



transport of passenger



National system of traffic information and benefits for SMEs



Slovakia in figures



Area: 49 035 km²

Population: 5 404 784

Capital city: Bratislava

Borders:

Hungary

Poland

Austria

Czech Republic

Ukraine

Currency: Euro (EUR)

GDP: 65,9 bill. EUR

12 138 EUR per capita



Transport in Slovakia in figures



Statistics	2008	2009	2010
Transport of goods total [thous. tonnes]	308 993	256 372	260 048
• of which road freight traffic [thous. tonnes]	196 775	162 007	156 278
Performances of freight transport [thous. tkm]	39 072 809	34 705 117	36 834 141
• of which road freight traffic [thous. tkm]	28 101 218	26 962 264	27 406 338
Transport of passenger total [thous. passengers]	811 946	760 851	744 370
• of which road transport [thous. passengers]	759 155	712 295	697 598
Performances of passenger transport [thous. pass.km]	14 791 294	10 761 572	7 864 882
• of which road transport [thous. pass.km]	7 807 998	5 738 897	5 494 699
Average number of employees	110 854	111 801	110 622
• of which land transport and pipe transport	59 488	60 235	60 245
Revenues [mil. EUR]	6 262	5 411	5 793
• of which land transport and pipe transport [mil. EUR]	3 373	2 922	3 147



Transport in Slovakia in figures



Statistics say that on the roads is realised:

- 60 - 64% of transport of goods
- 72 - 78% of performances of freight transport
- 94% of transport of passenger
- 53 - 70% of performances of passenger transport



