Study on permitting and facilitating the preparation of TEN-T core network projects

Annex 1: Problem definition

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Study on permitting and facilitating the preparation of TEN-T core network projects

TABLE OF CONTENTS

ABBREVIATIONS USED 6
PART ONE: CHALLENGES IN THE AUTHORISATION FRAMEWORK FOR TEN-T CORE NETWORK PROJECTS 7
1 CHALLENGES IN PERMITTING PROCEDURES 7
1.1 Inefficiencies in permitting procedures 7
1.1.1 Multiple stages and authorities involved in permitting procedures.7
1.1.2 Lack of resources and technical capacity of permitting authorities 11
1.1.3 Absent or unenforced time limits 11
1.1.4 Streamlining measures 13
1.2 Public opposition 17
1.2.1 Late or poorly timed consultation of stakeholders 18
1.2.2 Ineffective stakeholder consultation 19
1.2.3 Inefficient consultation of stakeholders 20
1.2.4 Streamlining measures 20
1.3 Deficiencies in planning the early stages of the project 21
1.3.1 Poor quality of environmental assessments 22
1.3.2 Lack of consultation and coordination between permitting authorities 23
1.3.3 Absence of strategic planning 24
1.3.4 Changes in the legal framework in the course of the project 25
1.4 Land acquisition 26
1.4.1 Landowner opposition 26
1.4.2 Lack of time limits in expropriation procedure 26
1.4.3 Limited collection and/or availability of data 26
1.4.4 Streamlining measures 27
1.5 Conclusions 28
2 CHALLENGES IN THE PROCUREMENT OF TEN-T CORE NETWORK PROJECTS 29
2.1.1 Complexity of legal framework 30
2.1.2 Absence of time limits for the award procedure 31
2.1.3 Characteristics of review procedures 32
2.1.4 Limitations in capacity of contracting authority 34
2.1.5 Deficiencies in the design of the tender 35
2.2 Public-private partnerships 36
2.2.1 Organisational barriers to PPPs 38
2.2.2 Statistical treatment of PPPs 39
2.3 Conclusions on the procurement of TEN-T projects 40
3 CHALLENGES IN STATE AID PROCEDURES 41
3.1.1 Lateness and/or poor quality of State aid notifications 41
3.2 Conclusions on State aid 43
PART TWO: SPECIFIC CHALLENGES IN PERMITTING OF TEN-T WATERBORNE PROJECTS.. 45
4 CHALLENGES IN THE PERMITTING OF WATERBORNE PROJECTS 45
4.1 Challenges related to the legal framework for waterborne projects 45

4.1.1 Water Framework Directive 45
4.1.2 Birds and Habitats Directives 47
4.1.3 Maritime Spatial Planning Directive 50
4.2 Challenges related to dredging activities 50
PART THREE: SPECIFIC CHALLENGES IN THE AUTHORISATION FRAMEWORK FOR TEN-T CROSS-BORDER PROJECTS 52
5 CHALLENGES IN CROSS-BORDER PERMITTING 52
5.1 Unaligned permitting procedures 52
5.2 Limited cooperation in EIA 53
5.3 Poor strategic planning and diverging objectives 55
5.4 Change of government 56
5.5 Incompatible national technical standards 56
5.6 Challenges in cross-border procurement 57
BIBLIOGRAPHY 59

LIST OF TABLES

Table 1: Drivers for institutional inefficiencies 7
Table 2: Number of permitting procedure in the ten selected Member States 8
Table 3: Permitting authorities in the ten selected Member States 10
Table 4: Legal time limits for permitting procedures in the ten selected Member States 12
Table 5: Fast-track procedures in selected Member States 14
Table 6: Central coordinating bodies in the ten selected Member States 16
Table 7: Drivers for public opposition 17
Table 8: Drivers for poor strategic and project planning 22
Table 9: Drivers for problems in land acquisition 26
Table 10: Drivers for delays in the completion of the procurement phase 30
Table 11 Time limits to take award decisions 31
Table 12: Time limits for review 33
Table 13: Drivers for under-exploitation of PPPs 38
Table 14: Drivers for uncertainty concerning state aid decisions 41
Table 15: Drivers for specific challenges in the permitting of waterborne projects 45
Table 16: Drivers for specific challenges in the permitting of cross-border projects 52

LIST OF FIGURES

Figure 1: Permitting procedures in Austria, Germany, Italy, the Netherlands and the United Kingdom 14

ABBREVIATIONS USED

AA	Appropriate Assessment
CBA	Cost-benefit Analysis
CEF	Connecting Europe Facility
CJEU	Court of Justice of the European Union
CRA	Crisis and Recovery Act (NL)
EEIG	European Economic Interest Grouping
EFSI	European Fund for Strategic Investment
EIA	Environmental Impact Assessment
ERA	European Railway Agency
ESIF	European Structural and Investment Funds
JASPERS	Joint Assistance to Support Projects in European Regions
LNG	Liquefied natural gas
MSP	Maritime Spatial Planning
NGO	Non-governmental organisation
PIANC	Worldwide Association for Waterborne Transport Infrastructure
PPP	Public-private partnership
RBMP	River Basin Management Plan
SEA	Strategic Environmental Assessment
SPA	Special Protected Area
TEN-E	Trans-European Network for Energy
TEN-T	Trans-European Network for Transport
WFD	Water Framework Directive

PART ONE: CHALLENGES IN THE AUTHORISATION FRAMEWORK FOR TEN-T CORE NETWORK PROJECTS

1 CHALLENGES IN PERMITTING PROCEDURES

1.1 INEFFICIENCIES IN PERMITTING PROCEDURES

Factors of delays, costs and uncertainty in permitting procedures are often rooted in procedural aspects. As shown in the previous section, TEN-T core network projects[1] have multiple impacts on land-use and the environment, often require conducting multiple environmental assessments, and, given their size, can fall under several jurisdictions if the procedure is handled at regional or local level. Consequently, in some Member States, permitting procedures are complex, involving many steps and permitting authorities, leading to duplication of permits and applications to be submitted by project promoters, duplication of or overlaps in assessment procedures, and significant administrative burden and costs for both the project promoters and permitting authorities. The higher number of different authorities involved in the permitting procedure, the more complex it becomes to gather all of the intermediate decisions required to grant the final permit. Table 1 summarises the drivers and resulting problems that typically occur related to procedural aspects of permitting procedures.

Table 1: Drivers for institutional inefficiencies

Drivers	Problems: delays, costs and uncertainty
Multiple stages and distribution of competences over several authorities	Duplication of work – applications and assessment procedures Duplication of permits when obtained at regional or local level Necessity to gather decisions/opinions from a large number of authorities
Lack of resources and technical capacity of permitting authorities	
Absent or unenforced time limits	

The following sections will describe and analyse these drivers in more detail, along with possible streamlining measures, which Member States may adopt as necessary, in line with the national administrative and political context.

1.1.1 Multiple stages and authorities involved in permitting procedures

Permitting procedures in the ten selected Member States differ greatly in the number of necessary permits and decisions to be obtained. The number of authorities and levels of governance that may be involved in permitting procedures, as well as their competence and power in the procedure also vary significantly across Member States. Among the ten selected Member States, four have a single-stage permitting procedure (Germany, Italy, the Netherlands, and the United Kingdom), where all permitting decisions (environment, spatial planning etc.) are handled through a single development consent procedure. While only one permitting authority grants the final decision, consultation of other authorities generally remains a prerequisite, as the different assessments may relate to policy areas that are within the domain of other authorities. The other six countries have multi-stage permitting procedures (Austria, Czech Republic, Hungary, Poland, Romania, and Spain).

Table 2 indicates the number of permits applied in each Member State and the number of authorities

[1] For the purpose of this chapter, TEN-T projects are hard infrastructure projects (construction, extension or upgrading) located on the TEN-T core network. It does not include projects related to traffic management.

involved. The number of permits reported in the table generally includes the minimum number of permits that always need to be granted, and only considers final and not intermediate binding decisions. The highest numbers of permits to be obtained can be found in Romania (6-7 minimum), Hungary (8-10), and Czech Republic (4).

In addition to the permits and decisions listed in Table 2, binding opinions or decisions of a number of authorities can be necessary before the permitting authority can issue a permit. For example, in the Czech Republic, the three main permits can only be granted once around 15 binding decisions of national, regional or local authorities have been issued. In Poland, the decision on the implementation of state roads investment and the decision on location of railways must be accompanied by the opinions of a least eight categories of authorities (Provincial and municipal governments; the Minister dealing with health issues; the voivodship responsible for restoration of monuments; the relevant maritime administration; the relevant regional directorate of State Forests; and the relevant manager of rail/road infrastructure).

Table 2: Number of permitting procedure in the ten selected Member States

Member State	Number of permitting procedures	Permits/decisions required
Austria	1-2	*Federal roads and railways*: - EIA decision and decisions on other federal substantive areas of law such as water, cultural heritage, forestry, worker protection, noise etc. (federal level) - Decision as per state law, especially nature protection law (state level) *Other transport infrastructure*: All decisions bundled into one at State level
Czech Republic	4 (including EIA)	- EIA statement[2] - Zoning decision (land use) - Construction permit - Final operation approval
Germany	1	- Plan approval procedure - A project may require a spatial planning decision prior to the plan approval procedure.
Hungary	8	- Regional land use permit - Environmental permit - Water permit - Permit on prior archaeological excavation - Rural land permit (if not integrated in environment permit) - Permit on use of forest land (if not integrated in environment permit) - Construction permit - Expropriation decision).
Italy	1	Single authorisation procedure
Netherlands	1	Single authorisation procedure: depending on the type of

[2] Although the EIA decision is not part of the permitting procedure in Czech Republic, it is a prerequisite to start the permitting procedure and apply for the zoning decision, when the EIA is mandatory. Therefore, it has been counted as a decision required in the permitting procedure.

Member State	Number of permitting procedures	Permits/decisions required
		project, Planning Procedure Order under Infrastructure Act or Environmental permit[3].
Poland	2-7	*Road*: 2 or 3 separate permits (depending on whether a water permit is required). *Rail*: 3 or 4 separate permits (depending on whether a water permit is required). *Other infrastructure*: Up to 7 separate permits and decisions can be required depending on the characteristics of the project.
Romania	6-7	- Environmental agreement - Local administration endorsement - endorsement of utilities suppliers - Permit to occupy agricultural and/or forest land - Expropriation decision - Construction permit - Depending on the project more permits can be required
Spain	2-3	- EIA decision - Declaration of public interest - Construction permit
UK	1	- Development Consent Order (or equivalent decision)

The large number of permitting authorities involved is in part due to the wide scope of impacts considered in environmental assessments, which leads to the involvement of several sectoral authorities, either for granting permits or delivering an opinion or a decision. Competent Ministries or authorities for environment, water, nature protection, cultural heritage, agriculture and forest are typically requested for an opinion or a decision in the permitting procedure. The level of decentralisation of the procedure is another factor explaining the number of authorities involved in the procedure. As shown in Table 3, although most permits or decisions are delivered by national/federal authorities, in some Member States, certain permits, mainly related to land-use, are delivered by regional authorities or governments (Austria, Germany, Hungary, Poland, Romania), sub-regional authorities (Hungary) and municipalities (Czech Republic, Romania). In a number of cases, this leads to repeating the permitting procedure, and where relevant, the public consultation involved, in all regional or local jurisdiction crossed by the project. For example, in Austria, procedures at State level for federal roads and rail projects will be repeated in all States affected by the project. In Czech Republic, Hungary and Romania, land-use decisions must be obtained in all counties or municipalities affected by the project.

A more decentralised procedure can also lead to additional administrative burden for project promoters, especially when the regional or local authorities handle procedural aspects differently. Interviewed stakeholders mentioned that where regional or local administrations have a permitting role, the interpretation of what documentation needs to be provided by the project promoter as part of an application can differ greatly from one authority to another.

[3] The main legal act in the Netherlands regulating major infrastructure projects is the Infrastructure Act establishing the planning procedure. If a project does not fall into the scope of this act, the permitting procedure is regulated by the Law on general provisions on the environment establishing the procedure for granting the 'environmental permit'. In both cases, only one permit is required.

Table 3: Permitting authorities in the ten selected Member States[4]

Member States	Number of permitting authorities	Permitting authorities
Austria	1-2 (+)[5]	- Ministry responsible for transport (Federal level) - State government (State level)
Czech Republic	2[6]	- Building office of the Municipality (land use decision) - Rail authority (construction permit for rail) - Ministry responsible for transport[7] (construction permit for road) - Competent water authority (construction permit for waterborne transport)
Germany	1	- Federal Railway Agency (rail) - Federal Waterways and Navigation Authority (waterborne transport) - Regional or district government (road)
Hungary	4-6	- County government office (regional land use permit, expropriation decision) - Department for environment and nature protection of County government office (Environment permit) - Roads, Railways and Shipping Authority within the National Transport Authority (construction permit) - Disaster Prevention Directorates (water permit) - District office of architecture and cultural heritage (archeological excavation) - Forest Directorate, County government office (permit on use of forest land) - Competent local land registry office (rural land permit)
Italy	2	- Ministry responsible for transport (final decision) - Ministry responsible for environment (EIA decision)
Netherlands	1	Ministry of infrastructure and environment
Poland	2-3	- Regional Directorates of Environmental Protection (environmental decision) - Regional authority (Voivode) (decision on the implementation of state roads, decision on location of railway project, construction permit for rail) - Head of the Regional Authority or head of provincial administration (water permit)
Romania	6-7	- Environmental Protection Agency (environmental agreement) - Ministry responsible for transport (expropriation decision, construction permit for roads) - County Council (construction permit, expropriation) - Municipality (spatial planning, local administration endorsement, expropriation) - Ministry responsible for agriculture (occupation of agricultural land) - Government (occupation/clearing of forest land) - Utilities suppliers (endorsement of utilities suppliers)

[4] Authorities have been considered permitting authorities when they grant a permit (excluding authorities consulted or requested for a binding opinion)
[5] If the project is located in the territory of more than one state, the state government of each state involved is a permitting authority
[6] The final operation approval is granted by the same authority which issued the building permit. In addition, other authorities are providing binding opinions/approvals necessary for granting the three main permits. Among them, the Ministry of Environment is responsible for delivering the EIA statement.
[7] In Czech Republic, there are two types of highways, highways (dalnice) and expressways (silnice). The construction permit for "dalnice" is issued by the Ministry of Transport and the construction permit for 'silnice' by the Special building authority in the responsible municipality.

Member States	Number of permitting authorities	Permitting authorities
Spain	2	- Ministry responsible for transport - Ministry responsible for environment
UK	1	Secretary of State of the Department for Transport

1.1.2 Lack of resources and technical capacity of permitting authorities

The large number of authorities involved in permitting procedures in some countries makes the process highly vulnerable to the administrative capacity of authorities to issue decisions within reasonable timeframes. Stakeholders in six Member States acknowledged that all authorities do not have the same level of resources to invest in permitting and that some lack human resources to carry out their duty (Czech Republic, Germany, Hungary, Italy, Poland and Romania). Lack of capacity has been identified in particular in sectoral authorities (for example, water, cultural heritage), and in regional/local authorities, in which permitting is generally dealt with along with their regular workload, without dedicated extra staff. When understaffed authorities have to deliver a binding decision or opinion, it can delay the entire procedure. It should be noted that the 2014 amendment to the EIA Directive introduced the requirement that competent authorities ensure that they have or have access to sufficient expertise to examine the environmental impact assessment report (Article 5(3)); this will come into force in May 2017 and it is not yet clear what steps Member States will take to ensure this.

Technical capacity has generally been less emphasised by national stakeholders. In procedures where competences are distributed over a large number of permitting authorities, the experience of permitting large transport infrastructure projects remains more fragmented and this can create challenges for authorities to build up a sustainable body of expertise. Authorities with limited technical capacity may call upon external experts to complement the technical expertise of the authorities. However, this approach does not completely resolve the problem of lack of expertise to manage the procedures in the authorities tasked with issuing permitting consent. In addition, smaller authorities might encounter difficulties in hiring external experts because of financial constraints.

While technical capacity was not identified as a key problem for traditional transport projects, problems have been indeed identified in the permitting of new types of projects. One permitting authority in the United Kingdom stated that when decisions must be taken about innovative projects, there can be a lack of understanding about risks linked to the project. In particular, for LNG terminals, where the legal framework is not yet well established and permitting authorities lack experience, permitting is more complex.

Ruse LNG Terminal, Bulgaria
The LNG terminal pilot deployment in the port of Ruse in Bulgaria is one of the outputs of the TEN-T sponsored 'LNG Masterplan for Rhine-Main-Danube' (2013-2015). The Ruse LNG terminal is to be the first LNG terminal in the Danube region. There is no national Bulgarian legislation regulating LNG terminals. EU standards for LNG terminals were not in place in Bulgaria when the project commenced in 2012, but should become applicable in 2016. In this context it became very difficult for local authorities, which deal with part of the permitting procedure, to carry out their duties. Given the absence of the clear legal framework, the permitting was therefore led essentially at national level.

1.1.3 Absent or unenforced time limits

In most of the selected Member States, time limits are set out in the legislation for the main permits

(EIA, spatial planning) and public consultations. However, global time limits for the entire permitting procedure have not been fixed in any Member State, even where an integrated permitting procedure exits (e.g. Germany). Time limits for environmental assessments generally exist, at least for certain procedures, in particular for screening and scoping, and public consultation. The 2014 amendment to the EIA Directive introduced time limits for screening decisions (limited to 90 days from the dated of submission by the project promoter). The competent authority has the possibility, in exceptional cases related to the nature, complexity, location or size of the project, to extend this deadline (Article 4(6)). Regarding the EIA decision, the amended Directive now specifies that Member States shall ensure that the competent authority takes any of the decisions within a reasonable period of time. These procedures will need to be in place in all Member States by the May 2017 deadline for transposition of the amended EIA Directive.

Table 4 summarises the existing legal time limits for various aspects of the permitting procedures in the ten selected Member States.

