



# **Sector Statement on boosting rail freight**

Comprehensive Progress Report

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# Management summaries

## Priority 1 - Redesign of the international TT process (TTR)

**Rapporteur: Joachim Kroll/Philipp Koiser, RNE**

The current international timetabling process is outdated and does not meet market requirements. RNE and FTE with the support of ERFA created a new process based on an approach, in which the complete capacity is planned in a long term and allocated as dynamic as required by the respective market segments: The redesigned international timetabling process (TTR).

Based on market needs the Infrastructure Managers designed a process consisting of 5 components:

- The Capacity Strategy – a common European strategy in which general capacity availability shall be harmonized
- The Temporary Capacity Restrictions (TCRs) – improved and harmonized TCRs
- The Capacity Model – model timetables created by IMs together with applicants, available before the capacity requests start to ensure planning and publication of available capacity.
- The Capacity Requests
  - o Annual Timetable: for all traffic for which details are known
  - o Rolling Planning: for traffic which has details available only shortly before operation

To implement this large process all over Europe, TTR will be implemented gradually in three main steps:

- Starting with the timetable period 2020, three European lines on and around Rail Freight Corridors will launch a pilot to test the innovative components and provide inputs for developing and improving common mechanisms (e.g. Commercial Conditions, Allocation Rules), change management and IT systems
- In timetable period 2021, the pilots will be expanded on the complete core network of ÖBB Infrastructure. The three pilot lines already in operation will continue their activities and extend their test to multi-annual products.
- After further extensions of the pilot lines and networks, the full rollout of TTR is expected for the timetable period 2025.

In parallel, enablers are being defined, which are required to implement the complete process: IT systems will ensure the digitalization and high speed of the process. Commercial Conditions and Allocation Rules are necessary to steer the process. Also, KPIs will be established to further improve the effectiveness of the process.

Currently, these implementation steps are in preparation: Capacity models are being built, input for legal vehicles are under evaluation (e.g. FCA, Network Statements) and basic framework conditions are in development (e.g. IT, Commercial Conditions). Being a sector project, all stakeholders on the pilot lines are involved in the current preparation phase.

To ensure the goal of a full roll-out of TTR by the end of 2024, the Ministries of Transport are asked to:

- Support the TTR implementation timeline 2024
- Allow and support the testing and implementation of innovative TTR components. This is particularly required for the Rolling Planning request method, which is based on safeguarded capacity (i.e. capacity not available for earlier requests to allow high quality answers for later requests).
- Support the investment scenarios of TTR, especially in the area of European IT solutions to promote digitalization.

## Priority 2 - New concepts for capacity offer on RFCs

**Rapporteur: Thomas Vanbeveren, C-OSS Community**

In the sector statement following the Rotterdam declaration on Rail Freight Corridors, it was agreed that IMs must continue optimizing the C-OSS and the offer made by the RFCs via the C-OSS, taking into account their customers' needs. They must commit to strengthen the role of the C-OSS in international freight. In the medium term, the aim must be to allocate, coordinate or support the majority of the entire international rail freight market along the corridors and connecting lines via the C-OSS. This entails continued improvement in procedures and IT tools at IM and RU level. In close cooperation with the customers, IMs must continue to innovate their product offer and explore the possibility of extending the C-OSS to include pre- and after-allocation services.

Progress made on Priority 2 encompasses five concepts:

First, aiming for maximization of PAP capacity, on the North Sea-Mediterranean Corridor the initiative was taken to offer for timetable 2019 (publication January 2017) all harmonized border times as PaP. The number of requests placed for timetable 2019 are promising. The main gap between the current situation and the desired situation is the IMs' commitment.

Second, better capacity bandwidths were tested. On the northern and central part of the Baltic-Adriatic Corridor, and on the eastern part of the North Sea-Baltic corridor, it was opted to increase the flexibility of a certain PaP not only to the national stretches, but also to the border point. On the Atlantic corridor, this idea was even pushed further, in providing timeframes in which a given number of paths could be constructed. The results of the capacity bandwidth approach for timetable 2019 will be measured in the coming months.

Third, an increased role of the C-OSS in the path-construction phase was tried in order to solve cross-border issues. It was made clear to all IM, that the C-OSS should be informed of the exchange of border information between IMs when constructing the paths. Also, IMs are asked to provide their finalized border times at least one week earlier than before to the C-OSS, so that the C-OSS can perform an analysis on the harmonization of the paths. The amount of inconsistent border times identified before submitting the draft offer to clients increased significantly. However, the current one person C-OSS is in most cases insufficient, and C-OSS teams are essential.

Fourth, short-term capacity (<30 days before train run) pilots were initiated. For each of the four RFCs for which a pilot was launched on short term capacity, different outcomes could be drafted, but in essence, the major weak point of all four pilots was the mandatory use of PCS. Not per se the tool in itself remains to be a problem, but especially the fact that this is only for the very first time that short term planners are asked to use this tool, makes this a brand new process, with a considerably high stepping stone. A potential lack of sufficient market acceptance of the new short-term capacity product on the participating RFCs would necessitate investigating options for further shortening of the deadline for submitting of capacity requests, which in turn might require a new organizational set-up of RFCs' C-OSS.

Fifth, for terminal capacity a pilot project was launched on the ScanMed corridor, in which capacity was offered inside certain terminal areas with some of the PaPs published. However, at the moment no satisfactory results are seen. No requests for the offered terminal capacity were submitted and an analysis on the next steps is being discussed at the moment. The main hurdle to overcome in order for clients to request capacity concerns timing, and current procedures.

The range of capacity products on the RFCs lies in hands of the respective Management Boards, together with the RAG and TAG. However, optimal solutions might differ from one region or network to another. The current Regulation 913/2010 and FCA leave quite some room to manoeuvre for the RFCs. As such, specific legislative needs do not seem to exist. However, a clear commitment by the sector to support the development of the international rail freight market via the RFCs is key. Moreover, the overall use of one capacity ordering tool for international freight (as is foreseen for TTR) is another key element if the RFCs want to reach their full potential. Today, the only available tool for this is PCS. However, if we want to reach our goal with PCS, or any other tool, the existence of functional interfaces between the international platform and all national construction systems is critically needed. A long term objective should be the design of a single and common European capacity ordering tool, used for all capacity requests. TTR implementation will help to make this long term objective a reality.

## Priority 3 - Temporary Capacity Restrictions

**Rapporteur: Joachim Kroll/Philipp Koiser, RNE**

Temporary Capacity Restrictions (TCRs) are an important part to allow safe train operation and to keep railway infrastructure intact. However, they also limit the capacity available for traffic for a limited period of time. To keep the times, in which the infrastructure is not available to the full extent, as limited as possible, the sector has to agree on methods to ensure the minimum impact of TCRs on the rail traffic, while at the same time works can be planned as cost effective as possible.

As essential part of capacity planning, the TTR project (see priority 1) foresees a thorough and long-term planning of TCRs regarding the announcement, publication, coordination of TCRs with a permanent consultation of applicants. With the recast of Annex VII of the Directive 2010/34/EU, the European Commission has provided a legal basis for harmonizing TCR processes internationally.

As first step, RNE has now provided TCR Guidelines to cover the stipulation of the recast Annex VII. In a next step, these guidelines will be enhanced to exceed the core needs and provide further descriptions and methods to the sector. In addition, tools are being built at RNE which allow the core requirements for TCR processes, namely the coordination, consultation and publication within the process.

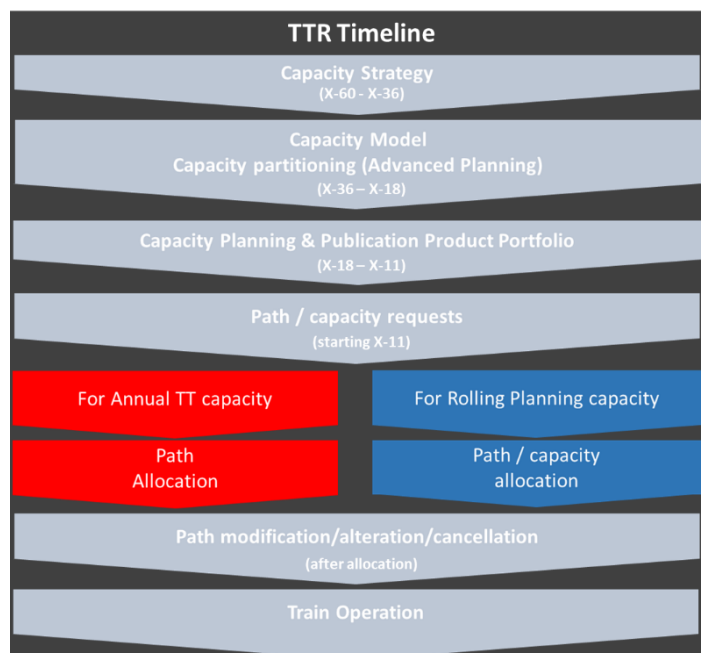
However, the requirements of Annex VII are very demanding and require a short-term change management within IMs. No detailed process description was available by the time of the publication of the recast as the Annex VII mostly contains the framework (e.g. milestones). This leads to the risk of hastily implemented processes by IMs which cannot be synchronized internationally.

Also, the Annex VII demands a long-term planning of TCRs. However, some IMs see a problem on national level due to budgets for re-investments being available on short notice (and being lost if unused) and/or tenders for construction companies ending only shortly before the TCRs start (hence, details are available on short notice only).

The Ministries of Transport are therefore asked for the legal investigation regarding the gaps:

- Is the availability of national and EU funding for railway infrastructure improvements in contradiction with the Annex VII? If yes: Are there ways to align those two elements?
- Are the legal frameworks for national tendering processes (for re-investments and construction works) in line with the Annex VII? If no: How can an alignment be achieved?

To support this development, RNE has launched a survey among its members to help detecting these pressure points (available by the end of August 2018).





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

**Rapporteur: Thomas Vanbeveren, C-OSS Community**

The Path Coordination System (PCS) is an international path request coordination system for Path Applicants, e.g. Railway Undertakings (RUs), Infrastructure Managers (IMs,) Allocation Bodies (ABs) and Rail Freight Corridors (RFCs). The internet-based application optimises international path coordination by ensuring that path requests and offers are harmonised by all involved parties. Input for international path requests needs to be placed only once into one system – either into the domestic application or directly into the PCS.

The PCS provides a single workflow that enables RUs to use a standard dossier for all types of path requests. According to the submission date of the request and the requested timetable period, the PCS will automatically define whether the request is an ad-hoc path request for the running timetable, a path request placed in time for the next annual timetable, or a request to be treated as a late path request for the next annual timetable.

Permanent enhancement of PCS is necessary to adopt new standards, European legislations and to fulfil user requirements, increase the usability of the system and to enable the possibility of the integration to TTR IT Landscape as part of the capacity module. Considering the growing amount of user requirements, RNE decided to rebuild the system completely without impacting the supported international timetabling process.

Also, the documentation of the system including the change management became outdated. As every material was stored offline in documents, the update and synchronization was very hard. To solve these two problems, to parallel activities/projects were created:

- PCS Next Generation, re-developing the old system
- CMS Integration, building a new Content Management System to replace the standalone documents

Referring to one part of the objectives about extending the C-OSS to include pre- and after-allocation services, it's necessary that IMs/ABs integrate to PCS. Without interface connections double work and data inconsistency will remain a hindering factor that discourages the C-OSS to fulfil their foreseen role. With the implementation of the Envelope Concept, the integration to PCS will become less complex, however IMs/ABs should be still motivated to connect their national system to PCS. On top of that, RUs, and applicants in general, should commit to intensify their use of PCS and contribute to the development of the tool by sharing their requirements and experiences via the different platforms available.

Implementation of the new PaP product in PCS is a forerunner of the capacity aspect of TTR. It provides bigger flexibility to the actors (RUs, IMs/ABs, RFCs) compared to the currently used PaPs, however the IMs/ABs should be motivated to respect and safeguard the capacity that was given to the C-OSS, strengthening the role of the C-OSS in international freight.

Regarding to any support in the removal of the national particularities, it's necessary to wait for the result of the analysis and the action plan, elaborated by RNE PCS Team and the RU/IM Telematics Sector Management Office. Most likely adaptation of certain parameters is required, that means change requests to TAF/TAP-TSI schema and code list. As the approval of the change requests is done by the European Union Agency for Railways, support from them would be necessary for smooth adaptation.



## Priority 5 - Improving Harmonization of Processes at Border

**Rapporteur: Eva Eckert, DB Cargo**

The lack of harmonization at the borders is one of the major obstacles for rail freight traffic in Europe. Priority 5 from the Sector Statement is a new chance to overcome national thinking and behaviour. The priority aims to find quick interoperable solutions for existing issues. To generate and maintain a smoother run across the borders, however, no "one size fits all" - approach can satisfy the respective needs of nine different Rail Freight Corridors in all their complexities.

To create a means to easier resolve interoperability hurdles, some have been listed in the so-called Issues Logbook. This persists of a list which was created by initiative of DG MOVE and ERA during a SERAC WG RFCs' meeting end of 2017. The sector recommends that the Issue Logbook remains a tool as comprehensive as possible in order to enable an efficient central steering of priorities for the sector. For a given topic, to streamline the search and implementation of pragmatic solution in a short period of time (say 18 months), we recommend reusing the light and agile governance structure that was used for the handbook on contingency management. This governance is based on one sector coordinator and on frequent PRIME/RUD meeting (chaired by DG MOVE and opened to RFCs, shippers, intermodal operators and other stakeholders) that monitors progress and provides guidance for the next steps. However, it is to ensure the participation of both RUs and IMs and a neutral monitoring of the progress being made. Also, respective Member States and their NSAs play a role. The topics of Priority 5 are as follows:

First, Directive 798/2016 stipulates that Safety Certificates from one member state are accepted by the other member states. However, the Directive leaves too much room for national interpretations and therefore (additional) national requirements. The result of discussions between ERA and the NSAs could be –as a new strategic approach- a catalogue of minimum requirements which could be used as the basis for those cooperation agreements between ERA and NSAs which are referred to Article 11 of EU Directive 798/2016.

Second, Annex VI of Directive 2007/59 was interpreted that way that a train driver is required B1 level in the language of the IM where the train runs. This requirement is at the same time too high (it is costly for RUs) and too low (it does not guarantee that the driver understands the rail jargon of the local language which might cause safety issues). Directive 2016/882 opened the door to waivers on cross borders stretches but it was not used extensively enough. More recently, DG MOVE has proposed to revise Annex VI of Directive 2007/59 to allow pilots based on a reduction of the B1 requirement. The preferred option is to proceed with the results of project groups of RNE and UIC (XBorder). These projects are dealing with communication options in their specific project scopes, aiming to introduce complementary measures (e.g. predefined messages) in order to increase efficient communication and thus modify language regimes in some form or the other.

Third, all European countries maintain national calculations of braking rules. The UIC Operational Study Group seems to be the right committee to elaborate a standard which would give a real benefit to the sector, if applied as a standard by a large number of RUs. Aim should be the definition of one harmonised Best Practice. The Issues Logbook could push forward this topic – especially the national adaption of rules and laws – in the next two years.

Fourth, the TSI OPE allows the use of the reflecting plate, instead of lights, if and when specific requirements from IMs' side are being fulfilled. In some countries, however, certain conditions apply ('permissive block'), in which case allowing the use of reflecting plate may pose safety issues. The scheduled revision of the OPE TSI is expected to provide new, more transparent rules for tail lights. Results from the running pilot on RFCs 1, 3 and 5 can be used.

Fifth, IMs could be made responsible to keep the infrastructure between border and border station as well as inside the border station as compatible as possible with the vehicles of the neighbouring country. For example, to make sure that the infrastructure on the border stretch is as "similar" (as defined in the 4th RP) as possible to that of the neighbouring country.

Finally, the conclusions with regard to other operational issues, being drawn from the Task Force-programme implemented on RFC 7 in order to reduce the waiting times at border crossings, shall provide more insight into the variety of issues. It will sort those issues which can be quickly solved from those which will need a different approach. Also, it is recommended to further define the wording of the Directive (see above) in order to prevent national authorities to set up national requirements which counteract the harmonisation process.

## Priority 6 – Train tracking and ETA

**Rapporteurs: Ralf-Charley Schultze (UIRR); Harald Reisinger (RNE)**

Three European projects are focusing on improving the sharing of the train running information from the first to the last mile during a train run. The projects are called ELETA project, ETA Programme and Legal Unit. Together with representatives from ministries, infrastructure managers, railway undertakings, intermodal operators, terminals, European Commission, the Agency, sector associations (CER, CLECAT, EIM, ERFA, EUG, ESC, RNE, UIP, UIRR, and UNIFE) and RFCs, the ETA Task Force is focusing on reporting and sharing information regarding train running information.

The ELETA project is focusing on sharing the train running information from terminal to terminal during an intermodal train run. Currently, the project is aiming for all RUs and terminals involved in the project to sign the TIS user agreements. Up until now, almost all RUs and terminals participating in the ELETA project have signed the agreements. The agreements are important to be signed in order to display train information for partners in the logistic chain from terminal to terminal. In all cases, several stakeholders are involved in a train run, which need to receive information telling when the trains are expected to be at a certain point. The project has noticed the wide variety in level of digitalisation/automation amongst terminals, where they typically work with small numbers of employees and have limited (managerial/office) staff capacity. Additionally, the absence of unique train numbers for international train runs is felt as a handicap for the exchange of train running information. This results in loss of connections in TIS (appears as separate trains). The use of unique train numbering is due to be implemented by 2021 as it is required by TAF-TSI.

The RNE ETA Programme is focusing on IMs being able to share and display forecast messages for international train runs with neighbouring IMs. Therefore, a Forecast qualifier has been developed in Train Information System (TIS), where forecast messages for a train run will be qualified. The result from the Forecast qualifier will secure IMs to consider their neighbours' forecast messages into their own train running calculations. Additionally, IMs can share experiences regarding forecast calculators and inspire IMs which will introduce a tool within their company in the future. Two potential risks are analysed already by the RNE programme. First, IMs not being able to calculate a proper train running forecast on their own network. Second, IMs do not have the technical feasibility to share/convert neighbouring IM's forecast messages into their own systems

The Legal Unit's focus is to assess the current legal situation regarding sharing of train running and forecast information between different stakeholders during a train run. A survey was distributed among member states in 2016, which focused on investigating if there were any legal obstacles sharing and tracking train run information. The result showed there are no legal obstacles and that TIS user agreements is a fine tool to use when different stakeholders would like to display and share train running information. However, in order to share information between different stakeholders, extra administrative/managerial burden appears for RNE when the TIS user agreements have to be signed. Therefore, a TIS AB (Advisory Board) was founded where all partners agreed to share information with all partners involved in the same train run.

For Priority 6, the following matters should be addressed:

- All partners must respect the TAF TSI standard (train ID, message format and data exchange)
- Legal support for creating a general European solution for sharing data to all partners involved in a train run
- Elaborated definitions for ETAs and stakeholders other than IMs and RUs in the (intermodal) rail transport chain and particularly to define the role of intermodal operators

## Priority 7 – Prioritization, funding instruments, and monitoring of TEN-T parameters

**Rapporteur: Juergen Maier / Hinne Groot**

The Rotterdam Declaration stated the intention to “encourage on an equal basis, the cooperation between the Rail Freight Corridors and the TEN-T Core Network Corridors; highlighting that the Rail Freight Corridors have the competence for operational issues for international rail freight, which will help to identify and alleviate infrastructure bottlenecks along the corridor and achieving TEN-T targets.” Further it’s crucial to take into account the requirements and inputs from the (end-) customers and the business as such.

### **Institutional responsibilities for realising TEN T parameters**

EU Member States are requested to implement the TEN T parameters by 2030 for the TEN T core network corridors. Member States and their Infrastructure Managers ensure timely implementation.

The TEN T coordinator brings together EU MS and stakeholders on the ongoing projects and proposes work plans for the Core Network Corridors.

