



Promotion du Grand Axe Ferroviaire de marchandises
Scandinavie-Rhin-Rhône-Méditerranée Occidentale A.S.B.L

FERRMED Annual Conference

***PRESENTATION OF THE FIRST PARTIAL RESULTS OF
THE FERRMED STUDY OF TRAFFIC AND MODAL
SHIFT OPTIMISATION IN THE EU***

A key tool to achieve the European Green Deal targets and best
“Investment-to-Results” ratio for the actions to be carried out on
the global logistics chain

Forth Eurasian Connectivity and Industrial Cooperation Forum (Europe)

EUROPEAN YEAR
OF RAIL 2021



Brussels, November, 16th 2021

PERFORMANCE AND ENVIRONMENTAL IMPACT OF THE EUROPEAN LAND FREIGHT TRANSPORT SYSTEM

BACKGROUND

- ❖ In 2015 transport volume in the EU-28 was **19 billion tonnes** of goods transported (or **2,385 billion tonne-kilometre**). In terms of tonne-kilometre, **75% was transported by road, 18% by rail and 7% by barge.**
- ❖ Alternatively: In the year 2018, total freight transport performance in the EU-27 (without the UK) was **2,267 billion tonne-kilometre** of which **75,4% by road, 18,7% by rail and 6% by inland waterway.**
- ❖ The major part (around 55%) of total road freight transport performance was over distances of more than 300km of which, roughly one third, where over more than 1000km.
- ❖ The impact of road freight transport on the environment is massive: some **275 million tonnes of CO₂** per annum representing **30% of total GHG emissions of the transport sector** as a whole.

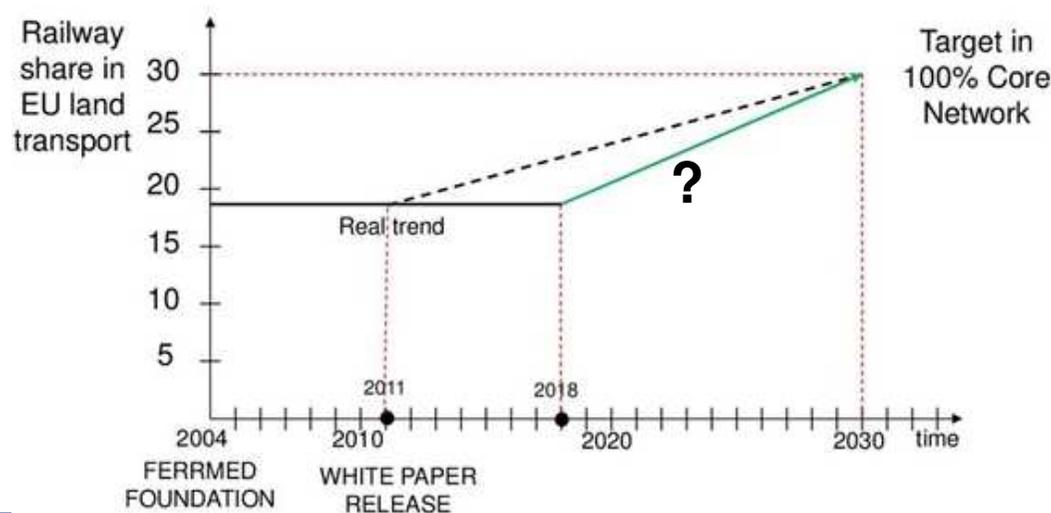


THE FERRMED STUDY OF TRAFFIC AND MODAL SHIFT OPTIMISATION IN THE EU

PRELIMINARY

Considering there has been no increase in EU rail freight share in the last 15 years (17,9% in 2005 and 17,3% in 2017) and that the EU Transport Core Network is too vast (~70,000 km), **the shift from road to rail requires the concentration of investments in a selective part of the main corridors of the Core Network.** FERRMED has initiated a major study highlighted below.

