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Roundtable

ASSESSING REGULATORY CHANGES IN THE TRANSPORT SECTOR

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# Introducing competition in the European rail sector

## Insights for a holistic regulatory assessment


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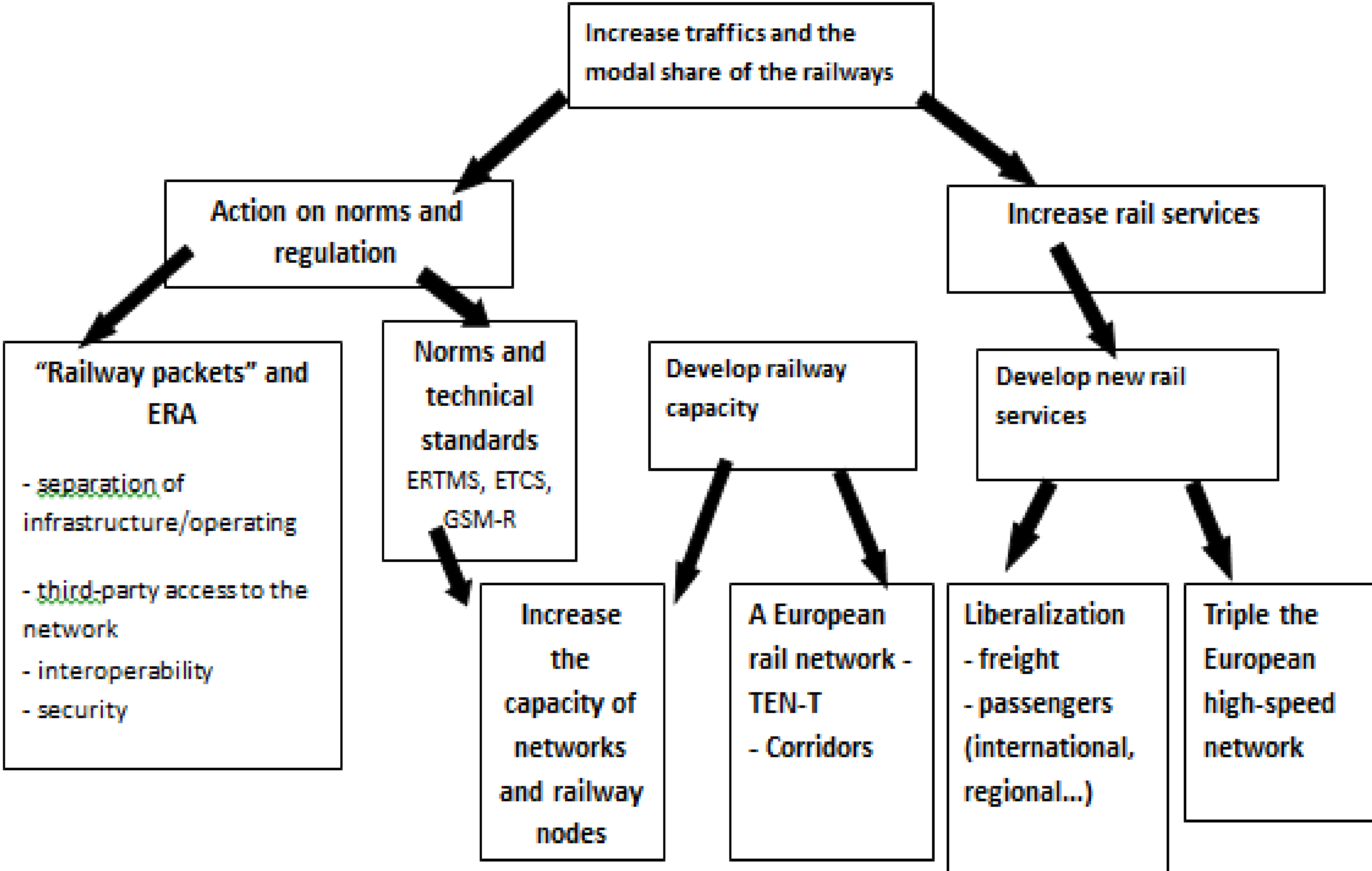
# Contents

# 25 years of rail (de)regulation (1)

- 07/1991: 1st directive on railway
- 2001: 1st Railway package (TEN-T, Competition for international freight, licenses, rail access charges…)
- 2001 White Book (modal shift from road to rail)
- 2004: 2nd Railway package (European Rail Agency, competition for national freight, safety, interoperability

# 25 years of rail (de)regulation (2)

- 2007: 3rd Railway package (Competition for international passenger services, drivers license, Public service obligation –PSO)
- 2011: White book (Development of High speed rail and rail freight)
- 2016: 4th Railway package, market pillar and technological pillar: competition for national passenger services, on track (2020) and off track (2023); governance of infrastructure (bundling vs unbundling…


Increase traffics and the modal share of the railways
Action on norms and regulation
Increase rail services
"Railway packets" and ERA
- separation of infrastructure/operating
- third-party access to the network
- interoperability
- security
Norms and technical standards
ERTMS, ETCS, GSM-R
Develop railway capacity
Develop new rail services
Increase the capacity of networks and railway nodes
A European rail network - TEN-T
- Corridors
Liberalization
- freight
- passengers (international, regional...)
Triple the European high-speed network

