



INTERNATIONAL UNION  
OF RAILWAYS

# REQUIREMENTS OF RAILWAY UNDERTAKINGS FOR THE IMPLEMENTATION OF EUROPEAN RAIL FREIGHT CORRIDORS

Relevance and importance



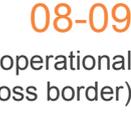
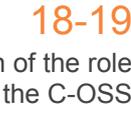
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# EXECUTIVE SUMMARY



Regulation (EU) No 913/2010 of 22 September 2010 describes the process for the establishment of international rail freight corridors (RFC) with a view to the development of a competitive European rail freight network.

Progress has been made towards the implementation of the RFCs, with the establishment of some RFCs and related board and advisory groups, completion of Transport Market Studies and drafting of Investment and Implementation Plans by IMs, development of harmonised processes and computer systems for path allocation and exchange of traffic information, and the creation of RFC websites. Important progress has therefore already been made, and some RFC services were launched on 10 November 2013.

In order to further the progress made, the following Railway Undertakings (RU), DBSR, BLS, Trenitalia, SNCF, CFLMM, Captrain, RCA, RC Hungaria, B Logistics, SBB, CP, PKP, in cooperation with the International Union of Railways (UIC), have prepared a list of priority topics which need to be progressed.

These are analysed in terms of their importance for developing rail freight traffic and implementation proposals are identified for each. A summary spreadsheet of these topics and timescale for implementation is appended.

Of particular importance to the further development of the RFCs, and common to all the topics, are:

- The need for better cooperation between the Infrastructure Managers (IM) and RUs, to ensure that the in-depth understanding and knowledge that the RUs have of the logistics industry and end user customers is sufficiently taken into account
- Better cooperation between IMs along and across all RFCs to ensure seamless transport along the entire RFC networks, with other RFCs, and along feeder and parallel/diversionary routes
- Cross border harmonisation of technical, operational and administrative processes, procedures and systems along and across all RFCs including diversionary routes, with a mechanism to ensure that best practice and lessons learnt are exchanged on a regular basis.

RUs recommend that these should be implemented through greater involvement of RUs at the Management Boards and the establishment of working groups dealing with specific topics involving RUs and IMs.

The overall objective of the RFCs is to increase rail freight's market share of European freight transport by providing a network with conditions of use to allow RUs' freight trains to run reliably and seamlessly across borders. Failure to make progress in these topics will have an impact on rail's costs and performance, the two most important factors on modal choice. This will result in customers returning or continuing to use other less environmentally friendly modes which offer better end to end reliability at a lower cost.



## Relevance and importance

Each RFC Management Board is required to undertake a Transport Market Study, which analyses the demand for international traffic using the RFC, covering the different types of traffic. It should also include a socio-economic cost-benefit analysis, and plays a central role in the implementation of that RFC, in that it:

- Determines short and long term planning, particularly for investment and path allocation
- Allows bottlenecks to be identified, and the location and level of amelioration required
- Contributes to the Implementation Plan which defines objectives, investment and capacity
- Will be taken into account for the construction of the Pre-arranged Paths (PaP) and the definition of reserve capacity, and
- Should identify where there are suitable alternative routes to avoid “irrational” transport routes and possible bottlenecks.



## Actions proposed by RUs

IMs should

- a. Improve quality and accuracy of Transport Market Studies, which have been completed for RFCs 1, 2 and 6, and started for RFC 8. RUs have expressed concern about the validity of some of the estimated flows, which:
  - » Have omitted important markets and key feeder flows,
  - » Are double counted, with the same flows accounted for on more than one RFC
  - » Have not sufficiently engaged RUs who have an in-depth knowledge and understanding of the logistics sector and end user customers.
- b. Take into account the opinions of existing and potential RUs and Authorised Applicants (AA) of that RFC, in particular on:
  - » Journey times
  - » Punctuality
  - » Availability of interoperable rolling stock
  - » Simplified procedures for obtaining paths
  - » Punctuality track record
  - » Train cancellation history.
- c. Establish working groups with RUs to discuss traffic forecasts, types of traffic, traffic flows and related issues from an early stage until final publication, to ensure that the RUs' in-depth understanding of their customers, logistics flows and costs, is incorporated. Important developments in the worldwide logistics chain, including changes in the choice of ports by shipping companies, and the estimated cost of rail freight operations, have a fundamental impact on future RFC corridor flows, and must be included.
- d. Take into account the lists of short and long term bottlenecks, planned investment plans, construction works, and saturation periods in a 24 hour period.
- e. Develop a common transport modelling approach for all RFCs. A coordinated transport modelling approach which is used on and includes all RFCs will allow more accurate results to be achieved. A classic transport nodal model, which allows weighting of alternative routes rather than Corridor studies, may be required.



# TRANSPORT MARKET STUDIES



## Impact and consequences for the rail freight business if action is not taken

Accurate knowledge and understanding of the network and the traffic flows is essential for short and long term planning of investment and path allocation. Based on these results and the estimated level of traffic volumes, IMs will decide on the extent of and location of bottlenecks on their networks, what investment is required, and how paths should be allocated. They have a direct impact on the Implementation and Investment Plans.

Inaccurate traffic forecasts may lead to an incorrect assessment of the location of bottlenecks and levels of investment required.



## Relevance and importance

In accordance with the Regulation, IMs must:

- Identify and describe bottlenecks on each RFC for the Implementation Plan, and
- Prepare a plan for the management of the capacity of the forecast freight trains including removal of identified bottlenecks for the Investment Plan. This information is also necessary for the preparation of reliable catalogue paths and diversionary paths.

