Track Access Charge and Business Models in rail industry

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Structure of the sector

Between Infrastructure manager and RU there are three business models:

- Vertical integration (Japan, Hong Kong)

- Vertical separation (Sweden, Uk, Spain)

- Holding structure (Germany, Italy, Austria, France*)

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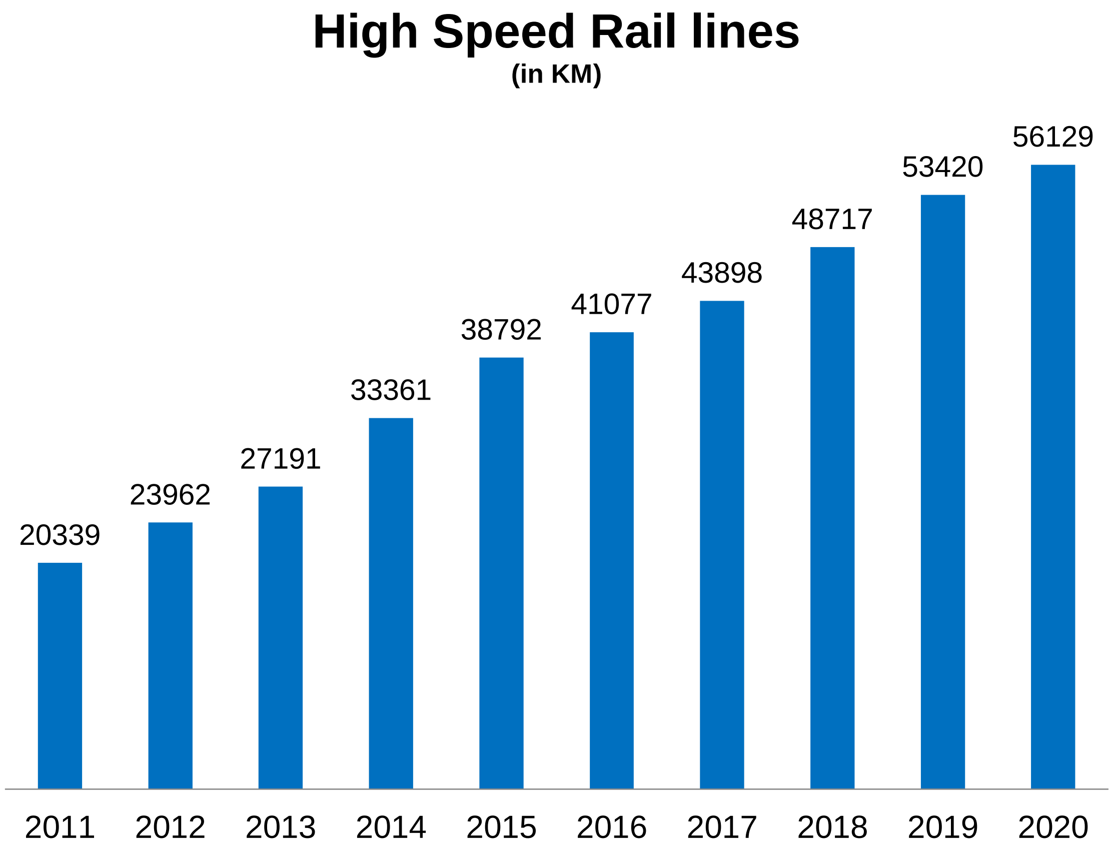
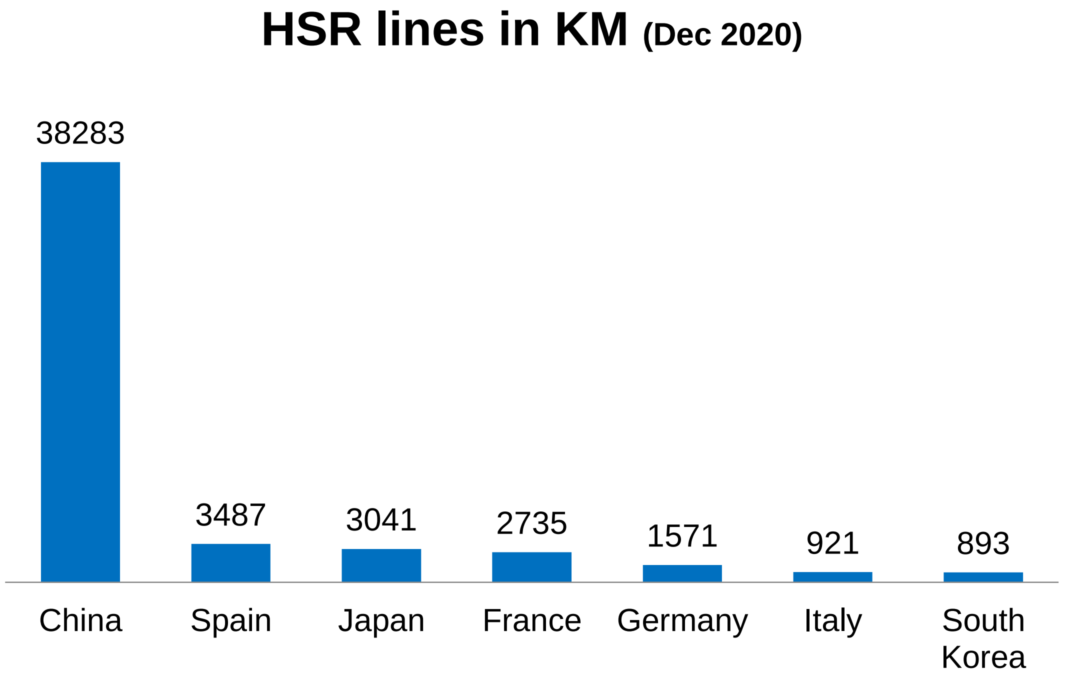
HSR lines



The network of the high-speed is quite triple in a decade in terms of kilometers.

