## Further strengthening of Rail Freight Corridors

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## Current state of play: first steps, but still a long way to go

The current RFC regulation has successfully achieved its formal purpose in laying down "rules for the establishment and organisation of international rail corridors for competitive rail freight", which has had many positive effects:
> improved investment planning and cooperation in several corridors
> constructive initial efforts for operational improvements
> harmonisation across corridors has started
$>$ new understandings about cross border freight operations
> new personal relationships are being developed among people who have never met physically before.
The establishment of RFCs have, however, not yet resulted in the anticipated momentum for increasing rail freight's competitiveness. Little or no results have been achieved in the following fields which are foreseen in the regulation:
> coordination of maintenance and renewal works
$>$ capacity allocated to freight trains
$>$ traffic management
$>$ traffic management in the event of break down
$>$ monitoring of quality through KPIs
There is increasing frustration among the IMs' customers about the inability of the RFCs to achieve more substantial progress faster. RAG and TAG members start to lose interest due to lack of results. The commercial, grass root energy is not sufficient to overcome obstacles/inertia at the national level / Executive Board level.

| Field of regulation 913/2010 | Current status |  |
| :---: | :---: | :---: |
| Designation of freight corridors (Articles 3 to 5) | Corridors are defined and stable | ()) |
| Consultation of applicants (Article 10) | Has not yet taken place | (8) |
| Investment planning (Article 11) | International cooperation and view of corridor requirements have slightly improved, but implementation is often lacking | (8) |
| Coordination of works (Article 12) | Planned works are published, but "corridor effects" are not sufficiently taken account of. | (2) |
| One-Stop Shop (Article 13) | Corridor One-Stop Shops are in place, but their powers and added value leave room for improvement | ( ) |
| Capacity allocation (Article 14) | PaPs , FlexPaPs and reserved capacity ensure capacity for freight trains, but result is still suboptimal for all partners | ( $)$ |
| Traffic management (Article 16) | Different approaches in different countries, no coordinated "corridor view" | (2) |
| Traffic management in case of disturbance (Article 17) | Different approaches in different countries, no coordinated "corridor view" | (8) |
| Conditions of use (Article 18) | Available, but not harmonised | () |
| Quality of service (Article 19) | Lack of monitoring; no satisfying data | (8) |

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## Our vision: empowered Rail Freight Corridors to handle capacity planning and improve operations

In our view, RFCs will not achieve the expected results as long as they are not empowered to influence the national infrastructures in the interest of optimised international freight traffic. This regards:
> Construction Providing new capacity and making existing capacity more performant
$>$ Planning Best concept for allocation of existing capacity
$>$ Operations Best and fair real-time decisions for use of capacity
If we want to see real and quick results, we must strengthen the rail freight corridor organisations by entrusting them with responsibility and competency for capacity planning and improving operational decision making for long distance freight trains. Today, regional operations centres often manage corridor traffic in a fragmented, suboptimal way. Tomorrow, corridor operations must be strengthened and harmonised taking into account the specific requirements of long distance freight trains that cross four or five different countries.

Power to act goes along with financial autonomy. Therefore, in an ideal world, Rail Freight Corridors should be set up as follows:
> Rail Freight Corridors to collect access fees
> Rail Freight Corridors to push forward improvements in the infrastructure capacity and smooth, international solutions for planning and operational use of this capacity
> Rail Freight Corridor organisations to be managed in a supranational scheme.
The aim is to overcome regional and national orientations in favour of an effective international organisation sustained by all involved IMs.

A full value, empowered RFC organisation leads to a number of positive effects:
> Supranational viewpoint in all decision making
> Harmonisation of access fees
> Construction aiming at expansion and improvement of international capacity
> Harmonisation of operational concepts and principles ("we all speak the same language")
> Collaborative decision making for major operational issues
> Management of irregularities in an international view
> International regulation

## Our aim：revise the Rail Freight Corridor organisation to set the course for more and better business

More EU support is needed to capture the large potential of the RFCs．A revision of regulation 913／2010 is necessary，even if much can be achieved within the current regulation with the right political will．

The current regulation focuses on establishing the RFCs，creating an organisational platform for improving rail freight performance．This is，however，not sufficient to achieve the underlying objectives．To help the RFCs to unlock the tremendous growth potential for longer distance rail freight，we propose that the Commission updates the regulation to support the next phase in the RFCs＇development－delivering higher performance rail freight services，and supports three additional improvements that are important to achieve this objective：