Rail Freight Corridors are managed by Member States (executive boards) and Infrastructure Managers/Allocation bodies (Management board) with the core task to comply with RFC regulation 913/2010/EC. Based on a Transport Market Study, the RFC lines are defined in their implementation plans and take into consideration the CNC lines and additional lines for capacity allocation. RFCs have no direct responsibility to ensure compliance with the CNC parameters but are in practice a great source of expertise and can support coordinated roll out.

In the recent 2 years various stakeholders discussed on several occasions as meeting, platforms, bilateral discussions and events about possible solution how to proceed and be successful in the future implementation of a quiet complex network and its parameters. Depending on corridors different parameters have highest benefits at short term. In general implementation of 740m train length was mentioned as important opportunity to improve railway capacity.

### **Needs (Obstacles which could reduce speed of implementation)**

- Defining a clear rail business vision for the short and medium term (at a European level map of critical sections provided by the RUs is needed for each TEN T parameter and also P400 (as stated in some corridors)) is desirable,
- Defining clear responsibilities and tasks for each stakeholder (within a complex system of various CNCs, RFCs, ministries and IM’s) is sometimes quiet difficult. Who can provide some important information and how to keep always an eyes on (end)-customers’ requirements besides political and financial constraints to boost international rail freight.
- Cost/benefit analysis is hard to estimate. In general the main problem is that investment/costs vs. benefits are focused on national parameters and not managed as a European business case.
- Finding ways at a European level (SERAC) and CNC’s, Ministries and IMs -approach in terms of common and only specific “corridor”-related priorities

### **Next steps**

- **Next CNC forum level:** For each corridor, presentation by the RUs with the feedback of End-customers (e.g. Operators, UIRR, ESC, Oil- and Automotive-Industry...) of the critical section identified for each TEN-T parameters and others issues (like P400) and in general terms

showing the detailed impact on their rail freight business after resolution. A map will be provided per RFC.

- **RAG TAG level:** Following the CNC forum at each RFC level, presentation of an action plan expected by the RUs for each TEN-T parameters and others issues (like P400), showing the detailed impact on their rail freight business after resolution. A map will be provided per RFC. Some input could be also provided by the Terminal operators (especially about 740m and electrification implementation in their own terminals)
- **RFC Management Board:** Comparison of the action plan provided by the RUs, the RFC transport market study and the investment plan described in the RFC implementation plan and the CNC Work plan, identification of the gap between those documents, suggestions to the ExBo.
- **Next ExBo meeting level:** Based on the RFC Management Board analysis, establishment of a coordinated action plan in order to solve the critical points providing the highest business for the RUs at short term and medium term.

October / November 2018: Workshop RFC network / NexBo with CNC's on the actual progress.). Main focus: identification of RUs business requirements versus possible gap on planned TEN-T parameters investments in and out of the RFC lines in line with actions/next steps above

January 2019: Start of the methodology implementation (this could be executed in parallel and on different, but ambitious time scales) and increase efficiency / effectiveness in existing forums / platforms.

## Priority 8 - Facilitating concrete ERTMS Implementation

**Rapporteur: Jean-Baptiste Simonnet, CER**

In 2017, the EU court of auditors confirmed the broad consensus on the need to achieve higher performance and interoperability within the European railway area through modern and harmonized railway control command and signalling system. The migration that is necessary to implement the new target system, ERTMS technology, is still a long path and a key challenge for the rail freight sector. Given its impact on cross-border transport, the scale of investment needed, the technological and institutional complexity and, in particular the need for coordination, ERTMS becomes a strategic issue.

Dealing with ERTMS as a sector priority is the opportunity to facilitate its concrete implementation. This can only be achieved through better awareness and common understanding on opportunities and issues to be solved. A closer coordination between European railway actors is necessary, within the industry but also at institutional level, in order to make ERTMS migration affordable and beneficial for the rail freight sector.

Since spring 2016, concrete steps have been taken to smoothen and enable ERTMS migration. Detailed plans are now available to guide track side investment and trigger fleets conversion. A close European coordination is being organized in order to deliver predictability and affordability. The adoption and now implementation of Directives composing the 4th Railway Package represent also major steps that should facilitate a safe and interoperable use of ERTMS assets.

There are still deployment issues to be solved. The EU Agency for Railway has the challenge to develop with the Sector a technical frame preserving investment made while also promoting interoperability and innovation. Reporting streams should be optimized under the coordination of the European Commission supported by National Ministries in order to anticipate any delays in deployment and at the same time identify opportunities of acceleration and cost reduction. Building on the investigation on ERTMS business case in Rail freight corridors, conclusions should be drawn on European and national financing schemes in order to make the migration sustainable for the Railway Sector, in particular for freight and open access passenger Railway Undertakings. ERTMS should finally provide a stable reference for interoperability while also delivering a safe technical platform supporting innovation and performance for railway.

Actions facilitating ERTMS implementation are covered by the ERTMS deployment action plan and should be coordinated through the ERTMS stakeholder platform. For the coming period, ministries should keep attention on ERTMS migration, notably ensuring that a relevant national financing frame is available and that any delay in implementation is well anticipated notably when a cross border section is involved. Specific attention will also be needed to deliver sufficient and adequate access to radio spectrum supporting reliable connectivity for ERTMS. Issues or opportunities affecting the European outcomes of ERTMS national investment program should be monitored by and shared between ministries, notably within Rail Freight Corridors executive boards.

There is finally an opportunity, today, to look at the broader business case of an accelerated railway digitalization, as ERTMS is a contributor for it. Some evolution of railway are today identified as ERTMS game changers that can increase infrastructure capacity, support safety and performance through connectivity, and decarbonisation through automation. The ERTMS Stakeholder Platform supported by Shift2rail has a natural role to facilitate the related developments which can bring additional benefits to ERTMS deployment. At the same time, pending the revision planned for 2022 of the regulations defining ERTMS and as it was started in some Member States, ministries should engage with Infrastructure Managers to investigate and enable more ambitious digital program for the modernization of control command and signalling system using ERTMS as a standard platform delivering sufficient safety and interoperability.

## **Priority 9 - Monitoring the quality of freight services with implemented and shared KPIs**

**Rapporteur: Alfred Pitnik, RU Dialogue Subgroup International Freight**

With the implementation of all the nine initial RFCs by 2015, the need for harmonised sector-led KPIs became increasingly important in addition to the KPIs laid down in the RNE Guidelines for RFC KPIs in the end of 2015. RFC users represented by CER, CLECAT, ERFA, ESC, RU Dialogue SGIF, UIC ECCO Group, UIRR therefore submitted a set of 15 commonly agreed KPIs to the RFC structures with a view to implementing them quickly. Joint discussions between the above- mentioned stakeholders led to an agreement whereby RFCs and RNE agreed to take on board those new KPIs that are feasible to calculate in an automated way as of timetable 2018. Since, the figures of the commonly applicable KPIs have been made available to the public and are regularly updated on the RNE website.

During 2018, the evaluation of the available results will be started by the sector representatives and followed up by their proposals for improvements if necessary. As a further step, the sector stakeholders propose that all the KPIs are rolled out on all 11 RFCs, and in a second step, are implemented at European level, beyond the RFCs as well.

The initial objectives to which the RFCs committed themselves in terms of KPIs in the Sector Statement have been reached through introducing new KPIs upon the request of RFC users and making the figures available in a timely manner. However, due to lack of technical feasibility and to the fact that the Regulation does not give any responsibility to the RFCs concerning infrastructure charges, two of the KPIs proposed by the RFC users were not developed. In order not to generate additional manual work for any of the stakeholders, it has to be noted that each RFC KPI that is to be implemented should be technically feasible and calculated in an automated way. In addition, as a pre-requisite for a set of comparable KPIs, the creation of a harmonised basis of data for calculating the KPIs is needed between the IMs.

Further work to be undertaken:

- Rollout to all RFCs – all data
- Analysis of results with the stakeholders before publication including corrective action if needed (as has been suggested by some RFCs following discussions in RAGs)
- Improvement needs to be foreseen in the implementation for the KPI´s missing
- Rollout to the whole network
- Further development and improvement taking into account customer needs and the learning from incidents e.g. Rastatt

The recommendation of the Network of Executive Boards concerning the implementation of the RNE Guidelines on KPIs of RFCs is appreciated. The constructive dialogue between the parties involved needs to be maintained to further develop the KPIs. An ongoing improvement process shall be undertaken to ensure KPIs become a living and useful tool for the users of rail freight.

## **Priority 10 - Harmonisation of Corridor Information Document (CID)**

**Rapporteur: Guus de Mol, ProRail, RFC Rhine-Alpine and RailNetEurope**

As a harmonised structure for the CIDs (RNE CID Common Structure) was already in place before the Rotterdam Sector Statement and the Ministerial Declaration were signed, this Priority is being implemented as a wider scope of harmonisation of the CIDs. As a result, the texts of three of the five CID Books (Book 1, 2 and 4) have been harmonised under the RNE umbrella until now and successfully implemented by all RFCs. Significant improvements have recently been made to the common structure of the Book 5, whereas a revision of the common structure of Book 3 and its potential harmonisation are also foreseen. The CID harmonisation went even beyond by developing a common glossary for CIDs to be implemented in 2019.

With regard to CID Book 3 (Terminal Information), Regulation 2017/2177 on access to service facilities and rail-related services foresees that the IMs shall provide a common template that operators of service facilities may use to make available the information required. The service facilities may publish this information on their websites, on a common web portal or submit it to the IMs ready-to-be published in the network statements. This common template will have an impact on Book 3, because it would not be customer-friendly to make information on the same terminals available in different formats. An analysis regarding the potential revision of CID Book 3 common structure and potential harmonisation of the text will be launched in the second half of 2019. Both the result and the timeline highly depend on the acceptance level of the common template among the terminals, i.e. the willingness on the side of the terminals connected to the RFCs to use the common template. If RFC terminals use different templates, it will not be possible to achieve a harmonised way of publication of terminal information in CID Book 3, which will not be customer-friendly. Furthermore, it is even now difficult for the RFCs to gather the required information for their CIDs from the terminals. It is the competence of the Regulatory Bodies to enforce the provision of the required information by service facilities, as well as to encourage use of the common template.

The goal of the revision of the common structure of CID Book 5 was to turn the updated implementation plans into more useful documents, especially for the interest of the RFCs' customers. Besides the customer-oriented manner of the revised common structure, it will also ease the updating of this document for the RFCs by decreasing their overall efforts on it. The RFCs agreed on the revised common structure for the Book 5 in June 2018. As for the harmonisation of the text of the CID Book 5, it is not planned by the RFCs and not requested by the RFCs' customers either due to the nature of its content, i.e. very specific and individual cases on each RFC.

Although the revised CID Book 5 common structure will already result in a more useful document for the RFCs' customers, this aim could only be fully achieved if the RFCs, which are already operational, could transform the Implementation Plan updates into RFC Development Plans. The aim of this Development Plan could be to inform the RFCs' customers about the most relevant future developments of practical relevance for their business carried out and planned on the RFCs. This is not possible to achieve for the time being, because the Freight Regulation stipulates the mandatory elements of the Implementation Plan and its regular updates.

In order to decrease the RFCs' administrative burden, the Regulation only obliges them to make an Implementation Plan for initial RFCs or extensions. RFCs make regularly a development plan with information primary for RUs and shippers so they can prepare themselves for future operations. Therefore, the support of the ministries of transport is needed during the consultation process of a future revision of the Regulation that this aspect is taken into consideration.





# 0 Introduction

## 0.1 Background of the Rotterdam Declaration

Over the recent years, rail freight transport in Europe was characterised by a challenging market environment and heterogeneous national developments, which resulted in different evolutions of volumes and market share, depending on country or region. On some of the Rail Freight Corridors positive results could already be noted. However, international rail freight is still impeded by several infrastructure and operational bottlenecks, in particular relating to crossing borders between the Member States. This means that additional efforts will be required to contribute to the goal defined in the European Commission's 2011 White Paper on Transport to shift 30% of road freight volume over distances >300 km to rail and waterborne transport in 2030.

During the 2016 TEN-T days in Rotterdam the Ministers of Transport signed the so-called 'Rotterdam Declaration', in which the Ministers wished to express their strong support for the development of international rail freight transport and in particular their strong support for the continuation of the market-oriented development of the Rail Freight Corridors. Member States play a vital role in these corridors through the Executive Boards and by ensuring coordination among them.

At the same time the railway sector adopted in 2016 a sector statement with commitment to "boost international rail freight". The Ministers expressed in the Rotterdam Declaration their wish to work together with the railway sector on the recognized priorities. Following the Rotterdam Declaration and the sector statement, the sector identified 10 priorities, which were presented during the Rail Freight Day in December 2016. Sector organizations decided to work together on the priorities in an integrated way and set up the sector statement group by July 2017 and indicated 10 rapporteurs for the identified priorities.

The ten priorities are:

1. Following the Time Table Redesign project (TTR)
2. New concepts for capacity offer on RFCs
3. Improving coordination on Temporary Capacity Restraints (TCR)
4. Enhancing the use of Path Coordination System (PCS)
5. Improving harmonization of processes at borders
6. Train tracking and Expected Time of Arrival (ETA)
7. Prioritisation, funding instruments, and monitoring of TEN-T parameters
8. Facilitating concrete ERTMS Implementation
9. Monitoring the quality of freight services with implemented and shared KPIs
10. Harmonising the Corridor Information Document (CID)

## 0.2 Progress and outlook for the next two years

The Rotterdam Declaration of June 2016 specifies that by 2018 the progress will be evaluated at political level. In this Comprehensive Progress Report we set forth our findings, detailing progress on the sector priorities based on information received from the sector priority rapporteurs. Also, an assessment of where specific attention (topics, priorities, actions) may be focused on in the next two years for sector / EU level is made.

# 1 Priority 1 - Redesign of the international TT process (TTR)

**Rapporteur: Joachim Kroll/Philipp Koiser, RNE**

## 1.1 Summary

Some time ago, RNE and FTE joined forces to change the current international timetabling process, which is outdated and does not meet market requirements. Since this situation leads to financial disadvantages in the modal split caused by unattractive lead times and instability of the planning process, an ambitious new approach was necessary. Hence, RNE and FTE with the support of ERFA created a new process based on an approach, in which the complete capacity is planned in a long term and allocated as dynamic as required by the respective market segments: The redesigned international timetabling process (TTR).

When creating this new process, the market spelled out its needs: possibility for dynamic AND stable as well as reliable capacity forecasts (including plans for capacity restrictions). Based on these needs, the Infrastructure Managers designed a process consisting of 5 components, which was then commonly adjusted and agreed on by IMs and applicants:

- The Capacity Strategy – a common European strategy in which general capacity availability shall be harmonized (e.g. operational concepts, available lines, major capacity restrictions, changed commuter systems)
- The Temporary Capacity Restrictions (TCRs) – improved and intensive harmonization of TCRs are necessary to provide stable capacity announcements and to meet the main requirement: The traffic has to flow!
- The Capacity Model – model timetables created by IMs together with applicants, available before the capacity requests start to ensure planning and publication of available capacity. In it, the capacity is shared among the market segments (TCRs, annual timetable requests, Rolling Planning requests) for each line and for each timetable period.
- The Capacity Requests
  - o Annual Timetable: For all traffic for which details are known long time before the timetable change
  - o Rolling Planning: For traffic which has details available only shortly before the start of operation

To implement this large process all over Europe, TTR will be implemented gradually in three main steps:

- Starting with the timetable period 2020, three European lines on and around Rail Freight Corridors will launch a pilot to test the innovative components and provide inputs for developing and improving common mechanisms (e.g. Commercial Conditions, Allocation Rules), change management and IT systems
- In timetable period 2021, the pilots will be expanded on the complete core network of ÖBB Infrastructure. The three pilot lines already in operation will continue their activities and extend their test to multi-annual products.
- After further extensions of the pilot lines and networks, the full rollout of TTR is expected for the timetable period 2025.

In parallel, enablers are being defined, which are required to implement the complete process: IT systems will ensure the digitalization and high speed of the process. Commercial Conditions and Allocation Rules are necessary to steer the process. Also, KPIs will be established to further improve the effectiveness of the process.

## 1.2 Introduction / objectives

Incomplete harmonization of timetabling procedures between European countries makes it difficult to cooperate at international level. This weak international performance is a major factor that the railway sector loses market share.

To remedy this unsatisfactory situation, RNE and FTE agreed that changes to these procedures are needed and thus created a redesigned timetabling process. The implementation of the TTR process shall ensure:

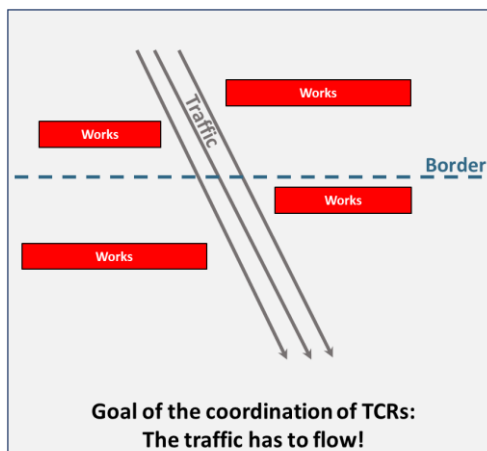
- Clear focus on freight and passenger market needs with optimised request deadlines
- Improved reliability, consistency and stability incl. planning and execution of Temporary Capacity Restrictions (TCRs)
- Binding implementation and application of the redesigned timetabling process TTR
- Improvement of efficiency (capacities, resources, IT) in order to avoid multiple planning/work
- Making best use of existing infrastructure capacity

The goal is the implementation of the complete process (i.e. all process components as agreed by RNE and FTE) latest by the end of 2024 (Timetable 2025).

## 1.3 Progress & Actions

RNE and FTE have already created and agreed on the basic components of the redesigned timetabling process:

- *Temporary Capacity Restrictions (TCRs)*

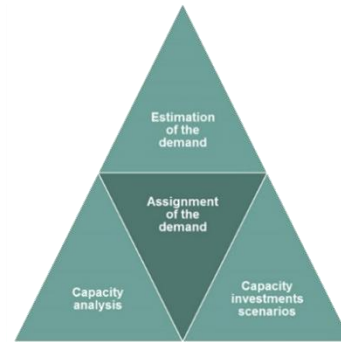


The proper coordination and communication of Temporary Capacity Restrictions (TCRs) is a key factor for the provision of reliable capacity information, based on which high quality paths can be created. Although works are important for keeping the infrastructure in good shape, bad coordination leads to a waste of capacity. The commercial needs of IMs and Applicants have to be considered. The planning of TCRs starts as early as 5 years prior to the timetable change, with iterations leading to the maturity needed for the capacity model at X-12, and defining major, medium and minor impact TCRs. Even after X-12, the planning of minor impact TCRs continues and unforeseen TCRs need to be included.

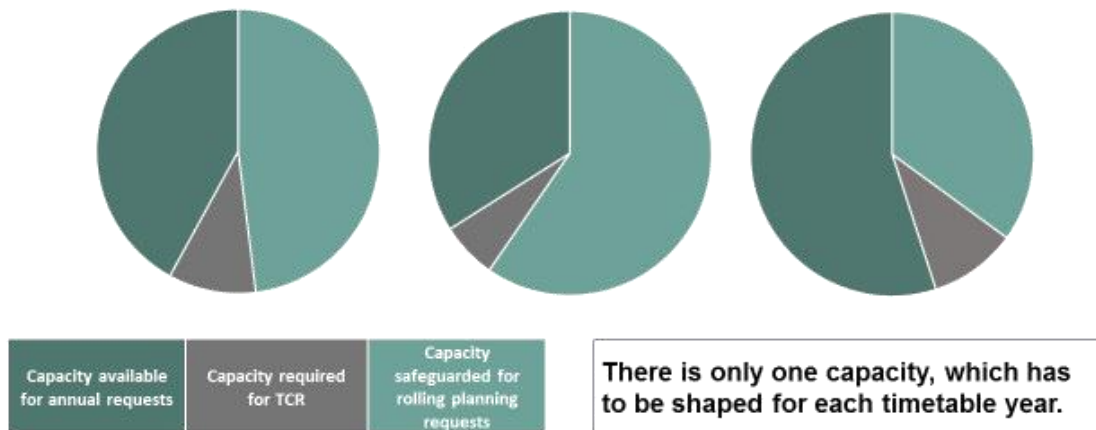
Due to its importance, the TCRs are described separately as Sector Statement priority 3.