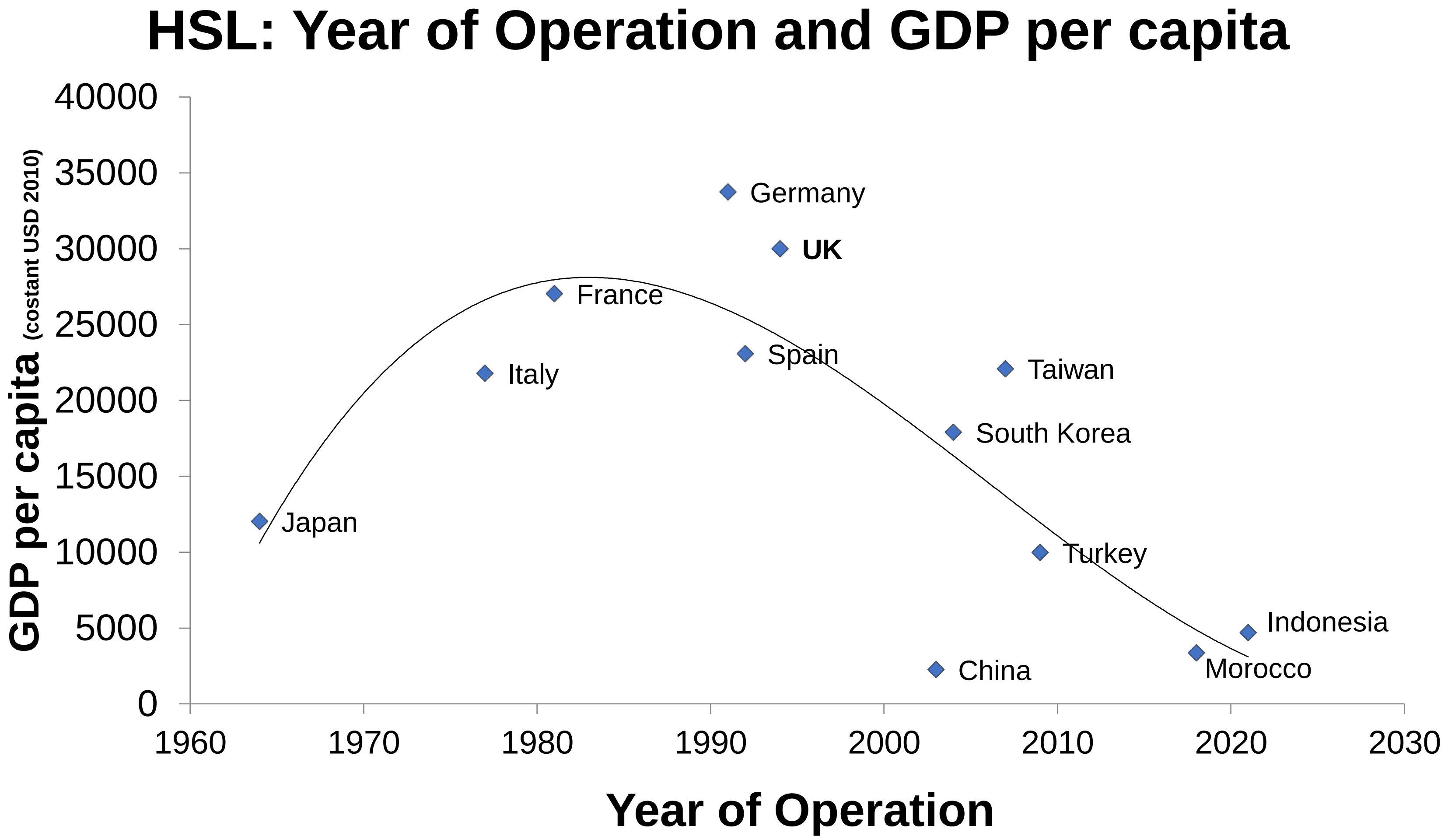
China, with more than 38,000 kms, is the first country in the world for the length of its high-speed network.

Spain is the first country in Europe and the second globally, after China, while France, Germany and Italy are in the 4°,5° and 6° position globally.



Source: UIC Data and World Bank

HSR lines



The High-speed lines is developing all around the world in terms of infrastructure.

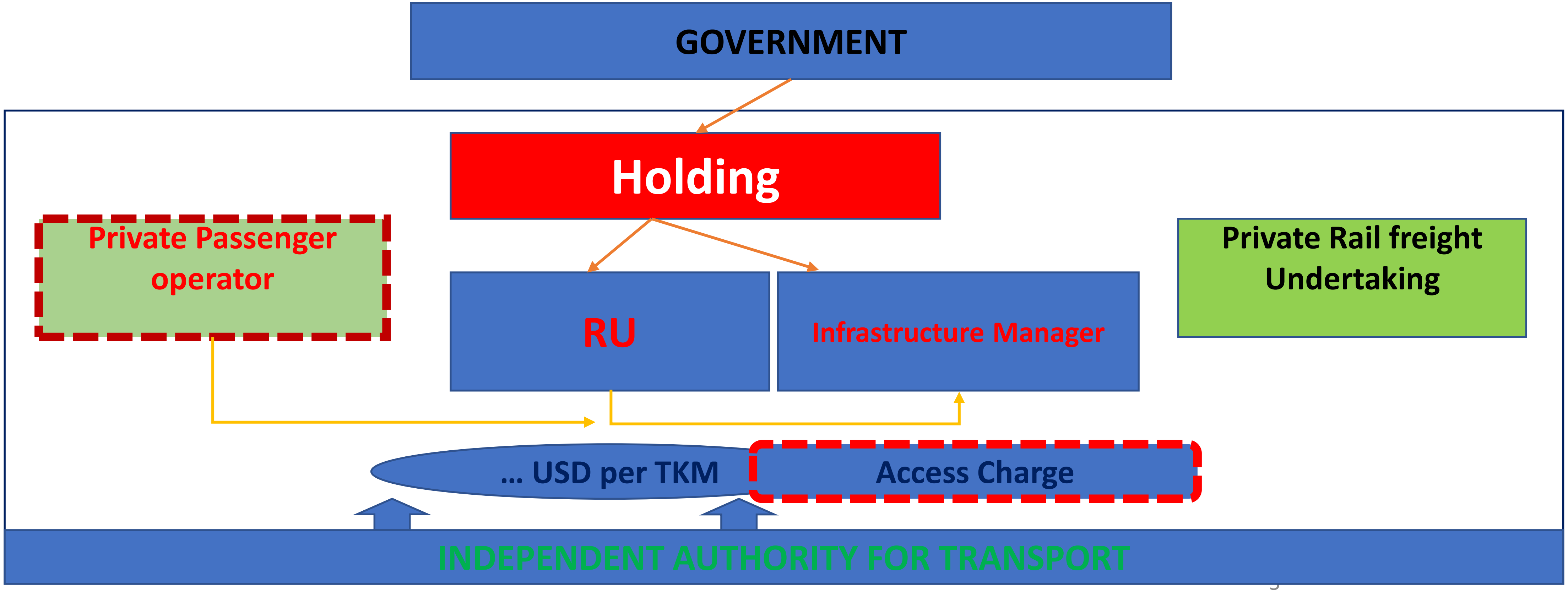
HSR has evolved rapidly in recent years. Initially the operation of HSRs seemed to be a kind of “superior good”, associated to the levels of high income per capita of some European countries.

China entering that market and showing that a HSR service may function efficiently and profitably also in a developing country changed the perspective.

A number of relatively low-income countries are now proceeding with HSR projects.

