



Czech Republic
Ministry of Transport

TRANSPORT INFRASTRUCTURE of The CZECH REPUBLIC



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Rail & Waterborne Transport Dept.

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Geneva, 4 September 2017

Czech Republic (CZ)

| | |
|---------------------------------|----------------------|
| Area [sq.km] | 78,870 |
| Population [mil] | 10.554 |
| Population density [pers/sq.km] | 133.8 |
| GDP nominal [bln. U.S. \$] | 192.9 |
| GDP per capita [U.S. \$] | 18,266 (PPP: 34,711) |
| GDP growth [%] | 2.3 |

GDP data: World Bank 2016



Transport Sector – Main Indicators

Passenger Transport (2016)

| | PAX [mil] | % | pkm [mil] | % |
|----------|-----------|-------|-----------|-------|
| RAIL | 179.2 | 3.53 | 8 843.4 | 7.43 |
| BUS | 332.8 | 6.55 | 10 257.1 | 8.62 |
| AIR | 13.5 | 0.27 | | 8.58 |
| WATER | 0.8 | 0.02 | | 0.01 |
| URBAN PT | 2 280.3 | 44.89 | 17 387.1 | 14.62 |
| CARS | 2 273.3 | 44.75 | 72 255.0 | 60.74 |

Goods Transport (2016)

| | tons [mil] | % | tkm [mil] | % |
|-----------|------------|-------|-----------|-------|
| RAIL | 98.03 | 18.19 | 15 618 | 22.91 |
| ROAD | 431.89 | 80.12 | 50 315 | 73.81 |
| AIR | | | 31 | 0.05 |
| WATER | 1.78 | 0.33 | 620 | 0.91 |
| PIPELINES | 7.36 | 1.36 | 1 588 | 2.33 |

Different methodology used for rail pkm/tkm statistics

Transport Business

| | |
|----------------------------|---------|
| Number of enterprises | 38 000 |
| Number of employees | 185 000 |
| Rail operators goods + PAX | 99 |
| Rail operators - PAX only | 29 |
| Bus operators (scheduled) | 200 |
| Road goods operators | 30 000 |

PASSENGER RAIL

OPEN ACCESS on main line Praha-Ostrava

3 competitors = increase of quality and ridership

Most of network under PSO (mostly national rail ČD)

Significant patronage increase on commuter lines

URBAN PT

Provided in most municipalities above 10 thousand

Modal share above 50 % in big cities

BUS TRANSPORT

Long distance liberalised, regional services under PSO

Both segments losing market share

AIR TRANSPORT

Doubled since 2000

CARS

Traffic & motorisation doubled since 1990, tripled in big cities

RAIL FREIGHT

Liberalised market

5 main competitors > ČDC 60 % share, 25 % others

ROAD FREIGHT

Liberalised market

75 % of international haulage

INLAND NAVIGATION

Environmentally friendly and cheap but need to improve navigability

AIR CARGO

Doubled since 2000

Transport Policy

- **EU documents**
- White Paper 2011: Roadmap to a Single European Transport Area - Towards a competitive and resource efficient transport system
- TEN-T (Trans-European Transport Network)
- EU Financial Tools 2014-2020
 - CEF (Connecting Europe Facility) [€ 1.1 bln.]
 - Cohesion Fund + European Regional Development Fund > Operational Programme Transport (OPD II) [€ 4.62 bln.]
- **National documents**
- Transport Policy of the Czech Republic 2014-2020 with Prospect of 2050
- Transport Sectoral Strategies
- Financing Systems of Transport Infrastructure

Transport Infrastructure – Main Indicators

NETWORK LENGTH

| | length [km] | density [km/sq.km] | share in mode |
|------------------------|----------------|-----------------------|------------------|
| RAILWAYS | 9 564 | 0.12 | |
| <i>electrified</i> | 3 236 | | 33.8% |
| <i>double track</i> | 1 965 | | 20.5% |
| ROADS | 130 676 | 1.66 | |
| <i>motorways</i> | 1 223 | 0.02 | 0.9% |
| <i>national</i> | 5 807 | 0.07 | 4.4% |
| <i>regional</i> | 48 727 | 0.62 | 37.3% |
| <i>municipal</i> | 74 919 | | 57.3% |
| AIRPORTS | 6 | | |
| WATERWAYS | 315 | | |
| TERMINALS | 17 | | |
| <i>rail-road</i> | 13 | | 76.5% |
| <i>rail-road-water</i> | 4 | | 23.5% |
| PIPELINES | 642 | | |

