

Estudi FERRMED | La solució per millorar el transport integrat de mercaderies a la UE

Us convidem a participar d'aquesta sessió on comptarem amb la participació de FERRMED, el lobby europeu del transport ferroviari de mercaderies i impulsor del Corredor Mediterrani.

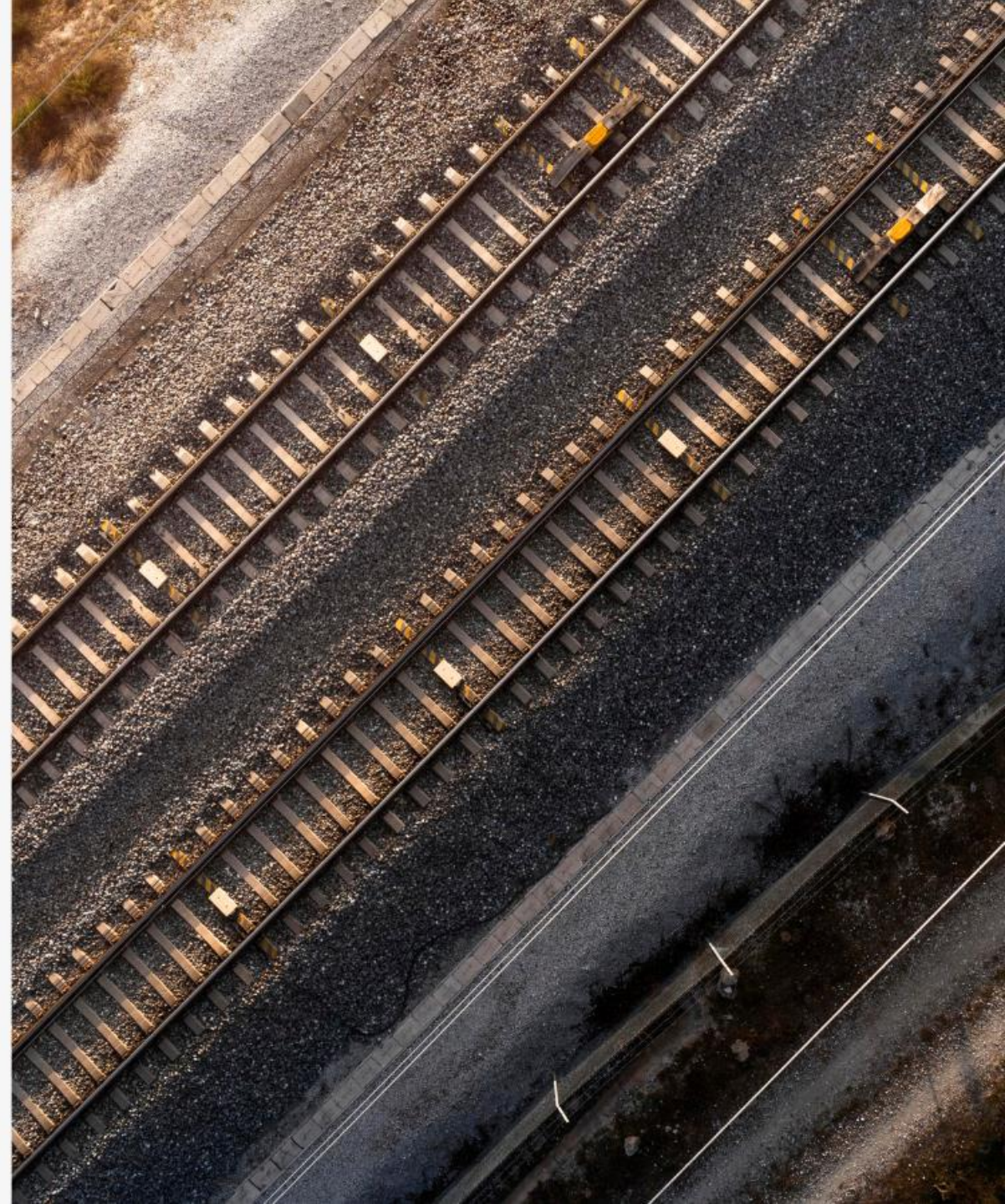
Amb Joan Amorós i Pala (president de Ferrmed)



01 d'octubre del 2024 | 9.30h



Sessió híbrida





FERRMED

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

cecot

***CONCLUSIONS PRINCIPALS DEL FERRMED
STUDY OF TRAFFIC AND MODAL SHIFT
OPTIMISATION IN THE EU
+FIRIRST SYSTEM IMPLEMENTATION PLAN***

CECOT

Terrassa, 1 d'octubre de 2024

OBJECTIVES OF THE STUDY (I)

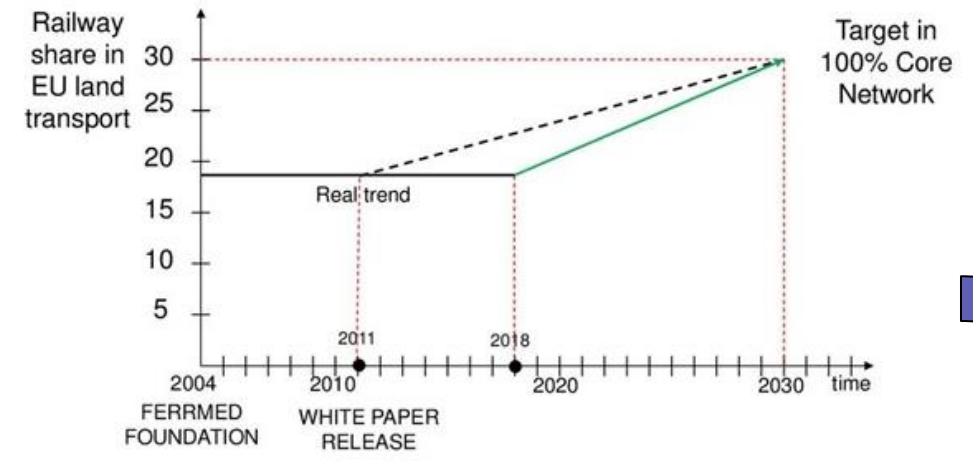
Considering that there has been no increase in EU rail freight share in the last 15 years (17.9 % in 2005 and 17.3 % in 2017) and that the EU Transport Extended Core Network is too vast (c.80,000 km), **the shift from road to rail requires the concentration of investments in a selective part of the main corridors of the Extended Core Network. To identify** the most heavily used sections in the EU land transport network and **the best procedures to transfer freight from road to rail**, FERRMED has initiated a major study highlighted below.

OBJECTIVES OF THE STUDY (I)

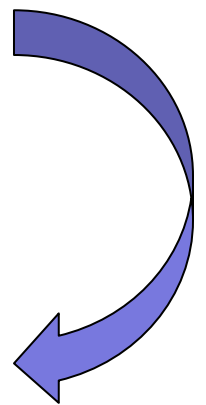
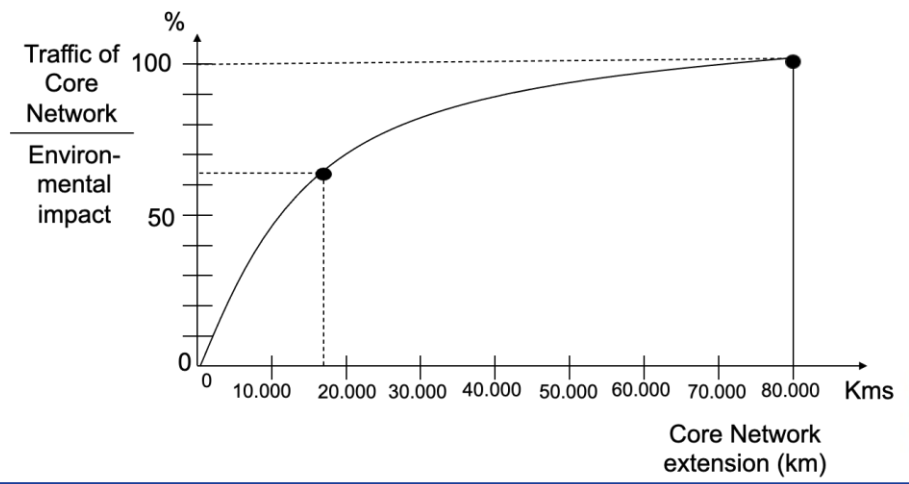
BACKGROUND

- ❖ 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**.
- ❖ 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**.

RAILWAY SHARE REAL VERSUS PLANNED



FERRMED APPROACH TO ACHIEVE AT LEAST 65% OF "WHITE PAPER" TARGETS IN 2030



OBJECTIVES OF THE STUDY (II)

The objectives of the study are:






- **To identify current total freight transport by mode** in the main corridors of the EU Core Network (EU Backbone Network);
- **To identify the main logistic hubs in the EU**
- **To define a new integrated Rail-Road system of transport for freight**
- **To propose an Action Plan to achieve the EC (2011) White Paper on Transport Policy targets by 2030** (30 % of inland freight transport over 300 km carried by rail or barge) **and “Green Deal” targets**, in the most heavily used sections of the corridors, covering 65 % of the traffic (tonne-kilometres) related to the EU Extended Core Network.

TASK FORCE




It has been a major study work. The task force involved consisted of:

- **24 experts:** academics, engineers, economists, geographers and senior analysts from all over the EU
- **12 students:** from Economics, Engineering and Geography Faculties
- **2 Universities involved:** Antwerp University and Barcelona University
- **1 Consultancy:** Mcrit
- **45,000 work hours spent:** between June 2019 and October 2023

DETERMINATION OF THE EU BACKBONE NETWORK

-  Central Backbone
-  Extended backbone in states below EU threshold
-  Feeder and backup links of the Backbone Network
-  Sections that are within 2% of the EU threshold and almost make it into the central Backbone
-  Sections that are within 2% of the national threshold and almost make it into the extended Backbone



-  First priority (18,040 km)
-  Second priority (8,500 km)
-  Third priority (50,700 km)



DATA COLLECTION OF THE EXISTING INTERMODAL TERMINALS IN THE EU

	Classification of L/U	Europe	Share (%)
<250m	A	127	19.7
251 m – 500 m	B	280	43.5
501 m – 700 m	C	163	25.3
701 m – 750 m	D	47	7.3
>750 m	E	27	4.2
	Total	644	100
	Pass through	79	12.3
	Dead end	565	87.7
	Possible pass through	66	10.2
	C possible enlargement (750 m)	5	0.8

Note: Existing Intermodal terminals in continental EU + Switzerland

EU STRATEGIC SOCIO-ECONOMIC HUBS

To identify and determine the EU hubs, 4 factors were used as a selection criteria: Population, Input-Output flow, GVA and the Combined Index.

- **Inflows, outflows:** total freight volume handled per day for distances over 300 km resulting from the matrix of flows (based on ETIS+).
- **Manufacturing Gross Value Added (GVA):** the value added of manufactured goods produced in an area or an economic sector linked to manufacturing activities.
- **Population:** First filter to select the main EU urban agglomerations as candidates to become a Strategic Hub. For the Strategic Hubs, the population of their corresponding urban agglomeration has to exceed the 1 % of the EU population (4.5 m inhabitants). For the EU Interrelated Hubs, their population has to be between 0.5 % and 1 % of the total EU population (2.2 to 4.5 m inhabitants).
- **Combined Index:** value resulting from combining the population, GVA and inflow-outflow values.



