



High-speed from a perspective of a small Central-European country

Jindřich Kušnír, Ministry of Transport
Radek Čech, SZDC

EU transport policy

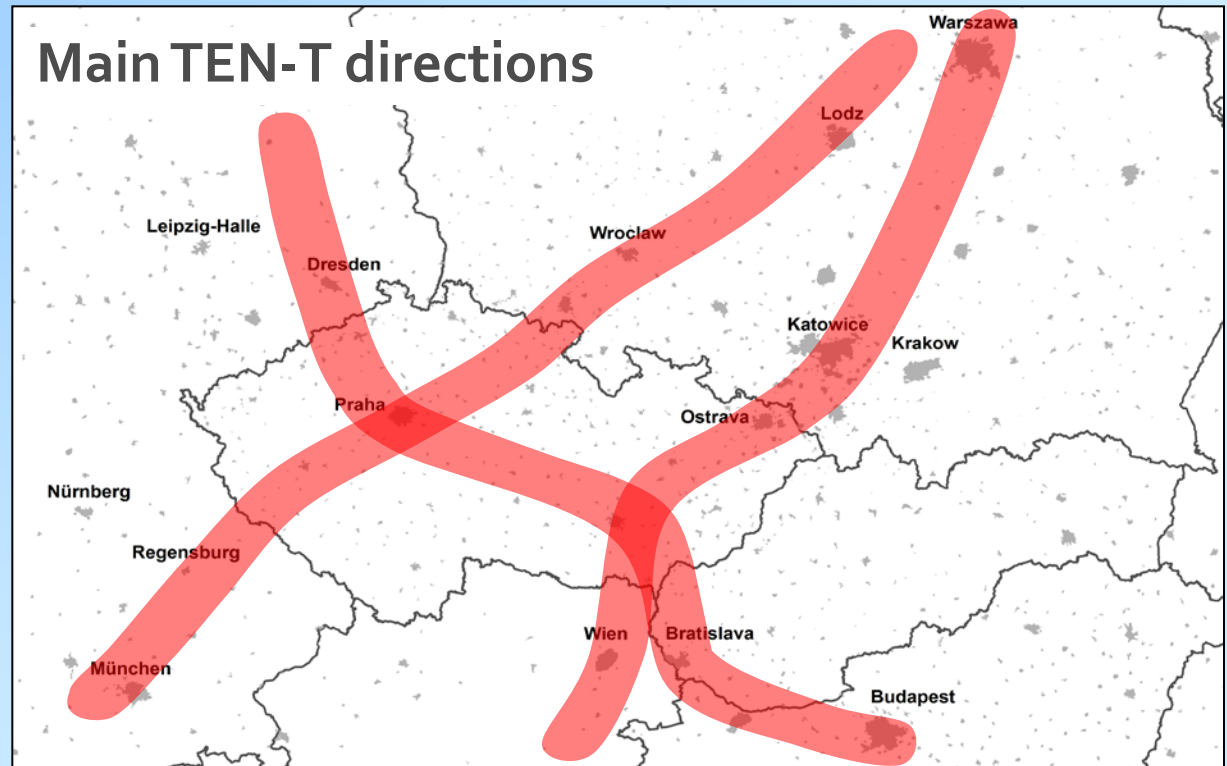
White paper for transport:

- today's railway:
 - insufficient attractiveness
 - not using its potential
- future railway:
 - increase of market share in passenger and freight transport for medium and long distances
 - lower oil dependance of transport system
- improvement of capacity and quality of railways – precondition of competitiveness
- tools:
 - development of infrastructure
 - development of technologies
 - single transport market
 - harmonizing of conditions between transport modes



EU transport policy

- TEN-T core network:
 - for fast passenger transport
 - for freight transport
- plan to triple high-speed network in EU by 2030 + complete the whole network by 2050
- development of freight corridors