RAILWAYS

One of the densest networks in Europe
1/3 electrified, 1/5 double track

ROADS

Dense network, motorways and national roads
covering all regions
All public roads are paved

AIRPORTS

5 airports with scheduled international services,
95 % of all traffic handled by Prague Airport

WATERWAYS

Navigable rivers Vltava from Prague and Labe (Elbe)
across German border to Hamburg harbour

INTERMODAL TERMINALS

Rail/road terminals throughout the country,
rail/road/water located on Elbe River

Railway Infrastructure

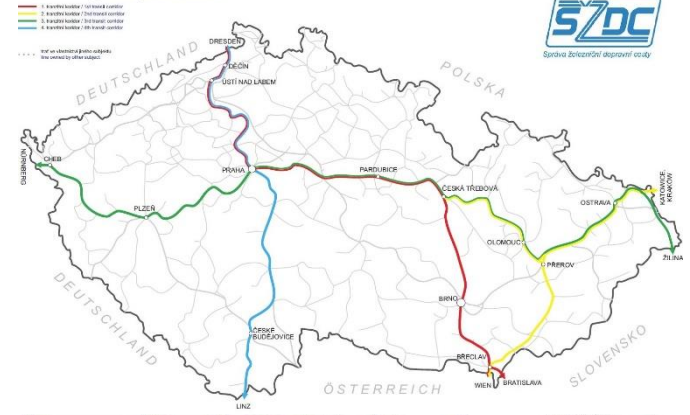


| | length [km] | share |
|---------------|-------------|-------|
| RAILWAYS | 9 564 | |
| gauge 1435 mm | 9 465 | 99.0% |
| double track | 1 965 | 20.5% |
| electrified | 3 236 | 33.8% |
| AC 25kV/50Hz | 1 401 | 43.3% |
| DC 3kV | 1 798 | 55.6% |

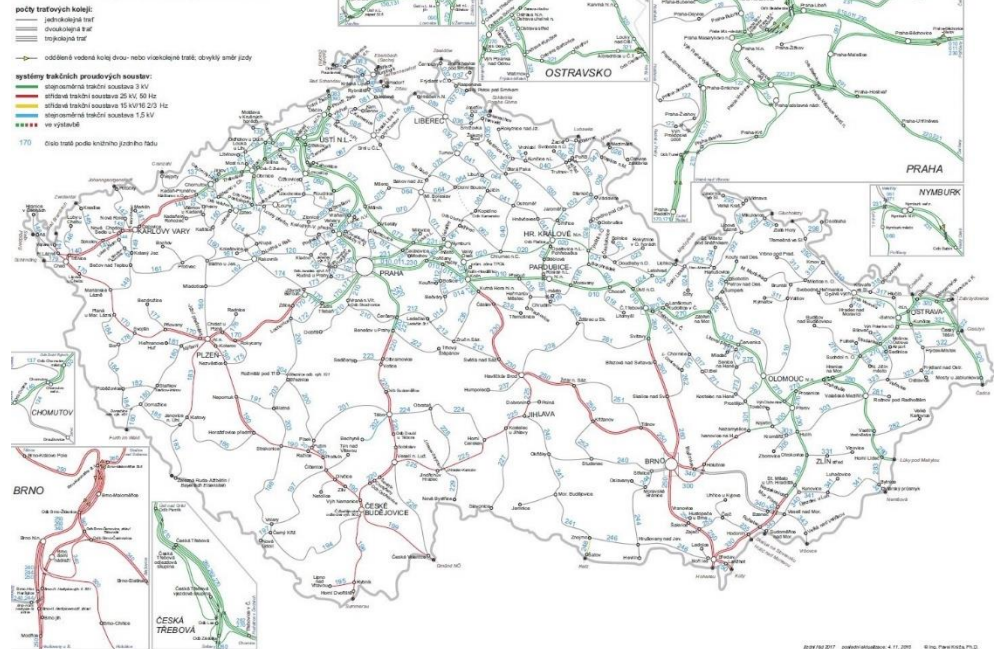
4 national corridors
upgraded to v=160 km/h

