Total combined rail-road traffic in Europe is expected to increase further in the coming years;
- In this context, combined transport services, where the major part of the journey is by sustainable transport modes, i.e. rail or inland waterway, are a valuable solution to pressing challenges such as ports and road congestion, or the need to reduce freight's environmental footprint. In fact, taking a container or truck off the road and putting it on a long distance freight train, using trucks only for short pre- and post-carriage links, cuts specific energy consumption by almost half (UIC & CER, Railway and the environment: Building on the railway's environmental

strengths, 2009). The revision of Directive 92/106 should take these considerations fully into account;

Respondent 7:

- 92/106 was devised before the single market and a number of its protagonists ignored it in the expectation that Regulation 1072/2009/EC would enable advantage to be taken of both regimes in combinaiton. When this proved not to be the case, we now find that CT is being promoted once again separate from cabotage and market access regulations, even though cabotage may be proposed within any new CT rules. In our view the CT Directive complicates a simple process whereby any liberalisation is achieved within the context of market access rules and no other. The CT Directive has outlived its usefulness. On viability and enforcement grounds it should be abolished;

Respondent 8:

- There are a number of reasons why road freight transport operators cannot benefit from CT Directive:
    - The Member States have different rules relating to the maximum authorised weight and also have varying rules relating to the road transport equipment which can be used;
    - Some Member States provide incentives such as reduction or reimbursement of taxes for road vehicles, but in practice they are not used by transport operators because the administrative burden attached is too heavy;
- In addition, some Member States do not accept the participation of road freight transport in combined transport operations as covered by Directive 92/106/EC, because these Member States do not recognise the different status for domestic first and/or last road legs of a combined transport journey and simply consider them cabotage as defined by Regulation (EC) No. 1072/2009;
- In relation to the achievements in terms of modal shift, a number of observations should be made:
    - Until now, EU measures aimed at forcing modal shift have been unsuccessful, because the measures are not aimed at encouraging the efficiency increase of the non-road modes, but instead are aimed at limiting the flexibility of road freight transport operators. Improving the flexibility of road freight transport involved in the first and/or last leg could make combined transport more attractive;
    - Diverging applications in Member States also make it difficult to undertake cross-border operations. Member States apply the rules differently, such as the maximum authorised weight of 44 tonnes;
    - Aligned EU rules with limited flexibility for Member States could provide more clarity and encourage operators to use combined transport;
    - Some Member States simply consider the first and/or last road leg of a combined transport journey as cabotage. The European Commission should monitor the application of Directive 92/106/EC by the Member States and intervene where this is not correctly done;

- In combined transport, the road freight transport operators are the clients of the combined transport operators, but are not always considered in this respect. Improvements could be made in transhipment techniques and access to terminals;

Respondent 9:

- Finally, we must equip the CT of an international regulatory agreement mandatory, this mode of transport is the only one to be managed in a legal vacuum;

Respondent 10:

- Directive 92/106 must also be analysed in conjunction with Directive 96/53 on lorry's weights and dimensions, as well as with Directive 2011/76/EU on road infrastructure charging;
- In fact, combined transport is put under threat with the emergence of vehicles with sizes and dimensions that are not compatible with their transshipment onto rail wagons, as proposed in the revision of Directive 96/53. The risk is not only to waste the huge potential that a shift to rail could bring to Europe, in terms of energy efficiency and energy savings, but to fail to create a truly efficient transport system;
- In fact, the proposed revision of Directive 96/53 could be detrimental to accompanied combined transport as the European Commission did not impose compatibility of new lorry cab's design with wagons used in rolling motorways. In the same proposal a new definition of intermodal transport would grant unlimited haulage for road vehicles as part of an intermodal transport journey with a short sea shipping component, even where road-rail and/or road-inland waterway combined transport operations are available;
- Furthermore, road infrastructure pricing remains voluntary, as opposed to railways, as a result of existing legislation, namely Directive 2011/76/EU. As mentioned above, a great deal can already be done by amending Directive 2011/76/EU for the creation of adequate linkages with railway legislation so as to put transport infrastructure pricing on a path of cross-modal convergence;
- Transport modes do not exist in isolation from each other. This is why regulating the conditions governing the interactions between transport modes is key. These interactions are a mix of competition and cooperation, as transport customers make modal choices in favour of specific modes as well as in favour of specific combinations of modes. Ensuring a level playing field between competing transport modes as well as facilitating win-win inter-modal cooperation are essential priorities;
- Due to road congestion and the development of maritime containerised transport, intermodal transport has developed dramatically in the past decades, becoming the fastest growing freight transport segment in Europe. Volumes transported by rail-road combined transport have consistently increased since 2005, with the exception of 2009, market by the economic crisis. Total combined rail-road traffic in Europe is expected to increase further in the coming years. In this context, combined transport services, where the major part of the journey is done by sustainable transport modes, i.e. rail or inland waterway, are a valuable solution

to pressing challenges such as ports and road congestion, or the need to reduce freight's environmental footprint;
- The revision of Directive 92/106 should take these considerations fully into account;

Respondent 11:

- CT Directive should be harmonised with Directive 99/53 on the use of 44 tons vehicles;
- Delays should be fined as in passenger transport." "Allowing longer heavier lorries (mega trucks) would increase road freight and undermine rail resulting in more congestion, more collisions and more pollution and road damage;
- Rail is much safer than road freight;
- Rail freight in the UK produces 78% less carbon dioxide than the equivalent road journey;

Respondent 12:

- If the ct-directive were to be revised in future, it would be essential to cover only rail, inland waterways, short sea shipping only if an alternative road transport exists, as well as the relevant road leg for initial- and final road hauls;
- Ocean and air transport should definitely not be included;
- Specific provisions for tri-modal combinations seem not to be necessary, because any stipulation valid for a bi-modal transport operation can be applied to tri-modal operations also;

Respondent 13:

- We do like to stress that a 45ft container is longer than 13.6 metres;
- With regard to the ""most suitable"" terminal in the definition of CT transport we want to state that this is related to many parameters. In order to keep the CT directive unambiguous and workable, we do not recommend to include all these parameters in the CT directive, so CT providers can remain flexible to chose the terminal that matches the customer's interest best;
- For example the below parameters can influence the ""most suitable"" terminal:
    - reliability of the terminal / congestion at the terminal;
    - opening hours;
    - contractual conditions (e.g. volume discounts).

Respondent 14:

- A liberalised and 'unbundled' rail freight market could promote the development of combined transport services:
    - by the emergence of new operators offering new services;
    - by reduction of costs for existing services if cross-border freight can be arranged with fewer partners;
    - by stronger customer orientation which comes along with competition and will lead to an improvement of the existing services;
    - by reducing costs of infrastructure use (rail network and transhipment terminals) through better use of capacities;

Respondent 15:

- [We] aim to improve its CO2 efficiency by 30% by the year 2020, compared to the 2007 baseline. In order to meet this target, intermodal and multimodal transport solutions are more environmentally sustainable than some single mode transport methods. The advantage of intermodal transport allows a more effective use of transport capacity, providing a well-balanced choice between speed and energy-efficient transportation;
- [We] are of the opinion that a new policy approach is needed in order to make intermodal transport a success: the right infrastructure and incentive scheme, fair and regular access to terminals, cost transparency and the necessary flexibility to establish intermodal routes in the first place;
- From the user's perspective, the current CT Directive is too complicated and lacking in transparency; it varies between Member States and does not facilitate the use of combined transport. The limited range of operations around terminals and the different rules on maximum authorised weight in different Member States lead to difficulties to benefit from the CT Directive;

Respondent 16:

- We just want to point out that there are other things that should be addressed as well, such as:
    - Priority person traffic /goods on rail to increase liability of combined transport;
    - Investments also needs to be done for increased capacity for goods on rail on same conditions as on road side; when road traffic increases, better roads are built, but an increased demand for combined traffic or short time storage for CT is often not considered in the same sense which decreases availability, quality and liability in combined traffic;
    - It is important to control road traffic with regards to existing cabotage regulations etc in order to create equal conditions for CT and road transportation;

Respondent 17:

- Whilst we would welcome measures to increase the use of CT operations, any proposed changes must be accompanied (or ideally preceded) by other measures which increase the safety of road haulage. The current rate of serious collisions involving heavy goods vehicles in London is not acceptable. For example, HGVs account for 3-4% of vehicle-km driven in London, but are involved in over 50% of collisions which result in fatalities to cyclists; they are also over-represented in fatal collisions with pedestrians too. Improvements in cab design and driver training, amongst other measures, are urgently required;

Respondent 18:

- [We] are strictly against the increase of weights and dimensions for road vehicles; there should be first harmonisation of social conditions and wages for drivers befor further liberalisation of transport market and cabotage operations; at the moment the CT directive is sufficient to stimulate a shift to CT and to reach the aims of the EC white paper on a "Roadmap to a Single European Transport Area –

Towards a competitive and resource efficient transport system" (COM(2011) 144 final); there is no need to revise CT directive;

Respondent 19:

- The European Commission should aim to extend the provisions of the recast Directive 92/106 within the bilateral agreements which tie it to its neighbours of the Union: Switzerland, Norway, Turkey, Ukraine, Belarus, Russia, Kazakhstan;
- Compatibility with existing loading equipment (cranes) at terminals and with the existing wagon fleet is essential; more standardisation would be welcome. Maximum height and exterior width of loading units should also be defined in the Directive. Automobiles could be considered an intermodal loading unit;

Respondent 20:

- [We] are strictly against the increase of weights and dimensions for road vehicles; there should be first the harmonisation of the social conditions and wages for drivers before further liberalisation of the transport market and cabotage operations; at the moment the CT directive is sufficient to stimulate a shift to CT and to reach the aimes of the EC White Paper on a "Roadmap to a Single European Transport Area - Towards a competitive and resource efficient transport system" (COM(2011)144 final); there is no need to revise the CT directive;

Respondent 21:

- It is important to have rules (on e.g. cabotage) harmonized and simplified;

Respondent 22:

- Extend the Combined transport Directive to neighbouring countries where possible;

Respondent 23:

- General
    - [We] consider that the CT Directive would benefit from a review as in its current form, the Directive does not achieve its objectives to liberalize Combined Transport services in the EU and to stimulate their use, while reducing road congestion and negative environmental impacts. The current Directive is complex as well as creates administrative burden and costs due to different implementation in the EU Member States. For example, Article 3 requests that in the case of combined transport, a transport document shall specify the rail loading and unloading stations relating to the rail leg, or the inland waterway loading and unloading ports relating to the inland waterway leg, or the maritime loading and unloading ports relating to the maritime section of the journey. These details shall be recorded before the transport operation is carried out and shall be confirmed by means of a stamp affixed by the rail or port authorities in the railway stations or inland waterway or sea ports concerned when that part of the journey carried out by rail or inland waterway or by sea has been completed. The mere implementation of Article 3 is not only administratively burdensome but also the different Member States have interpreted it very differently with high costs for compliance;

- Moreover, Combined Transport and the reduction of the carbon footprint of the supply chain should be interlinked. As such, [we] suggest that ongoing EU initiatives on carbon footprint for the logistics sector and the CT Directive review are coherent with each other. Further, in order to select the most efficient and sustainable transport option, the business case scenario should become an important part of the assessment and final decision. This means that the comparison of costs and CO_2 emissions of a door-to-door operation should be made for the CT option versus the road option. Furthermore, [we] recommend increased use of European Modular System (EMS) for specific transport operations because they are efficient, sustainable and well-tested;

- Definition of Combined Transport (Article 1):
  - The definition of "Combined Transport" in the Directive currently limits the scope to transportation of goods between Member States to certain conditions such as that the goods must be moved by road transport on the initial and / or final leg of the journey within a radius of 150 km, from inland waterway and / or seaport of loading or unloading. In Europe, there are too many destinations, which are not reachable within 150 km from a port. As a result, [we] believe that the current restrictive definition of Combined Transport outlined in Article 1 will discourage the use of sea transport for parts of the transport operation. In most cases, this will be to the benefit of road transport, as rail alternatives are not in place everywhere. In addition, limitation of the road leg of the journey results in limiting of the logistic service provider to provide tailored sustainable solutions for its customers. Consequently, [we] consider that in order to encourage Combined Transport in Europe, where all modes of transport are used efficiently, there should be no kilometers limit on the road leg from the port or the inland waterway. This is particularly the right approach because combined transport can be used depending on the available infrastructure: rail, inland waterways are viable alternatives for some journeys of less than 150kms, but very often there is no alternative infrastructure and the only way of transporting those cargoes is by road. By way of example extended gateways in EU ports make it increasingly interesting for freight to travel using rail or waterborne transport regardless of the distance. To illustrate, the port of Rotterdam is linked to a number of destinations both via rail and inland waterways including with Willebroek in Belgium (120 kms), Venlo and Moerdijk in the Netherlands (40 kms and 170 kms respectively), as well as by rail to Duisburg in Germany (200 kms). Likewise, the port of Barcelona will be linked to Lyon (France) via rail links covering a distance of approximately 600 kms. Last but not least, back-loads are key element to the economic viability of CT routes. In [our] experience, it is cost-effective to establish intermodal routes only when sufficient backloads of approximately 80% are ensured;

- Cabotage (Article 4)
  - [We] emphasize that removing the remaining of the existing restrictions and further opening of cabotage would contribute to efficient CT operations. In this way, existing free capacities will be used efficiently to

the advantage of sustainable logistics solutions. Another important element regarding cabotage is to work together with the Member States towards proper enforcement of the social rules on the resting and driving time along with ensuring fair competition in the overall road freight. [We] also support the exemption for cabotage in the CT Directive which should be maintained in the future;

- Financial incentives (Article 6)
    - Financial incentives are central in order to encourage Combined Transport in Europe. Currently, the Combined Transport Directive provides for the financial incentives at Member State level, based on differing national taxation regimes. As taxation remains Member States competence, where only minimum harmonization at EU level applies, the financial incentives at present differ substantially depending on the Member State's policy. Therefore, [we] consider that additional financial incentives should be provided for in a revised Combined Transport Directive. Moreover, [we] believe that such incentives will be more efficient at EU level, rather than at Member State level due to diverse national situations. In light of the above, good examples for EU funding can be found in the TENT-T/CEF transport budget for infrastructure projects with clear guidelines and funding sections. Hence, [we] think that an adequate financial incentive scheme must be included in the Combined Transport Directive, in order to encourage all actors in logistics and supply chain to shift to more environmentally sustainable transport solutions;
    - Other incentives to boost CT solutions: [we] support the free circulation of the 45' containers as they facilitate Combined Transport. In order to further promote efficient circulation of the 45' containers with the maximum allowed gross vehicle weight of 44t transport throughout the EU, removal of any administrative burden is key: the extra 4t in comparison to 40t allows increased container loading for the entire length of the logistics chain including any rail or short sea shipping leg;
- Conclusion:
    - [We] consider that the upcoming review of the Combined Transport Directive should focus on removing administrative burden and costs, link Combined Transport and the reduction of the carbon footprint of the supply chain, make further use of the business case scenario as part of the assessment and CT solution final decision, and promote increased use of European Modular System (EMS) for specific transport operations. [We] recommend that the CT Directive review particularly addresses the definition of Combined Transport (Article 1) where there should not be any kilometers limit on the road leg, further facilitation of cabotage should be ensured (Article 4) as well as EU-level financial and other incentives (Article 6) should be provided in order to achieve the objectives of the Directive;

Respondent 23:

- In 2013, the European Commission has tabled a its legislative proposal regarding the amendment of Directive 96/53/EC, laying down for certain road vehicles

circulating within the Community the maximum authorised dimensions in national and international traffic and the maximum authorised weights in international traffic, including aerodynamic cladding and 45-feet-containers;

- [We] have opposed the authorization of Megatrucks from the very beginning. Policies aiming at the authorization of Megatrucks have to consider the following:
    - Megatrucks threaten not just the environment, but also Single Wagon Load traffic. Not only do they require additional technical amendments in Europe's road infrastructure, such as upgrading works, with respect to bridges, tunnels and road- maintenance, they stand for reduced road safety. In addition, Megatrucks clearly have distorting effects on competition and prices in favor of road freight transport;
    - Cross-border journeys of Megatrucks remain prohibited in the EU;
- EU-Transport ministers have collectively decided on June 5th to keep up the ban on Megatrucks. In this decision, the Council of Ministers stayed in line with the European Parliament which rejected the Commission's proposal to clear cross-border-hauls for extra-long trucks. [We] strongly support this decision – and recommend keeping up this position in the Parliament's Second Reading;

Respondent 24:

- Related to C.2: the European Commission should aim to extend the provisions of the recast Directive 92/106 within the bilateral agreements which tie it to its neighbours of the Union: Switzerland, Norway, Turkey, Ukraine, Belarus, Russia, Kazakhstan;
- Compatibility with existing loading equipment (cranes) at terminals and with the existing wagon fleet is essential; more standardisation would be welcome. Maximum height and exterior width of loading units should also be defined in the Directive;

Respondent 25:

- Due to lack of harmonisation, member states apply rules on weight and equipment differently. Incentives such as reduction or reimbursement of taxes for road vehicles are positive, but burdensome due to the heavy administrative burden attached. Some Member States do not accept the participation of road freight transport in combined transport operations as covered by Directive 92/106/EC, because they do not recognise the different status for domestic first and/or last road legs of a combined transport journey and simply consider them cabotage as defined by Regulation (EC) No. 1072/2009;
- Different interpretation of the rules in different Member States make it difficult to undertake cross-border operations. Member States apply the rules differently, such as the maximum authorised weight of 44 tonnes. Aligned EU rules with limited flexibility for Member States could provide more clarity and encourage operators to use combined transport. The only real financial impact for the authorities include tax reductions and financial subsidies for the CT terminals. However the tax reduction is (in volume) far less than the subsidies for the CT terminals. The CT terminals itself have to be upgraded in order to improve the infrastructure of the rail system. There is no viable alternative to investing into the CT terminals;

- CT operations are often still more expensive, whenever the off-carriage (on road) is heading against the main route (which was done by rail/ship), while the airline distance (as the crow flies) between the starting point and end point is shorter by direct road. In such case it is very difficult to explain customers the price difference. If there is a good service offered by combined transport operators these services will be used. Much will depend on the possible capacity and - related to this - reliable frequency of service (as well as other elements such as price, efficiency and whether transport is accompanied or unaccompanied);
- Costs competitiveness of CT can be improved in the medium term by optimisation:
    - integrated site logistics (7/24 operations) in rail terminals with further elimination of waiting times;
    - reduction of terminal costs;
    - liberalisation in the rail freight market;

Respondent 26:

- A liberalised and 'unbundled' rail freight market could promote the development of combined transport services:
    - by the emergence of new operators offering new services;
    - by reduction of costs for existing services if cross-border freight can be arranged with fewer partners;
    - by stronger customer orientation which comes along with competition and will lead to an improvement of the existing services;
    - by reducing costs of infrastructure use (rail network and transhipment terminals) through better use of capacities;

Respondent 27:

- Most of the questions of this consultation are aimed at CT operators and cannot be properly answered by a public authority. In any case, it is without debate that there is a strong need for the revision of the CT directive;
- In some specific cases problems arise with vehicles built for special transports. These vehicles fall outside scope of the CT directive and in the specific situation also fall outside possibilities for doing cabotage. It should be considered it if is useful to clarify the situation for these vehicles, such as windmill wing transport vehicles.

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Appendix L English translation of legal acts of MS transposing CT Directive into national legislation

COUNTRY	AUSTRIA

Federal Law of 23 June 1967 on the transport of goods (Bundesgesetz vom 23. Juni 1967 über das Kraftfahrwesen, last update: Federal Journal, Part I N° 90/2013

§ 2 Definitions

(1) For the purpose of this federal law:

……

40. Combined transport means the transport of goods

a) from the consignor to the nearest technically suitable rail loading station by road (pre-carriage);

b) from the rail loading station to the rail unloading station by rail in a lorry, a trailer or swap bodies (piggyback transport) or in a container of 6 m length or more (container transport); and

c) from the nearest technically suitable rail unloading station to the consignee (on-carriage).

The transport of goods by road only meets the condition of a pre- or on-carriage operation if it is carried out over the shortest usually used, economically reasonable and legally permitted route, as concerns the provisions on the transport of goods and by police, and if either the rail loading or unloading station is located in Austria. This provision applies to the transport of goods by lorries to ports correspondingly.

Federal Law on the transport of goods for hire and reward by lorries (Bundesgesetz über die gewerbsmäßige Beförderung von Gütern mit Kraftfahrzeugen), last update: Federal Journal, Part I N° 96/2013

§ 7 Cross-border traffic

(2) The transport of goods for hire and reward whose point of loading and unloading is located in Austria by road hauliers established abroad (Cabotage) is prohibited except for road hauliers specified in Art. 8 (1), (5) and (6) of EU Regulation N° 1072/09; it is only permitted,

1. if there is an agreement with the respective state the road haulier is established; and

2. in the context of pre- or on-carriage operations in cross-border combined transport with a lorry registered in a Member State of the European Economic Area; by means of a Regulation of the Federal Ministry for Transport, Innovation and Technology the conditions will be defined, which qualify for a cross-border combined transport, and the evidence that has to be carried.

