

Hrvatske autopiste d.o.o.

HAC opens new sections on the A1 Motorway Zagreb – Split – Dubrovnik

The following motorway sections were ceremoniously opened to traffic:

- A1 Motorway Zagreb – Split – Dubrovnik:
- Šestanovac – Zagvozd – Ravča (40 km)
- A10 Motorway from border with Bosnia & Herzegovina to Ploče:
- Karamatići Frontal Toll Station – Čeveljuša Interchange section of the link road Ploče Interchange – Port of Ploče (7.5 km)

Sections were opened to traffic on December 22, 2008 by Ivo Sanader, Prime Minister of the Republic of Croatia.

Šestanovac – Zagvozd – Ravča sections

The total length of the Zagreb – Split – Dubrovnik Motorway (A1) has thus been increased by additional 40 km. The motorway route from Šestanovac via Zagvozd to Ravča runs through an undulating and low lying terrain, and it provides a good quality traffic link with the wider Zagvozd area, with the

Biokovo Nature Park area and with Makarska Riviera.

The horizontal, vertical and cross-sectional geometry of the principal route was defined for the design speed of $v_r = 120$ km/h.

As many as 47 structures were built on the Šestanovac – Ravča section: 7 viaducts, 9 overpasses, 29 underpasses, 2 wildlife crossings, 3 roadside rest areas, and 1 traffic maintenance and control centre. All points of intersection with the existing infrastructure were solved by means of grade separated intersections. Connections with motorway have been ensured via interchanges only and, in this respect, the following interchanges were built: Zagvozd 1 – connection to the national road D62, Ravča – connection to the national road D62, and Zagvozd 2 on the national road D62.

The contract price for the construction and equipment of the Šestanovac – Zagvozd – Ravča sections amounts to **EUR 224,353,565** (without VAT).



Link road between the Karamatići Frontal Toll Station and the Port of Ploče

To keep pace with the current economic development trends, the Port of Ploče is eager to increase its capacity, efficiency and quality of services and, for that, it is of prime significance to have a good quality road network. The link road starting at the Ploče Interchange on the motorway and ending at the Port of Ploče will provide a proper link between the Port of Ploče and the Zagreb – Split – Dubrovnik Motorway (A1).

The link road is realized in two phases:

Phase I: Karamatići Frontal Toll Station – Port of Ploče





Phase II: Ploče Interchange on the A1 Motorway – Karamatići Frontal Toll Station

The link road between the Ploče Interchange and the Port of Ploče, 7.5 km in length, was opened to traffic in the scope of the first phase. This work includes:

- link road from the Karamatići Frontal Toll Station to the Port of Ploče,
- temporary connection to the parallel field path,
- rehabilitation of the national road D513.

The main characteristic of this section is the separation of the route into the four-lane and two-lane road, so as to enable construction of the planned branching in the direction of Dubrovnik, with the link to the national road D8 (split level rotary at Rogotin) in front of the existing bridge over the Neretva River, i.e. connection of the link road to the Port of Ploče with the link to D8 at the locality of Čeveljuša (Čeveljuša Interchange).

The designed section is north to south (southwest) in orientation. Considering the features along the route and physical conditions in the corridor traversed by the section, the route is divided into three segments:



Wildlife crossing Zagvozd

- from km 1+200.000 to approx. km 4+200 - four-lane roadway,
- from approx. km 4+200 to km 9+725 - two-lane roadway,
- Čeveljuša Interchange.

The horizontal, vertical and cross-sectional geometry of the link road was defined for the design speed of $v_r = 80 \text{ km/h}$. Ten structures were realized along the link road: 1 bridge, 6 viaducts, and 3 tunnels. Because of its significance, the Čeveljuša Interchange, with reconstruction of the national road D8, has been defined as a separate

segment. The interchange provides traffic connection between the port and the link road, and also enables access to port from the national road, and access from motorways A10 and A1.

The contract price set for the construction and equipment of the sections amounts to **EUR 119,322,006** (without VAT).

