

# GATEWAY TO WESTERN, CENTRAL, AND SOUTHEASTERN EUROPE

Andrej Černe

Relative to its geography, history, economy, culture, and language, Slovenia can be marked as a very diverse country that has an advantage mostly due to its favourable geographical location, relatively successful market economy, political and economic stability, industrial tradition, highly skilled labour force, and relatively high quality natural and cultural environment.

For centuries, the territory of Slovenia has been crossed by traditional transportation routes connecting northern Europe with southern, eastern, and western Europe. Slovenia's location in the northwestern part of the Mediterranean's most inland bay on the Adriatic Sea where the Alps, the plateaus of the Dinaric Alps, and the western margins of the Pannonian Basin meet gives it a relatively quite advantageous traffic and geographical position distinguished by its transitional character and the links between these geographical regions. In the wider macroregional sense, this transitional character and these links have not changed since prehistoric times. Slovenia's location significantly influenced the outline of the traffic network, which adapted to requirements regarding the choice and quality of individual routes, safety, possibilities for overcoming natural obstacles, construction technology, and last but not least, to the prevailing means of overcoming distances by transportation methods whether via pedestrian traffic, caravans and horseback riders, wagons, the railway network, or the modern planning of expressways.

With the development of Central, Eastern, and Southeastern Europe and the expansion of the European Union, these historic connections have today acquired new significance. From the transportation and geographical point of view, Slovenia is a territory that enables improving the transit character of Europe's transportation network with the further construction of missing sections and the modernization of existing sections of European traffic corridors in order to achieve the greatest possible economic and spatial integration effects. Through an appropriately developed transportation infrastructure, Slovenia ensures relatively suitable conditions for linking the European Union with the more important urban centers in Western, Central, Southeastern, and Eastern Europe. Given its geographical position, the Port of Koper, modern transportation infrastructure, and the strategic orientation and economic trends of Slovenia, its neighbouring countries, and the member countries of the European Union, Slovenia is a »gateway« to Central and Southeastern Europe.

The data on international borders and cross-border traffic says much about the geostrategic, traffic-geographical position, and the border and transit character of Slovene territory. In 2002, almost 171 million passengers crossed Slovenia's borders, including 167 million by road, 2.1 million by railway, 1.6 by sea, and just under one million by air. In the same year, in border traffic of goods transported by road alone, 33 million tons of goods crossed the Slovene border, including 22 million tons in transit, 6.5 million tons imported, and 4.6 million tons of goods exported.

For the neighbouring countries of Austria, Italy, Hungary, and Croatia, the territory of Slovenia is not just a transit territory across which they wish to establish traffic connections with European urban regions and their economic areas but also a destination area, where they wish to expand the gravitation influence of their important urban centers. The territory of Slovenia represents an important crossroads of main traffic routes between Austria, the Czech Republic, Slovakia, and Hungary, and between the three Central-European ports of Trieste, Reka, and Koper.

Austria's priority traffic orientation is to the Port of Koper and the north-south land direction connected with it, which to a great extent is also bound to the Slovene economic space. The south direction

follows, while the west direction toward Italy has the least priority because Austria already has qualitative traffic connections with Italy. Croatia's establishing as direct traffic connections as possible, mostly via Zagreb, with important urban centers in Western Europe to a large degree also occurs via Ljubljana: Zagreb–Rijeka–Trieste, Zagreb–Maribor–Graz–Vienna–Berlin, Zagreb–Ljubljana–Villach. Italy's priority traffic direction via Slovene territory is oriented toward the countries of Eastern and Southeastern Europe. The strategic interest of Hungary appears in its priority orientation to the Port of Koper and also the Port of Rijeka in Croatia. The Port of Koper, whose 20% share represents the transit traffic of goods, has a major impact on international traffic and connecting countries from different parts of Europe. This direction is followed by the orientation toward Italy, which is to a lesser degree destination oriented into Slovenia.

However, Slovenia's orientation in establishing traffic connections has different priorities. The most important is the north direction toward Austria and Germany, which are priority economic markets for Slovenia. The second most important direction is west toward Italy, which is also a very important economic partner for Slovenia. In the long term, traffic directions toward the east and south are very promising and have great prospects. Among them belongs the Port of Koper, which is of distinct international and intercontinental importance (Gulič 1999). The Port of Koper lies in the northernmost part of the Adriatic, and ships sailing to the Mediterranean via the Suez Canal can save five to ten days or up to 3,700 kilometers over using the North Sea access to Central Europe.

