

Position Paper on MFF

A Sufficient EU Budget for the best Rail System in Europe

8 February 2018

Executive Summary

In order to remain competitive and continue meeting the expectations of its customers, the rail sector calls upon policy makers to allocate a sufficient part of the EU budget to the following priorities:

- **completing the TEN-T network through:**
 - ensuring that continued **EU co-funding is available for the finalisation of major on-going TEN-T projects** foreseen to be completed by 2030
 - **enhancements on the existing rail network** (including renewals where appropriate) with a focus on projects that have an EU added value and which support the TEN-T policy objectives
 - **building new infrastructure**, in particular the construction of cross-border sections and missing links, the removal of bottlenecks, and multimodal connecting points
 - ensuring that the value of **CEF support dedicated to projects on the existing network will be significantly higher in the new MFF** than in the current MFF
- **supporting the digital transformation of operations**, and in particular **ERTMS on board and on track**, for which **at least EUR 15 billion** should be allocated from the future EU budget, given the performance and productivity gains at stake
- **providing a significantly larger and adequate budget to Shift2Rail2** to be established as an evolution of the successful Shift2Rail Joint Undertaking, in order to deliver the 2050 Rail Vision
- **supporting rail freight services, the reduction of transport noise and seamless mobility and accessibility for all users**, including persons of reduced mobility

Given that public funding is the main pillar of railway infrastructure financing, the rail sector feels that **conventional EU grants (e.g. co-financed by national subsidies) must remain the standard instrument of EU financial support to rail projects.**

The selection of the most appropriate CEF instrument – **conventional CEF grant, CEF blending or CEF sectorial instruments** – to finance a given project should be done on a case by case basis. The CEF blending and other innovative mechanisms should only be foreseen if they enable an increase of the total amount of CEF grants available during the next MFF.

To continue delivering the rail sector's far-reaching objectives, the **CEF transport budget should be increased in the next MFF** in order to contribute to the huge financial needs of the transport sector.

CER/EIM Position Paper on MFF: A Sufficient EU Budget for the best Rail System for Europe

1. Introduction

The current negotiations on the post-2020 Multi-Annual Financial Framework (MFF) provide a useful framework for taking stock of the role and the importance of the rail sector in Europe as a modern, reliable and competitive part of a multimodal transport system, which contributes to the European Single Market and generates economic and societal benefits for all citizens in Europe.

Rail is the greenest¹ and safest mode of land transport. As a low-oil and low-carbon transport mode, rail can make a crucial contribution to both energy security and climate change, and to reaching the EU policy objectives of cutting greenhouse gas emissions and relieving congestion. The rail sector also provides a significant contribution to the European economy and to the completion of the European Single Market. In 2015, the EU 28 rail sector transported 9.4 billion passengers, which is more than the world's population, and carried 1 623 million tonnes of goods across Europe. Rail offers long-term job stability for the majority of its 1.06 million employees, and generates an additional 1.21 million of indirect employment in areas such as manufacturing, accounting, and financial services². With a share of 20% globally and a volume of EUR 27 billion, the European railway supply industry is the largest in the world.

There is an enormous need for investment in rail transport at all levels: European, national, regional and urban. In order to remain competitive and to continue to contribute to a sustainable European transport system in Europe, the rail sector must complete its part of the TEN-T network, develop smart technologies in the new era of digitalisation, and respond to changing customer needs and new security threats with sustainable and cost-effective solutions.

By focusing on the investment priorities outlined below, the resources allocated to rail transport in the post-2020 Multiannual Financial Framework will play a key role in ensuring that the transport system as a whole efficiently supports EU's economic growth.

2. Sector Priorities for the next MFF

2.1. Completing the TEN-T Network

The TEN-T Regulation 1315/2013 foresees that *"the capacity of the trans-European transport network and the use of that capacity should be optimised and, where necessary,*

¹ European Environment Agency (EEA); 2016; Greenhouse Gas Emissions (GHG) from Transport by Mode EU-28 (Million tonnes CO2 equivalent)

² The Economic Footprint of Railway Transport in Europe", ECORYS , October 2014

expanded by removing infrastructure bottlenecks and bridging missing infrastructure links within and between Member States and, as appropriate, neighbouring countries”³.

