

# Passenger demand forecast and opportunities for Rail Baltica

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- ITF Global Inter-urban Passenger Demand Forecast
- Expected impacts of Rail Baltica on rail, road and air travel

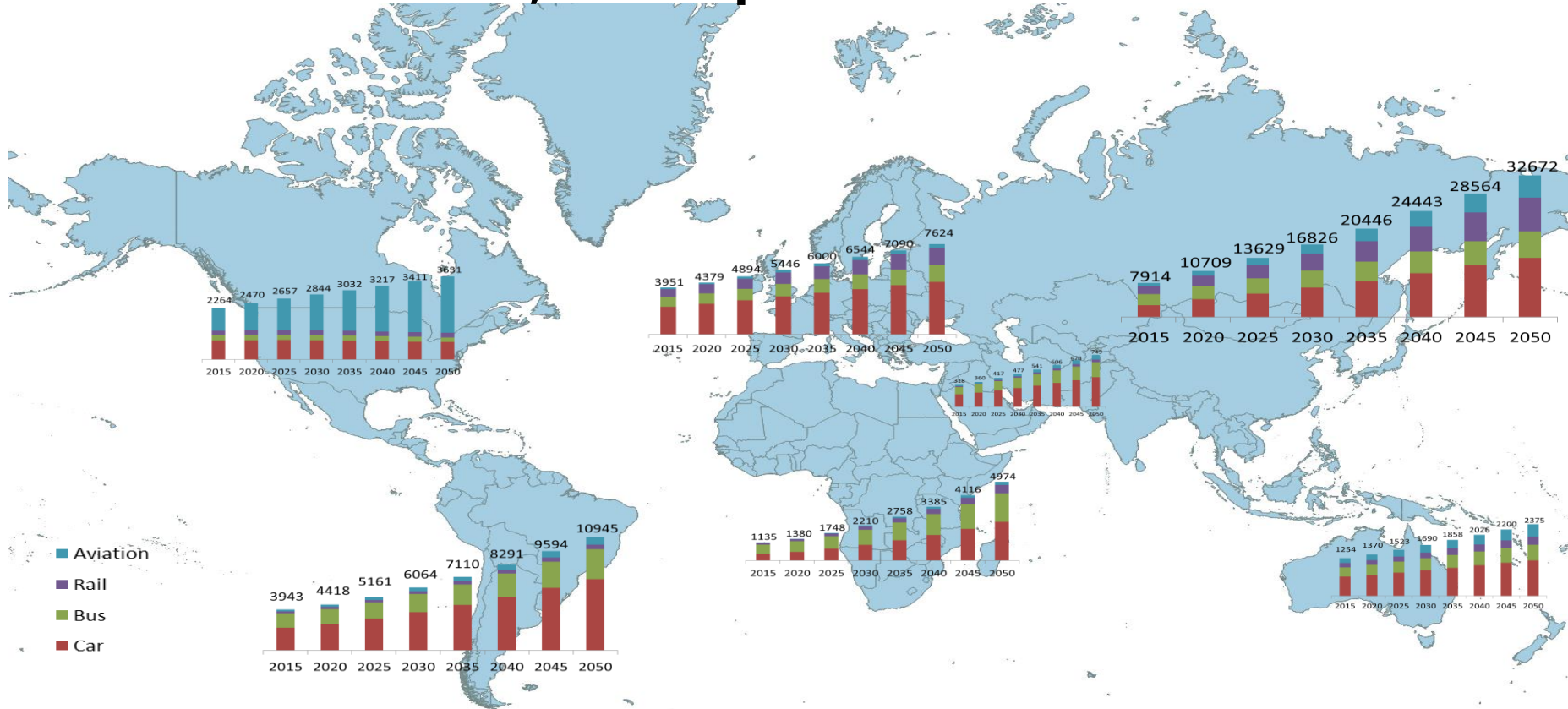


# ITF Global Inter-urban Passenger Transport Model

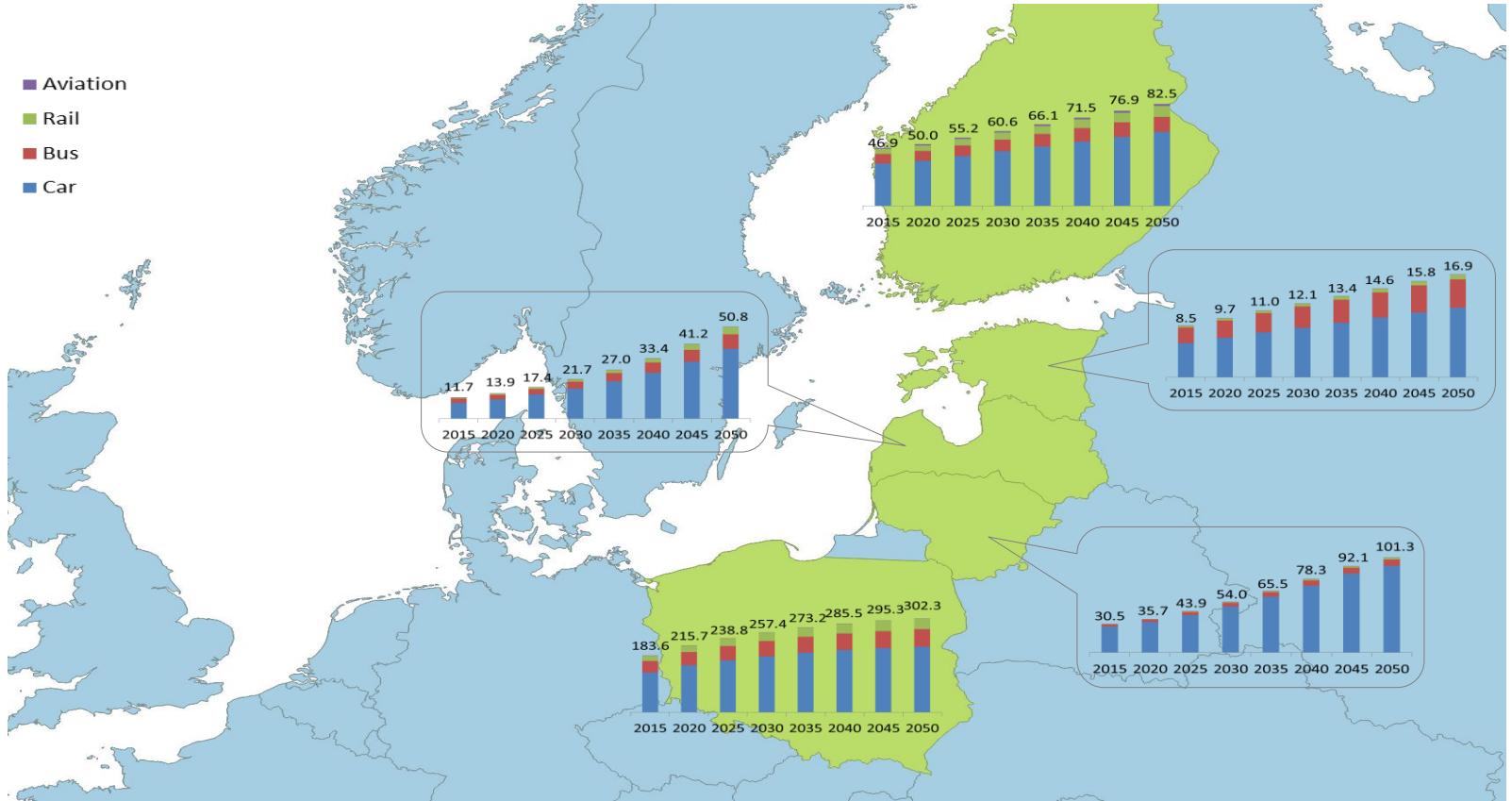
Projection of key variables



