

CROATIA NATIONAL REPORT ON MOTORWAYS 2012

I Current State of the Network

As on 1 January 2013, the total length of the motorway network in Croatia amounted to **1,250.7 km**. Motorways are operated by 4 companies:

- Hrvatske autoceste d.o.o. (operates motorways A1, A3, A4, A5, A10, A11)*,
- BINA-ISTRA d.d. (it operates the so called Istrian Y - A8 and A9),
- Autocesta Rijeka - Zagreb d.d. (operates motorways A6, A7, part of A1, and the Krk Bridge) and
- Autocesta Zagreb - Macelj d.o.o. (operates motorway A2).

	Company	2011 Total network	2012 Total network	Total network plan for 2013
1.	HAC d.o.o.	868.0	868.0	897.5
2.	ARZ d.d.	181.7	181.7	181.7
3.	BINA-ISTRA d.d.	141.0	141.0	141.0
4.	AZM d.o.o.	60.0	60.0	60.0
TOTAL		1,250.7	1,250.7	1,280.2

* Pursuant to the *Decision on the Changes of and Additions to the Decision on Classification of Public Roads* (Official Gazette 130/2012) dated 19 November 2012, motorway categories A12 and A13 have been converted into national road categories DC10 and DC12

OPENING OF NEW MOTORWAY SECTIONS IN 2012			
New motorways	New semi-motorways	Widening of existing sections to full motorway profile	Total completed network
0 km	0 km	0 km	1.250,7

NEW SECTIONS OPENED IN 2012			
Motorway	Section	Km	Description
A1 Zagreb - Bosiljevo	Vukova Gorica-Karlovac -Novigrad Interchange	5,34	Construction of Novigrad Interchange and approach road (5.34 km) from Novigrad Interchange to Netretić

In 2012 there were no new motorways opened to traffic, so the motorway network has not increased when compared to the previous year.

II Works in Progress

On 1 January 2013, the works were in progress on:

- 45,0 km of motorways,
- 22,0 km of fast roads
- 10,0 km of link roads

WORKS IN PROGRESS ON 1 JANUARY 2013			
Motorway	Section	Km	Description
A1 Zagreb - Split - Dubrovnik	Vrgorac-Ploče Interchange	11	Construction work, equipment work, and supervision
A1 Zagreb - Split - Dubrovnik	Ploče Interchange - link to Metković	6	Construction work and supervision
A5 Beli Manastir-Osijek-Svilaj	Sredanci-B&H border	3	Construction work, equipment work, and supervision
A5 Beli Manastir-Osijek-Svilaj	Bridge over the Drava River	2,5	Construction work, equipment work, and supervision
A10 B&H border - link to Metković	B&H border-Metković link	1,5	Construction work and supervision
A11 Zagreb - Sisak	Jakuševac-V. Gorica south	10	Construction work, equipment work, and supervision
A11 Zagreb - Sisak	Buševac - Lekenik	11	Construction work, equipment work, and supervision
Fast road: DC10 Podravina Y	Gradec-Križevci	12	Construction work and supervision
Fast road: DC12 Podravina Y	Vrbovec - Farkaševac	10	Construction work and supervision
Link road Zagvozd-Baška Voda with the Sv. Ilija Tunnel	Link road with sv. Ilija Tunnel	10	Construction work, equipment work, and supervision

In 2013, road works will be completed on the total of:

- 29,5 km of new motorways
- 10,0 km of link roads

THE FOLLOWING SECTIONS WILL BE OPENED TO TRAFFIC IN 2013			
Motorway	Section	Km	Opening to traffic scheduled
A1 Zagreb - Split - Dubrovnik	Vrgorac-Ploče Interchange	11	June - October, 2013
A1 Zagreb - Split - Dubrovnik	Ploče Interchange - link to Metković	6	October, 2013
A10 Bosnia & Herzegovina Border - Metković Interch.	B&H border - link to Metković	1,5	June - October, 2013
A11 Zagreb - Sisak	Buševac - Lekenik	11	October, 2013
Link road Zagvozd-Baška Voda with the Sv. Ilija Tunnel	Link road with sv. Ilija tunnel	10	April - June, 2013

In addition to the continuation of work from the previous year, the following new work will start in 2013:

- 30 km of widening to full profile

START OF NEW WORK IN 2013.			
Motorway	Section	Km	Description
A5 Beli Manastir-Osijek-BiH	Bridge over the Sava River (section Sredanci-B&H border)		Construction work and supervision
Link road TS Karamatići - Ploče Harbour	Entry to Ploče Harbour		Construction work and supervision
A8 Kanfanar - Matulji	Rogovići - Učka Tunnel	30	Widening to full profile

III Cost of Investment and Financing

The total of HRK 1,627.43 million (€ 216.41 million) was invested in the construction of new motorways in 2012, while HRK 320.04 million (€ 42.56 million) was invested in sections under traffic.