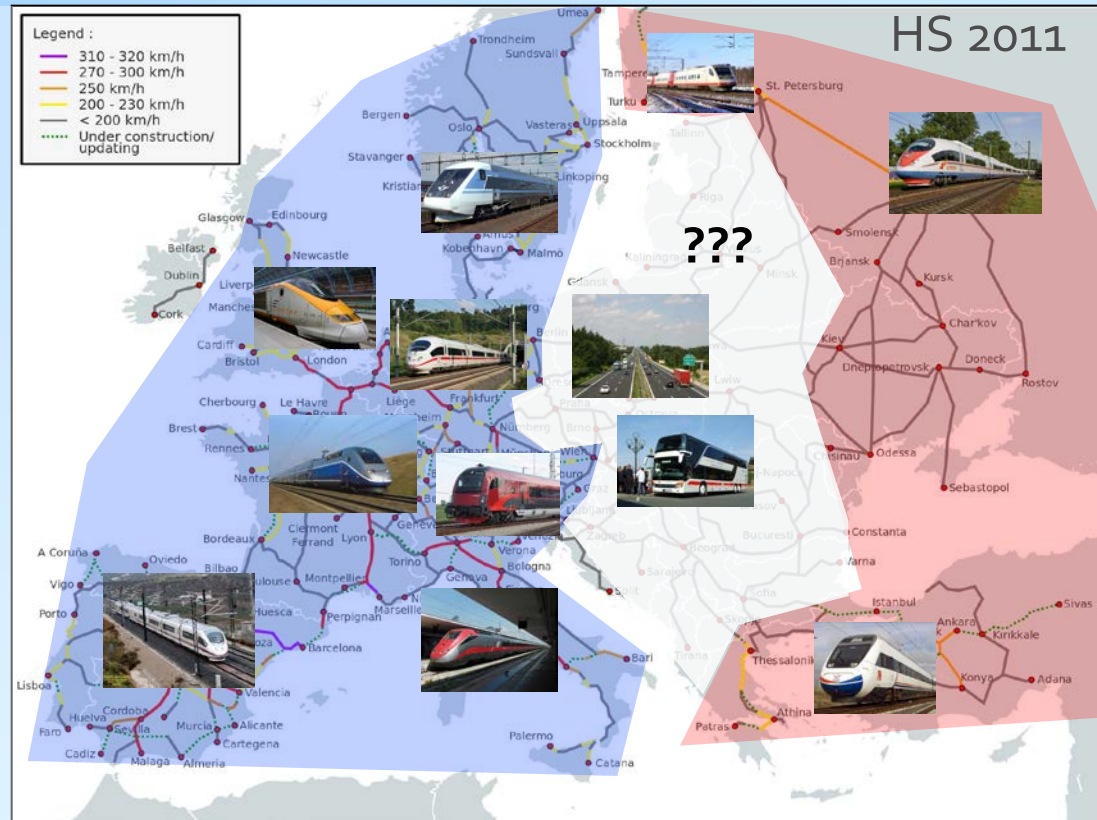
Czech railway system – current situation

- very dense network, but ...
- low speed parameters, low competitiveness, low market share
- upgrade of existing lines:
 - brings better quality, but ...
 - limited increase of speed (only up to 160 kmph)
 - not competitive with highways
 - convenient for freight and regional services but not long-distance travel
- not enough capacity:
 - especially in suburban areas
 - also on some frequent corridors attractive for open-access operators
 - problems of co-existence of different types other traffic
- discussions about whether high-speed is the solution or not



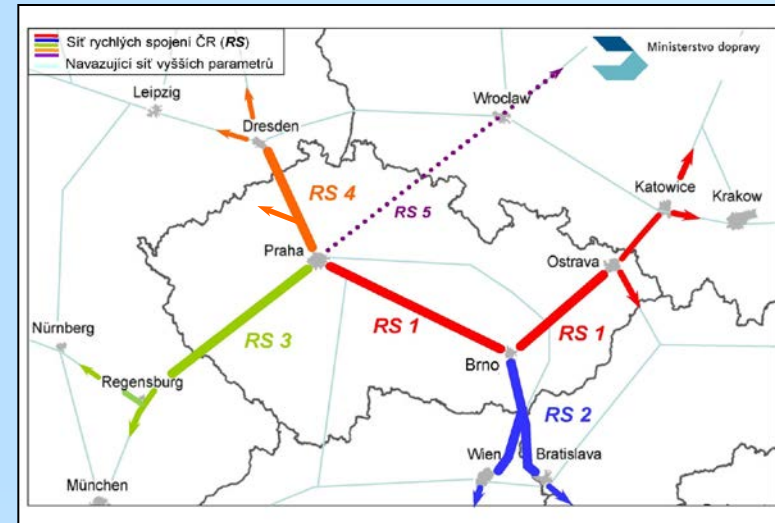
Will Central-Europe join the system?

