



Co-financed by the European Union
Trans-European Transport Network (TEN-T)

Pre-arranged Paths, Corridor OSS and Capacity Allocation

Maurice Faramelli & Daniel Haltner
27/06/2012



Fast track your rail freight

Status of pre-arranged paths

Aim Regulation 913/2010:

Dedicated capacity for the freight traffic – in the form of pre-arranged paths (for the annual timetable) and reserve capacity (for the running timetable) – as the key factor of successful business

In order to prevent that this dedicated capacity is adversely affected by other traffic type (e.g. scheduled passenger trains), pre-arranged paths and reserve capacity benefit from a specific legal status:

- **Planning:**

Published pre-arranged paths and reserve capacity are protected from X-11 months (e.g. January 2014 for TT 2015) until ~ 60 days before operation.

In addition to the regulation, Corridor 2 will be more flexible than the regulation and will fix the deadline for booking reserve capacity (via the Corridor OSS) to 21 days before running, instead of 60 days.

- **Operation:**

In case of disturbances: a train running on a pre-arranged path or reserve capacity 'on-time' remains 'on time' if possible (Art. 17, 913/2010). Priority is guaranteed in this case.

Process for setting up pre-arranged paths

- X-19 months Availability results transport market study and customer survey
- X-18 ⇒ X-17 Alignment transport market study and customer survey results with RU Advisory Group and IMs own capacity requirements (possessions)
- X-17 Decision Corridor Management Board: concrete figures (quantity) for the various corridor sections
- X-16 ⇒ X-12 Planning (construction) pre-arranged paths and harmonisation IM handover points
- X-11 Publication/display pre-arranged paths for the next annual timetable
- X-4 / X-3 Planning (construction) pre-arranged paths (reserve capacity) and harmonisation IM handover points for ad-hoc traffic based on remaining capacity
- X-2 Publication/display pre-arranged paths for ad-hoc traffic (running timetable)

X = timetable change in Mid-December

Chart No.3

Publication of pre-arranged paths

Preparation of next annual timetable

Running timetable

Jan X-11	Feb X-10	March X-9	April X-8	May X-7	June X-6	July X-5	Aug X-4	Sept X-3	Oct X-2	Nov X-1	Dec X	Jan X+1	Feb X+2	March X+3	April X+4	May X+5	June X+6	July X+7	Aug X+8	Sept X+9	Oct X+10	Nov X+11	Dec X+12
----------	----------	-----------	-----------	---------	----------	----------	---------	----------	---------	---------	-------	---------	---------	-----------	-----------	---------	----------	----------	---------	----------	----------	----------	----------

