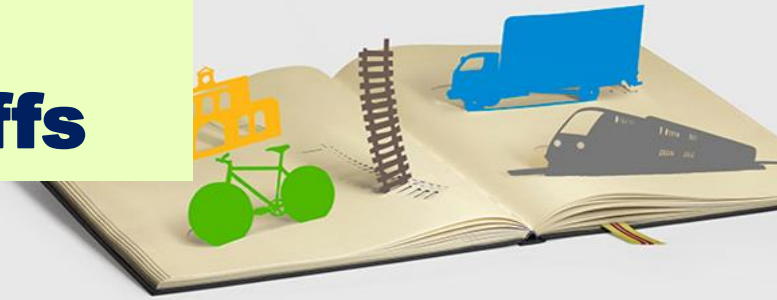


► **Developing
international railway
traffic
Challenges and trade-offs**



Alain Quinet & PRIME SUPPORT TEAM

Justus Hartkamp, Dariush Kowsar, Hans Ring, Oliver Sellnick, Vyngantas Vaitkus

PRIME PLENARY

June 24, 2021

▶ THE SHARED AMBITIONS OF THE EUROPEAN GREEN DEAL



Green Deal Smart and Sustainable Mobility Strategy



- Rail freight traffic : X 2 by 2050.
- Traffic on high-speed : X3 by 2050.
- Scheduled collective travel under 500 km to be carbon-neutral by 2030 within the EU.



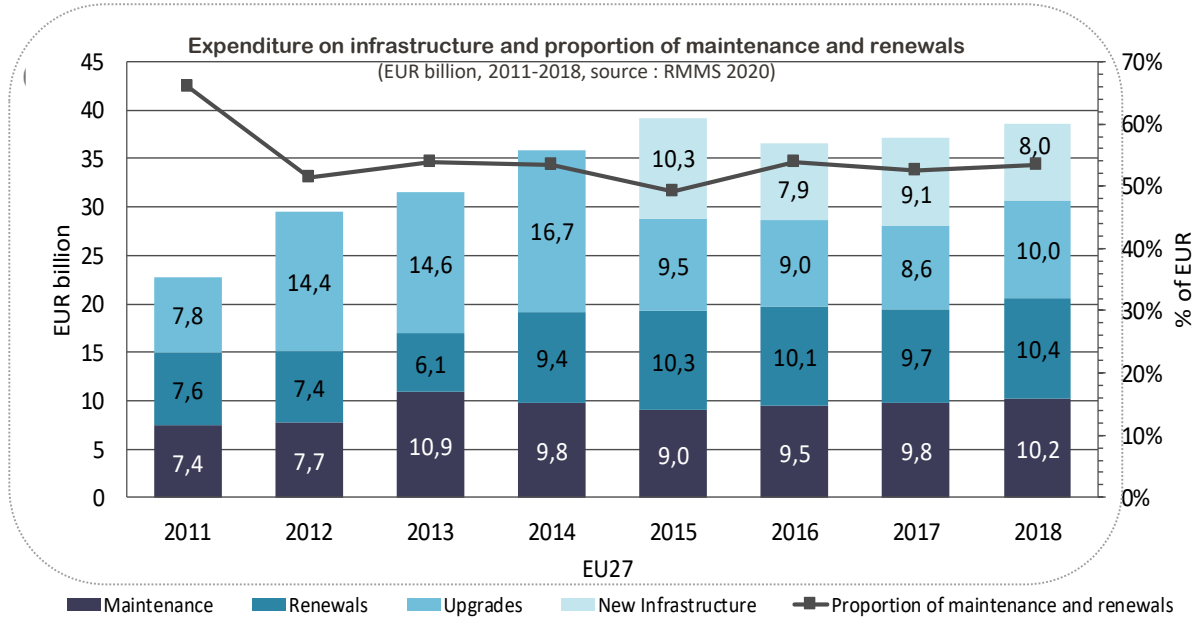
TEN-T & Interoperability requirements



- ERTMS : 2030, 2050 or acceleration to 2040
- But also 740 m for freight trains, electrification
- And possibly additional requirements

- ▶ Increase in demanded performance & quality
- ▶ High level of investments required to improve overall interoperability, digitalise and develop capacity

▶ A STRONG INCREASE IN INVESTMENT TO COME



38B€

Future needs

“The estimated investments needs in EU27 for the period 2021-2030 to complete the TEN-T core network are about EUR 500 billion, and about EUR 1,000 billion for the TEN-T comprehensive network and other transport investments such as decarbonation, digitalisation, safety, maintenance, ...”