Source: UIC Data and World Bank

Structure of the sector



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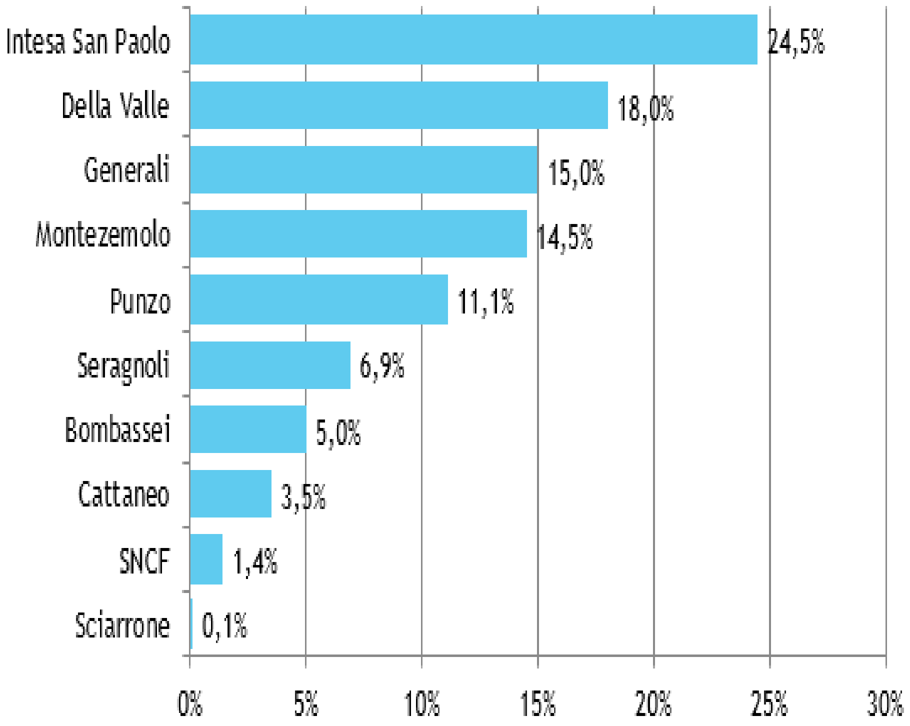
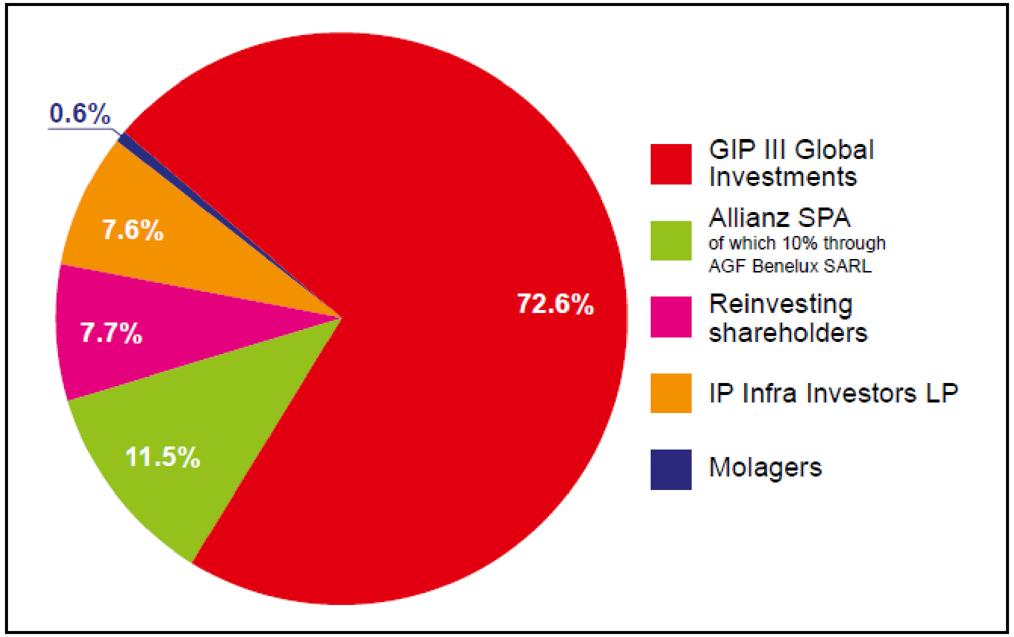
Experience of competition: Italy





GIP → Global Infrastructure Partner

100% in Feb 2018 → 2,5 BLN of USD

2019

4,5 BLN USD

2023

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Experience of competition

Search

Bloomberg Businessweek

The Discount Airline Model Is Coming for Europe's Railways

- Ryanair and EasyJet transformed low-cost continental travel. Get ready for no-frills trains.

By Carol Matlack

Get Ready to Ditch Your Business Class Flight

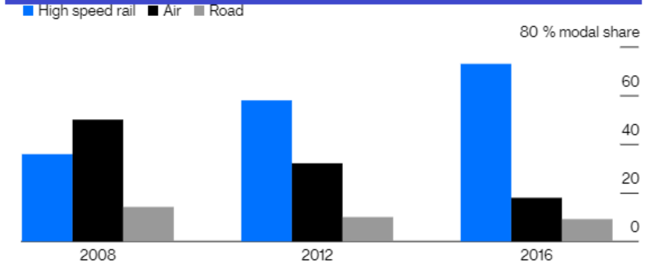
Europe's rail operators have ambitious plans to exploit the flight-shame phenomenon. They still need to make trains consistently convenient.

By Chris Bryant
29 ottobre 2019, 08:00 CET

Bloomberg Opinion

Look at Italy, where upstart Italo-Nuovo Trasporto Viaggiatori SpA has joined the incumbent Trenitalia SpA in offering train services. In just four years the two companies doubled their share of traffic on the Rome to Milan route at the expense of the airlines, while ticket prices fell by about 30%.

Italian Revolution
The train has become the dominant way to travel between Rome and Milan



Source: Andrea Giuricin paper

Competition is the big disruptor in Europe and Italy is the example in Europe for the liberalization.

Spain and France are following the italian example, but other markets will be opened in the next years.