399th Regulation of the Minister for Economy and Transport on the exemption of cross-border combined transport from authorizations (Verordnung über die Befreiung des grenzüberschreitenden Kombinierten Verkehrs von Bewilligungen), Federal Journal, Part II, 16 December 1997

Under § 7 of the Federal Law on the transport of goods, Federal Journal N° 593/1995, is stipulated:

Definition

§ 1. (1) For the purpose of this Regulation cross-border combined transport means the transport of goods including empty runs:

1. from the consignor to the nearest technically suitable rail loading station under consideration of the transport economic reasonableness if it is carried out over the shortest usually used and legally permitted route, as concerns the provisions on the transport of goods and by police, or to a port of loading within a radius not exceeding 150 km as the crow flies, with lorries by road (pre-carriage);

2. from the rail loading station or the port of loading to the rail unloading station or the port of unloading in a lorry, a trailer or swap bodies (piggyback transport) or in a container of 20 feet (6.05 m) or more (container transport) by rail or ocean vessel or barge, where this section exceeds 100km as the crow flies; and

3. from the nearest technically suitable rail unloading station under consideration of the transport economic reasonableness if it is carried out over the shortest usually used and legally permitted route, as concerns the provisions on the transport of goods and by police, or from a port of unloading within a radius not exceeding 150 km as the crow flies, with lorries by road to the consignor (on-carriage);

4. where either the point of departure and/or arrival is not located in Austria.

(2) Cross-border combined transport must not include either a pre- or on-carriage by road.

Exemption from the system of authorization

§ 2. (1) In the context of cross-border combined transport the pre- or on-carriage of the transport of goods to, from or in Austria is exempted from the authorization according to § 7 (1) of the Federal Law on the transport of goods, Federal Journal N° 593/1995, if it is performed with a lorry registered in a Member State of the European Economic Area.

(2) The cross-border combined transport performed with a lorry registered in a CEMT Member State, which is not a Member State of the European Economic Area, is exempted from the authorizations according to paragraph (1) if this state:

1. meets the conditions of access to the occupation for transport of goods according to the CEMT Resolution CEMT/CM(94)10 enclosed in annex 1; and

2. either

a) Austria and the respective state have mutually declared the applicability of CEMT Resolution CEMT/CM(97)22 enclosed in annex 2; or

b) the applicability of CEMT Resolution CEMT/CM(97)22 will be confirmed by bilateral agreements.

Evidence

§ 3. (1) The lorry driver must carry a document, which provides evidence that the transport is executed in the context of a combined transport operation, and, by request, produce it to authorities mentioned in § 9 (1) Federal Law on the transport of goods. The following evidence is acknowledged:

1. a fully completed CIM/UIRR consignment note, a ÖKOMBI consignment note, a Intercontainer consignment note, a CIM or SAT consignment note;

2. in the context of combined transport by barge:

a) on the pre-carriage leg, a fully completed CMR consignment note indicating the words “delivery to barge” and the port of loading;

a) on the on-carriage leg, a fully completed CMR consignment note and a barge loading. The details for the ports of loading and unloading must be confirmed by means of a stamp affixed by the port authority prior to the on-carriage transport.

Federal Law on the imposition of a vehicle tax of 1992 (Bundesgesetz über die Erhebung einer Kraftfahrzeugsteuer 1992), last update: Part I N° 112/2012

Tax exemptions

§ 2. (1) Exempted from the tax are:

….

14. Vehicles registered by an inland licensing regime with a maximum permitted gross weight of 3.5 tonnes or more for the calendar month, in which they were exclusively used for pre-and on-carriage operations of containers of 20 feet or more, swap bodies or rail-transported trailers in combined transport road/rail. The road haulage only meets the condition of a pre- or on-carriage operation if from the point of loading or unloading the shortest usually used, technically suitable rail loading or unloading station is used.

....

(3) 1. If a loaded or empty vehicle registered by an inland licensing regime with a maximum permitted gross weight of 3.5 tonnes or more is carried on an inland piggyback service by rail, upon application the tax imposed on this vehicle may be reduced by 15% of the monthly vehicle tax for every rail journey, yet not exceeding the total annual vehicle tax amount. If the tax reduction cannot be claimed for the vehicle carried by rail since it is exempted from tax according to paragraph (1) n° 14, upon application the tax reduction of 15% of the monthly vehicle tax for every rail journey performed by this vehicle may be transferred to another vehicle of the same tax payer, yet not exceeding the total annual vehicle tax amount.

COUNTRY	BELGIUM

Arrêté royal du 20/05/1997 modifiant l'arrêté royal du 25 novembre 1992 portant le règlement général relatif au transport rémunéré de choses par véhicules automobiles

F.97 - 1203

20 May 1997- Royal Decree amending the Royal Decree of 25 November 1992 on the general regulation concerning the carriage of goods for hire or reward by motor vehicles.

With regard to Council Directive 92/106/EEC of 7 December 1992 on the establishment of common rules for certain types of combined transport of goods between Member States;

With regard to the law of 1 August 1960 concerning the carriage of goods for hire or reward by motor vehicles, in particular Article 6;

With regard to the law of February 1969 concerning on measures of execution of international treaties and acts on the transport by road, rail or waterway, in particular Article 1, as amended by the laws of 21 June 1985 and 28 July 1987;

Considering that the regional governments have been involved in the preparation of this decree;

With respect to the urgency motivated by the fact that under Article 169 of the Contract on the establishment of the European Union the European Commission requests Belgium to transpose the Council Directive 92/106/EEC on the establishment of common rules for certain types of combined transport of goods between Member States into Belgian legislation before 4 May 1996;

On the proposal of our Minister for Tansport and the opinion of our Ministers who deliberated in the Council,

We have decided:

Article 1. The article 2 of the Royal Decree of 25 November 1992 concerning the carriage of goods for hire or reward by motor vehicles N°10 and N° 11 are replaced by the following provisions:

“N° 10 ‘combined transport": the transport of goods where the initial and/or final leg of the journey is performed by road and for which, on another leg, a vehicle, a swap body or a container of 20 feet (6.096 m) or more is carried by rail and/or inland waterway and/or maritime services if the maritime section exceeds 100 km as the crow flies;

N° 11 ‘swap body’: the part of a vehicle designed to receive the cargo, which can be detached from the vehicle and mounted again;”

Article 2. In Article 6, § 1, n° 4 of the same decree the points a) and b) are replaced respectively by the following provisions:

"*a)* for the transport by rail, the shipment must be executed between the rail loading station, which is nearest suitable to the point where the goods are loaded, and the rail unloading station, which is nearest suitable to the point where the goods are unloaded.

For inland waterway and sea transport, the initial or final legs by road are not allowed to exceed 150 km as the crow flies from the inland waterway port or seaport of loading or unloading.

b) The consignment note relating to Article 39 must be completed by specifying the rail loading and unloading stations relating to the rail leg, or the inland waterway loading and unloading ports relating to the inland waterway leg, or the maritime loading and unloading ports relating to the maritime section of the journey.

These details shall be recorded before the transport operation is carried out and shall be confirmed by means of a stamp affixed by the rail or port authorities in the railway stations or inland waterway or sea ports concerned when that part of the journey carried out by rail or inland waterway or by sea has been completed.

Where a trailer or semi-trailer belonging to an undertaking engaged in own-account transport is hauled on a final section by a tractor belonging to an undertaking engaged in transport for hire or reward, the transport operation so effected shall be exempt from presentation of the document provided for under point b); however, another document shall be provided giving evidence of the journey covered or to be covered by rail, by inland waterway or by sea."

Article 3. This decree enters into force on the day of its publication in the Moniteur Belge.

Article 4. Our Minister for Transport is responsible for the implementation of this decree.

Bruxelles, 20 May 1997

COUNTRY	BULGARIA

ORDINANCE № 53 OF FEBRUARY 10, 2003 FOR COMBINED CARGO TRANSPORTATION

Prom. SG. 18/25 Feb 2003

Section I.
General

Art. 1. This ordinance determines the requirements and the necessary documents for carrying out combined cargo transportation.

Art. 2. (1) Combined transportation is a transportation of cargo whereas the transport chain uses at least two types of transport as follows:

1. lorry, trailer or semi-trailer with or without towing units, changeable carriages or 20 ft or longer containers, carrying out automobile transportation at the initial or final segment of the trip, while the remaining part is carried out by a railway, sea transportation or transportation by river, this segment exceeding 100 km on direct line;

2. between the points where the commodities are loaded and the closest convenient railway station of initial segment, and between the closest convenient railway station for unloading and the point of unloading in the final segment;

3. within a radius not exceeding 150 km on direct line from the internal river or sea port of loading or unloading.

(2) Combined transportation is also present when within the frames of the combined transportation the sender carries out automobile transportation in the initial segment for his account, and/or when the recipient carries out automobile transportation for his account at the final segment to the destination of the cargo.

Art. 3. Processing of the cargo shall not be carried out of automobile transportation when the type of transport is changed.

Art. 4. (1) The combined transportation of cargo shall be carried out on condition that a contract for combined transportation has been concluded.

(2) The contract for combined transportation shall settle each part of the transportation according to the applicable provisions for the respective type of transportation.

(3) Contract under para 1 shall not be concluded when, at the initial and final segment, the sender or the recipient carry out automobile transportation for his account, and transportation is one and the same in the basic segment.

Art. 5. (1) Combined transportation shall be organised and/or carried out by operators.

(2) The operator may carry out on his own the whole or a part of the combined transportation. In this case he will also have the rights and obligations of a carrier.

(3) In the cases under para 2 the operator shall meet the legal requirements for carrying out transportation of cargo for the respective type of transportation.

Art. 6. (1) Carriers participating in a combined transportation by railway transport on the territory of the Republic of Bulgaria must be licensed according to the Law for the railway transport.

(2) Carriers licensed by foreign railway administrations may participate in a combined transportation if this is settled by the international contracts party to which is the Republic of Bulgaria.

Art. 7. (1) Carriers participating in combined transportation by transportation vehicles must be licensed according to the Law for the automobile transportation.

(2) The persons carrying out automobile transportation for their account within the frames of the combined transportation must hold a certificate for registration issued by the order of art. 12, para 1 of the Law for the automobile transportation.

Art. 8. Carriers participating in a combined transportation on internal water ways or by sea must meet the requirements of the Code for the Commercial Sea Sailing.

Art. 9. (1) The foreign automobile carriers using the roads of the Republic of Bulgaria for international combined cargo transportation between the border points and inter-modal terminals, as well as between the inter-modal terminals and loading-unloading points, shall carry out transportation without permit if this is stipulated by international contracts party to which is the Republic of Bulgaria.

(2) The transportation under para 1 shall be carried out by a certificate for internal combined transportation on the territory of the Republic of Bulgaria, in a form approved by the Minister of Transport and Communications.

(3) The carriers shall obtain the certificate under para 2 at the border point on entering the country and shall return it on leaving the country.

Art. 10. The certificate under art. 9, para 2 shall be kept in the vehicle and shall be presented upon request of the competent bodies.

Section II.
Contract for combined transportation

Art. 11. The contract for combined transportation is a contract for cargo transportation whereby the operator shall be obliged to the sender to carry out, against payment, by automobile and railway transport and/or transport on internal water ways or by sea, transportation on definite routes by appropriate vehicles and to present the cargo to the recipient.

Art. 12. (1) The contract for combined transportation shall indicate:

1. the names of the railway stations of loading and unloading related to the railway segment of the transportation;

2. the ports of loading and unloading related to the segment of transportation on internal water ways;

3. the sea ports of loading and unloading related to the segment of transportation by sea.

(2) The data under para 1 shall be confirmed by affixing a seal on the transport documents at the respective railway stations or ports.

Art. 13. (1) The necessary transport documents for carrying out the combined transportation are:

1. way bill - for the automobile and railway transportation;

2. bill of lading or way bill - for coastal transportation on internal water ways;

3. bill of lading - for sea transportation;

4. single document valid for all types of transport participating in the combined transportation when such document is adopted according to international contracts party to which is the Republic of Bulgaria.

(2) In cases of automobile transportation for own account transport document under para 1 shall not be issued.

(3) The validity of the contract for transportation shall not depend on the issuance, regularity or loosing of the transport document.

Art. 14. (1) The transport documents under art. 13, para 1 shall be drawn up and signed:

1. by the operator or by a person authorised by him - under item 1;

2. by the respective carrier - under item 2 and 3;

3. in compliance with the international contracts party to which is the Republic of Bulgaria - under item 4.

(2) The transport documents shall indicate only one recipient - an individual or a corporate body.

(3) An individual transport document shall be issued for each inter-modal transport unit.

(4) The transport documents shall indicate the exact name of the cargo and its particular features, if any.

(5) Along with the transport documents the operator shall present to the carriers all documents required by the veterinary, phyto-sanitary, customs and other bodies.

(6) The transport documents shall obligatorily contain date, signature and seal and all necessary data according to the established requirements for internal and international transportation.

Art. 15. The operator shall be obliged to carry out the transportation by the set deadline, to preserve the integrity of the cargo from their acceptance to their conveyance, to inform the recipient about their arrival and to deliver them at their destination.

Art. 16. (1) The sender shall be obliged to present to the operator the cargo loaded, arranged and fastened in the automobiles and inter-modal transport units according to the requirements for the individual types of transport and in compliance with the specifics of the transported cargo.

(2) Where the transportation packing is inappropriate the operator may accept the cargo on condition that the sender declares in writing that the damages which would occur shall be for his account.

Art. 17. (1) For differences between the clauses of the contract for combined transportation and the transport document shall apply the provisions of the contract.

(2) The transport document shall be a proof that the carrier has received the cargo in the way described in the document, unless the opposite is established.

(3) When there is no entry in the transport document for the state of the cargo it shall be considered that the cargo has been received by the carrier in a good state.

Art. 18. (1) The loading/unloading and the fixing of the inter-modal transport units shall be an obligation of the sender/recipient, unless contracted otherwise.

(2) The sender may seal by his sealing the loaded inter-modal transport units. If the operator attends the loading he shall seal the inter-module transport units by his sealing.

Art. 19. (1) The sender shall owe the remuneration to the operator on conclusion of the contract, unless negotiated otherwise.

(2) If the remuneration is not paid by the sender it shall be paid by the recipient before the release of the cargo.

(3) For international combined transportation the sums in foreign currency indicated in the transport documents shall be paid by the sender in their lev equivalence at the exchange rate of the day.

(4) The expenses having occurred after the conclusion of the contract for combined transportation shall be paid by the sender, unless negotiated otherwise. Where the expenses are for the account of the recipient they shall be paid by him before the release of the cargo.

Art. 20. The operator shall not be obliged to provide guarantees for customs receivables for transportation, import and transit of the cargo under customs control on the territory of the Republic of Bulgaria.

Art. 21. (1) The cargo shall be considered delivered when it is presented or left at the disposal of the recipient or his representative in compliance with the terms of the contract.

(2) The contract for combined transportation of cargo shall be considered fulfilled from the moment when the recipient or a person authorised by him has received against signature the transport document after the delivery of the cargo.

Section III.
Responsibility for combined cargo transportation

Art. 22. (1) The sender shall be responsible for all damages having occurred due to improper loading and fixing of the commodities carried out by him or by an authorised person, missing or defects of the packing, as well as in the cases when inappropriate or damages inter-modal transport units have been used.

(2) The sender shall also be responsible for the description of the commodity and its specific qualities, its marking, number, weight, size and quantity described in the contract for combined transportation.

Art. 23. The operator shall be responsible for the preservation of the cargo from the moment of its acceptance for transportation until its delivery to the recipient.

Art. 24. (1) The operator shall be responsible for the loss, perishing, missing or damages of the cargo, caused during the time when it has been under his administration, including received as a result of mistakes or negligence on his part.

(2) The operator shall be responsible for the loss, perishing or damage of the inter-modal transport units caused during the time when it has been under his administration.

(3) The operator shall be responsible for the damages caused by not complying with the deadline for delivery.

(4) The loss, perishing, missing and damages shall be established by an act or a statement of establishment in compliance with the applicable provisions for the type of transport whereby they have been established.

Art. 25. When the combined transportation is carried out subsequently by several carriers they all shall take over the obligations ensuing from the transport documents and shall be jointly and severally responsible to the operator for the fulfilment of the transportation along the whole route until the delivery of the cargo to its destination.

Art. 26. When the loss, perishing, missing or damages have occurred during an international combined transportation applicable for which is an international contract party to which is the Republic of Bulgaria, the provisions of the international contract shall apply.

Art. 27. (1) The size of the indemnification in the cases under art. 24, para 1 shall be determined with regard of the value of the cargo at the place and during the delivery in compliance with the specific provisions for the types of transport.

(2) The size of the indemnification in the cases under art. 24, para 2 shall be determined with regard of the value of the assessment, but no more than the value of the inter-modal transport unit.

Art. 28. (1) The operator shall not be responsible when the missing or damages are due to a mistake of the sender or of his regulation, to an inherent shortcoming of the cargo or to inappropriate packing, if the sender has given consent under art. 16, para 2.

(2) The operator shall not be responsible for occurrence of an unforeseeable or unavoidable event of extraordinary nature, having occurred after the conclusion of the contract, which he could not avoid or whose consequences he could not prevent (insurmountable force).

(3) The activities or lack of activities of the operator shall not be considered a circumstance which he could not prevent.

Art. 29. The operator shall also be released from responsibility when the missing or damage is a result of particular risks stipulated by legal norms for the respective type of transport.

Art. 30. The sender and the recipient may, without presenting other evidence, accept that the cargo has been lost when it has not been delivered within 60 days from expiration of the negotiated term of delivery.

Section IV.
Reclamation, claim and term of prescription

Art. 31. (1) Right to reclamation under the contract for combined transportation shall have the persons having right to claim against the operator.

(2) Attached to the reclamation shall be the transport documents and all other documents proving the reclamation for grounds and size.

(3) The reclamation shall be laid with the operator or a person authorised by him.

(4) Unless negotiated otherwise, the operator shall be obliged to announce whether he accepts or rejects the reclamation.

(5) Applied for the reclamation proceedings shall respectively be the provisions for the individual types of transport.

Art. 32. (1) The damages under art. 24, para 4 shall be established by acts or statements of establishment, drawn up and signed by the carrier and the operator or by a person authorised by him, in compliance with the provisions for the type of transport.

(2) The findings shall be referred to the moment of establishing the irregularities, but before the acceptance of the cargo by the recipient, and in a lack of a cargo - after the expiration of the term of delivery according to the contract for combined transportation.

(3) In the cases when the recipient has not requested the drawing up of the documents under para 1, until proving the opposite, it shall be considered that the cargo has been delivered in good shape.

(4) The damages incurred in international combined transportation shall be established by an order and in a way determined by the international contracts party to which is the Republic of Bulgaria.

Art. 33. (1) The deadline for laying reclamation for combined transportation shall be six months, and for international combined transportation - the term determined by the international contracts party to which is the Republic of Bulgaria.

(2) Laid by the deadlines under para 1 shall also be the claims of the operator to the sender and the recipient for prices, extra fees, customs duties, expenses and others not collected in full.

(3) The terms under para 1 and 2 shall run from the day on which the cargo has been delivered to the recipient, and for missing of the cargo - from the moment of establishing the missing by the order of art. 32, para 2.

Art. 34. (1) Right to claim against the operator shall have the sender - until the moment when the recipient releases the transport documents or accepts the cargo, and the recipient - from the moment when he releases the transport documents or accepts the cargo.

(2) Right to claim against the operator shall be acquitted within one year from the day on which the cargo has been delivered to the recipient, and for missing cargo - from the moment of its establishment. For international combined transportation the

terms shall be in compliance with the international contracts party to which is the Republic of Bulgaria.

(3) The claims of the operator under art. 25 and art. 33, para 2 may also be laid within the terms under para 2.

Art. 35. Applied for the terms of prescription under art. 34 shall be the provisions of the civil legislation for suspension, stopping and restoration of the prescription, as well as the special provisions for the individual types of transport.

Additional Provisions

Additional provisions

§ 1. In the context of this ordinance:

1. "Transportation vehicle" is a motor vehicle constructed and used for cargo transportation. Regarded as transport vehicle shall be a composition of an automobile with a trailer, traction vehicle with semi-trailer (a composition of transport vehicles).

2. "Inter-modal transport unit" is a container, changeable carriage and semi-trailer, appropriate for inter-modal transportation.

3. "Inter-module terminal" is the place where the way of transportation is changed.

4. "Transportation for own account is the transportation of cargo designated solely or for ensuing own economic activity without payment.

5. "Sender" is an individual or a corporate body concluding a contract for combined transportation with the operator.

6. "Recipient" is an individual or a corporate body authorised to receive the cargo.

7. "Operator" is a forwarding agent or carrier organising and/or carrying out combined cargo transportation.

§ 2. (1) The operators offering service of combined transportation shall present to the Ministry of Transport and Communications every six months information for:

1. the transport relations used in carrying out the combined transportation;

2. the number of vehicles (auto train shall be regarded as one vehicle), the changeable carriages, semi-trailers and containers transported through the individual transport connections;

3. the places of the transported cargo in tons;

4. provided services for tom/kilometre and other data determined by the Minister of Transport and Communications.

(2) The information under para 1 shall be official and commercial secret and it can be used only for statistical purposes.

Concluding provisions

§ 3. The ordinance is issued pursuant to art. 58 of the law for the railway transport.

COUNTRY	CROATIA

Decision on the promulgation of the law on combined transport

I. GENERAL CONDITIONS

Article 1.

This law determines the general definitions and distances in combined transport operations, the exemption from the payment of annual road user charges, the exemption from authorizations and quota and the exemption from road driving bans for combined transport users. It also defines the documents that lorry drivers must provide for the road leg of combined transport operations.

Article 2.

(1) A strategy on the development of combined (intermodal) transport will be implemented in order to ensure the long-term development of combined (intermodal) transport and to stimulate the development of logistics in Croatia.

(2) The strategy according to paragraph (1) will be implemented by the government of Croatia.

Article 3.

(1) For the purpose of this law the following definitions are applicable:

...

2. „Intermodal transport unit" is a container, swap body, trailer, semitrailer, with or without tractor, or a lorry designed for intermodal transport,

3. „Intermodal transport" is the transport of goods in one and the same intermodal transport unit whereby at least two modes of transport are used without transloading of goods,

...

