

The evolution of infra-systems



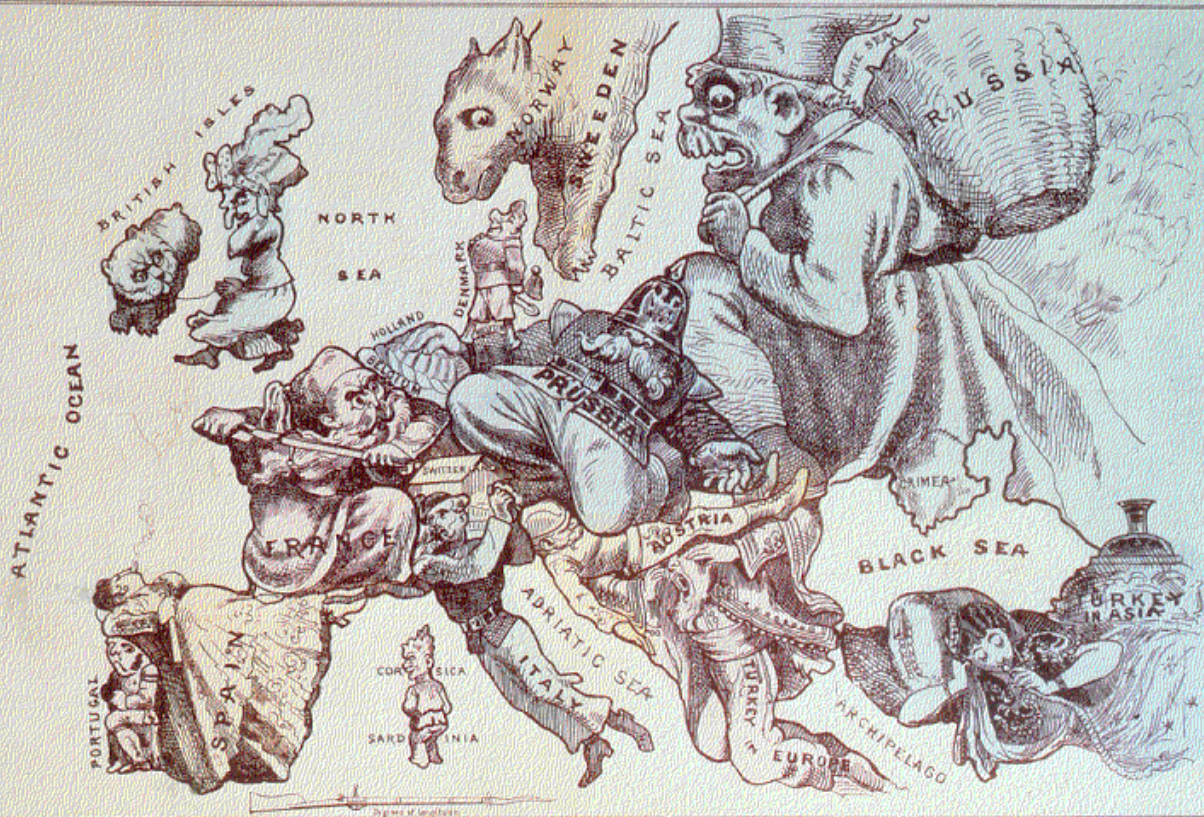
*The challenge of interoperability across borders
How was it solved?*

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COMIC MAP OF EUROPE



ENGLAND estranged, forgets her aid but still keeps it in her power. SPAIN & PORTUGAL smoke away idly. FRANCE tries to entice Prussia who advances one hand on HOLLAND & loses her. AUSTRIA just advises BISMARCK to keep off CORCICA & SARDINIA laugh on at all. DENMARK hopes to recover HOLLAND. TURKEY is slowly smoking from smoke SWEDEN touching like a panther. RUSSIA as a bigger trying to smothering her.



Technocratic Internationalism

- National networks are central building blocks for European and global networks
- Networks bring peace and prosperity
- Networks should be managed by experts

Infrastructural Path-dependencies

Infrastructures should be seen as **public utilities**, developed for the public, but without public involvement

Experts create interoperability across borders by creating interfaces between national systems, e.g. the Berne key.