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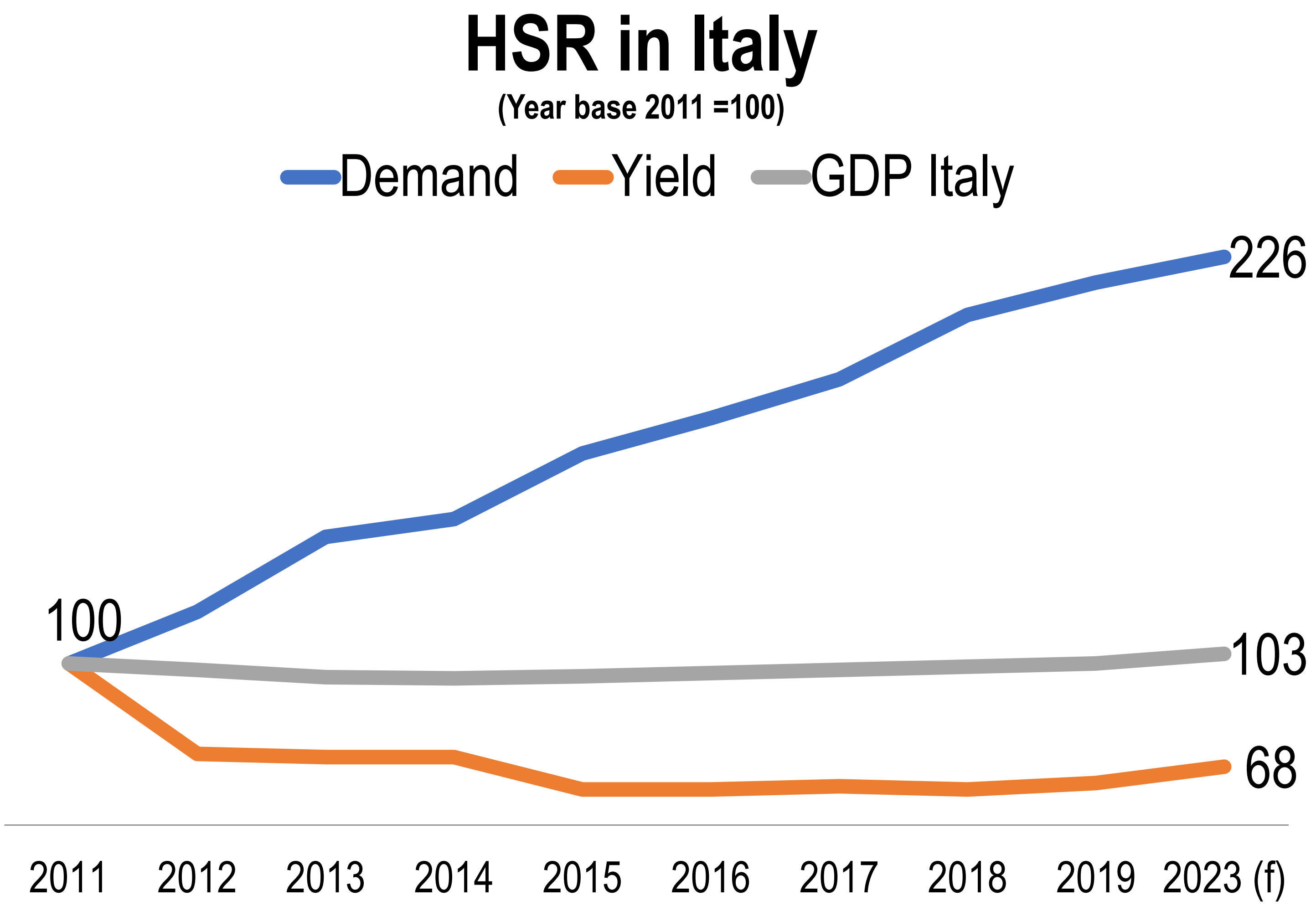
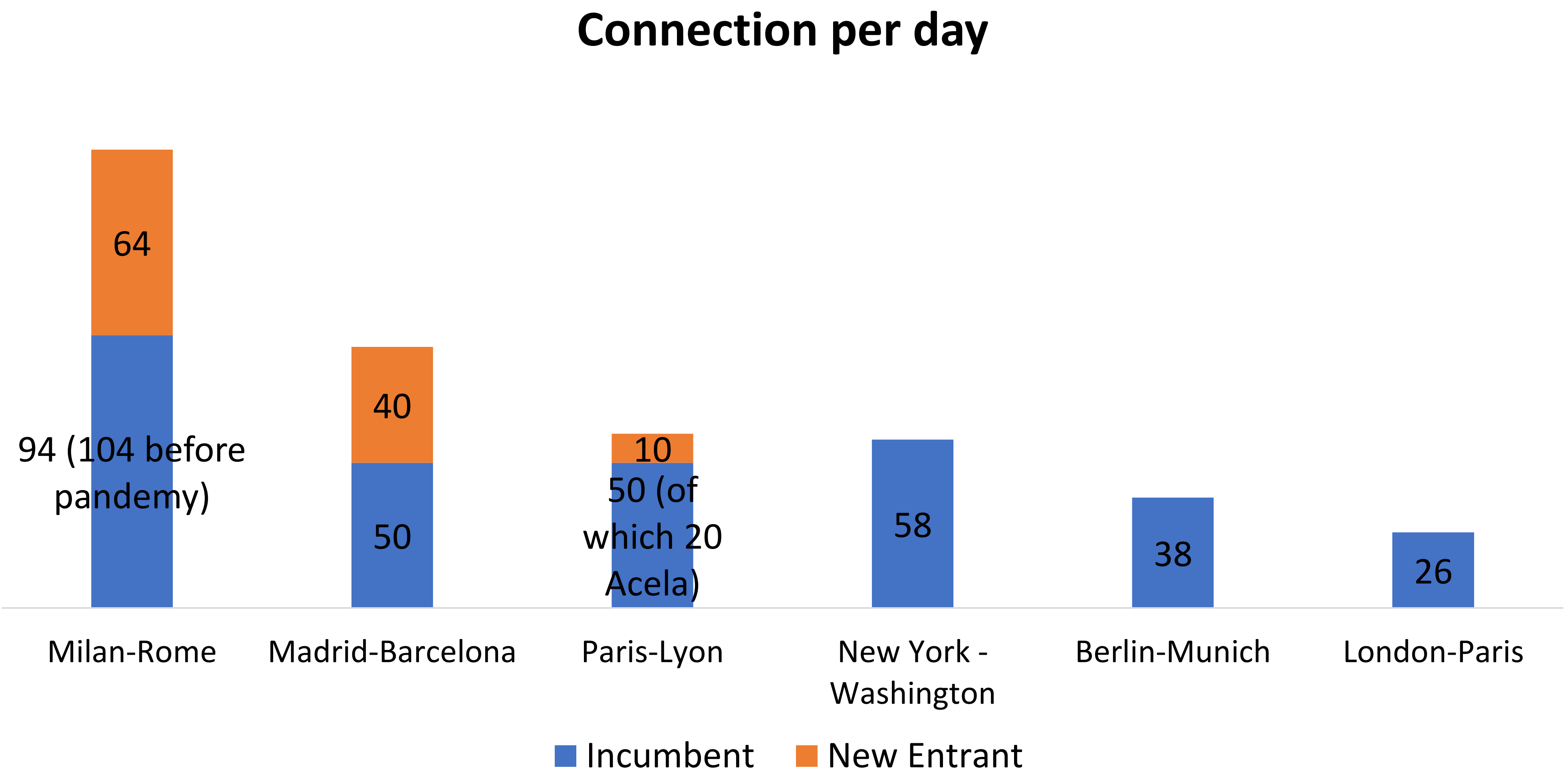
Experience of competition in HSR



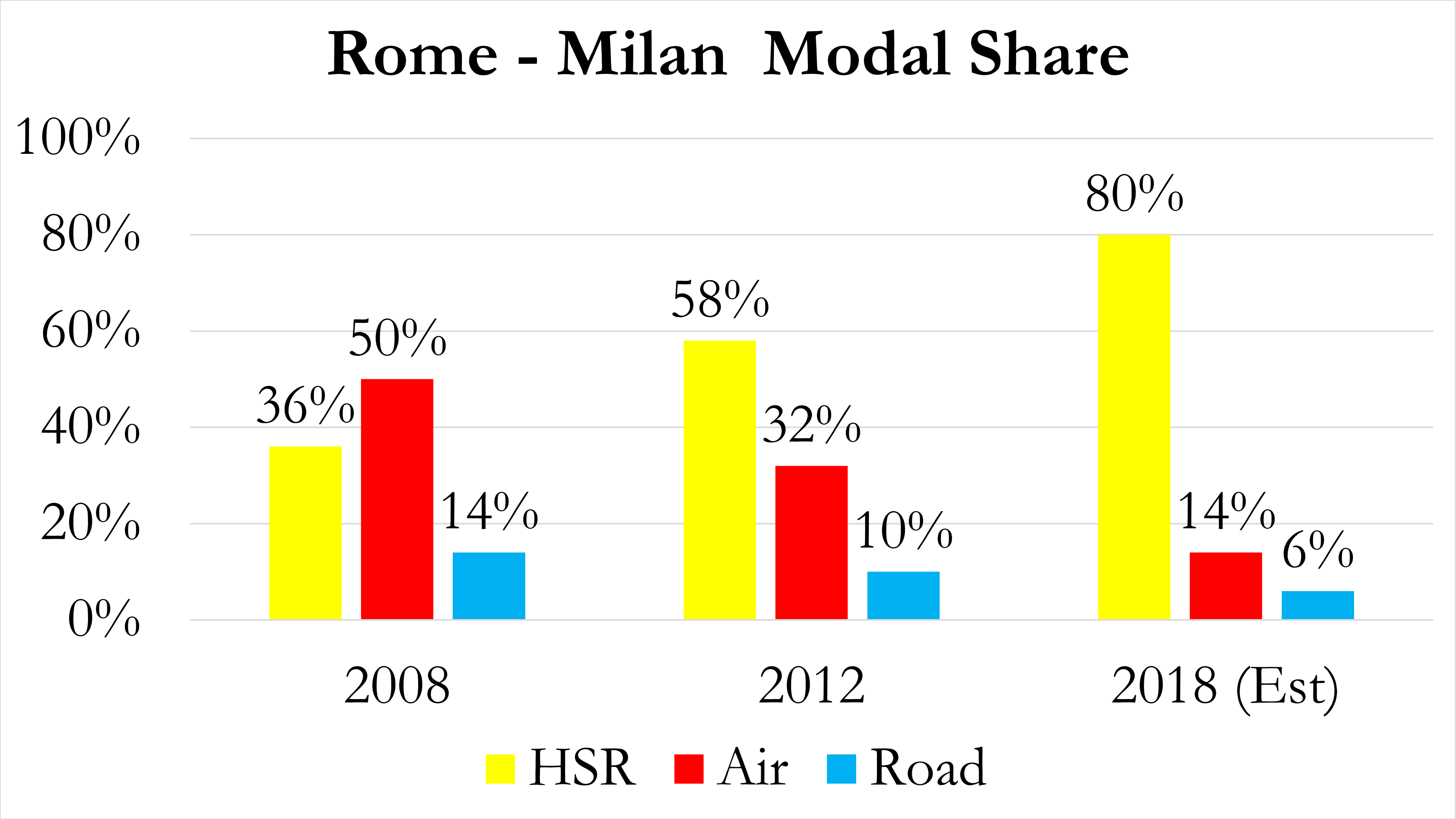
Source: Elaboration from datas of the companies

