

CROATIA NATIONAL REPORT 2009

I Current state of the network

As per 31.12.2009., the total length of the motorway network in Croatia amounted to 1.240,7 km.

The following roadways were opened to traffic in 2009:

- 42 km of new motorways and
- 20.32 km of widening of existing sections to the full motorway profile

Motorway A1: Zagreb-Bosiljevo 2

Rehabilitation of the approaches to the Lučko Toll Station from the direction of Karlovac (4.56 km in total) and construction of the new Demerje Toll Station at 3+025 for cashless toll payment, in 05/2009.

Motorway A1: Bosiljevo2-Split-Dubrovnik

left-side tubes of the Mala Kapela (5.78 km) and Sveti Rok (5.68 km) tunnels, opened to traffic in 05/2009.

Motorway A7: Rupa-Matulji-Diračje-Orehovica

Orehovica Interchange - Diračje Interchange Section (8.86 km) - opened to traffic - widening of the south-side pavement of the Rijeka Bypass to the full motorway profile (III stage - Rijeka Bypass), in 12/009.

Motorway A5: Beli Manastir-Osijek-Svilaj

Đakovo - Osijek Section (33 km), opened to traffic in 04/2009.

Motorway A11: Zagreb - Sisak

Velika Gorica South - Buševac Subsection (9 km): opened to traffic in 05/2009.

In Croatia, motorways are operated by 4 companies, i.e. by *Hrvatske autoceste d.o.o.* (operates all toll motorways except for those in concession) and by three concession companies *BINA-ISTRA d.d. Pula* (operates the so called Istrian Upsilon - A8 and A9), *Autocesta Rijeka-Zagreb d.d.* (A6, A7 and part of A1), and *Autocesta Zagreb-Macelj d.o.o.* (A2).

Number of motorway kilometres -

	Company	2008. Total network	2009. Total network	Total network plan for 2010
1.	HAC d.o.o.	816,0	858,0	868,8
2.	ARZ d.d.	181,7	181,7	181,7
3.	BINA-ISTRA d.d.	141,0	141,0	141,0
4.	AZM d.d.	60,0	60,0	60,0
TOTAL		1.198,7	1.240,7	1.251,5

II Works in progress

Works were in progress on 31 December 2009 on the total of:

- 79.8 km of new motorways,
- 94.9 km of widening to full motorway profile,
- 7.1 km of link roads,
- construction of new interchanges

and were carried out of the following motorways:

Motorway A1: Zagreb - Bosiljevo 2

Donja Zdenčina Interchange with toll collection and a 44 m wide underpass at the Zagreb - Karlovac Section (in km 14+250) of the Rijeka - Zagreb Motorway

Motorway A1: Bosiljevo 2-Split-Dubrovnik, Split-Ploče Sector (98 km in total)

Ravča - Ploče Section (21 km)

Motorway A2: Zagreb-Macelj

motorway link to the border crossing (0.8 km) and the border crossing platform

Motorway A6: Bosiljevo 2- Rijeka

Novigrad Interchange construction at km 56+280 of the Rijeka - Zagreb Motorway, and approach roads from the Novigrad Interchange to Netretić, 5.34 km in length

Motorway A8: Kanfanar - Matulji

Widening of the existing Kanfanar - Rogovići Section to the full profile (18.13 km)

Motorway A9: Umag - Pula

Widening of existing sections to the full profile (76.8 km), link road from Umag Interchange to DC200/DC21 (1.8 km)

Motorway A11: Zagreb-Sisak

Jakuševac-Velika Gorica South Section - the remaining part of the motorway is under construction: 7.5 km of the section and 2.5 km of the interchange (10 km of motorway in total)

Motorway A12: Vrbovec 2-Križevci-Koprivnica-border crossing Gola (H), (68 km in total)

Gradec - Kloštar Vojakovački section is under construction (20 km)

Motorway A13: Vrbovec2-Bjelovar-Virovitica-border crossing Terezino Polje (H), (86 km in total)

Vrbovec 2 - Bjelovar section is under construction (28 km)

In 2010, road works will be completed on the total of:

- 10,8 km of new motorways
- 27,6 km of widening to the full profile and
- 1,8 km of link roads

at the following motorway sections:

Motorway A2: Zagreb-Macelj

link road to the border crossing with the Republic of Slovenia (0.8 km)

Motorway A9: Umag - Pula widening to the full profile:

Kanfanar - Vodnjan North (14.5 km)

Vodnjan North - Vodnjan South (6.3 km)

Vodnjan South - Pula (6.8 km)

link road from Umag Interchange to DC200/DC21 (1.8 km)

Motorway A11: Zagreb-Sisak:

Jakuševac - Velika Gorica South Section (10 km)

In addition to the continuation of work from the previous year, **new road works** will start in 2010 for:

- 7.3 km of link roads :

Motorway A6: Zagreb - Rijeka

Roadside Service Area - Golubinjak (type D - Roadside area for campers) at km 36+750,00 of the Rijeka - Zagreb Motorway, on the Vrata - Delnice Section in the direction of Zagreb.

Motorway A9: Umag-Pula

Link road: Pula Interchange - Medulin/Pomer Section (7.3 km)

III investment value and financing

The total of HRK 4,964.48 million (€ 680.07 million) was invested in the construction of new motorways in 2009, while HRK 570.8 million (€ 78.19 million) was invested in sections under traffic.

-mil HRK (mil €) (1 € = 7.3 HRK)

Company	Investments in 2009		Plan for 2010.	
	in new sections	in completed sections	in new sections	in completed sections
HAC	3.055,04 (418,50)	394,93 (54,10)	1.146,68 (157,08)	431,42 (59,10)
ARZ	1.214,19 (166,33)	128,47 (17,60)	213,74 (29,28)	115,59 (15,83)
BINA ISTRRA	695, 25 (95,24)	24,9 (3,41)	1.113,00 (152,47)	15,08 (2,07)
AZM	0	22,50 (3,08)	0	23,15 (3,17)

TOTAL	4.964,48 (680,07)	570,8 (78,19)	2.473,42 (338,83)	585,24 (80,17)
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IV Traffic

- number of vehicles in toll collection zones

Company	2008		2009			
	Passenger cars (Categories 1 and 2)	Trucks (Categories 3 and 4)	Passenger cars (Categories 1 and 2)	% (09/08)	Trucks (Categories 3 and 4)	% (09/08)
HAC	27.813.913	4.147.348	29.466.095	+5,94	3.865.812	-6,79
ARZ	16.541.162	2.166.368	16.702.595	+0,98	1.788.478	-17,44
BINA ISTRRA	4.282.130	457.139	4.210.683	-1,67	416.925	-8,80
AZM	5.801.563	734.674	5.768.501	-0,57	663.794	-9,65
TOTAL	54.438.768	7.505.529	56.147.874	+3,14	6.735.009	-10,27

In 2009, the total traffic of all vehicles and on all motorways increased by 1,52 % when compared to the previous year.

GDP increase in 2008 (%)	Traffic increase in 2008 (%)	GDP decrease in 2009 (%)	Traffic increase 2009 (%)
+ 2,4*	+ 8,9	- 5,7**	+ 1,52

*Provisional data (sum of quarterly data).

**Information for the third quarter of 2009 as related to the same period in 2008.

In 2009, the network increased by 42 km or 3.5% when compared to 2008 and, in 2008, the network also increased by 42 km or 3.5% when compared to 2007.

The consumer basket increase amounted to 2.9% on 31 December 2009.

V Toll rate (without the VAT)

The motorway network in Croatia is still under construction and so both the closed and open toll collection systems are now used. However, once the network is completed, the closed toll collection system will be operated on all motorways with multiple entry and exit points.

On all motorways, toll can be paid in cash (HRK and €), by credit and debit cards, by INA card, by SMART cards, and using the electronic toll collection (ETC) system.

In the closed toll collection system, the toll for light vehicles (category I vehicles) amounts to 0.050 €/km (0.40 HRK/km) without VAT, and to 0.036 €/km (0.26 HRK/km) in the open toll collection system.

In the closed toll collection system, the toll ratio for lightweight vehicles (category I vehicles) and trucks (category IV vehicles) is 1 : 4.

In the open toll collection system, the toll ratio for lightweight vehicles (category I vehicles) and trucks (category IV vehicles) is 1 : 4.5.

In 2009 all motorway companies introduced a new IA category of vehicles for motorcycles.

