

International Seminar

Conclusions and Implementation of the Foster Rail project

WP2 – Rail Business Scenario

Date: 2016-06-21

Venue: Congress Centre - U Hájků, hotel Grandior,
Na Poříčí 42, Prague 1



EVROPSKÁ UNIE
Evropský fond pro regionální rozvoj
Operační program Podnikání
a inovace pro konkurenceschopnost



NÁRODNÍ TECHNOLOGICKÁ PLATFORMA
Interoperabilita železniční infrastruktury
CZECH TECHNOLOGY PLATFORM
Interoperability of Railway Infrastructure



Introduction

- **Foster Rail Business Scenario** will serve to **frame and support** the further detailing of the **roadmaps** developed in Foster Rail. The business scenario represents a consented and agreed **vision** among a dedicated **group of rail stakeholders and experts** for the European rail system **up to 2050 beyond**.
- Background for proposal of Rail Business Scenario:
 - Transport demand prognoses and forecasting
 - Social and Economic Trends and Drivers
 - Globalization and Growth
 - Demographic changes and changing lifestyles
 - Land-use and Urbanization
 - Sustainable development and climate adaptation
 - Public sector and private sector financing
 - Development technology
 - European Policy and Governance



Expectations and Visions

- Rail Business Scenario following on ERRAC report „The Regional and Suburban Rail Market Analysis,“ (2005).
- The expectations and visions were proposed for **five selected rail business areas:**
 - Long-distance passenger rail
 - Long-distance rail freight
 - Regional and urban rail freight
 - Regional and local passenger rail
 - Urban rail system
- These areas are shortly introduced on following slides.



Long-distance passenger rail

- **The European rail industry is expected to strengthen its lead supplier role.** A consolidation of **European High-speed-rail (HSR)** industries with one or two large European system providers is expected.
- **Large European rail operators are foreseen to drive HSR services in Europe.** With rising prosperity, increasing household budget shares are expected to be spent on high and premium rail travel.
- On dedicated **new routes**, distances of up to **800 km** may be covered in **less than 4 hours**, and on **mixed infrastructure in 5-6 hours**.
- Long-distance rail services are diversifying. Next to the premium rail segment, low-budget/ low-cost train offers are **serving the needs of population with lower income**. **A renaissance of over-night trains is still uncertain.** Today these services are still running at a deficit for rail operators. With rising energy costs as well as improved service concepts these trains may serve as **cost-efficient alternatives to long distance overnight bus services**.



Long-distance rail freight

- For long-distance rail freight transport a consequent shift to rail strategy in accordance with the white paper is expected to be rolled out up to 2050. **Long-distance freight transport chains for distances above 300 kilometres (vs. 1000 kilometres today) are foreseen to be shifted to a large extent to rail and waterborne.**
- Strong rail links to **European Union's neighbourhood countries** and **Eurasian rail connections** are expected to be implemented.
- Cargo handling and shunting in **large freight hubs**, in particular ports and **trimodal hubs**, is expected to be fully autonomous.
- A combined road-rail strategy is crucial to achieve the **white paper** targets. Although infrastructure capacity for rail is expected to increase, it may be still not sufficient to absorb the growing freight transport demand. It would be necessary **to use existing infrastructures** with increasing their capacity.



Regional and Urban Rail Freight

- **Regional rail freight is expected to be revitalized *inter alia* by public financial support for rail freight business. Road user charging and access regulations will support shifting particular freight transport volumes from road to rail.** However, how far this trend takes off depends on regional policy engagement and willingness at the European policy level to support, or on the contrary to block off such regional strategies.
- **Regional and local logistics centres** are expected to be highly self-sufficient regarding energy and material use and embedded in a smart grid infrastructure.
- With the roll out of the white paper strategy, in particular regional and local rail freight has to be revitalized. **Large interregional freight hubs have to be integrated with regional hubs and urban logistics centres.**



Regional and Local Passenger Rail

- **Regional and local area passenger rail is expected to expand its role as the main transport mode in urban areas. Access restrictions and charging for individual car travel support this trend.** Regional and local climate strategies are targeting the **reduction of conventionally fuelled vehicles**. The increase in light rail transit, tram and bus services is expected to be enormous with such aims.
- Cycling and walking are main options for the first and last mile. **Sufficient entrainment options for bikes (bikes in trains)**, bicycle parking and bicycle sharing have to be provided. City walking has to be better taken into account.



Urban Rail Systems

- **Mass transit in metropolitan areas is expected to be fully intermodal**, with main shares among light rail, metro, tram, bus services and cycling and walking. Technologies are converging with **tram and train into tramtrain systems** and **light-rail** at the many routes without sufficient traffic to support automated metro systems. However, in areas where basic rail infrastructure does not yet exist, bus rapid transit systems may be given priority.
- Building up and financing metropolitan and urban rail infrastructure in the 21st century is expected to be based on a **diversity of public and private sector investment**. In some regions in Europe urban transport may be in future up to 100% funded by the public and offered at low charges to local citizens to politically support a shift to public transport. **Due to public budget constraints** it is expected that decreasing budget shares may limit investment in new infrastructure and rolling stock, and lead to more emphasis on the **refurbishment and renovation of existing infrastructure and equipment**.



EVROPSKÁ UNIE
Evropský fond pro regionální rozvoj
Operační program Podnikání
a inovace pro konkurenčeschopnost



NÁRODNÍ TECHNOLOGICKÁ PLATFORMA
Interoperabilita železniční infrastruktury
CZECH TECHNOLOGY PLATFORM
Interoperability of Railway Infrastructure

Thank you for your attention!

Jaroslav Vašátko