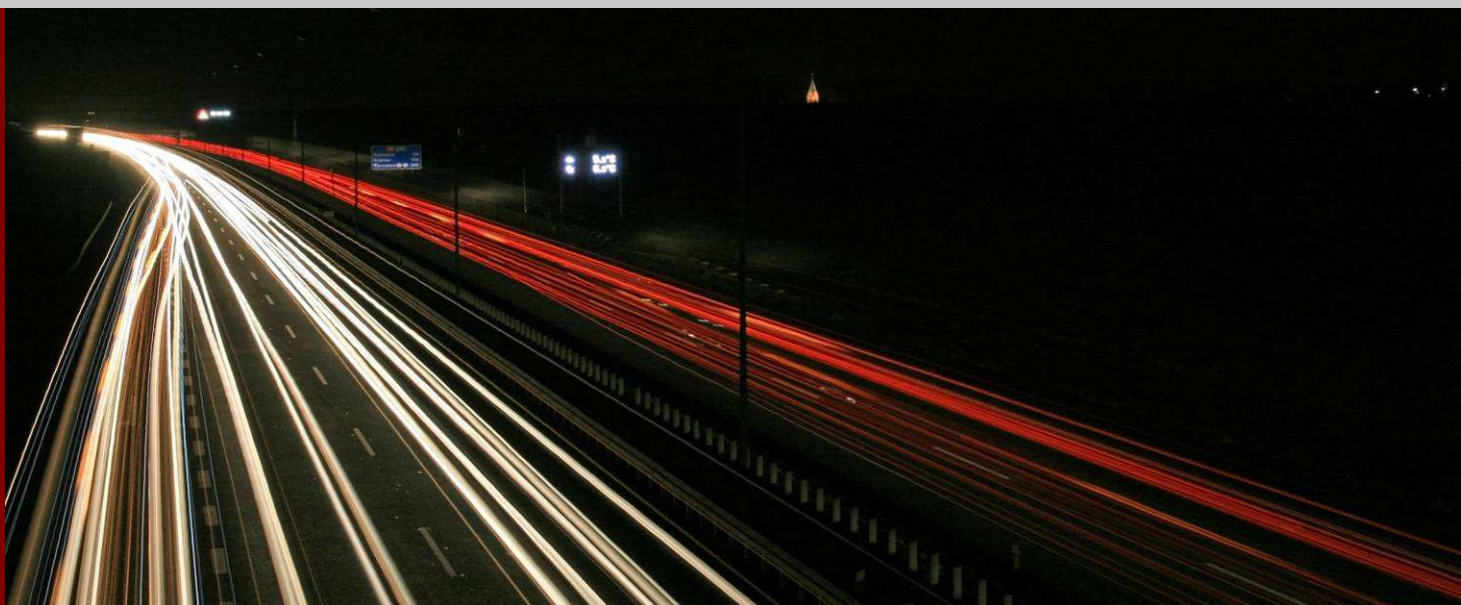


INFRASTRUCTURE



ROADS, RAILWAYS, RIVERS AND AIR SPACE OF THE SLOVAK REPUBLIC

S A R I O

Slovak Investment
and Trade Development Agency

Basic Facts about Infrastructure in Slovakia

Its strategic geographical location makes Slovakia an ideal platform for approaching the dynamically growing markets of Central and Eastern Europe as well as those in the developed countries of Western Europe. Major European transit corridors pass through the Slovak Republic connecting the Western and Eastern parts of European continent. The present infrastructure for high density is in the process of intensive development and modernisation. In order to promote economic development and investments, the Slovak Government is following up on the priority of connecting the western and eastern part of Slovakia with a highway running between Bratislava and Košice by the end of the year 2014. Also, European railway corridors are being reconstructed. For this purpose the Slovak Government uses not only the funds from the state budget but also private capital in Public-Private Partnerships. The European Union and its funds play an important role as well.

State Borders of Slovakia

Items	Countries neighbouring Slovakia					Total
	Czech Republic	Poland	Ukraine	Hungary	Austria	
Length of the borders (km)	251.8	547.1	98.5	668.6	106	1672
Number of road border crossing	19	19	4	25	4	71

Source (Length of borders): Ministry of Transport, Post and Telecommunications of the Slovak Republic, 2009

Source (Number of road border crossing): Ministry of Interior of the Slovak Republic, 2010

Early on, Slovakia became aware of the importance of adapting its transportation network to contemporary needs. At the end of 1996, highways represented only 1% of the country's road system (198 km). Thanks to an ambitious project, the Slovak government made a commitment to catch up and make Slovakia, within several years, a crossroads between East and the West:

- Construction of a highway to connect eastern and western parts of Slovakia by the year 2014 (with Public-Private Partnerships).
- Further modernization of the airport in Bratislava, where new terminal is in use from June 2010, also airports in Košice, Žilina, Piešťany and Sliac are in reconstruction process.

