### **EUSERS SUMMER SCHOOL**

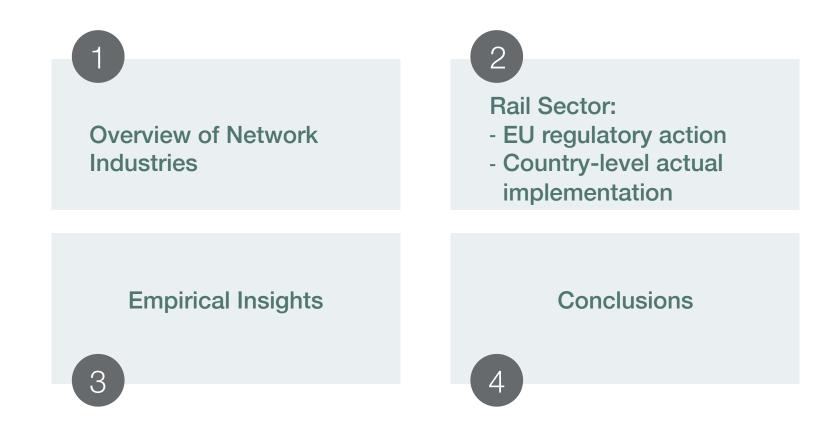
Performance and Governance of Services of General Interest. Critical perspectives on Energy, Telecommunications, Transport and Water Reforms in the EU June, 27<sup>th</sup> – July 1<sup>st</sup> 2016

### Rail Sector: Current Challenges and Developments

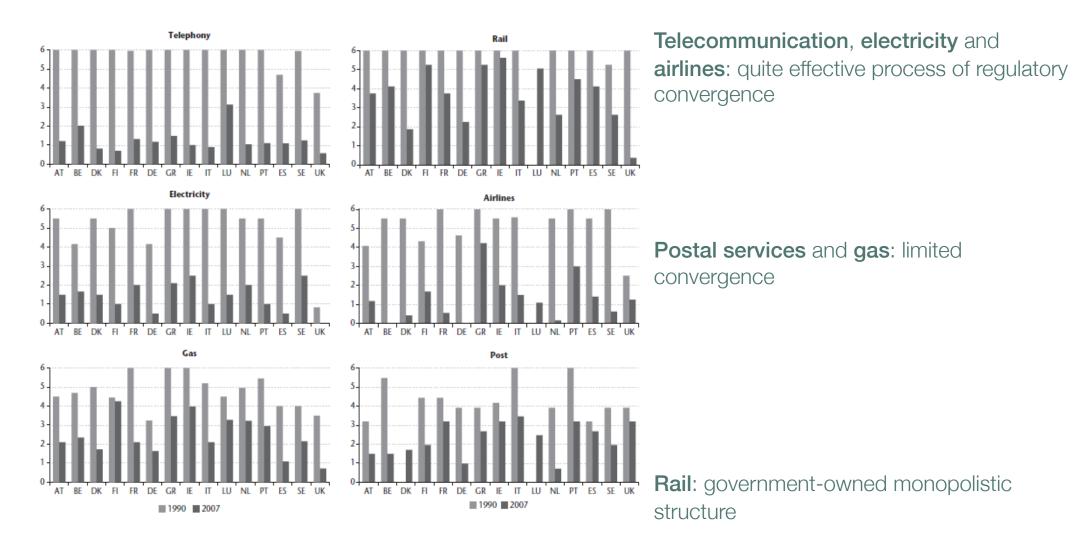
J. Doleschel, G. Esposito, T. Kaloud, M. Mariotti, R. Marzahn, J.A. Urban-Kozlowska



## Agenda



### Network Industries



ETCR indicators, selected countries, 1990–2007. Source: Florio (2013)

# EU Regulatory Innovation

EU has decided to launch the reform with a view to create a single efficient and competitive market for rail throughout Europe.