- development of high-speed in the „West“ and also in the „East“ (Russia, Turkey)
- Central-Europe still remains out of this development where the conventional railway even more loses its competitiveness
- necessary to join:
 - better mobility inside and outside the region
 - possibility of interconnection of „western“ and „eastern“ systems



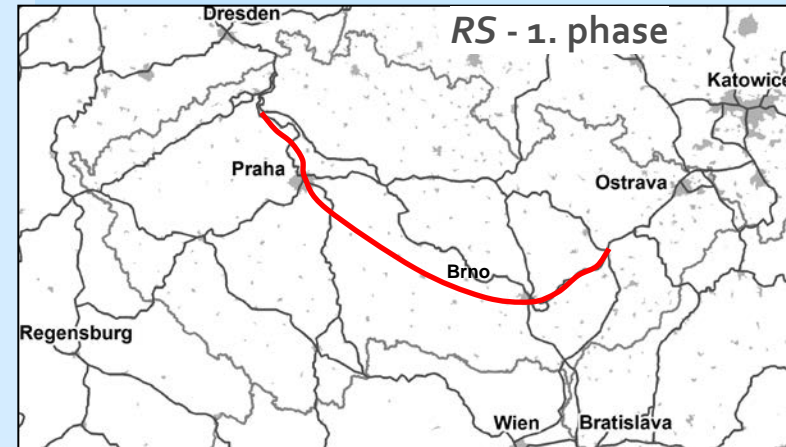
Rapid Service – solution for the country

- new TEN-T policy: network of lines for higher speeds (200 kmph and more)
- crucial for speed of passenger transport and capacity of freight transport
- in Czech Republic: preparation in a form of **Rapid Service** concept (**RS**)
- complex attitude – infrastructure, landscape, stations, crossing points with the existing network, operational matters, planning of types of future services, contribution for the regions, ...
- „**RS**“: main communication mark of high-speed railway in the Czech Republic
- start of construction of first sections: 2014-2020
- further sections: after 2020



RS – phases

- construction of **RS** in several phases –:
 - 1st phase – using of vehicles available in central Europe (Railjet, ICx, Vectron, Taurus, ...) – speed 200-250 km/h
 - 2nd phase – full high-speed operation
- 1st phase Lovosice – Praha – Brno – Přeřov:
 - new very fast backbone line
 - replacing of the most problematic sections of the existing network
 - big travel time reductions already in this phase:
 - Praha – Brno/Wien/Bratislava by 1 ½ h
 - Praha – Ostrava by ¾ h
 - Praha – Ústí n. L./Dresden by ½ h
 - Praha – Jihlava by 1 ¾ h
 - Brno – Ostrava by ¾ h
 - Brno – Jihlava by 1 ½ h
 - Praha – České Budějovice by 20 min
 - Berlin – Wien by 2 h