Travel distances

Bratislava	2h 38m						
Košice	3h 16m	5h 17m					
Nitra	1h 41m	1h 02 m	4h 26m				
Prešov	2h 45m	4h 55m	0h 34m	4h 12m			
Trenčín	2h 22m	1h 19m	4h 28m	1h 18m	3h 56m		
Trnava	2h 11m	0h 38m	5h 03m	0h 36m	4h 30m	0h 52m	
Žilina	1h 28m	2h 03m	3h 31m	2h 02m	2h 58m	1h 03m	1h 37m
	Banská Bystrica	Bratislava	Košice	Nitra	Prešov	Trenčín	Trnava

Source: maps.google.com, 2011

Travel distances to European cities

Distances between Bratislava and other cities (km)			
Budapest	201	Brussels	1188
Prague	331	Barcelona	1895
Munich	520	London	1592
Vienna	79	Lisbon	3034
Rome	1202	Madrid	2499
Paris	1321	Milan	933
Warsaw	640	Helsinki	1725

Source: maps.google.sk, 2011

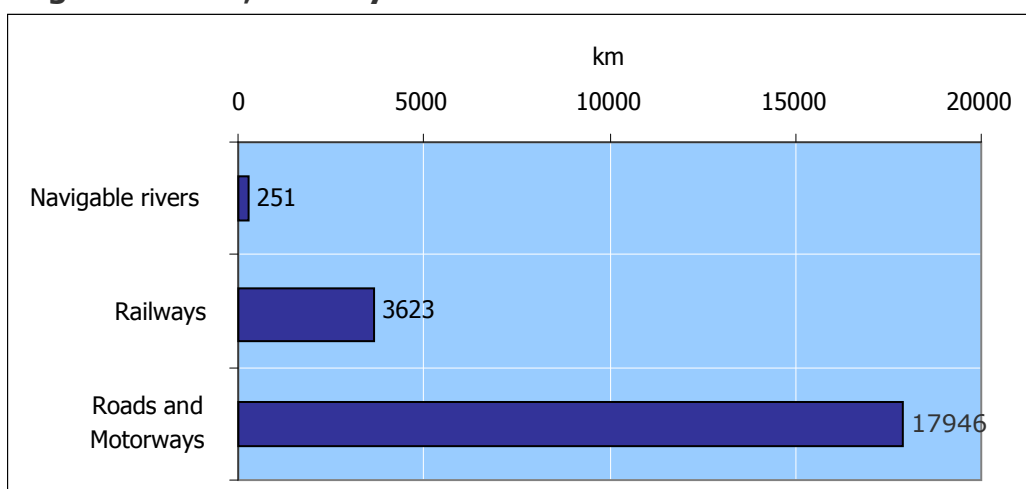
The central location of Slovakia is a major advantage: 350 million people live within a day's truck drive of Slovakia. The country is also transited by strategic natural gas pipelines operated by SPP (see www.spp.sk) and oil pipelines operated by Transpetrol (see www.transpetrol.sk) to transport Russian oil to the south and the west.

Transport of goods by freight transport

Year	Total [thous.t]	of which				Pipeline transport	
		public railway	road	public water	air	oil [thous.t]	natural gas [mill.m3]
2002	215 990	49 863	164 427	1 699	1.002	9 455	70 409
2003	226 122	50 521	174 149	1 451	1.134	9 957	72 692
2004	230 166	50 445	178 085	1 636	0.267	10 432	79 881
2005	246 242	49 310	195 405	1 526	0,506	10 773	84 597
2006	235 584	52 449	181 422	1 713	0,082	n.a.	n.a.
2007	232 915	51 813	179 296	1 806	0,194	n.a.	n.a.
2008	248 895	47 910	199 218	1 767	0,312	n.a.	n.a.
2009	202 943	37 603	163 148	2 192	0,007	n.a.	n.a.

Source: Ministry of Transport, Post and Telecommunications of the Slovak Republic, 2011

Length of naval, railway and road infrastructure



Source: Railways of the Slovak Republic (Železnice Slovenskej Republiky), Annual Report 2009; Ministry of Transport, Post and Telecommunications of the Slovak Republic, 2010; Slovak Road Administration (Slovenská správa ciest), 2010

Road Infrastructure

Development of the highway network has lagged behind that of the railways over the same period. Construction of a highway linking Bratislava with Brno and Prague in the Czech Republic began in 1938 but was only completed in 1980. Highway freight transport has increased since the political changes of 1989.

There is an extensive network of roads in Slovakia, comprised of highways, motorways and 1st, 2nd and 3rd class roads. In 2010, Slovakia has significantly changed its system of highway toll. System of stickers, valid either for one year, one month, or one week still applies for vehicles of up to 3.5 tons while vehicles with total weight exceeding 3.5 tons are charged by electronic tolling system on a pay-as-you-go basis. Toll Rate is stipulated per 1 km of a driven distance of Specified Road Section of highways, motorways and certain 1st class roads. The Toll Rate depends on a vehicle category, number of axles, and emission class. For further information, please, check the tables below or visit www.emyto.sk.

ONE-YEAR STICKERS	
Vehicles up to 3.5 tons including trailed vehicle	50 €
MONTH STICKERS	
Vehicles and trailed vehicle up to 3.5 tons	14 €
Trailed vehicle if the overall weight of trailing and trailed vehicle is over 3.5 tons	14 €
WEEK STICKERS	
Vehicles and trailed vehicle up to 3.5 tons	7 €
Trailed vehicle if the overall weight of trailing and trailed vehicle is over 3.5 tons	7 €

Source: www.ndsas.sk, 2011

RATES OF THE ELECTRONIC TOLLING SYSTEM – HIGHWAYS AND MOTORWAYS (€/km)					
	Vehicle Category		EMISSION CLASS		
			EURO 0 – II	EURO III	EURO IV, V, EEV
FREIGHT VEHICLE	3.5 – 12 tons		0,093 €	0,086 €	0,083 €
	over 12 tons	2 axles vehicle	0,193 €	0,183 €	0,179 €
		3 axles vehicle	0,202 €	0,193 €	0,189 €
		4 axles vehicle	0,209 €	0,199 €	0,196 €
		5 axles vehicle	0,206 €	0,193 €	0,189 €
BUS	3.5 – 12 tons		0,060 €	0,050 €	0,030 €
	over 12 tons		0,110 €	0,100 €	0,060 €

