



EUROPEAN COMMISSION

Brussels, 19.10.2011  
SEC(2011) 1230 final

**COMMISSION STAFF WORKING PAPER**  
**EXECUTIVE SUMMARY OF THE IMPACT ASSESSMENT**

*Accompanying the document*

**Proposal for a Regulation of the European Parliament and of the Council  
on a series of guidelines for trans-European telecommunications networks**

{COM(2011) 657 final}  
{SEC(2011) 1229 final}

The present document is the executive summary of the impact assessment concerning the legislative proposal for the Regulation on a series of guidelines for trans-European telecommunication networks, as part of the Connecting Europe Facility (CEF) in the post 2013 programming period.

## 1. POLICY CONTEXT, PROCEDURAL ISSUES AND CONSULTATION OF INTERESTED PARTIES

The **legal base** for intervention in this area resides in article 172 TFEU. Articles 170-172 provide for the EU intervention supporting the establishment and development of trans-European networks in the areas of transport, telecommunications and energy infrastructures. While the separate (umbrella-) Regulation establishing the CEF defines the conditions, methods and procedures for providing Union financial aid to trans-European networks, the guidelines proposed here lay down the objectives, priorities and broad lines of measures envisaged for broadband networks and digital service infrastructures in the field of telecommunications.

As part of the Europe 2020 strategy, the **Digital Agenda for Europe** (DAE) flagship initiative<sup>1,2</sup> aims "to deliver sustainable economic and social benefits from a Digital Single Market based on fast and ultra fast internet and interoperable applications."

In its Communication "**A Budget for Europe 2020**" (hereinafter the MFF Communication), adopted on 29 June 2011, the Commission proposed to establish the CEF. Numerous **consultations** with Member States, industry and social stakeholders have been carried out. Notably, these included a roundtable of VP Kroes with CEOs from content providers, equipment makers, investors and telecoms operators from the world's leading companies, and the first Digital Agenda Assembly, which took place in Brussels on 16th and 17th June 2011.

## 2. PROBLEM DEFINITION

Broadband internet and cross-border digital services are the digital infrastructures of the future. They are pre-requisite to a competitive, inclusive and sustainable society, as acknowledged in the Europe 2020 strategy.

The IA generally identifies certain problems that affect the provision of broadband networks i.e. lack of investment leaves potential for growth and societal benefits untapped; little competitive pressure on incumbents to invest in modern broadband networks and no adequate strategy to publicly support the rollout of broadband networks in areas where there is no business case. For the digital services, the private sector will not replace public investment in the digital services central elements (platforms, generic services etc) and despite efforts on technical interoperability, on-line public services may stop at the border.

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<sup>1</sup> COM(2010) 2020.

<sup>2</sup> COM(2010) 245.

### 3. OBJECTIVES

In addition to addressing the Treaty mandate as stated above, the **overall objective** of the proposed initiative is: delivering sustainable economic and social benefits from a Digital Single Market based on fast and ultra fast internet and interoperable applications, as elaborated above.

In order to achieve the overall objective, the Union should aim at achieving achieve the following **operational objectives**:

- (a) Influence the market dynamics for broadband investment, by encouraging both traditional and new investors to engage in broadband infrastructure roll-out and ensuring a level playing field among them.
- (b) Facilitate additional effort by Member States needed for the use of interoperable digital services in order to permit for these essential services to function in a cross-border manner and to unlock the digital content resources generating opportunities for business development.

### 4. POLICY OPTIONS

Two main policy options have been identified for the impact assessment. The first policy option advocates for the continuation of the current course of action (no policy change). Option two assesses the financing of broadband networks and digital service infrastructure through the CEF. Option two is split into three sub-options, proposing different ways of implementing the CEF in the field of telecommunications.

Under **option 1- no policy change**, for broadband, this baseline scenario would entail reliance on regulatory approaches to stimulate investment, to continue capital constraints for alternative investors that would struggle to fill an investment gap of up to EUR 220bn. EU support would continue mainly through Structural Funds, with the persisting challenge of absorption capacity, and on grant funding. For digital service infrastructures the baseline scenario would mean the continued limited support through project pilots (although most of the technological solutions have reached maturity and are ready for deployment) and policy coordination efforts, whereby Member States have no incentive to make existing solutions interoperable across borders.

**Options 2 – CEF** broadly consists of (i) broadband networks covering a geographically diversified portfolio of projects which contribute to the objectives set out by the DAE, and (ii) the development, deployment and sustainability of digital service infrastructures. Option 2 might be implemented in three different fashions (sub-options):

- (1) **Grants only:** financial support for both broadband networks and digital service infrastructures would uniquely take place through grants. The operational implementation would mainly be outsourced to an existing executive agency, such as the TEN EA.