- TTR Strategy for the timetabling process

A more precise planning of timetables must include the creation of a capacity strategy. Such a strategy should provide insight into the IMs' and Applicants' intentions for the upcoming timetable periods, including the management of traffic streams. It is also necessary to analyse traffic flows, taking into account the available infrastructure. Therefore, the careful planning of TCRs shall result in a well-balanced strategy in which IMs', Applicants' but also the national economic interests are harmonized at international level.



- Capacity model with capacity partitioning

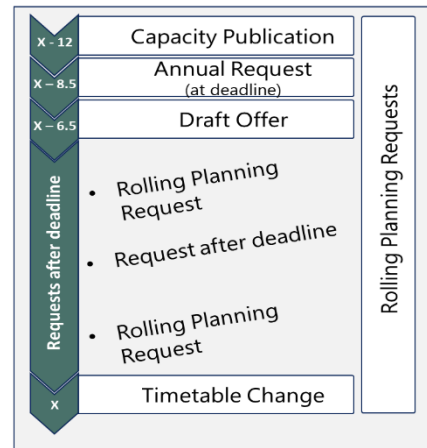


The key characteristic of the redesigned timetabling process lies in the consolidation of all known capacity elements (available capacity, expected traffic volume, etc.) into a single entity: The capacity model. In this model, all data regarding a specific timetable period will be available by X-12 and based on this data, the creation of the actual timetables should start. Being the core element of the pre-planning phase, the model's main function is to display available capacity and partition the expected traffic according to its attributes. It also safeguards capacity for Rolling Planning requests and provides basic information to all timetabling process stakeholders.

- Request method 'Annual request' and 'Rolling Planning'

For traffic which is defined in detail long before operation starts and which requires early contracting for commercial and competitive reasons, it is essential to provide feedback as early as possible. For this purpose, the annual timetable requests offer the possibility of early requests and early response. Due to the possibility that it might not be feasible to meet an early deadline, but traffic itself follows similar patterns, such requests can also be placed at a later time, making use of residual capacity.

In order to meet market requirements, the TTR project has identified the urgent need for a requesting method for traffic with details to become known at a later date. The Rolling Planning was created to be able to request paths at any time and to still provide high quality paths. The Rolling Planning is based on safeguarded capacity, which is dedicated to later requests and which is assigned to this purpose in the capacity model. Quick response times and multi-annual request validity should provide the flexibility necessary in order to react to the volatile market while at the same time still providing stability for upcoming timetable periods



- General process components

Some of the components to be implemented need to be considered throughout the entire process.

- o Leading entities: For each process step it is important to have clearly assigned responsibilities. A leading entity is required to steer the process and to ensure that agreements are being made and deadlines are being met.
- o Allocation Rules: Allocation Rules determine the highest priority in case of conflicting bids. Such rules are necessary to provide the IMs with the means to determine which aspect of a potential conflict to focus on and to provide the best possible solution.
- o Commercial conditions: In order to steer the process, to prevent misuse from any side, and to encourage the use of the correct tools provided in the process, commercial conditions will apply. It is essential to note that TTR does not harmonise the monetary value of commercial conditions but provides a framework which can be applied without exception throughout Europe in order to eliminate the confusing variety of ways commercial conditions have been established.
- o Key Performance Indicators (KPIs): TTR will provide a timetabling process that is as close to real market needs as possible. However, this also requires monitoring and improvements. To measure the effectiveness of the process, KPIs will be applied.

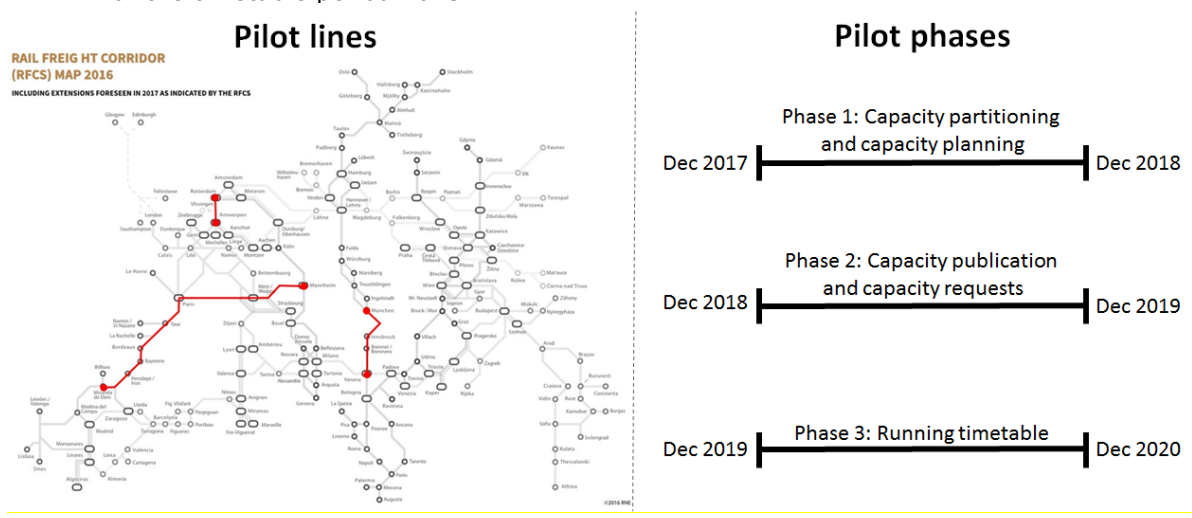
Before TTR	With TTR
<ul style="list-style-type: none"> <li>- Only one static process (request deadline, allocation) which must serve all types of traffic</li> <li>- Insufficient for both passenger and freight traffic <ul style="list-style-type: none"> <li>o Allocation too late for passenger traffic</li> <li>o Request too early for freight traffic</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- Two request methods: <ul style="list-style-type: none"> <li>o Annual Request deadline with earlier allocation</li> <li>o Rolling Planning method for request at any time</li> </ul> </li> <li>- Rolling Planning is a step towards overcoming the restrictive annual timetable</li> </ul>
<ul style="list-style-type: none"> <li>- Only residual capacity for later requests</li> <li>- Freight RUs forced to request at 8 months before timetable change to safeguard capacity</li> <li>- Consequences: <ul style="list-style-type: none"> <li>o Unnecessary planning on RU and IM side (timetable has to be constructed) including coordination between „phantom“ requests</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- Safeguarded capacity ensures quality paths at later request times</li> <li>- Rolling Planning allows requests at any time</li> <li>- Consequences: <ul style="list-style-type: none"> <li>o No more „phantom“ requests from RUs</li> <li>o No more unnecessary coordination of „phantom“ requests by IMs</li> <li>o Reduced need for modifications</li> </ul> </li> </ul>

<ul style="list-style-type: none"> <li>○ Additional workload due to modifications</li> <li>○ Unused capacity due to cancellation</li> </ul>	<ul style="list-style-type: none"> <li>○ Efficient use of infrastructure capacity</li> </ul>
<ul style="list-style-type: none"> <li>- Strategies created on national level only</li> <li>- Lack of international coordination of TCRs</li> <li>- Missing link between TCRs and timetables</li> <li>- Despite high effort: creation of unstable timetables</li> </ul>	<ul style="list-style-type: none"> <li>- Capacity strategy is harmonized internationally</li> <li>- TCRs are coordinated internationally well in advance</li> <li>- TCRs impact on timetables is clear before requests</li> <li>- Timetables are stable</li> </ul>

## 1.4 Conclusion on the progress

A business case based on the redesigned timetabling process showed large financial benefits for the railway sector with its market orientation and efficiency. To access these benefits, RNE and FTE have agreed to implement TTR in three major steps:

- Starting with the timetable period 2020, three sections of European lines on and around Rail Freight Corridors (North Sea Mediterranean, Scandinavian Mediterranean, Atlantic) shown on the following map will implement the last phase of a pilot to test the innovative components and provide inputs for developing and improving common mechanisms (e.g. Commercial Conditions, Allocation Rules), change management and IT systems
- In timetable period 2021, the pilots will be expanded on the complete core network of ÖBB Infrastructure. The three pilot lines already in operation will continue their activities and extend their test to multi-annual products.
- After further extensions of the pilot lines and networks, the full rollout of TTR is expected for the timetable period 2025.



Currently, these implementation steps are in preparation: Capacity models are being built, input for legal vehicles are under evaluation (e.g. FCA, Network Statements) and basic framework conditions are in development (e.g. IT, Commercial Conditions). Being a sector project, all stakeholders on the pilot lines are involved in the current preparation phase.

## 1.5 Gap Analysis

In order to implement TTR, several milestones need to be achieved:

- IT Systems: The deployment of European IT systems – or at least systems which can communicate on European level – is crucial for the success of TTR. However, several IMs and Applicants have already planned their IT for the upcoming years. It is necessary to streamline their attempts with the European sector goals.



- 
- Some TTR elements are very innovative and require testing. The current legal framework is based on the old-established process and is often being interpreted as such. To allow TTR, a new interpretation is required and other methods to ensure TTR are to be found.
  - In the TTR pilots which have been implemented on and around three Rail Freight Corridors, several pressure points showed up:
    - o The pilot can only run if all RUs/applicants carry the results of the capacity model
    - o Since the pilot lines are adjacent to lines using the old-established process, with traffic running on both lines, the TTR process cannot be implemented to the full extend (“Hybrid situation”).

## **1.6 Needs**

To ensure the goal of a full roll-out of TTR by the end of 2024, the Ministries of Transport are asked to:

- Allow and support the testing and implementation of innovative TTR components. This is particularly required for the Rolling Planning request method, which is based on safeguarded capacity (i.e. capacity not available for earlier requests to allow high quality answers for later requests).
- Support the investment scenarios of TTR, especially in the area of European IT solutions to promote digitalization.



## 2 Priority 2 - New concepts for capacity offer on RFCs

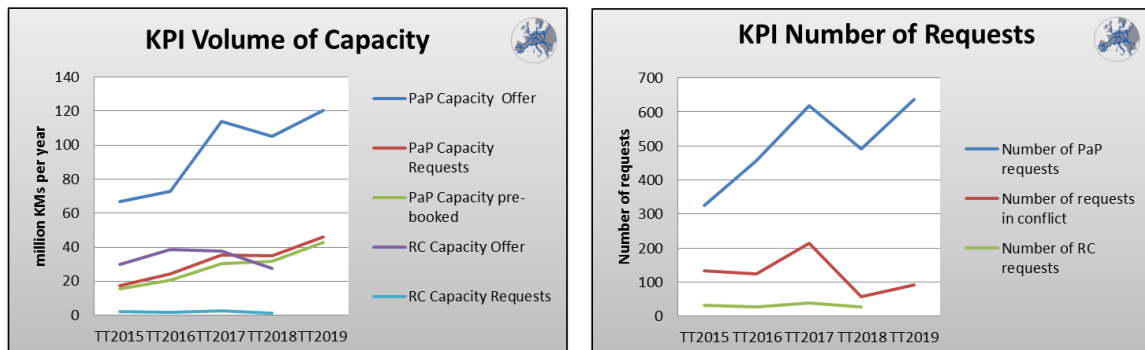
**Rapporteur: Thomas Vanbeveren, C-OSS Community**

### 2.1 Summary

The initial implementation of the capacity part of Regulation 913/2010 (EU) was implemented between 2014 and 2016. The results over various RFCs and regions were very mixed. Together with the customers (as presented in the RAG meetings), the RFCs mounted projects to differentiate and optimize the capacity offer to better suit the needs of the customer where needed.

To show the evolution of the capacity offer on the entire RFC Network, an overview on the KPIs listed below is provided.

- PaP Capacity Offer (volume: KMs x days)
- PaP Capacity Requests (volume: KMs x days)
- PaP Capacity pre-booked (volume: KMs x days)
- RC Capacity Offer (volume: KMs x days)
- RC Capacity Requests (volume: KMs x days)
- Number of PaP requests (dossiers in PCS)
- Number of requests in conflict (dossiers in PCS)
- Number of RC requests (dossiers in PCS)



### 2.2 Introduction / objectives

For this priority project, the C-OSS Community Speaker has been asked to act as the rapporteur. In the Sector Statement following the Rotterdam declaration on Rail Freight Corridors, it was agreed that IMs must continue optimizing the C-OSS and the offer made by the RFCs via the C-OSS, taking into account their customers' needs. They must commit to strengthen the role of the C-OSS in international freight. In the medium term, the aim must be to allocate, coordinate or support the majority of the entire international rail freight market along the corridors and connecting lines via the C-OSS. This entails continued improvement in procedures and IT tools at IM and RU level. In close cooperation with the customers, IMs must continue to innovate their product offer and explore the possibility of extending the C-OSS to include pre- and after-allocation services.

As of timetable 2018/2019, the progress made on this priority encompasses the following concepts:

Maximisation of PaP capacity:

One of the main problems cited by clients is the fact that the capacity offer via the corridors is only a fraction of what the market actually needs. RFC NSM wants to overcome this issue by offering all pre constructed international capacity available as PaP, with on certain border points even the offer of all available slots for international freight being offered through the corridor.

Capacity bandwidths:

Because of the call for more flexibility in the Corridor Capacity offer, some corridors opted for an implementation of a bandwidth concept, for which published PaP times can be adapted within a bandwidth of 60 min (or more) and moreover the number of path possibilities are shown without the concrete timetable.

Short-term capacity pilots:

As the current deadline for reserve capacity via the corridors was fixed at 30 days before the first train run, some corridors decided to launch a pilot to find a corridor solution for short term capacity requests. Four pilots were launched with each their own specifics.

Terminal capacity:

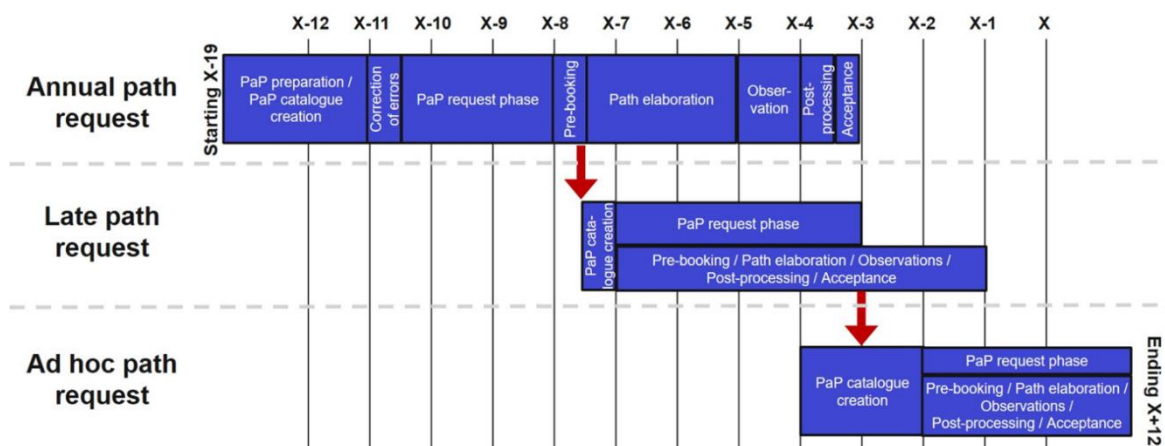
Terminal capacity is currently being requested after the path was allocated, while the access to terminal capacity is often the bottleneck in the chain. If no access to the Terminal capacity can be found, this leads to path cancellation/modification and thus poor efficiency for both Applicants and IMs. This pilot on the ScanMed corridor aims to close this gap.

Increased role of the C-OSS.

Up to 2017, the role of the C-OSS was mainly limited to the PaP/RC publication and path request managing. This project aims to increase the coordination role of the C-OSS in the path construction phase, to solve cross border issues before draft and final offer are being offered to the client.

**2.3 Progress & Actions**

Based on the requirements introduced by Regulation EU 913/2010, RNE has developed Guidelines describing the process for the Corridor OSS (C-OSS) concerning the management of Pre-arranged Paths (PaPs) and Reserve Capacity (RC). While the aim of PaPs is to cover long-term capacity needs of the freight RUs, the scope of the RC are the ad-hoc capacity needs. Here an overview of the currently applicable process for management of PaPs and RC by the C-OSS:



However, together with the clients, the RFCs discovered multiple flaws in the current products and processes.

### Short-term capacity pilots:

Due to the currently applicable deadline for submitting of requests for RC (no later than 30 days before the first train run), this product answers rather the mid- than the short-term needs for capacity of the freight RUs.

According to a customer workshop on the ScanMed Corridor, the market requires two different products with two different deadlines (30 days and 3/5 days) within the RC, whereas the short-term RC would serve the ad hoc traffic. Based on this outcome, in September 2016, the RFC Talks (now RFC Network) requested RNE to conduct a feasibility study on improvement of RFCs' short-term capacity product.

Upon consulting the C-OSS Community (bringing together C-OSS Managers from all RFCs), a dedicated project was set-up to provide a framework for further activities. In this project, RNE - in close cooperation with the C-OSS Managers, supported by other stakeholders such as sales & timetabling experts of the involved IMs - has been dealing with the definition of the new short-term capacity product, description of the related process and required IT developments.

Within the frame of RNE's project, RFC Baltic-Adriatic volunteered to launch a test pilot based on the existing process for international ad hoc capacity requests, with a minimum involvement of the C-OSS Manager (who first acted as project manager till the kick off of the pilot and then as a guarantor / controller of the process during the pilot execution) for a trial period of six months between May and November 2017. However, the market acceptance of this first pilot was low resulting into the following lessons learned:

- The deadline for submitting of capacity requests (8 working days) was too long;
- The awareness and experience with using of PCS by short term planners of RUs was low;
- At many RUs, the work with requesting the new product would have to be done twice;
- The overall attractiveness of the capacity products offered by RFCs is low without further incentives for RUs to order them.

After the PCS major release in November 2017, a second pilot continues with several RFCs (Scandinavian-Mediterranean, Baltic-Adriatic, Orient and partly also Mediterranean) participating and testing slightly different approaches in order to meet market needs in the field of ad-hoc capacity needs. To overcome some of the lessons learned from the first pilot, active promotion of the second pilot was recommended to be addressed in more detail (e.g. by the means of dedicated instruction videos for managing of capacity requests in PCS provided by RNE). However, the deadline for submitting of capacity could have been shortened only to a limited extent.

To support the second pilot, some minor developments have been undertaken in PCS.

### Terminal capacity:

On the ScanMed corridor, a project was launched to offer capacity inside certain terminal areas with some of the PaPs published. This was done within the scope of going towards an integrated capacity offer. These pilot terminal areas consist of the Alnebru terminal in Norway, the Port of Duisburg in Germany and the Port of La Spezia and Interporto di Bologna in Italy, while allocation procedures were completely in line with those of the PaP capacity as described in the Framework for Capacity Allocation.

The followed processes were nevertheless somewhat different for the different participating terminals.

- Applicants can place requests for Terminal Capacity in one step, together with the PaP requests (from second Monday in January till second Monday in April). The C-OSS acts

therefore as a common Post-Box for both Requests for PaPs and for Capacity in Terminals. Allocation of Terminal Capacity via the Terminal.

- C-OSS publishes free Terminal Slots (no preliminary coordination with the PaP times) in the PaP Catalogue
- C-OSS publishes free Terminal Slots (no preliminary coordination with the PaP times) in the PaP Catalogue.
- C-OSS publishes in the PaP Catalogue Terminal Slots which were coordinated with the PaP times.

#### Maximisation of PaP capacity:

On the North Sea-Mediterranean Corridor, the initiative was taken to offer for timetable 2019 (publication January 2017) all harmonized border times as PaP. This consisted of borders between the following countries: the Netherlands, Belgium, Luxembourg, France and Switzerland. Eurotunnel and the UK chose not to apply this approach.

