



Public-private partnerships

Directorate-General
for Energy
and Transport



● DELIVERING FOR THE EUROPEAN
TRANSPORT NETWORK

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Foreword



Antonio Tajani,
Vice-President of the European Commission,
Commissioner for Transport

Europe needs a seamless and sustainable transport system for both passengers and goods. I believe that our future prosperity and quality of life can be even better if we put this at the heart of our policies and actions. The completion of the trans-European transport network (TEN-T) is vital for the proper functioning of our single market and for strengthening economic and social cohesion in Europe. It is also an essential connection that links us with our neighbours. In practical terms, a good transport network means that we will be able to travel more efficiently, safely and in comfort.

Developing a truly European network, however, does come across a few hurdles that need to be cleared, be they political, financial, environmental or operational challenges. Major transport projects are often large and complex. Improving their preparation, looking for and implementing new and fair financing schemes, fostering innovation, speeding up the removal of major bottlenecks, and enabling best practices in project management and operation – all within a framework of reducing the environmental impact of transport – requires building on the very best expertise of both the public sector and the private sector.

This is why the European Commission has been – and remains committed to – exploring those opportunities that can be provided by a greater involvement of the private sector, in particular by increasing the appeal of public–private partnerships (PPPs). Such partnerships have already proved to be successful. They have delivered some of the largest European projects on time and within budget. Risks were effectively shared between the public and the private sectors. I am pleased to see that five of these projects are detailed in this brochure.

Opting for PPPs needs to be a conscious and well-thought-through decision. It has yielded good results, and therefore should be further encouraged. I have tasked the European Commission's Directorate-General for Energy and Transport in particular, supported by the TEN-T Executive Agency, to ensure that options for PPPs are systematically considered when decisions are taken on the financing of infrastructure of European significance. This means that it is necessary to fine-tune our system of providing financial support in order to avoid discrimination against PPP schemes and facilitate private funding. We need to strive towards eliminating obstacles and improve the operational aspects of PPP procurement for transport projects. Last but not least, we have to build and disseminate the PPP knowledge base. I am confident that with the right tools in place, such as the ones described in this brochure, we can optimise the financing of transport infrastructure projects.



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The TEN-T network: an overview

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The trans-European transport network (TEN-T) plays a crucial role in securing the free movement of people and goods in the European Union (EU). The TEN-T policy focuses on the interconnection and interoperability of national transport networks and the different transport modes. It therefore requires upgrading existing infrastructure and constructing new infrastructure to fill in the 'missing links' in the network. By doing so, it contributes to the effective implementation of the internal market and is a major element in Europe's economic competitiveness and in its balanced and sustainable development. The network carries about half of all freight and passenger movements in the EU.

Priority projects

Efforts to develop the TEN-T are enhanced by focusing investments on priority projects (PPs) on 28 major trans-national transport axes (see map on pp. 6–7) as well as the Galileo satellite navigation system (PP15) and 'Motorways of the sea' (PP21). Progress on the projects has been positive overall. A number have already been completed or are about to be, including the high-speed line Paris–Brussels–Köln–Amsterdam–London (PP2), the Cork–Dublin–Belfast–Stranraer railway line in Ireland/UK (PP9), Milan Malpensa airport in Italy (PP10) and the Oresund link connecting Sweden and Denmark (PP11). Several priority projects are nearing completion, while many important sections of others have been completed or are about to follow.

The amount invested until 2007 represents nearly one third of the total investment required to complete the PPs. The progress to date confirms the commitment of EU Member States and EU institutions to accelerate delivery of key

projects, and is explained in part by the leverage effect that EU funding has in mobilising national funding. However, a good deal of work is still needed and significant parts of the 30 PPs will not be completed before 2015 or even 2020.

TEN-T network in figures (existing and planned)

106 000 km of rail tracks of which 32 000 km is high-speed
96 000 km of roads
13 800 km of inland waterways
411 airports
404 international sea ports
300 inland ports and traffic management systems

European coordinators

To streamline cooperation concerning particularly complex European transport infrastructure, the European Commission has appointed European coordinators for a number of priority projects and the European rail traffic management system (see table). The coordinators have stimulated progress on these especially difficult projects and strengthened coordination between Member States. Public–private partnerships have been helping a number of these projects to move forward, including, the Perpignan–Figueras rail link (PP3), and the likely Canal Seine-Nord (PP30). A PPP is also being considered for the rail equipment of the trans-alpine Brenner-base tunnel between Austria and Italy (under PP1) (see pp. 16–22 for further information about Perpignan–Figueras, Canal Seine-Nord and other TEN-T-related public–private partnerships).

PP No	Title	Coordinator
1	Berlin–Palermo rail link	Karel Van Miert † (until June 2009)
3, 19	South–west Europe high-speed rail link	Carlo Secchi
6	Lyon–Ukrainian border rail link	Laurens Jan Brinkhorst
17	Paris–Bratislava rail link	Péter Balázs (until April 2009)
18, 30	Inland waterways	Karla Peijs
21	Motorways of the sea	Luis Valente de Oliveira
27	‘Rail Baltica’ Warsaw–Helsinki	Pavel Telička
—	European Rail Traffic Management System (ERTMS)	Karel Vinck

TEN-T priority projects (PPs) with European coordinators (as of 20 July 2009).

