



2008

HRVATSKA UDRUGA KONCESIONARA ZA AUTOCESTE S NAPLATOM CESTARINE
CROATIAN ASSOCIATION OF TOLL MOTORWAYS CONCESSIONAIRES

National Report



CROATIA – NATIONAL REPORT 2008

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.

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).

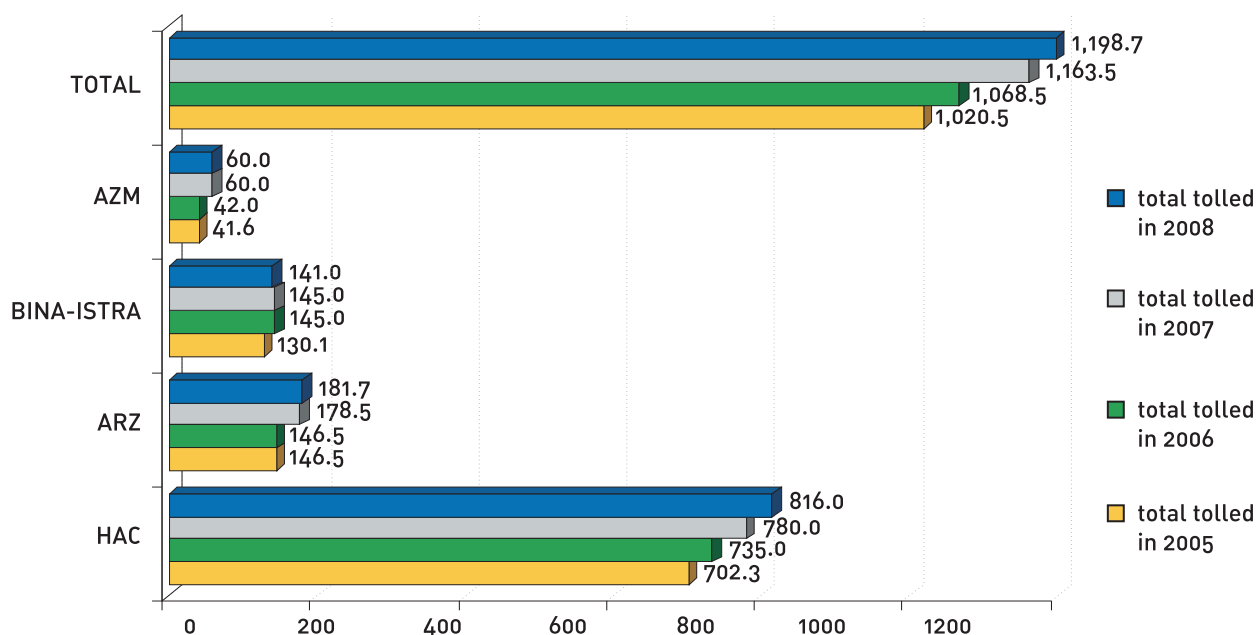
MOTORWAY NETWORK IN SERVICE

	Company	2007 total	2008 total
1.	HAC d.o.o.	780.0	816.7
2.	ARZ d.d.	178.5	181.0*
3.	BINA-ISTRA d.d.	145.0	141.0**
4.	AZM d.d.	60.0	60.0
TOTAL:		1,163.5	1,198.7

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

** revision of data from the previous years

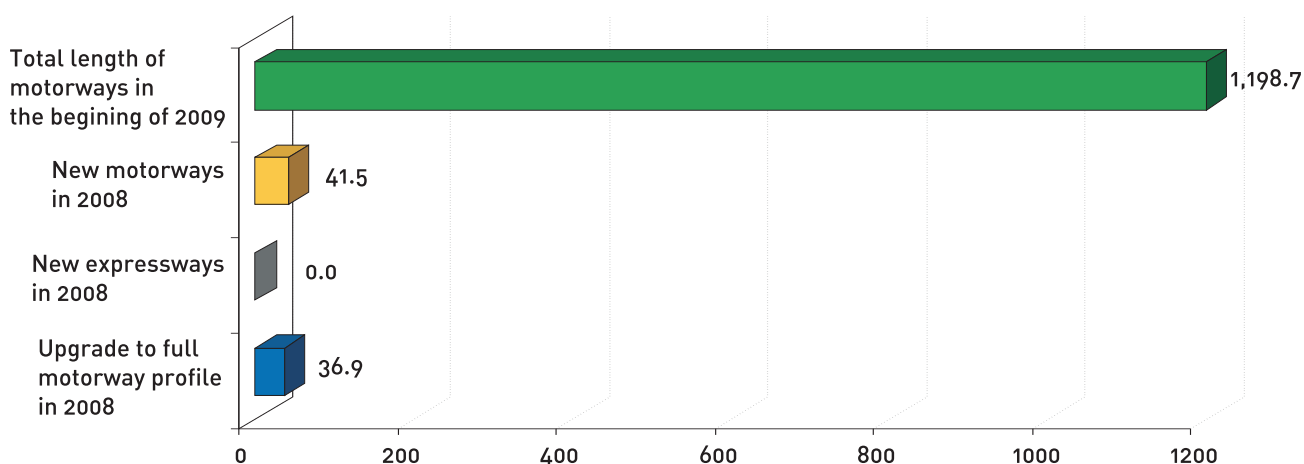
Motorway network in service 2005 - 2008



NETWORK OPENED TO TRAFFIC IN 2008

New motorways	New semi-motorways	Upgrading to the full motorway profile	The network (end 2008)
41.5 km	0 km	36.9 km	1,198.7 km

New motorways opened to traffic in 2008 (in km)



NEW SECTIONS OPENED TO TRAFFIC IN 2008

	Motorway	Section	Km	Description
1.	A1: Zagreb – Split – Ploče	Šestanovac – Zagvozd – Ravča	40.00	Opened to traffic in full motorway profile in 12/2008.
2.	A4: Zagreb – Goričan	Goričan – Hungarian border	1.50	Opened to traffic in full motorway profile in 10/2008.
3.	A6: Rijeka – Bosiljevo	part of the Oštrovice – Vrata section	*12.44	Opened to traffic in full motorway profile (Phase II B) in 09/2008.
		Vrata – Delnice	*8.93	Opened to traffic in full motorway profile in 06/2008.
		Delnice – Kupjak	*7.92	Opened to traffic in full motorway profile in 06/2008.
		part of the Kupjak – Vrbovsko section	*7.59	Opened to traffic in full motorway profile in 06/2008.
TOTAL:			41.50 *36.88	

* upgrade to full motorway profile

SECTIONS UNDER CONSTRUCTION

The following works were in progress on January 1, 2009 on the total of 70,3 km of new motorways, 17,5 km of new express roads, 36,46 km widening to the full

motorway profile, 11,46 km left-tube construction of the Mala Kapela Tunnel and Sveti Rok Tunnel and 4,56 km of toll station upgrade by adding new toll lanes.