Source: www.emyto.sk, 2011

RATES OF THE ELECTRONIC TOLLING SYSTEM – 1 st CLASS ROADS (€/km)					
	Vehicle Category		EMISSION CLASS		
			EURO 0 – II	EURO III	EURO IV, V, EEV
FREIGHT VEHICLE	3.5 – 12 tons		0,070 €	0,063 €	0,063 €
	over 12 tons	2 axles vehicle	0,146 €	0,136 €	0,136 €
		3 axles vehicle	0,153 €	0,146 €	0,143 €
		4 axles vehicle	0,156 €	0,149 €	0,146 €
		5 axles vehicle	0,153 €	0,146 €	0,143 €
BUS	3.5 – 12 tons		0,040 €	0,030 €	0,020 €
	over 12 tons		0,080 €	0,070 €	0,040 €

Source: www.emyto.sk, 2011

Currently the road network in Slovakia consists of 17,946 km of roads and motorways. As of the beginning of 2010, Slovakia was covered by 391 km of highways, which represents a rapid increase of highway infrastructure compared to the past. Naturally, construction of highways still continues, as there is a plan to connect the Eastern and Western parts of Slovakia with highways by the end of the year 2014. According to this plan, by the end of year 2014 Slovakia will be covered by 736 km of highways (514 km of motorways and 222 km of expressways). To achieve this plan, the Slovak Government has also involved private capital on the basis of Public-Private Partnerships. European funds will also help to speed up the process of the construction. The following charts show the plan for highway construction till the end of 2020 as well as the character of the road infrastructure.

Priority plan of highway construction for next years

YEAR	Description	Connecting cities
2012	Expressways R1	Trnava – Banská Bystrica
2014	Motorway D1	Bratislava – Košice
2014	Motorway D3	Svrčinovec – Poland state boarder
2014	Expressway R5	Svrčinovec – Poland state boarder
2016	Expressway R6	Beluša (existing highway D1) – Czech state boarder
2017	Motorway D4	Bypass Bratislava
2020	Motorway D1	Košice – Ukraine state border

Source: Ministry of Transport, Posts and Telecommunications of the Slovakia, 2011

Basic Data about the Road Network (as of January 1st 2010)

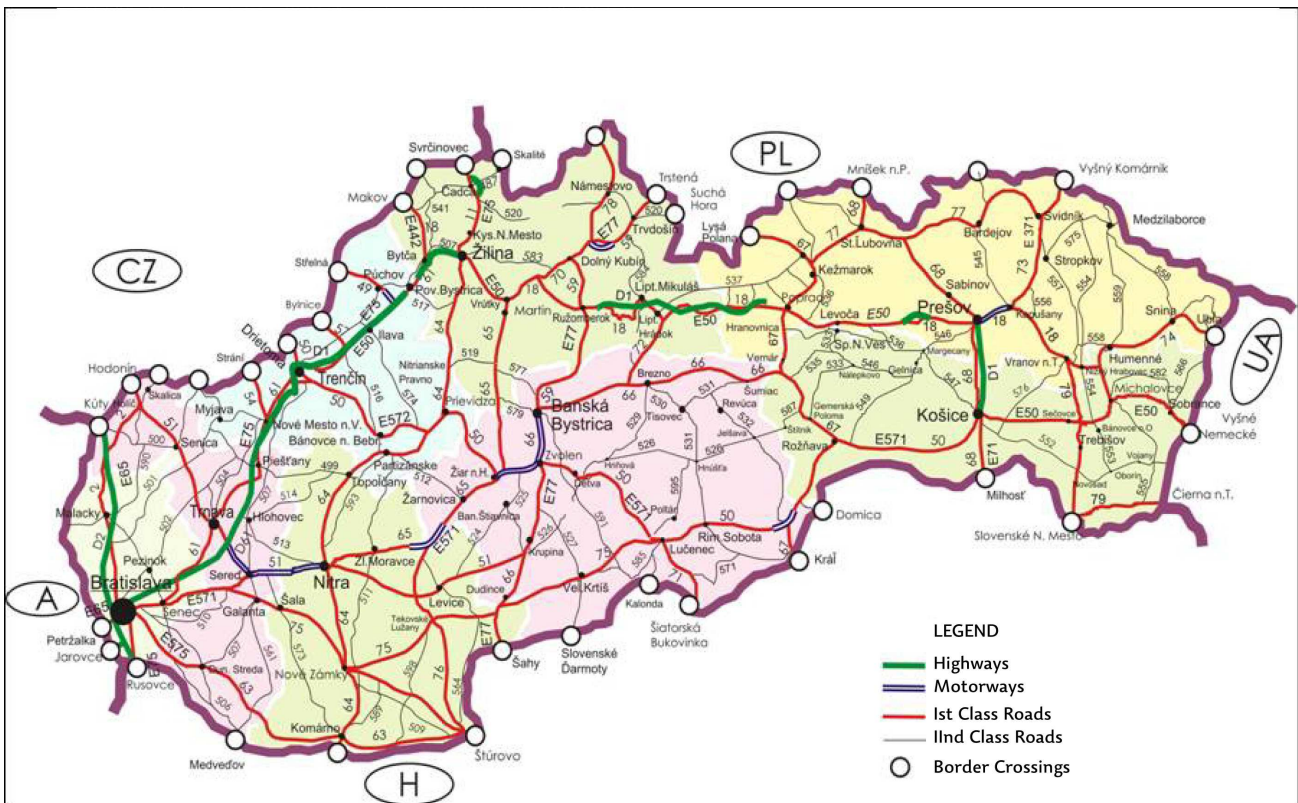
Type of the road	km
HIGHWAYS IN OPERATION - D1, D2, D3, D4	391
LENGTH OF MOTORWAYS	180
LENGTH OF ROADS AND MOTORWAYS	17,946
1st CLASS ROADS	3,317
2nd CLASS ROADS	3,644
3rd CLASS ROADS	10,406
ROAD NETWORK DENSITY/km.ths km ²	366
ROAD NETWORK DENSITY/km.ths population	3.3
URBAN ROADS	25,942