TEN-T funding

The total cost of implementing the TEN-T network is an estimated EUR 900 billion between 1996 and 2020, with EUR 500 billion of this still to be invested. The aim is to invest EUR 350 billion during the EU’s budgetary period 2007–13. The EU’s TEN-T budget (worth EUR 8 billion for 2007–13) provides significant added value by concentrating its support on the elimination of infrastructure bottlenecks, cross-border projects and eco-friendly transport modes. Support for the TEN-T also comes from the EU’s Cohesion and Structural Funds (EUR 44 billion) and from European Investment Bank (EIB) loans (EUR 53 billion). The major contribution shall nonetheless come from national budgets, which are expected to fund almost EUR 200 billion worth of investment. However, significant co-financing may be necessary as this still leaves a funding gap for 2007–13 of nearly EUR 50 billion. If not addressed, this could lead to delays in the implementation of TEN-T projects. As this brochure will explain, public–private partnerships can be the key to overcoming this problem.

Looking to the future

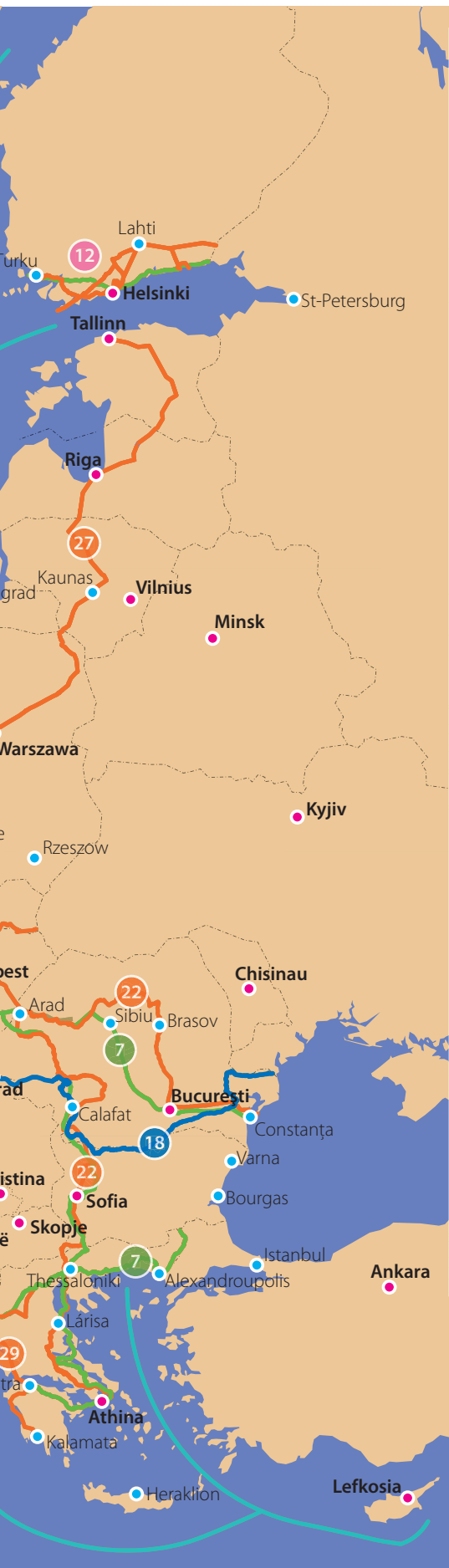
In the years ahead, the Commission will continue to step up its efforts to encourage Member States to coordinate their infrastructure policies, with a view to exchanging best practices, identifying obstacles to funding, and overcoming cross-border constraints. Meanwhile, public funds need to be complemented by greater private sector involvement – notably through public–private partnerships. The EU has already developed financial instruments with this in mind as well as other forms of support (see pp. 13–15). Broader user

charging could also make a bigger contribution in the future to financing infrastructure investments. Maintaining the momentum towards the goal of a sustainable and competitive transport network fit for the 21st century will be vital; public–private partnerships can have a big part to play in this process.



Map of trans-European transport network: Priority axes and projects





Priority axes and projects

- Road
- Railway
- Inland waterway
- Motorway of the sea
- ✈ Airport project
- Port project
- High-speed rail interoperability on the Iberian peninsula

Priority project numbers

- Road project
- Railway project
- Multimodal project
- Inland waterway project
- Motorway of the sea
- Airport
- Galileo

- 1 Railway axis Berlin–Verona/Milano–Bologna–Napoli–Messina–Palermo
- 2 High-speed railway axis Paris–Bruxelles/Brussel–Köln–Amsterdam–London
- 3 High-speed railway axis of south-west Europe
- 4 High-speed railway axis east
- 5 Betuwe line
- 6 Railway axis Lyon–Trieste–Divača/Koper–Divača–Ljubljana–Budapest–Ukrainian border
- 7 Motorway axis Igoumenitsa/Patras–Athina–Sofia–Budapest
- 8 Multimodal axis Portugal/Spain–rest of Europe
- 9 Railway axis Cork–Dublin–Belfast–Stranraer
- 10 Malpensa airport
- 11 Øresund fixed link
- 12 Nordic triangle railway/road axis
- 13 United Kingdom/Ireland/Benelux road axis
- 14 West coast main line
- 15 Galileo
- 16 Freight railway axis Sines/Algeciras–Madrid–Paris
- 17 Railway axis Paris–Strasbourg–Stuttgart–Wien–Bratislava
- 18 Rhine/Meuse–Main–Danube inland waterway axis
- 19 High-speed rail interoperability on the Iberian peninsula
- 20 Fehmarn belt railway axis
- 21 Motorways of the sea
- 22 Railway axis Athina–Sofia–Budapest–Wien–Praha–Nürnberg/Dresden
- 23 Railway axis Gdansk–Warsaw–Brno/Bratislava–Wien
- 24 Railway axis Lyon/Genova–Basel–Duisburg–Rotterdam/Antwerpen
- 25 Motorway axis Gdansk–Brno/Bratislava–Wien
- 26 Railway/road axis Ireland/United Kingdom/continental Europe
- 27 ‘Rail Baltica’ axis Warsaw–Kaunas–Riga–Tallinn–Helsinki
- 28 ‘Eurocaprail’ on the Bruxelles/Brussel–Luxembourg–Strasbourg railway axis
- 29 Railway axis of the Ionian/Adriatic intermodal corridor
- 30 Inland waterway Seine–Scheldt



PPPs: completing the network faster

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A public–private partnership (PPP) is a long-term agreement between the public sector and the private sector to deliver a project or a service traditionally provided by the public sector. PPPs can be a way of both increasing access to financing options and delivering efficiency gains while maximising quality of service. Although many different PPP models have emerged across Europe, all seek to improve efficiency and quality by transferring certain risks to the private sector and incentivising the private sector to manage these risks effectively.