On some border points, this means that outside of the published PaPs, only tailor made paths can be requested. For the border points of Rodange/Aubange and Essen/Roosendaal, actually all for international freight available border times were published in the PaP catalogue. This strategy is completely in line with the Sector Statement on Rail Freight Corridors, which states: *"IMs will continue optimizing the C-OSS and the offer made by the RFCs via the C-OSS, taking into account their customers' needs. They commit to strengthening the role of the C-OSS in international freight. In the medium term, the aim is to allocate, coordinate or support the majority of the entire international rail freight market along the corridors and connecting lines via the C-OSS"*.

#### Capacity bandwidths:

On the Baltic-Adriatic, North Sea-Baltic and Atlantic corridors, a new approach was developed to meet a demand from some customers for more flexibility. On the northern and central part of the Baltic-Adriatic Corridor, and on the eastern part of the North Sea-Baltic corridor, it was opted to increase the flexibility of a certain PaP not only to the national stretches, but also to the border point. On the Atlantic corridor, this idea was even pushed further, in providing "capacity windows" on 1400 km in which a given number of paths could be constructed. In order to try to increase the stability of these paths, it was tried to build the temporary traffic restrictions around these bandwidths, in order to also increase the commercial speed from origin to destination within these defined bandwidths. This approach was titled 'guaranteed capacity pilot'.

#### Increased role of the C-OSS.

Together with RNE, the timetable process between the path request deadline for the annual timetable and the draft offer was revised, in order to mark to a higher degree the role of the C-OSS in this period. The main idea behind this new approach is that it remains the C-OSS that has to submit the draft and final offer, but in reality the C-OSS is not always in the loop of the coordination between IMs, let alone in charge of the path construction.

The most important added value that the C-OSS can have in this phase is the proactive identification of suboptimal border harmonization. The C-OSS is perfectly placed to act on these cases before the draft and/or final offer are submitted to the client.

In order to achieve this, two measures were applied. First of all, it was made clear to all IM, that – no matter which type of communication is used – the C-OSS should be informed of the exchange of border information between IMs when constructing the paths. Secondly, IMs are asked to provide their finalized border times at least one week earlier than before to the C-OSS, so that the C-OSS can perform an in depth analysis on the correct harmonization of the paths. If problems can be detected by the C-OSS, this is then put on the agenda of the RNE technical meeting, where

IMs come together to finalize the path harmonization before submitting the final offer to the clients.

## 2.4 Conclusion on the progress

### Short-term capacity pilots:

For each of the four RFCs for which a pilot was launched on short term capacity, different outcomes could be drafted, but in essence, the major weak point of all four pilots was the mandatory use of PCS. Not per se the tool in itself remains to be a problem, but especially the fact that this is only for the very first time that short term planners are asked to use this tool, makes this a brand new process, with a considerably high stepping stone.

If we look more in depth, the following table gives an overview on the state of play for each of the pilots:

	Scan Med	Baltic Adriatic	Mediterranean	Orient
<b>Duration</b>	One Year (TT 2018)	Launched on May 29th 2017 for 12 months	6 Months (December 2017)	6 months (December 2017)
<b>Extension</b>	Depending on the success of the pilot and the identification of findings during the actual application of the process			
<b>Channel</b>	PCS			
<b>Main product features</b>	1) Empty Paps 2) The Customer fills in the Empty PAP with its request 3) Spot traffic: requests only for single train runs	1) Tailor made paths 2) Origin/Destination on the network of the RFC5 IMs 3) No limitations concerning operational days	1) Harmonized Capacity offered in form of PAPS (eastern part of the RFC) 2) Extension of RC process up to 8 days before train runs	1) Harmonized Offer : - Flex PaPs with time indication - Flex PaPs without time indication (empty slots); 2) No limitation concerning operational days
<b>Recent results (May 2018)</b>	no requests placed so far, despite the generally positive feedback towards this initiative	So far, there have been 4 capacity request submitted under the pilot.  RFC5 significantly shortened (about - 50%) requests deadline during the second phase of its pilot and provided dedicated training to requesting RU short term planners.	Despite Interest and flexibility being appreciated by Customers, no formal requests  The pilot enabled to bring in new customers for RC and the new route crossing Croatia  The continuation of the pilot up to the end of the current TT is under discussion.	Only 2 requests:  Nevertheless, the pilot can still be considered as a customer-friendly approach to enhance the planning and coordination of short-term international traffic, thus RFC 7 is will prolong the pilot till 8/12/18



#### Terminal capacity:

The terminal capacity pilot on the ScanMed corridor can at the moment not show a satisfactory result. At this stage, no requests for the offered terminal capacity were submitted and an analysis on the next steps is being discussed at the moment.

#### Maximisation of PaP capacity:

The figures on the North Sea – Mediterranean corridor concerning the number of requests placed for timetable 2019 are very promising. While the capacity published increased with almost 70%, the volume of requests increased with almost 85%. This clearly shows that when the capacity offer is adequate compared to the capacity needed by the market, the clients' will to work with the PaP catalogue, and the client acceptance and appreciation of the PaP concept will increase. Only when the majority of available capacity of international freight is managed through the C-OSS, the added value of the role of the C-OSS will be recognized.

#### Capacity bandwidths:

The results of the capacity bandwidth approach for timetable 2019 could not yet significantly be measured. On all three participating corridors, the volume of requests remained stable for the pilot lines. However, as these capacity bandwidths aim to improve the quality and client appreciation of the draft and final offer, results of the approach can only be measured after the final offer in August, and in the case of the guaranteed capacity pilot on the Atlantic corridor, on the performance of the running trains.

#### Increased role of the C-OSS:

The first implementation the new measures took place in 2017 for timetable 2018, with the first participation of the C-OSS to the RNE technical meeting. Also the information flow between IM timetable teams was generally adapted to the new procedures. However, especially the request to provide border harmonization times to the C-OSS one week earlier than the preceding process, could not always be applied because of operational issues.

Nonetheless, the amount of inconsistent border times that were identified before the draft offer was submitted to the clients increased significantly. This was widely acclaimed by the clients. On top of that, the increased role of the C-OSS permitted the identification of structural flaws in communication and coordination between some IM. This way, the C-OSS can help out timetable teams, instead of merely acting as a supervisor.

## **2.5 Gap Analysis**

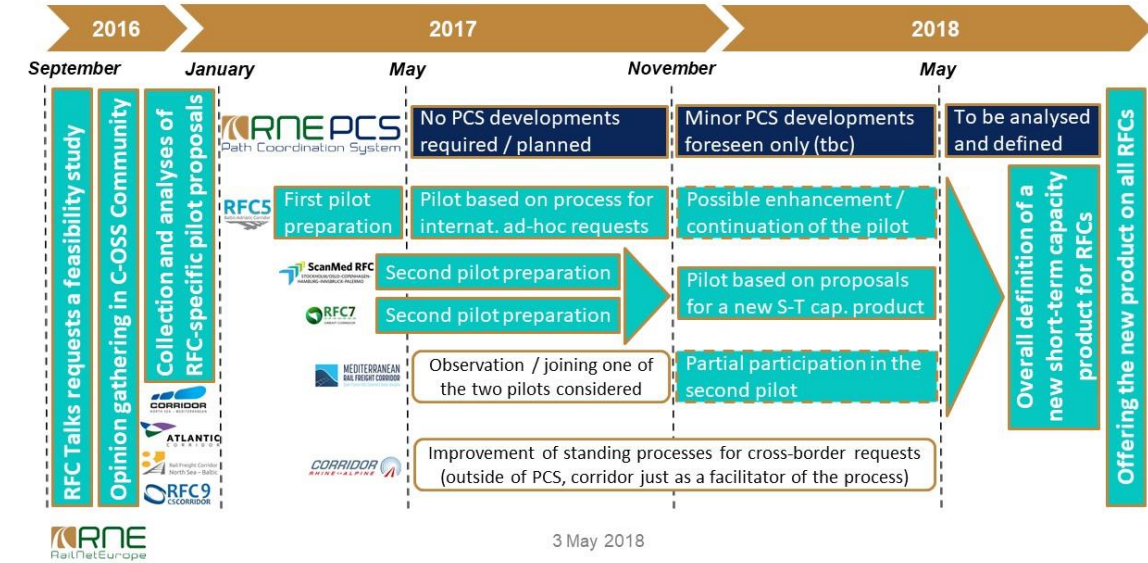
In general, the mandatory use of PCS remains the most important stepping stone for all capacity products offered via the corridors. The implementation of PCS next generation in 2016 was already a big step in the right direction, and the future implementation of the envelope concept and PaP product definition should help also. Nonetheless, it remains a fact that the use of PCS requires more effort from the customer than merely placing a national request, especially in the (most widespread) case where the client only requests capacity for one or maximum two IM. This means that the added value of the use of the tool should be clear. This is exactly where the new capacity products step in, in order to create this added value when using the RFCs and the C-OSSs.

When looking at each of the individual fields identified, the most important gaps can be stated as follows:

#### Short-term capacity pilots:

The project proceeds in line with the following timeline and overview with the second set of pilots being in progress. First interim results have already indicated increased customer interest in the second pilot in comparison to the first one, in particular on RFC 7 Orient/East Med.

## New short-term capacity product for RFCs Project's timeline and overview



After a six-month trial of the second pilot (in the meantime this deadline has been extended to the end of the timetable year), it is planned to discuss the best practices and lessons learned with all RFCs involved and arrive on a conclusion regarding the future approach to be taken in this market segment. As a general goal, this should lead to an overview on if such a common approach might be useful on other RFCs.

The biggest gap identified so far is the potential lack of sufficient market acceptance of the new short-term capacity product on the participating RFCs. In such case, options for further shortening of the deadline for submitting of capacity requests would have to be investigated possibly requiring new organizational set-up of RFCs' C-OSS (the current 'one man per RFC' might no longer be a suitable set-up to provide feedback to applicants on a short notice).

### Terminal capacity:

The main hurdle to overcome in order for clients to request capacity concerns timing, and current procedures. In most cases today, first and last mile are being operated by different entities than the RU running the train from origin to destination. This first and last mile operator will request the capacity inside the terminal in a much more flexible and short term manner. However, it must be stated that situations differ greatly from one terminal to another and from a small continental terminal to a big port area. In any case, a deep and systematic involvement of all clients in the chain is key in order to come to an offer that interests the client and helps building an efficient integrated capacity management system.

### Maximisation of PaP capacity:

The maximization of the PaP capacity, in terms of offering all possible slots for international freight at a certain border point is a quite easy task if the IM can build its capacity based on regular time slots designed for each traffic type. If this is not the case, the only optimal situation is a capacity offer with a given number of fixed border crossings per day. The main gap between the current situation (all RFCs) and this desired situation, is the IM commitment to go into this direction. This requires a shift in paradigm, and a restructuring of historically applied procedures. However, as the pilot results show, this might be essential to make the C-OSS an entity that helps the market greatly.

### Capacity bandwidths:

In order for a bandwidth concept to work, there are several conditions, but all have to do with discipline. The IM has to be able to respect the bandwidths and thus only plan important TCRs outside of these limits. Moreover, when constructing the paths for requested capacity, it has to be able to respect the capacity guaranteed within these defined bandwidths. This requires a significant shift in current practices. On client side, these bandwidths should also be respected when applying for capacity, and thus adjusting the transport plan to these predefined timeframes, in order for all clients to be able to enjoy the benefits of an improved capacity planning.

### Increased role of the C-OSS:

IMs and RUs have to accept the C-OSS as the major coordinator in international capacity planning, and especially understand that its role is primarily to assist and help them out. It is vital that the C-OSS is kept in the loop of all information exchange and has quick and easy access to IM capacity data. However, this also means that the current one person C-OSS is in most cases insufficient, and that C-OSS teams are essential in order to achieve this goal.

## **2.6 Needs**

The range of capacity products on the RFCs lies in hands of the respective Management Boards. Together with the RAG and TAG, it is the goal of each RFC to optimize this. However, optimal solutions might differ from one region or network to another. The current Regulation 913/2010 and FCA leave quite some room to manoeuvre for the RFCs. As such, specific legislative needs do not seem to exist. However, a clear commitment by the sector to support the development of the international rail freight market via the RFCs is key. Moreover, the overall use of one capacity ordering tool for international freight (as is foreseen for TTR) is another key element if the RFCs want to reach their full potential. Today, the only available tool for this is PCS. However, if we want to reach our goal with PCS, or any other tool, the existence of functional interfaces between the international platform and all national construction systems is critically needed. A long term objective should be the design of a single and common European capacity ordering tool, used for all capacity requests. TTR implementation will contribute to make this long term objective a reality.

## 3 Priority 3 - Temporary Capacity Restrictions

**Rapporteur: Joachim Kroll/Philipp Koiser, RNE**

### 3.1 Summary

Temporary Capacity Restrictions (TCRs) are an important part to allow safe train operation and to keep railway infrastructure intact. However, they also limit the capacity available for traffic for a limited period of time. To keep the times, in which the infrastructure is not available to the full extent, as limited as possible, the sector has to agree on methods to ensure the minimum impact of TCRs on the rail traffic, while at the same time works can be planned as cost effective as possible.

As essential part of capacity planning, the TTR project (see priority 1) foresees a thorough and long-term planning of TCRs regarding the announcement, publication, coordination of TCRs with a permanent consultation of applicants. With the recast of Annex VII of the Directive 2010/34/EU, the European Commission has provided a legal basis for harmonizing TCR processes internationally.

As first step, RNE has now provided TCR Guidelines to cover the stipulation of the recast Annex VII. In a next step, these guidelines will be enhanced to exceed the core needs and provide further descriptions and methods to the sector. In addition, tools are being built at RNE which allow the core requirements for TCR processes, namely the coordination, consultation and publication within the process.

### 3.2 Introduction / objectives

In order to provide high quality path offers, it is essential that Temporary Capacity Restrictions (TCRs) be well planned and coordinated. They are an integral part of the redesigned timetabling process (as described in priority 1). In 2014, RNE issued a first set of guidelines to present a TCR process on the Rail Freight Corridors. With the recast of Annex VII of the Directive 2012/34 published in November 2017, several obligations and deadlines have become legally binding for the complete sector. Yet, there is room for interpretation as well as obstacles to fully implement a common TCR coordination process.

At RNE, the TCR Working Group is dealing with requirements to coordinate TCRs between IMs and – in cooperation with RUs – define measures to achieve better coordinated TCRs to the best use of the sector.

### 3.3 Progress & Actions

In its General Assembly, RNE has agreed to create TCR Guidelines applicable for the complete European network. A task force, consisting of experts from IMs and RUs, has already created a first draft of these guidelines, which will be presented to the RNE General Assembly in May 2018. This version includes:

- Main terms
  - Coordination, Consultation, Publication
  - Consecutive days
  - Impact on other networks
  - Known TCRs, late TCRs
- TCR impact cluster (major, high, medium and minor impact TCRs)

- Calculation method
  - Basic information required for impact calculation
  - Calculation of „Impact of TCRs“
- Main process steps
- Process implementation steps

With this first version focusing on the basic needs of Annex VII, further enhancements will be included by December 2018. The version provided for GA approval in May 2018 already contains a list of additional features to be added in the second half of 2018. The sector will be invited to contribute to these enhancements and also provide input to improve the existing content.

In parallel, RNE together with TCR experts also from working groups of the Rail Freight Corridors has developed a tool for coordination, consultation and publication of TCRs (TCR Tool). The first version of this tool will be applied on the Rail Freight Corridors. A pilot run has been launched in April 2018 with four participating RFCs (RFCs 1, 3, 5 and 9). Further developments of the TCR tool are planned and will be in line with the TTR project's IT landscape and the further developments of the TCR Guidelines.

### 3.4 Conclusion on the progress

On 16 May 2018, the RNE General Assembly has approved the new TCR Guidelines, which can be found here: [http://www.rne.eu/rneinhalt/uploads/2018\\_TCR\\_Guidelines.pdf](http://www.rne.eu/rneinhalt/uploads/2018_TCR_Guidelines.pdf)

In addition, these guidelines will be enhanced in the upcoming months to exceed their core and to provide further tools to better coordinate TCRs in Europe. For that, a new task force, consisting of experts from IMs (RNE) and RUs (FTE, ERFA) has been formed. The enhanced guidelines are expected to be approved by the RNE GA in December 2018.

### 3.5 Gap Analysis

- The requirements of Annex VII are very demanding and require a short-term change management within IMs. However, no detailed process description was available by the time of the publication of the recast as the Annex VII mostly contains the framework (e.g. milestones). This leads to the risk of hastily implemented processes by IMs which cannot be synchronized internationally.
- The Annex VII demands a long-term planning of TCRs. However, some IMs see a problem on national level due to:
  - Budgets for re-investments being available on short notice (and being lost if unused)
  - Tenders for construction companies ending only shortly before the TCRs start (hence, details are available on short notice only)

### 3.6 Needs

The Ministries of Transport are asked for the legal investigation regarding the gaps:

- Is the availability of national and EU funding for railway infrastructure improvements in contradiction with the Annex VII? If yes: Are there ways to align those two elements?
- Are the legal frameworks for national tendering processes (for re-investments and construction works) in line with the Annex VII? If no: How can an alignment be achieved?

To support this development, RNE has launched a survey among its members to help detecting these pressure points (available by the end of August 2018)

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

**Rapporteur: Thomas Vanbeveren, C-OSS Community**

### 4.1 Summary

The Path Coordination System (PCS) is an international path request coordination system for Path Applicants, e.g. Railway Undertakings (RUs), Infrastructure Managers (IMs,) Allocation Bodies (ABs) and Rail Freight Corridors (RFCs). The internet-based application optimises international path coordination by ensuring that path requests and offers are harmonised by all involved parties. Input for international path requests needs to be placed only once into one system – either into the domestic application or directly into the PCS.

The PCS provides a single workflow that enables RUs to use a standard dossier for all types of path requests. According to the submission date of the request and the requested timetable period, the PCS will automatically define whether the request is an ad-hoc path request for the running timetable, a path request placed in time for the next annual timetable, or a request to be treated as a late path request for the next annual timetable.

Permanent enhancement of PCS is necessary to adopt new standards, European legislations and to fulfil user requirements, increase the usability of the system and to enable the possibility of the integration to TTR IT Landscape as part of the capacity module.

### 4.2 Introduction / objectives

Being the only tool available for international path requests and allocation provided by IMs/ABs and designed by IMs/ABs together with RUs and applicants, PCS marks the first approach to provide harmonized requests and offers in Europe.

IMs/ABs will continue optimising the C-OSS and the offer made by the RFCs via the C-OSS, considering their customers' needs. They commit to strengthening the role of the C-OSS in international freight. In the medium term, the aim is to allocate, coordinate or support most of the entire international rail freight market along the corridors and connecting lines via the C-OSS. This entails continued improvement in procedures and national and international IT tools at IM and RU level, such as PCS. As the corner stone of the C-OSS IT landscape, it is used as single tool for requesting capacity at Rail Freight Corridors, permanent enhancement of PCS is required. The tool can be used using a simple browser, but also provides the possibility to connect via interfaces.

The requirement to have a single European railway area, makes it necessary to provide such a common tool to use common timetabling processes. With TAF/TAP TSI being implemented gradually, PCS also supports the implementation of European standards.

As such, PCS should be available and used for the current process to facilitate the European processes and to boost international freight. At the same time, PCS needs to be enhanced to reflect improved processes on the mid-term, such as the PaP Product developments, but even more the needs of the redesigned timetabling process. These objectives will be reached in the following projects:

- 'TSI compliant PCS mandatory interfaces'  
Project to ensure that national interfaces are being built for better data exchange/quality. This step is required to keep data from national systems in sync with PCS and prevent redundant work in two systems (PCS and national system).

- 'TTR IT Landscape'  
The design of the complete TTR IT Landscape will include most of the current PCS components as modules
- 'PaP Product Definition: PCS Developments'  
The refining of the PaP product as described in the revised PaP Guidelines (this is also a first step into the 'Rolling Planning' concept as designed in TTR)

### 4.3 Progress & Actions

Former PCS was more than 10 years old, and it was becoming difficult to adopt new changes or deploy bug fixing patches for existing problems. Considering the growing amount of user requirements, RNE decided to rebuild the system completely without impacting the supported international timetabling process.