Table 7.3. Intra-European trade as a percentage of total trade

	Total	Bel/L	Dk	Ger	Fr	Italy	Neth	UK	Ire	Port	Spain
(a) Imports											
1960	37.9	56.6	54.5	39.7	35.0	36.8	54.1	22.3	64.0	51.6	35.5
1970	50.3	66.3	48.7	51.7	56.0	47.5	63.4	29.4	70.1	52.6	40.9
1980	49.2	61.6	50.3	49.4	52.0	46.2	54.7	40.9	75.3	54.3	31.3
1990	58.8	70.7	53.7	54.1	64.8	57.4	59.9	51.0	70.8	69.1	59.1
(b) Exports											
1960	40.8	60.7	57.1	40.3	38.5	40.1	61.2	22.9	80.8	38.5	58.4
1970	53.4	75.2	44.2	49.8	58.1	51.7	72.6	32.7	74.3	43.8	49.6
1980	55.7	73.2	51.6	51.1	55.4	51.6	73.5	45.0	76.0	58.6	52.2
1990	60.7	75.1	52.1	53.6	62.7	58.2	76.5	52.6	74.8	73.5	64.9

Source: As for Table 7.1.

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1980 40.8 60.7 57.1 40.3 38.5 40.1 61.2 22.9 80.8 38.5 58.4

The Trans-European Network Initiative



Trans-European Transport Network Progress on Priority Axes May 2010

● Ongoing projects monitored by the TEN-T EA *

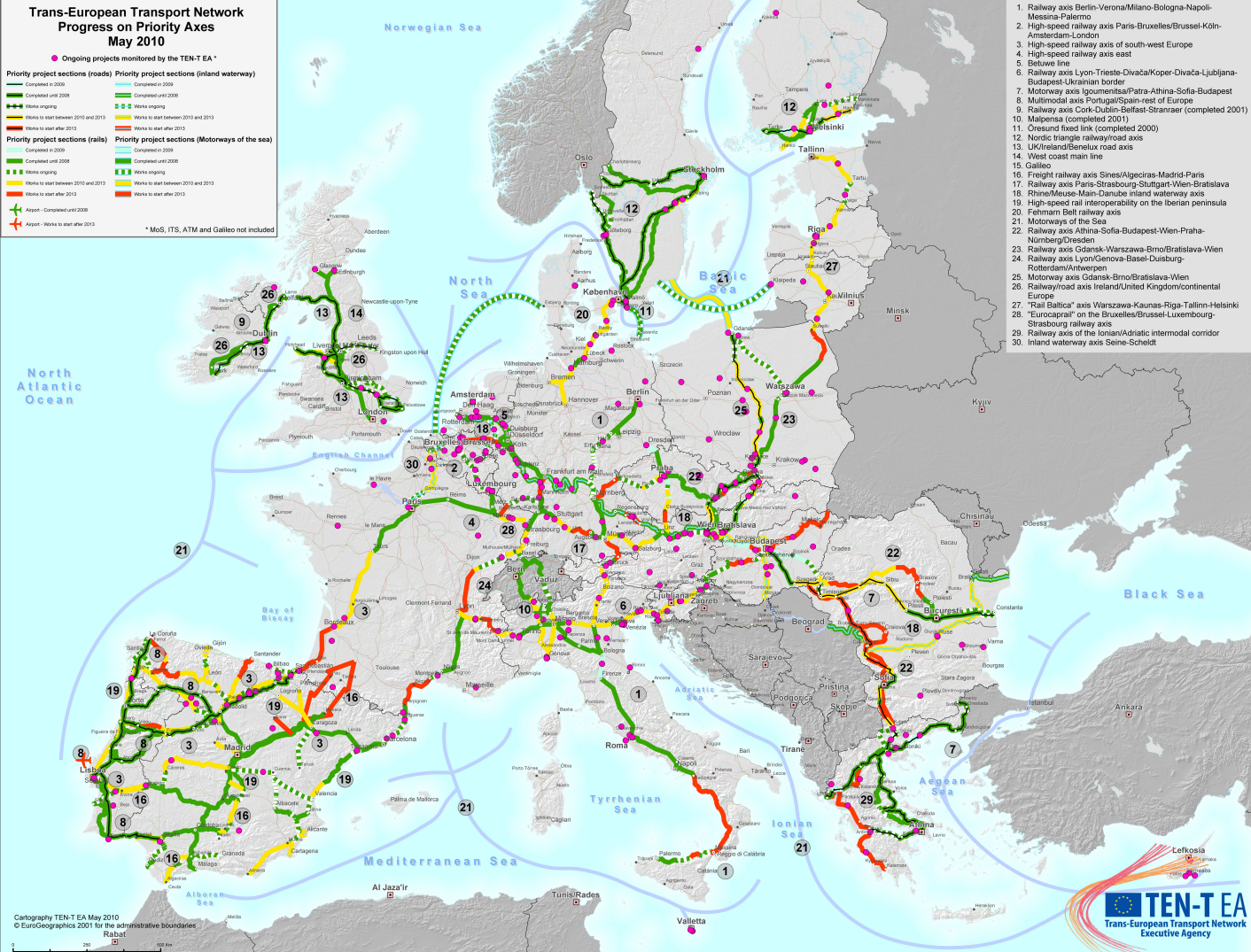
Priority project sections (roads) Priority project sections (inland waterway)