# Assessment methodologies

- Input-Output analysis
  - Productive efficiency
  - Commercial efficiency

- Ex Post Cost Benefit Analysis and Cost Efficiency Analysis
- From CBA to Multi-Criteria Analysis

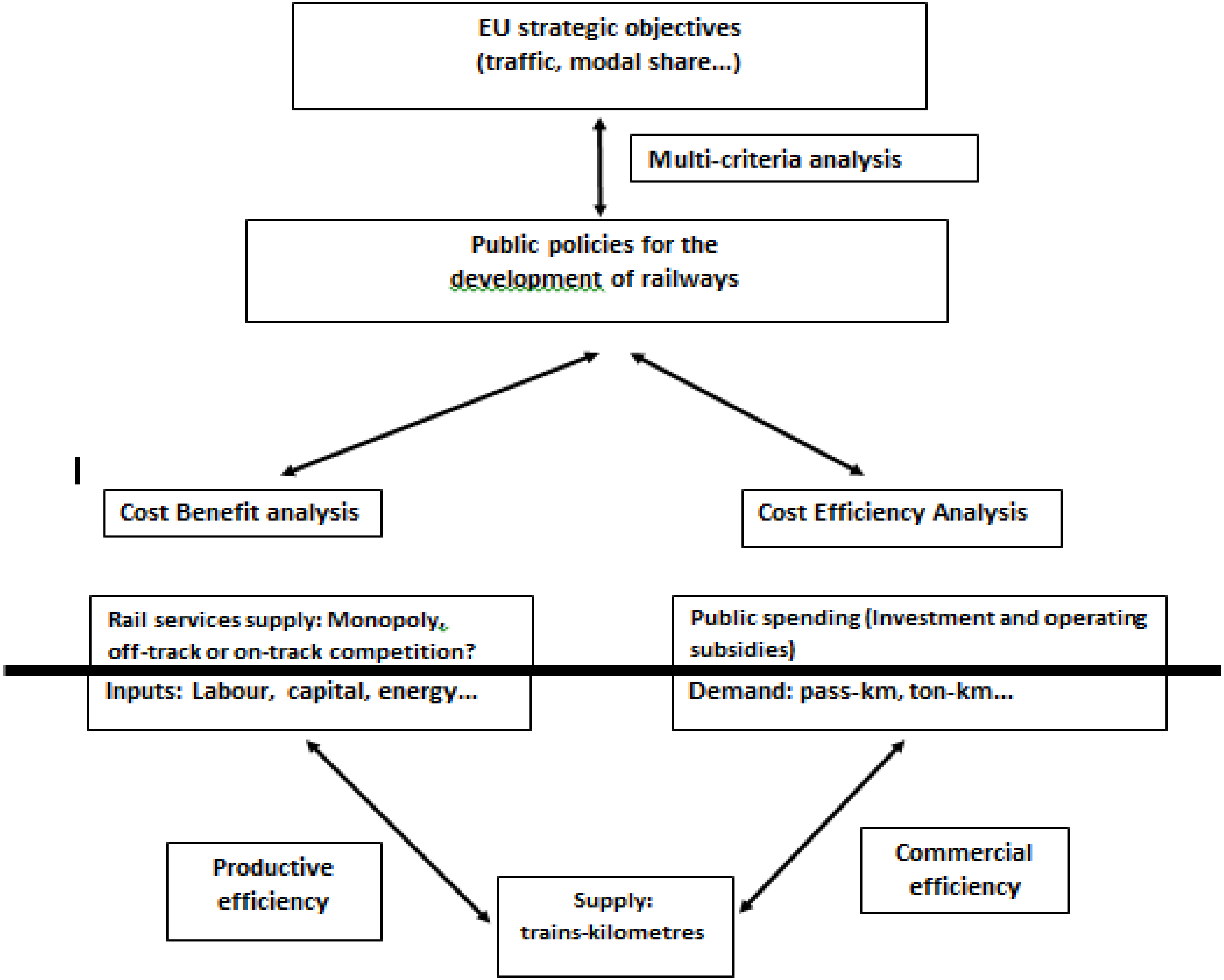

EU strategic objectives
(traffic, modal share...)
Multi-criteria analysis
Public policies for the
development of railways
Cost Benefit analysis
Cost Efficiency Analysis
Rail services supply: Monopoly,
off-track or on-track competition?
Inputs: Labour, capital, energy...
Public spending (Investment and operating
subsidies)
Demand: pass-km, ton-km...
Productive
efficiency
Supply:
trains-kilometres
Commercial
efficiency

**Table 1: France, labour productivity**

Source: National transport accounts

| | 1996 | 2008 | 2013 |
|---|---|---|---|
| Passengers – kilometres (millions) | 59 700 | 82 400 | 92 400 |
| Tons-kilometres (millions) | 48600 | 37 300 | 20 700 |
| Kilometric units (millions) | 108 300 | 119 700 | 113 100 |
| Workforce | 180 500 | 163 000 | 155 400 |
| Millions of KU per capita | 0.60 | 0.73 | 0.73 |