Table 4: Legal time limits for permitting procedures in the ten selected Member States

Member State	Legal time limits
Austria	Time limits for EIA procedure: 12 months / 9 months if simplified procedures (from submission to decision)
Czech Republic	EIA: 45 days for screening and scoping; 30 for public consultation and 30 days for decision Land use permit: 60 days (possible extension to 90 days) Building permit: 60 days (possible extension to 90 days) Final operation approval: no time limits – granted to each part of the project individually
Germany	Plan approval procedure: no legal time limits for the whole procedure but some procedural steps are subject to time limits (public participation, consultation of authorities, disclosure of the project, objections)
Hungary	Regional land use permit: 30 days; Environmental permit: 42 days; permitting of prior excavation: 10 days; building permit: 30 to 42 days; forestry and rural land use: 42 days each
Italy	Scoping request (voluntary) to scoping opinion: 60 days EIA: from project promoter request for environmental decision to EIA decision: 150 days including 60 days for public participation
Netherlands	Infrastructure decision: 2 years from the transmission of the concept plan to the second chamber Environmental permit: under regular preparatory procedure the permit must be granted within 8 weeks; under extensive preparatory procedure, within six months after the receipt of the request.
Poland	Based on Polish code of administrative procedures, authorities have 1, extended to 2 months, in complicated cases to issue a decision (but time is suspended for obtaining agreements and opinions of other relevant competent authorities): applicable to environmental decision, water permit. Decision on implementation of a road/decision on location of a railway: 90 days;
Romania	EIA: 6 to 12 months; construction authorisation: 30 days, local administration endorsement: 5 days, utilities endorsements: 15 days, agriculture endorsement: 10 days, and/or forestry endorsement: not specified, water protection: 30 days, nature protection: not specified, spatial planning: minimum 165 days, and cultural heritage: 10 days.
Spain	SEA: 24 months

Member State	Legal time limits
	EIA: 9 months (including sectoral assessments) from request to decision
UK	For Nationally Significant Infrastructure Projects: Plan approval (examination, recommendation and decision phases): 12 months (9 in Scotland) EIA: screening 21 days / Scoping request: 42 days

Stakeholders interviewed have generally commented that, although established, time limits are rarely enforced. Stakeholders often mentioned that missing documentation or documentation of poor quality was an important factor of delays, and often the reason why the permit cannot be issued within the time limit, as additional data has to be requested to the applicant, which often stops the procedure.

In most of the selected Member States, sanctions are not applied in case of missed deadlines. Only one example of administrative sanction was found. In 2010, Romania changed the expropriation procedure to shorten time limits and reduce delays. Authorities responsible for issuing different certificates or notifications can be fined if they do not respect the reduced timelines for issuing documents, as required by the law.

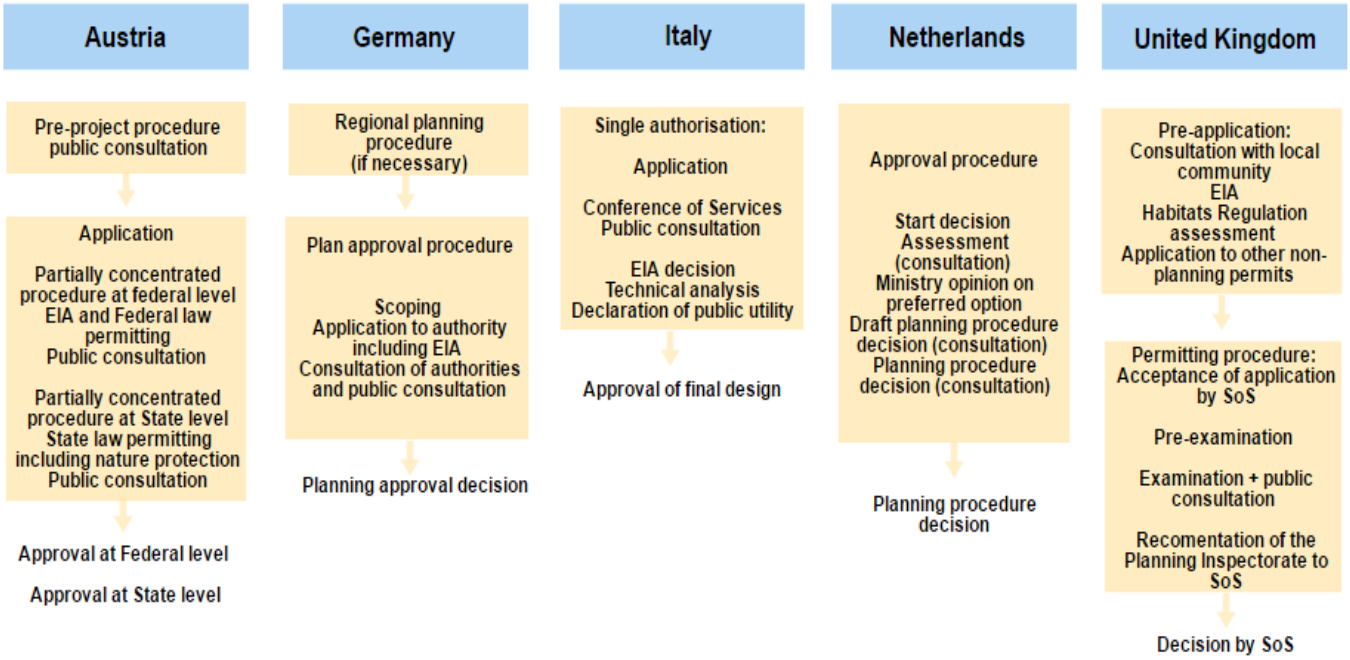
1.1.4 Streamlining measures

Member States have addressed the problems outlined above through a number of measures, including: integrating the spatial planning, environmental permits and development consents to varying extents; establishing fast-track procedures; and nominating a coordinating authority for the permitting procedure.

1.1.4.1 Reducing the number of steps in the permitting

Out of the ten selected Member States, five have integrated to a certain extent the different steps – environmental permit, spatial planning and construction permit – into one permitting procedure (Austria, Germany, Italy, the Netherlands, and the United Kingdom).

Figure 1: Permitting procedures in Austria, Germany, Italy, the Netherlands and the United Kingdom



In Austria, Italy, the Netherlands and the United Kingdom, environmental and spatial planning decisions are integrated into a single development consent procedure. In Germany, all decisions on environmental assessments and other permits are integrated in the plan approval procedure; however spatial planning remains separate (Regional planning procedure), and precedes the plan approval procedure. In Austria, the approval of the environmental assessment is also the development consent. However, not all environmental decisions are bundled together, since regional authorities are competent in a number of areas of law including nature protection. Finally it should be noted that in the United Kingdom, protected species licenses are dealt with after the development consent has been granted, and so, outside of the permitting procedure.

1.1.4.2 Fast track procedures

Five Member States have introduced fast-track procedures applying to major infrastructure projects, generally designated as such by law, or though the establishment of a list of important investments.

Table 5: Fast-track procedures in selected Member States

Member State	Legal Basis	Applies to	Main characteristics
Hungary	Priority Projects Act (2006)	Projects designated by Government Decree No. 345/2012	Possibility to conduct several procedures in parallel
Italy	Legge Obbietivo (2001)	Projects included on the 'National Strategic List' established by the CIPE	Development consent granted on preliminary project Tighter time limits for decision-taking
Netherlands	Crisis and Recovery Act (2010)	Projects designated by government Specific categories of projects (e.g.	Limitations of legal standing of municipalities Time limits for

Member State	Legal Basis	Applies to	Main characteristics
		motorways) Projects in specific areas designated by order	judgements in appeals
Poland	Act on railway transport (2003) Act on special rules related to preparation and implementation of investments in state roads (2008)	Roads and Railways	Number of permits needed reduced to 2 or 3 Land covered by permit becomes automatically property of State Treasury
Romania	Infrastructure Ordinance (2016)	Railway, road, air transport and inland waterways, as defined under the Regulation 1315/2013	Development consent granted with preliminary approvals regarding forest land and utilities Automatic change of agricultural land into constructible land once the ownership title is transferred to the state Extension of validity of permits until the end of the construction works

Fast-track procedures aim at accelerating the permitting procedure, either by reducing the number of permits required and/or the time necessary to obtain them. In Poland, the number of permits for roads and railways has been reduced to two or three depending on the type of infrastructure. Other Member States have modified the permitting procedure to enable more permits to be handled in parallel (Hungary) or granted on the basis of preliminary approvals (Romania). In Romania, if the construction permit can be granted with preliminary approvals concerning the use of forest land and/or land where public utilities are located, the project promoters has to obtain final approval before the infrastructure is operational.

Hungary
In Hungary, an infrastructure project requires the issuing of 8 to 10 permits, some of which are dependent on the approval of others. For instance, the environmental permit is a prerequisite for obtaining the building permit. However, the Priority Projects Act, adopted in 2006 and amended in 2015, introduced a special regime for the permitting of investments of national interest, with the aim of streamlining and accelerating the permitting procedure in these cases. Among other measures, the option to conduct several steps in parallel was adopted. In particular, the amendment of the Priority Projects Act in 2015 allowed project promoters to start the procedure to obtain the construction permit in parallel with the procedure to obtain the environmental permit. Similarly, the project promoter may request the occupation and use of forest land and/or the use of rural land at the same time as the environmental permit procedure. As the Priority Projects Act has been revised very recently, it is not possible to draw conclusion yet on the impact of this measure in Hungary.

Fast-track procedures should be carefully implemented to avoid creating additional burden instead of streamlining the permitting procedure. Greater parallelisation of procedures, as in Hungary, can have its downsides. Although it does allow promoters to make progress in obtaining required permits in parallel with each other, without being delayed by one single permit approval, it increases the risk of inconsistent assessments and decisions. If at the end of the process, the construction permit contradicts the environmental permit, the construction permit has to be amended, which leads to repeating the procedure.

Fast-track procedures should also ensure compliance with applicable EU law. The Italian Legge Obbiettivo, which provides for the development consent to be granted on the basis of a preliminary project design, has led to the opening of an infringement procedure, as there were questions on whether all environmental impacts to be assessed according to the EIA Directive could be known and taken into account at the preliminary project stage. The infringement was closed after Italy provided guarantees that the EIA procedures were compliant with EU requirements.

1.1.4.3 Concentrating competencies and/or coordination of processes in one authority

Member States that have introduced a single-stage permitting procedure have also generally established a leading authority endowed with coordination powers and in certain cases with greater decision-making power. This role is often referred to as a 'one-stop-shop', although the term is not necessarily used in the selected Member State to designate the authority.

Table 6: Central coordinating bodies in the ten selected Member States

Member State	Coordinating body
Austria	The regional government[8] (except for federal roads and railways)
Germany	The plan approval authority
Italy	The ministry responsible for transport
Netherlands	The ministry responsible for transport
UK	The Secretary of State of the Department for Transport (SoS). The procedure is coordinated by the Planning Inspectorate acting on behalf of the SoS

The one-stop-shop generally constitutes a single window for project promoters, who can submit all documentation to the same authority. It should be noted however that in Germany, if a regional planning procedure takes place before the plan approval procedure, both procedures will be dealt with separately by different authorities. In the UK, protected species licences are granted after the development consent and have to be requested to Natural England, not to the one-stop-shop.

The one-stop-shop has the competence to take the final decision, and coordinate with authorities requested for opinion or asked to issue a decision. However, they often do not have sufficient decision-making powers to bypass other administrations' authority, or to speed up the procedure. In Italy, for example, the ministry responsible for transport (one-stop-shop) is on an equal footing with the environment ministry, which reviews the EIA.

To ensure that the one-stop-shop can effectively exercise its coordinating powers, Italy established a formal body to facilitate dialogue between all levels of governance (see below). Spain has established a similar structure to collect the input from regional governments. Romanian stakeholders have suggested the creation of a coordination committee for transport projects that would include all relevant authorities and would allow improved communication between all interested stakeholders.

Italy

In Italy, the single authorisation process introduced by Law 241/1990, was accompanied by the creation of the Conference of Services (Conferenza di Servizi), which is a forum gathering all competent authorities (local, regional national and sectoral) involved in the permitting process of a specific project. Depending on the specificities of the project a number of ministries can be involved in the forum (Transport, Environment, Agriculture and Forestry, Interior, Defence) as well as regional and local

[8] The State government is de facto a one-stop-shop for projects falling under the sole competence of a State government.

Italy
authorities (Provinces, Municipalities, River Basin authorities, Land/Water Reclamation Authorities) or sectoral authorities (Natural Park Boards, Port Authorities etc.).

1.2 PUBLIC OPPOSITION

Public opposition is a generally known problem and a frequently reported barrier in the preparation of large infrastructure projects. A previous study, on energy infrastructure projects, noted that this is particularly true for older Member States, where citizens seem to be more sensitive to perceived environmental and visual impacts, but it is increasingly the case also in new Member States[9]. The ten country and thirteen case studies conducted for the purposes of this study recognised this problem to be present in nearly all TEN-T projects.

Both study types indicated that opposition can occur throughout a project timeline—from preparation and permitting through to commissioning. Motives were also wide-ranging. While in Railway Connection Lyon Turin (Val De Susa), the Italian population under the 'No TAV' movement invoked alleged negative environmental and social impacts alongside a claim of the current line providing sufficient rail capacity, the opposition in Rail Zevenaar-Emmerich-Oberhausen focused more on purported dust and noise pollution effects.

In Brno-Vienna—a 110 kilometre motorway project between Czech Republic and Austria—stakeholders based their arguments on procedural errors relating to incorrect application of EIA (under the EIA Directive 2011/92) due to splitting or "salami-slicing" of the process, insufficient assessment of routing alternatives, lack of trans-boundary assessment as well as conflicts with the Birds and Habitats Directives.[10] The Brno-Vienna is also considered as an example of a case where stakeholders were frustrated by their impression that the routing options were pre-determined before the EIA procedure and any public involvement, due to the fact that the project route was included in the regional land use plan. Although alternatives were formally examined (e.g. through EIA procedures), the impression remained that a thorough examination of such alternatives was neglected.

As public opposition is known to significantly delay project implementation, its drivers merit a deeper analysis in order to find potential solutions. Both case and country studies point to late, ineffective and inefficient public consultations—if not being the root causes—nevertheless significantly feeding into an intensified opposition and delays.

Table 7: Drivers for public opposition

Drivers	Problems: delays, costs and uncertainty
Late or poorly timed consultation of stakeholders	Public opposition during permitting and preparation phase. Frequent and lengthy appeals
Ineffective consultation of stakeholders	
Inefficient consultation of stakeholders	

Each of these drivers are discussed in further detail below.

[9] Commission Staff Working Paper—Impact assessment accompanying the document Proposal for a Regulation of the European Parliament and of the Council on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC {COM(2011) 658 final}; {SEC(2011) 1234 final} at p. 12.

[10] Study on permitting and facilitating the preparation of the TEN-T core network projects Annex 1—Intermediate report on Waterborne projects and Intermediate report on cross-border projects, p. 91("Annex").

1.2.1 Late or poorly timed consultation of stakeholders

The majority of the case studies indicate that late or poorly timed consultation with the public can lead to missed opportunities to take public concerns into account in project planning and increased public opposition. Studies and project experiences discussed below show that the correct timing of the public consultation is can have a significant impact on the length and smooth functioning of project permitting procedures and later implementation.

Late consultation generally refers consultations that are poorly timed with regard to the timing of the overall project development and permitting process. More specifically, a 2013 study commissioned by the German transportation industry indicated that 'early' would further mean initiating consultations at a point in time when it is still easy to make changes to the project that could then be realised at reasonable extra cost.[11] Generally, problems related to the timing of consultations (i.e. when in the process they take place) were reported more frequently than those related to the length or timing allowed for the consultation procedures. In fact, although in some Member State stakeholders acknowledged that currently applicable timeframes may restrict broader participation, most considered existing time frames to be adequate.

The relevant EU legislation mandating public consultation for plans, programmes and projects in the transport sector relates to environmental assessment (i.e. the SEA and EIA Directives). These directives do not specify when in the process consultations should take place however, only that the public should be given 'early and effective opportunity' to participate in the environmental decision-making procedures (SEA Directive, Article 6(2)); EIA Directive, Article 6(4)). This is logical given that the directives apply to a very wide range of types of plans, programmes and projects, so specification of timing would be counter-productive. In many cases therefore, authorities and project promoters are tempted to delay consultations by the fact that their timing is not prescribed by law. Nevertheless, the SEA Directive, which came into force in 2004, did introduce a public consultation requirement at the plan or programme stage, which typically occurs early in the infrastructure development process. However, several country studies recognised that SEA and its early consultation requirements, are not always carried out for many transportation projects. This was noted in Austria and also in the Czech Republic, where it was mentioned that project promoters would prefer routing laid down in old land use plans (dating from before the SEA Directive entry into force and therefore not subject to consultation at the strategic planning stage).

A number of case studies and examples attest to the importance of holding consultations at an appropriately early point in the project process, including at the strategic planning stage. These, as well as evidence from the Member State studies, are discussed below.

In Railway Connection Lyon Turin (Val De Susa)—a cross-border railway project launched in 1990—on the Italian side an effort to involve the local citizens was made only in 2006 after significant opposition through the 'No TAV[12]' movement had already raged across the region for over a decade.

In the course of Brno-Vienna, on the Czech side consultations were conducted only once the routing had already been included in a binding land use plan which had not been subject to an SEA, which would have provided a sufficient time for informing the public and enabled an effective participation in the decision-making. This was because the plan containing the routing became legally binding before the SEA Directive entered into force in the Czech Republic. As a result, consultation occurred too late as it was done on a 'decided-policy option'. On the Austrian side, although leaving out the SEA and an assessment of economic needs and alternatives can still be considered to be in line with the Austrian Federal Road Act, which mandates SEA only for roads that constitute part of a

[11] Roland Berger, Planning and financing transportation infrastructures in the EU – A best practice study, 2013, p.15.
[12] TAV stands for treno ad alta velocità (High-speed train).

'widening' of an existing road network, the poorly timed consultations certainly contributed to the problems at a later stage.

The Lyon-Turin rail project is an example of a project that would have benefitted from an earlier and broader public consultation. Local concerns were handled less effectively at the first stages, leading to significant delays. Since setting up of 'Observatory for the Lyon-Turin rail link' to foster dialogue with stakeholders in the Susa Valley region in 2005, around one hundred meetings with stakeholders have taken place resulting into a new routing through the valley area in 2008 and amending certain technical solutions—including postponing the construction of a second tunnel and connecting the new line with the old historic line at Susa. Making the consultations more inclusive and holding them at critical points in the project process have finally, by 2013, resulted in the clear majority of the local population supporting the project.