2 power systems
DC 3 kV (North CZ+SK, PL)
AC 25kV (South CZ+SK, HU)
conversion DC>AC planned
after 2020
(AC 15kV AT+DE)

Tranzitní koridory / Railway transit corridors



Počty tratových kolejí, systémy trakčních proudových soustav a označení podle knižního jízdního řádu



2016/01/27 aktualizováno 4. 11. 2016 SŽDC, PRAHA, P.R.O.

Railway – International context

9 European Rail Freight Corridors – CZ involved in:
RFC5 Baltic-Adriatic **RFC7 Orient** **RFC8 North Sea-Baltic**
RFC9 Czech-Slovak *will be extended to Rheine-Danube after 2020*

Rail Freight Corridors (RFCs) map 2017
 Including extensions expected in 2018 as indicated by the RFCs*



RFC structure:
 ExBo (ministries)
 MaBo (infra managers)
 RAG/TAG (operators)

RFC benefits:
 customer friendly approach
 pre-arranged paths
 one-stop shop

Based on Regulation (EU) No 913/2010, this map was created by RNE and agreed upon with all RFCs. Any use without modifications of this map in electronic or printed publications is permitted with the explicit reference to RNE as the author and holder of the copyright.

*Extensions indicated in the United Kingdom are planned for 12/2018 © 2017 RNE

Railway – Ongoing Infrastructure Project

Completion of Corridor Network Upgrading TEN-T lines

Co-funded by EU

Česká republika

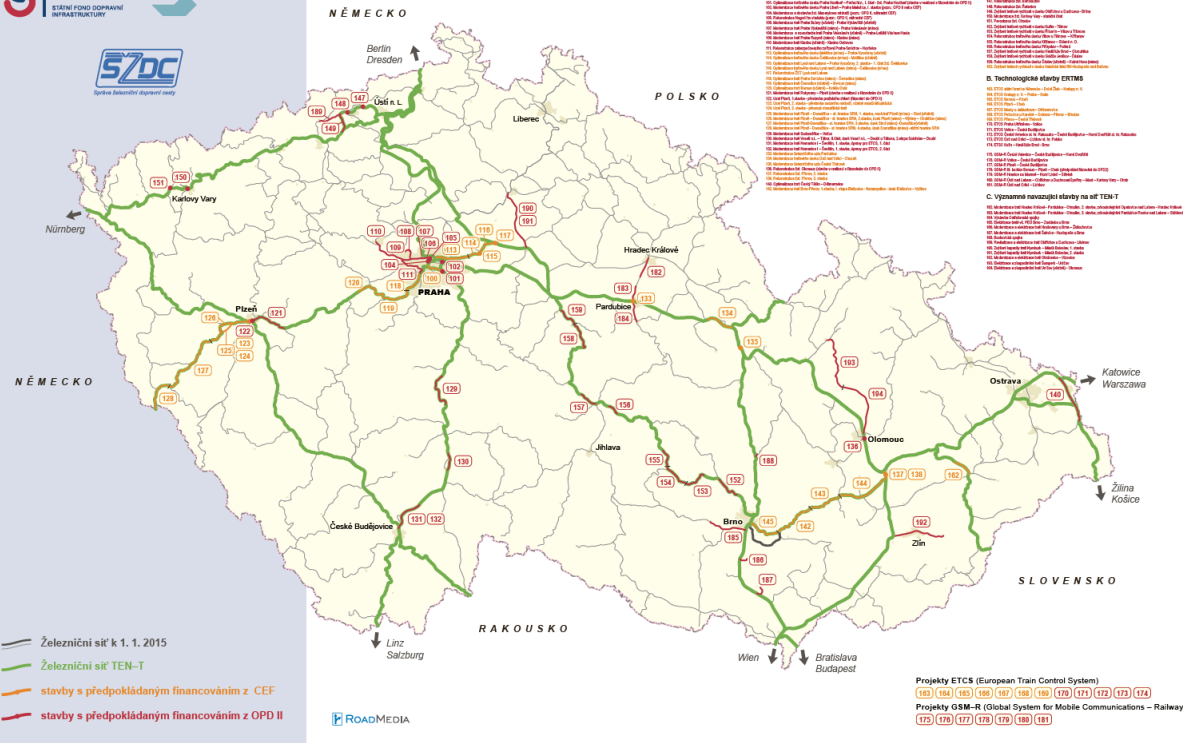


Ministerstvo dopravy



EVROPSKÁ UNIE
Evropské strukturální a investiční fondy
Operační program Doprava

Přehled projektů OPD II a CEF



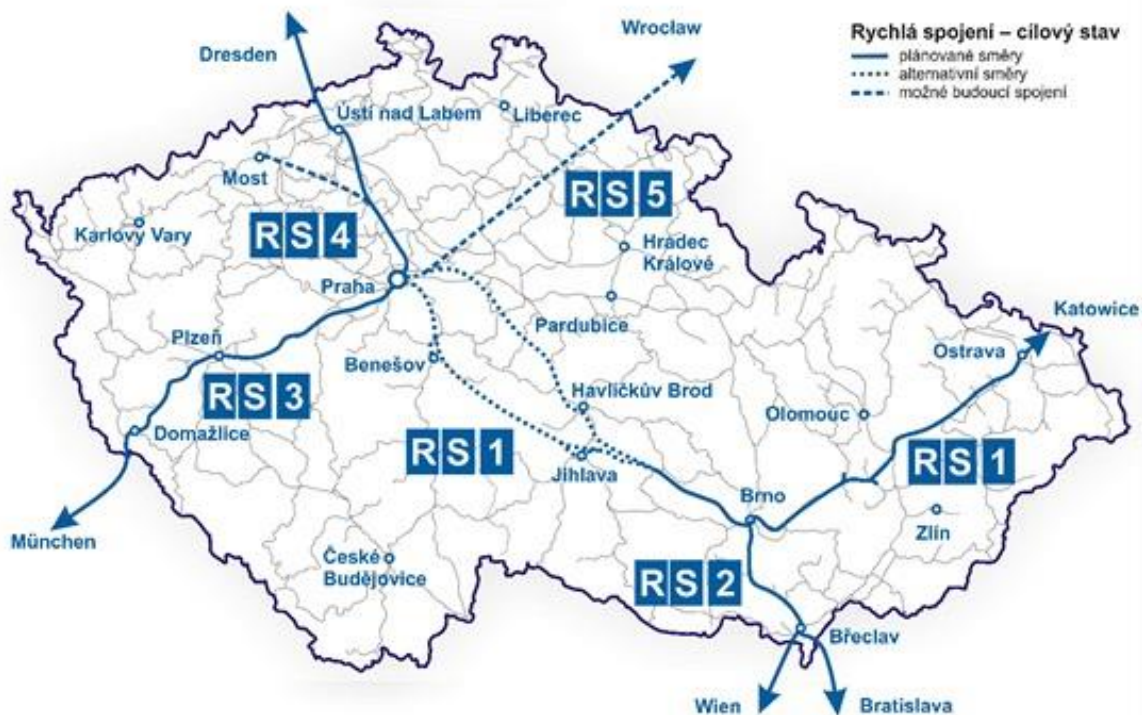
Railway Infrastructure – Vision 2030

High Speed Rail (300+ km/h) & Fast Link (200 km/h) Network Feasibility Studies carried out currently

Construction Phase around 2030 (Prague – Dresden, Prague – Brno)