Improving the Existing Rail Infrastructure

In order to optimise the use of the rail network, infrastructure managers are increasingly focusing their budgetary efforts towards their existing infrastructures. In most EU countries, the rail infrastructure is ageing and this affects rail performance, even on the TEN-T network.

In order to complete the TEN-T network and to achieve a performing single European rail area, **the rail sector therefore believes that enhancements of the existing network (combined with renewals when appropriate)⁴ should be one of the priorities of the next MFF**, with a focus on projects that have an EU added value, i.e. projects that contribute to the increase of cross border traffic and which accelerate the implementation of interoperability.

Furthermore, the TEN-T Regulation has imposed technical requirements on the rail infrastructure which require significant enhancements. By 2030, the core network must be fully electrified, equipped with ERTMS, allow freight trains to run at a speed of at least 100 km/h, with 22.5 tonne axle load, and at least 740 m train length.

Enhancements on the existing infrastructure increase rail performance in terms of reliability, safety, accessibility and interoperability. Through enhancements, such as electrification, construction or extension of passing loops, reference speed increase, loading gauge enlargement, noise protection, and resilience improvements, the rail network becomes more efficient (higher density of trains, longer length of freight trains), more environmentally friendly, more integrated, as well as more receptive to adapt quickly to changes in existing business models, data access and availability. Renewals are indispensable to avoid the effect of infrastructure ageing (i.e. speed limitations and ultimately line closures)⁵.

Investing in New Rail Infrastructure

Investing in new infrastructure remains a fundamental element of the railway network development and is necessary in order to increase capacity, complete the TEN-T network, and meet customer expectations. One of the main priorities of the TEN-T policy is to concentrate on projects with the highest European added-value, in particular the construction of cross-border sections and missing links, the removal of

³ Recital 3 of Regulation 1315/2013

⁴ “Renewals” and “enhancements” are defined in the Catalogue of the PRIME KPI Subgroup, available under the link https://webgate.ec.europa.eu/multisite/primeinfrastructure/content/subgroups_en

⁵ Most of the time, renewals and enhancements are linked and sometimes inseparable as renewals generally lead de facto to an upgrade of the infrastructure. Indeed, the new technologies have a positive impact on the efficiency of the components and processes. Furthermore, investments which combine at the same time renewal and enhancement of the infrastructure often prove to be more financially and environmentally relevant.

bottlenecks, and multimodal connecting points. In the upcoming financial period it will also be important to finalise major on-going TEN-T projects foreseen to be completed by 2030.

In addition, TEN-T policy foresees that the main airports on the TEN-T network must be connected to the high-speed rail network by 2050 and that, where appropriate, rail infrastructure is connected to inland waterway ports.

The rail sector considers that investing in the enhancement of the existing infrastructure and in new lines are both important, depending on the specific needs of the infrastructure manager and its customers. In any case, the value of CEF support dedicated to projects on the existing network should be significantly higher in the new MFF than in the current MFF.

2.2. Investments in ERTMS and Digital Railways

Within the list of rail projects with a strong EU added value, digitalisation deserves a specific attention. **Digitalisation should be the backbone of the transformation of railway operation and the top priority to make rail more efficient and competitive.** Until now, however, EU funding has only covered a very limited amount of the overall costly investment of digital projects despite their positive impact on interoperability, enhancement and rail efficiency.

ERTMS on-board and trackside

Within the digitalisation of the railways, **the deployment of ERTMS is of particular importance.** The European Court of Auditors in its last report on ERTMS⁶ found that EU funding available for ERTMS between 2007 and 2020 amounted to less than 5 % of the ERTMS deployment cost on corridors. The budget allocated to ERTMS in the framework of the CEF programme 2014-2020 amounted to € 850 million, that is to say less than 4% of the total CEF budget. The European Court of Auditors further reported that out of 66,700 km of core network lines to be equipped by 2030, only 4,121 km of ERTMS have been put into operation between 1995 and 2016. This only represents around 6 % of the core network corridors. The Court noted that *"this puts not only the achievement of the deployment targets set for 2030 and investments made so far at risk, but also the realisation of a single railway area as one of the major Commission's policy objectives"*. Lastly, the European Court of Auditors further noted that funding has so far been poorly targeted, not reaching sections or operators most involved in cross-border traffic.

