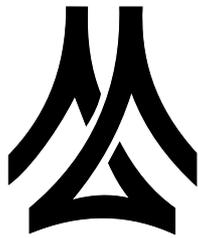




**ESTONIAN NATIONAL  
ROAD ADMINISTRATION**

**2005**





**ESTONIAN NATIONAL  
ROAD ADMINISTRATION**

**ANNUAL REPORT  
2005**



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## FOREWORD



### DEAR READER,

The copy of 'Annual Report 2005' you're holding gives you an overview of the activities of the Estonian National Road Administration in 2005.

The material is meant for both the 'road builders' and other readers closely or more generally involved in national road maintenance issues.

The report provides an overview of the National Road Administration as an organisation, road network, road pavement situation, funds allocated for the road maintenance – both the earmarked for road maintenance in state budget and the European Union assistance, utilisation of the resources available or the work already completed. Traffic frequency and safety are dealt with as separate issues.

The principles of statistical analysis have been applied for the compilation of the chapters dealing with the road network, road pavement situation, road traffic, traffic safety and in part, also the road maintenance issues.

Based on the report, it can be briefly said that year 2005 was better than year 2004 – the amounts spent on reconstruction and repair of pavements, surface dressing and the repairs of gravel roads increased considerably. Increased construction of roads intended for light traffic serves as one of the key words, characterising the discussed year.

We can also enjoy the fact that consistent growth of traffic intensity and vehicles causing this phenomenon has not contributed to increase in the number of people killed in traffic – for the third year in row.

But you can learn everything in detail when browsing the report that you're holding.

Enjoy your reading!

Yours respectfully,  
Riho Sõrmus  
Director General of the Estonian National  
Road Administration

A handwritten signature in black ink, consisting of a large, stylized initial 'R' followed by a horizontal line extending to the right.

# ESTONIAN NATIONAL ROAD ADMINISTRATION

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# ESTONIAN NATIONAL ROAD ADMINISTRATION



## ESTONIAN NATIONAL ROAD ADMINISTRATION

Estonian National Road Administration (ENRA) is a government agency, which operates within the administrative area of the Ministry of Economic Affairs and Communications, has a directing function, exercises state supervision and applies enforcement powers of the state on the basis and to the extent prescribed by law.

The main functions of the Estonian National Road Administration are:

- organising road management and creating conditions for safe traffic on the roads in the state ownership;
- exercising state supervision over the compliance with the requirements established by legislation regulating the ENRA's area of activity and, where necessary, applying enforcement powers of the state;
- participating in the development of the legislation regulating the ENRA's area of activity and making recommendations for amending and supplementing legislation, including improving Estonian terminology;
- participating in the development of policies, strategies, and development plans in the ENRA's area of activity;
- preparing and implementing projects in the ENRA's area of activity, including participating in the preparation and implementation of international projects.

Estonian National Road Administration administrates the following state agencies:

Local agency of the National Road Administration:

- the Road Administration of Northern Region;

Offices under the administration of the National Road Administration:

- Kagu Road Office;
- Pärnu Road Office;
- Saarte Road Office;
- Tartu Road Office;
- Viru Road Office.

On June 6, 2005, a Road Museum was opened in Põlva county, on the historical Tartu-Võru mail road, in the former Varbuse Post Station and under the administration of Kagu Road Office. The foundation of the museum started in 2000 by the appointment of the Museum's Supervisory Board; a team of three members started to work the very next year. The first exposition was opened in 2003. During the five years in business the administration has renovated most of the buildings and erected an equipment exposition hall demonstrating the essential road maintenance machines.

The ENRA and road offices act pursuant to the laws of the Republic of Estonia, international conventions and agreements acceded by the Republic of Estonia, requirements, regulations and orders of the Government of the Republic, regulations and directives of the Minister of Economic Affairs and Communications, and the Statutes of the Estonian national road administration; and also applicable regulations of other ministers.

## ROAD OFFICES

The Road Administration of Northern Region (formerly known as the Harju Road Office) is a local agency of the National Road Administration. The Road Administration of the Northern Region operates under law, discharging the respective management functions, exercising state supervision and applying enforcement powers of the state on the basis and to the extent prescribed by law in the spheres of road maintenance and traffic safety, respectively, in Harju, Järva and Rapla counties.

Road offices are state agencies administered by the ENRA and operating within the territories of the counties forming their respective administrative regions.

Detailed functions of the Road Administration of Northern Region and road offices are stated in the statutes of the appropriate agency.

The main functions of the road offices include:

- road management of national roads on the basis of the road management plan and the approved budget;
- administration of national roads and other state property transferred into the possession of the road office;
- creation of conditions required for safe traffic on national roads;
- organisation of supervision over the management of national roads and creation of the conditions required for safe traffic.

The Road Administration of Northern Region has divisions in all the three counties comprising its area of activity while road offices operate in the counties where an operator performs road maintenance. The Road Administration of Northern Region and road offices their respective county of location and issue permits, consents and approvals, perform owner surveillance on maintenance of roads and road management works not requiring a plan, submit proposals for preparing road management plans, organise and coordinate activities related to traffic control and traffic safety on national roads, counsel management of local roads and streets and private roads.

The Road Administration of Northern Region contracts for road maintenance works instead of conducting them on its own. Road offices contract for road maintenance works, conduct maintenance

in their respective areas of location and may perform any other works stated in their appropriate statutes.

As of January 1, 2005 the Road Administration of Northern Region and 5 road offices comprised 10 departments, 14 road master areas and 10 road foreman sites.

## ROAD MANAGEMENT ORGANISATION REFORMS

The road management organisation reform was started in 2000 with the purpose of separating the functions of the customer and the contractor, involving more private companies in road management, and increasing the administrative capacity of road offices as state agencies. By the beginning of 2005 there was one local agency of the Road Administration in Estonia - the regional road administration and 5 regional road offices that administer national roads in two or three counties, respectively:

**Road Administration of Northern Region**, established on January 1, 2005 in place of Harju Road Office, which had terminated its activities. Contracts for all the road management works. Departments in Harju, Järva and Rapla counties;

**Tartu Road Office**, established on July 1, 2002. Territory – Tartu and Jõgeva counties. Performs maintenance works in Tartu county, a department in Jõgeva county;

**Kagu Road Office**, established on November 1, 2002. Territory – Võru, Põlva and Valga counties. Performs maintenance works in Võru county, departments in Põlva and Valga counties;

**Saarte Road Office**, established on December 1, 2002. Territory – Saare and Hiiu counties. Performs maintenance works in Saare county, department in Hiiu county;

**Pärnu Road Office**, established on January 1, 2003. Territory – Pärnu, Lääne and Viljandi counties. Performs maintenance works in Pärnu county, departments in Viljandi and Lääne counties.

**Viru Road Office**, established on April 1, 2003. Territory – Lääne and Ida-Viru counties. Performs maintenance works in Lääne-Viru county, department in Ida-Viru county.

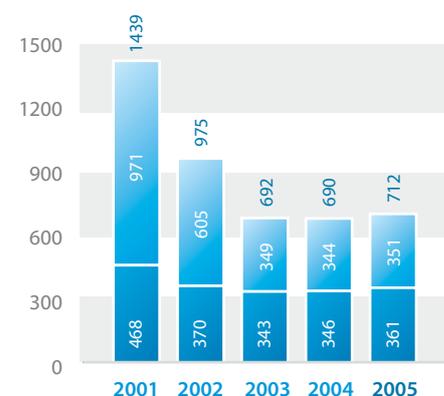
## PERSONNEL

As a result of the road management organisation reform, the number of the personnel of the Estonian National Road Administration and the state agencies administered by the ENRA has continuously decreased since the year 2000, reaching its lowest point in 2004 (a decrease by 60%).

Since the reform was practically completed by the beginning of the year 2004, the number of personnel decreased only by 2 persons as compared to the year 2003. The number of personnel increased slightly in 2005, mostly due to the growth in the numbers of workers and employees attributable to growing work volume and additional tasks arising from the procedures required for the implementation of the European Union Structural Funds. At the end of the year the total number of personnel in road offices and the Estonian National Road Administration was 712 (including 91 employees in the ENRA and 42 in the Road Administration of Northern Region), from among them 351 (49,3%) workers, 337 (47,3%) managers and specialists and 24 (3,4%) office workers and support staff.

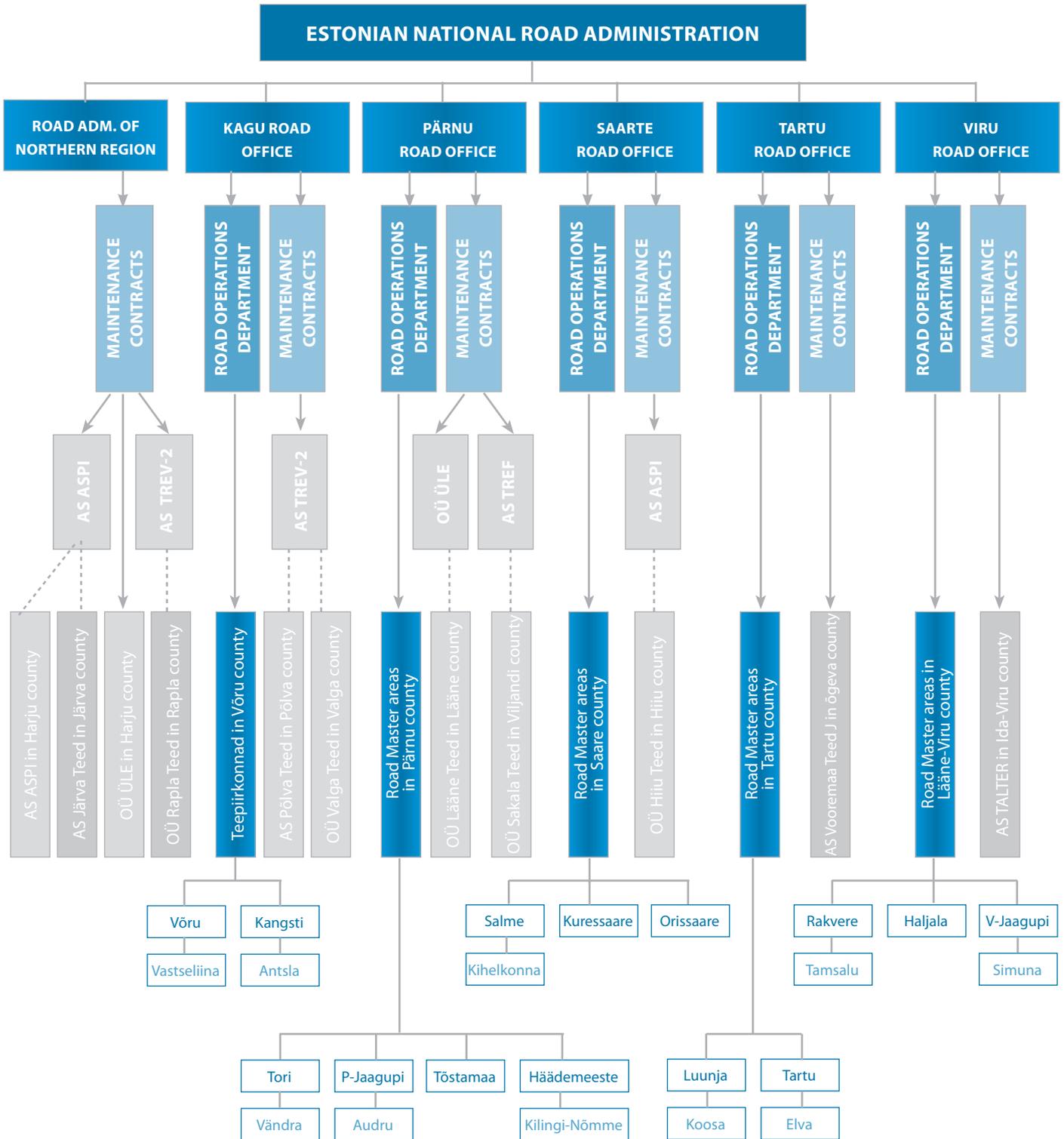
From among the managers and specialists 92 individuals (27,3%) are licensed as road and civil engineers, 42 individuals (12,4%) as road and civil technicians, 131 individuals (38,9%) are licensed specialists of other professions while 72 individuals (21,4%) are without specialised professional training.

