

Stakeholders' consultation on a proposal for an EU coordinated approach to R&I in the rail sector under Horizon 2020 in support to the completion of the Single European Railway Area – Background document

Policy context

In March 2010, the Commission adopted the **Europe 2020 Strategy** setting out a vision for a sustainable, smart and inclusive growth for Europe's social market economy over the next decade. One of the Europe 2020 flagship initiatives, the Communication on **Innovation Union**, adopted by the Commission in October 2010¹, states that given the scale and urgency of the societal challenges and the scarcity of resources, **Europe's efforts and expertise on research and innovation must be pooled and a critical mass achieved to accelerate the pace of change**. It also recalls the **importance of partnering in European Research & Innovation (R&I)** as a means to this end. Under the Seventh Framework Programme for Research (FP7), the Competitiveness and Innovation Programme (CIP), the European Research Area (ERA) and the Innovation Union policy framework, different forms of partnering have been developed and piloted. Horizon 2020² is the financial instrument implementing the Innovation Union. The EU's new programme for research and innovation, Horizon 2020 (H2020) will be running from 2014 to 2020 with a budget of €70.2 bn³, as part of the drive to create new growth and jobs in Europe.

Moreover, in its **2011 White Paper for transport**, the Commission presents its vision to establish a genuine Single European Transport Area by 2050. It clarifies that this objective implies *inter alia* creating the **true Single European Railway Area (SERA)**. A key condition to meet this goal is the removal of administrative, technical or regulatory obstacles holding back the rail sector both in terms of market opening but also in terms of interoperability (that leads to over-customisation of products). A more European approach is intended to facilitate cross-border movements to guarantee rail a competitive advantage over long distances. Consequently, the Commission has adopted a set of proposals within the **4th Railway Package**⁴ in January 2013. The ambitious EU policy goal of completing the SERA requires the whole of the rail sector to increase its business performance, providing its customers with the efficiency and quality of services that they demand. This overarching goal requires the emergence of innovative approaches to the management and operation of rail services, based on enhanced productivity, increased capacity and the delivery of an improved customer experience, in all rail segments, services and infrastructure.

Current situation

Innovation throughout the whole of the rail value chain is a strategic enabler to complete the SERA - in business models, services and products. It is of key importance that the innovation process gathers the main key players in partnerships to eventually better integrate infrastructure, rolling stock, signalling and other subsystems of the rail system. Only further integration can generate the step-changes in service quality, capacity and productivity that are crucial to complete the SERA and for the European rail sector to ensure its long-term future. In addition, given the current budgetary

¹ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Europe 2020 Flagship Initiative Innovation Union, COM(2010) 546.

² Regulation of the European Parliament and of the Council establishing Horizon 2020 - The Framework Programme for Research and Innovation (2014-2020), SEC(2011) 1427-Volume 1 and SEC(2011) 1428-Volume 1.

³ To be confirmed after interinstitutional negotiations.

⁴ The 4th railway package puts forward measures to increase the demand for rail services. The 2nd package implemented rail freight liberalisation, the 3rd one opened international rail services.

constraints, additional economies-of-scale could be achieved if the procurement and operational practices were coordinated at EU rather than at national level. Involving actors from other innovative industrial sectors will be pivotal to make this happen.

At the same time, the European rail supply industry is at a turning point in its history. Whilst European companies have built up a leading global presence, the competition from foreign suppliers, mainly from Asia, is increasing. The technology-driven Japanese rail supply industry is increasing its exports while the price-competitive industries of China and Korea are rapidly climbing the technological ladder. New manufacturers are also appearing in other emerging economies. At the same time, uneven access to public procurement markets, forced technological transfer requirements and price-based competition toughen the conditions of competition of European suppliers. In this context, Europe should revert to an innovation-based course to sustain its **worldwide leadership**.

Set against this multifaceted challenge, an EU coordinated approach to research and innovation (R&I) in the rail sector under Horizon 2020 is proposed, to support the completion of the SERA. Scattered research and innovation leading to slow market uptake of innovative solutions does not deliver the improvements in capacity, reliability and life-cycle costs urgently needed in the rail sector. A European approach to innovation associated to market opening measures will be key to achieving the SERA as mentioned in the Communication accompanying the 4th railway package.

The planned initiative will **affect a large number of actors** in the rail sector, in particular the manufacturers of railway equipment (both rolling stock and train control systems) and their supply chain, infrastructure managers, railway operators and certifying agencies. Potentially, it might also impact on players from other industrial sectors that in the longer-term could become tiered-suppliers to rail original equipment manufacturers. Beyond the rail sector itself, through the pooling of research and innovation resources, this initiative will have an impact on research establishments and universities. Ultimately, it will benefit passengers and freight rail transport services users.

Stakeholders' consultation

Additionally to this stakeholders' online consultation, a hearing will be organised in September 2013. Further information on the hearing will be published on DG MOVE's website.

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