Once completed, the link road from the Ploče Interchange (on the motorway) to the Port of Ploče will provide a good quality link between the Port of Ploče and the Zagreb – Split – Dubrovnik Motorway [A1].

Bina – Istra d.d.

Istrian Upsilon construction progressing on schedule

The construction of the full profile of the existing Istrian Upsilon semi motorway, started in September 2008, is advancing as planned. Over the past several months, some large scale muckshifting works were conducted on the Kanfanar Interchange – Pula Interchange Section, and the work included blasting operations in big road cuttings.

In fact, about 1,200,000 m^3 of stone material and earth is to be excavated in this first phase of the works on the section between Kanfanar and Pula. Out of that, 800 000 m^3 are to be extracted by blasting, and as many as 300 000 m^3 have so far been excavated and transported to lower terrains. Mainly greater earthwork, such as blasting in cuttings, has been completed so far. In this respect, 200 000 m^3 of stone material have so far been blasted, and as many as 80t of explosives have been used to this effect. Up to five blasting operations were conducted each day on the site, with 1t of explosives used for every blasting operation, which was sufficient for excavation of 1 – 3000 m^3 of material. 150 persons and 100 machines are currently employed at the full-profile construction of the Istrian Upsilon.

Once the works start at the Umag Interchange – Kanfanar Interchange Section (where works are to commence in April 2009) and the Kanfanar Interchange – Pazin Interchange Section (estimated start of work

in September 2009), the Istrian Upsilon will be ranked among the biggest road construction sites in Croatia, with the workforce of as many as 300 to 400 employees.

Despite the current crisis, the continuation of the full profile construction work on the Istrian Upsilon project has never been put into doubt. The necessary financing was secured already in December 2007, with the approval of the Republic of Croatia. At that time, Bina-Istra signed a syndicated loan agreement for the sum of EUR 693.5 million.

Doubling work starts at the Umag Interchange – Kanfanar Interchange Section

Over the past six months, the work on the full profile construction of the existing Istrian Upsilon road has mainly been concentrated in the southern part of the project. However, in late March, the works have started to extend in the northward direction. After the land purchase, in the scope of which two thirds of the plots were obtained from the state and most of the remaining plots were bought from private owners, the construction sites were opened along the Umag – Kanfanar section (49.2 km).

The earthwork on the section between the Umag Interchange and Kanfanar Interchange is to last until the summer of 2011, while all works on this section should be completed by the end of 2011. This project



will be a great challenge to the builders: they have to blast no less than 1,600,000 m^3 and excavate 1,200,000 m^3 of material.

Mostly earth material, predominant at the Umag Interchange – Kanfanar Interchange Section, makes this section more demanding when compared to the Kanfanar Interchange – Pula Interchange Section, where stone material is more abundant.

The work on the full profile construction of the Istrian Upsilon Project will be continued even in summer months when the traffic is the most intensive. However, at that time the work will be limited, so that the operation of traffic is not hindered, and to enable to road users an undisturbed driving towards their destinations.

The continuation of works and extension of building sites will provide additional jobs to local population, which will greatly contribute to the development of this region.

Hrvatske autopiste d.o.o.

Podravina Upsilon

The currently planned express roads:

- Sv. Helena – Vrbovec – Križevci – Koprivnica – Border with the Republic of Hungary
- Vrbovec – Bjelovar – Virovitica – Border with the Republic of Hungary

jointly form a recognisable entity known as the "Podravina Upsilon". According to the Decision on the Changes and Revisions of the Decision on Classification of Public Roads into Motorways (Official Gazette No. 13/09), the planned express roads have been classified as motorways bearing the following marks:

A12: Sv.Helena Interchange (A4) – Vrbovec – Križevci – Koprivnica – Gola Border with the Republic of Hungary

A13: Vrbovec Interchange 2 (A12) – Bjelovar – Virovitica – Terezino Polje Border with the Republic of Hungary