Benchmarking

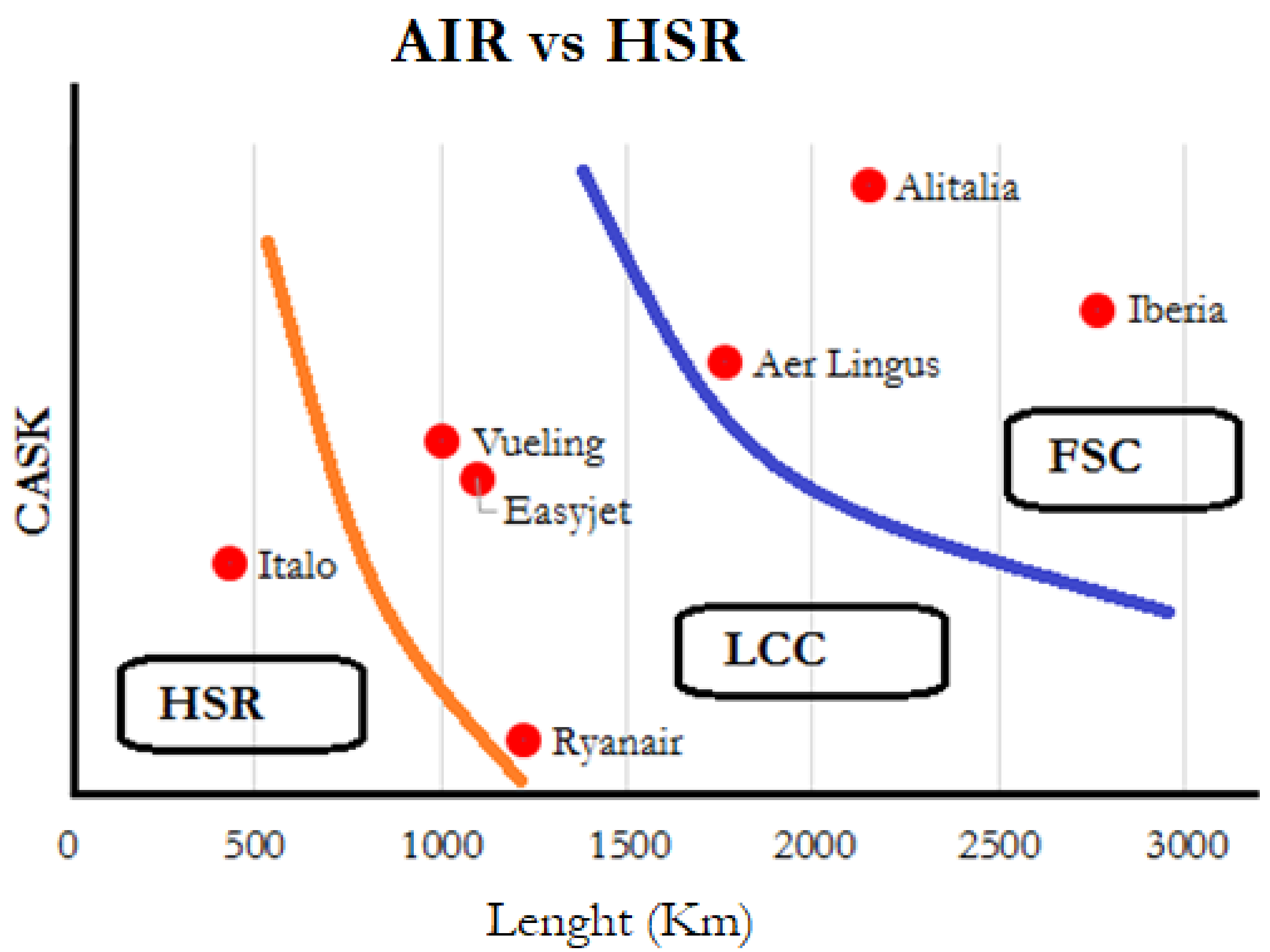


Source: Companies Data estimation

Competition

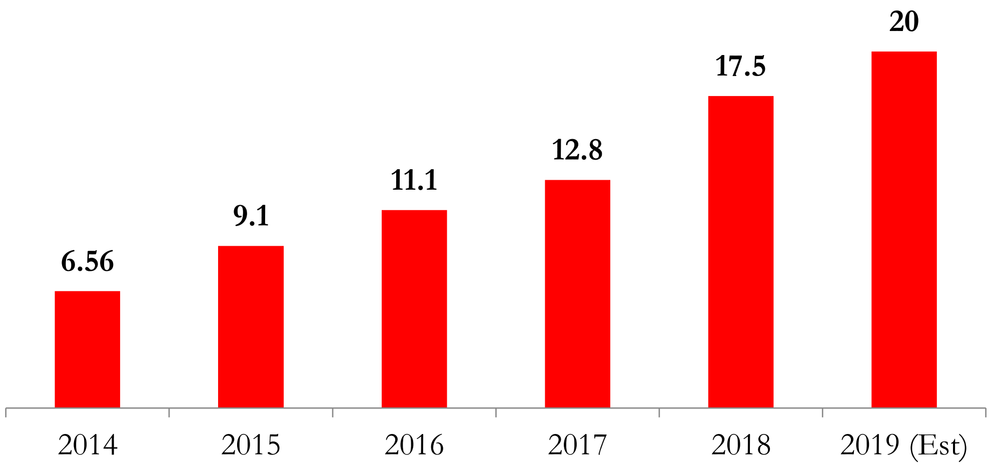


Intermodal Competition

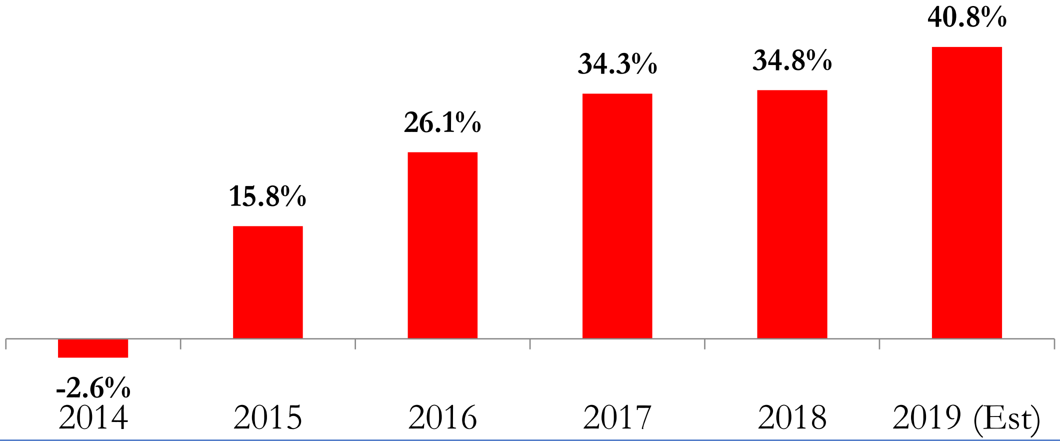


New entrant

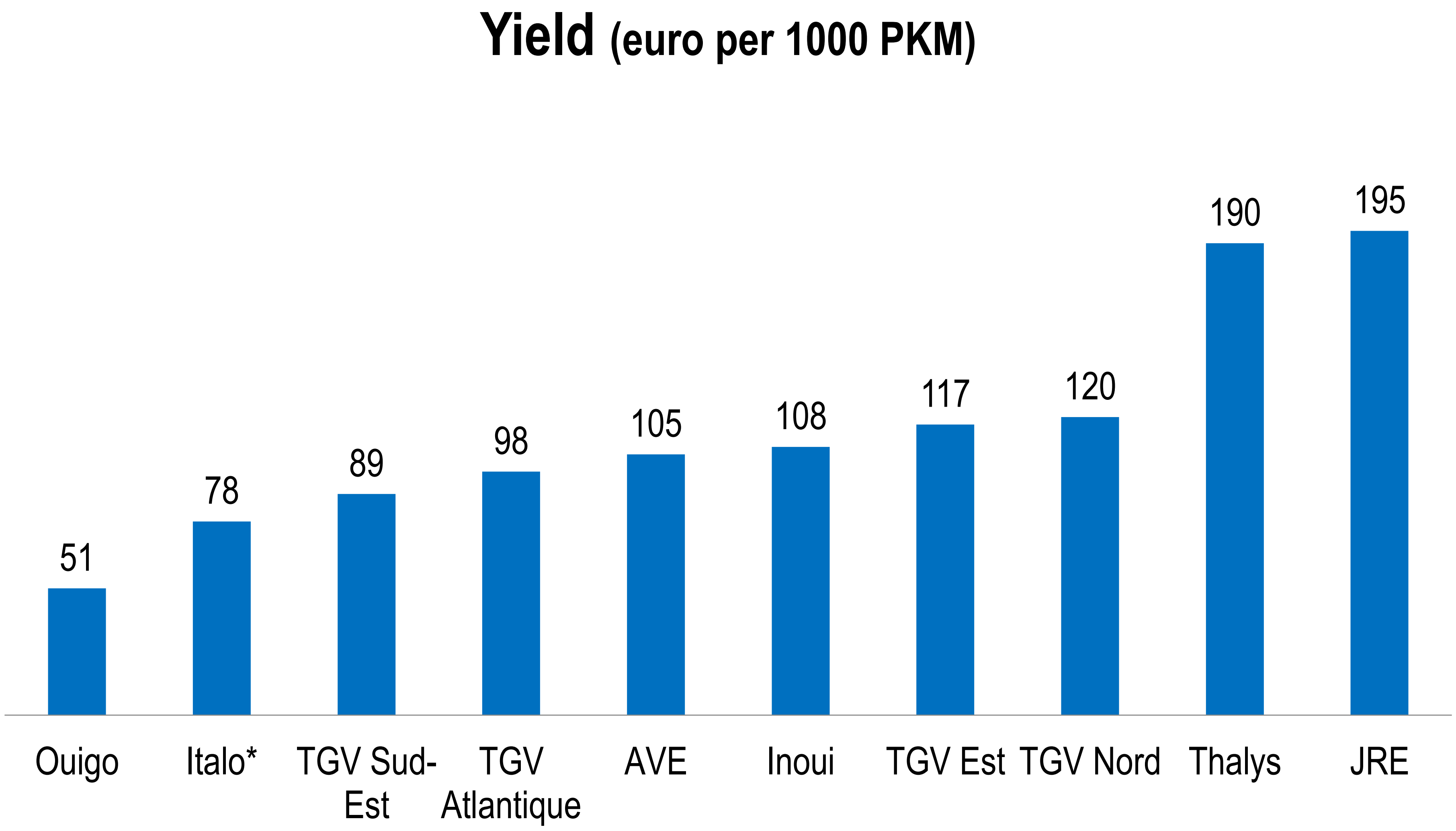