Slovak road network



Motorways in operation: 416 km

Motorway feeders: 11 km

Expressways: 190 km

1st class roads: 3318 km

2nd class roads: 3643 km

3rd class roads: 10408 km

Length of motorways and roads total: 17985 km

of which: International roads "E": 1536 km

International routes "TEM": 931 km

TEN-T corridors: 917 km

Tolled roads (over 3,5t): 1937 km

Road network density: 367 km/thous. km², 3.3 km/thous. population

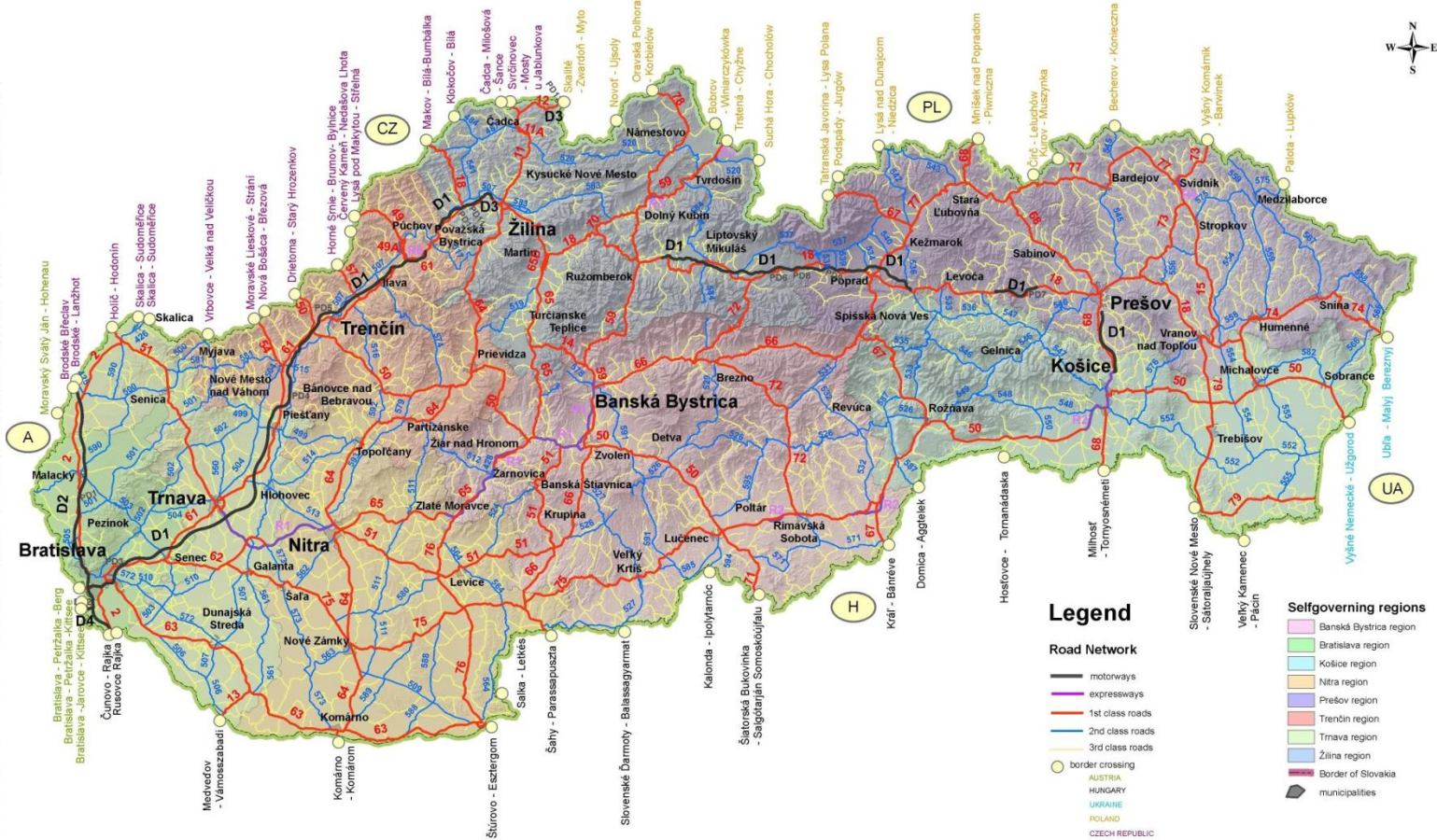
Urban roads: 25942 km



Slovak road network



Road Network in the Slovak Republic



Baltic to Balkan network for logistics competence

Business subjects in Slovakia



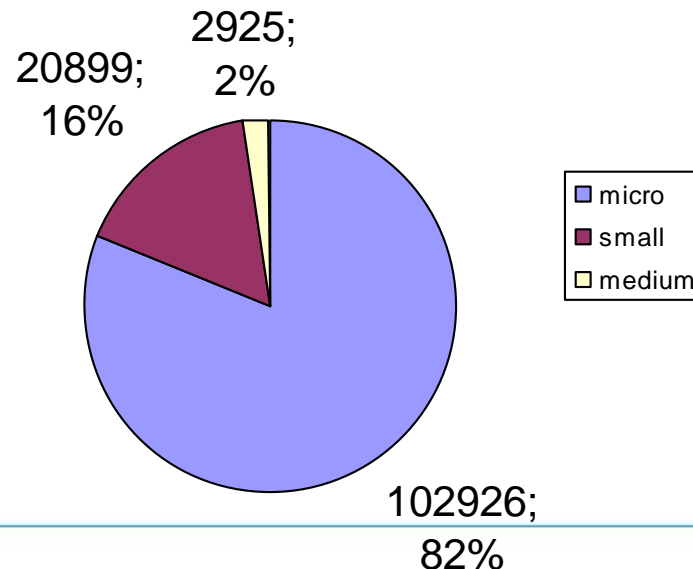
413 867 self-employed persons

24 443 of which in the sector transport and information

126 750 SMEs corporate entities

9 787 of which in the sector transport and information

0,5% of all enterprises are large
SMEs





Share of revenues in the sector of road and freight transport

- 24,22% - large enterprises
- 28,02% - medium enterprises
- 29,95% - micro and small enterprises
- 17,82% - self-employed persons

2000 national and international freight road transport enterprises

- 35%: 1-2 vehicles
- 50%: less than 10 vehicles
- 15%: typically 25-30 vehicles
- several enterprises: more than 100 vehicles





- Complex system environment for collection, processing, sharing, publishing and distribution of traffic information and traffic data on:
 - current traffic situation on the road network,
 - the network of road communications, components and equipments,and environment for administration and operation of applications and systems over the traffic information and traffic data in connection with uniform geographical model of road network
- Main goal:
 - provide passability and serviceability of road network,
 - increase safety and continuity of road traffic and
 - minimise negative impacts from road traffic.