Completed until 2009	Completed until 2009
Works ongoing	Works ongoing
Works to start between 2010 and 2013	Works to start between 2010 and 2013
Works to start after 2013	Works to start after 2013

Priority project sections (rails) Priority project sections (Motorways of the sea)

Completed until 2009	Completed until 2009
Works ongoing	Works ongoing
Works to start between 2010 and 2013	Works to start between 2010 and 2013
Works to start after 2013	Works to start after 2013

* MoS, ITS, ATM and Galileo not included



1. Railway axis Berlin-Verona/Milano-Bologna-Napoli-Messina-Palermo
2. High-speed railway axis Paris-Bruxelles/Brussel-Köln-Amsterdam-London
3. High-speed railway axis of south-west Europe
4. High-speed railway axis east
5. Beltvue line
6. Railway axis Lyon-Trieste-Divača/Koper-Divača-Ljubljana-Budapest-Ukrainian border
7. Motorway axis Igoumenitsa/Patra-Athina-Sofia-Budapest
8. Multimodal axis Portugal/Spain-west of Europe
9. Railway axis Cork-Dublin-Belfast-Stranraer (completed 2001)
10. Malpensa (completed 2001)
11. Öresund fixed link (completed 2000)
12. Nordic triangle railway/road axis
13. UK/Ireland/Benelux road axis
14. West coast main line
15. Galileo
16. Freight railway axis Sines/Algeciras-Madrid-Paris
17. Railway axis Paris-Strasbourg-Stuttgart-Wien-Bratislava
18. Rhine-Meuse-Main-Danube inland waterway axis
19. High-speed rail interoperability on the Iberian peninsula
20. Fehmarn Belt railway axis
21. Motorways of the Sea
22. Railway axis Athina-Sofia-Budapest-Wien-Praha-Nürnberg/Dresden
23. Railway axis Gdansk-Warszawa-Bрно/Bratislava-Wien
24. Railway axis Lyon/Genova-Basel-Duisburg-Rotterdam/Antwerpen
25. Motorway axis Gdansk-Bрно/Bratislava-Wien
26. Railway/road axis Ireland/United Kingdom/continental Europe
27. "Rail Baltica" axis Warszawa-Kaunas-Riga-Tallinn-Helsinki
28. "Eurocaprail" on the Bruxelles/Brussel-Luxembourg-Strasbourg railway axis
29. Railway axis of the Ionian/Adriatic intermodal corridor
30. Inland waterway axis Seine-Scheldt



Cartography TEN-T EA May 2010
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Two dilemmas for the future

- National versus European and Global Developments
- Technocracy versus Democracy

Thank you for your attention!



*Please post any questions on
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