5th MORE TEN-T workshop – Fostering modal shift for passenger journeys, initiatives for reducing pressure on the TEN-T road network and corridor roads

13 December 2021

Giacomo Potenza

ERA Analysis Team

(giacomo.potenza@era.europa.eu)

EUROPEAN UNION AGENCY FOR RAILWAYS

The latest EU policy priorities

- Transport generates ¼ of EU's greenhouse gas emissions and 75% of Europeans live in urban areas;
- External costs of transport account for 987 BEUR (83% from road) of which 27% due to congestion and 44% to environmental costs;

The European Green Deal and Fit for 55:

- By 2030, -55% emissions
- By 2050, -90% transport emissions and carbon neutrality.

The Sustainable and Smart Mobility Strategy, by 2030:

- Scheduled collective travel <500 km carbon neutral;
- 100 climate-neutral cities;
- Doubling high-speed rail traffic;
- Seamless multimodal electronic ticketing

… and by 2050:

- Tripling high-speed rail traffic;
- Fully equipped TEN-T comprehensive network for high-speed connectivity;
- Full internalisation of external costs of transport

The European Year of Rail 2021

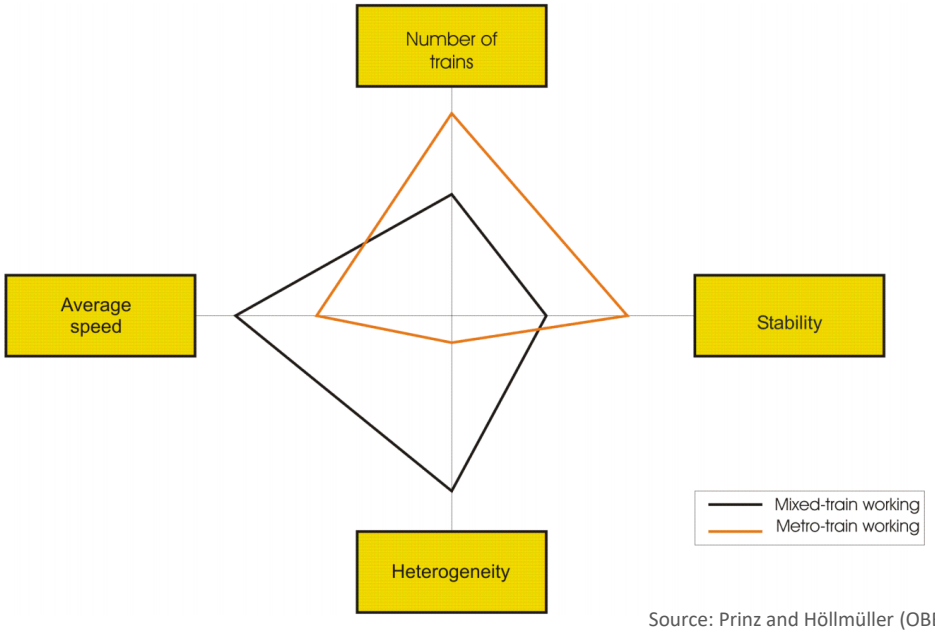
EUROPEAN UNION AGENCY FOR RAILWAYS

The role of rail in urban mobility

- Rail provides in many cities mass transit for commuters, and it is part of multimodal networks coordinated by local authorities (RER, S-Bahn, Cercanias);
- Rail is the most environmentally-friendly mode of transport and a game changer for emissions reduction;
- Stations are key transport hubs in cities and a focus point for people and businesses;
- Urban rail nodes are often faced with very high congestion resulting in:
  - Delays and low quality
  - Lack of additional trains offered
  - Sub-optimal travel speed and frequency of services
  - Non-seamless multimodal connectivity

The challenge of rail in urban transport

- The aim is often to have commuter trains which become metro-style type of services. However, rail has some specific parameters to address:



Source: Prinz and Höllmüller (OBB)

- The headway of trains is dependant on infrastructure, technology and heterogeneity of rail traffic.