From the viewpoint of the global interests of neighbouring countries and the existing and newly-created forms of economic cooperation in Eastern Europe, the transportation infrastructure network in Slovenia is most suitable in particular for Italy and Hungary. Both countries are interested in connecting the Po and Pannonian basins. As one of the most developed countries, Italy sees the future of its economic expansion in a breakthrough on the markets of Central and Eastern Europe. Hence its initiative and support of the Central European initiative, and in this framework, also the idea of the Barcelona–Trieste–Ljubljana–Budapest traffic connection. Hungary wishes to play a more important role in this newly forming economic cooperation between East and West. The proposed priority solutions of the southwest-northeast connections partly oppose the interests of Croatia, which has its optimal traffic connections toward Western and Central Europe oriented via Slovenia.

Several international connections important for development and traffic run across the territory of Slovenia, including two of the seven trans-European development and traffic corridors:

- Northwest-southeast: London, Brussels, Frankfurt, Munich, Salzburg, Villach, Jesenice, Ljubljana, Zagreb, Belgrade, Niš, Istanbul or Athens; Amsterdam, Frankfurt, Linz, Graz, Šentilj, Maribor, Ptuj, Zagreb, Rijeka or the Balkan peninsula;
- Southwest-northeast: Barcelona, Milan, Ljubljana, Maribor, Budapest, Kiev.

European development corridors V and X cross on the territory of Slovenia, forming two important development axes of Europe. Corridor V establishes the Southern European development axis (Sunbelt), connecting countries from Spain to Ukraine. On this corridor are located the most important million-resident urban centers and traffic nodes of Barcelona, Milan, Zagreb, Budapest, and Kiev. Corridor X forms one of the most important development axes in the north-south direction and connects countries from Austria to Greece and Turkey. The most important urban and traffic nodes on this corridor are the million-resident metropolises of Munich, Vienna, Zagreb, Belgrade, Athens, and Istanbul. The routes of corridors V and X across the territory of Slovenia shows that they have their start and end points in Koper and an important traffic intersection in Ljubljana.

These international traffic connections compose the so-called »Slovene traffic cross«, two highly developed traffic corridors intended as an intermodal and integral traffic system since they connect the road, railway, air, and maritime traffic included in the integral European traffic network. In the spatial sense, internal, interregional, and regional passenger and goods railway traffic is therefore extremely heavily concentrated on these two basic directions through Slovenia: the southwest-northwest Koper–Ljubljana–Maribor–Šentilj–Murska Sobota direction and the northwest-southeast Jesenice–Ljubljana–

Dobova direction. More than a half of all the traffic in Slovenia flows over 14% of the traffic network in the direction of the expressways, that is, on the Slovene traffic cross.

Slovenia has been included in the joint European development policy since 1993. The strategy of development for the Slovene railway infrastructure was formed in the second half of the 1970's on the basis of the Perspective Plan for the Development of the European Railway Infrastructure (UIC), the European Agreement on Most Important International Railway Lines (UN-ECE) in the middle of the 1980's, the European Agreement on Most Important Lines of International Combined Traffic and Corresponding Installations (AGTC) at the end of the 1980's, and the European Network of Railway Lines for High Velocities (GEB) at the beginning of the 1990's (Analiza 2000).

With 1.99 million inhabitants, an average density of 98 inhabitants per square kilometers, and about 6,000 settlements, in 2002 Slovenia was crisscrossed by 1,202 kilometers of railway lines (the proportion of electrified lines totals 42%) and 20,250 kilometers of roads including 457 kilometers of expressways, 94 kilometers of highways, 983 kilometers of main roads, 4,815 kilometers of regional roads, and 13,901 kilometers of local roads (*Statistical Yearbook* 2003). Relative to the density of railway network per surface area, with 59 km/1,000 km<sup>2</sup> Slovenia was above the European Union average, and relative to the density of railway lines, it ranks at the very top with 604 km/million inhabitants.

*Table 1: Comparison of Slovenia with Italy and Austria in the field of railway and road infrastructure in 2000.*