It is vital that bottlenecks are:

- Correctly identified and described in relation to the existing and forecast traffic flows, as they impact on the performance
- Made readily accessible to RUs by the IMs
- Regularly updated.



## Actions proposed by RUs

IMs should:

- a. Use existing practices, such as the RailNetEurope (RNE) guidelines and/or Forum Train Europe (FTE) requirements to ensure that options for alternative routes are fully considered in the Implementation Plan.
- b. Establish dedicated working groups to examine infrastructure bottlenecks involving RUs for each RFC at an early stage to:
  - » Develop complete and up to date lists of bottlenecks, and gain understanding of the relative level of impact of each on the end user customer
  - » Determine, prioritise and discuss timescales for the list of bottlenecks
  - » Coordinate work between the infrastructure bottlenecks and the impact of construction works (long and short term).

c. For each bottleneck, identify:

- » Daily, weekly, yearly and seasonal variations. Due to end user logistics requirements, rail freight movements are concentrated at certain periods of the day, week (particularly Tuesdays and Fridays), and year (pre-Christmas and pre-summer in particular). Rail freight movements tend to be concentrated at certain periods of the day, so while 50% of the paths may be available over a 24 hour period, certain hours will be saturated. For example:
  - On RFC 2, sections of the Antwerp-Milan section are saturated at certain times of the day particularly evenings, but quiet at other times of the day. Other saturated periods are experienced in Chiasso, Basel Bad RBF, Basel SBB RB frontier stations, as well as at many terminals and marshalling yards along the routes
  - On RFCs linking deep-sea maritime ports such as RFCs 1, 2, 3 and 8, density and timing of traffic depends on arrival and departure times of ships, and may result in concentrated rail freight traffic flows over 2-3 days, followed by nothing the following week. This will be affected by the state of the European economy and world economies

- » Type of bottleneck, ie technical or operational. Bottlenecks can be related to capacity, speed restrictions, and technical constraints related to gauge, train length, lack of or changes in electrification, and axle loads, particularly at borders. In the absence of true interoperability, different technical and operational standards may necessitate trains being recessed at borders, causing congestion at some marshalling yards and border crossings. For example:
  - On the French-Spanish border on RFCs 4 and 6 where trains can be held for hours due to the need to change bogies, tranship wagons or re-arrange train lengths
  - On the Polish-German border at Frankfurt Oderbrucke on RFC 8, trains need to be recessed due to the different overhead supply systems
- » All lines and diversionary routes on each RFC (including those through other countries), connections between the RFCs, and terminals and marshalling yards
- » Relative priorities and timescales for those bottlenecks
- » Bottlenecks along the whole of the corridor rather than by country.

## INFRASTRUCTURE BOTTLENECKS



### Impact and consequences for the rail freight business if action is not taken

Accurate identification and description of bottlenecks allows the effective planning of mitigation works which will ensure that good reliability is delivered.

Reliability is one of the key factors used by freight customers in determining the choice of mode. If the service is unreliable, end user customers will use other modes, both in the short term during the disruption, and potentially over the long term.



## Relevance and importance

Freight trains on RFCs crossing the border for short distances into another country are usually subject to additional operational and technical requirements, such as those related to Safety Certificates and approvals, according to the national rules of that country and Europe. Part B of a Safety Certificate is dictated by the Interoperability Directives.

Before the implementation of the Safety and Interoperability Directives, special bi-national safety and operational agreements were established for short distance freight train movements across borders. These agreements defined the arrangements for allowing trains to operate under their own national rules or similar.

In the absence of true European interoperability, such flexibility for cross border operation is valuable for rail freight traffic efficiency and growth, and some have been newly established. For example,

- The Polish-German agreement between the Polish and German governments of 14 November 2013 allows for cooperation between railway supervisory authorities, RUs and IMs on shared border traffic flows, for various initiatives including:
  - » Mutual recognition of rail vehicle approvals, locomotive drivers' licences and the qualifications of other railway staff
  - » The possibility of operating rail traffic on cross-border lines on the basis of the other signatory's national legislation, taking into account the technical and operational requirements of the IMs
- The Dutch proposal for traffic across the border to Venlo which proposes that for the short distance operated in the Netherlands:
  - » The driver does not need to speak fluent Dutch
  - » The German licence is acceptable with knowledge of 3km track
  - » A Safety Certificate B issued by the German National Safety Authority is acceptable

- » Minor requirements imposed for track approval in addition to the German approval requirements
- » Sufficient train driver language knowledge to allow effective communication on safety relevant issues with the local train dispatcher

However, bilateral agreements are not in the spirit of true interoperability, and a network wide agreement, or extension of some of the existing Technical Standards for Interoperability (TSI) would be more appropriate.



### **Actions proposed by RUs**

IMs, RUs and Transport Ministries should:

Develop a harmonised cross border agreement of safety and operational rules for short distance rail freight transport in cooperation with RUs from the respective countries for application across all the RFCs. This would build on best practice, while recognising and modifying existing regulations such as the Operations TSI where relevant. In the absence of full interoperability RUs consider this to be one of the most important topics that need to be studied. Such an agreement should allow:

- a. Mutual recognition of driver qualifications
- b. Cross-acceptance of the Safety Certificate Part B, which is the direction the European Railway Authority (ERA) is working towards
- c. Special permission to operate to a defined point near the border without fulfilling the conditions of the entire Network Statement of a country
- d. Local common customs procedures
- e. Knowledge of the specific requirements at the border
- f. Signal boxes staffed with bi-lingual staff
- g. Defined, minimum knowledge of the language for the locomotive drivers
- h. Acceptance of locomotives with different [but compatible] Software-updates or versions
- i. Working time regulations / rules on cross border routes
- j. Insurance amounts on cross border routes.



