

PRIME Meeting no 8
24th October 2014
Madrid (E)

Annex 8
“Future challenges for infrastructure management”

- For Discussion and Decision -

Context:

According to the Declaration of Intent (DoI) signed between the European Commission and Rail Infrastructure Managers, IMs make an essential contribution in facilitating the delivery of safe, sustainable, high performing, and value generating rail transport across Europe.

The importance of infrastructure management has been acknowledged by President-elect Jean-Claude Juncker, who expressed his commitment in ensuring that infrastructure functions efficiently and announced major investments in infrastructure management as a key priority of his mandate.

Objectives

Rail infrastructure managers are invited to discuss the future challenges for rail infrastructure management, the particular role of rail infrastructure managers in the future of transport in Europe and its contribution to the European economy as a whole, to the society, the environment and how infrastructure managers can explore the potential of technological developments (digitalisation, Galileo, ERTMS, smart applications, etc.) and cooperate with other infrastructure managers in the interest of the overall transport system and its customers.

Proposal for decision

➔ The PRIME members are asked to discuss and agree on the proposed challenges and solutions outlined in the subsequent sections of this paper.

1. Challenges for the rail industry

Transportation is key to a well-functioning economy and society. Rail plays an important part in securing the economic recovery of the European market. Therefore, the rail industry must respond to the **upcoming challenges and opportunities** facing the entire transport sector.

▶ **Digitalisation**

- Digital possibilities bring by **new customer needs** in both, freight and passenger traffic. Therefore, it is crucial to have a structure being able to support new business models and the agility required to meet differentiating and ever-changing demands.
- **Cybersecurity** will become an important area where the entire industry must have a well-functioning system.
- **Available data** will be an obvious future requirement so that each transport mode can be fully optimised for the customer. Handling, analysing and benchmark of data will become a major challenge.
- **Predictability of traffic flows** will become more important and data analyses will help utilising scarce resources in the most efficient way
- **Energy performance** of railways is an important issues. Smart data will help all modes to reduce their energy performance, secure their energy supply and reduce their CO2 emissions.

▶ **Mobility**

- Passengers and goods are expected to travel **longer distances in shorter times**. The railway sector has a key role in creating seamless long-distance corridors in order to serve this demand.
- With an **increasing number of possible routes and usage of the different modes**, rail must operate as one part of the transportation system and not act as it is the only option. On the contrary, rail must facilitate end-to-end journeys within and across modes.
- The customers (both freight and passengers) will always choose the **best suitable option for them**, meaning that rail must be operated efficiently and with smooth transportation for the customer.

▶ **Sustainability**

- There are challenges related to social sustainability, such as **safety, employment and accessibility to the transport network**, facing each mode. The rail industry must highlight these issues in order to solve the problems.
- Increasing **environmental impact** creates a need to be environmentally sustainable and rail helps customers reduce their environmental footprint.
- In a time where the **economic resources are scarce**, the industry must offer more value for money in order to attract and sustain investments, both from the public and private sector.

▶ **Globalisation**

- The expanding transport network opens up for bigger markets but also **more competitors from outside Europe**. This will put pressure on European actors to continuously improve their service.
- In order to compete on a global level and **promote European railways**, the sector must overcome internal obstacles such as lack of interoperability, internal market barriers and substandard information flows. This also applies to connecting to countries outside the EU market.

In this context, **the following questions** arise:

- What role are rail infrastructure managers expected to play in the future of transport in Europe?
- What contribution will rail IMs make to the European Union in these particular challenging times?
- How will rail IMs respond to the technological challenges ahead?
- How rail IMs will shape the future of transport in Europe?
- How will rail IMs will cooperate with other transport IMs ?

In the subsequent section, EIM has outlined four proposals on how rail IMs could contribute to face these challenges:

1. **Economic role** and related key actions
2. **Societal and environmental role** and related key actions
3. **Technological role** and related key actions
4. **Coordinating role** and related key actions

2. How rail IMs must face these challenges

Rail IMs have a major part in resolving the issues and facing the challenges mentioned. In order to see how rail IMs can contribute to a better rail industry it is important to understand what role they should have and which actions must be taken.

1. Within the **economic role**, rail IMs must:

- Contribute to strengthen Europe's economic recovery and building a Europe that delivers jobs, wealth and growth for its citizens by delivering a high performing, innovative and customer-oriented network
- Contribute to strengthen the competitiveness of the European single rail market as world leader in infrastructure, logistics and the manufacture of transport equipment and traffic management systems by delivering on the attractiveness of the rail infrastructure for investors, smart technologies and users
- Contribute to promote European cohesion by enabling all regions and notably the eastern and western parts of the EU to be part of a fully integrated economy by fostering seamless longer-term network planning including cross-border connections.
- Contribute to facing the challenges related to urban mobility such as growing cities with higher demand of transportation combined with the scarcity of land.