6. „Combined transport" is the transport of goods where a truck, a trailer, a semi-trailer, with or without a tractor, a swap body or a container of 20 feet (6.096 m) or more is carried by rail or inland waterway or maritime services and the initial or final leg of the journey is performed by road between the point where the goods are loaded and the nearest combined transport terminal or transhipment station, or between the nearest

combined transport terminal or transhipment station and the point where the goods are unloaded.

...

10. “Accompanied combined transport” is the transport of a lorry by rail, inland waterways or sea together with the lorry drivers.

...

15. “Ro-La” (rolling highway) is the transport of lorries on low-bed wagons by rail, where the loading and unloading is carried out horizontally by their own means.

16. “Ro-Ro” is a special kind of transport where the intermodal transport units are loaded and unloaded horizontally from and to a vessel.

...

19. “Combined transport terminal” is a facility located in the rail network, inland ports or sea ports, which provides for the necessary means to carry out the transfer of intermodal transport units between modes of transport.

II. TRANSPORT DISTANCES IN COMBINED TRANSPORT

Article 4.

(1) The following distances in combined transport operations are defined:

- The rail, inland waterway or maritime leg must exceed 100 km as the crow flies;
- The initial or final road leg must be within a radius not exceeding 100km as the crow flies to the inland or sea port of loading or unloading;
- The initial or final road leg must be within a radius not exceeding 60 km as the crow flies from or to the loading or unloading rail terminal for combined transport.

Article 5.

By means of a regulation the Minister for Transport will define the terminals for combined transport and the rail stations.

III. ROAD HAULAGE LEG IN COMBINED TRANSPORT

Article 6.

(1) All national hauliers and hauliers established in a Member State of the European Union who meet the conditions of access to the market for transport of goods between Member States have the right to carry out initial and/or final road haulage legs if they include crossing of a frontier. Hauliers established in a third country also have the same right if a respective international agreement has been concluded.

(2) All national hauliers and hauliers established in a Member State of the European Union who meet the conditions of access to the market for transport of goods between Member States and who have the mutual right to carry out cabotage transports have the right to carry out domestic initial and/or final road haulage legs.

IV. INCENTIVES FOR COMBINED TRANSPORT

Reimbursement of annual road infrastructure charge

Article 7.

(1) The annual road infrastructure charge will be fully reimbursed in case of lorries and trailers registered in the Republic of Croatia, which have been used for 80 or more initial or final road haulage legs from/to rail station or terminal within a period of 12 months after the previous vehicle safety check (TÜV).

(2) The Minister will enact a regulation defining the measures how the implementation of the reimbursement scheme will be controlled.

(3) The reimbursement of the charges is carried out by the city administration of Zagreb from state funds.

Exemption from quota systems

Article 8.

The Minister will enact a regulation according to Article 5 which roads will be exempted from all quota systems, based on international or bilateral agreements, for initial or final road haulage legs.

Exemption from driving bans

Article 9.

Initial or final road haulage legs are exempted from special driving bans.

V. DOCUMENTS FOR COMBINED TRANSPORT

Article 10.

(1) In the context of initial or final road haulage legs the lorry driver must confirm that they form part of a combined transport operation, which involves a rail, inland waterway or maritime transport, by the following documentation:

- CMR consignment note specifiying the rail, inland waterway or maritime terminals;
- Copy of K504-K CIM consignment note for combined transport by rail;
- Copy of maritime consignment note specifying the loading and unloading sea port;
- Copy of any other document, which accompanies the entire journey and confirms that it forms part of a combined transport operation and specifies the loading and unloading stations relating to the rail, inland waterway or maritime section of the journey.

(2) The documents according to paragraph (1) confirm that the lorry is exempted from quota systems and driving bans.

VI. STATISTICAL DATA

Article 11.

(1) The collection of statistical data on combined transport shall be defined by means of a special rule, which shall enable to forward the data to Eurostat.

(2) By order of the European Commission and for contributing to the reporting according to Art. 5 (1) of Council Directive 92/106/EEC of 7 December 1992 on the establishment of common rules for certain types of combined transport of goods between Member States the Ministry shall inform the European Commission on information according to Article 5 (2), which may not be included in the report.

VII. FINAL CLAUSES

Article 12.

(1) The government of the Republic of Croatia shall define the strategy on the devlopment of combined (intermodal) transport in Croatia within six months after this law has entered force.

Zagreb, 2 October 2009

COUNTRY	CYPRUS

Νόμος που τροποποιεί τους περί μηχανοκίνητων οχημάτων και τροχαίας κινήσεως νόμους του 1972 μέχρι 2001(Αριθμός 98(I) του 2001)

Ο περί Μηχανοκινήτων Οχημάτων και Τροχαίας Κινήσεως (Τροποποιητικός) (Αρ. 2) Νόμος του 2001 εκδίδεται με δημοσίευση στην Επίσημη Εφημερίδα της Κυπριακής Δημοκρατίας σύμφωνα με το Άρθρο 52 του Συντάγματος.

The law concerning Motor Vehicles and Road Traffic (Amendment) (No. 2) Law of 2001, is published in the Official Gazette of the Republic of Cyprus in accordance with Article 52 of the Constitution.

Η Βουλή των Αντιπροσώπου ψηφίζει ως ακολούθως:

1. The current law shall be referred as the one concerning Motor Vehicles and Road Traffic (Amendment) (No. 2)-law of 2001 and shall be read taking into account the ones concerning Motor Vehicles and Road Traffic that were in force between 1972 and 2001 (which will be referred hereafter as "the basic law") and the basic and current law will be mentioned together as the ones concerning Motor Vehicles and Road Traffic – laws between 1972 and 2001.

2. Part I of the Annex of the basic law is amended by adding the new paragraph 2D, described below, after the paragraph 2C:

"2D:TAX REIMBURSEMENT FOR LINSENSED VEHICLES OF INTERNATIONAL ROAD TRANSPORT ROUTED IN COMBINED TRANSPORT"

1. For the purposes of this Directive,

(a) "integral journey" means the journey having both start and end points anywhere in Cyprus.

(b) "combined transport" means the transport of goods between Member States where the lorry, trailer, semi-trailer, with or without tractor unit,[181] uses the road on the initial or final leg of the journey and, on the other leg, rail or inland waterway or maritime services where this section exceeds 100 km as the crow flies and make the initial or final road transport leg of the journey:

- between the point where the goods are loaded and the nearest suitable rail loading station for the initial leg, and between the nearest suitable rail unloading station and the point where the goods are unloaded for the final leg, or
- within a radius not exceeding 150 km as the crow flies from the inland waterway port or seaport of loading or unloading.

([181]) The part "…swap body or container of 20 feet or more.." of the Dir.92/106 is not included

2. All licensed vehicles of international road freight transport, when routed in combined transport, regardless if it is for hire or reward or for own account, are entitled to reimbursement of taxes…….

3. The reimbursement of taxes should follow the terms and restrictions mentioned below:

(a) The tax reimbursed is calculated for each integral journey separately.

(b) The amount of the tax reimbursed for each integral journey will be less than:

(i) The 1/10 of the vehicle excise duties that were paid, or

(ii) The amount actually paid as fare for the use of rail, maritime or inland waterway transport mean.

(c) The total amount reimbursed in a year, taking into account all the individual/partial reimbursements of the same year, shall not exceed eighty percent of the tax originally paid.

(d) In order to establish the claim for tax reimbursement, for each integral journey, the transport document, referred in subparagraphs 3 (e) and (f), shall be submitted, appropriately completed and stamped.

(e) In the case of combined transport for hire or reward, a transport document which fulfils at least the requirements laid down in subparagraph 3(f), shall also specify the rail loading and unloading stations relating to the rail leg, or the inland waterway loading and unloading ports relating to the inland waterway leg, or the maritime loading and unloading ports relating to the maritime section of the journey.

These details shall be recorded before the transport operation is carried out and shall be confirmed by means of a stamp affixed by the rail or port authorities in the railway stations or inland waterway or sea ports concerned when that part of the journey carried out by rail or inland waterway or by sea has been completed.

(f) The projected, in the subparagraph 3 (d), transport document is issued/published in a form which will be approved by the Minister and which, at least, shall include the following information:

i. the name and address of sender/dispatcher
ii. the nature and weight of goods transported,
iii. the place and date of the receipt of goods,
iv. the place for the delivery of goods,
v. the route and distance covered,
vi. the customs of the borders of the countries that road vehicles will cross

(g) Where a trailer or semi-trailer belonging to an undertaking engaged in own-account transport is hauled on a final section by a tractor belonging to an undertaking engaged in transport for hire or reward, the transport operation so effected shall be exempt from presentation of the document provided for in subparagraph 3(d); however, another document shall be provided giving evidence of the journey covered or to be covered by rail, by inland waterway or by sea.

(h) The claims for tax reimbursement shall be submitted no later than January 31st of the year following the one in which the combined transports took place.

3. This law is valid since the 1st January 2003.

COUNTRY	CZECH REPUBLIC

Zákon č. 111/1994 Sb., ze dne 26. dubna 1994 o siniční dopravě – posledná změna zákon 102/2013 Sb. (Act N° 111/1994 of 26 April 1994 on road transport, last modification by Act N° 102/2013)

PART I

§ 2 Definitions

...

(16) Combined transport is the transport of goods in one and the same transport unit (container, swap body, roll-on/roll-off container) or in a road vehicle, which uses rail or water transport on one leg of the journey. In the context of combined transport operations pre- and on-carriage is the road transport of combined transport load units if rail or water transport is used from the point where the goods are loaded or unloaded to the combined transport terminal or from the combined transport terminal to where the goods are loaded or unloaded.

(17) Public interest in the field of combined transport means the interest in supporting environmental-friendly transport. Support of combined transport in public interest means the reduction of taxes according to special legal acts and other support measures provided in conformity with EU law and its proceedings.

Zákon č. 102/2004 Sb., kterým se mění zákon č. 16/1993 Sb., o dani silniční, ve znění pozdějších předpisů, zákon č. 588/1992 Sb., o dani z přidané hodnoty, ve znění pozdějších předpisů, a zákon č. 248/1992 Sb., o investičních společnostech a investičních fondech, ve znění pozdějších předpisů, Official Journal: Sbírka Zákonů ČR, Publication date: 05/03/2004 (Act N° 16/1993 of the Czech National Parliament on road vehicle tax of 21 December 1992 in the version of Act N° 102/2004)

§ 12 Reduction of tax

(1) For the purpose of this act combined transport means the transport of goods in one and the same transport unit (container, swap body, roll-on/roll-off container) or in a road vehicle, trailer, semi-trailer, with or without tractor unit, which uses rail or water transport on one leg of the journey where this section exceeds 100 km as the crow flies and make the initial or final leg by road:

- between the point where the goods are loaded or unloaded and the nearest suitable rail loading station or combined transport terminal, or;

- between the point where the goods are loaded or unloaded and the inland port within a radius not exceeding 150 km as the crow flies.

(2) The tax reduction for vehicles that are used exclusively for the initial or final leg in the context of combined transport amounts to 100%.

(3) The tax reduction for vehicles that are used for the initial or final leg in the context of combined transport during taxation period amounts to:

- 90% for vehicles carrying out more than 120 journeys;

- 75% for vehicles carrying out 91 to 120 journeys;

- 50% for vehicles carrying out 61 to 90 journeys;

- 25% for vehicles carrying out 31 to 60 journeys;

If the rail distance on the Czech territory exceeds 250 km the journey counts twice.

(4) The claim for tax reduction must be proved by means of transport documents confirmed by combined transport terminal or the suitable rail loading or unloading station or the inland port.

(5) The tax reduction must be applied for by the taxpayer from the respective tax administration.

COUNTRY	ESTONIA

"Autoveoseadus " (Road Transport Act) of 07 Jun 2000 (Last update 12 March 2012)

4. Chapter

Combined transport

§ 11. Üldsätted / § 11. GENERAL PROVISIONS

(1) Käesolevas seaduses mõistetakse kombineeritud veona veose rahvusvahelist kohaletoimetamist autoga, vedukiga või vedukita poolhaagisega, auto vahetatava kerega või vähemalt 6,096 m (20 jala) pikkuse konteineriga, kui vedaja kasutab veo alg- või lõppetapil maanteed ning ülejäänud etappidel raudtee- või mereveoteenust sama saatedokumendi alusel. Raudtee- ja mereveoetapi algpunkti ja lõpp-punkti vaheline kaugus otsejoones mõõdetuna peab olema üle 100 kilomeetri.

(1) In this law 'combined transport' means the transport of goods between Member States where the lorry, trailer, semi-trailer, with or without tractor unit, swap body or container of 20 feet or more uses the road on the initial or final leg of the journey and, on the other leg, rail or inland waterway or maritime services. Rail or waterway section between beginning and end should exceed 100 km as the crow flies.

(2) Kombineeritud veo algetapp on teelõik veose pealelaadimise kohast kuni ümberlaadimiseks sobiva lähima raudteejaama või meresadamani ning lõppetapp on teelõik veose ümberlaadimiseks sobivast lähimast raudteejaamast või meresadamast mahalaadimiskohani.

(2) Combined transport defines: between the point where the goods are loaded and the nearest suitable rail loading station for the initial leg, and between the nearest suitable rail unloading station and the point where the goods are unloaded for the final leg

(3) Mereveo korral ei tohi kombineeritud veo alg- või lõppetapi teelõigu pikkus peale- või mahalaadimise meresadamast otsejoones mõõdetuna ületada 150 kilomeetrit.

(3) The inland waterway port or seaport of loading or unloading distance not exceeding 150 km as the crow flies.

§ 12. Kombineeritud veo korraldamine/ § 12. Combined transport organization

(1) Kui kombineeritud veo puhul korraldab veose saatja veo algetapil vedu käesoleva seaduse § 81 lõike 1 kohaselt oma kulul, ei ole nimetatud sättega vastuolus veose saaja õigus toimetada veos veo lõppetapil sihtkohta oma kulul. Veose saaja peab kasutama autot, mis on tema omandis või mida ta kasutab kasutuslepingu alusel ning mida juhib tema töötaja või veose saaja ise.

(1) If the combined shipment arrange for carriage of the shipper's transport during the initial phase of this Act, § 81, paragraph 1, of its expense, it is not contrary to the provision of cargo delivered to the recipient the right to transport cargo to the final stage at their own expense. Information about the recipient must use a car that is owned or, as it uses the user agreement, and driven by an employee or recipient of the goods themselves.

(2) Rahvusvahelise kokkuleppe alusel võib kombineeritud autovedu korraldava vedaja vabastada käesoleva seaduse §-s 21 ettenähtud veoloa nõudest.

(2) International agreements can release the carrier from the permit

(3) Kombineeritud veol kasutatavas saatedokumendis peavad olema märgitud raudteeveoga seotud peale- ja mahalaadimise raudteejaamad või mereveoga seotud peale- ja mahalaadimise sadamad. Pärast veo lõppemist teeb raudteejaama või sadama esindaja saatedokumenti sellekohase kande.

(3) The combined transport operation must be indicated on the accompanying document relating to the transport of rail loading and unloading stations relating to maritime transport, or loading and unloading ports. After the end of the carriage the railway station or the port makes the corresponding entry into the document.

8.5.1

(4) Kombineeritud veol kasutatavate sõidukite maksusoodustused sätestatakse maksuseadustes.

(4) Combination of vehicles used for the transport can be released from taxes or adapt tax exemptions. All exemptions are in the tax law.

8.5.2

COUNTRY	FINLAND

"Laki eräistä kansainvälisistä yhdistetyistä kuljetuksista 2000/440" (Law for certain types of international combined transport of goods)

The law was passed by the Finnish Parliament

1 §

With this Law the directive of 92/106/EEC for certain types of international combined transport of goods will be put into effect. The objective of the law is to move freight transport from roads especially to railways, and so to reduce congest of the roads and environmental impacts as well as improve the traffic safety.

2 §

In this law 'combined transport' means the transport of goods between Member States where the lorry, trailer, semi-trailer, with or without tractor unit, swap body or container of 20 feet or more uses the road on the initial or final leg of the journey and, on the other leg, rail or inland waterway or maritime services. Rail or waterway section between beginning and end should exceed 100 km as the crow flies and the road transport occurs:

1. between the nearest suitable loading rail station and loading place of the cargo
2. between the nearest suitable unloading rail station and unloading place of the cargo
3. maximum 150 km from the inland or sea port where the cargo will be loaded or unloaded.

3 §

All hauliers established in a Member State who meet the conditions of access to the occupation and access to the market for transport of goods between Member States shall have the right to carry out, in the context of a combined transport operation between Member States, initial and/or final road haulage legs which form an integral part of the combined transport operation and which may or may not include the crossing of a frontier.

4 §

In the case of combined transport for hire or reward, a transport document, shall also specify the rail loading and unloading stations relating to the rail leg, or the inland waterway loading and unloading ports relating to the inland waterway leg, or the maritime loading and unloading ports relating to the maritime section of the journey. These details shall be recorded before the transport operation is carried out and shall be confirmed by means of a stamp affixed by the rail or port authorities in the railway stations or inland waterway or sea ports concerned when that part of the journey carried out by rail or inland waterway or by sea has been completed.

Where a trailer or semi-trailer belonging to an undertaking engaged in own-account transport is hauled on a final section by a tractor belonging to an undertaking engaged in transport for hire or reward, the transport operation so effected shall be exempt from presentation of the document provided for in clause 1; however, another document shall be provided giving evidence of the journey covered or to be covered by rail, by inland waterway or by sea.

5 §

Where, as part of a combined transport operation, the dispatching undertaking carries out the initial road haulage leg for its own account, the undertaking which is to receive the goods transported may, notwithstanding the definition given in the said Directive, carry out for its own account the final road haulage leg to transport the goods to their destination using a tractor owned by it, even though the trailer or semi-trailer is registered or hired by the undertaking which dispatched the goods.

The initial road haulage leg in an international combined transport operation which the dispatching undertaking carries out using a tractor owned by it, whereas the trailer or semi-trailer is registered or hired by the undertaking which is to receive the goods transported, shall also be considered an own-account carriage operation if the final road haulage leg is carried out for its own account in accordance with the latter Directive by the recipient undertaking.

6 §

The return of the vehicle tax for the tracks used in international combined transport, is legislated in the act for the motor vehicles (722/1966).

These Regulations shall come into force on 1st June 2000

COUNTRY	FRANCE

L'arrêté du 25 septembre 1991 relatif à l'exécution des transports combinés de marchandises entre les Etats membres de la Communauté économique européenne

as amended by:

- l'arrêté du 22 avril 2010 relatif aux documents de transport routier de marchandises et au transport combine de marchandises (published: Journal officiel de la République Française, 4 May 2010)
- l'arrêté du 21 février 1995 modifiant l'arrêté du 25 septembre 1991 relatif à l'exécution des transports combinés de marchandises entre les Etats membres de la Communauté économique européenne (published: Journal officiel de la République Française, 7 March 1995, p. 3571-3572)

Article 1 – The present regulation applies to combined transport operations as defined by Council Directive 92/106/EEC of 7 December 1992 on the establishment of common rules for certain types of combined transport of goods between Member States.

For the purposes of this regulation, 'combined transport' means the transport of goods between Member States of the agreement on a European Economic Area where the lorry, trailer, semi-trailer, with or without tractor unit, swap body or container of 20 feet or more uses the road on the initial or final leg of the journey and, on the other leg, rail or inland waterway or maritime services where this section exceeds 100 km as the crow flies and make the initial or final road transport leg of the journey:

- between the point where the goods are loaded and the nearest suitable rail loading station for the initial leg, and between the nearest suitable rail unloading station and the point where the goods are unloaded for the final leg, or;
- within a radius not exceeding 150 km as the crow flies from the inland waterway port or seaport of loading or unloading.

Article 2 - In the case of transport for hire or reward, the beneficiary of the provisions of Article 4 is subject to produce a transport document by the road haulier, which is accompanying the goods and providing evidence that the transport is performed with respect to one of the categories of combined transport as defined in Article 1.

This document shall specify the rail loading and unloading stations relating to the rail leg, or the inland waterway loading and unloading ports relating to the inland waterway leg, or the maritime loading and unloading ports relating to the maritime section of the journey.

These details shall be recorded before the transport operation is carried out and shall be confirmed by means of a stamp affixed by the rail station or unloading port authorities."

Article 3 (*repealed*)

Article 4 – I. By applying Article 4 of the above mentioned Council Directive of 7 December 1992, all hauliers established in a Member State of the agreement on a European Economic Area who meet the conditions of access to the occupation and access to the market for transport of goods between Member States of this agreement have the right to carry out initial and/or final road haulage legs, which form an integral part of a combined transport operation between Member States of this agreement and which may or may not include the crossing of a frontier.

II. – The provisions of Article 8 of Regulation (EC) No 1072/2009 of the European Parliament and of the Council of 21 October 2009 on common rules for access to the international road haulage market shall not be applied to cabotage operations by road, which form an integral part of combined transport operations as defined by Article 1 of this regulation.

Article 5 – Where, as part of a combined transport operation between Member States of the agreement on a European Economic Area, the dispatching undertaking carries out the initial road haulage leg for its own account, the undertaking which is to receive the goods transported may carry out for its own account the final road haulage leg to transport the goods to their destination using a tractor owned by it, bought by it on deferred terms or hired by it even though the trailer or semi-trailer is registered or hired by the undertaking which dispatched the goods.

The initial road haulage leg in a combined transport operation between Member States of the agreement on a European Economic Area, which the dispatching undertaking carries out using a tractor owned by it, bought by it on deferred terms or hired by it whereas the trailer or semi-trailer is registered or hired by the undertaking which is to receive the goods transported, shall also be considered an own-account carriage operation if the final road haulage leg is carried out for its own account by the recipient undertaking.