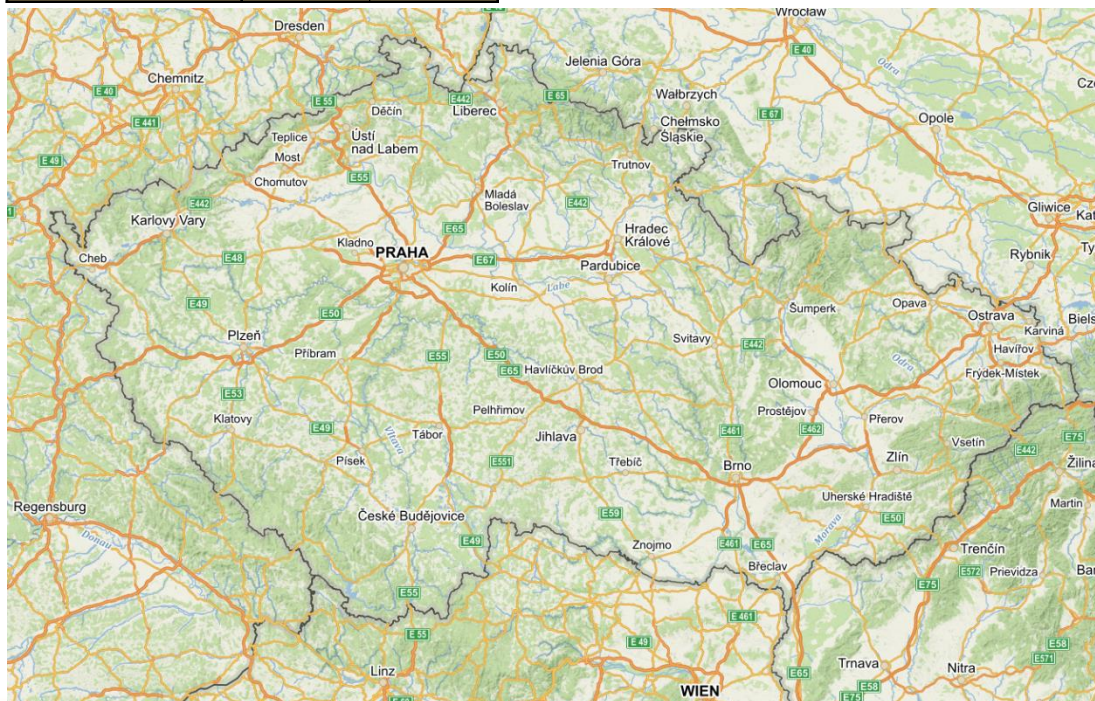
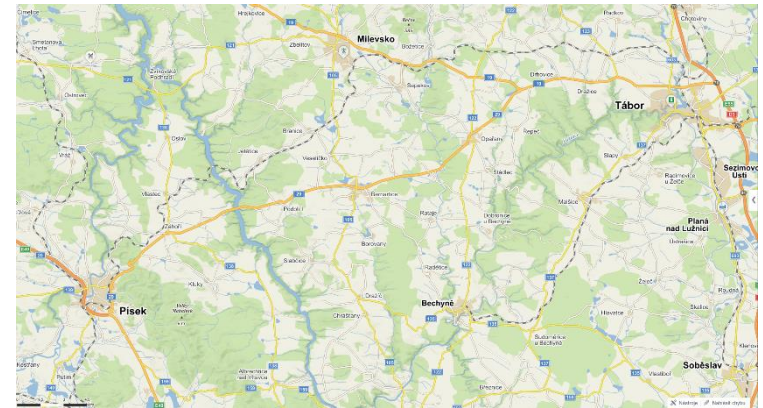
Fast Link Brno – Přešov under preparation, expected 2020-2025

Additional effect: release of track capacity for freight & commuter trains



Road Infrastructure

| | length [km] | share |
|-------------------------|----------------|-------|
| ROADS | 130 676 | |
| Motorways | 1 223 | 0.9% |
| National | 5 807 | 4.4% |
| <i>dual-carriageway</i> | 90 | 1.5% |
| Regional | 48 727 | 37.3% |
| <i>2nd class</i> | 14 593 | 29.9% |
| <i>3rd class</i> | 34 134 | 70.1% |
| Municipal | 74 919 | 57.3% |