**Table 2: labour productivity in Germany (DB) and Switzerland**

Source: DB and CFF

| Germany | 1996 | 2008 | 2013 | Switzerland | 1996 | 2008 | 2013 |
|---|---|---|---|---|---|---|---|
| Vkm (millions) | 59 300 | 77 800 | 88 700 | Vkm (millions) | 11 600 | 16 150 | 19 200 |
| TKm (millions) | 67 400 | 113 600 | 104 300 | Tkm (millions) | 7 300 | 12 530 | 11 500 |
| KUm (millions) | 126 700 | 191 400 | 193 000 | KUm (millions) | 18 900 | 28 680 | 30 700 |
| Workforce | 260 000 | 240 500 | 200 000 | Workforce | 32 000 | 28 000 | 27 000 |
| Millions of KU per capita | 0,49 | 0,79 | 0,96 | Millions of KU per capita | 0,59 | 1,02 | 1,14 |

# Changes in British TOC own costs,1998–2012 (%)

| | Per train-km | Per vehicle-km |
|---|---|---|
| Staff | +32% | +25% |
| Payments to ROSCOs | -3% | -8% |
| Other | +14% | +8% |
| Total | +15% | +9% |

(excludes payments to Network Rail)

Source for cost data: ATOC (2013)

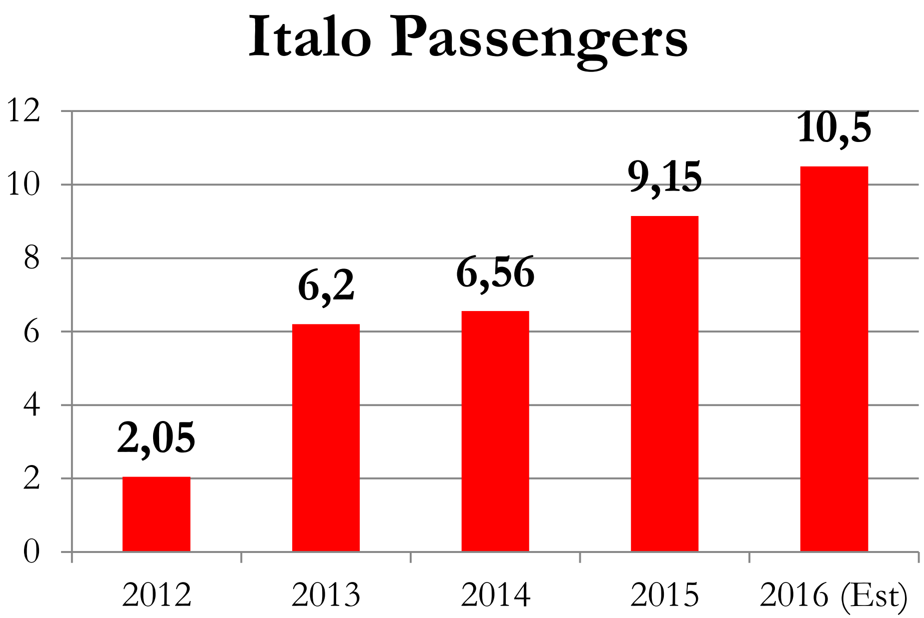
# Traffic growth of rail traffic (Pkm)

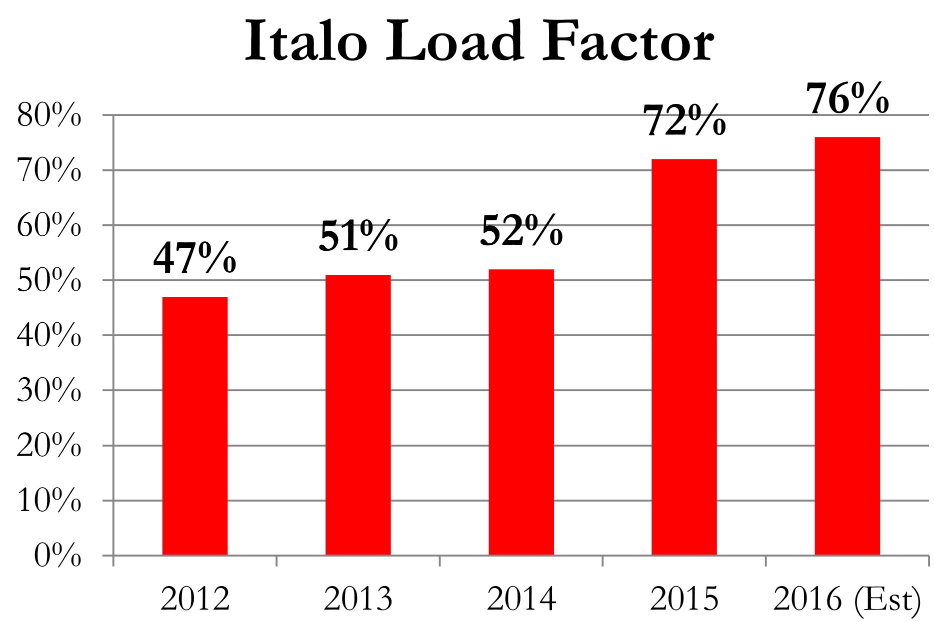
2000-2012

| | |
|---|---|
| Great Britain | 59 % |
| Switzerland | 53 % |
| Sweden | 43 % |
| Belgium | 34 % |
| Netherlands | 16 % |
| France | 27 % |
| Germany | 17 % |
| Spain | 12 % |