HRVATSKE AUTOCESTE D.D. (HAC)

- In 2009, HAC did not change the toll price, i.e. it kept the prices that are in use since 1 July 2004 for vehicle categories I, II and III, and since 1 March 2002 for vehicle category IV.
- Road users that pay toll in advance using the ETC system devices or SMART cards benefit from the 10% discount throughout the year. By purchasing the seasonal ETC and SMART subscription, the users benefit from the 23.5% discount in the period from 1 November of the current year to the 31 March of the following year, while the basic subscription with the 10% percent discount is applied in the remaining periods of the year.
- The year round 20% discount was introduced in September 2009 in the scope of permanent order arrangements for categories III and IV. Additional discounts were also introduced: these can be obtained throughout the year depending on the EURO emission categories: EURO 4 (3%) and EURO 5 (5%),
- A new vehicle category (1A) for motorcycles, three-wheelers and four-wheelers, was introduced in March 2009. The round-the-clock possibility for replenishment of prepaid accounts was introduced at toll stations located at Ivanja Reka, Sveta Helena, Varaždin, Osijek, Sl. Brod-West, Lipovac, Žuta Lokva, Gospić, Zadar-East, Šibenik, Dugopolje, Šestanovac and Ravča, and this possibility will also be introduced at additional 11 toll stations in early 2010,
- The following companies are included in the ETC package sale system: INA (107 filling stations), TIFON (27 filling stations), and OMV (51 filling stations). In addition, the ETC device can be purchased for vehicle categories I and II so that the end users, and especially tourists, can also benefit from the use of this product,
- The ETC antennas were replaced at all toll stations to enable a more reliable operation of the ETC system, and to increase capacity of the ETC lanes,
- A new improvement in the operation of the toll collection entry lanes is currently being developed. In the scope of this development, a display will be installed and the user entering the motorway will be advised about the balance on his account (ENC and SMART cards) and, depending on the balance, the vehicle will either be allowed to pass through or the user will be advised to take the magnet card.

BINA-ISTRA D.D.

This company did not raise the toll price in 2009 and it offers a whole array of discounts throughout the year. Bina-Istra prepaid account users can check, via Internet and SMS messages, their balance on the account and account expiry information, and can also obtain the listing of passes through toll stations. In addition, they can replenish their prepaid accounts, and fill in and print invoices for payment via bank transfer.

At Bina-Istra toll points, toll can be paid by all credit and debit cards, and also by INA card.

In late 2009, the company started negotiations with other motorway concessionaires in order to find ways to achieve interoperability of toll collection systems. This interoperability concept would enable Bina-Istra prepaid account holders to use ETC devices issued by HAC and

ARZ on Istrian Upsilon sections as well. The ETC devices are to be introduced on Istrian Upsilon sections during the first half of 2010.

AUTOCESTA RIJEKA-ZAGREB D.D. (ARZ)

This company did not modify the toll price in 2009. Toll can be paid in cash, via credit and debit cards, SMART cards, INA cards, and using the ETC system.

A ten percent discount is offered throughout the year if toll is paid through a smart card subscription. A 23.5 percent seasonal discount is offered in winter period (from 1 November to 31 March).

A ten percent discount is offered throughout the year if toll is paid through an ETC device subscription scheme.

AUTOCESTA ZAGREB-MACELJ D.O.O. (AZM)

In 2009, this company increased its toll prices in accordance with concession agreement (5%). If toll is paid by prepaid SMART card, a 5% discount is given for categories I and II, and a 10% discount is given for categories III and IV. This discount is valid throughout the year. In addition to SMART cards, toll can also be paid by debit and credit cards, and by INA card.

VI Toll revenues (without the VAT)

1 € = 7,3 HRK

Company		2008.		2009.		% (09/08)
		HRK	€	HRK	€	
1.	HAC	1.234.616.228*	169.125.511	1.232.685.757*	168.861.062	-0,16
2.	ARZ	473.158.671*	64.816.256	462.997.185*	63.424.272	-2,15
3.	BINA- ISTRA	129.674.801	17.763.671	124.132.646	17.004.472	-4,27
4.	AZM	155.397.526	21.287.332	166.581.998	22.819.452	7,2
TOTAL		1.992.847.226	272.992.770	1.986.397.586	272.109.258	-0,32

* The revenue data are provisional only as the financial year ends on 30 April, and this also explains the deviation of data for 2008

The total toll revenues earned in 2009 are lower by 0.32 percent when compared to previous year. This is due to the global economic crisis and to decrease in the commercial vehicle traffic.