In all Member States considered in this study, stakeholders reported that early consultations were encouraged by authorities and in a number of countries, stakeholders reported that early consultation had benefits for the projects. In the Netherlands, a number of consultations of the public and other stakeholders take place prior to the start of the permitting procedure. Through early contact with stakeholders, the project promoter has the opportunity to demonstrate the benefits of the project. As a result, early stakeholder consultation is considered to increase overall acceptance of a project by both the public and local authorities. In Austria, stakeholders reported that early consultation increases public acceptance but also results in speedier permitting at subsequent phases, the avoidance of lawsuits (a major cause for delay), and better quality projects overall. Finally, it may be appropriate that targeted information campaigns could be sufficient to engage stakeholders during the earliest planning phases of the project, rather than a full public consultation. This could keep the overall process within reasonable time-limits and would not unduly burden the aggregate procedure while satisfying the public's information needs. This could be followed by formal and informal consultation processes.

1.2.2 Ineffective stakeholder consultation

While early consultation can assist in securing public support for a project, it may not be enough to overcome all public opposition. The Zevenaar-Emmerich-Oberhausen rail project puts the assumed benefits of 'just early' consultation into perspective. Despite extensive efforts made to provide public information and allow for participation (information events, brochures), public opposition remained a key challenge for the project. Legal appeals against the permitting decisions caused significant uncertainty, disrupting financing and planning. The case study suggests that appropriate communication and public participation strategies should involve continuous attention and effort; simply starting in the early planning stages, or carrying out information events, may not be enough secure sufficient public acceptance to enable smooth project implementation.

While effective consultation was generally recognised as a challenge, stakeholders in approximately half of the country studies reported that their respective procedures are effective. In considering whether procedures were efficient, the study considered whether different public consultation processes were coordinated in the countries.

Despite the above stakeholder statistics, studies also pointed to several issues hampering effectiveness. In Zevenaar-Emmerich-Oberhausen there were many: a failure to convince the local and political community of the national economic importance (important especially for the Netherlands) and to convey a balanced message with regard to the cross-border dimensions of the project, including poor communication concerning trans-boundary sections; neglected adaptation of materials to local languages; and a failure to communicate differing Dutch and German fire safety standards resulting the public on the German side to lodge unfounded claims for increased safety.

1.2.3 Inefficient consultation of stakeholders

The way in which consultations are carried out, in terms of their time and cost, can also lead to public opposition to projects, and thus become a source of significant uncertainty and delay for transport projects.[13] While ineffectiveness is concerned with the content and other credibility aspects, inefficiency refers to the time and cost of carrying out procedures, including those stemming from multiple legal requirements. Again, around half of the country studies found that stakeholders consider procedures in their country to be reasonably well coordinated and efficient.

Nevertheless, several case studies pointed to issues hampering efficiency in stakeholder consultations. The Zevenaar-Emmerich-Oberhausen case shows a situation where the fact that the German approval process has no binding overall timelines for finalising the project planning approval enhances opportunities to issue comments and to appeal at frequent stages. This is reflected by the large number of comments (over 1,000) and appeals which have to be addressed by promoters.

The Fehmarn Belt Fixed Link is a prime demonstration of how national requirements for multiple consultation rounds can be a source of significant delays. Because of numerous public consultations and public hearings, the permitting procedure has taken significantly longer on the German side compared to the Danish side. The EIA of the Fehmarn Belt link was approved by the Danish parliament in a special procedure, in the form of a Construction Act in April 2015; approval on the German side, where the project does not enjoy this special legislative status, has not yet been achieved.

The country studies also identified a number of problems related to inefficiency in carrying out public consultations. Requirements for multiple public consultations at regional level (in cases where projects crossed multiple regions) were observed to impact the efficiency of public consultation in Austria. Extensive stakeholder interventions leading to delays in permitting procedures have occurred, mainly because authorities have been reluctant to curtail comments and interventions of parties, which can occur at any time during the permitting process. In Hungary the structure of the permitting scheme for TEN-T projects —involves seven to nine permitting procedures with their respective consultations. This leads to multiple and in some cases repetitive comments from the public and municipalities during public consultations, prolonging the overall duration of the project preparation.[14]

1.2.4 Streamlining measures

1.2.4.1 Good consultation practices

There is already a wide-ranging body of case studies, examples, guidance documents and other material on good practices in public consultation for large infrastructure projects, including through implementation of the SEA and EIA Directives. For example, the benefits of early public consultation have been illustrated in in the Brenner Base Tunnel project, where the promoters emphasised public involvement and communication from the earliest phases of preliminary planning. This consultation included extensive communication with local municipalities and communities (through information meetings). While public opposition did occur, it was not regarded as significant and, because consultation had taken place early, there was still flexibility in project planning to take community concerns into account. This was particularly seen in the municipality of Prati di Vizze (Italy), where project promoters were able to change the site of the deposit of excavated material to address community concerns.

The key problems found through the research conducted for this study seem to be related to legal

[13] Roland Berger, 2011.
[14] Country Studies—Executive Summary, 20 June 2016, p. 15.

requirements, political will, and practical acceptance of the concept that true early and effective procedures can result gains in later stages of the process. It is worth noting in this sense the measures proposed for the energy sector in the EU's TEN-E Guidelines Regulation[15] with regard to transparency and public participation. In essence, the Regulation sets out a series of rules that complement the consultation requirements of EU legislation, including: a concept for public participation that must be drawn up by the project promoter and submitted to the competent authority (in this case a 'one stop shop'); and the requirement that at least one public consultations event take place at an early stage in the process. The legislation also provides guidelines on effective methods of consultation and a set of principles to be respected during the process. Many of these approaches are based on established good practice.

1.2.4.2 Limiting the impact of appeals

Some Member States have adopted measures to limit the impacts of appeals on projects. For example, in the Netherlands, recent legislative changes are expected to lead to shorter appeal procedures for some projects. The Crisis and Recovery Act (CRA) entered into force in March 2010 and principally applies to priority major projects. As an exception to general administrative law the CRA introduces measures to limit the legal standing of municipalities, so that they cannot appeal national decisions. In addition, a six-month time limit applies to court decision-making.

While the Dutch appeal system with limited legal standing and timelines has some clear benefits, it should be borne in mind that sufficient access to justice as laid down in the Aarhus Convention[16] and implemented by the Member States through their respective measures must be ensured at all stages of the permitting procedure. The legal rights of individuals with an interest e.g. through geographic vicinity or whose rights might be impaired cannot be taken away in the name of streamlining procedures only. Rather, a balanced solution must be found.

1.3 DEFICIENCIES IN PLANNING THE EARLY STAGES OF THE PROJECT

Problems in permitting procedures often originate from poor planning, both at the strategic and project-specific levels. The purpose of this study is not to evaluate how strategic and project planning are conducted in Member States or specific case studies, but to assess the impacts of poor strategic and project planning on the permitting procedure, in terms of delays, costs and uncertainty for project promoters. Based on the country studies and case studies conducted as part of this work, errors committed at the planning stages expose projects to the following major factors of delays:

- Requests for further information, evidence or documentation requested by the permitting authority, during the review of the application, to complement or rectify the information provided by the project promoter. The permitting procedure can be stopped until the application is of sufficient quality according to the authority.
- Conflicts between permitting decisions, caused by disagreements on the route or design of the project not resolved at the planning stage.
- Amendments to project design, and therefore to assessments of the project's impacts once potential alternatives have already been studied and environmental assessments conducted.
- Lawsuits launched at national level by environmental NGOs, citizens' groups etc., generally founded on the poor assessment of impacts and alternatives, or of the feasibility and viability of the project. Lawsuits might suspend the procedure or the construction (depending on national legal provisions for appeal).
- Potential infringement procedures opened by the European Commission in case of incorrect

[15] Regulation (EU) No 347/2013 of 17 April 2013 on guidelines for trans-European energy infrastructure
[16] Aarhus Convention on Access to Information, Public Participation in Decision-Makin and Access to Justice in Environmental Matters done at Aarhus, Dennmark, on 25 June 1998.

application of EU law (in particular SEA, EIA, Birds and Habitats Directives, and WFD). Table 8 summarises problems and drivers related to poor strategic and project planning.

Table 8: Drivers for poor strategic and project planning

Drivers	Problems: delays, costs and uncertainty
Poor assessment of environmental impacts Lack of scoping	Request for further information by authority and suspension of the procedure until the documentation provided by the promoter is satisfactory
	Permitting decisions might be challenged in Court
	Opening of infringement procedures
Absence of strategic planning Low project maturity when alternatives are assessed Failure to consider all possible scenarios at an early stage	Amendments to project design leading to duplication of studies and environmental assessments
Lack of prior consultation and coordination between permitting authorities	Increased risk of conflict between permitting decisions
Changes in the legal framework in the course of the project Changes in traffic demand in the course of the project	Necessary amendments to environmental assessments and applications

Some of these drivers are examined in more detail in the sections below.

1.3.1 Poor quality of environmental assessments

Poor quality environmental assessments (as per the SEA, EIA, Birds and Habitats, and Water Framework Directives), or the biased assessment of environmental impact supporting the most favoured option, increase the risk of the project being rejected by the permitting authority or challenged in court during the permitting procedure.

Inadequate or incomplete information in EIA submitted by project promoters is likely to trigger requests for further information. In five Member States (Czech Republic, Hungary, Poland, Romania, and the United Kingdom), the authorities can suspend the permitting procedure until the additional documentation or information requested are provided by the applicant, which depending on the extent of new information required, can take a long time. Other cases of non-compliance can trigger the suspension of the permitting procedure such as deficiencies in public participation. In Spain, for example, the EIA Act contains a number of 'stop-the-clock' provisions, in particular when the public information and public consultation procedures have not been carried out in accordance with the law.

Such problems occur more frequently if the project has not benefited from a scoping phase, where the scope of the EIA and the impacts to be assessed are determined by the permitting authority. Stakeholders in Austria reported that requests for further information are not frequent since deficiencies in the application are generally fixed during the preparation of the EIA through cooperation between the applicant and the Transport Ministry. Deficiencies in the application can also come from limitations in available data, which does not allow for a strong and credible assessment. Improvements in databases or maps providing environmental data at national and regional level could therefore also be a way to improve submitted applications.

When in spite of flaws in the evaluation of impacts or alternatives, the EIA or AA receives a positive

assessment, there remains the possibility that it is challenged in Court later in the process. Although a lawsuit against an administrative decision will often not suspend the effect of the decision, the Court can decide on an interim injunction, which would suspend the project until the Court takes a decision on the case. Case studies, in particular the highway Brno-Vienna have showed, however, that lawsuits, although creating complications, have little impact on the project lifecycle, when injunctions are not pronounced. Environmental NGOs have mentioned, in relation to that case, that construction often starts in Austria before the Court takes the decision on the lawsuit.

In case studies conducted, the main grounds for legal actions were the failure to assess the environmental impacts of the whole project, often referred to as 'salami slicing', poor assessment of alternatives and failure to assess the transboundary effects of the project in the EIA.

Highway A5/R52 Brno-Vienna

The Motorway Brno-Vienna faced legal complaints in both the Czech Republic and in Austria. In Austria, the complaint to the administrative Court was in particular founded on the fact that the works for highway A5 had been divided into three sections, leading to drafting an EIA for each section rather than for the entire project. Complainants argued that assessments related to air pollutants or emissions were limited in scope and could not reflect the environmental impact of the whole highway. The administrative Court did not grant suspensive effect upon request of the complainants and the lawsuit was not successful.

Multiple reasons can be given to explain these cases, including the lack of capacity of permitting authorities, their lack of resources or the politicization of large infrastructure projects. In a few cases the interpretation of the EU legal requirements by a Member State was shown to be the cause of the lawsuit.

CJEU Case C-461/13 Bund v. Federal Republic of Germany (deepening of the Weser river)

Three projects of deepening the Weser river (Germany) to facilitate the navigation of large container on the river towards the cities of Bremerhaven, Brake and Bremen, were authorised by the Waterways and Navigation Directorate for the North-West Region, which estimated that the projects would not lead to 'deterioration' of the water bodies within the meaning of the Water Framework Directive (Directive 2000/60/EC), as the status of certain bodies of water of the Weser would tend to be adversely modified as a result of the projects, but without leading to a change in the status class of the water body in accordance with Annex V to Directive 2000/60[17]. The German environmental NGO BUND (Friends of the Earth Germany) challenged the planning approval arguing that it was not compliant with the WFD. The German Federal Administrative Court referred the case to the European Court of Justice, which considered that 'deterioration' of the status of a body of water occurs 'as soon as the status of at least one of the quality elements, within the meaning of Annex V to the directive, falls by one class, even if that fall does not result in a fall in classification of the body of surface water as a whole'[18], against the interpretation of the Waterways and Navigation Directorate for the North-West Region.

1.3.2 Lack of consultation and coordination between permitting authorities

The failure to create a common understanding between all authorities involved in the permitting process is likely to lead to conflicts between permitting decisions. This is especially important in Member States where permits are granted either at different levels of governance and/or by different sectoral authorities. The Semmering Base Tunnel in Austria is an emblematic example of how disagreements on the option selected can obstruct the procedure.

[17] Judgement in Bund für Umwelt und Naturschutz Deutschland e.V. v Bundesrepublik Deutschland, C-461/13, EU:C:2015:433, paragraph 24.
[18] Judgement in Bund für Umwelt und Naturschutz Deutschland e.V. v Bundesrepublik Deutschland, C-461/13, EU:C:2015:433, paragraph 70.

Semmering Base Tunnel, Austria

The Semmering base tunnel will connect Gloggnitz in Lower Austria to Mürzzuschlag in Styria (Austria) and aims to alleviate traffic on the 'Semmering-Bahn' (Unesco World Heritage site) and create a faster connection between Vienna and Graz. The project faced multiple problems in its permitting phase, until the ruling of the Austrian federal administrative court in May 2015, which granted all the necessary permits for the construction of the tunnel.

In Austria, regional governments have sole competence on nature protection and issue a binding decision according to the state nature protection law. The EIA decision – which is the equivalent of the development consent at federal level – is taken at federal level by the Ministry of Transport. Project promoters can apply for the nature protection permit (to the State government(s)) at the time they apply for the EIA (to the Federal government), but the procedure in practice is carried out after the EIA decision, and all decisions are, in reality, blocked until the EIA decision is issued. In case of non-approval of the nature protection permit, if it is determined that there is a better alternative to the project, this can lead to substantial amendments to the EIA, which can require repeating the EIA procedure.

The approval procedure for the Semmering Base Tunnel was launched in the 1990s. The State of Lower Austria refused to grant the nature protection permit, although the federal government had found the project, including nature protection issues, 'environmentally acceptable'. The conflict lasted until an alternative to the initial project was proposed in 2008. The new route the approval of Lower Austria.

The conflict between the federal government and the State of Lower Austria could have been avoided with a better planning process, including an SEA[19], to facilitate the discussion between authorities at an earlier stage, greater integration of environmental assessments[20], to ensure the consideration of various aspects of environmental impacts together and prevent contradictory decisions, and greater consultation with permitting authorities, ensuring that all authorities approved of the project design and the selected route. The Austrian Court of Auditors supports a greater coordination of procedures and proposes to carry out the nature protection procedure before the EIA procedure. The Court of auditors is also in favour of a greater use of SEA in infrastructure projects[21].

1.3.3 Absence of strategic planning

Strategic planning ensures an effective prioritisation of investments, and the development and comparison of options at strategic level. The case studies conducted for this report have shown that the absence of or poor strategic planning resulted in starting the preparation of the application for development consent for projects at an immature stages, based on weak traffic forecasts and assessments of alternatives. The case study presented below is an example of a project where the preparation of the application occurred before the project had been properly defined, leading to important delays and duplication of efforts.

Bulgarian-Romanian section of the Danube

Bulgaria and Romania started in 2007 a feasibility study to assess possibilities of improving navigation conditions on the Bulgarian - Romanian section of the Danube. The feasibility study, finalized in 2011, defined and analysed six options to improve navigation, but did not take into account the conclusions of the draft EIA and AA, conducted in parallel and issued in 2011. Based on the feasibility

[19] SEA is rarely conducted in Austria for transport projects. The Austrian Strategic Transport Assessment Act (SP-V-G), transposing the SEA Directive for the transport sector, only requires an SEA for plans and programmes required by legislative, regulatory or administrative provisions (Federal Roads Law, Federal Law on High-Performance Railway Lines), which greatly limits its use.

[20] The 2014 amendment of Article 2(3) of the EIA Directive requires that, by May 2017, Member States establish coordinated or joint procedures when the obligation to carry out assessments of the effects on the environment arises simultaneously from the EIA Directive and from the Birds and Habitats Directives.

[21] Austrian Court of Auditors (2011) *Bericht des Rechnungshofes: Flächenfreihaltung für Infrastrukturprojekte*, Bund 2011/8. Retrieved on 1 April 2016, from: http://www.rechnungshof.gv.at/fileadmin/downloads/_jahre/2011/berichte/teilberichte/bund/bund_2011_08/Bund_2011_08_8.pdf

study, the preferred option, the 'Optimised Alternative', was selected in 2011. Environmental authorities in both countries considered the report on impacts on the Natura 2000 sites incomplete, and therefore declined the application for consent. JASPERS subsequently conducted a gap analysis in 2013, to identify flaws in the AA, EIA, feasibility study and CBA. On this basis, all documents were revised and the selection of the preferred alternative was reconfirmed in 2014.

According to interviewed stakeholders for this case, delays in the selection of the option came from the lack of maturity of the project, which, at the stage of the feasibility study and the EIA, was not developed enough in terms of technical design and evaluation of alternatives. Environmental impacts were assessed in parallel to the feasibility study, on weak options, which could only lead to an incomplete assessment. The project had not been included in a plan subjected to an SEA, which has clearly been pointed out by interviewed stakeholders as a flaw in the preparation process.

The Trieste-Divača rail link has encountered significant delays due to the absence of a dedicated cost-benefit analysis in the project plan. Uncertainties on the economic viability of the project have been a major bottleneck in the cooperation between Slovenia and Italy, since no measurement of economic benefits or European added value had been part of the early project phase or the application for EU co-financing. This initial flaw in the project preparation also prevented promoters to consider at an early stage the option of upgrading the existing link instead of building a new one.