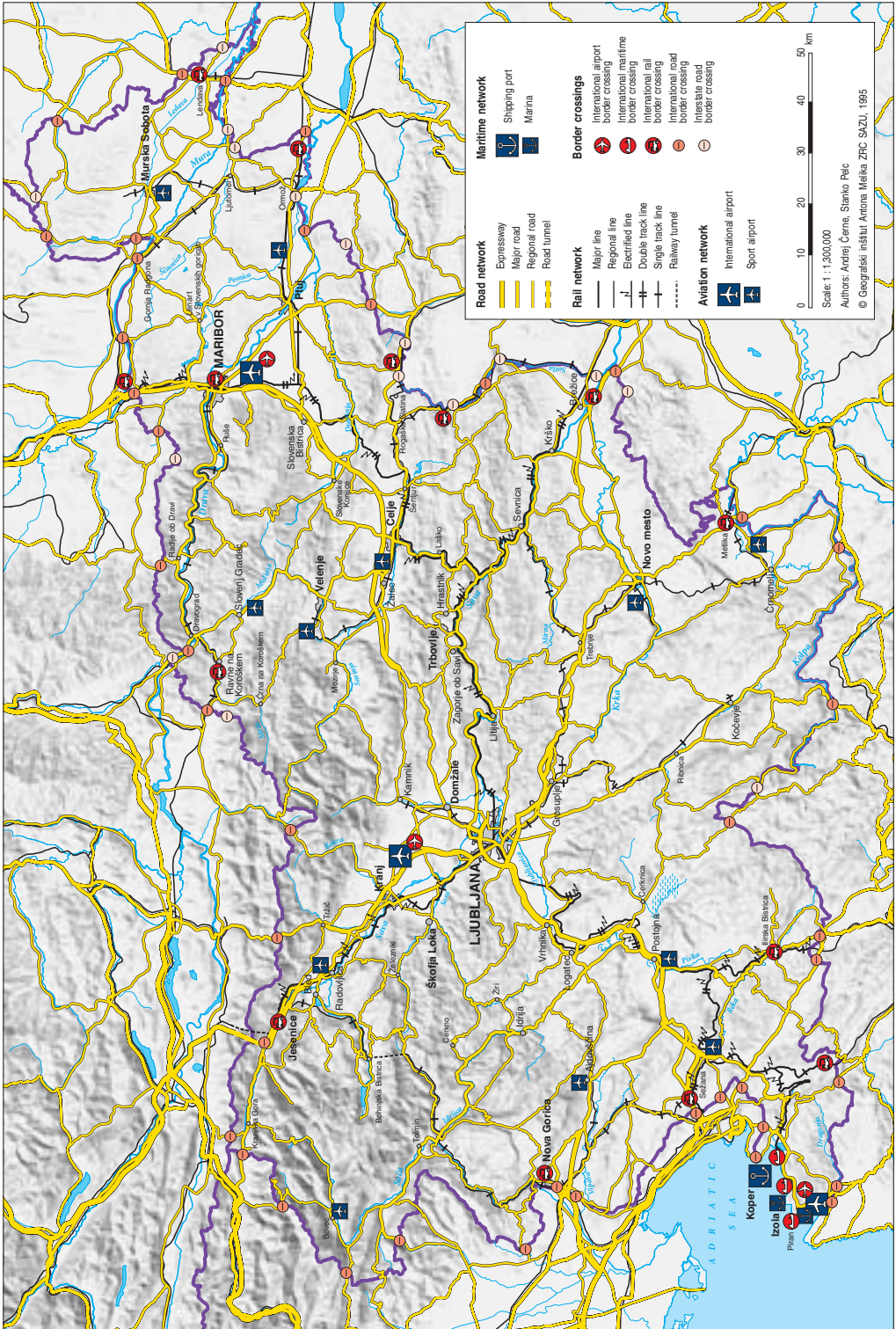
Country	Area (× 1,000 km <sup>2</sup> )	Population	Density of population/ km <sup>2</sup>	Length of railway lines in km	Density of railway lines km/1000 km <sup>2</sup>	Density of railway lines km/million inhabitants	% of electrified railway lines	Length of expressways*
Austria	83.9	8.1	97	6,281	74.86	775.43	60	1,634
Italy	301.3	57.7	191	16,499	54.76	285.94	66	6,478
Slovenia	20.3	1.9	98	1,201	59.16	603.52	42	427

\*1999; Source: *Statistical Yearbook* 2002.

On the basis of the relatively dense traffic network, a narrower traffic gravitation area for Slovenia developed that includes: Hungary, the Czech Republic, Slovakia, Austria, and Germany, and a wider traffic gravitation area encompassing also Poland, Romania, Russia, Benelux, France, Switzerland, and Albania. With traffic across Slovenia, countries such as Croatia, Bosnia and Herzegovina, Serbia and Monte Negro, Greece, Turkey, and Bulgaria are connected with Central and Western Europe.

All these facts have an important impact on the structure and spatial course of the traffic network and traffic flows. Approximately 90% of passenger traffic (number of trips) takes place within the country, 7% are destination-origin trips with their destination or origin in the country, and 3% are transit trips with the destination and origin outside the country. On the basis of passenger kilometers, approximately 85% of traffic is internal and approximately 15% is transit and destination-origin passenger traffic. This situation is to a larger degree characteristic of private automobile traffic, while with public transportation, the proportion of transit and destination-original traffic is lower. Thus, internal traffic prevails on the roads, specifically passenger traffic. In passenger traffic, almost two thirds (62.5%) of the mileage goes to private automobiles (passenger kilometers), 30.1% to public transportation, and 7.5% to railway traffic (air and sea traffic are not considered).

