Information Guide

Trans-European Networks

A guide to the European Union's TENs Policy, with hyperlinks to sources of information within European Sources Online and on external websites

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Contents

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Introduction

In the past decade, infrastructure spending in Europe has been, on average, on a declining path. The economic and financial crisis has, however, brought renewed interest in the need for infrastructure investment. During the economic crisis, targeted investments in infrastructure renewal or construction have been an important part of stimulus and recovery plans at EU and Member State levels, as a way of supporting aggregate demand while ensuring a long term return from money spent. Most importantly, the crisis has shown that infrastructures are crucial for Europe's economic future.

A truly integrated Single Market […] would not be possible without a seamless connection between all its component parts. Roads and other transport connections, electricity and gas grids, as well as broadband networks are vital for a functioning, integrated economic area and for its social and territorial cohesion. Yet, while regulatory integration advances within the EU and markets become more integrated, most recently in the energy sector with the adoption and entry into force of the third liberalisation package, cross-border physical interconnection is lagging. Missing links exist, notably in the newer Member States, creating dividing lines between the centre and peripheries of the European Union and hampering the further development of intra-community exchanges or the growth of new economic sectors, such as e-commerce.

From: 'A growth package for integrated European infrastructures', COM(2011)676, 19 October 2011.

Background

Trans-European Networks (TENs) are intended to complement the internal market by allowing energy grids (electricity supplies, oil and gas pipelines), telecommunications and transport to be planned on a Union-wide basis. They are also intended to help the Union's regional policy by enabling outlying regions to be more efficiently linked with the centre. The Commission establishes guidelines for TENs which cover the objectives and priorities of the three sectors concerned and identify projects of common interest; these guidelines need the approval of the Member States.

The 1992 Treaty on European Union (Treaty of Maastricht) gave the Community the task of helping to establish and develop trans-European networks in the context of economic and social cohesion. TENs depend primarily on the interconnection and interoperability of national networks and access to them. Detailed planning is the responsibility of the Member States, but the European Commission sees its role as the identification of bottlenecks, the provision of technical assistance, the drawing up of the guidelines and contributing to the financing of specific projects.

The European Commission's December 1993 White Paper on Growth, Competitiveness and Employment (COM(93)700; text courtesy of Archive of European Integration) made a strong case for networks, pointing out that they can help to create jobs, not only in building the infrastructure itself, but also by subsequently stimulating growth. It identified 26 priority projects in the transport sector, eight in energy and eight action sectors for an information highway system. The European Council approved the Commission White Paper and set up two working parties - the Christophersen and Bangemann groups - to begin feasibility studies and to define the projects needing finance. The groups produced their recommendations, the main points of which were endorsed at the European Councils of Corfu in June 1994 and Essen in December 1994 (Annex 1 lists the projects and Annex 2 concerns the Christopherson Group report).

In March 2007, the Commission issued the Communication 'Trans-European networks: Towards an integrated approach' (COM(2007)135; see also Press Release IP/07/380 and Summaries of EU legislation [archived]) which looked at possible synergies between the three categories of networks - transport, energy and telecommunications - highlighting the added-value of combining infrastructures and the potential environmental benefits of integrating TENs.

The Steering Group which produced the report made a number of recommendations, including:

- continue to look for synergies between the trans-European networks with the aim of distributing a manual of best practice
- develop synergies between the objectives of cohesion policy and the TEN priorities
- carry out priority TEN projects within the deadlines, while ensuring the application of EU environmental legislation.

Under the Europe 2020 strategy, TENs fall within the framework of the Flagship Initiatives 'A resource-efficient Europe' (adopted on 26 January 2011 as COM(2011)21; see also A resource-efficient Europe page) and 'Digital Agenda for Europe' (COM(2010)245, 26 August 2010).

On 28 November 2012, the Commission announced the launch of the TENtec Public Portal (see also Press Release IP/12/1273):

> allowing citizens and businesses to access up to date information on the advancement of the Trans-European Transport Network (TEN-T) through satellite-based dynamic maps, facts, figures and various audio-visual and interactive elements.

Legal basis

In the Treaty on the Functioning of the European Union (TFEU), Article 4(2) identifies trans-European networks as one of the areas in which the EU and its Member States share competence.