WORKS IN PROGRESS ON JANUARY 1, 2009

Motorway/semi motorway	Section	Km
A1: Zagreb – Split – Dubrovnik: Split – Ploče sector	Ravča – Ploče	21.0
	Left tubes of the Mala Kapela and Sveti Rok Tunnels	*11.46
	TOTAL:	21.0 *11.46
A2: Zagreb – Macelj	Motorway connection to the SLO border crossing and border crossing platform	0.8
	TOTAL:	0.8
A3: Bregana – Zagreb – Lipovac	Additional structures on the existing sections	
A5: Beli Manastir – Osijek – B&H border	Osijek – Đakovo	33.0
	TOTAL:	33.0
A1: Bosiljevo – Zagreb:	Rehabilitation of the approach to the Lučko toll station from the Karlovac direction and construction of the new Demerje Toll Station at KM 3+025 for the cashless toll collection.	4.56
	TOTAL:	4.56
A7: Rupa – Rijeka – Križišće (Widening of the south-side pavement of the Rijeka bypass to the full motorway profile)	Orehovica Interchange – Diračje Interchange	*8.86
	TOTAL:	*8.86
A9: Umag – Pula (Widening of the existing road to the full motorway profile)	Kanfanar – Vodnjan South	*20.7
	Vodnjan South – Pula	*6.9
	TOTAL:	*27.6
A10: Mali Prolog – Ploče	Continuation of the express road from Ploče to the Port of Ploče	7.5
	TOTAL:	7.5
A11: Zagreb – Sisak	Jakuševac – Velika Gorica South	7.5
	Velika Gorica South – Lekenik section the subsection until Buševac	8.0
	TOTAL:	15.5
Link (express) road and Sveti Ilija Tunnel (total 10 km)	TOTAL:	10.0
	SUBTOTAL:	87.80 *47.96

* upgrade to full motorway profile

The following roadways will be opened to traffic in 2009: 51,8 km of new motorways, 1 km of express road, 8.86 km of widening to the full motorway profile and 11.46 km of the second tubes of the Mala Kapela and Sveti Rok Tunnels, i.e.:

NEW OPENINGS TO TRAFFIC PLANNED IN 2009

Motorway/semi motorway	Section	Km
A1: Zagreb – Split – Dubrovnik Split – Ploče sector	Ravča – Ploče, Ravča – Vrgorac subsection	10.0
	Left tubes of the Mala Kapela and Sveti Rok tunnels	*11.46
A2: Zagreb – Macelj	Road leading to the border crossing with the Rep. of Slovenia	0.8
A5: Beli Manastir – Osijek – B&H border	Đakovo – Osijek	33.0
A7: Rupa – Rijeka – Križišće (Widening of the Rijeka bypass to full motorway profile)	Orehovica Interchange – Diračje Interchange	*8.86
A10: Mali Prolog – Ploče	Express road from Ploče to the Port of Ploče	1.0
A11: Zagreb – Sisak	Velika Gorica – Buševac subsection	8.0
	TOTAL:	52.80 *20.32

In addition to works started in previous year, the following new projects will be started in 2009: 155,3 km of motorways and 43,2 km of widening of existing sections to the full motorway profile:

BEGINNING OF CONSTRUCTION OF NEW SECTIONS IN 2009

Motorway/semi motorway	Section	Km
A1: Zagreb – Split – Dubrovnik	Doli – Dubrovnik Interchange	30.0
A5: Beli Manastir – Osijek – B&H border	Osijek – Beli Manastir	25.0
Motorway Rijeka – Zagreb	Donja Zdenčina Interchange at km 14+250 and Novigrad Interchange with approach roads Netretić – Novigrad Interchange – Novigrad Interchange – Lišnica	11.3
A9: Umag - Pula (Upgrade of existing road to full motorway profile)	Buje – Kanfanar	*43.2
A11: Zagreb – Sisak	Velika Gorica South – Lekenik, Buševac – Lekenik Subsection	12.0
	Lekenik – Sisak Interchange	10.0
A12: Podravina Upsilon	Gradec – Reka	40.0
	Vrbovec 2 – Bjelovar	27.0
	TOTAL:	155.3 *43.2

* upgrade to full motorway profile

FINANCING AND INVESTMENTS

The total of HRK 5,307.29 M (EUR 707.64 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.

- in millions of kn (millions of EUR) (1EUR = 7,5 kuna)

INVESTMENTS

Company	Investments in 2008		Planned investments in 2009	
	new sections	existing sections	new sections	existing sections
HAC	3.748.32 (499.78)*	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 (707.64)	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.

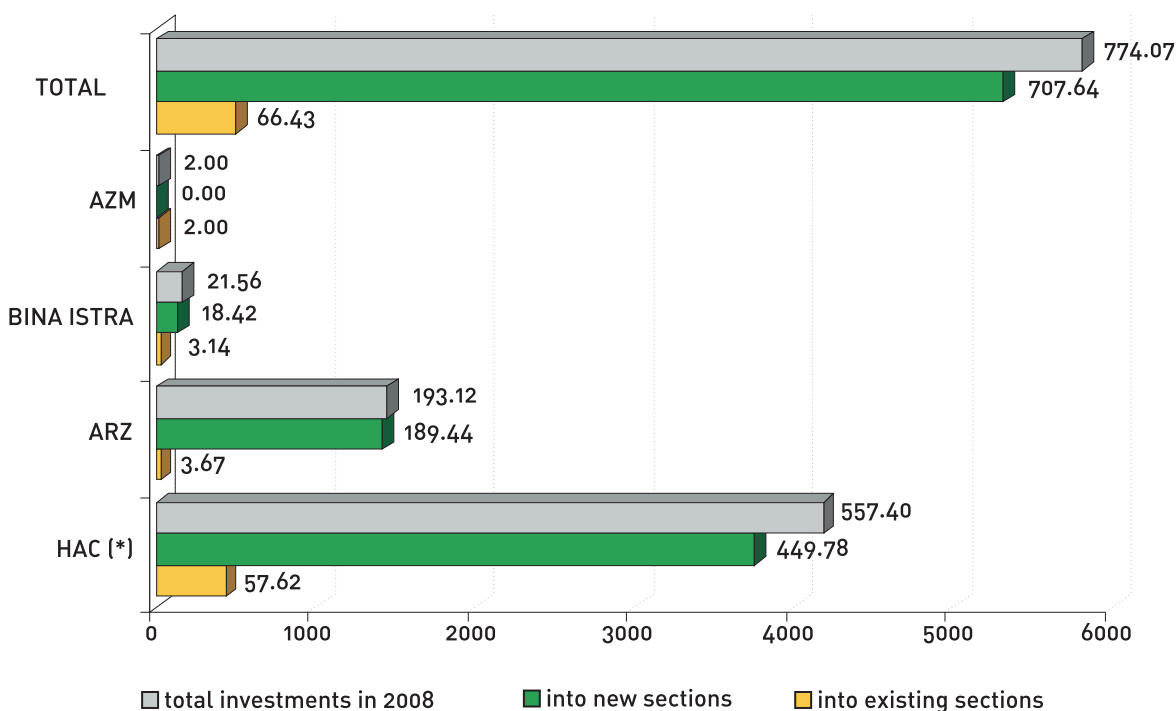
** The new Public Roads Construction Program for the 2009 – 2012 periods shall be adopted by the Government of the Republic of Croatia in 2009.