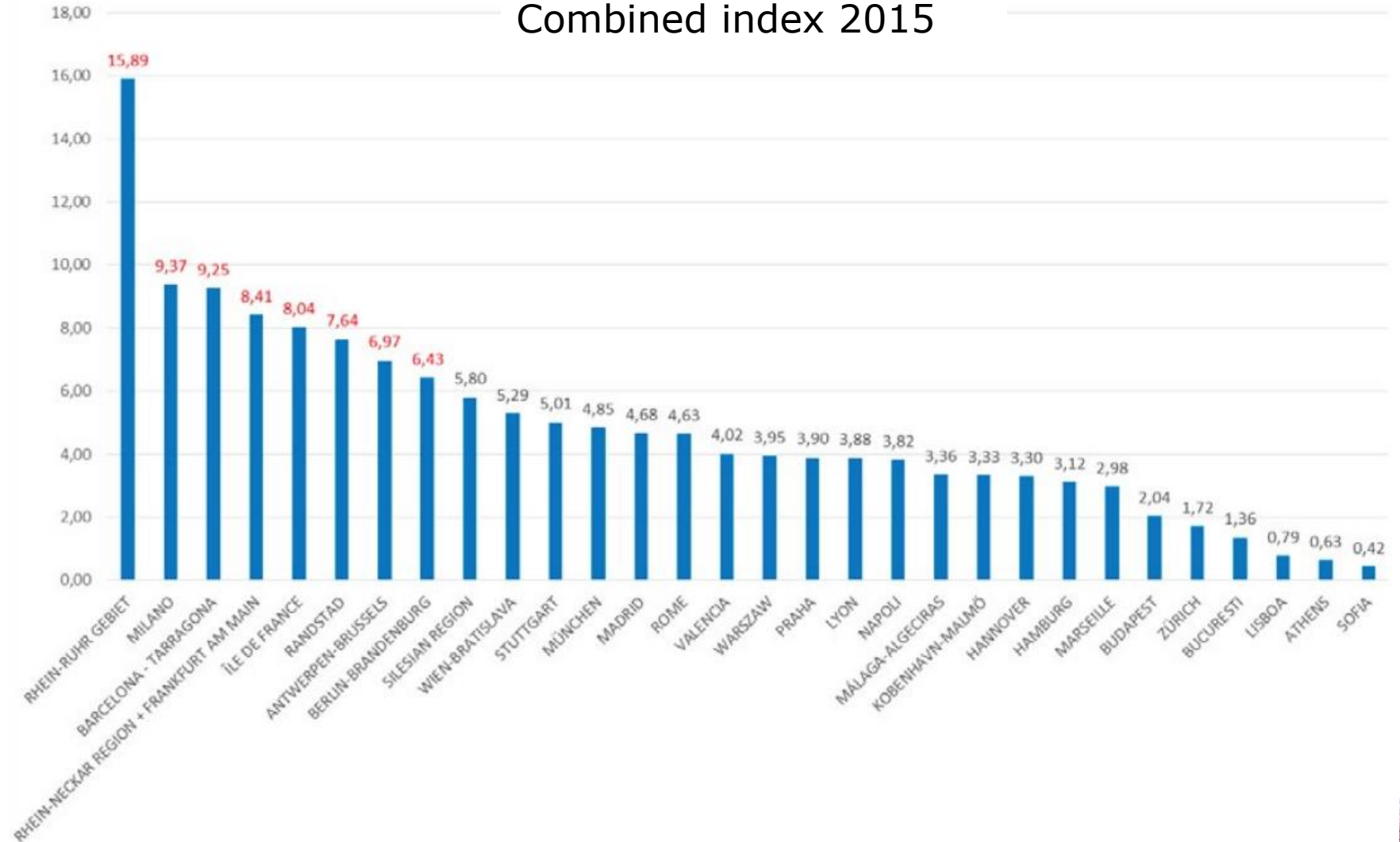
EU STRATEGIC SOCIO-ECONOMIC HUBS

Values weighting

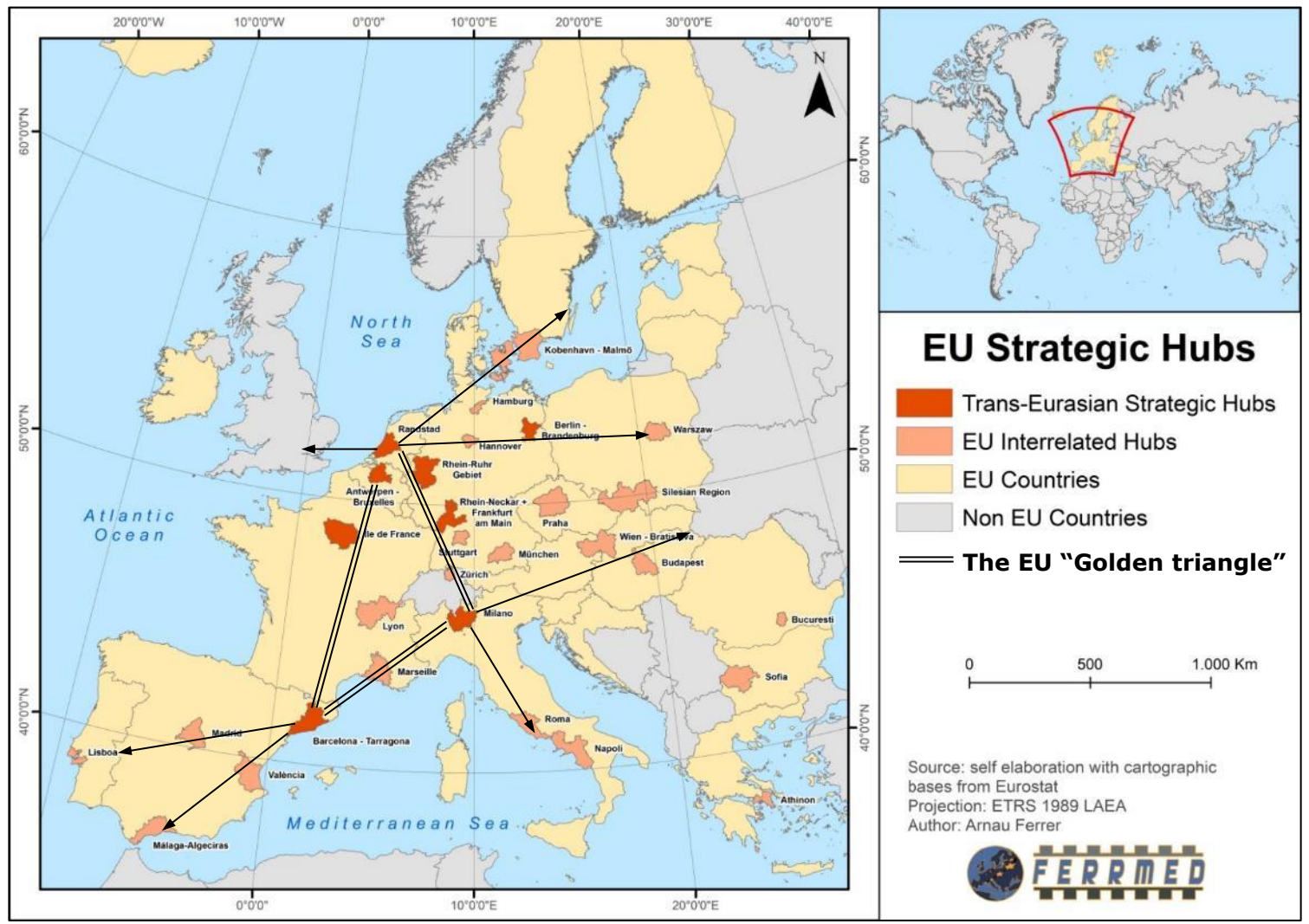
HUB POP	GVA Ind.	INPUT-OUTPUT
1	5	10

HUB NAME	Synthetic index
RHEIN-RUHR GEBIET	15,89
MILANO	9,37
BARCELONA - TARRAGONA	9,25
RHEIN-NECKAR REGION + FRANKFURT AM MAIN	8,41
ÎLE DE FRANCE	8,04
RANDSTAD	7,64
ANTWERPEN-BRUSSELS	6,97
BERLIN-BRANDENBURG	6,43
SILESIAN REGION	5,80
WIEN-BRATISLAVA	5,29
STUTT GART	5,01
MÜNCHEN	4,85
MADRID	4,68
ROME	4,63
VALENCIA	4,02
WARSAW	3,95
PRAHA	3,90
LYON	3,88
NAPOLI	3,82
MÁLAGA-ALGECIRAS	3,36
KOBENHAVN-MALMÖ	3,33
HANNOVER	3,30
HAMBURG	3,12
MARSEILLE	2,98
BUDAPEST	2,04
ZÜRICH	1,72
BUCURESTI	1,36
LISBOA	0,79
ATHENS	0,63
SOFIA	0,42

Combined index 2015



EU STRATEGIC SOCIO-ECONOMIC HUBS



FORECAST TRAFFIC SCENARIOS

❖ Mid term stagnant (2025)

- The target is **23%** of tonne-km by rail on **average in Europe** and in each **individual country** (as much as possible).

❖ Long term stagnant (2030)

- The target is **30%** of tonne-km by rail on **average in Europe** and in each **individual country** (as much as possible).

❖ Long term (2030) 20% increase

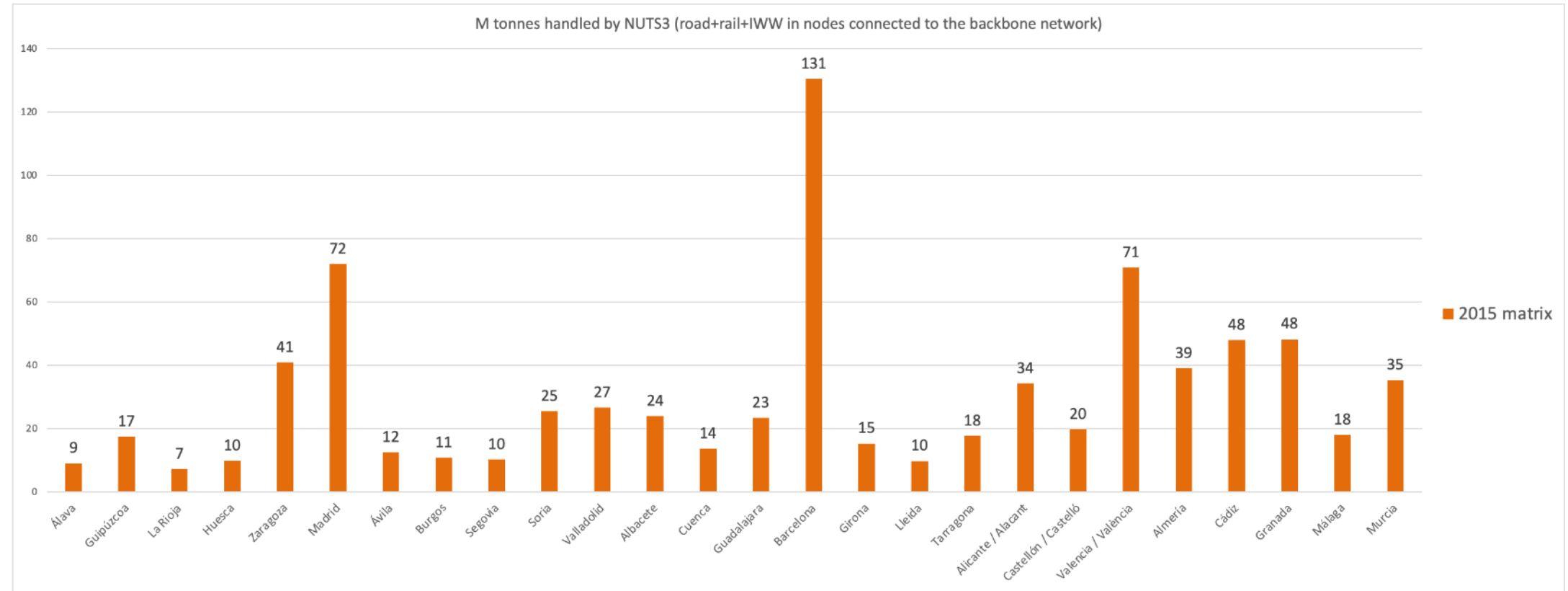
- We start from the 2030 stagnant scenario
- On top of it we add globally 20% traffic in all sections and modes

❖ Long term (2030) +20% with port traffic reequilibrium

- We start from the 2030 +20% scenario
- The assumption that the increase of traffic in the Mediterranean – Eurasian route in the future will be: 20% on the Northern basin and 80% on the Southern basin, until reaching approximately a 60/40 share north/south

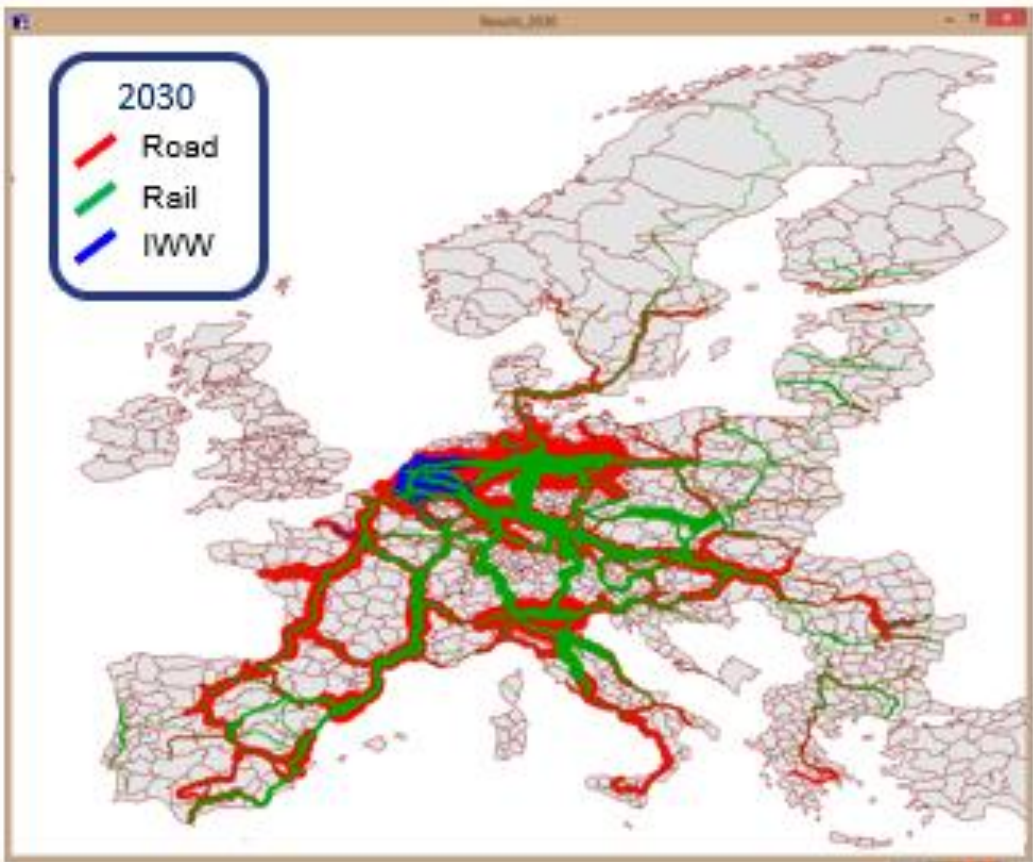
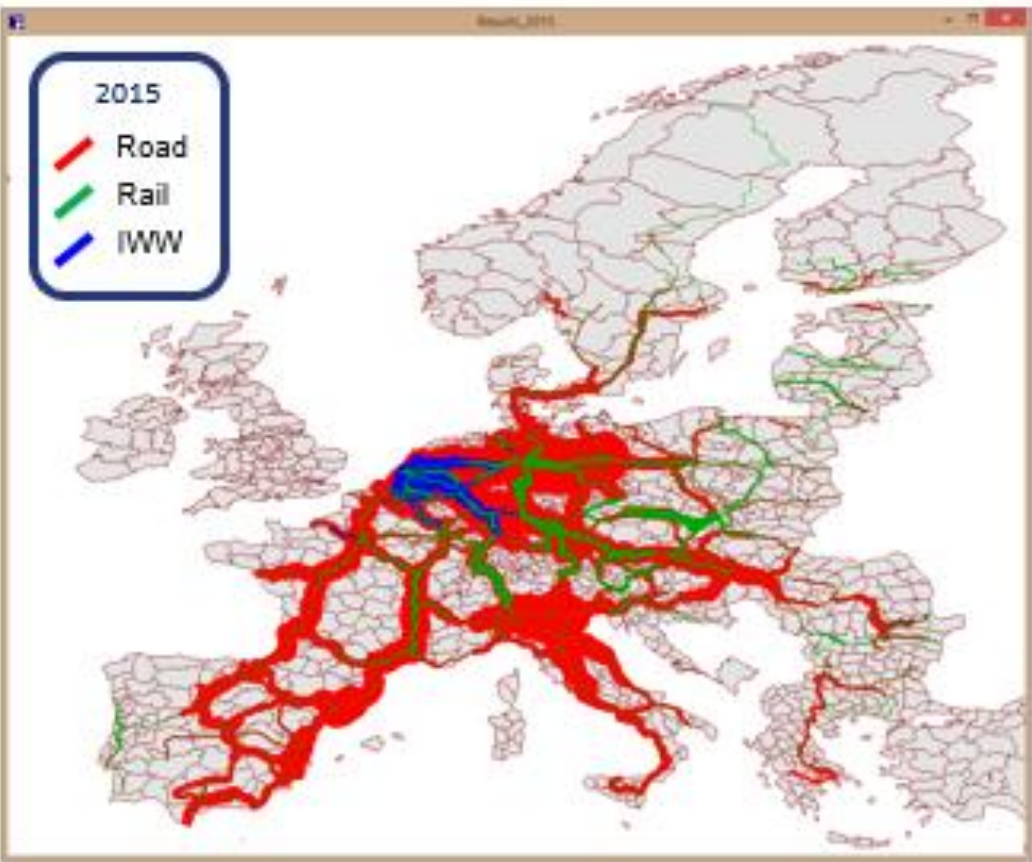
FORECAST TRAFFIC SCENARIOS

Example of model results: SPAIN (NUTS3) (Over 300km)



