



To – DG Energy and Transport, B-1049 Brussels.

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Contd/-

The European patent (in the writer's name) for the system was offered gratis to the Commission in 2006, but was (unexpectedly) declined. A further European patent has been granted for the essential 'Pop-Up' mechanism with validity to 2024, and may be offered to the Commission.

Respectfully yours,

A handwritten signature in cursive script that reads "Jack Brown".

J. G. Brown.

## GREEN PAPER

### TEN-T: A policy review

Q.1

TEN-T Guidelines are linked with instruments to facilitate the implementation of projects identified as being of common interest. . . . financial instruments. . . . . and coordination initiatives taken by the Commission.

Community resources spent on TEN-T so far have barely enabled citizens and economic operators to "see the difference".

The Motorways of the Sea priority project (covering infrastructure, facilities, procedures, technologies and services) is intended to foster quality and high-capacity integrated multi-modal, door-to-door transport with a maritime leg. . . . . a conceptual approach setting out objectives and procedures for identifying projects of common interest. . . . . the complexity of procedures for obtaining public financial support and the lack of clear objectives and criteria have hindered any broad implementation . .

EU transport policy focuses on a range of initiatives. . . . including the Freight Logistics Action Plan, the proposal for a Directive on Rail Freight Corridors . . .

### Response

Individual transport by road of diesel-powered trucks plus semi-trailers is energy inefficient; is environmentally unfriendly, and adds significantly to road traffic congestion.

The Commission's attention is drawn to the fundamental difference between:-

- a). Long-haul, deep-sea freight movements of imports and exports.  
and
- b). Domestic freight movements within Europe.

For a). The container is unquestionably the most efficient and cost-effective unit.  
but

For b). The reality that European domestic national and cross-border freight movements are predominantly (approximately 80%) transported in standard (non-craneable) semi-trailers needs to be recognised.

The promotion of "Motorways of the Sea" recognises that Roll On-Roll Off (RO-RO) ferries are efficient links in multimodal transport chains. Such efficiency comes from the simplicity and speed of the road/sea interface. Time per car over the interface averages 3 seconds, and per truck/trailer 12-15 seconds. The Commission's focus for multimodalism of freight should seek to replicate the RO-RO efficiency of the road/sea interface onto road/rail and road/waterways interfaces- preferably in manners which enable random-access (bus-stop) capability between terminals.

Perhaps within the aegis of the Freight Logistics Action Plan an accurately detailed comparative study could be made of innovative solutions for road/rail and road/waterways interfaces - especially focusing on the benefits of RO-RO. (why Lift ? when you can Roll).

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### TEN-T: A policy review

Q.2

... how to shape the future multi-modal network... requires... planning approaches... and know-how. ... complexity, innovative nature and geographical scope... call for a strong Community role.

Cohesion Fund... for implementation of Community legislation in the transport sector – e.g. rail interoperability.

### Response

Upon reviewing the advances made in passenger rail transport over the past few decades:-

High-speed trains, both tilting and non-tilting.

Mass rapid transport systems.

Maglev

Advanced metros.

And on sea, fast passenger ferries:-

Catamarans

Hydrofoils

Hovercraft

The inescapable conclusion is that freight transport has a lot of catching-up to do.

For European national and cross-border freight movements in semi-trailers (approximately 80% of total domestic freight), innovative road/rail and road/waterways intermodal interface systems have been created. Such RO-RO systems would be energy efficient (towards E.U.s 20-20-20 compliance); would be relieving of road traffic congestion, and would be economic over distances of 250 kilometres. The shorter the stage distance, the more important efficient terminal turnrounds become.

Current intermodal movements involving LO-LO of containers etc., only become economic at distances of 500-600 kms., with the in-terminal lifting costs frequently amounting to half of the total freighting cost between consignor and consignee.

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### TEN-T: A policy review

Q.3

... to enhance the economics of TEN-T projects of high Community interest, the current priority projects approach could evolve towards a priority network approach. ...

Any approach towards such a network should, as a starting point, build on common agreement on clear goals and on a transparent and objective planning methodology. ... take account of major traffic flows ... within the Community ... of progressive efforts towards more efficient infrastructure use ....

Climate change objectives should first and foremost guide any approach towards the development of a possible priority network. ... this kind of network should therefore be truly multi-modal. ... enabling ... freight flows to cross the European Union as efficiently – economically – and environmentally – as possible on a co-modal basis. .... this calls for optimal interconnection of modes – for example through hinterland connections of maritime and inland waterways ports or through railway connections.

... the E.U. could streamline the identification of projects of common interest and determine more objectively its support for them through common instruments, provided projects are evaluated on a harmonised basis ... enhance the effectiveness and visibility of Community action.