Cross-border section Trieste-Divača

Uncertainty in traffic demand has been a major issue in the planning of the new rail link between Trieste (Italy) and Divača (Slovenia). In 2008, a *Strategic Study for the Development of Pan-European Corridor 5 (Priority Project No 6)* assessed the economic, social and environmental impacts of PP6, paying specific attention to the link Trieste-Divača, and concluded that the overall benefits of constructing a new link would significantly exceed the risks. Following the study, two alternative solutions were retained (Coastal and Upper Corridor). It took several years of studies and discussions before both government agreed on the project. After delays due to the difficulties in setting up the EEIG and revisions in the EU co-funding, a new traffic study, carried out by the Italian Infrastructure Manager, clearly demonstrated that forecasted transport volumes were insufficient to ensure the viability of the railway. Following the study, the EEIG launched a study to evaluate different scenarios for upgrading the existing line. The study was completed at the end of 2015. However, no decision has been taken on the selection of the best option for the time being.

1.3.4 Changes in the legal framework in the course of the project

Frequent change of laws applicable to the permitting procedure constitutes a major challenge for project developers. These changes can require late adaptations and adjustments to project preparation, which can lead to additional costs and delays in the preparation phase, particularly as project documents and sub-procedures may need to be carried out again. In Poland, for example, project promoters reported frequent changes in technical requirements and standards, including standards set in EU legislation. Project promoters consider long-term sectoral strategies being useful for setting some stability in the conditions of lack of legal certainty.

The case studies also provide examples of when changing legal frameworks in the Member States leads to delays in project preparation. The Zevenaar-Emmerich-Oberhausen rail project was delayed by legislative changes taking place during the course of the project. The completion of required environmental studies was greatly delayed because of specific changes in the Bundesnaturschutzgesetz (Federal Environmental Law in Germany), which required adjustments to the planning application documents. Differences in technical regulations between Germany and the Netherlands have among other things translated into increased public demand for safety measures on the German side.

It has been proposed that a potential response to this risk would be freezing the legal framework for the duration of the permitting procedure[22], at least for projects of a certain priority. This would aim to avoid the problem of having to restart certain parts of an ongoing permitting procedure due to changes in the legal framework.

1.4 LAND ACQUISITION

Large transport infrastructure projects usually require obtaining the right to use privately owned land before construction can start. Negotiations with landowners often start during the permitting procedure, but not until the final route of the project is decided. Land acquisition generally occurs in two phases. First, the project promoter must negotiate with landowners the right to the land and the level of the compensation. If no agreement is reached, the project promoter can then resort to expropriation under the conditions set by law. Expropriation is typically limited to cases of overriding public interest.

Additional costs and delay in land acquisition are driven by two main factors – landowner opposition and limitations in available data relating to land ownership in some countries.

Table 9: Drivers for problems in land acquisition

Drivers	Problems: delays, costs and uncertainty
Landowner opposition	Unnecessary cost and delay in land acquisition
Lack of time limits in expropriation procedures	
Limitations in data on land ownership	

These three drivers are discussed in further detail below.

1.4.1 Landowner opposition

In six Member States, promoters stated that negotiations with land owners and/or land acquisition procedures delayed the implementation of projects (Czech Republic, Germany, Hungary, Italy, Poland, and the United Kingdom). Causes of delays in negotiations are mainly related to negotiating compensation, and, when the project promoter has to resort to the expropriation procedure, to appeal procedures.

1.4.2 Lack of time limits in expropriation procedure

Time limits in expropriation procedures generally guarantee enough time for landowners to react to the expropriation notice but time limits setting the maximum length for completing the procedure are rare. In Hungary, although the administrative time limit for reaching an agreement with landowners is 45 days, if the promoter has to resort to expropriation, the process takes around 220 days. In addition, Romania, Spain and the Netherlands have time limits for issuing expropriation decisions. Two Member States also have emergency procedures that can significantly shorten the time limits to issue the expropriation decision (Spain and Poland). Further study would be needed to determine the extent to which these procedures are used in the case of transport infrastructure projects.

1.4.3 Limited collection and/or availability of data

Data collection can be an important source of delays in land acquisition. The lack of reliable data on

[22] Roland Berger, *Permitting procedures for energy infrastructure procedures in the EU: Evaluation and legal recommendations*, 2011, p. 7.

land ownership has proven to be a major issue in two countries (Czech Republic and Romania). In both countries, project promoters face difficulties in identifying landowners, which can delay the permitting procedures by several years.

Romania

In Romania, the list of land owners is kept in the records of the National Agency for Cadastre and Real Estate Publicity or of the county / local authorities. These records are often not updated with the latest list of owners. Project promoters usually have to subcontract law firms to assist in the identification of land owners. Besides the time spent with actual identification, carrying out the public procurement procedure to engage legal assistance is also time consuming and costly. When an updated list of land owners is available, it must be first approved by Government Decision before the expropriation decision can be taken, further delaying the procedure.

1.4.4 Streamlining measures

Streamlining measures adopted by Member States mainly relate to compensation levels, time limits for expropriation, reduced number of decisions and appeals.

- **Compensation**

In two Member States (Czech Republic and Spain), the compensation level of expropriated land is set by law.

Czech Republic

To speed up negotiations, and avoid complaints about unequal levels of compensation offered to landowners, the Czech Government has set the level of compensation in the legislation. A recent amendment to the Act No 416/2009 Coll. on accelerating the building of transport, water and energy infrastructure (in force from April 2016) fixed the price for land acquisition at eight times the value of the agricultural land.

- **Reduction of delays in decision making and appeals**

Czech Republic has adopted in 2009 streamlining measures to reduce the time spent in identifying landowners. The 2009 Act on accelerating the building of transport, water and energy infrastructure exempts the investor from making an offer to a landowner who does not reside at his/her official registered address. However, this does not fully address all the challenges in identifying landowners.

To reduce the time period between the moment the construction permit is granted and the land is available, Poland merged, for roads and rail projects of national interest, the two decisions in one single step.

Poland

The decision on implementation of state roads investment and the decision on the location of railways is equivalent to an expropriation decision concerning the land in the area of the planned investment. All the land situated in the area covered by the decision becomes automatically a possession of the State Treasury, which is then transferred to road and railway managers. The regional administration can give the decisions on implementation of state roads investment or the decision on location of railways a status of immediate execution, if it is justified with social or economic interest. Furthermore, the value of the compensation for the real estate that is taken over by the authorities for the purpose of implementing the road investment, as estimated by a registered assessor, may be increased by 5% if the owner or perpetual user makes the real estate available for the investment activities within 30 days from

the date of receiving the decision on implementation of the investment (or from the date when such a decision became final)[23]. This rule provides an additional incentive to streamline the process of implementation of the investment.

Finally, some Member States took measures to reduce the impact of appeals to expropriation decisions.

Romania

According to the law no. 255/2010, any landowner who is dissatisfied with the expropriation process can appeal the expropriation decision in court. However, the expropriation will not be suspended until the decision of the court. In spite of the large number of appeals, this has significantly accelerated the completion of the expropriation procedure according to stakeholders.

1.5 CONCLUSIONS

Delays occur at two main stages of projects' lifecycle – the project planning stage and the permitting procedure. During project planning, errors committed in assessing alternatives, impacts, costs or traffic demand can delay significantly the preparation of the application, and lead to duplicating assessments and studies, and increasing related costs. During the permitting procedure, delays can occur as a result of overly complex procedures, involving multiple steps, and where the distribution of decision-making responsibilities is inefficient. In particular, the decentralisation of administrative responsibilities, with permits granted at sub-regional or municipal level, increases the number of permits to obtain and leads to delays. As previously mentioned, delays in permitting procedures also occur as a result of weak project planning, poor consultation procedures and poor quality applications, which leave the project more vulnerable to being challenged by the permitting authorities and opponents to the projects.

Case studies have demonstrated that earlier planning is necessary. Projects which encountered major delays were often projects where the three stages of the project lifecycle – strategic planning, project planning and permitting – had not been respected, and where strategic planning had been skipped, or too weak. Weak strategic planning at national level has led public promoters to start the project planning and permitting phases with projects not mature enough, poorly developed assessments of alternatives and uncertain agreement from authorities and the public on the option retained, conditions which are all likely to result in a conflictual permitting procedure. Public acceptance has proved to be a major challenge in most projects. A strong strategic planning phase, with a full SEA, is one of the ways to anticipate public opposition early on and take measures to reduce it during project planning and permitting.

Delays in planning and permitting should be addressed by different solutions. Regarding purely procedural issues, in Member States where the procedure involves multiple steps and authorities, the distribution of responsibilities is the main aspect that needs attention. Concentrating decision-making responsibilities in a one-stop-shop, while creating consultation mechanisms for authorities which have lost power is an option that will be discussed in section 9 of this report. Reducing delays in permitting can also be achieved by assisting project promoters in developing good quality applications, and better communicating on the benefits of projects and the compensatory measures taken to reduce negative impacts. Such options will be developed in section 9 and in the guides of good practices that will be submitted with the final report.

[23] Both fast-tack procedures (*specustawas)* (relating to the road and railway sectors) contain such provisions.

2 CHALLENGES IN THE PROCUREMENT OF TEN-T CORE NETWORK PROJECTS

The legal framework for public procurement within the EU is set out in the EU Public Procurement Directives. Until recently, these were Directive 2004/17/EC, coordinating the procurement procedures of entities operating in the water, energy, transport and postal services sector; and Directive 2004/18/EC on contracts for public works, public supply and public service. In 2014, these directives were replaced by three new directives - Directive 2014/23/EU, on the award of concession contracts; Directive 2014/24/EU, on public procurement; and Directive 2014/25/EU on procurement by entities operating in the water, energy, transport and postal services sectors. The 'new' directives had to be transposed into the Member States national legal orders by 18 April 2016. By end of August of 2016, almost all the ten Member States covered had notified24 national legislative measures transposing the new EU Public Procurement Directives into their national legal order; exceptions included Poland, which had not yet notified any transposing measure for Directive 2014/23/EU, and the Netherlands, which had not notified transposing measures for any of the directives.
The EU Public Procurement Directives (both 'old' and 'new') set the main principles of public procurement and the applicable definitions, list the types of procedures available for the contracting authorities, and define rules for the preparation and publication of tenders as well as on the choice of participants and award of contracts.

Separate directives – the Remedies Directives – govern the mechanisms for the revision of award decisions: Directive 92/13/EEC, coordinating the laws, regulations and administrative provisions relating to the application of Community rules on the procurement procedures of entities operating in the water, energy, transport and telecommunications sectors; and Directive 89/665/EEC, on the coordination of the laws, regulations and administrative provisions relating to the application of review procedures to the award of public supply and public works contracts. The Remedies Directives were amended in 2007 by Directive 2007/66/EC, amending Council Directives 89/665/EEC and 92/13/EEC with regard to improving the effectiveness of review procedures concerning the award of public contracts (see section 5.1.3 – Characteristics of review procedures).

One of the main purposes of EU public procurement is 'to achieve smart, sustainable and inclusive growth while ensuring the most efficient use of public funds'[25]. Hence, in line with the EU fundamental principles and freedoms, EU public procurement should 'increase competition and cross-border trading, resulting in better value for money for public authorities, while increasing productivity in the supply industries and improving participation in and access to such markets by SMEs'.[26] However, public procurement procedures can be a challenge for the smooth implementation of large infrastructure transport projects. This has been recognised in DG MOVE's 2015 Action Plan *Making the best use of new financial schemes for European transport infrastructure projects* which included a series of recommendations to 'streamline and simplify procurement procedures'.

Our study shows that public procurement can bring two main challenges for projects: delay and increased costs. The implementation of the project can be delayed due to a longer procurement phase driven by a complex legal framework, the absence of limits for the award procedure or the characteristics of the procedures available for the revision of the award decision. The very frequent appeals launched by the losing parties appear to be one of the main sources of delays in the completion of the procurement phase. Increased costs can be the result of the delays caused, but also the consequence of the problems caused by the selection of a project with poor quality. While the objective of procurement is to select the best project for the best price, this is not always the case,

[24] This refers to notified transposing measures as published on www.eur-lex.europa.eu on 29 August 2016.
[25] See e.g. Recital 4 of Directive 2014/25/EU
[26] EU Court of Auditors, Efforts to address problems with public procurement in EU cohesion expenditure should be intensified, available at http://www.eca.europa.eu/en/Pages/DocItem.aspx?did=32488 , p. 11.

especially due to limitations in the capacity of the contracting authority and deficiencies in the design of the tender (which can also be related to lack of capacity).

This section aims to analyse how public procurement rules and procedures in the Member States, mainly resulting from the transposition and application of the 'old' EU Public Procurement Directives[27] and the Remedies Directive, affect the project preparation of TEN-T projects in terms of its duration and the costs associated, by analysing in more detail each of the drivers identified and listed in the table below.

Table 10: Drivers for delays in the completion of the procurement phase

Drivers	Problems: delays, costs and uncertainty
Complexity of legal framework	Delay in completion of procurement phase
Absence of time limits for the award procedure	Delay in completion of procurement phase
Characteristics of review procedures	Delay in completion of procurement phase
Limitations in capacity of contracting authority	Delay in completion of procurement phase
	Project selected is of low quality or high costs
Deficiencies in the design of the tender	Project selected is of low quality or high costs

2.1.1 Complexity of legal framework

Even though there are very detailed rules set at EU level, there are certain types of public procurement and procurement-related matters which are not regulated by EU law. On one hand, the EU Public Procurement Directives (both old and new) apply to public contracts above certain thresholds. Below those thresholds, and subject to compliance with the general principles of the Treaty, Member States retain discretion to regulate public procurement, even though they often use the same legal instrument and apply the same principles to both contracts below and above the thresholds[28] (it should be noted, however, that most TEN-T core network projects are above these thresholds). On the other hand, these directives, like all EU directives, only set minimum rules and the possibility to set stricter rules is at the discretion of the Member States.

In 2015, the EU Court of Auditors published the Special Report *Efforts to address problems with public procurement in EU cohesion expenditure should be intensified*[29]. In this report, the EU Court of Auditors found that the legal complexity of the existing framework (still governed by the old EU Procurement Directives) was perceived as a major cause for public procurement errors by the vast majority of the national audit authorities. The specific issues identified included the 'high volume of legislation and/or guidelines, the difficulty of applying them in practice and a lack of expertise in carrying out the public procurement procedure', as well as the incorrect transposition of the directives and the fact that in certain occasions Member States went beyond the rules stemming from the directives (also called 'gold-plating').[30]

Our study found that, within the transport sector, and more specifically within the context of TEN-T

[27] At the time of data collection for the completion of this study (February and March 2016), there was little experience with the national measures transposing the 'new' Directives, as in most cases, these measures had only very recently been notified or not yet notified to the Commission (according to the information available at www.eur-lex.europa.eu).
[28] DG Markt, EU Public Procurement Legislation : Delivering Results – Summary of Evaluation Report (2012), p. 8, available at http://ec.europa.eu/internal_market/publicprocurement/docs/modernising_rules/executive-summary_en.pdf
[29] EU Court of Auditors, Efforts to address problems with public procurement in EU cohesion expenditure should be intensified (2015), available at http://www.eca.europa.eu/en/Pages/DocItem.aspx?did=32488
[30] EU Court of Auditors, Efforts to address problems with public procurement in EU cohesion expenditure should be intensified (2015), available at http://www.eca.europa.eu/en/Pages/DocItem.aspx?did=32488 , pp. 22 - 25.

projects, in six out of the ten Member States covered by the study the perception is the same – the complexity of the applicable rules (mainly resulting from the transposition and application of the old EU Public Procurement Directives) is considered an obstacle to a quicker public procurement procedure. Thus, while in Germany, the Netherlands, Spain and the UK, the stakeholders interviewed did not consider the existing framework complex to the point of slowing down the procedure (and indirectly result in increased costs), in the remaining countries (Austria, the Czech Republic, Hungary, Italy, Poland and Romania) the general understanding was that the applicable rules were difficult to interpret and/or to put in practice.

The high volume of applicable legislation (Romania), the fact that the applicable rules were not aggregated in a single act (Czech Republic) or the frequency with which these rules are amended (Italy, Poland) have all been noted as problematic – these characteristics of public procurement rules require therefore a high level of expertise that often the contracting authorities are not able to match (see also below the section 5.1.4 – Limitations in capacity of contracting authority). Interestingly, while both in Austria and Romania the rigidity of procurement rules has been referred to as an issue (see also below section 5.1.5 – Deficiencies in the design of the tender), in Czech Republic, the stakeholders interviewed considered that the rules were not detailed enough in order to avoid numerous challenges to the award decision (see also below section 5.1.3 – Characteristics of review procedures). Inconsistent interpretation of the existing legislation by the authorities was only mentioned in one case (Romania).

It appears therefore that main problem relates more to the way the applicable framework is organised, an aspect on which EU influence is rather limited, than to the complexity of the rules stemming from the implementation of the EU Public Procurement Directives. In addition, one of the issues referred to by stakeholders – rigidity of rules – was, at least partially, addressed with the adoption of the new directives and the introduction of innovation partnerships.

2.1.2 Absence of time limits for the award procedure

The EU Procurement Directives are not exhaustive in their regulation and there are a series of procurement-related matters that are still of exclusive competence of Member States. One of the matters that is not regulated, or at least not regulated in detail, at EU level, is the time limit for the contracting authority to take a decision on the award of the contract. In fact, the three new EU Procurement Directives all contain a similar provision on informing candidates and tenderers (Article 40 of Directive 2014/23/EU, Article 55 of Directive 2014/24/EU and Article 75 of Directive 2014/25/EU) stating merely that the contracting authorities must *as soon as possible* inform each candidate and tenderer of the decisions reached concerning the award of the contract. Therefore, is up to the Member States to define what 'as soon as possible' exactly means.

Table 11 Time limits to take award decisions

Member State	Maximum time limit to take award decision
Austria	5 months
Czech Republic	Not prescribed in law
Germany	30 days
Hungary	60 days
Italy	Not prescribed in law
Netherlands	Not prescribed in law
Poland	Not prescribed in law
Romania	25 days
Spain	Not prescribed in law

Member State	Maximum time limit to take award decision
UK	Not prescribed in law

Our study found that, in four out of the ten Member States covered there is a legal time limit for the contracting authority to take a decision – Austria, Germany, Hungary and Romania. As the table above shows, the time limits vary between 15 days to 5 months, but normally these can be extended in exceptional and justified cases. In addition, the information reported by stakeholders showed that very often, at least in most Member States, the legal time limits are not complied with.

Romania
In properly motivated cases, the contracting authority can prolong the evaluation period just once. The regulations do not specify how many days the prolongation can last, leaving this time limit at the discretion of the contracting authority. Some contracting authorities, however, have internal regulations indicating that this prolongation cannot be longer than another 25 days at most.