The major part of passenger traffic therefore goes to automobile traffic, which is also on the increase. On the roads, private automobile transportation dominates, and in passenger traffic, almost two thirds



◀ *Figure 1: Transportation network in 1996.*

*Table 2: Passengers carried and passenger kilometers in road and railway traffic between 1995 and 2001.*

	Passengers carried (× 1,000)		Passenger kilometers (× million)	
	Road traffic	Railway traffic	Road traffic	Railway traffic
1995	121,573	13,307	2,507	595
1996	113,411	13,683	2,348	613
1997	109,801	13,568	2,195	616
1998	102,561	13,907	2,098	645
1999	96,573	13,756	1,940	623
2000	74,560	15,010	1,581	705
2001	72,504	14,484	1,470	715

Source: *Statistical Yearbook 2002.*

goes to private automobiles (passenger kilometers). The ratio between private and public passenger traffic shows that 60% of all passengers used cars and 40% used means of public transportation in 1977. Today, it is estimated that the number of those who use cars is about 70% and the proportion of those who use means of public transportation is only about 30%.

*Table 3: Proportion of passenger traffic by type of transport between 1995 and 2001 (millions of passengers carried).*

Type of transport	1995	1996	1997	1998	1999	2000	2001
City	53.4	55.5	56.11	65.3	57.2	59.0	54.6
Public roads	41.8	39.5	38.9	38.2	37.2	33.8	37.5
Railway	4.6	4.8	4.8	5.2	5.3	6.8	7.5
Air	0.2	0.2	0.2	0.3	0.3	0.4	0.4

Source: *Statistical Yearbook 2002.*

More than 90% of internal public passenger traffic is carried by buses (55% city and suburban traffic, 45% interurban traffic), while 9% is carried by the railway. According to the purpose of trips, the proportion of daily migration is relatively high since 70% of all employed Slovenes commute to work daily. School children comprise about half the daily migration. Half of the commuters take public bus

*Table 4: Proportion of goods traffic according to type of transportation between 1995 and 2001.*

Type of transport	1995	1996	1997	1998	1999	2000	2001
Railway	66.3	62.6	64.6	66.1	66.8	65.3	64.7
Public road	19.8	21.6	20.4	19.5	18.5	19.3	20.2
Sea	13.9	15.8	15.0	14.4	14.3	15.4	15.1

Source: *Statistical Yearbook 2002*



transportation, a good third take automobiles, and a quarter take the railway. Almost 70% of all population has good access to the bus network, and a good half to the railway network. Regrettably, some areas still have extremely poor access to public transportation (Černe 2002).

Characteristic of road goods traffic is the relatively high proportion of internal traffic and the small proportion of transit and destination-origin traffic, although the latter has increased in the last few years. On the railway, transit and destination-origin traffic dominates, while the proportion of internal traffic is smaller. In the field of goods traffic, the ratio between road and railway expressed in tons of goods carried is 77:23, and expressed in net ton kilometers, 58:42 in favour of road traffic.

Table 5: Goods traffic in road and railway traffic between 1995 and 2001.

	Internal transport (× 1,000 t)		International transport (× 1,000 t)		Net-ton kilometers (× million)	
	Road	Railway	Road	Railway	Road	Railway
1995	2,667	1,752	1,769	13,141	1,740	3,076
1996	2,714	1,811	1,831	11,344	1,705	2,550
1997	2,681	1,600	1,841	12,760	1,775	2,852
1998	2,334	1,591	1,905	12,805	1,903	2,852
1999	1,974	1,751	2,051	12,475	1,874	2,784
2000	2,146	2,028	2,323	13,036	2,090	2,857
2001	2,133	1,700	2,523	13,219	2,267	2,837

Source: *Statistical Yearbook 2002*.

More than 90% of internal and 63% of international goods traffic flows on the roads. More than a half of the goods traffic across Slovene territory runs on the railway. From the international viewpoint, the proportion of goods transported via railway in Slovenia is relatively high. Here, the Port of Koper plays an extremely important role since three quarters of all the goods arriving at the Port of Koper are carried by railway. Of this traffic, the proportion of transit traffic is almost two thirds, most of which goes to or comes from Austria (26%), Hungary (15%), and the Czech Republic (8%) (Černe 2002).

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