ASECAP STUDY AND INFORMATION DAYS
PARIS, 29 - 31 MAY 201

Naradna dialnicna spolocnost,a.s. – SLOVAK REPUBLIC (National Motorway Company)

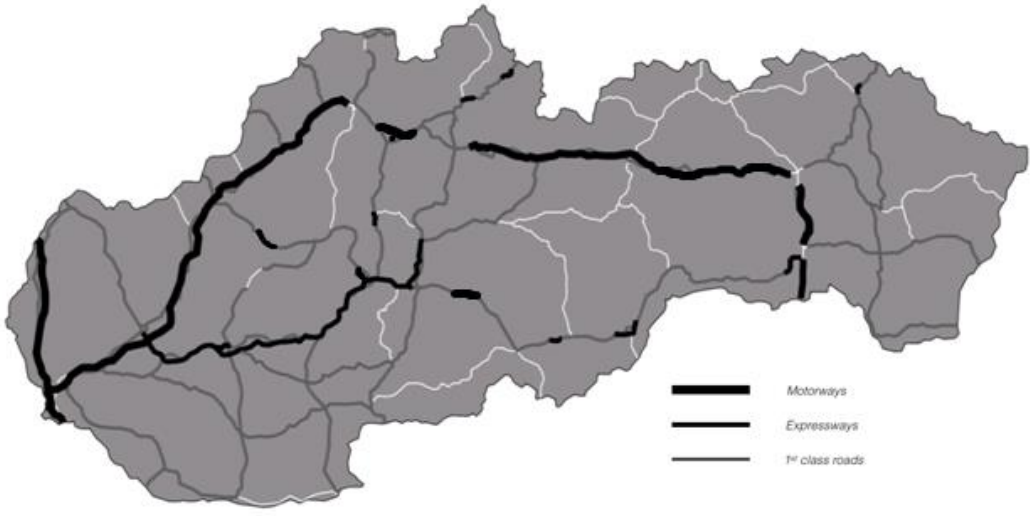
Network length

In January 2010, the Slovak Republic introduced a multi-lane, free flow electronic tolling system. In principle, all commercial vehicles with a maximum allowable mass extending 3.5 tons are subject to a distance based toll charge. This toll depends on the road category, the vehicle category, which is established through the number of axles and emission class of the vehicle. In residential area, toll rate is zero. Subject of charging is motorway, expressway and selected 1st class roads. From 1 January 2016, vignette system also has also changed; from the paper one to electronic. By E-vignette, there are motorways and expressways charged in Slovakia.

Currently charged road network in the Slovak Republic

category	motorways	expressways	1st class roads	bypasses outside residential areas	residential areas
under 3.5 t	✓	✓	x	x	x
over 3.5 t	✓	✓	✓*	✓	x

* approx. 49% of 1st class road network



Type of road	Road specification	2015 (km in operation)	2016 (km in operation)
Motorways	D1	346.444	357.316
	D2	70.699	70.699
	D3	8.905	8.905
	D4	6.995	6.995
Expressways	R1	164.669	164.322
	R2	45.338	54.945
	R3	17.756	17.756
	R4	24.070	24.184
	R6	2.251	2.251
1st class roads*	I/10	0	19.817
	I/11	27.287	27.117
	I/12	3.057	3.057
	I/13	10.930	10.930
	I/15	35.257	35.154
	I/16	0	163.572
	I/17	0	11.348
	I/18	229.022	198.464
	I/19	0	56.347
	I/2	51.776	51.489
	I/20	0	11.919
	I/21	0	37.172
	I/35	0	8.067
	I/49	8.933	9.433
	I/50	307.573	0
	I/51	114.978	114.316
	I/59	72.089	72.711
	I/61	112.508	120.083
	I/62	32.798	32.789
	I/63	67.329	67.235
	I/64	67.271	66.915
	I/65	95.998	99.020
	I/66	80.059	77.122
	I/68	23.267	0
	I/69	11.411	10.923
	I/70	10.911	10.911
	I/72	31.991	31.991
	I/73	37.481	0
	I/75	98.344	93.806
	I/76	43.381	41.381
	I/79	66.005	65.673
	I/9	0	87.071
Total length		**2337.483**	**2343.206**

* National Motorway Company owns only motorways and expressways but is a toll collector on some 1st class roads too. Therefore later in presentation there are published only figures regarding to motorway and expressway network, but revenues contain also 1st class roads.