RAILWAY SHARE REAL VERSUS PLANNED

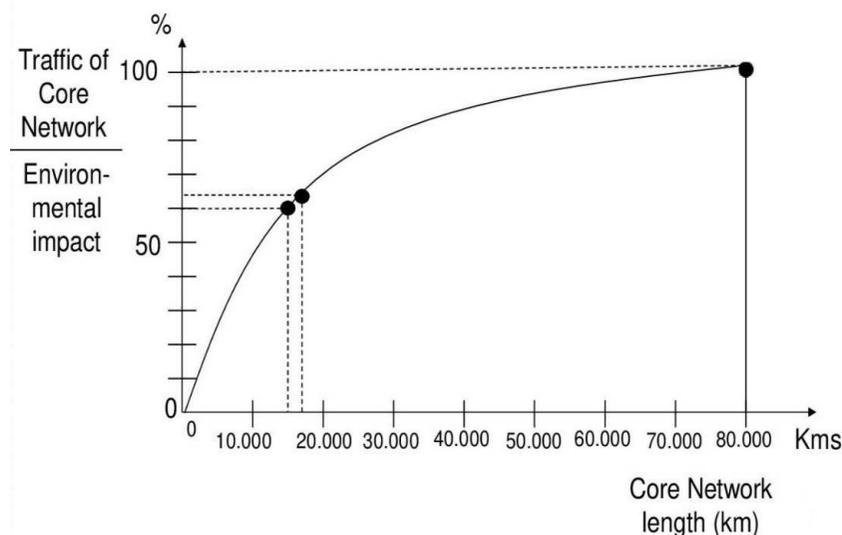


OBJECTIVES OF THE STUDY

The key objectives of the study are:

- **To identify freight traffic** in total and by mode of transport in the main corridors of the EU Core Network (EU Backbone Network).
- **To propose an Action Plan** to achieve the EU “White Paper” targets by 2030 (30% of freight land transportation over 300 km carried by rail or barge) in the most crowded sections of the corridors, covering 60-65% of the traffic related to the EU Core Network.
- **To be a key tool for the EU COVID-19 Recovery Plan in Transport & Logistics.**

FERRMED APPROACH TO ACHIEVE AT LEAST 60 ÷ 65% OF “WHITE PAPER” TARGETS IN 2030



TASK FORCE ALLOCATION (I)

- ❖ Total people days required c. 2.100
- ❖ Status: 1.300 people days already executed (October '21)
- ❖ Task force:
 - FMWG: 12 Senior analysts & advisors
 - Catalonia Technical University: 1 professor
 - Barcelona University: 2 students
 - Antwerp University: 2 professors
 - Other students: 4
 - MCrit 5: Senior analysts: 3 Junior analysts: 2

NOTE: Additional Senior analysts could be included from China, the Russian Federation and Kazakhstan, regarding “Trans-Eurasian Main Railway Network enhancement”

KEY EARLY CONCLUSIONS

- ❖ High priority investments required in 17.800 km of railway corridors (approx. 27% of the EU Core Network)
- ❖ Second priority investments in 8.100 km of railway corridors (approx. 12% of the EU Core Network)
- ❖ Main logistics hubs in the EU identified
- ❖ Urgent need for implementation of the FERRMED fast, flexible, unaccompanied rail-road integrated transport system (+FURRT)



MAIN REQUIREMENTS

The shift from road to rail requires: the **concentration of investments in a subset of the Core Network** (sections with the highest traffic) and the **development of the “FERRMED fast, flexible, unaccompanied rail-road integrated transport system (+FURRT)”**, able to move isolated truck trailers and containers in a quick and efficient way to all kinds of destinations, properly combining train and truck as a single logistic element (considering the railway at the service of the road).

This is the only way to achieve the EU Green Deal targets in the land transport system and should be included in any solutions negotiated at COP26.

FIRST RESULTS OF THE STUDY (I)

- ❖ Detailed analysis of the **transportation volume** (all modes, road, rail and inland waterways) in small sections related to the EU Core Network.
- ❖ Identification of the sections of the EU Core Network with most traffic (all transport modes): **“EU Central Backbone Network”** (17.800 km with 65% of Core Network traffic) and complementary, the **“EU Extended Backbone Network”** (8.100 km additional to cover the 65% of the traffic each peripheral Member States)
- ❖ Detailed analysis of all the **intermodal terminals** and **interconnection links** of the EU Backbone Network (main characteristics and capacities)



FIRST RESULTS OF THE STUDY (II)