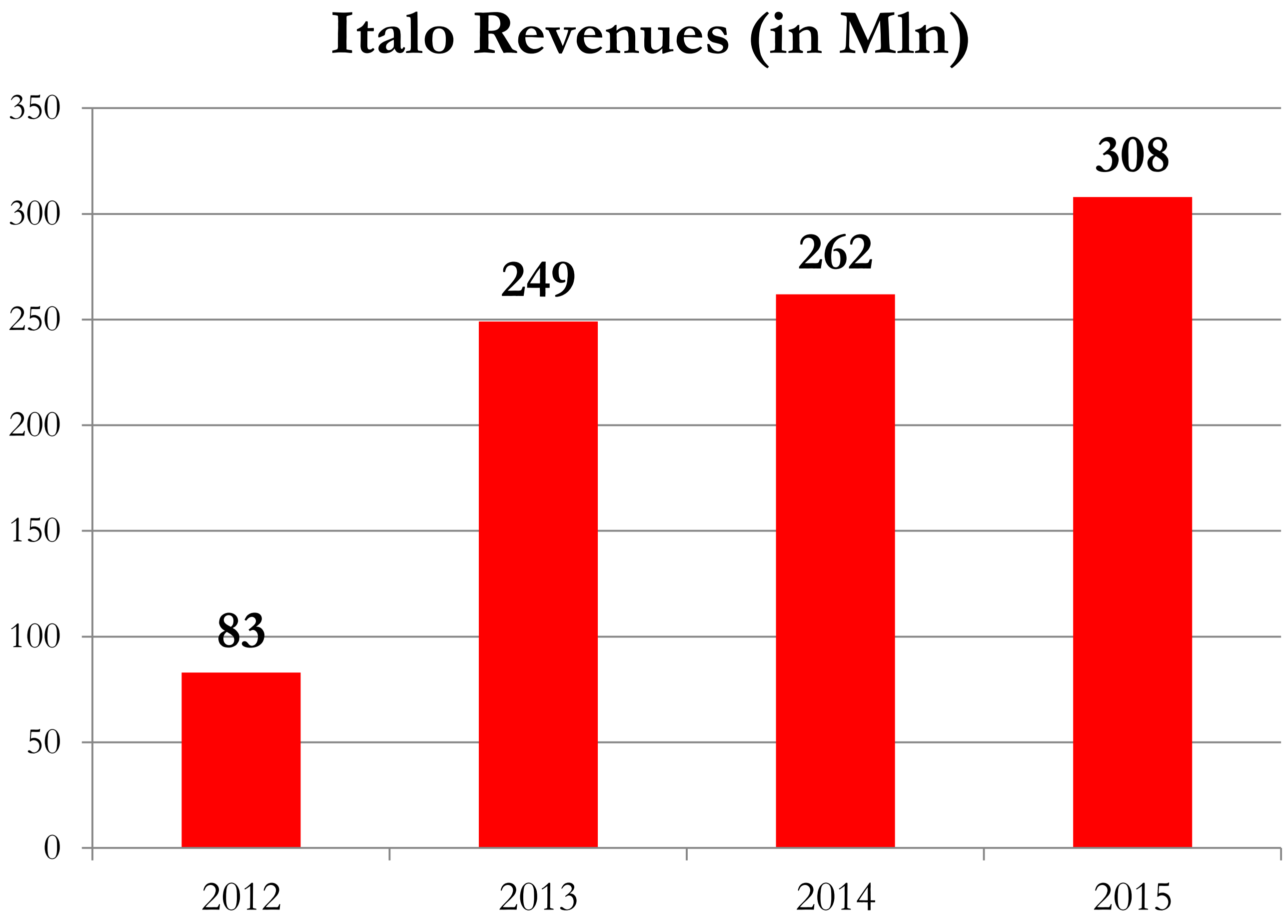
Source: EC (2014) EU transport in figures