Path requests for next annual TT

Late path requests for next annual TT

Ad-hoc traffic

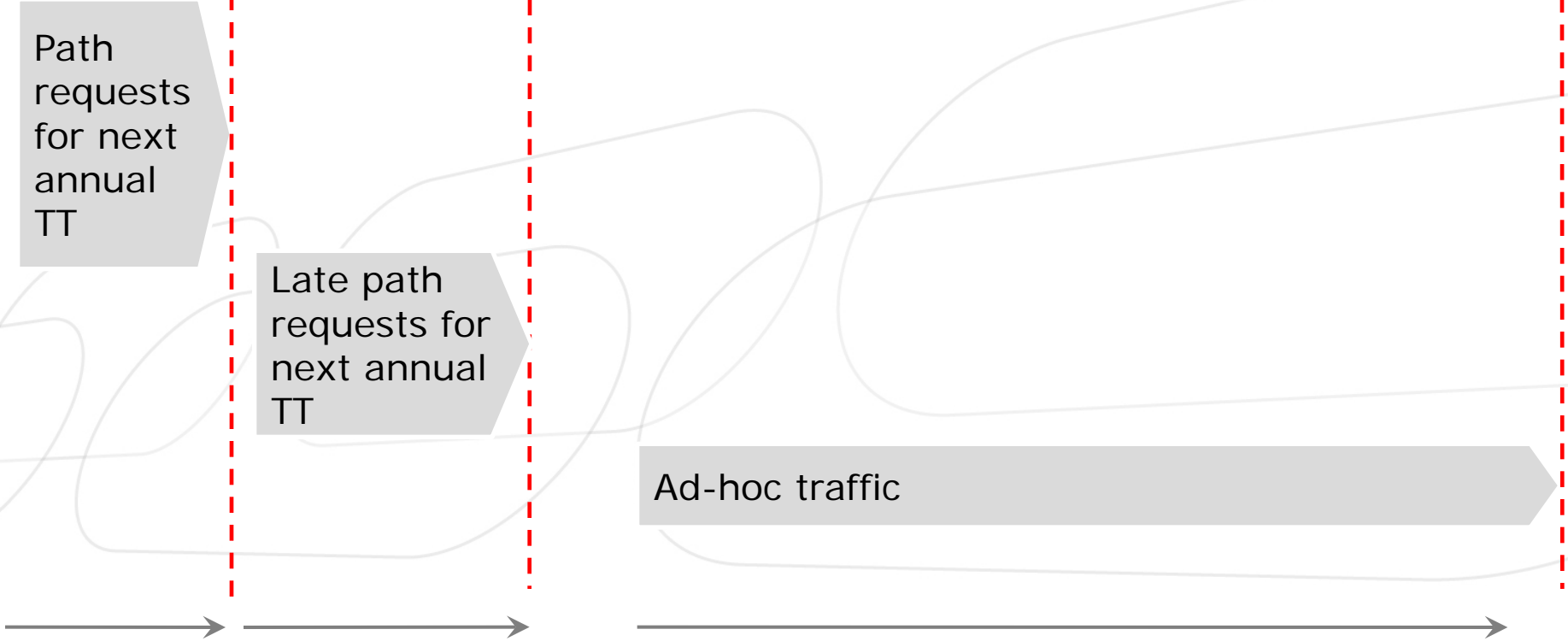


Chart No.4

Publication of pre-arranged paths

Display and booking of pre-arranged paths: PCS (Path Coordination System)

- One single European IT tool for all corridors
 - Facilitates booking of pre-arranged paths involving more than just one corridor
 - Enables the inclusion of feeder and/or outflow paths – even if they are not on the corridor
 - Same tool could be used for other international freight trains
 - Will fulfil TAF-TSI requirements
- Transparency regarding updated available remaining reserve capacity
- Responding automatically on requests in the ad-hoc phase
- Detailed Information on PCS can be found on the RNE homepage (www.rne.eu)
- Training for the concerned staff is offered online, as well as in a yearly practice session (organised by RNE)
- The tool is already fully operational as the great majority of Passenger trains today are already booked in PCS.

Publication of pre-arranged paths: further development of current solution

Corridor Sections C05 - N-S (X-11)																					
		Origin							Destination			Selection phase									
<input type="button" value="▶ Hide details"/>		ANTWERPEN-NOORD							BETTEMBOURG			No selection									
		1	2	3	4	5	6	7	path (responsible im: Infrabel)			ANTWERPEN-NOOR...			RONET, FORMATI...			BERTRIX			AUBAI
		M	T	W	T	F	S	S	no	note	param	arr	st	dep	arr	st	dep	arr	st	dep	arr
<input type="radio"/>		x	x	x	x	x	x	x	17130		05INFRA04			23:36	01:41		01:46	03:21		03:26	
<input type="radio"/>		x	x	x	x	x	x	x	17133		05INFRA04			01:06	03:11		03:16	04:51		04:56	
<input type="radio"/>		x	x	x	x	x	x	x	17140		05INFRA03			04:33	06:38		06:43	08:18		08:23	
<input type="radio"/>		x	x	x	x	x	x		17141		05INFRA03			05:06	07:11		07:16	08:51		08:56	
<input type="radio"/>		x	x	x	x	x	x		17148		05INFRA03			08:36	10:41		10:46	12:21		12:26	
<input type="radio"/>		x	x	x	x	x	x		17102					08:36	11:41		11:46	13:21		13:26	
<input type="button" value="▶ View details"/>		RONET, FORMATION							WOIPPY												
<input type="button" value="▶ View details"/>		ANTWERPEN-NOORD							KIJFHOEK NOC												
<input type="button" value="▶ View details"/>		ANTWERPEN-NOORD							LILLE-DELIVRA			No selection									
<input type="button" value="▶ View details"/>		BETTEMBOURG							BALE-SAINT-JEAN			No selection									

[TAF-TSI parameter:
locoTypeNumber=TYPE 13]
[TAF-TSI parameter:
highestPlannedSpeed=90]

Length (m) = 600
Load (t) = 1600
P1=70, C1=400

Chart No.6

Publication of pre-arranged paths: further development of current solution

| Requested timetable (RU) |

All catalogue paths were successfully assigned to selected timetable(s).