## NUMBER OF PERSONNEL IN 2001 - 2005



- Workers
- Employees

ROAD MANAGEMENT ORGANISATION



Name

Road Foreman site



## FOREIGN RELATIONS

After the association with the European Union in May 2004, the Estonian National Road Administration was accepted as member of the Conference of European Directors of Roads (CEDR). This provided numerous opportunities for getting acquainted with the EU legislation and having it applied.

Opportunities for using the funding from the European Union Structural Funds for repairing the national roads has allowed the foreign aid coordination staff of the National Road Administration to participate in the training programmes, discussing the implementation of the projects organised by the association and visit the objects under repair, financed on the account of foreign aid and located in the other Member States.

ENRA is a member of the International Road Federation (IRF), the World Road Association (PIARC), and the Baltic Road Association (BRA). ENRA is an active partner in PIARC working in committees TC 3.4 (winter road maintenance), 4.1 (database of roads) and 4.3 (road pavements) and has started to participate in World Interchange Network (WIN), dealing in a complex manner with the issues of winter road maintenance, the quality management of road pavements, pavement rehabilitation, HDM-4, and other topical road management issues.

The Estonian National Road Administration is currently acting as the Chairing Country of the Baltic Road Association (BRA). Therefore, the events of the Baltic Road Association are being organised according to the BRA's annual plan; also, the spring and autumn meetings of the Council have taken place in Estonia.

In June 2005, the cooperation partner – Nordic Road Association (NRA) celebrated the completion of 70 years in operation.

An entirely innovative step was joining the programme "Partners For Roads" initiated by the Dutch. The programme was meant for all the road employees of the new countries, which have acceded the European Union, for further development of the scientific-technical knowledge and, according to the resolution of the Dutch government, will be continued until year 2010, representing a cooperation effort of all the European Union Member States having acceded the EU on 2004.

The co-operation with the Standing European Road Weather Commission (SIRWEC), which member Estonia became in the year 2000, was continued in the period 2001-2005.

The contacts with Nordic road specialists in the field of scientific and technical issues, training, etc. based on the Memorandum of Understanding between the Baltic (BRA) and the Nordic (NRA) road associations were continued, including the contacts with the road administrations of Denmark, Norway, Sweden and Finland within the framework of direct cooperation agreements. Co-operation of BRA and NRA continued by organising professional seminars within the framework of the NORDBALT project. In 2005 the Nordic Road Association and Baltic Road Association organised a number of workshops as a joint effort by the BRA and NRA: II Road Organisation and Management Workshop in Visby (Sweden); cooperation seminar involving the local authorities of the Nordic and Baltic States in Copenhagen (Denmark); wooden bridges workshop in Hamar (Norway). A workshop dedicated to road maintenance in winter, organised by the PIARC and BRA, took place in Riga.

The Estonian National Road Administration represents Estonian Government in the international projects, related to the European Union Pan-European Corridor 1.

The Estonian National Road Administration also represented Estonia in the PIARC Annual Meeting, this time taking place in China (Peking).

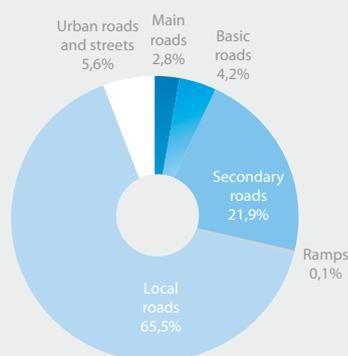
Contribution from the Swedish and Finnish National Road Administrations has helped to training the staff of road weather stations. Road information is available on Internet in real times as the result of a joint venture between Finland, Estonia, Latvia, Lithuania and Russia.



## ROAD NETWORK

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## ROAD NETWORK



National roads	16 470 km
Main roads	1 601 km
Basic roads	2 385 km
Secondary roads	12 438 km
Ramps and connecting roads	46 km
Local and private roads	37 209 km
Urban roads and streets	3 171 km
<b>TOTAL:</b>	<b>56 850 km</b>

Note: Local, private and other roads and streets as of 01.01.2005 according to the Statistical Office of Estonia.

### ROADS

The total length of national roads as of 01.01.2006 was 16 470 kilometres i.e. 29,0% of the total length of the Estonian road network, which is 56 800 kilometres.

The total length of the national roads increased by 10,8 kilometres. Out of this, the length of main roads increased by 0,6 km, due to the entrance of the street of Võru town in the register of national roads. The length of basic roads increased by 5,1 kilometres; 2,7 km is attributable to the new basic road no. 93 – Kohtla-Järve – Kukruse. The length of secondary roads increased by 2,9 kilometres and the length of ramps and connection roads by 2,2 kilometres.

Tallinn – Tartu – Luhamaa national road belongs to the European integrated E-road network since January 6, 2006, bearing number E263. Therefore, the length of E-roads in Estonia totals currently to 677,4 km.

The national roads comprise 1 601 km (9,7%) of main roads, 2 385 km (14,5%) of basic roads, 12 438 km (75,5%) of secondary roads and 46 km (0,3%) of ramps and connection roads being part of junctions.

The length of paved roads increased by 334 km as compared to the last year and it is 9 028 km, i.e. 54,8% of the total length of the national roads.

The density of national roads is 381 km per 1 000 km<sup>2</sup> and the density of all registered roads is 1 314 km per 1 000 km<sup>2</sup>.

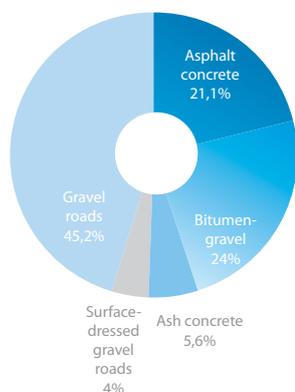
There are 923 bridges on national roads with the total length of 21 005 m, including 4 wooden bridges with the total length of 56 m.

According to the amendments made to the Roads Act, national road register is being established on the basis of the Register of National Roads, providing information on both the national roads and other public roads. The national road register was established with the Government of the Republic Regulation No 199 of July 28, 2005; the statutes of the register were also endorsed with the aforementioned regulation.

The national road register is a web-based database, administered and processed under the authorisation of the National Road Administration. The development of the database was started in 2003 and the respective software has been upgraded in 2004 and 2005 to encompass the entire local road network and also any other roads in the future.

As of January 1, 2006 the main data of both the national and local roads has been entered in the new web-based road register. In cooperation with the Land Cadastre a map interface for the visualisation of road register information is being used for the depiction of national roads.

## TYPES OF PAVEMENT ON NATIONAL ROADS



Asphalt concrete	3 482 km
Bitumen-gravel	3 957 km
Ash concrete	926 km
Surface-dressed gravel roads	663 km
Gravel roads	7 442 km
<b>TOTAL:</b>	<b>16 470 km</b>



## NATIONAL ROADS BY COUNTIES AS OF JANUARY 1, 2006

in km-s

County	TOTAL	Including					Paved roads			
		Asphalt concrete	Bitumen-gravel	Ash-concrete	Surface-dressed gravel roads	Gravel roads	January 1, 2005		January 1, 2006	
							Km	share %	Km	share %
Harju	1 552,699	472,135	511,730	113,360	110,955	344,519	1 105,076	71,4	1 208,180	77,8
Hiiu	473,019	14,580	234,440	0,000	24,459	199,540	272,324	57,6	273,479	57,8
Ida-Viru	920,669	390,232	81,360	48,007	72,509	328,561	579,811	63,2	592,108	64,3
Jõgeva	1 109,622	89,958	358,787	93,899	27,789	539,189	551,360	49,7	570,433	51,4
Järva	913,036	278,361	66,706	61,999	79,813	426,157	501,239	51,5	486,879	53,3
Lääne	749,116	158,549	175,891	0,000	85,060	329,616	387,524	51,7	419,500	56,0
Lääne-Viru	1 219,516	580,818	202,125	355,508	36,497	44,568	1 146,787	98,8	1 174,948	96,3
Põlva	1 155,090	74,546	338,783	5,287	12,656	723,818	414,016	35,8	431,272	37,3
Pärnu	1 432,416	319,543	272,412	18,429	82,625	739,407	674,578	47,1	693,009	48,4
Rapla	1 010,611	232,782	179,942	86,800	1,093	509,994	479,757	47,5	500,617	49,5
Saare	1 087,704	28,829	490,572	0,000	63,143	505,160	553,551	50,9	582,544	53,6
Tartu	1 254,318	271,136	318,476	17,433	21,999	625,274	617,394	49,2	629,044	50,2
Valga	1 116,839	104,483	287,239	30,309	2,188	692,620	416,371	37,3	424,219	38,0
Viljandi	1 223,200	146,912	313,773	13,902	37,532	711,081	497,426	40,7	512,119	41,9
Võru	1 252,374	319,346	125,036	81,043	4,417	722,532	497,246	39,8	529,842	42,3
<b>TOTAL:</b>	<b>16 470,229</b>	<b>3 482,210</b>	<b>3 957,272</b>	<b>925,976</b>	<b>662,735</b>	<b>7 442,036</b>	<b>8 694,460</b>	<b>52,8</b>	<b>9 028,193</b>	<b>54,8</b>
incl.ramps, connecting roads	45,631	39,963	4,440	0,221	0,109	0,898	42,380	97,7	44,733	98,0

**MAIN ROADS BY COUNTIES AS OF JANUARY 1, 2006**
*in km-s*

County	TOTAL	Including					Paved roads			
		Asphalt concrete	Bitumen-gravel	Ash-concrete	Surface-dressed gravel roads	Gravel roads	January 1, 2005		January 1, 2006	
							Km	share %	Km	share %
Harju	250,694	239,487	11,207	0,000	0,000	0,000	250,729	100,0	250,694	100,0
Hiiu	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,0	0,000	0,0
Ida-Viru	151,056	148,565	2,491	0,000	0,000	0,000	151,056	100,0	151,056	100,0
Jõgeva	78,786	61,577	17,209	0,000	0,000	0,000	78,786	100,0	78,786	100,0
Järva	127,404	127,367	0,037	0,000	0,000	0,000	133,641	100,0	127,404	100,0
Lääne	106,692	91,515	15,177	0,000	0,000	0,000	106,692	100,0	106,692	100,0
Lääne-Viru	110,420	110,420	0,000	0,000	0,000	0,000	104,183	100,0	110,420	100,0
Põlva	31,029	31,029	0,000	0,000	0,000	0,000	31,029	100,0	31,029	100,0
Pärnu	217,222	208,889	8,333	0,000	0,000	0,000	217,222	100,0	217,222	100,0
Rapla	48,070	48,070	0,000	0,000	0,000	0,000	48,070	100,0	48,070	100,0
Saare	73,338	27,946	45,392	0,000	0,000	0,000	73,338	100,0	73,338	100,0
Tartu	151,047	117,490	33,557	0,000	0,000	0,000	151,047	100,0	151,047	100,0
Valga	87,806	57,359	30,447	0,000	0,000	0,000	87,806	100,0	87,806	100,0
Viljandi	96,347	51,779	44,568	0,000	0,000	0,000	96,347	100,0	96,347	100,0
Võru	71,233	71,233	0,000	0,000	0,000	0,000	70,636	100,0	71,233	100,0
<b>TOTAL:</b>	<b>1 601,144</b>	<b>1 392,726</b>	<b>208,418</b>	<b>0,000</b>	<b>0,000</b>	<b>0,000</b>	<b>1 600,582</b>	<b>100,0</b>	<b>1 601,144</b>	<b>100,0</b>