### Response

Such priority network should focus on improving national and cross-border freight multi-modal movements within the Community; especially since there are more than 450 container ships laid-up around the World (“Economist” 03-28-09). No longer are container ships having to queue-up at overstretched LO-LO container ports.

A starting point should be recognition of the efficiency and economy of Roll On-Roll Off – as clearly demonstrated by Motorways of the Sea.

Compare one electrically powered road/rail RO-RO intermodal train hauling 30 standard (non-craneable) semi-trailers – saving the pollution from 30 diesel powered trucks, and reducing road-traffic congestion.

Similarly, one comparatively low-powered waterways RO-RO vessel loaded with 30 standard semi-trailers.

Optimal interconnection of modes for road/rail and for road/waterways best achieved by RO-RO at the interfaces.

Whilst LO-LO container movements have diminished, and will remain at depressed levels for several years, there is a window of opportunity for the introduction of new multi-modal freight connections focussed upon European domestic freight movements.

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### TEN-T: A policy review

Q.4

... optimise the use of existing infrastructure capacities initially . . . . . alongside growing demand in the longer run . . . . . flexibility into the concept of projects of common interest . . . . Community's transport policy objectives . . . . promotion of sustainable freight transport . . . .

### Response

To cater for increased pan-European freight traffic in the aftermath of the current slowdown, early efforts should be directed towards implementing efficient and economic methods for achieving road/rail and road/waterways multi-modalism. From experience of the past decade, practically all funding will go into LO-LO equipment once container traffic resumes growth.

Implementation of RO-RO intermodal interfaces could create employment for:-

Road/Rail system -

Architects and surveyors to design terminals.

Civil engineers.

Construction companies for terminal buildings; tarmac areas; approach roads; etc.

Engineering companies to manufacture the necessary interchange equipment and power plants.

Suppliers and installers of rail tracks to the terminals.

Signalling equipment suppliers.

Electric overhead catenary suppliers.

Rail wagon builders.

IT system developers.

Etc.

And for Road/Waterways system -

Many of the foregoing plus

Companies to construct RO-RO linkspans.

Naval architects and marine engineers.

Shipbuilders.

RO-RO access equipment manufacturers.

Etc.

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### TEN-T: A policy review

Q.5

Freight traffic is expected to grow faster than passenger traffic . . . . congestion problems . . . . may call for separation of passenger and freight railway lines.

Freight access by lorry to cities requires environmental and urban planning issues to be taken increasingly into account.

As the overwhelming proportion of the Community's international trade flows . . . . maritime ports have seen steady growth . . . . land access to them may have an impact on land transport flows across Europe . . . .

. . . . inland waterway network has ample free capacity . . . . can be activated with relatively limited financial resources . . . . efficient use of inland waterways is still hampered by a number of bottlenecks and shortcomings.

The "green" dimension of motorways of the sea should be accentuated, possibly as part of a green freight corridor concept. Their economic viability should also be highlighted . . . .

Freight logistics have become crucial for the Community to meet the economy's transport needs in a sustainable way . . . . each mode is used according to its comparable advantages within efficient co-modal transport chains . . . support economic growth while making freight transport more efficient – from both economic and environmental perspectives . . . . TEN-T policy needs to ensure . . . inter-modal terminals, rail, sea, and river port capacity . . . .

### Response

With routes like Betuwe line (Rotterdam-Emmerich), and Iron Rhine to re-open (Antwerp – Monchen Gladbach), separation of freight from passengers is in progress.

There is a need for intermodal freight trains to run to timetable to enable integration with passenger train timetables. This objective is possible if faster and more predictable freight train turnrounds can be achieved.

Road/rail lorry access to inner cities is achievable to small area, high volume, RO-RO interchange terminals above (or below) existing rail tracks. Designs require further development.

Maritime ports and hinterland depots have commandeered nearly all available funding over the past decade and more, for the purchase of LO-LO container handling equipment. Whilst container traffic growth has ceased, and even declined, there is a window of opportunity to create a multi-modal core network for European internal freight traffic.

Despite shortcomings (typically low water levels), there is substantial potential for random-access 'bus-stop' type RO-RO services on rivers and waterways. A pre-requisite for this is the provision of strategically located linkspans on rivers and waterways. Motorways of the sea efficiency can be migrated to waterways.

Freight logistics, involving multi-modal solutions to meet the Community's future transport needs, will require more than TEN-T policy. Substantial E.C. funding; national governments funding, and local governments funding will be essential. Recovery of such funding would be possible from small terminal charges per unit, which the efficiency and economy of RO-RO terminals could afford.