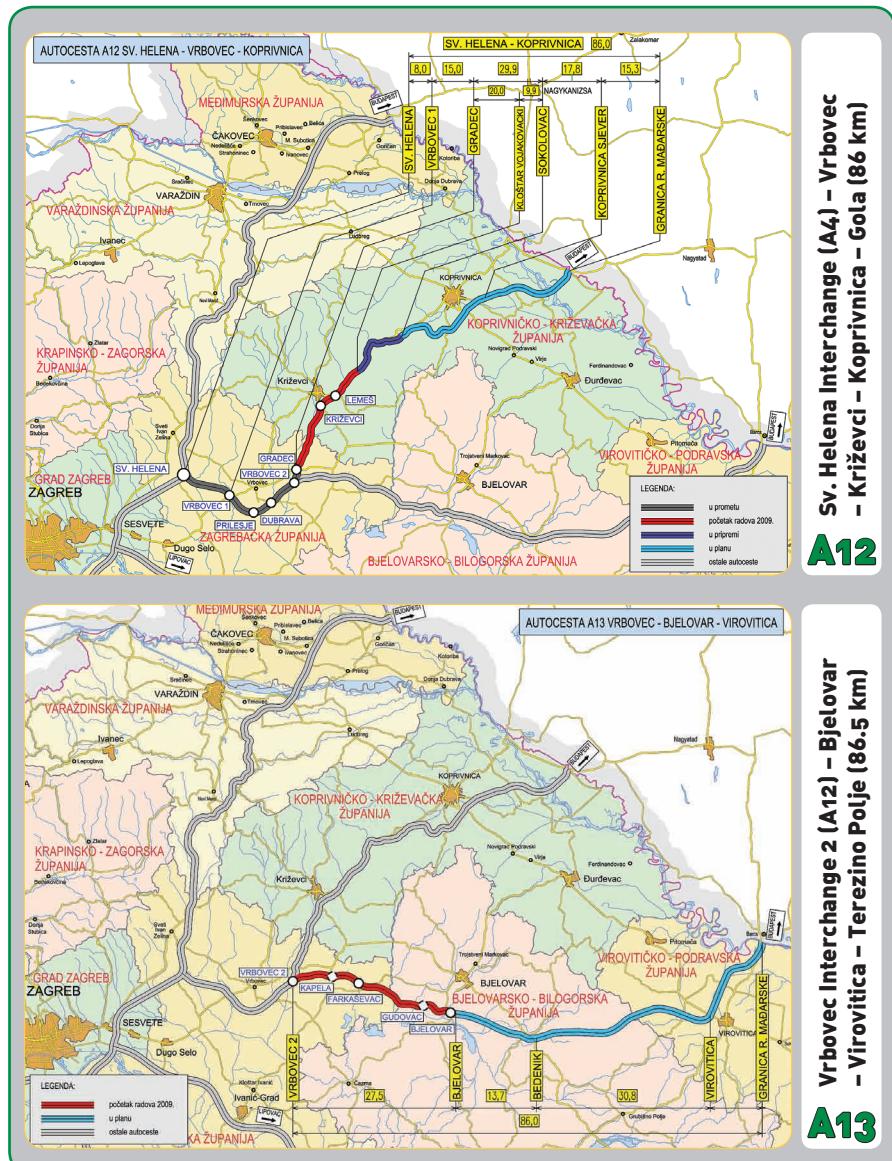
According to this decision and pursuant to the Law on Public Roads and the Law on Changes and Revisions of the Law on Public Roads (Official Gazette No. 180/04, 138/06 and 146/08), the company Hrvatske autopiste d.o.o., being the company competent for the operation, construction, rehabilitation and maintenance of motorways, has signed with Hrvatske ceste d.o.o. the agreement on the transfer of competencies relating to "Podravina Upsilon", and has therefore assumed all ensuing obligations related to the preparatory activities and construction of the future motorways A12 and A13.

A12: Sv. Helena Interchange (A4) – Vrbovec – Križevci – Koprivnica – Gola (86 km)

The planned motorway A12, 86 km in total length, is a part of the planned motorway network of the Republic of Croatia. As to its territorial spreading, the motorway connects central parts of Croatia, i.e. the City of Zagreb area with Podravina region, and represents the shortest traffic link between the corridor of the Posavina (Motorway A3 Bregana – Zagreb – Lipovac) and the future Podravina express road Varaždin – Koprivnica – Virovitica – Osijek.