Domains of National system of traffic information:

- National traffic information centre
- Generation and collection of information
- ITS of big agglomerations
- ITS of main roads

Slovak government - 14.1.2009: „Programme of support of development of ITS - National system of traffic information for Slovakia“

Total investments: 118,8 mil. €

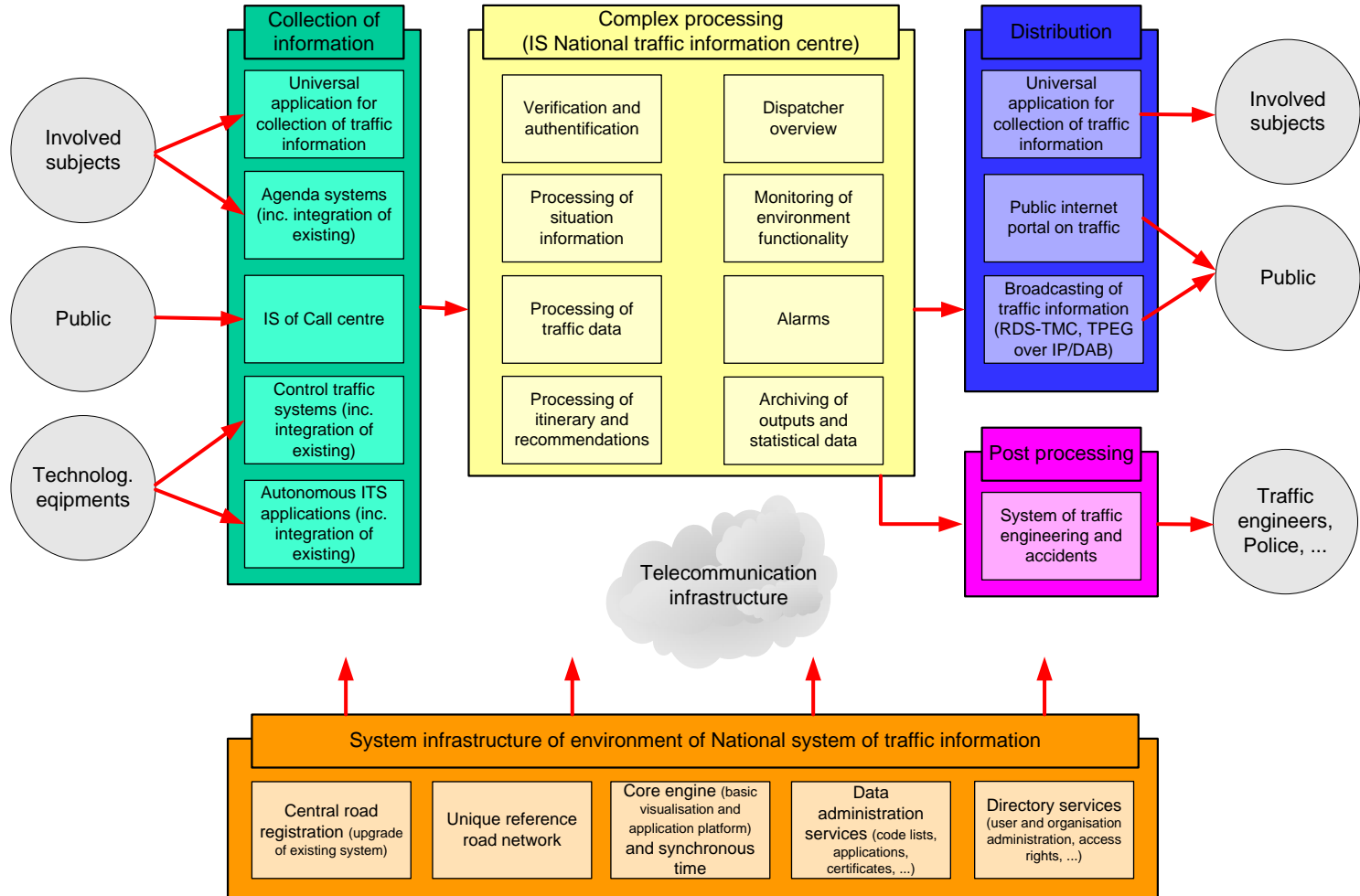
OPT 2007-2013 - Slovak road administration