On top of that, **the cost of ERTMS (both trackside and on board deployment) is so high that it poses a serious economic risk for both RUs and IMs**, especially when considering that the benefits will only appear in the long term when more than single sections have been equipped. This threatens the competitiveness of the rail sector vis-à-vis other transport modes, especially for rail freight. Funding, possibly associated with financing solutions, would solve the inability of RUs to pay for their fleet retrofitting.

⁶ "A single European rail traffic management system: will the political choice ever become reality?", 2017

The need to upgrade most of the already installed assets resulting from changes in European regulation and from the need for a harmonised system is also increasing the economic challenge. If upgrades are not managed, the benefits of ERTMS deployment will not become effective. There is a clear case for funding migration to and within ERTMS as planned in the European deployment plan, in particular when asset renewal is not yet necessary or where there are no capacity gains or increased safety to be expected.

It is also important to highlight the **environmental, social, economic, and safety benefits that an accelerated ERTMS deployment** can accomplish. Developing railways as a more competitive transport mode and encouraging modal shift from road to rail are central elements of the EU transport policy.

Digital transformation of operations

Operating in a competitive environment, the railways must commit to innovation. Railway assets must become smarter over their entire life-cycle. **The digitalisation of railways will bring tremendous changes in the way railways are operated, making it possible to run more trains, improve reliability and boost flexibility.** These evolutions will have implications not only for rail infrastructure, but also for the future of mobility itself. Digital Railways will foster the creation of new business value through the interconnection of people, systems and things.

As IT technology develops quickly, **the digitalisation of railways should be made a priority for future investments on the existing infrastructure.** The transformation of operations through the combination of Automated Train Protection (ERTMS), Automated Train Operations (ATO) and Automated Train Supervision (ATS) will increase capacity, punctuality, interoperability, safety and in some cases output in terms of performance (speed). Costs will also decrease through a more effective use of railway assets and human resources. Eventually, Digital Railways will further contribute to decarbonisation, by making railways more efficient and attractive. Lastly, the massive and rapid implementation of Digital Railways at the European level will be a great opportunity to create a European market of digital products as opposed to the parallel development of a multitude of national products.

The transformation of operations is not the only effect of digitalisation in railways. Other less capital intensive digital tools like, for example, the ones related to predictive maintenance, Building Information Modelling (BIM), or the Internet of Things (including for freight and logistics), will improve the efficiency of rail asset management and should also be supported by EU instruments in order to foster the emergence of global **digital** leaders stemming from the EU member states in these fields”.

A sufficient share of EU funding should be allocated to the transformation of operations and in particular ERTMS on-board and trackside. An amount of EUR 15 billion⁷ for the EU funding of ERTMS deployment seems a minimum given the

⁷ Own estimation for the minimum need of EU funding for a period of 7 years, based on the European Court of Auditors (CoA) assessment that deploying ERTMS on the core network (both on board and trackside) between 2017 and 2030 (14 years) would cost around €107 billion. Considering that only 6% of the core network was

performance and productivity gains at stake. An increase of the funds allocated to the digital transformation of operations (including ERTMS) should be implemented for both the cohesion and the non-cohesion parts of the programme.

2.3. Shift2Rail2

The rail sector calls for the establishment of a Shift2Rail2 as an evolution of the successful Shift2Rail Joint Undertaking⁸. Shift2Rail contributes to smart and sustainable growth by fostering research and innovation in the railway sector through effective collaboration between railway undertakings and infrastructure managers with the railway industry and research institutes. As such, Shift2Rail supports the sector in the development of its digital programme.

In Horizon 2020, only 7% of the transport budget of EUR 6.3 billion was allocated to railway research. The rail sector believes that this is insufficient. Shift2Rail showed that the committed stakeholders of the Joint Undertaking (manufacturers and the railway operating community) were able to invest and carry out the work and that the amount was well spent. More results could be achieved with additional resources.

The rail sector calls for the establishment of a Shift2Rail2 as an evolution of the successful Shift2Rail Joint Undertaking, and believes that a significantly larger adequate budget is needed in order to deliver the 2050 Rail Vision the sector aims for⁹.