How PPPs work

There are two broad categories into which PPP schemes fall: availability-based (or ‘availability risk’) PPPs and revenue-based (or ‘demand/revenue risk’) PPPs.

In availability-based PPP schemes, the public authorities make periodic payments to the service provider concerned for making the infrastructure available to the contracted service standards. Availability payments are unrelated to the frequency of use of the infrastructure. In other words, whilst the service provider takes on the risks of constructing and maintaining the infrastructure, its income is not dependent on the level of user demand. Its costs, however, may be. In general, the greater the use of the infrastructure, the greater the lifecycle and maintenance costs the private partner may bear. Availability payments will typically be reduced where the service does not match the standards agreed with the contractor at the outset.

In revenue-based PPP schemes, the public authorities award a concession for building and running a certain infrastructure and transfer some or all of the demand risk or ‘traffic risk’ to the private partner entering into the concession. This transfer of demand, or traffic, risk can be accomplished either by means of tolls paid directly by the users of the facility – called ‘real tolls’ – or fees per user paid by the public authority responsible – known as ‘shadow tolls’. Motorway concessions are the best-known examples of demand-risk PPPs.

Mixed schemes – part availability-risk, part demand-risk – are also possible.

Benefits, drawbacks and limits to PPPs

There are different forms of PPPs and there is no single, ‘best’ model – each project must define what is appropriate in its own case and the specifics are likely to differ from one to another. Nonetheless, if properly chosen and arranged, PPPs can in general deliver real benefits in terms of costs, efficiency and quality.

Applying PPPs to suitable projects based on appropriate risk-sharing can result in efficiency gains by, for example, bringing infrastructure on stream more quickly and bringing in private sector expertise and innovation. Taking a ‘whole life-cycle’ approach, whereby a private partner is involved in both the building and operation (and often designing) of the infrastructure, can reduce total project costs while providing incentives for quality. For public authorities, PPPs transfer risk



(or elements of risk) to the private sector, while private partners have the long-term perspective of a stable return on investment. All this can make the delivery of big transport infrastructure projects more efficient.

However, a PPP is not without potential drawbacks and limitations. Tending to be complex and more difficult to set up than traditional procurement, PPP schemes can be risky if structured incorrectly. Successful PPPs call for rigorous preparation and planning, as well as appropriate design and risk allocation, giving private partners the ability to generate profit in line with risk. Bidding processes must be competitive. And a conducive legal, regulatory and financial framework is also needed, along with sustained political and public sector support and capacity.

Value for money testing: for a faster, better and cheaper project

Value for money can be achieved by involving the market – private and/or public partners – at an early stage of a project. Authorities in charge of contracting PPPs often carry out value for money tests to find out if that is the case. Among the instruments used there is the ‘market scan’: value for money is achieved if the involvement of the market improves quality, saves costs and/or accelerates the completion of the project. Another of the tools is the ‘public–private comparator’, a qualitative and quantitative instrument that makes a financial comparison between the most likely form of execution of the project and a public–private partnership approach over the chosen life cycle.





PPPs: new standards for public administrations

Government backing is essential for fostering public–private partnerships. Several organisations across Europe have been established which support and accelerate the delivery of infrastructure renewal, high-quality public service and the efficient use of public assets through better and stronger partnerships between the public and private sectors. These organisations fill a needed role in PPPs of sharing best practices and providing support to the relevant public authorities.

Partnerships UK (PUK) is an example of such an organisation. Established in 2000, PUK provides strategic support to public bodies sharing responsibility for delivering successful partnership solutions. In terms of transport, PUK supports public sector authorities involved in the delivery of transport infrastructure and transport-related public services both in central and local government. PUK's activities include advising government on the development of policy and regulatory compliance, setting up and co-sponsoring programmes for the delivery of public services, supporting major individual projects and investing to enable the commercialisation of public sector assets.

In Portugal, Parública-Participações Pública is a publicly-owned company that works to promote public–private partnerships among other activities. Since 1991, Parública has been working with the Portuguese government and the private sector to boost PPPs and ensure the best implementation possible of projects in a variety of sectors, including transport.

Partnerschaften Deutschland in Germany brings together the federal government, *Länder* and municipalities to join with the private sector through framework agreements. Partnerschaften Deutschland helps the private sector through project consulting during the early stages of public–private partnerships and helps build a strong foundation through the standardisation of contracts and knowledge. Through the use of the framework agreement, Partnerschaften Deutschland allows the sharing of best practices to ensure projects are completed in the most effective and cost-efficient way.

In 2002 the Flemish government established the Flemish PPP Knowledge Centre with the aim to boost the introduction and implementation of PPPs in Flanders. The Knowledge Centre supports PPPs in the region through its advisory role. In addition, the Knowledge Centre acts as a field developer, knowledge broker process guide and added value monitor.

The European PPP Expertise Centre (EPEC), launched by the European Commission and the European Investment Bank in 2008, is described in more detail on page 15.

For further information, see:

<http://www.partnershipsuk.org.uk>

<http://www.parpublica.pt>

<http://www.partnerschaftendeutschland.de>

<http://www2.vlaanderen.be/pps/english/index.html>



Taking action at EU level

The European Commission has taken and is pursuing several actions related to public–private partnerships.