VII Traffic safety

Number of accidents	2008.					2009.				
	HAC 816 km	BINA ISTRA 141 km	ARZ 182 km	AZM 60 km	RH 1199 km	HAC 858km	BINA ISTRA 141 km	ARZ 182 km	AZM 60 km	RH 1241 km
- fatal accidents	27	5	9	7	48	27	4	10	2	43
- accidents with injuries	251	22	125	22	420	265	15	124	21	425
- accidents with material damage	1353	132	511	76	2.072	1.619	121	445	102	2.287
Total number of traffic accidents	1631	159	645	105	2.540	1.911	140	579	125	2.755
Total number of fatalities	47	6	11	8	72	39	4	12	3	58

The total of 2,755 traffic accidents, with 58 fatalities, was registered in 2009. Out of this total, the number of accidents with injuries was 425.

The number of all traffic accidents increased by 8.46 percent in 2009, and the number of fatalities was lowered by 19.44 percent with respect to the previous year.

	for 10 ⁶ vehicles/km in 2009					Change in % 2009/2008				
	HAC 858 km	BINA ISTRA 141 km	ARZ 182 km	AZM 60 km	RH 1241 km	HAC	BINA ISTRA	ARZ	AZM	RH
Coefficient of accidents with injuries	0,069	0,023	0,111	0,054	0,071	1,34	-26,67	-0,44	-2,12	-0,36
Coefficient of accidents with fatalities	0,007	0,0061	0,0089	0,0052	0,0071	-3,91	-13,90	11,55	-70,70	-11,79
Coefficient of fatalities	0,0101	0,0061	0,0107	0,0078	0,0096	-20,38	-28,30	9,50	-61,55	-20,67

VIII Medium and long term development program

According to the Public Roads Act, the construction and maintenance of motorways is planned:

- In the long term, through the Transport Development Strategy, i.e. the Public Road Development Strategy as adopted by the Croatian Parliament,

- In the medium term, through four-year public road construction and maintenance programmes passed by the Government of the Republic of Croatia based on the proposal of the Ministry of Sea, Transport and Infrastructure,
- annually, through construction and maintenance plans defined by individual motorway companies.

According to the Strategy of Transport Development in the Republic of Croatia, as adopted by Croatian Parliament in 1999, Croatia is to have 1,365 km of motorways by 2013 and in later stage additional 154 km of motorways are to be built which will result in motorway network of 1.519 km in total.

The Strategy of Transport Development for the Republic of Croatia was adopted in late 1999, and the Government of the Republic of Croatia adopted three four-year Public Road Construction and Maintenance Programs, for the periods from 2001 to 2004, from 2005 to 2008, and from 2009 to 2012.

According to the Strategy of Sustainable Development of the Republic of Croatia (Official Gazette No. 30/09), as adopted by Croatian Parliament in March 2009, a high level of motorway network development has been achieved in the Republic of Croatia.

In the current four-year period (2009 - 2012), all activities relating to construction and maintenance of motorways are limited by financing possibilities, which are less favourable, due to global financial crisis and recess, when compared to the previous four-year periods.

Following the previous two four-year periods marked by speedy and intensive motorway construction in the Republic of Croatia, the priorities have been given in the current 2009 - 2012 period, due to limited funding possibilities, to the completion of sections started in the previous periods, maintenance and preservation of the already built motorway network, quality related improvements, and construction of new roadside service facilities.

According to the new four-year Public Road Construction and Maintenance Program (2009-2012) the following motorway stretches and facilities remain to be opened to traffic:

A1(HAC) - Ravča- Vrgorac

A1(ARZ) - Donja Zdenčina Interchange with the toll collection and an overpass

A2 - Connection to the Macelj border crossing

A6 - Novigrad Interchange and Novigrad-Netretić approach roads

A8 - Kanfanar - Matulji (upgrade of the existing sections to the full motorway profile)

A9 - Umag - Pula(upgrade of the existing sections to the full motorway profile)

A11 - Jakuševac - Velika Gorica

IX Significant activities started or completed in 2009 and plans for 2010

HRVATSKE AUTOCESTE D.O.O.