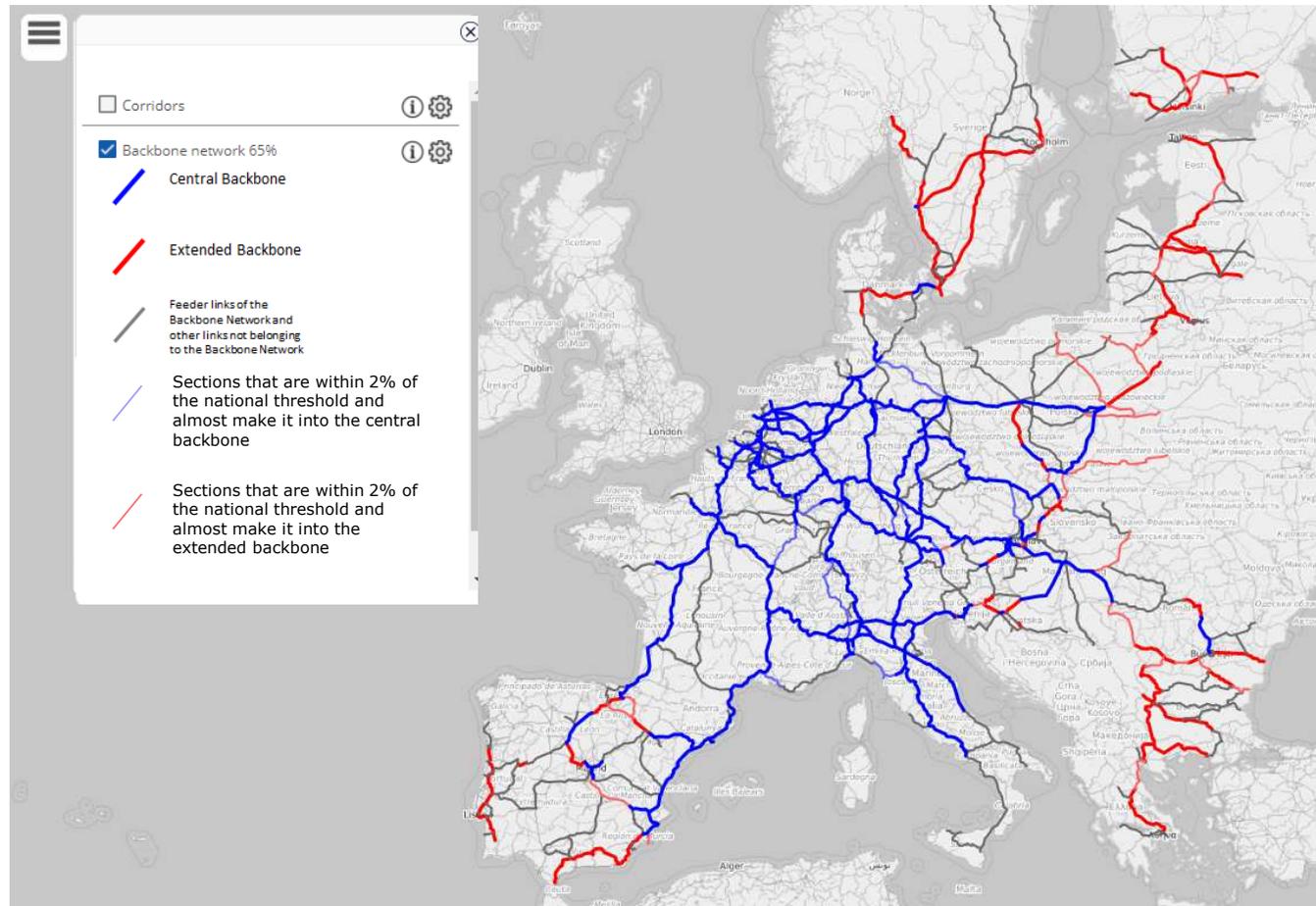
- ❖ Determination of the **EU Strategic logistic hubs**
- ❖ **Forecast traffic scenarios and modelling** of origin-destination matrices
- ❖ Analysis of the **impact of traffic scenarios in intermodal terminals and interconnection links**: first draft of required improvement actions
- ❖ **+FURRT concept definition and determination of +FURRT terminals** in EU Member States (under development)