FORECAST TRAFFIC SCENARIOS

Example of model results: traffic assignment maps



IMPACT OF TRAFFIC SCENARIOS IN INTERMODAL TERMINALS AND INTERCONNECTION LINKS

BOTTLENECK ANALYSIS				ACTUAL TRAFFIC 2015			FORECAST TRAFFIC 2025			FORECAST TRAFFIC 2030			FORECAST TRAFFIC 2030 (Δ 20 %)			FORECAST TRAFFIC 2030 (Δ 20 %) + PORT REEQUILIBRIUM (60/40)		
FROM	TO	Km	N° of tracks	Passenger Trains / Day	Freight Trains / Day	Total trains / Day	Passenger Trains / Day	Freight Trains / Day	Total trains / Day	Passenger Trains / Day	Freight Trains / Day	Total trains / Day	Passenger Trains / Day	Freight Trains / Day	Total trains / Day	Passenger Trains / Day	Freight Trains / Day	Total trains / Day
Marseille	Miramas	62.1	2	61	25	86	67	34	101	76	38	114	76	46	122	76	66	142
Miramas	Tarascon	38.5	2	61	28	89	67	29	97	76	30	106	76	36	112	76	63	138
Tarascon	Avignon	23.2	4	61	41	102	67	60	127	76	75	151	76	90	166	76	124	199
Avignon	Valence	127.0	4	35	41	76	39	75	113	43	100	144	43	121	164	43	153	197
Valence	Lyon	104.4	4	129	60	189	142	93	235	160	119	278	160	142	302	160	174	334
Lyon	Macon	71.0	4	72	72	144	79	96	175	89	117	206	89	140	229	89	168	258
Lyon	Bourg en Bresse	70.2	2	30	31	61	33	31	64	37	31	68	37	37	74	37	37	74
Macon	Dijon	125.0	4	96	78	174	106	105	210	119	129	248	119	155	274	119	182	301
Bourg en Bresse	Dijon	135.1	2	28	37	65	31	37	68	35	37	72	35	44	79	35	44	79
Dijon	Damblain	110.0	2	4	41	45	4	59	64	5	77	82	5	93	98	5	116	121
Damblain	Nancy	106.1	2	6	41	47	7	56	63	7	72	79	7	86	94	7	108	116
Nancy	Metz	55.2	4	89	55	144	98	70	168	110	88	198	110	105	215	110	121	232
Metz	Thionville	30.9	4	88	95	183	97	105	202	109	120	229	109	144	253	109	155	264
Metz	Strasbourg	155.2	4	12	29	41	13	31	44	15	34	48	15	40	55	15	45	60
Strasbourg	Basel	137.0	2	93	29	122	102	31	133	115	32	147	115	38	154	115	44	159
Metz	Longuyon	64.5	4	4	20	24	4	20	25	5	21	26	5	26	31	5	27	31
Perpignan	Narbonne	66.2	2	56	25	81	62	60	122	69	78	147	69	93	163	69	128	197
Narbonne	Montpellier	96.5	2	85	38	123	94	70	164	105	91	196	105	109	215	105	150	255
Montpellier	Nimes	57.0	4	89	38	127	98	67	165	110	88	198	110	106	216	110	146	256
Nimes HSL	Lyon HSL	148.3	2	21	0	21	23	0	23	26	0	26	26	0	26	26	0	26
Nimes	Tarascon	28.1	4	49	42	91	54	77	131	61	102	163	61	123	184	61	163	224
Valence	Grenoble	97.0	2	45	4	49	50	4	54	56	4	60	56	5	61	56	5	61
Grenoble	Montmélian	48.3	2	45	4	49	50	4	54	56	4	60	56	5	61	56	5	61
Lyon	Ambérieu	54.0	2	67	35	102	74	41	115	83	48	131	83	57	141	83	65	148
Ambérieu	Montmélian	98.2	2	79	35	114	87	41	128	98	45	143	98	55	153	98	61	159
Portbou / Cerbère	Perpignan	48.0	2	6	5	11	7	45	52	7	70	77	7	84	91	7	130	137
Thionville	Bettembourg	27.2	2	144	76	220	158	76	234	179	76	255	179	91	270	179	91	270
Dijon	Dole	45.2	2	42	11	53	46	11	57	52	11	63	52	13	65	52	13	65

By 2030 we assume trains carry at least 700 net tonnes in the Core Network



IMPACT OF TRAFFIC SCENARIOS IN INTERMODAL TERMINALS AND INTERCONNECTION LINKS

Terminal handling capacity per region (NUTS2/NUTS3): example for Schleswig-Holstein

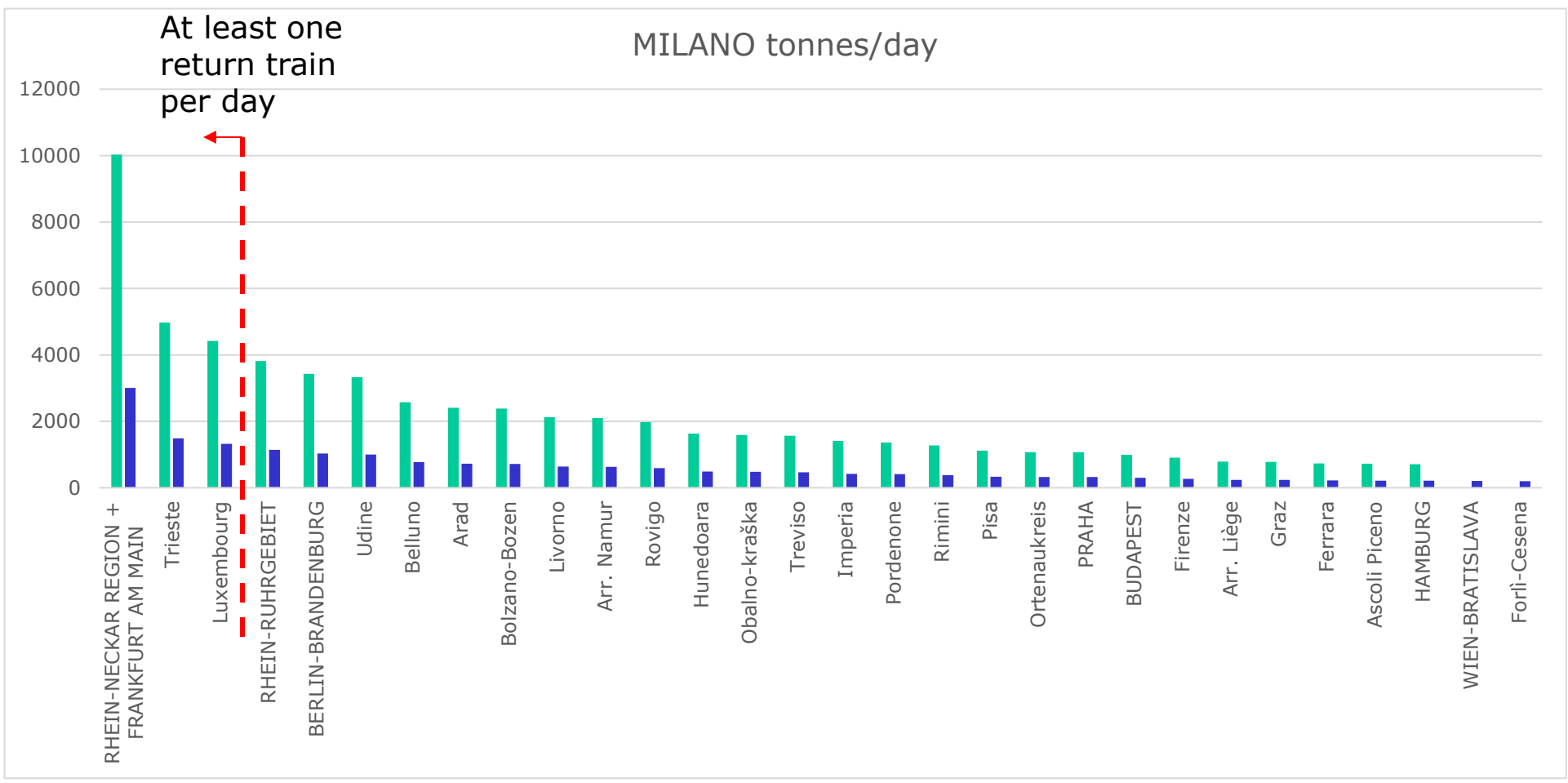
A TERMINAL	B Global traffic Rail + Road 2015 (30%)	C PTP Rail traffic 2015	D PTP		F FIRRST	
			2030 Rail traffic stagnant	2030 Rail traffic + Δ20%	2030 stagnant	2030 Δ20%
SCHLESWIG-HOLSTEIN	35.400	12.000	13200	15840	22.200	26640
New +FIRRS semi-compact terminal in Tarp (A7)					5.200	5.200
Schwedenkai Port of Kiel			7.140	7.140		
Norwegenkai Port of Kiel (piggyback)					2.880	2.880
UTG Tanklager Kiel (Port of Kiel)			1.275	1.275		
Vossloh Locomotives			50	50		
Kiel Ostuferhafen (Port of Kiel)			5.180	5.180		
Baltic terminal Kiel international (Port of Kiel)			2.380	2.380		
Economic area in Kiel			100	100		
Baltic Rail Gate terminal (Skandinavienkai) (piggyback)					7.920	7.920
Container terminal Lübeck			2.380	2.380		
Logistik Center Seelandkai (piggyback)					2.520	2.520
Lübeck Konstinbahnhof			650	650		
Matsä Bord Deutschland (Schlutupkai)			1.400	1.400		
Covestro (liquid) in Brunsbüttel			1.800	1.800		
Brunsbüttel Ports (coal terminal)			200	200		
Brunsbüttel Ports (cement terminal)			200	200		
Yara (liquid) in Brunsbüttel			900	900		
Total Energies Deutschland in Brunsbüttel			1.300	1.300		
Sasol Deutschland (liquid) in Brunsbüttel			300	300		
New +FIRRST terminal in Neumünster (A7)					8.800	8.800
Cement plant in Lägerdorf			400	400		
Total:			25.655	25.655	27.320	27.320
Difference:			12.455	9.815	5.120	680

- A. Terminal name and location
- B. 30% of total daily traffic in 2015
- C. Daily Point-to-point rail transport 2015
- D. Daily Point-to-point rail transport 2030 and capacity of terminals
- E. Daily Point-to-point rail transport 2030+20% and capacity of terminals
- F. Additional daily rail transport in 2030 to achieve 30% share
- G. Additional daily rail transport in 2030+20% to achieve 30% share



IMPACT OF TRAFFIC SCENARIOS IN INTERMODAL TERMINALS AND INTERCONNECTION LINKS

It is not possible to capture the traffic needed to achieve 30% of rail share with daily Ptp trains:



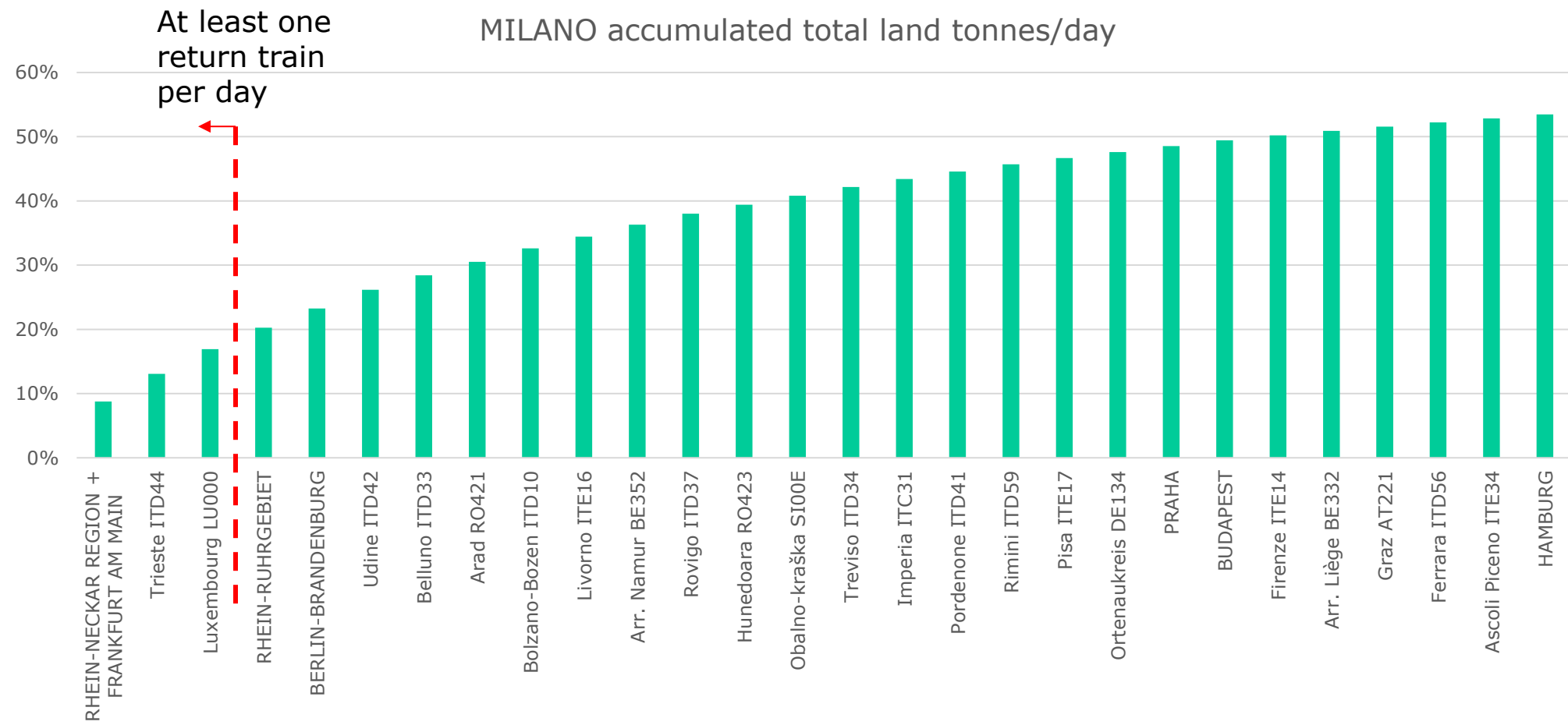
■ Total land traffic

■ 30% of the land traffic



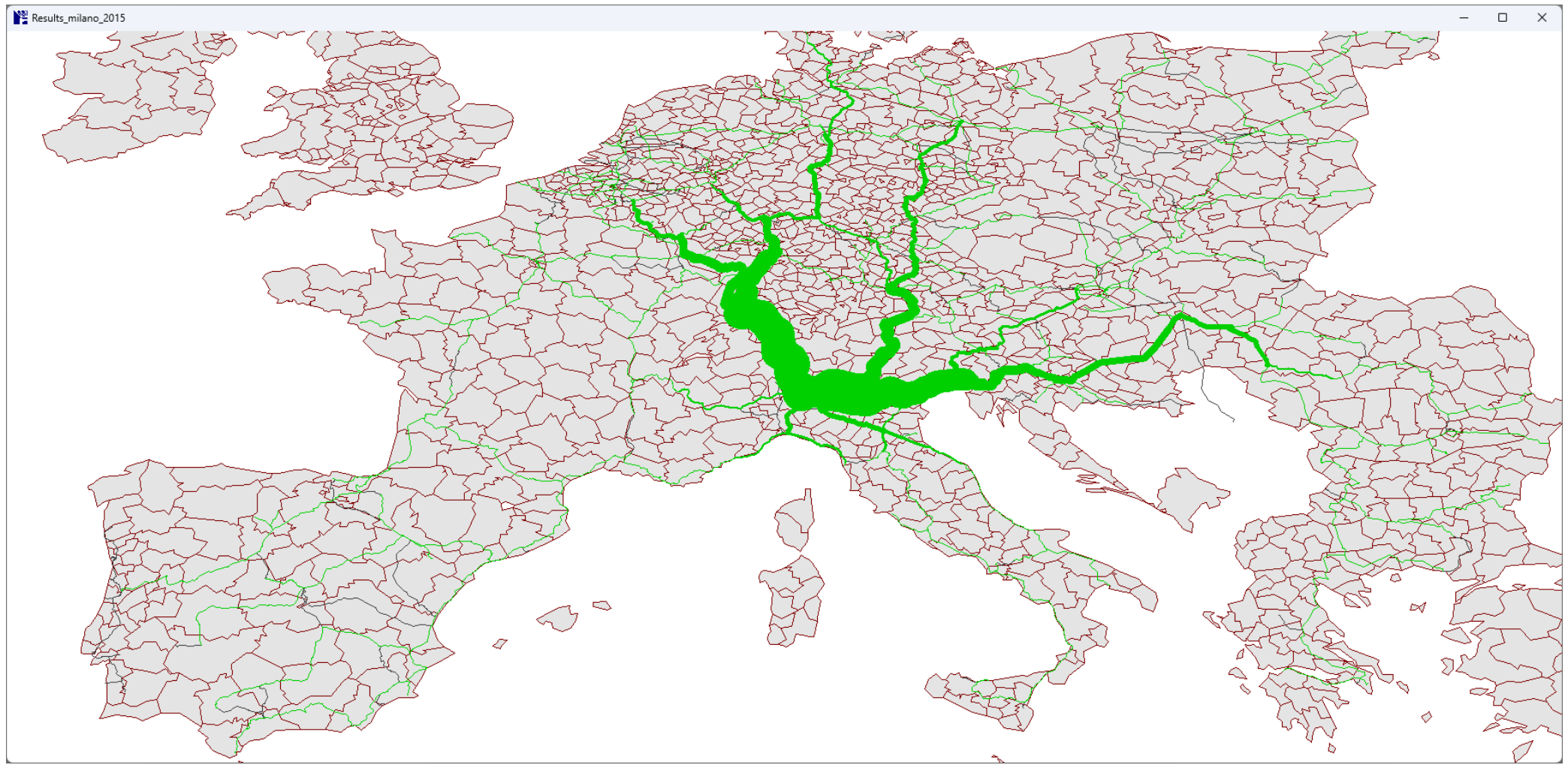
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IMPACT OF TRAFFIC SCENARIOS IN INTERMODAL TERMINALS AND INTERCONNECTION LINKS

