



Round table on infrastructure

(Second Eurasian Connectivity and Industrial Cooperation Forum:
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Brussels, 21 November 2018

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FERRMED and rail infrastructure

- The future of freight transport by rail depends on the development of infrastructure on a European and Eurasian scale.
- FERRMED is proposing prioritised and business-oriented development of trans-European infrastructure.

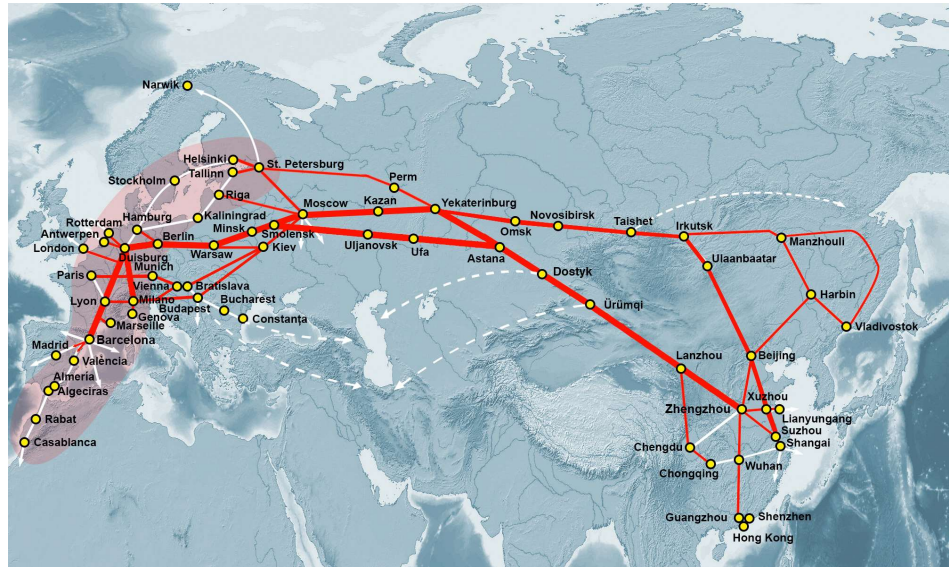
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The trans-Eurasian rail network



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Prioritised development of the European rail network

On the basis of the nine European freight corridors, FERRMED intends to concentrate available resources to develop the European network in three phases extending to 2020, 2025 and 2030.

FERRMED seeks to better connect the hubs that serve major European population centres, including:

1. A backbone rail network whose 6000 km of routes carry Europe's heaviest traffic (rail and road combined).
2. The next-busiest additional 9000 km of routes.
3. Progressive inclusion of all 80,000 km of routes comprising the full European core network.

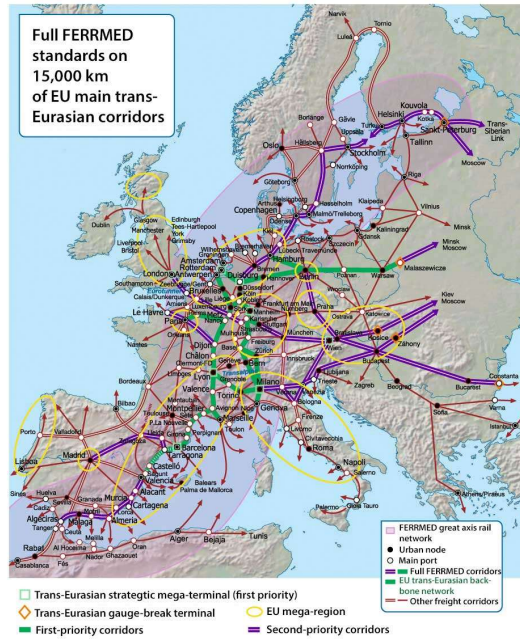
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First **6000 km** and next **9000 km** of FERRMED priority routes