### **Impact and consequences for the rail freight business if action is not taken**

It is costly and complicated to conform with all national safety and operational requirements in another country when only short distances are involved, and where these requirements do not bring additional safety and operational benefits. These requirements can make certain traffics, which may involve long end to end distances, financially unviable and uncompetitive, for no safety or operational benefit.

As the creation and use of a patchwork of individual different bilateral agreements would be a step backwards, RUs propose a network wide agreement.

# **REGULATORY AND OPERATIONAL INTEROPERABILITY (CROSS-BORDER)**





## Relevance and importance

In accordance with the Regulation, the IMs should publish the schedule for carrying out investment into bottlenecks and ensure that disruption is minimised.



## Actions proposed by RUs

IMs should:

- a. Refine and introduce measures to minimise disruption from infrastructure works, such as:
  - » Targeted asset management
  - » Efficient path allocation, which provides reliable and cost effective diversionary routes
  - » Development of solutions including infrastructure replacement works for the whole RFC, such as:
    - Reduction of speed restrictions in the vicinity of engineering works
    - Increasing in the length of trains, loading gauge, gross train weight or axle load
    - Introduction of 24h shift patterns rather than multiple shorter shifts where this facilitates traffic flows
  - » Early efficient customer-oriented planning of the periods of those construction works along and between RFCs to avoid several construction sites having a multiple impact on train operation
  - » Advance warning to RUs, both in advance of the preparation of the proposed catalogue paths for long term planning, and as far in advance as possible for short term construction works. This would enable RUs to adjust their own scheduling activities, alternative routes and costs, and ensure that the proposed diversionary rail routes are compatible with the end user customer requirements, and are cost effective. This is particularly important on busy routes. For example, closure of the Brenner Pass in 2011 without adequate diversionary routes, caused significant disruption and cost to the

# COORDINATION OF INFRASTRUCTURE WORKS



RUs and diversion to other modes.

b. Establish Coordination of Works working groups, already in place for RFC 1, for all RFCs, and incorporate a process for ensuring the exchange of best practice between RFCs. In this way, IMs can engage RUs, who have the knowledge and understanding of their customers' requirements, during the planning process on:

» Proposed diversionary routes and solutions, and:

- Ensure that they are practicable, appropriate for the end to end path, reliable, cost-effective, and in line with the end user customer requirements. Recent good co-operation between IMs and RUs on diversions from a further closure of the Brenner Pass avoided a repeat of disruptions mentioned above
- Consider variation in track access charges to compensate RUs' for additional costs caused by diversionary routes
- Give clarity on the capacity on diversions and clarification of cross border path settlements. On RFC7, the alternative routes proposed during reconstruction works at the Hungary-Romania border were also congested, and consultation with RUs at an early stage would avoid the planning of such impractical diversions

» Planned and unplanned maintenance or construction works

» National construction plans with an impact on other sections of the international corridor

» Operational planning around construction works at an early stage, and in advance of capacity allocation. RUs could contribute effectively to the debate, advising on:

- Customer requirements and expectations
- Traffic levels
- Technical requirements and minimum train parameters applicable for diversionary route
- Priorities and timing of works

» The size and repercussions of the planned works, and of the available remaining capacity on those routes and on diversionary routes

» The subsequent allocation of paths.

c. Provide readily accessible information about construction works across all RFCs at FTE meetings, in regular newsletters, and through dedicated representatives.

d. Define processes and timescales for consultation and coordination of infrastructure works at the international level in the RNE and Forum Train Europe (FTE) guidelines.

e. Ensure that published planned path diversions in advance are respected

f. Consider the impact of non-freight infrastructure work on RFCs, such as construction of the high speed line from Tours to Bordeaux on RFC 4

g. Ensure that the planned works and diversionary routes are adequately taken account of in the Transport Market Study.

RUs should:

a. Define their involvement in the coordination of works for inclusion in the RNE Guidelines.

b. Be invited to fully cooperate in meetings with IMs, and provide expert customer oriented advice to minimise disruption caused by infrastructure works.

## Impact and consequences



### for the rail freight business if action is not taken

A European railway network with harmonised infrastructure will be achieved more quickly with effective coordination and consultation with RUs along and across RFCs and the entire RFC network. Planned and unplanned maintenance and construction works along and between RFCs must be undertaken as quickly and efficiently as possible to avoid:

- Long term diversion of traffic to other routes or other modes
- Costly temporary alternative operational arrangements
- Subsequent traffic lost to other modes.



## Relevance and importance

The specific objective of traffic management on the RFC is to ensure that sufficient priority is given to freight trains to achieve the planned punctuality targets, and ensure that freight trains which are “on time” can keep their path. This requires effective traffic management coordination between several IMs and management of performance monitoring along the end to end RFC.

Accurate knowledge about the traffic is the basis for taking correct traffic management decisions, both for RUs and IMs, and for preparing the operating procedures to be put in place in case of disruption. Standardisation of communication tools and procedures, as proposed in the RNE Guideline for Freight Corridor Traffic Management, is considered important for this, through improvement of existing systems and practices.