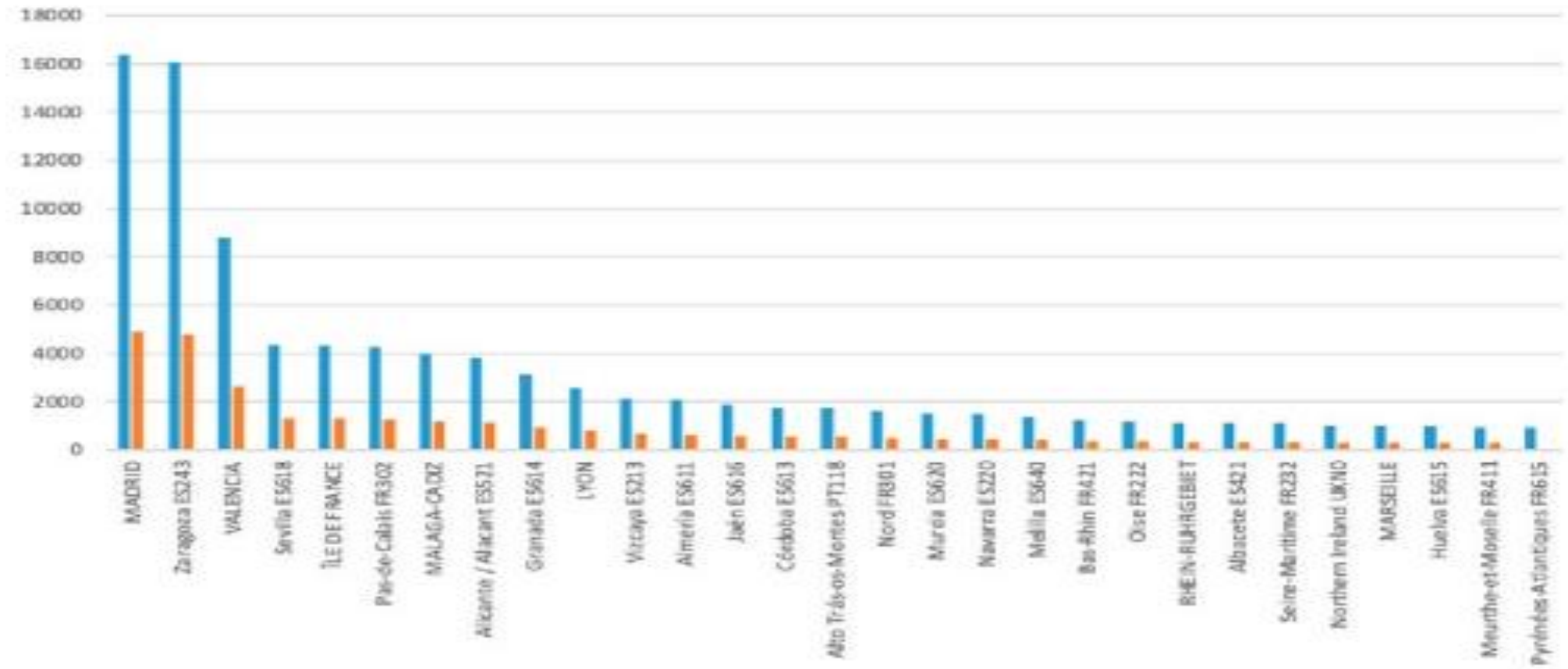
It is not possible to capture the traffic needed to achieve 30% of rail share with daily Ptp trains:



IMPACT OF TRAFFIC SCENARIOS IN INTERMODAL TERMINALS AND INTERCONNECTION LINKS

BARCELONA – TARRAGONA tonnes/day to main freight O/D

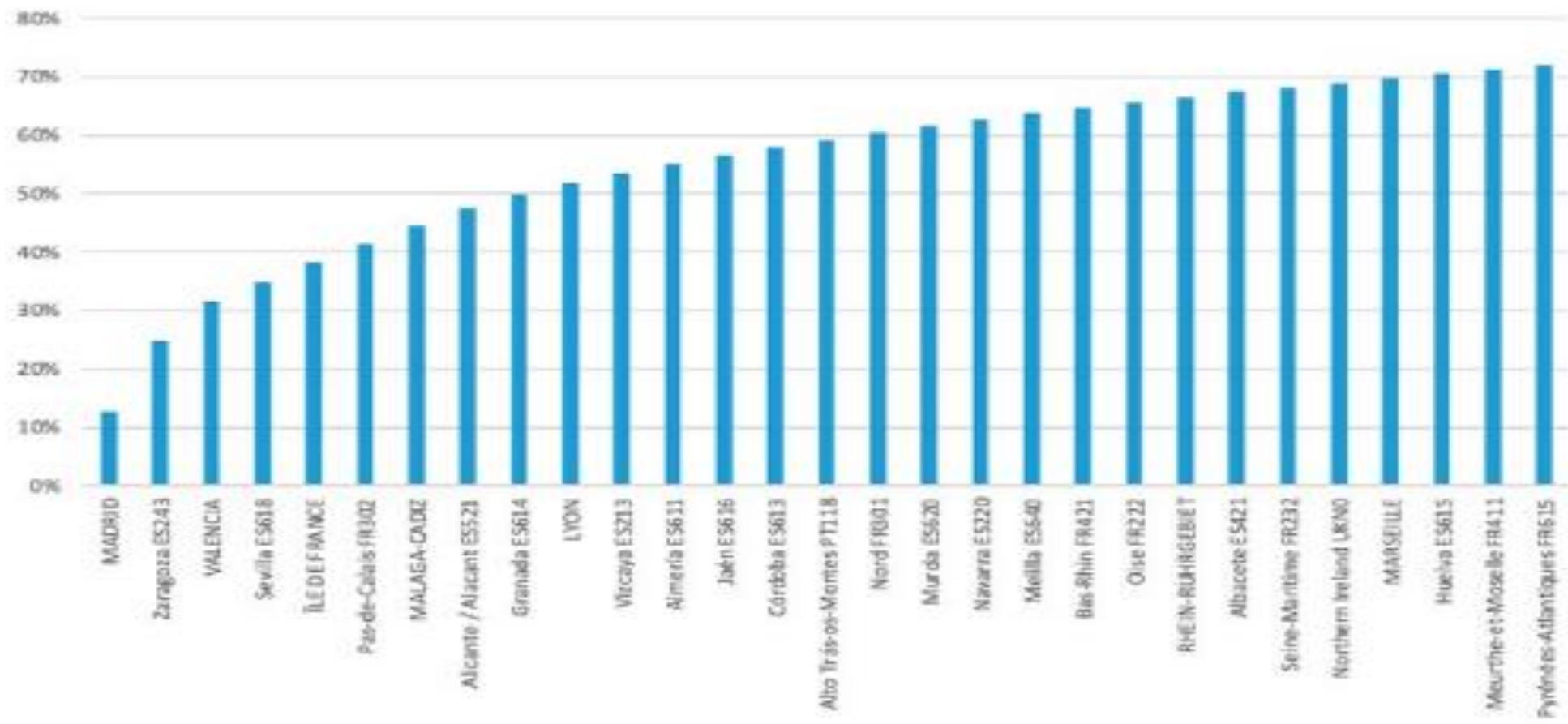
It is not possible to capture the traffic needed to achieve 30% of rail share with daily Ptp trains:



IMPACT OF TRAFFIC SCENARIOS IN INTERMODAL TERMINALS AND INTERCONNECTION LINKS

BARCELONA – TARRAGONA accumulated tonnes/day

It is not possible to capture the traffic needed to achieve 30% of rail share with daily Ptp trains:



IMPACT OF TRAFFIC SCENARIOS IN INTERMODAL TERMINALS AND INTERCONNECTION LINKS

It is not possible to capture the traffic needed to achieve 30% of rail share with daily Ptp trains:



ACTIONS IN INTERCONNECTION LINKS AND TERMINALS

As a result of the terminal capacity analysis, **425 additional new +FIRRST terminals** are required across the EU (plus Switzerland) to handle the rail traffic increase to achieve a railway share of 30 % over distances of 300 km



Location of +FIRRST new terminals





FERRMED

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

FERRMED, FAST, FLEXIBLE, INTEGRATED RAIL-ROAD SYSTEM OF TRANSPORT (+FIRIRST)

WHY +FIRrst? (I)

Nowadays, railways are practically only used for **point-to-point** transport with complete trains. **Single wagon** procedures are used for **bulk products, mainly mining and chemicals, but not for manufactured or agrifood products**. For perishable products and those involving manufacturing processes, which require **just-in-time deliveries**, railway performance is not in line with shippers' requirements.

WHY +FIRRST? (II)

The only way to achieve the EC targets of road traffic transfer to rail is to incorporate a system that can move isolated truck semi-trailers, swap-bodies and containers (ILUs) from and to different destinations in a fast, flexible, integrated rail-road system of transport (+FIRRST). It is a novel way of organising intermodal rail-road transport in the form of "Mobility as a Service" (MaaS).

+FIRRST is an integrated combined transport system fully aligned with the road (as the most flexible mode), able to meet demand in real time.

+FIRrst BASIC REQUIREMENTS (I)

- Rail Network with: ERTMS (or equivalent) Control/Signalling system, P410/400 (or similar) loading gauge allowing 740 m long trains
- A set of specific intelligent freight trains with multipurpose wagons that can carry HGV semi-trailers, swap-bodies and containers (minimum length 740 m)
- A set of dual locomotives (electric+batteries/diesel) able to carry freight trains of 1,800 – 2,000 t gross weight at 100 – 120 km/h.

+FIRRSST BASIC REQUIREMENTS (II)

- Three kinds of trains are envisaged:
 - **Point-to-point (Ptp)** for interconnections with enough traffic between origin/destination nodes to achieve full trains.
 - **Stop at predetermined intermediate terminals (Sai)** between the origin/destination nodes, covering the demand of all required intermediate nodes.
 - **Stop on request (Sor)**, for emergencies/urgent deliveries, additionally to the predetermined stops of Sai trains.

+FIRRST INTERMODAL TERMINALS (I)

General characteristics

+FIRRST terminals are “pass-through”, so no shunting locomotives are required. They will usually have **three basic elements:**

- Central Loading/Unloading (L/U) zone
- Two buffer zones (either side of the central loading/unloading zone)

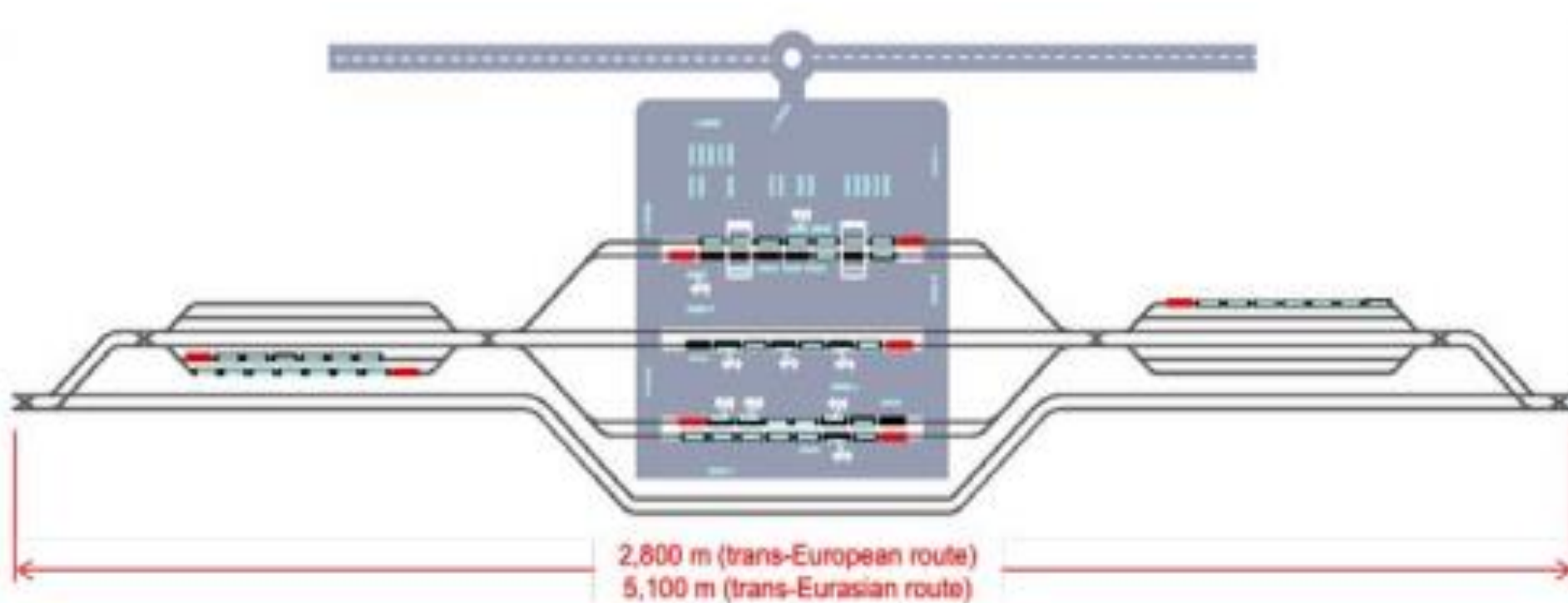
The central loading/unloading zone usually has:

- Adequate space for HGV parking (in-out and safe), storage (for all kind of ILUs, including reefers), offices and appropriate loading/unloading devices (cranes, reachstackers, etc.)