TENs are the subject of Title XVI (Articles 170-172), with Article 170(1) committing the Union to contributing to:

> the establishment and development of trans-European networks in the areas of transport, telecommunications and energy infrastructures.

The Article makes clear that the EU shall promote both the interconnection and interoperability of national networks and access to them. It also requires the EU to:

> take account in particular of the need to link island, landlocked and peripheral regions with the central regions of the Union.

Article 177 provides for the Cohesion Fund to contribute to TENs projects associated with transport infrastructure.

Transport networks

In contributing to the implementation and development of the internal market, as well as re-enforcing economic and social cohesion, the construction of the Trans-European Transport Network (TEN-T) was seen as a key element of the Lisbon Strategy for Growth and Jobs [archived] and now the Europe 2020 strategy. Most of the Union's transport infrastructures have been developed by individual Member States. The TEN-T initiative

seeks to establish a single, multimodal network integrating existing and new transport links and enabling people and goods to move quickly and easily between Member States.

In September 2001, the Commission published the White Paper 'European transport policy for 2010: time to decide' (COM(2001)370), which identified the key challenges facing the EU: shifting the balance between different modes of transport, fighting bottlenecks and congestion, and placing quality and security at the heart of the common transport policy.

In July 2005 the European Commission appointed a group of European Coordinators to evaluate progress of selected TEN-T Priority Projects. Since 2006, the Coordinators have issued Annual Reports.

A mid-term review of the White Paper was published in 2006 as 'Keep Europe moving - Sustainable mobility for our continent' (COM(2006)314). Whilst confirming the guiding principles of the strategy, it also highlighted important changes, including enlargement of the EU, increasing globalisation, concerns over climate change, and rising energy prices.

The Communication 'A sustainable future for transport: Towards an integrated, technology-led and user friendly system' was adopted on 17 June 2009 as COM(2009)279 with the aim of stimulating debate on the main challenges and opportunities for the transport sector in the long term (see Future of Transport page).

In October 2007, the Commission announced a series of measures on freight transport. Background was given in the Communication 'The EU's freight transport agenda: Boosting the efficiency, integration and sustainability of freight transport in Europe' (COM(2007)606), with other elements of the Commission's package being:

- a Freight Logistics Action Plan
- a Communication on a freight-oriented rail network
- a Communication on a European Ports Policy
- a Staff working paper 'Towards a European maritime transport space without barriers'
- a Staff working paper on Motorways of the Sea.

The objective was to 'make rail freight more competitive, create a framework which will allow European ports to attract investment for their modernisation, put maritime freight transport on an equal footing with other transport modes and review progress made in developing Motorways of the Sea' (see also the page Logistics: Keeping freight moving).

Details of the 30 Priority Projects due to start by 2010 were given in the brochure TEN-T Priority axes and projects 2005. A first progress report was issued in May 2008; the Fifth Annual Progress Report 2012 was issued in November 2012 - see Priority Projects page.

The accession of 10 Member States in May 2004 shifted the Union's external borders further east and south, making several countries new and immediate neighbours of the EU. Improving connections between the enlarged EU and its new neighbours was discussed at a ministerial meeting in June 2004 (see Press Release IP/04/721). Participants set up a 'High Level Group on the Extension of the major trans-European transport axes to the neighbouring countries and regions', chaired by former Commission Vice-President Loyola de Palacio, to advise the Commission on how to better connect the Union with its new neighbours. The Group, which was to identify a set of major transnational transport axes and priority projects on them, as well as analysing issues such as safety, intermodality and interoperability, first met in October 2004 (Press Release IP/04/1248) and presented its final report in November 2005, under the title Networks for peace and development (see also Press Release IP/05/1162).

The proposals of the High Level Group and responses to a public consultation were considered by the Commission, which subsequently recommended to the Council and the European Parliament that the Group's proposal to revise the concept of the Pan-European Corridors/Areas (PEC) should be accepted. The PEC had been developed during two Ministerial Conferences in Crete (1994) and in Helsinki (1997) with the aim of connecting the then 15 Member States with neighbouring countries; the 2004 and 2007 enlargements saw many of the Corridors brought within EU territory and into the TEN-T network.