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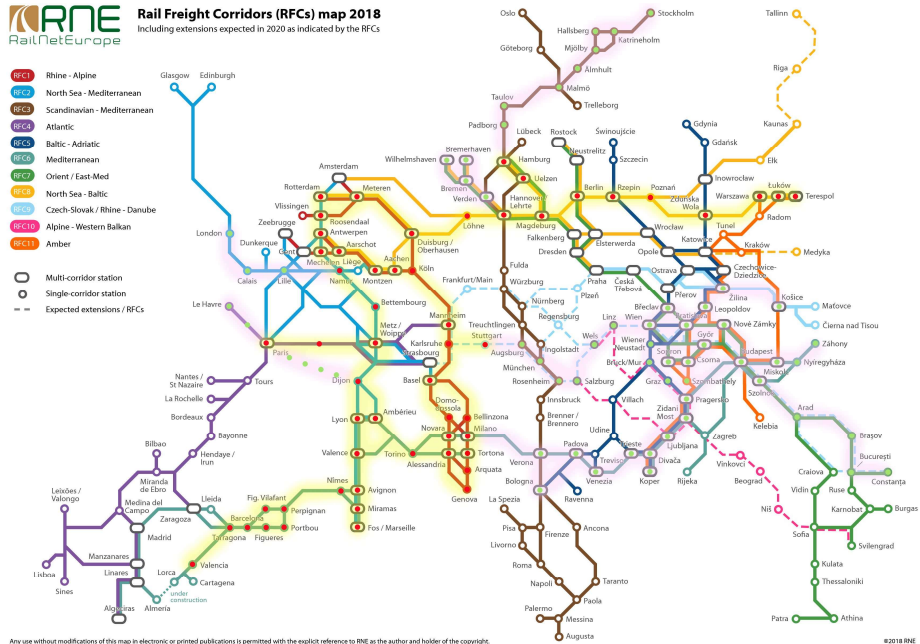


European corridors and FERRMED priority routes



Rail Freight Corridors (RFCs) map 2018
Including extensions expected in 2020 as indicated by the RFCs

- RCI Rhine - Alpine
 - RCM North Sea - Mediterranean
 - RSC Scandinavian - Mediterranean
 - RCA Atlantic
 - RCB Baltic - Adriatic
 - RCE Mediterranean
 - RCF Orient / East-Med
 - RCG North Sea - Baltic
 - RCH Czech-Slovak / Rhine - Danube
 - RCI1 Alpine - Western Balkan
 - RCI2 Amber
- Multi-corridor station
 - Single-corridor station
 - - - - - Expected extensions / RFCs



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FERRMED requirements

As the basis for high-performance train operation, FERRMED has established the following requirements:

- **Train length:** Infrastructure must be able to handle trains of 740 metres and later 1500. On most routes, this means more and longer passing sidings, longer signal blocks, and greater-capacity yards and terminals.
- **Loading gauge:** P400 to allow the carriage of truck trailers in conventional pocket wagons.
- **Signalling:** ERTMS Baseline 3 for true interoperability.



FERRMED action on bottlenecks, gaps and gauge

FERRMED intends to identify, prioritise and push for the financing and realisation of projects:

- To remove bottlenecks and fill missing links.
- To extend 1435 mm gauge in Iberia and 1435/1520 mm routes as appropriate in Eastern Europe.


FERRMED

FERRMED's rolling stock push

In the area of rolling stock, FERRMED will push for:

- More versatile electric **locomotives** able to use different overhead power types and signalling systems and operate the last mile without catenary.
- Better and smarter **wagons** designed to:
 - carry more TEUs or other loading units in a train of a given length.
 - permit a new generation of couplers that allows **automatic coupling, long trains** and **transmission of electric power and data** for sensor reporting, brake operation, train integrity monitoring and cargo heating/cooling.


FERRMED

FERRMED's three working groups

To coordinate its work, FERRMED has launched three FERRMED Multisectoral Working Groups (FMWGs) in the areas of:

- rolling stock,
- infrastructure and
- operations. An initial focus of the FMWG on Operations will be terminals.

The interdependency of these groups will remain a constant focus.

Welcome to all!