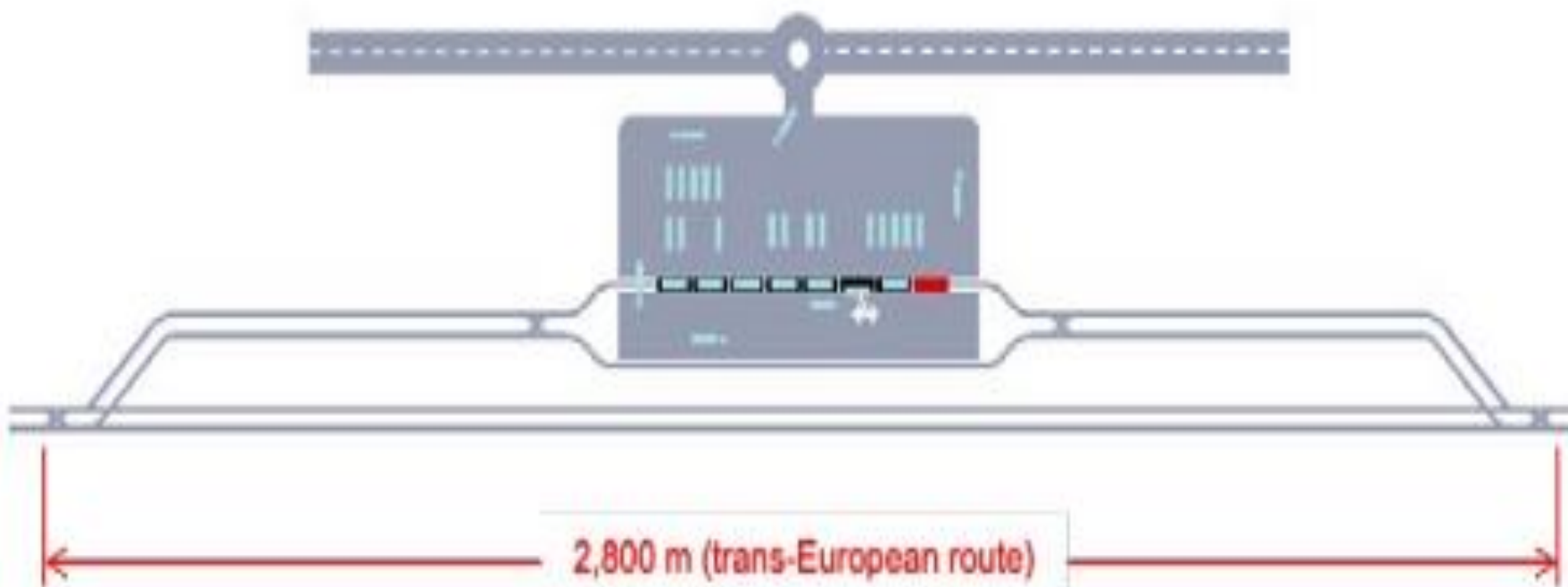
+FIRRSST INTERMODODAL TERMINALS CLASSIFICATION (I)

+FIRRSST Strategic terminal (A)

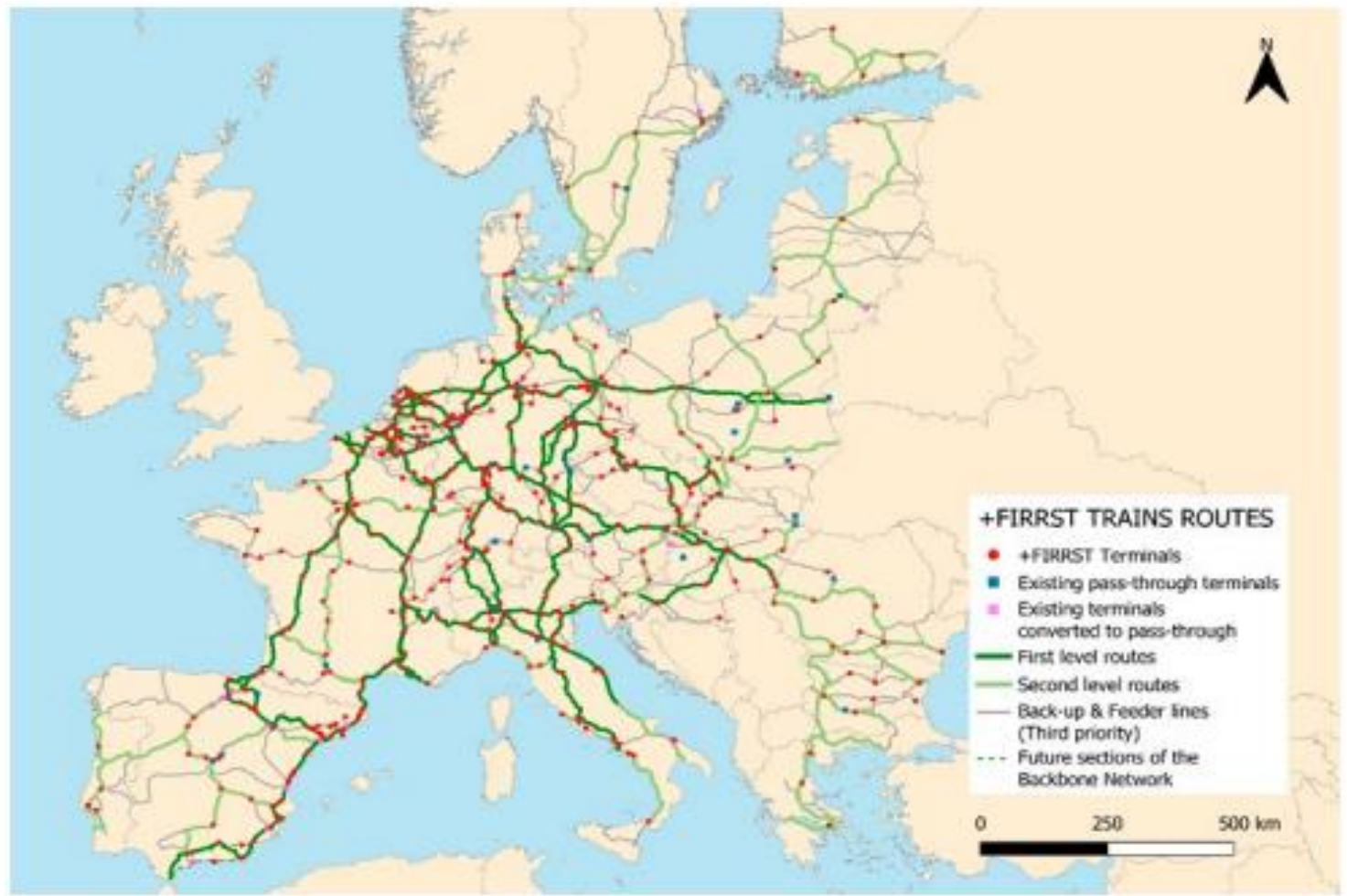


+FIRrst INTERMODAL TERMINALS CLASSIFICATION (VI)