The emphasis post-enlargement was thus to improve transport links between the 27-member Union and its new neighbours, as lack of interoperability and coordination of policies provides a major obstacle to the integration of transport systems. The aim is therefore to link the Union's major transport axes with the transport networks of its neighbours - something addressed in the Commission's January 2007 Communication 'Extension of the major trans-European transport axes to the neighbouring countries - Guidelines for transport in Europe and neighbouring regions' (COM(2007)32; see also Press Release IP/07/119).

The Communication identified five transport axes for trade between the Union, its neighbouring countries and others, broadly identified as: Motorways of the Seas, a Northern axis, a Central axis, a South Eastern axis, and a South Western axis. The Commission also proposed measures to cut journey times along the axes by improving infrastructure, streamlining customs procedures and reducing administrative obstacles. In May 2007, the Council requested the Commission 'to put forward proposals for practical implementation of the axis approach and for strengthening the organisational structure and the coordination framework of the axes' (see Press Release 9314/07).

In 2006, the Trans-European Transport Network Executive Agency (TEN-T EA; see also Summaries of EU legislation [archived]) was created to manage EU funds allocated to TEN-T, in collaboration with the Commission's Directorate-General for Mobility & Transport.

Intended to promote discussion ahead of the 2010 Transport White Paper, the 17 June 2009 Communication 'A sustainable future for transport: Towards an integrated, technology-led and user friendly system' (COM(2009)279; see also Press Releases IP/09/936 and MEMO/09/279) noted that TEN-T policy has:

> much increased the coordination in the planning of infrastructure projects by the Member States. Progress in implementation has been substantial and about one third of the necessary investments (€400 billion) in the TEN-T have been made. The extension of the TENs to cover the new Member States, building on the investment already made prior to enlargement, has provided the blueprint for Structural and Cohesion funds to gradually fill their infrastructure deficits. Much remains to be done, but the TENs have already gone a long way in linking EU markets and peoples.

On 4 May 2010, on the basis of responses to the Green Paper, the Commission adopted a 'Consultation on the future trans-European transport network policy' (COM(2010)212), setting out options for the future development of TEN-T in the context of both the Europe 2020 strategy and the scheduled White Paper on future transport policy.

A mid-term review of priority TEN-T projects, published on 27 October 2010, showed that 52% of the 92 infrastructure projects were on schedule for completion by December 2013. A further 31 were judged achievable by 2015. Funding for five projects was to be cut after they were considered no longer credible (see DG Mobility & Transport Mid-Term Review page and Press Releases IP/10/1391 and MEMO/10/526).

Transport Commissioner Siim Kallas said that he was:

> greatly encouraged that despite the tough economic circumstances, many Member States are making the right decisions to invest in the economic infrastructure that is critical to Europe's recovery. With this review, we want the scarce resources available to be managed strictly. But where projects are no longer meeting their objectives then EU funding must be cut and re-allocated so we make best use of the limited resources.

On 28 March 2011, the Commission adopted the White Paper 'Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system' (COM(2011)144). With reference to transport, the White Paper stated:

> A well-performing transport network requires substantial resources. The cost of EU infrastructure development to match the demand for transport has been estimated at over € 1.5 trillion for 2010-2030. The completion of the TEN-T network requires about € 550 billion until 2020 out of which some € 215 billion can be referred to the removal of the main bottlenecks. This does not include investment in vehicles, equipment and charging infrastructure which may require an additional trillion to achieve the emission reduction goals for the transport system.

It also addressed the issue of funding transport infrastructure, proposing that a funding framework be developed to support the completion of the TEN-T core network and other infrastructure programmes, utilising investment from both the TEN-T programmes and the Cohesion and Structural Funds.

In 'A growth package for integrated European infrastructures' (COM(2011)676), adopted on 19 October 2011, the Commission stated:

> Despite significant investment, the European Union does not currently have a network of interconnected cross-border transport infrastructure that is sufficiently interoperable and resource-efficient. As highlighted in the Communication on a "Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system", transport infrastructure is essential in order to guarantee the operation of the single market, and must promote competitiveness and sustainable growth. In addition to the lack of coordination between Member States in the areas of project management, planning and funding, the absence of a global framework for funding at European level that can target the most significant bottlenecks and cross-border missing links in the single market is a major obstacle that must be tackled in the next multi-annual financial framework.