Please note: The deadline for path requests for the network timetable 2013 has expired on 20 April. Any further requests for the TT period 2012/2013 will be dealt within residual capacity.

ANTWERPEN-NOORD - BETTEMBOURG

No.	Train no.	arr.			dep.			Location	Comment	RU		
		-arr.			-dep.						Detail	Train parameters
		+a...	dw...	+d...								
1	17141			05:06			ANTWERPEN-NOORD <i>Infrabel</i>	Train length = 600 Train weight = 1600 P1=70, C1=400 Loco type number=TYPE 13	Highest planned speed=90 Activity type = Commercial stop	🔴 CargoNet AS (Norway)		
2	17141		07:11		07:16		RONET, FORMATION <i>Infrabel</i>	Activity type = Loco driver change		🔴 CargoNet AS (Norway)		
3	17141		08:51		08:56		BERTRIX <i>Infrabel</i>	Activity type = Loco driver change		🔴 CargoNet AS (Norway)		
4	17141				09:51		AUBANGE <i>Infrabel</i>	Activity type = Commercial stop		🔴 CargoNet AS (Norway)		
5	17141		09:56		09:56		RODANGE <i>ACF</i>	Activity type = Commercial stop		🔴 CargoNet AS (Norway)		
6	17141		10:35				BETTEMBOURG <i>ACF</i>	Activity type = Commercial stop		🔴 CargoNet AS (Norway)		

Chart No.7

Characteristics of pre-arranged paths (I)