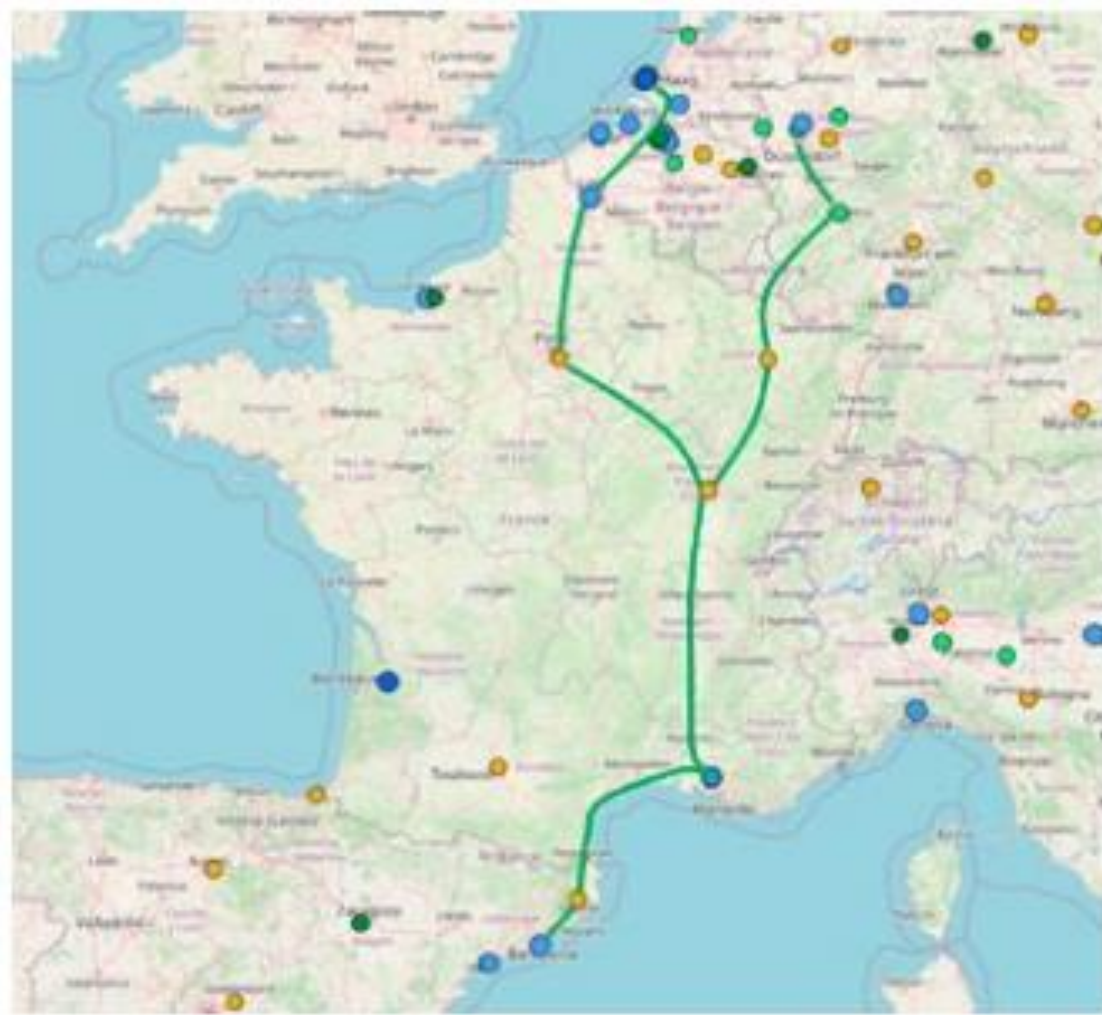
+FIRrst intermediate small terminal



FIRST DRAFT OF +FIRrst TRAIN ROUTES IN THE EU



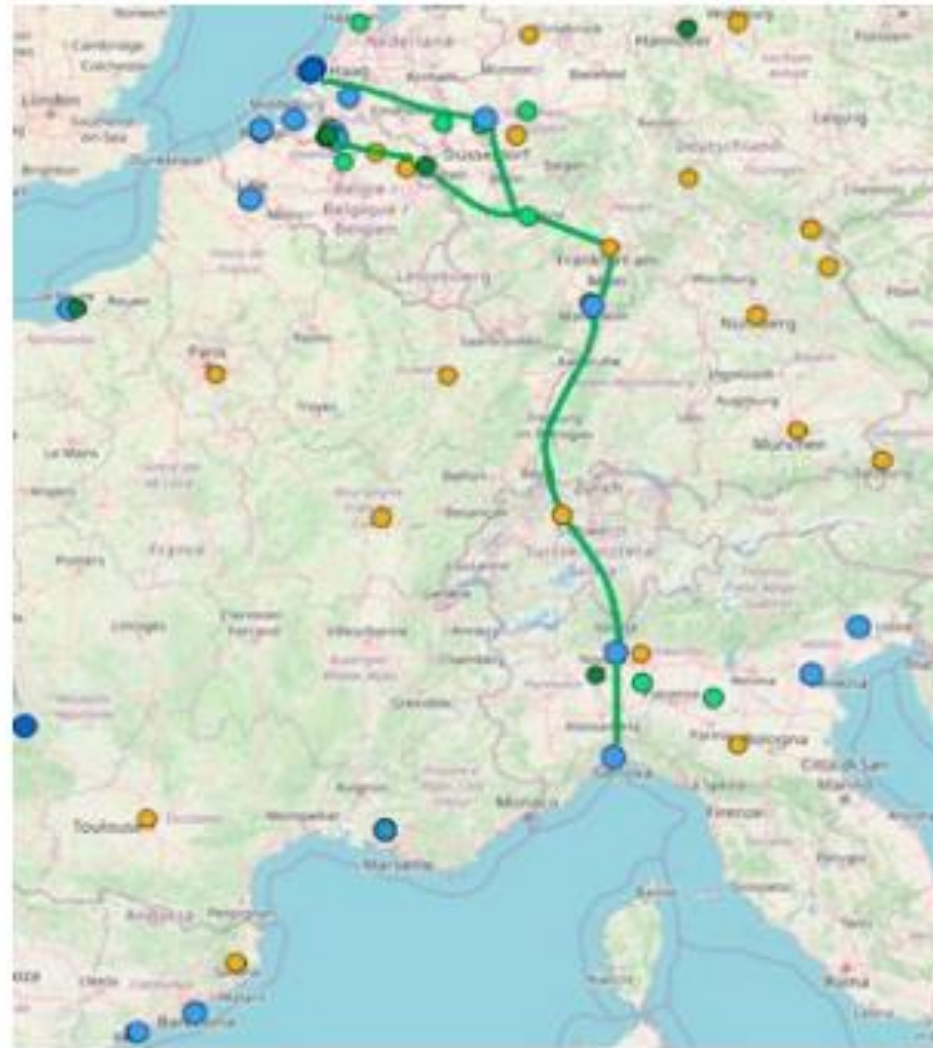
+FIRrst TEST ROUTE ROTTERDAM/DUISBURG – PARIS – BARCELONA FOR THE FIRST PHASE



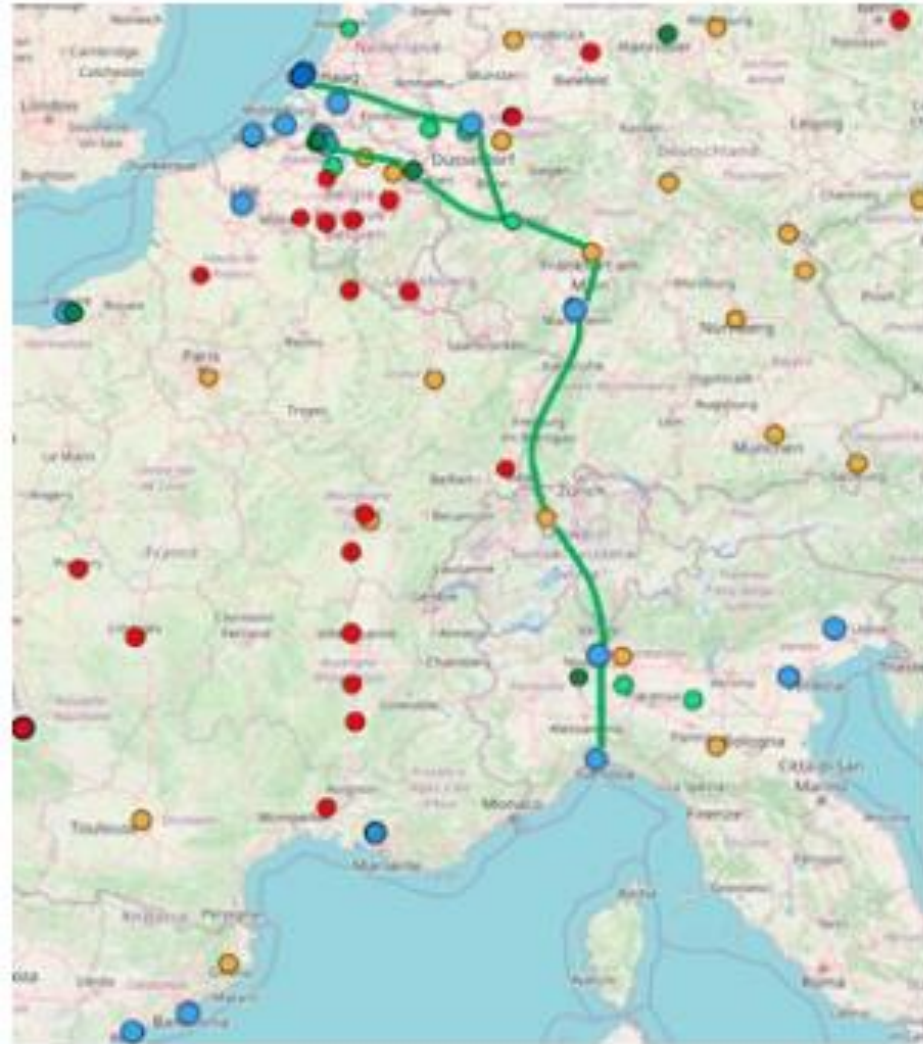
+FIRrst TEST ROUTE ROTTERDAM/DUISBURG – PARIS – BARCELONA FOR THE SECOND PHASE



+FIRrst TEST ROUTE ROTTERDAM/ANTWERP – FRANKFURT – GENOA FOR THE FIRST PHASE



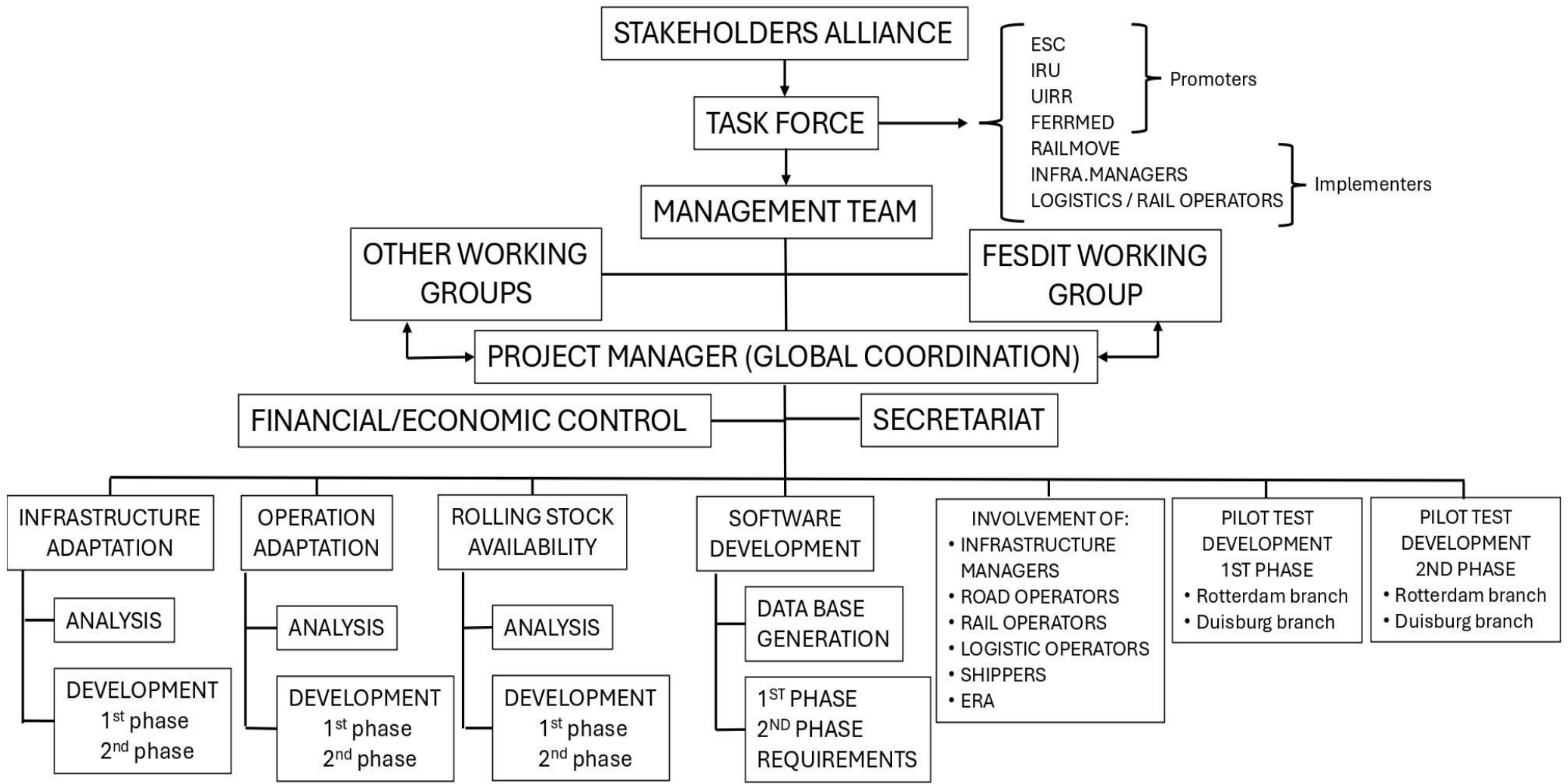
+FIRrst TEST ROUTE ROTTERDAM/ANTWERP – FRANKFURT – GENOA FOR THE SECOND PHASE



POTENTIAL OF +FIRRST FLOWS CAPTURED AND INVESTMENT NEEDED

Route	Rotterdam- Paris-Barcelona	Rotterdam- Frankfurt-Genoa
% of potential +FIRRST flows captured in phase 1	55 %	48 %
% of potential +FIRRST flows captured in phase 2	67 %	52 %
<i>Investment needed in terminals of phase 2</i>	€234 m	€86 m
% of potential +FIRRST flows captured in phase 3	100 %	100 %
<i>Investment needed in terminals of phase 3</i>	€709 m	€947 m

ORGANIGRAMME STAKEHOLDERS ALLIANCE



POSSIBLE MEMBERS OF THE ALLIANCE (I)

ASSOCIATIONS RELATED TO TRANSPORT AND LOGISTICS

- ESC
- IRU
- CER
- ERFA
- CLECAT
- UIC
- UIRR
- IN MOVE Rail Group
 - FERRMED
- Global Cold Chain Association (GCCA) *
 - ...

ROAD TRANSPORTERS

- DB Schenker
- Calsina-Carré
 - ...

RAILWAY INFRASTRUCTURE MANAGERS

- DB Netz
- ProRail
- INFRABEL
- SNCF Réseau *
- LFP Perthús
 - ADIF *
 - CFL

INTERMODAL TERMINALS

- BEST
- CIMALSA
- Contargo
- Naviland
 - ...

Confirmed Promoters
Confirmed Implementers
Confirmed Supporters
* = Already contacted

LOGISTIC OPERATORS

- HUPAC *
- Synergy
- Deutsche Post DHL
 - DB Schenker
- Jan de Rijk Logistics

RAILWAY FREIGHT OPERATORS

- DB Cargo
 - DSV
- CAPTRAIN
 - LINEAS
- RENFE Mercancías
 - VIIA

SHIPPERS

- SEAT/VOLKSWAGEN & suppliers
- Heineken
- AB InBev
 - ...



POSSIBLE MEMBERS OF THE ALLIANCE (II)

MAIN PORTS

- Port of Rotterdam *
- Port of Antwerp Bruges *
 - North Sea Port (Vlissingen/Ghent)
 - Port of Duisburg
- **Grand Port Marseille-Fos**
 - **Port of Barcelona**
 - ...

FLOW CONTROL PROCESS

- **ERA**
- **Certifydoc**
- **Project44**
- **HUPAC ***
- ...

SPECIALISED MEDIA

- **Eurofresh Distribution**
- **Rail Freight Magazine**
- **The Economist / FT**
- **Politico**

PILOT TEST INVOLVED REGIONS

- **Zuid Holland ***
 - **Zeeland**
 - **Flanders**
- **Brussels-Capital Region**
 - **Wallonia**
- **Nord-Pas-de-Calais**
 - **Île de France**
 - **Grand Est**
- **Bourgogne-Franche-Comté**
 - **Auvergne-Rhône-Alpes**
 - **Provence-Cote d'Azur ***
 - **Occitanie**
 - **Catalonia**
- **North-Rhine-Westphalia ***
 - **Rhineland-Palatinate**
 - **Saarland**

BUSINESS ASSOCIATIONS

- **ACEA**
- **BUSINESS EUROPE**
 - **CLEPA**
 - **SME UNITED***
 - **CECOT***
- **FOMENT DEL TREBALL**
 - **PIMEC**

PILOT TEST INVOLVED STATES

- **The Netherlands**
- **Germany**
- **Belgium**
- **Luxembourg**
- **France ***
- **Spain ***



TENTATIVE TIMING FOR +FIRRST PILOT TEST

	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>
Constitution of the Stakeholders Alliance	■			
Creation of the task force for the test development	■			
Selection of funding sources	■			
Preparation of the documentation for the call for proposals		■		
Approval of the call for proposal		■		
Test Study development		■		
Approval of the test development plan		■		
Start of the First phase of the test			★	
Test development and control "First phase"			■	■
Preparation for the second phase of the test (additional terminals)		■	■	
Construction of +FIRRST terminals in existing marshalling yards				■
Start of the second phase of the test				➔



TRANS-EUROPEAN RAIL NETWORK ENHANCEMENT



Train length:

 1.500m

 750m

MAIN ROUTES WITH LONG TRAINS



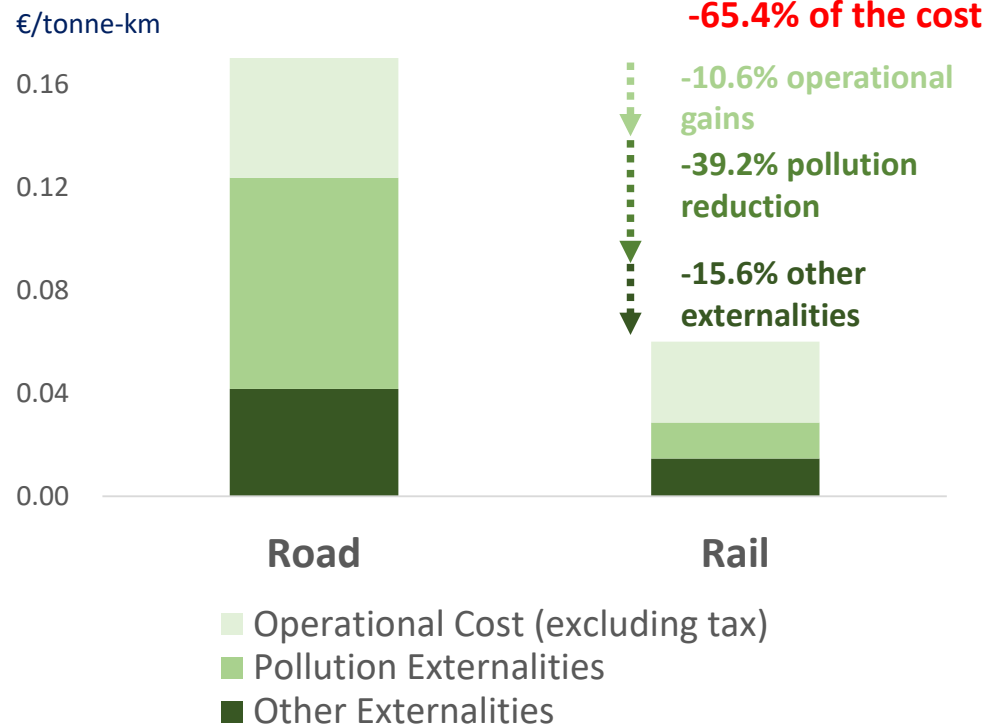
OTHER COMPLEMENTARY MAIN ROUTES

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

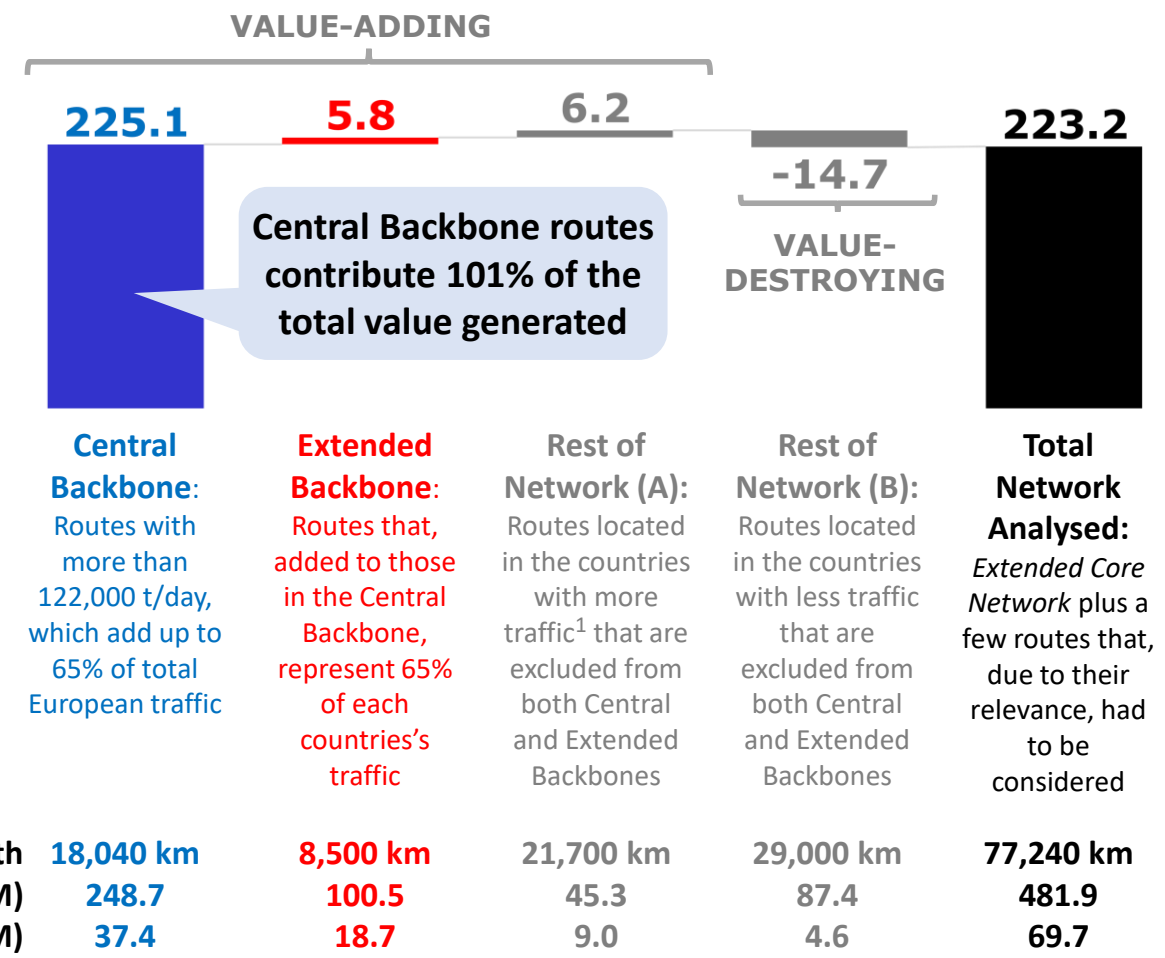


Overall, the TEN-T programme creates positive value, 101% of which is generated by Central Backbone investments

1. Marginal economic cost of transport (€/tonne-km)



2. Net present value contribution (€ billion, discount rate = 4%)



- ❖ **Operational cost reduction.** Road vs +FIRRST combined transport (including taxes): **51.5%**
- ❖ **Externality reduction.** Road vs +FIRRST combined transport: **77.0%**

	Central Backbone	Extended Backbone	Rest of Network (A)	Rest of Network (B)	Total Network Analysed
Length	18,040 km	8,500 km	21,700 km	29,000 km	77,240 km
TEN-T investment (€ 1,000M)	248.7	100.5	45.3	87.4	481.9
FERRMED investment (€ 1,000M)	37.4	18.7	9.0	4.6	69.7

1. The countries within (A) are Austria, Belgium, Czech Republic, France, Germany, Hungary, Italy, Netherlands, Slovakia and Switzerland.