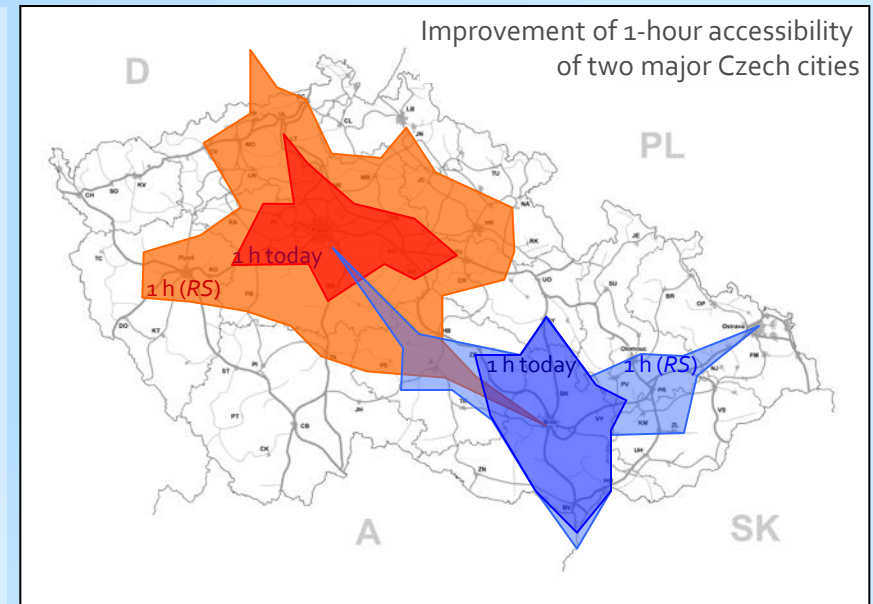
RS and long-distance transport

- utilisation of **RS** several types of long-distance transport:
 - international: very fast connection of main European cities
 - national (fast): very fast connection of main cities within the country
 - inter-regional: fast connection between regions using the combination of high-speed lines and their interconnection with the existing network
- main principles of the system:
 - integral part of long-distance system
 - interval-based timetable
 - interconnection with other transport (other railway lines, buses, P&R, ...)
 - common tariff with other railway services
 - question of supplements (AT, BE, CH, UK standard tariff; DE, FR, IT cca + 20 %) – affordable for most of the citizens



RS and suburban transport

- rapid development of suburban railway services (interval 10-15 min)
- mixed use of existing lines with other types of traffic (long-distance, freight) – instability of suburban services
- necessary to segregate „fast“ and „slow“ services – reason for construction of **RS**-lines
- thanks to suburban sections of RS-lines – the possibility to introduce very fast suburban services – accessibility of much broader area
- interconnection with the existing network and bus connections
- recovery of many regional lines – connections to **RS**-lines




| S8 Urtenen | |
|-------------------------|----------|
| Abfahrten nach Bern RBS | |
| Monday - Friday | Saturday |
| 06:11 | 06:11 |
| 06:21 | 06:21 |
| 06:31 | 06:31 |
| 06:41 | 06:41 |
| 06:51 | 06:51 |
| 07:01 | 07:01 |
| 07:11 | 07:11 |
| 07:21 | 07:21 |
| 07:31 | 07:31 |
| 07:41 | 07:41 |
| 07:51 | 07:51 |
| 08:01 | 08:01 |
| 08:11 | 08:11 |
| 08:21 | 08:21 |
| 08:31 | 08:31 |
| 08:41 | 08:41 |
| 08:51 | 08:51 |
| 09:01 | 09:01 |
| 09:11 | 09:11 |
| 09:21 | 09:21 |
| 09:31 | 09:31 |
| 09:41 | 09:41 |
| 09:51 | 09:51 |
| 10:01 | 10:01 |
| 10:11 | 10:11 |
| 10:21 | 10:21 |
| 10:31 | 10:31 |
| 10:41 | 10:41 |
| 10:51 | 10:51 |
| 11:01 | 11:01 |
| 11:11 | 11:11 |
| 11:21 | 11:21 |
| 11:31 | 11:31 |
| 11:41 | 11:41 |
| 11:51 | 11:51 |
| 12:01 | 12:01 |
| 12:11 | 12:11 |
| 12:21 | 12:21 |
| 12:31 | 12:31 |
| 12:41 | 12:41 |
| 12:51 | 12:51 |
| 13:01 | 13:01 |
| 13:11 | 13:11 |
| 13:21 | 13:21 |
| 13:31 | 13:31 |
| 13:41 | 13:41 |
| 13:51 | 13:51 |
| 14:01 | 14:01 |
| 14:11 | 14:11 |
| 14:21 | 14:21 |
| 14:31 | 14:31 |
| 14:41 | 14:41 |
| 14:51 | 14:51 |
| 15:01 | 15:01 |
| 15:11 | 15:11 |
| 15:21 | 15:21 |
| 15:31 | 15:31 |
| 15:41 | 15:41 |
| 15:51 | 15:51 |
| 16:01 | 16:01 |
| 16:11 | 16:11 |
| 16:21 | 16:21 |
| 16:31 | 16:31 |
| 16:41 | 16:41 |
| 16:51 | 16:51 |
| 17:01 | 17:01 |
| 17:11 | 17:11 |
| 17:21 | 17:21 |
| 17:31 | 17:31 |
| 17:41 | 17:41 |
| 17:51 | 17:51 |
| 18:01 | 18:01 |
| 18:11 | 18:11 |
| 18:21 | 18:21 |
| 18:31 | 18:31 |
| 18:41 | 18:41 |
| 18:51 | 18:51 |
| 19:01 | 19:01 |
| 19:11 | 19:11 |
| 19:21 | 19:21 |
| 19:31 | 19:31 |
| 19:41 | 19:41 |
| 19:51 | 19:51 |
| 20:01 | 20:01 |
| 20:11 | 20:11 |
| 20:21 | 20:21 |
| 20:31 | 20:31 |
| 20:41 | 20:41 |
| 20:51 | 20:51 |
| 21:01 | 21:01 |
| 21:11 | 21:11 |
| 21:21 | 21:21 |
| 21:31 | 21:31 |
| 21:41 | 21:41 |
| 21:51 | 21:51 |
| 22:01 | 22:01 |
| 22:11 | 22:11 |
| 22:21 | 22:21 |
| 22:31 | 22:31 |
| 22:41 | 22:41 |
| 22:51 | 22:51 |
| 23:01 | 23:01 |
| 23:11 | 23:11 |
| 23:21 | 23:21 |
| 23:31 | 23:31 |
| 23:41 | 23:41 |
| 23:51 | 23:51 |