Thus, the existence of time limits on the award decision does not appear to be immediately related to a quicker procedure. As explained in our report, legal complexity and the lengthy appeals appear to be stronger drivers to a long procurement phase than the absence of rules on the time limit for the awards.

2.1.3 Characteristics of review procedures

As explained above, Directive 92/13/EEC and Directive 89/665/EEC (the Remedies Directives) regulate the review procedures concerning the award of public contracts. The Remedies Directives, which were amended in 2007 by Directive 2007/66/EC, aim at coordinating national provisions and making sure there were effective and rapid procedures for review of the award of public contracts. While the importance of having an effective review procedure in place is easy to understand, the revision of award decisions will impact on the duration of the preparation of the projects. According to the stakeholders interviewed for this study, there is a general perception that it became routine for the losing candidates to appeal the contracting authority's decision in some countries (for example, in Austria, Hungary, Romania), which makes the need for a quick review procedure even more relevant.

Austria
Promoters, particularly those of waterborne projects, complain that appeals are very frequent, and can lead to costly delays.

This study looked at three elements of the review procedures in order to assess whether these procedures can have a significant impact in the total duration of the project preparation: the automatic suspensive effect of appeals, the time-limit to initiate the review and the time-limit to take a decision on the review.

a) Appeals with suspensive effect

Article 2(4) of the Remedies Directives states expressly that review procedures do not necessarily have an automatic suspensive effect on the contract award procedures. It is therefore up to the Member States to decide whether the application for review of the decision of the contracting authority will automatically suspend the public procurement.

Our study found that six out of the ten Member States covered go beyond what is required by the Remedies Directives and automatically suspend the contract award procedure upon appeal. In the remaining four Member States – Austria, Italy, the Netherlands and Romania – the suspension of the contract award procedures has to be requested by means of a separate application for interim measures. The advantage of this second approach, in term of the length of the public procurement

procedure, is that the court (or the competent body) will only allow for the suspension when strictly necessary. In accordance with Article 2(5) of the Remedies Directives, the review body 'may take into account the probable consequences of interim measures for all interests likely to be harmed, as well as the public interest, and may decide not to grant such measures when their negative consequences could exceed their benefits'.

b) Time-limit to initiate review

Under Article 2c[31] of the Remedies Directives, any application for review of the decision of a contracting authority must be made before the expiry of a period of at least 10 calendar days with effect from the day following the date on which the contract decision is sent to the tenderers and candidates concerned if fax or electronic means are used or 15 calendar days if other means of communication are used, or at least 10 calendar days from the day following the date of the receipt of the contract award decision. The period during which the application for review can be submitted corresponds to the so-called 'standstill period', defined in Article 2a of the Remedies Directives. This minimum period exists in order to ensure that appellants have sufficient time to request the review of the award decision before the conclusion of the contract. However, the Remedies Directives only provide for a minimum number of days (10 or 15 depending on the circumstances) and Member States are free to go beyond this.

Our study found that in seven out of the ten Member States covered the period to initiate the review corresponds to the standstill period as defined in the Remedies Directive (10 or 15 days). Notable exceptions include the Italy and the UK, where the appellant has 30 days to submit its request for review; in any case, even in these two Member States it can be considered that the extended time limit to initiate the review will have only limited direct impact on the overall duration of appeals procedures.

c) Time limit for review

There are no requirements in the Remedies Directives concerning time limits for the review decisions of the contract award procedure, even though Article 1(1) states that Member States must ensure that such decisions must be taken 'as rapidly as possible'. As the table below shows, our study found that in three out of the ten Member States covered there is no time limit for the review procedure prescribed in law; where a time limit is set, this varies between 15 days and 60 days.

Table 12: Time limits for review

Member State	Time limit for review
Austria	Six weeks
Czech Republic	Up to 60 days
Germany	Up to seven weeks
Hungary	Up to 35 days
Italy	Not prescribed in law
Netherlands	Not prescribed in law
Poland	Up to 15 days
Romania	Up to 30 days
Spain	27 days

[31] For the purposes of this report only the general rule of Article 2c was taken into consideration as an indicator.

UK	Not prescribed in law

These time limits might contribute to shorter duration of appeals procedures. However, further study would be required to determine the impact of these time limits on the duration of award procedures in practice.

2.1.4 Limitations in capacity of contracting authority

As explained above, the legal complexity of the existing framework for public procurement would require that the contracting authorities are well equipped in terms of resources (staff, technical knowledge, etc.). In addition, the financing mechanisms used, in particular the resort to public-private partnerships (PPPs),[32] and to a lesser extent, the technical specificities of the services or works contracted, also require that contracting authorities possess the necessary knowledge to draft the terms of reference, evaluate the proposals and manage the contract. The lack of capacity of the contracting authorities in terms of public procurement expertise (which can have impact, for example, on the time spent to take the award decision – see above section 5.1.2 – Absence of time limits for the award procedure - or on the quality of the terms of reference – see below section 5.1.5 – Deficiencies on the design of the tender) has been noted in other reports specific on the transport sector.[33]

In any case, it appears that within the specific context of TEN-T projects, the lack of capacity of contracting authorities to tender and manage the necessary contracts is not a major obstacle to the timely preparation of the projects (probably due to the scale and relevance of this type of projects in terms of, for example, financial resources). Still, our study found that in five out of the ten Member States covered (the Czech Republic, Germany, Italy, the Netherlands and Romania), the stakeholders interviewed – which included contracting authorities – were of the opinion that there was not sufficient capacity to run the public procurement procedures, i.e. draft the terms of reference and evaluate the proposals; and only in two out of the ten Member States covered (the Czech Republic and Romania), the understanding was that there was not sufficient capacity to manage the contract resulting from the tender.

In most of the Member States concerned, the contracting authorities have specialised public procurement departments; where this is not the case, or where specialised departments exist but only to address occasional shortage of staff or lack of specific expertise, the contracting authorities usually resort to sub-contractors. The outsourcing of the organisation and the running of the public procurement procedures (or the management of the contracts) was expressly mentioned by the stakeholders interviewed in the Czech Republic, Germany, Poland and Romania as the main tool used to address lack of capacity. Nevertheless, in Romania this solution is not considered optimal as occasionally sub-contractors also do not possess themselves the necessary knowledge. In some cases, stakeholders have also mentioned the existing of guidance (e.g. Germany, Poland and the UK) or special procedures (Austria) to ensure that the necessary requirements are complied with.

Overall, it appears that the capacity of the contracting authorities is considered adequate, either during the original tender process or because problems are easily tackled, and does not impact significantly on the project preparation of TEN-T projects. Nonetheless, capacity issues can impact on the ability of

[32] OECD, Transport Infrastructure investment – Options for efficiency (2008) p. 163-176 , available at http://www.oecd-ilibrary.org/transport/transport-infrastructure-investment_9789282101568-en

[33] See e.g. OECD, Transport Infrastructure investment – Options for efficiency (2008), available at http://www.oecd-ilibrary.org/transport/transport-infrastructure-investment_9789282101568-en;, DG MOVE, Action Plan - Making the best use of new financial schemes for European transport infrastructure projects (2015), available at http://ec.europa.eu/transport/themes/infrastructure/ten-t-guidelines/doc/2015_06_03_cbs_action_plan_final.pdf; European Commission, Commission Staff Working Paper: Accompanying the White Paper - Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system (2011), available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52011DC0144:EN:NOT

contracting authorities to conduct procurement procedures where they have less experience, such as public-private partnerships (see section 5.2 below)

2.1.5 Deficiencies in the design of the tender

2.1.5.1 Failure to ensure sufficient competition

In order to respond to the objectives of EU Procurement rules, a well-designed tender should result in strengthened competition, which by its turn should guarantee a better product for a lower price and reduce the probability of unexpected costs or delay at a later stage of the implementation of the project. While the number of competitors can be a good indicator of the strength of competition,[34] the number of international competitors can show to which extent the full potential of cross-border procurement has been explored.[35] The DG MARKT evaluation of the old EU Public Procurement in 2012[36] showed that there were large differences between the Member States concerning the number of bidders. It also provided evidence showing a low level of direct cross-border procurement and indicating a general reluctance of companies to participate in cross-border tenders; the main reasons invoked included "no experience doing business abroad", language and legal barriers and "too much local competition".

In order to assess the competitiveness of the public procurement procedures, our study assessed whether tender processes for TEN-T projects usually attract multiple competitors, including international competitors. The study found that, only in two out of the ten Member States covered, public procurement for TEN-T projects does not normally attract multiple competitors – Germany and Spain. Our study also found that in those same two Member States (Germany and Spain) plus Italy, international bidders rarely apply for TEN-T projects. In the case of Germany and Italy no particular reasons were advanced by the stakeholders interviewed – but it was noted that there were particular projects that do attract the participation of international bidders, such as tunnel construction (Germany) and cross-border projects (Italy). In Spain, the lack of multiple bidders, and in particular of international bidders, appears to be related to the fact that tenders are published and processed within a very short time-span. Finally, it should be noted that where international bidders apply to tenders, they are typically integrated in a consortium together with national companies (this was mentioned for example, for the Czech Republic or Romania).

Italy

Tender processes seem to be quite competitive internally but international competitors do not participate very often in transport projects. Bigger and cross border projects do have more international competitors participate in tender processes. The Brenner Base Tunnel, for example, has had different offers also from Germany and Spain.

2.1.5.2 Over-emphasis on cost or price criteria

The EU Public Procurement Directives do not set detailed requirements on the award criteria, referring to 'overall economic advantage for the contracting authority or the contracting entity' (Directive 2014/23/EU) or 'the most economically advantageous tender' (Directives 2014/24/EU and 2014/25/EU). In order to assess which is the most economically advantageous tender, the Directives recommend using a cost-effectiveness approach taking into account life-cycle costing and best price-

[34] European Commission website 'Single Market Scoreboard' available at: http://ec.europa.eu/internal_market/scoreboard/performance_per_policy_area/public_procurement/index_en.htm
[35] DG MARKT, EU Public Procurement Legislation : Delivering Results – Summary of Evaluation Report, p. 13 - 17, available at http://ec.europa.eu/internal_market/publicprocurement/docs/modernising_rules/executive-summary_en.pdf
[36] DG MARKT, EU Public Procurement Legislation : Delivering Results – Summary of Evaluation Report, p. 13 - 17, available at http://ec.europa.eu/internal_market/publicprocurement/docs/modernising_rules/executive-summary_en.pdf

quality ratio and leave to the Member States the possibility to prohibit the use of price only or cost only as the sole award criterion or restrict their use to certain categories of contracting authorities or certain types of contracts. The use of criteria other than price or cost will ensure that other important elements were evaluated and increase the chances of the best proposal to be awarded.

Our study assessed whether, in the specific context of public procurement for TEN-T projects, the evaluation procedure balances cost criteria with other criteria (e.g. quality). The study found that, only in three out of the ten Member States covered, public procurement for TEN-T projects does not normally take into account criteria other than cost or price – Austria, the Czech Republic and Romania. In Austria, however, the situation is expected to change in view of the recent amendments to the Austrian Procurement Law as the result of the strengthened Best-Tenderer Principle. In the Czech Republic, both the law and guidance refer to other criteria than the lowest price but these are not used in practice. In Romania, the low use of quality criteria appears to be related to their subjectivity and the perception of an increased risk of appeals. Specifically with regards to award criteria that allow sufficient room for innovation and the consideration for the optimisation of costs, the scarce information gathered only allows to conclude that in general these are not consistently used in the ten Member States covered by the study.

Germany

One of the project promoters interviewed, applies the "60-20-20-rule" meaning that the price accounts for 60%, the amount of workdays scheduled to realise the project accounts for 20% and references of the tenderer account for 20%. .

2.2 PUBLIC-PRIVATE PARTNERSHIPS

Broadly defined, a public-private partnership (PPP) is an agreement between a government authority and a private firm for the delivery of an asset and/or service. Defining characteristics of PPPs are that the private firm assumes significant management responsibility and operating risk and the private partner's remuneration is linked to its performance in delivering the asset and/or service[37]. Concessions contracts – whereby remuneration to the private partner is directly linked to payments from the users of the infrastructure – are frequently used to deliver PPPs and are thought to amount to approximately 60% of PPPs in Europe[38]. In the delivery of transport infrastructure, PPPs are an alternative to classical procurement that have the potential to deliver significant benefits. Well-designed PPPs have the potential to enhance the efficiency of the delivery and operation of transport infrastructure[39], by devolving responsibility for certain tasks (for example, design, build, operation, maintenance) to private sector operators with a commercial incentive to reduce costs. Where appropriate safeguards are in place, PPPs can also promote better quality in the infrastructure delivered, by bringing the expertise of private sectors specialists into the process, and innovation, as private firms are less likely to be constrained by governmental budgeting processes and distracted by competing priorities[40].

However, there is a number of barriers to the use of PPPs, potentially resulting in their under-utilisation in the procurement of infrastructure. Realising the benefits of PPPs is very much dependent on certain necessary conditions being in place, relating to the quality of the design of the partnership,

[37] Adapted from Public-Private Partnership in Infrastructure Resource Centre (PPPIRC) definition, http://ppp.worldbank.org/public-private-partnership/overview/what-are-public-private-partnerships
[38] EC, *New Rules on Public Contracts and Concessions – Simpler and More Flexible*, 2014, p. 8, available at http://ec.europa.eu/internal_market/publications/docs/public-procurement-and-concessions_en.pdf
[39] EC, *Action Plan - Making the best use of new financial schemes for European transport infrastructure projects* (2015), p. 14, available at http://ec.europa.eu/transport/themes/infrastructure/ten-t-guidelines/doc/2015_06_03_cbs_action_plan_final.pdf
[40] OECD, *Transport Infrastructure Investment – Options for Efficiency*, 2008, p.23

the appropriate sharing of risk in the contract and the effective management of the contract. Managing the relationship between the tendering authority and the private company over the contract tenure is vital for the success of a PPP project. Authorities are often constrained in their ability to design, award and manage PPPs, which limits the use of PPPs in many countries. Indeed, lack of public sector capabilities is recognised in the literature as a key barrier to the utilisation of PPPs[41]. Drafting a robust Request for Proposal that sufficiently balances the project's needs and characteristics, the authority and stakeholder desires and the political and economic context, necessitates sufficient technical, legal, financial and administrative experience.

Private finance is also typically more expensive than public finance. This reflects commercial borrowing rates that are higher than public borrowing rates, although the difference may be small. It is also a reflection of project risk. This is borne by the taxpayer under public financing but allocated to private investors under PPPs and priced explicitly. Risks not backed by government guarantee have to be covered by the purchase of insurance, hedging and other financial instruments.

The task of achieving an appropriate allocation of risk creates an additional layer of complexity in the design of PPPs and requires a certain level of technical expertise and previous experience which exacerbates the technical capacity barriers to PPPs. Maximising the potential value-for-money of a public investment would require a greater allocation of risk to the private partner, but may undermine contractor and investor interest in the contract and increase the private partner's costs in financing the project. A contracting authority might accept a greater allocation of risk to ensure market interest. However, this could undermine the potential value-for-money of the investment[42] and may also affect the statistical treatment of the PPP (see section 2.2.2 below).

Public consultation – Comment from a company

infrastructural development projects within the rail sector are not attractive for private Investors due to a very limited return on Investment (ROI). The enhancement of attractiveness of such projects towards private investors would only be possible by transferring a significant amount of risks towards the sponsor of such project (which mainly would be the state itself) leaving almost no advantages to the sponsor in relation to the private investor. (with all the risks the sponsor could do the project by himself).

Where PPPs are delivered through concessions contracts, the new Concessions Directive (Directive 2014/23/EU) is expected to provide greater clarity regarding the distinction between a concession and other public contracts, and therefore reduce uncertainty in procurement procedures[43]. Compared to the Public Procurement Directives, the Concessions Directive is less prescriptive and provides greater flexibility to contracting authorities in designing procurement procedures for concessions contracts[44]. However, there are concerns the greater flexibility in the Concessions Directive may lead to contracting authorities with less expertise in designing PPPs inadvertently breaching general EU Treaty principles, due to less prescriptive procedures in the Directive. Furthermore, concerns have been raised about continued lack of clarity in the definition of a concession[45], which may create undue risks in the procurement phase if this lack of clarity leads to the application of the incorrect Directive.

Infrastructure projects delivered through PPPs may also face unique challenges relating to permitting procedures, arising out of the tension between the objectives of efficiency and accountability. PPPs, such as those based on Design-Build or Design-Build-Operate-Maintain models, work best when the contractor is given maximum flexibility to innovate. But, giving the contractor maximum freedom and

[41] Copenhagen Economics for E3PO, *Public Outsourcing Potential in the EU: Benefits and Barriers*, 2015, p.31
[42] EPEC, *PPP Motivations and Challenges for the Public Sector*, 2015, p.19
[43] [43] EC, *New Rules on Public Contracts and Concessions – Simpler and More Flexible*, 2014, p. 8, available at http://ec.europa.eu/internal_market/publications/docs/public-procurement-and-concessions_en.pdf
[44] EPEC, *PPPs and Procurement: Impact of the new EU Directives*, 2016, p.15
[45] Ibid, p.28

flexibility in design can be in conflict with the need for certainty in assessment and permitting procedures. In addition, permitting is often perceived by potential contractors as a risk in PPPs, potentially undermining the ability of contracting authorities to procure the project at an acceptable price. Often in PPPs, final permit acquisition occurs following award of the contract to the contractor (as permit applications are based on the contractor's final design), which holds uncertainty and risk due to possible obstructions and delay in the permitting and possible claims or contract renegotiations. If, in such cases, the contractor is assigned permitting and mitigation/compensation responsibilities, uncertainty regarding permit acquisition will be shifted to the post-procurement phase. This risk can often result in project bids involving an unacceptably high price or a renegotiation of the contract post-award.

Table 13: Drivers for under-exploitation of PPPs

Drivers	Problems
Organisational barriers to PPPs	Under-exploitation of PPPs for the preparation and delivery of TEN-T projects.
Statistical treatment of PPPs in public balance sheets	

2.2.1 Organisational barriers to PPPs

Issues relating to institutional technical capacity and organisational attitudes to PPPs were reflected in the country studies. Transport authorities reported significant difficulties in preparing and implementing PPPs, and were often discouraged as a result of unsuccessful previous attempts. In Austria, transport authorities reported that two previous PPPs in the road and rail sectors had been considered to be particularly difficult, due to a lengthy procurement process and legal challenges. As a result, in Austria, authorities do not give particular consideration to the use of PPPs in the delivery of transport projects. Similar experiences were reported in Hungary. In contrast, in Czech Republic, while the one previous attempt at using a PPP in the delivery of transport projects was unsuccessful, the potential use of PPPs in the transport sectors is nonetheless under consideration. Other countries, for example Poland, also reported that, where EU finance is available for transport projects there is limited incentive to explore PPPs as an alternative means of financing projects. Political considerations may also undermine organisational support for PPPs. Political sensitivities regarding PPPs were reported to be a challenge in the Seine-Scheldt case study, where a change of government in France resulted in less political support for the delivery of the project via a PPP.

