

# GENERAL NATIONAL REPORT: 2018 MOTORWAY DEVELOPMENT IN SERBIA

## 1. Total length of Serbian motorway and expressway network

The length of the tolled motorways network managed and maintained by PE Roads of Serbia is changed when you compared with 2016. New sections were opened in 2017

- motorways and expressways
- tolled motorways and expressways: 645,00 km

## Openings in 2018

The opening of the following sections of tolled motorways is foreseen in 2018:

Motorway	Section	Length km
E 75 Srpska kuca - Levosoje 8km	Grabovnica - Levosoje	25,40
E 80	Niš - Dimitrovgrad	74,11
<b>Total</b>		<b>99,51</b>

## Investments in motorways

Year	2017		2018	
	mil CSD	mil EUR	mil CSD	mil EUR
Investments in construction of new motorways	13.378,50	110,26	7.783,80	63,96
Investments in routine maintenance of existing motorways ***	24.123,30	198,81	18.825,30	154,69
<b>Total</b>	<b>37.501,80</b>	<b>309,07</b>	<b>26.609,10</b>	<b>218,65</b>

\*\*\*Investments in routine maintenance are for all state roads I and II category.  
Exchange rate 1 EUR = 121,3367 CSD/ 2017; Exchange rate 1 EUR = 121,7 CSD/ 2018;

## Financing

Year	2017	2018
National Budget	35%	20 %
Loans ( IFI )	7%	20 %
Own income (toll collection and other fees)	58 %	60 %
<b>Total</b>	<b>100 %</b>	<b>100%</b>

## Traffic on Serbian motorway network

According to the data published by Statistical Office of the Republic of Serbia estimated increased of GDP 2017/2016 in Serbia is 1,9 %.

Inflation rate in 2017 was (taking December 2017/ December 2016 price index) 3 %.

*Traffic growth on motorway network in 2017/ 2016: 22,36 % (taking into account the total volume of traffic on all tolled motorways in Serbia).*

## Tolling system and tolling technologies used

On next sections: Belgrade - Niš, Belgrade - Šid and Belgrade - Subotica, are installed so-called „closed “toll system and on section Niš - Leskovac, Ljig - Preljina, Levosoje - Preševo, and Suva Reka - Gradinje, is „open “toll system.

To save space and money many lanes are mixed with manual and electronic toll.

### ETC Pay Toll system features

- ✓ Cutting edge technology
- ✓ Interoperability with neighbouring countries (Montenegro and Federation of Bosnia and Herzegovina) as well as with other countries
- ✓ High reliability
- ✓ Easy to maintenance
- ✓ State-of-the-art technology
- ✓ Excellent working environment

### ETC Pay Toll system - Technology

- ✓ ETC system was implemented in accordance with EU CEN 278/2004 and carrier frequency of 5.8 MHz
- ✓ Based on DSRC (Dedicated Short Range Communications) technology
- ✓ Implemented for pre-paid, post-paid and exempted users
- ✓ Each user of the ETC system has an on-board unit (OBU) attached to the windscreen of the vehicle

- ✓ Payment without stopping for all vehicle categories
- ✓ The speed of passing vehicles is limited to 50 km / h for safety reasons

## ***Toll Rates***

Now In Serbia there are only four toll classes, as follows:

Toll classes:

### 1a. Class

- a. Motor vehicles with the characteristics of motorcycle, motor tricycle and quad

### 1. Class

- a. Motor vehicles with two axles and height equal to or lower than 1.3 m, measured at the first axle
- b. Vans with two axles and total height equal to or lower than 1.9 m, with maximum allowed weight up to 3,500 kg

### 2. Class

- a. Motor vehicles with two axles and height equal to or lower than 1.3 m measured at the first axle, with trailers
- b. Vans with two axles and total height equal to or lower than 1.9 m, with maximum allowed weight up to 3,500 kg with trailers
- c. Vans with two axles and total height over 1.9 m, with maximum allowed weight up to 3,500 kg

### 3. Class

- a. Motor vehicles with two or three axles, with height over 1.3 m, measured at the first axle, with maximum allowed weight over 3,500 kg
- b. Vans with two axles and total height equal to or over 1.9 m, with maximum allowed weight up to 3,500 kg with trailers

### 4. Class

- Motor vehicles with four or more axles (also counting the trailers' axles), with height over 1.3 m, measured at the first axle, with maximum allowed weight over 3,500 kg

## Revenues

The gross toll income in 2017 was 20.670,26 million CSD or 171, 69 million EUR, taking the exchange rate **1 EUR = 120, 39 CSD**.

The toll revenue approx. increased 22, 36 % in the year 2017 (calculated in national currency).

## Safety

### Main indicators:

According to statistical data published by Statistical Office of the Republic of Serbia in 2016 and the report published by Ministry of Internal Affairs in 2017 the following total of accidents on all roads in Serbia was:

Indicate the following main *ratios*:

	Definition and method of calculation	Variation in % in 2016/2017
<b>Personal injury rate</b>	2016 – 97,1 % total number of injury 2017 – 97,3 % total number of injury	+ 2,9 %
<b>Fatal accident rate</b>	2016 – 1,5 % total of accident number 2017 – 1,4 % total of accident number	- 4,7 %
<b>Rate of dead</b>	2016 – 2,9 % total number of dead 2017 – 2,7 % total number of dead	- 4,6 %

Year	Total number of accidents	Number of accidents with a fatality	No. of personal injury accidents	Number of dead	Total no. of injured
<b>2016.</b>	35.970	551	13.859	607	20.656
<b>2017.</b>	36.469	525	14.223	579	21.260

There is no available data about accidents with respect to designated motorway sections.