ITALO - Passengers



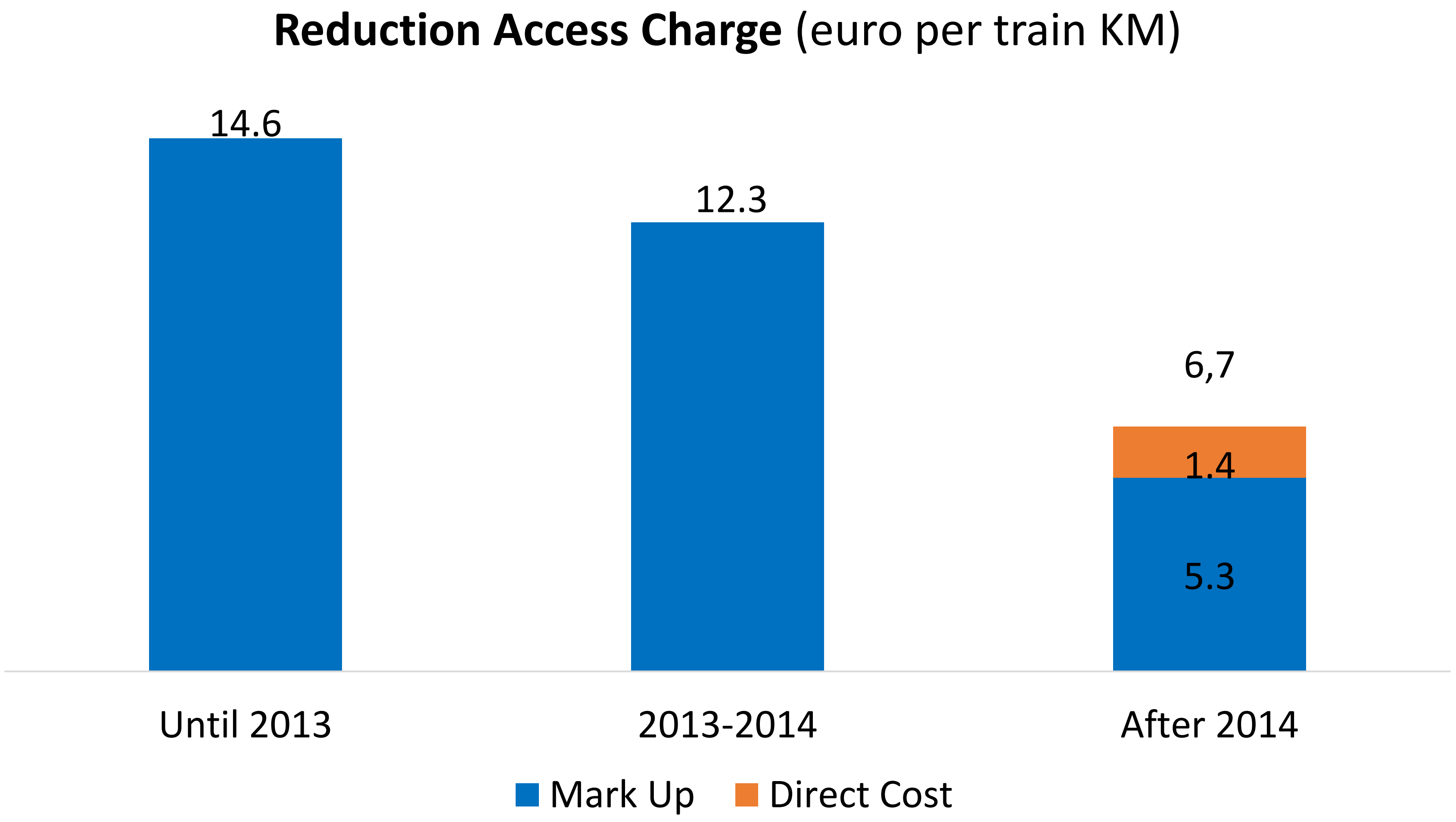
ITALO - Ebitda Margin



Yield


Yield (euro per 1000 PKM)
51
78
89
98
105
108
117
120
190
195
Ouigo
Italo*
TGV Sud-Est
TGV Atlantique
AVE
Inoui
TGV Est
TGV Nord
Thalys
JRE