Unbundling regarding infrastructure and service level

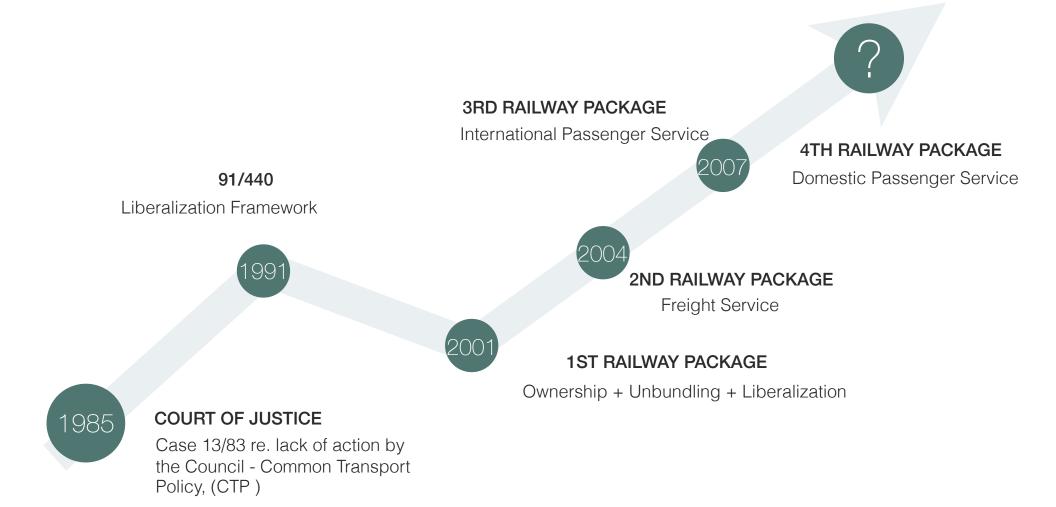






Creation of the common and intermodal transport market

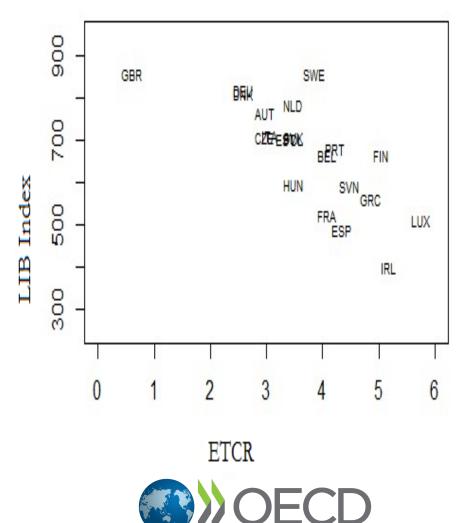
# **Regulation** TimeLine



# Implementation Status

### Rail reforms: implementation status LIB Index 2011 (rail passenger transport) SE Advanced GB DE DK NL AT IT CZ SK EE PL **On Schedule** CH PT BG BE FI NO 652 RO HU SI GR LT Delayed FR LV ES IE 100 300 400 500 1000 200 600 700 800 900







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# **Country-level** Implementation

State: owner, planner, client and regulator

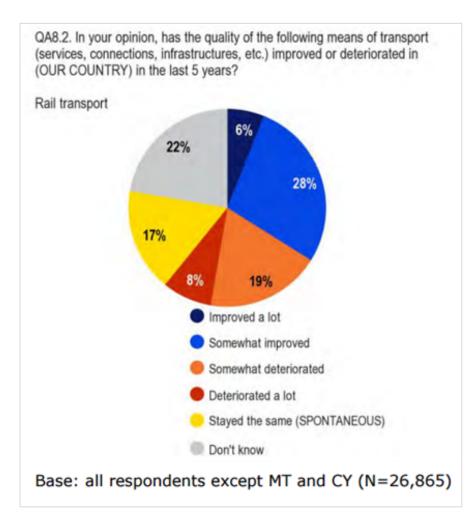
Owner	Network Manager	Service Operator	Domestic Market
	<b>DB</b> NETZE	<b>DB</b> Bahn	Open
	GRUPPO FERROVIA DELLO STATO ITALIANA	GRUPPO FERROVIE DELLO STATO	Open
	R É S E A U	SNCF	Closed
		renfe	Closed