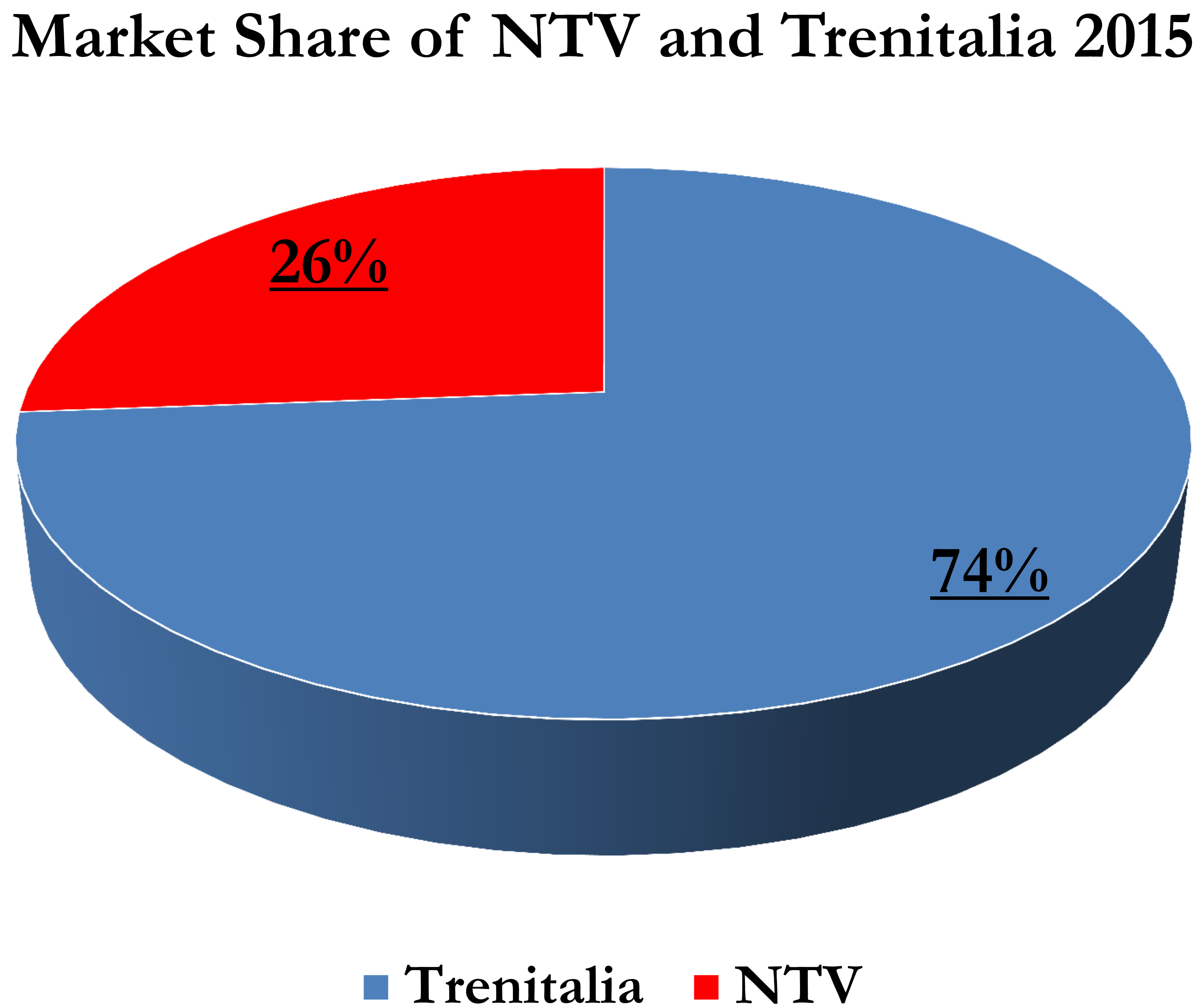
# High speed rail and on track competition in Italy