## Actions proposed by RUs

Traffic management procedures are considered to be one of the most important topics to be improved. RFCs would benefit from “active” management on a corridor level, 24 hours per day, 7 days per week, and greater cooperation between IMs and RUs to ensure that end user customer requirements are met.

IMs should:

- a. Engage with stakeholders including border stations, terminals managers and RUs at Terminal and Railway Advisory Groups in the development of communication flows.
- b. Harmonise dispatching and operating rules, and data and systems along a corridor and between corridors. This will require a synopsis of all relevant regulation and processes of the respective IMs, which the Corridor One Stop Shop (C-OSS) has done for RFC 1 for example.
- c. Develop intelligent real time traffic management system, and consider contract management.

# TRAFFIC MANAGEMENT PROCEDURES (TMP)



d. Introduce processes for the more efficient sharing of information to avoid the need for RUs to inform IMs in each country, thereby optimising available capacity. For example:

- » On RFC 1, RUs must inform IMs in Germany, the Netherlands and Belgium for each flow.

e. Introduce harmonised guidelines for the coordination procedures following incidents both along and across corridors to ensure that trains are not further delayed disproportionately. For example:

- » In the Netherlands, on RFCs 1, 2 and 9, where a 2 minute delay can result in a 24 hour delay in Germany. This is exacerbated by the use of different identification numbers for the same train. In Germany, the IM's operational rules require that train numbers and identification are retained for the same train for a minimum of 20 hours. RUs propose that such operational rules are harmonised across Europe.

f. Improve elements of Traffic Information System (TIS):

- » Record the reasons for delays for access by RUs and IMs in the case of performance regimes
- » Include information on national trains, including feeder trains, where relevant

» Give access to terminal management to:

- provide them with advance notification of traffic arrivals and allow them to make the necessary operational plans
- Ensure capacity is matched and appropriate and the limited opening times, operating capabilities and capacity at some terminals fit in with customer-friendly catalogue paths

» Communicate more effectively with the subsequent RU to facilitate onward haulage. Missing procedural definitions for the handover at borders, and additional legal and operational terms applicable at some borders (eg Emmerich on RFC 1), are an issue for RUs when adapting their planning process for international trains, especially short term path requests and changes. Failure to

match the train path timetables at the border is one of the main issues in traffic management. This needs to be covered in the Access contract and the freedom to exchange paths on a route is important, provided the resources are available

- » Provide continuous and easily accessible train running data (current location), diversions and reasons for those diversions on a single TIS system, as well as details of the remedial plan
- » Formulate common definitions for special trains/exceptional transport
- » Allow RUs a single entry for wagon and load data for the end to end route. The current draft of the Technical Standards for Interoperability for Telematics Applications for Freight (TAF TSI) includes this as a requirement
- » Distinguish between different classes of freight traffic, including premium traffic
- » Make reference to existing standards, such as UIC leaflets
- » Harmonise translation tables from national system to TIS. Delay codes in particular need to be translated from national codes to codes defined in UIC leaflet 450-2.



## Impact and consequences for the rail freight business if action is not taken

Efficient harmonised traffic management procedures and systems are essential for the good performance of an international network, enabling short term ad hoc requests to be met satisfactorily, and alternative solutions and routes to be found following incidents within an acceptable timescale.

End to end reliability is one of the key factors which determine modal choice, and if a satisfactory level of performance is not met, the end users will divert to alternative modes. Good performance along and between RFCs must be matched by availability of path and facilities at the end terminal, including potentially restrictive terminal operating hours.

Improving TIS to allow train information to be more effectively and promptly communicated to the following RU will:

- Avoid congestion at border stations
- Allow better coordination of resources
- Optimise the network capacity.



## Relevance and importance

Specific objectives for path allocation are to ensure smooth and efficient processes to obtain reliable train paths, making use of appropriate IT-tools.

In principle, PCS allows the seamless coordination of end to end international orders, i.e. a catalogue of pre-arranged end to end paths (PaP),

Simplification and improvements of train path processes and quality which generate additional rail freight traffic is required, with:

- Quick and exhaustive transnational planning of the train paths in accordance with preset train paths at national level
- Train paths with a minimum number of stops
- Pre-arranged train paths taking into account construction works

The customer requires:

- Speedy, clear and easy path allocation process
- Good communication
- Competitive price
- Flexibility



## Actions proposed by RUs

In practice however, there remain a number of problems and open questions, for which a common proposal should be prepared, which should:

a. Review priority criteria. Basic priority criteria are used for the C-OSS to allocate PaPs on an RFC for the annual timetable. These relate to the total length of the requested path (including feeder and outflow paths) in combination with the length of the requested PaP and running days. The formula for calculating the priority value is set out in Annex 2 of the Guidelines for Corridor OSS, and should provide a transparent system for path allocation, and fair and non-discriminatory allocation of paths between applicants. However, there remain some open questions:

- » The criteria discriminate against shorter routes. For example, paths from Rotterdam and Hamburg on RFCs 1 and 2 have priority over shorter paths on same RFCs from Luxembourg. In particular, does a path using part of two RFCs have more or less priority than one using a longer length of one of the RFCs?
- » What priority is given to the order of application?
- » Priority given to freight transport relative to passenger transport is unclear.

b. Prepare a common definition of the role and rights of AAs in the application for and use of paths which is not discriminatory towards RUs.