Tunnels and bridges charging policy

In the Slovak Republic, there are not any special rates for tunnels or bridges. Both of them are charged according to rules of charging for motorways, expressways and 1st class roads. If the tunnel or bridge is a part of section charged by zero rate, they are both charged by the rate zero.

Tunnels and bridges which are part of motorways and expressways

Road	Tunnel		Bridge	
	Number	Length (m)	Number	Length (m)
Motorways	5	8 603	480	64 478.68
Expressways	0	0	262	20 489.17
Total	5	8 603	742	84 967.85

Openings in 2017

NDS is planning to open following sections in 2017:

Name of the section		km
D3	Svrcinovec – Skalite – border crossing SR/PR	15.460
	Zilina, Strazov – Zilina, Brodno	4.250
R2	Zvolen, east - Pstrusa	7.850
Total length in km		**27.56**

Investments

Narodna dialnicna spolocnost, a.s. (NMC) invested to new sections construction in **2016**:

664,786,040 €

For motorways, expressways and selected I. class roads in operation invested for reconstruction, maintenance and operation:

66,714,280 €

For **2017**, there is planned for new sections construction:

805,011,122 €

and for reconstruction, maintenance and operation:

75,724,122 €

Building sites in operation as for the 31.12.2016

Name of the section		km
D1	Blatne, intersection	1.42
	Triblavina, intersection	1.63
	Hubova - Ivachnova	15.28
	Hricovske Podhradie – Lietavska Lucka	11.32
	Lietavska Lucka – Visnove – Dubna Skala	13.51
	Budimir - Bidovce	14.40
D3	Skalite – border crossing SR/PR (half profile)	3.18
	Svrcinovec – Skalite (half profile)	12.28
	Cadca, Bukov - Svrcinovec	5.67
	Zilina, Strazov – Zilina, Brodno	4.25
R2	Zvolen, east - Pstrusa	7.85
Total length in km		**90.79**

New building sites to be opened in 2017

Name of the section		km
D1	Presov, west – Presov, south	7.870
R3	Tvrdosin - Nizna	4.400
R2	Kosice, Saca – Kosicke Olsany	21.250
R4	Presov, northern bypass	14.500
Total length in km		**48.02**

Financing

NDS is funded through a multi-pillar system. It disposes of the following funding resources:

1. State Budget
2. Funds of the European Union
3. NDS loans
4. Vignettes and toll
5. Other (rent, services…)

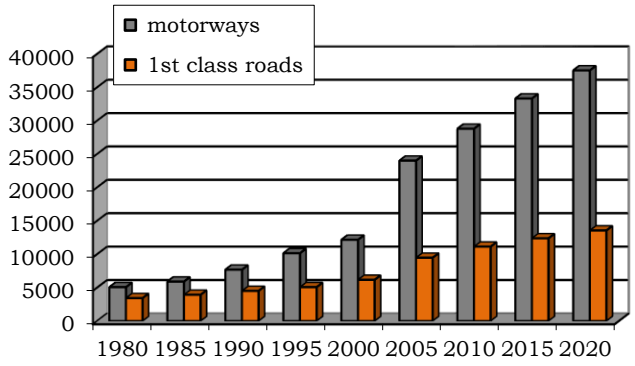
The maximum part of such funds is used for the construction of motorways and expressways.

Traffic

Year/GDP	I. quarter (mil. €)	II. quarter (mil. €)	III. quarter (mil. €)	IV. quarter (mil. €)
2016*	18 523,6	20 242,1	21 256,1	

Traffic growth in Slovakia is in accordance with the Gross Domestic Product. Data on traffic development are from the State Traffic Counting performed every 5 years. Data for the year 2020 are forcasted.

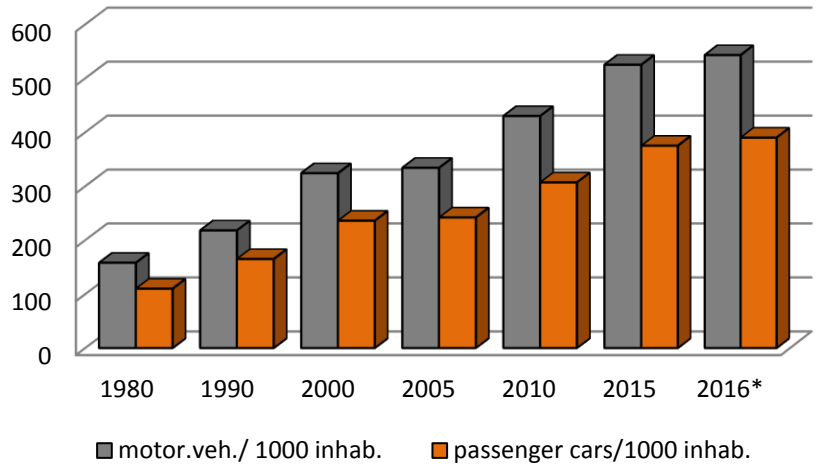
Year	Motorways	1st class roads	Year	Motorways	1st class roads
1980	5066	3428	**2005**	24002	9466
1985	5895	3928	**2010**	28782	11129
1990	7686	4500	**2015**	33315	12368
1995	10147	5070	**2020**	37531	13546
2000	12150	6164			



