Passenger demand forecast and opportunities for Rail Baltica

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• Expected impacts of Rail Baltica on rail, road and air travel
ITF Global Inter-urban Passenger Transport Model

Projection of key variables
Global Inter-urban Passenger Travel Demand Forecast, billion pkm
Inter-Urban Passenger Travel Demand Forecast, b pkm
ITF Global Inter-urban Passenger Transport Model

Demand Generation Sub-model
• Total Inter-urban mobility by country as a function of socio-demographic variables and transport supply characteristics.

Mode Share Sub-model
• It is a national PKM split model to explain the impacts of socio-economic variables, car ownership rate, transport supply, accessibility levels, among others, on the aggregated share of each transport mode in total passenger-kilometres travelled.
Comparison of Rail Baltica corridor with other HSR corridors

• Population
• Distance between cities
• Journey times
Population

- Total population relatively small (2016, Eurostat)
- City population comparable to that served by HSR lines (e.g. Turin 800k, Naples 960k, Lille 227k)

- Catchment area potentially increased with Helsinki - Tallinn tunnel (92km, 9-13b € estimated cost)
Distance between cities

• Tallinn – Riga – Kaunas – Warsaw ~1000 km
• Similar HSR links:
  – Paris – Lille: 333 km → Tallinn - Riga or Riga – Kaunas – Vilnius
  – Madrid – Barcelona: 621 km → Riga – Warsaw
  – Turin – Naples: 900+ km → Tallinn – Warsaw
Journey times vs. distance for rail and air

Expected Impacts of Rail Baltica

• Mode shifts
• Rerouting
• Induced demand
Passenger Market to Western Europe

Mode shift

• Likely to occur from
  – Road (public, private)
  – Aviation

• On competing routes (including rail)
• Subject to competitive pricing
Passenger Market to Western Europe

Rerouting

• Rail line strategically placed to serve the airports
• Opportunities for airports to extend their catchment areas and develop as hubs (also for other markets), but also threats of increased competition
Regional Passenger Market

Potential for development of multimodal integration links

• Example: extension of the Tallinn's tram network to Lennart Meri airport
Regional Passenger Market

Extension of catchment areas for hubs of all modes:

• Opportunities to concentrate the flows of passengers and develop more direct services
• Increased competition between hubs and services (providing the same service), Different niches possible
• Labour market impacts e.g. commuters between the capitals
Additional considerations

• Issues to be addressed:
  – Capacity allocation between freight and passenger traffic
  – Infrastructure cost allocation
  – Operational issues relating to different speeds and equipment characteristics

• Impacts only possible if there are economic benefits (e.g. total door-to-door travel cost, including the value of time)
Thank you!

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