Article 38 of Directive 2012/38 concerning capacity rights states that:

*“Infrastructure capacity shall be allocated by an infrastructure manager. Once allocated to an applicant, it shall not be transferred by the recipient to another undertaking or service. Any trading in infrastructure capacity shall be prohibited and shall lead to exclusion from the further allocation of capacity. The use of capacity by a railway undertaking when carrying out the business of an applicant which is not a railway undertaking shall not be considered as a transfer.”*

The interpretation made by the Managing Board for certain corridors is considered to be discriminatory for the railway undertakings, namely:

- » An applicant allocated capacity must specify the railway undertaking user on each of the networks in accordance with the administrative rules of each individual network. Specification of a railway undertaking user is not considered to be a « transfer » of the allocated capacity, and the applicant can use the path with another railway undertaking at its own discretion. This is the meaning of the second paragraph
- » A railway undertaking allocated capacity cannot « transfer » it to another railway undertaking, as it is using it for its own purposes and not for an applicant. This is another way of reading the second paragraph.

The 8 week requirement for RUs between path requested and implementation should be the same for both.

c. Improve coordination of paths between a single RFC, multiple RFCs and feeder routes . For example:

- » Decision 2013/C 65/04 allows the C-OSS to work with the IMs/ Allocation Bodies (AB) for the purpose of coordinating the allocation of corridor paths with the allocation of feeder national paths.

d. Improve coordination between IMs and develop common Terms and Conditions and efficient processes to allow harmonised international path requests and allocation through PCS which are appropriate for the market and future development of RFCs, and in this way:

- » Clarify the operational and contractual status of the path application in PCS, observing other existing processes which have a clearly laid down timetable
- » Harmonise the deadlines for RUs to give information required for path requests

# USE OF PATH COORDINATION SYSTEM (PCS)





- » Harmonise cancellation penalties to deter reservation of numerous paths which may not subsequently be used. There is no restriction on the number of applications which can be made, and no penalty for cancelling unused paths.
- » Harmonise cancellation penalties which incentivise RUs to release PaPs as soon as possible to allow other RUs to use them.
- » Allow international freight paths on capacity constrained routes to be available for domestic paths within a practical and commercial timescale
- » Harmonise terms and conditions of IMs for late request, short-term and ad-hoc. For example, short term requests for PaPs up to a week in advance should be possible to enable RUs to effectively match short term requests by customers

e. Establish a mechanism to ensure that PaPs and reserve capacity in the yearly timetable are:

- » Developed in line with customer requirements. RUs have highlighted that on some corridors reserve capacity may not be customer friendly, but an accumulation of disjointed available paths providing an end to end path which is not appropriate for the market. Paths of 27 hours between Rotterdam and Basel are not acceptable. When requested paths are not available, commercially attractive alternatives as close as possible to the original request should be automatically provided within a reasonable timescale. RUs recommend that IMs be obliged to provide them with commercially attractive alternatives within 15 days where initial path requests are not accepted
- » Made available to RUs within a reasonable timescale to enable them to consider possible alternative options
- » Kept up to date
- » Formulated taking into account the maintenance and construction work.



- f. Develop interfaces between PCS and the relevant national path ordering/management systems, and between PCS and the internal system of the RUs. In the interim, requests will need to be made independently of the system.
- g. Improve process for booking PaPs by:
  - » Introducing a mechanism to allow PaPs to be booked and combined in practical sub-sections
  - » Harmonising handling of application and status of PaPs by the IMs
  - » Providing clarity on which catalogue paths are PaPs and how these may impact on availability of paths for domestic traffic
  - » Creating common deadlines and work procedures for path requests outside yearly timetable
  - » Developing common definition for late path requests. Currently there is no difference between short term and ad hoc definition of timetable update and deadlines
  - » Developing definition of “real time” if there is another organisation of the IM responsible.
- h. Develop clear non-discriminatory rules to prevent late running PaPs from having priority over other on-time paths.
- i. Introduce a process to ensure that unused PaPs are reinjected in the overall capacity reserve.

## Impact and consequences for the rail freight business if action is not taken



Good coordination is required between IMs along

and between RFCs to enable efficient operation across borders through common timetabling software programmes and the relative training. If electronic interfaces are not ready, IMs will have to provide manual interfaces.

If PCS is not improved in line with customer requirements as indicated above, poor market mechanisms, inadequate for organising, regulating and securing rail freight traffic, will continue. In particular, a multiplicity of national paths will continue to be offered for each RFC rather than a seamless end to end catalogue path. As a consequence, capacity will not be maximised nor performance improved, resulting in a loss of business and potential absence of new business.

Differences in terms and conditions of IMs for ad hoc traffic results in:

- Difficulties in harmonised border-crossing timetable planning for short-term path requests
- Non harmonised path offers to RUs
- Difficulties in planning and operations and operational handover procedures





### Relevance and importance

The role of the C-OSS is unclear. Once paths have been allocated, the different IMs become the contact points, rather than the single C-OSS, and each IM has different operational and financial arrangements. For example, penalty payments vary for unused paths, and invoices do not relate to the end to end path. C-OSS should have a role beyond simply allocating the path, such as contributing to the creation of a competitive product vis à vis other modes and gradually acting as a “single commercial window” for RUs.



### Actions proposed by RUs

Simplify the framework to better define the role of the C-OSS, and develop common operating, financial and administrative conditions and arrangements which would allow a single C-OSS to operate on an RFC.



### Impact and consequences for the rail freight business if action is not taken

Failure to create such a framework will result in the continuation of the existing system characterised by a patchwork of different national situations. Seamless international rail freight flows along and across the RFCs, competitive with other modes in terms of price, technical, operational and structural efficiency, will not materialise.