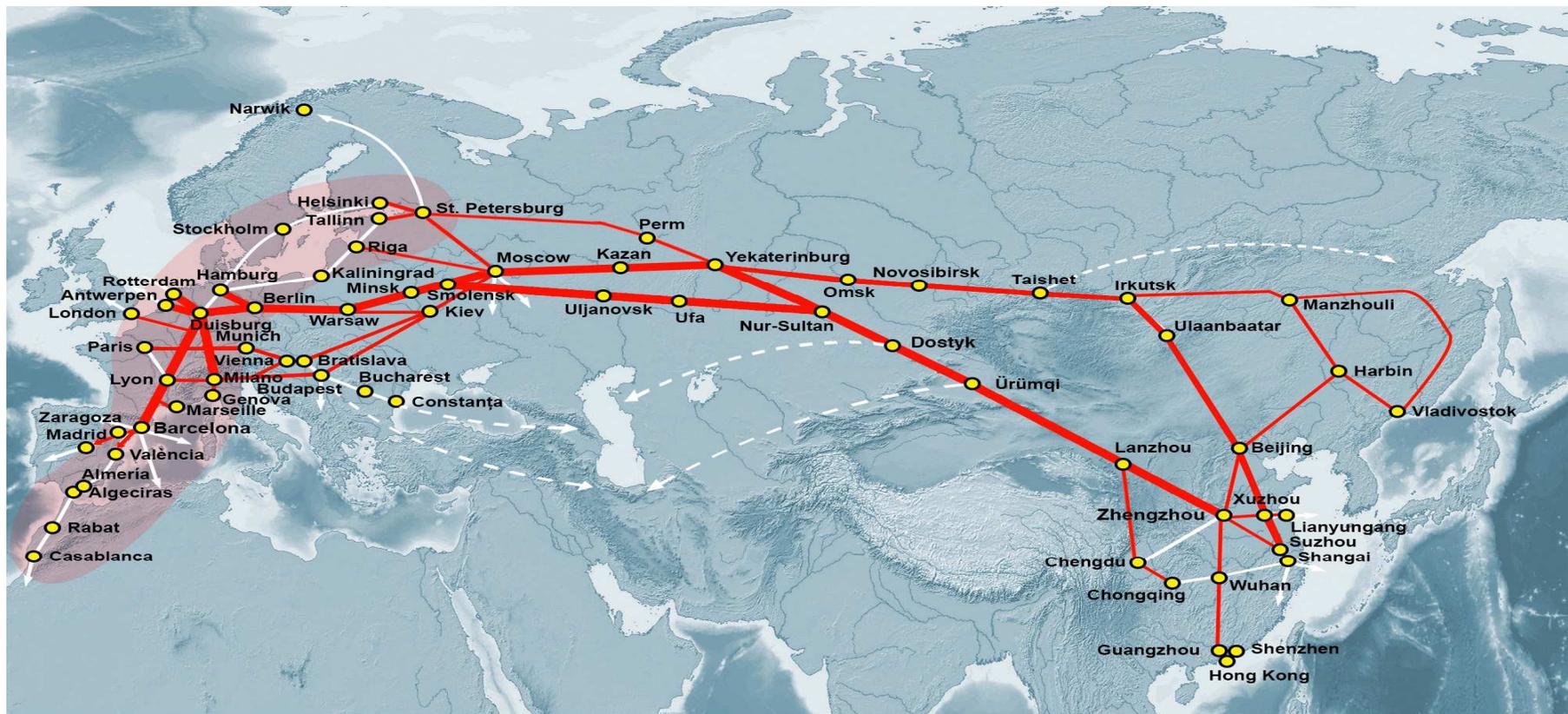
FIRST RESULTS OF THE STUDY (III)

- ❖ **Operation and rolling stock improvement actions** (ERTMS and intelligent trains included) (under development)
- ❖ **Trans-Eurasian Main Railway Network enhancement** (under development with the collaboration of main Eurasian Countries)
- ❖ **Socio-economic and environmental analysis** (main guidelines and ratios already defined)

EU BACKBONE NETWORK DETERMINATION

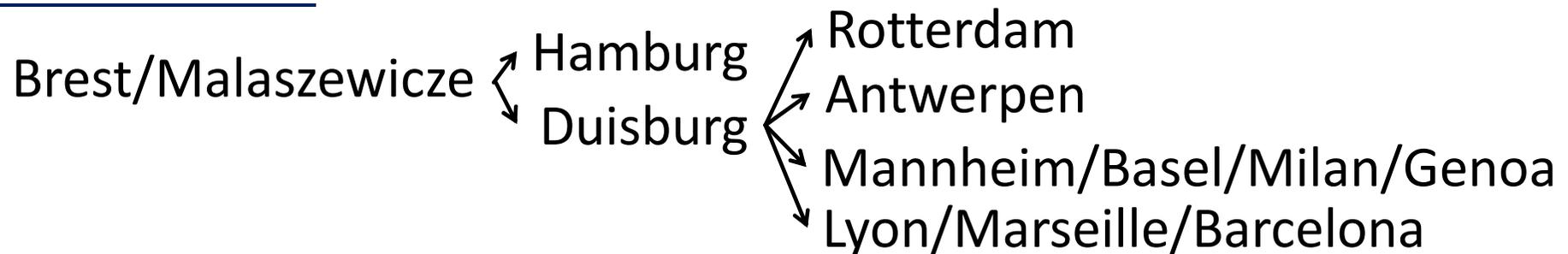


TRANS-EURASIAN MAIN RAILWAY NETWORK ENHANCEMENT



MAIN TRANS-EURASIAN ROUTES IN THE EU, ABLE FOR LONG TRAINS (UNTIL 1.500 m - LENGTH)

MAIN ROUTES



OTHER COMPLEMENTARY MAIN ROUTES

- Ukrainian border – Slawkow – Katowice – Ostrava
- Ukrainian border – Fényeslitke – Budapest – Vienna – Milan - Lyon



A KEY TOOL TO ATTAIN THE EU TARGETS IN RAILWAY SHARE

Never has such a detailed Study of EU land freight transport enhancements been carried out. The conclusions of the Study could facilitate the establishment of a coherent transportation network improvement plan at EU level (including the most appropriate interconnection links with Eurasian countries), to attain the EU targets in railway share by 2030 and the Green Deal environmental achievements with regard to the EU transportation system.

FERRMED Study of Traffic and Modal Shift Optimisation in the EU