Year	no. of inhabitants (thous.)	no. of vehicles (thous.)	no. of light vehicles (thous)	motor.veh./ 1000 inhab.	Passenger cars/1000 inhab.
1980	4996	790	552	158	110
1990	5311	1156	876	218	165
2000	5403	1752	1274	324	236
2005	5389	1801	1303	334	242
2010	5435	2339	1669	430	307
2015	5424	2844	2035	525	375
2016	5434	2949	2121	543	390

* as of 30.09.2016

Motorization level



Traffic volume especially on motorways has a rapid increasing trend caused by growing of number of vehicles on road network but also thanks to acceleration of new motorway sections construction in the Slovak Republic.

Tolling system and tolling technologies used

In 2016, vehicles were divided into 2 groups according to weight of vehicle:

1. below 3.5 t (E-vignette system)
2. over 3.5 t (Electronic toll collection system)

1. Vignette system

In 2016 the Slovak Republic commissioned the electronic system of vignette payment collection and records for the use of the specified sections of motorways and expressways. Switching the

system of vignette payment collection and records into electronic form meant a change in the vignette form - the physical motorway stickers were replaced by vignettes in electronic form.

Types of vignettes for the year 2016 were:

1. Year vignette
2. Month vignette
3. 10 days vignette

All types of vignettes are both for motor vehicles (category M1, N1, M1G and N1G) and trailed vehicles (category O1, O2). Vignette for trailed vehicle is necessary when total weight of motor vehicle and trailed vehicle exceed 3.5 t.

The electronic vignette system is based on entering vehicles or trailed vehicles that are subject to electronic vignette payment in the records of electronic vignette payments, which among other things include data of the specific vehicle and the type and the validity of the paid electronic vignette.
A customer can pay for the electronic vignette through electronic business channels – the web portal and the mobile application for mobile devices or within the points of sale network (most often petrol stations) or through self-serve devices located especially at border crossings. Payment for an electronic vignette can be carried out using a bank payment card (paying at points of sale, by the web portal, the mobile application and the self-serve devices) or in cash (in case of payment through points of sale).

E-vignettes for 2016

One – year vignettes		
1	Motor vehicles up to 3.5 t	50 €
2	Trailed vehicle	50 €
Month vignettes		
1	Motor vehicles up to 3.5 t	14 €
2	Trailed vehicle	14 €
10-days vignettes		
1	Motor vehicles up to 3.5 t	10 €
2	Trailed vehicle	10 €

2. Electronic toll collection system:

The Slovak Electronic Toll Collection System (ETC system) uses technologically innovative "hybrid" OBUs integrating three technologies:

- satellite GPS technology for determining the position – collection of data about the use of Specified Road Sections,
- GSM/GPRS technology for the communication within mobile networks – serving for the transmission of data among the OBU and other information subsystems within the Electronic Toll System,
- microwave DSRC technology for short-distance communication – serving for the control of toll payers within the toll collection control process.

Tolled road network

In 2016, ETC system continues to operate more than 17,000 km of roads, integrated in the system since 2014. Besides that it expanded on about 57 km of newly built sections.

Toll rates

Since 2014, ETC system continues using specified tolling strategy – favouring higher emission class vehicles, as well as reducing avoidance primary road network through parallel 1st class roads (by equalization of toll rates on 1st class roads parallel with motorways and expressways with toll rates on motorways and expressways), and also providing discounts for every vehicle depending on driven km.

Toll rates on road network covered only with traffic monitoring (part of the 1st class road network, total 2nd and 3rd class road network) equals zero for all vehicles.