*** 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.

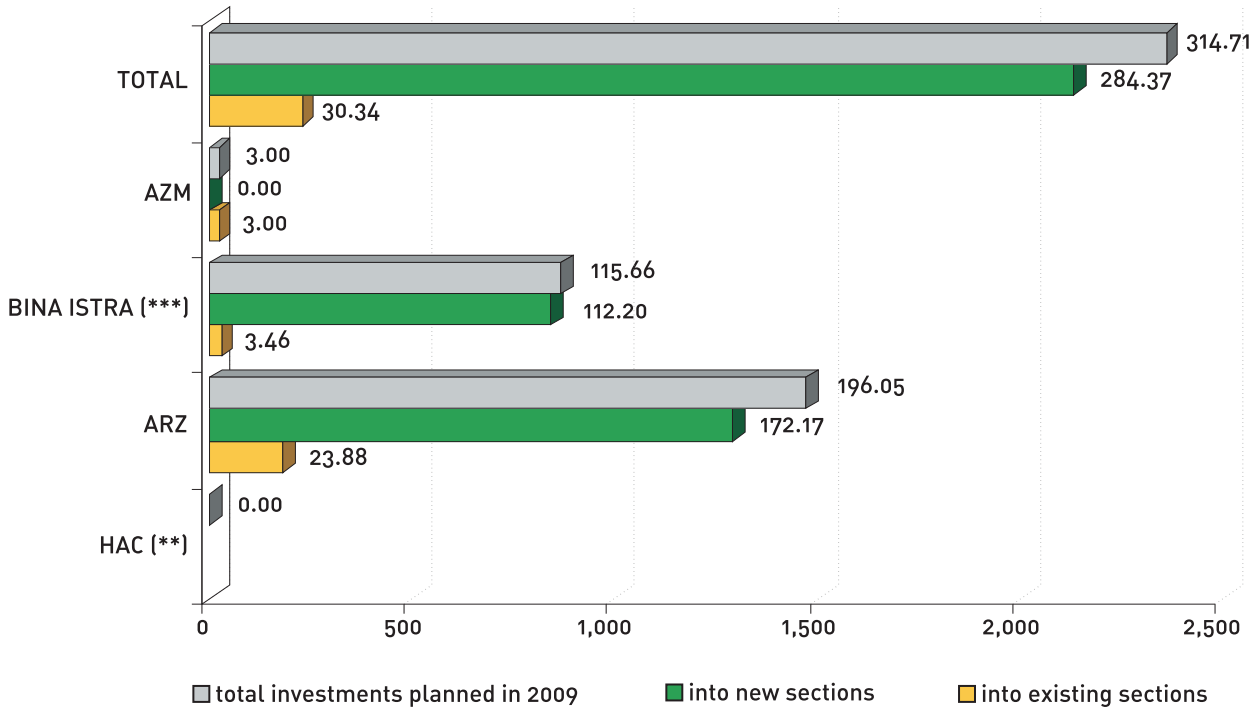
In 2007, the construction of motorways was mostly financed through loans and toll revenues, and the company Hrvatske autoceste d.o.o. also finances mo-

torway construction through fuel tax revenues 0.60 kn per litre (EUR 0,08).