-in mio HRK

Company	Investment in 2012		Plan for 2013	
	in new sections	in completed sections	in new sections	in completed sections
HAC*	1,549.37	250.90	1,855.43	357.06
ARZ	37.85	2.86	0.00	9.21
BINA ISTRRA	40.21	23.88	302,00	23.88
AZM	0.00	42.40	0.00	32.20
TOTAL	1,627.43	320.04	2,157.43	422.35
TOTAL INVESTMENT	1.947,47		2,579.78	

* In 2012 the entire investment was financed through loans. Individual investment amounts given for 2012 are based on the temporary report for 2012, while the amounts given for 2013 are based on the Construction and Maintenance Plan

- in mio EUR (1 EUR = 7,52 HRK)

Company	Investment in 2012		Plan for 2013	
	in new sections	in completed sections	in new sections	in completed sections
HAC	206.03	33.36	246.73	47.48
ARZ	5.03	0.38	0.0	1.22
BINA ISTRRA	5.35	3.18	40.16	3.18
AZM	0.00	5.64	0.00	4.28
TOTAL	216.41	42.56	286.89	56.16
TOTAL INVESTMENT	258.97		343.06	

Sources of financing in 2012

Source of financing (%)	HAC	ARZ	BINA ISTRA	AZM
loan	54			
company's funds		93	10	10
toll revenues	23		46	90
revenues generated from the price of fuel (HRK 0.60/l i.e. EUR 0,079 /l)	23		0	
reimbursable and non-reimbursable state funding	0	7	44	
TOTAL	100	100	100	100

IV Traffic

HAC and ARZ registered in 2012 a decrease in traffic, while the other two concessionaries, BINA ISTRA and AZM registered an increase in traffic when compared to the previous year. Bigger increase on AZM motorway is mostly due to closure of state road DC1, between Zaporešić and Zabok Interchanges due to reconstruction and increased toll collection discounts on A2 motorway operated by AZM. The total traffic of all vehicles decreased by 1.64 % in comparison with the previous year.

- number of vehicles in toll collection zones

Company	2011		2012				% Total (12/11)
	Light vehicles (IA+I+II)	Trucks (III+IV)	Light vehicles (IA+I+II)	% (12/11)	Trucks (III+IV)	% (12/11)	
HAC	29,219.908	3,969.093	27,961.710	-4.31	3,914.412	-1.38	-3.96
ARZ	17,275.751	1,764.400	16,823.972	-2.62	1,663.240	-5.73	-2.90
BINA ISTRA	6,875.400	630.550	7,021.802	2.13	626.242	-0.68	1.89
AZM	5,436.793	615.877	6,030.501	10.92	664.417	7.88	10.61
TOTAL	58,807.852	6,979.920	57,837.985	-1.65	6,868.311	-1.60	
TRAFFIC, TOTAL	65,787.722		64,706.296				-1.64

GDP 2010/2009 (%)	GDP 2011/2010 (%)	GDP 2012/2011 (%)	Traffic 2011/2010 (%)	Traffic 2012/2011 (%)
-1.2	0.0	-2.0*	5.14	-1.64

* Flash estimate (source: Central Bureau of Statistics)

V Toll Rates

The closed toll collection system, with several entrance and exit points, is predominantly operated in the Republic of Croatia. The open toll collection system is less used (e.g. on Bregana - Zagreb Motorway, and on the Krk Bridge).

(1 EUR = 7,52 HRK)

TOLL COLLECTION SYSTEM		
Existing systems	Light vehicles (Category I)	
	HRK/km without VAT	€/km without VAT
Closed system	0.475	0.063
Open system	0.470	0.063
Ratio categories I : IV closed tolling system	1:4.3	
Trucks (Category IV)		
	HRK/km without VAT	€/km without VAT
Closed system	2.035	0.271
Open system	1.910	0.254
Ratio categories I : IV open tolling system	1:4.1	

Motorcycles (category IA) pay 60% of the toll charged for category I vehicles.