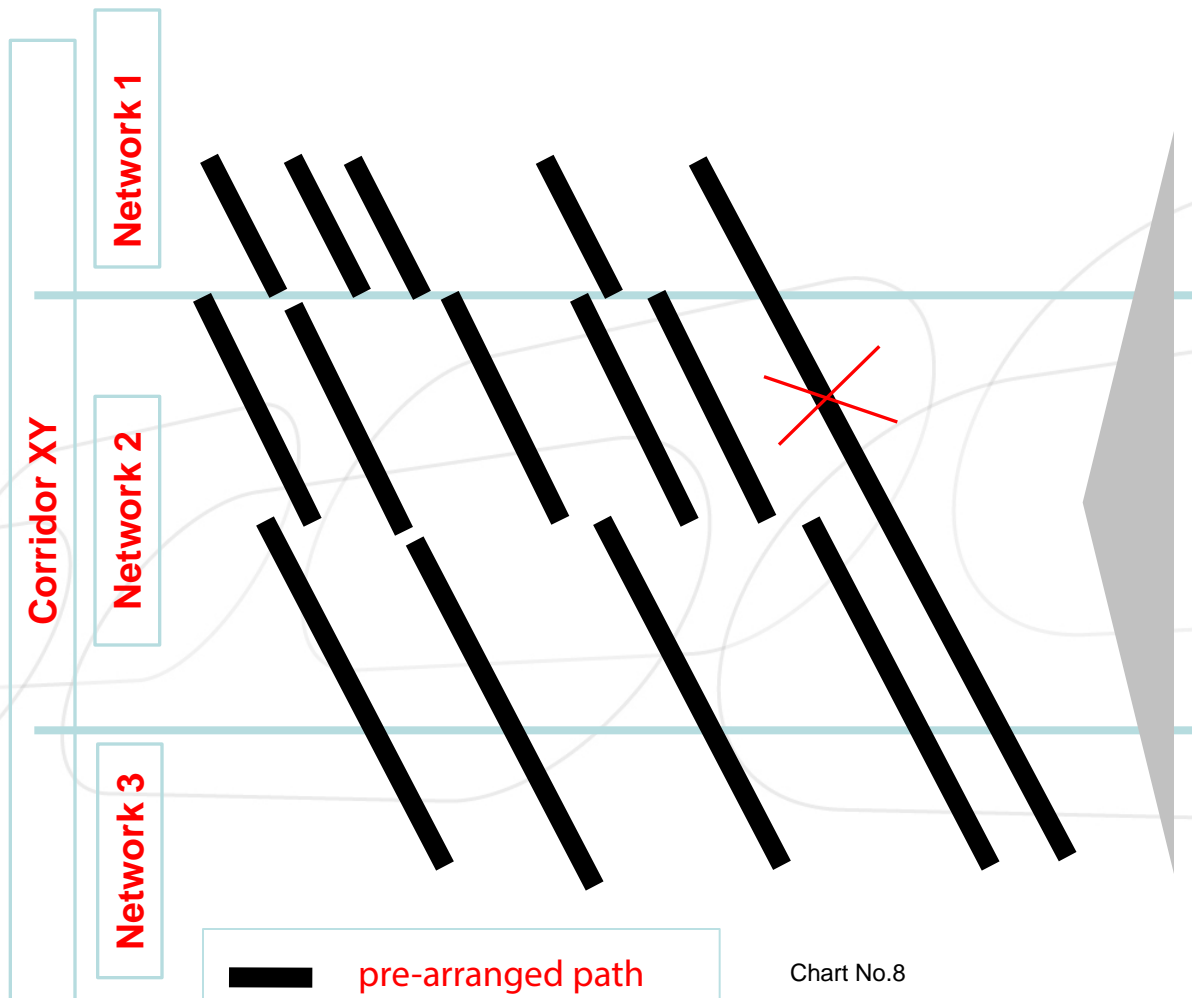


Chart No.8

Corridor C/2 will offer commercially viable path sections (and not just long paths from the start to the end of the corridor).

Paths should reflect the major customer needs as well as the given topology regarding their characteristics (train length, train weight, traction, etc.).

Quantity as well as inputs for the characteristics should be derived from Transport Market Study and Customer Survey.

Characteristics of pre-arranged paths (II)

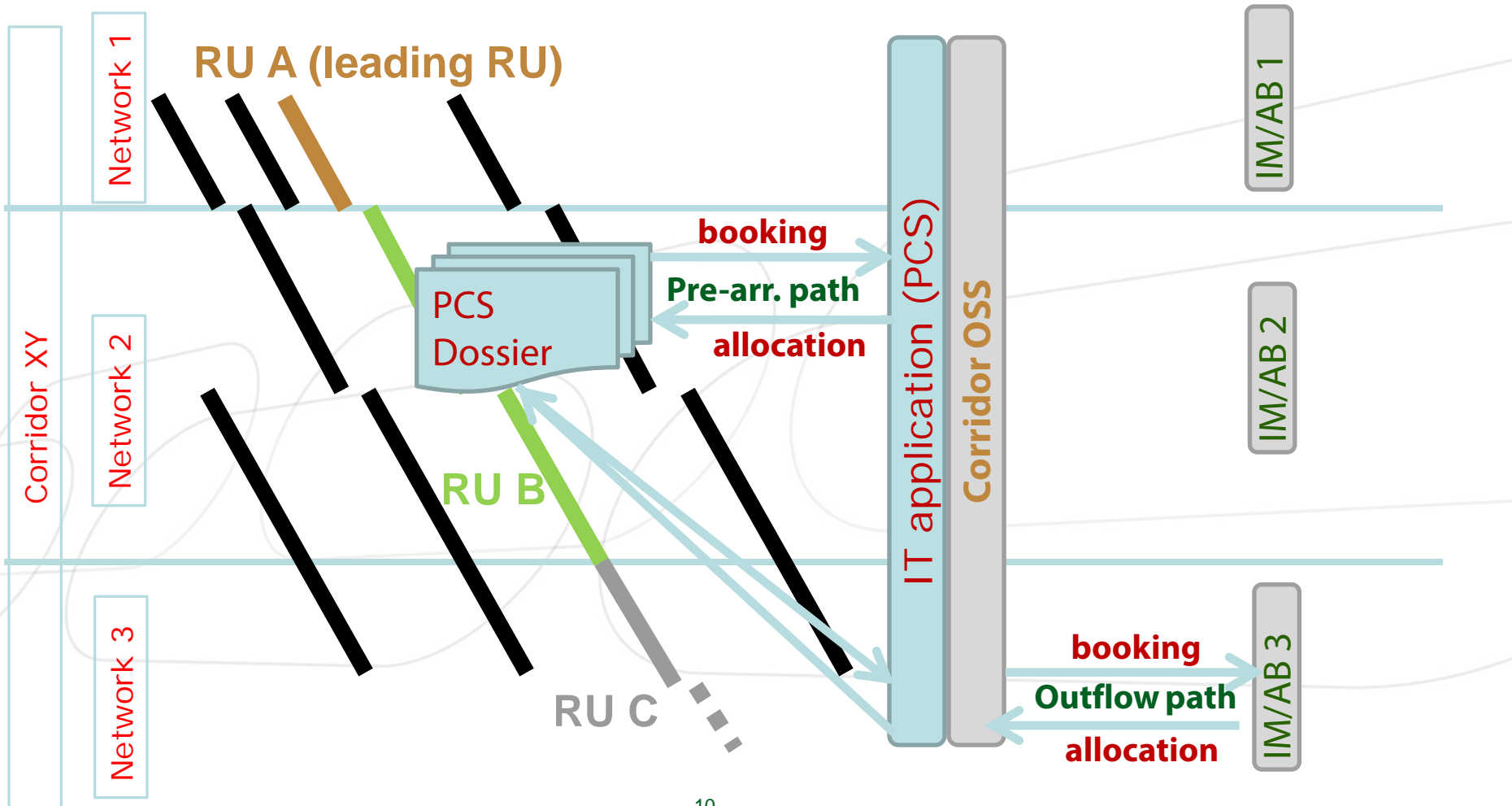
Pre-arranged paths (incl. reserve capacity) will be consistent of standardised parameters