**BASIC ROADS BY COUNTIES AS OF JANUARY 1, 2006**
*in km-s*

County	TOTAL	Including					Paved roads			
		Asphalt concrete	Bitumen-gravel	Ash-concrete	Surface-dressed gravel roads	Gravel roads	January 1, 2005		January 1, 2006	
							Km	share %	Km	share %
Harju	161,596	77,411	71,484	12,701	0,000	0,000	161,470	100,0	161,596	100,0
Hiiu	139,980	14,550	122,245	0,000	3,185	0,000	139,980	100,0	139,980	100,0
Ida-Viru	148,442	44,678	30,235	27,838	11,260	34,431	111,091	76,4	114,011	76,8
Jõgeva	158,393	20,586	137,807	0,000	0,000	0,000	158,393	100,0	158,393	100,0
Järva	114,800	77,730	17,565	2,784	16,721	0,000	121,677	100,0	114,800	100,0
Lääne	74,812	28,881	45,931	0,000	0,000	0,000	74,812	100,0	74,812	100,0
Lääne-Viru	211,805	179,131	23,866	6,860	0,000	1,948	203,068	99,0	209,857	99,1
Põlva	252,830	36,020	212,194	4,616	0,000	0,000	252,830	100,0	252,830	100,0
Pärnu	108,538	45,577	62,961	0,000	0,000	0,000	108,538	100,0	108,538	100,0
Rapla	163,574	112,551	40,735	10,288	0,000	0,000	163,574	100,0	163,574	100,0
Saare	185,498	0,163	148,085	0,000	10,310	26,940	158,336	85,4	158,558	85,5
Tartu	172,980	74,416	98,564	0,000	0,000	0,000	172,980	100,0	172,980	100,0
Valga	164,460	14,484	146,776	3,200	0,000	0,000	164,460	100,0	164,460	100,0
Viljandi	207,229	32,343	151,945	0,000	0,434	22,507	184,722	89,1	184,722	89,1
Võru	120,554	98,546	22,008	0,000	0,000	0,000	118,578	100,0	120,554	100,0
<b>TOTAL:</b>	<b>2 385,491</b>	<b>857,067</b>	<b>1 332,401</b>	<b>68,287</b>	<b>41,910</b>	<b>85,826</b>	<b>2 294,509</b>	<b>96,4</b>	<b>2 299,665</b>	<b>96,4</b>

**SECONDARY ROADS BY COUNTIES AS OF JANUARY 1, 2006**
*in km-s*

County	TOTAL	Including					Paved roads			
		Asphalt concrete	Bitumen-gravel	Ash-concrete	Surface-dressed gravel roads	Gravel roads	January 1, 2005		January 1, 2006	
							Km	share %	Km	share %
Harju	1 110,696	125,626	428,937	100,659	110,955	344,519	665,434	60,1	766,177	69,0
Hiiu	333,039	0,030	112,195	0,000	21,274	199,540	132,344	39,7	133,499	40,1
Ida-Viru	619,834	196,659	48,634	20,169	61,140	293,232	317,225	51,2	326,602	52,7
Jõgeva	870,658	7,144	202,637	93,899	27,789	539,189	312,396	35,9	331,469	38,1
Järva	670,832	73,264	49,104	59,215	63,092	426,157	245,921	34,3	244,675	36,5
Lääne	567,612	38,153	114,783	0,000	85,060	329,616	206,020	36,3	237,996	41,9
Lääne-Viru	895,228	289,629	178,055	348,427	36,497	42,620	837,473	98,6	852,608	95,2
Põlva	870,112	7,414	125,553	0,671	12,656	723,818	129,121	14,8	146,294	16,8
Pärnu	1 104,069	62,890	200,718	18,429	82,625	739,407	346,231	31,4	364,662	33,0
Rapla	798,967	72,161	139,207	76,512	1,093	509,994	268,113	33,6	288,973	36,2
Saare	828,457	0,720	296,684	0,000	52,833	478,220	321,466	38,8	350,237	42,3
Tartu	926,102	75,231	186,165	17,433	21,999	625,274	289,178	31,2	300,828	32,5
Valga	864,573	32,640	110,016	27,109	2,188	692,620	164,105	19,0	171,953	19,9
Viljandi	917,477	61,606	116,297	13,902	37,098	688,574	214,210	23,3	228,903	24,9
Võru	1 060,307	149,287	103,028	81,043	4,417	722,532	307,752	29,0	337,775	31,9
<b>TOTAL:</b>	<b>12 437,963</b>	<b>1 192,454</b>	<b>2 412,013</b>	<b>857,468</b>	<b>620,716</b>	<b>7 355,312</b>	<b>4 756,989</b>	<b>38,3</b>	<b>5 082,651</b>	<b>40,9</b>

**BRIDGES ON NATIONAL ROADS BY COUNTIES AS OF JANUARY 1, 2006**

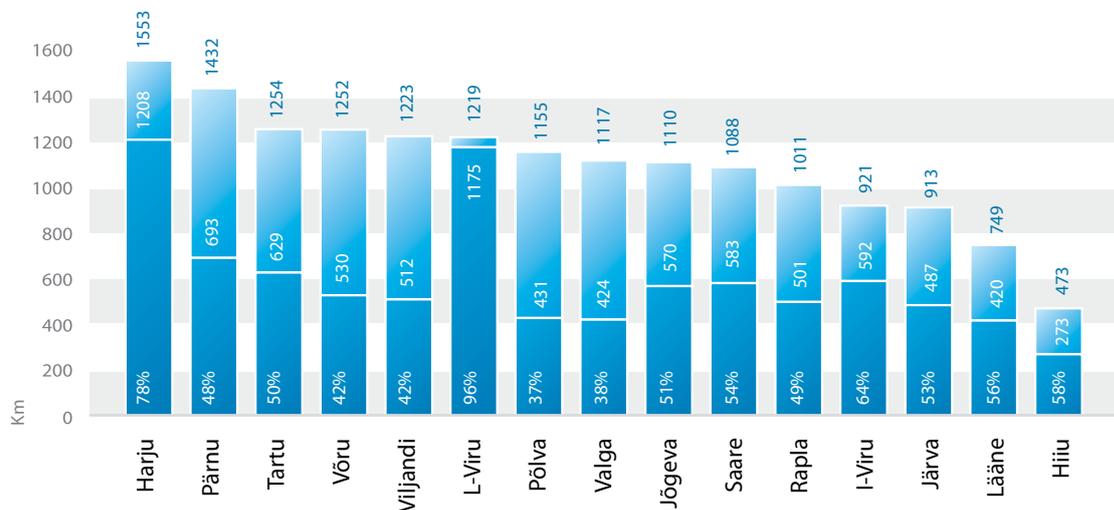
County	Total		Including						Incl. wooden bridges	
			Main roads		Basic roads		Secondary roads		(on secondary roads)	
	pc	metres	pc	metres	pc	metres	pc	metres	pc	metres
Harju	135	4 102,1	58	2 265,2	10	298,8	67	1 538,1	1	7,3
Hiiu	15	116,6	0	0,0	10	89,1	5	27,6	0	0,0
Ida-Viru	60	1 137,5	20	317,3	12	301,8	28	518,4	0	0,0
Jõgeva	54	1 427,0	9	283,4	9	418,3	36	725,3	0	0,0
Järva	42	626,5	14	208,7	7	73,5	21	344,3	1	18,9
Lääne	43	1 117,4	9	394,7	10	97,7	24	625,0	1	13,0
Lääne-Viru	51	1 155,6	11	406,0	14	269,4	26	480,2	0	0,0
Põlva	58	1 132,5	0	0,0	18	454,5	40	678,0	0	0,0
Pärnu	122	2 757,9	17	607,8	12	457,1	93	1 693,0	0	0,0
Rapla	65	1 680,9	5	176,2	11	303,1	49	1 201,6	0	0,0
Saare	38	302,9	4	31,2	7	70,2	27	201,5	0	0,0
Tartu	45	1 455,4	9	838,9	10	170,9	26	445,6	0	0,0
Valga	55	1 093,8	7	134,0	15	333,3	33	626,5	1	17,2
Viljandi	70	1 247,5	13	231,0	13	322,6	44	693,9	0	0,0
Võru	70	1 651,8	7	219,6	14	445,6	49	986,6	0	0,0
<b>TOTAL:</b>	<b>923</b>	<b>21 005,3</b>	<b>183</b>	<b>6 114,0</b>	<b>172</b>	<b>4 105,6</b>	<b>568</b>	<b>10 785,7</b>	<b>4</b>	<b>56,3</b>

## TYPES OF PAVEMENTS ON NATIONAL ROADS IN 2001-2005

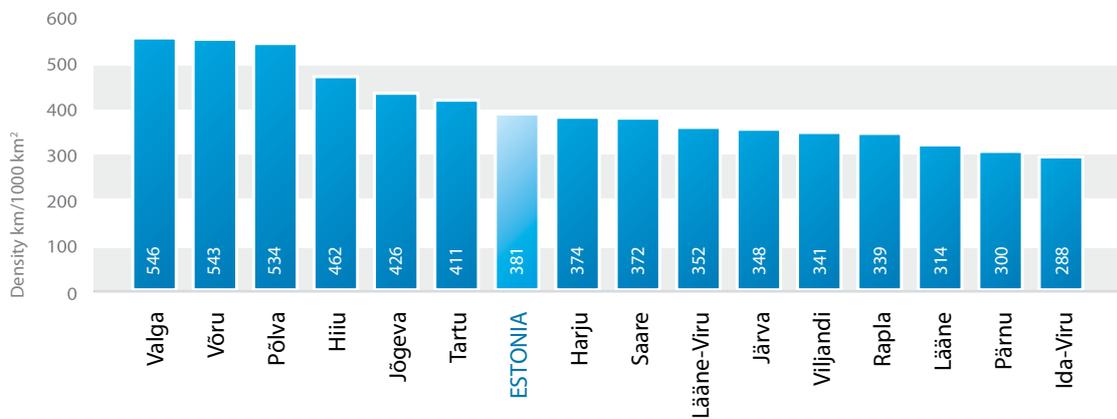
in km-s and percentage

Year	2001		2002		2003		2004		2005	
	km	%								
Asphalt concrete	3 261	19,9	3 302	20,1	3 354	20,4	3 382	20,5	3 482	21,1
Bitumen-gravel	4 002	24,4	3 995	24,3	3 971	24,1	3 962	24,1	3 957	24,0
Ash-concrete	928	5,6	927	5,6	927	5,6	927	5,6	926	5,6
Surface-dressed gravel roads	283	1,7	298	1,8	345	2,1	423	2,6	663	4,0
Total paved roads	8 474	51,6	8 522	51,8	8 597	52,3	8 694	52,8	9 028	54,8
Gravel roads	7 961	48,4	7 921	48,2	7 855	47,7	7 765	47,2	7 442	45,2
<b>TOTAL:</b>	<b>16 435</b>	<b>100,0</b>	<b>16 443</b>	<b>100,0</b>	<b>16 452</b>	<b>100,0</b>	<b>16 459</b>	<b>100,0</b>	<b>16 470</b>	<b>100,0</b>

## SHARE OF PAVED NATIONAL ROADS BY COUNTIES IN 2005



## DENSITY OF NATIONAL ROADS



## ROAD SURFACE CONDITION

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## ROAD SURFACE CONDITION



### CONDITION OF ROAD SURFACES AND BRIDGES

Measurements of road surface evenness (IRI – International Roughness Index) and inventorying of defects on paved roads have been performed since 1995. Load bearing capacity has been measured since 1996 and rut depth since 2001. These four indicators of the road surface condition mentioned above and in addition the traffic safety of the roads are the main indicators of PMS (Pavement Management System).

Data about the road surface condition are a part of the database of the Register of National Roads.

The development of PMS in Estonia started in 1997 and in 1998 a PMS group was established in the Estonian Rational Road Administration, which deals with PMS analysis and inventories the defects on paved roads. Two analysing programmes (EPMS and HDM-4) are used upon PMS analysis. EPMS is a programme, which enables to compare and rank the road sections or objects in need of repairs, proceeding from the indicators of the road surface condition and the cost-effectiveness of the first year. HDM-4 is a programme with which profitability calculations are made at the strategic, programme and project levels.