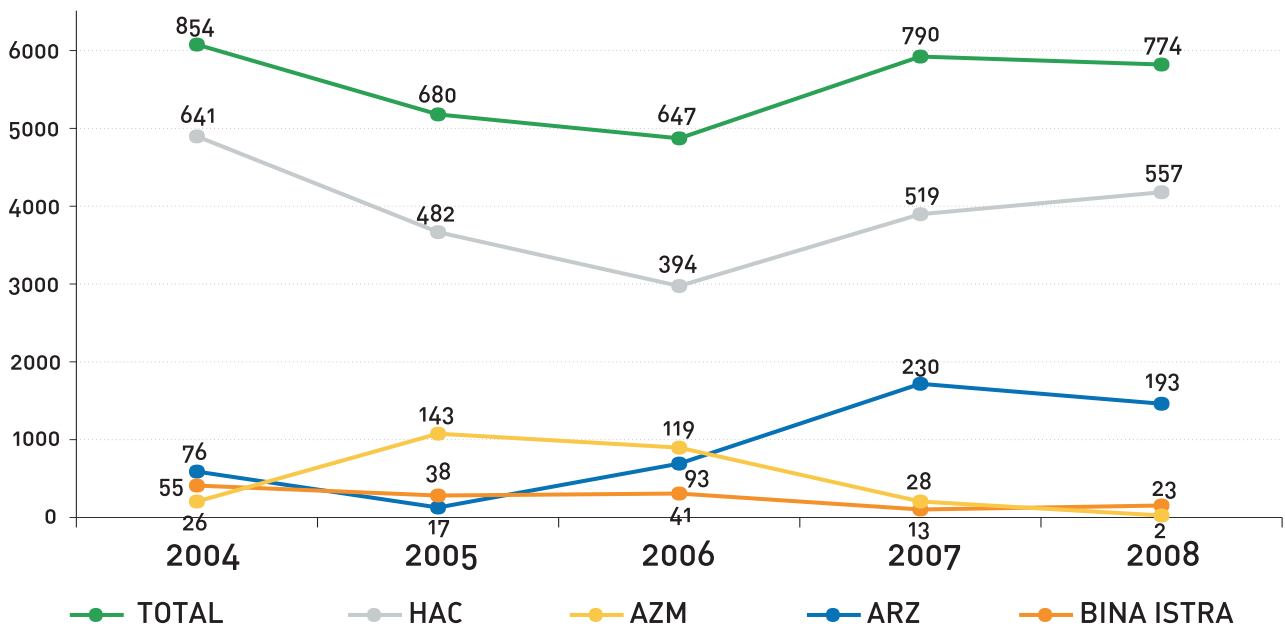
Investments in 2008 in mio EUR



Investments planned in 2009 in mio EUR



Total investments 2004 - 2008 in mio EUR



TRAFFIC

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

NUMBER OF VEHICLES IN TOLL-COLLECTION ZONES

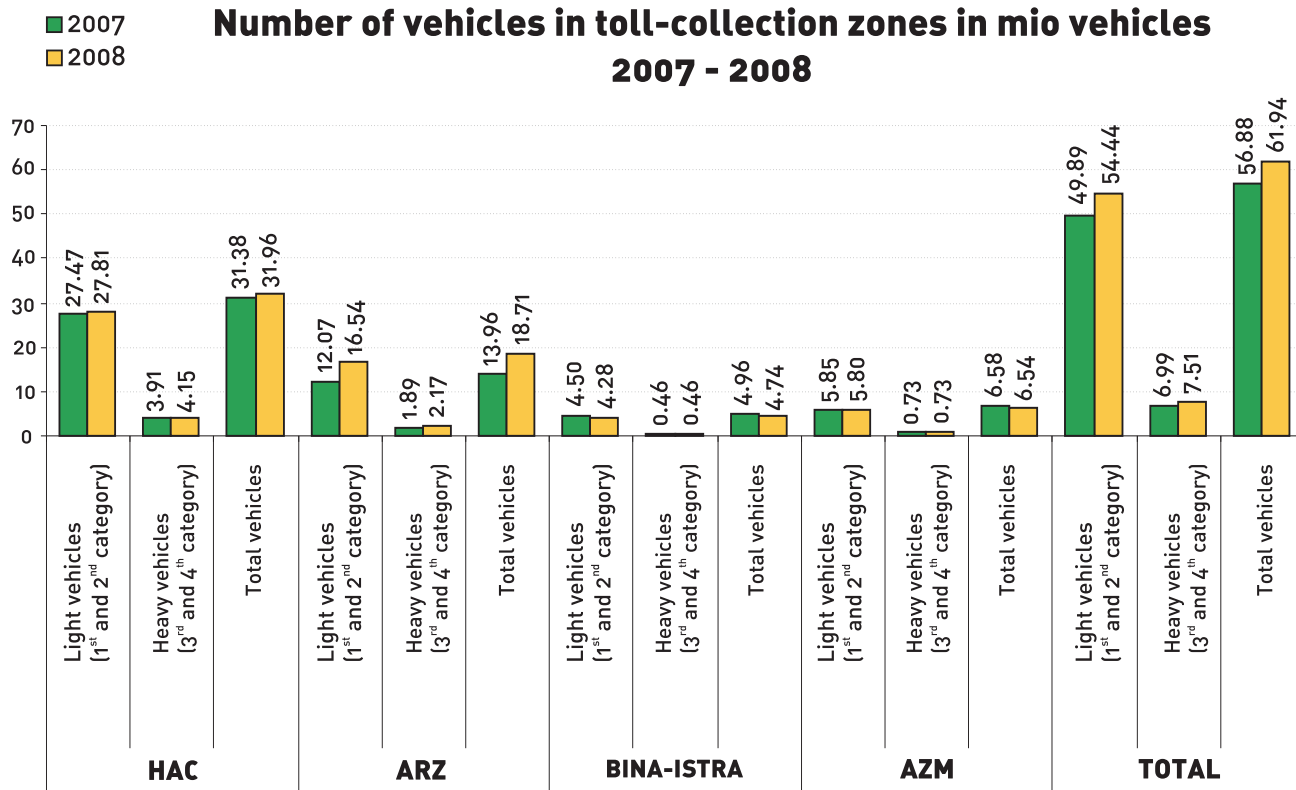
Company	2007		2008			
	Light vehicles (1 st and 2 nd category)	Heavy vehicles (3 rd and 4 th category)	Light vehicles (1 st and 2 nd category)	% (08/07)	Heavy vehicles (3 rd and 4 th category)	% (08/07)
HAC	27.468.537	3.908.210	27.813.913	+ 1.26 ¹	4.147.348	+ 6.12 ¹
ARZ	12.069.014	1.893.629	16.541.162	+ 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 – Vozilici 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.

Number of vehicles in toll-collection zones in mio vehicles 2007 - 2008



TRAFFIC AND GDP

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

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.

Traffic & GDP 2004 - 2008 in %



TOLL RATES

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.

SYSTEM OF TOLL COLLECTION

System of toll collection	Light vehicles (1 st category)	
	KN/km (not including VAT)	EUR/km (not including VAT)
Open	0.33	0.045
Closed	0.29	0.039

The toll fee ratio between light vehicles (category I) and heavy vehicles (category IV) is 1:42. The consumer basket increase amounted to 6.2 percent in 2008.

HAC

The VPR system (video-based license plate recognition system) was introduced in May 2008 with the purpose of preventing fraudulent use and manipulation with magnetic cards (exchange of magnetic cards among users so as to pay fewer tolls).

As of June 2008, the ETC package may be purchased round-the-clock at all toll stations. The ETC packages (ENC 420, ENC 610 and ENC 1000) may be used immediately after purchase for paying toll on all motorways operated by Hrvatske autoceste d.o.o. and Autocesta Rijeka – Zagreb d.d.

From January 1, 2009, the toll for vehicle categories III and IV may be purchased via credit cards based on the post-paid system, using the ETC device linked to a specific vehicle (its license plate), and a 20 percent discount is granted in the period from September 15 of the current year to the June 1 of the following year. When toll is paid by subscription to an ETC device and SMART card, the 10 percent discount is offered throughout the year. In winter season, from November 1 to March 31, the seasonal discount of 23.5 percent is granted.

ARZ

The toll rates were changed in 2008 as, after construction of the full motorway profile on the Rijeka – Zagreb motorway, i.e. on its section from Grobnik to Vrbovsko. The toll had to be changed to make it compliant with the decision made by the competent ministry in 2004. According to this decision the toll on the Rijeka – Zagreb motorway has to be charged at the rate of HRK 0.42 per kilometre of full profile motorway, or HRK 0.36 per kilometre

of semi-motorway. The new toll rates have been in force on the mentioned sections as of November 1, 2008.

A ten percent discount is offered throughout the year for toll prepayment via Smart card. In winter season, from November 1 to March 31, a seasonal 23.5 percent discount is offered.

A ten percent discount is offered throughout the year for toll prepayment via the ETC device.

BINA-ISTRA

This company did not increase toll in 2008, and it offers a whole array of discounts throughout the year. In addition to the previously introduced subscription payment via SMS, in December 2008 the company greatly modernized the toll subscription system by introducing toll payment via the Internet.

Besides payment via all major credit and debit cards, the possibility of making toll payments via the INA card was also introduced in early November. As of December 1, 2008 a forty percent discount, compared to the toll charged for the first category of vehicles, has been granted for the newly established motorcycle category (Category IA).

AZM

This company increased its rates in 2008 in keeping with its Concession Agreement (5 %).

TOLL REVENUES

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.