# DEFINITION OF THE ROLE OF THE C-OSS





## Relevance and importance

The Regulation foresees the establishment of a governance structure including an Executive Board, Management Board, and two Advisory Boards, for RUs and for terminals. RUs have the direct interface with the customers, and their input into the governance structure is vital to the efficient development of the Freight Corridors. Their deep understanding and knowledge of the end user customer requirements is necessary in:

- The development of accurate forecasting of traffic in Transport Market Studies
- Planning and modifications to PaPs and construction of market friendly diversionary paths as a result of infrastructure works
- Formulation of TMPs, and the related unified and harmonised traffic management systems to allow information to be readily communicated to customers
- The formulation of customer friendly catalogue PaPs which can compete with alternative modes, and components of the PCS
- Standardisation of train parameters appropriate for the market, based on information about cost advantages of other modes operating with higher payloads in larger units and vehicles
- Ensuring that the correct information is available and in the right format in Network Statements to enable RUs to collate and provide the relevant information customers to make commercial decisions on choice of mode



## Actions proposed by RUs

In the absence of a framework for the functioning of the Advisory Board, the RUs have proposed their own guidelines in the paper “Guidelines for the implementation of the Advisory boards of RUs”.

These guidelines propose that the Management Board should:

a. Consult the Advisory Group of RUs before taking decisions on strategic matters, and send the related documentation at least 2 months in advance for decisions that imply detailed scrutiny, particularly where they impact on RUs’ investments and business, such as:

- » Corridor studies
- » Investment decisions
- » Priority rules and traffic management
- » Strategic allocation of capacity and the work of the OSS
- » Decisions linked to the works on the infrastructure
- » Quality of service on the corridor
- » Draft modifications of operating rules which affect RUs’ staff (safety, training)

Documentation relating to other decision and projects should be sent at least 2 weeks in advance.

b. Include opinions and recommendations of the Advisory Group on the agenda of the following Management Board meeting, and invite the representative of the Advisory Group to present and debate these at the meeting. Where the opinion is rejected, the Management Board should provide a written argument, which can be referred to the Executive Board where necessary. The Executive Board should give an opinion within 30 days following receipt of this letter, and consultation with the representatives of the Advisory Group and Management Board. Progress has been made on this, as the RUs’ representatives were invited to attend recent Management Boards of RFCs 1 and 2 to provide an input on behalf of the RUs.

c. Establish IM and RU working groups on specific issues across all RFCs, and facilitate exchange of information and best practice in the findings of the working groups. For example

- » On RFC 2, RUs work with IMs at four IM/RU working groups
  - Infrastructure enhancements
  - Coordination of works
  - Infrastructure charges and RU costs
  - Cross border acceptance to border stations

Further working groups should be set up for infrastructure bottlenecks and transport market studies.

d. Establish annual strategic discussion between IMs and RUs on each RFC.



## Impact and consequences for the rail freight business if action is not taken

If RUs’ views are not sufficiently taken into account, there is a high risk that systems and procedures are not developed in line with customer requirements and traffic will divert to other modes, or simply not switch to rail in the first place. Involvement of RUs in Management Boards allows their expertise and understanding of the client to be included in the development of certain aspects of efficient customer driven RFCs.

Effective coordination between stakeholders for and across all corridors at the different governance levels is essential from a safety, operational and technical point of view, to facilitate improved and harmonised capacity, interoperability and reliability required for growth in rail freight’s market share. In Great Britain, for example, the Network Code (in effect an annex to the Track Access Agreement) requires cooperation between the parties.

The objectives of the guidelines proposed by the RUs in the paper “Guidelines for the implementation of the Advisory boards of RUs” are to:

- Improve the efficiency of the governance structure
- Ensure a good, efficient and transparent consultation system
- Allow the regulation to be simultaneously implemented by the different corridor structures in Europe.

# ORGANISATIONAL ISSUES





## Relevance and importance

The Regulation promotes the harmonisation of infrastructure with the specific objectives to remove bottlenecks and to harmonise relevant parameters like train length, train gross weight, axle loads and loading gauges. Reference is also made to ERTMS and Trans-European Transport Networks (TEN-T) corridors emphasising that interoperability is an essential feature of the RFCs.

Common parameters would make rail freight operations more seamless, cost effective and competitive, and enable more new entrants to enter the international markets in which different restrictions currently present an obstacle. Harmonised technical parameters such as train length and loading gauge reduce the need for specialised vehicles and procedures.



## Actions proposed by RUs

a. Harmonise minimum technical standards along and across borders, in consultation with RUs, while considering more cost effective options. Standard train parameters should be applicable throughout the RFC and between RFCs, and a long-term, step-by-step upgrade to more generous parameters should also be considered.

- » 740m train length (with locomotive) should be the minimum length. Longer trains raise RUs' profitability at low cost for the IMs, as highlighted by a recent RFC1 study on this subject
- » PC70/P400 loading gauge to accommodate high cube semi-trailers on piggyback wagons, and high cube containers on standard intermodal wagons, driven by the logistics industry. It can significantly boost the competitiveness of rail over road on a number of routes. Capacity on routes with P400, such as those through Italy and Switzerland is already saturated. CFL Cargo (Luxembourg RU) plan to start the operation of P400 trains between Bettembourg and Lyon
- » Wagon axle weight of 22.5 tonnes (25 tonnes for new build infrastructure if required). An increase in axle load from 22.5 to 25 tonnes would increase the payload by 14% , and most modern intermodal wagons are designed for 25 tonne axle loads
- » Compliance with Trans-European Networks (TEN) Regulation is essential
- » Deployment of ERTMS on all designated lines of a corridor to allow an ERTMS-equipped locomotive to operate along the principal routes without needing to be equipped with another safety system
- » Improved harmonised timescales for the implementation of the different levels of ETCS to reduce the number of multiple systems operating in parallel, and the subsequent requirement for different locomotive types over a single RFC.