The overall mission of the Commission's Directorate-General for Regional Policy is to strengthen economic, social and territorial cohesion by reducing disparities in the level of development among regions and EU Member States. This means investing in regions' indigenous potential to promote the competitiveness of regional economies and the permanent catch-up of those lagging behind the more prosperous areas. To this end the Regional Policy DG also supports the development of transport infrastructure and in particular trans-European networks. In view of the significant amounts available for transport in the EU's Cohesion and Structural Funds, the Regional Policy DG is an important contributor to the TEN-T policy.

There has been considerable interest in how PPP structures and approaches can be used alongside EU regional funding arrangements to further the development of European infrastructure and services. In March 2003, the Regional Policy DG published its *Guidelines for successful public–private partnerships* ⁽¹⁾ followed in June 2004 by its *Resource book on PPP case studies* ⁽²⁾. The 2003 guidelines did not attempt to provide a complete methodology or to define policy but sought rather to guide practitioners through a set of key issues affecting the development of successful PPP schemes. The resource book aimed to highlight the key lessons learnt by member countries.

Meanwhile, the Jaspers ⁽³⁾ technical assistance facility, which assists the 12 Member States which joined the EU in 2004 and 2007 in the complex task of preparing quality projects so that they can be approved more quickly for EU support, engages to some extent in supporting Member States in preparing PPP schemes. Following requests from several Member States, Jaspers, under the supervision of the Regional Policy DG, launched a study which should result in proposals in 2009. This study intends to provide further clarifications on the combination of PPP models with EU grants and to deliver guidelines for applying the DBO ('design-build-operate') model.

⁽¹⁾ See http://europa.eu.int/comm/regional_policy/sources/docgener/guides/ppp_en.pdf

⁽²⁾ See http://europa.eu.int/comm/regional_policy/sources/docgener/guides/pppresourcebook.pdf

⁽³⁾ Jaspers: 'Joint assistance in supporting projects in European regions'; see also http://ec.europa.eu/regional_policy/funds/2007/jjj/jaspers_en.htm



The Commission's Research and Information Society and Media Directorates-General have developed joint technology initiatives (JTIs) as a new way of realising PPPs in research at European level. These PPPs focus on key areas where research and development can contribute to Europe's wider competitiveness goals. JTIs are a new element in the EU's seventh framework programme for research and development (FP7), involving a long-term partnership between industry, the research community and public authorities. Under FP7, JTIs have been launched in five areas: innovative medicines ('IMI'), aeronautics ('Clean sky'), fuel cells and hydrogen ('FCH'), embedded computing systems ('Artemis') and nanoelectronics ('ENIAC').

The Directorate-General for the Internal Market and Services is in charge of clarifying the legal environment for PPPs, especially with regard to procurement rules. It explores how procurement law applies to the different forms of PPPs developing in the Member States, and assesses whether there is a need to clarify, complement or improve the legal framework at the European level. In 2004 the Internal Market and Services DG issued a Green Paper on PPPs and public procurement ⁽¹⁾. This was followed in 2005 by a communication on 'Public-private partnerships and Community law on public procurement and concessions' ⁽²⁾ which drew political conclusions from the consultation launched with the Green Paper.

On 5 February 2008, the Commission adopted an interpretative communication on institutionalised public-private partnerships (IPPPs) ⁽³⁾ which was prepared by the Internal

Market and Services DG. The communication explains the European Community's rules to comply with when private partners are chosen for IPPPs and clarifies, among other things, that Community law does not require a double tendering – one for selecting the private partner in the IPPP and another one for awarding public contracts or concessions to the public-private entity – when IPPPs are established.

The Internal Market and Services DG is (at the time of writing) preparing an impact assessment with a view to deciding whether a proposal for a directive on concessions should be prepared. However, any new legislative act should not be expected before 2010.

In order to contribute to the recovery of the European economy, the Commission's Secretariat-General is preparing a communication on public-private partnerships. Promoting investment in infrastructure projects is seen as a way to maintain economic activity during a crisis and support a return to sustained economic growth. This communication will attempt to:

- explore the potential of PPPs in the current economic environment;
- identify obstacles to their productive use;
- clarify the legal framework; and
- find ways to facilitate the full realisation of their potential.

⁽¹⁾ COM(2004) 327.

⁽²⁾ COM(2005) 569.

⁽³⁾ C(2007) 6661: Interpretative communication on the application of Community law on public procurement and concessions to institutionalised public-private partnerships.



Supporting trans-European PPP projects

A variety of EU financial and non-financial support to PPP projects is available. In terms of financial support, the 'traditional' grants provided by the TEN-T budget and the European Regional Development Fund (ERDF) can support PPPs by reducing the amount subject to private capital finance (e.g. initial capital investment for a project). Other more specific EU financial instruments relevant to PPPs include construction cost-based grants and the Loan Guarantee Instrument for TEN-T (see below). The European Investment Bank (p. 14) also provides backing for PPP schemes while non-financial support offered by the EU includes the European PPP Expertise Centre (p. 15) and the TEN-T Executive Agency (p. 15).

Construction cost-based grants under the TEN-T budget

Construction cost-based grants in favour of EU Member States are made available under the TEN regulation ⁽¹⁾ to be used for availability payments (see description of availability payment-based schemes on p. 8) during the operational (post-construction) phase of a project. They can cover up to 30% of the total construction cost. The goal is to maximise the impact of public funds while preserving an optimal transfer of risk to the private sector. Member State authorities can apply for this form of financial support within the framework of a TEN-T call for proposals.