On all motorways, toll can be paid in cash (HRK and €), by credit and debit cards, by INA card, by SMART cards. Electronic toll collection (ETC) system is available on all motorways except on the Zagreb-Macelj Motorway (A2).

HRVATSKE AUTOCESTE D.O.O. (HAC)

On 7 June 2012 HAC increased its toll rates by 15% for all vehicle categories, except in the ETC toll collection system where the price remained unchanged thanks to additional discounts granted to prepaid account users. At HAC toll stations, the toll can be paid either in cash (in HRK or in foreign currency), by credit cards, and through subscription (prepaid account).

Users who pay toll in advance through the ETC device system benefit from the 21.74% discount throughout the year. By purchasing the seasonal ETC the users benefit from the 33.48% discount in the period from 1 November of the current year to the 31 March of the next year, while in other periods of the year they benefit from the 21.74% discount.

The users of the truck program operated in the scope of the ETC model of delayed payment by means of credit and diesel cards benefit from the basic 30.43% discount and from an additional 3% annual discount for the EURO 4 emission class and 5% for the EURO 5 emission class.

The ETC prepaid account can be replenished 24 hours a day at the following toll stations: Bregana, Ivanja Reka, Sveta Helena, Varaždin, Osijek, Đakovo, Sl.Brod - Zapad, Okučani, Županja, Lipovac, Žuta Lokva, Gospić, Zadar-Istok, Šibenik, Dugopolje, Šestanovac and Ravča. In addition, the ETC device replenishment can be operated by credit cards via a web portal "prodaja.hac.hr", via a mobile device linked to credit card and prepaid account, at 15 retail outlets and also via SMS vouchers.

SMS vouchers are available at the retail outlets of INA, TIFON, OMV, LUKOIL, ZABA, iNOVINE and TISAK, while ETC packages can be purchased at all HAC toll stations.

The possibility of paying via a commercial HAC SMART card has been cancelled as of 31 December 2011.

BINA-ISTRA D.D.

Toll rates operated at the Istrian Y remained unchanged in 2012. Users can still choose from a number of discounts given on the regular toll rate. Bina-Istra subscribers via Internet or SMS can see the balance of their accounts and subscription expiry time and can also obtain the listing of passes through toll stations. In addition, they can replenish their accounts and fill in and print invoices for payments via bank transfer. At Bina-Istra toll collection points, toll can be paid by all credit and debit cards, and also by INA card and the ETC device. Furthermore, the users who already own ETC device can additionally register devices already bought at HAC and ARZ with the BINA-ISTRA toll collection system and become in this way Bina-Istra subscribers (this is valid for frequent users entitled to 30-50% discount, depending on section used), or to register their credit cards for ETC device (applicable to non-frequent users).

AUTOCESTA RIJEKA-ZAGREB D.D. (ARZ)

In 2012, toll rates were increased by 15% as from 7 June for cash payments and credit card payments. However the rates charged for ETC device and SMART card users have remained unchanged and these users additionally benefit from a 10% discount. Toll can be paid by cash, via credit and debit cards, SMART card, INA card, and by ETC device. A seasonal 23.5% discount is granted in winter season from 1 November to 31 March for seasonal Smart card and seasonal ETC device users.

As of 1 August 2012, the users of the "Island ETC system" were transferred from the earlier postpaid system (subsequent invoicing for motorway sections used) to the prepaid system. A new sales office has been opened in Zagreb, Unska cesta 2c (near the entrance to the ARZ administration building).

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

In 2012, toll rates were raised for through traffic along the Zaprešić - Trakošćan (Trakošćan - Zaprešić) route (as from 1 August 2012). Toll rates remained unchanged at other sections.

On 1 August 2012, the discount granted for categories I and II was increased from 15% to 25% and from 10% to 13% for categories III and IV (for amounts in excess of HRK 2,000.00) for prepaid toll payments via SMART card. In addition to SMART card, payments can also be made via debit and credit cards, and by INA card.