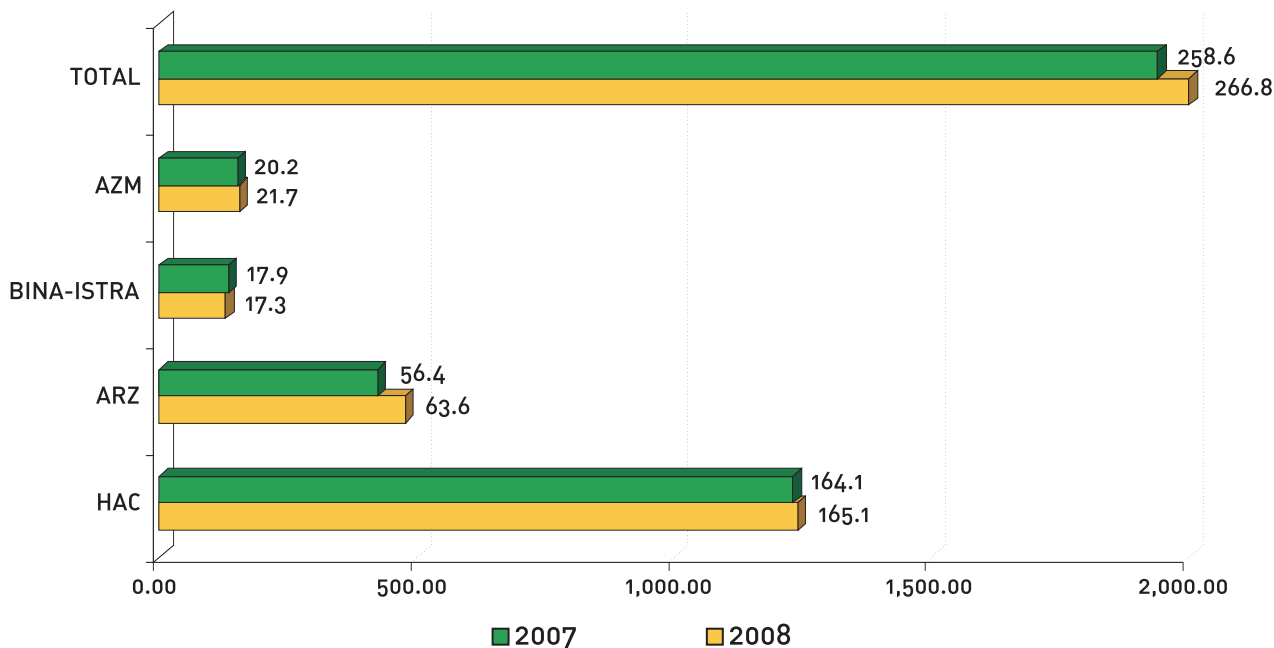
1 EUR = 7,5 kn

TOLL REVENUES (NOT INCLUDING VAT)

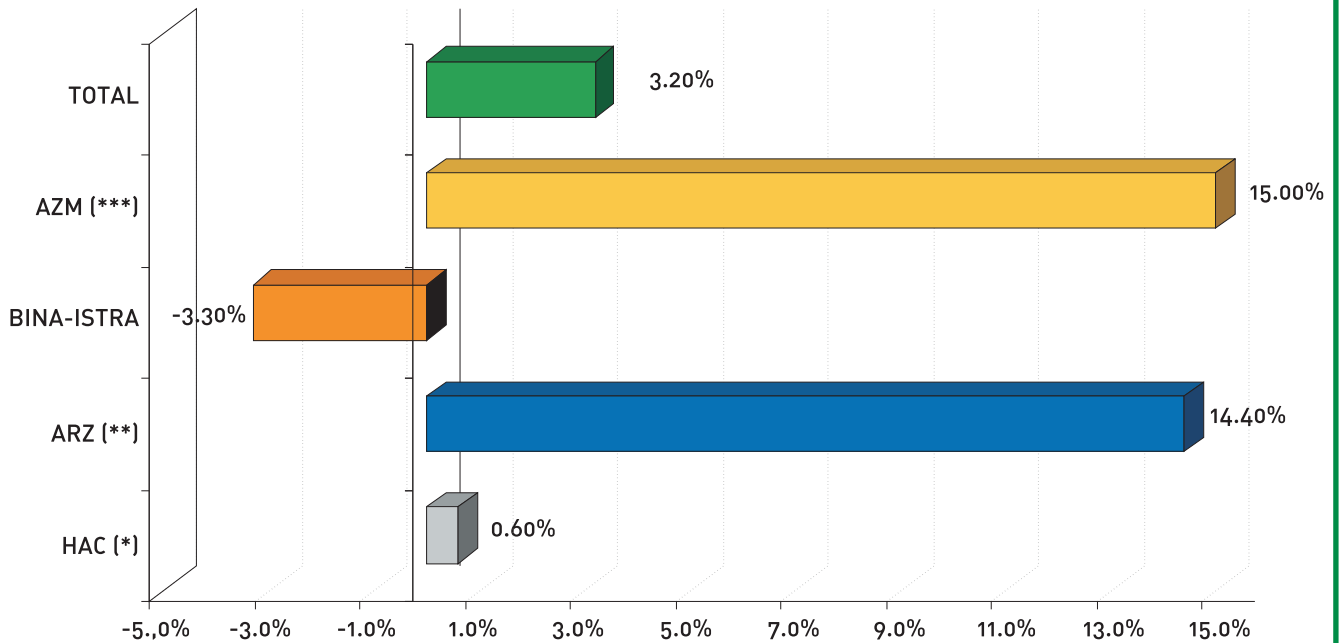
Company	2007		2008		% (08/07)
	Kn	EUR	Kn	EUR	
HAC	1.230.509.256	164.067.901	1.238.422.017	165.122.936	+0.6*
ARZ	417.446.545	55.659.539	477.406.351	63.654.180	+14.4*
BINA-ISTRA	134.125.037	17.883.338	129.674.801	17.289.973	-3.3
AZM	135.142.097	18.018.946	155.397.526	20.719.670	+15.0**
TOTAL:	1.939.190.164	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.

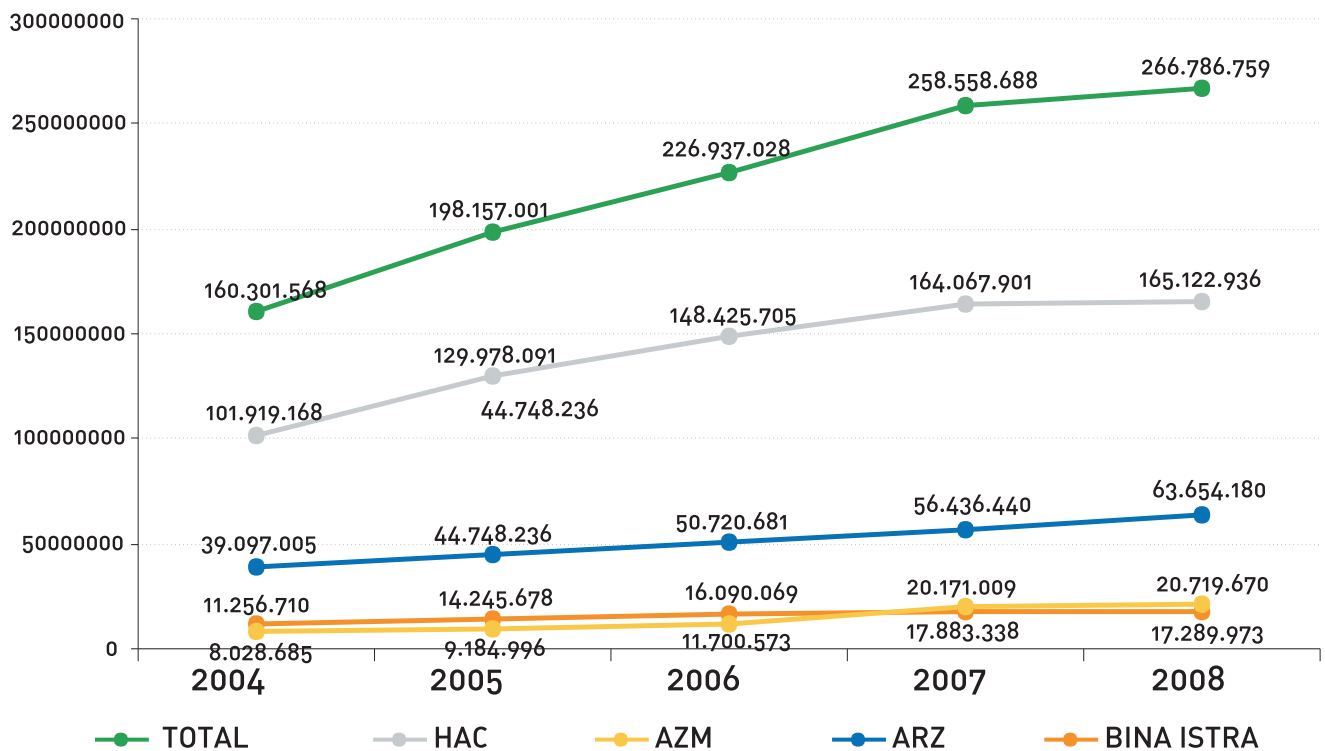
Toll revenues 2007 - 2008 without VAT - in mio EUR



