Sector Statement on Rail Freight Corridors

Follow-up

Boosting European rail freight is not only an essential step towards transport decarbonisation and meeting European climate targets, but strengthening freight's resilience in view of the COVID-19 outbreak. The European Green Deal provides an opportunity for rail freight to unveil its full potential to deliver towards a low-carbon economy and help the EU reach its target to reduce greenhouse gas emissions by at least 55% by 2030.

Over the last decade, rail freight has been characterised by a challenging market environment and heterogenous national developments, resulting in different evolutions and market shares for rail freight. EU28 rail volumes expressed in tonne-kilometres grew by 7% between 1995 and 2016. However, during the same period, the EU28 rail freight modal share declined from 20.2% to 16.4%[1]. While some improvements and increases of rail freight modal share were noted in several individual countries, more efforts are needed on the EU level to boost international rail freight traffic and to increase the modal share of rail freight to 30% by 2030.

Following the 'Rotterdam Declaration', the sector identified ten priorities, which were presented during the Rail Freight Day in December 2016 under the Netherlands's Council Presidency. The sector stakeholders decided to work together on the priorities in an integrated way, and in July 2017, they set-up the Sector Statement Group as an information sharing platform. Rapporteurs were appointed for each of the identified priorities.

The Sector Statement Group strongly welcomes the Ministerial "Rail Freight Corridors: The Future of Rail Freight in Europe" Declaration (Berlin Declaration) of 21st September 2020 which takes place as the European Commission looks to revise the Rail Freight Corridors Regulation (Regulation (EU) No 913/2010). The Berlin Declaration showcases the necessary clear commitment of the Member States to support international rail freight and the Rail Freight Corridors and it rightly recognises the environmental advantage of rail freight in view of the European Green Deal. We welcome the clear commitment of the Member States to agree on a migration strategy for Digital Automatic Coupling. We also want to underline the importance of further digitalisation of infrastructure networks, capacity management and allocation as mentioned in the introduction of the Declaration.

Since its inception, the Sector Statement Group has been involved in providing in a transparent way to all the stakeholders full set of information related to the implementation of the Sector Statement with its identified priority actions. The appointed rapporteurs drew on the strength of the SSG, thus creating a dynamic with sector wide and political support to accelerate the implementation of the priority actions. Working together in an integrated way was the key motto since the very beginning. The chosen governance structure has proven helpful in fostering communication and cooperation between all sector stakeholders, an important prerequisite for tackling the challenging issues identified. Furthermore, the interaction with transport ministries has been supportive in providing more transparency and trust among all actors. These combined

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[1] European Transport in Figures 2018

actions have set in motion a process of tangible improvement for European rail freight transport.

However, there is a need for additional impetus in the rail freight sector in order to make the modal shift to rail freight a reality. International rail freight is still impeded by infrastructure and operational bottlenecks, especially at border crossings, and missing links.

In this Follow-up, the Sector Statement Group wishes to outline the developments, improvements and challenges of each priority action:

Priority 1: Following the Timetabling and Capacity Redesign

The implementation of the **Timetable Redesign project (TTR)** will make railways more competitive in the European transport market. It gives rail freight traffic higher flexibility to react to its market needs and increases the quality of paths from origin to destination. In addition, it also provides passenger traffic the possibility to open booking systems a long time in advance (6 months). Finally, it increases the efficiency and reliability of timetables by facilitating digitalization and increased international cooperation.

Since late 2019, 20 countries have launched national projects to implement TTR by timetable period 2025. To further accelerate the implementation of TTR based on the high demand from the market, RNE and FTE have agreed in May/June 2020 to re-structure the programme and introduce the concept of first-wave implementers. This "TTR Migration Concept" also foresees the inclusion of additional process components, particularly the path requests less than 30 days before the train run.

Altogether, IMs and ABs from 11 countries volunteered to participate as first-wave implementers: Austria, Belgium, Denmark, France, Germany, Italy, Luxembourg, Netherlands, Norway, Sweden and Switzerland.

The acceleration will be achieved by focusing on core competencies of TTR (i.e. those components which will bring the highest benefit), by increasing investments and funding, by providing more resources into the implementation and by launching implementation pilots. Experiences of the IMs and ABs will be used to quicker overcome obstacles. Connected developments (e.g. the definition of TCR processes and tool) will be integrated into the TTR programme.