2.4. Rail freight services, noise reduction, and persons with reduced mobility

In the area of rail freight, the TEN-T policy puts a special focus on the greening of freight transport, and in particular the development of **international rail freight transport and logistic services**. This includes shifting the transport of goods to rail and inland waterways as the more sustainable and energy-efficient transport modes, particularly by improving the integration between modes, and enhancing the efficiency of the supply chain, including innovative solutions for last mile operations and customised logistics services. Projects which improve the operational efficiency of freight transport services should receive sufficient attention. This includes the bundling of rail freight services for specific types of goods (e.g. automotive) on specific networks and corridors, the modernisation of specific wagon types according to customer requirements (e.g. steel

equipped with ERTMS in 2016, and assuming an EU co-funding rate of 30%, the EU contribution to ERTMS deployment should amount to at least: $107 \times (7/14) \times 30\% \times (66,700 - 4,000) / 66,700 = \text{€ } 15 \text{ billion}$.

⁸ See CER/EIM/UIC Position paper, Evolving the regulatory framework for a Shift2Rail2, 4th December 2017, http://www.cer.be/sites/default/files/publication/171204_CER-EIM-UIC_Evolving%20the%20regulatory%20framework%20for%20Shift2Rail2.pdf

⁹ See ERRAC Rail 2050 Vision, Rail – The backbone of Europe’s mobility (http://www.errac.org/wp-content/uploads/2018/01/122017_ERRAC-RAIL-2050.pdf)

industry), the extension of connections from and to intermodal terminals, and technical studies (e.g. for advanced container technology).

Another TEN-T policy objective is the **reduction of rail freight noise**, including the retrofitting of existing rolling stock. Noise is a side effect of all major modes of transport and is one of the key concerns for people living near transport infrastructure. On the rail side, a large number of wagons run across borders emitting noise not only in their country of origin but across Europe. The railway sector promotes a freight noise strategy that pursues to tackle noise preferably at the source by retrofitting wagons, and/or constructing noise barriers, and introducing additional infrastructure measures such as grinding or rail dampers in certain hot spots.

TEN-T policy foresees support of transport infrastructure projects promoting seamless mobility and accessibility for all users, including **elderly people, persons with reduced mobility and disabled passengers (PRM)**. This priority should be clearly reflected in the financial resource allocation of the next MFF. Building accessible transport infrastructure creates an economic added value for the industry since an infrastructure that meets accessibility requirements will be able to adapt more easily to changing needs, including ageing or emerging disabilities of passengers.

The rail sector highlights the important TEN-T policy objectives of greening transport by shifting the transport of goods to environmentally friendly modes of transport, reducing transport noise and promoting seamless mobility and accessibility for all users, including persons of reduced mobility. The rail sector asks for continued CEF co-funding for these important policy objectives under the next MFF.

3. Improving existing funding programmes

Most railway projects do not generate sufficient revenues to cover total investment costs. Typically, extra cash flows or savings generated by a rail infrastructure project represent only 10% or 20 % of the overall investment cost, sometimes less. On the other hand, the socio-economic profitability of these projects is very important. This is mainly explained by relatively high values of positive externalities generated by the projects, in particular their positive impact on greenhouse gas emissions, pollution, and safety.

3.1. CEF Grant

The Connecting Europe Facility (CEF) has been a key instrument to promoting growth, jobs and competitiveness through targeted infrastructure investment at European level. However, given the estimated investment needs for the completion of the TEN-T core network of around EUR 750 billion by 2030, the needs both in terms of funding and financing for the coming years are huge and much higher than the CEF transport 2014-2020 budget. Despite the budget allocation of EUR 24.05 billion for the current CEF transport, there was only EUR 3.5 billion in net new money compared to the previous MFF (when taken into account Cohesion Funds and EFSI).

The high demand for EU co-funding was exemplified by the 2014, 2015 and 2016 CEF Transport Calls, which were all significantly oversubscribed. This very high demand for CEF funding and the strong project pipeline indicates that the CEF transport budget should be increased further in the next MFF.

To continue delivering its far-reaching objectives, the CEF transport budget should be increased in the next MFF in order to contribute to the huge financial needs of the transport sector.

3.2. Relevance of financial instruments: EFSI, CEF Blending, and CEF sectorial instruments

To complement grants which have a limited volume, the possibility of using the **European Fund for Strategic Investment (EFSI)** has been explored by the rail sector. On the side of the railway operators, the use of EFSI so far is limited to a small number of rolling stock projects¹⁰. Although railway operators were only able to make limited use of EFSI until now, these examples indicate that, if adjusted in a favourable way, EFSI may contribute to financing more rolling stock projects in the future.