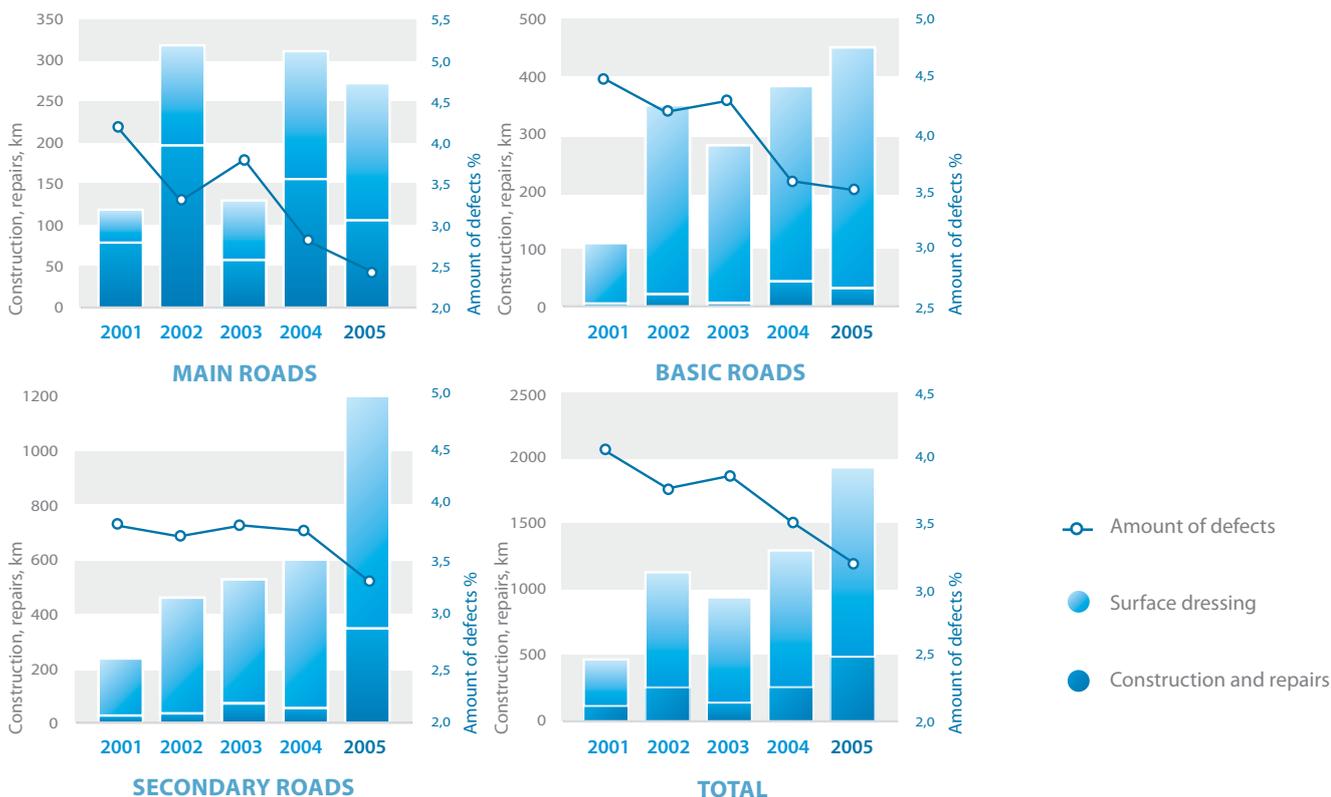
Defect development diagrams indicate that the amount of defects is clearly dependent on the volumes of construction, repair and surface dressing works of pavements, i.e. the amount of defects decreases in case of a bigger volume of works. The decreasing tendency is more noticeable on main roads, where the traffic density is considerably bigger, but where the biggest amount of funds has been directed to in the last years.

By studying the diagrams of the changes in evenness improvement can also be observed on the main roads, but a slight deterioration can be noticed in the part of the whole network of paved national roads, which shows that there are no sufficient funds for the construction, repairs and maintenance of the pavements of the whole road network yet. Finally, the average IRI value of the road network has made a leap upwards in 2005. Nevertheless, the improvement is mostly attributable to the main roads. The biggest deterioration of surface evenness takes place on basic roads that are surface dressed with lightweight pavement materials, which is not sufficient to improve the IRI value.

The bridge network management system BMS has been introduced practically in Estonia since 2003, when the Technical Centre of Estonian Roads Ltd. performed the first inspections of bridges. As a result of positive feedback 100 road bridges, which were in the worst condition, were inspected in Estonia in 2004. In 2005, 400 bridges were inspected. The main objective of BMS is to obtain a detailed survey of the bridges in need of repairs, to assess the general needs of repair, to prepare the ranking of the objects of repair, to plan the expenditures for repairs, etc. The work is going on and the aim is to bring the data of all the bridges administered by the Estonian National Road Administration into compliance with the requirements of BMS by the end of the year 2007.



**CONSTRUCTION, REPAIRS AND SURFACE DRESSING OF PAVEMENTS CARRIED OUT IN 2001-2005 AND THE CHANGE OF THE AMOUNT OF DEFECTS PROCEEDING FROM THIS**



**CONSTRUCTION, REPAIRS AND SURFACE DRESSING OF PAVEMENTS CARRIED OUT IN 2001-2005 AND THE CHANGE OF THE SURFACE EVENNESS PROCEEDING FROM THIS**





## ROAD MANAGEMENT FUNDS

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## ROAD MANAGEMENT FUNDS



### ROAD MANAGEMENT FUNDS

Pursuant to the Roads Act, from 2003 a sum equivalent to 75% of the fuel excise duty (with the exception of fuels with fiscal marking) and 25% of the excise duty imposed on fuels with fiscal marking is earmarked for road management purposes. The funding allocated for road management (national roads and local roads) is determined under the Roads Act. In 2005, the respective share was 5%, amounting to 10% as of 2006. Local roads were allocated 10% of the road management funds already with the supplementary budget for 2005. Following Estonia's accession to the European Union we may apply for support for the development of the environment and transport infrastructure from the Cohesion Fund (CF) of the European Union.

The projects of the transport and environment infrastructure with the value starting from 10 million euros are financed from this Fund. In the transport sector support may be applied in the amount of up to 85% of the project value for those roads which belong to the trans-European transport network TEN-T. Thus, the CF funds can be utilised for the development of E20 Tallinn – Narva, E67 Tallinn – Pärnu – Ikla, and E263 Tallinn – Tartu – Võru – Luhamaa, Jõhvi – Tartu – Valga and Tallinn – Paldiski highways and the Tallinn ring road.

The European Commission allocated 309 million EUR (4,9 billion kroons) to Estonia over the period from 2004 to 2006. Up to now the amounts have been divided equally between the environmental and transport sector. Approximately 90 million EUR (1,4 billion kroons) are available for the construction and reconstruction of highways.

After accession to the European Union Estonia got an opportunity to apply for funds for the repairs and construction of national roads from the European Regional Development Fund (ERDF). For this budget period of the EU, the years 2004-2006, 557 million kroons (418 million kroons by ERDF) have been allocated for the action "Development of the Infrastructure of Transport" in the area of administration of the Ministry of Economic Affairs and Communications, from which the projects of the development of the network of national roads and the improvement of the living environment significant from the point of view of regional development shall be financed by 303 million kroons (227 by ERDF). The rate of EU support is 75% of the project value of which 25% of co-financing by Estonia will be added. The ERDF funds may be used for the repairs of basic roads and secondary roads and for the construction of pavements on gravel roads.

The basis for the utilization of foreign assistance is the strategic plan "Projects financed by EU in 2002-2007" approved by the European Commission and the Ministry of Finance. In case of the utilization of foreign assistance it is necessary to guarantee co-financing from the state budget.

Road management costs are divided into operating costs and investments. Operating costs include staff and administration costs required for the upkeep of the road management system. Operating costs are also used to fund road operations, required for keeping the roads in necessary condition and provide the road users with convenient and safe traffic conditions all the year round. Investment funds are used for road repairs, aimed at restoring the road quality having dropped due to wear and tear on single elements and for road network development.

Initially, 2 184,0 million kroons were allocated to the Estonian National Road Administration from the state budget of 2005, including the EU assistance. In connection with the bigger amount of the receipt of fuel excise duties than estimated, 128,2 million kroons were allocated additionally from the supplementary budget, altogether 2 312,2 million kroons. Out of this, 586.8 million kroons were given for operating costs and 1 725,4 million kroons were used for investments. The EU assistance (CF and ERDF) amounted to 500,7 million kroons, 500 million kroons for investments and 0,7 million kroons for operating expenses. In reality, the total amount spent on road management (including the sums transferred from year 2004) amounted to 2 283,9 million kroons.

The funds allocated to the road offices amounted to 1 170,1 million kroons of the road management budget for 2005. As the supplementary budget, allocating additional funds for reconstruction and paving of gravel roads, was only

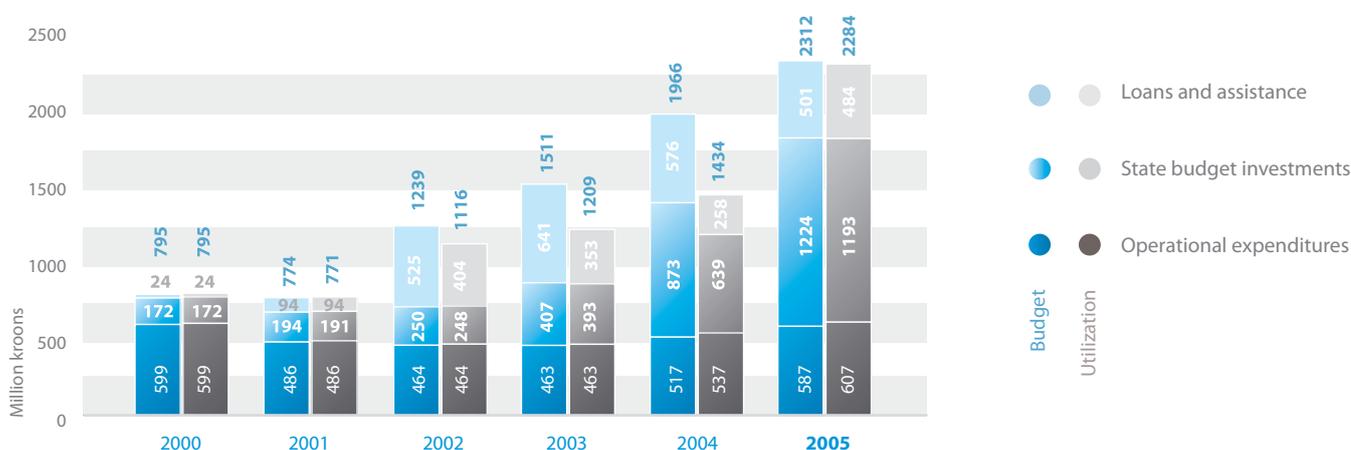
approved at the end of the year, the respective amounts couldn't be utilised in full. Therefore, approximately 110,5 million kroons remained unused.

The National Road Administration received 1 142,1 million kroons, 500,7 million kroons of this amount being the EU assistance, from the state budget of 2005. 264,2 million kroons transferred from year 2004 were added to this amount, totalling to 1 406,3 million kroons being at the disposal of the National Road Administration. In addition, it was possible to use the EU assistance funds outstanding from 2004 (337,4 million kroons of this amount were used). 241,5 million kroons from the state budget and 353,3 million kroons of the EU assistance funds earmarked as investments remained respectively unused in 2005.