European framework

- Action plan for the deployment of ITS in Europe
- Directive 2010/40/EU on the framework for the deployment of ITS in the field of road transport and for interfaces with other modes of transport



National system of traffic information - structure



National traffic information centre



- Technical, technological, editorial, dispatcher and information systems
- Unified user administration
- Universal system of collection of traffic information
- Systems for publication and distribution of traffic data and traffic information
- Central data warehouse
- Warehouse of historical data
- System of traffic engineering

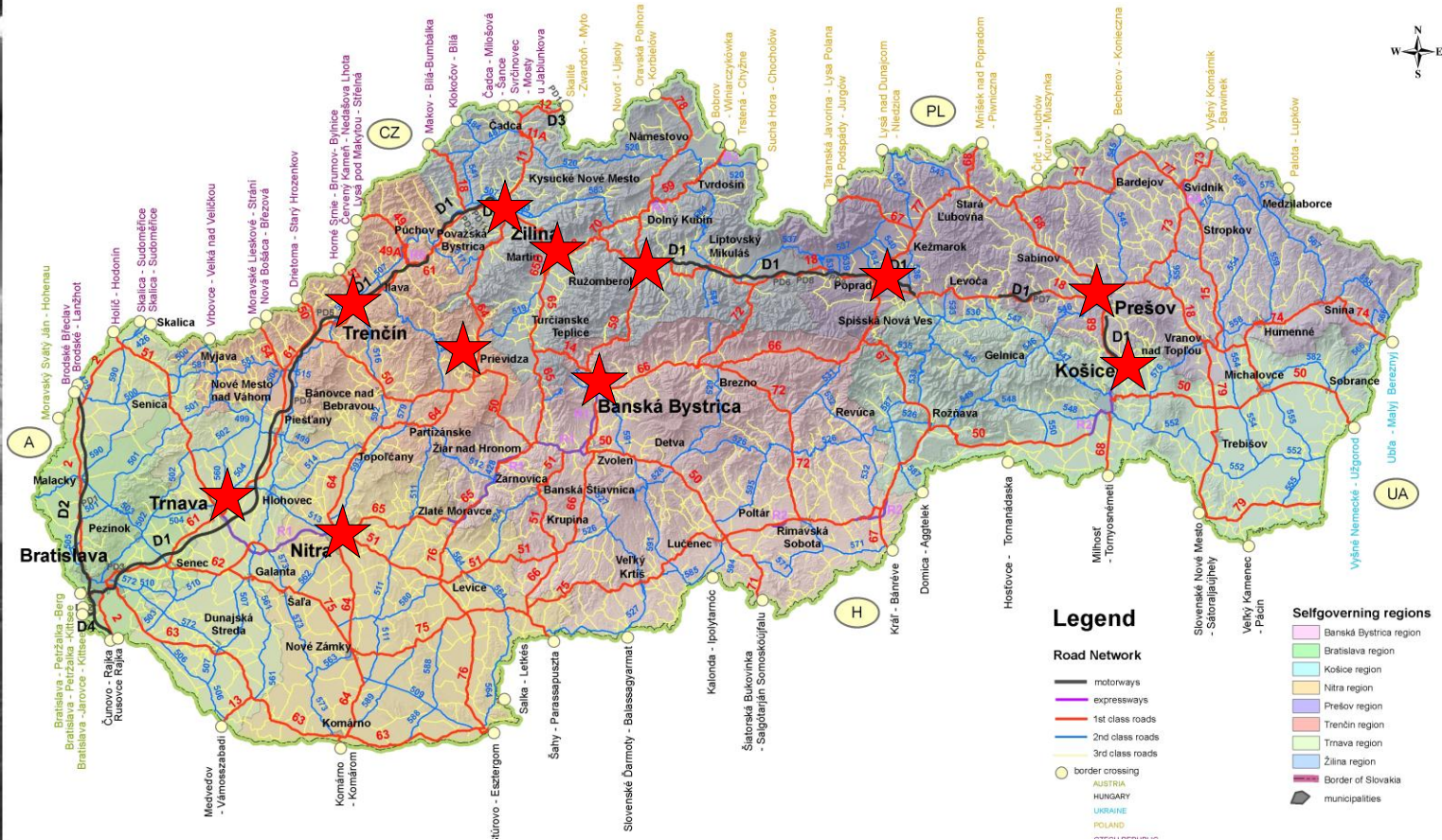




- System of administration and maintenance of roads
- System of central registration of closures
- System of agenda of excessive and dangerous freights
- System of information from river basins
- System of information from drivers
- Unified road meteorological information system
- Unified system of video information
- System of central registration of roads
- System of accurate localisation of traffic accidents
- Floating Car Data