- Train length
- Train weight
- Train speed
- Profile/gauge
- Axle load
- Traction
- etc.

Parameters will depend on infrastructure possibilities of the various path sections/segments.

Deviations require a request for a tailor-made solution. Therefore, it is very important that RU's give the right answers during our Transport Market Study survey. The output will be taken into account when defining the parameters for the pre-arranged paths.

Booking and allocating pre-arranged paths



Conflicting applications

Priority rules (*RNE proposal; needs to be endorsed by the corridor*):

X – 8 months prior timetable change

(to be applied by the Corridor OSS in case of two or more bookings for identical pre-arranged path(s))

Priority rule:

- Focus on rewarding applicants with higher commercial value (longer pre-arranged path sections and more often)

In case an applicant is not receiving the requested pre-arranged path, the Corridor OSS will be responsible to offer an alternative.

X – 8 until X – 4 months and for reserve capacity:

- “first in – first served”

Corridor OSS

- Corridor OSS on Corridor C/2 will be part of the dedicated corridor team
 - Located in Brussels
 - Advantage: one contact point for all corridor activities and tasks
- Corridor OSS is responsible for the publication of pre-arranged paths/reserve capacity
- Corridor OSS will allocate pre-arranged paths and reserve capacity on behalf and in the name of all corridor IMs and Allocation Bodies (AB)
- Allocation decisions of IMs/ABs for feeder and outflow paths will be communicated to path applicants by the Corridor OSS together with pre-arranged paths/reserve capacity

Next steps / open points

Corridor Framework

- Corridor Executive Board (Ministries of Transport) will sign a Memorandum of Understanding regarding the capacity allocation on the corridor.
- Outcome/consequence: inputs for possible adaptations of national law/regulations

Characteristics of pre-arranged paths

- Finalise corridor philosophy

Publication of pre-arranged paths

- Adaptation of PCS in order to fulfil new requirements (RailNetEurope)
- Definition of the end of publication (913/2010: at the earliest 60 days prior to operation)

Tasks to be done

- Conditions for pre-arranged paths
- Involvement of terminals in the allocation process (requirement 913/2010)

Then following slides will be just shown to the Terminals

Regulation 913/2010: Requirements for terminals

Regulation 913/2010 European Union



Establishment of a European rail network for competitive freight

Articles in Regulation 913/2010 referring to terminals

Article 14 (9) – Capacity allocated to freight trains
Pre-arranged path take into account the access to terminals

Article 16 (2) – Traffic management
Procedures to ensure optimal coordination between IM and terminals

Article 18 (b) – Information on the conditions of use of the freight corridor

Regularly update and publish a document containing e.g. the list and characteristics of terminals