On 7 July 2011, the Commission adopted the Communication 'The EU and its neighbouring regions: A renewed approach to transport cooperation' (COM(2011)415). Described as a new Neighbourhood Transport Action Plan, it aims to strengthen transport links with countries to the East and South of the EU, in part by joining the Trans-European Transport Network to infrastructure of neighbouring countries (see also Press Releases IP/11/844, MEMO/11/488 and European Neighbourhood page).

Guidelines

In 1996, Decision 1692/96/EC set out Community Guidelines for the development of the TEN-T. The Guidelines were revised in 2004 to take account of EU enlargement and to deal with a forecast doubling of the volume of traffic between the EU and its neighbours by 2020 (see Decision 884/2004/EC, Press Release IP/04/515, and Summaries of EU

legislation [archived]). The Guidelines were further modified to take account of the 2004 and 2007 enlargements of the EU).

On 4 February 2009, the Commission adopted the Green Paper 'TEN-T: A policy review: Towards a better integrated Trans-European Transport Network at the service of the Common Transport Policy' (COM(2009)44; see also Green Paper page). Amongst other things, the Green Paper explains the role of the Guidelines:

> First and foremost, the TEN-T Guidelines are the Community's instrument for policy definition and network planning. The projects of common interest identified in these Guidelines can be defined through their location on outline plans and/or through their characteristics.

The Guidelines, as adopted in 1996 and last amended in 2004, include two planning layers: a comprehensive network layer (outline plans for rail, road, inland waterway, combined transport, airport and port networks) and a second layer of 30 priority projects – i.e. selected projects of common interest.

Following the Green Paper, revised guidelines were adopted as Decision 661/2010/EU of 7 July 2010 (see also Summaries of EU legislation [archived]).

A proposal for a Regulation 'on Union guidelines for the development of the Trans-European Transport Network' was adopted by the Commission on 19 October 2011 as COM(2011)650 (check progress via the PreLex dossier).

Cost

The cost of the 30 priority projects listed in the 2004 TEN-T was estimated to be some €400 billion by 2020, of which €126 billion was spent by the end of 2006 and €154 billion was expected to be invested during the 2007-2013 programming period. The total cost of completing the entire TEN-T, including the projects of common interest not identified as priority projects, was estimated at €900 billion, of which €390 billion was expected to be invested during 2007-2013.

Later estimates suggest the cost has increased significantly, with the Transport White Paper (COM(2011)144) of 28 March 2011 stating:

> The completion of the TEN-T network requires about €550 billion until 2020 out of which some €215 billion can be referred to the removal of the main bottlenecks. This does not include investment in vehicles, equipment and charging infrastructure which may require an additional trillion to achieve the emission reduction goals for the transport system.

On 21 February 2011, the Commission announced (see Press Releases IP/11/209 and MEMO/11/101) grants totalling €170 million for TEN-T projects, with the aim of helping Member States to:

> build missing transport links, remove bottlenecks and increase the safety and security of transport, with a special focus on making transport more sustainable, promoting the interconnection of different transport modes, accelerating and facilitating the implementation of projects and providing support for public-private partnerships.

Energy networks

A single European energy market requires that energy networks cross national boundaries freely. The success of the internal energy market, with the associated

benefits of increased competitiveness for European consumers, requires a major increase in interconnections between national networks. The Trans-European Energy Networks (TEN-E) programme identifies the missing links and the bottlenecks in the network and priority routes in need of upgrading.

The first set of guidelines for trans-European energy networks was adopted by the Council and European Parliament in June 1996. They have been amended a number of times to reflect the 2004 and enlargement of the Union and the development of the internal market for electricity and gas supplies. The latest version is in the form of Decision 1364/2006/EC (see also Summaries of EU legislation [archived]). The guidelines identify priorities for action and criteria for identifying 'projects of common interest', as well as priority projects and 'projects of European interest' (PEI) for both gas and electricity networks. The guidelines 'specify which projects are eligible for funding', while 'financial rules specify the financial procedures involved' (see What do we want to achieve?).

A proposal for a Regulation 'on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC' was adopted by the Commission on 19 October 2011 as COM(2011)658 (the resulting act was adopted on 17 April 2013 as Regulation (EU) 347/2013).