Source: Slovak Road Administration (Slovenská správa ciest), 2011

Motorway Network density compared to neighbouring countries

Country	Austria	Czech Republic	Hungary	Slovakia	Bulgaria	Poland	Rumania
Km / thous. km ²	20,22	9,24	9,22	7,97	3,76	2,71	1,34

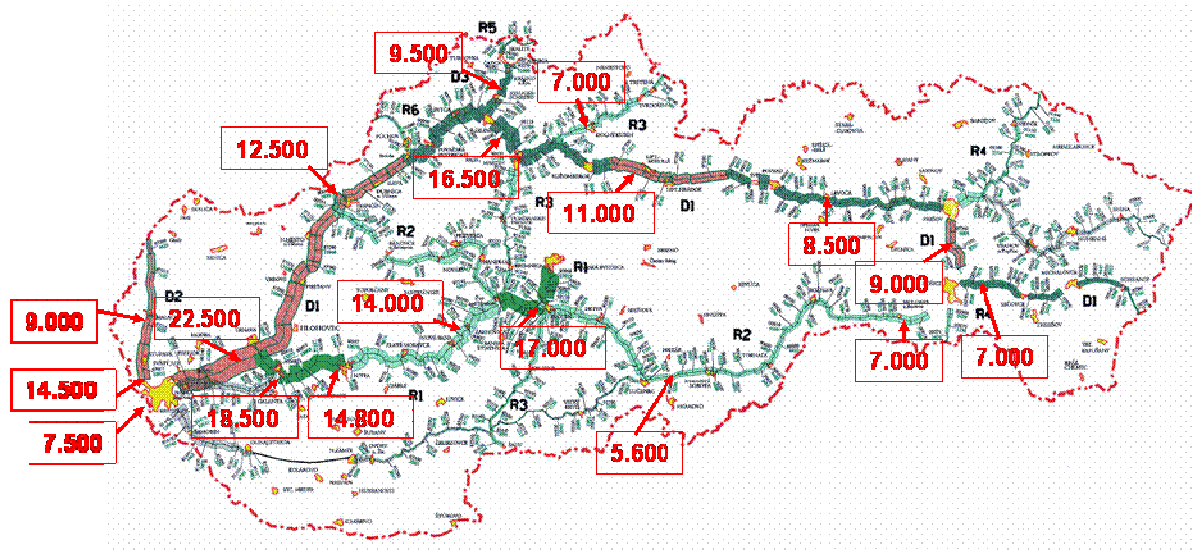
The Highway and Motorway Network in Slovakia



Source: Ministry of Transport, Post and Telecommunications, SARIO, 2010

Although the highway connection between Bratislava and Košice has not yet been completed, Eastern Slovakia should not be excluded from investment consideration. As shown in the following chart, traffic intensity in the Eastern parts of Slovakia is not significantly high and companies operating there do not experience infrastructure-related problems. Moreover, companies in Eastern Slovakia may use the motorway connection via Hungary, which ends in Miskolc, just 60 km away from Slovakian borders. Construction works on motorway connecting Košice and Miskolc started in June 2010, the motorway being projected to be in use by June 2013.

Traffic Intensity (no. of cars per day)



For more information, please, visit the website of the Slovak Road Administration (Slovenská správa ciest) www.ssc.sk