Competition



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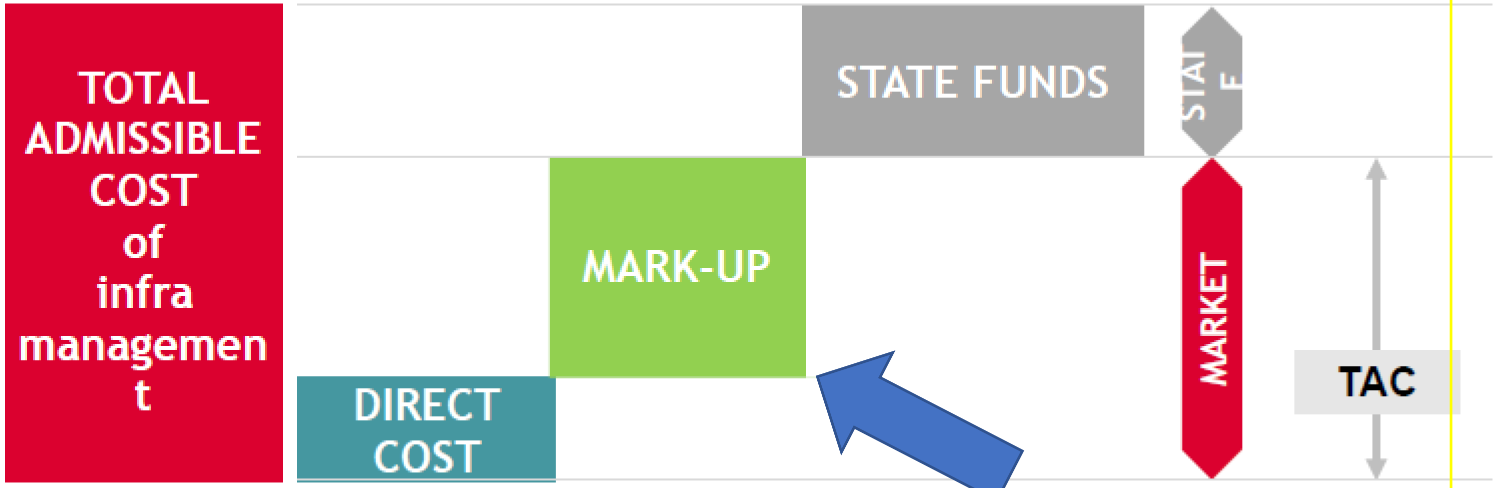
Economic regulation

- Benefit in having more traffic is for the Country, not for the private operators
- Access charge is a tool to attract investments
- Access Charge has to be developed taking in consideration the intermodality competition
- SSC (Simple, stable and clear) Regulation

TAC in Europe

Clear role of the:
- State
- Holding
- IM
- RU

Direct costs, mark-up and financial equilibrium of the IM



To be covered by TAC

To be covered by TAC (if the MARKET CAN BEAR)

Mark up could be used by rail company or Government for their development targets of the system.

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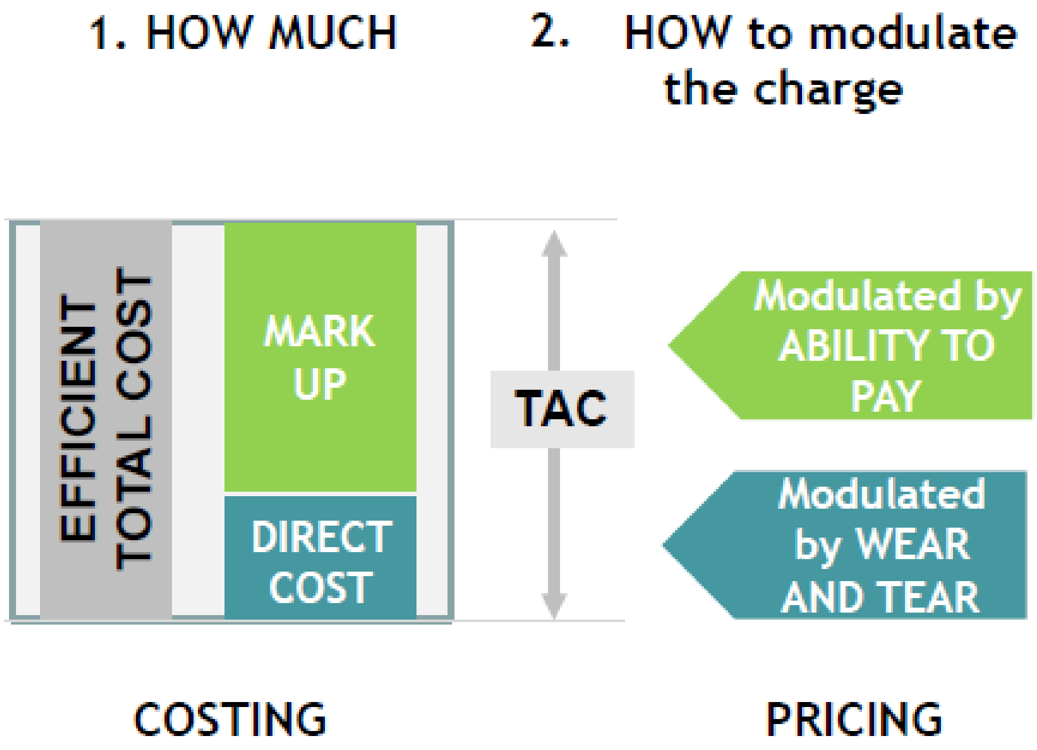
Business model in railways



Striking the right balance in setting the TAC between cost and pricing is key:

- Wear and tear costs to be included in the infrastructure manager's direct costs;
- The mark-up must be modulated by the ability to pay for the different segments utilising the infrastructure.