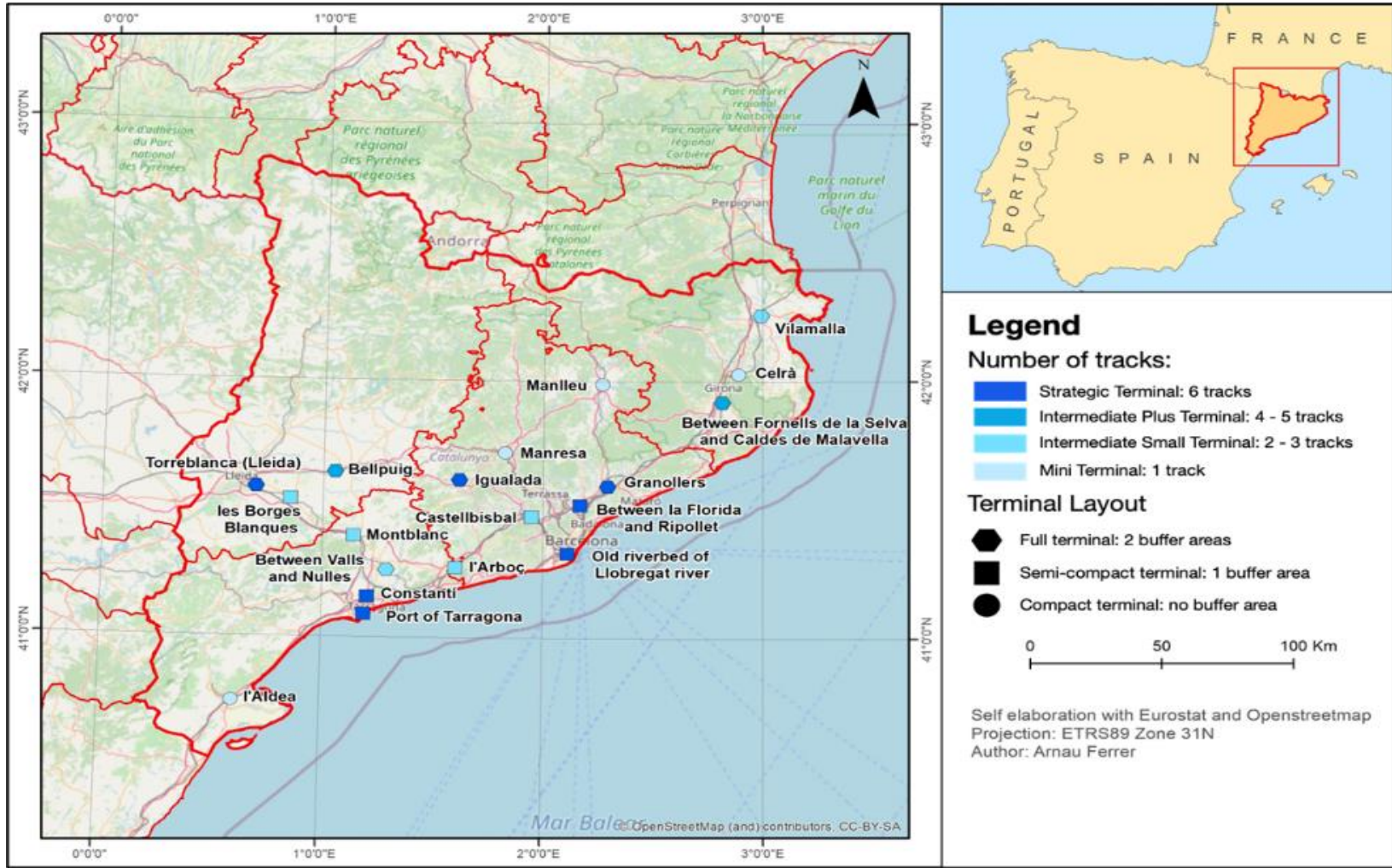
Promotion du Grand Axe Ferroviaire de marchandises
Scandinavie-Rhin-Rhône-Méditerranée Occidentale A.S.B.L



IMPLANTACIÓ DE LES CONCLUSIONS DEL FERRMED STUDY A CATALUNYA



MAPA DE LES TERMINALS +FIRRSST A CATALUNYA



NOVES TERMINALS INTERMODALS A CATALUNYA

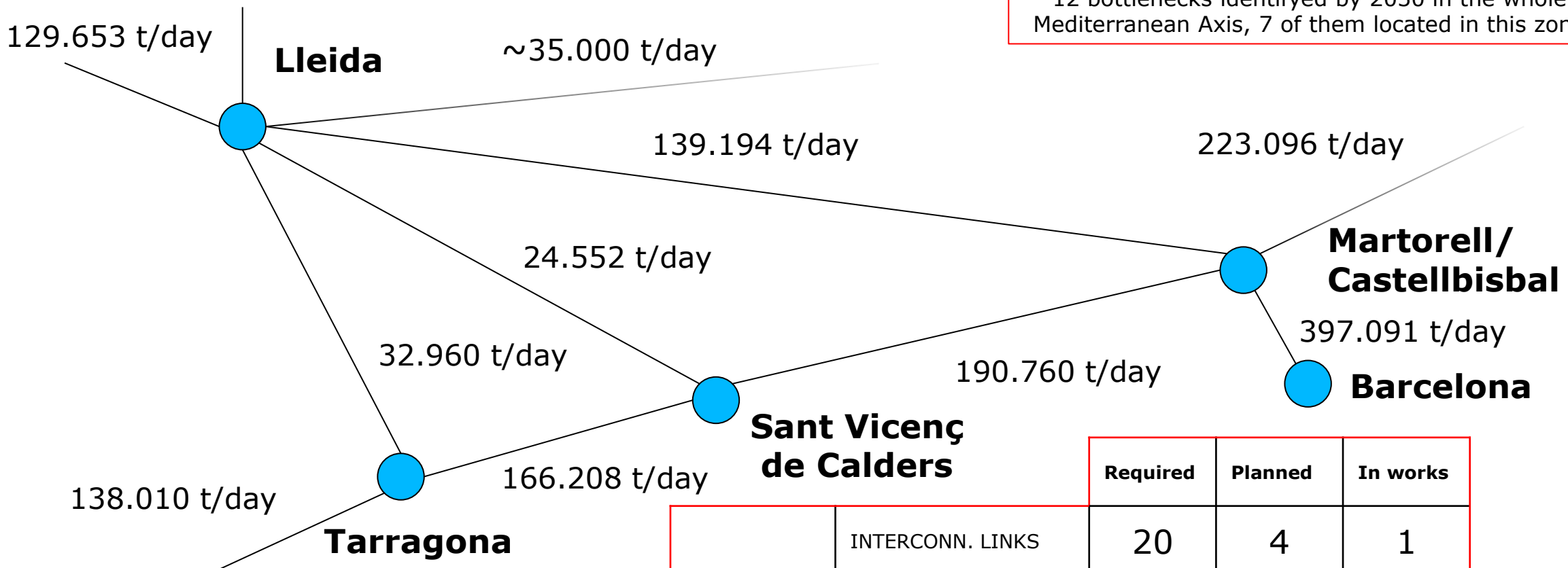
❖ Noves terminals intermodals

- **Demarcació de Girona:** Vilamalla, Celrà, Fornells de la Selva
- **Demarcació de Barcelona:** Granollers, La Florida, antiga Ilera del Llobregat, Castellbisbal, Igualada, Manresa, Manlleu
- **Demarcació de Lleida:** Torreblanca, Bellpuig, Les Borges Blanques
- **Demarcació de Tarragona:** L'Arboç, La Boella, Constantí, Nulles, Montblanc, L'Aldea

CONFLUENCE BETWEEN EBRO AXIS – MEDITERRANEAN AXIS (DAILY FREIGHT VOLUMES)

(EU threshold (65%) = 122,000 t/day)

12 bottlenecks identified by 2030 in the whole Mediterranean Axis, 7 of them located in this zone



		Required	Planned	In works	
		Required actions	INTERCONN. LINKS	20	4
INTERMODAL TERMINALS	NEW		16	3	-
	REFB.		6	3	1



ACTUACIONS REQUERIDES A LA XARXA FERROVIÀRIA DE CATALUNYA

- ❖ Resoldre la problemàtica del Triangle “Barcelona – Lleida – Tarragona”. Conversió de Lleida i rodalies en un gran pol logístic de l’Eix de l’Ebre

- ❖ Noves línies
 - Sant Celoni – Mollet (*per segregar mercaderies i rodalies*)
 - Castellbisbal – Martorell – Vilafranca – St. Vicenç – Constantí – Reus
 - by-pass Castellbisbal – Martorell (SEAT) *per segregar mercaderies i rodalies*
 - afegir una via més a la línia actual fins a St. Vicenç
 - refer la línia abandonada St. Vicenç – Roda – Constantí – Reus
 - Cervera – Igualada – Martorell (*nou traçat*)
 - Lleida – Tortosa (*nou traçat*)
 - Tarragona – València (alta velocitat)
 - Nous accessos als ports de Barcelona i Tarragona
 - Nous accessos, passants interconnectats, als aeroports de Barcelona, Girona i Reus
 - Noves línies de rodalies a l’Àrea Metropolitana de Barcelona



ACTUACIONS REQUERIDES A LA XARXA FERROVIÀRIA DE CATALUNYA

❖ Reformar les línies actuals

- Saragossa – Lleida – Tarragona/Valls – Sant Vicenç: conversió a ample internacional en via doble
- Tarragona – Vila-seca – L'Aldea/Tortosa – Castelló – València: conversió a ample internacional
- Conversió a ample mixt de la línia Castellbisbal – Martorell – Sant Vicenç – Tarragona – Reus – Casp – Saragossa
- Conversió a ample internacional de totes les restants línies convencionals de Catalunya
- Afegir una via a la línia Castellbisbal - Mollet
- Desdoblar la línia Montcada – Puigcerdà en el tram Montcada – Manlleu/Ripoll
- Noves interconnexions entre línies a les zones de Vilaseca, Reus, Picamoixons, Granollers, Tortosa
- Adaptació per a trens de 1.500 m a les línies Barcelona – Castellbisbal – Mollet – frontera francesa



FERRMED STUDY OF TRAFFIC AND MODAL SHIFT OPTIMISATION IN THE EU

ÀMBIT DEL CORREDOR MEDITERRANI

Estat Espanyol

Inversions segons el pla del Ministeri de Foment presentat a Barcelona l'any 2011, afegint alguns trams ferroviaris mancants estudiats per FERRMED.

Resoldre la problemàtica de les Rodalies de Barcelona i València.

Línia doble des de la frontera francesa fins a Algesires.

Noves terminals i reconversió/ampliació d'algunes de les existents en tot el recorregut i nous accessos als ports de Castelló, Cartagena, Sagunt i Almería.

República Francesa

By-pass Est per a mercaderies a l'aglomeració de Lyon.

Nova línia Montpeller – Perpinyà.

Noves terminals i reconversió/ampliació d'algunes de les existents en tot el recorregut.

ACTUACIONS REQUERIDES A LA XARXA FERROVIÀRIA DE CATALUNYA

Total investment in the EU in B€

Links and terminals	EU/Member State	481.9
	FERRMED	77.27
Total		559.17

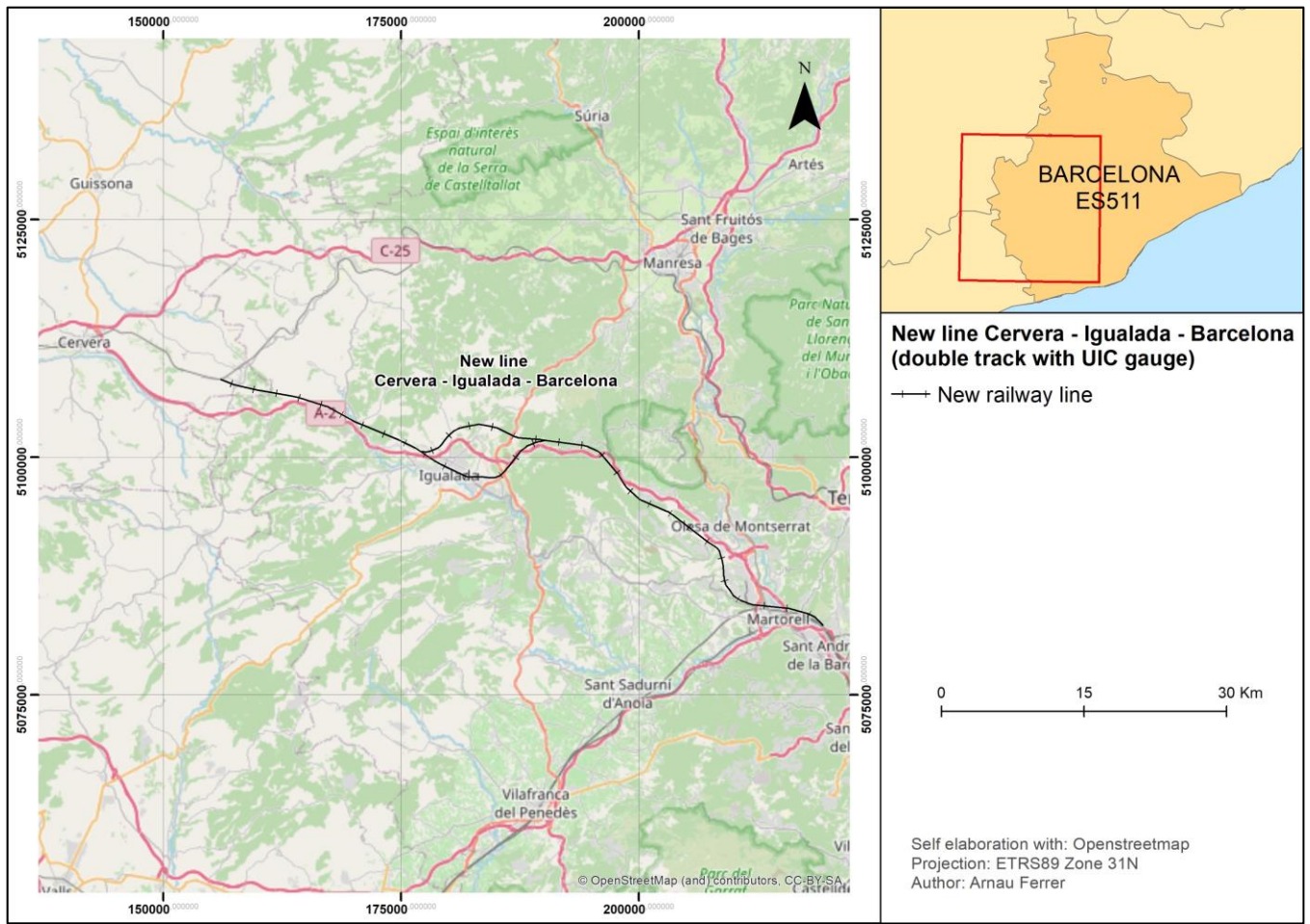
Total investment in Catalonia in M€*

Links and terminals	EU/Member State	6.117	1,3%
	FERRMED	9.857	12,8%
Total		15.974	2,9%