In this case the tractor should have a document in order to provide evidence of the execution of the rail, inland waterway or sea transport. Therefore there is no need to present the document mentioned in Article 2.

Article 6 - The decree of 4 June 1987 amending the rules relating to the implementation of combined transport operations of goods between Members of the European Economic Community will be repealed.

L'arrêté du 21 février 1995 modifiant l'arrêté du 25 septembre 1991 relatif à l'exécution des transports combinés de marchandises entre les Etats membres de la Communauté économique européenne (published: Journal officiel de la République Française, 7 March 1995, p. 3571-3572)

Article 1 - The decree of 25 September1991 relating to the implementation of combined transport operations of goods between Members of the European Economic Community is amended as follows:

A. Article 1 is replaced by the following provisions:

"Article 1 – The road leg of combined transport operations of goods between Member States of the European Union is liberalized from systems of authorization.

For the purposes of this decree, 'combined transport' means the transport of goods between Member States where the lorry, trailer, semi-trailer, with or without tractor unit, swap body or container of 20 feet or more uses the road on the initial or final leg of the journey and, on the other leg, rail or inland waterway or maritime services where this section exceeds 100 km as the crow flies and make the initial or final road transport leg of the journey:

- between the point where the goods are loaded and the nearest suitable rail loading station for the initial leg, and between the nearest suitable rail unloading station and the point where the goods are unloaded for the final leg, or;
- within a radius not exceeding 150 km as the crow flies from the inland waterway port or seaport of loading or unloading.

B. Article 2 is replaced by the following provisions:

"Article 2 - In the case of transport for hire or reward, the beneficiary of the provisions of the second paragraph of Article 1 is subject to produce a transport document by the road haulier, which is accompanying the goods and providing evidence that the transport is performed with respect to one of the categories of combined transport as defined in the second paragraph of Article 1."

"This document shall specify the rail loading and unloading stations relating to the rail leg, or the inland waterway loading and unloading ports relating to the inland waterway leg, or the maritime loading and unloading ports relating to the maritime section of the journey."

"These details shall be recorded before the transport operation is carried out and shall be confirmed by means of a stamp affixed by the rail station or unloading port authorities."

C. - Article 3 is repealed.

D. - The last paragraph of Article 5 is amended as follows:

The words "or inland waterway" are replaced by the words "inland waterway or sea".

Article 2 - The Director of Land Transport is responsible for the implementation of this decree, which will be published in the Official Journal.

Done at Paris, 21 February1995

Arrêté du 25 septembre 1991 relatif à l'exécution des transports combinés de marchandises entre les Etats membres de la Communauté économique européenne

Published: Journal Officiel de la République Française, 12 October 1991, p. 13416-13417

Article 1 (replaced by l'arrêté du 21 février 1995)

Article 2 (replaced by l'arrêté du 21 février 1995)

Article 3 (repealed by l'arrêté du 21 février 1995)

Article 4 - All hauliers established in a Member State who meet the conditions of access to the occupation and access to the market for transport of goods between Member States have the right to carry out initial and/or final road haulage legs, which form an integral part of a combined transport operation between Member States and which may or may not include the crossing of a frontier.

Article 5 – Where, as part of a combined transport operation between Member States, the dispatching undertaking carries out the initial road haulage leg for its own account, the undertaking which is to receive the goods transported may carry out for its own account the final road haulage leg to transport the goods to their destination using a tractor owned by it, bought by it on deferred terms or hired by it even though the trailer or semi-trailer is registered or hired by the undertaking which dispatched the goods.

The initial road haulage leg in a combined transport operation between Member States, which the dispatching undertaking carries out using a tractor owned by it, bought by it on deferred terms or hired by it whereas the trailer or semi-trailer is registered or hired by the undertaking which is to receive the goods transported, shall also be considered an own-account carriage operation if the final road haulage leg is carried out for its own account by the recipient undertaking.

In this case the tractor should have a document in order to provide evidence of the execution of the rail or inland waterway transport. Therefore there is no need to present the document mentioned in Article 2.

Article 6 - The decree of 4 June 1987 amending the rules relating to the implementation of combined transport operations of goods between Members of the European Economic Community will be repealed.

Article 7 - This decree will be published in the Official Journal.

Done at Paris, 25 September 1991

COUNTRY	GERMANY

Directive on international (border-crossing) transport of goods and cabotage traffic (Verordnung über den grenzüberschreitenden Güterkraftverkehr und den Kabotageverkehr) of 28 Dec 2011, Federal Journal, Part I, N° 2 of 4 Jan 2012

Section 5: International (border-crossing) combined transport for hire and reward

§ 13 Definition

International combined transport for hire and reward means the transport of goods where

1. The vehicle, the trailer, the vehicle body, the swap body or the container of 6 meter or more performs one leg of the journey by road and, on another leg, by rail or barge or sea vessel (with the maritime section exceeding 100 km as the crow flies);
2. One part of the total journey is domestic and the other part abroad;
3. The domestic road leg (initial or final road leg) is executed between the point where the goods are loaded or unloaded and
   a) The nearest suitable rail station, or
   b) Within a radius not exceeding 150 km as the crow flies from a inland or sea port.

§ 14 Nearest suitable rail station

(1) The nearest possible rail station in the meaning of § 13 n° 3a is the station:

1. Which provides for facilities to ensure handling of CT operations in question;
2. At which regular CT services in terms of type and direction are supplied;
3. Which provides for the shortest and most common road leg from/to the point where the goods are loaded or unloaded.

(2) Upon application of a haulier the federal authority[182], by derogation from paragraph (1), may define another rail station as the nearest possible rail station. Prior to its decision the federal authority may hear the railway undertakings and terminal operators affected.

(3) The haulier has to ensure that the confirmation on the definition of the other rail station is carried along the entire international combined transport operation. The lorry drivers are subject to carry the confirmation according to clause 1 on the vehicle and produce it to authorized control personnel.

§ 15 Initial and final road haulage legs by hauliers established in Member States of the European Economic Area

[182] Bundesamt für Güterverkehr (BAG)

(1) A haulier established in a Member State of the European Union or in another Member State of the agreement on a European Economic Area has the right to carry out, in the context of combined transport operations, domestic (inland) initial or final road haulage legs if he meets the conditions of access to the occupation and access to the market for transport of goods between Member States.

(2) The haulier has to ensure that an operation according to paragraph (1) is accompanied by a document providing evidence on the fulfillment of the conditions of access to the occupation and access to the market for transport of goods between Member States. The lorry drivers are subject to carry the evidence according to clause 1 on the vehicle and produce it to authorized control personnel.

§ 16 Initial and final road haulage legs by hauliers not established in Member States of the European Economic Area

(1) A haulier not established in a Member State of the European Union or in another Member State of the agreement on a European Economic Area

1. Has the right to carry out, in the context of combined transport operations according to § 13, domestic (inland) initial or final road haulage legs if he provides for an authorization based on international agreements;
2. Is exempted from obligatory authorization and licensing in the case of domestic (inland) initial or final road haulage legs in the context of combined transport operations if
   a) In the case of unaccompanied combined transport, the vehicle crosses the German border on the initial or final road haulage leg;
   b) In the case of accompanied combined transport, the vehicle crosses the German border on the transport by rail, barge or sea vessel and executes only an initial or final road haulage leg, which, in the case of accompanied combined transport rail/road, is carried out within a radius not exceeding 150 km as the crow flies between the point where the goods are loaded or unloaded and a suitable rail station; and
   c) The haulier has the right to carry out international transport of goods in the state where he is established, and there is no evidence with respect to concerns on his personal reliability.

(2) The haulier has to ensure that an operation according to paragraph (1) N° 1 is accompanied by the necessary authorization and an operation according to paragraph (1) N° 2 is accompanied by a document providing evidence on the fulfillment of the conditions of paragraph (1) N° 2c, first clause. The lorry drivers are subject to carry the respective evidence according to clause 1 on the vehicle and produce it to authorized control personnel.

§ 17 Evidence on the execution of international combined transport for hire and reward

(1) The haulier has to ensure that an initial road haulage leg according to § 15 or § 16 is accompanied by a booking confirmation issued by a railway undertaking or barge or vessel operator or by an authorized agent. In the case of § 16 (1) N° 1b) the booking confirmation must also specify the licence number of the vehicle. The lorry drivers are subject to carry the booking confirmation according to clause 1 on the vehicle and produce it to authorized control personnel.

(2) The haulier has to ensure that a final road haulage leg according to § 15 or § 16 is accompanied by a document issued by a railway undertaking or barge or vessel operator or by an authorized agent specifying the unloading rail station or inland or sea port used. In the case of § 16 (1) N° 2b) the booking confirmation must also specify the licence number of the vehicle. The lorry drivers are subject to carry the document according to clause 1 on the vehicle and produce it to authorized control personnel.

COUNTRY	GREECE

Προσαρμογή της Ελληνικής νομοθεσίας προς τις διατάξεις της οδηγίας του Συμβουλίου των Ευρωπαϊκών Κοινοτήτων 92/106/ΕΟΚ της 7ης Δεκεμβρίου 1992 «Θέσπιση Κοινών Κανόνων για ορισμένες συνδυασμένες εμπορευματικές μεταφορές μεταξύ των Κρατών Μελών (EEL 368/17.12.92)

Ratification of Council Directive 92/106/EEC of 7 December 1992 on the "Establishment of common rules for certain types of combined transport of goods between Member States" in the national Greek legislation through the Presidential Decree 431 that was published in the Government Gazzete Series I, No 245, in 24/11/1995 and entered into force in the same date, as amended by:

Article 1 –Scope

The scope of the present decree relates to combined transport operations as defined by Council Directive 92/106/EEC of 7 December 1992 on the establishment of common rules for certain types of combined transport of goods between Member States (EEL 368/38/17.1.1992).

Article 2-Definition of terms

For the purposes of this decree, 'combined transport' means the transport of goods between Member States where the lorry, trailer, semi-trailer, with or without tractor unit, swap body or container of 20 feet or more uses the road on the initial or final leg of the journey and, on the other leg, rail or inland waterway or maritime services where this section exceeds 100 km as the crow flies and make the initial or final road transport leg of the journey:

- between the point where the goods are loaded and the nearest suitable rail unloading station and the point where the goods are unloaded for the final leg, or;
- within a radius not exceeding 150 km as the crow flies from the inland waterway port or seaport of loading or unloading.

Nearest suitable rail station: The rail station having the adequate infrastructure for the loading and unloading of a vehicle, for the realisation of the combined transport and is nearest to the point of loading or unloading of the initial or final leg.

Article 3 – Liberisation of combined transport

Combined transport as defined in Article 2 of the present Decree, between Greece and the rest of EU Member States, is liberated from all quota systems and systems of authorisation.

Article 4-Accompanying documents

1. For each combined transport performed for a third party, according to the provisions of the present Decree, a transport document is issued including
   a) the name and address of sender,
   b) nature and weight of goods transported,
   c) place and date of the receipt of goods,
   d) place for the delivery of goods,
   e) itinerary and distance covered, if these information justify a different tariff,
   f) border crossing points, where necessary
   g) loading and unloading rail stations for the rail transport leg or for the river or sea ports for loading and unloading for IWW or sea transport.

   The elements of a, b, c, d, e, f and g of this paragraph are recorded in the transport document before the transportation and are validated with the stamp of railway or port authorities in the loading and unloading stations or in the river or port rivers after the end of the transport executed by rail or in river or sea.
2. This document is composed in 2 copies and is numbered. The first copy is accompanies the goods. In this copy reference to the total expenditures of transport is made, in any way these are made, and every other charge or discount and all factors that affect the tariffs and the conditions of transport.
3. Responsible for the declaration of the transport document is the shipper.

   Shipper means every natural or legal body established in Member State that corresponds to the access conditions of the profession of the road freight transport and the freight transport market between Member States as agreed in the provisions of PD 57/1989 (Law A' 28) as amended and completed by PD 294/1991 (Law A'103) and the regulation of 881/92 regarding conduction of international road freight transport.

The above bodies are entitled to carry out, as part of combined transport between Member States, first or final road leg, that are part of the combined transport and include or note border crossings.

The first or final road leg of a combined transport is free of any obligatory definition of tariff.

Article 5 – Records

The Ministry of Transport and Communications keeps record of:

— transport links used in combined transport operation,

— the number of vehicles (a road train counting as a single vehicle), swap bodies and containers transported over the various transport links,

— transported tonnages,

— services carried out, in terms of tonnes/kilometres.

The above data are included in the report sent every 2 years in the European Commission.

Article 6 –

Taxis are applicable to road vehicles (lorries, tractors, trailers or semi-trailers) when routed in combined transport are reduced or reimbursed either by a standard amount, or in proportion to the journeys that such vehicles undertake by rail, within limits and in accordance with conditions and rules they fix after Common Decision of Ministers of Economics and Transport, after consultation with the Commission.

Article 7 –

Where a trailer or semi-trailer belonging to an undertaking engaged in own-account transport is hauled on a final section by a tractor belonging to an undertaking engaged in transport for hire or reward, the transport operation so effected shall be exempt from presentation of the document provided for in Article 4; however, another document shall be provided giving evidence of the journey covered or to be covered by rail, by inland waterway or by sea.

Article 8 –

1. Where, as part of a combined transport operation, the dispatching undertaking carries out the initial road haulage leg for its own account within the meaning of article 2 of the P.D. 63/86 (Law A΄26) the undertaking which is to receive the goods may carry out for its own account the final road haulage leg to transport the goods to their destination using a tractor owned by it, bought by it on deferred terms or hired by it pursuant to P.D. 91/88 as it was modified by PD 209/91 (Law)A΄70, and driven by its employees, even though the trailer or semi-trailer is registered or hired by the undertaking which dispatched the goods.

2. The initial road haulage leg in a combined transport operation which the dispatching undertaking carries out using a tractor owned by it, bought by it on deferred terms or hired by it pursuant to the above paragraph 1 and which is driven by its employees, whereas the trailer or semi-trailer is registered or hired by the undertaking which is to receive the goods transported, shall also, be considered an own-account carriage operation if the final road haulage leg is carried out for its own account by the recipient undertaking.

Article 9 – Endorsements

Infringement of the provisions of this Degree from natural or legal persons carrying combined transport is forced by the responsible authorities, Police, Port Authorities, Customs, administrative fine is imposed to the Public State as the article 4 of Law 1959/1991 (Law A' 123).

Article 10 – Repealing Provisions

By force of this Degree, any provision contrary to the provisions of this Degree or regulate the same subject is repealed.

Article 11 – Entry into force

The Decree shall enter into force following the publication in the Official Journal.

Done at Athens, November 20, 1995

COUNTRY	HUNGARY

Government decree on the promotion of international combined transport (266/2003. (XII. 24.) Korm. rendelet a nemzetközi kombinált árufuvarozást elősegítő kedvezményekről), in: Magyar Yarklözlöny 154/2003, p 12252n;

§1

(1) This decree is valid for all vehicles having an official license issued by a foreign authority doing combined transportation of goods on the territory of the Hungarian Republic and their respective operator(s) (thereinafter referenced as 'foreign transporter') except in the case when the conditions of an international treaty regarding to the matter disposes differently.

(2) During this decree the term of 'combined transportation' is used to describe the following: a kind of transportation form which includes transporting vehicles, trailers, semitrailers (with or without the tow truck), swap bodies or containers with the length of 6 m or more (thereinafter these altogether will be referenced as 'intermodal transportation unit'). During transportation the beginning or the ending phase is carried out via the public road infrastructure and in between it uses the railway system, inland navigation or sea navigation, it goes for a distance of 100 km or more (in a straight line) and the following conditions are true about the beginning and ending phase:

a; the beginning or the ending phase happen between the loading site of goods and the nearest suitable railway terminal or the unloading site of goods and the nearest suitable railway terminal respectively or
b; the loading or unloading site is less than 150 km away (in a straight line) from the nearest seaport or inland port.

§2

(1) If a foreign transporter transported goods internationally or forwarded goods in intermodal transportation units inside of the Hungarian Republic between the border or the place of dispatch to the nearest (maximum 70 km in straight line) combined railway terminal or combined inland port terminal via the public road infrastructure he shall not need pay the vehicle tax of the vehicle used during the transportation or use an international public road transportation permit.

Points (2)-(3) are specific regulations about Hungarian ports and terminals and therefore are omitted from this translational compendium.

(4) The allowance described in (1) is only valid for vehicles having resort to the railway or the shipping stage of the combined transportation route too.

§3

The allowances described in 2§ are only valid for foreign transporters that are at the time of crossing the border already in possession of shipping documents related to the forwarding of goods on railway or inland navigation (railway document or shipping-bill and a valid ticket).

(2) The existence, the content and the validity of the documents described in (1) could be verified by customs authorities, traffic monitoring or the police anytime.

§4

This decree contains regulations which agree fully with the regulations and laws based on the European Treaty signed by the Republic of Hungary and the European Communities and its member states on 16th December, 1991 which were put in place 1994 (Act I - 3§), with the regulations of combined transportation of goods of Act LXXXII from 1991 and with the international treaties about combined transport and the general rules of different types of combined transportation of goods outlined in the European Economic Community's guideline 92/106/EEC.

§5

This decree is going to come into effect on 1st January, 2004.
Simultaneously the allowances to subserve international combined transportation of goods, outlined in the governmental regulation 154/1995 and its modification 56/1996 will be repealed.

COUNTRY	IRELAND

S.I. No. 60/1994:

EUROPEAN COMMUNITIES (COMBINED TRANSPORT OF GOODS BETWEEN MEMBER STATES) REGULATIONS, 1994.

EUROPEAN COMMUNITIES (COMBINED TRANSPORT OF GOODS BETWEEN MEMBER STATES) REGULATIONS, 1994.

I, BRIAN COWEN, Minister for Transport, Energy and Communications, in exercise of the powers conferred on me by section 3 of the European Communities Act, 1972 (No. 72 of 1972), and for the purpose of giving affect to Council Directive 92/106/EEC of 7 December 1992[1] hereby make the following Regulations:

1. These Regulations may be cited as the European Communities (Combined Transport of Goods between Member States) Regulations, 1994.

2. (1) In these Regulations—

"authorised officer" means a transport officer appointed by the Minister pursuant to section 15 of the Road Transport Act, 1986 (No. 16 of 1986), any officer of Customs and Excise or any member of the Garda Síochána;

"the Council Directive" means Council Directive 92/106/EEC of 7 December 1992[1] on the establishment of common rules for certain types of combined transport of goods between Member States;

"haulier" means an undertaking which is established in a Member State and holds a Community Authorisation under the provisions of Council Regulation (EEC) No. 881/92 of 26 March 1992[2] which is in force;

"the Minister" means the Minister for Transport, Energy and Communications;

"officer of Customs and Excise" has the same meaning as it has in the Customs Act, 1956 (No. 7 of 1956).

(2) A word or expression that is used in these Regulations and is also used in the Council Directive has, unless the contrary intention appears, the same meaning in these Regulations as it has in that Directive.

[1]OJ No. L368 of 17-12-92, p.38.

[2]OJ No. L95 of 9-4-92, p.1.

3. Notwithstanding anything in section 7 (as amended by section 29 of the Transport Act, 1958 (No. 19 of 1958)) of the Road Transport Act, 1935 (No. 23 of 1935) or in section 8 (inserted by section 8 of the Road Transport Act, 1986 (No. 16 of 1986)) of the Road Transport Act 1971 (No. 8 of 1971), neither a licence under the said section 7 nor a restricted road freight licence under this said section 8 shall be required in respect of the carrying out in the State by a haulier of the initial or final road haulage legs of a combined transport operation between Member States where such legs are an integral part of the combined transport operation and whether or not they include the crossing of a frontier.

4. Section 9 (inserted by section 2 of the Road Transport Act, 1978 (No. 8 of 1978)) and section 34 of the Road Transport Act, 1933 (No. 8 of 1933), shall not apply to a vehicle used in the combined transport of goods between Member States.

5. A haulier who is engaged in a combined transport operation shall comply with the provisions of Article 3 of the Council Directive.

6. An authorised officer may require a haulier who he believes to be engaged in a combined transport operation to produce to him in respect of that operation the transport documents referred to in Article 3 of the Council Directive containing the information required by that Article.

7. (1) A person who contravenes Regulation 5 of these Regulations or who fails or refuses to comply with a requirement under Regulation 6 of these Regulations shall be guilty of an offence.

(2) A person who is guilty of an offence under these Regulations shall be liable on summary conviction to a fine not exceeding £1,000.

8. The following Regulations are hereby revoked—

(*a*) European Communities (International Carriage of Goods by Road and Rail) Regulations, 1975 (S.I. No. 225 of 1975);

(*b*) European Communities (Combined Road/Rail Carriage of Goods between Member States) Regulations, 1979 (S.I. No. 227 of 1979);

(*c*) European Communities (Combined Road/Rail Carriage of Goods between Member States) Regulations, 1982 (S.I. No. 357 of 1982).

GIVEN under my Official Seal, this 11th day of March, 1994.

BRIAN COWEN,

Minister for Transport, Energy and Communications.

EXPLANATORY NOTE.

These Regulations give effect to Council Directive No. 92/106/EEC of 7 December 1992 on the establishment of common rules for certain types of combined transport of goods between Member States. The purpose of the Directive is to liberalise combined transport operations between Member States from all quota systems and systems of authorisation. The Directive repealed Directive No. 75/103/EEC and amending Directives concerning combined transport.