Toll rates for the use of specified sections of motorways and expressways

	Vehicle category		Emission class		
			EURO 0 – II	**EURO III, IV**	**EURO V, VI, EEV**
Heavy vehicles	3.5 t – to 12 t		0.103 €	0.093 €	0.080 €
	12 t and more	2 axles	0.221 €	0.200 €	0.172 €
		3 axles	0.233 €	0.211 €	0.181 €
		4 axles	0.242 €	0.219 €	0.188 €
		5 axles	0.233 €	0.211 €	0.181 €
Busses	3.5 t – to 12 t		0.060 €	0.050 €	0.030 €
	12 t and more		0.110 €	0.100 €	0.060 €

Toll rates for the use of specified sections of the 1st class roads parallel with motorways and expressways

	Vehicle category		Emission class		
			EURO 0 – II	**EURO III, IV**	**EURO V, VI, EEV**
Heavy vehicles	3.5 t – to 12 t		0.103 €	0.093 €	0.080 €
	12 t and more	2 axles	0.221 €	0.200 €	0.172 €
		3 axles	0.233 €	0.211 €	0.181 €
		4 axles	0.242 €	0.219 €	0.188 €
		5 axles	0.233 €	0.211 €	0.181 €
Busses	3.5 t – to 12 t		0.040 €	0.030 €	0.020 €
	12 t and more		0.080 €	0.070 €	0.040 €

Toll rates for the use of specified sections of the 1st class roads not parallel with motorways and expressways

	Vehicle category		Emission class		
			EURO 0 – II	**EURO III, IV**	**EURO V, VI, EEV**
Heavy vehicles	3.5 t – to 12 t		0.080 €	0.072 €	0.062 €
	12 t and more	2 axles	0.172 €	0.156 €	0.133 €
		3 axles	0.181 €	0.164 €	0.140 €
		4 axles	0.185 €	0.167 €	0.143 €
		5 axles	0.181 €	0.164 €	0.140 €
Busses	3.5 t – to 12 t		0.040 €	0.030 €	0.020 €
	12 t and more		0.080 €	0.070 €	0.040 €

Revenues

Vignette	2015	2016	% growth
Yearly	35 278 708	41 243 815	16,91%
Monthly	4 677 633	5 693 648	21,72%
10 days	19 280 550	20 742 520	7,58%
Total	**59 236 892**	**67 679 985**	**14,25%**

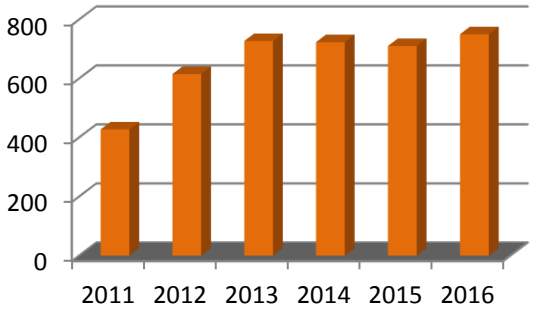
Toll collection		**2015**	**2016**	**% growth**
Heavy vehicles	3.5 t – 12 t	13 933 589	13 582 749	-2,52%
	over 12 t	168 090 168	174 417 644	3,76%
Busses	3.5 t – 12 t	264 035	270 605	2,49%
	over 12 t	5 101 483	5 069 649	-0,62%
Total		**187 389 274**	**193 340 647**	**3,18%**

There is a total rise in revenues of vignettes 14.25 **%** and rise in revenues of toll 3.18 **%** comparing years 2015 and 2016. Revenues only from motorways and expressways are **66,3%** of whole toll revenue.

Safety

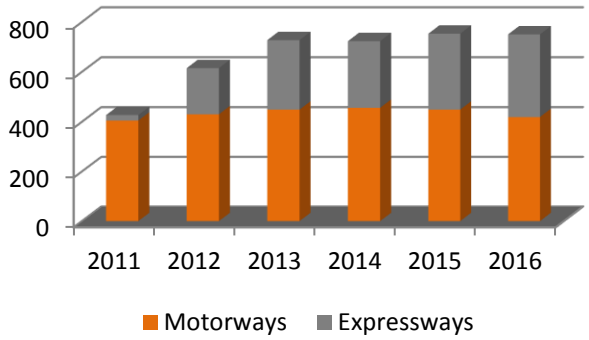
Table below shows number of all accidents (fatal, seriously and slightly injured), on road network in the Slovak Republic. Significant reduction in number of accident was caused by a change of legislation in 2009. Since 2009 legislation increased the minimum amount of damage, when police forces have to be called and accidents were divided into casualty (accidents with a little damage which are not solved by police forces but through insurance company directly) and accidents (when the police forces are called). Until 2011, there was not any difference between accidents on motorways and expressways mainly because of small amount of expressways network. Since 2011, the table shows only accidents on motorways and expressways. Data are registered statistically and shown in tables. Chart below shows only data since 2011 due to above mentioned. Increasing of number of accidents can be caused by increasing of expressway network.