Toll revenues 2008/2007 in %



Toll revenues 2004 - 2008 in EUR



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 traf-

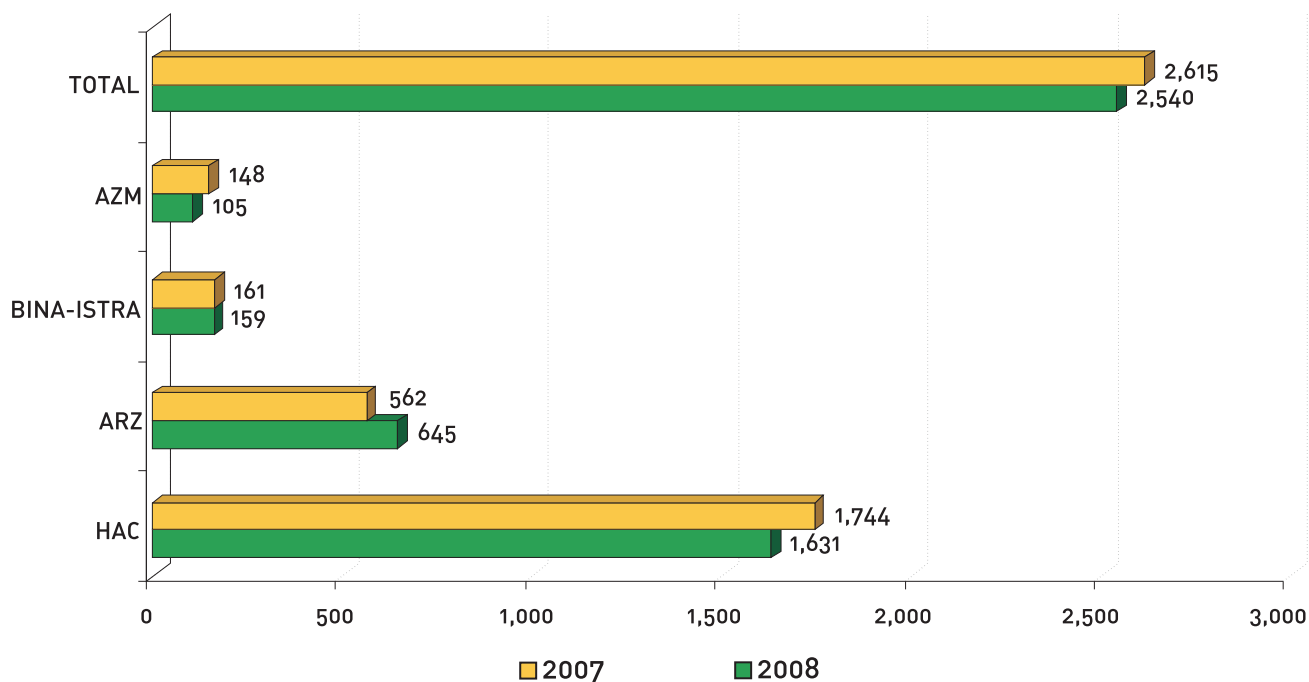
fic accidents decreased by 2.9 percent in 2008, and the number of fatalities was lowered by 13.2 percent with respect to the previous year.

TRAFFIC SAFETY

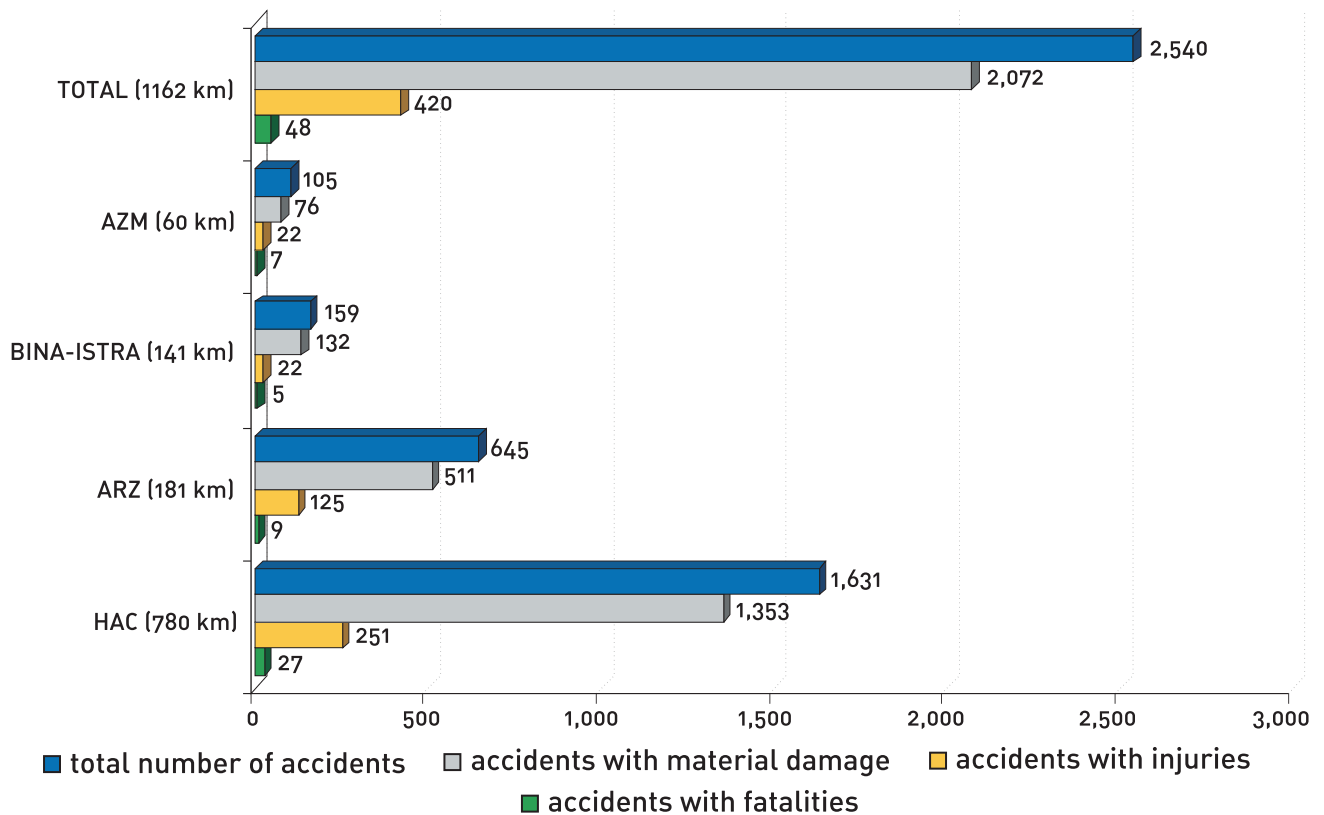
Number of accidents:	2007					2008				
	HAC (780 km)	ARZ (178 km)	BINA-ISTRA (141 km)	AZM (60 km)	RH (1159 km)	HAC (780 km)	ARZ (181 km)	BINA-ISTRA (141 km)	AZM (60 km)	RH (1162 km)
- fatal accidents	42	4	21	1	68	27	5	9	7	48
- accidents with injuries	266	25	101	22	414	251	22	125	22	420
- accidents with material damage	1436	132	440	125	2133	1353	132	511	76	2072
Total number of accidents	1744	161	562	148	2615	1631	159	645	105	2540
Total number 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