COUNTRY	ITALY

Decreto Ministeriale 15 Febbraio 2001

IL MINISTRO DEI TRASPORTI E DELLA NAVIGAZIONE

Vista la direttiva del consiglio 92/106/CEE del 7 dicembre 1992, relativa alla fissazione di norme comuni per taluni trasporti combinati di merci tra Stati membri;

Visto l'art. 5 della legge 22 febbraio 1994, n. 146 (legge comunitaria 1993), ai sensi del quale la menzionata direttiva del consiglio 92/106/CEE del 7 dicembre 1992 deve essere attuata in via amministrativa;

Visto il decreto ministeriale 27 febbraio 1992, pubblicato nella Gazzetta Ufficiale della Repubblica italiana del 29 febbraio 1992, n. 50;

Vista la nota della rappresentanza permanente d'Italia presso l'Unione europea n. 6803 del 3 ottobre 1994, con la quale è stato comunicato, tra l'altro, che la commissione dell'Unione europea ha preso atto che con il menzionato decreto ministeriale è stato effettivamente recepito l'art. 4 della menzionata direttiva 92/106/CEE;

Considerato che la menzionata direttiva 92/106/CEE risulta quindi parzialmente recepita nell'ordinamento nazionale e che occorre pertanto provvedere al suo integrale recepimento.

DECRETA:

Ministerial Decree 15 February 2001

The Minister for Transport and Navigation

Having regard to the council directive 92/106 / EEC of 7 December 1992 on the establishment of common rules for certain types of combined transport of goods between Member States;

Having regard to art. 5 of Law 22 February 1994 n. 146 (Community Law 1993), under which the mentioned council directive 92/106 / EEC of 7 December 1992 must be implemented by administrative action;

Having regard to the Ministerial Decree of 27 February 1992 published in the Official Gazette of the Italian Republic on 29 February 1992, no. 50;

Having regard to the note from the Permanent Representative of Italy to the European Union no. 6803 of 3 October 1994 in which it was announced, among other things, that the Board of the European Union noted that by the mentioned ministerial decree Article. 4 of that Directive 92/106 / EEC was actually transposed;

Whereas the Directive 92/106 / EEC is therefore partially transposed into national law and it that it is therefore necessary to provide for its full implementation.

DECREES:

Art. 1. Definizioni

1. Ai fini del presente decreto, per «trasporto combinato» si intendono i trasporti di cose fra Stati membri dell'Unione europea o aderenti all'accordo sullo spazio economico europeo nei quali l'autocarro, il rimorchio, il semirimorchio con o senza veicolo trattore, la cassa mobile o il contenitore (di 20 piedi e oltre) effettuano la parte iniziale o terminale del tragitto su strada e l'altra parte per ferrovia, per via navigabile o per mare e ricorrono le seguenti condizioni:

a) la parte del tragitto effettuata per ferrovia, per via navigabile o per mare supera i 100 km in linea d'aria;

b) la parte iniziale o terminale del tragitto, effettuata su strada, è compresa fra il punto di carico della merce e l'idonea stazione ferroviaria di carico più vicina per il tragitto iniziale o fra il punto di scarico della merce e l'idonea stazione ferroviaria di scarico più vicina per il tragitto terminale ovvero la parte iniziale o terminale del tragitto, effettuata su strada, è compresa in un raggio non superiore a 150 km. in linea d'aria dal porto fluviale o marittimo di imbarco o di sbarco.

Art. 2. Regime amministrativo

1. Il trasporto di cui all'art. 1, svolto mediante veicoli a ciò destinati e regolarmente immatricolati in uno degli Stati dell'Unione europea o aderenti all'accordo sullo spazio economico europeo, può essere liberamente esercitato

Art. 3. Documento di trasporto

1. In caso di trasporto combinato per conto terzi, il documento di trasporto deve essere completato con l'indicazione delle stazioni ferroviarie di carico e scarico relative al percorso ferroviario o dei porti fluviali di

Art. 1. Definitions

1. For the purposes of this Directive, «combined transport» means the transport of goods between Member States where the lorry, trailer, semi-trailer, with or without tractor unit, swap body or container (of 20 feet or more) uses the road on the initial or final leg of the journey and, on the other leg, rail or inland waterway or maritime services and following conditions occur:

a) the leg by rail or inland waterway or maritime services section exceeds 100 km as the crow flies

b) the initial or final road transport leg of the journey, done by road. Is included between the point where the goods are loaded and the nearest suitable rail loading station for the initial leg, and between the nearest suitable rail unloading station and the point where the goods are unloaded for the final leg, or within a radius not exceeding 150 km as the crow flies from the inland waterway port or seaport of loading or unloading.

Art. 2. Administraive regime

1. Transport operations as referred to in Article 1, run by dedicated vehicles regularly registered in one of the Member States or other Countries in the European Economic Area, can be freely performed.

Art. 3. Transport document

1. In the case of combined transport for hire or reward, the transport document

imbarco o di sbarco relativi al percorso per via navigabile o dei porti marittimi di imbarco o di sbarco relativi al percorso marittimo. Tali menzioni vengono apposte prima dell'esecuzione del trasporto e confermate mediante apposizione di un timbro delle amministrazioni ferroviarie o portuali nelle stazioni ferroviarie o nei porti fluviali o marittimi di cui trattasi, al termine della parte di trasporto effettuata per ferrovia, per via navigabile o per mare.

2. Quando un rimorchio o un semirimorchio, appartenente ad un'impresa che esegue trasporti per conto proprio, è trainato su uno dei percorsi terminali da un veicolo trattore appartenente ad un'impresa che esegue trasporti in conto terzi, il trasporto così eseguito è esentato dalla presentazione del documento di cui al comma 1. Con decreto del capo del Dipartimento dei trasporti terrestri è stabilito il modello di documento, comprovante il percorso eseguito o da eseguire per ferrovia, per via navigabile o per mare, che deve essere prodotto.

Art. 4. Tragitti iniziali e terminali

1. I vettori stradali stabiliti in uno degli Stati dell'Unione europea o aderenti all'accordo sullo spazio economico europeo, e che possiedono i requisiti per l'accesso alla attività e al mercato per il trasporto di cui all'art. 1, possono effettuare, nel quadro di un trasporto combinato tra Stati dell'Unione europea o aderenti all'accordo sullo spazio economico europeo, tragitti stradali iniziali e/o terminali che costituiscono parte integrante del trasporto combinato anche quando non comprendono il varco di una frontiera.

Art. 5. Misure a favore del trasporto combinato

shall also specify the rail loading and unloading stations relating to the rail leg, or the inland waterway loading and unloading ports relating to the inland waterway leg, or the maritime loading and unloading ports relating to the maritime section of the journey. These details shall be recorded before the transport operation is carried out and shall be confirmed by means of a stamp affixed by the rail or port authorities in the railway stations or inland waterway or sea ports concerned when that part of the journey carried out by rail or inland waterway or by sea has been completed.

2. Where a trailer or semi-trailer belonging to an undertaking engaged in own-account transport is hauled on a final section by a tractor belonging to an undertaking engaged in transport for hire or reward, the transport operation so effected shall be exempt from presentation of the document provided for in paragraph 1. The template of the document to be provided, giving evidence of the journey covered or to be covered by rail, by inland waterway or by sea, is established by a decree of the head of the Department of Land Transport.

Art. 4. Initial and final legs

1. All hauliers established in a Member State or in other Countries within the European Economic Area, who meet the conditions of access to the occupation and access to the market for transport of goods as stated by article 1, shall have the right to carry out, in the context of a combined transport operation between Member States and Countries in the European Economic Area, initial and/or final road haulage legs which form an integral part of the combined transport operation and which may or may not include the crossing of a frontier.

1. Il Ministro dei trasporti e della navigazione comunica alla commissione, ai fini della prescritta consultazione, le proposte di iniziative adottate dai competenti uffici ai sensi del vigente ordinamento e finalizzate alla riduzione o al rimborso - forfettario o in proporzione ai percorsi che i veicoli effettuano per ferrovia, entro i limiti, alle condizioni e secondo le modalità che saranno stabilite - delle tasse automobilistiche di cui all'art. 61 della legge 21 novembre 2000, n. 342, applicabili agli autocarri, ai trattori stradali, ai rimorchi ed ai semirimorchi immatricolati nello Stato, sempreché utilizzati in trasporto combinato.

2. Le riduzioni o i rimborsi di cui al comma 1, sono concessi sulla base dei percorsi per ferrovia effettuati all'interno dello Stato.

Art. 6. Tariffe

1. Il corrispettivo per il trasporto relativo al tragitto stradale iniziale o terminale effettuato nel quadro di un trasporto combinato è liberamente determinato dalle parti.

Art. 7. Trasporto combinato in conto proprio

1. Qualora, nel quadro di un trasporto combinato, l'impresa mittente effettui il tragitto stradale iniziale per conto proprio ai sensi della prima direttiva del consiglio, del 23 luglio 1962, relativa all'emanazione di norme comuni per taluni trasporti di merci su strada, l'impresa destinataria della merce trasportata può effettuare per conto proprio, in deroga alla definizione stabilita dalla succitata direttiva, il tragitto stradale terminale per portare a destinazione la merce, utilizzando un veicolo trattore che le appartiene o che ha acquistato a rate o noleggiato conformemente alla direttiva

Art. 5. Measures in favor of combined transport

1. The Minister for Transport and Navigation notifies the Commission, according to the prescribed consultation, proposals for initiatives taken by the competent offices in accordance with applicable regulations and finalised to reduction or reimbursement – either by a standard amount, or in proportion to the journeys that such vehicles undertake by rail, within limits and in accordance with conditions and rules to be fixed – of vehicle taxe as for law n. 342, 21 november 2000, art. 61, applicable to lorries, tractor units, trailers, semi-trailer, registered in the State, when used in combined transport.

2. The reductions or reimbursements referred to under 1 are granted on the basis of the rail journeys effected within the State.

Art. 6. Tariffs

1. The price of transport services related to the initial or final road haulage legs forming part of combined transport operations is freely determined by involved parties.

Art. 7. Own-account combined transport

1. Where, as part of a combined transport operation, the dispatching undertaking carries out the initial road haulage leg for its own account within the meaning of the First Council Directive of 23 July 1962 on the establishment of common rules for certain types of carriage of goods by road, the undertaking which is to receive the goods transported may, notwithstanding the definition given in the said Directive,

84/647/CEE del consiglio, del 19 dicembre 1984, relativa all'utilizzazione dei veicoli noleggiati senza conducente per il trasporto di merci su strada, guidato da suoi dipendenti, mentre il rimorchio o il semirimorchio è immatricolato a nome dell'impresa mittente o noleggiato da quest'ultima.

2. Il tragitto stradale iniziale di un trasporto combinato effettuato dall'impresa mittente utilizzando un veicolo trattore che le appartiene o che ha acquistato a rate o noleggiato conformemente alla direttiva 84/647/CEE, guidato da suoi dipendenti, mentre il rimorchio o il semirimorchio è immatricolato a nome dell'impresa destinataria della merce o noleggiato da quest'ultima, è parimenti considerato, in deroga alla direttiva del 23 luglio 1962, un'operazione di trasporto per conto proprio, qualora il tragitto stradale terminale sia effettuato per conto proprio dall'impresa destinataria conformemente a quest'ultima direttiva.

carry out for its own account the final road haulage leg to transport the goods to their destination using a tractor owned by it, bought by it on deferred terms or hired by it pursuant to Council Directive 84/647/EEC of 19 December 1984 on the use of vehicles hired without drivers for the carriage of goods by road, and driven by its employees, even though the trailer or semi-trailer is registered or hired by the undertaking which dispatched the goods.

2. The initial road haulage leg in a combined transport operation which the dispatching undertaking carries out using a tractor owned by it, bought by it on deferred terms or hired by it pursuant to Directive 86/647/EEC and which is driven by its employees, whereas the trailer or semi-trailer is registered or hired by the undertaking which is to receive the goods transported, shall also, notwithstanding the Directive of 23 July 1962, be considered an own-account carriage operation if the final road haulage leg is carried out for its own account in accordance with the latter Directive by the recipient undertaking.

COUNTRY	LATVIA

LATVIJAS REPUBLIKAS MINISTRU KABINETS

2003.04.29. Noteikumi nr. 225

Rīgā

Kārtība, kādā veicami kombinētie komercpārvadājumi, kombinētie pašpārvadājumi vai kombinētie pārvadājumi ar iznomātu transportlīdzekli, kā arī prasības kombinēto pārvadājumu kravas pavaddokumentam

(prot. Nr.23 41.§)

Issued pursuant to

Road Section

the third subparagraph of Article 50

1. These Regulations prescribe the procedures for the performance of combined commercial - transport, combined own-account carriage or combined transport by a hired vehicle, as well as the requirements for the marking of combined transport ¬ document and its content.

2. In Latvia or European Union Member States registered road hauliers, in accordance with the regulatory enactments of Latvia or the relevant countries have received a special permit (licence) the carriage of goods or services shall be carried out at the same stage, are entitled to make the combined transport between these countries with combined transport vehicle start and / or end stage, regardless of whether or not the combined transport related to the crossing of borders.

3. The commercial and combined transport by a hired vehicle, for the international transport of goods accompanying document certifying receipt in accordance with the Convention on the contract for the international carriage of goods (CMR), in the course of combined transport, the identification document is used the bill of lading-invoice (hereinafter - bill of lading).

4. The bill of lading shall indicate the certification of combined transport railway stations

(railway stage), inland water port terminal (inland waterway transport stage) or port terminals (maritime transport stage) where loading or unloading a lorry, trailer, semi-trailer, with or without tractor (as well as their combinations) or more and 20 feet (6,10 m and more) container. This information shall be included in the shipment before the shipment is made and loading or unloading shall be certified by the railway, inland waterway port terminal or port terminal stamp in the railway station or port terminal.

5. These Regulations shall come into force with special regulations.

Informative Reference to European Union Directive

These Regulations contain legal norms arising from the Directive 92 / 106 / eec.

Prime minister E.Repše

Minister of traffic R.Zīle

Law of transportation.

Chapter I

General Provisions

Section 1. Terms Used in this Law

The following terms are used in this Law:

….

15) **combined transport** – carriage of goods if a commercial vehicle, trailer or semi-trailer with or without a tractor unit or in the combination thereof, or 20 feet or larger containers in the initial (final) stage of a journey using a motor road, but in the remaining stages, a railway, an inland waterway or maritime route, if any of the sections of the road, except the motor way, exceeds the distance of 100 kilometres in a straight line. Within the framework of combined transport, the initial (final) stage of the journey shall be performed along a motor way between the place of loading (unloading) the goods and the nearest railway station appropriate for loading (unloading) the goods or within a radius not exceeding a distance of 150 kilometres in a straight line from an inland water port or sea port where the goods is loaded (unloaded);

Chapter V

Peculiarities of Certain Types of Carriage

[19 May 2002]

Section 50. Combined transport

(1) Tax (fee) rebates shall be applied to carriers whose (heavy) goods vehicles are involved in combined transport in compliance with tax laws.

(2) In cases provided for in international agreements the combined international carriage shall not require the authorisation provided for in Section 6 of this Law.

(3) Procedures for the performance of combined transport for reward, combined own-account carriage or combined transport by a hired vehicle, as well as the requirements for the accompanying document of goods of the combined transport shall be determined by the Cabinet.

Vehicle Tax of exploitation and Company Passenger Vehicle Enterprise Tax Act

Section 8. Reimbursement of the Vehicle Operation Tax

(1) The vehicle operation tax shall be reimbursed by the State Revenue Service after receipt of a relevant request of the payer of the vehicle operation tax.

(2) The vehicle operation tax shall be reimbursed in the following cases:

…..

4) if a goods vehicle or trailer (semi-trailer) has participated in the combined carriage by rail in the territory of Latvia, the vehicle operation tax for such vehicle shall be reimbursed in proportion to the days which have been spent in combined carriage by rail in the territory of Latvia within the calendar year;

COUNTRY	LITHUANIA

LIETUVOS RESPUBLIKOS TRANSPORTO VEIKLOS PAGRINDŲ Į S T A T Y M A S

(The law on general transport activities of the Republic of Lithuania)

Nauja įstatymo redakcija:

Nr. IX-747, 2002-02-28, Žin., 2002, Nr. 29-1034 (2002-03-20)

....

Article 3. Transport business enablers

State legal means, and if necessary financial means ensure that:

1) public transport infrastructure availability equal and non-discriminatory terms to all internal (domestic) transport infrastructure users, as well as these facilities from abroad, in accordance with international treaties and agreements;

2) transport infrastructure management and carrier separation;

3) carriers to transport services and non-discriminatory conditions;

4) carriers of independence, as well as free and fair competition in the market of transport services;

5) public transport infrastructure and the functioning of its development under the state targeted programs;

6) the combined transport system development and the promotion of development, as well as on the basis and transit promotion.

...

Article 5. Types of transport

Modes of transport in accordance with this Law are as follows: rail, road, sea, air and inland waterway transport. These modes, as well as combined transport activity are specified by specific modes of transport laws and other legal acts.

...

Article 12. Combined transport

1. Combined transport - goods transportation by at least two modes of transport with goods in one and the same truck, trailer or semi-trailer (with or without tractor unit), removable tank of 20 or more feet, where the larger part of the route the load unit is transported by rail, inland waterways or sea, and the initial and/or the final part of the route by road vehicles.

2. Government may determine the competitiveness of combined transport enhancing measures.

COUNTRY	LUXEMBOURG

Règlement ministériel du 18 décembre 1992 soumettant à autorisation les transports internationaux de personnes et de choses effectués sur le territoire luxembourgeois au moyen de véhicules routiers immatriculés dans un pays tiers

(Provision of the Ministry of 18 December 1992 on the autorisation of international transport of passengers and goods on the territory of Luxembourg carried out by road vehicles registered in third countries)

SECTION II. TRANSPORT OF GOODS

Art. 3.

…

(3)

(*International transport of goods between the Luxembourg territory and a non-EU Member State …)* is also liberalized from any system of authorisation as concerns the road legs of combined transport operations with respect to Council Directive 92/106/EEC of 7 December 1992 on the establishment of common rules for certain types of combined transport of goods between Member States.

Règlement grand-ducal du 23 mars 2001 fixant les montants du droit d'usage pour l'utilisation de certaines routes par les véhicules utilitaires lourds

(Provision of the grand duke of 23 March 2001 determining the amount of user charges for the utilisation of certain routes by heavy goods vehicles)

…

Art. 5

Vehicles shall obtain a reimbursement of the user charge paid when they are used in the context of a combined transport operation including road and rail or inland waterway, and when the initial or final road leg of the journey is between the point where the goods are loaded or unloaded and the nearest rail loading station or inland waterway port.

The amount to be reimbursed for each section is 3 euros.

The application for reimbursement must be submitted to the Luxembourg office for the issue of user rights in the month following the expiry of the certificate on the payment of the user right.

The application must be submitted together with the certificate of the user right and evidence for the carrying out of combined transport operations by rail or inland waterway, which shall specify the rail loading and unloading stations relating to the rail leg, or the inland waterway loading and unloading ports relating to the inland waterway leg, and shall be confirmed by means of a stamp affixed by the rail or port authorities in

the railway stations or inland waterway ports concerned when that part of the journey carried out by rail or inland waterway has been completed.

The examination of the reimbursement application does not incur administrative expenses.

COUNTRY	MALTA

SUBSIDIARY LEGISLATION 65.19

MOTOR VEHICLES (CARRIAGE OF GOODS BY ROAD)

REGULATIONS

1st May, 2004

LEGAL NOTICE 146 of 2003, as amended by Legal Notices 134 of 2006, and 225 and 408 of 2007; Acts V of 2007 and XV of 2009; and Legal Notices 74 of 2010 and 395 of 2011.

PART VIII

COMBINED TRANSPORT OF GOODS

78. In the case of combined transport for hire or reward, a transport document shall be presented to the Authority upon request. Such document shall specify the rail loading and unloading stations relating to the rail leg, or the inland waterway loading and unloading ports relating to the inland waterway leg, or the maritime loading and unloading ports relating to the maritime section of the journey, and the road loading or unloading stations or ports relating to a road leg not being the initial or final leg of the journey.

[Combined transport. *Amended by: L.N. 134 of 2006.]*

79. (1) Details referred to in the previous regulation shall be recorded before the transport operation is carried out and shall be confirmed by means of a stamp affixed by the relevant authority when the Maltese leg of the journey has been completed.

(2) Any haulier established in a Member State who meets the conditions of regulations 5 to 33 shall have the right to carry out the initial or final road haulage legs of a combined transport operation. In addition, a haulier for hire or reward shall comply with security pass arrangements in force in the port areas.

[Details to be recorded. *Amended by: L.N. 134 of 2006]*

80. Where a trailer or semi-trailer belonging to an undertaking engaged in own-account haulage is hauled on a final section by a tractor belonging to an undertaking engaged in transport for hire or reward, the transport operation so effected shall be exempt from presentation of the document provided for in regulation 78. However, another document shall be provided giving evidence of the journey covered or to be covered by rail, by inland waterway, by sea or by road, where that part of the journey covered by road does not form the initial or final leg.

[Hauling on final section. *Amended by: L.N. 134 of 2006]*

81. (1) Where the dispatching undertaking carries out the initial road haulage leg on its own account , the receiving undertaking may carry out the final leg on its own account, even though the trailer or semi-trailer is registered or hired by the dispatching undertaking.

(2) Where the receiving undertaking carries out the initial road haulage leg on its own account, the dispatching undertaking may carry out the final leg on its own account, even though the trailer or semi-trailer is registered or hired by the receiving undertaking.