Loan Guarantee Instrument for TEN-T

The Loan Guarantee Instrument for trans-European transport network projects (LGTT) is an innovative financial instrument set up and developed jointly by the European Commission and the European Investment Bank (EIB) which aims at facilitating private sector involvement in the financing

of TEN-T infrastructure. The goal is to support revenue-based PPP schemes for TEN-T projects (see description of revenue-based schemes on p. 8).

The LGTT is a guarantee for a stand-by liquidity facility provided by commercial or other banks to TEN-T projects where the payment stream to the private sector is based totally or partially on usage of the asset (e.g. motorway projects with real or shadow tolls). Therefore, only projects where financial viability is based on user charges-based income can benefit from this guarantee. To apply for this facility, the Directorate for Operations in the European Union and candidate countries of the EIB has to be contacted directly.

The facility is designed to provide additional security to senior lenders by mitigating traffic-revenue risk particularly over the first five to seven years of a project's operation. The Commission and the EIB each commit up to EUR 500 million to the LGTT, a contribution that is intended to support up to EUR 20 billion of senior loans and one that represents a significant leveraging effect for project financing. The stand-by liquidity facility guaranteed by the LGTT should not normally exceed 10% (up to 20% in exceptional cases) of the total amount of the senior debt. The guarantee is subject to a maximum of EUR 280 million per project.

The LGTT helps projects to cope with the initial revenue risk while relying on the long-term perspective of the project being financially viable. By improving the ability of the borrower to service senior debt, the LGTT enhances the overall credit quality of the project. The derived savings should surpass the cost to the borrower of the guarantee, resulting in added financial value for the project.

⁽¹⁾ Regulation (EC) No 680/2007 of the European Parliament and of the Council of 20 June 2007 laying down general rules for the granting of Community financial aid in the field of the trans-European transport and energy networks.



The result is to move projects that are borderline investment grade up to investment grade, making them more attractive to banks, enabling the financing to move ahead and reducing the overall financing costs. The LGTT can be combined with other TEN-T or EU Cohesion/Structural Funds' support.

For further information, see:

- <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/08/31&format=HTML&aged=0&language=EN>
- <http://www.eib.org/about/documents/lgtt-fact-sheet.htm>

The European Investment Bank

The European Investment Bank (EIB) is the EU's principal lending arm. Financing trans-European networks (TENs) in transport and energy is one of the EIB's key objectives in pursuit of broader EU goals including sustainable growth, employment, regional and social cohesion and an efficient internal market. The bank gives particular priority to projects that promote interconnections – to develop links between national networks and between different modes of transport – as well as to projects that are more environmentally friendly.

The EIB can provide significant amounts of funding in the form of loans. The EIB is expected to contribute 14% of the total TEN-T investment between 2007 and 2013. In 2008, the EIB financed EUR 9.8 billion for TEN-T, with a total of EUR 38 billion in EIB loans made to TEN-T projects in the period 2004–08.

The EIB seeks to support efficient PPP schemes for transport infrastructure, and providing finance for PPPs is among the bank's TEN financing objectives. The process for PPP projects accessing EIB loans is the same as for non-PPP projects. The important element is that the transport project – PPP or

non-PPP – should adhere to the EIB's eligibility criteria and be technically, environmentally, economically and financially sound.

EIB loan signatures for PPP schemes have come close to EUR 30 billion since the late 1980s, and in 2008 alone the bank signed loans to PPP projects to a value of EUR 3.8 billion. Support includes general investment loans to special purpose vehicles (SPVs), provided in the same way as would be provided by commercial banks.

The EIB has brought significant added value to the PPPs it has financed. The EIB's role in PPP financing is to support the increasing drive in EU Member States towards the improvement of public services through increased private sector participation, structuring its own participation in PPP projects in ways that optimise the ability of the public sector to meet EU policy objectives.

As well as providing financing for investment-grade transport projects in the EU and neighbouring countries, the EIB is looking to use new financing instruments to expand private-sector-risk financing. One example is the Loan Guarantee Instrument for TEN-T (see p. 13); another is the EIB's Structured Finance Facility (SFF), a risk-based instrument for low or sub-investment grade projects with a profile riskier than the standard normally accepted by the bank. The EIB's strategic objectives include the creation of a significant and sustainable SFF programme, transforming the activities in question into a 'mainstream' element of the EIB's lending, with the emphasis on high-priority sectors including trans-European networks. While the SFF is not PPP-specific, a number of PPPs have been financed by it.

For further information, see: <http://www.eib.org>



The European PPP Expertise Centre

The EU also provides non-financial support to PPPs. The Luxembourg-based European PPP Expertise Centre (EPEC), launched by the EIB and the European Commission in September 2008, builds up and disseminates PPP-related knowledge and expertise.

EPEC – a collaborative initiative between the EIB, EU Member States, candidate countries and the Commission – is designed to strengthen the organisational capacity of the public sector to engage in PPPs. It allows PPP taskforces to share PPP experience, analysis and best practice. Staffed by experienced PPP transactors, EPEC synthesises the experience of its members and disseminates this as practical and operational guidance. It also runs a helpdesk service for its members and offers policy and programme support for PPP development.

Parts of Europe's public sector have considerable PPP experience. However, this experience is not systematically shared, resulting in a failure to learn lessons and effectively disseminate best practice both within and between countries. By addressing these shortcomings and by making public authorities more effective participants in PPP transactions, EPEC's work helps reduce PPP costs and increase the flow of PPP deals.

EPEC membership is open to public authorities whose role includes policy responsibility for and the promotion of PPP projects or programmes at national or regional level. In its first phase of operation up to the end of 2010, EPEC's mandate principally but not exclusively concerns transport PPPs.