# High speed rail and on track competition in Italy

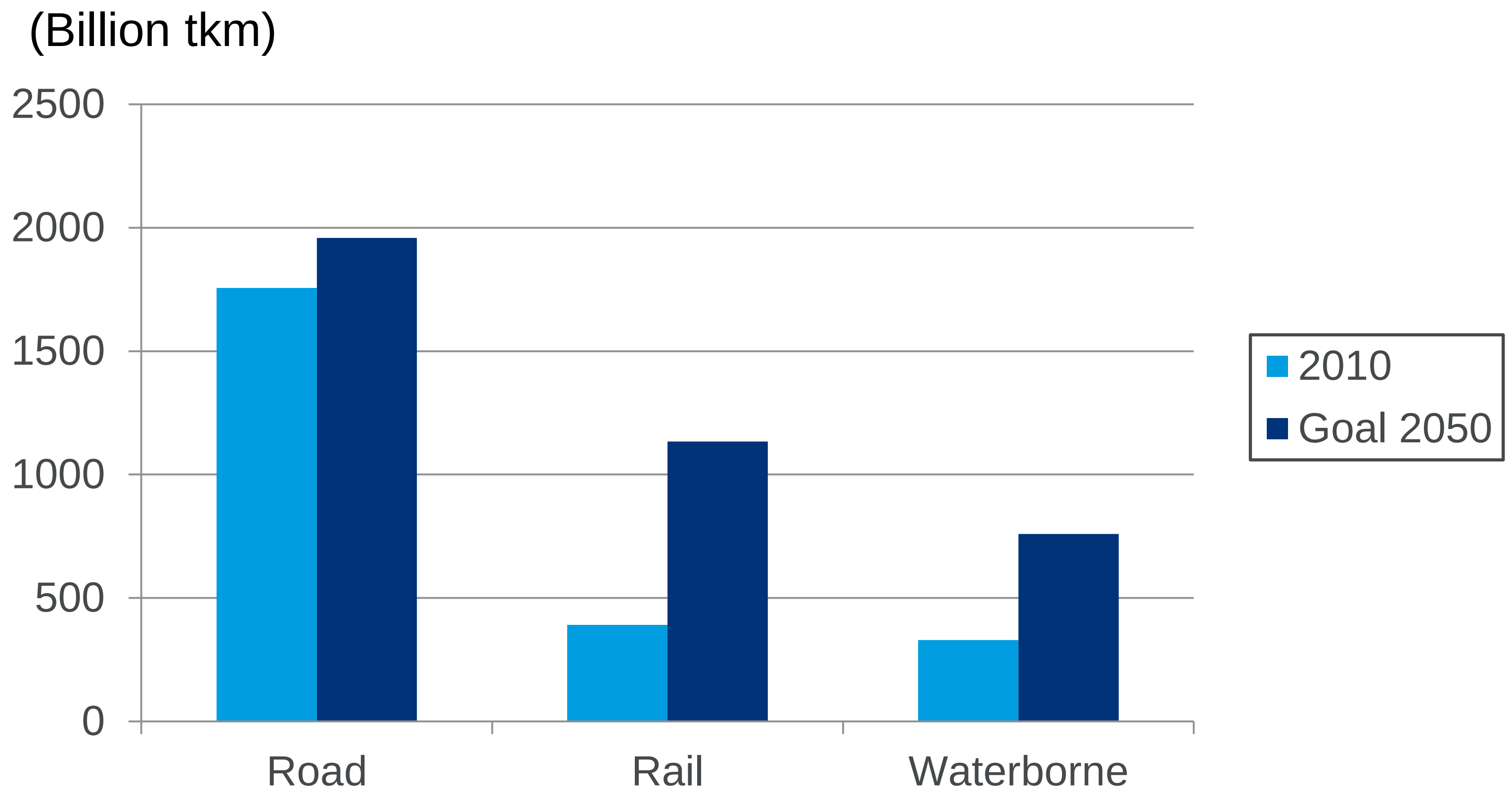



Market Share of NTV and Trenitalia 2015
26%
74%
Trenitalia
NTV

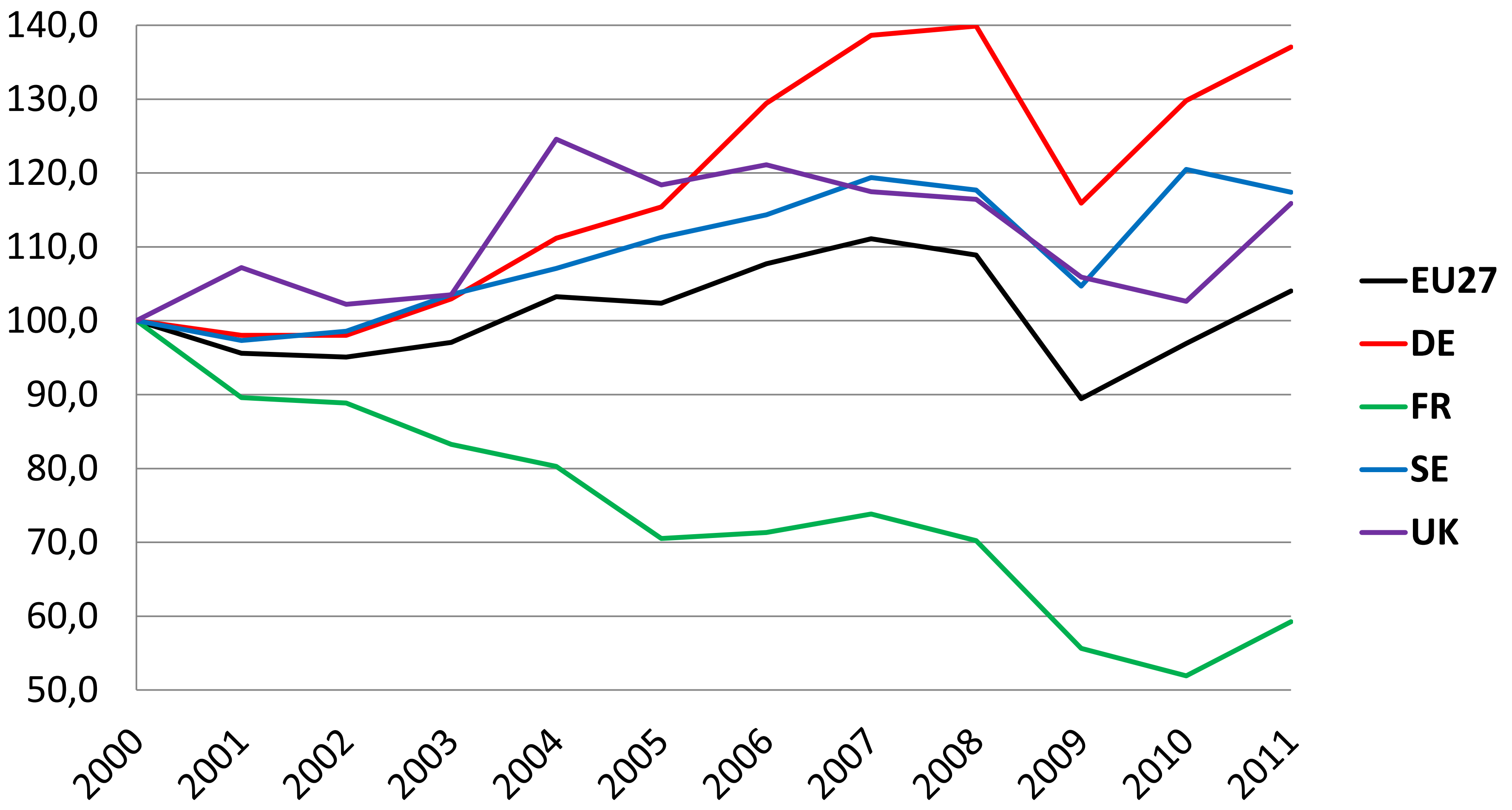
# France – High Speed Rail
## *Ex-ante* and *ex-post* “socio-economic” IRR values

| | Ex ante | Ex post |
|---|---|---|
| LN 1 (Sud Est) | 28,0% | ? |
| LN 2 (Atlantique) | 23,6% | 12,0% |
| LN3 (Nord Europe) | 20,3% | 5,0% |
| Interconnexion | 18,5% | 15,0% |
| LN4 (Rhone-Alpes) | 15,4% | 10,6% |
| LN5 (Med) | 12,2% | 8,1% |