[Own account sections. *Amended by: L.N. 134 of 2006]*

COUNTRY	THE NETHERLANDS

"Wet Belasting Zware Motorrijtuigen"

(Law on tax on heavy goods vehicles of 29 November 1995)

Article 14a

8.5.3 1. For motor trucks which are used for Combined Transport, can be given, on request, a restitution of the tax or a part of it;

8.5.4 2. The definition of Combined Transport is: the transport of cargo between member states of the European Union which will be done by truck, trailer, swap or container of 20 feet or more and will be done by road for the pre- or end part of the stretch and for the other part by rail or inland waterways or by sea stretch if this stretch is longer than 100 km, straight;

a. Either, concerning the pre-haulage: the loading site of the cargo and the nearest and most suitable loading station/terminal and, concerning the end-haulage: the nearest and most suitable unloading station/terminal and the unloading site of the cargo;
b. Either, within a distance of 150 km maximum, straight, measured of the river- or sea port (terminals) of loading or unloading;

8.5.5 3. If cargo will be transported by water or by rail, this transport will only be accepted as Combined Transport, if a road alternative for the water and rail stretch is available;

8.5.6 4. The restitution will be given for every day the truck is used for the pre- or end-haulage stretch by road. This road stretch is a part of the total stretch of Combined Transport, whereby the site of loading and unloading of the truck, trailer, swap or container of 20 feet or more is situated in the Netherlands;

8.5.7 5. The minimum period over which the restitution will be paid is three months;

8.5.8 6. The restitution for a day amounts for a motor truck for which the tax has been paid concerning a period of:

a. A day: the tax paid for the motor truck for a day;
b. A week: the tax paid for the motor truck for a seventh part;
c. A month: the tax paid for the motor truck for a thirtieth part;
d. A year: the tax paid for the motor truck for a three hundred five sixtieth part;

8.5.9 7. The request for restitution has to be done at the Tax Inspector who will decide in an arrangement which can be subject for objection;

8.5.10 8. At ministerial regulation further conditions and restrictions can be claimed for implementation of the restitution concerning the administrative requirements to which has to be satisfied to qualify the restitution.

Execution of tax law

Reimbursement Combined Transport

In combined transport the cargo will be transported partly by truck and partly by rail, barge or deep sea vessel. This has to be done from or to any EC member state. The road transport happens with a truck, trailer, swap or container of 20 ft and more. The other part of the total stretch happens with train or vessel.

Do you use your truck for Combined Transport? If yes, than it is possible to get a restitution of Tax Heavy Motor trucks if you comply to the following conditions:

- The sea stretch is, straight, more than 100km;
- For the stretch the cargo will be transported by rail or vessel, there has to be an alternative route by road;
- The cargo will be unloaded and loaded at the nearest station of loading and unloading (see below). This station has to be situated in the Netherlands;
- Using sea or inland waterways transport, the distance between the loading and unloading terminal in the port and the station of unloading/loading in the hinterland has to be shorter than 150 km, straight.

For every day you use your truck for Combined Transport, you can get a restitution of the Tax Heavy Motor trucks. For the request of the restitution you can use the form: Request Tax Heavy Motor trucks for combined transport.

In- en uitlaadstations	Adres	Postcode en plaats
Amsterdam Westpoint	Cacaoweg 20	1047 BM Amsterdam
Barge & Rail Terminal Born	Waalhaven WZ 60	3089 KR Rotterdam
Barge Terminal Moerdijk	Graanweg 19	4782 PP Moerdijk
Barge Terminal Tilburg	Geminiweg 51	5051 BP Tilburg

Bossche Container Terminal	Rietveldenkade 5	5222 AJ Den Bosch
Combi Terminal Twente	Stationsemplacement 1	7607 GA Almelo
Container Terminal Nijmegen	Weurtseweg 460A	6541 BE Nijmegen
Container Terminal Stein	Buitenhavenweg 7	6171 DW Stein
Container Terminal Utrecht	Isotopenweg 33	3542 AS Utrecht
Container Terminal Vrede Zaanstad	Sluispolderweg 53b	1505 HJ Zaandam
ECT Venlo Terminal	Celsiusweg 30	5928 PR Venlo
Euroterminal Coevorden B.V.	De Mars 7	7742 PT Coevorden
MCS Meppel	Oliemolenweg 16	7944 HX Meppel
Osse Overslag Centrale	Waalkade 17C	5347 KR Oss
Rail Service Centrum Groningen	Spoorhavenweg 17	9645 LZ Veendam
Rail Terminal Friesland	Marshallweg 1, p.a. Spoordok	8912 AC Leeuwarden
Ridderhaven Container	Ridderhaven 7	2984 BT Ridderkerk

Terminal		
RSC Rotterdam	Albert Plesmanweg 200	3088 GD Rotterdam
Trailstar Ede	Dokter Hartogweg 3a	6717 LR Ede

COUNTRY	POLAND

USTAWA z dnia 6 września 2001 r. o transporcie drogowym Rozdział 1 Przepisy ogólne (Act on road transport of 6 September 2001)

Chapter 1 General Provisions

...

Article 4

For the purpose of this law the following terms mean:

combined transport - transport of goods, where the lorry, trailer, semi-trailer with or without tractor unit, swap body or container of 20 feet or more, uses the road on the initial or final leg of the journey , and on the other leg rail, inland waterway or maritime transport, the maritime section exceeds 100 km in a straight line, and make the initial or final road transport leg of the journey:

- between the point where things are loaded and the nearest suitable rail loading station for the initial leg , and between the nearest suitable rail unloading station and the point where things are unloaded for the final leg , or
- within a radius not exceeding 150 km as the crow flies from the inland or sea port of loading or unloading ;

international combined transport - combined transport , in which is crossed the Polish border.

Art. 11a of Ustawa z 12 stycznia 1991 o podatkach i opłatach lokalnych

(Act on vehicle tax of 12 January 1991)

Article 11a

1. Taxpayers using the means of transport referred to in Art. 8 points 1-6 for the operation of combined transport on Polish territory is entitled to a refund of tax on these measures.

2. The amount of the refund of the means of transport referred to under paragraph 1 is determined by the number of journeys with or without load carried by a means of transport for carriage by rail in a given fiscal year as follows:

1) 100 journeys or more - 100 % of the annual tax;

2) from 70 to 99 journeys - 75 % of the annual tax;

3) from 50 to 69 journeys - 50 % of the annual tax;

4) from 20 to 49 journeys - 25 % of the annual tax.

COUNTRY	PORTUGAL

MINISTÉRIO DAS OBRAS PÚBLICAS, TRANSPORTES E COMUNICAÇÕES

Decreto-Lei n.º 136/2009 de 5 de Junho

Através do Decreto -Lei n.º 257/2007, de 16 de Julho, o

transporte de mercadorias por conta de outrem efectuado exclusivamente por meio de veículos ligeiros com peso bruto igual ou superior a 2500 kg ficou submetido a regras idênticas às aplicáveis ao transporte realizado com veículos pesados quanto às condições de acesso à actividade e ao mercado.

Relativamente ao acesso ao mercado, tornou -se evidente a necessidade de adequar o regime de licenciamento de veículos à situação específica das empresas que empregam exclusivamente veículos ligeiros e, assim, estabelecer limites proporcionais aos determinados para empresas que se propõem exercer a actividade por meio de veículos pesados no que se refere à soma dos pesos brutos até à qual os veículos devem ser necessariamente novos.

Por outro lado, aproveitou -se para desenvolver e clarificar o regime transitório aplicável às pessoas singulares ou colectivas que, até à data da entrada em vigor do Decreto -Lei n.º 257/2007, de 16 de Julho, comprovem ter efectuado transporte de mercadorias por conta de outrem exclusivamente por meio de veículos ligeiros com peso bruto igual ou superior a 2500 kg, alargando -se o prazo para se conformarem com os requisitos previstos naquele decreto -lei.

Tendo em conta o acordo político que resultou do Conselho dos Ministros dos Transportes da União Europeia, aproveitou -se o ensejo para esclarecer quais os limites temporais às

MINISTRY OF PUBLIC WORKS, TRANSPORTS AND COMMUNICATIONS

Decree n.º 136/2009 of 5 of June

Through the Decree n.º 257/2007, of 16 of July, the transport of goods for hire or reward carried out exclusively by means of light-duty vehicles with a gross weight equal to or exceeding 2500 kg was subject to the same rules applicable to the transport performed with heavy vehicles regarding the conditions of access to the business and the market.

With regard to market access, it became evident the need to adapt the system of licensing of vehicles to the specific situation of enterprises which employ only light vehicles and thus establish the proportional limits for certain companies that propose the activity through heavy vehicles in relation to the sum of the gross vehicle weights by which the vehicle must necessarily new.

On the other hand, took advantage to develop and clarify the transitional arrangements apply to natural or legal persons who, at the date of entry into force of Decree-Law n. º 257/2007, of 16 July, prove that they have made transport of merchandises on behalf of another person solely by means of light vehicles with a gross weight equal to or exceeding 2500 kg, extending the deadline to comply with the requirements of that Decree.

Having into account the political agreement that resulted from the Council of Transport Ministers of the

operações de cabotagem efectuadas por transportadores não residentes em Portugal, oriundos da União Europeia ou do espaço económico europeu, no seguimento de um transporte internacional. Foram ouvidos os órgãos do governo próprio das Regiões Autónomas. Assim: Nos termos da alínea *a*) do n.º 1 do artigo 198.º da Constituição, o Governo decreta o seguinte: **(.....)** ANEXO **Republicação do Decreto -Lei n.º 257/2007** (a que se refere o artigo 3.º) (....) Artigo 2.º **Definições** Para efeitos do disposto no presente decreto - lei e legislação complementar, considera -se: *a*) «Transporte rodoviário de mercadorias» a actividade de natureza logística e operacional que envolve a deslocação física de mercadorias em veículos automóveis ou conjuntos de veículos, podendo envolver ainda operações de manuseamento dessas mercadorias, designadamente grupagem, triagem, recepção, armazenamento e distribuição; *b*) «Transporte por conta de outrem ou público» o transporte de mercadorias realizado mediante contrato, que não se	European Union, it has been approved a opportunity to clarify the time limits to cabotage by non-resident carriers in Portugal, originating from the European Union or the European Economic Area, following an international transport. Having been heard the organs of the Autonomous regions Thus: In accordance with subsection a)Relating to n.º 1 of the article 198.º of the Constitution, the Government decrees the following one: **(.....)** ANNEX **New publication of the Decree n.º 257/2007** (the one that relates to the article 3.º) (….) Article 2.º **Definitions** For the purpose disposed in the present Decree and complementary legislation, considers: a) “Road Transport of merchandises” the activity of logistic and operational nature that involves the physical displacement of merchandises in motor vehicles or sets of vehicles, involving also operations of handling such goods, including grouping, sorting, receiving, storage and distribution; b)" Transport for hire or reward or Public transportation" or transport of

enquadre nas condições definidas na alínea seguinte;	goods performed by contract, which does not meet the conditions defined in next paragraph;
c) «Transporte por conta própria ou particular» o transporte realizado por pessoas singulares ou colectivas em que se verifiquem cumulativamente as seguintes condições:	c) "On Proper account or particular Transport" the transport carried out for singular or collective people where the following cumulatively conditions are verified:
i) As mercadorias transportadas sejam da sua propriedade ou tenham sido vendidas, compradas, dadas ou tomadas de aluguer, produzidas, extraídas, transformadas ou reparadas pela entidade que realiza o transporte e que este constitua uma actividade acessória no conjunto das suas actividades;	I) The carried merchandises are of its property or have been sold, bought, given or taken on rent, produced, extracted, transformed or repaired by the entity that carries out the transport and that this constitutes an accessory activity in the set of its activities;
ii) Os veículos utilizados sejam da sua propriedade,	
objecto de contrato de locação financeira ou alugados em regime de aluguer sem condutor;	II) The used vehicles are of its property, object of contract of financial location in regime of lease without driver;
iii) Os veículos sejam, em qualquer caso, conduzidos	III) The vehicles are, in any case, driven by the proprietor or renter or staff for its service;
pelo proprietário ou locatário ou por pessoal ao seu serviço;	
d) «Mercadorias» toda a espécie de produtos ou objectos, com ou sem valor comercial, que possam ser transportados em veículos automóveis ou conjuntos de veículos;	d) "Merchandises" all the species of products or objects, with or without commercial value, that can be carried in motor vehicles or sets of vehicles;
e) «Transporte nacional» o transporte que se efectua	e) "National Transport" the transport that if made totally in domestic territory;
totalmente em território nacional;	
f) «Transporte internacional» o transporte que implica o	f) "International Transport" the transport that implies the crossing of borders and if develops partially in domestic territory;
atravessamento de fronteiras e se desenvolve parcialmente em território nacional;	
g) «Transporte combinado» o transporte de mercadorias em que, na parte inicial ou final do trajecto, se utiliza o modo rodoviário e, na outra parte, o modo ferroviário, o modo aéreo, a via fluvial ou a via marítima;	g) "Combined Transport" the transport of goods where, in the initial or final leg of the journey, it is used road mode, and in the other legs, the rail mode, the aerial mode, the inland waterways or the maritime mode;
h) «Transportador residente» qualquer	

empresa estabelecida em território nacional habilitada a exercer a actividade transportadora; *i*) «Transportador não residente» qualquer empresa estabelecida num país estrangeiro habilitada a exercer a actividade nos termos da regulamentação desse país; *j*) «Cabotagem» a realização de transporte nacional por transportadores não residentes; *l*) «Transportes especiais» os transportes que, designadamente pela natureza ou dimensão das mercadorias transportadas, devem obedecer a condições técnicas ou a medidas de segurança especiais; *m*) «Transportes equiparados a transportes por conta própria» os que integrem um transporte combinado e se desenvolvam nos percursos rodoviários iniciais ou terminais, desde que seja cumprida a condição prevista na subalínea *i*) da alínea *c*) e o veículo tractor seja propriedade da empresa expedidora, objecto de contrato de locação financeira ou de aluguer sem condutor e seja conduzido pelo proprietário, locatário ou pessoal ao seu serviço, mesmo que o reboque esteja matriculado ou tenha sido alugado pela empresa destinatária, ou vice - versa, no caso dos percursos rodoviários terminais; *n*) «Transportes em regime de carga completa» os transportes por conta de outrem em que o veículo é utilizado no conjunto da sua capacidade de carga por um único expedidor; *o*) «Transporte em regime de carga	h) "Resident Transporter" any company established in domestic territory qualified to exert the transporting activity; i) "Nonresident Transporter" any company established in a foreign country qualified to exert the activity in the terms of regulation of that country; j) "Cabotage" the accomplishment of national transport for nonresident transporters; l) "Special Transports " the transports that, appointedly for the nature or dimension of the carried merchandises, must obey to the technical conditions or special measures of security; m) "Transports Equalized to the transports on proper account" are the ones that integrate a combined transport and it is developed in the initial road passages or terminals, provided that there is fulfilled to the condition foreseen in the point i) of definition c) and the tractor vehicle is property of the issuing company, object of financial location contract or lease without driver and either lead by the proprietor, renter or staff to its service, even if the tow is registered or has been rented for the company addressee, or vice versa, in the case of the of road terminal journeys; n) "Transports in complete load regime" the transports on others account where the vehicle is used in all of its load capacity by a single consignor; o) "Transport in fractional load regime" the transports on others account where the vehicle is used in fraction of its load capacity by some consignors; p) "Guide of transport" the descriptive document of the essential elements for the operation of transport and that

fraccionada» os transportes por conta de outrem em que o veículo é utilizado por fracção da sua capacidade de carga por vários expedidores; *p*) «Guia de transporte» o documento descritivo dos elementos essenciais da operação de transporte e que estabelece as condições de realização do contrato entre o transportador e o expedidor; *q*) «Expedidor» a pessoa que contrata com o transportador a deslocação das mercadorias.	establishes the conditions of accomplishment of the contract between the transporter and the consignor; q) "Consignor" the person who contracts the transporter the displacement of the merchandises.

MINISTERIO DAS OBRAS PÚBLICAS, TRANSPORTES E COMUNICAÇOES **Decreto-Lel n.o 279-A/92 de 17 de Dezembro** O crescimento acelerado da circulao de mercado- das ocorrido nos últimos seis anos tem obrigado os transportadores a um continuo esforco de expansao das suas actividades. Está neste caso o transporte internacional rodoviá- rio de mercadorias, um dos sectores que registou maior crescimento, urna vez que é este modo de transporte que mais flexível e rapidamente responde aos aumentos da procura. Importa, por isso, adaptar o actual enquadramento jurídico que regula a actividade, libertando-o de con- dicionalismos que ainda dificultam o seu desenvolvímento e impondo as empresas condiçoes de acesso a actividade, de acordo com as Directivas do Conselho nº 89/438/CEE e 91/224/CEE, por forma que nao urjam no mercado empresas sem credibilidade e ido- neidade para o exercício desta actividade Assim: Nos termos da alínea a) do n.o 1 do artigo 2010. º da CConstituicao, o Governo decreta o	**MINISTRY OF PUBLIC WORKS, TRANSPORTS AND COMUNICATIONS** **Decree number 279-A/92 of 17 of December** The accelerated growth of the market circulation occurred in the last six years has forced carriers to an ongoing effort to expand its activities. It is in this in case that the international road transport of merchandises, one of the sectors that has registered the biggest growth, this mode of transport is more flexible and respond quickly to increases in demand. It matters, therefore, to adapt the current legal framing that regulates the activity, freeing it from constraints that still hinder the development and impose access to business conditions to the companies, according to Council Directive 89/438/EEC and 91/224/EEC paragraph, so that not arises in the market firms without credibility and suitability for the activity. Thus, it doesn´t not appear in the market need for the exercise of this activity: In the terms of point a)of number 1 of article 201 of the Constitution, the Government decrees the following one:

seguinte:	
Artigo I.o Ámbito	Article Iº Scope
1 - O disposto no presente diploma aplica-se aos transportes internacionais rodoviários de mercadorias, efectuados por meio de veículos construidos ou adaptados para o transporte de qualquer espécie de bens, cujo peso máximo autorizado exceda 6 t ou cuja carga útil, incluindo a dos reboques, exceda 3,5 t.	1 - The provisions of this law shall apply to international road transport of goods, carried out by means of constructed or adapted vehicles for the carriage of any kind of goods, with a permissible maximum weight exceeding 6 t or whose payload, including the trailers, exceed 3.5T.
2 — O presente diploma aplica-se também as deslocacoes em vazio dos veículos referidos no número anterior que sejam efectuadas com vista a realizacao de transportes internacionais.	2 - This law also applies to the Empty displacements by vehicles referred to above and that are made with a view of realization of international transport.
Artigo 2.0 Definiçoes	Article 2º Definitions
1 — Para efeitos do presente diploma entende-se por:	1 - For the purpose of the present law it is understood as:
a) «Transporte internacional», qualquer transporte por estrada que, implicando o atravessamento de fronteiras, se desenvolva parcialmente em território portuguas;	a) “International Transport”, any transport by road that, implying the cross of borders, is partially developed in Portuguese territory;
b) «Transporte em transito», qualquer transporte que implique um mero atravessamento do território portuguas sem que se proceda a carga ou a descarga das mercadorias transportadas, nao podendo, salvo caso de forca maior devidamente comprovado, ser efectuado transbordo de mercadorias para outro veículo;	b) “Transport in transit”, any transport that implies a mere crossing of Portuguese territory without the load or the discharge proceeds of the carried merchandises, not being able, except when in cases of force majeure is proven, transshipment of goods to another vehicle.
c) «Transportador residente», qualquer empresa estabelecida em território portuguas que, nos termos do presente diploma, esteja habilitada a explorar transportes públicos internacionais rodoviários de mercadorias;	c) “Resident Transporter”, any company established in Portuguese territory that, under this statute, it is entitled to exert international road transport of goods.
d) «Transportador nao residente», qualquer pessoa singular ou colectiva estabelecida num país estrangeiro e que, nos termos da regulamenta- cao desse país, esteja habilitada a explorar os transportes referidos na alínea anterior;	d) “Nonresident Transporter”, any single or legal person established in abroad and who, under the regulations of that country, is entitled to explore the transport operations referred to in the preceding subparagraph.

e) «Cabotagem», a realizacao de transportes entre pontos situados em território portuguas por transportadores nao residentes; f) «Transportes internacionais rodoviários de mercadorias por conta própria ou particulares», quaisquer transportes em que:	e)“Cabotage”, the accomplishment of transports between located points in Portuguese territory for nonresident transporters; f) “ Private or On Own account International road haulage operations”, are any transports where:
As mercadorias transportadas sejam proprie- dade da empresa ou objecto da sua activi- dade comercial ou industrial e tenham sido por ela compradas, vendidas, alugadas ou recebidas para transformacao ou repara o; Os veiculos utilizados sejam propriedade da empresa, tenham sido por ela adquiridos a crédito ou alugados em regime de aluguer sem condutor e sejam conduzidos por pessoal ao servico da empresa;	The carried merchandises are property of the company or object of its commercial or industrial activity and have been bought, sold, rented or received for transformation or repair; The used vehicles are property of the company, have been acquired by it by contract or rented in regime of lease without conductor and are that are lead by staff of the company;
O transporte sirva exclusivamente necessidades próprias da empresa e constitua urna actividade acessória no conjunto das suas actividades	A transport serves exclusively proper necessities of the company and constitutes an accessory activity in the set of its activities.
2 — Sao ainda considerados transportes por conta própria os percursos rodoviários iniciais que integrem o transporte combinado, desde que estejam preenchidas as primeiras e terceiras condicoes referidas na alineado número anterior e o veículo tractor seja pro- priedade da empresa expedidora da mercadoria, tenha sido por ela adquirido a crédito ou alugado e seja con- duzido por um seu empregado, mesmo que o reboque ou semi-reboque esteja matriculado ou tenha sido alu- gado pela empresa destinatária, ou vice-versa, no caso do percurso rodoviário terminal.	2 - They are still considered transports on proper account proper initial road journeys that comprise the combined transport, since it satisfies the first and third conditions mentioned in the preceding paragraph and the tractor vehicle is owned by the consignor firm of the merchandise, has been acquired for it on credit or rented and driven by one of its employee, even if the trailer or semi-trailer is registered or leased by the addressed company , or vice versa, in the case of the road route terminal.