Also, the documentation of the system including the change management became outdated. As every material was stored offline in documents, the update and synchronization was very hard. To solve these two problems, to parallel activities/projects were created:

- PCS Next Generation, re-developing the old system
- CMS Integration, building a new Content Management System to replace the standalone documents

#### PCS Next Generation

After a long year preparation and development, on 25<sup>th</sup> January 2016 a new version of PCS, known as PCS Next Generation, was released. Requirements from the different working groups (Railway Undertaking, Infrastructure Manager/Allocation Body, and Rail Freight Corridor) were taken into consideration.

The system has been reprogrammed completely from the back-end to the graphical user interface.

As a result, thanks to the modular structure it has become easier to implement new features, fix problems in the system, and, compared to the former version, the reliability, speed and user acceptance of the system has increased.

#### CMS Integration

The PCS Team built a new Content Management System (CMS) to replace standalone documents, tables and files. After the integration to CMS, all PCS related content can be found in one place, online and available to the PCS users with the following main features:

- Documentation of the system (guides, books, videos, tutorials)
- PCS and the timetabling process guideline, always with the upcoming events
- Meeting organization (date, venue, agenda, minutes, registration form)
- PCS change management workflow including all the change requests
- Administration of PCS related working groups





### Envelope Concept

Combination of the different timetables and their calendars will be meant to be handled like letters in an envelope, when the dossier header information will serve as the header information of the envelope.

General introduction to the project can be found in the [linked video](#). With the Envelope Concept the following major features will be introduced to PCS increasing the data quality and the reliability of the system:

- Calendar consistency check on interchange/handover points
- Automatic downgrade of acceptance indicators when neighbours are impacted by a timetable change
- Train Outline as a new, special presentation of the timetable that shows the most important data of the train
- Multiple Pre-Arranged Paths (PaPs) can be added to the dossier on the same territory
- Introduction of the time-zone offsets to support always local times in the timetable

The project is ongoing, the date of delivering most of the features is November 2018.

Parts that are finished:

- Gathering the user requirements
- Functional specification
- Estimation and planning of the development
- Draft version of the new PCS xsd

Parts that are under elaboration:

- Development and testing
- Training approach

### Timetable quality on borders

According to the decision of RNE GA December 2016, RNE had to establish a task force regarding timetable quality. The task force has defined certain measures in short, mid and long-term to increase the quality of the offers. The above-mentioned Envelope Concept is also one of the measures. Before Envelope Concept comes to effect, as a short-term action the PCS Team established a monitoring procedure of the timetables focusing on border areas (interchange and handover points either). Using the monitoring procedure, the following actions are planned for 2018

- Before 9<sup>th</sup> April: Proactive troubleshooting before path request deadline

- June: Increased support to the IMs/ABs during RNE Technical meeting that is used for border harmonization
- Before 2<sup>nd</sup> July: Monitoring and quality control before draft offer deadline

### Removal of national particularities

To consolidate the situation, RNE is analysing the known national parameters and at the end prepares an action plan with the following information by the end of 2018.



### PaP Product definition

The new Guidelines for C-OSS concerning PaP and RC management was introduced in December 2016 upon the approval of these Guidelines by RNE General Assembly. The Guidelines themselves are available on RNE's website along with a description of changes in comparison to the formerly separate Guidelines concerning C-OSS and PaPs.

After making the analysis of the requirements, RNE decided to split the development into several steps starting in November 2017 and planned to be finished by 2019 November according to the following.

Available in PCS production:

- Pre-Booking phase where only the C-OSS Manager has editing access
- Separation of the RFC acceptance indicators from IMs/ABs to avoid misunderstandings
- Apart from the existing RU and IM/AB timetable, providing dedicated C-OSS timetable, where C-OSS Managers can make partial edition on the PaPs

Planned to be released by November 2018:

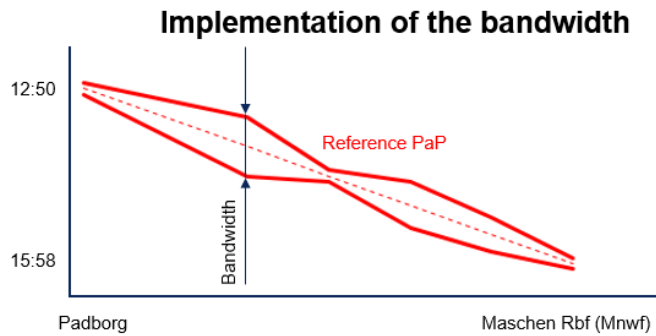
- Publication of slots for reference PaPs supporting bandwidth approach
- Increasing the flexibility of the requests with introduction of threshold for the IM parameter constraints

Planned to be released by April 2019:

- Calendar update possibility for IMs/ABs on reserved capacity, if tailor made solutions are being created for pre-booked PaP sections not available anymore due to external influences, especially TCRs.

Planned to be released by November 2019:

- Implementation of bandwidth surrounding the reference PaPs indicating the available and safeguarded capacity
- New classification of the published operation points in the reference PaPs increasing the flexibility of their application by the applicants



#### 4.4 Conclusion on the progress

To establish the possibility of future enhancement and increased usability, PCS was re-developed from the basics and all related content was organized and published in an online application (CMS).

In the past years, PCS has come from a loose exchange of information to a TAF/TAP TSI compliant system, allowing systematic data exchange. The latest developments target at a new data structure of PCS dossiers ('Envelope Concept') to provide maximum efficiency when building interfaces while increasing the user friendliness on the graphic user interface.

However, the increased quality of the PCS functions also showed the lack of harmonized international processes. Therefore, it is important that processes are being harmonized within Europe. Hence, PCS will become part of the TTR IT Landscape.

Since then all the functions that were added to the tool, or still under development, are focusing on the following points:

- Increase data quality and usability
- Decrease the complexity of integration (interface connections)
- Preparation of TTR processes and products (PaP Product development)

#### 4.5 Gap Analysis

##### Data quality and consistency issues in PCS

Current version of PCS supports the user creating inconsistent dossiers with overlapping timetables, thus the result is different interpretation by the different agencies and unreadable dossiers. The following issues are some of the motivators for delivering a new concept:

- Ambiguous meaning of the timetable calendars. Different agencies (RUs, IMs/ABs, and RFCs) interpret the result differently.
- Impossible to define train with alternative origin or destination in an unambiguous way
- Running days across different timetables can be completely different. Consequently, trains can be skipping a territory or run multiple times per day

##### Timetable harmonization issues on borders

During the draft offer period in 2016, RNE, together with the Railway Undertakings identified timetable harmonization issues in planning on the borders, like negative border times, wrong locations on the neighbouring sides.

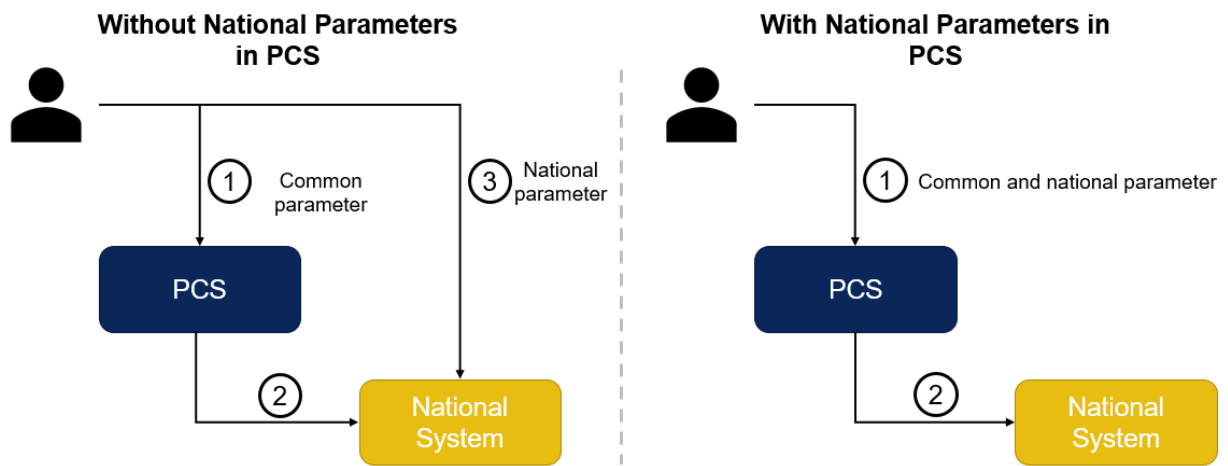
## National particularities, complication of the international path request process

PCS, based on TAF/TAP-TSI schema, works with common set of parameters. These are designed to describe the train and path information that is necessary for the timetable construction and the path request process.

In case the common parameter set is not suitable enough, each IM/AB is invited to prepare its own national parameters. The creation is done always in the first two weeks of November. Update of those parameters is only possible via the PCS Support in exceptional situations (e.g. Network Statement update).

The problem is that the number of national parameters started to grow dramatically in the past few years and the harmonization status among the IMs/ABs is critical.

As it is shown on the picture, each Railway Undertaking must fulfil those parameters either in PCS or in the national system.



## 4.6 Needs

Referring to one part of the objectives about extending the C-OSS to include pre- and after-allocation services, it's necessary that IMs/ABs, and where possible RUs as well, integrate to PCS. Without interface connections double work and data inconsistency will remain a hindering factor that discourages the C-OSS to fulfil their foreseen role. With the implementation of the Envelope Concept, the integration to PCS will become less complex, however IMs/ABs should be still motivated to connect their national system to PCS.

Implementation of the new PaP product in PCS is a forerunner of the capacity aspect of TTR. It provides bigger flexibility to the actors (RUs, IMs/ABs, and RFCs) compared to the currently used PaPs, however the IMs/ABs should be motivated to respect and safeguard the capacity that was given to the C-OSS, strengthening the role of the C-OSS in international freight.

On top of that, in order for PCS to reach its objectives, RUs, and applicants in general, should commit to intensify their use of PCS and contribute to the development of the tool by sharing their requirements and experiences via the different platforms available.

Regarding to any support in the removal of the national particularities, it's necessary to wait for the result of the analysis and the action plan, elaborated by RNE PCS Team and the RU/IM Telematics Sector Management Office. Most likely adaptation of certain parameters is required, that means change requests to TAF/TAP-TSI schema and code list. As the approval of the change requests is done by the European Union Agency for Railways, support from them would be necessary for smooth adaptation.

## 5 Priority 5 - Improving Harmonization of Processes at Border

**Rapporteur: Eva Eckert, DB Cargo**

### 5.1 Summary

The lack of harmonization at the borders is one of the major obstacles for rail freight traffic in Europe. Priority 5 from the Sector Statement is a new chance to overcome national thinking and behaviour. The priority aims to find quick interoperable solutions for existing issues. To generate and maintain a smoother run across the borders, however, no "one size fits all" - approach can satisfy the respective needs of nine different Rail Freight Corridors in all their complexities.

### 5.2 Introduction / objectives

In order to develop a competitive rail freight transport, all stakeholders involved must increase their cooperation and efficiency: the involved IMs, RUs, national authorities, police control and other players must collaborate closely at Schengen and non-Schengen borders.

The sector has been working on harmonization topics for many years. Border harmonization is one of the major obstacles for rail freight traffic in Europe. Priority 5 from the Sector Statement list is a new chance to overcome national thinking and behaviour. The fact that the declaration was signed by so many stakeholders responsible is a sign that there is a will to harmonize railway transport in Europe. The priority is aiming to find quick interoperable solutions for existing issues.

### 5.3 Goals

1. Harmonisation and/or standardization of laws, rules and regulations as to decrease and/or diminish any additional efforts of the RUs in order to smoothen rail freight cross-border transports.

Specific goals are namely (list is not exhaustive):

- a. Acceptance of Safety Certificate of the one country up to the next border station
- b. Agreements with and between IMs for a lower language level (less than the B1 level required in annex VI of EU Directive 2007/59)
- c. Further harmonisation of breaking sheet and of rules for braking calculation
- d. Train tail signal
- e. Harmonisation of wagon composition rules
- f. Application of the home country's rulebook for and certification of locomotive drivers (eventually with small amendments) up to the next border station

2. Avoid stops at the borders and/or reduce the stops to the technical minimum.

### 5.4 Progress & Actions

In order to understand the progress and the actions, it firstly is vital to know which working groups are already existing and dealing with harmonisation topics.

Secondly, it is necessary to reflect on the decision making power of the different groups.

Thirdly, the Issues Logbook will be named and classified in the landscape of issues.

## **A. The PRIME/RUD Issue Logbook**

The Issue Logbook was introduced in order to have a comprehensive central depository of all harmonisation topics in the railway sector. During a PRIME/RUD meeting on 15/5/2018, the sector (broadly defined) was asked to pick three main priorities from the Issue Log. On 15/6/2018, DG MOVE announced that it was considering to focus on three sets of issues:

- Braking sheets and performance (Issues 1 & 2)
- Issues related to train composition and technical checks at border stations (Issues 4 to 8)
- Real time communication about the train composition (Issue 15)

The initiative of DG MOVE is welcomed by the sector.

## **B. Existing working groups and committees**

There is a variety of associations, committees and groups which attend to the various issues of Priority 5. There are report committees and working groups. Not always the problems are being dealt with but rather reported their existence.

### **At UIC level:**

- **ECCO Project:** RU-internal group consisting of the RAG-speakers of the nine RFCs defined in EU directive 913/2010. In this group, requirements of the RUs across all RFCs are being bundled. The group itself can only solve problems for which RUs are directly responsible.
- **Study Group Operations:** This group is strongly connected to the ECCO Project. Within this group, standards related to the operations of trains are elaborated in order to give the RUs the possibility to adopt same in a harmonized way (please find further information in Annex I).
- **Xborder Project:** At the initiative of the Fret RU CEO Task Force and in addition to ECCO, a new project has been set up. In this project, a group of interested RUs is analysing three specific border crossings with the aim of identifying quick wins. Communication, language and other relevant topics up for harmonisation are being evaluated in order to make out room and solutions for positive effects of overcoming the problems and concerning the simplicity of changing established rules and behaviour. However, this also is an RU-group only. If the project identifies problems which cannot be solved by RUs on their own, the problems have to be addressed further to relevant committees and/or groups.

### **RAG-Meetings of the various RFCs:**

The RFCs are involved in the harmonisation of processes along the corridors. Also, EU Directive 913/2010 enables the RUs to address their topics within the RAG-Meetings.

The corridors' organisations are dependent on the cooperation and willingness of the national IMs and/or Ministries for traffic and infrastructure in terms of change of national rules and regulations. Ultimately, the power to making decisions is in national hands. This results in a certain lack of influence of the RUs in the decision making process.

### **ECCO-RFC-Meetings:**

While RAG meetings are dealing and focusing on one particular RFC, the ECCO-RFC-Meetings address topics which are relevant for all RF corridors. The group of RAG-speakers is meeting a group of RFC-representatives. The main work of the meetings consists of exchanging information in relation to work status of various projects. It is not a meeting to work out measures and or work plans. There are no decisions to be made.

### **RNE-Language Programme:**

At the end of 2017, RNE launched a Language Programme whose goal is to improve interoperability, lower costs and make sure safety is at least as good as today. It examines whether it would be feasible to introduce complementary measures like predefined (and pre-translated) messages and translation tools adapted to the rail jargon to compensate a reduction

of the language requirement that is currently set at B1 level by Directive 2007/59. It also proposes a close cooperation with RUs and the Agency that could for example take the form of an RNE-UIC-ERA project. For that purpose, representative of ERA and UIC Xborder have been invited (and have accepted) to attend to the most recent meeting of the RNE language programme group. Ultimately, the intention is to design a workable solution that could be ready before the end of 2020.

#### ***Dedicated RFC project:***

Taking into account that each border crossing has its own particulars, a specific Task Force programme has been launched by the RFC 7 "Orient/East-Med" governance with the support of Mr Matthieu Grosch, the European Core Network Coordinator and his team in order to reduce the waiting times at the borders significantly. This initiative opened up a much broader activity than the EU Regulation 913/2010/EU requested and aims to significantly improve standards in operation, capacity management and service quality.

In this sophisticated approach, 12 impaired border crossings along RFC OEM were identified and 12 Task Forces are analysing and defining the full range of varying issues at these bottlenecks. Within a tight work plan, the Task Forces liaise with RUs and national bodies in order to identify solutions to achieve the "two-Hour Goal" waiting time. The focus is on the implementation of soft measures rather than creating heavy infrastructure investments.

### **C. The particular topics**

#### **a. Safety Certificate**

Formally, the Safety Certificate of the one country is accepted when going to the next border station by the new EU Directive.

The target is to "reach the border station in the neighbouring country on the base of the abilities/certifications of the home country plus as little additional effort" as possible.

However, the wording of the Directive opens up too much room for national interpretation. Definitions of terms are not clear enough yet. For example, the safety certificate will be emitted on basis of a well-defined "area of use". But even if the definition will be given, the national safety authority of the neighbouring country might ask for further requirements which are not to be foreseen in the home country. Hence, the Directive will not reach its initial purpose as intended but creates fresh problems. In short, the directive gives room for differing national solutions and thus, creates difficulties which counteract all efforts to legally harmonise.

The respective EU directive sets out that with the implementation of the 4th railway package the safety certificates should be valid in the named country and in all neighbouring countries up to the border stations (Implementing regulation establishing Directive 798/2016).

In those cases where the Agency acts as the safety certification body and the applicant intends to operate to stations in Member States with similar network characteristics and similar operating rules, when those stations are close to the border of the intended area of operation, the single safety certificate shall also be valid until such stations, without requesting an extension of the area of operation, following consultation of the competent national safety authorities and taking into consideration the relevant cross-border agreements.

With this priority, it is challenging to implement this directive correctly. Also, the room for that the interpretation is implemented also in a harmonized way.

Due to the vague and/or ambiguous wording of the Directive, national safety authorities took the opportunity and further defined additional national requirements. For example, the amendment stating "with similar network characteristics and similar operating rules" does not define what is "similar". Since a clear definition is not being provided, there is room for interpretation and consultation of the national safety authorities, and cooperation between ERA and national safety authorities is also foreseen in the Regulation.

#### **b. Language level B1 in Train Driver Directive and given possibilities for derogations in EU directive 2016/882**



Annex VI of directive 2007/59 indicates that a train driver must have at least a B1 level in the language of the IM where the train runs. This requirement is at the same time too high (it is costly for RUs) and too low (it does not guarantee that the driver will know the rail jargon in the local language which might pose safety issues).

Directive 2016/882 opened the door to waivers on cross borders stretches but it was not used as neither the most IMs nor some of the RUs wanted to accept the legal consequences of proposing or accepting such a waiver in case an accident occurs.

More recently, DG MOVE has proposed to revise Annex VI of directive 2007/59 to allow pilots that would be based on a reduction of the B1 requirement compensated by the introduction of complementary measures (like predefined messages and translation tools). The novelty is that the decision to waive the B1 requirement would ultimately be made by the EU commission, not by the concerned IMs and RUs.

For RUs, this means that language level B1 must be spoken on this stretches which has a huge impact in various aspects.

### **c. Braking sheet**

Due to historical reasons, all countries in Europe established national calculation of braking percentiles and also different layouts of the sheet, which is handed over to the loco driver.

That means – partly still today – that at the border stations, the respective documents and papers have to be exchanged. This does not only bring about administrative costs but also, it further complicates the already complex processes.

However, for a solution, it will not be sufficient to simply harmonise the braking sheet. The best approach is to be seen by harmonizing the braking calculation rules as well as the requirements on the train composition deriving from the brake calculation.

Some of the respective rules and regulations are fixed in national legislation and therefore, cannot be simply changed by bilateral agreements by the RUs themselves, however, they can at least partly if not completely by the IMs. In future, they will be to the discretion of the RUs, provided that to change the existing rule the RU is able to fulfil a suitable risk analysis.

UIC Operational study group would also be the right committee to elaborate a standard which, if applied by a large number of RU's, could give a real benefit to the sector.

In a first step, RUs developed a so-called "Breaking sheet West" and a "Breaking Sheet East", which are valid for the agreed countries, including a common layout in different languages. Currently, the UIC Study Group Operations is working on an update of these layouts. In addition, the RAG speaker of Rhine Alpine RFC initiated an analysis of differences in calculation, as it was pointed out which amendments in the law were required in order to harmonise the calculation and to avoid double work. These topics were addressed to the Rhine Alpine Executive Board and these amendments are under consideration by this ExBo.