For further information, see: <http://www.eib.org/epec>

The TEN-T Executive Agency

The Trans-European Transport Network Executive Agency (TEN-T EA), which started operations in April 2008, assures the technical and financial implementation and management of the TEN-T programme. The Brussels-based agency manages TEN-T projects in close collaboration with its 'parent', the Commission's Directorate-General for Energy and Transport. This Directorate-General retains responsibility for the overall policy, programming and evaluation of the TEN-T programme.

The agency's remit, with regard to PPPs, includes providing technical assistance to project promoters regarding the financial engineering for projects – which can include advice before project proposals are submitted – and to the financial institutions responsible for managing the Loan Guarantee Instrument for TEN-T projects (p. 13).

The agency has a multinational team composed of specialists experienced in finance, project management, engineering and legal affairs. It also has a specialised unit dealing with horizontal matters – in particular PPPs – and evaluation of projects and proposals.

For further information, see: http://ec.europa.eu/transport/infrastructure/ten_t_ea/ten_t_ea_en.htm



PPPs in action in the TEN-T network

Finnish E18 motorway

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An example of a successful PPP in the TEN-T network is the new Muurla–Lohja section of Finland’s E18 motorway. The section, which came into operation in 2008, forms part of the TEN-T priority project No 12, the ‘Nordic Triangle’ rail and road axis that links Nordic countries and capitals and improves passenger and freight transport connections between the Nordic region and central Europe, the Baltic countries and Russia. The new Muurla–Lohja dual-carriageway reduces travel times and congestion on the local road network, which was not designed to handle the current volumes of international and local traffic.

The structure chosen for the PPP was a Finnish ‘life-cycle’ version of public–private partnership based on the ‘Design, build, finance, maintain’ (DBFM) model. The PPP was organised under a EUR 638 million service agreement concluded in October 2005 between Tiehallinto (the Finnish road administration, Finnra) and the company Tiejyhtiö Ykköstie Oy, which provided that the latter would be paid some EUR 30 million per year on average for designing, financing and building the road section as well as for maintaining it up to the year 2029 when the road would become the responsibility of Finnra.

It was found that using a PPP overcame the lack of funding and competition with other transport projects that were delaying the Muurla–Lohja project (1). A design-and-build partnership would have been easier to arrange. But the full DBFM model chosen for this PPP produced a whole-life cost that was EUR 20 million lower – and construction was



completed earlier than would have otherwise been the case as it was in the service provider’s interests to deliver as soon as was practicable because payment would only start upon completion and the road being opened for traffic. If Tiejyhtiö Ykköstie were to be unable to complete the project on time

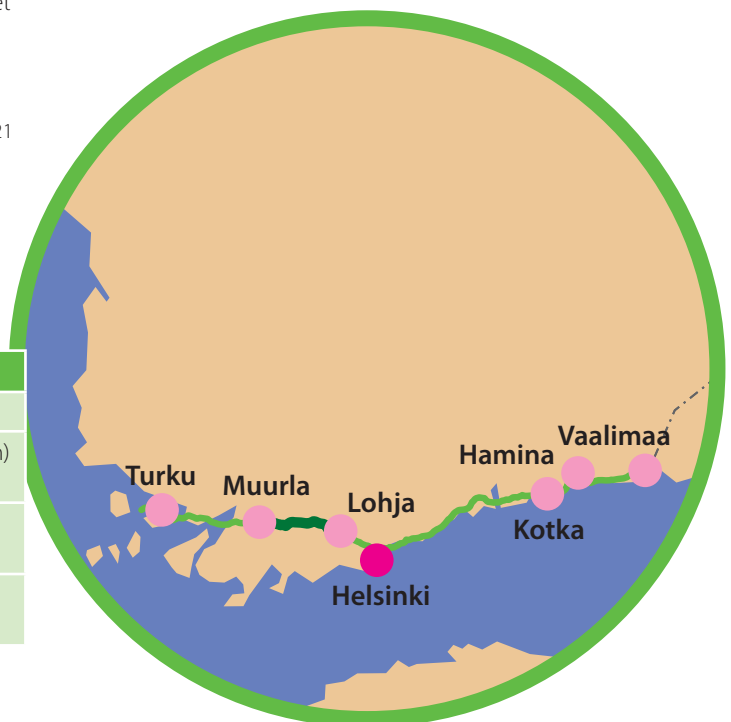


it would lose some EUR 80 000 a day, but if the road opened ahead of schedule it would get a daily bonus of EUR 21 000. Moreover, any shoddy delivery would prejudice future maintenance costs. In practice the opening date set in the agreement proved to be too hard and the permit-to-use date was delayed by four days on the western half of the road and by two months on the eastern half with five twin tunnels. The reasons were mainly linked to tunnel safety and traffic management systems.

Enabling faster completion was not the only reason for choosing a PPP: previous positive experience with PPPs in Finland and elsewhere, and the ability to spread the budget load over a longer payment period, were also among the arguments in its favour.

(¹) See NETLIPSE, *Managing large infrastructure projects*, pp. 215–221 (for further information, see: <http://www.netlipse.eu>).