### ***On-going projects:***

- Construction of Belgrade by-pass, Bridge over Sava river / in progress
- Construction of Belgrade by-pass  
Sector 4: Construction of the “Petlovo Brdo” Interchanges
- E 763 Beograd - Požega / in progress
- E 80 Nis - Dimitrovgrad / in progress
- Finalization of the motorway section E 75 Grabovnica - Levosoje / in progress
- Construction of the motorway E 75, Beograd - Niš - FYR Macedonia, section  
Srpska kuća - Levosoje / in progress

### ***Long-term forecast and tendencies:***

- Construction of the motorway E 70 Belgrade - Pančevo - Vršac
- Construction of Belgrade by-pass  
Section C Bubanj Potok - Pančevo
- E 763 Požega - Boljare
- E 761 Pojate - Preljina
- E 761 Požega - Užice - BIH
- E 761 Bulgarian border - Zaječar - Paraćin
- M 19, M 21 Novi Sad - Ruma - Šabac - Loznica
- M-24 Hungarian border - Kikinda - Pančevo - Kovin
- Nis - Merdare, Route no. 7 (SEETO), general design

### ***Significant actions already started and foreseen for 2018***

- Modernization of toll collection system in Serbia

Through the Sector for Toll Collection, the PE Roads of Serbia charges the road users on the following motorway sections:

- Belgrade-Niš, I A Category state road No. 1(E-75)
- Belgrade-Šid, (border with Croatia), I A Category state road No. 3(E-70)
- Belgrade-Subotica, (border with Hungary), I A Category state road No. 1(E-75) (opening sections Sirig-Subotica, 2017-12-05),
- Niš-Preševo, (border with Macedonia) I A Category state road No. 1(E-75) (opening new stations Preševo 2016-12-12),
- Ljig-Preljina, I A Category state road No. 2 (E-763) (opening two new stations Takovo and Preljina, 2017-01-01)
- Niš-Dimitrovgrad, (border with Bulgaria) I A Category state road No. 4 (E-80) (opening new stations Dimitrovgrad 2018-01-01)

On sections of motorways Belgrade-Niš, Belgrade-Šid and Belgrade-Subotica the toll is being collected within closed toll collection system, while on the sections, Niš-

Preševo, Ljig-Preljina and Niš -Dimitrovgrad the toll is being collected within open toll collection system.

The toll is being collected on motorways in the length of 645 km by automated toll collection system. System covers 47 toll stations.

Toll amount is calculated based on distance covered and vehicle class. Vehicles are classified according to their characteristics (i.e. number of axes, height of vehicle at first axis, total height and permissible maximum weight).

Modernization of toll collection system has been successfully implemented, so that out of overall 250 traffic lanes with toll collection and card distribution, 200 (80,0%) of lanes is provided with the system for electronic toll collection.

The system is fully harmonized with the EU recommendations and standards for interoperability of electronic toll collection, thus allowing interconnection with huge part of electronic toll collection system installed in other European countries.

**SUMMARY**

**MAIN ASECAP KEY FIGURES**

Country: <b>REPUBLIC OF SERBIA</b>	Indicate below how you calculate each figure provided in the “2017” column	2017 Figure
Network length (Km)..... 2 x 2 lanes (Km)..... 2 x 3 lanes (Km)..... 2 x 4 lanes (Km).....		645,0km 645,0km
Number of km in construction		
Forecasts of opening motorways section		
Annual toll revenues* (in millions of Euros)	171,69 M EUR =143,08 +28,61 VAT	171,69 M EUR
VAT % (Indicate the VAT % percentage to the toll revenues)		20%
Permanent staff		1333
Average daily traffic (light vehicles)		11.011
Average daily traffic (heavy vehicles)		2.413
Average daily traffic (total = light + heavy vehicles)		13.424
Total number of accidents		36.469
Number of personal injury accidents		14.223
Number of dead		579
Fatality rate		- 4,6 %
Kilometres travelled (10 <sup>6</sup> x km)		/

	Indicate below how you calculate each figure provided in the “2017” column	2017
Number of toll transactions (Total) Number of toll transactions (light vehicles): Number of toll transactions (heavy vehicles):		49.575.588 41.498.309 8.077.279
Number of toll stations		47
Number of toll lanes		250
Number of ETC lanes		200
Number of ETC subscribers (Total): Number of ETC subscribers (light vehicles): Number of ETC subscribers (heavy vehicles):		214.261 155.261 59.000
Number of service areas (equipped with petrol stations)		109
Number of rest areas		177
Number of restaurants		20
Number of hotels		60

\*please provide the figure VAT and other taxes excluded.

**Total traffic flow volume in 2017**

Light vehicle (I and II class): 41.498.309 number of vehicles in 2017

Heavy vehicle (III and IV class): 8.077.279 number of vehicles in 2017