The construction of the planned motorway will greatly contribute to better traffic connection of areas along the motorway, and will namely boost development in Križevci and Koprivnica and in other regions along the Drava River.

On this motorway, a segment from Sv. Helena Interchange (on the A4 motorway) to Gradec (D28), 23 km in length, has already been built and opened to traffic. This segment has been built as express road and is to be rehabilitated and converted into the full motorway profile.



A13: Vrbovec Interchange 2 (A12) – Bjelovar – Virovitica – Terezino Polje (86.5 km)

The planned motorway A13, 86.5 km in length, is also a part of the planned motorway network of the Republic of Croatia. This motorway connects central parts of Croatia, i.e. the City of Zagreb area with Podravina region, and is linked to the European road E661 Zenica (Republic of Bosnia & Herzegovina) – Okučani – Virovitica – Balatonkeresztúr (Republic of Hungary).

The motorway will greatly contribute to development in Bjelovar and Virovitica, and in other regions along the Drava River.

Start of construction works

As a continuation of the already built express road from Sv. Helena Interchange (A4) to Gradec (D28), the construction work will be started on the following sections:

A12 Section: Gradec – Sokolovac, Subsec-

tion: Gradec – Kloštar Vojakovački (20 km)

A13 Section: Vrbovec 2 – Bjelovar (27.5 km)

The public bidding procedure is currently in progress for the construction works on the Motorway A12 and A13. The works are scheduled to commence in May 2009. The start of the works and construction of these motorway sections is a big step towards creation of preconditions for continued economic development of Podravina and other regions in the north of Croatia.

The time schedule for construction of these sections, and for rehabilitation of the existing Sv. Helena – Gradec Express Road, will be defined in the Program for Construction and Maintenance of Public Roads for the period from 2009 to 2012, which is currently being prepared. The time schedule for construction of the remaining sections on the motorways A12 and A13 will be defined in the next medium-term plans.

Autocesta Rijeka – Zagreb d.d.

Role of water protection in sustainable development policies

On two thirds of its route, the Rijeka to Zagreb Motorway traverses a karst terrain where ground water is highly susceptible to pollution. The Rijeka – Zagreb Motorway route enters the karst area at Karlovac, and then passes through drainage areas of a number of water sources and active water plants, on its way to Rijeka. The motorway completion works, and also the use of the motorway, are potentially hazardous to the purity of water in the area traversed by the project.

Protection of water supply systems

Already at the stage of design work, a considerable attention is being paid to the functionality and shape of all structural elements of the motorway so as to ensure, among other things, that natural environment is being adequately preserved. The following areas are especially significant for preservation of water quality along the Rijeka – Zagreb motorway route in Gorski kotar: [1] Drainage system of the Frankopan water tank, forming a part of the water supply system for the locality of Rvana Gora which belongs to the first water protection zone; [2] Rainwater sinking zone at the Kupica source drainage area, which is a part of the water supply system for the counties of Brod na Kupi, Delnice, and Mrkopalj, and which belongs to the first and second water protection zone; [3] narrow and wider water protection zone of the Ribnjak source, which is a part of the Vrbovsko District water supply system, which belongs to the first and second water protection zone; [4] Locality in Kupjak from 48+41,65 to 49+201,68 where the motorway corridor is situated immediately next to the sinking zone. The Rijeka Bypass area, where works are currently under way to widen the roadway to the full motorway profile, is also highly susceptible to water pollution as the route is situated immediately above the Rječina River bed and the Zvir water source which is significant for supplying water to the town of Rijeka. In addition to the supervision activities aimed at checking quality of waste water and other potential sources of pollution, the work of civil contractors is continuously supervised on these locations by undertaking measures aimed at preventing, limiting and forbidding activities and behaviour that may detrimentally affect the quality of water in particular, and the quality of natural environment in general. These protection measures are specified in the environmental protection plans that are drafted separately for every construction site.