## FUNDS ALLOCATED FOR ROAD MANAGEMENT AND THEIR DYNAMICS IN 2000 - 2005

Million kroons

Year	Budget		Utilization	From this		
	Total	Including loans and assistance		State budget		Loans and assistance
				Operating costs	Investments	
2000	795	24	795	599	172	24
2001	777	94	774	486	194	94
2002	1 239	525	1 116	464	248	404
2003	1 511	641	1 209	463	393	353
2004	1 966	576	1 434	537	639	258
2005	2 312	501	2 284	607	1 193	484



	Planned funds	Received funds	%
<b>ASSIGNMENTS IN TOTAL</b>	<b>2 646 277,3</b>	<b>2 283 855,8</b>	<b>86,3</b>
<i>Including:</i>			
- from the state budget of 2005	2 312 220,7		
<i>revenue of the state budget</i>	1 795 472,5	1 442 501,7	80,3
<i>owner's income</i>	16 000,0	38 988,9	243,7
<i>EU assistance</i>	500 748,2	484 191,8	96,7
- from the Government reserve	163,9	44,3	27,0
- funds transferred from 2004	333 892,7	318 129,1	95,3
<i>revenue of the state budget</i>	324 960,8	309 201,1	95,2
<i>owners' income</i>	8 931,9	8 928,0	100,0
<b>FOR THE EXPENDITURES IN TOTAL</b>	<b>2 646 277,3</b>	<b>2 283 855,8</b>	<b>86,3</b>
1. In the use of ENRA state institutions in total	1 239 966,9	1 152 115,3	92,9
<i>Including:</i>			
1.1. From the state budget of 2005	1 170 087,0	1 082 335,4	92,5
<i>Including:</i>			
- staff costs	109 751,3	109 719,0	100,0
- administration costs and road operations	404 623,7	404 429,3	100,0
- investments	640 830,0	530 350,1	82,8
<i>repairs of roads</i>	596 930,0	486 678,2	81,5
<i>acquisition of machinery and equipment</i>	43 000,0	42 821,0	99,6
<i>acquisition of information technology</i>	900,0	850,9	94,5
- owner's income	14 882,0	37 837,0	254,2
1.1.1. State agencies in total	1 170 087,0	1 082 335,4	92,5
<i>Including:</i>			
Road Administration of the Northern Region	261 720,1	235 071,6	89,8
Kagu Road Office	237 159,5	236 319,2	99,6
Pärnu Road Office	231 961,3	209 155,6	90,2
Saarte Road Office	109 539,0	102 230,7	93,3
Tartu Road Office	168 733,6	149 203,4	88,4
Viru Road Office	160 973,5	150 354,9	93,4
1.2. From the Government reserve (for registration of land into state ownership)	143,9	44,3	30,8
1.3. Funds transferred from 2004	69 736,0	69 735,6	100,0
<i>revenue of the state budget</i>	61 951,5	61 951,5	100,0
<i>owner's income</i>	7 784,5	7 784,1	100,0
2. In the use of the ENRA's Central Office in total	1 406 310,4	1 131 740,5	80,5
<i>Including:</i>			
2.1. Investments in total	1 083 693,1	826 123,4	76,2
<i>Including:</i>			
<i>for construction and reconstruction of roads</i>	1 068 093,1	811 551,5	76,0
<i>purchase of land</i>	10 000,0	10 000,0	100,0
<i>acquisition of information technology</i>	3 500,0	2 472,0	70,6
<i>acquisition of weather information system</i>	1 500,0	1 500,0	100,0
<i>acquisition of vehicles</i>	600,0	599,9	100,0
2.2. Staff costs	23 212,4	22 828,4	98,3
2.3. Administration costs	33 790,2	32 726,4	96,9
2.4. Owner's income	320,0	312,9	97,8
2.5. Funds transferred from 2004	1 118,0	1 151,9	103,0
<i>Including:</i>			
- for construction and reconstruction of roads	262 295,3	246 721,2	94,1
- acquisition of information technology	229,4	229,4	100,0
- for staff and administration costs	1 632,0	1 646,9	100,9
- from the Government reserve (for registration of land into state ownership)	20,0	0,0	0,0

**UTILIZATION OF THE FUNDS ALLOCATED FOR THE MANAGEMENT OF NATIONAL ROADS**
*Th. of kroons*

	Funds in total			Including Road Offices		
	Planned Funds (budget)	Utilization	Share %	Planned funds (budget)	Utilization	Share %
<b>PLANNED FUNDS IN TOTAL</b>	2 312 221	2 290 293		1 170 087	1 158 552	100,0
<i>Including:</i>						
<b>1. ROADS</b>	2 029 351	1 992 248	87,0	1 029 380	983 845	84,9
1.1. Road operations	401 297	398 815	17,4	395 719	393 051	33,9
<i>Including:</i>						
- summer service of paved roads		172 353			168 778	
- summer service of gravel roads		93 429			93 429	
- upkeep of bridges		3 886			3 886	
- winter service		129 147			126 958	
<b>1.2. Road maintenance</b>	1 260 444	1 252 151	54,7	329 619	332 040	28,7
<i>Including:</i>						
- repairs of paved roads	941 228	941 524		32 450	43 998	
- surface dressing	181 531	172 375		181 531	172 050	
- repairs of gravel roads	100 014	98 717		100 014	98 717	
- repairs of bridges	37 671	39 535		15 624	17 275	
<b>1.3. Construction and reconstruction</b>	367 610	341 282	14,9	304 042	258 754	22,3
<i>Including:</i>						
- roads	320 580	297 031		272 656	233 979	
- bridges	47 030	44 251		31 386	24 775	
<b>2. BUILDINGS</b>	13 575	13 541	0,6	13 575	13 541	1,2
<i>Including:</i>						
- repairs in road master areas and central bureaus	9 329	8 705		9 329	8 705	
- construction and reconstruction works in road master areas and central bureaus	4 246	4 836		4 246	4 836	
<b>3. ACQUISITIONS</b>	49 500	53 207	2,3	43 900	48 428	4,2
- machinery and vehicles	44 900	49 684		43 000	47 577	
- information technology	3 800	2 769		300	297	
- inventories	800	754		600	554	
<b>4. TRAFFIC EDUCATION</b>	12 400	12 097	0,5	960	901	0,1
<b>5. OTHER EXPENDITURES (staff and administration costs, designing, etc.)</b>	191 395	172 398	7,5	67 390	66 172	5,7
<b>6. FOR REGISTRATION OF LAND INTO STATE OWNERSHIP</b>		44	0,0		44	0,0
<b>7. WORKS AND SERVICES OUT OF THE STATE ROAD SECTOR</b>	16 000	46 758	2,0	14 882	45 621	3,9

Note:

1. Utilization has been indicated in actual expenses together with the residue of building materials in stock bought last year



## ROAD MANAGEMENT WORKS

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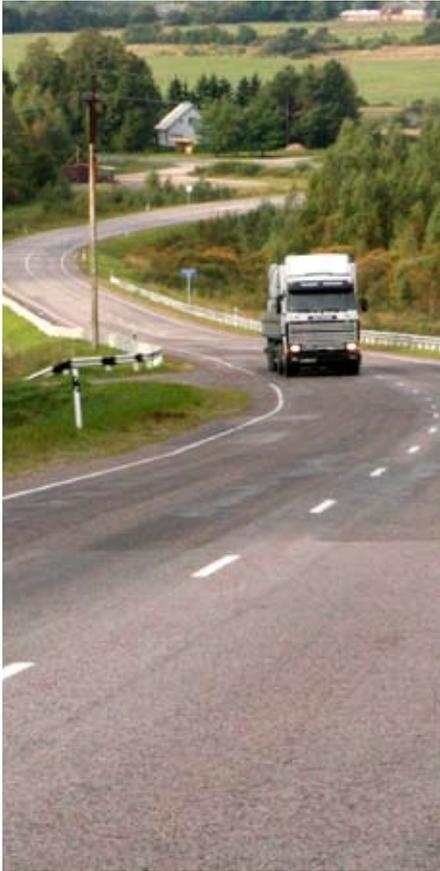
## ROAD MANAGEMENT WORKS



### ROAD MANAGEMENT WORKS

The priorities of road management works, which determine the order of the importance of works in order to ensure safe and convenient traffic conditions for road users within the limits of the existing funds all the year round, are the following:

- Road operations;
- Repairs of international main roads – projects related to foreign assistance funds;
- Preservation of the existing pavements - surface dressing and repairs of gravel roads:
- Repairs of the asphalt pavements of main and basic roads and repairs of bridges;
- Construction of pavements on gravel roads.



- AS Teede REV-2, 3 283,9 km – 19,9%. Works are performed by subsidiary companies OÜ Rapla Teed in Rapla county, AS Põlva Teed in Põlva county and OÜ Valga Teed in Valga county;
- AS TALTER, 936,5 km – 5,7%. Works are performed by a department in Ida-Viru county;
- AS TREF, 1 243,9 km – 7,5%. Works are performed by subsidiary company OÜ Sakala Teed in Viljandi county;
- AS ASPI, 2 137,8 km – 13,0%. Works are performed by a department in Harju county, Keila region and subsidiary companies OÜ Hiiu Teed in Hiiu county and AS Järva Teed in Järva county;
- AS Vooremaa Teed, 1 105,1 km – 6,7%. Works are performed in Jõgeva county;
- AS ÜLE, 1 594,1 km – 9,7%. Works are performed in Kose and Kuusalu region of Harju county and by a subsidiary company OÜ Lääne Teed in Lääne county.

Road Offices shall carry out the road operations of 6 168,9 kilometres of roads, which forms 37,5% of the road network, divided as follows:

- Kagu Road Office, 1 248,5 km – 7,6%, in Võru county;
- Viru Road Office, 1 147,5 km – 7,0%, in Lääne-Viru county;
- Tartu Road Office, 1 253,8 km – 7,6%, in Tartu county;
- Saarte Road Office, 1 087,7 km – 6,6%, in Saare county;
- Pärnu Road Office, 1 431,3 km – 8,7%, in Pärnu county.

There were no organisational changes concerning the road operations. The road operations were conducted within the framework of the existing road operations contracts and with the capacities of the Road Offices; the former proportions were not changed.

After the expiry of the previous 5-year road operations contracts in Põlva county as well as Kuusalu road region, belonging to the Road Administration of the Northern Region, new contracts were concluded. The contracting partners were, respectively, AS Teede REV-2 and OÜ ÜLE. The companies are the same as in the previous period, but the content of the new road operations contracts is considerably more thorough; the object of contract, the terms and conditions for carrying out road operations have been

specified in more detail, the obligations, rights and liability of the parties, etc. have been described in more detail.

New technology for road crack repair was implemented for pavement maintenance purposes; the implementation of new technology should hopefully contribute to longer useful life of the pavement. The technology requires the application of milling machines to the crack, observing the shape of the cracks as closely as possible, followed by hot air treatment of the surfaces and then filling the cracks with special mastics.

Major breakthrough took place in winter service. The requirement for the use of winter friction coefficient was inserted to the Road Condition Requirements, contributing to more objective assessment of the condition of highways in winter. Road offices and road operations undertakers have acquired numerous measuring devices over the last year. Friction coefficient and calibration system, having justified itself over the last couple of years and based on local support persons and the certification of the measuring inspectors, is being widely applied.

The weather conditions allowed opening of one of the six ice roads operated by the National Road Administration, more specifically, the ice road connecting Haapsalu – Noarootsi that was used for 51 days.

The development of the road weather stations system was continued, supported by five new road weather stations installed, therefore increasing the total number of road weather stations to 55. In addition to the road weather stations owned by road administration institutions one can acquire data from the road weather stations located in Tartu, now linked to the system. Additional investments were made into improving the safety and enhancing reliability of the computer park of the Road Information Centre, currently housing the most important component of the road weather station information system – the server. Open tendering procedure was organised for outsourcing the entity conducting the maintenance of road weather stations; Technical Centre of Estonian Roads Ltd. being the successful tenderer.