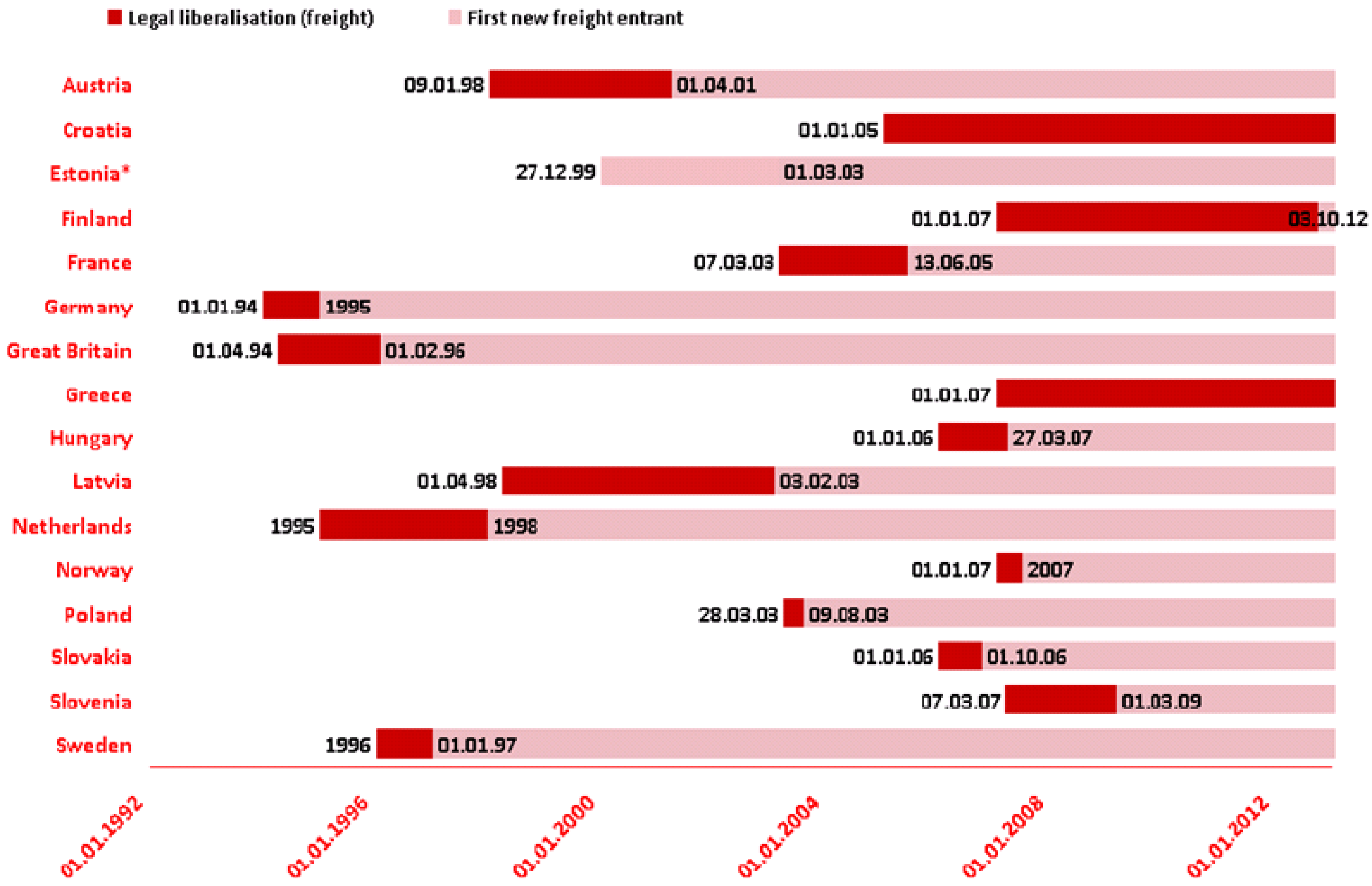
# EU objectives for rail freight



# Rail Freight traffic Tkm



# Rail freight liberalization




* Estonia had a new freight entrant before legal liberalisation on 1st March 2003.