Railway Transport

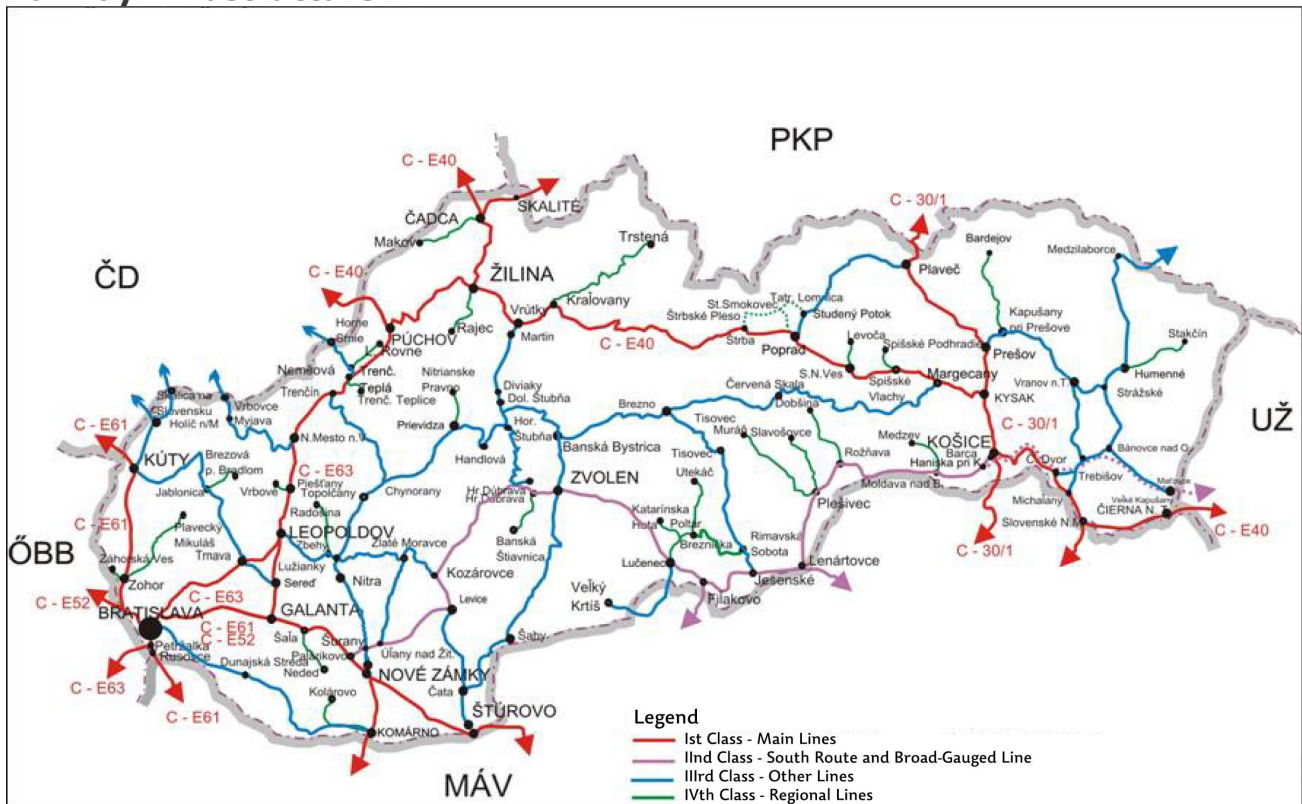
Slovakia has a dense network of 3,623 km of railways for railroad connections and railway transport services. Most of these tracks are part of the network of international corridors and all comply with international standards. Slovakia is connected with an extensive railway network with all neighboring countries, including Ukraine, which gives it access to eastern markets. In accordance with EU regulations about adopting a common transport policy, an increase in railway transport share has become a priority. This goal is supported by the concept of railway modernization, with priority given to tracks included in the Pan-European corridors. From the point of view of the railway network, Slovakia may be regarded as a transit country. Out of the total length of railways in Slovakia, more than 1,000 km are double-tracked and more than 2,600 km are single-tracked railways.

The main aim of the long-term development of the railway network is to increase the railway speed to up to 160 km/h, primarily focused on international corridors. According to the Pan-European conference of ministers of transport, three railways corridors were approved to be included in the Trans-European corridor networks:

- Corridor No. IV (Berlin – Prague – Bratislava – Štúrovo – Budapest – Istanbul/Thesaloniki)
- Corridor No. V (Terst – Budapest/Bratislava – Uzhorod – Lvov)
- Corridor No. VI (Gdansk – Lodz – Žilina)

Another large investment project will upgrade tracks in order to increase the speed of trains to 160 km/hour from Bratislava to Košice.

Railway infrastructure



Source: Ministry of Transport, Post and Telecommunications of the Slovak Republic, SARIO, 2010

Length of the Railway Network in Slovakia

Year	Total [km]	of which					
		single-tracked	double-and-more-tracked	standard-gauged	narrow-gauged	broad-gauged	electrified
2007	3 629	2 610	1 019	3 480	50	99	1 578
2008	3 623	2 608	1 015	3 474	50	99	1 577
2009	3 623	2 608	1 015	3 474	50	99	1 577

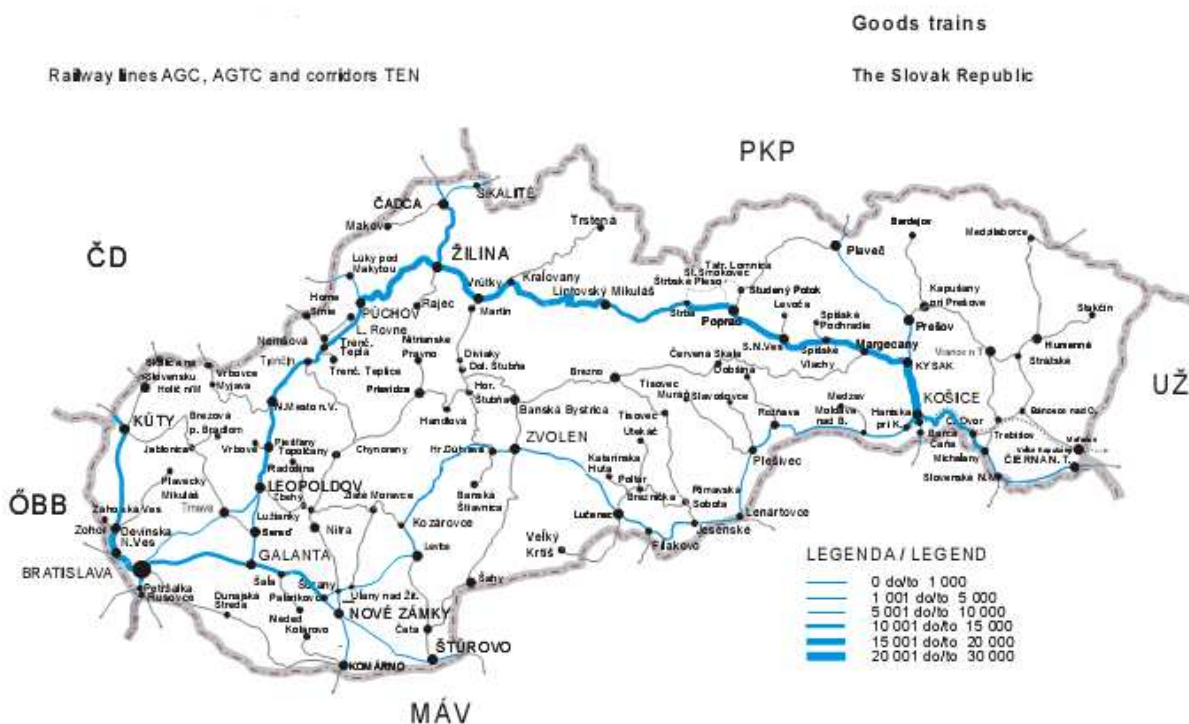
Source: Railways of the Slovak Republic (Železnice Slovenskej Republiky), Annual Report 2009