► THE FUNDING CHALLENGE

IMs are capital intensive enterprises in a highly competitive service industry

High
fixed costs



Fierce competition
with other modes



TACs = Marginal cost pricing + mark up



Financial objectives

- Balanced cash flows based on a mix of TACs and subsidies
- Return on capital employed generally not a major objective

► THE FUNDING CHALLENGE

Always a mix of
TACs & Investment Subsidies

Sustainability
of fixed costs



- Marginal cost pricing
- Ramsey-boiteux pricing

National preferences
(Affordability)



- social and environmental objectives
- cost of taxation

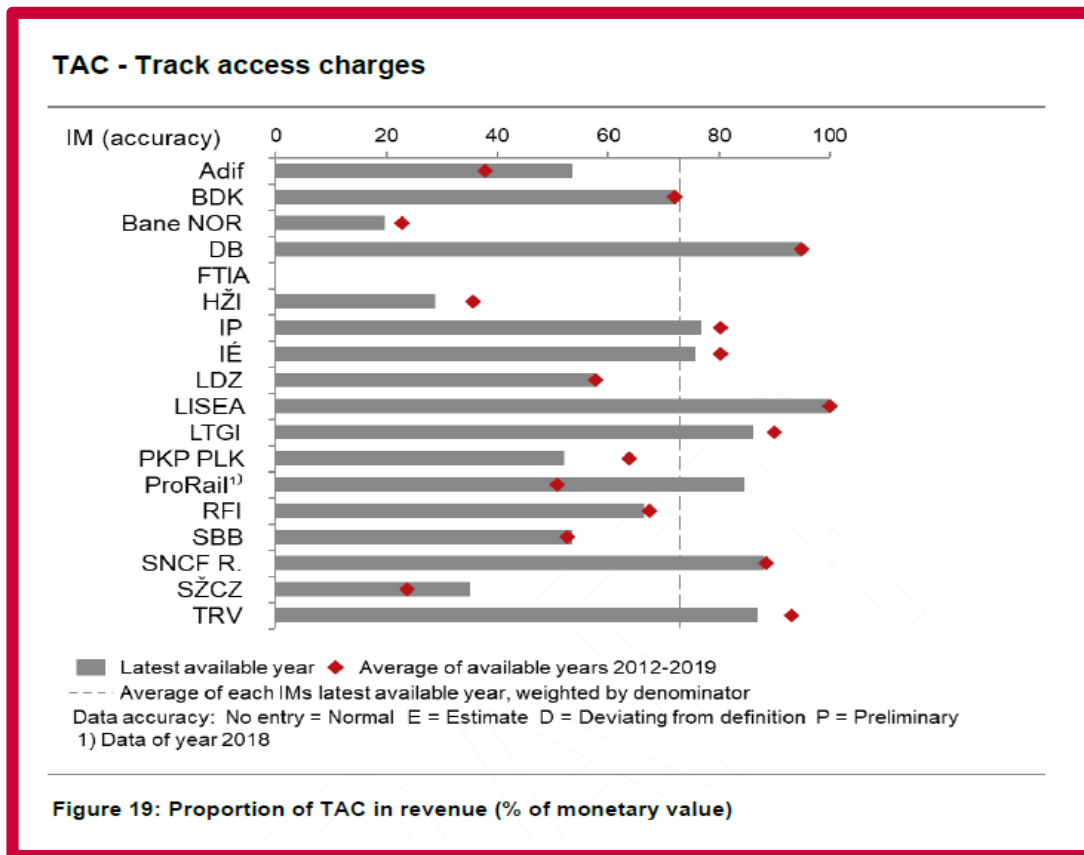


► **COMMON RULES :**
MARGINAL COST PRICING
+ MARKUP



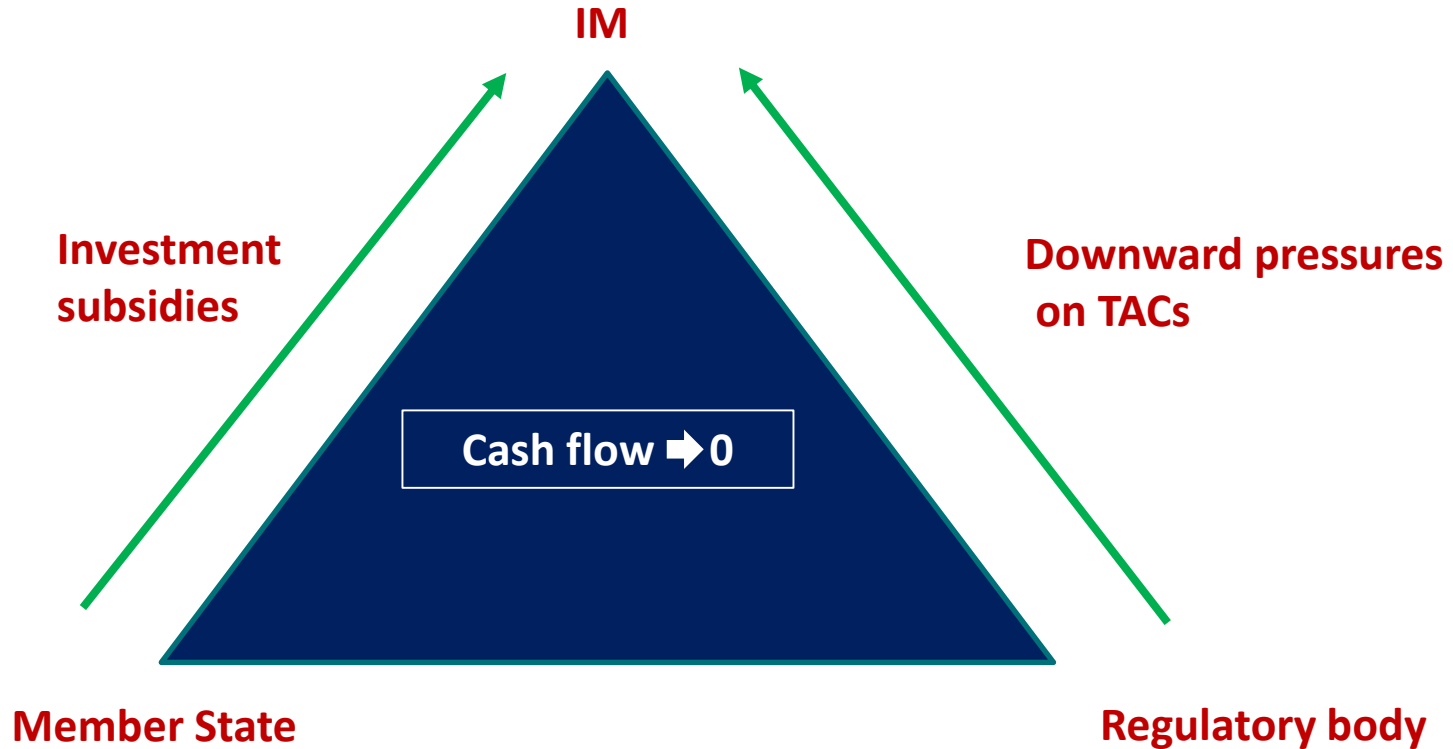
► **SUBSIDIARITY :**
ECONOMIC TESTS
AT THE NATIONAL LEVEL

► THE FUNDING CHALLENGE



- Huge differences across countries
- Differences in the level of TACs are not reported to be an obstacle to interoperability
- Competition from other modes is strong

▶▶ TRADE-OFFS



▶▶ TRADE-OFFS

Strong pressures on track access charging

1

Covid crisis & aftermath

2

Opening up to competition
eg : Italy's 37 % reduction of charges for HS

3

Green deal
Modal shift objectives

▶▶ **TRADE-OFFS**

Role of track access charging

(1) Financing

- ▶ High investment requirements
- ▶ High levels of public debt

(2) Incentives *(use of the network)*

- ▶ Low TACs are not a substitute to carbon pricing
- ▶ Congestion pricing to optimize the use of the network

(3) Risks and Rewards *(TACs based on trains not passengers)*

- ▶ Efforts by RUs to improve capital productivity or attract ridership benefit 100% RUs as long as the number of trains is unchanged

► ISSUES FOR DISCUSSION

1 >>> Are different sources of financing and diversity of track access charges an obstacle to interoperability or to competition?

2 >>> How to finance the modernization of Railways ?

3 >>> How to balance the trade-off between financing and competitiveness ?

4 >>> What benefits could be expected from carbon pricing ?