A main success factor is the provision of IT on a central as well as on a Member State basis. As of July 2020, the migration concept including the implementation pilots are under preparation.

Priority 2: New concepts for capacity offer on RFCs

The **revision and updating of the capacity concepts** offered via the Rail Freight Corridors is aiming to provide a capacity solution for each market requirement: a higher quality offered for a broader range of market needs for international freight trains that exist today, coordinated through the Corridor One-Stop Shop (C-OSS), as a prime process enabler.

Terminal integrated capacity offer (TICO): TICO is an official capacity product on RFC3 from Timetable 2021 allowing customers to request for terminal capacity together with pre-arranged paths (PaPs) in one step. 8 terminals have joined already in the

project. As for next steps, RFC3 would like to extend this service to other terminals and RFCs (RFC5 has already announced to join TICO) and they are planning to introduce TICO for reserve capacity (RC) and ad-hoc requests as well.

Extra-long train PaPs: Improving their capacity offer by soft-measures RFC5 offers extra-long train PaPs between Česká Třebová and Koper. These PaPs allow 65m longer trains than the standard thus providing better economic advantage. RFC5 plans to introduce more soft operational measures (e.g. allowing heavier trains).

Long-distance PaPs: RFC8 offers a combination of PaP sections providing harmonized connection to RFCs 1 and 2 in the West, RFC3 in the North and RFC7 in the South East. With the help of user-friendly digital PaP catalogue (DigiCat) applicants can request inter-corridor long-distance path from origin till destination. Feedback from the market was very positive and the first results are good.

RFCs 2, 4 and 6 also offer harmonised combinations of PaP sections which can be requested with the help of a digital user-friendly PaP catalogue.

Priority 3: Improving Coordination on Temporary Capacity Restrictions (TCRs)

Temporary Capacity Restrictions (TCRs) are necessary to maintain the railway infrastructure and keep it in good condition. However, poorly coordinated maintenance works lead to a waste of available capacity (e.g. simultaneous construction works on main and divisionary routes) and to a subsequent lack of possibilities to run trains efficiently from origin to destination. The development of instruments for managing TCRs, such as the Annex VII based TCR Guidelines and the TCR Tool, will improve the TCR coordination and ensure the overall goal when planning TCRs: the smooth flow of the traffic.

In 2019, the RNE General Assembly approved the first version of the TCR Tool to go live on the RFC Rhine-Alpine. Further developments are needed to ensure the efficiency of the tool, particularly the provision of interfaces as well as further process simplifications in the tool. Therefore, RNE agreed to further improve the TCR Tool throughout 2020 and to start the implementation of interfaces between national IT and the TCR Tool. With the full roll-out of the tool scheduled for the end of 2020, the RU/applicant functions of the tool will be revised together with applicants throughout 2021.

Since there were also several open topics in regards of the front-end of the TCR coordination process also relevant for the implementation of TTR, RNE also conducts a project to assess the impact of TCRs on the timetabling process itself. The outcome of the project "Handling of TCRs in the Timetabling Process" will focus on the treatment of TCRs in the allocation process itself. Timetabling and TCR experts commonly work on possible connections between their respective processes, with results expected by December 2020.

Priority 4: Enhancing the use of Path Coordination System (PCS)

The creation of standardized and automatic data exchange (TAF/TAP TSI) between **Path Coordination System (PCS)** and any national system will decrease the efforts from the aspect of human resources. Data can be transferred automatically without any additional manual input, thus lowering the risk of a mistaken entry. Meanwhile, adding new functions

to PCS will increase the data quality inside the system, and further proactively enable testing and piloting of TTR features and processes.

In 2019, the PCS system was upgraded by implementing a completely new data structure to further standardize the treatment of path requests and offers ("Envelope Concept"). New functions to support this new data structure were created in close cooperation with RUs.

A next step foresees the further implementation of interfaces between PCS and national IM/AB systems by timetable period 2022 in the project "TSI Compliant PCS Mandatory Interface". Since PCS functions will be used as modules in the central TTR IT landscape, this will be an important step towards digitation of the international capacity management process.

Furthermore, new systems to advance towards capacity management include the introduction of the Electronic Capacity Model Tool (ECMT) on the current TTR pilot lines, which complements the PCS functions by combining timetabling and TCR planning.