E18 motorway, Muurla-Lohja section	
Length	approx. 51 km
Construction (cost)	three years (approx. EUR 300 million)
EU contribution to project	EIB 50% of loan funding
Website	http://alk.tiehallinto.fi/e18/english/index.html





Hungarian M6–M60 motorway

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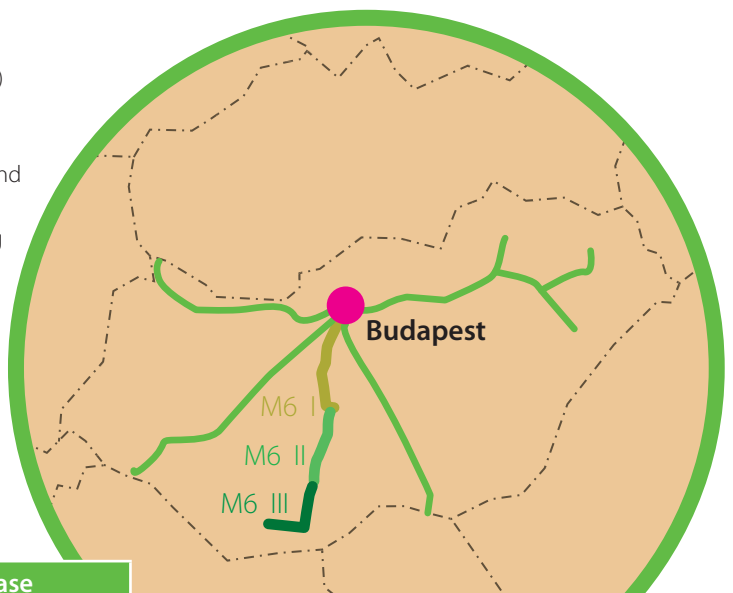
The Hungarian government is another that is using a PPP to finance motorway projects in recognition of the good value for money it can provide. Part of the construction of the M5 motorway has been financed through public–private partnership, whilst the total M5 is operated under a PPP concession. The first section of the M6 has been financed through public–private partnership and has been in operation since 2006. The financial close of the ‘third phase’ of the M6–M60 – the PPP project for the design, construction, finance, operation and maintenance of the Szekszárd–Bóly M6 section and the Bóly–Pécs section of the M60 (see map) – was reached in 2007. The M6 middle section (‘second phase’) Dunaújváros–Szekszárd began under a PPP framework in 2008. Both projects are in the construction phase and are scheduled to begin operation in 2010. The phases are named according to geographical order, and not according to chronological order of the PPP contracts.

Given Hungary’s past success with PPP road projects, the EBRD has been keen to continue these partnerships and hopes that Hungary will lead by example in the region.

The M6 projects are part of Hungary’s effort to extend and improve its trans-European road network. The projects are

also expected to improve conditions for local traffic and boost regional development in Hungary.

Among the benefits of the PPP scheme will be the ability to harness private-sector know-how. The M6 concessionaires are expected to introduce updated operational, managerial and commercial practices, including innovative technical methods (notably concerning tunnelling). The consortia



M6–M60 motorway second phase	
Length	approx. 65 km
Construction	by 2010
Project NPV (at contracting)	approx. EUR 520 million
EIB contribution	loan of EUR 200 million

M6–M60 motorway third phase	
Length	approx. 80 km
Construction	by 2010
Project NPV (at contracting)	approx. EUR 950 million
EIB contribution	loan of up to EUR 75 million
Website	Hungarian Ministry of Transport, Telecommunication and Energy http://www.khem.gov.hu



responsible for implementing the projects are seen to represent a strong combination of local and international road construction expertise and financial standing, as well as experience in international BOT and DBFO projects. The projects are receiving support among others from the European Bank for Reconstruction and Development (EBRD) and from the European Investment Bank (EIB).

The Hungarian government is working with Mecsek Autopalya Koncesszios Zrt. (Strabag A.G., Bouygues Travaux Publics,

Colas SA, John Laing Infrastructure Limited and Intertoll Europe) on the third phase, and with M6 Tolna Autopalya Koncesszios Zrt. (Bilfinger Berger A.G., Égis Projects SA and Allgemeine Baugesellschaft – A. Porr A.G.) on the second phase. This arrangement allows the Hungarian government to shift certain risks away from itself and onto private companies that are better equipped to face them. This means that the M6 project is more likely to be completed on time, not go over budget and better ensure cooperation between subcontractors.

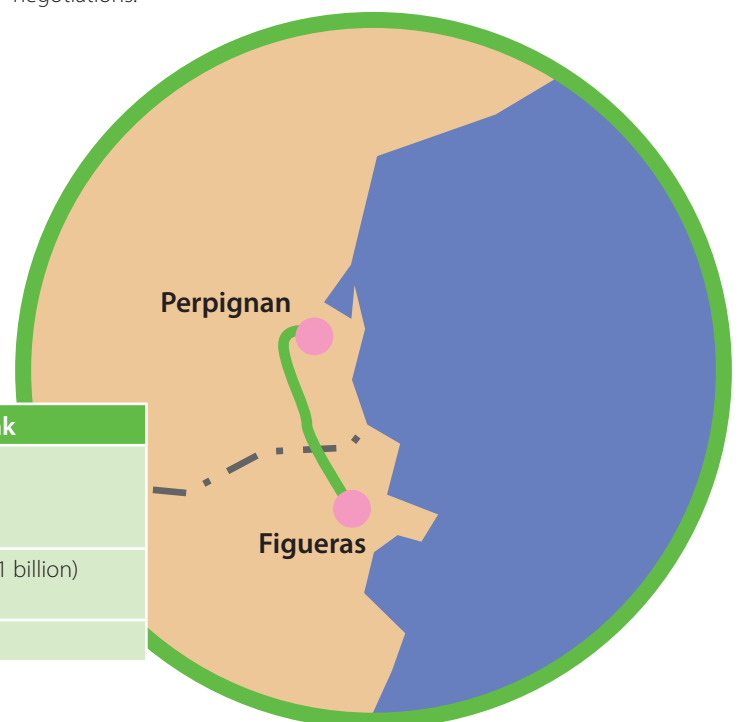
Perpignan–Figueras rail link

The Perpignan–Figueras freight and high-speed rail line is designed to provide a vital link between the French and Spanish rail systems and between the Spanish and European rail networks. Once operational (anticipated in 2010), the line should reduce travel times for freight and passengers significantly by eliminating the difference in the rail gauge between the two countries. This is expected to have a significant impact on the demand for rail usage. The infrastructure forms part of the TEN-T priority project No 3, the high-speed rail axis of south-west Europe.