- (2) **Financial instruments only:** under this sub-option, the Commission would work closely with relevant International Financial Institutions (IFIs). The IFIs would select projects based on their financial viability and would follow established practices of due diligence. The following financial instruments could be used: capital participations for investment funds; a financial contribution to the provisioning and capital allocation for loans and/or guarantees or other risk-sharing instruments (this include but are not limited to project bonds) and other specialised financial instruments, be they of loan, guarantees, counter guarantees, risk capital and any other legal forms of instruments.
- (3) **Combined approach:** Sub-option three would combine the two approaches. Accordingly, the governance structure would combine elements of both sub-options presented above. The decision concerning the appropriate blending of grants and financial instruments would be included in the annual work programmes, in line with the policy and sector necessity.

## 5. ANALYSIS OF IMPACTS

### 5.1. Impacts from the adoption of option 1

Low absorption of Structural Funds and lacking administrative capacity of funds as reported by the 2010 Strategic Report on Cohesion policy<sup>3</sup> would continue to undermine the construction and take up of broadband networks.

In terms of **facilitating additional efforts by Member States for the deployment and use of interoperable cross-border digital services**, this option would entail the continuation of the current CIP ICT PSP programme. It would be impossible to, build on the experience gathered during the pilot phase, deploy digital service infrastructures Europe-wide.

Hence, this option would fail to remove a crucial remaining obstacle to the digital single market. An estimate by Copenhagen Economics<sup>4</sup> situates the **cost of non-completing** the European digital single market, in the region of 4.1% of GDP by 2020.

### 5.2. General impacts from the adoption of option 2

The impacts generated by option 2 can be classified into economic, social and environmental impacts:

- (1) **Economic impacts:** a number of studies report that the availability of high speed broadband networks will have significant effects on labour productivity and on GDP per capita. Broadband networks would also trigger important positive externalities that would accrue to the society as a whole. As a General Purpose Technology enabler, broadband diffusion positively affects

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<sup>3</sup> COM(2010) 110, 31.3.2010. Available at [http://ec.europa.eu/regional\\_policy/policy/reporting/cs\\_reports\\_en.htm](http://ec.europa.eu/regional_policy/policy/reporting/cs_reports_en.htm)

<sup>4</sup> The Economic Impact of a European Digital Single Market, 2010.

productivity (a ten per cent higher broadband penetration in any year is correlated with a 1.5 per cent increase in labour productivity over the following five years<sup>5</sup>), capital accumulation, and ultimately, GDP growth. Digital service infrastructures can substantially contribute to reducing costs for the public sector and transaction costs for businesses and citizens.

- (2) **Social Impacts:** the combined upgrade of broadband infrastructure and digital service infrastructure will ultimately improve quality of life for European citizens. The main benefits accrue through the implementation of services such as eGovernment, eHealth and eCommerce applications. Also there is an important social component in terms of direct and indirect job creation.
- (3) **Environmental aspects:** Broadband networks can reduce emissions by decreasing the need for transportation (tele-working) or by optimising energy consumption (smart grids).

Other important impacts are generated from the spillovers that broadband networks and digital service infrastructure would have on other sectors. Among the sectors most affected by these positive externalities are education and skills, health, employment, transport and energy.

### 5.3. Sub-option specific impacts

#### *Sub-option 1*

The adoption of sub-option 1, grants only would achieve only partially the objectives set up by the guidelines. With regard to the objective of **influencing the market dynamics** for broadband, grants are likely to be only partially efficient and effective. In terms of efficiency the co-financing ratio needed by broadband networks is going to be high relatively high. Grants would trigger only limited leverage effect. Grants can be effective in supporting and providing technical assistance, but are not the most efficient tool to mobilise private investment.

However, grants are an effective mechanism to **facilitate efforts by Member States to deploy cross-border digital services**. In this case grants would serve as a pivot investment that grants EU co-financing towards infrastructure that Member states alone would not develop. Co-financing rates for digital service infrastructures are typically rather high. Nevertheless, private investors have only a limited interest in the deployment of this type of infrastructure.

#### *Sub-option 2*

The adoption of sub-option 2 financial instrument only, would mostly achieve objective of **influencing the market dynamics for broadband investment**. In areas where broadband networks projects are potentially financially viable, financial instruments would act as an enabler of investment by public and private investors, lowering de facto their Weighted Average Cost of Capital (WACC) and shortening

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<sup>5</sup> Roman Friedrich, Karim Sabbagh, Bahjat El-Darwiche, and Milind Singh (2009): Digital Highways. The Role of Government in 21<sup>st</sup> Century Infrastructure. Booz & Company.

their payback time. Using financial instruments would also foster efficiency through the higher **leverage** they can ensure. Based on RSFF and project bonds estimations, a financial contribution of €1bn from the EU budget is likely to attract other funds from public or private sectors which could underpin gross investment of €6bn - €15bn in broadband networks depending on the financing needs and the risk profiles of the underlying investments. However, without any grants, projects in urban or sub-urban areas, which are generally more profitable, would always be preferred – other things being equal - to projects in rural areas. Also, financial instruments would probably struggle in mobilising a significant leverage effect through technical assistance, planning, mapping and other support activities which are typically co-financed by grants.