Year	No. of accidents	Fatal injury	Seriously injured	Slightly injured
2000	50932	628	2204	7890
2005	59991	560	1974	8516
2010	4270	135	367	1695
2011	427	9	30	-
2012	615	8	37	195
2013	727	14	41	164
2014	723	17	42	216
2015	710	19	61	212
2016	750	14	38	206



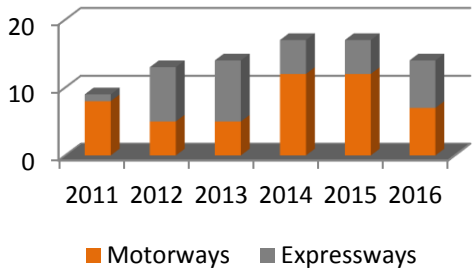
Number of accidents

Year	No. of accidents	
	Motorways	**Expressways**
2011	405	22
2012	430	185
2013	449	278
2014	456	267
2015	449	304
2016	419	331



Number of fatal injuries

Year	No. of fatal injuries	
	Motorways	**Expressways**
2011	8	1
2012	5	8
2013	5	9
2014	12	5
2015	13	6
2016	7	7



	Definition and method of calculation	In number for one billion kilometres travelled in 2015*	2014	2015	Variation in % in 2014/2015
Personal injury rate	People that have received any injury except for one time treatment that do not require specialist´s examination or sick absence	**x**	**273**	**244**	**-12 %**
Fatal accident rate	Number of people that have received very serious injuries leading to their death at the moment of the accident or within 24 hours subsequent to the accident	**x**	**19**	**14**	**-36%**
Rate of dead*	No measuring of this figure	**x**	**x**	**x**	**x**

* this figure is not measured in the Slovak Republic. Kilometres travelled are counted at the basis of heavy vehicles (vehicles over 3.5 t) and injuries include also injuries caused by personal vehicles (vehicles under 3.5 t)

Significant actions already started (and/or to be achieved in 2016 and foreseen for 2017

The most important goal for 2016 from the point of view of tolling was smooth introduction and operation of E-vignette system. From the point of view of construction, all construction sites that have already started or are planned are significant for either region or whole motorway network.

MAIN ASECAP KEY FIGURES

Country: Slovak Republic	**Indicate below how you calculate each figure provided in the "2016" column**	**2016 Figure**
Network length (Km)……	Figure include motorways and expressways	737 km
Number of km in construction	Summary of lengths of each building site in operation	90,79 km
Forecasts of opening motorways section	Summary of lengths of each section planned to be opened in 2016	27,56 km
Annual toll revenues* (in millions of Euros)	Summary of all revenues from vignettes and ETC	261.02 mil. €
Annual ETC revenues from motorways and expressways* (in millions of Euros)	Summary of revenues from ETC for motorways and expressways only	128,16 mil. €
VAT % (Indicate the VAT % percentage to the toll revenues)	VAT rate is the Slovak Republic	20%
Permanent staff	Number of permanent staff without any agreement based contracts	1 487
Average daily traffic (light vehicles)	Average of measured data between individual intersections	19 159
Average daily traffic (heavy vehicles)		5 782
Average daily traffic (total = light + heavy vehicles)		24 941

Total number of accidents	Total number of accidents when the police forces were called	750
Number of personal injury accidents	People that have received any injury except for one time treatment that do not require specialist´s examination or sick absence	244
Number of dead	Number of people that have received very serious injuries leading to their death at the moment of the accident or within 24 hours subsequent to the accident	14
Fatality rate		x
Kilometres travelled		1 690 mil.
Number of toll transactions (Total) Number of toll transactions (light vehicles): Number of toll transactions (heavy vehicles):	Number of transactions in ETC for vehicles over 3.5. t including busses	653,4 mil.
Number of toll stations		x
Number of toll lanes		x
Number of ETC lanes		x
Number of ETC subscribers (Total): Number of ETC subscribers (light vehicles): Number of ETC subscribers (heavy vehicles):	Number of OBUs in ETC for vehicles over 3.5. t including busses	265 347

Number of service areas (equipped with petrol stations)	Number of service areas on both sides of motorways and expressways	28
Number of rest areas	Number of all rest areas on both sides of motorways and expressways witch or without any services	65
Number of restaurants	Number of restaurants on both sides of motorways and expressways	36
Number of hotels	Number of hotels on both sides of motorways and expressways	3

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