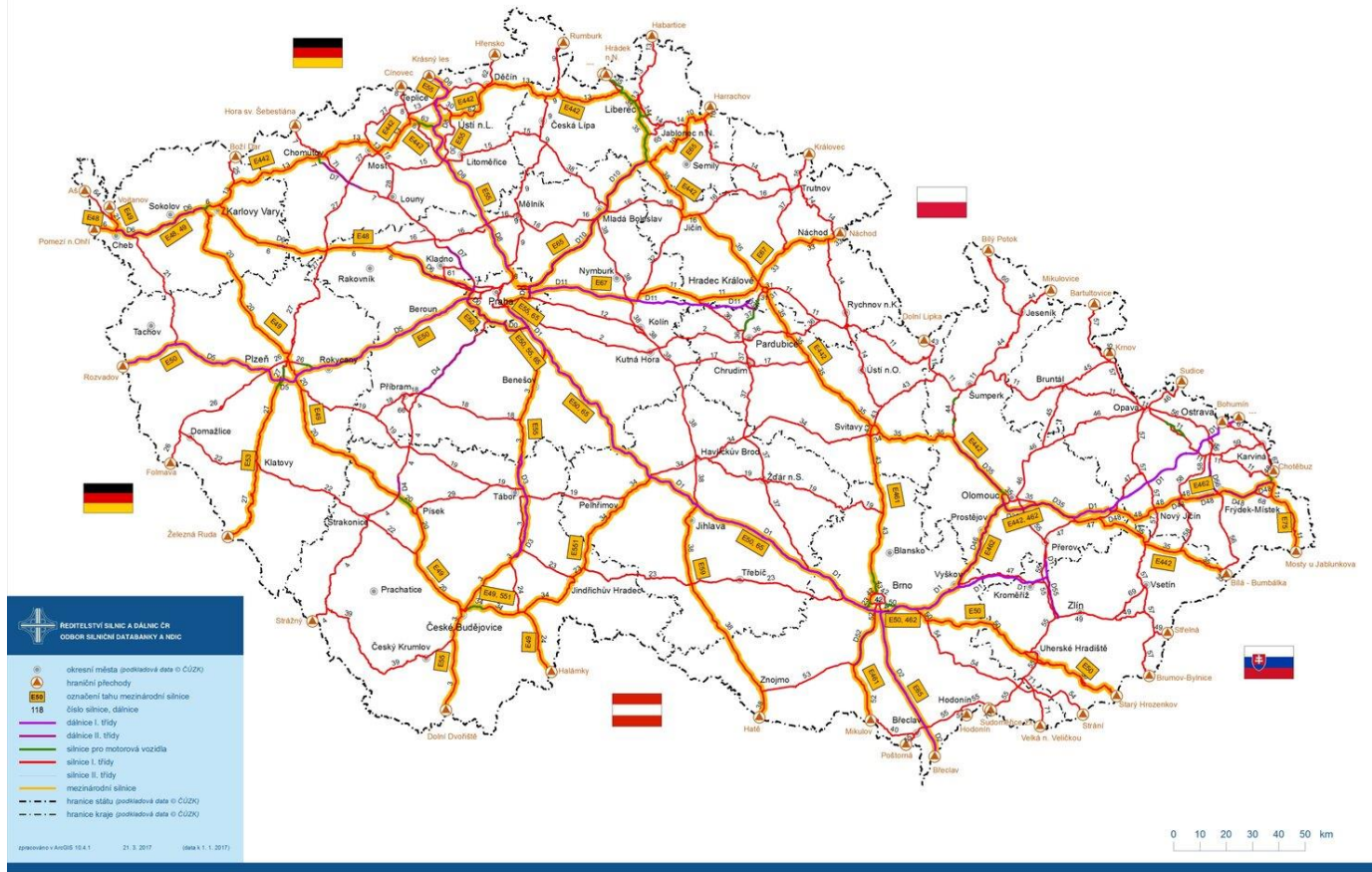


Transport network in low population density region



Road – International Context

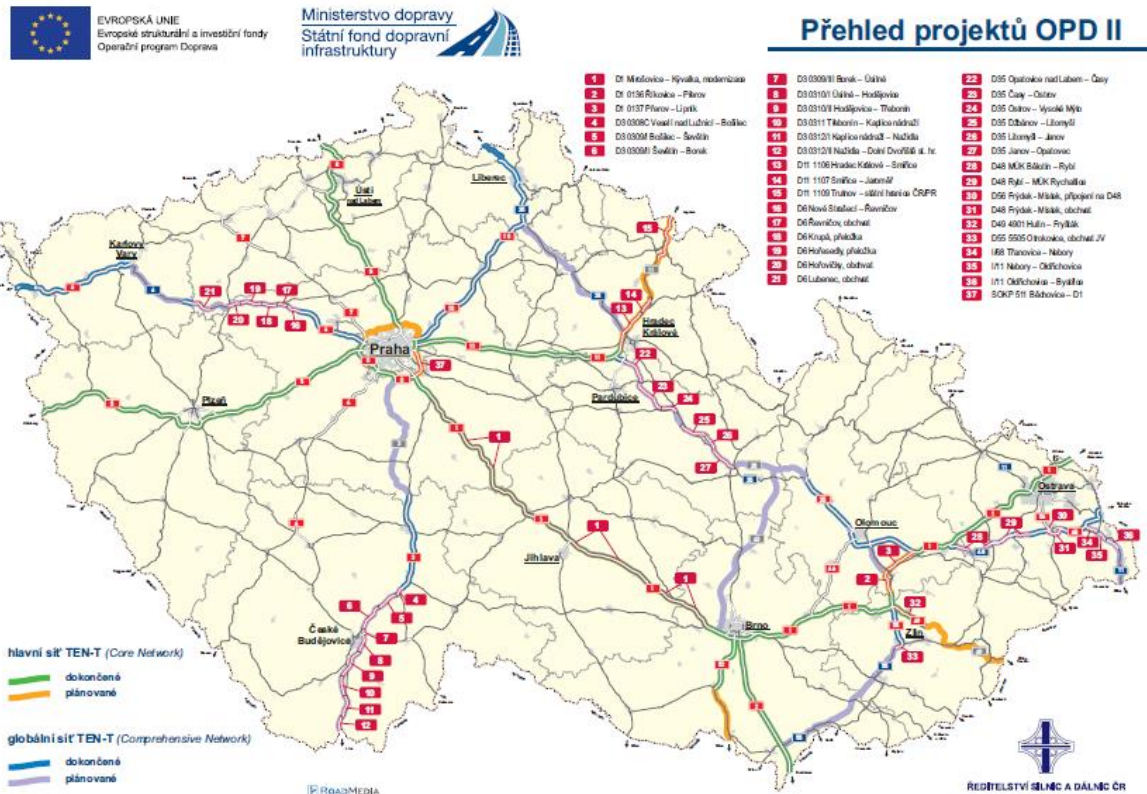
MEZINÁRODNÍ SILNICE NA ÚZEMÍ ČR



Road – Ongoing Infrastructure Project

Further extension of Motorway Network Upgrading TEN-T roads (road safety, by-passes)

Co-funded by EU



Road – International Context – Future Development



Vazby sítě dálnic na sousední státy



Inland Navigation Infrastructure

| | length [km] |
|-----------|-------------|
| WATERWAYS | 516 |
| TEN-T | 315 |
| Leisure | 199 |



Inland Navigation – International Context

TEN-T Core Network – Orient-East Med Corridor



Corridor defined by Decision EP+CEU 1316/2013

Work Plan recognised gaps and set common goals

Feasibility Study on **Danube-Oder-Elbe Link** is carried out (so far Elbe linked to North Sea, Danube to Black/Mediterranean Sea)

Intermodal Terminal Infrastructure



Scheduled container trains from CZ to Hamburg & Bremerhaven (15+ per week), Rostock (7), Rotterdam (10), Duisburg (5)

Intermodal Services CZ-Asia

Scheduled container trains from CZ to Piraeus (7 per week), Wuhan to Pardubice (1-3 per month) ... and on **19 July 2017 first train Prague to China departed**





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***THANK YOU
FOR YOUR ATTENTION***

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