In some cases, PPPs are considered by authorities likely to be unsuccessful due to limited interest among tenderers. For example, in Italy, stakeholders reported the view that very few private firms would be able to deliver particularly complex projects such as the Brenner Base Tunnel, implying that such projects are unsuitable for PPPs. Experiences in the case studies reflect similar challenges. For example, in Seine-Scheldt project, the PPP was abandoned due to limited private sector interest, based on concerns about the operational and commercial risks associated with the project.

Nonetheless, some countries reported positive experiences of PPPs. In the Netherlands, it has been reported that public acceptance of PPPs is growing[46]. PPPs are promoted by the Dutch Government in general, projects are routinely screened for PPP potential, and a number of PPPs in place in the transport sector. Similarly, in the United Kingdom, in the transport sector there have been 30 projects delivered through PPPs worth over GBP 80 billion[47]. Within the United Kingdom, there is significant institutional capacity available to support the use of PPPs through the Infrastructure and Projects

[46] CMS, *PPP in Europe*, 2010
[47] EPEC, *UK (England) - PPP Units and Related Institutional Framework*, 2012, available at http://www.eib.org/epec/resources/publications/epec_uk_england_public_en.pdf

Authority (previously Infrastructure UK). Guidance is also widely published by the Treasury.

2.2.2 Statistical treatment of PPPs

Finally, a challenge to the implementation of PPPs arises out of the statistical treatment of PPPs under the Eurostat European System of Accounts[48]. The Eurostat rules treat Member State contributions to projects, including loan guarantees, as 100% public debt,. This can result in certain PPPs being regarded as Member State debt, and impact the government balance sheet for the purpose of meeting Member State obligations under the Stability and Growth Pact. While this problem did not arise in the case studies or country studies completed as part of this study, interviews with stakeholders suggest that where this problem occurs it can have a significant impact on a project. This question of the statistical treatment of PPP contracts can create additional complexity for contracting authorities and may discourage the utilisation of PPPs in Member States seeking to avoid public debt. In the long-term, this challenge could discourage the investments necessary for the completion of the TEN-T network.

Determining whether a PPP is kept off balance sheet requires identification of the 'economic ownership' of the infrastructure asset, which includes determination of whether the Member State has transferred most risks and rewards associated with an asset to the private partner. In bilateral communications with the European Commission, private project sponsors have called for a revision or clarification of Eurostat's position on certain issues relating to the classification of a PPP project as on/off balance sheet. These issues include the question of what constitutes transfer of 'most' of the construction or availability risk and of 'most of the rewards' to the private partner, the transfer of the asset at the end of the contract, as well as issues relating to force majeure or termination compensation in the event of private partner default.

Private project sponsors have indicated that the lack of a timely ex-ante assessment from Eurostat often leads to negotiations being launched on the basis of documentation that does not meet the conditions for off-balance sheet treatment, where this is sought, therefore requiring substantial changes during tender procedures and sometimes even leading to the abandonment of a project at the end of a tender procedure. They suggest that contracting authorities seeking off-balance sheet treatment for a PPP project should be given access to preliminary Eurostat ESA 2010 assessment mechanisms.

Eurostat opinions on the classification of individual PPP projects are rarely published, due to the confidential nature of the contracts concerned. Contracting authorities therefore don't have access to a database of past decisions allowing them to draw on the lessons from previous decisions on similar. One possibility of addressing this could be to make public disclosure a condition of requests for ex-ante assessment from Eurostat. This could lead to the development of a joint database within national accounting authorities to share knowledge on the issue.

Guidance and clarification is needed to assist Member States in designing PPPs that effectively transfer risk to the private operator. It is understood that this guidance is currently under development by EIB and Eurostat[49], and should assist authorities in the design and successful implementation of PPPs. This guidance should be assessed to ensure it provides clarification. If so, it should be widely disseminated, and may be complemented by targeted capacity building actions to assist authorities in applying it. If a lack of clarity remains in spite of this guidance, additional measures may be necessary to address this challenge.

[48] Eurostat, European system of accounts 2010, available at http://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/KS-02-13-269

[49] Eurostat, *Eurostat clarification note – The statistical treatment of PPP contracts*, Ref. Ares(2016)1119765

These problems suggest that a focus on authority capacity and willingness to explore PPPs as a potential procurement method is needed. Potential solutions may involve capacity-building activities targeting transport authorities, particularly in those countries with limited experience with PPPs. Synergies with similar activities under JASPERS and the European Investment Advisory Hub should be sought. In addition, the Concessions Directive should deliver greater clarity in the design of concessions contracts when these are used in the delivery of PPPs; however, there are concerns that the Concessions Directive may also create challenges in Member States with less experience with PPPs in terms of identifying whether a project is a concession and the correct Directive (and procurement procedure) to be followed.

2.3 CONCLUSIONS ON THE PROCUREMENT OF TEN-T PROJECTS

The impact of procurement-related problems to the overall length and cost of TEN-T projects seems to be minor when compared with impact of the obstacles related to permitting procedures. In addition, its effects in the smooth implementation of projects are clearly more relevant in cross-border projects (see below section 9 – Challenges in cross-border procurement). Nevertheless, our study shows that some problems exist.

In terms of delay in the completion of the procurement phase, this appears to be mostly the consequence of a complex legal framework and, in particular, the long review procedures to challenge the award decision. Even though legal complexity has been often mentioned by stakeholders, problems appear to be more related to the way the applicable framework is organised at national level, than to the complexity of the rules stemming from the implementation of the EU Public Procurement Directives. **Long review procedures**, which have also been referred by practically all interviewees, appear thus to be the main driver causing delay. In this respect, our study looked at the automatic suspensive effect of appeals, the time-limit to initiate the review and the time-limit to take a decision on the review. Most of the Member States covered go beyond what is required by the Remedies Directives and automatically suspend the contract award procedure upon appeal, which means that suspension will take place even when it could be considered unnecessary. While in almost all Member States the period to initiate the review corresponds to the standstill period as defined in the Remedies Directive (10 or 15 days), the exceptions set the limit on 30 days and thus will have only limited direct impact on the duration of appeals procedure. Time limits for the review exist in most of the Member States but further study would be required to determine the impact of these time limits on the duration of award procedures in practice.

Increased costs are related to the selection of poor quality projects, which appears to be mainly driven by deficiencies in the design of the tender, especially the **failure to ensure sufficient competition** and the **over-emphasis on cost or price criteria**. However, our study shows that this is an issue only in a small minority of Member States. On one hand, most of Member States appear to manage to attract multiple tenderers, including international competitors. On the other hand, only in an equally small number of cases Member States do not normally take into account criteria other than cost or price.

Regarding PPPs, the country studies and a case study revealed **organisational challenges** that may result in the under-utilisation of PPPs in the delivery of transport projects. Concerns about the **statistical treatment of PPPs in public accounts** may also create additional complexity to the process of designing PPP contracts, compounding the technical expertise barriers facing PPPs. The statistical treatment can also create uncertainty for contracting authorities, contractors and investors in the contract negotiations process for transport infrastructure PPPs.

3 CHALLENGES IN STATE AID PROCEDURES

State aid procedures can be a source of significant uncertainty and risk for transport projects. The purpose of EU State aid rules is to prevent Member States from providing economic advantages to certain activities or undertakings that would distort competition in the internal market. Article 107 of the Treaty of the Functioning of the European Union established a general prohibition on State aid. However, State aid may be permissible in certain cases where it can be considered compatible with the operation of the internal market.

The European Commission is responsible for investigating potential cases of prohibited State aid and approving State aid measures. The key procedure for this approval process is the notification procedure, through which Member States are responsible for notifying the Commission (specifically, DG Competition in the case of transport projects) of new aid measures. The Commission will then investigate the measure on the basis of the information provided by the Member State and adopt a final decision on whether the measure is compatible with EU rules. The Commission may issue a positive decision (i.e. the measure is not State aid or it is compatible aid); a conditional decision (i.e. the measure is compatible and may be implemented, subject to certain conditions); or a negative decision (i.e. the measure is incompatible). In the case of a negative decision, the measure cannot be implemented or, if it has already been implemented, the aid must be recovered from any beneficiaries.

A pre-notification procedure also exists, which Member States can use to seek Commission input into the drafting of the official notification. This procedure can be used to help Member States ensure that their notification to the Commission is complete and of a high quality, which may assist in expediting the notification process.

There are multiple factors that can lead to State aid creating uncertainty in the project preparation process. Given its inherent focus on Member State financial assistance for a project, State aid procedures directly related to the financial structure of a project; an adverse State aid decision puts the financial structure underpinning the project at risk. Thus, any uncertainty about State aid decisions potentially contributes to significant uncertainty among promoters and investors.

In addition, a State aid decision can occur at any point in the project preparation process. While time limits apply to the Commission's process for deciding State aid cases, the decision can nonetheless be lengthy should the Commission be required to seek further information from the Member State. The Commission applies a two-month time limit to decisions from the point of receiving a complete notification[50]. However, some Member States allow between six and 12 months for the final decision[51].

Table 14: Drivers for uncertainty concerning state aid decisions

Driver	Problems: delays, costs, uncertainty
Lateness and/or poor quality of State aid notifications	Uncertainty and risk concerning the timing of State aid decisions

3.1.1 Lateness and/or poor quality of State aid notifications

Transport authorities may find State aid notifications particularly challenging, given that until relatively recently investments in transport infrastructure was considered to fall outside State aid rules.

[50] EC, *State Aid Manual of Procedures – Internal DG Competition working documents on procedures for the application of Articles 107 and 108 TFEU*, Section 5 Notification, Para 30

[51] See, for example, the United Kingdom State Aid Manual, 2015, p.8. Also reported in the Czech country study.

Until 2000, the Commission's view was that 'the construction [or] enlargement of infrastructure projects (such as airports, motorways, bridges, etc.) represents a general measure of economic policy which cannot be controlled by the Commission under the Treaty rules on State aid.[52]' However, in the *Aéroports de Paris*[53] judgement in 2001 and *Leipzig/Halle*[54] judgement in 2011, the European Court of Justice found that investments in the construction and operation of airport infrastructures may constitute State aid. Since these decisions investments in transport infrastructure have been considered to be falling with the Treaty rules on State aid[55].

As a result of this relatively recent development, some transport authorities may be unaware of the need to notify potential State aid cases to the Commission. In general, transport authorities are very much aware of the need to comply with relevant environmental and public procurement procedures. They are less aware of the potential that State aid issues may be relevant to their project. This can result in them notifying late, potentially magnifying the risk to their project. In addition, their lack of experience with State notifications may lead to notifications that are of a lower quality. This can lead to Commission requests for further information, delaying the final decision. In addition, project promoters that are uncertain about the applicability of State aid rules to their project may need to seek expert opinions[56], contributing to additional project costs.

In addition, the information Member States may find it burdensome to prepare the information necessary required to submit in a State aid notification. Due to the inherent nature of State aid procedures and the focus on the impact of the funding on competition, the information requirements are very different to those for other project processes (e.g. permitting under CEF). As a result, transport authorities may be required to gather and provide significant information. This can be seen as an additional burden.

There have been recent efforts at the EU-level to reduce the burden of State aid procedures on project promoters. In 2016, the European Commission has been consulting on a proposal to exempt ports and airports from the requirement to notify aid measure to the Commission, provided certain criteria are met[57]. This exemption would essentially Member States who intend to provide support to port and airport developments to assess whether the measure meets the criteria set out in the exemption and, if so, proceed with implementing the measure without the need to notify the Commission and wait for approval. A further streamlining measure has been adopted in relation to projects receiving financing under the European Fund for Strategic Investment (EFSI). Where such projects receive Member State co-financing, which is considered State aid, the Commission has committed to apply a fast-track process for assessing the compatibility of the national financing with State aid rules[58]. Under this process, the Commission aims to complete assessments within six weeks of receiving a complete notification.

[52] 'Application of Article 92 and 93 of the EC Treaty and Article 61 of the EEA Agreement to State aids in the aviation sector', OJ C 350, 10.12.1994, p. 5, as cited in Draft Commission Notice on the notion of State aid pursuant to Article 107(1) TFEU.
[53] Case T-128/98, *Aéroports de Paris v Commission of the European Communities*, European Court of Justice, 2000
[54] Joined Cases T-443/08 and T-455/08 Freistaat Sachsen, Flughafen Leipzig/Halle et al v Commission of the European Communities, European Court of Justice, 2011, ECR II-1311
[55] Under a current targeted review of Regulation (EU) No 651/2014 on the General Block Exemption Regulation (State aid), it is proposed that regional airports, maritime ports and inland ports be included in the General Block Exemption. This would mean that State aid for these infrastructure types would be considered compatible if certain criteria are met, and notification would not be required.
[56] Stakeholder interview, Germany
[57] European Commission, *Targeted review of the General Block Exemption Regulation (State aid): extension to ports and airports*, Public Consultation, 2016, http://ec.europa.eu/competition/consultations/2016_gber_review/index_en.html
[58] European Commission, *Working together for jobs and growth: The role of National Promotional Banks (NPBs) in supporting the Investment Plan for Europe*, Communication, COM/2015/0361, 2015, http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1438075411849&uri=COM:2015:361:FIN

Thus, two key problems at the Member State-level appear to drive particular delays and uncertainty in State aid notifications: Late notification; and poor quality of notification (including information gaps). Early consultation with Member State competition authorities, and DG COMP where appropriate (through the pre-notification procedure), is considered important in ensuring that any State aid decision proceeds in a timely manner. Early consultation will assist in ensuring that the formal notification, and thus the decision, can occur earlier, thus avoiding uncertainties later in the project preparation process. Early consultation will also assist authorities in submitting a high quality notification, reducing the risk that the Commission will need to request further information leading to further delays.

This suggests there may be a need for measures that support transport authorities in the timely development of high quality notifications. At the Member State-level, these measures could involve the establishment of a dedicated agency or unit that plays an active role in disseminating information about State aid procedures and supporting authorities in the pre-notification and notification processes (e.g. the BIS State aid team in UK, the State Aid Monitoring Office in Hungary). In many cases, these units also centralise the process and ensure a consistent quality of notifications (e.g. the Romania Competition Council). In addition, Member State guidance to transport ministries and authorities on the need to consult with the relevant agency/unit on whether State aid issues may be present. Among the countries assessed as part of this study, many were found to provide guidance or procedures that assist authorities in the notification of State aid measures to the Commission. These Member States include Austria, Czech Republic, Hungary, Italy, Romania, Spain and the United Kingdom.

At the EU-level, specific and up-to-date guidance on State aid and transport (consolidated for all modes) targeting transport authorities is useful in assisting authorities in improving the timing and quality of notifications. Detailed guidance is currently available for railways and aviation. In addition, analytical grids are available and provide guidance on ports, airports and local rail transport infrastructure. These appear to be in use among transport authorities in some Member State-level[59]. In addition, the Commission recently published guidance on the notion of State aid[60], which includes specific guidance on the public funding of infrastructure, including transport infrastructure (ports, airports, rail and roads). This guidance should further assist authorities in assessing whether proposed transport investments give rise State aid issues, and can be expected to promote earlier consultation between authorities and the Commission on these issues.

Commission Directorates-General and agencies that are involved in the preparation and funding of transport projects can assist in building awareness of State aid issues. DG REGIO currently does this for ESIF-funded projects. While projects that are fully funded through Union sources will not be subject to State aid procedures, any projects that involve co-funding at the Member State-level (including CEF and EFSI) may be subject to State aid rules. Thus, it should be explored whether funding or financing application processes under CEF and EFSI can be used to prompt applicants to consider whether State aid may be an issue and encourage early consultation with DG COMP.

3.2 CONCLUSIONS ON STATE AID

While State aid procedures are often raised as a potential barrier in the efficient planning and preparation of projects, there was limited evidence from the case studies and country studies that State aid procedures represented a significant concern from the project perspective. Some authorities noted that these procedures could be time-consuming and exceed the two-month time limit (most likely due to incompleteness of notifications). In one case study – the Fehmarn Belt Fixed Link – it was reported that State aid procedures could be used by project opponents to attempt to block a project. However,

[59] For example, in interviews Czech authorities reported using these analytical grids.
[60] European Commission, *Commission Notice on the notion of State aid as referred to in Article 107(1) TFEU*, 2016, http://ec.europa.eu/competition/state_aid/modernisation/notice_of_aid_en.pdf

there was little evidence of these procedures causing excessive delay or cost.

Therefore, it would seem that the priority for action in regard to State aid should be to continue to encourage Member States that seek to invest in transport infrastructure to engage with the Commission early, and supporting transport authorities in making timely, complete State aid notifications. Recent guidance documents (the Communication on the Notion of State aid) and efforts to streamline procedures for EFSI projects receiving national co-financing should also assist.

PART TWO: SPECIFIC CHALLENGES IN PERMITTING OF TEN-T WATERBORNE PROJECTS

4 CHALLENGES IN THE PERMITTING OF WATERBORNE PROJECTS

The waterborne transport sector – which includes maritime ports, inland ports and inland waterways – faces unique challenges in the permitting of projects, particularly in relation to environmental permitting. While all transport projects are heavily influenced by EU environmental protection legislation, environmental assessment and permitting of waterborne projects in particular need to take into account the complex interactions between multiple environmental objectives (involving, for example, objectives relating to groundwater level, nature protection, agriculture). In addition, waterborne projects are more likely to be subject to EU and Member State legislation focused specifically on water protection, including the Water Framework Directive, Nature Directives and the Maritime Spatial Planning Directive (to be transposed in September 2016). The potential impacts of waterborne transport projects on sensitive and complex ecosystems, and on Natura 2000 protected areas, create unique challenges for project promoters and authorities in the planning and preparation of projects.