- b. Allow some flexibility where this enhances the competitiveness of rail over other modes. Evolving weights and dimensions in different modes such as road and sea, such as high cube trailers and containers should be taken into account.
- c. Harmonise the parameters of the standard corridor paths across and along RFCs, and define these parameters clearly in the Network Statements.
- d. Gain support from national legal entities to help develop and implement these common parameters in line with market demands and growth segments.



## Impact and consequences for the rail freight business if action is not taken

Weights and dimensions are driven by the customer and the logistics industry, and must be accounted for to allow rail to match the additional efficiencies, and pay load advantages of competitive modes. Furthermore, different standards:

- Are costly
- Require specific training
- Pose additional safety risks
- Reduce flexibility and thereby limit the development of long distance international traffic using the RFCs

It is therefore in the interests of the IMs and RUs to agree on and introduce harmonised minimum train parameters for the end to end journey of single RFCs and across the entire RFC network.

# TRAIN PARAMETERS







### Relevance and importance

IMs should include in their Network Statements all the information about the corresponding RFCs, as a requirement of the Regulation, but there is no obligation to have a single document providing operational and technical information about the end to end infrastructure of each RFC. Consequently, RUs wishing to operate on a RFC must refer to the individual Network Statements for each of the infrastructures making up the RFC.



### Actions proposed by RUs

Develop a harmonised Network Statement structure for all RFCs end to end, including diversionary routes through other countries, to stimulate rail freight traffic, by providing easy access to that information. The existence of consistent and readily available public documents gives RUs greater transparency and visibility of the procedures operations and infrastructure charging in place. This is necessary to enable all railway undertakings to operate a railway service competitive with other modes.

A single Network Statement covering the entire RFC network would enable progress towards creating a single “true One Stop Shop (OSS)”, which would be the single point of entry for all train operators planning corridor transport. It would allow a true corridor approach, in line with the long term objectives of the European Commission for full interoperability on the European railway network.



### Impact and consequences for the rail freight business if action is not taken

Continuation of multiple Network Statements for each infrastructure of a RFC restricts the movement towards an interoperable pan-European railway network, and encourages the continuation of a network of multiple national railway networks.

# HARMONISED CORRIDOR DOCUMENT





# HARMONISATION OF PARAMETERS OF ACCESS CHARGES

Pricing structures vary on each of national infrastructures, making it complicated for RUs to make an assessment of end to end pricing on a RFC. Harmonising the parameters for these pricing structures to take into account the corridor concept would allow RUs to more readily make business decisions about operating on those RFCs, and enable them to give their customers quotes within appropriate timescales, as their competitors do. This should be part of the development of single Network Statement for each RFC, and ultimately of a single Network Statement for the entire RFC.

Harmonised parameters to be considered include:

Cancellation costs (see also Section 1.6.2), which vary for the different networks, and can sometimes limit capacity availability by discouraging IMs from making available cancelled paths to other RUs at short notice

A track access charge which encourages the use of quieter wagons and locomotives

RUs would welcome steps by IMs to harmonise elements of the pricing system, making the prices more transparent and commercial, and to reconsider those charges which limit the growth of rail freight traffic.

OTHER



## RFC WEBSITES

Easy access to the developments being made by the individual RFCs through specific websites will allow a more effective exchange of experiences between stakeholders and RFCs, and enable all stakeholders to be aware of the developments taking place towards implementation of the RFC. Examples of best practice in RFC developments and solutions should also be posted on the websites to allow them to be mirrored across all RFCs.

IMs should develop and implement extranet RFC websites with links to the other RFCs, ensuring inclusion of examples of best practice to allow these to be mirrored across the whole RFC.

This will allow stakeholders, including the European Commission, Ministries of Transport, IMs, RUs and terminal management to update themselves on developments and contribute to the development of the RFC, and in the long term to the development of a single RFC. A clear and unique logic for naming these RFC websites, as well as ensuring their availability on the internet, is also required.

# CONCLUSION

The development of RFCs will help to stimulate international rail freight traffic by progressing towards simplified and harmonised conditions for gaining access to international routes, replacing a multiplicity of different technical and operating standards currently applicable in each national IM. This will make rail more efficient and cost effective and enable it to compete with other modes, thus stimulating a transfer of freight to rail, in line with the European Commission's environmental objectives.

However, faster progress with these aims is required to implement the provisions of the Regulation within the stated deadlines. To facilitate this, and enable the objectives of the Regulation to be achieved, RUs have provided for this report a list of the most important topics which need to be studied to:

- Improve processes and coordination between IMs
- Enhance fair and efficient capacity allocation
- Allow greater technical and operational interoperability.

Particularly significant for all the common priority topics for the effective development and implementation of the RFCs are:

- a. Stakeholder engagement between
  - » Transport ministries
  - » Transport operators (partly RUs) and IMs,
  - » IMs and RUs

Close involvement of the RUs who have a deep understanding of the end user customers' requirements, and good cooperation between all stakeholders including terminal management from an early stage is important. This is relevant for a range of aspects including the formulation of customer friendly PaPs, traffic management systems, harmonisation of procedures and diversionary routes. This will result in a RFC network which is tailored to the requirements of the customers, in terms of price, reliability and flexibility, and enable rail to compete with other modes.