A Priority Interconnection Plan (PIP) published early in 2007 as COM(2006)846 detailed the progress of the 42 projects of European interest listed in the 2006 guidelines (see also Summaries of EU legislation). It noted that 60% of electricity network projects were behind schedule, and that gas projects of European interest were also encountering problems, with the completion of terminals and storage facilities for liquefied natural gas being particularly affected. The PIP proposed five priority actions aimed at ensuring 'a stable environment favourable to investments:

- identify and monitor projects 'vital to the creation of an internal market', and ensure that PEI 'likely to encounter serious difficulties are completed satisfactorily and to a reasonable deadline'
- appoint coordinators for those PEI
- plan networks according to consumer requirements
- accelerate planning and authorisation procedures, and oblige Member States 'to establish national procedures to ensure that planning and approval for projects of European interest are completed within five years
- consider increasing EU funding and encouraging the European Investment Bank and the European Bank for Reconstruction and Development to fund PEI.

In November 2007, a report was issued on the Implementation of TEN-E projects (2004-2006) and the Commission issues an updated list of projects financed through the TEN-E programme via its pages on TEN-E.

On 13 November 2008, the Commission adopted an 'energy package', comprising the 'Second Strategic Energy Review' (2nd SER; COM(2008)781) and the Green Paper 'Towards a secure, sustainable and competitive European energy network' (COM(2008)782; see also Press Release IP/08/1696). The package proposed a new strategy, focusing on energy solidarity among Member States and a new policy on energy networks. In particular, the 2nd SER identified six priorities as essential for EU energy security, and called on the Council to endorse them:

- the Southern gas corridor
- a diverse and adequate LNG supply for Europe
- effective interconnection of the Baltic region
- the Mediterranean Energy Ring

- adequate North-South gas and electricity interconnections within Central and South-East Europe
- the North Sea and North West Offshore Grid.

The Green Paper proposed that the scope of TEN-E should be extended to encompass the full energy transportation network:

Gas, including LNG terminals and underground storage, and electricity transmission networks must remain at the forefront of the programme. However, urgent consideration should be given to extending the scope to oil pipelines.

It also suggested that TEN-E could be extended to include transportation infrastructures associated with new technologies, such as carbon capture and storage (CCS) and biogas.

On 19 February 2009, the Council adopted Conclusions on the 2nd SER, setting out both short- and long-term priorities for energy policy and calling for further work on the six priority areas.

A month later, the 19-20 March 2009 European Council called for energy infrastructures and interconnections to be developed and for the Commission to present detailed actions for achieving the SER priorities (see Presidency Conclusions).

A Proposal for a Regulation 'concerning the notification to the Commission of investment projects in energy infrastructure within the European Community and repealing Regulation (EC) No 736/96' was adopted by the Commission on 16 July 2009 (COM(2009)361; see also Press Release IP/09/1152). The proposal aimed to ensure greater transparency about the likely development of energy infrastructure and enable assessment of future gaps. The resulting Council Regulation (EU, Euratom) 617/2010 was adopted on 24 June 2010.

On 17 November 2010, the Commission adopted the Communication 'Energy infrastructure priorities for 2020 and beyond - A Blueprint for an integrated European energy network' (COM(2010)677; see also Press Releases IP/10/1512 and MEMO/10/582 and Energy infrastructure page). In it, the Commission stated:

> Delivering the energy infrastructures that Europe needs in the next two decades requires a completely new infrastructure policy based on a European vision. This also means changing the current practice of the TEN-E with long predefined and inflexible projects lists.

To achieve that aim, the Commission proposed a number of steps, including focusing on a limited number of priority corridors to be developed by 2020.

Priority corridors for electricity are:

- An offshore grid in the Northern Seas and connection to Northern and Central Europe to transport power produced by offshore wind parks to consumers in big cities and to store power in the hydro electric power plants in the Alps and the Nordic countries
- Interconnections in South Western Europe to transport power generated from wind, solar, hydro to the rest of the continent
- Connections in Central Eastern und South Eastern Europe, strengthening the regional network
- Integration of the Baltic Energy Market into the European market.

Those for gas are:

- Southern Corridor to deliver gas directly from the Caspian sea to Europe to diversify gas sources
- Baltic Energy Market Integration and connection to Central and South East Europe
- North-South corridor in Western Europe to remove internal bottlenecks and enable best use of possible external supplies.