Protection of speleological structures

About 200 speleological structures of various sizes, morphological types and hydrological significance, have been identified, analyzed and improved on the motorway route during realization of final construction works at the Rijeka – Zagreb motorway. As filtering layers of soil do not exist in case of speleological structures, the underground watercourses are directly exposed to external influences in these zones, and are highly susceptible to contamination. Thus the speleological structures encountered on the Rijeka – Zagreb motorway route can also be regarded as spots that are highly susceptible to water pollution. A striking example is the passage of motorway route through an underground hall (cavern) 93 m long, 63 m wide and 45 m high, in a relatively small Vrata Tunnel, 260 m in length. Appropriate measures were taken to additionally protect and stabilize the rock mass in this cavern. At the cavern vault level, this was done by tendons, while the row of geotechnical anchors and the reinforced-concrete grid structure was used at the ground level. The cavern itself was traversed via a bridge, and hence an undisturbed circulation of ground water was ensured.

Closed drainage system

At the newly constructed sections in the zone from Karlovac, i.e. Bosiljevo to Kikovica (Grobničko polje), and on the Rijeka Bypass, the evacuation of water from road pavement was solved by means of a closed drainage system. All water and impurities are collected from the pavement and transported via the separator where greasy substances are separated and coarse particles are deposited. The water purified in this way is discharged into the terrain in zones which are not so susceptible to pollution. Nevertheless, in areas where a greater level of protection is needed, the water is discharged via separators into a lagoon (stabilization pond) for further deposition and neutralisation of harmful substances, and is then discharged into the surrounding terrain via an appropriate drainage system.

In 2008, the water quality was tested at separator outlets in the zones covered by Technical Units of Rupa, Čavle and Bosiljevo, respectively, and also on separators situated along the motorway route in the course of pe-



riodic inspections and condition surveys conducted on 12 separators along the Karlovac – Bosiljevo Section, and at outlet points of 24 separators along the route of the Oreohovica – Rijeka Section. In most cases, the results obtained during these analyses show that waste water quality is compliant with water quality requirements for discharge into the natural environment. However, the allowable values have sometimes been exceeded in winter period when the chloride content in water is relatively high due to intensive spreading of salt on the pavement surface.

Preventive measures

In case of motorway accidents (tank truck overturning, etc.), the ground water may become polluted and thus hinder normal water supply. Measures for dealing with such accidental situations are defined in appropriate bylaws. In the scope of preventive activities, a fire fighting drill was conducted on February 16, 2009 in order to ensure maximum level of harmonization and efficient interaction among employees and emergency services in accidental situations. In the course of this drill, an accidental discharge of diesel fuel from a vehicle was simulated at the internal filling station situated at the Delnice Technical Unit. The subsequent analysis has shown that the level of efficiency of all participants is exemplary.

As the implementation of sustainable development policies is one of principal objectives of the Autocesta Rijeka – Zagreb d.d., and as this company is highly aware of the importance and sensitivity of karst aquifers, we are continuously investing considerable expertise and funding to the protection of water in karst areas. This is primarily achieved through implementation of preventive measures and various activities during the design, construction and operation of the motorway. In the scope of the environment management system according to ISO 14001:2004, we have been continuously trying to improve environmental mitigation measures, especially in the sphere of water quality preservation.

ASECAP Conference: ASECAP Believes in European Road Safety

A single day road safety event was held on March 2, 2009 in Innsbruck. The event was jointly organized by European Association of Toll Motorways Concessionaires ASECAP, Italian motorway association AISCAT, Austrian motorway company ASFINAG, and company for motorway management in Germany, TOLL COLLECT.

The presentations were given by Reinhard Rack from the European Parliament TRAN Committee, and Annie Canel from the European Commission DG TREN.

To halve number of fatalities

In 1990, 71,000 persons were killed in road accidents in EU, while in 2007 there were 40,000 fatalities in 25 EU countries.

In the scope of its Road Safety Action Plan, EU wishes to halve the number of fatalities by the year 2010. Statistical data point to the following critical spots: motorcyclists, for which the number of traffic accidents is rising, younger male drivers, which are the most frequent participants in traffic accidents, and rural

roads, where almost 60 percent of all traffic accidents happen. "Only" 6 percent of all accidents occur on motorways. The alcohol is responsible for one out of every four accidents, and the use of drugs or medicine is the culprit in 15 percent of all accidents.