COUNTRY	ROMANIA

EC Legislation		National Legislation		
Art. / Para.	**Council Directive 92/106/EEC of 7 December 1992 on the establishment of common rules for certain types of combined transport of goods between Member States**	**Art./ Para.**	- **Government Ordinance no. 88/1999 on setting up rules for the combined transport** - **Law no. 401/2002 for the approval of the Government Ordinance no. 88/1999 on setting rules for the combined transport of goods** - **Government Decision no. 193/2000 for the approval of the Methodological Norms of application of the Government Ordinance no. 88/1999 on setting rules for the combined transport of goods** - **Government Ordinance no. 27/2011 concerning the road transport** **Order no. 980 / 2011 for approval of the Methodological Guidelines concerning the application of the provisions related to the organisation and performance of the road transport and activities connected to this established through the Government Ordinance no. 27 / 2011 concerning the road transport**	**Comments**
1	**2**	**3**	**4**	**5**
Art.1	This Directive shall apply to combined transport operations, without prejudice	**Law 401/ 2002** **Art. I 1.**	1. Paragraph (1) of Article 2 shall have the following content:	

	to Regulation (EEC) No 881/92 (5). For the purposes of this Directive, 'combined transport' means the transport of goods between Member States where the lorry, trailer, semi-trailer, with or without tractor unit, swap body or container of 20 feet or more uses the road on the initial or final leg of the journey and, on the other leg, rail or inland waterway or maritime services where this section exceeds 100 km as the crow flies and make the initial or final road transport leg of the journey; - between the point where the goods are loaded and the nearest suitable rail loading station for the initial leg, and between the nearest suitable rail unloading station and the point where the goods are unloaded for the final leg, or; - within a radius not exceeding 150 km as the crow flies from the inland waterway port or seaport of loading or unloading.	**GO 88 /1999Art. 2 (2)**	"Art. 2. – (1) For the purpose of the present ordinance, combined transport means the transport of goods for which the lorry, the trailer, semi-trailer with or without tractor head, swap body or 20" or more container are moving or are carried, as case may be, by road for the initial and/or final leg, while the rest of the transport is carried out by rail or by an inland waterway or by a sea route that exceeds 100 km in straight line". (2) The initial and/or final leg by road may be: a) between the loading points of the goods and the nearest railway station dispatching such type of transport, on the initial leg, and between the nearest railway station of destination and the point for unloading the goods, for the final leg. b) within a radius that will not exceed 150 km on straight line from the inland waterway or sea port of loading or unloading.	
Art. 2	Each of the Member States shall, by 1 July 1993, liberalize the combined transport operations referred to in Article 1 from all quota systems and systems of	**GO 19 /1997Art. 5 (3)** **Re-published after being**	(3) Ministry of Transports, ~~Constructions and Tourism~~ shall coordinate the transport modes by a multi-modal approach, taking into account the existing or planned capacities for each mode of transport as well as the	National law does not impose quota systems or

	authorization.	**amended by Law 197/1999, art. 1, par. 5**	promotion of reasonable development of combined transport, with due observance of the specific regulations for each mode of transport.	licensing for CT services, only for transport operators of individual modes of transport.
Art. 3	In the case of combined transport for hire or reward, a transport document which fulfils at least the requirements laid down in Article 6 of Council Regulation No 11 of 27 June 1960 concerning the abolition of discrimination in transport rates and conditions, in implementation of Article 79 (3) of the Treaty establishing the European Economic Community (6), shall also specify the rail loading and unloading stations relating to the rail leg, or the inland waterway loading and unloading ports relating to the inland waterway leg, or the maritime loading and unloading ports relating to the maritime section of the journey.	**Law 401/ 2002** **Art. I 2.** **GO 88 /1999Art. 3** **GD 193 / 2000,**	2. The introductory part of paragraph (1) of article 3 shall have the following content: "Art.3. – (1) The combined transports, other than the ones performed for the owner's interest, are carried out based on a contract, and the transport document must obligatorily comprise the following mentions:" a) name and address of the consigner and consignee; b) nature and weight of the goods; c) specification of the railway station of origin and destination, or depending on the situation, specification of the inland waterway/sea loading/unloading ports; d) place and date of reception of the goods for transportation; e) the place where the goods are to be delivered. According to the provisions of art.3 of the Government Ordinance no. 88/1999 on setting rules for the combined transport of goods, hereinafter referred to as "the ordinance", the combined transport document for the rail leg may be:	List of the transport documents needs

		AnnexArt. 1 **GD 193/2000, Annex Art. 2**	• the wagon consignment note; • the CIM consignment note; • the CIM-UIRR consignment note; • the CIM consignment note, accompanied by INTERCONTAINER consignment note for international transport; • SMGS consignment note. The intermodal transport unit (container, swap body, semi-trailer) shall be accompanied by one of the following documents: a) on the leg from the consignor (deliverer) to the combined transport's starting terminal: - the rail document – the form "settlement -receipt" with the mention: "It is part of the combined transport"; - the road document – transport note, waybill, CMR international consignment note, route sheet for freight road vehicles; b) on the leg from the terminal to the consignee or to another terminal: - the rail document – the form "settlement-receipt" with the mention: "It is part of the combined transport"; - the road document - transport note, waybill, CMR international consignment note, route sheet for freight road vehicles. (2) Specifications stipulated at paragraph (1) will be	updates. Some transport documents are obsolete and not used, while other documents disappeared or were replaced after changes in legislation.

	These details shall be recorded before the transport operation is carried out and shall be confirmed by means of a stamp affixed by the rail or port authorities in the railway stations or inland waterway or sea ports concerned when that part of the journey carried out by rail or inland waterway or by sea has been completed.	**GO 88 /1999Art. 3** **GD 193/ 2000, AnnexArt. 3**	written down prior to the performance of the transports and shall be confirmed by applying the seal by the railway station or by the port operator of the respective waterway /sea ports, should the leg performed by railway or inland waterways/sea be achieved. Documents for combined transport operations shall contain the following specifications: a) The wagon's consignment note – the box "Consignor's mentions …" shall read: "It is part of the combined transport"; b) The CIM consignment note – box 13 "Statements" shall read: "It is part of the combined transport"; c) The CIM-UIRR consignment note – box 13 "Statements" shall read: "It is part of the combined transport"; d) The SMGS consignment note – box 4 "Special mentions of the deliverer" shall read: "It is part of the combined transport"; e) The settlement-receipt shall be filled in as follows: "The settlement-receipt/is part of the combined transport" f) The stub of the settlement-receipt shall be filled as follows: "The stub/is part of the combined transport"; g) The route sheet for the freight road vehicles – box 6 "Driver's notes" shall read: "It is part of the combined transport";	

		GD 193/ 2000, AnnexArt. 3	h) The CMR international consignment note – box 18 shall read: “It is part of the combined transport”; i) The consignment note / bill of lading for the inland waterways or sea transport, as case may be – box “Special mentions” shall read: “It is part of the combined transport”. The natural persons or legal entities that hand over combined transport load units for transport to the transport operators or that are providing their transfer from one operator to another shall make the specifications set out in art. 2 or 3 in the transport documents that they will afterwards sign and stamp accordingly.	
Art. 4	All hauliers established in a Member State who meet the conditions of access to the occupation and access to the market for transport of goods between Member States shall have the right to carry out, in the context of a combined transport operation between Member States, initial and/or final road haulage	**GO 88 /1999Art.4**	Any road transport operator, with its headquarters in Romania, that is owning a freight transport licence, is entitled to perform initial and/or final road legs that are part and parcel of a combined transport and that require or not the crossing of the state border, in compliance with the laws in force.	

	legs which form an integral part of the combined transport operation and which may or may not include the crossing of a frontier.			
Art. 5, **Par. 1**	1. Every two years and in the first instance by 1 July 1995 the Commission shall draw up a report to the Council on: - the economic development of combined transport, - the application of Community law in this area, - the definition, where necessary, of further measures to promote combined transport operations.	**-**	-	It is not the case
Art. 5, **Par. 2**	2. When drawing up the report referred to in paragraph 1, the Commission shall be assisted by representatives of the Member State to collect the information necessary for this purpose. The report shall analyze the information and statistics relating in particular to: - transport links used in combined transport operation, - the number of vehicles (a road train counting as a single vehicle), swap bodies and containers transported over the various transport links,	**-**	-	It is not the case

	- transported tonnages, - services carried out, in terms of tonnes/kilometres. The report shall, where appropriate, propose solutions for the subsequent improvement of such information and the situation in the combined transport sector.			
Art. 6, Par. 1	1. Member States shall take the measures necessary to ensure that the taxes listed in paragraph 3 which are applicable to road vehicles (lorries, tractors, trailers or semi-trailers) when routed in combined transport are reduced or reimbursed either by a standard amount, or in proportion to the journeys that such vehicles undertake by rail, within limits and in accordance with conditions and rules they fix after consultation with the Commission. The reductions of reimbursements referred to in the first paragraph shall be granted by the State in which the vehicles are registered, on the basis of the rail journeys effected within that State. Member States may, however, grant these reductions or reimbursements on the basis of the rail journeys which take	~~**Law 401/ 2002**~~ ~~**Art. 1**~~ ~~**4**~~	~~Article 6 shall have the following content:~~ ~~"Art.6. – The companies performing combined transport shall only be temporarily exempted from the payment of the tax on reinvested profit, through a Government decision, for the development of the infrastructure, as well as for the purchase/refurbishment of equipment specific to this type of transport, the elements of which are set out in the annex that is an integral part of the present ordinance".~~	Not transposed

	place partially or wholly outside the Member State in which the vehicles are registered.			
Art. 6, Par. 2	2. Without prejudice to the provisions resulting from a possible reorganization of national taxation systems for commercial vehicles at Community level, vehicles used exclusively for road haulage in feeder or final delivery carriage by combined transport may be exempted, if they are taxed separately, from the taxes listed in paragraph 3.			Not transposed
Art. 6, Par. 3	3. The taxes referred to in paragraphs 1 and 2 are the following: -			Not transposed
Art. 7	Where a trailer or semi-trailer belonging to an undertaking engaged in own-account transport is hauled on a final section by a tractor belonging to an undertaking engaged in transport for hire or reward, the transport operation so effected shall be exempt from presentation of the document provided for in Article 3; however, another document shall be provided giving evidence of the journey covered or to be covered by rail, by inland waterway or by sea.	**Law 401/ 2002** **Art. I 3.** **GD 193/ 2000** **Annex Art. 2**	3. Article 5 shall have the following content: "Art.5. – The combined transports performed for the owner's interest shall be accompanied by the transport documents specified in the methodological norms of application of the present ordinance". The intermodal transport unit (container, swap body, semi-trailer) shall be accompanied by one of the following documents: a) on the leg from the consignor (deliverer) to the combined transport's starting terminal:	List of documents needs updates. Some transport documents are obsolete and not used, while other documents disappeared or were

		OMTI 980 – 2011, Annex art. 48, par. 1	- the rail document – the form “settlement -receipt” with the mention: “It is part of the combined transport”; - the road document – transport note, waybill, CMR international consignment note, route sheet for freight road vehicles; b) on the leg from the terminal to the consignee or to another terminal: - the rail document – the form “settlement-receipt” with the mention: “It is part of the combined transport”; - the road document - transport note, waybill, CMR international consignment note, route sheet for freight road vehicles. In order to perform road haulage of goods on own account, the road transport undertaking must hold on the vehicle board the copy of the certificate of transport on own account for road carriage of goods, the transport document, the authorization/authorizations for international transport, as well as all other specific documents indicated in the regulations entered into force for every category and / or type of road haulage.	replaced after changes in legislation.
Art. 8	Initial or final road haulage legs forming part of combined transport operations shall be exempted from compulsory tariff regulations.	~~**GD 193/ 2000**~~ ~~**Annex Art.5**~~	~~The companies performing combined transport of goods in the Romanian territory, which can be temporarily exempted from the payment of the tax on reinvested profit through a Government decision, according to the provisions of art. 6 of the Ordinance, shall distinctly underscore in their financial-accounting documents the following:~~	Not transposed

			~~a) revenue, expenses and income from the combined transport business;~~ ~~b) expenses incurred for the investments in the development of the infrastructure, as well as for the purchase/refurbishment of equipment specific to this type of transport, the elements of which are set out in the annex to the ordinance.~~	
Art. 9	Where, as part of a combined transport operation, the dispatching undertaking carries out the initial road haulage leg for its own account within the meaning of the First Council Directive of 23 July 1962 on the establishment of common rules for certain types of carriage of goods by road (7), the undertaking which is to receive the goods transported may, notwithstanding the definition given in the said Directive, carry out for its own account the final road haulage leg to transport the goods to their destination using a tractor owned by it, bought by it on deferred terms or hired by it pursuant to Council Directive 84/647/EEC of 19 December 1984 on the use of vehicles hired without drivers for the carriage of goods by road (8), and driven by its employees, even though the trailer or semi-trailer is registered or hired by the undertaking which dispatched the goods.	**GO 27/ 2011** **Art. 51, par 1** **GO 27/ 2011** **Art. 51, par 2**	Where, as part of a combined transport operation, the dispatching undertaking carries out the initial road haulage leg for its own account under the conditions stipulated in the art. 1, par. 5, letter d) of the EC Regulation no. 1072/2009, the carriage performed on the final road haulage leg to transport the goods to their destination is considered to be on own account if the undertaking which is to receive the goods possesses and uses road vehicles according to the provisions of the art. 1, par. 5, letter d) of the EC Regulation no. 1072/2009, even though the trailers or semi-trailers are possessed by the undertaking which dispatched the goods. Where, as part of a combined transport operation, the undertaking which is to receive the goods carries out the final road haulage leg for its own account under the conditions stipulated in the art. 1, par. 5, letter d) of the EC Regulation no. 1072/2009, the carriage performed on the initial road haulage leg is considered to be on own account if the undertaking dispatching the goods possesses and uses road vehicles according to the provisions of the art. 1, par. 5, letter d) of the EC	

	The initial road haulage leg in a combined transport operation which the dispatching undertaking carries out using a tractor owned by it, bought by it on deferred terms or hired by it pursuant to Directive 86/647/EEC and which is driven by its employees, whereas the trailer or semi-trailer is registered or hired by the undertaking which is to receive the goods transported, shall also, notwithstanding the Directive of 23 July 1962, be considered an own-account carriage operation if the final road haulage leg is carried out for its own account in accordance with the latter Directive by the recipient undertaking.		Regulation no. 1072/2009, even though the trailers or semi-trailers are possessed by the undertaking which is to receive the goods.	
Art. 10Par. 1	1. Member States shall bring into force the laws, regulations and administrative provisions necessary in order to comply with this Directive by 1 July 1993. They shall forthwith inform the Commission thereof. When these Member States adopt these provisions, they shall contain a reference to this Directive or be accompanied by such reference on the occasion of their official publication. The methods of making such a reference shall be laid down by the Member States.	~~**GO 88/1999Art. 1**~~	~~The provisions of the present ordinance apply to the combined freight transport in the territory of Romania, hereinafter referred to as "combined transport", performed by the transport operators owning a licence/authorization, under the conditions of the law.~~	Not required

Art. 10Par. 2	2. Member States shall communicate the main provisions of national law which they adopt in the field covered by this Directive to the Commission.			Not required
Art. 11 **Par. 1**	1. Directive 75/130/EEC (9) is hereby repealed without prejudice to the obligations of the Member States regarding the time-limits for transposition and implementation set out in the Annex, part A.	**-**	-	It is not the case because Romania transposed directly Directive 92/106
Art. 11 **Par. 2**	2. References to the repealed Directive shall be understood as references to this Directive and shall be read in accordance with the correlation table in the Annex, part B.	**-**	-	It is not the case because Romania transposed directly Directive 92/106
Art. 12	This Directive is addressed to the Member States.	**-**	The present ordinance is valid beginning with the 1st of January 2000.	

COUNTRY	SLOVAK REPUBLIC

Zákon NR SR č. 514/2009 Z. z. o doprave na dráhach, z 28. októbra 2009 (Act N° 514/2009 Coll. on railway transport of 28 Oct 2009)

PART ONE

Basic definitions

§ 2 Rail transport

...

(4) Combined transport means the transport of goods between Member States where the lorry, trailer, semi-trailer, with or without tractor unit, swap body or container of 20 feet or more uses the road on the initial or final leg of the journey and, on the other leg, rail or inland waterway or maritime services where this section exceeds 100 km as the crow flies and make the initial or final road transport leg of the journey;

- between the point where the goods are loaded and the nearest suitable rail loading station for the initial leg, and between the nearest suitable rail unloading station and the point where the goods are unloaded for the final leg, or;

- within a radius not exceeding 150 km as the crow flies from the inland waterway port or seaport of loading or unloading.

Zakon NR SR č. 582/2004 Z. z. z 23. septembra 2004 o miestnych daniach a miestnom poplatku za komunálne odpady a drobné stavebné odpady (Act Nr 582/2004 Coll. of the National Parliament of the Slovak Republic about local taxes and local charge for communal garbage and small construction garbage of 23 Sep 2004, last update on 28 Nov 2013)

Part One

§ 2 Types of local taxes

...

(3) A local tax, which may be imposed by regions with its own administration, is the tax on road vehicles.

Part Eleven: Tax on road vehicles

Tax reimbursement

...

§ 93

(1) 50% of the tax amount paid during the period of taxation may be reimbursed to the taxpayer upon application for road vehicles, which have been used at least 60 times within combined transport operations.

(2) Combined transport is a transport, which is carried out on the initial or final leg of the journey by road and, on the other leg, by rail or inland waterway or sea transport.

(3) The road leg during a combined transport journey shall not exceed 150 km as the crow flies between the point of loading and the nearest combined transport terminal and between the terminal and the point of unloading on the territory of the Slovak Republic.

(4) The taxpayer has to provide evidence that the vehicle was used in combined transport operations according to paragraph (1) with documents validated by the respective combined transport terminal.

Annex 3 to this Act: List of transposed legal acts of EC and EU

1. Council Directive 92/106/EEC on the establishment of common rules for certain types of combined transport of goods between Member states (OJ EC, L 368/38 of 17. 12. 1992)

2. Directive of the European Parliament and of the Council 99/62/EC on the charging of heavy goods vehicles for the use of certain infrastructures

COUNTRY	SLOVENIA

Uredba o kombiniranem prevozu, published in Uradni list Republike Slovenije, 4/01, p. 471-472 (Decree on combined transport of 19 January 2001)

Pursuant to the second paragraph of Article 5 of the Rail Transport Act (*Uradni list Republike Slovenije,* 92/99) the Government of the Republic of Slovenia hereby issues the

DECREE on Combined Transport

Article 1

(purpose of Decree)

This Decree lays down the distance of pre-carriage and on-carriage in road networks, the implementation of pre-carriage and on-carriage, the total permissible weight of vehicles for pre-carriage and on-carriage, exceptions to traffic restrictions for freight vehicles, the documents that a haulier must possess for the implementation of pre-carriage and on-carriage, and the compulsory statistical data which combined transport operators must collect for the purposes of reports prepared for the Council of the EC by the European Commission.

Article 2

(definitions)

(1) The terms used in this Decree shall have following meanings:

1. Combined transport is the transport of goods where containers of 20 feet or more (6.1 m) in length, swap bodies, articulated semi-trailers, freight trailers (with or without tractive units) and lorries are transported by rail or waterway, whereby the pre-carriage and on-carriage of intermodal transport units from loading and unloading stations to the nearest combined-transport terminal or RO-RO port is carried out by road.

2. Intermodal transport is the transport of goods in one and the same loading unit or road vehicle that consecutively uses two or more modes of transport without reloading the cargo when switching mode of transport.

3. An intermodal transport unit is a container, swap body, freight trailer, articulated semi-trailer, or freight and towing vehicle suitable for intermodal transport.

4. A CIM/UIRR contract and K504 consignment note are documents contracted between:

- consignors of goods and rail hauliers, in accordance with the unified rules on contracts in the international transport of goods by rail defined by the Convention Concerning International Carriage by Rail (COTIF; CIM rules);

- consignors of goods and companies for combined transport/members of the UIRR (International Union of Combined Road-Rail Transport Companies).

5. Unaccompanied transport is the carriage of intermodal transport units of combined transport by rail or waterway unaccompanied by the crew of the lorry.

6. Accompanied transport is the carriage of lorries by rail or waterway accompanied by the crew of the lorry.

7. A piggy-back train is a train used for the implementation of accompanied transport by rail.

8. Pre-carriage and on-carriage are the transport of intermodal transport units by road between a loading or unloading station and the nearest terminal/reloading station or RO-RO port, with the straight-line distance not exceeding the limit determined in this Decree.

9. A terminal is a place where intermodal transport units of combined transport are loaded and unloaded and the mode of transport changed.

10. A reloading station is a place where intermodal transport units of combined transport are loaded and unloaded and only some modes of transport are changed.

11. A RO-RO port is a terminal or reloading station equipped for the loading or unloading of road vehicles, rail vehicles and intermodal transport units onto or from a ship.

12. A container is a freight container of such construction that it can be re-used, allows stacking, and is equipped with devices that enable reloading from one mode of transport onto another.

13. A swap body is a freight unit adapted to the dimensions of lorries and equipped with devices that enable reloading from one mode of transport onto another, usually between road transport and rail or vice versa. It usually does not allow stacking. Some are equipped with collapsible carriers upon which they stand when they are not loaded on a freight vehicle or railway wagon.