For more information, please, visit the website of the Railways of the Slovak Republic (Železnice Slovenskej republiky) www.zsr.sk and the website of the Railway Company (Železničná spoločnosť Slovensko) www.slovakrail.sk.

Railway Network density compared to neighbouring countries

Country	Czech Republic	Hungary	Slovakia	Austria	Poland	Romania	Bulgaria
Km / thous. km ²	121,4	83,9	73,9	67,5	65,1	45,2	37,3

Traffic flows on the rail network



Source: Ministry of Transport, Post and Telecommunications of Slovakia, 2009

Air Transport

Bratislava, the capital city of the Slovak Republic, is situated near the Austrian and Hungarian borders (79 km from Vienna and 201 km from Budapest). The intention to create a direct connection between the Vienna International Airport at Schwechat and the International Airport Bratislava represents a unique opportunity for a stable and continuous increase in the transport volume of the Bratislava International Airport. The most important contributions to air services, transportation of passengers, transportation of goods and mail are represented by the international airports in Bratislava and Košice. These provide both regular and charter air transport services for domestic and international lines. Other international airports in Slovakia are Poprad-Tatry Airport, Sliach Airport (near Banská Bystrica, currently closed for reconstruction), Piešťany Airport and Žilina Airport. All Slovak Airports entered the Schengen Union before 30th March 2008. As the potential of Slovak airports has not yet been fully exploited, regular and charter connections to Europe and the rest of the world are often secured via either Vienna International Airport, or Budapest, Prague and Krakow Airports.

Among the most important domestic airlines are Danube Wings while the following airlines operate flights to and from Slovakia: Aeroflot, Austrian Airlines, Czech Airlines, Danube Wings, LOT Polish Airlines, Lufthansa, Ryanair, Smart Wings, Sun d'Or International Airlines and others. Regular passenger air transport is realized to more than 30 destinations from Bratislava International Airport.

Regular flights from Bratislava airport:

ALICANTE, BARCELONA, BIRMINGHAM, BRISTOL, BRUSSELS, DUBLIN, EDINBURG, GRAN CANARIA, JEREVAN, KOŠICE, LIVERPOOL, LONDON, MALAGA, MILAN, PARIS, PRAGUE, ROME, STOCKHOLM, TEL AVIV, WARSAW,

Regular Flights from Košice airport:

BRATISLAVA, PRAGUE, VIENNA

Regular Flights from Žilina airport:

PRAGUE

Charter Flights from Poprad airport:

Egypt, Turkey, Bulgaria

Airports in Slovakia



LOCATION	PUBLIC AIRPORT NAME
Bratislava	M. R. Štefánik Airport – Airport Bratislava, a.s. (BTS) - http://www.airportbratislava.sk/
Košice	Košice International Airport (KSC) - http://www.airportkosice.sk/
Piešťany	Piešťany Airport (PZY) - http://www.airport-piestany.sk/sk/
Sliač	Sliač Airport (SLD) - http://www.airportsliac.sk/
Žilina	Žilina Airport (ILZ) - http://www.airport.sk/
Poprad	Poprad-Tatry Airport (TAT) - http://www.airport-poprad.sk/
Prievidza	Prievidza Airport - http://www.aeroklub-prievidza.sk/index.php?lng=sk
Nitra	Nitra Southeast (ZNI) - http://www.airportnitra.sk/sk/content/letisko-uvod

Source: Ministry of Transport, Post and Telecommunications of Slovakia, 2011

Airports performances – Passenger air transport

Year		2005	2006	2007	2008	2009
Passengers Total (number)		1 643 616	2 354 854	2 563 424	2 887 805	2 127 321
Commercial air transport	International	1 501 673	2 112 064	2 179 128	2 478 331	1 897 443
	National	126 873	229 449	352 685	387 854	213 708
Other performances		15 070	13 341	31 611	21 620	16 170

Source: Ministry of Transport, Post and Telecommunications of Slovakia, 2011

Airports performances – Air freight transport

Year		2005	2006	2007	2008	2009
Cargo total (tonnes)		4 008,846	5 642,948	2 463,192	7 580,233	12 340,257
Commercial air transport	International	3 909,536	5 570,086	2 399,723	7 465,129	12 321,119
	National	28,216	25,306	12,280	5,356	7,553
Other performances		71,094	47,556	51,189	109,748	11,585

Source: Ministry of Transport, Post and Telecommunications of Slovakia, 2011

Air Transport Services at Bratislava International Airport

Year	2003	2004	2005	2006	2007	2008	2009	2010
<i>International air traffic</i>	442 357	855 211	1 258 127	1 820 977	1 830 078	2 015 310	1 595 559	1 620 598
From which: scheduled	218 925	525 237	908 464	1 492 056	1 436 924	1 561 110	1 199 568	1 193 921
Charter	223 432	329 974	349 663	328 921	393 154	454 200	395 391	426 677
<i>Domestic air traffic</i>	32 034	35 031	62 781	111 470	174 463	193 442	108 104	41 690
From which: scheduled	31 535	34 901	62 781	111 470	174 287	192 642	105 937	39 379
Charter	499	130	0	0	176	800	2 167	2 311
other	5 620	3 372	5 585	5 195	19 601	9 793	6 355	3 416
Total	480 011	893 614	1 326 493	1 937 642	2 024 142	2 218 545	1 710 018	1 665 704