ITS of big agglomerations



Integrated solution of ITS systems for 11 selected agglomerations



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ITS of main roads



- Completion of technological equipments and development of telematics applications on the core roads (mainly 1st class roads)
 - systems of monitoring of traffic flow characteristics,
 - congestion detection,
 - automatic traffic census,
 - collection of meteorological data on weather and road surface condition,
 - information by means of variable-message signs or signs with service information



National system of traffic information - general benefits



- Reduction of traffic accidents and their consequences
- Global increase of road safety
- Decrease of delays of road users, reduction of travel time and increase of traffic fluency
- Direct influence on road users behaviour, motivation for responsibility
- Support of effective deployment of information technologies, ITS and telematics systems into the segment of transport
- Establishment of local, regional, national and international interoperability in the area of
 - traffic information and traffic data,
 - information exchange on current traffic situation,
 - sharing of road network information,
 - traffic control and so on.
- Establishment of conditions for development of Tran European road network and enhancement of traffic operation



Economical benefits of the project



- Reduction of travel time of persons - 2016: 2,6 - 2026: 3,6 mil. hours per year)
- Reduction of travel time of freight - 2016: 718 – 2026: 976 thous. ton.hour per year
- Reduction of accident rate (social costs) – 50% decrease of fatalities (in 15 years) or 14 mil. EUR:2016/17,2 mil. EUR:2026 per year
- Reduction of fuel consumption – aprox. 2,8 mil. EUR per year
- Reduction of air pollution (NO_x, SO₂, NMVOC, PM_{2.5}) – 3,55 mil. EUR:2016, 3,67 mil. EUR:2019, 2,4 mil. EUR:2026
- Reduction of climate impacts – aprox. 200 thous. EUR per year
- Total benefits - 2016:59,9 mil. EUR – 2026: 90,5 mil. EUR
- Project is not generating financial revenues



Benefits for road user



Aims of the project from point of view of driver - reach the destination:

- safe
- continuously
- quickly
- directly
- at reasonable costs and
- by the quality roads

Reduction of travel time of persons and freight (bottleneck, flow congestion, crossroads)

Reduction of accident risk (critical accident localities) – safer driving

Reduction of fuel consumption and emissions

Availability of traffic information, continuity of ITS services

Planning of shipping (multimodal)

Optimisation of routes (time, costs)

Less time delay, vehicle wear

More effective rescue systems



Traffic information distribution



Pre-trip

Internet



TV



Pre-trip and on-trip

Voice telecommunication services, GSM



On-trip

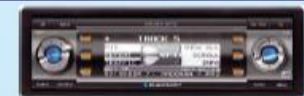
VMS



RDS-TMC



Radio broadcasting



Time frame of deployment



- 2011 - project documentation, CBA, request for non-repayable financial contribution, preparation of terms of tender
- 2012 - January: announcement of the first public tender (IS of National traffic information centre and other basic systems)
- 2013 - July: finishing of essential systems (IS of National traffic information centre, application for the collection of traffic information, public traffic portal, Call centre, system of administration and maintenance), start of the test operation
 - October: production operation of National traffic information centre
 - November: production operation of the first agglomeration traffic control centre (Martin)
- 2014 - January: production operation of the first regional traffic control centre (region Middle - Banská Bystrica)
- 2015 - October: production operation of the last agglomeration traffic control centre (Košice)
 - December: production operation of the last regional traffic control centre (region North - Žilina) - **project finalisation**





Perspectives

- Deployment of agglomeration traffic control centre Bratislava
- Cross-border data exchange
- Cross-border traffic control in the border area or on the cross-borders corridors
- Interconnection (interface) with control and information system of intermodal freight terminals
- Deployment of eCall
- Value added services (public or private)





Thank you for your attention !

B2B
LOCO



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