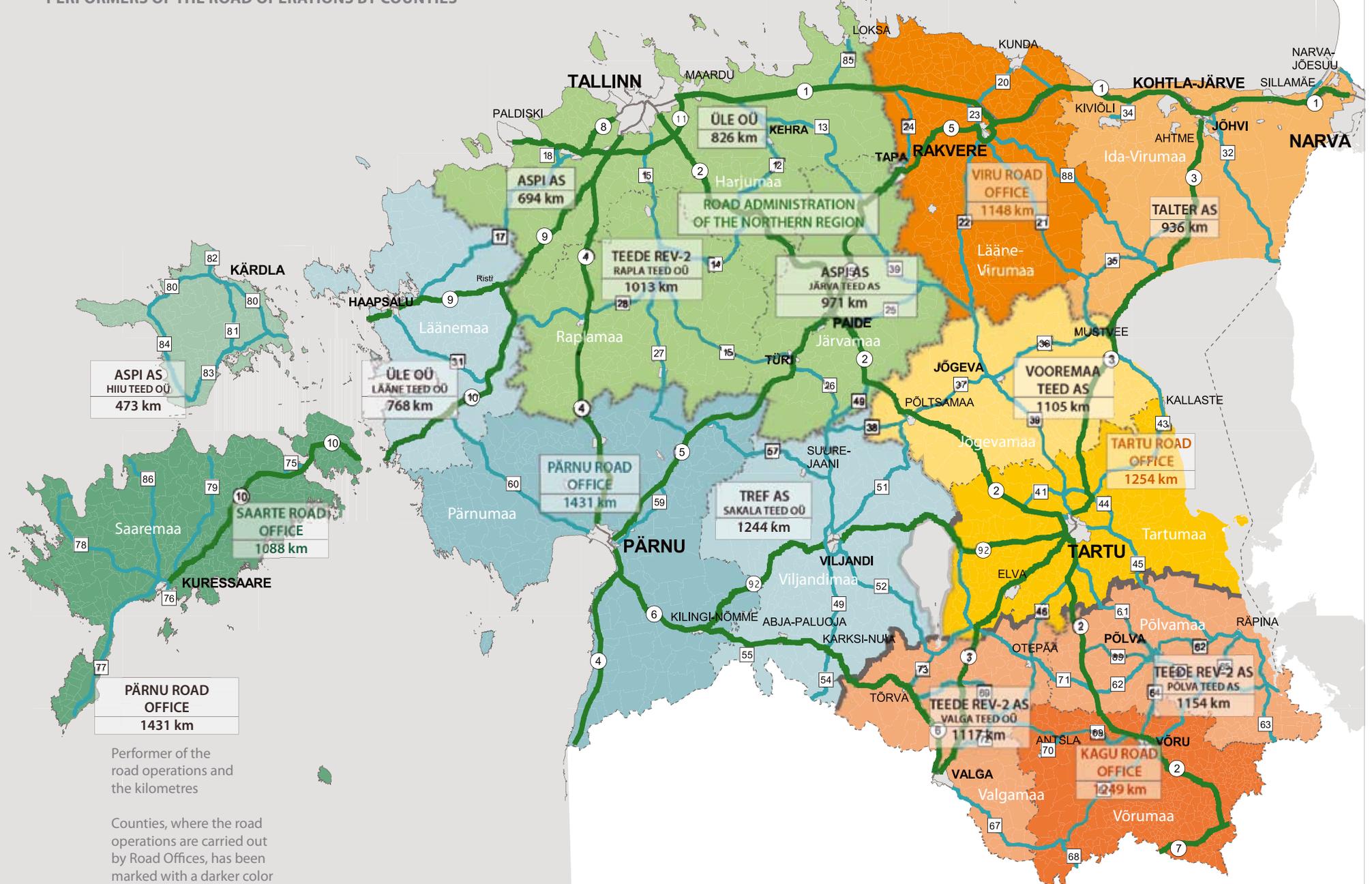
## ROAD OPERATIONS

The road operations is conducted in accordance with the requirements for the state of roads approved with the regulation of the Minister of Economic Affairs and Communications (RTL1 2003, 1, 2; RTL 2005, 114, 1760). The regulation establishes requirements for the state of roads – both in summer and winter – in terms of road surface, shoulders, road marking, side visibility and provision of public services and amenities and winter friction tests depending on the importance of the road and traffic density and defines 4 service levels of the state of roads.

The total of 393,1 million kroons (including 254,0 million kroons, i.e. 64,6 % by companies under road operations contracts) was spent on road operations. 127,0 million kroons was spent on winter service and 266,1 kroons on summer service. Road operations costs per 1 road kilometre amounted to 23,9 thousand kroons (21,3 thousand kroons in 2004; 19,9 thousand kroons in 2003). During the year no changes took place as for the performers of road operations.

Road operations is performed by companies on 10 301,3 kilometres of roads, i.e. 62,5% of the road network, which is divided between the companies as follows:

PERFORMERS OF THE ROAD OPERATIONS BY COUNTIES



Performer of the road operations and the kilometres

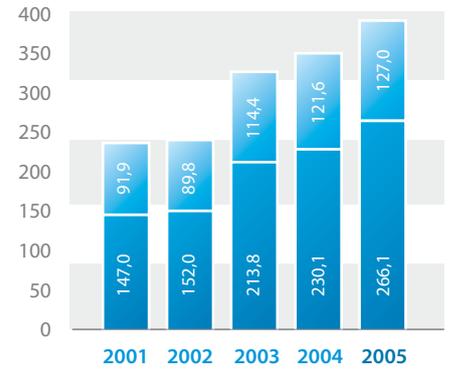
Counties, where the road operations are carried out by Road Offices, has been marked with a darker color

## NATIONAL ROADS BY PERFORMERS OF THE ROAD OPERATIONS

Administering Road Office Performers of the road operations	Roads in total	Including				From this								
		Main roads	Basic roads	Ramps	Secondary roads	Paved roads						Gravel roads		
						Total	Including				Total	Including		
							Main roads	Basic roads	Ramps	Secondary roads		Basic roads	Ramps	Secondary roads
Administered by Road Administration of the Northern Region	3 504,224	412,447	430,383	29,713	2 631,681	2 187,377	412,447	430,383	29,713	1 314,834	1 316,847	0,000	0,000	1 316,847
OÜ ÜLE Harju county	826,272	109,731	105,577	18,886	592,078	679,967	109,731	105,577	18,886	445,773	146,305	0,000	0,000	146,305
AS ASPI Harju county	694,029	111,464	55,456	10,827	516,282	498,261	111,464	55,456	10,827	320,514	195,768	0,000	0,000	195,768
AS Järva Teed in Järva county	970,740	143,182	103,944	0,000	723,614	506,700	143,182	103,944	0,000	259,574	464,040	0,000	0,000	464,040
OÜ Rapla Teed in Rapla county	1 013,183	48,070	165,406	0,000	799,707	502,449	48,070	165,406	0,000	288,973	510,734	0,000	0,000	510,734
Administered by Kagu Road Office	3 519,282	190,068	537,844	1,399	2 789,971	1 385,333	190,068	537,844	1,399	656,022	2 133,949	0,000	0,000	2 133,949
Kagu Road Office in Võru county	1 248,520	71,233	120,554	0,280	1 056,453	530,652	71,233	120,554	0,280	338,585	717,868	0,000	0,000	717,868
AS Põlva Teed in Põlva county	1 153,641	31,029	252,830	1,119	868,663	430,462	31,029	252,830	1,119	145,484	723,179	0,000	0,000	723,179
OÜ Valga Teed in Valga county	1 117,121	87,806	164,460	0,000	864,855	424,219	87,806	164,460	0,000	171,953	692,902	0,000	0,000	692,902
Administered by Pärnu Road Office	3 443,016	440,219	406,955	4,734	2 591,108	1 661,982	440,219	384,448	4,734	832,581	1 781,034	22,507	0,000	1 758,527
Pärnu Road Office in Pärnu county	1 431,291	217,222	108,538	2,587	1 102,944	693,009	217,222	108,538	2,587	364,662	738,282	0,000	0,000	738,282
OÜ Lääne Teed in Lääne county	767,849	126,650	73,587	0,000	567,612	438,233	126,650	73,587	0,000	237,996	329,616	0,000	0,000	329,616
OÜ Sakala Teed in Viljandi county	1 243,876	96,347	224,830	2,147	920,552	530,740	96,347	202,323	2,147	229,923	713,136	22,507	0,000	690,629
Administered by Saarte Road Office	1 560,723	73,338	325,478	0,411	1 161,496	856,023	73,338	298,538	0,411	483,736	704,700	26,940	0,000	677,760
Saarte Road Office in Saare county	1 087,704	73,338	185,498	0,411	828,457	582,544	73,338	158,558	0,411	350,237	505,160	26,940	0,000	478,220
OÜ Hiiu Teed in Hiiu county	473,019	0,000	139,980	0,000	333,039	273,479	0,000	139,980	0,000	133,499	199,540	0,000	0,000	199,540
Administered by Tartu Road Office	2 359,001	229,833	326,162	5,974	1 797,032	1 190,447	229,833	326,162	5,974	628,478	1 168,554	0,000	0,000	1 168,554
Tartu Road Office in Tartu county	1 253,836	149,788	171,518	4,189	928,341	626,805	149,788	171,518	4,189	301,310	627,031	0,000	0,000	627,031
AS Vooremaa Teed in Jõgeva county	1 105,165	80,045	154,644	1,785	868,691	563,642	80,045	154,644	1,785	327,168	541,523	0,000	0,000	541,523
Administered by Viru Road office	2 083,983	255,239	358,669	3,400	1 466,675	1 747,031	255,239	322,290	2,502	1 167,000	336,952	36,379	0,898	299,675
Viru Road Office in Lääne-Viru county	1 147,532	104,183	203,068	2,063	838,218	1 147,532	104,183	203,068	2,063	838,218	0,000	0,000	0,000	0,000
AS TALTER in Ida-Viru county	936,451	151,056	155,601	1,337	628,457	599,499	151,056	119,222	0,439	328,782	336,952	36,379	0,898	299,675
<b>TOTAL:</b>	<b>16 470,229</b>	<b>1 601,144</b>	<b>2 385,491</b>	<b>45,631</b>	<b>12 437,963</b>	<b>9 028,193</b>	<b>1 601,144</b>	<b>2 299,665</b>	<b>44,733</b>	<b>5 082,651</b>	<b>7 442,036</b>	<b>85,826</b>	<b>0,898</b>	<b>7 355,312</b>

## EXPENDITURES FOR ROAD OPERATIONS IN 2001-2005

	Expenditures (million kroons)				
	2001	2002	2003	2004	2005
In total	238,1	241,8	328,2	351,7	393,1
<i>Including:</i>					
Summer service					
million kroons	147,0	152,0	213,8	230,1	266,1
%	61,7	62,9	65,1	65,4	67,6
Winter service					
million kroons	91,1	89,8	114,4	121,6	127,0
%	38,3	37,1	34,9	34,6	32,3