### **d. Train tail signal**

The TSI OPE allows the use of the reflecting plate if and when specific requirements from infrastructures' sides are being fulfilled. In some countries, trains are not allowed to enter an occupied block and using reflective plate does not pose a problem. In other countries, trains are allowed to enter an occupied block if certain conditions are met ("permissive block"). In the latter case, allowing reflective plate could pose safety issues. Changing the permissive nature of the block seems difficult given its cost and its impact on the throughput.

In summary, this issue is sensitive as it has significant impact on safety, costs and capacity (throughput). There are also various national opinions on maintenance and cost. However, some



detailed discussions are currently underway in the context of the revision of the OPE TSI and it is expected that these discussions could lead to a new text in the following year.

In the meantime, the Italian IM has started a first pilot with tail plates instead of lights end of last year. This has been supported participating RUs of RFC 1, the corridor organisation and the Italian Safety Authority.

#### **e. Other operational issues**

Many operational issues are not harmonised along the corridors.

They have been identified and pointed out frequently at various occasions to the IMs and/or Ministries.

- Varying Train Composition Message concerning to TAF TSI by adding different national requirements
- Different Train Composition Rules
- Different rules for exceptional transports

Some improvements are in progress at the French/German border of Forbach where both sides are trying to find solutions to align their partly differing processes and to create overlapping working hours.

## **5.5 Actions to be taken**

### **Issues Log**

DG MOVE created a sub-Logbook defining certain topics as being out of scope of the ILB.

The sector recommends that the Issue Logbook keeps being a tool as comprehensive as possible in order to enable an efficient central steering of priorities for the railway sector.

For a given topic, to streamline the search and implementation of pragmatic solution in a short period of time (say 18 months), we recommend to reuse the light and agile governance structure that was used for the handbook on contingency management. This governance is based on one sector coordinator and on frequent PRIME/RUD meeting (chaired by DG MOVE and opened to RFCs, shippers, intermodal operators and other stakeholders) that monitors the progress done and provides guidance for the next steps. However, it is to ensure the participation of both perspectives, RUs and IMs, and a neutral monitoring of the progress being made.

### **a. Safety certificate**

Simplification of requirements on border sections up to the next border station is the best way to achieve real interoperability. Approximation of the respective contents of rules and regulations would help to abolish additional requirements by the national safety authorities.

In order to simplify the requirements, we could introduce a specification sheet, that:

1. states that the infrastructure on the border line and in the border station in the neighbouring country is compatible with the technical specifications for rolling stock of the home country - or specifies at least the small exceptions
2. summarizes a small set of regulations to be followed by operational staff being trained in the home country to operate on the border line and in the border station in the neighbouring country
3. summarizes the small set of regulations to be adopted by the RU and its staff in order to accomplish with the H&S prevention provisions in the neighbouring country

ERA and the NSAs could not decide about safety certificates without analysing, what is proposed in step 1-3. Perhaps the result could be a minimal catalogue of additional requirements (aim: no additional requirements). This could be the basis for the cooperation agreements between ERA and NSAs named in the directive 798/2016 in article 11.

### **b. Language level**

The current implementation status of actual legal framework not only not only leads to higher costs for qualifying loco drivers but it also makes it hard to even find a loco driver who is able to learn and keep up their language skills at level B1 and graduate the connected exams in this foreign language. A neutral study might highlight which cost the sector as a whole will have to cover.

The best way to proceed is to carry on with the work already started by RNE and UIC XBorder that could actually become a single project (with the active participation of the Agency). Again, the goal is to introduce complementary measure like predefined (and pre-translated) messages and translation tools adapted to the rail jargon to compensate a reduction of the language requirement that is currently set at B1 by Directive 2007/59. At the Xborder project, there is currently an analysis being carried out as to examine and compare communication needs from the past and the present, also how it can change in the future, given the technical progress. The respective remodelling of communication rules and instruments seems to be the logical consequence and only way forward. Once the solution is going to be designed (say in 2020), it would have to be tested on some pilot cross border lines.

In the meantime, interim solutions must be agreed between the parties, such as language derogations provided.

#### **c. Acceptance of locomotive authorization**

IMs could be made responsible to keep the infrastructure between border and border station as well as inside the border station as compatible as possible with the vehicles of the neighbouring country. For example, to make sure that the infrastructure on the border stretch is as “similar” (as defined in the 4th RP) as possible to that of the neighbouring country.

#### **C. Braking sheet**

The sector should analyse in detail the existing differences in braking calculation between the European countries. Aim should be the definition of one harmonised best practice and the implementation in all countries. This should be discussed in the greatest detail as possible.

The Issues Log initiative could push forward this topic – especially the national adaption of rules and laws – in the next two years.

#### **d. Tail lights**

The revision of the OPE TSI which is scheduled to be adopted shortly is expected to provide new rules for tail lights that provide more transparency to freight RUs about lines, where plates would be acceptable without compromising safety nor capacity. Results from the running pilot on RFC 1 can be used.

#### **e. Operational issues**

It is recommended to further define the wording of the Directive (see above) in order to prevent national authorities to set up national requirements which counteract the harmonisation process.

## **5.6 Conclusion on the progress**

The harmonisation of operational rules at borders is a long and complex task and it sometimes gives the impression of being hopeless. However, for the last few quarters, several initiatives involving both RUs and IMs have been launched to design pragmatic win-win solutions, sometimes with the help of new technologies. This is for example the revision of the OPE TSI, the language programmes (UIC, ERA, RNE), the Issue logbook, etc. Obviously, this is only the beginning and it might take a couple of years before the initiatives translate into concrete changes.

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

**Rapporteurs: Ralf-Charley Schultze (UIRR); Harald Reisinger (RNE)**

### 6.1 Summary

In today's society, customers expect to know when ordered products will arrive. In most cases, it is also possible to track exactly where the goods are for a specific moment. Unfortunately, this is not always the scenario for international train traffic within Europe. Therefore, three European projects are focusing on improving the sharing of the train running information from the first to the last mile during a train run. The projects are called ELETA project, ETA Programme and Legal Unit. Together with representatives from ministries, infrastructure managers, railway undertakings, intermodal operators, terminals, European Commission, the Agency, sector associations (CER, CLECAT, EIM, ERFA, EUG, ESC, RNE, UIP, UIRR, and UNIFE) and RFCs, the ETA Task Force is focusing on reporting and sharing information regarding train running information. Also, potential problems would be addressed within this group.

#### **ELETA**

The ELETA project is focusing on sharing the train running information from terminal to terminal during an intermodal train run. Currently, the project is aiming for all RUs and terminals involved in the project to sign the TIS user agreements. Up until now, almost all RUs and approximately 67% of the terminals have signed the agreements. The agreements are important to be signed in order to display train information for partners in the logistic chain from terminal to terminal. In all cases, several stakeholders are involved in a train run, which need to receive information telling when the trains are expected to be at a certain point.

#### **RNE- ETA Programme**

RNE is focusing on IMs being able to share and display forecast messages for international train runs with neighbouring IMs. Therefore, a Forecast qualifier has been developed in Train Information System (TIS), where forecast messages for a train run will be qualified. The result from the Forecast qualifier will secure IMs to consider their neighbours' forecast messages into their own train running calculations. Additionally, IMs can share experiences regarding forecast calculators and inspire IMs which will introduce a tool within their company in the future.

#### **Legal Unit**

The Legal Unit's focus is to assess the current legal situation regarding sharing of train running and forecast information between different stakeholders during a train run. A survey was distributed among member states in 2016, which focused on investigating if there were any legal obstacles sharing and tracking train run information. The result showed there are no legal obstacles and that TIS user agreements is a fine tool to use when different stakeholders would like to display and share train running information.

### 6.2 Introduction/objectives

Before the Estimated Time of Arrival initiative started in 2016, following problems were detected:

1. No guaranteed access to information

Up until the initiative was started, partners involved in a train run did not have guaranteed access to train (wagon) tracking and forecast information. Additionally, in order to share relevant information, contractual agreements between involved partners are required. Since

there were no standardized technical interfaces between all partners, this prevented partners to share information.

## 2. Low quality of information

The forecast information being sent does not involve all partners. Upon this, most forecast messages are based on time-shifting (i.e. if a train is 15 minutes delayed, the forecast for the continuing train run is a delay of 15 minutes). More exact data can be calculated by forecast calculators taking algorithms into account. Unfortunately, it was realized the quality and data for the algorithms were poor. In addition, only a few IMs take neighbouring IMs' forecast information into account. To display train running information during a whole train run, sharing of forecast messages is a prerequisite. Also, a unique reference number connecting different train numbers to one train run is necessary in order to share train running information. An estimation of all train runs in TIS shows that over 25% are not connected (linked) with a reference number.

After detecting the problems, the text quoted below was agreed on and included in the sector declaration. The text is leading for the projects working on the ETA issue:

*In order to improve operational efficiency of the logistics chain, the sector representatives commit themselves to implementing the TAF TSI functions according to the Masterplan and working toward a common ICT architecture wherever possible. IMs will integrate international traffic management information (e.g. via TIS) with national systems.*

*Under the protection of confidentiality clauses, IMs and RUs agree to make information on estimated time of arrival available (for handover points and final destination) to their contract partners, including terminals and intermodal operators for optimizing the use of resources such as rolling stock and terminal capacity, and to provide freight forwarders and shippers with up-to-date information about the status of their freight and an estimated time of arrival.*

Based on the sector declaration aims and objectives were defined to address the problems. Following are the project aims:

1. All partners involved in a train run have access to tracking and ETA data
2. All involved partners share train tracking data and ETA data
3. All partners involved in a train run feed their ETAs into TIS
  - all partners calculate their own part of the ETA
  - TIS shall be the common platform and measuring the quality of the ETA at defined points and directions
4. All partners plan ahead and share their ETA with the following partners, who can plan ahead as well
5. The leading RU communicates tracking and ETA data to the Contractor of the train
6. The Contractor exchanges information with the terminal and communicates "ready for pick-up" to the transport company/industry

In figure 1, the aim of sharing forecast messages between different stakeholders is displayed.

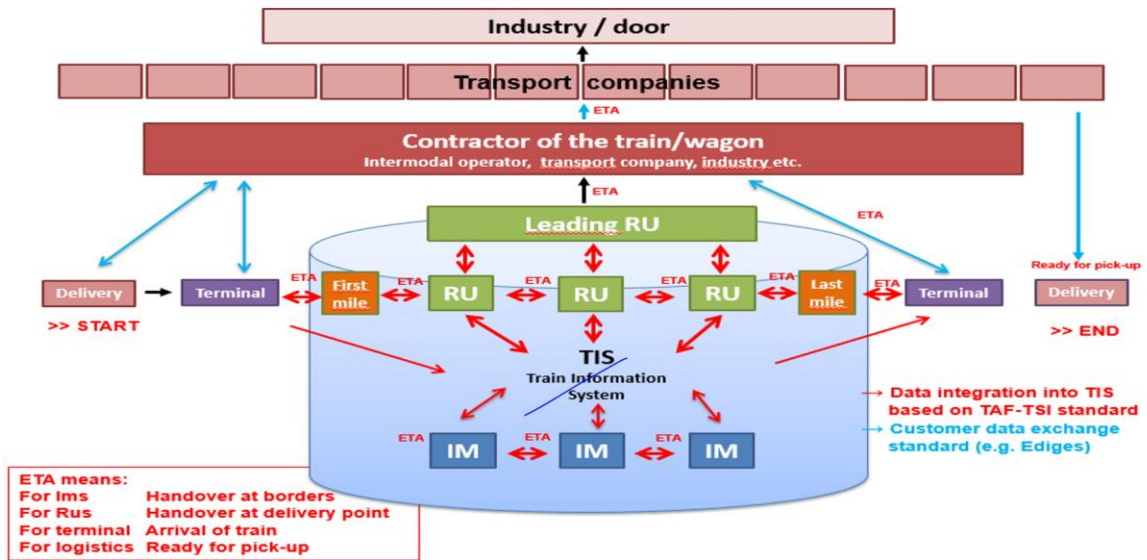


Figure 1. Aim of sharing train running information

### 6.3 Progress and actions

In order to be able to share and display the train running formation throughout the complete logistic chain, the sector agreed on a common approach in the year 2016, which was organised via the *ETA Task Force*. Apart from Infrastructure Managers and Railway Undertakings, the group consists of the Intermodal Operators, Terminals, European Commission, the Agency, sector associations (CER, UIRR, ERFA, ESC, Clecat and others), RFCs and ministries. The organisational set-up can be displayed in figure 2. When the task force was initiated, three projects were stated to be the foundation of the priority; ELETA Project, RNE ETA Programme and Legal Unit. If problems are addressed within the three projects, these will have to be raised with the ETA Task Force.

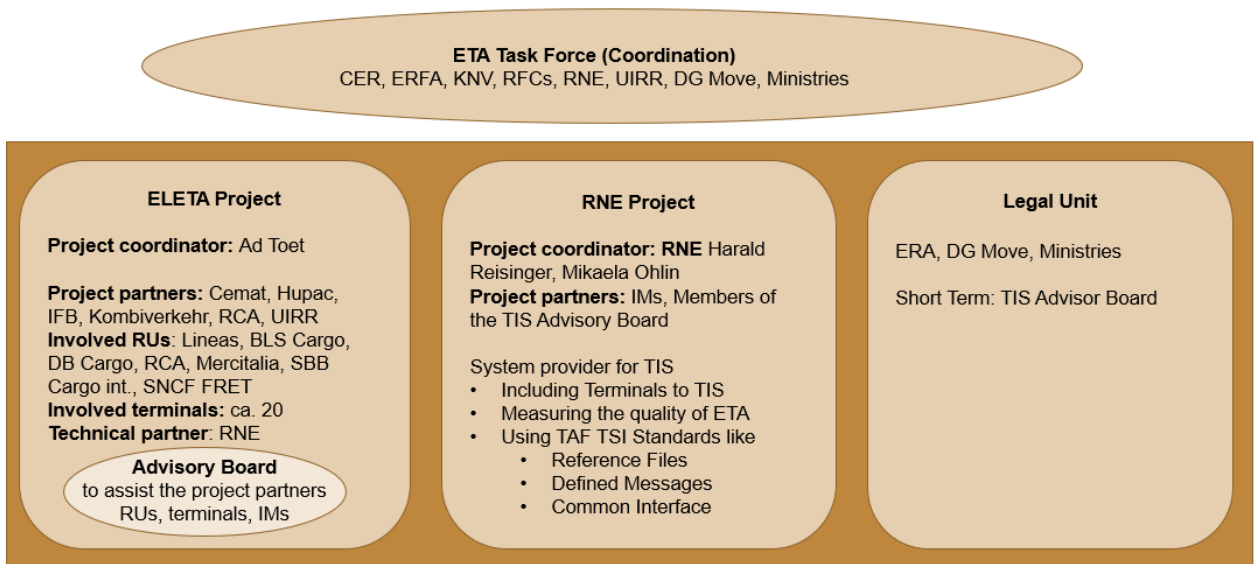


Figure 2. ETA Task Force

## **ELETA**

The ELETA project, which is supported under the EC/CEF, has the objective to provide in practice estimated time of arrival information for 12 selected intermodal train runs, including the first and the last mile to/from terminals. The project further has the objective to demonstrate the efficiency gained when sharing train run information and stimulate wider sharing of such information in the rail freight sector.

The project is initiated by five intermodal operators and is supported by the involved IMs and RUs. Additionally, the project cooperates with 20 terminals. The terminals will have to sign TIS user agreements in order to be able to see and share train information data for the ELETA project's train runs.

ELETA has its own External Expert Advisory Board (EEAB). The board consists amongst others of experts from various RUs and IMs as well as RNE.

Since the start of the ELETA project on 1 September 2017, one EEAB meeting has taken place, where good feedback showed that ETA is an issue of strong interest within the whole industry. On the meeting it was also realized that ETA has different meanings in the industry and that it is not sufficiently defined. Apart from the EEAB meeting, the ELETA project has focused on letting RUs and terminals sign TIS user agreements. Practically all RUs and about 67% of ELETA-terminals have signed the TIS user agreement. When the project visited the terminals, it was realized that the terminals have quite different levels of sophistication as regards digitalisation. In addition, the terminals tend to be small entities with limited staff resources. The ELETA General Assembly appreciates that terminals need special support for implementing new systems to share train information.

Apart from the need to define the exact ETA locations in the logistic chain, there is a need to define the provided and required accuracy of ETAs. Also, distinctly different approaches in algorithms for calculating ETAs are in use (based on stochastic analysis of historic data and on forward planning of operations).

Execution of the ELETA is on schedule meaning completion in September 2019. The project proceeds on its approach for using TIS as channel for providing ETA information to the relevant partners in the logistic chain. The activities which are planned until September 2019 are:

1. Assessment of ICT systems and standards to be linked
2. Elaboration of functional requirements and architecture for the ETA ecosystem
3. Conceptual design of smart ETA algorithms
4. Programming and testing of software application and user interfaces
5. Impact assessment of the ETA ecosystem
6. Project management and communication

The role of intermodal operators (customers of the leading RUs) in the data-chain and their linkage to TIS needs to be elaborated and formalised (initially at ELETA project level; eventually through TAF-TSI).

## **RNE ETA Programme**

For the ETA Programme, the focus is to make sure IMs can share and display forecast information. Above this, the project is focusing on how to evaluate already existing calculations from the IMs and share best practices.

A first sharing of practices has shown that the forecast calculations are developed differently among IMs. Apart from this, a survey was distributed to all RNE members to display current situation of forecast messages calculations around Europe. By some IMs, the forecast calculation

is developed in a way that there are algorithms calculating forecasts, while some IMs are using time-shifting and for others still no forecast calculation currently exists at all. Nevertheless, in most cases the neighbouring IM's forecast messages are not being taken into consideration in the calculations.

In April 2018 a Forecast qualifier was developed into TIS. The qualifier is calculating the accuracy of forecast messages for specific points, being sent from the IMs. Analyses are showing there are spread results depending on IM and further discussions and reports will be done in order to propose on continuing steps to share forecast information in the best way.

Continuing steps for the ETA Programme is to make sure IMs can share forecast messages with each other. Therefore, two pilot phases (Phase I and II) will be in focus for the rest of 2018. Phase I shall investigate if it is technical feasible for the IMs to share forecast messages with their neighbours and Phase II shall include first test runs by sharing/receiving forecast messages in the national systems. Analyses of the results will be presented at the RNE General Assembly in December 2018. The goal is for the IMs to proceed sharing the forecast information with each other.

Apart from the goal to share forecast information between IMs, an additional goal is for IMs to be inspired by each other regarding using a tool to calculate forecast messages.

### **Legal Unit**

The Legal Unit working group was created to assess current legal situation regarding sharing of train running and forecast information between the different involved actors. In 2016, a survey was distributed among member states in search for possible legal obstacles as regards the exchange of information for tracking & tracing (T&T) of trains and on ETA. The assessment showed that there seems to be no legal obstacles for sharing information on train ETA. It was also considered that the TIS user agreement gives adequate contractual framework and conditions. Evidently this requires that stakeholders sign the user agreement. In addition, the legal unit has recommended to use the TIS Advisory Board for data sharing to solve current legal obstacles.

The Legal Unit is also collecting and sharing information from other bodies, for example the NExBo (Network of EU Rail Freight Corridors Executive Boards). The NExBo has worked out recommendations on data sharing in logistic chain, adopted 7 February 2018. The NExBo recommended:

1. All relevant actors within the rail freight sector, such as railway undertakings and terminal operators, including those in ports, facilitate the exchange of ETA data, making use of a suitable digital platform to provide the necessary conditions, such as the Train Information System (TIS) provided by RailNetEurope
2. In addition, the Network acknowledges that signing a user agreement by railway undertakings and terminal operators, where relevant, could substantially facilitate such data exchange
3. The Infrastructure Managers participating in the management boards as far as they are applying a relevant platform and user agreement, to consider the inclusion of all freight trains
4. To the European Commission to further support a railway sector-driven approach in this respect
5. To the railway sector to develop under its own responsibility a guideline to facilitate the data exchange on estimated time of arrival and estimated time of departure
6. To the management boards to report the development in 2018 and 2019 to the Network of Executive Boards

## 6.4 Conclusion on the progress

The projects are progressing on schedule and are reporting regularly to the Sector ETA task force. If support is needed, it is discussed between the Task Force, ELETA, ETA Programme and Legal Unit. It is of great importance to make sure all partners during a train run sign the TIS user agreements in order to give them access to train running information. Various conditions for displaying and calculating ETA have to be agreed and harmonized by the ELETA project and ETA Programme for the partners to share/display the relevant information.