Source: Letisko M.R.Štefánika – Airport Bratislava, 2011

Water Transport

Ship transport connects Slovakia to both the North and Black seas via European corridors. There are currently two public ports serving cargo ships in Slovakia: **Bratislava & Komárno**. The ports of Bratislava and Komárno, both located on the Danube River, provide an advantageous connection to railway and road transport networks. The river Danube is the second longest river in Europe and is navigable for ships along a nearly 2,600 km long corridor. **The Danube** connects the Black and the North Seas (the significant ports of Sullina and Rotterdam) as a part of the Trans-European artery that is about 3,500 km long. The port of Bratislava is right in the middle of this artery, and the total length of the Slovakia section is 172 km. The rivers of the country's interior are not navigable. Sailing through the **Rhine – Main – Danube** canal is subject to reloading in Regensburg or Kelheim. The project of combined transport and using the services of the **container terminal in the Bratislava port** also includes the most important port of the **North Sea – Rotterdam**.

Plans are underway to exploit the huge transport potential of Slovakia's rivers in the near future. The **Váh Waterway project** involves canalizing the Váh River, connecting Slovakia to international water corridors and building several ports on this river. Additional information is available on the web page of Slovak Navigation and Ports www.spap.sk.

Central European water way



Source: Slovenská plavba a prístavy, 2011

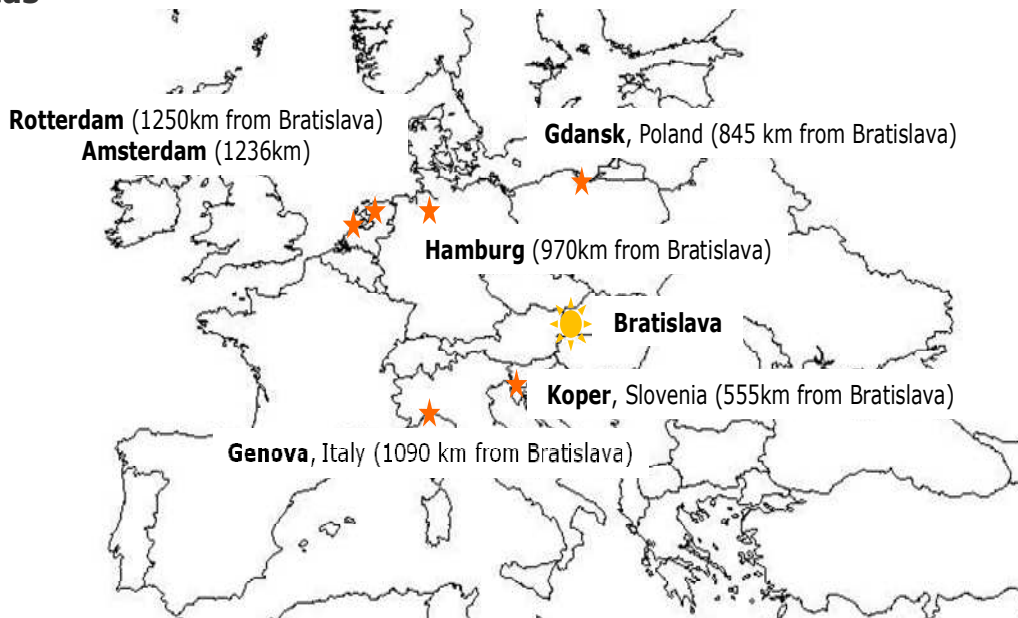
Performances in Water transport

Year	2005	2006	2007	2008	2009
Freight transport					
Transport of goods (thous. t)	1 526	1 713	1 806	1 767	2 192
Performances (mill. tkm)	680	936	843	979	1 230
Passenger transport					
Transported passen. (thous.)	134	111	122	122	110
Performances (mill. pass.-km)	4	3	4	3	3

Intermodal & Combined Transport

A direct regular train connection via Prague to the port in Rotterdam takes 30 hours and is the most frequently used means of transport by the combined transport system.

Map of major European seaports used for combined transport of freight from overseas



Source: SARIO, 2009

Intermodal terminals in Slovakia



Source: ZSCARGO, 2009

Major intermodal operators: SKD INTRANS, METRANS/Danubia.

Basic technical parameters of existing CT terminals in the Slovak Republic

CT terminal	Operator	Total area (m ²)	Storage area (m ²)	Handling devices	Number and length of tracks
Bratislava ÚNS	SKD INTRANS a.s., Žilina	34 500	16 000	1 rail portal crane 32t, 2 sidehandlers 35t	3 tracks (290m, 297m, 325m)
Bratislava port - Pálenisko	SPaP a. s. Bratislava	21 000	11 000	5 portal cranes 2x16t, 2x20t and 36/32t, 2 sidehandlers 45t, 1 stationary RoRo ramp	2 tracks, (150m, 300m)
Žilina	SKD INTRANS a.s., Žilina	5 976	1 000	2 side handlers 35t	1 track, (470m) 1 rent track, (425m)
Košice	SKD INTRANS a.s., Žilina	14 820	2 600	2 tired cranes 19t, 12t 2 side handlers 2x35t	2 tracks, (2 x 180m)
Dunajská Streda	METRANS (Danubia), a.s.			3 portal cranes 36t, 7 sidehandlers 5x10t, 2x45t	9 tracks (650m, 629m, 727m, 2x655m, 4x550m)
Sládkovičovo	GREEN Integrated Logistics (Slovakia), s.r.o.			1 portal crane, 1 sidehandler	1 track (290m)
Dobrá	ZSSK Cargo, a.s. Transcontainer Slovakia s.r.o.	180 750	2640 loose 245 roofed	2 rail portal cranes 50t 1 reachstacker LUNA 45 tons	4 tracks narrow gauge (570m, 595m/735m, 684m) 4 tracks broad gauge (593m, 588m, 812m, 802m)