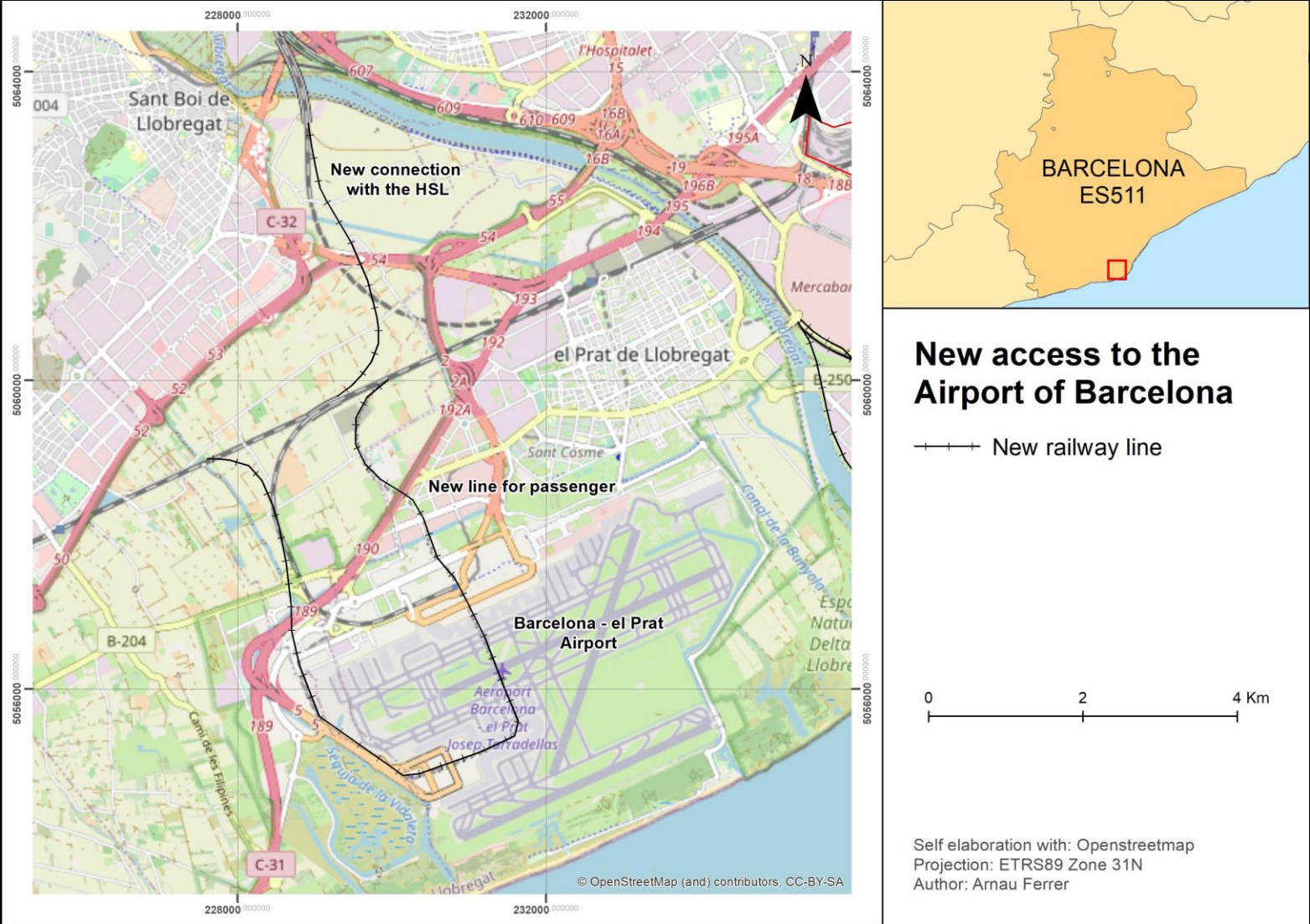
**No inclou l'import de les noves línies de rodalies ni les expropiacions*

IMPROVEMENT ACTIONS IN THE INTERMODAL TERMINALS & INTERCONNECTION LINKS

New railway line between Cervera and Martorell

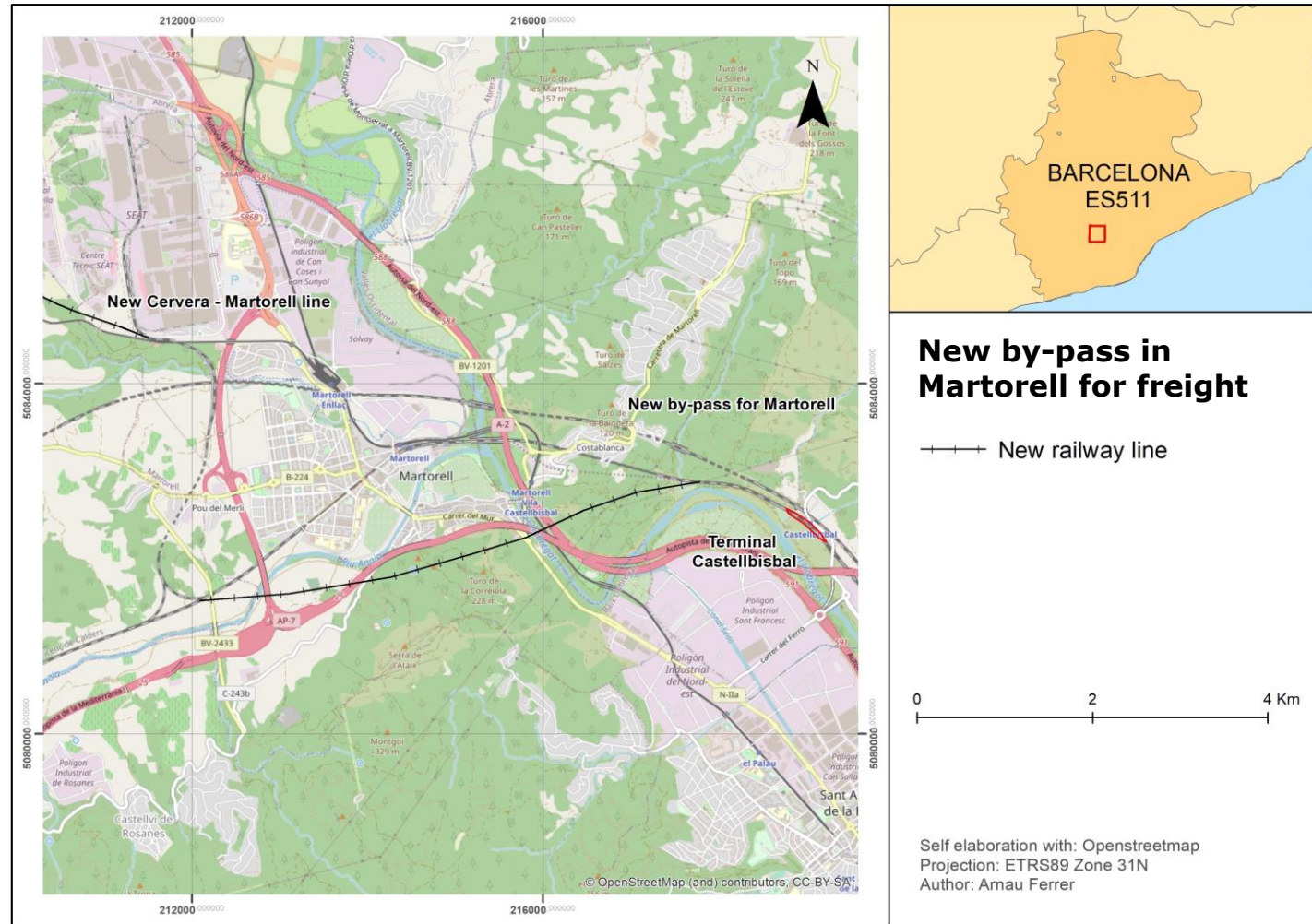


IMPROVEMENT ACTIONS IN THE INTERMODAL TERMINALS & INTERCONNECTION LINKS

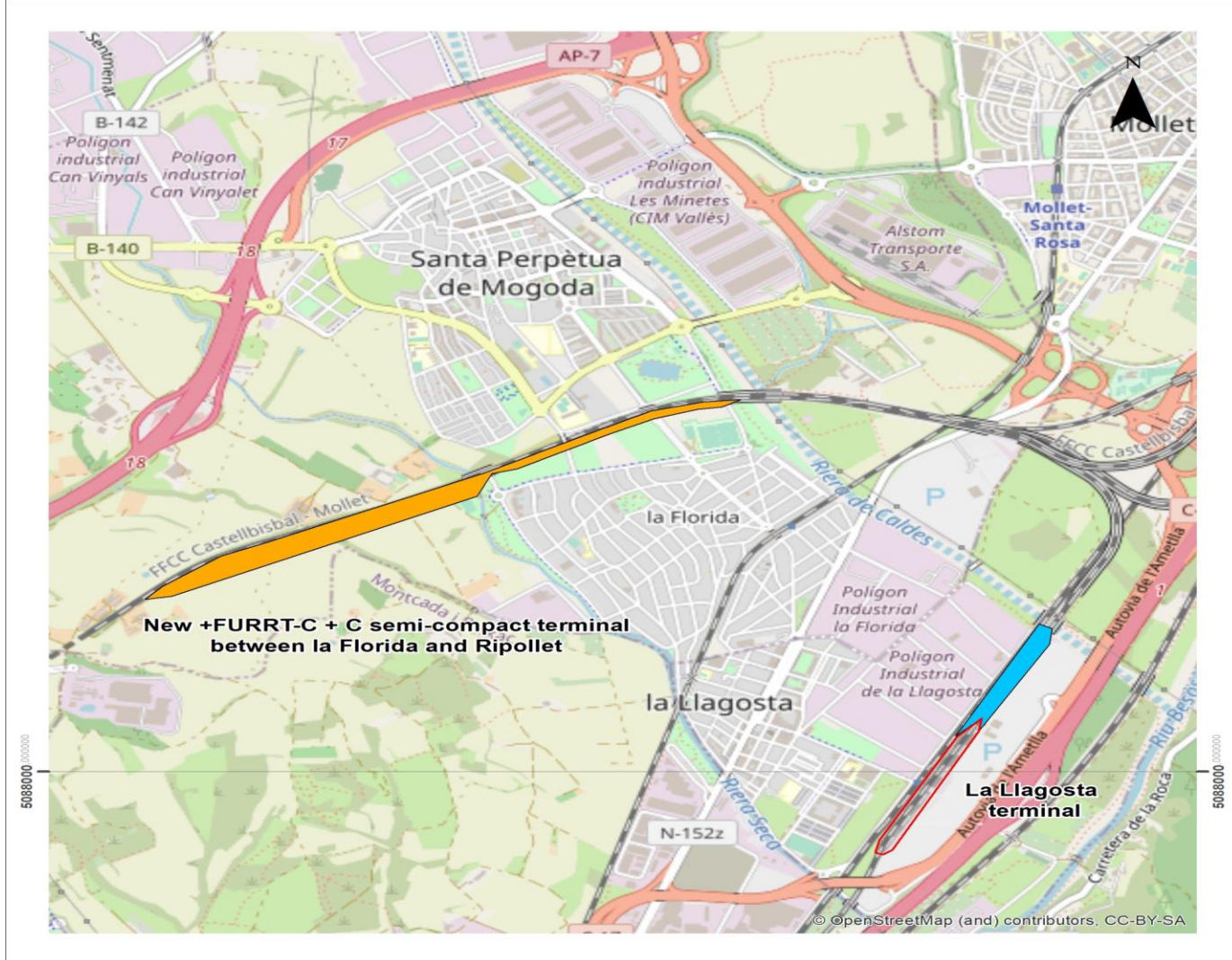


IMPROVEMENT ACTIONS IN THE INTERMODAL TERMINALS & INTERCONNECTION LINKS

New by-pass in Martorell

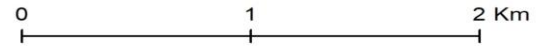


IMPROVEMENT ACTIONS IN THE INTERMODAL TERMINALS & INTERCONNECTION LINKS



Legend

- Current terminal
- Terminal enlargement
- New terminal



Self elaboration with: Openstreetmap
Projection: ETRS89 Zone 31N
Author: Arnau Ferrer



HOW TO SOLVE THE STAGNANT RAIL FREIGHT SHARE IN THE EU : +FIRRSST IS THE SOLUTION

Key Conclusion of Ferrmed Study of Traffic and Modal Shift Optimisation in the EU.

FERRMED FAST FLEXIBLE INTEGRATED RAILROAD SYSTEM OF TRANSPORT
(+FIRRSST)

PLEASE JOIN US ON WEDNESDAY, **NOVEMBER 13th**, 2024, 9 AM
RESIDENCE PALACE, WESTRAAT, 155, B-1040, BRUSSELS

FERRMED FAST, FLEXIBLE, INTEGRATED RAIL-ROAD SYSTEM OF TRANSPORT



**MOLTES GRÀCIES PER LA
VOSTRA ATENCIÓ**



Estudi FERRMED | La solució per millorar el transport integrat de mercaderies a la UE

Us convidem a participar d'aquesta sessió on comptarem amb la participació de FERRMED, el lobby europeu del transport ferroviari de mercaderies i impulsor del Corredor Mediterrani.

Amb Joan Amorós i Pala (president de Ferrmed)



01 d'octubre del 2024 | 9.30h



Sessió híbrida