On the infrastructure side, however, EFSI unfortunately does not meet the needs of the rail infrastructure sector for mainly two reasons. Firstly, EFSI is not a funding scheme and, as stated above, almost all rail infrastructure projects require grants, at least in part. Secondly, EFSI has been designed for equity or debt issuers that have a medium to low credit quality. In contrast, almost all European rail infrastructure managers enjoy a high credit rating.

The **CEF “blending” scheme**, which was used for the first time in 2017, offers in some cases an individual solution to solve these two problems. It combines grants and debt from private or public investors, and can be used by rail infrastructure managers with a high credit quality. Those infrastructure managers can raise under their own signature a debt that is dedicated to a specific infrastructure project. However, the CEF “blending” scheme is not suitable for all infrastructure managers for a variety of reasons. In some Member States, infrastructure managers are not allowed to raise debt on the financial markets or may be encouraged by their national government to be exclusively financed by itself. In other cases, the amount of the infrastructure manager’s debt may be capped by a multi-annual contract (between the infrastructure manager and the national government).

In some cases, **CEF sectorial instruments** can also contribute to finance rail infrastructure projects. This was the case with the Loan Guarantee on TEN-T (LGTT) provided by the European Investment Bank to the Tours-Bordeaux high speed line project.

The selection of the most appropriate CEF instrument – conventional CEF grant, CEF blending or CEF sectorial instruments - to finance a given project should be done on a case by case basis. Assigning a single financial instrument to a given category of projects is risky, and could lead to the exclusion of good projects. Thus, the CEF blending and other innovative mechanisms should only be foreseen

¹⁰ Two Italian, one Austrian, and one Polish rail rolling stock projects have been signed using EFSI. The EFSI transport project list can be found here: <http://www.eib.org/efsi/efsi-projects/index.htm?c=&se=5>

if they enable an increase of the total amount of CEF grants available during the next MFF.

Given that public funding is the main pillar of railway infrastructure financing, conventional EU grants (e.g. co-financed by national subsidies) should remain the standard instrument of EU financial support to rail projects.

4. Conclusions

The completion of the TEN-T core network is estimated to cost EUR 750 billion for the period 2016-2030, of which EUR 500 billion will be needed for the period 2021-2030. Overall, the European Commission estimates that EUR 1.5 trillion will be required to complete the TEN-T comprehensive network by 2050.

Bearing in mind the significant financial challenges and ambitious targets facing the railway sector, and the oversubscription with high-quality projects for the CEF calls, it is necessary to increase the CEF budget in the future MFF appropriately. This should primarily be done for the CEF grant instrument together with all other funds that can support transport investments across the European Union, such as the Cohesion Fund, European Regional Development Fund, or the European Structural and Investment Funds.

Furthermore, in order to secure and earmark an appropriate railway budget share within the various EU funding and financing instruments, a clear priority should be given to environmentally friendly transport modes, especially by maintaining the currently applied limitations on road funding under the current CEF instrument and the current requirement of a minimum 60/40 railway-to-road transport allocation ratio within the Cohesion Policy.

About CER

The Community of European Railway and Infrastructure Companies (CER) brings together more than 70 railway undertakings, their national associations as well as infrastructure managers and vehicle leasing companies. The membership is made up of long-established bodies, new entrants and both private and public enterprises, representing 73% of the rail network length, 77% of the rail freight business and about 93% of rail passenger operations in EU, EFTA and EU accession countries. CER represents the interests of its members towards EU policy makers and transport stakeholders, advocating rail as the backbone of a competitive and sustainable transport system in Europe. For more information, visit www.cer.be or follow us via Twitter at @CER_railways.

About EIM

EIM, the association of European Rail Infrastructure Managers, was established in 2002 to promote the interests and views of independent infrastructure managers in Europe, following the liberalisation of the EU railway market. It also provides technical expertise to the appropriate European bodies such as the European Railway Agency. EIM's primary goal is promoting growth of rail traffic and the development of an open sustainable, efficient, customer orientated rail network in Europe. For more information, visit www.eimrail.org.

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