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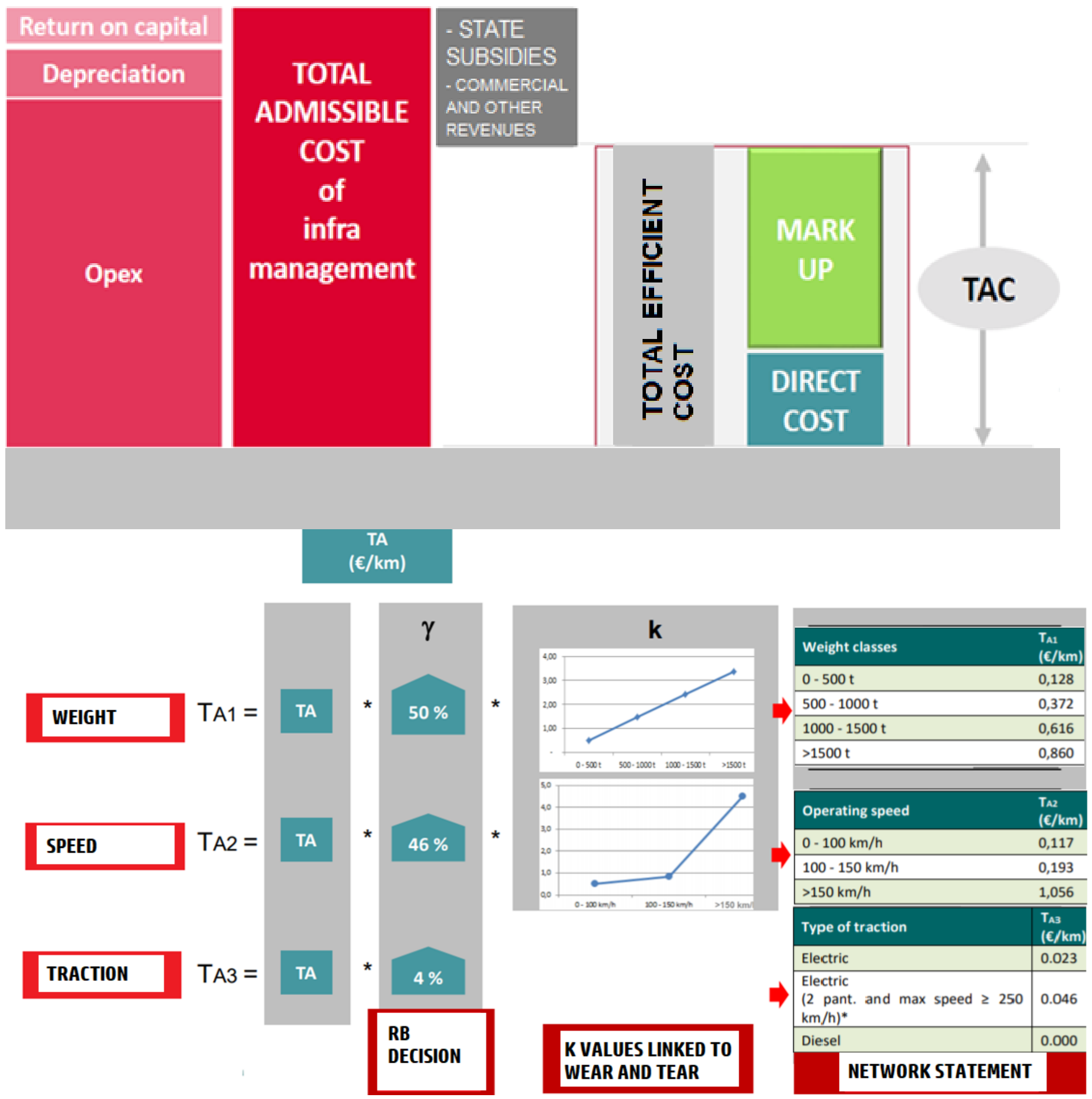
Business model in railways



Weight classes	T_{A1} (€/km)
0 - 500 t	0,128
500 - 1000 t	0,372
1000 - 1500 t	0,616
>1500 t	0,860

Operating speed	T_{A2} (€/km)
0 - 100 km/h	0,117
100 - 150 km/h	0,193
>150 km/h	1,056

Type of traction	T_{A3} (€/km)
Electric	0.023
Electric (2 pant. and max speed ≥ 250 km/h)*	0.046
Diesel	0.000

Context:

Total efficient cost is covered by the track access charge.

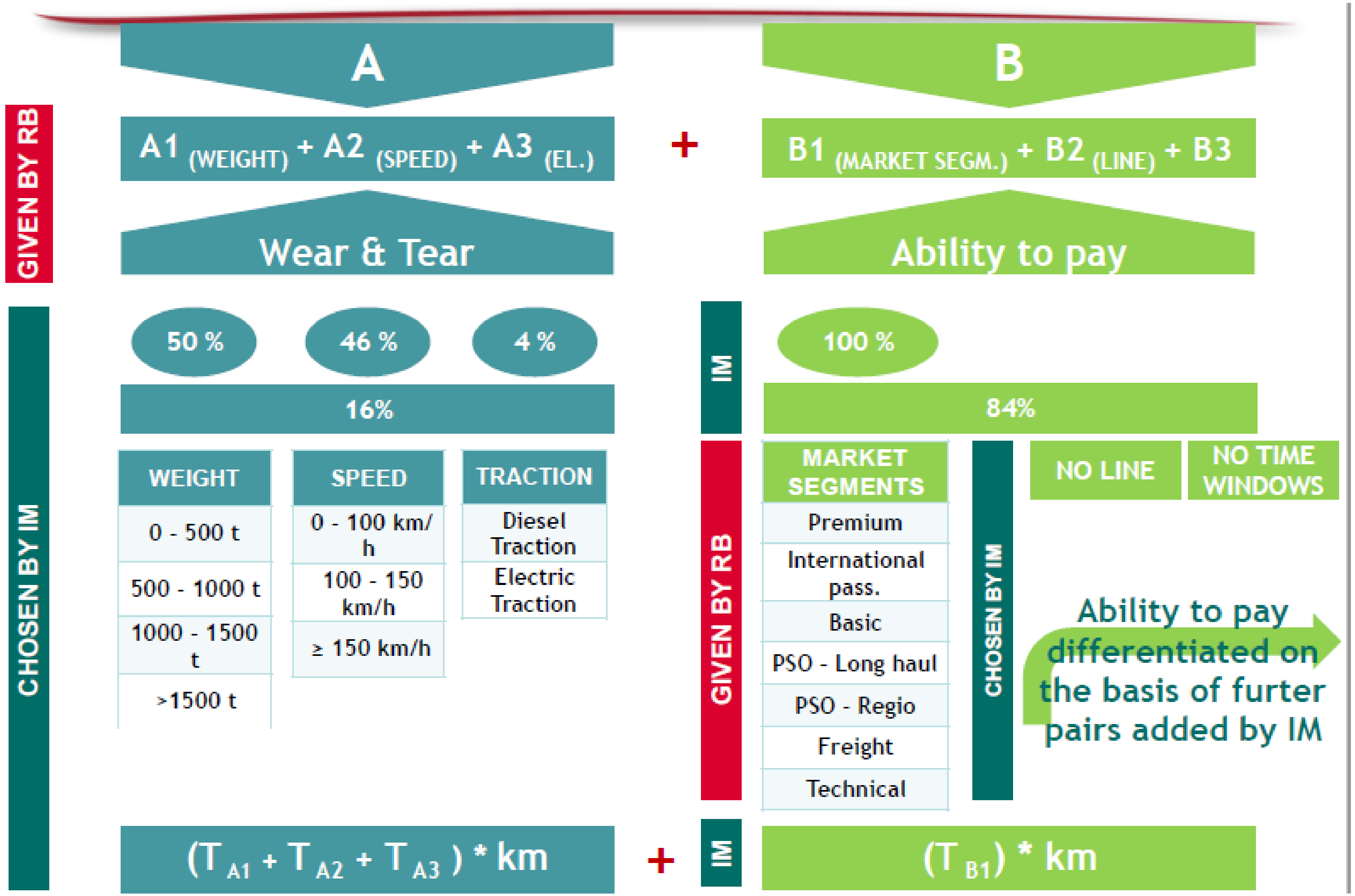
The difference between the total admissible cost of the infrastructure manager and the total efficient cost is given by state subsidies, commercial and other revenues for the IM.

For direct cost there are 3 variables taken in consideration:

- Speed
- Weight
- Traction

The Mark Up part of the Access Charge is driven by the ability/capacity of the different segmented traffic types to pay.

Business model in railways



THANK YOU FOR YOUR ATTENTION

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