Priority 5: Improving harmonisation of processes at borders

Finding quick interoperable solutions to improve **harmonization of operational processes at borders** is a priority for the rail sector. The lack of harmonization at borders is one of the main obstacles for seamless international rail freight traffic in Europe today. Better harmonization will allow rail freight operators and their customers to benefit from fewer delays at borders, lower costs, and increased efficiency and reliability of the services offered.

The vision for rail freight in Europe is a completely harmonized world with trains being able to operate cross borders without any obstacles. Driving a train through Europe must become as easy as driving a truck. From this completely harmonized world we are still far away.

However, in several projects, efforts are being made to improve harmonization and to come closer to our vision. It is of utmost importance, that these efforts do not remain theory and that the results are quickly implemented together with the most important stakeholder, the Infrastructure Managers.

The following results have been achieved in above mentioned projects:

1. In the UIC-project XBorder Sections a document has been developed, which describes the "ideal border section" from the RU point of view. Crucial is the increase of productivity through simplification and the resource-saving optimization of cross border rail freight operations and the improvement of interoperability. Based on this theoretical ideal situation the validity of the handbook is currently being tested on demonstrator sections. The next step is the development of the document to a sector document through the involvement of all relevant stakeholders such as IMs, Rail Freight Corridors, NSAs, ERA, DG MOVE.

2. The Issue Logbook priority 1 to harmonize braking rules has been dealt with through the Xrail/UIC project "Unified Braking Scheme" where harmonized rules on brake position and braked weight calculation as well as an international format for an integrated braking sheet and vehicle list have been developed through the participation of several RUs out of 13 countries. In 2021 the harmonized braking rules shall be implemented by DB Cargo Group as a pilot on selected trains running on RFC 1 from the ARA-harbors to Northern Italy. In the next step the new braking

rules shall be implemented in the rest of Europe. Therefore, the dialogue with selected IMs and NSAs was started on which actions would be necessary to adapt country-specific national rules and processes to the Unified Braking Scheme.

Priority 6: Train tracking and Expected Time of Arrival (ETA)

Rail freight customers need and expect to know when the ordered products will arrive. An improved quality and accuracy of the **Estimated Time of Arrival (ETA)** will generate improved information to the rail freight customers: every actor in the logistics chain (IM, RU, Terminals, CT operators, Logistic Service Providers and shippers) will know when the cargo will be delivered by their contractual partners at the defined place. As a consequence, it will be possible to track the location of the goods and to share this information with the other involved actors, which will increase the quality performance, which will lead to cost savings and the facilitation of multimodal and combined transport chains. On top of the development of an algorithm, which will contribute to a better transparency of the punctuality, the quality must be monitored in an objective way.

The main goals of the initiative are currently covered with the Programme Support Action for the Issues Logbook (PSA ILB) project under the Action 'Enhanced real-time communication about train composition and estimated time of arrival'. The timeframe of the project is from 1 January 2020 to 31 December 2021. The rollout of HERMES 30 v 2 for TAF TSI compliance for train composition message as well as showing and exchanging combined train composition and running information in RNE TIS are tackled with the project partners – DB Cargo, UIRR, Terminals and ministries. The piloting of the linking of international trains with different national train numbers based on train composition information is one of the challenging activities besides the terminal location code definition and train running information exchange. Additionally, the enhanced ETA provision based on an artificial intelligence algorithm with ETA accuracy evaluation is covered with the project. The results of the project will be included in the TAF TSI Joint Sector Group (JSG) Handbook to give a guide to the whole sector on how to use new elements.

The Q-ELETA initiative, presently under preparation, will offer a comprehensive quality management system that will involve every actor who collaborates in the production of a freight train connection. The IT system developed for ETA prediction – mainly based on TiS of RNE – will serve as the backbone of the Q-ELETA quality management and monitoring scheme.

A prerequisite for exchanging ETA, train running and train composition information is the ability to track a train from origin to destination. Therefore, special attention has to be paid to the implementation of the TrainID specified in the TAF/TAP TSI. Without this function a Europe-wide data exchange is not feasible and will stop at the national border.

