

## **PRIME Work Programme 2023**

### **Context**

Against the background of the Russian war of aggression against Ukraine, infrastructure managers have been engaging with DG MOVE in the implementation of the Solidary Lanes Action Plan, contributing to the setting up of new land transport routes, in particular for the export of Ukrainian agricultural products. These alternative routes have become vital for the Ukrainian economy in the short and medium term. Rising energy prices have become an important challenge for infrastructure managers and the rail sector in general.

Work on the longer-term priorities continued: In 2022, PRIME completed a deep dive study on State funding of infrastructure managers, which formed the second part of a broader study on charging and State funding, and published its key findings. The study looked into long-term network strategies, funding frameworks, and contractual agreements between infrastructure managers and Member States and highlighted the main challenges infrastructure managers face, in particular:

- More than half of the infrastructure managers in the study are confronted with a backlog of their maintenance and/or renewal activities. These backlogs occur if maintenance and renewal is smaller than the wear and tear of the existing assets. The renewal of the infrastructure is a European priority.
- The volume and certainty of the budget available is of considerable importance, but also important is how flexible infrastructure managers are in the allocation and use of the funds for upkeep, according to the life cycle costs of their assets.
- Harmonizing the interplay of funding sources remains an ongoing challenge for infrastructure managers and member states. State funding and mark-ups must complement each other to cover the total cost that exceed direct cost.

With regard to charging, PRIME carried out a deep dive study on night trains and their treatment in charging and on long-distance cross-border passenger rail services as a market segment to promote. The study on night trains showed that, whilst these trains have different operational costs from other services, only very few IMs currently define specific segments and mark-ups for night trains. As part of the study, IMs worked on a definition that can serve as a common basis for defining market segments for night trains. The study findings were discussed in a joint meeting with railway undertakings, who expressed support for the work done by PRIME.

The KPI and benchmarking subgroup presented its report in an internal and public version, now including data up to 2020, so the first report with data impacted by the effects of the COVID-19 pandemic.

Together, the studies serve as an important starting point for further discussions on best practices and improved cooperation on the development of cross-border rail.

### **Work priorities 2023**

Against the background of the European Green Deal and the Commission's Action plan to boost passenger rail, there is growing public demand for long-distance passenger rail services and growing political attention on barriers to the development of these services. The good condition and efficient use of infrastructure networks remain fundamental preconditions for the availability of sufficient capacity, as well as reliable performance of rail. For 2023, the Commission has announced an initiative on capacity planning and management, as well as guidelines for setting track access charges which support and encourage the development of long-distance and cross-border passenger services.

PRIME will continue to focus on specific aspects that are relevant for the coordination of charging and capacity management for long distance cross-border trains, as well as for benchmarking performance.

A deep dive study is planned on “Network condition – handling of maintenance, renewals and enhancements and its impact on traffic performance (such as expenditure, punctuality...)”.

**PRIME subgroups will focus on the following topics:**

**1) Charging**

In 2023, the subgroup will work on the following:

- The Commission in its Action plan to boost long distance and cross-border passenger rail (published in December 2021), announced that it will provide **guidelines in 2023 for setting track access charges which support and encourage the development of long-distance and cross-border passenger services**. One of the aims of the PRIME subgroup on charges will be to accompany the Commission’s preparatory work for these guidelines, using the deep dive studies carried out in 2021 and 2022 as a starting point and sharing experiences and best practices in the group.
- Discussing the effect of domestic market opening processes on charging, based on examples from a few IMs, and looking on further steps for strengthening railway transport and ensuring a fair competition within rail and other modes of transport. This could include examples from FR, IT, ES, PL, AT, DE, CZ, SE, LDZ.

**2) Key Performance indicators and benchmarking**

PRIME KPIs subgroup is building on work developed since 2014, consolidating a Global Framework of KPIs with an overview on major business areas. At this time, we have 22 IMs engaged in benchmarking, along with the Commission and observers (ERA and CER). PRIME KPIs subgroup has always been innovating and delivering new ideas to report its results. A public KPI report based on 2012/21 data is expected to be ready in April, following an internal KPIs report prepared exclusively for benchmarking among participants.