The new Action Plan for the next period from 2011 to 2020 will be issued by EU in 2009.

To raise the level of road culture

Alain Estiot from TOLL COLLECT, Germany, emphasized that legislative measures that have been systematically introduced since 1998 (such as the recommended maximum speed on motorways: 130 km/h, obligatory helmet for motorcyclists, obligatory safety belt, reduction in allowable concentration of alcohol from 0.8 to 0.5 per mill), have proven to be successful as the number of accidents has been reduced since 1998, and is still decreasing.

Klaus Schierhackl from Austrian ASFINAG also emphasized that the number of accidents and the number of fatalities is decreas-

ing. The main causes of traffic accidents are: speed (27%), overtaking (17%), fatigue (16%), inadequate spacing between vehicles (10%), alcohol (5%) and other (25%).

The experience from Italy

The experience from Italy was presented by Paolo Cestra from the Italian Traffic Police. In Italy, the motorway traffic is exclusively controlled and supervised by the National Traffic Police, which accounts for 10% of the total police forces. It is the only entity that is competent to act on motorways based on agreements made with 23 companies and bodies in charge of the motorways. In 2005 Traffic police initiated together with the Italian concessionary ASPI the TUTOR project in the scope of which both medium and immediate driving speeds are regularly controlled. The project is implemented on 2,000 km of motorways and, one year after it was initiated, the number of fatalities fell by 51 percent, the number of accidents with injuries by 27%, and the total number of accident was reduced by 19%.

In conclusion, Klaus Schierhackl from the Austrian ASFINAG placed once again emphasis on the key tasks to be realized in the ensuing period: setting realistic and practicable objectives, joint interdisciplinary work of all competent services and institutions, and education and information campaign aimed at changing negative behaviour of the users. The integral text of the article and presentations are available at www.huka.hr.



Croatia National Report 2008

I. Current state of the network

At the start of 2009, the total length of the motorway network in Croatia amounted to 1.198,7 km. The following new roadways were opened to traffic in 2008:

- 41,5 km of new motorways
- 36,9 km of widening of existing road sections to the full motorway profile

At the A1: Zagreb – Split – Ploče, the Šestanovac – Zagvozd – Ravča sections (40 km).

At the A4: Zagreb – Goričan, the section from Goričan to Hungarian border (1,5 km) with the bridge over the Mura River.

At the A6: Zagreb – Rijeka, the total of 36,9 km were widened to the full motorway profile (Phase II B)

- Part of Oštrovica – Vrata section (12,44 km)
- Vrata – Delnice section (8,93 km)
- Delnice – Kupjak section (7,92 km)

- Part of Kupjak – Vrbovsko section (7,59 km). In Croatia, motorways are operated by 4 companies: Hrvatske autopiste (operates all toll motorways except for those in concession) and by three concession companies BINA-ISTRA (operates the so called Istrian Upsilon – A8 and A9), Autocesta Rijeka – Zagreb (A6, A7 and part of A1) and Autocesta Zagreb – Macelj (A2).

	Company	2007 total	2008 total
1.	HAC	780,0	816,0
2.	ARZ	178,5	181,7*
3.	BINA-ISTRA	145,0	141,0**
4.	AZM	60,0	60,0
	TOTAL	1163,5	1198,7

* revision of data from previous years - all access roads have been added

** revision of data from the previous years

II. Financing and Investments

The total of HRK 5.307.29 M [EUR 657.64 M] was invested in new motorway construction in 2008, while the total of HRK 498.27 M [EUR 66.43 M] was invested over the same period in the existing sections.