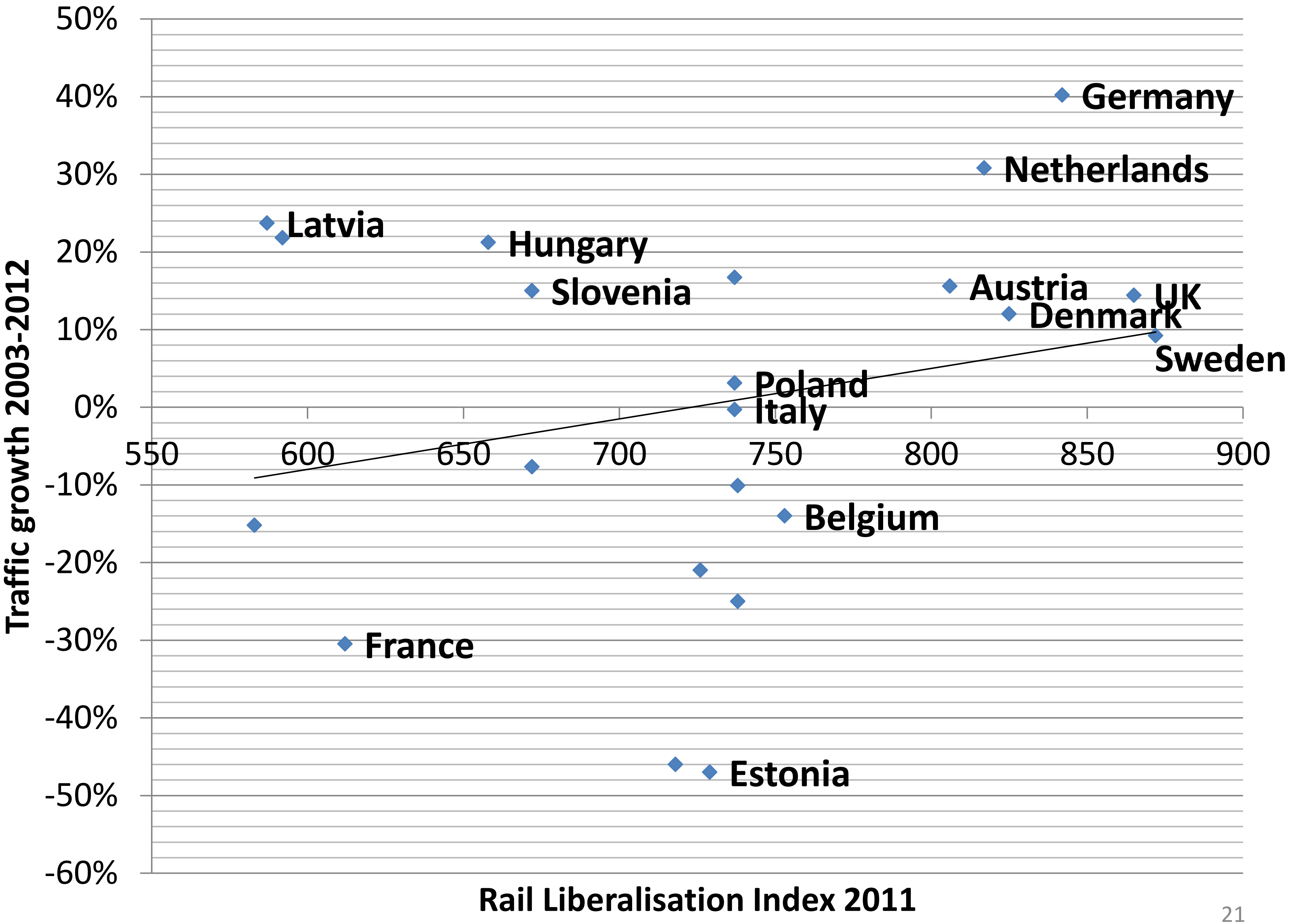
Where exact dates are not available, they have been set to the appropriate year.

| The Makeup of the Liberalization Indices in 2011 | | |
|---|---|---|
| | | |
| **LEX (20% of overall index)** | | |
| (25% in 2002, 30% in 2004, 20% in 2007) | | |
| Organizational Structure | 25 | |
| Incumbents' independent status with respect to the state | | 5 |
| Degree of vertical separation - network/operations | | 80 |
| Degree of horizontal separation - freight/passenger transport | | 15 |
| Regulation of Market Access | 45 | |
| Market access regime for foreign RUs | | 40 |
| Market access regime for domestic RUs | | 40 |
| Legal controlled access to operational facilities | | 20 |
| Regulatory Authority Powers | 30 | |
| General aspects of the regulatory authority | | 30 |
| Scope of regulation | | 30 |
| Powers of the regulatory authority | | 40 |

| ACCESS (80% of overall index) (50% in 2002, 70% in 2004, 80% in 2007) | | |
|---|---|---|
| Information barriers | 5 | |
| Duration for obtaining information | | 40 |
| Quality of non-personal information provided | | 30 |
| Quality of personal information provided | | 30 |
| Administrative barriers | 20 | |
| Licence | | 35 |
| Safety certificate | | 25 |
| Homologation of rolling stock | | 40 |
| Operational Barriers | 45 | |
| Track access conditions | | 25 |
| Infrastructure charging system | | 50 |
| Other service facilities | | 25 |
| Share of domestic market accessible 2009 | 25 | |
| Method of awarding transport contracts | | 20 |
| Compliance with transparency provisions | | 10 |
| Percentage of the accessible market for RUs | | 70 |
| Sales services in passenger transport | 5 | |
| Rental of space ticket sales offices | | 50 |
| Access to sales services | | 50 |

| COM (not included in overall 2011 RLI) | | |
|---|---|---|
| (25% in 2002, not included in 2004, 2007 and 2011) | | |
| Modal split changes | 20 | |
| Change in the modal split for rail freight transport (2001 - 2008) | | 40 |
| Change in the modal split for rail passenger transport (2001 - 2008) | | 40 |
| Share of modal split for rail freight transport 2008 | | 10 |
| Share of modal split for rail passenger transport 2008 | | 10 |
| Number of external RUs 2009 | 20 | |
| Certified RUs (excl. incumbent) in relation to network length | | 40 |
| Ratio of active RUs to certified RUs | | 50 |
| Number of active RUs providing passenger services on a regular basis | | 10 |
| Market share external RUs 2009 | 60 | |
| Market share ext. RUs in terms of transport performance in % | | 75 |
| Increase in market share of ext. RUs between 2006 and 2009 in % | | 25 |

# Degree of liberalisation and growth of rail freight traffic



# Conclusion and recommendations

- We need Europe-wide benchmark using traditional indicators of productive efficiency and commercial efficiency, but also cost benefit and cost efficiency analysis.
- Towards a MCA of the EU process of rail revitalization
- The key role of national rail regulator to monitor the level of tolls and rail infrastructure manager productivity but also the market structure