Source: Ministry of Transport, Post and Telecommunications of the Slovak republic, 2011

Estimated costs of road or intermodal transport

Ports	Max of 25 ton load by curtain-sided trailer	
	Price	
	road	Rail/road
Hamburg	945 €	1145 €
Rotterdam	1245 €	1445 €
Rijeka	745 €	945 €
Koper	745 €	945 €

Ports	Containers by trucks or train			
	road		Rail/road	
	20 ft	40 ft	20 ft	40 ft
Hamburg	1107 €	1107 €	657 €	915 €
Bremerhaven	1107 €	1107 €	657 €	915 €
Koper	1964 €	1964 €	536 €	749 €
Rotterdam	2142,8 €	2142,8 €	No service	No service

Source: SARIO, 2009

**Slovak Investment
and Trade Development Agency**

Martinčekova 17
821 01 Bratislava
Slovak Republic

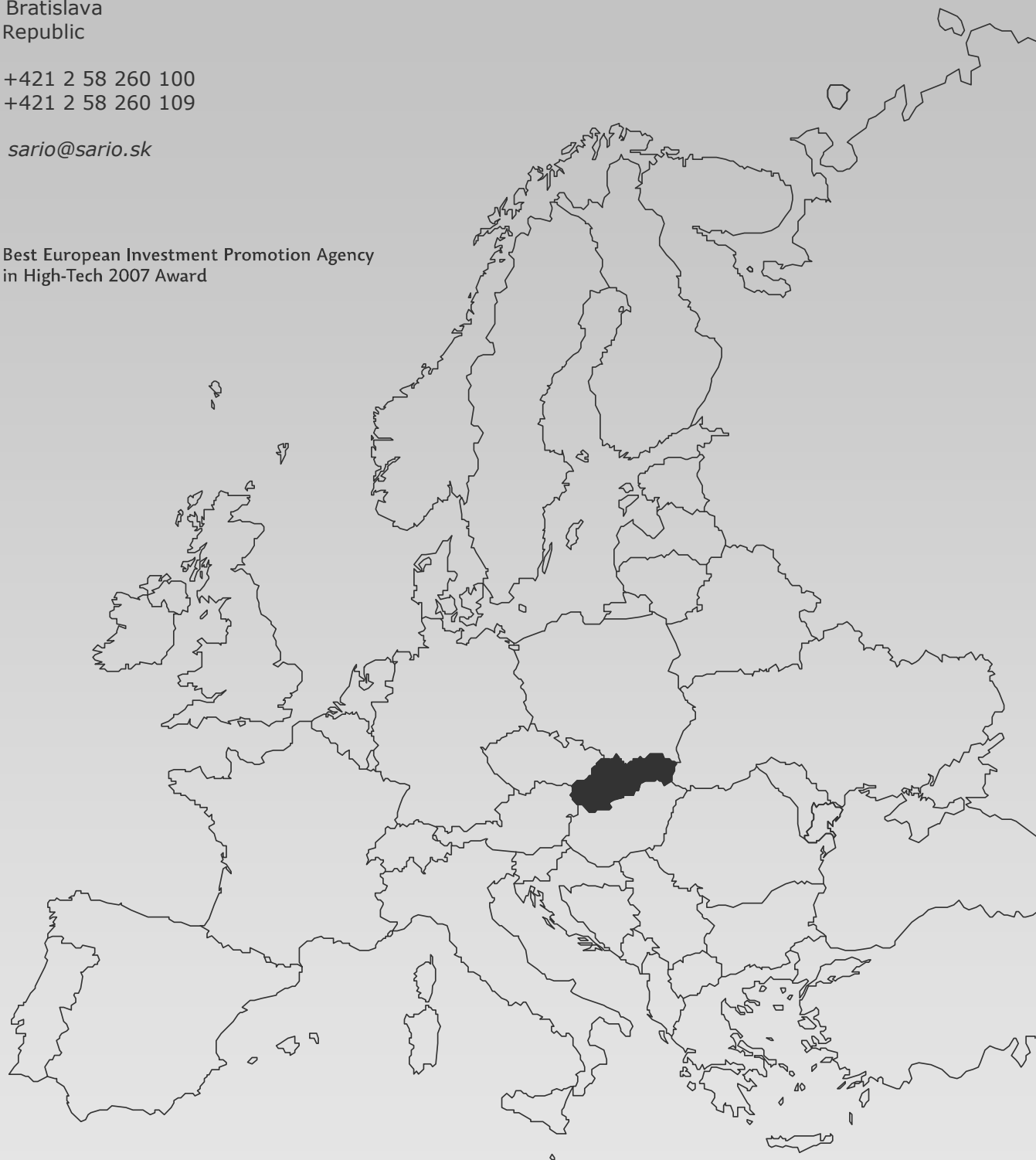
Tel: +421 2 58 260 100

Fax: +421 2 58 260 109

E-mail: sario@sario.sk



Best European Investment Promotion Agency
in High-Tech 2007 Award



www.sario.sk