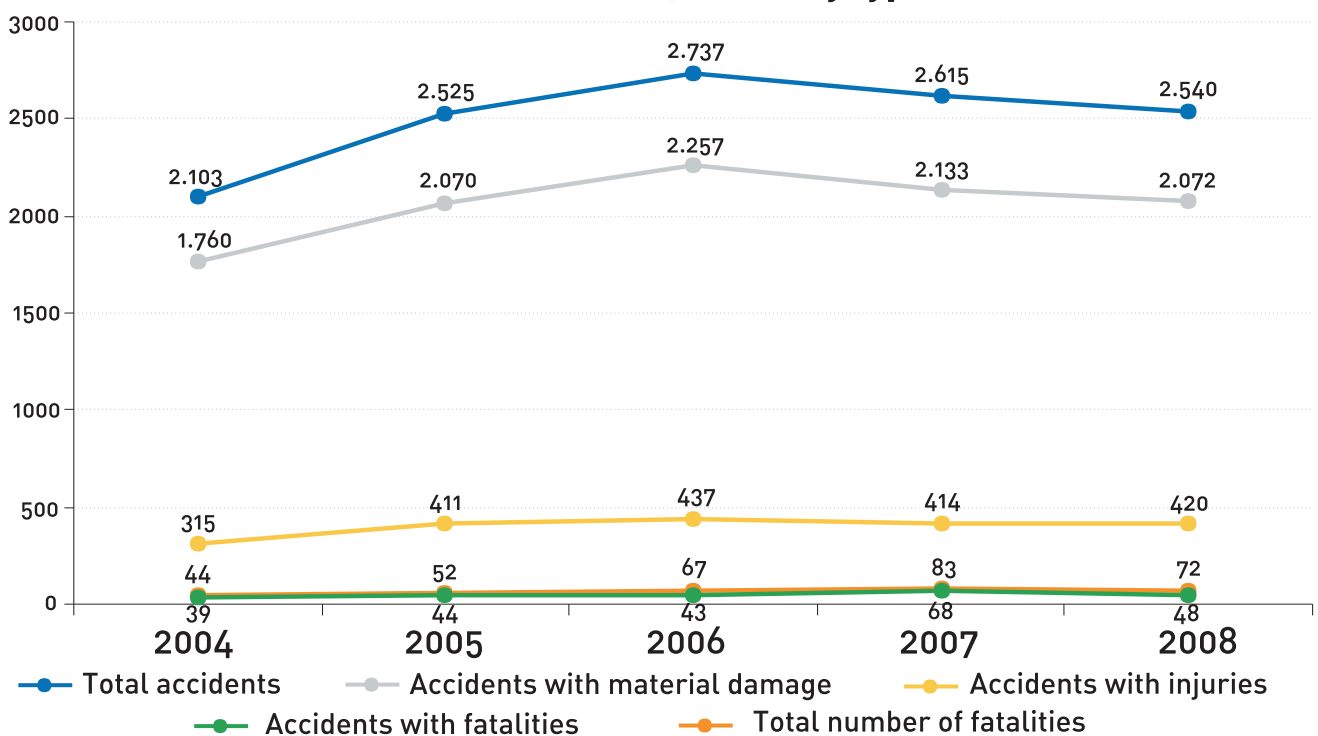
Total number of traffic accidents 2007 - 2008



Total number of traffic accidents in 2008 by type of accident (*)