On 4 February 2011, the European Council held its first energy meeting at which EU leaders called for greater efforts to modernise and expand the Union's energy infrastructure, and to connect member state networks (see Hungarian Presidency news item New chapter in European energy policy and Background note).

In 'A growth package for integrated European infrastructures' (COM(2011)676), adopted on 19 October 2011, the Commission stated:

> Major efforts are needed to modernise and expand Europe's energy infrastructure and to interconnect networks across borders to meet the Union's core energy policy objectives of competitiveness, sustainability and security of supply. The Commission's Communication on energy infrastructure priorities for 2020 and beyond6, adopted on 17 November 2010, therefore called for a new EU energy infrastructure policy to coordinate and optimise network development on a continental scale. It confirmed in particular the necessity to overhaul the existing Trans-European Networks for Energy (TEN-E) policy and financing framework. Such a new policy is crucial to ensure that solidarity between Member States will become operational, that the internal energy market is completed and isolated regions are linked to the European network, that alternative supply or transit routes and sources of energy will materialise and that renewables will develop and compete with traditional sources, as highlighted by the 4th of February 2011 European Council.

Telecommunications networks

The eTEN programme ended in December 2006. Part of the eEurope Action Plan, eTEN was intended to extend the potential benefits of the single European market and the information society to all European citizens through facilitating the widest possible participation in the new knowledge economy, by supporting the deployment of e-services with a trans-European dimension. With a budget of €170.5 million for 2003-2006, it promoted cross-border electronic services which recognised the reality of divergent administrative, linguistic and IT environments, but which could be adapted or customised to different national circumstances. Key project areas included:

- eGovernment
- eHealth
- eInclusion (addressing the needs of people with disabilities, the elderly and the socially disadvantaged)
- eLearning.

A Final Evaluation of the eTEN Programme, spanning 2002-2006, was published in July 2008. Elements of eTEN were incorporated into the i2010 programme, the Union's policy framework for the information society and media. i2010 spanned 2005-2009 and was followed by the Digital Agenda. The e-TEN initiative also contributed to the ICT Policy Support Programme [archived] (ICT PSP).

In 'Trans-European networks: Towards an integrated approach' (COM(2007)135) published in March 2007, the Commission looked at synergies between the different types of TENs, noting that those 'between the telecommunications and transport networks seem to be the most promising' but that 'it is still rare for systematic synergies to be sought between an infrastructure management network and a telecommunications

network from the start of construction of the infrastructure.' The report called for the EU telecommunications infrastructure to be mapped and for 'telecommunications needs [to] be taken into account when building transport and energy networks.'

Adopted on 26 August 2010 as part of the Europe 2002 strategy, the Flagship initiative 'Digital Agenda for Europe' (COM(2010)245; see also Digital Agenda page) aims:

> to deliver sustainable economic and social benefits from a digital single market based on fast and ultra fast internet and interoperable applications.

According to the Communication:

> The development of high-speed networks today is having the same revolutionary impact as the development of electricity and transportation networks had a century ago. With the on-going developments in consumer electronics, the lines between digital devices are fading away. Services are converging and moving from the physical into the digital world, universally accessible on any device, be it a smartphone, tablet, personal computer, digital radio or high-definition television. It is projected that by 2020 digital content and applications will be almost entirely delivered online.

> This great potential of ICT can be mobilised through a well-functioning virtuous cycle of activity. Attractive content and services need to be made available in an interoperable and borderless internet environment. This stimulates demand for higher speeds and capacity, which in turn creates the business case for investments in faster networks. The deployment and take-up of faster networks in turn opens the way for innovative services exploiting higher speeds.

Guidelines for trans-European telecommunications networks were set out in Decision 1336/97/EC. A proposal for a Regulation on new guidelines, which would repeal that Decision, was adopted by the Commission on 19 October 2011 as COM(2011)657 (check progress via the PreLex dossier).