→ To enable rail IMs to fulfil this **role**, the following **key actions must be taken**:

- ▶ Establish a truly Single European Transport Area, providing a stable and transparent legal framework with a clear distribution of rules and mandates
- ▶ Promote the role of the infrastructure managers to work towards the single rail market via harmonized functions
- ▶ Promote efficient modal choices by fostering multimodal infrastructure investments (e.g. CEF and TEN-T)
- ▶ Foster better coordination of EU key projects in a more transparent manner (e.g. ERTMS, corridors, etc.)
- ▶ Improve the investment climate, thus attracting (public and private) investment to the railway sector and ease the IM's access to finance.
- ▶ Support adequate funding for innovative infrastructure management, infrastructure connectivity, global satellite positioning for ERTMS, asset management, digitalization and security
- ▶ Develop a roadmap of strategic and critical EU-wide investment needs e.g. via the platform of rail infrastructure managers (PRIME)
- ▶ Provide a multimodal platform for all transport infrastructure managers to foster a genuine interconnected transport system

2. Within the societal and environmental role, rail IMs must:

- Meet the mobility needs of European citizens and industry (passengers and freight) by providing best in class service delivery (punctuality, reliability, etc.) via benchmarks and performance reviews
- Ensure safe and secure transport networks by fostering a common safety, security and resilience culture
- Secure stable and manageable infrastructure (asset management)
- Expand interconnected network capacity via innovative safety systems (ERTMS)
- Provide efficient and cost-effective management of the rail infrastructure (value for money) via a whole system, whole life and whole network cost approach
- Contribute to energy efficiency by cutting carbon emissions and fossil fuels dependence
- Offer the possibility of seamless, cross-border and cross-modal transport connections on local, national and European level (corridors) by delivering end-to-end journeys with and across modes

→ To enable rail IMs to fulfil this role, the following key actions must be taken:

- ▶ Foster more cooperation between rail infrastructure managers and the EC/ERA for more benchmarking and return of experience
- ▶ Promote the role of rail infrastructure managers to offer better services to passengers and freight in terms of connectivity, punctuality, reliability, real-time information
- ▶ Foster a joint dialogue amongst rail IMs on security (cybersecurity, infrastructure protection)
- ▶ Promoting energy efficiency and overall performance of the rail sector
- ▶ Provide a multimodal platform for all transport infrastructure managers to foster a genuine interconnected transport system

3. Within the **technological role**, rail IMs must:

- Contribute to deliver to an innovative, efficient and customer-oriented transport system by embracing the digital-enablement of rail infrastructure managers for better data exchange and collection, more digital applications and services, better monitoring, predictive traffic flows and real time information, preventive management and operations, etc.
- Explore the potential of GNSS in improving safety, efficiency and performance of the rail network
- Promote innovation in infrastructure management via Shift2Rail and other platforms
- Exchange on innovation with other modes to cross-modal best practice

→ To enable rail IMs to fulfil this role, the following **key actions must be taken**:

- ▶ Support a stronger digitalization of infrastructure services for better and more real-time information to the customers
- ▶ Promote R&D programs encouraging engineering expertise in the transport sector (e.g. S2R)
- ▶ Explore potential synergies with programmes such as Galileo (GNSS)
- ▶ Promote cross-modal ICT applications
- ▶ Foster innovation exchange via a multimodal platform for cross-modal innovative service offerings

4. Within the **coordinating role**, rail IMs must:

- Act as a system coordinator to develop end-to-end services and seamless information flows for freight and passengers
- Create more interfaces to foster seamless access, interchange and interoperability within and across modes
- Adopt a leadership role in the optimisation of its processes, via longer term (network) planning on national or EU level

→ To enable rail IMs to fulfil this role, the following **key actions must be taken**:

- ▶ Increase collaboration between all rail IMs via the Platform of rail infrastructure managers (PRIME)
- ▶ Foster a stronger EU-monitoring of corridors throughout Europe, in close cooperation with all rail IMs
- ▶ Provide rail IMs with the ability and framework to pilot projects and early implementations at regional level in order to test the best way forward.
- ▶ Increase collaboration between all transport IMs to truly create a seamless transport network.
- ▶ The monitoring of implementation of regulations must be coordinated by all IM's on a European level.