VI Toll Revenues (without VAT)

In 2012, the total toll revenues amounted to EUR 282,779.267 which represents an increase of toll revenues by 3.01 percent when compared to the previous year.

1 EUR = 7,52 HRK

Company		2011.		2012.		%
		HRK	€	HRK	€	
1.	HAC	1,257,728.814	167,251.172	1,283,196.275	170,637.802	2.02
2.	ARZ	472,431.515	62,823.340	480,014.214	63,831.677	1.61
3.	BINA-ISTRA	168,579.984	22,417.551	182,839.779	24,313.800	8.46
4.	AZM	165,574.407	22,017.873	180,449.821	23,995.987	8.98
TOTAL		2,064,314.720	274,509.936	2,126,500.089	282,779.267	3.01

VII Traffic Safety

The total of 2,214 traffic accidents, with 45 fatalities and 346 accidents with injuries, was registered in 2012. The total number of all traffic accidents registered in 2012 was reduced by 6.42%, and the number of fatalities increased by 45%, when compared to the previous year. The increase in fatalities is due to the traffic accident involving a bus that occurred on 23 June 2012 (8 fatalities and 43 injured).

Number of traffic accidents	2011.					2012.				
	HAC 868km	BINA ISTRA 141 km	ARZ 182 km	AZM 60 km	CROATIA 1251 km	HAC 868km	BINA ISTRA 141 km	ARZ 182 km	AZM 60 km	CROATIA 1251 km
- with fatalities	18	3	5	2	28	20	2	5	2	29
- with injured	260	11	86	10	367	232	19	76	19	346
- with material damage	1,382	112	391	86	1,971	1,339	90	291	119	1,839
Total number of traffic accidents	1,660	126	482	98	2,366	1,591	111	372	140	2,214
Total number of fatalities	21	3	5	2	31	35	2	6	2	45

Main safety ratios

	10 ⁹ vehicles/km in 2012					change 2012/2011 in %				
	HAC 868 km	BINA ISTRA 141 km	ARZ 182 km	AZM 60 km	CROATIA 1251 km	HAC 868 km	BINA ISTRA 141 km	ARZ 182 km	AZM 60 km	CROATIA 1251 km
Personal injury rate	61.80	1.76	72.3	55.55	54.38	-8.86	-95.95	-11.51	-35.74	-13.90
Fatal accident rate	5.33	1.8	4.76	5.85	4.56	-29.78	-80.67	-13.45	96.31	-5.41
Rate of dead	9.33	1.8	5.7	5.85	7.07	1.86	-85.50	3.64	96.31	32.57

VIII Long and Medium Term Development Program

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

- In the long term, through 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 operating companies.

The Croatian Parliament adopted in 1999 the Strategy of Transport Development in the Republic of Croatia.

The Government of the Republic of Croatia adopted three four-year Public Road Construction and Maintenance Programs (2001-2004, 2005-2008, 2009-2012). The Public Road Construction and Maintenance Program for the period from 2013 to 2016 is currently being prepared and it gives priority to: completion of sections started in previous periods on motorways A1, A5, A10, A11 and on the link road Zagvozd - Baška Voda and the Sv. Ilija Tunnel, road widening to full motorway profile on Istrian Y (Pazin - Učka Tunnel - Matulji Section) and A2 Motorway (Krapina - Đurmanec Subsection), construction of second tube for the Učka Tunnel, doubling the Mirna and Limska draga viaducts, and continuation of works on the Podravina Y sections where the level of construction is to be changed from motorway profile to the express road profile.

According to the current Draft Program, motorways and express roads are to be completed and opened to traffic on the following roadways:

A1 Zagreb - Split - Dubrovnik Motorway

- Vrgorac-Ploče Interchange Section
- Ploče Interchange - Metković Section

A5 Beli Manastir - Osijek - B&H Border Section

- Sredanci-B&H Border Section
- Bridge over the Drava River

A8 Kanfanar - Matulji Motorway

- Pazin - Učka Tunnel Section - widening to the full motorway profile
- Učka Tunnel - preparations for construction of the second tunnel tube

A10 B&H Border - Metković Interchange Motorway

- B&H Border - Metković Interchange Section - construction of motorway route and border crossing platform