In 'A growth package for integrated European infrastructures' (COM(2011)676), adopted on 19 October 2011, the Commission stated:

> Investing in high speed connectivity and services provided by (or via) modern internet networks is investing in the future. Digital Infrastructures – both physical and service based – are key enablers for the smart growth that Europe must achieve in the coming ten years in order to ensure its ability to compete internationally and generate wealth for its citizens. Indeed, this initiative is anchored in the Europe 2020 Strategy for smart, sustainable and inclusive growth, which put digital infrastructures at the forefront as part of the flagship initiative "Digital Agenda for Europe". It underlined the need to ensure the roll-out and takeup of broadband for all, at increasing speeds, through both fixed and wireless technologies, and to facilitate investment in the new very fast open and competitive internet networks that will be the arteries of a future economy.

The Communication 'EU Guidelines for the application of State aid rules in relation to the rapid deployment of broadband networks' was published on 26 January 2013. It set out the principles of the Commission's policy on State aid to measures supporting the deployment of broadband networks.

A draft Regulation 'on measures to reduce the cost of deploying high-speed electronic communications networks' was adopted by the Commission on 26 March 2013 as COM(2013)147 (see also Press Release IP/13/281; check progress via PreLex dossier).

Finance

In July 2004, in view of the importance of trans-European networks in improving the competitiveness and cohesion of the Union, the Commission proposed a major overhaul of the TEN-T and TEN-E budget and of the financial aid rules. Published as COM(2004)475, the proposals were adopted in 2007 as Regulation 680/2007 'laying down general rules for the granting of Community financial aid in the field of the trans-European transport and energy networks' (see also PreLex dossier and Summaries of EU legislation [archived]). On 28 April 2009, the Commission published a proposal to codify Regulation 2236/95, on general rules for the granting of Community financial aid for trans-European networks, which had been amended a number of times. The new act was adopted as Regulation (EC) 67/2010 (see also PreLex dossier). Regulation 680/2007 was amended in July 2012 by Regulation (EU) 670/2012.

The European Union's total TENs budget for 1995-2000 was €2.3 billion, and for the period 2000-2006 was €4.6 billion. Article 18 of the new Regulation stipulated that funding for the period 2007-2013 would total some €8.1 billion, of which TEN-T would receive the bulk, with TEN-E allocated €1.55 billion.

Most TEN-T projects are funded largely by individual Member States, with supplementary EU sources including the TEN-T budget, the European Regional Development Fund (ERDF) and Cohesion Fund, loans from international financial institutions such as the European Investment Bank (EIB) and the European Investment Fund (EIF), and private funding (via public-private partnerships).

In December 2003, the EIB responded to the European Growth Initiative by including the development of trans-European networks and access networks as one of its five priority objectives (press release; see also from the EIB: Trans-European Networks, new Instrument to Finance European Transport Network, Loan Guarantee Instrument for Trans-European Transport Fact Sheet).

In March 2009, the Commission issued calls for proposals totalling nearly €1 billion funding to support TEN-T developments. The calls include €500 million under the European Economic Recovery Plan, plus funding opportunities under the TEN-T Annual Programme and Multi-Annual Programme, with priorities including Motorways of the Sea, Intelligent Transport Systems for Road, and the European Rail Traffic Management System (see Press Release IP/09/512).

On 28 February 2011, the European Commission launched a consultation on a proposed 'Project Bond Initiative'. With the aim of underpinning the Europe 2020 strategy, the Commission and European Investment Bank would provide support to projects, issuing bonds to finance large-scale infrastructure projects. The Commission estimates that investment of some €1.5 to €2 trillion is needed for TEN projects in transport, energy and communications (see Press Releases IP/11/236 and MEMO/11/121, and DG Economic and Financial Affairs Project Bond Initiative consultation page).

In July 2011, a Mid-term review of the EERP claimed that EU funding was crucial for the launch or implementation of 90% of the projects covered by the Economic Recovery Plan (see TEN-T EA news item).

A package of measures on funding for infrastructure projects in the transport, energy and telecoms sectors was adopted by the Commission on 19 October 2011. The package included:
- Proposal for a Regulation 'on Union guidelines for the development of the Trans-European Transport Network' (COM(2011)650; check progress via the PreLex dossier)

- Proposal for a Regulation 'on guidelines for trans European telecommunications networks and repealing Decision No 1336/97/EC' (COM(2011)657; check progress via the PreLex dossier)
- Proposal for a Regulation 'on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC' (COM(2011)658; the final act was subsequently adopted on 17 April 2013 as Regulation (EU) 347/2013)
- 'A pilot for the Europe 2020 Project Bond Initiative' (COM(2011)660)
- 'A growth package for integrated European infrastructures' (COM(2011)676; which included a proposal to establish a 'Connecting Europe Facility'; check progress via PreLex dossier).