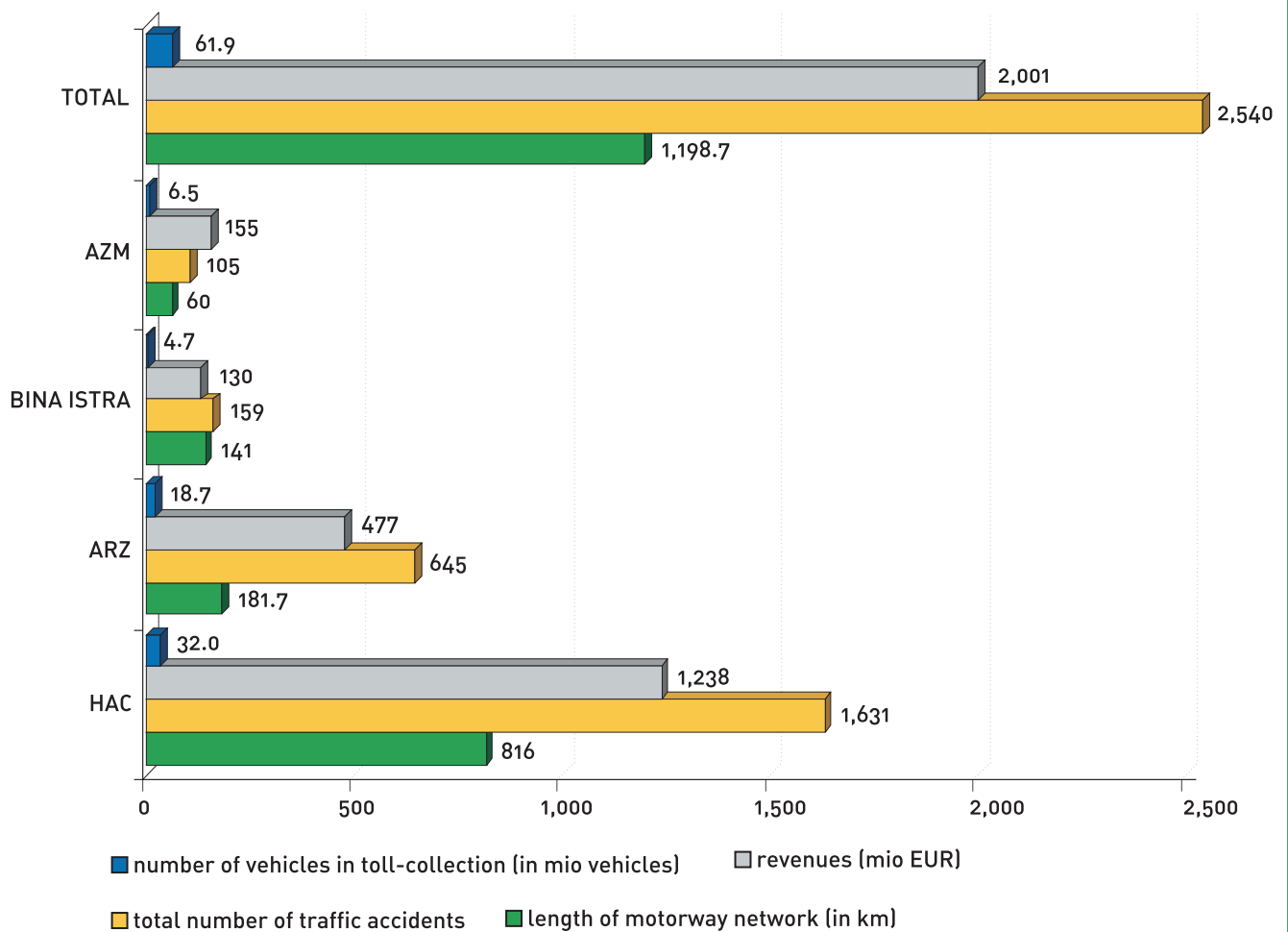
Total traffic accidents 2004 - 2008 by type of accident



IN BILLION OF KILOMETRES TRAVELLED IN 2008

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

KPI comparison - 2008



MEDIUM AND LONG TERM FORECASTS AND TENDENCIES

According to the Strategy of Transport Development in the Republic of Croatia, as adopted by Croatian Parliament, Croatia is to have 1,365 km of motorways in 2013. The new four-year Program of construction and main-

tenance of public roads for the period from 2009 to 2012 shall be adopted by the Government of the Republic of Croatia in 2009.

IMPORTANT ACTIONS INITIATED OR COMPLETED IN 2008 AND OBJECTIVES FOR 2009

HAC

In 2008, the company has set the following objectives:

- 4 percent traffic and toll revenues increase in 2008, with respect to 2007 figures;
- higher level of services and higher proportion of cashless ETC based toll payment in the overall toll collection, i.e. an increase from 30 percent in 2008 to 35 percent in 2009;
- improvement of the current system for sale of HAC toll-related products, and orientation to motorway users;
- provision of an advanced level of serviceability in toll collection system: construction of toll lanes fully destined to ETC users;
- safety of traffic and safe work environment for toll attendants.

ARZ

In 2008:

- In January, the agreement was signed for construction of the Rijeka Bypass south pavement, 8.856 km in length, for an estimated price of HRK 627.93 M (EUR 83.6 M), and the work is to be completed by June 1, 2009.
- In March, the ARZ info centre became functional so that, since that time, the users can obtain information about this motorway by dialling the free number 08000 111.
- In April, the Veliki Gložac Tunnel, situated on the Rijeka – Zagreb motorway, was proclaimed as one of the four safest tunnels in Europe, in the scope of the Euro TAP program for traffic safety in tunnels.
- In July, ARZ became member of the international non-profit association Europe RAP which gathers together some thirty members from 20 countries and performs various activities aimed at improving the road traffic safety.
- Last semi-motorway sections (20.85 km) were opened to traffic as full profile sections and hence the Rijeka – Zagreb roadway has become a full-fledged motorway, thus marking completion of the entire Budapest – Rijeka corridor.
- The first ARZ sustainability and social responsibility report has been issued. In concert with UNDP and HAC, ARZ is starting the driver information and advice program which is aimed at increasing the traffic safety and enabling a more-environmentally friendly driving (via web pages, brochures, leaflets, terminals, cards, etc.)
- Environmentally-friendly actions are planned in the scope of the following programs:
 - escort of vehicles transporting hazardous substances,
 - organization of drills,
 - review of communication procedures in emergency situations.

BINA – ISTRA d.d.

In 2008:

- Start of full-profile Istrian Upsilon construction on the Kanfanar to Pula section.
- The company publishes its first sustainable development report. Sustainable development still remains a high priority and a significant principle on which the company bases its operations.
- The toll subscription via Internet, and payment by INA card, is introduced.
- Lower toll rate for motorcycles, regarded as a separate vehicle category, is introduced.
- The traffic safety in Učka Tunnel has been improved significantly by introduction of the automatic incident detection system, and activities are undertaken to modernize the existing fire detection system (the work will be completed in March, 2009).

In 2009:

- The start of construction work is planned for the Buje – Kanfanar section.
- The quality of services will be increased by the end of 2009 when the ETC toll collection system is to be introduced.

AZM

In 2008, the activities were focused on following issues:

- reduce traffic jams at toll collection points by promoting use of SMART cards in automatic toll collection lanes,
- provide incentives to frequent and local users,
- protect environment
- conduct periodic maintenance activities, i. e. replace damaged asphalt layers.

Key objectives for the year 2009 are:

- achieve interoperability with other concessionaires,
- protect environment,
- conduct periodic maintenance activities, i.e. replace damaged asphalt layers and upgrade lighting installations at interchanges,
- perform actions aimed at improving traffic safety.

KEY FIGURES 2008

CROATIA		2008
Total length of motorways network, in km, as per 31/12/2008		1,198.70
2 x 1 lane		174.80
2 x 2 lanes		1,003.20
2 x 3 lanes		20.70
2 x 4 lanes		0.00
Number of km opened to traffic in 2008		
Motorways		41.50
Semi-motorways		0.00
Widening to the full motorway profile		*36.88
Number of km under construction as on January 1, 2009		
Motorways		70.30
Semi-motorways		17.50
Widening to the full motorway profile		*47.92
Estimate of new sections to be completed and opened to traffic in 2009, in km		
Motorways		51.80
Semi-motorways		1.00
Widening to the full motorway profile		*20.32
Annual toll revenues in 2008, in mio 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 kilometres travelled (10 ⁶ x km)		5.671.527.489
Number of toll stations		73
Number of traffic lanes		508
Number of lanes destined to electronic toll collection		274
Number of electronic tolling system subscribers**	subscribers	55.724
	devices***	91.781
Number of rest areas (with filling stations)		72
Number of rest areas		116
Number of restaurants		17
Number of hotels		7

* upgrade to full motorway profile
** 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