## 1．Strengthen Executive Boards

－Introduce an obligation for the Executive Boards to improve the conditions for international rail freight，monitored by common performance indicators
o Introduce European coordinators to chair the Executive Boards，who as a general rule are not nationals of the Member States directly affected by the RFC
o Introduce annual strategy meetings with key stakeholders to review last year＇s progress and to discuss further improvement opportunities
－Make CEF funding available to RFC EEIG for critical studies and smaller investments which can achieve quick wins through operational improvements and removing bottlenecks

2．Replace pre－arranged train paths with a＂Rolling Planning＂concept of continuous improvements．
3．Ensure RU business case when introducing ERTMS in corridors，noting that ERTMS has the potential to reduce IM maintenance costs and increase traffic volumes and revenue to the IM．

This paper elaborates further on the background and suggested implementation of these proposals．
Whereas there are thousands of opportunities to improve cross border rail freight by streamlining operations and eliminating bottlenecks，we choose to focus on the most fundamental challenges：
＞to strengthen the role and leadership of the Executive Board
＞to change the regulation for train paths
＞to improve operations by promoting a shared approach for long distance international freight trains
＞to implement＂Quick wins＂that improve capacity and operations with small means
＞to ensure that the ERTMS implementation improves rail freight＇s competitiveness instead of adding another burden

## Main challenges

Regulation $913 / 2010$ focuses on defining and establishing the RFCs and essentially documenting status quo. This was a necessary first step. After a first introduction period, we now observe the following gaps:

## Role and leadership of the Executive Board must be strengthened

$>$ The current regulation does not include any requirements for achieving improvements or for ensuring transparency about ambitions, plans and achievements.
$>$ The Executive Board chairmen typically do not have the necessary time or skills to support the RUs and Management Boards in overcoming physical or regulatory obstacles for international rail freight. The leadership challenge of the Executive Board chairmen is huge. Improvements often imply costly or complicated changes in the different countries where international rail freight typically is only a small part of total rail traffic. Consequently, the countries perceive that they incur in unmotivated costs only so that other countries, which represent the starting- or end-points of the transports, can capture benefits.
> The Executive Board members, appointed by national governments, typically do not have sufficient mandate, skills, time or passion to drive through such complicated improvements in different countries.
$>$ The low political value of international rail freight compared with national or regional passenger trains further aggravates the problem.
$>$ The veto right of any country for any decision, in combination with the Executive Board's inability to offer support or incentives, makes the leadership challenge extreme.
$>$ The RFCs, and ultimately the Executive Boards, lack access to funding to identify and incentivise low cost, quick win improvements in the RFCs, e.g. for financing studies of investments or regulatory changes, or for supporting national governments in financing low cost removals of bottlenecks.

## Regulation for train paths does not meet market requirements

The current regulation has defined pre-arranged train paths (PAPs) which are not responding to market needs and which have not proved effective:
> It is impossible for IMs, who do not have first-hand contact with end-customers and terminals, to create competitive train paths.
$>$ PAPs try to meet all requirements (border crossing, possible points of loco change etc) and therefore do not meet specific production requirements. This leads to wasted capacity both on IM and RUs side.
$>$ PAPs do not reflect the need for flexibility and ad hoc train paths. If rail is to increase its competitiveness relative to trucks, train paths must be responsive to the volatile nature of freight customers' business relationships, changing production, warehousing and distribution structures, demand fluctuations, etc.
$>$ Train path planning on corridors must also co-ordinate with train paths on connecting lines and terminals.

## ERTMS may reduce rail freight's competitiveness

The cost of converting rolling stock to ERTMS is a quickly approaching threat which will reduce rail freight's competitiveness all over Europe as long as there are no financing solutions in place (except the UK).

[^1]
## Recommendation: urgency to act on regulatory level

Against this background, we suggest that the Commission updates the RFC regulation to support the next phase in their development, i.e. with a focus on performance improvements, with correspondingly strengthened leadership and financial support, as well as improvements in the strategy for ensuring efficient train paths. Furthermore, the Commission should ensure that the ERTMS introduction strategy is adjusted to ensure an increase, instead of a decrease, in rail freight's competitiveness.

We also suggest that the Commission immediately starts to encourage and support the RFCs to achieve more results along these lines within the framework of the current regulation 913/2010.