Company	in millions of kn (millions of EUR) (1EUR=7.5 kunas)			
	Investment in 2008		Planned investment in 2009	
	new sections	existing sections	new sections	existing sections
HAC	3.748.32 (449.78)*	432.18 (57.62)*		**
ARZ	1.420.82 (189.44)	27.56 (3.67)	1.291.30 (172.17)	179.10 (23.88)
BINA-ISTRA	138.15 (18.42)	23.53 (3.14)	841.50 (112.20)***	25.95 (3.46)***
AZM	0.00 (0.00)	15.00 (2.00)	0.00 (0.00)	22.50 (3.00)
TOTAL	5.307.29 (657.64)	498.27 (66.43)	2.132.80 (284.37)	227.55 (30.34)

* The data on investments made in 2008 are based on the temporary report.

** The new Public Roads Construction Plan for the 2009 - 2012 periods shall be adopted by the Government of the Republic of Croatia in 2009.

*** The investments (already made and planned) in new sections include construction costs only, i.e. the costs relating to development, insurance, supervision and consultancy are not included.

III. Traffic Safety

The total of 2540 traffic accidents, with 72 fatalities, was registered in 2008. Out of this total, the number of accidents with injuries was 420. The number of all traffic accidents decreased by 2.9 percent in 2008, and the number of fatalities was lowered by 13.2 percent with respect to the previous year.

Number of accidents:	2007					2008				
	HAC 780 km	BINA ISTRA 141 km	ARZ 181 km	AZM 60 km	RH 1162 km	HAC 780 km	BINA ISTRA 141 km	ARZ 181 km	AZM 60 km	RH 1162 km
- fatal accidents	42	4	21	1	68	27	5	9	7	48
- accidents with injuries	266	25	101	22	414	251	22	125	22	420
- with material damage	1436	132	440	125	2133	1353	132	511	76	2072
Total traffic accidents	1744	161	562	148	2615	1631	159	645	105	2540
Total of fatalities	51	4	27	1	83	47	6	11	8	72

* traffic accidents for 2008 are calculated according to the length from 2007 because new stretches of motorways were open to traffic only in late December 2008

IN BILLION OF KILOMETRES TRAVELED IN 2008

	2008					Variation in % 2008/2007				
	HAC (780 km)	BINA- ISTRA (141 km)	ARZ (181 km)	AZM (60 km)	RH (1162 km)	HAC (780 km)	BINA- ISTRA (141 km)	ARZ (181 km)	AZM (60 km)	RH (1162 km)
Ratio accidents with injuries	67.75	31.75	111.15	27.88	66.45	-21.62	-21.31	23.08	-49.98	-15.09
Ratio accidents with fatalities	7.28	7.12	8.00	8.87	7.59	-46.67	24.48	-57.40	250.59	-40.93
Ratio of fatalities	12.69	8.85	9.78	10.14	11.39	-23.46	49.48	-59.49	300.79	-27.40

IV. Traffic

In 2008, the total traffic of all vehicles on all motorways increased by 8.9 percent when compared to the previous year.

Company	Number of vehicles in toll-collection zones						
	2007		2008				
	Light vehicles (1 st and 2 nd category)	Heavy vehicles (3 rd and 4 th category)		Light vehicles (1 st and 2 nd category)	% (08/07)	Heavy vehicles (3 rd and 4 th category)	% (08/07)
HAC	27.468.537	3.908.210		27.813.913	+ 1.26 ¹	4.147.348	+ 6.12 ¹
ARZ	12.069.014	1.893.629		16.541.162	+ 37.00 ¹	2.166.368	+ 14.00 ¹
BINA-ISTRA	4.502.102	461.029		4.282.130	- 4.89 ²	457.139	- 0.84 ²
AZM	5.848.134	729.005		5.801.563	- 0.80 ³	734.674	+ 0.78 ³
TOTAL	49.887.787	6.991.873		54.438.768	+ 9.12	7.505.529	+ 7.35

¹ Compared to 2007, the difference is significant because in 9/2007 HAC handed over to ARZ the motorway A7 Rupa – Rijeka and bridge Krk. Therefore the traffic should be observed and compared together for both companies and than the raise in traffic for LV amounts to 12 % and in HV 8,8 %.
² The traffic in 2008/2007 is lower because in 2007 the traffic was exceptionally high due to works on two alternative roads (Opatija – Lovran – Vozilići and Antenal Bridge) and traffic was re-routed to A8 and A9, this was no longer the case in 2008. In addition, the economic activity in Istria was reduced in 2008 when compared to 2007.
³ The fall in traffic in 2008/2007 is due to lower traffic intensity in summer due to vignette introduction in Slovenia, and so most of tourists from north-eastern parts of Europe selected a cheaper route via Hungary.