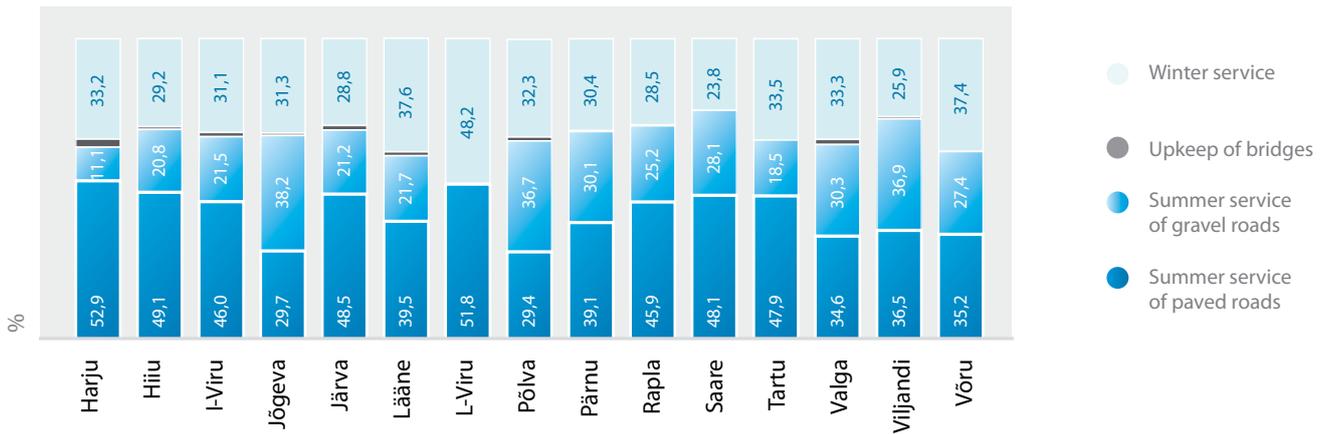


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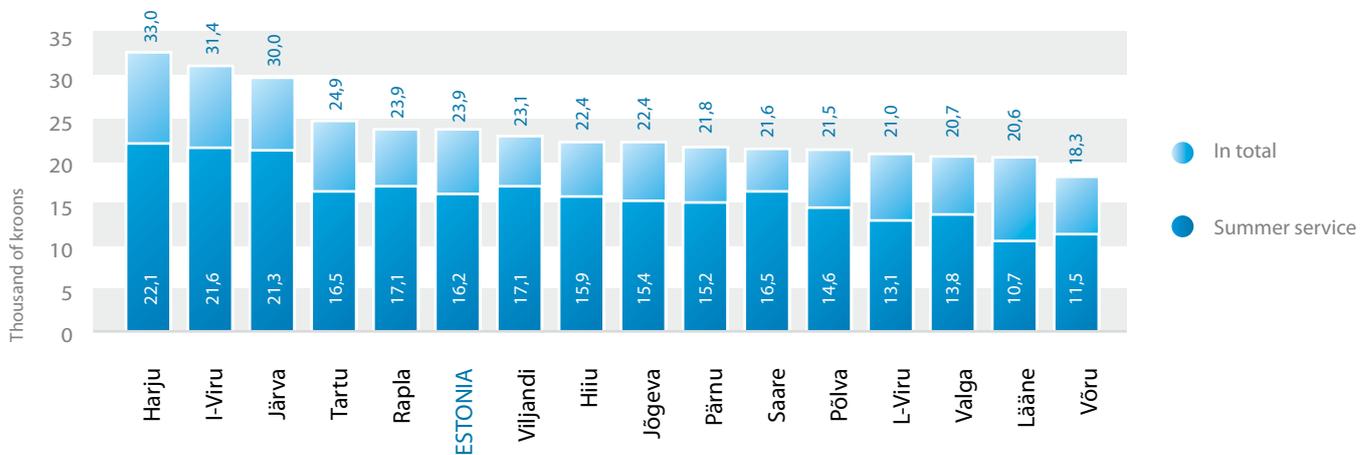
From the total amount of 393,1 million kroons in 2005 road operation works in amount of 254,0 million kroons (64,6%) have been performed by contracts.

- Winter service
- Summer service

## EXPENDITURES FOR ROAD OPERATIONS BY COUNTIES

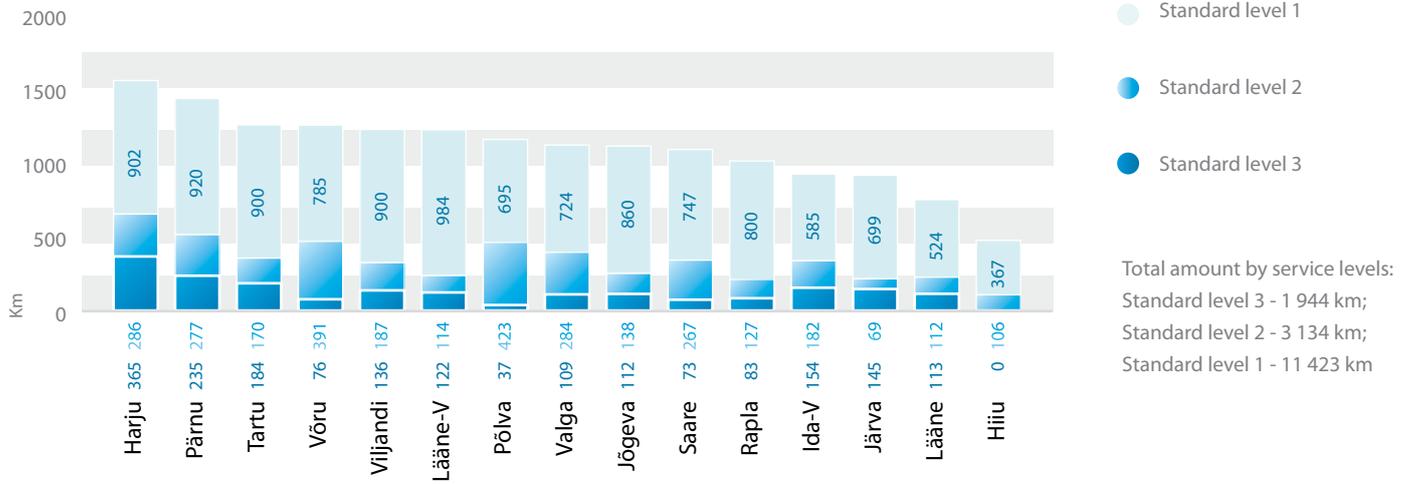


## EXPENDITURES PER 1 ROAD KILOMETRE

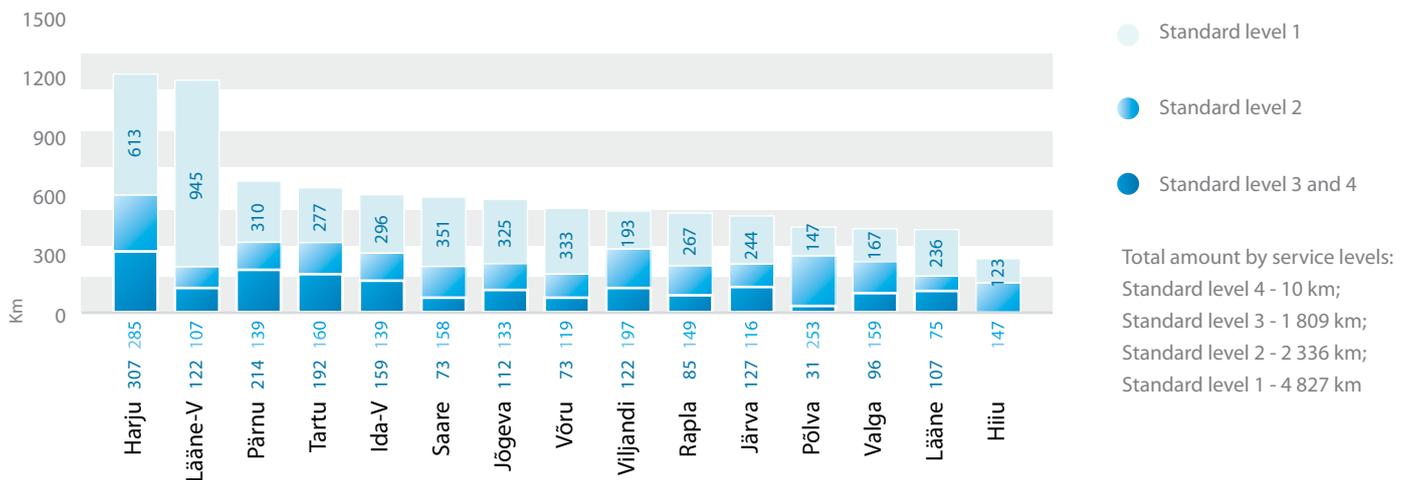


## AMOUNT OF ROADS IN COUNTIES BY SERVICE LEVELS

### WINTER SERVICE



### SUMMER SERVICE OF PAVED ROADS

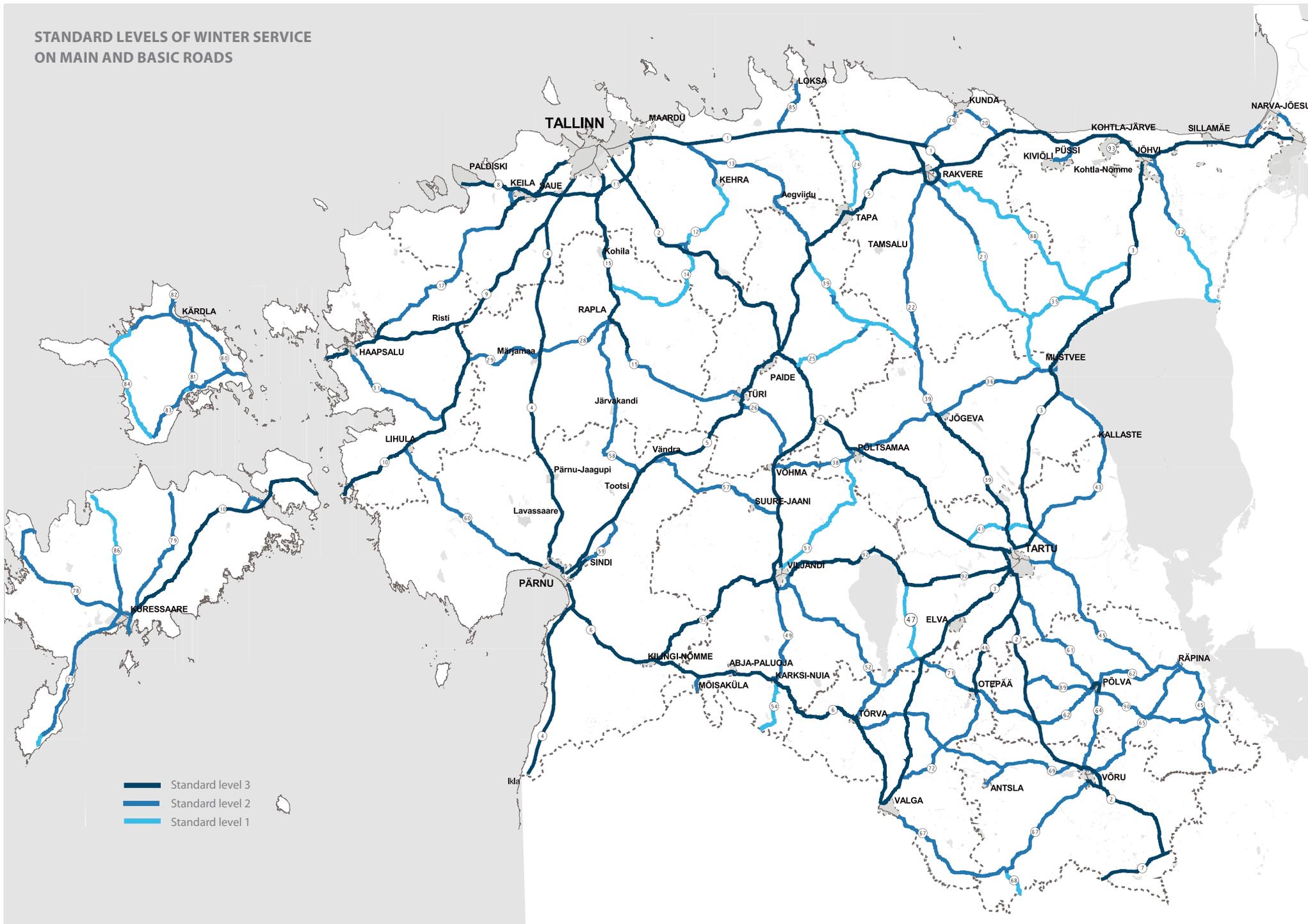


### SUMMER SERVICE OF GRAVEL ROADS



Note: The standard service level 4 is defined as the highest level of the state of roads

STANDARD LEVELS OF WINTER SERVICE  
ON MAIN AND BASIC ROADS





## REPAIRS OF INTERNATIONAL MAIN ROADS

The largest project of 2005 was the repair of Maardu – Valgejõe road section at km 17,4-62,4 of Tallinn – Narva highway, implemented within the framework of the European Union Cohesion Fund project. The total value of the project amounted to 347 million kroons; the EU contributed 75% of this amount. In 2005, 317,7 million kroons of this amount were used.