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### TEN-T: A policy review

Q.7

... the vehicle sector ... considerable potential for innovation ... thus the traditional borderlines between infrastructures may be shifting. Beside technical innovation, the objective of ensuring the most efficient use of infrastructure may also call for organisational innovation.

### Response

Innovation – yes, but ideas begin with individuals who are unlikely to be able to afford development costs to a level where the innovation is marketable. Even the most promising projects funded by the E.C. Research Directorate are left to the private sector to implement.

Too often vested interests negate innovation which is seen to be jeopardising their existing investments. Typically, the operators of LO-LO terminals see RO-RO systems as putting at risk their enormous investments in expensive lifting paraphernalia - container cranes; straddle carriers; reach stackers; etc.,etc.

With container traffic diminished – probably for several years – there is a pause which the Commission could use to fund the RO-RO benefits of motorways of the sea for European national and cross-border road/rail and road/waterways freight multi-modalism.

One candidate for the achievement of such an objective is E.C. funded RTD project 2001-2004, which project is stalled precisely because of the situation described in the opening paragraphs.

[www.cargospeed.net](http://www.cargospeed.net)

Europarl Petition No. 0245/2008

Bottlenecks road/rail submission 02-14-2007

Bottlenecks road/waterways submission 02-15-07

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### **TEN-T: A policy review**

**Q.8**

To make TEN-T an effective basis for all relevant transport policy objectives . . . . combined to form a TEN-T core network . . . . reflecting the need for flexibility and market orientation . . . . and interconnection between modes . . .

A core network, with clear European objectives and the highest priorities in the field of transport and other E.U. policies, could thus be the centrepiece of the Communitys efforts in relation to TEN-T policy.

### **Response**

A TEN-T core network, focused upon flexibility and market orientation enabling interconnection between modes, is achievable for European internal freight movements by the adoption of innovative RO-RO procedures.

Such procedures would be energy saving; pollution reducing; road traffic congestion reducing, and be economic for stage distances of 250/300 kilometres vis-à-vis 500/600 kilometres for economic stage distances where LO-LO is involved.

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### **TEN-T: A policy review**

Q.9, and Q.10

The planning option chosen and the instruments for its implementation must therefore correspond.

... core network . . . . concentrating on elements of high relevance to achieving TEN-T policy objectives . . .

Pro-active assistance by the Commission , by way of its coordinating role, could address the various problems and promote exchanges of best practice, thereby enhancing the soundness of estimates and facilitating project implementation.

... better managing available capacities and optimising the transport system, and for financing new infrastructure and technologies. The role of the private sector in project delivery could be intensified . . . .

### **Response**

Prior to the Commission choosing the option, it is crucially important to establish best-practice amongst the available options.

Efficient and economic interfaces for RO-RO of standard (non-craneable) semi-trailer onto rail wagons and waterways vessels, are a pre-requisite for sustainable national and cross-border freight movements - to comply with the Commission's objectives for road decongestion; energy savings, and pollution reduction.

The Commission could assemble a Panel of Experts (RO-RO ferry operators included) to assess available RO-RO options, and to establish best-practices for multimodal road/rail and road/waterways interchanges of pan-European domestic freight.

Optimising European national and cross-border multimodal freight movements by the adoption of RO-RO systems, will involve some gauge enhancement to UIC "B+", or "C" in certain countries. New (non Lift On-Lift Off) terminals for RO-RO interchanges will be necessary to achieve the economic; environmental, and road-decongestion benefits sought by the Commission.

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### **TEN-T: A policy review**

### **Response**

**Q.11**

A key issue for the future as regards implementation of TEN-T policy is to streamline the allocation of grants and to link it to the European added value of projects so as to ensure the best value for Community money.

A perceived weakness in existing Community financial instruments is the expectation that, upon completion of E.C. funded RTD projects, the partners will provide/find private funding for implementation. What is badly needed is for peer review by Commission appointed experts to establish if projects have benefits for E.U. citizens. Best practice projects should then initially be funded by the Commission and governments until viable for sale to the private sector. Underdeveloped projects which hold considerable promise, but require further development to establish viability, should be the subject of Commission organised and funded authentication.

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### TEN-T: A policy review

Q.12

European coordinators, appointed by the Commission to help prepare and implement certain priority projects, have proven to be effective on a number of occasions. Their role could be expanded to help stimulate the implementation of more TEN-T projects ( in combination with well targeted funding under EU financial instruments).

Benchmarking could also be considered as a way of encouraging Member States to invest in TEN-T. The establishment of performance standards, for example, could help to determine capacities for different types of infrastructure and serve as a basis for the optimisation of infrastructure use and identification of bottlenecks.