Regulation 913/2010: Art. 14(9)

Article 14 (9) – Capacity allocated to freight trains

The management board of the freight corridor and the advisory group referred to in Article 8(7) shall put in place **procedures to ensure optimal coordination of the allocation of capacity** between infrastructure managers, both for requests as referred to in Article 13(1) and for requests received by infrastructure managers concerned. **This shall also take account of access to terminals.**

Regulation 913/2010: Art. 16(2)

Article 16 (2) – Traffic management

The infrastructure managers of the freight corridor and the advisory group referred to in Article 8(7) shall put in place **procedures to ensure optimal coordination between the operation of the railway infrastructure and the terminals.**

Regulation 913/2010: Art. 18(b)

Article 18 (b) – Information on the conditions of use of the freight corridor

The management board shall draw up, regularly update and publish a document containing:

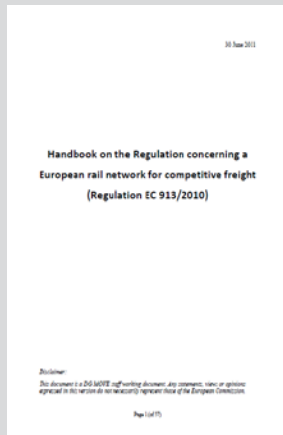
the **list and characteristics of terminals**, in particular information concerning the **conditions and methods of accessing the terminals**.



Publish a document with regularly updates

Regulation 913/2010: Handbook from the EC

Handbook on the Regulation 913/2010



Establishment of a European rail network for competitive freight

Status Handbook

Handbook contains practical advice for the parties concerned and gives examples on how to deal with the various aspects of implementation.

Regulation intentionally leaves an appropriate level of freedom to the parties on how to implement the Rail Freight Corridors in detail.

Handbook is a DG MOVE staff working document and provides guidance only; it does not have any legal force. The only legally binding text is the Regulation 913/2010/EC

Handbook Regulation 913/2010: Chapter 5.4.3

Chapter 5.4.3 – Definition of train paths

Two situations can be discerned in the definition of train paths:

- International freight train paths entirely within one corridor, i.e. using lines designated to one corridor and **with origin and destination at terminals designated to that corridor**
- International freight train paths involving two (or more) Corridors, i.e. using lines designated to the corridors in question and **with origin at a terminal designated to one corridor and destination at a terminal designated to another corridor** (in this case it is sufficient if the train passes a national border in one of the corridors)

EC assumes that (pre-arranged) paths start and end in a terminal.

Handbook Regulation 913/2010: Chapter 5.4.4

Chapter 5.4.4 – Flexibility

Train paths must mirror production systems of different Applicants in order to ensure neutrality and not distort competition.

Two potential approaches for how to define train paths can be discerned:

1. Classical approach: Exact definition of a train path (with departure/arrival/passing times at all major nodes (**terminals**, nodes with connections to other lines))
2. Flexible approach: Indicative train paths with possibility to adjust train paths during the allocation process (can be in the interest of both Infrastructure Managers and Applicants).

EC assumes that (pre-arranged) paths start/end in terminals with exact timings.

Handbook Regulation 913/2010: Chapter 6 (I)

Chapter 6 – Terminals

- Terminals should contribute to the progressive introduction of IT tools in the Corridors.
- Terminals are referenced by several articles of the regulation including:
 -
 - the coordination of allocation of capacity with the rail network (Art 14(9))
 - the coordination of traffic management with the rail network (Art 16(2))

In addition Art. 14(9) and 16(2) also envisage procedures between IMs of the freight corridor and terminal managers to ensure optimal coordination of capacity allocation and for traffic management. RUs may become involved in these procedures.

EC expects that terminals participate in process of path/capacity allocation.

Handbook Regulation 913/2010: Chapter 6 (II)

Chapter 6 – Terminals

Concerning the path allocation, a common interface should be developed between the IT-tools (e.g. Pathfinder) and the IT tools of RUs and/or authorised applicants, and terminal managers for path allocation. Monitoring tools such as for example Europtirails should also be available to terminals for traffic management.

EC expects that there will be a common interface between the IT tools of the terminals and IMs (e.g. Corridor OSS).