## 6.5 Gap analyses

Missing parts for the projects will be presented.

### **ELETA**

The project has noticed the wide variety in level of digitalization/automation amongst terminals, where they typically work with small numbers of employees and have limited (managerial/office) staff capacity.

Additionally, the absence of unique train numbers for international train runs is felt as a handicap for the exchange of train running information. Currently, there are many trains, which have national train numbers instead of unique international numbers. This results in loss of connections in TIS (appears as separate trains). The use of unique train numbering is due to be implemented by 2021 as it is required by TAF-TSI. For the duration of the ELETA project, RNE has informed the ELETA-project that there are alternatives for linking national train's numbers for the trains in the ELETA project (manually, automatically).

### **RNE ETA Programme**

Two potential risks are analysed already by the RNE programme:

- IMs not being able to calculate a proper train running forecast on their own network
- IMs do not have the technical feasibility to share/convert neighbouring IM's forecast messages into their own systems

### **Legal Unit**

In order to share information between different stakeholders, extra administrative/managerial burden appears for RNE when the TIS user agreements have to be signed.

## 6.6 Needs

- All partners must respect the TAF TSI standard (train ID, message format and data exchange)
- Legal support for creating a general European solution for sharing data to all partners involved in a train run
- Elaborated definitions for ETAs and stakeholders other than IMs and RUs in the (intermodal) rail transport chain and particularly to define the role of intermodal operators



## 7 Priority 7 - Prioritization, funding instruments, and monitoring of TEN-T parameters

Rapporteur: Jürgen Maier

### 7.1 Summary

In the sector statement, the parties committed to identifying, regularly updating and publishing the main infrastructure bottlenecks on their respective corridors in order to propose solutions for resolving them and to share this information with the TEN-T coordinator. Furthermore, the Rail Freight Corridors agreed to include the TEN-T technical requirements in their implementation plans. These investments are conditioned by the financial commitment of the Member States and involved IMs, and implementation may be accompanied by enhanced CEF funding.

### 7.2 Introduction

The Rotterdam Declaration stated the intention to “encourage on an equal basis, the cooperation between the Rail Freight Corridors and the TEN-T Core Network Corridors; highlighting that the Rail Freight Corridors have the competence for operational issues for international rail freight, which will help to identify and alleviate infrastructure bottlenecks along the corridor and achieving TEN-T targets.”

In the sector statement, the parties committed to identifying, regularly updating and publishing the main infrastructure bottlenecks on their respective corridors in order to propose solutions for resolving them and to share this information with the TEN-T coordinator. Furthermore, the Rail Freight Corridors agreed to include the TEN-T technical requirements in their implementation plans. These investments are conditioned by the financial commitment of the Member States and involved IMs, and implementation may be accompanied by enhanced CEF funding.

**At all times all stakeholders of SSG have the opportunity to get in contact with the rapporteurs to suggest ideas, give critical feedback, or present solutions.**

### 7.3 Proposed Goals (indicated in first fact-sheet 2017)

Based on the commitments set forth above, the following goals were identified – based on first meetings within SSG and distributed to all stakeholders:

- Secured, realistic and sustainable planning over the next years which shows exactly when and where at which date a progress is foreseen and its impact for the business
- Transparent overview about all various sections with important information's about status of implementation of parameters and its influence in capacity and performance for RUs.
- Transparent communication about obstacles, postponed projects and other issues, including consequences and alternatives for the business. This is essential for RUs to create new products for customers, change routings and order new locomotives
- Coordination between various and closely linked corridors (e.g. 1 and 2). This is crucial because RUs are not always following one specific corridor, due to e.g. customer requirements, path capacity, or restrictions.
- On critical sections highlighted by the RUs, speed-up the full implementation of some prioritized TEN-T-parameter to gain market share – especially in the short-to mid-term and sections with huge demand / restricted capacity
- Push projects with a real, international business case and provide a positive impact in modal shift (high demand on these lines is necessary)

- No duplication of reporting. CNC are still in the lead to report, but with additional points (e.g. items of "Issue-log")

## 7.4 Progress & Actions

Along the various rail freight corridors, different stages of progress in various requirements of the TEN-T-requirements (740m, 22.5t axle load, 100km line speed and full implementation of ERTMS) are identified. Missing action plan coordinated at the MS working together in CNC platform and respective rail freight corridors level was identified too in order to take into account the whole international business case for (end)-customers. These investments are essential for the sector which regards the available information as insufficient for a proper planning over the next years.

The following actions and deadline were registered by the SSG rapporteurs based on discussions within SSG in the course of 2017:

- Step 1 (31.05.17), announce a SSG rapporteur – CNC or DG MOVE
- Step 2 (30.10.17), collecting relevant needs / requirements from the CNC's
- Step 3 (15.01.18): expand step 2 with the requirements from RFCs, RUs, IMs and other relevant stakeholders – incl. in order to push specific – further high urgent - projects from an overall business case's point of view
- Step 4 (18.01.18): proposing ways how to cooperate, finding a common ground in terms of priorities (incl. financing) and efficient ways of cooperation between CNC's and RFC's without changing the legal framework;

The working method is as follows – to get the big picture from the sector:

- Business Point of View
  - Exchange of different works/ideas between SSG, CEO-Task-Force-Freight and RAGs to get a more or less streamlined view from RU's
- Railway Operating Community (ROC)
  - Exchange of different ideas between SSG rapporteur and UIC-Project ECCO,
- Political Point of View
  - Exchange between SSG rapporteur and NExBo, PRIME, DG MOVE and Commission
- Strategical point of view
  - Exchange between SSG rapporteur and CNC's
  - Exchange between SSG rapporteurs and few RFC's

### **Institutional responsibilities for realising TEN T parameters**

EU Member States are requested to implement the TEN T parameters by 2030 for the TEN T core network corridors. Member States and their Infrastructure Managers ensure timely implementation.

The TEN T coordinator brings together EU MS and stakeholders on the ongoing projects and proposes work plans for the Core Network Corridors.

Rail Freight Corridors are managed by Member States (executive boards) and Infrastructure Managers/Allocation bodies (Management board) with the core task to comply with RFC regulation 913/2010/EC. Based on a Transport Market Study, the RFC lines are defined in their respective implementation plan and take into consideration other additional lines if needed for capacity allocation. RFCs have no direct responsibility to ensure compliance with the CNC parameters but are in practice a great source of expertise and can support coordinated roll out.

## 7.5 Obstacles which could reduce speed of implementation

- Defining a clear rail business vision for the short and medium term (at a European level map of critical sections provided by the RUs is needed for each TEN T parameter) is desirable,
- Defining clear responsibilities and "homework" for each stakeholder (within a complex system of various CNC's, RFC's, ministries and IM's) is sometimes quite difficult. Who can provide some important information and how to keep always an eyes on (end)-customers' requirements besides political and financial constraints.
- Cost/benefit analysis is hard to estimate. In general the main problem is that investment/costs are focused on national parameters and not managed as a European business case.
- Finding ways at a European level (SERAC) and CNC's, Ministries and IMs -approach in terms of priorities

## 7.6 Gap Analysis – proposed actions versus progress made 2016 – 2018

Identifying new actions to realise the priority:

1. June 2017: Due to discussions and bilateral meetings with various stakeholders of SSG and within SSG, a first fact-sheet of Priority 7 was defined. The focus was on more soft factors as communication and transparency – also between CNCs and RFCs;
2. October 2017: Wording change on the title "Prioritization, funding instruments, and monitoring of TEN-T parameters". Not only monitoring, also more on how to use financial means, finding new means and also on which parameters CNC, MS and IMs have to focus in order to answer to the market needs. A cooperation with MS was set up in order to have a co-rapporteur from Network of ExBo;
3. March 2018: Workshop at Network of ExBo level with getting a common understanding and also some commitment in terms of better cooperation between CNCs and RFCs, further based on a short overview study how and who should prioritize some of the TEN-T-parameters and other issues (like gauge P400) but without prejudice to the existing legal framework.

## 7.7 Next steps

### Methodology:

- Next CNC forum level: For each corridor, presentation by the RUs with the feedback of End-customers (e.g. Operators, UIRR, ESC, Oil- and Automotive-Industry...) of the critical section identified for each TEN-T parameters and others issues (like P400) and in general terms showing the detailed impact on their rail freight business after resolution. A map will be provided per RFC.
- RAG TAG level: Following the CNC forum at each RFC level, presentation of an action plan expected by the RUs for each TEN-T parameters and others issues (like P400), showing the detailed impact on their rail freight business after resolution. A map will be provided per RFC. Some input could be also provided by the Terminal operators (especially about 740m and electrification implementation in their own terminals)
- RFC Management Board: Comparison of the action plan provided by the RUs, the RFC transport market study and the investment plan described in the RFC implementation plan and the CNC Workplan, identification of the gap between those documents, suggestions to the ExBo.
- Next ExBo meeting level: Based on the RFC Management Board analysis, establishment of a coordinated action plan in order to solve the critical points providing the highest business for the RUs at short term and medium term.

October / November 2018: Workshop RFC network / Network of ExBo with CNC's on the actual progress.). Main focus: identification of RUs business requirements versus possible gap on planned TEN-T parameters investments in and out of the RFC lines in line with actions/next steps above;

December 2018: Presentation of the progress so far, methodology at the Rail Freight Days in Vienna

January 2019: Start of the methodology implementation (this could be executed in parallel and on different, but ambitious time scales)

## 8 Priority 8 - facilitating concrete ERTMS Implementation

**Rapporteur: Jean-Baptiste Simonnet, CER**

### 8.1 Summary

In 2017, the EU court of auditors confirmed the broad consensus on the need to achieve higher performance and interoperability within the European railway area through modern and harmonized railway control command and signalling system. The migration that is necessary to implement the new target system, ERTMS technology, is still a long path and a key challenge for the rail freight sector. Given its impact on cross-border transport, the scale of investment needed, the technological and institutional complexity and, in particular the need for coordination, ERTMS becomes a strategic issue.

Dealing with ERTMS as a sector priority is the opportunity to facilitate its concrete implementation. This can only be achieved through better awareness and common understanding on opportunities and issues to be solved. A closer coordination between European railway actors is necessary, within the industry but also at institutional level, in order to make ERTMS migration affordable and beneficial for the rail freight sector.

Since spring 2016, concrete steps have been taken to smoothen and enable ERTMS migration. Detailed plans are now available to guide track side investment and trigger fleets conversion. A close European coordination is being organized in order to deliver predictability and affordability. The adoption and now implementation of Directives composing the 4<sup>th</sup> Railway Package represent also major steps that should facilitate a safe and interoperable use of ERTMS assets.

There are still deployment issues to be solved. Reporting streams should be optimized in order to anticipate any delays in deployment and at the same time identify opportunities of acceleration and cost reduction. Investigation on ERTMS business case should be concluded to make the migration sustainable for the Railway Sector, in particular for freight Railway Undertakings. ERTMS should finally provide a stable reference for interoperability while also delivering a safe technical platform supporting innovation and performance for railway.

### 8.2 Goals

Control Command and Signalling systems have a direct contribution to railway network capacity and safety. ERTMS is a European target system that should replace older national control command and signalling solution. The migration to ERTMS requires today attention and coordination from most railway actors; smoothening the path towards this technology is a growing Sector and political concern. The sector statement in 2016 (see quote below in italics) covered 5 areas that should facilitate ERTMS concrete implementation:

#### *1. A monitored deployment plan*

*Each RFC will publish a transparent and coherent overview of ERTMS deployment at corridor level based on the new European Deployment Plan and on the respective National Deployment Plans, and will follow and advise on the implementation.*

There is a need to gain visibility in order to smoothen the industrialization of the system and support investment planning in case fleet retrofitting is needed.

Issues hindering or delaying deployment should also be anticipated and solved.

## 2. A coordinated approach with EC

*This overview of ERTMS deployment should be complementary to and coordinated with the work carried out by the ERTMS' Coordinator.*

Trustful and complete information should be available without increasing administrative burden. Coordination with EC should support the resolution of technical, financial and planning challenges.

## 3. A clear and predictable path for Railway Undertakings

*Likewise, a study will be proposed to be carried out at corridor level, with the proactive involvement of the RAGs, assessing the impact of ERTMS deployment on RUs.*

The impact of ERTMS deployment for RUs and rolling stock owners must be anticipated, especially to mitigate the risk that ERTMS deployment will increase railway prices or affect competition.

## 4. An interoperable and mature system

*IMs, together with the transport ministries and NSAs who are responsible for the ERTMS deployment on their infrastructure network, are asked to commit themselves to fully accepting vehicles compliant with the TSI CCS (ERTMS baseline 3R2) on the RFCs and according to the notified National Technical Rules.*

Process enforcing compatibility/interoperability must be defined and implemented. Issues affecting interoperability should be identified and resolved in a future proof manner (i.e. not fighting against the need to digitalize railway)

## 5. An affordable investment

*In order to reduce the cost of ERTMS deployment, a common procurement specification should be developed, while RUs shall explore solutions involving economies of scale, such as jointly placing orders for on board units.*

Solutions to minimize cost should be investigated (e.g. standardization, joint purchasing)  
Solutions for financing ERTMS investment should be developed (e.g. risk reallocation mechanism, long-term loan to be repaid when ERTMS can deliver benefits).

## **8.3 Progress & Actions**

Since spring 2016, there were some key achievements facilitating ERTMS implementation:

- ✓ A memorandum of understanding was agreed late 2016, setting up key principles for the deployment and development of ERTMS technology.
- ✓ A report from the EU Court of Auditors identified some priority actions to be done on a sector scale.
- ✓ An action plan, the *ERTMS deployment way ahead*, has been developed in a collaborative way by the European Commission (EC), stakeholders and sector organizations in order to address remaining issues affecting deployment in a systematic way.

For each of the specific Sector goals, concrete progress can also be highlighted.

### 1. A monitored deployment plan

The ERTMS deployment plan has been updated in order to provide a reference for committing Member States to finance and organize the deployment of ERTMS on TEN-T corridors. The currently applicable plan is included in the Commission Implementing Regulation (EU) 2017/6 of 5 January 2017 on the European Rail Traffic Management System European deployment plan.

Early 2018, national implementation plans were published by most of the Member States providing details on foreseen national migration strategies.

2. *A coordinated approach with EC*

The ERTMS stakeholder platform is now growing as a supervising board for ERTMS migration, in particular the resolution of the *ERTMS deployment action plan*.

The coordination group of the stakeholder platform is involving EC, ERA and sector representatives. It monitors the detailed actions of the *ERTMS deployment action plan* and supports their resolution.

3. *A clear and predictable path for Railway Undertakings*

A study on ERTMS business cases in corridors has started in 2016. The study as it was presented in March 2018 provides a systematic investigation of the impact of ERTMS migration towards railway actors.

As a result, there is now an economic model and a better common understanding on the drivers of the ERTMS economy. It is in particular useful in the context of EU multiannual financing frame negotiations.

4. *An interoperable and mature system*

Process for publication and simplification of national rules is near to its end. There is now a transparent frame on rules affecting the design of and operation with ERTMS.

The implementation of the technical pillar of the 4th railway package is ongoing and addressing process supporting interoperability (authorization of international vehicles, approval of track side component).

5. *An affordable investment*

A tender checklist has been defined, it is a step supporting ERTMS on board standardisation.

Solutions for upgrading locomotives are being investigated, looking at an innovative joined contractual frame with manufacturers to group orders but also to provide financing solutions and global coordination.

## **8.4 Conclusion on the progress**

Significant and concrete progress has been achieved in the period 2016-2018. Stakeholders have been more and more active to find relevant migration path. Proactive contributions will continue to be essential in order to solve and anticipate the remaining issues.

The deployment action plan provides a frame for collaborative resolution on a Sector scale, but the business case for actors still needs to be secured. It is essential to set relevant national and European funding but also to make available sufficient information on and for the migration.

## **8.5 Gap analysis**

None of the challenges identified in 2016 is fully resolved yet. Although important steps have been taken, the migration to ERTMS remains a demanding path.

1. *A monitored deployment plan*

There is a better visibility on the ERTMS migration plan but there is not yet a mechanism allowing to anticipate delays in the financing or the industrial roll-out. There are emerging good practice of corridors delivering comprehensive overview and reporting but at the same time, for fleet investment planning, more information would be necessary than ERTMS deployment progress on RFCs. *Where RFCs are expected to better monitor ERTMS deployment on their infrastructure and to report about potential delays, the monitoring of industrial roll-out on the fleet is even more complicated.* Sufficient and relevant monitoring is and will be essential to keep an accurate migration roadmap.

Member States involved in Corridors executive board have a key role to set relevant financing for infrastructure migration and mandate IMs to report on actual deployment progress. RFCs management board are responsible to alert when information are outdated or in case of coordination issue.

2. *A coordinated approach with EC*

The Coordination Group of the Stakeholder Platform and the work done by the Deployment Management Team appointed by EC are facilitating overview and resolution. There is a need to concentrate more information in order to provide a hub for qualified information supporting railway actors, particularly RUs, for their investment planning and ERTMS projects.

Under the leadership of the coordination group, reporting streams (corridor / national / manufacturers) should be clarified and optimized in order to minimise coordination burden while having more visibility on concrete issues and opportunities impacting ERTMS deployment.

3. *A clear and predictable path for Railway Undertakings*

The budget for ERTMS deployment of RUs should be further investigated by the Member States and the European commission assisted by stakeholders and representative organisations, RAG playing a supervisory role. Building on the corridor business case study, there is a need to achieve a better common understanding on how to mitigate ERTMS economic impact for RUs.

Considering the positive business case of ERTMS investment in Europe, the European Commission should facilitate Sector discussion for financial mechanism to become a solution for a coordinated migration minimizing negative impacts on railway economy.

4. *An interoperable and mature system*

There is not yet a clear view when and how over time fully compliant on board products can effectively run on ERTMS line within the EU (i.e. EU wide interoperability). Residual software bugs and exported constraints in ERTMS products are still issues slowing down and interfering with technical convergence. At the same time, common understanding is needed on industrial constraints exported from existing national rules (i.e. need to refine frame to deliver ERTMS local compatibility) and how to handle their stability over the next years.

NSAs, IMs, manufacturers and the European Union Agency for Railway have a key role to identify and then eliminate national technical rules impacting ETCS design and hindering corridor wide operation. The European Union Agency for Railway will have to set, in the frame of 4<sup>th</sup> railway package, relevant process supporting the fast achievement of technical compatibility between ERTMS on board and trackside subsystems.

5. *An affordable investment*

Joint purchasing solutions are being investigated in a corridor for upgrading some ERTMS locomotives but there is no global solution developed yet. To move forward, there will be a need to gain detailed common understanding between operators and suppliers on relevant products and liability requirements beyond interoperability needs.

## **8.6 Needs**

In general, actions facilitating ERTMS implementation are covered by the *ERTMS deployment action plan* and should be coordinated through the ERTMS stakeholder platform. The gaps identified above represent priority activities from freight business perspective.

For the coming period, ministries should keep attention on ERTMS migration, notably ensuring that a relevant national financing frame is available and that any delay in implementation is well



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anticipated. Specific attention will also be needed to deliver sufficient and adequate access to radio spectrum supporting reliable connectivity for ERTMS. Issues or opportunities affecting the European outcomes of ERTMS national investment program should be shared and discussed notably within RFCs executive boards.