More specifically:

## Plan, do, check: steer the improvement

$>$ Introduce an obligation for the Executive Boards to improve the conditions for international rail freight, monitored by common indicators for both costs and quality of rail freight in the three core fields of construction, planning and dispatching.
> The Executive Board shall demand that the Management Board defines and follows up an action plan for the most important improvement opportunities.
> It is particularly important to introduce statistics which make it possible to follow transport reliability. Increased reliability is the most important lever for attracting road freight to rail.
> The following key performance indicators should be monitored on all corridors:
> Availability of a market oriented rail infrastructure
> End-to-end journey time
$>$ End-to-end punctuality
> Infrastructure costs for a typical mix of freight trains
> Customer satisfaction, according to current regulation

See details in the Annex (page 10)

[^2]
## Overcome boundaries: governance with a supranational approach

> Introduce European coordinators (the concept today exists for the TEN-T core network corridors) to chair the Executive Boards, who as a general rule are not nationals of the Member States directly affected by the RFC. These chairmen should be very competent leaders with experience from negotiations in political contexts, and be selected in cooperation with the members of the Executive Board.
> The chairman should have access to competent staff support, personally as well as through the RFC EEIGs.
> The key tasks of the European coordinators are, together with their Executive Board, to ensure agreement about:
> The most important opportunities/actions to strengthen rail freight's competitiveness in the corridor based on input from the Management Board and the users, e.g. to overcome national bottlenecks, to ensure compatible, best practice operational procedures and to remove regulatory obstacles.
> How these improvement opportunities best can be captured; particularly identifying where IMs and RUs need the support of the Executive Board to overcome national obstacles, e.g. when actions to support international freight cannot be justified from a national perspective.
> Strategies to overcome national resistance to improvements which make sense in a larger European perspective, e.g. by encouraging bi- or multilateral cooperation and involving EU authorities and EU financing.
> Action plan and performance targets to aim for, based on recommendations from the Management Board; to be reported at the annual strategy meeting (see below).
> Annual assessment of progress (including interpretation of successes and failures) relative to the plans established previous year; to be discussed at the strategy meeting with a view to finding appropriate solutions to experienced difficulties.

## Customer orientation: involve the market

> Introduce annual strategy meetings with key players to review last year's progress and to discuss further improvement opportunities.
> The meeting should be chaired by the Executive Board Chairman/European coordinator together with the Executive Board, who invites the European Commission, the Management Board, the RAG and the TAG (including authorised applicants) and end customers.
> The agenda of the strategy meeting should include:
> Report on the progress made relative to the previous year's plans and performance targets, including challenges identified
> Presentation of future improvement opportunities and challenges/obstacles to achieving these
> Presentation of the Executive Board's action plan and performance targets for the following year
> Discussion about to how to best ensure progress and achievement of performance targets; potentially in subgroups chaired by members of the Executive Board

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## Power to act: entrust funding for quick wins

> Make CEF funding available to RFC EEIG for critical studies and smaller investments which can achieve quick wins through operational improvements and removing bottlenecks.
> From a national perspective, it is often rational to resist changes or investments for international freight traffic when the revenues from track access fees do not cover the costs. And it is often too complicated to resolve such minor issues on a bi- or multilateral government level.
$>$ The delegated RFC decision making for smaller investments can be more efficient, as the CEF procedures are better suited for larger projects. Therefore, some limited funding by the CEF to the RFC EEIGs could be an efficient mode to ensure quick implementation of potentially very profitable investments.
$>$ The EEIG spending should require Management Board and Executive Board approval.
> The chance to deliver results will also empower the Management and Executive Boards and make it more meaningful for RUs and terminals to participate in RAG and TAG meetings. We suggest a threestep implementation:
$>$ Testing allocation of a specific amount of CEF funds to one RFC, e.g. 10 M EUR over a threeyear period, with close monitoring by CEF
$>$ If successful, continue with similar allocation to all RFCs
> If successful, incorporate this as a permanent funding of RFCs, probably with increasing independence from CEF

## Capacity for freight trains: new approach

> Replace rigid pre-arranged train paths with a "rolling planning" concept with continuous improvements. The principles for allocating capacity for international freight trains, where the needs are very difficult to predict, should be dramatically simplified:
$>$ Maintain existing train paths and capacity for ad hoc trains in principle "until eternity"
> Only make adjustments, e.g. adding or removing train paths or adjusting train paths or ad hoc capacity, when this improves the total economics of rail transport.
> The freight train paths may feasibly be lumped together as broader train paths, allowing several freight trains to follow each other, including spare capacity for ad hoc, new and delayed trains.
$>$ Review the role of the Corridor One-Stop-Shop. This institution today acts as a simple letterbox, without providing added-value services.
$>$ The role of the C-OSS should be:
$>$ To monitor needs for - and availability of - sufficient future capacity by staying in contact with the users of the RFCs and the IMs
$>$ To monitor the utilization of train paths and ad hoc capacity and the effectiveness of the existing train paths

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$>$ To act as advocate of international freight trains in continuously negotiating new or better train paths for the users or in eliminating/modifying train paths based on IM or passenger service needs, i.e. regardless of time of the year.