The link was constructed under a BOT (build-operate-transfer) agreement with a 50-year concession granted through a bi-national tender process under the aegis of the French

and Spanish states. It is a case that has highlighted the ability of a PPP approach to realise important infrastructure in a timely fashion despite tendering delays and at times – notwithstanding excellent cooperation between the two countries involved – complicated inter-governmental negotiations.

Perpignan–Figueras rail link	
Length	approx. 50 km (incorporating approx. 8 km of tunnel)
Construction (cost)	2004–09 (approx. EUR 1 billion)
EU contribution	EUR 170 million





It has also shown that substantial risk can be transferred to the private partner provided that demand forecasts and revenue streams are well identified.

France and Spain designed the project together, but it is the responsibility of the concessionaire to build and finance it, accepting all risks that come with the project. Upon completion of the rail line, the concessionary is responsible for its operation. This means that the risks are transferred away from the states and onto the private companies.

The tendering process was complicated but produced many innovations that can be applied to other PPPs. Furthermore, this PPP is a breakthrough for the rail sector as it successfully applied the road concession model to rail.

In addition, the PPP allows for partners to take advantage of the latest technological innovations increasing the overall quality of the project. The PPP includes a clause that allows the contract to be broken if the concessionaire does not meet the terms of the contract. This clause works to ensure that partners will meet their contractual project and performance obligations.

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Dutch High-Speed Line South



High-speed rail schemes are among the most challenging projects in infrastructure. The High-Speed Line South public-private partnership in the Netherlands (HSL-South or, in Dutch, *HSL-Zuid*) tries through a transparent risk management process to be in control of, rather than have to worry about, project risks.

The *HSL-Zuid* runs from Amsterdam via Schiphol airport and Rotterdam to the Belgian border, with connections to The Hague and Breda (see map). The line links the Netherlands to the European high-speed rail network, forming part of the TEN-T priority project No 2, the high-speed rail axis connecting, among others, Brussels and Amsterdam.

The project has seen the Dutch government enter into a contract with a construction consortium (infrastructure provider) which is responsible for the design, construction, financing and maintenance of the HSL rail systems. As well as building the superstructure of the HSL, in the 25-year period



following completion of the superstructure, the construction consortium is responsible for managing and maintaining the entire line (both substructure and superstructure), under the authority of the national rail manager.

Through the agreed PPP, control is ensured via the principles of external quality guarantee. This means that all partners must carry out their work in a controlled way which can easily be monitored and measured. The Dutch government is thus able to conduct inspections but they are more focused on the processes of commissioned partners and less on products, which are evaluated by the contractor. Through the external quality guarantee, both partners and processes are fully evaluated and a high level of quality is ensured.

The PPP is able to calculate risks through complex statistical formulas and take the necessary steps so that they do not occur. This is achieved by constantly adapting management measures to the current situation. Therefore, risks such as encountering difficulties during excavation, problems with the test phase and contractor claims for additional work are mitigated, all helping to reduce costs and stay on schedule.

High-Speed Line South	
Length	125 km (of which approx. 100 km is new track)
Start of project realisation	the year 2000
Start of commercial transport	scheduled in 2009
Cost	approx. EUR 7.2 billion (excluding availability compensation to infrastructure provider, 2007 prices)
EU contribution	EUR 193 million (as at December 2008)
Website	http://www.hslzuid.nl





Canal Seine-Nord

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The planned canal, Seine-Nord, between Compiègne and Aubencheul-au-Bac in France (see map) is a key part of TEN-T priority project No 30, the Seine-Scheldt inland waterway. This aims to interconnect the French and Belgian inland waterway network and pave the way to achieving an eagerly-awaited single European inland waterway network towards the Netherlands and Germany. Canal Seine-Nord will eliminate a major European waterway bottleneck – but in fact it goes far beyond a mere infrastructure project to boost transport capacity as it aims to integrate several land-based activities to the benefit of regional development and sustainability.

It has been decided to develop the Canal Seine-Nord using a PPP for a number of reasons: to be able to optimise the allocation of risks – as regards designing, building, financing and operating – between the public sector and the private sector on a long-term basis; to be able to manage the complexity arising from the development of ‘side’ activities – such as multimodal platforms, tourism and water management – along with the management of the main canal infrastructure; and to be able to make innovative contractual and financial arrangements. The project foresees ‘main’ infrastructure – including the canal and locks, as well as earthworks, networks and quays – and ‘ancillary’ infrastructure including port, logistics and industrial activities, real estate, tourism, water supply and renewable energy.

The PPP partners are working together to implement the objectives of the project in terms of performance and availability of the services. This means that these objectives will take into consideration the needs of all stakeholders. The PPP also helps to guarantee the sustainable and fast development of water transport in France and the Benelux region.

The use of a PPP is also expected to speed up the creation of the necessary infrastructure for the project through the use of pre-financing by certain private partners. This is expected to reduce the total time needed for the completion of the project by about two years. The use of a PPP is also expected to reduce the total cost (construction and operation) of the project and allow the most up-to-date technology to be used.

Canal Seine-Nord	
Length	106 km
Construction (cost)	2010–15 (approx. EUR 2.5 billion)
EU contribution to project	EUR 420 million
Website	http://www.seine-nord-europe.com



Further information

Homepage of the European Commission's Directorate-General for Energy and Transport:
http://ec.europa.eu/dgs/energy_transport/index_en.htm

Trans-European transport networks (TEN-T):
http://ec.europa.eu/transport/infrastructure/basis_networks/basis_networks_en.htm

TEN-T and public-private financing:
http://ec.europa.eu/transport/infrastructure/funding/funding_rules/funding_rules_en.htm