There is finally an opportunity, today, to look at the broader business case of an accelerated railway digitalization, as ERTMS is an enabler for it. Some evolution of railway are today identified as ERTMS game changers that can increase infrastructure capacity, support safety and performance through connectivity, and decarbonisation through automation. The ERTMS Stakeholder Platform supported by Shift 2 rail has a natural role to facilitate the related developments which can bring additional benefits to ERTMS deployment. At the same time, as it was started in some Member States, ministries should engage with IMs to investigate and enable more ambitious digital program for the modernization of control command and signalling system using ERTMS as a standard platform delivering sufficient safety and interoperability.



# 9 Priority 9 - Monitoring the quality of freight services with implemented and shared KPIs

Rapporteur: Alfred Pitnik, RU Dialogue Subgroup International Freight

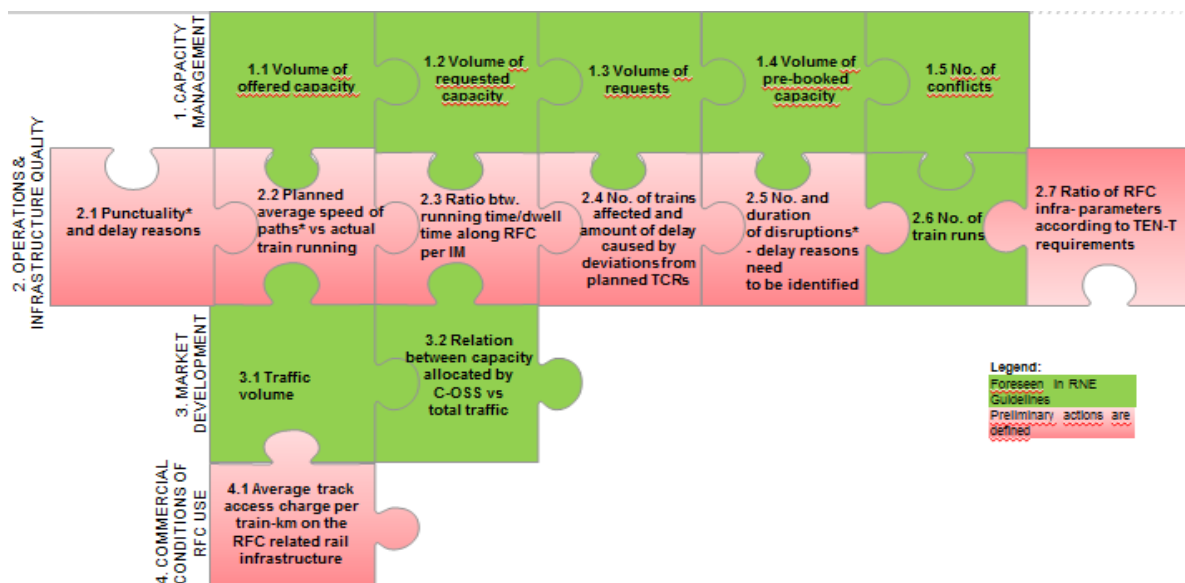
## 9.1 Summary

With the implementation of the nine RFC Corridors in 2015 the need for harmonized sector-led KPIs became increasingly important. RFC users represented by CER, CLECAT, ERFA, ESC, RU Dialogue SGIF, UIC ECCO Group, UIRR therefore submitted a set of 15 commonly agreed KPIs to the RFC structures with a view to implementing them quickly. Joint discussions between the above-mentioned stakeholders led to an agreement whereby RFCs and RNE agreed to take on board the new KPIs as of timetable 2018. Since, the figures of the commonly applicable KPIs have been made available to the public and are regularly updated. During 2018, the evaluation of the available results will be started by the sector representatives and followed up by their proposals for improvements if necessary. As a further step, the sector stakeholders propose that all the KPIs are rolled out on all 11 RFCs and in a second step implemented at European level, beyond the RFCs as well.

## 9.2 Introduction / objectives

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 fulfil this requirement in a harmonized way, the RFCs agreed on a set of commonly applicable KPIs within the framework of a project under the RNE umbrella, which were published in the RNE Guidelines for KPIs of RFCs already in December 2015. The Guidelines are published on the RNE website: <http://www.rne.eu/rail-freight-corridors/rfc-kpis/>.

In this context the RFC users expressed the need for a set of harmonized and commonly applicable KPIs to be developed and implemented on all RFCs. The sector represented by CER, CLECAT, ERFA, ESC, RU Dialogue SGIF, UIC ECCO Group, UIRR therefore developed an initial proposal which is illustrated by the table below.



In order to assess the feasibility of implementing the above indicators, discussions took place between the RNE/RFC KPI Coordination Group and RFC users.

## 9.3 Progress & Actions

### New commonly applicable RFC KPIs

Firstly, it was agreed between the RFCs, RNE and the sector stakeholders to add those KPIs proposed under point 01 above, to the RNE Guidelines and implement them on the RFCs, which are technically feasible and can be calculated in an automated way, e.g. by a data processing and reporting tool gained from RNE PCS and TIS could be implemented in order to reduce manual work as much as possible.

Secondly, it was also agreed to provide other indicators via specific reports in the TPM area. In addition, developments of RU-specific reports would primarily focus on those KPIs not taken on board from the outset because of technical limitation. Finally, a consensus was reached and the RNE Guidelines for KPIs of RFCs were updated including some of the new KPIs proposed by the sector representatives. The overview is available on the RNE website: <http://www.rne.eu/rail-freight-corridors/rfc-kpis/>.

The list of KPIs jointly agreed as a result of the process described above and commonly applicable on RFCs is listed below. They are presented per cluster. The details, including definitions, are described in the RNE Guidelines.

Business area	KPI
<b>Capacity management</b>	Volume of offered capacity (PaPs and Reserve Capacity)
	Volume of requested capacity (PaPs and Reserve Capacity)
	Volume of requests (PaPs and Reserve Capacity)
	Volume of capacity (pre-booking phase) (PaPs)
	Number of conflicts (PaPs)
	Commercial speed of PaPs
<b>Operations</b>	Punctuality at origin
	Punctuality at destination
	Number of train runs
<b>Market development</b>	Traffic volume
	Ratio of the capacity allocated by the C-OSS and the total allocated capacity

The Network of Executive Boards issued a recommendation in November 2017 that the KPIs defined in the above Guidelines shall be implemented by all RFCs.

### Joint publication of RFC KPIs on the RNE website

The calculation of the first set of results based on the commonly agreed KPIs was completed by the beginning of 2017. They have been published in a harmonized form on the RNE website since 2017 to provide this information in a transparent and easily accessible way for all interested stakeholders.

At the beginning of 2018, the RFCs and RNE agreed on a timelier publication of these KPI figures meaning that each KPI figure will be published as soon as available. They are published and are continuously updated on the abovementioned website.

## 9.4 Conclusion on the progress

The initial objectives to which the RFCs committed themselves in terms of KPIs in the Sector Statement have been reached through introducing new KPIs upon the request of RFC users and making the figures available in a timely manner.

## 9.5 Gap Analysis

Due to lack of technical feasibility and to the fact that the Regulation does not give any responsibility to the RFCs concerning infrastructure charges, two of the KPIs proposed by the RFC users were not developed. In order not to generate additional manual work for any of the stakeholders, it has to be noted again that each RFC KPI that is to be implemented should be technically feasible and calculated in an automated way. In addition, as a pre-requisite for a set of comparable KPIs, the creation of a harmonized basis of data for calculating the KPIs is needed between the IMs.

Further work to be undertaken:

- Rollout to all Corridors – all data
- Analysis of results with the stakeholders before publication including corrective action if needed (as has been suggested by some RFCs following discussions in RAGs)
- Improvement needs to be foreseen in the implementation for the KPI's missing
- Rollout to the whole network
- Further development and improvement taking into account customer needs and the learning from incidents e.g. Rastatt

## 9.6 Needs

The recommendation of the Network of Executive Boards concerning the implementation of the RNE Guidelines on KPIs of RFCs is appreciated. The constructive dialogue between parties involved needs to be maintained to further develop the KPIs. An ongoing improvement process shall be undertaken to ensure KPIs become a living and useful tool for the users of rail freight.



## 10 Harmonisation of Corridor Information Document (CID)

**Rapporteur: Guus de Mol, ProRail, RFC Rhine-Alpine and RailNetEurope**

### 10.1 Summary

As a harmonized structure for the CIDs was already in place before the Rotterdam Sector Statement and the Ministerial Declaration were signed, this Priority is being implemented as a wider scope of harmonization of the CIDs. As a result, three of the five CID Books (Book 1, 2 and 4) have been harmonized until now. The harmonized texts have successfully been implemented by all RFCs. In addition, significant improvements have recently been made to the common structure of the Book 5 and a revision of the common structure of the Book 3 is also foreseen. The CID harmonization will go even beyond by developing and implementing a common glossary for CIDs.

### 10.2 Introduction / objectives

Regulation (EU) 913/2010 requires the RFC Management Boards to publish corridor information documents providing information on the rail infrastructure of each RFC, in particular as regards commercial and legal access conditions, thus facilitating the international business of the RFCs' customers.

In 2012, the CID Common Structure was developed under the RNE umbrella and accompanied by an implementation guide designed to help the RFCs with the production of harmonized and thus easy-to-understand documents.

The goal of this Priority is to further harmonize the CIDs beyond the implementation of the common structure.

Considering the specificities of the major contents of the CIDs, they are divided into five Books:

- Book 1: Generalities
- Book 2: Network Statement Excerpts
- Book 3: Terminal Description
- Book 4: Procedures for Capacity and Traffic Management
- Book 5: Implementation Plan

### 10.3 Progress & Actions

#### Harmonization of CID Book 1 and 2

In 2017, a dedicated RFC task force under RNE's coordination achieved the harmonization of the text for the CID Book 1 (Generalities) and Book 2 (Network Statement Excerpts).

The harmonized texts were implemented in the CIDs of all RFCs as of timetable year 2019.

#### Harmonization of CID Book 4

The CID Book 4 is of key importance for the RFCs' customers, because it describes all procedures for capacity allocation by the Corridor One-Stop-Shop (C-OSS), planned Temporary Capacity Restrictions (TCRs), Traffic Management and Train Performance Management on the RFCs. Upon the demand of the RFCs' customers, a harmonized text was developed among the RFCs under RNE's coordination in 2016. It was implemented in the CIDs of all RFCs as of timetable year 2018.

The RNE CID Common Texts and Structure, as well as links to the CIDs, are available on the RNE website:

<http://www.rne.eu/downloads/>

<http://www.rne.eu/rail-freight-corridors/corridor-information-documents/>

### **CID Common Glossary**

In March 2018, a common Glossary was agreed to be applied in the CIDs. The aim of this Glossary is to apply the same terms and definitions in all CIDs, thus the RFCs' customers can find a harmonized and consistent use of the RFC-related terms in all CIDs.

## **10.4 Conclusion on the progress**

By the end of 2017, most of the contents of the CIDs became harmonized. Due to the harmonization of the contents, the RFCs' customers can find texts and information with the same quality and level of detail in the CID Book 1, 2 and 4.

As for quantification of the progress, RNE measures its Members' compliance with the harmonised business processes delivered in form of Guidelines via a set of KPIs. The implementation of the harmonized CID Book 1, Book 2 and Book 4 in all CIDs inherently contributed to an increased level of compliance with the RNE CID Common Structure in the past years. The current figure of this KPI is 91%.

## **10.5 Outlook / Gaps**

### **CID Book 3: Potential revision of the common structure and harmonisation of the text**

Regulation 2017/2177 on access to service facilities and rail-related services foresees that the IMs shall provide a common template that operators of service facilities may use to make available the information required under this Regulation. The service facilities may publish this information on their websites, on a common web portal or submit it to the IMs ready-to-be published in the network statements. This common template will have an impact on the Book 3 (Terminal Information), because it would not be customer-friendly to make information on the same terminals available in a different way in the network statements and the CIDs. An analysis regarding the potential revision of the CID Book 3 common structure and potential harmonization of the text will be launched in the second half of 2018.

Gap: Both the result and the timeline highly depend on the acceptance level of the common template among the terminals, i.e. if the terminals connected to the RFCs are willing to use the common template or not. If RFC terminals use various kinds of templates instead of the common one, it will not be possible to achieve a harmonized way of publication of terminal information in the CID Book 3, which will not be customer-friendly. Furthermore, it is even now difficult for the RFCs to gather the required information for their CIDs from the terminals. It is the competence of the Regulatory Bodies to enforce the provision of the required information by service facilities, as well as to encourage them to use the common template.

### **CID Book 4: Regular update of the harmonized text**

The harmonization of the CID texts is not a one-time task. It is essential to keep the harmonized CID texts continuously up-to-date. To this end, an update will be conducted for the harmonized Book 4 during 2018. The updated version is planned to be published in the CIDs for timetable 2020.

### **CID Book 5: Revision of the common structure**

The goal of the revision was to turn the updated implementation plans into more useful documents, especially for the interest of the RFCs' customers. Besides the customer-oriented manner of the revised common structure, it will also ease the updating of this document for the RFCs by decreasing their overall efforts on it. The RFCs agreed on the revised common structure for the Book 5 in June 2018.



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As for the harmonization of the text of the CID Book 5, it is not planned by the RFCs and not requested by the RFCs' customers either due to the nature of its content, i.e. very specific and individual cases on each RFC.

Gap: Although the currently ongoing revision of the CID Book 5 common structure will already result in a more useful document for the RFCs' customers, this aim could only be fully achieved if the RFCs, which are already operational, could transform the Implementation Plan updates into RFC Development Plans. The aim of this Development Plan could be to inform the RFCs' customers about the most relevant future developments of practical relevance for their business carried out and planned on the RFCs. This is not possible to achieve for the time being, because the Freight Regulation stipulates the mandatory elements of the Implementation Plan and its regular updates.

#### **CID Common Glossary**

As a next step, a common way shall be agreed on among the RFCs how to implement it in a harmonized way in all CIDs. Finally, the Glossary can be published in the CIDs for timetable 2020.

#### **One single CID Book(s) among RFCs**

In the beginning of 2017, RFCs Rhine-Alpine, North Sea - Mediterranean and North Sea - Baltic agreed to develop one single CID Books for their RFCs. RFC North Sea – Mediterranean coordinates this task. It is planned to publish it for the 2020 timetable year. Once achieved, it will be even more user-friendly for the RFCs' customers that they only have to consult one single CID Books instead of several CIDs on the above RFCs.

## **10.6 Needs**

In order to decrease the RFCs` administrative burden, the Regulation only oblige them to make an Implementation Plan for initial RFC's or extensions. RFCs make regular a development plan with information primary for RUs and shippers so they can prepare themselves for future operations. Therefore, the support of the ministries of transport is needed during the consultation process of a future revision of the Regulation that this aspect is taken into consideration.

## 11 New Priorities

In addition to progress and required actions with regard to the existing 10 priorities, which were set forth in previous chapters, some thoughts can be spent on topics which may be identified as additional priorities. Although in principle all relevant challenges for improving European rail freight transport are seen to be covered by the original priorities, carefully adding matters of importance to the Sector Statement may help the sector and policy makers in further fine-tuning the goals of the Rotterdam Declaration, thereby making the implementation even more effective.

During our stakeholder consultations, the following topics were brought forward as possible additional priorities:

- Contingency planning
- Increased transparency and publication regarding several data
- IT for operational info, like: implementation of the TAF TSI functions according to the Masterplan, developing a common IT architecture whenever possible, integration of an international traffic management information (e.g. via TIS) with national systems

### 11.1 International Contingency planning (ICM)

Contingency planning at national and international level is essential to improve the resilience of rail freight services against incidents and to keep transportation levels high. The Rastatt incident showed the importance of extended international contingency planning. RFC Rhine-Alpine, with involvement of other RFCs and IMs, developed an International Contingency Management framework (ICM Handbook) which was discussed during the PRIME / RU Dialogue Meeting on 16 March 2018 and approved by European infrastructure managers at the General Assembly of RNE on 16 May 2018 for implementation in 2019. Key elements are fast coordination processes among IMs and re-routing overviews with contingency scenarios for each RFC. These will be reviewed together with RUs, enabling them to prepare their own contingency management plans in order to benefit of re-routing scenarios and to answer to the market needs in case of international disruptions.

### 11.2 Increased transparency and publication regarding several data

Many rail freight services cross the borders of countries where different languages are spoken. At the moment European legislation states that locomotive drivers must have B1 level competency in every country in which they drive a train. This means that rail freight operators must invest in expensive training and that they must carefully roster their train drivers to only drive on certain routes. In addition, when lines are closed for planned engineering works or during an unforeseen event and there is a need to divert a train, the absence of a driver with suitable language skills can result in the cancellation of the train. This issue was highlighted in a dramatic way following the Rastatt tunnel collapse incident of 2017.

Therefore a simple and pragmatic approach in the implementation of the proposal of amending Annex VI of the Train Driver Directive to allow pilots of changes to language requirements for cross border traffic. With the long term aim is to eradicate the need for B1 training for drivers and improve the flexibility, reliability and efficiency of the offering to customers, e.g. identifying English as a common language, across all rail networks, on a similar basis to airlines.

### 11.3 IT solutions for operational information

Expanded and more effective IT solutions for communicating operational information are seen as carrying a large potential for improving European rail freight transport. The topic could cover seeing to the full implementation of the TAF TSI functions in accordance with the Masterplan, as well as working toward a common IT architecture whenever possible. Also, integrating international traffic management information (e.g. through TIS) with national systems is seen as a promising goal.

## 12 Conclusion

In the Sector Statement, made in parallel to the Rotterdam Declaration, the rail sector associations and their members (representing the interests of the shippers, freight forwarders, rail freight operators (RUs), intermodal operators, intermodal terminals, infrastructure managers (IMs), allocation bodies, rail freight corridors (RFCs), and rail equipment suppliers) committed themselves to the aim of enhancing the competitiveness of the Rail Freight Corridors, and to improving the quality, reliability and efficiency of transporting goods across Europe. It is the strong feeling among the rapporteurs that this Sector Statement has set in motion a process of tangible improvement of European rail freight transport. This progress report is their first joined report on their work so far.

This report has been developed on an ad hoc basis. However; to integrate the required actions, harmonize the work of the priorities, develop a common time table; a more permanent structure could be envisaged. Then ten separate priorities are bundled in one integrated sector action to improve rail freight transport. During the process a transparent process has proven crucial to come to a common supported Progress Report. In future a more harmonized sector communication is crucial to show the progress and to communicate common positions of the sector.

Although the priorities stemming from the Sector Statement concern complex topics, it can be concluded that considerable progress has been made over the last two years. The 10 priorities were well-chosen, addressing the most relevant obstacles for European rail freight transport. A prerequisite for tackling these challenging issues, intricate communication and cooperation is taking place between the parties involved. Thus, the stage is set for successful ongoing implementation of the goals, with possible further reporting in after the next implementation period.

Challenges concerning implementation of the priorities generally revolve around matters such as optimizing communication and information (and data) flows, certain refinements and /or revisions of European legislation, harmonization of national interpretations of European legislation and requirements, integration of national and international processes, and better national implementation of European guidelines. Complexity dictates that these issues, as set forth in this report, can only be addressed on a case-by-case basis rather than through a holistic approach.

Targeted investments for rail freight, through EU and national funding mechanisms, are seen to remain of particular importance for efficient and competitive rail freight transport. Clearly, although such investments are not limited to the topics set out in this report, the ten priorities should provide guidance in future decision making. Targeted investments ought to be seen in conjunction with reform efforts.

The Ministries are requested to support the priorities were needed, especially in implementing the suggested measures per priority, equally the EC should develop their policy in line with the developed suggestions.

As we have seen, some possible additional priorities have been identified. Carefully adding matters of importance may help the sector and policy makers in making the implementation even more effective. A decision to add the topic of Contingency Planning to the Sector Statement was already taken, whereas the language issue or data-related topics may either be taken into account under the existing priorities or be included as additional priorities.

The rapporteurs wish to emphasize their shared, positive outlook on further implementing the priorities. At the same time, it is to be noted that only a sustained commitment from all parties involved and a careful, stepwise approach will continue to yield results. The ministers are asked to continue their support for the process. Therefore this report is shared with the Ministries and other stakeholders, like the EC, to show the progress so far and to mobilize the necessary support.