In 2009, some activities were oriented towards increasing quality standards at the existing roadside service facilities:

- following renovation of the restaurant operating within the Novska North Roadside Service Area, on the Bregana - Zagreb - Lipovac Motorway (A3), the restaurant reopened its doors in April.
- In 2009, two public bidding procedures were conducted for the rental of mixed-use food service and shopping facilities situated within the following roadside service facilities: Motorway A3: Bošnjaci - North and South, Motorway A3: Bregana - Zagreb - Lipovac, and Motorway A5 Beli Manastir - Osijek - Svilaj: Andrijevcı East and West, and Strossmayerovac - East and West. No bid was however received for the operation of the above food & shopping facilities.

Nevertheless, the operation of public sanitary facilities was ensured during the tourist season for the above facilities as well as for the remaining fixed-type sanitary facilities (Jasenice - North and South, Mosor - North and South, and Raščane Gornje (Župa) on the Zagreb - Split - Dubrovnik Motorway (A1), and Beketinci - East and West on the Beli Manastir - Osijek - Svilaj Motorway (A5).

In the scope of the project "Roadside Rest Areas 2009", the EuroTest Consortium evaluated in April and May 101 roadside rest areas (not including filling stations and restaurants) on major European routes, including also the rest areas along the Zagreb - Split - Dubrovnik Motorway (A1). The "very good / excellent" mark was given to Modruš - West, Lički Osik - East and Krka - West rest areas, while the Modruš - East roadside rest area obtained the mark "very good".

The company has set the following objectives for the year 2010

- 1) Improve HAC product sale system as related to toll collection, and focus on the needs of road users.
- 2) Ensure high standard of toll collection services by building lanes reserved for ETC users.
- 3) Make general road traffic safety improvements.
- 4) Build filling station with the store and snack bar at the Raščane Gornje (Župa) rest area on the Zagvozd - Ravča Section by the end of 2010.
- 5) Construction of filling stations, each equipped with the store and café bar, is planned at the Beketinci rest areas (East and West) on the Beli Manastir - Osijek - Svilaj Motorway (A5). The construction work is to start on 1 April 2010.
- 6) The renovation of the filling station, equipped with the store and café bar, is planned at the Nova Gradiška - South (Dragalić) rest area situated on the Bregana - Zagreb - Lipovac Motorway (A3). The renovation work is to end by 1 November 2010.

AUTOCESTA RIJEKA-ZAGREB D.D.

Rijeka Bypass

The Rijeka Bypass section from Orehovica Interchange to Diračje Interchange (8.86 km) was opened in full profile on 22 December 2009. The opening of this significant roadway in full profile will considerably reduce traffic jams, and improve current traffic safety standards. The construction of the south pavement of the Rijeka Bypass will favourably influence growth

of Croatian tourism and development of our economy as a whole, and this by provision of an adequate link between our biggest and most significant port of Rijeka and the wider region.

Demerje automated toll plaza

The renovated Lučko Toll Station and the newly built Demerje Toll Station, which together form a functional whole, were opened to traffic on 13 June 2009.

The Demerje Toll Station, situated three kilometres away from the Lučko Toll Station in the direction of Karlovac, is exclusively destined for cashless toll collection, while the cash toll collection will be operated at the Lučko Toll Station. The Demerje Toll Station has ten toll lanes, two of which are used for "fast ETC" (40 km/h), while the remaining eight lanes are used for the "stop and go" ETC, bank cards, debit cards, charge cards (PIN code does not need to be entered for any of these cards), SMART cards and INA cards.

Donja Zdenčina interchange

The construction of the Donja Zdenčina Interchange, with a toll station and an overpass, started in May 2009. The construction of this interchange is a significant precondition for activation of the Klinča Selo area, and is also important for the City of Zagreb and the Zagreb County.

Novigrad interchange

The construction of the Novigrad Interchange, with an approach road from Novigrad Interchange to Netretić, started in March 2009. The route Novo Mesto (Ljubljana - Bregana Motorway) - Metlika - Jurovski Brod - Novigrad Interchange (Zagreb - Rijeka/Split Motorway) is the shortest link between the Central Europe and the entire coastal area of the Adriatic situated to the south of Rijeka. In addition to the link to the motorway, it is also important to solve a specific weekend traffic between Slovenia and Bosnia and Herzegovina, i.e. the weekend migrations of Bosnia & Herzegovina citizens temporarily employed in Slovenia. It is also significant to link the motorway with the parts of Croatian national road network that would remain outside of main transport corridors after construction of the motorway network.