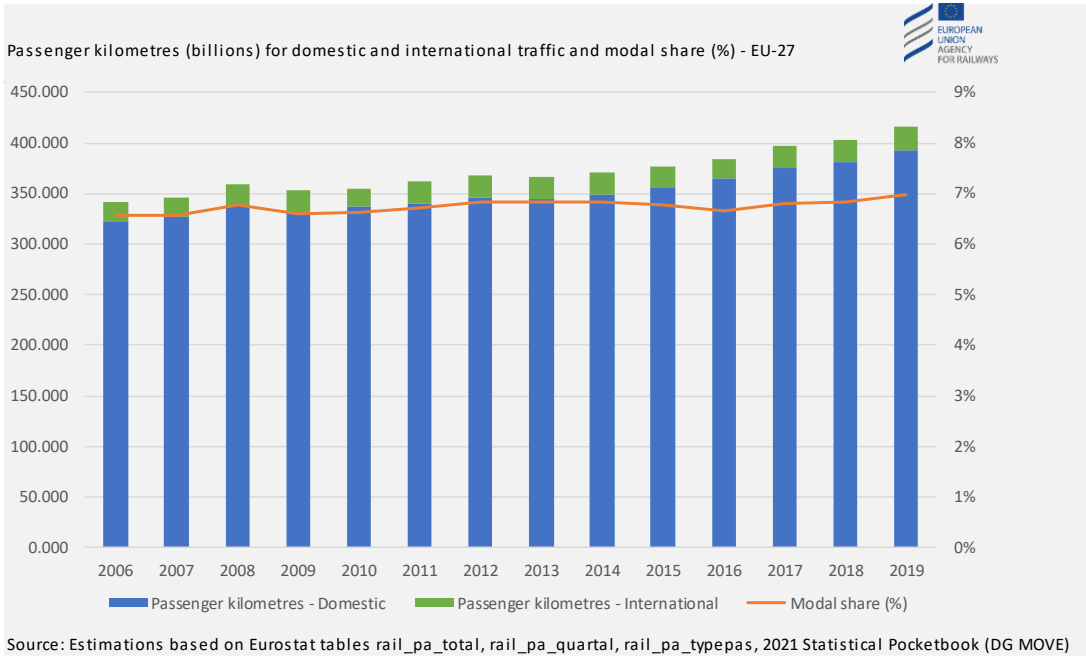
EUROPEAN UNION AGENCY FOR RAILWAYS

How to shift more people to rail

- Rail has to become attractive for urban mobility by offering:
  - Frequent, fast, reliable services
  - Integration with other transport modes (journey planners, ticketing, fares)
- The separation of rail traffic flows in urban nodes helps to:
  - Reduce heterogeneity of trains
  - Free-up capacity on existing tracks by building new high-speed or dedicated lines for long-distance and international trains
- Urban planners and policy makers need to consider:
  - Investments on heavy infrastructure (new tracks, larger stations, through stations, tunnels, removal of level crossings)
  - Investments on technology (ERTMS, advanced rail traffic control systems)
  - Rail tracks in an urban context require careful planning to be coordinated with the road network and cadastral plans in order to minimize interferences

Passenger modal share in international rail

- Rail passenger transport is very limited in international journeys. Interoperability barriers hinder the development of international trains;



Source: Estimations based on Eurostat tables rail_pa_total, rail_pa_quartal, rail_pa_typepas, 2021 Statistical Pocketbook (DG MOVE)

- The TEN-T policy and the TSI (Technical Specifications for Interoperability) are a key element to enable international rail transport in the EU;
- Connecting major cities and airports with high-speed rail can increase the modal share of rail in international transport;
- Urban planners need to consider the new traffic flows that will require additional capacity in urban rail networks. Cities are often bottlenecks of the TEN-T rail corridors.

EUROPEAN UNION AGENCY FOR RAILWAYS

Making the railway system work better for society.

Follow us on ERA_railways

Discover our job opportunities on **era.europa.eu**

ISO 9001:2015
BUREAU VERITAS
Certification