Priority 7: Prioritisation, funding instruments, monitoring of TEN-T parameters

Identifying an efficient way of **cooperation between the Core Network Corridors (CNCs) and RFCs,** and improving transparency and available information, for example on parameters and thus the performance of rail freight operators, will allow a better planning for the customer and end-customer. The revision of the TEN-T Regulation shall give the extra push for Member States to preferably enable 740 meters freight trains and 22.5 tons axle load throughout the TEN-T network, as well as better identify the economic

potential of the P400 profile following an analysis on case-by-case basis and when it is technically feasible, justified economically and represents customers demand.

Following the Rail Freight Day December 2018 and the declaration of the Austrian presidency, the European Commission took the initiative to request the rail freight corridors to deliver their status report on TEN-T parameters by letter from May 2019. Rail freight corridors were asked to deliver their contributions by September 2019 and liaise strongly with the TEN-T core network corridors. Rail freight corridors have taken up this challenge in a very motivated way and have presented their views on this by autumn 2019.

Results / conclusions:

- To facilitate 740m trains equipping of the primary routes is important but also the equipping of diversionary routes. Otherwise infrastructure managers will not offer the 740m train paths.
- Benefits can already be realised when routes between first pairs of important connected terminals can already facilitate 740m. Therefore targeting investments may accelerate the benefits for operators.
- Necessary investments in infrastructure often include lengthening of side tracks to ensure well combining of freight and passenger trains. In addition, (buffer) tracks are needed to ensure quality of rail operations in case of disturbances. These investments are benefitting both rail freight and rail passengers services and therefore need to be assessed in an integrated manner.
- Equipping rail freight corridors for 740m train length must go hand in hand with the local infrastructure connecting terminals and the length of terminals tracks as well. This means that infrastructure managers and terminal managers must work hand in hand to ensure benefits.
- The importance (benefits) of the TEN-T requirements differ from corridor to corridor given market segments (e.g. intermodal may have priority for 740m whereas single wagon load may have priority improved axle load conditions).

It is crucial to work alongside with the rail freights corridors and the TEN-T core network corridors to get the important 740m TEN-T requirement done. Only when the whole corridor/relevant route is able to have 740m trains between terminals with connected services, the benefits can be realised. Benefits are there for railway undertakings, freight and shippers but also for infrastructure managers, more efficient use can be made of available railway infrastructure capacity.

For the follow-up the following steps can be considered:

- The TEN-T core network corridors in cooperation with the rail freight corridors have started reporting on implementation of 740m trains in a non-consistent way. The present reporting does give (limited) information on infrastructure readiness for accepting 740m train length but does not give indication whether 740m train length can be used by the market (railway undertakings). Recommendation is to design an adapted consistent way of reporting for implementation of 740m train length that gives an indication to the market till what extend it can be used.
- In the TEN-T Regulation (EU) No 1315/2013 the definition of the requirement of accepting 740m is not practicable for the market neither enforceable for the EC. Is a possibility of allowing one 740m train per week sufficient for compliance with the regulation or is more required? Given the high interest of the rail freight sector in implementation of 740m train length it is recommended in the framework of the TEN-T Regulation revision process to modify the TEN-T definition to make the market impact more positive.

- Implementation of TEN-T requirements on rail freight corridor is of high importance. The importance (benefits) of implementing each parameter may differ from corridor to corridor due to market and infrastructure characteristics.
- CEF funding on infrastructure enhancements and rail freight corridors can prioritise the development of corridor implementation plans for 740m where infrastructure managers, railway undertakings and terminals work together.
- Based on the results from rail freight corridors, the European Commission may propose to Member States to prepare a European Deployment plan for 740m, just as we have this for ERTMS deployment. It can help coordinating the investments. This European Deployment Plan must be built upon the corridor implementation plans.
- Foster innovation and spreading of best practices in applying the TEN-T parameters in an effective way. A place in the Shift2Rail program 2 can be considered.

Priority 8: Facilitating concrete ERTMS Implementation

By **facilitating ERTMS implementation** through a close coordination of all stakeholders, in particular for both infrastructure managers and rail freight operators, the aim is to ensure that ERTMS migration will be affordable and beneficial since the beginning for all the rail freight sector. Only by ensuring a bigger financial support from the EU Budget in the next CEF programme to the ERTMS deployment, the European Institutions will make sure that ERTMS can represent a real game changer for the railway sector as it is expected to increase infrastructure capacity, (especially when looking at ERTMS Level 3) enhance interoperability, support safety, performance and decarbonization through the integration of Automated Train Operation (ATO) over ERTMS.