# 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.



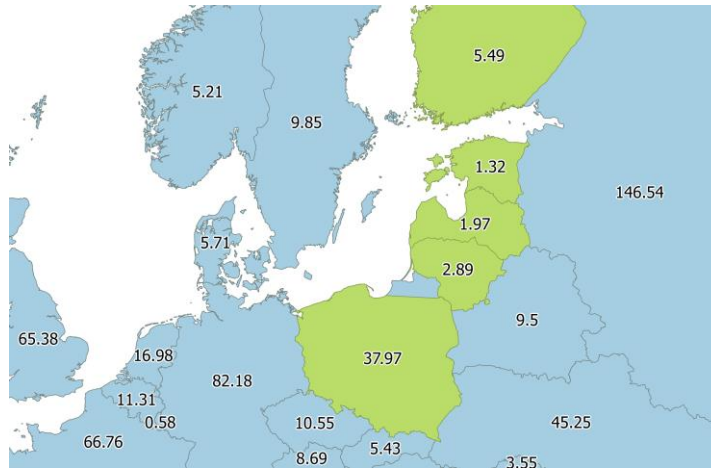
# Comparison of Rail Baltica corridor with other HSR corridors

- 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)



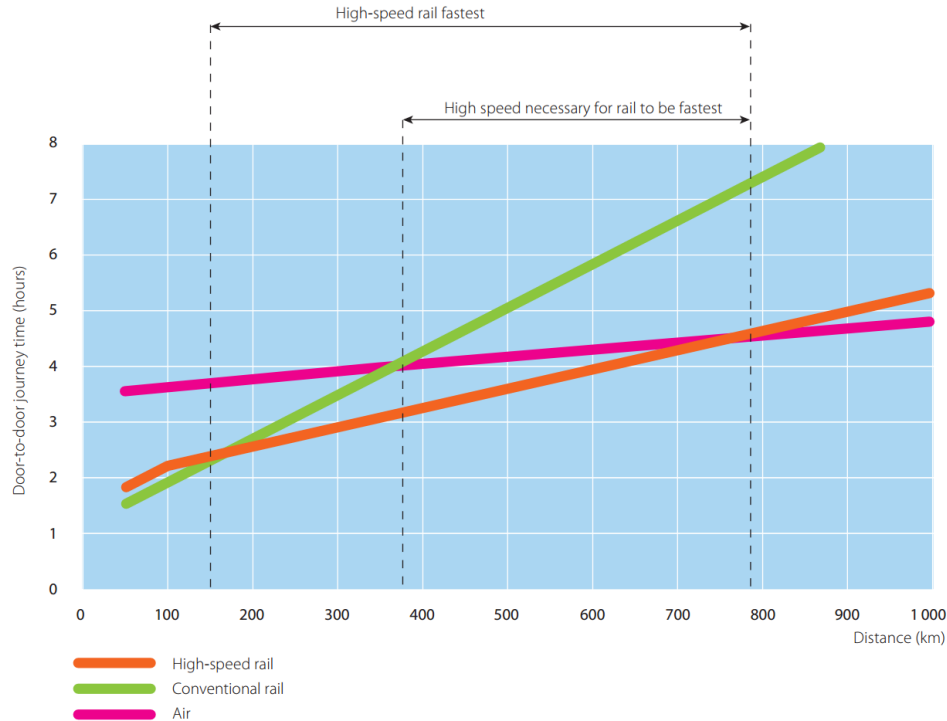


## Distance between cities

- 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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