The exchange of best practice promises a number of opportunities for the facilitation of project implementation . . . . .

### Response

This procedure should certainly be adopted for peer evaluation of E.C. funded RTD projects – as described in response to Q.11

The Betuwe freight railway linking Holland and Germany is ideally positioned for trials of promising multi-modal RO-RO road/rail systems. Approximately 700K road trailers arrive/depart annually to/from the Rotterdam port area by RO-RO motorways of the sea. Such trials would provide benchmarking to encourage the introduction of proven system(s) by Member States.

Identification by the Commission of promising road/rail and road/waterways freight systems, towards the establishment of best practices, could be rewarding for E.U. citizens.

Perhaps, in the current economic downturn, the financing and establishment of priority multi-modal freight corridors could be the major European Commission project to:-

- Create employment.
- Assist in 20-20-20 pollution reduction.
- Reduce road traffic congestion.
- Achieve energy savings.
- Reduce freight transport costs.
- Improve the lifestyles of E.U. citizens.
- Etc.

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### TEN-T: A policy review

Q.13

Option (2) . . . . single layer, priority projects in current form (amended as necessary), complimented by priority infrastructure needs resulting from requirements of various transport services. Priority projects might possibly be connected, and amended as appropriate, into a priority network.

### Response

Under this option a detailed analysis of systems for, and the identification of best practices, of RO-RO road/rail and road/waterways solutions should be carried out by the Commission with expert assistance.

An instance worthy of investigation is comparison of the French government-funded Modalohr system and the E.C RTD funded system CargoSpeed.

The mechanical complexity and vast cost of wagons and terminal equipment of the Modalohr RO-RO system makes it even less economic than LO-LO, i.e. 600/700 kms. stage distances. It is something of a mystery why the Commission has condoned, and continues to condone, massive French government funding of two routes – breaking E.C. rules.

The simplicity and flexibility of system CargoSpeed, which would be economic for stage distances of 250 kilometres, deserves development and introduction on a trial route.

## Concluding comments.

In the current Worldwide economic downturn, there is an opportunity to make some re-assessment of the balance of funding between:-

Long-haul, deep-sea, freight traffic (exports and imports) for which the container is the unchallenged and efficient freight unit, and

National and cross-border freight traffic within Europe for which the '*de facto*' unit - reckoned to carry some 80% of Europe's internal freight - is the standard non-craneable semi-trailer.

Over the past 15 and more years port authorities and governments have funded, at vast cost, ever more container berths and all of the expensive Lift On-Lift Off (LO-LO) portainer cranes; mobile gantries; straddle carriers; reach stackers; etc.

In the same timeframe, the quantities of non-craneable trailers using Roll On-Roll Off (RO-RO) ferries in the English Channel; North Sea, and Baltic has grown from 10,600 to 33,700 **per day** (June 2007). Yes, there are some craneable semi-trailers, but the road-haulage industry finds them too difficult to integrate into fleets of non-craneable semi-trailers. Per day only about 600 craneable semi-trailers are LO-LO onto intermodal rail 'pocket' wagons in Western and Central Europe, with annual numbers declining since peaking 15 years ago.

Over the same period the Commission has repeatedly called for road/rail and road/waterways intermodalism to reduce road traffic congestion; with minimisation of pollution (20-20-20) and improved energy efficiency also joining the Commission's call.

The economic downturn has created a pause, and it is commendable that the Commission is seeking to fund projects (European Economic Recovery Plan) which will enhance the lifestyles (or minimise problem areas) of European citizens in the post-downturn period.

Also commendable is the Commission's enthusiasm for Motorways of the Sea intermodalism. The Commission should be encouraged to extend this enthusiasm to 'Motorways on the Rails' and 'Motorways on the Rivers', and to identify 'Best Practices' for achievement of these objectives.

The recognition of Motorways of the Sea combines recognition that road/sea intermodalism achieves:-

- For a given TEU (Twenty Foot Equivalent) performance, a RO-RO ferry turns round it's cargo of 12 metre trailers (2 TEU per trailer) 15 to 20 times faster than a containership's LO-LO handling of TEU containers.
- The efficiency and economic performance of RO-RO allows most ferry services to be operated by the private sector, without subsidy.
- RO-RO intermodalism is economic for short stage distances.

But the overwhelming majority of media coverage of freight is focussed on containers - to such an extent that most citizens equate intermodalism with Lift On-Lift Off. Advertising in freight magazines (World Cargo News, etc.) is awash with cranes; straddle carriers; reach stackers; etc., One full-size page advert. repeated monthly for several years shows a craneable semi-trailer being lifted onto a rail pocket wagon by a reach stacker and captioned "The Power of Innovation".