On 28 March 2012, the Commission announced that 26 projects had been selected to receive more than €160 million in EU co-financing from the TEN-T programme.

On 10 September 2012, the Commission announced that 74 projects would receive some €200 million from the TEN-T programme (see Press Release IP/12/945).

Funding of more than €1.2 billion for key TEN-T projects was announced on 29 November 2012, when the Commission launched two Calls for Proposals covering all modes of transport, together with logistics and intelligent transport systems (see Press Release IP/12/1281).

The January 2013 European Parliament Study TEN-T large projects - investments and costs looked at how 'substantial planning and procurement failures in large European transport infrastructure projects' could be avoided in the next TEN-T programming period.

On 30 May 2013, the Commission welcomed an 'historic' agreement aimed at: Transform[ing] the existing patchwork of European roads, railways, airports and canals into a unified transport network (TEN-T).

The agreement between the Commission, Council and Parliament - still to be formally adopted - would establish a core transport network by 2030 (see Press Release IP/13/478 and Revision of TEN-T guidelines page). Transport funding under the proposed Connecting Europe Facility would also focus on this core transport network.

Information sources in the ESO database

Find updated and further information sources in the ESO database:

7.10.a Telecommunications - Information technology - Electronics
10.7 Trans-European Networks (TENs) [all categories]
-    Key source
-    Legislation
-    Policy-making
-    Report
-    Statistics
-    News source
-    Periodical article
-    Textbook, monograph or reference
-    Background
14.1.a Trans-European Transport Networks (TEN-T)
15.1.b Trans-European Energy Networks (TEN-E)

Further information sources on the internet

- European Commission: DG Mobility and Transport
  - Homepage
  - Mobility and Transport website
    - TEN-T / Transport infrastructure

- European Commission: DG Energy
  - Homepage
  - Energy website
    - Trans-European energy networks (TEN-E)

- European Commission: DG Digital Single Market (DG CONNECT)
  - Homepage

- Europa
  - Policy areas: Information technology, Transport
  - Summaries of EU legislation
    - Trans-European networks (includes subsections on: EU guidelines for the development of the trans-European transport network [archived], Interoperability of the rail system within the Community, Community financial aid to trans-European networks [archived], Connecting the infrastructure network, Satellite navigation: Galileo, Trans-European energy networks [archived], Guidelines for trans-European telecommunications networks)

- European Commission: DG Communication
  - RAPID press releases database - Energy, Transport (pre-set searches)

- Legislative and policy making information
  - Treaty on the functioning of the European Union: Article 4(2), 170-172
  - EUR-Lex: Legislation: Trans-European networks
  - EUR-Lex: Preparatory legislation: Trans-European networks
  - EUR-Lex: Consolidated legislation: Trans-European networks
  - EUR-Lex: Case Law: Trans-European networks
  - EUR-Lex: Summaries of EU Legislation: Trans-European networks

- Court of Justice of the European Union: InfoCuria
  Homepage: 'at 'Subject-matter' box, click icon at far right to open list of subjects. Select 'Trans-European networks' and click 'Enter' to return to main search page. Select dates if required. Hit 'Search' at top or bottom of page.

- European Parliament: Legislative Observatory (OEIL)
  Homepage: Carry out a Search: scroll down right-hand menu and expand 'Subject'; then expand 'Community policies'; there is no TENs heading, so select appropriate sub-heading for transport, energy, telecoms (if no menu is shown, click 'OK' at the search box to display it).

- Council of the European Union
  - Transport, Telecommunications and Energy Council (TTE)

- European Parliament
  - Industry, Research and Energy (ITRE)

- European Parliament: Fact Sheets
  - Section on Common policies has a subsection on the Europe 2020 Strategy

- Committee of the Regions
  - o [Commission for Territorial Cohesion](#) (COTER)

- European Economic and Social Committee
  - o [Transport, Energy, Infrastructure and Information Society](#) (TEN)

- Innovation and Networks Executive Agency (INEA)
  - o [Homepage](#)

- European Investment Bank (EIB)
  - o [Homepage](#)
  - o [Projects](#)

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