## RFCs to actively coordinate the handling of long distance international freight trains

Even in a perfect world with sufficient rail capacity and accurate planning, the day-by-day operations will be crucial for the success of rail freight. Therefore, the RFC organisation should accomplish a coherent understanding of how to effectively handle long distance, international freight trains in today's operations system made up of a multitude of regional traffic control centres.

The Corridor organisation must actively tackle this fundamental issue, by continuously involving the stakeholders (regional operations centres, IMs, RUs) in order to achieve tangible results in the short as well as in the medium/long term.

The following functions should be entrusted to the C-OSS, or to specific "Corridor Control Units":
> To promote a common understanding of operational principles and concepts
> To ensure collaborative and transparent decision making in case of disturbance
$>$ To offer real time input to regional traffic control decisions when problems start to occur
> To establish fair and transparent handling of priority between different categories of users (passenger, freight, regional, international, infrastructure maintenance, etc.) with harmonised criteria along the whole corridor
$>$ To identify possibilities for higher prioritisation of corridor freight trains, for example during night hours
$>$ To make sure that deviation concepts (e.g. priorities, detours) across all regional traffic control centres are available
$>$ To monitor of the smooth movement of international freight trains through the regional controls
$>$ To feed back operational issues into the planning process, in order to solve structural problems

## Ensure RU business case when introducing ERTMS in corridors

> Investments in ERTMS will only strengthen the competitiveness of rail freight if the conversion costs of existing rolling stock are covered by the IMs (or the EU). Conversion of existing rolling stock to ERTMS cannot be financed by RUs, as it does not improve productivity or customer value.
$>$ A country-by-country strategy might support ERTMS introduction better than a corridor-focused strategy:
> The full IM benefits, which can be used to also cover conversion costs of rolling stock, will materialize by a complete replacement of legacy safety systems.
> Conversion of isolated corridors through several countries will, on the other hand, require massive conversions of rolling stock with very limited (if any) benefits to the IM.
> Therefore, to maximize IM savings which can cover rolling stock conversion costs, and to minimize the necessary number of rolling stock conversions in an international perspective, the Commission should consider to change its implementation strategy from corridors to countries; starting with the countries that benefit the most from replacing costly and less safe legacy systems (i.e.in line actual experiences to date).

[^3]
## KPIs to steer cost and quality of rail service on the Rail Freight Corridors

## CLUSTER Construction

> Availability of market oriented rail infrastructure:
$>$ normal train length (at least 740 m ) as a \% of whole corridor
> heavy paths (25t axle load) as a \% of whole corridor
$>$ high cube (P400) paths as a \% of whole corridor
$>$ length of spare tracks for temporary train stops along the corridor
$>$ number of stabling zones for shunting operations provided along the corridor
> Age of network subdivided in asset groups
$>$ Technical reliability as time to failure for infrastructure components (switches, electricity, tracks etc.

## CLUSTER Planning

## > End-to-end journey time

> Spare capacity given into the market for extra trains
$>$ Spare capacity as train-km in duty as a peak load number and as an average number
$>$ Number of planned vs. unplanned stops in service
$>$ Number of planned vs. unplanned maintenance work
> Coordination of infrastructure works across borders

## CLUSTER Operations

> End-to-end punctuality
> Arrival punctuality of all freight trains which use a significant part of the RFC, including how much of the delays that are caused by each freight RU and IM (monthly measure).
$>$ Reliability of the timetables given to the market, measured in track access punctuality (referred to the single national train path) and end-to-end punctuality (referred to the overall corridor train order)
> Breakdown standstill times
> Dispatching effectiveness domestically and cross border

## CLUSTER Cost \& Customer Satisfaction

> Infrastructure costs for a typical mix of freight trains
> Customer satisfaction, according to current regulation

[^4]
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