14. A freight vehicle is a motor vehicle used for freight transport.

15. A freight trailer is a vehicle towed by another vehicle, constructed as a trailer or articulated semi-trailer.

16. An articulated semi-trailer is a trailer whose front axle is not supported by the towing vehicle.

17. A tractive unit is a motor vehicle towing a freight trailer or designed exclusively for traction.

18. A foreign vehicle is a road vehicle registered outside the Republic of Slovenia and the EU.

19. A licence is a public document allowing a foreign vehicle to access and drive on roads in the Republic of Slovenia for the implementation of pre-carriage and on-carriage in combined transport.

20. A haulier is a person who may carry out the transport of goods by road in accordance with the provisions of the Road Transport Act.

(2) Other terms related to road, rail, maritime and combined transport in this Decree shall have the same meanings as laid down by other regulations in this area and by international agreements binding on the Republic of Slovenia.

Article 3

(distance of pre-carriage and on-carriage)

(1) Transport shall be deemed to be combined transport if :

1. the main part of the transport is accomplished by rail and pre-carriage and on-carriage to the nearest terminal or the reloading rail station;

2. the main part of the transport is accomplished by sea and the distance of pre-carriage and on-carriage does not exceed 100 km in a straight line from the RO-RO port.

(2) Terminals and rail reloading units in the Republic of Slovenia are:

1. the terminal at the Port of Koper, which is also the RO-RO port;
2. Ljubljana terminal;
3. Maribor terminal;
4. Sežana terminal;
5. Celje reloading station;
6. Novo Mesto reloading station.

Article 4

(implementation of pre-carriage and on-carriage)

(1) Pre-carriage and on-carriage, along the distance defined in the preceding Article of this Decree, shall be exempt from all quotas and licences as determined in international and bilateral agreements.

(2) The right to perform pre-carriage and/or on-carriage by road (including the possibility of crossing a border) is reserved for all hauliers registered for the transport of goods by road in the Republic of Slovenia and the EU and for hauliers registered for the transport of goods by road in other countries, provided this right is defined in an international agreement binding on the Republic of Slovenia.

Article 5

(total permissible weight of vehicles in pre-carriage and on-carriage)

The total permissible weight shall be up to 44 tons for the following road vehicles performing pre-carriage and on-carriage along the distance defined in Article 3:

1. a towing vehicle with three axles accompanied by an articulated semi-trailer with two or three axles

- if it is transporting an ISO container of 40 feet (12.2 m) in length,

- if the articulated semi-trailer is strengthened for transport in unaccompanied combined transport;

2. a group of vehicles with five or more axles, if the group of vehicles is adapted for the transport of swap bodies.

Article 6

(exemption from road fees for foreign vehicles)

Exemptions from road fees for foreign vehicles using roads in the Republic of Slovenia for combined transport are laid out in the Decree on Road Fees for Foreign Vehicles Using Roads in the Republic of Slovenia (*Ur. l. RS*, 29/93, 16/95 and 28/95), unless otherwise stipulated by a bilateral agreement between the Republic of Slovenia and the country in which the road freight vehicle or tractive unit has been registered.

Article 7

(exceptions to traffic restrictions for freight vehicles)

The traffic restrictions from Articles 2 and 3 of the Order on Traffic Restrictions on Roads in the Republic of Slovenia (*Ur. l. RS*, 38/99 and 100/99) shall not apply to freight vehicles or groups of vehicles whose maximum permissible weight exceeds 7,500 kg and which are engaged in road transport combined with transport by rail or ship:

1. to a terminal, reloading station or RO-RO port, if they continue their journey using a piggy-back train or a ferry and would otherwise not reach their destination on time. The driver shall provide evidence of this by means of the documentation defined in Article 8 of this Decree;

2. from a terminal, reloading station or RO-RO port to the nearest border crossing, if they arrived using piggy-back transport or a ferry and if they are able to proceed with their journey to their destination abroad. The driver shall provide evidence of this by means of the documentation defined in Article 8 of this Decree.

Article 8

(documents required for performing pre-carriage and on-carriage)

During a journey the driver of a freight vehicle in combined transport must keep a copy of the CIM/UIRR contract or the K504 consignment note, except in cases where the required document

is defined by a bilateral agreement between the Republic of Slovenia and the country in which the freight vehicle is registered.

Article 9

(statistical data)

For the preparation of data for reports which the Commission draws up for the Council of the EC on a biannual basis, all agents involved in combined transport in Slovenia must collect and forward to the ministry responsible for transport the following data on:

1. transport links in combined transport;

2. the number of intermodal transport units transported along different transport links;

3. the number of tons transported;

4. transport performance in terms of tonnage/km.

Article 10

(entry into force)

This Decree shall enter into force on the fifteenth day after its publication in the *Uradni list Republike Slovenije*.

No. 340-00/2001 –1

Ljubljana, 11 January 2001

Government of the Republic of Slovenia

Janez Drnovšek

Prime Minister

COUNTRY	SPAIN

ORDEN de 30 de septiembre de 1993 *por la que se establecen normas especiales para determinados transportes combinados de mercancías entre Estados miembros de la CEE.* **MINISTERIO DE OBRAS PUBLICAS, TRANSPORTES YMEDIO AMBIENTE** ***24770*** *ORDEN de 30 de septiembre de* 1993 *por* *la que se establecen normas especiales para determinados transportes combinados de mercancías entre Estados miembros de la CEE.* El Reglamento de la Ley de Ordenación de los Transportes Terrestres, aprobado por el Real Decreto 1211/1990, de 28 de septiembre determina en el capítulo IV de su título IV el régimen aplicable a la realización de transportes internacionales por carretera. Por Orden del Ministerio de Obras Públicas y Transportes de 7 de octubre de 1992 se han desarrollado dichas normas *en* materia de otorgamiento de autorizaciones de transporte internacional de mercancías por carretera. sin establecer normas específicas en relación con el transporte combinado. Por otra parte. la Directiva 92/106/CEE, del Consejo de 7 de diciembre de 1992, ha	*ORDER of 30 of September of 1993 by which special norms for certain combined transports of merchandises between member States of the EEC are settle down.* **MINISTRY OF PUBLIC WORKS, TRANSPORTS AND ENVIRONMENT** ***24770*** *ORDER of 30 of September of 1993 by which special norms for certain combined transports of merchandises between member States of the EEC are settled down*. The Regulation of the Law of Arrangement of the Terrestrial Transports, approved by Real Decree 1211/1990, of 28 of September, determines in the chapter IV of its title IV, the regime applicable to the accomplishment of international transports by road. By Order of the Ministry of Public Works and Transports of 7 of October of 1992, it has been developed such norms in the matter of granting authorizations for international road freight transport, without establishing specific rules in relation to the combined transport. On the other hand, the Directive 92/106/CEE of the Council of 7 of December of 1992, has settled down special norms in relation to determined combined transports of merchandises between States members. Norms that are not against to the arrangement done in the mentioned

establecido normas especiales en relación con determinados transportes combinados de mercancías entre Estados miembros. normas que no se oponen a lo dispuesto en el citado Reglamento de la Ley de Ordenación de los Transportes Terrestres y que se hace necesario incorporar al derecho interno. En su virtud, oídas las asociaciones profesionales de transportistas, y en uso de la autorización contenida en la disposición adicional undécima del Reglamento de la Ley de Ordenación de los Transportes Terrestres, dispongo:	Regulation of the Law of Arrangement of Terrestrial Transports and that becomes necessary to incorporate to the national law. In its virtue, having been heard the professional associations of road hauliers, and in use of the authorization contained in the eleventh additional disposition of the Regulation of the Law of Arrangement of Terrestrial Transports, I arrange:
Artículo 1.0 *Ámbito de aplicación.-A* efectos de lo dispuesto en esta Orden, se entiende por transportes combinados los transportes de mercancías entre Estados miembros de la CEE en los que el camión, el remolque, el semirremolque, con o sin tractor, la caja móvil o el contenedor de 20 pies o más, utilicen la carretera para la parte inicial. final o ambas del trayecto, y el ferrocarril. La vía navegable o un recorrido marítimo que exceda de 100 kilómetros en línea recta, para la otra parte, siempre que la parte del trayecto que se efectúe por carretera lo sea: Bien entre el punto de carga de la mercancía y la estación de ferrocarril más próxima apropiada para el embarque o entre el punto de descarga de la mercancía. y la estación de ferrocarril más próxima apropiada para el desembarque; Bien en un radio que no exceda de 150 kilómetros en línea recta a partir del puerto fluvial o marítimo de embarque o	Article 1, *Scope of application*. - For the purposes of this Directive, 'combined transport' means the transport of goods between Member States where the lorry, trailer, semi-trailer, with or without tractor unit, swap body or container of 20 feet or more uses the road on the initial or final leg of the journey and, on the other leg, rail or inland waterway or maritime services where this section exceeds 100 km as the crow flies and make the initial or final road transport leg of the journey: Between the point where the goods are loaded and the nearest suitable rail loading station for the initial leg, and between the nearest suitable rail unloading station and the point where the goods are unloaded for the final leg, or. within a radius not exceeding 150 km as the crow flies from the inland waterway port or seaport of loading or unloading. Art. 2. *Authorizations.* - All hauliers

desembarque. Art. 2.0 *Habilitaciones.-Todo* transportista por carretera establecido en un Estado miembro de la CEE que sea titular de la correspondiente autorización multilateral de la CEE (licencia comunitaria) podrá efectuar trayectos por carretera iniciales y finales que formen parte integrante de los transportes combinados definidos en el artículo anterior efectuados entre Estados miembros, supongan o no el cruce de una frontera. Sin perjuicio de lo anterior, cuando se trate de un trayecto por carretera que no exceda del territorio español y se realice por un transportista establecido en España bastará con que cuente con título habilitante suficiente para la realización del trayecto de que se trate. Art. 3° *Tarifas. Los* trayectos iniciales y finales por carretera efectuados como parte de un transporte combinado entre Estados miembros de la CEE no estarán sujetos a tarifas obligatorias teniendo a estos efectos la consideración de transporte internacional. Art. 4.0 *Transporte privado complementario.-Si* durante la realización de un transporte combinado de los definidos en el artículo 1.0 la empresa cargadora o remitente efectúa el trayecto inicial por carretera en régimen de transporte privado complementario. la empresa destinataria de la mercancía podrá efectuar el trayecto final por carretera transportando la mercancía a su destino mediante un tractor o camión que le pertenezca, o esté adquiriendo a plazos,	established in a Member State who meet the conditions of access to the occupation and access to the market for transport of goods between Member States shall have the right to carry out, in the context of a combined transport operation between Member States, initial and/or final road haulage legs which form an integral part of the combined transport operation and which may or may not include the crossing of a frontier. Without prejudice to the foregoing, in the case of a journey by road not exceeding the Spanish territory and that is made by haulier established in Spain, it will be enough counting with the qualifying title for the route in question. Article. 3. *Tariffs*. Initial or final road haulage legs forming part of combined transport operations shall be exempted from compulsory tariff regulations taking for these purposes, consideration of international transport. Art. 4.0 *Complementary private transport*. - If during the performance of a combined transport defined in article 1, the shipper or remitter firm carries out the initial journey by road in regime of complementary private transport, the targeting company of the merchandise will be able to carry out the final passage by road transporting the merchandise to its destiny by a tractor or truck that belongs to it, or that is acquiring on credit, driven by its employees. Considering that it is carried out in

conducido por sus empleados. Considerándose que lo efectúa en régimen de transporte privado complementario aun cuando el remolque o el semirremolque estén matriculados a nombre de la empresa cargadora o remitente o hayan sido arrendados por ésta. Asimismo, se considerará que el trayecto por carretera inicial correspondiente a un transporte combinado de los definidos en el artículo 1.0 se efectúa en régimen de transporte privado complementario cuando la empresa cargadora o remitente utilice un tractor o camión que le pertenezca o que esté adquiriendo a plazos, conducido por sus empleados aun cuando el remolque o semirremolque estén matriculados a nombre de la empresa destinataria de la mercancía siempre que ésta efectúe el trayecto final por carretera en régimen de transporte privado complementario. Art. 5.0 *Documento de transporte.-En* el caso del transporte público combinado. en el documento de transporte previsto en el artículo 6 del Reglamento número 11 del Consejo CEE. de 27 de junio de 1960, deberán hacerse constar las estaciones ferroviarias de embarque y desembarque correspondientes al recorrido por ferrocarril o de los puertos fluviales de embarque y desembarque correspondientes al recorrido por vía navegable o de los puertos marítimos de embarque o desembarque que correspondan al recorrido marítimo. Estos datos se insertarán antes de la ejecución del transporte y serán confirmados por un sello de las administraciones de ferrocarriles o	regime of complementary private transport, even if the tow or the semitrailer are registered in name of the shipper or remitter company, or has been rented by this one. Also, it will be considered that the initial passage by road corresponding to a combined transport of the defined ones in article 1, takes place in regime of complementary private transport when the shipper or remitter company uses a tractor or a truck that belongs to it, or that it is acquiring on credit, driven by its employees, even though the tow or semitrailer are registered in name of the remitter company of the merchandise, whenever this one carries out the final passage by road in regime of complementary private transport. Art. 5.0 Document of transport. - In the case of combined transport for hire or reward, a transport document which fulfils at least the requirements laid down in Article 6 of Council Regulation No 11 of 27 June 1960 concerning the abolition of discrimination in transport rates and conditions, in implementation of Article 79 (3) of the Treaty establishing the European Economic Community (2), shall also specify the rail loading and unloading stations relating to the rail leg, or the inland waterway loading and unloading ports relating to the inland waterway leg, or the maritime

portuarias correspondientes cuando la parte del transporte combinado efectuado por ferrocarril. Cuando un remolque o semirremolque perteneciente a una empresa que efectúe transporte privado complementario sea remolcado en uno de los trayectos por carretera por un tractor perteneciente a una empresa que realice transporte público estará exento de la presentación del documento previsto en el párrafo anterior, pero deberá presentarse algún documento que sirva de prueba del trayecto que se haya efectuado o vaya a efectuarse por ferrocarril o por vía navegable. DISPOSICION ADICIONAL UNICA De conformidad con lo establecido en la primera Directiva de 23 de julio de 1962 modificada por el artículo 13 del Reglamento (CEE) número 881/92. de 26 de marzo del Consejo los transportes internacionales de mercancías por carretera, públicos y privados complementarios. efectuados desde o con destino al territorio español o en tránsito o a través de éste y que a continuación se enumeran, así como los desplazamientos de vacío relacionados con dichos transportes, están exentos de cualquier régimen de licencia comunitaria y de cualquier autorización de transporte: 1. Los transportes postales realizados en	loading and unloading ports relating to the maritime section of the journey. These details shall be recorded before the transport operation is carried out and shall be confirmed by means of a stamp affixed by the rail or port authorities in the railway stations or inland waterway or sea ports concerned when that part of the journey carried out by rail or inland waterway or by sea has been completed. Where a trailer or semi-trailer belonging to an undertaking engaged in own-account transport is hauled on a final section by a tractor belonging to an undertaking engaged in transport for hire or reward, the transport operation so effected shall be exempt from presentation of the document provided previously; however, another document shall be provided giving evidence of the journey covered or to be covered by rail, by inland waterway or by sea. UNIQUE ADDITIONAL DISPOSITION In accordance with the establishment in the first Directive of July 23 of 1962 , modified by article 13 of the Regulation (EEC) number 881/92 of march 26 of the Council, the international transport of merchandises by road, complementary public and private transports carried out from or to the Spanish territory or in transit or through this one and that is enumerated, as well as the empty displacements related to these transports, are exempt from any regime of communitarian license and any transport authorization: 1. The postal transports made in public

régimen de servicio público. 2. Los transportes de vehículos accidentados o averiados. 3. Los transportes de mercancías en vehículos automóviles cuyo peso total en carga autorizado incluidos los remolques no sea superior a seis toneladas o cuya carga útil autorizada incluidos los remolques no sea superior a 3,5 toneladas. 4. Los transportes de mercancías en vehículo automóvil siempre que se cumplan las siguientes condiciones: a) Que las mercancías transportadas pertenezcan a la empresa o hayan sido vendidas compradas. donadas o tomadas en alquiler producidas, extraídas, transformadas o reparadas por ella; b) Que el transporte sirva para llevar las mercancías hacia la empresa; para expedirlas de dicha Empresa, para desplazarlas bien en el interior de la Empresa. bien para sus propias necesidades al exterior de la Empresa; c) Que los vehículos automóviles utilizados para este transporte sean conducidos por personal de la Empresa; d) Que los vehículos que transporten las mercancías pertenezcan a la empresa o hayan sido comprados a crédito por ella. o estén alquilados siempre que en este último caso, cumplan las condiciones previstas en las normas reguladoras de la actividad de arrendamiento de vehículos sin conductor. Esta disposición no será aplicable en	service regime. 2. The transports of damaged and wrecked vehicles. 3. The transports of merchandises in motor vehicles whose gross weight in authorized load including the tows is not superior to six tons or whose authorized charge including the tows is not superior to 3.5 tons. 4. The transports of merchandise in motor vehicles whenever the following conditions are fulfilled: a) That the transported merchandise belong to the company or have been sold, bought, donated or taken in rent, produced, extracted, transformed or repaired by it; b) That the transport serves to take the merchandise towards the company; to issue them from the Company, to move them inside the Company, as well as well for its own necessities to the outside of the Company; c) That the motor vehicles used for this transport are driven by personnel of the Company; d) That the vehicles that transport the merchandises belong to the company or have been bought on credit by it, or are rented, whenever in this last case, they fulfill the conditions anticipated in the regulating norms of the activity of driverless vehicles renting. This disposition will not be applicable in case of use of a in case of use of a replacement vehicle during a short breakdown of the vehicle normally used.

caso de utilización de un vehículo de recambio durante una avería de corta duración del vehículo utilizado normalmente; e) Que el transporte constituya sólo una actividad accesoria en el conjunto de las actividades de empresa. 5. Los transportes de medicamentos. de aparatos y equipos médicos y de otros artículos necesarios en casos de ayudas urgentes. en particular en casos de catástrofes naturales. DISPOSICION FINAL UNICA Se faculta al Director general del Transporte Terrestre para dictar las disposiciones necesarias para la aplicación y desarrollo de la presente Orden así corno para resolverlas dudas que en relación con la misma se susciten. Madrid. 30 de septiembre de 1993. BORRELL FONTELLES Excelentísimos. Sres. Secretario general para los Servicios de Transportes y Director general del Transporte Terrestre	e) That transport constitutes only one accessory activity in the set of the company activities. 5. The transport of medicines, medical devices and equipment, and other items needed in emergency aids. Particularly in cases of natural disasters. UNIQUE FINAL DISPOSITION General Director of Terrestrial Transport is empowered to dictate the necessary rules for the implementation and development of this Order, as well as to resolve doubts that in connection to the same one could arise. Madrid. 30 of September of 1993. BORRELL FONTELLES. Excellencies Mr. General Secretary of Transport Services and General Director Of Terrestrial transport.

COUNTRY	SWEDEN

Yrkestrafikförordning (2012:237)

(Occupational traffic regulations, last update of 3 May 2012)

1 Chap.

1 §

This law includes regulations which are linked to regulations of EU Parliament and Council (EC) nr 1071/2009 of joint regulations concerning conditions, which will be met by persons who transact professional transport.

3 §

For combined transport of freight between Sweden and other EEA country Member States is required, except what is represented in 2 chap. 1 § occupational traffic regulations (2012:201), only that the transport company have joint permission determined in a law of EU parliament and Council (EC) nr 1072/2209, related to joint regulations for the access to the international markets for freight transport on roads. Joint permission will be combined with the driver permit, if the driver is a citizen of the third country. The requirement of the joint permission doesn't concern transports which are dissociated of such a requirement pursuant to article 1.5 of the same law.

The 'combined transport' means the transport of goods within EEC countries where the lorry, trailer, semi-trailer, with or without tractor unit, swap body or container of 20 feet or more uses the road on the initial or final leg of the journey and, on the other leg, rail or inland waterway or maritime services. Rail or waterway section between beginning and end should exceed 100 km as the crow flies and the road transport occurs:

1. between the nearest suitable loading rail station and loading place of the cargo or between the nearest suitable unloading rail station and unloading place of the cargo
2. maximum 150 km from the inland or sea port where the cargo will be loaded or unloaded.

The first or final road transport leg of combined transport might include border crossing.

3 Chap.

In the case of combined transport for hire or reward, a transport document, shall also specify the rail loading and unloading stations relating to the rail leg, or the inland waterway loading and unloading ports relating to the inland waterway leg, or the maritime loading and unloading ports relating to the maritime section of the journey. These details shall be recorded before the transport operation is carried out and shall be confirmed by means of a stamp affixed by the rail or port authorities in the railway stations or inland waterway or sea ports concerned when that part of the journey carried out by rail or inland waterway or by sea has been completed.

COUNTRY	UNITED KINGDOM (applies to England, Scotland, Wales)

STATUTORY INSTRUMENTS 1996 No. 2186 ROAD TRAFFIC The Goods Vehicles (Licensing of Operators) (Temporary Use in Great Britain) Regulations 1996, came into force 26 Sep 1996

Section 5:

Notwithstanding anything in regulations 8 to 30, section 2(1) of the Act (item 2 above) shall not apply to the use in Great Britain of a Northern Ireland or foreign goods vehicle for the carriage of goods between Member States of the European Community—

(c) where the vehicle is being used on a journey for combined transport as defined in Article 1 of Council Directive (EEC) No. 92/106 on the establishment of common rules for certain types of combined transport of goods between Member States(6), and there is carried on the vehicle, or, in the case of a trailer, on the vehicle drawing it, a document which satisfies the requirements of Article 3 of that Directive, or a document issued by the competent authority of the Member State where the vehicle, or, in the case of a trailer, the vehicle drawing it, is registered certifying that the vehicle is being used on such a journey.