A11 Zagreb - Sisak Motorway

- Jakuševac - Velika Gorica south Section
- Buševac - Lekenik Section

- Link road Zagvozd-Baška Voda with the Sv. Ilija Tunnel

- DC 10 Podravina Y (Koprivnica), Gradec - Križevci Section
- DC 12 Podravina Y (Bjelovar), Vrbovec 2 - Farkaševac Section

According to the Public Road Construction and Maintenance Program for 2013-2016, the work will also be initiated on the following new projects: construction of the Ravča - Drvenik Express Road, construction of new Klara, Kosnica and Lipovljani interchanges on the A3 roadway Bregana - Zagreb - Lipovac, construction of the "Classification" Overpass on the A11 roadway Zagreb - Sisak, construction of the Nikolac Interchange at the entrance to the Port of Ploče on the Karamatići TS - Port of Ploče link road, construction of sections on the New Zagreb Bypass and construction of the Novigrad - Lišnica approach road.

IX Significant activities started or completed in 2012 and plans for 2013

HRVATSKE AUTOCESTE d.o.o. (HAC)

In 2012, the following activities were undertaken:

All accessory activities and activities relating to construction and road equipment were intensified on those road sections where the works are well under way, in order to create preconditions for normal completion and opening of these sections in the following year (according to the level of construction of the network II).

The following objectives have been set for 2013:

Completion of planned sections according to contractual obligations and opening to traffic of these sections and also continuation of works on other sections in accordance with the Motorway Construction Plan and Program.

AUTOCESTA RIJEKA - ZAGREB d.d.

In 2012, the company's activities were focused on:

- opening to traffic of the Novigrad Interchange with approach roads,
- increasing the toll level by 15% for users paying in cash (or by cards on the spot), while the prices remained unchanged for ETC device owners and SMART card holders,
- promotional sale of ETC devices for HRK 1 + HRK 50 that were added to the user's account during the month of June.

The company has set the following objectives for the year 2013:

- improvement of intersections K3 and K4 at the Netretić - Novigrad Interchange section,
- Krk bridge repair, remedy of old bridge over the Rječina River,
- harmonisation of traffic signs and markings with EU guidelines for 2013, repair of dangerous spots through installation of impact dampers, safe transport of harmful substances, construction of wind protection walls, Jastrebarsko Interchange improvement,
- continuous care about motorway users by providing information about situation on roads, by informing the public about important facts and plans, by promotional sale of ETC packages, and by establishment of an INFO centre where users' complaints and objections will be received.

BINA-ISTRA d.d.

In 2012, the company's activities were directed towards:

An intensive work of Bina-Istra technical services aimed at preparing design documents for construction of the full motorway profile on the Pazin - Učka Tunnel section will enable procurement of building permits by the end of March 2013. This will be a good precondition for the start of works in mid-2013.

In 2013, the company has set the following objectives for the oncoming period:

It is expected that the widening of the remaining 40 km of Istrian Y to the full motorway profile will start in June 2013. In addition to a higher travel comfort, the full motorway profile will also raise the current level of safety to a higher level. As the construction work will be done, just like before, mainly by local contractors and as several hundreds of people will be engaged in this work, it is quite understandable that this project is of exceptional significance for the Istrian economy. This has been

recognised not only by the builders taking part in the construction, but also by the entire local community that supports the project and is eagerly waiting for the start of works.

AUTOCESTA ZAGREB-MACELJ d.o.o.

Regular activities relating to road safety, service level improvement, environmental protection and optimisation of operating costs are underway. Since the concession area has been set for the entire concession period, there is no room for extension of the network. It is planned to widen the Krapina-Đurmanec sub-section, 3.7 km in length, to the full motorway profile.

As to competition with railway traffic, AZM expects that the road traffic will steadily be increasing as the rail infrastructure in the zone around the concession area has been greatly neglected and is currently negligible.

In 2012, the company's activities were focused on:

Regular and periodic maintenance, preparations for ETC implementation, environmental protection and action plans for noise protection.

The company has set the following objectives for 2013:

Regular and periodic maintenance, lowering the number of traffic accidents, preparations for ETC implementation and introduction of a new product - TICKET 40 (40 trips in 40 days for 40% discount), energy savings, environmental protection, public presentation of the strategic noise map and preparation and public presentation of action plans for noise protection.

The company plans to widen the route to the full motorway profile at the Krapina - Đurmanec subsection, 3.7 km in length.