- b. Harmonisation across the whole RFC network and between RFCs, and harmonised technical, operational and administrative rules and systems across all corridors end to end will contribute to interoperability and provide an efficient, interoperable and seamless environment in which rail can compete effectively with other modes. Framework conditions between the different corridors should be harmonised as much as possible.

- c. Close cooperation between IMs, with support from other stakeholders, to build an efficient railway infrastructure and create systems which allow the allocation of customer friendly reliable paths for everyday operation and well planned diversionary routes during maintenance, construction and modernisation works.

- d. A process to ensure that lessons are shared and learnt across all RFC in terms of the development of efficient methodologies, processes and systems, allowing best practice to be exchanged as a matter of course.

The development of an efficient and customer friendly railway network is possible through strong stakeholder engagement, harmonisation of technical and operating systems and standards. The development of reliable paths is essential to enable the rail sector to be competitive and thereby generate a growth in rail freight traffic. Failure to progress the aspects set out in this report will jeopardise the competitive position of the railways and future growth of rail freight, allowing traffic to increase on less environmental modes.

<b>AA</b>	Authorised Applicant
<b>AB</b>	Allocation Body
<b>CER</b>	Community of European Railways and Infrastructure Managers
<b>C-OSS</b>	Corridor One Stop Shop
<b>CFL</b>	Chemins de Fer Luxembourgeois
<b>ERA</b>	European Railway Agency
<b>ERTMS</b>	European Rail Traffic Management System
<b>FTE</b>	Forum Train Europe
<b>IM</b>	Infrastructure Manager
<b>Interfleet</b>	Interfleet Technology Ltd
<b>OSS</b>	One Stop Shop
<b>PaP</b>	Pre-arranged Path
<b>PCS</b>	Path Coordination System
<b>RAG</b>	Rail Advisory Group
<b>RFC</b>	Rail Freight Corridor
<b>RNE</b>	RailNetEurope
<b>RU</b>	Railway Undertaking
<b>TAF TSI</b>	Technical Standards for Interoperability for Telematics Applications for Freight
<b>TAG</b>	Terminal Advisory Group
<b>TEN</b>	Trans-European Networks
<b>TEN-T</b>	Trans-European Transport Networks
<b>“the Regulation”</b>	Regulation (EU) No 913/2010 of 22 September 2010
<b>TIS</b>	Train Information System
<b>TMP</b>	Traffic Management Procedures
<b>TCCCom</b>	Traffic Control Centres Communication
<b>TSI</b>	Technical Standards for Interoperability
<b>UIC</b>	International Union of Railways

# GLOSSARY OF ABBREVIATIONS AND ACRONYMS



<b>TOPIC</b>	<b>PRINCIPAL ACTIONS</b>
<b>Transport Market Studies</b>	Establish working group to discuss forecasts and quality of studies
	Develop a common transport modelling approach
<b>Infrastructure Bottlenecks</b>	Establish working groups
<b>Regulatory and Operational Interoperability</b>	Develop a harmonised cross border agreement
<b>Coordination of Infrastructure Works</b>	Introduce specific measures to minimise disruption from infra works
	Establish working groups
	Define process for consultation and coordination of infra works
<b>TMP</b>	Harmonise dispatching and operating rules, data and systems
	Develop intelligent real time traffic management system
	Introduce process for the more efficient sharing of information
	Introduce harmonised guidelines for the coordination procedures following incidents both along and across corridors
	Harmonise train number identification rules used in Germany
	Improve elements of TIS
<b>PCS</b>	Improve coordination between the IMs to ensure that PaPs are published in PCS as end to end paths
	Review priority criteria
	Common definition of the role and rights of AAs in the application for and use of path
	Improve coordination of paths between a single RFC, multiple RFCs and feeder routes
	Develop common Terms and Conditions
	Harmonise cancellation penalties
	Establish a mechanism to ensure that the PaPs and reserve capacity are developed in line with customer requirements
	Introduce regs for IMs to provide alternatives within 15 days
	Develop interfaces PCS/national path ordering/management systems/RU internal systems
	Improve process for booking PaPs
Develop rules to prevent late running PaPs having priority over on-time paths	
<b>Definition of the Role of the C-OSS</b>	Simplify framework to define role of the C-OSS, and develop common operating and financial conditions and arrangements
<b>Organisational Issues</b>	Seek representation at the Management and Executive Boards
	Establish IM and RU specific working groups across all RFCs
	Establish annual strategic discussion IM CEO/RU CEO on each RFC
<b>Train Parameters</b>	740m train length
	1500m in long term
	PC70/P400 loading gauge
	22.5 tonnes wagon axle weight (25 tonnes - new build infra)
	Define these parameters clearly in the Network Statements
<b>Harmonised Corridor Management</b>	Harmonised approach to Network Statements for each RFC
	Single Network Statement for entire RFC network
<b>Harmonisation of Access Charges</b>	Harmonise pricing paramaters eg cancellation and noise
<b>RFC Websites</b>	Develop extranet RFC websites with links to the other RFCs
<b>Milestones</b>	Major, for review of general progress





INTERNATIONAL UNION  
OF RAILWAYS

# REQUIREMENTS OF RAILWAY UNDERTAKINGS FOR THE IMPLEMENTATION OF EUROPEAN RAIL FREIGHT CORRIDORS

Prepared by UIC on the basis of report by  
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