In addition we have established two sub-subgroups Insights and Environment

**1. Insights**

In 2021, the PRIME KPIs subgroup started to analyse the data on the individual dimensions in more detail in different focus groups and investigated possible correlations. The work of the Insights subgroup aims to enrich the internal report at first by identifying the core messages suggested by the correlations. The objectives are:

- Dive into financial and punctuality data to **add value and context** to the quantitative information provided by the KPIs
- Develop **meaningful explanations and stories** for KPI 125 (maintenance and renewal) and KPI 28 (punctuality)
- Identify the correlations’ **core messages**
- **To enrich the internal report**

**2. Environment**

The long term goal of this group is:

- Determine and agree on KPIs for environmental protection
- Include KPIs for environmental protection in both the internal and the external report

In addition, the PRIME KPIs subgroup will cooperate with the delivery of a **thematic report on “Network condition** – handling of maintenance, renewals and enhancements and its impact on traffic performance (such as expenditure, punctuality...).

### 3) Digital Subgroup

PRIME digital subgroup in support of IMs and decision makers is working on:

#### **Vision and IT architecture including financial needs:**

The vision for digitalisation of several rail information and management systems is based upon the EU’s ambitions to deliver a high-capacity integrated European railway network by eliminating barriers to interoperability across national networks and cross-border, providing solutions for full integration (covering traffic management, vehicles, infrastructure, and services, where appropriate), and achieving faster uptake and deployment of innovation, including through projects co-financed by the EU. Railway and multimodal stakeholders should be able to use information and data as if it was one infrastructure in Europe. Fair principles must apply and it must be clear what information and data, where to get it and how.

PRIME digital supports the coordinated development of digital solutions, assists in establishing their regulatory framework and IMs’ implementation thereof. In these activities, it also supports the integration and deployment of digital solutions through cooperation with the European Agency for the Railway, the Europe’s Rail joint Undertaking<sup>1</sup> and RailNetEurope.

Based upon the work of the digital subgroup from 2021 and 2022 three main digitalisation domains on which IMs are working were defined, leading to the digital enhancement of the European rail network:

- **Digital Infrastructure Information**

The aim is to provide all relevant stakeholders with an up-to-date and complete digital description of the railway infrastructure. This includes the first and last mile information as provided in the Rail Facility Portal, a clear definition of the points used for data exchange as contained in the TAF/TAP TSI "Primary Location Codes" (CRD) and an overview of the lines (RINF) as a basis for regulatory as well as commercial applications and functions. The goal by 2023 is to merge most of the current systems and create a concept of how to link information, especially in an integrated system based on RINF and CRD.

Outlook 2023-25:

- Concept of providing one data space for rail topology data including an up-to-date description of the infrastructure as well as first and last mile. Apply FAIR (findable, accessible, interoperable, reusable) principles.
- Assist the establishment of a complete machine-readable query service from infrastructure data for the benefit of the rail sector’s regulatory and commercial functions, taking into account recent developments (CRD, RINF, ERJU, etc.).
- Set up a joint technical assistance platform of IT and operations experts to identify best practices to increase data quality and availability, for IMs to provide proper data quality into the RINF starting on IM level.
- Developing a concept of merging/linking locations for information exchange (PLC) and locations used for describing the infrastructure.
- Elaboration of a collaboration between ERA and IMs (RNE) in the field of the Digital Infrastructure Information

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<sup>1</sup> 40% of the IMs are represented in the JU. The JU works a.o. on European Traffic Management System, Dynamic Capacity Management, Digital Twin, Satellite Navigation and future GovSatCom.

- **Digitalization of Capacity Management DCM (as digital part of TTR)**

Mutually supportive, the Commission, through a legislative proposal, and the sector, through the “Timetable Redesign for Smart Capacity Management” (TTR), intend to improve the management of rail infrastructure capacity. The objectives are to optimize use of network capacity, to respond to the needs of passenger and freight customers and to ensure fair and non-discriminatory network access for applicants.

Based on the clearly defined infrastructure information, a Europe-wide capacity strategy and a digital capacity model will be developed, which already includes capacity restrictions. Within the framework of the timetable redesign project (TTR - Smart Capacity Management). Efficient use of capacity shall be ensured European wide.