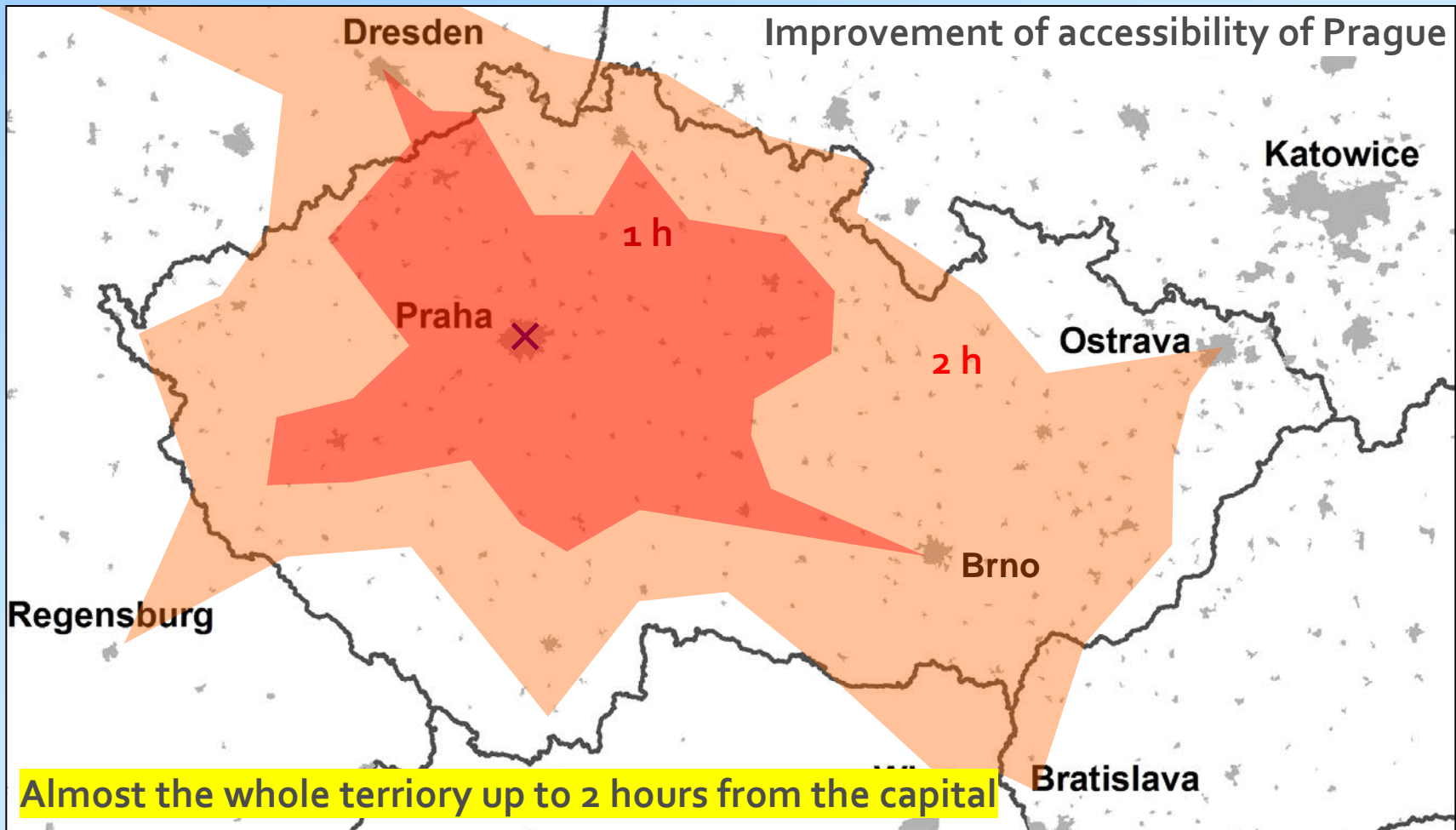


RS and freight transport

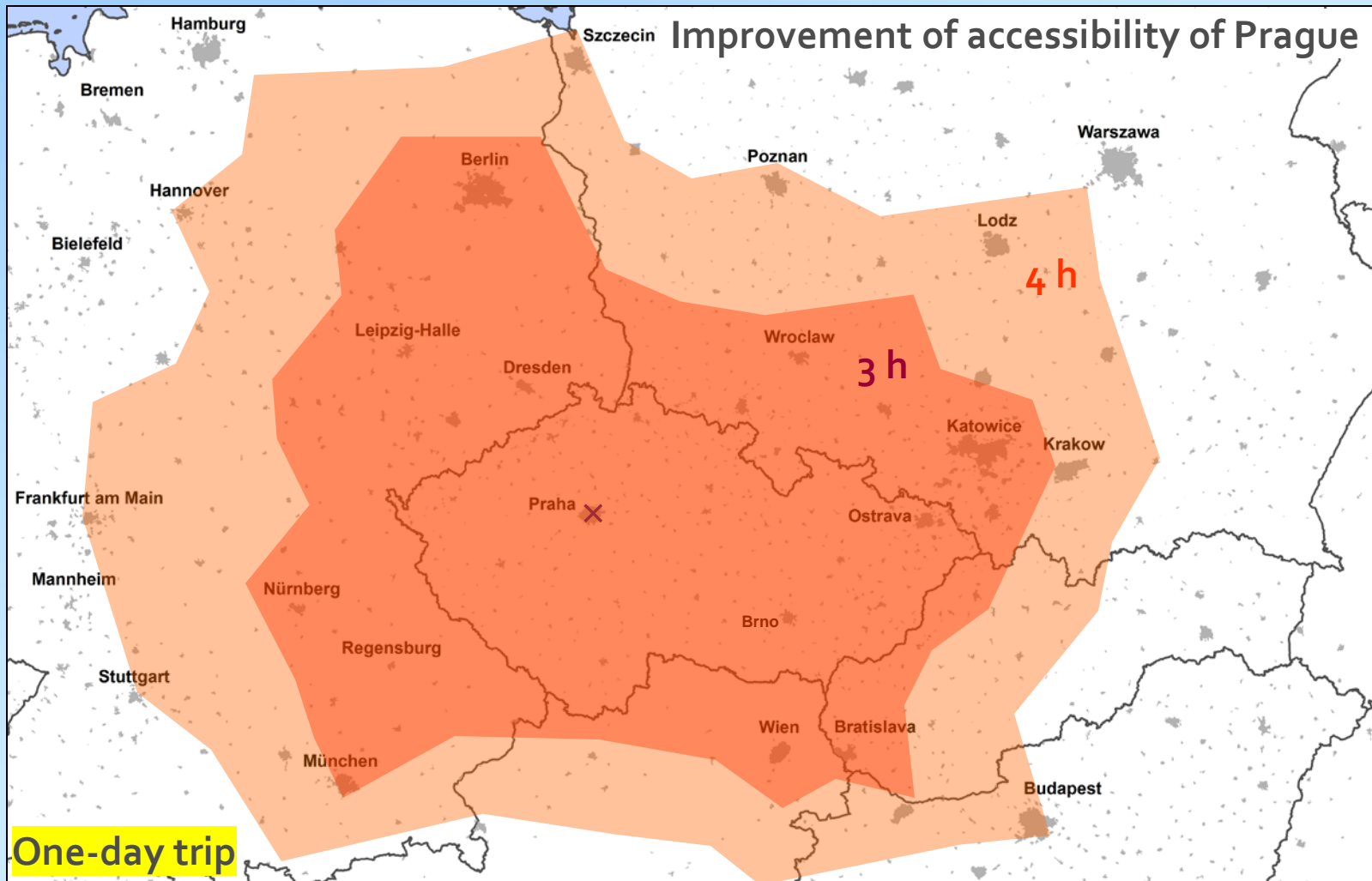
- modal shift from road to rail – the biggest potential in combined transport
- speed and quality of freight transport – necessary to move the long-distance passenger trains from the existing to new **RS**-lines
- improvement of capacity and reliability of traffic on existing lines – main contribution of **RS**-lines for freight transport
- question of operation of conventional freight trains on **RS**-lines – for fast freight trains in case of free capacity – off-peak hours)
- for future – question of high-speed cargo (as an alternative to air-cargo) – Euro Carex project – further utilization of **RS**-lines, improvement of effectiveness of the system