Tuhobić tunnel

The EuroTAP (European Tunnel Assessment Programme) is one of the total of eight research projects focusing on tunnel safety. It is in the scope of the EuroTAP project, based on cooperation of eighteen European automobile associations, including the Croatian motoring club - HAK, that thirteen road tunnels situated in Germany, Switzerland, Spain and Croatia were tested in early 2009. Out of the total of thirteen tunnels subjected to this testing, none was evaluated as inadequate, and the Tuhobić Tunnel, situated on the Rijeka - Zagreb Motorway, obtained the second best ranking.

Projects in 2010:

- small-scale projects focusing on improving traffic safety and increasing capacity of traffic (widening of toll stations, construction of noise barriers).

BINA -ISTRA d.d.

- Intensified construction activities in 2009, aimed at achieving the full-motorway profile on the Istrian Upsilon scheme, will result in the opening of the Kanfanar - Pula section - as a full profile motorway - as early as in June 2010.

- The full-profile construction of the Umag - Kanfanar Section, and the Kanfanar - Rogovići Section, also started in 2009.
- Works were commenced at the section linking the Umag Interchange with the national road DC200/DC21, and the section is to be completed and opened to traffic in June 2010.
- The implementation of the fire detection system was completed in the Učka Tunnel. The renovation work, aimed at upgrading the entire changeable message signing, with an emphasis on evacuation routes, was also started in this year.
- The recertification according to ISO 14001:2004 and ISO 9001:2000 was conducted and successfully completed by Bina-Istra Operation and Maintenance in January 2009.
- In cooperation with HAC and ARZ, Bina-Istra started the project involving introduction of ETC devices. The project is to be completed in the first half of 2010.

AUTOCESTA ZAGREB-MACELJ D.O.O.

The following activities were in the focus of attention in 2009:

- environmental protection,
- capital maintenance, involving replacement of damaged asphalt courses

Most important goals for 2010 are :

- capital maintenance activities - replacement of damaged asphalt, rehabilitation of two structures (bridges) built in the 1990s
- traffic safety improvements

KEY FIGURES 2009

CROATIA	2009
The total length of network according to concession agreement, in km, on 31/12/2009	1.240,7
2 x 1 lanes not including the stopping lane	151,0
2 x 2 lanes not including the stopping lane	1.069,0
2 x 3 lanes not including the stopping lane	20,7
2 x 4 lanes not including the stopping lane	
Number of km opened to traffic in 2009	
MOTORWAYS	42,0
SEMI-MOTORWAYS	
WIDENING TO FULL MOTORWAY PROFILE	20,3*
Number of km under construction on 31/12/2009	
MOTORWAYS	79,8
SEMI-MOTORWAYS	
WIDENING TO FULL MOTORWAY PROFILE	94,9*
Estimated opening of new sections in 2010, in km	
MOTORWAYS	10,8
SEMI-MOTORWAYS	
WIDENING TO FULL MOTORWAY PROFILE	27,6*
Annual toll collection revenues in 2009, in mil €	272,1
Full-time employees	3.919
AADT LIGHT VEHICLES	11.577
AADT HEAVY VEHICLES	1.711
AADT LV + HV	13.288
Total number of accidents	2.755
Number of accidents with injuries	425
Number of fatalities	58
Number of kilometres travelled (10 ⁶ x km)	6.018,778
Number of toll stations	76
Number of toll lanes	538
Number of ETC lanes**	293**
Number of ETC subscribers	101.483
Number of roadside rest areas (with filling stations)	72
Number of rest areas	120
Number of restaurants	18
Number of hotels	8

*Widening of existing sections to the full motorway profile

**Companies Hrvatske autoceste d.o.o. and Autocesta Rijeka-Zagreb have the electronic toll collection systems (DSRC 5,8 GHz), while BINA-ISTRA d.d. and Autocesta Zagreb-Macelj d.o.o. do not have the ETC system.