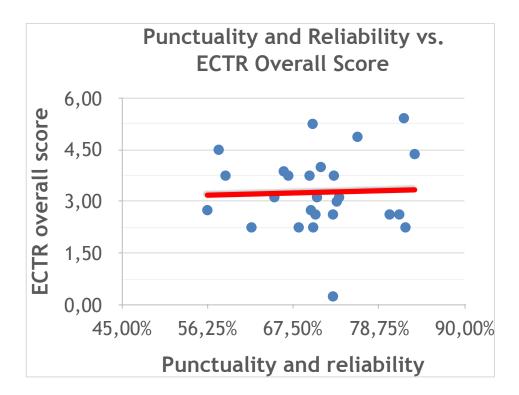
### Empirical Results 1/2

### **Determinants for the Price of Passenger Railway Services**

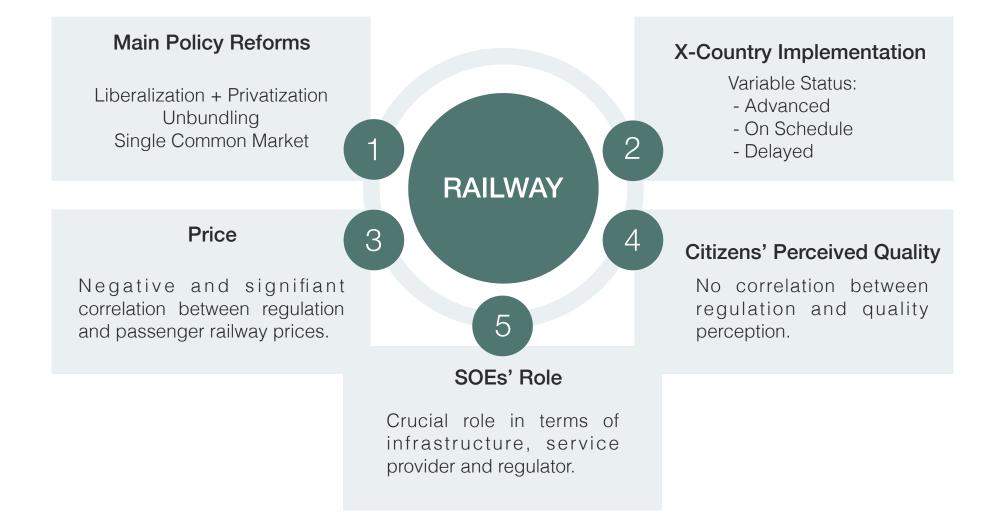
	Dependent variable:	
	PRICE_Passenger	
REGULATION Entry	-2.704***	
	(0.713)	
REGULATION Public Ownership	-2.672**	
	(1.288)	
REGULATION Vertical Integration	-8.183***	
	(1.162)	
REGULATION Market Structure	-0.095	
	(0.825)	
KILOMETER Passenger	-0.197	
_	(0.272)	
PRICE_Overall	0.059	
_	(0.046)	
GDP_PPP	0.00004***	
-	(0.00001)	
 Observations	 363	
R2	0.500	
Adjusted R2	0.455	
F Statistic	47.183*** (df = 7; 330	
 Note:	*p<0.1; **p<0.05; ***p<0	

### Empirical Results 2/2





### Conclusions



### **Empirical** Results (back-up)

	Dependent variable:		
	PRICE_Passenger (1)	<b>INVEST</b> (2)	
<b>REGULATION_</b> Overall	-6.806 (8.736)	361.892 (240.307)	
REGULATION_Public_Ownership	-0.344 (5.060)	48.593 (119.016)	
REGULATION_Vertical_Integration	0.402 (3.493)	-444.995*** (133.781)	
REGULATION_Market_Structure	0.266 (2.604)	-265.819** (117.446)	
KILOMETER_ <b>Passenger</b>	0.086 (0.390)	6.208 (24.032)	
<b>PRICE</b> _Overall	0.938*** (0.126)	-13.329*** (3.744)	
<b>GDP_</b> PPP	0.00001 (0.00001)	0.001 (0.001)	
SUBSIDIES	0.019 (0.019)		
Observations R2	108 0.604	276 0.249	
Adjusted R2 F Statistic	0.458 15.624*** (df = 8; 82	0.225 2) 11.817*** (df = 7; 250)	
	*r	p<0.1; **p<0.05; ***p<0.01	