As for the sector collaboration, IMs and RUs are working together to redesign the current way of capacity allocation. The sector organisations representing the IM’s, passenger RU’s and freight RU’s have joined forces to align their members in the implementation of a TTR compliant European capacity management.

A stronger cooperation between the work in TTR/DCM and “EU Rail Joint Undertaking” has led to the inclusion of Capacity Management into the system pillar. This cooperation should facilitate sector work and agreement on a common concept of future Traffic and Capacity Management system.

Outlook 2023-25:

- Supporting IMs in the implementation of TTR/DCM.
- Integration of some TTR aspects like TCR available for implementation in the TAF TSI legal frameworks to be elaborated and finalised in 2023
- Implementation of the Capacity Broker
- Support the implementation by infrastructure managers of digital capacity management functions, tools and applications
- Considering the regulatory and technical elements for future developments in Traffic and Capacity Management

- **Digital Train Information**

Tracking & tracing of trains is already available throughout Europe. Based on the daily timetable, all relevant information must be made available digitally and exchanged between all partners. Train tracking and tracing information as well as reliable forecasting information have already been combined with train composition to capture locomotive, wagon and -possibly in the future- container movements. All information is based on a common reference data (Digital Train Information) and must include information about the first and last mile, such as terminals and other railway facilities.

Also, the link to the “EU Rail Joint Undertaking” is very important. EU JU plans to optimize the information flows between the CCS (Control Command and signalling Systems) and the TMS systems to get the most accurate information on the train run (speed, de-or acceleration, precise localisation,) to improve the traffic management and to pave the way towards ATO (Automatic Train Operation) and the reduction of energy consumption. The scope of real-time information and data sharing should be extended to the full transport system (end-to-end).

Outlook 2023-2025:

- Elaboration of a collaboration between IMs and RUs in the field of the Digital Train Information.
- Further on improving the calculation of an ETA
- Including and sharing with a clearly defined governance model all information based on trains, wagons, containers and forecast information to the involved partners based on a regulatory or standardisation framework

- Gathering of real-time geolocalisation data (GNSS, odometry) linking it with infrastructure data and enriching location information
- Developing of a TAF messages (based on OPE TSI instructions to TAF TSI) to support functions that require the last position of a moving object, like containers, wagons and locomotives.
- Optimizing TIS to support the railway sector with an IT tool for managing the logistical chains and their human resources and technical equipment
- Keep supporting and promoting the implementation and use of already defined TAF and TAP messages (work in progress in several countries), ensuring that the exchanged data is reliable (quality and availability issues).

#### **4) Safety Culture**

The Safety Culture group proposes to look into the implementation of findings from recent years' assessment and work towards a rail system based on straightforward safety responsibilities and clearly defined safety functions for safety critical staff at infrastructure managers. The subgroup will summarise the findings in order to detail their work further and distribute it over the next 2 years during a meeting 30.11/1.12.2022.

Future work may cover in particular:

- Propose EU and national rules or legislation to allow implementation of safety culture (focused on the definition of objectives, tools, and functions)
- Identify detailed operating rules/legislation at national or EU level, that should be substituted by a safety culture-oriented approach
- Define best practice and/or templates for Safety management systems of IM, and training modules and certification requirements for safety critical functions
- Eliminate unjustified overlapping safety layers slowing down train operations, at border-crossings in particular, and ensure seamless chain of responsibility.
- Work towards a safety risk assessment methodology to allow comparability of alternative safety measures and clarification of driver responsibility (e.g. enhanced ERTMS running versus trackside markers).

#### **Cooperation with external fora**

The Commission is planning the establishment of a new expert group, the Single European Railway Area Forum (SERAF), which will replace an earlier Commission Expert Group on Rail Market Access. This new expert group will offer the possibility for joint meetings of the Commission and infrastructure managers with other rail stakeholders, such as railway undertakings and regulatory bodies.

The European Union Agency for Railways (ERA) and industry associations (CER, EIM, RNE, VDV) participate directly in PRIME work as observers.

**PRIME Plenary meetings** are planned for **22 June (Brussels)** and **1 December 2023 (Madrid)**.