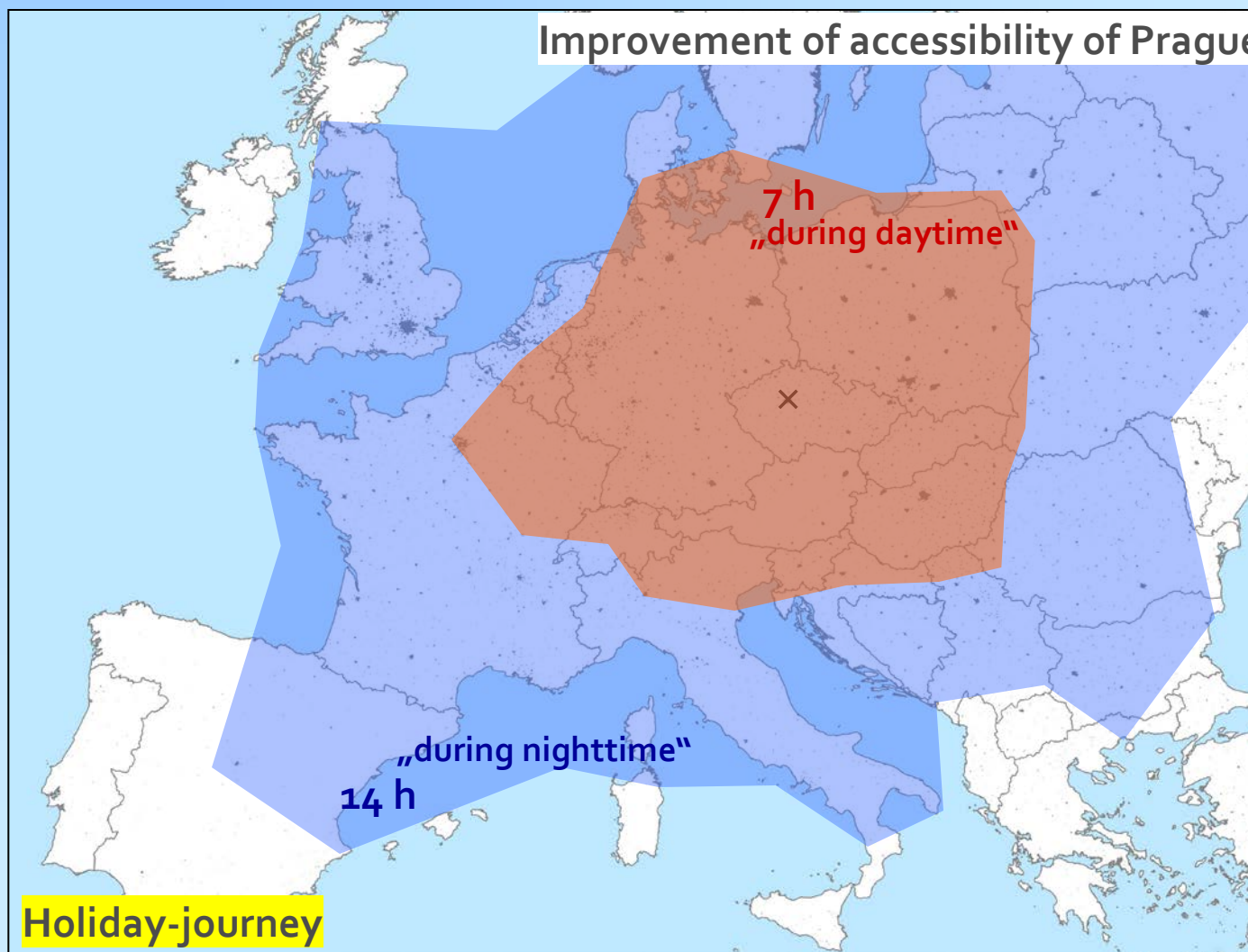
RS – main contributions



RS – main contributions



RS – main contributions



RS – Euro-Asian context



Thank you for your attention