Nowadays the most important challenge to solve for a widespread adoption of ERTMS at first all along the RFCs is to coordinate and finance at EU level a combined on-board/trackside deployment. It is well known that the rail freight sector suffers from low margins and a tough competition from road transport. In addition, some freight RUs are also facing high costs of retrofitting and upgrade in the short-medium term, whereas their future financial benefits really depend on the readiness of the network and whether infrastructure companies will pass on their savings resulting from deployment of ERTMS to their customers.

ERTMS deployment is therefore fully beneficial and effective only if a coordinated trackside and on-board approach is ensured and if considerable continued financial support from EU, Member States, and regional authorities is granted in the coming years. As a result, a combined onboard-trackside migration strategy well-coordinated at EU level as well as a European focused support on ERTMS on-board units would allow targeting the market segments most in need of public support due to funding gaps and would accelerate ERTMS deployment overall significantly.

Priority 9: Monitoring quality of freight services with implemented/shared KPIs

The development of sector-led comparable and **harmonised Key Performance Indicators (KPIs)** will help monitor the performance of rail freight services on the respective Rail Freight Corridors (RFCs), and thus increase transparency for the customer and end-customers. In the long term, a harmonised set of corridor KPIs is

expected to increase the performance of the corridor and improve the business for the customers.

Article 19 (2) of Regulation (EU) 913/2010 requires the management boards of the RFCs to monitor the performance of rail freight services on their respective RFCs and publish the results once a year. To facilitate the fulfilment of the above obligation, in 2015, a joint RNE-RFC project team developed a first set of KPIs commonly applicable to all RFCs. These KPIs were included into the Guidelines "Key Performance Indicators of Rail Freight Corridors".

Triggered by the Rotterdam Sector Statement of 2016 and its priority project to monitor the quality of freight services by means of implemented and shared KPIs, the sector developed certain proposals for additional KPIs and those which proved feasible have been added to the set of commonly applicable RFC KPIs.

In addition, an RNE/RFC KPI Coordination Group has been established, aiming to coordinate the harmonised use of these KPIs and to evaluate their use on a yearly basis. The figures of the commonly applicable KPIs are published in a harmonised form on the RNE website to provide this information in a transparent and easily accessible way for all interested stakeholders.

To facilitate the harmonised implementation of RFC KPIs, a dedicated technical handbook has been defined by RNE together with the RFCs and the presentation of the RFCs' KPI results on RNE's website has been revised and improved. In 2020, the commonly applicable RFC KPIs are going to provide a relevant input for the ongoing evaluation of the Rail Freight Regulation 913/2010.

Priority 10: Harmonisation of Corridor Information Document (CID)

The **Corridor Information Document (CID)** provides information on the rail infrastructure of each RFC, in particular as regards commercial and legal access conditions. A harmonised structure and text of the CIDs will thus facilitate the international business of the RFCs' customers and the rail freight operators, by reducing the administrative burden of the infrastructure managers. This priority was completed in 2018.

Priority 11: International Contingency Management (ICM)

The sector also aims to improve **contingency planning at international level**. Following the Rastatt incident, there was a need to redefine the necessary cooperation and communication in case of international disruptions. A first result was the publication by RNE of the IMs' International Contingency Management Handbook.

The IMs' Handbook is describing the agreed procedures that maximize the continuation of traffic flows at the highest possible level despite an international disruption and assure transparency of the status of the disruption and its impact on traffic flows for all relevant stakeholders across Europe.

Currently, the IMs' Handbook is under the process of its revision, which should consider several aspects such as the clarification of coordination and/or supporting role of RFCs; clarification of "border" between traffic management tasks vs. timetabling tasks; simplification of the communication process together with supporting tools/functions revision, etc.