In 2007, the network was extended by 92 km or 8.6 percent when compared to 2006, and in 2008 the network was additionally extended by 42 km, or 3.6 percent compared to 2007.

GDP increase in 2007	Traffic increase in 2007	GDP increase in 2008	Traffic increase in 2008
5.6	5.9	3.1*	8.9

* data are based on preliminary report

V. Toll Revenues (not including VAT)

In 2008, the total toll revenues increased by about 3.2 percent with respect to the previous year, which is mainly due to the increase in traffic, to the opening of new motorway sections, to the introduction of new payment methods, and to price corrections operated on some motorways in Croatia.

Company	2007				% (08/07)
	kn	EUR	kn	EUR	
HAC	1.230.509.256	164.067.901	1.238.422.017	165.122.936	+ 0.6
ARZ	417.446.545	55.659.539	477.406.351	63.654.180	+ 14.4
BINA-ISTRA	134.125.037	17.883.338	129.674.801	17.289.973	- 3.3
AZM	135.142.097	18.018.946	155.397.526	20.719.670	+ 15.0*
TOTAL	1.939.190.164	258.558.688	2.000.900.695	266.786.759	+ 3.2

* Total revenues increased by 15 percent is due to opening to traffic of the new motorway section and to toll increase as of 1/1/2008. The number of vehicles did not increase with respect to 2007. In fact, LV traffic decreased by 0.78 %. The main reason is the fall in summer traffic by about 10 percent with respect to 2007 because of expensive vignettes (EUR 35) charged in the neighbouring Republic of Slovenia. This assertion is evidenced by data on the roughly ten percent traffic increase on the Zagreb – Goričan route, which shows that tourists from the north-east of Europe bypassed Slovenia and travelled through Hungary.

Complete National Report for 2008 is available on www.huka.hr

Key Figures 2008

CROATIA

	2008				
Total length of motorways network, in km, as on January 1, 2009	1198.70				
2 x 1 lane	174.80				
2 x 2 lanes	1.003.90				
2 x 3 lanes	0.00				
2 x 4 lanes	0.00				
Number of km opened to traffic in 2008					
Motorway	41.50				
Semi-motorway	0.00				
Upgrade to full profile	*36.88				
Number of km under construction as on January 1, 2009					
Motorway	70.30				
Semi-motorway	17.50				
Upgrade to full profile	*40.00				
Estimate of new sections to be completed and opened to traffic in 2009, in km					
Motorway	52.00				
Semi-motorway	1.00				
Upgrade to full profile	*11.50				
Annual toll revenues in 2008, in mil EUR	266.8				
Permanent staff as on January 1, 2009	3.732				
AADT, LIGHT VEHICLES	12.945				
AADT, HEAVY VEHICLES	1.764				
AADT, LV + HV	13.795				
Total number of accidents	2.540				
Number of accidents with injuries	420				
Number of fatalities	72				
Number of kilometers travelled ($10^6 \times \text{km}$)	5.671.527.489				
Number of toll stations	73				
Number of lanes	508				
Number of lanes destined to electronic toll collection	274				
Number of ETC subscribers**	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">subscribers</td> <td style="width: 60%; text-align: right;">55.724</td> </tr> <tr> <td>devices ***</td> <td style="text-align: right;">91.781</td> </tr> </table>	subscribers	55.724	devices ***	91.781
subscribers	55.724				
devices ***	91.781				
Number of rest areas (with service station)	72				
Number of rest areas	116				
Number of restaurants	17				
Number of hotels	7				

* existing sections

** HAC and ARZ have already introduced the interoperable electronic toll collection (DSRC 5.8 GHz), while ETC has not as yet been introduced on motorways operated by BINA-ISTRA and AZM

*** one subscriber may have several ETC devices



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