Table 15: Drivers for specific challenges in the permitting of waterborne projects

Driver	Problem : delays, costs, uncertainty
Potential impacts on bodies of water give rise to the requirements of the Water Framework Directive	Proximity to water creates complexity in the permitting process
Projects located on coasts or rivers are more likely to have an effect on Natura 2000 protected areas, leading to obligations under the Birds and Habitats Directives	
Some waterborne projects (maritime and inland ports) are linked to industrial developments, potentially giving rise to a need to comply with requirements under industrial accident legislation (i.e. Seveso Directive)	
Dredging activities are particularly likely to raise environmental permitting issues	
Requirements under the Maritime Spatial Planning Directive may add to the complexity in authorising maritime port projects	

4.1 CHALLENGES RELATED TO THE LEGAL FRAMEWORK FOR WATERBORNE PROJECTS

Given their proximity to water bodies, waterborne projects can be more likely to impact water bodies and protected areas, including Natura 2000 sites. Thus, waterborne projects often face permitting challenges relating to the legal framework protecting water bodies and protected areas.

4.1.1 Water Framework Directive

The Water Framework Directive (WFD)[61] establishes a framework for the management and protection of all surface waters and groundwaters at EU level. The overall objective of the Directive is to achieve (at least) good water status for water bodies (measured according to the ecological and chemical status

[61] Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy

of a water body). Article 4 requires Member States to prevent the deterioration of water bodies and protect, enhance and restore water bodies, with the aim of achieving good status for all water bodies by 2015. In particular, Article 4(1)(a)(i) sets out that 'Members States shall implement the necessary measures to prevent deterioration of all bodies of surface water'.

The challenge of applying this Directive in the permitting and preparation of waterborne projects has been particularly highlighted by a recent case in the European Court of Justice (ECJ), which demonstrates the issues faced by project promoters, competent authorities and national courts in interpreting these requirements when planning individual waterborne transport projects that could potentially impact the 'good ecological and chemical status' of waters.

ECJ Decision in the Weser Case C-461/13 on the interpretation of the WFD[62]

The German ports in Hamburg and Bremen had planned to dredge rivers to make improve access to new large container ships, in the face of intense competition from rival ports in Rotterdam and Antwerp. The competent German authority had granted authorisation for the deepening of parts of the River Weser.

A German environmental NGO, BUND, challenged the authorisation before the German Federal Administrative Court (the *Bundesverwaltungsgericht*), Germany), arguing that dredging of the River Weser in Bremen would cause excessive damage to water quality and so damage marine life. The German court sought a decision from the European Court of Justice (ECJ) on whether Article 4(1)(a)(i) of the Directive should be interpreted to mean that if a project may cause deterioration in the status of a surface water body, the Member State is required to refuse to authorise the project unless a derogation is granted. The ECJ was also asked to consider what constitutes a deterioration of a body of water within the meaning of the Directive.

The ECJ concluded that the obligations of Member States under the Directive do not amount a general obligation, but also apply to individual projects. The Court accordingly found that Member States are required - unless a derogation provided for by the directive is granted - to refuse authorisation for an individual project where it may cause a deterioration of the status of a body of surface water or where it jeopardises the attainment of good surface water status or of good ecological potential and good surface water chemical status by the date laid down by the Directive.

As to the question from what moment there is 'deterioration of the status' of a body of surface water, the EJC replies that such deterioration is established as soon as the status of at least one of the quality elements, within the meaning of Annex V to the WFD, falls by one class, even if that fall does not result in a fall in classification of the body of surface water as a whole. (However, if the quality element concerned, within the meaning of that annex, is already in the lowest class, any deterioration of that element constitutes a 'deterioration of the status' of a body of surface water.)

The ECJ decision in the Weser Case makes it clear that, when deciding whether to authorise an individual project, the requirements of Article 4 of the Water Framework Directive are a decisive factor. If it is likely that a project will cause the deterioration of a water body, then the project authorisation must be refused unless a specific derogation is granted. As a result of this decision, projects or activities that could result in the deterioration of a water body – which are likely to include most projects involving dredging – will need to meet the conditions for a derogation under Article 4(7) of the Directive. This requirement will apply if a project impacts the status of a single quality element, even if that does not result in a fall in the classification of the water body as a whole. These conditions for a derogation require that: all practical steps are taken to mitigate the adverse impacts on the body

[62] Court of Justice of the European Union PRESS RELEASE No 74/15 (Luxembourg, 1 July 2015) - Judgment in Case C 461/13, Bund für Umwelt und Naturschutz Deutschland eV v Bundesrepublik Deutschland (http://curia.europa.eu/jcms/upload/docs/application/pdf/2015-07/cp150074en.pdf)

of water; the project is included in the relevant river basin management plan; the project is justified on the grounds of overriding public interest; and the objectives of the project cannot be achieved by other means due to reasons of technical feasibility or disproportionate costs. This decision emphasises the importance of setting out the rationale, costs and benefits of waterborne projects – and any alternatives – in the strategic planning phase.

The impact of the ECJ ruling at the project level has been noted in the case studies. In the Elbe-Weser case, the port authorities noted the importance of complying with legislation and finding a solution that satisfies stakeholders, but uncertainties in the legislation tend to result in delays in preparing necessary documentation and permitting procedures. Similarly, in the cross-border Fehmarn Belt Fixed Link project the promoter reported that the consequences of this new jurisprudence in permitting procedures are not yet clear. Stakeholders interviewed fear that, as a consequence of the ECJ ruling, EIA procedures will most likely become more exhaustive, potentially leading to increased cost and delay. The EIA report in Germany for that project is currently being updated as a result of the comments from the first round of public consultation, and will be subject to a second public consultation round. The update of the EIA report will have to take into account the consequences of the ECJ decision, and the promoters have reported that they will now need to give greater attention to the sections of the report relating to the WFD. The updated report will include a 600-page report on the WFD, as opposed to the original documentation which covered around 60 pages, in part as a result of the ECJ decision. (It should be noted that some changes in the updated report are a result of comments received during the first consultation phase, and are unrelated to the ECJ decision.)

4.1.2 Birds and Habitats Directives

Waterborne projects are also more likely to impact Natura 2000 sites, as many of Europe's most valuable natural areas are situated in the valleys of its main rivers – and those rivers are priority axes for inland waterway transportation. Similarly, the extension of ports generally requires deepening and maintenance of fairways and reclamation of land. Many ports are located in estuaries, or close to nature reserves, which consist of tidal flats and wetlands that provide habitat for vulnerable plant and animal species. These valuable habitat zones are also home to - often dredged - access channels and newly constructed port developments. As a result of the proximity between waterborne transport infrastructure and protected areas, the Birds[63] and Habitats[64] Directives often particularly impact waterborne projects, and have a particular impact on developments in waterways that cut across multiple protected areas (for example, the Danube).

Projects that are likely to have a significant impact on protected areas are subject to an Appropriate Assessment, under Article 6(3) of the Habitats Directive, to review the implications of the project for the site. Authorities may only approve a project if they have ascertained that it will not adversely affect the site (Article 6(4)) or, in cases of projects necessary for reasons of overriding public interest, if compensatory measures are taken. Projects in protected areas can be impacted in terms of additional time and cost during the Appropriate Assessment phase, or in terms of additional cost for potential mitigation or compensatory measures. A recent CJEU decision on the application of Article 6(4) of the Habitats Directive in the development of the Port of Antwerp[65] suggests that project promoters continue to face challenges in the application and interpretation of this provision.

The particular impacts of these provisions on waterborne projects were noted in the Czech country study, where authorities reported that almost every waterborne project is delayed, due in part to the

[63] Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds
[64] Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora
[65] Court of Justice of the European Union, *Judgement in Case C-387/15 Orleans and others*, 21 July 2016, http://curia.europa.eu/juris/liste.jsf?num=C-387/15&language=en

likelihood that large-scale waterborne projects will impact a nationally or EU-protected species or habitat. (These projects may also be hindered due to concerns that the economic feasibility of a project has not been sufficiently demonstrated.) Construction works in protected areas can also be delayed due to understandable prohibitions during particular seasons to protect the habitats of local species, as reported in Romania.

As noted in Section 4 above, the limitations in available environmental data can impact the efficient preparation of environmental assessments. Given the increased likelihood of waterborne projects impacting Natura 2000 sites, data limitations can disproportionately waterborne projects in the preparation of Appropriate Assessments. Basic data on Natura 2000 sites (for example, maps, Standard Data Forms accompanying the sites at the time of designation, information on the site's Conservation Objectives) can be limited in some cases[66], requiring that project promoters to collect, and if necessary update it, as part of the Appropriate Assessment. Uncertainties or weaknesses in data can result in a need for additional surveys or permitting authorities taking an unnecessarily cautious approach to permit conditions and compensatory measures[67], potentially leading to increased costs and delays in the planning and preparation of waterborne projects.

The Romanian-Bulgarian cross-border Danube case concerning the accompanying studies for the improvement of navigation conditions on Danube illustrated the challenges of dealing with Natura 2000 in the Appropriate Assessment process. The impact of the project on habitats and species protected by EU legislation was initially underestimated, leading to a need to update and improve assessments. Failures of the promoter to collect data early in the Appropriate Assessment process led to a later need for site visits. Weaknesses in the environmental studies appear to have fuelled opposition to the project. There continue to be doubts about whether the project has the required resources and expertise available to deal with such a large-scale, complex and sensitive waterborne project.

A number of good practices are available to assist project promoters in complying with the Nature Directives in the planning and permitting of waterborne projects. To assist project promoters and authorities in addressing the requirements of the Birds and Habitats Directives in the planning and preparation of waterborne projects, the European Commission has published two guidance documents: the *Guidelines on the implementation of the Birds and Habitats Directives in Estuaries and coastal zones with particular attention to port development and dredging* (2011) and the *Guidance document on inland waterway transport and Natura 2000. Sustainable inland waterway development and management in the context of the EU Birds and Habitats Directives* (2012).

These guidance documents strongly recommend the use of the integrated approach for planning waterborne projects. Under an integrated planning approach, the strategic plans for the waterborne transport infrastructure (for example, the port or inland waterway) is integrated into any relevant management plans for Natura 2000 sites (and relevant river basin management plans developed under the WFD and land-use plans developed under national legislation). This approach assists in ensuring that waterborne transport infrastructure projects and works are planned and implemented in line with local nature protection objectives. While possibly requiring an early investment in terms of time and planning, such integration may also reduce delay and public opposition later. For projects that may impact a Natura 2000 site, an integrated approach can assist promoters and authorities in considering the ecological requirements of those sites at an early stage in the design process and take specific

[66] Ecosystems Ltd for European Commission, *Study on evaluating and improving permitting procedures related to Natura 2000 requirements under Article 6.3 of the Habitats Directive 92/43/EEC*, October 2013, http://ec.europa.eu/environment/nature/natura2000/management/docs/AA_final_analysis.pdf

[67] DEFRA UK, *Report of the Habitats and Wild Birds Directives Implementation Review*, March 2012, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69513/pb13724-habitats-review-report.pdf

account of the site's conservation objectives[68].

This integrated approach is increasingly used in a number of major international and national fora, for example the Worldwide Association for Waterborne Transport Infrastructure (PIANC) (see box below) and the European Dredging Association[69].

Working with Nature – PIANC Position Paper

'Working with nature', as described by PIANC in its 2011 position paper[70], is an approach to planning waterborne transport projects that aims to integrate environmental issues into project planning from the earliest possible phases. The goal of this integrated approach is 'to identify and exploit win-win solutions which respect nature and are acceptable to both project proponents and environmental stakeholders'. This approach seeks to integrate environmental objectives, and seek the input of stakeholders, at a stage the project when flexibility is still possible, and before projects become locked into a particular option.

The goal of the 'working with nature' approach is to avoid environmental impacts, but also to deliver and enhance environmental protection and restoration, potentially resulting in a net benefit to the environment. The emphasis on avoiding environmental impacts is in line with the approach outlined in the Nature Directives, which emphasise the importance of avoiding – rather than compensating for – environmental impacts.

As outlined in the position paper, 'working with nature' requires doing things in a different order to the traditional project planning processes, which is tends to focus on developing a project design in the earliest phases. Under a 'working with nature' approach, a project should follow the following process:

1. Establish project need and objectives
2. Understand the environment
3. Make meaningful use of stakeholder engagement to identify possible win-win opportunities
4. Prepare initial project proposals/designs to benefit navigation and nature.

'Working with nature' focuses on achieving a project's objectives within the context of the local environment, rather than assessing the consequences of a pre-defined project design, with the goal of finding solutions that benefit both the project and the environment, rather than simply minimising ecological harm.

The use of an integrated approach as a solution to an earlier failure to adequately take the Nature Directives into account is seen the Port of Le Havre, situated on the mouth of the Seine estuary. Plans for massive port expansion started in 1994. Initially the port expansion was foreseen to be compensated by significantly expanding the Special Protected Area (SPA). This however did not foresee in compensation of valuable habitat zones that would disappear due to port construction. The scheme was rejected by the European Commission. French authorities subsequently decided to develop an integral ecological management plan for the estuary, taking a more holistic approach to the managing the impact of the surrounding area[71]. This integrated approach was developed for the estuary and resulted in the development of compensatory measures, in accordance with Article 6(4) of the Habitats Directive. An agreement was concluded with the European Commission on the ideal site for the birds, its preservation and protection through legal measures. Furthermore, the restoration measures for the estuary are now placed under the supervision of a Scientific Committee.[72]

[68] European Commission, *Guidance document on inland waterway transport and Natura 2000. Sustainable inland waterway development and management in the context of the EU Birds and Habitats Directives*, 2012, http://ec.europa.eu/environment/nature/natura2000/management/docs/IWT_BHD_Guidelines.pdf

[69] As mentioned in stakeholder consultation platform meeting of 17 May 2016.

[70] PIANC, 'Working with Nature' Position Paper, October 2008, revised January 2011, http://www.pianc.org/downloads/envicom/WwN%20Final%20position%20paper%20January%202011.pdf

[71] EUCC for European Commission, *Ecological Compensatory Measures during Le Havre port development in a Natura 2000 estuary*, http://ec.europa.eu/ourcoast/index.cfm?menuID=8&articleID=68

[72] Bilbo Management Services for the European Dredging Association, *Port development and EU Habitats Directive*, 2003, http://www.european-dredging.eu/pdf/Port_Dev+EU_Habitats_Directive2003.pdf

4.1.3 Maritime Spatial Planning Directive

In July 2014, the EU adopted the Maritime Spatial Planning Directive[73]. The Directive establishes a common legal framework for Member States for the planning of maritime activities, including fisheries, tourism, energy, and maritime transport. EU countries are required to transpose the Directive into national legislation and appoint competent authorities by 18 September 2016. Member States must adopt maritime spatial plans for their jurisdictional by March 2021. Article 9 of the Directive requires that stakeholders be consulted during an early stage of the development of the plans. The Directive does not specify the planning or management objectives to be included in plans, leaving these details to Member States. However, ultimately the Directive will result in the adoption of maritime spatial plans in all EU waters, in accordance with common minimum requirements and according to a set timeframe.

As noted above, integrating planning of transport projects into other relevant planning documents can assist in ensuring these projects are delivered in accordance with environmental and other objectives. Maritime spatial plans provide an opportunity for such integration. They can also facilitate broader stakeholder participation in project planning. Nonetheless, given the early phase in the process of implementing the Directive, some project promoters have expressed concerns about the potential impacts of the Directive at the project level. Northern German Port stakeholders (Hamburg and Bremen) reported that their experiences from the WFD raise concerns about the future application of the Maritime Spatial Planning Directive. One of the crucial issues according to them is the underwater noise from ships. They believe that future developments under the Directive should not impair international and short sea shipping. Shipping lines of course can and will adapt to new regulation, but enough time is required and market conditions need to allow investment certainty.

4.2 CHALLENGES RELATED TO DREDGING ACTIVITIES

Dredging activities, in particular, raise numerous legal issues. Dredging is an important part of managing inland waterways and ports, allowing infrastructure managers to maintain and improve accessibility. However, dredging is particularly impacted by two areas of environmental legislation: water protection and waste management.

In relation to water protection legislation, as detailed above, and illustrated by the Weser Case, the Birds and Habitats Directives and, in particular, the Water Framework Directive can have particular implications for dredging activities. The designation of protected areas under the Habitats Directive poses limitations on both the dredging and disposal of dredged material. The Water Framework Directive may limit dredging in certain water bodies, given that turbulence resulting from dredging could impact the quality of water bodies.

Regarding waste management legislation, the treatment or disposal of dredged material can give rise to certain legal obligations under the Waste Framework Directive[74] and related EU waste legislation. Under the Waste Framework Directive, waste is defined as any substance or object which the holder discards or intends or is required to discard. Thus, under the Directive, dredged material may be considered waste if an operator cannot identify suitable options for re-use, recycling or recovery[75]. The relocation of sediments within surface waters for the purpose of managing waters and waterways is not considered waste within the meaning of the Directive under Article 2(3), provided the sediment is not hazardous. This means that, provided the dredged material is non-hazardous and relocated within

[73] Directive 2014/89/EU of the European Parliament and of the Council of 23 July 2014 establishing a framework for maritime spatial planning
[74] Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste
[75] In addition, the European Waste Catalogue categorises 'dredging spoil' as waste; Annex, 2000/532/EC, Commission Decision of 3 May 2000 replacing Decision 94/3/EC establishing a list of wastes

the surface water, it is not subject to the requirements of the Waste Framework Directive. However, if an operator seeks to dispose of the material elsewhere (for example, on land), it will be subject to the Directive (and potentially, the Landfills Directive[76]). These legal considerations may lead to additional compliance costs for projects involving dredging. While the need for these legal protections is well understood, particularly when dredged substances concern hazardous materials, stakeholders report uncertainty to how the requirements of the Waste Framework Directive and the Landfills Directive may be interpreted and applied in relation to dredging[77]. In particular, stakeholders report a lack of consistency between the way Member States classify dredged material for the purpose of waste management. In certain Member States (for example, Netherlands, Germany), dredged material is not presumed to be waste unless it is hazardous. However, in other countries for example, the United Kingdom) dredged material is more likely to be classified waste. These stricter classifications can contribute to additional costs for project promoters, as they will need to pay additional waste management costs. They may also result in lost opportunities to reuse or recycle non-hazardous dredged material and reduce landfill.