Finally, financial instruments are unlikely to be an effective mechanism to **facilitate efforts by Member States to deploy cross-border digital services**. The experience from the CIP has shown that in this field it is already difficult to have the Member States engaged in the process. Private investors might show some interest in the application layer, but they are not likely to commit to invest in the core layer of digital service infrastructure, as this architecture cannot be commercially exploited.

### *Sub-option 3*

Sub-option 3, combined financial approach would, if adopted, strike a good balance between grants and financial instruments. This sub-option implies that the main effort of investment relies on financial instruments, leaving the remainder for grants. In this scenario, grants and financial instruments would combine not only vertically (both funding schemes would be available for broadband networks and digital service infrastructures) but also horizontally, within a project.

The objective of **influencing the market dynamics for broadband investment** would be fully achieved under this sub-option. In the field of broadband the bulk of funding would be allocated through financial instruments, so that the market potential is exploited to the full and that the widest possible range of actors is involved in the consortia to be funded. The solution would be effective as public and private actors would get access to capital at lower cost and would have sufficient long-time horizon for their investment. Under this sub-option there would be a clear synergy between the CEF and the **Structural Funds** both in terms of grants, financial engineering and support for streamlining project implementation that has so far prevented absorption of EU funds both in the cohesion and rural development domains.

As for the objective of **facilitating efforts by Member States to deploy cross-border digital services**, this approach would allow the Commission to be flexible towards financial instruments in calls for proposals dealing with applications, without the risk of crowding out private investors from digital service infrastructure. On the other hand it would ensure the disbursement of grants at high funding rates for the top layers (core services).

## 6. COMPARISON OF OPTIONS

The impact assessment report concludes that option 2 with sub-option 3 (combined financing) is more suitable to meeting the DAE and the Europe 2020 targets in the field of ICT than option 1 as can be seen from the table below.

Objectives	Option 1 no policy change	Option 2 CEF		
		Sub-option 1 grants	Sub-option 2 financial instruments	Sub-option 3 combined approach

### Overall objective

Delivering sustainable economic and social benefits from a Digital Single Market based on fast and ultra fast internet and interoperable applications, with broadband access for all by 2013, access for all to much higher internet speeds (30 Mbps or above) by 2020, and 50% or more of European households subscribing to internet connections above 100 Mbps.	0	+	+	++
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**Specific objective 1: Influence the market dynamics for broadband investment**, by encouraging both traditional and new investors to engage in broadband infrastructure roll-out and ensuring a level playing field among them.

<b>1a</b> In areas where broadband network projects are potentially financially viable, ensure that investors, including alternative public and private investors, have access to capital, at reasonable costs (interest rates) and with a sufficiently long time-horizon.	0 (N/A)	+	++	++
<b>1b</b> In areas where the business case is weak, provide sufficient levels of public financial support for the roll-out of broadband networks	0	++	+	++
<b>1c</b> Across the Union, ensure that public and private investors develop the capacity to conduct broadband infrastructure projects, by providing technical assistance, e.g. for planning and mapping	0	+	0	+

**1d** In supporting infrastructure projects, ensure that Union funds have a maximum mobilising (leveraging) effect on private and (other) public investment.

**Specific Objective 2: facilitate additional effort by Member States needed for the use of interoperable cross-border digital services and unlock the digital content resources generating opportunities for business development.**

Facilitate additional effort by Member States needed for the use of interoperable cross-border digital services and unlock the digital content resources generating opportunities for business development.	0	++	-	++
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## 7. MONITORING AND EVALUATION

The Commission and other implementing bodies, such as EIB, EBRD and the TEN-T EA, will continuously monitor the impact of CEF investment in broadband (as well as in transport and in energy) in line with the indicators proposed in the CEF general Regulation. The indicators will cover areas such as (non-exhaustive list):

- Supply: Broadband access (to be checked against the DAE targets of access to 30 Mbs for all citizens by 2020 and access to 100 Mbs for at least 50% of citizens by 2020)
- Demand: Broadband uptake (to be checked against the DAE target of 50% of citizens having subscriptions for 100 Mbs by 2020)
- General monitoring indicators for investment programmes such as uptake of funds, time to grant etc
- proportion of grants vs. Innovative financial instruments

The Commission will regularly publish a progress report on CEF broadband networks and digital service infrastructures investment, which will be submitted the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions.

In addition to continuous monitoring by the Commission and other implementing bodies, an independent evaluation of general CEF framework shall be carried out at mid-term, taking into consideration the timing and advancement of programming as well as ex-post, a certain number of years after the end of the programming period. The evaluations will assess the intervention's relevance, efficiency, effectiveness, and preliminary impact. Specific emphasis shall be put on issues of governance and the appropriateness of implementation mechanisms.