The process of the ICM revision was split into three phases:
1. ICM Handbook revision (proposed to be done by the end of 2020)
2. Revision of supporting tools (proposed to be done by May 2021)
3. Revision of parts in the long term (in line with TT process in the relevant year)

Legal assessment of the allocation principles, as well as of ICM related information in NS is also the background for the revision. The overall goal is to try not to change the allocation principles described in the ICM handbook, but to ensure their applicability on the European level. For that reason, a change of the allocation principles is, for the time being, not envisaged in the context of the ICM Handbook revision. At the same time, sector representatives (RNE) have been invited to participate in a task force of the NexBo (with MoTs, RBs, IMs, DG MOVE) to prepare a document supporting a harmonised application of allocation rules in ICM cases (e.g. recommendation of the NexBo/Revision of the FCA).

In parallel the ECCO Group gathering the RAG speakers of all RFCs under the lead of UIC developed and published together with ERFA a first version of the RUs' ICM Handbook.

In this first stage, the RUs' ICM Handbook engages RUs
- to analyze in detail the re-routing overviews defined by the RFCs for contingency case,
- to prepare themselves in terms of resources (driver skills and vehicle authorizations) to deviate trains on alternative routes defined by the RFCs' re-routing overviews and
- to organize themselves internally with a contingency task force with well-defined contact persons.

Furthermore, the RUs' ICM Handbook
- describes procedures between RUs, IMs and end customers in contingency cases and
- introduces the concept of the so-called "load pooling" to share transport capacities among RUs.

As a further development step, the RUs' ICM Handbook envisages options for the pooling of RU resources. The feasibility of those pooling options requires the simplification of certain certification principles, the definition of risk mitigation measures to ensure a level of safety at least equal to that of ordinary operations as well as the definition of standard commercial conditions between RUs and an analysis of aspects related to competition.

Priority 12: Language Programme

A new priority was added on **Language Programme**. The objective is to find a common and international solution suitable for all environments in the sector to overcome the language barriers.

Two additional priorities were identified and proposed to include in the SSG, pending approval by the Members of the SSG: harmonized train numbering, rail portal facility and the extension of priority 6 to ELETA. The Language Programme sector initiative is led by RNE in close cooperation with UIC, ERFA, ERA, CER and EIM.

Currently, two types of communication are being solved under the Language Programme:
- IM – IM communication at the national level
- IM – RU operational communication

Within the IM – IM communication at the national level, the railway sector is reaching its goal to have at least one English-speaking dispatcher in every shift by introducing a "Guideline for improving and maintaining the level of English language of the IM´s national traffic control centre staff."

The IM – RU operational communication covers the communication between IMs and RUs. The current focus is made on the interaction of the train driver and signaller in case they do not speak the same languages. For developing a sector solution of this issue, at RNE (Language Programme) and UIC (X Border Project) level cooperate in the context of Translate4Rail (T4R) project. The concept of the T4R project, which is coordinated by UIC, is to offer drivers a language tool with a set of predefined standardised messages (PDMs) and also allow to use free speech which encompass all to exchange between RUs and IMs in normal or exceptional operational situations in a country where they do not understand nor speak the local language. Since PDMs have been developed for short cross border sections in a first step, a gap analysis on a limited scope is being fulfilled at the moment on the possibility to use the PDMs also beyond cross border sections and extending the geographical scope in the future. Expertise is provided and guidelines developed on how to use PDMs with a Language Tool.
Currently, the language tool is under development and will be tested in the T4R pilot between Italy and Austria. The next pilot, testing DB Systel language tool, is governed by SNCF Réseau and DB Netz on border section Forbach-Saarbrücken.
The approach to publish and test the communication based on a set of published sentences are carried out by ProRail in Venlo pilot.

Conclusions

There has been a lot of progress in the SSG Priorities during the past years, but there is still room for improvement and closer cooperation. For this, the continuous support from the Member States and European Institutions is crucial. In this context the Berlin Declaration is very helpful as it sets the right priorities and contains a clear commitment of the Member States to promote international rail freight transport. The work of the SSG proved to be fruitful and brought the right stakeholders together to discuss and find solutions. International rail freight transport and rail in general is the future of the European Green Deal and the rail sector is committed in enhancing the competitiveness of international rail freight transport business, and improving the quality, reliability and efficiency of transporting goods across Europe. This also applies to international rail passenger transport enabling fast and comfortable mobility of people across borders. The SSG will continue its efficient work in the following years to come, to provide in a transparent way to all the stakeholders full set of information related to the implementation and completion of the Sector Statement's Priorities.