[76] Directive 1999/31/EC of 26 April 1999 on the landfill of waste

[77] Stakeholder interview. See also European Dredging Association, *Dredged Material and Environmental Regulations in the EU*, 2005 Working Paper, http://www.european-dredging.eu/pdf/05-0271_Dredged_Mat_and_Env_reg_EU.pdf

PART THREE: SPECIFIC CHALLENGES IN THE AUTHORISATION FRAMEWORK FOR TEN-T CROSS-BORDER PROJECTS

5 CHALLENGES IN CROSS-BORDER PERMITTING

Cross-border projects face particular challenges, that impact the timing and efficiency of delivery. The involvement of more than one Member State, and often of multiple regional and/or local authorities, can particularly impact the timely completion of permitting procedures. Any delay or obstacle on one side of a border will necessarily impact project delivery on the other side, as project promoters will not proceed with a project until the delivery on both sides of the border can be assured. Given the priority that TEN-T policy gives to cross-border projects[78], TEN-T core network projects are likely to be particularly impacted by these challenges.

Table 16: Drivers for specific challenges in the permitting of cross-border projects

Drivers	Problems
Different procedures and phasing of procedures	Advancement on project blocked until approval on both side
Limited cooperation in cross-border EIA procedure	
Divergence of infrastructure priority objectives between the Member States involved Poor strategic planning	Complex negotiation on the route / advancement of project blocked
Change of government (if lack of formal cooperation agreement)	
Incompatible national technical standards	Complexity of design / interoperability issues

5.1 UNALIGNED PERMITTING PROCEDURES

Cross-border projects encounter specific problems arising out of inconsistencies between legal permitting frameworks and procedures across Member States. As demonstrated in previous section of this report, the number of permits, the sequence of approvals, time limits, requirements for public consultation can vary greatly between countries and can result in permitting procedures happening at different speeds on either side of the border. Increased coordination of procedures is key in cross-border projects to ensure that the project can develop at roughly the same pace. Different procedures and sequence of permitting procedures generally impact the whole approval process and create time gaps between authorisations in both countries. The challenge of aligning these different permitting procedures was highlighted in the Seine-Scheldt project, outlined below.

Seine-Scheldt link, Belgium and France
The responsibility for the river recalibration works of Common Lys River was assigned to one of the three partners - Flanders, Walloon region, France - each for one of 3 different river sections. Each of the three partners was responsible for the design of works at both sides of the river bed. Design works were delegated to the leading partner, while the SEA/EIA and permitting application – which are strongly interrelated with these design documents – were implemented in the separate cross-border countries. Moreover, the French authorities applied one overarching EIA for their Deûle and Common Lys river projects. Different phasing of EIA and permitting in France compared with Belgium (Wallonia and Flanders) (EIA

[78] See, for example, recital 13 of the TEN-T Regulation.

Seine-Scheldt link, Belgium and France

following design in France, versus design following EIA in Belgium) resulted in permitting procedures going at different speeds in both countries. The EIA - and water system impact assessment - in Flanders is carried out at the start of the detailed design process (end of predesign phase). The decisions on the best possible alternative and the mitigating measures to be applied are finally decided upon in the permit decisions. In France the (detailed) EIA is carried out at the end of the design process and integrated into the public consultation document. While in general the country with permitting procedure implemented last will determine the overall timing, the planning process had to anticipate maximising opportunities for:

- Parallelism of processes where it is possible;
- Synchronisation of process steps.

For authorisation of infrastructures as part of border rivers between two countries, this different phasing could represent a large difference in the time schedule for implementation between the two countries. In the specific case of the Common River Lys between France and Flanders (the section between the border and Menen), the time gap between authorisation procedures the two countries was up to three years.

The current project design team structure in the three individual countries/region, with each of them responsible for a river section, is perhaps less suited to coordinating processes across borders – a dedicated project design team consisting of experts from each Member State would be better suited to managing the interdependent aspects of the permitting project. This project management approach, combined with the complex permitting procedures, have been a key cause of delays in the project.

The risk of significant delay that authorisation procedures can pose for cross-border projects are well illustrated in the Fehmarn Belt Fixed Link project.

Fehmarn Belt Fixed Link, Denmark and Germany

The authorisation procedures in the two involved countries differ significantly. In Denmark, the approval process went quite smoothly – the EIA for the project was approved by the Danish parliament in the form of a Construction Act in April 2015. As part of the EIA process public consultations were organized, and based on the EIA and consultation reports, a Construction Act was drafted. Under this process, Parliament was able to resolves conflicts and finalise the approval through legislation.

The procedure in Germany takes more time, in comparison to Denmark, due to the numerous public consultations and hearings. In Germany, often one participation and approval round is not enough. Second or even third participation rounds are required before the administrative approval is given - which was the case for this project. The number of updates in the original application is - due to the hearing process - so large, that the German hearing authority has deemed it necessary to do a second participation round and a full update of documents. This procedure will take another two years, significantly delaying the project.

The original time table was approval in 2015 and construction start in 2016. Now the estimated approval date is set for 2017 with construction start in 2018.

5.2 LIMITED COOPERATION IN EIA

The EIA Directive sets out obligations regarding cross-border EIAs. The EIA Directive establishes that, when a Member States is aware that a project is likely to have significant effects on the environment in another Member State, or where a Member State likely to be significantly affected requests it, the Member States planning the project must provide affected Member States a description of the project, together with any available information on its possible transboundary impact and information on the nature of the decision which may be taken (Article 7(1)). The affected Member State(s) can then decide to participate in the EIA, and if so, make available the documentation to the authorities and the public likely to be concerned by the project. CJEU rulings have also stressed that EIAs must take into account cross-border impacts when part of the project is located in another

Member State, in spite of the challenges encountered by large-scale cross-border projects, in view of not compromising the effectiveness of the of the EIA Directive (case C-205/08)[79].

The Commission has produced guidance on transboundary EIAs[80]; However, the implementation of Article 7 of the EIA Directive and in particular requirements concerning public consultation has proved challenging in cross-border projects, first because it creates additional obligations such as translating and adapting consultation documents, and because Member States have to define responsibilities on both sides for the organisation of the public consultation. Amendments to Article 7 of the EIA Directive, adopted in 2014 and to be transposed by Member States by May 2017, are expected to facilitate EIAs for cross-border projects. Under these changes, Member States involved in projects likely to have transboundary effects are expected to consult with each other on these effects and measures to reduce or eliminate these effects, and agree on a reasonable timeframe for consultations. The amendment provides the Member States with the option of conducting transboundary consultations through a joint body.

During the permitting procedure of the Fehmarn Belt Fixed Linked project outlined above, the EIA procedure and the public consultation have not been coordinated between Denmark and Germany, with the result that delays in Germany are severely impacting the timeframe of the project, already approved in Denmark. Although Member States will often decide to carry out separate EIAs in line with their own EIA procedures, aligning timeframes for the EIA procedure, the public consultation and the decision-making process would facilitate the process leading to approval.

There are also a number of examples of inadequate assessment of transboundary impacts in the case studies. The failure to consider such impacts can fuel public opposition and provide project opponents with justified grounds for appeals against projects. In the Romanian-Bulgarian common section of the Danube, the EIA in the initial feasibility study was not properly addressed in a cross-border project context. The lack of attention to good coordination between the two countries in the preparation and execution of the EIA was one of the failures of that study. The risk of appeals was highlighted in the Brno-Vienna case, where appeals were raised against the permits for the R52 (CZ) based on the lack of trans-border assessment. This project is likely to have, in the sense of Article 7(1) of the EIA Directive, a significant effect on the environment of its neighbouring country Austria. The Czech EIA process did not assess transboundary impacts and did not comply with the requirements of the EIA Directive on trans-border projects.

In the Zevenaar-Emmerich-Oberhausen rail case, solid contacts between the involved parties in Germany and the Netherlands were established, which resulted in strong cooperation in complying with the obligations in a cross-border context. In initial meetings it was determined that planning approval section 3.5 (Emmerich-Elten) required a cross-border EIA and that planning approval shall include disclosure in each country. Thus, environmental assessments for the cross-border section considered transboundary impacts and were consulted on in each country. The Zevenaar-Emmerich-Oberhausen rail project particularly highlights the advantage of carrying joint EIAs applying the most stringent rules of both national legal frameworks. Nonetheless, the case also illustrates the risk that common public consultations are likely to foster comparisons between legal frameworks and increase public opposition if national laws do not ensure the same level of protection in each country.

Rail Zevenaar-Emmerich-Oberhausen, Germany and Netherlands

The public consultation started on the German side. The consultation documents were subsequently translated in Dutch and adapted to Dutch law, before being made available for public consultation in

[79] European Commission, Guidance on the Application of the Environmental Impact Assessment Procedure for Large-scale Transboundary Projects, 2013, p. 10.
[80] European Commission, *Guidance on the Application of the Environmental Impact Assessment Procedure for Large-scale Transboundary Projects*, 2013, http://ec.europa.eu/environment/eia/pdf/Transboundry%20EIA%20Guide.pdf

Rail Zevenaar-Emmerich-Oberhausen, Germany and Netherlands

the Netherlands. Five consultations took place, collecting 10,000 comments. The main objection to the project raised during the public consultation was the differing requirements between both countries' laws on the transport of dangerous goods. The Dutch legislation is stricter than the German legislation in the definition of the corridors and the amount of transports of dangerous goods through densely populated regions, and specifies limitations for building developments along the corridors. This resulted in demand on the German side for protection comparable to that offered by the Dutch law, and to a lawsuit by the City of Oberhausen, against a planning permission, allowing for less stringent standards compared to the Dutch regions.

5.3 POOR STRATEGIC PLANNING AND DIVERGING OBJECTIVES

Cross-border infrastructure projects require an early and strong strategic planning based on clear objectives and providing a sound basis for later decisions. The absence of this planning can lead to weaknesses in project planning documents and assessments, resulting in obstacles and delays in implementation.

The originally planned doubling of the cross-border rail line between Trieste and Divača was connected with the need to increase the available transport capacity. The railway has a strategic importance to Slovenia in international railway freight transport, due to the role of the cargo port of Koper in linking the hinterland Slovenian and European economies with countries overseas. Due to existing railway connections of the port of Trieste, the new project is of a smaller strategic importance to Italy. An early high-level strategic study for the project suggested that the social, economic and environmental benefits could significantly exceed the risks and negative impacts of the project. It took several years of assessments and evaluations – including a reconsideration of the project in light of improved demand forecasts – before a common decision between Italy and Slovenia for upgrading, rather than doubling, the existing Trieste-Divaca line was taken, with a rail connection to the port of Koper. The failure of the project partners to consider an upgrade earlier seems linked to an absence of thorough strategic planning, as well as diverging priorities and lack of coordination at the international level between Italy and Slovenia

The absence of strategic planning, and its potential to impact later planning and permitting of cross-border projects is illustrated in the case of the Brno-Vienna project.

Brno-Vienna motorway, Austria and Czech Republic

While the cross-border Brno-Vienna motorway project is delayed largely due to unresolved environmental issues on the Czech site and legal appeals regarding the procedures on both sides; there is a need for coordinated planning of the project in both Member States. In particular, there is a need to consider the way how the A5 motorway should be connected to the Czech Republic and integrated and cumulative impacts of both connected routes (and alternatives) should be assessed.

First, the early phase of strategic project planning was not conducted on a sound basis. The negotiations in 1999 – which resulted in the selection for the alternative with a border crossing at Mikulov – were not conducted on the basis of objective criteria for optimal network design and assessment of alternatives. So far, no conclusive evidence for the necessity and financial feasibility of the project (and its alternatives) has been produced. Doubts about the financial feasibility of the project remain.

Second, there has been a lack of environmental impact assessment for real route alternatives, despite the fact that alternatives are available and the chosen alternative will lead to excessive traffic generation in a Nature 2000 site and Unesco World Heritage Site. There is a need for coordinated planning of the project in both countries, in a way that there is a need to consider the way how the A5 motorway should be connected to the Czech Republic and integrated and cumulative impacts of both connected routes (and alternatives) should be assessed.

There is a particular need for early and transparent public participation, assessment of alternatives and

a clear project definition prior to the project decision.

Cross-border projects are often faced with different policy options, especially when multiple countries are involved. The realisation of the Rail Baltica project is dependent on many factors influencing the success of the investments, but the major problem is divergence of infrastructure priority objectives between the Member States involved. The national transport political interests and strategies do not always match, even if the basic principles and objectives are shared. Ministries of transport often focus on domestic transport markets and needs of the national key players. Addressing these differences will be one of the key success factors of this project, the foundation of the Joint Venture Rail Baltica SA was an important step. Still, existing differences from a political point of view stay an important risk for delay, offering room for European initiatives and instruments aiming at overcoming barriers rising at local and state level.

5.4 CHANGE OF GOVERNMENT

Cross-border projects can be very vulnerable to change of governments and political priorities at national level. To ensure continuity in the management of the project, stakeholders in selected Member States and case studies have stated that cross-border agreements were necessary and generally successful.

An important factor in the delay in the Seine-Scheldt project Seine-Nord Europe was the suspension of the ongoing PPP-procedure and the project re-engineering between 2012 and 2015. This caused a delay in the project time schedule, of at least 2-3 years. Besides the project budget overrun - caused by high elevated costs for financing the project to private contractors - the change in government in France 2012, and associated changes in political commitment to the planned PPP-structure, was one key factor in the suspension of the ongoing PPP-procedure.

The setting up of the organisational structure EEIG for the Trieste-Divaca line has taken much longer than originally foreseen, partly due to two recent changes of government in Slovenia. Infrastructure projects in cross-border sections often involve a high financial burden while usually having a lower political priority than domestic projects. In this project the cooperation of two countries with often diverging priorities was required, and there were no predefined structures for cooperation available.

In the Seine-Scheldt Link project Ghent-Terneuzen, the Dutch and Flemish parliaments signed a 'Treaty for the Establishment of the New Lock', covering the political, legal and financial agreements made between the Netherlands and Flanders. The Treaty entered into force on 1 March 2016 and makes the project less vulnerable to future political change and thus ensures continuity in the further development of the project.

5.5 INCOMPATIBLE NATIONAL TECHNICAL STANDARDS

In addition to the challenges outlined above, technical interoperability issues can impact the efficient delivery of transport projects. Technical interoperability issues have long been understood as a key barrier to the implementation of a trans-European transport network. These issues create challenges in cross-border sections of networks, and are particularly an issue in rail networks, as a larger number of issues are present – rail gauge, voltage of electrification systems, signalling systems, running direction, clearance profiles all pose potential issues for cross-border sections of rail networks. Interoperability issues are less an issue in other modes; however, harmonised standards are absent in the waterborne sector (i.e. for inland waterways) where decisions on technical specifications are made at the national-level.

These challenges are highlighted in a number of the cross-border rail case studies. For example, in the Rail Baltica project, the involvement of multiple countries will create particular challenges, with rail gauge issue in Baltic States expected to be a complicating factor in the interoperability of the project.

Similarly, the Trieste-Divaca-Koper case study is facing challenges arising out of the fact that the 40 kilometre section between Trieste and Divaca does not currently meet maximum axle load standards. These technical challenges can impact the permitting of projects, as seen in the Zevenaar-Oberhausen-Emmerich project. Differing voltage systems between the German and Dutch rail networks has led to huge complexity in the commissioning phase, with a need to coordinate between many regulatory bodies to obtain final certification for the project.

A large number of measures are being implemented at the EU-level to harmonise these technical issues and improve interoperability. In particular, the TEN-T Regulation aims to ensure that infrastructure within the core and comprehensive networks meet certain standards. The European Railway Agency (ERA) Technical Specifications for Interoperability, adopted in a Commission Decision in 2002, establish Europe-wide technical standards for rail networks. However, the complexities of applying the existing ERA technical specifications, which currently amount to around 6000 pages, suggests that there may be a need to simplify the specifications and procedures.

5.6 CHALLENGES IN CROSS-BORDER PROCUREMENT

As already mentioned in Section 5 above, the DG MARKT evaluation of the 'old' EU Public Procurement in 2012 showed that there was a low level of cross-border procurement. It is acknowledged in the evaluation that 'direct cross-border procurement has not increased as much as was anticipated' and that 'regulatory guarantees established by the Directives may be a necessary but not a sufficient condition to break down the barriers to cross-border participation in public procurement markets'.[81] Overall, the stakeholders interviewed for this study confirmed this understanding: even though (or for this reason) there is still little experience with cross-border procurement – the existence of mechanisms for cross-border procurement both for specific projects (e.g. Austria) or of a more general nature (e.g. Italy, Spain) was only occasionally mentioned – this is perceived as one of the most complex issues of public procurement.

One of the novelties introduced with the reform of EU public procurement legislation were the rules on 'procurement involving contracting authorities from different Member States' (see Article 39 of Directive 2014/24/EU and Article 57 of Directive 2014/25/EU). These rules address the joint contracting by authorities from different Member States, including the use of centralised purchasing activities offered by central purchasing bodies located in another Member State, and brought clarity on the applicable national law.

Nevertheless, the new rules have already impacted the way some projects are governed. In the case of the Brenner Base Tunnel, between Austria and Italy, a Shareholder Agreement defining the rules governing the project signed on 18 April 2011 had decided to tender according to the law applicable to the company's headquarters i.e. in Italy. Following the adoption of the new EU Procurement Directives, the agreement was amended on 16 June 2015 and now states that the law applicable is the one of the country where the works are to be carried out and that for works to be carried out in both countries as part of the same contract the law applicable is the one applicable to the company's headquarters.

In the Fehmarn Belt Fixed Link, the competitive dialogue procedure (under the 2004 Sectors Directive) was used because this (relatively) new solution for public authorities awarding contracts for complex infrastructure projects allows for a higher degree of flexibility when it comes to aligning approval processes and procurement processes. The project promoter has reported that this has allowed them to manage uncertainties and risk in the project permitting process.

[81] DG MARKT, EU Public Procurement Legislation : Delivering Results – Summary of Evaluation Report, p. 13 – 17 and 21, available at http://ec.europa.eu/internal_market/publicprocurement/docs/modernising_rules/executive-summary_en.pdf

The complex legal framework for procurement applied in France and Italy in the Lyon-Turin case gave rise to prolonged discussions between both countries on the implementation of the European Procurement Directive (2014/25/EU). The implementation of specific measures to prevent criminal infiltrations in public procurement was one of the specific points of discussion, since French and Italian law did not implement European law in a similar way at national level. These differences in implementation can lead to significant delay in the signing of international agreements on procurement. Guidance on the applicability of the EU public procurement directive for cross-border projects would be useful. Also, the drafting of guidelines for international agreements - based on the European Directives for Procurement - would be an interesting tool to limit debates between Member States and avoid delays as a consequence hereof.

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