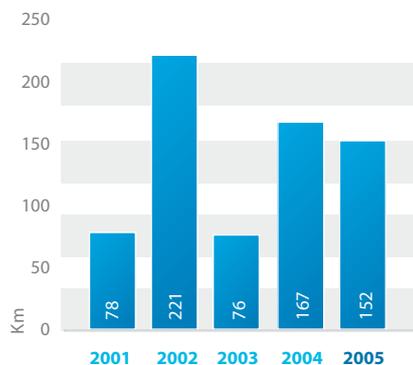
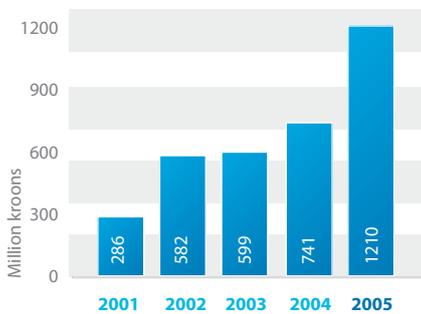
In total, 62,7 km of pavement was repaired in both directions. The existing pavement was mostly evened out by milling and dressed with new pavement, consisting of two layers. Geo-textile and geo-grid was widely used to reinforce the pavement. At km 26,1-30,9 between Ruu and Kodosoo, on the left direction of traffic, a new embankment, complete with new bridge over the River Jägala was built. All the junctions between Maardu and Valgejõe, 4 bridges, 7 overpasses (viaducts), 2 pedestrian tunnels and one herd tunnel were repaired. 4 wild game culverts were built for ensuring wild animals with normal living environment and untroubled traffic. Shore paths were built under the bridges over rivers Jägala and Valgejõe; wild game fence preventing the animals from getting to the road and guiding them to the culverts were also erected. Figures of moose were painted on the pavement for better informing of drivers; electronic safety signs were installed. 922 meters of noise barriers were built, hedges and trees were planted; two resting zones were established for drivers. 3,5 km of external lighting fixtures were installed on crossroads for better traffic safety, supported by 30 km of contemporary, impact-damping crash barriers. The edges of driveway were marked with ribbed plastic; 2,7 km of pedestrian roads were built and repaired.

The planning of ring roads of Tallinn and Pärnu was started within the framework of CF activities; preparations required for the road reconstruction project were continued on Kukruse-Jõhvi road section.

In 2005, a financial and environmental study regarding the permanent connection between Saaremaa island and the mainland was carried out; as a result it was decided that the permanent access over the Big Strait is technically feasible and economically justified. It was also decided to continue the conduct of surveys preparing for the permanent access, including the conduct of strategic evaluation of environmental impacts.

Due to the procedural delays, the conclusion of contracts regarding a major project, involving repairs on different sections of Jõhvi – Tartu – Valga highway, totalling to 83,6 km at the price of 661 million kroons, took place at the end of the year. Only 66,1 million kroons of the total of 472,2 million kroons, budgeted for 2005, was therefore used.

In 2005, the total amount spent on the preparation and implementation of CF projects totalled to 582,4 million kroons; of which the EU support amounted to 362,4 million kroons.



## REPAIR OF OTHER ROADS

For single counties and road users the completion of repair objects, funded with the EU Regional Development Fund contribution, was of utmost importance. New pavement construction, complete with foundations, establishment of water drainage system and renovation of traffic safety devices, being customary components of any repair works, were completed on main roads: 8,7 km Ratla – Valjala section on Risti – Virtsu – Kuivastu – Kuressaare road; 10,3 km Oiu – Tännassilma section and 15,1 km Kanaküla – Kilingi-Nõmme section on Tartu – Viljandi – Kilingi-Nõmme road. Works that are to be completed in 2006 were started on Jõesuu – Oiu section of Tartu – Viljandi – Kilingi-Nõmme main road. The following basic roads were repaired:

3,9 km section between Käravete and Kukevere on Jägala – Käravete road; 14,8 km section between Kaarepere and Jõgeva on Tartu – Jõgeva – Aravete road. When speaking of secondary roads, 3,3 km of Viimsi – Randvere road was renovated.

State budget funds were used to repair a 6,3 km section on Pärnu – Rakvere – Sõmeru main road; 5,9 km section on Võru – Põlva and 7,9 km section on Jägala – Käravete basic roads. 3,2 km of secondary road was renovated on Leppneeme road. Bridges were repaired and renovated, complete with the fitting of new pavement: Rosma II bridge was reconstructed into a steel pipe bridge on Võru – Põlva basic road and 2 wooden pedestrian bridges were built on the same road; Rosma I bridge,

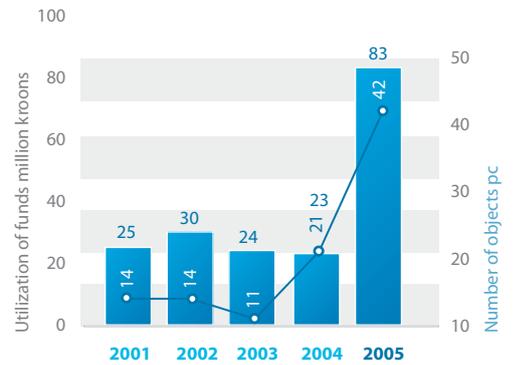
Käravete bridge on Jägala – Käravete basic road and Vändra bridge on Pärnu – Rakvere – Sõmeru main road were repaired. Construction of light traffic roads to improve the traffic safety was continued, above all, along the road sections characterised by higher traffic density of bicyclists and pedestrians – roads passing through or bordering on settlements. In total, 40,6 km of light traffic roads were built; out of which 14,5 km along with larger construction and repair objects, utilising the funds of the National Road Administration; 17,9 km using the funds of Road Offices within the programme for the liquidation of sections posing danger for traffic; and 8,2 km were financed by local authorities.



## BRIDGES

A total of 42 bridges, viaducts and tunnels were built, reconstructed and repaired. With larger building and repair objects, contracted by the National Road Administration, 4 bridges were built: a new bridge over the River Jägala on the left direction of traffic, two wooden pedestrian bridges on light traffic roads on Võru – Põlva highway and a steel pipe bridge on Võru – Põlva highway; 7 bridges, 7 viaducts and 3 tunnels were repaired. Saku Viaduct was also renovated. The funds allocated to the Road Offices were used to replace the old Angerja bridge in Rapla county and Lindora bridge in Põlva county with steel pipe bridges; the former wooden construction on metal railroad bridge at Mustajõe, on Mehka – Saru road in Võru county was replaced with reinforced concrete slabs to re-open the bridge for motorised traffic for the first time in 10 years; Võlupe bridge in Saare county and Konsu bridge in Tartu county were

reconstructed; reconstruction of Mündi bridge in Järva county was completed. The funds allocated to the Road Offices were utilised also to repair 14 bridges, of which 1 in Järva county, 2 in Põlva county, 2 in Valga county, 4 in Pärnu county, 1 in Lääne county, 2 in Viljandi county, 1 in Saare county and 1 in Lääne-Viru county.

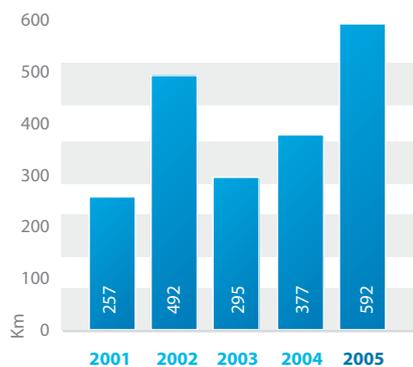


## SURFACE DRESSING AND REPAIRS OF GRAVEL ROADS

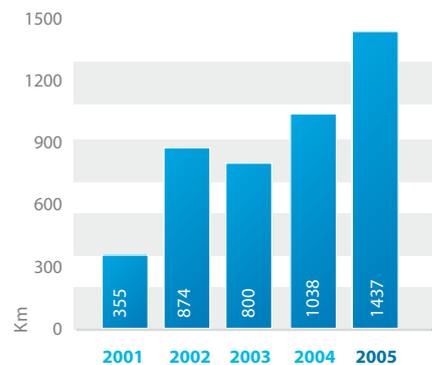
The financing allocated from the state budget investment funds for surface dressing and repairs of gravel roads increased and therefore the scope of such works increased in comparison to the previous years. For the first time, a situation was achieved where the volume

of annual surface dressing works required for the preservation of the existing pavements was exceeded and therefore the elimination of former omissions was started. Surface dressing was carried out on the total of 1 437 km and 592 km of gravel roads were repaired.

### REPAIRS OF GRAVEL ROADS

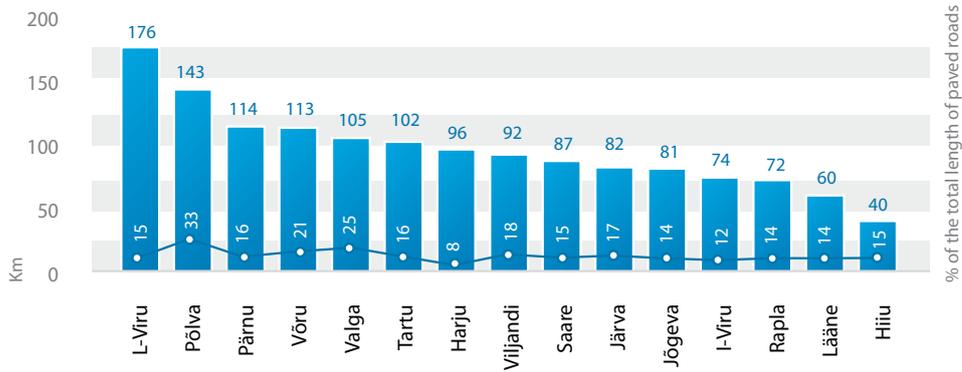


### SURFACE DRESSING



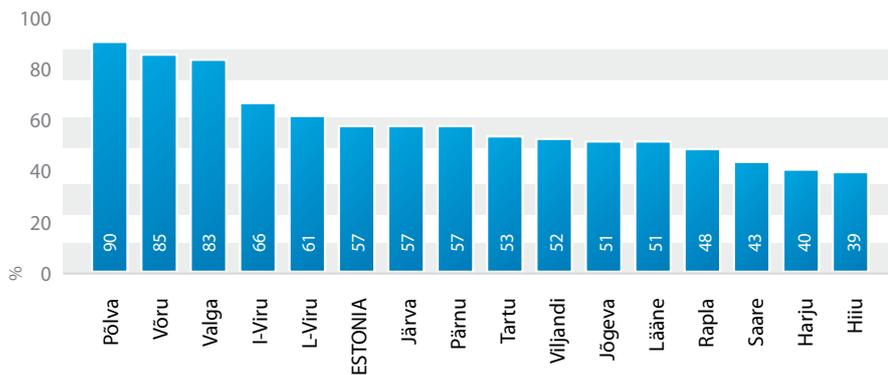
## SURFACE DRESSING BY COUNTIES

In 2005



## SURFACE DRESSING

During the period 2000-2005 (% of the total length of paved roads in the county)

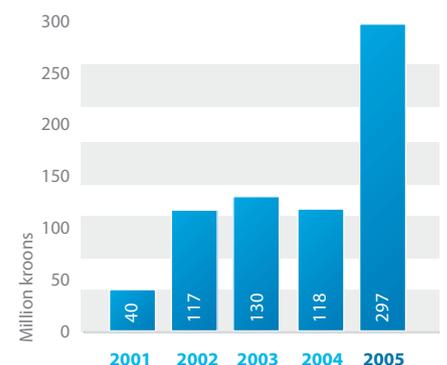
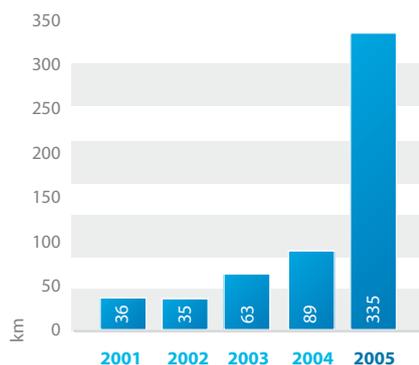


## PAVEMENTS ON GRAVEL ROADS

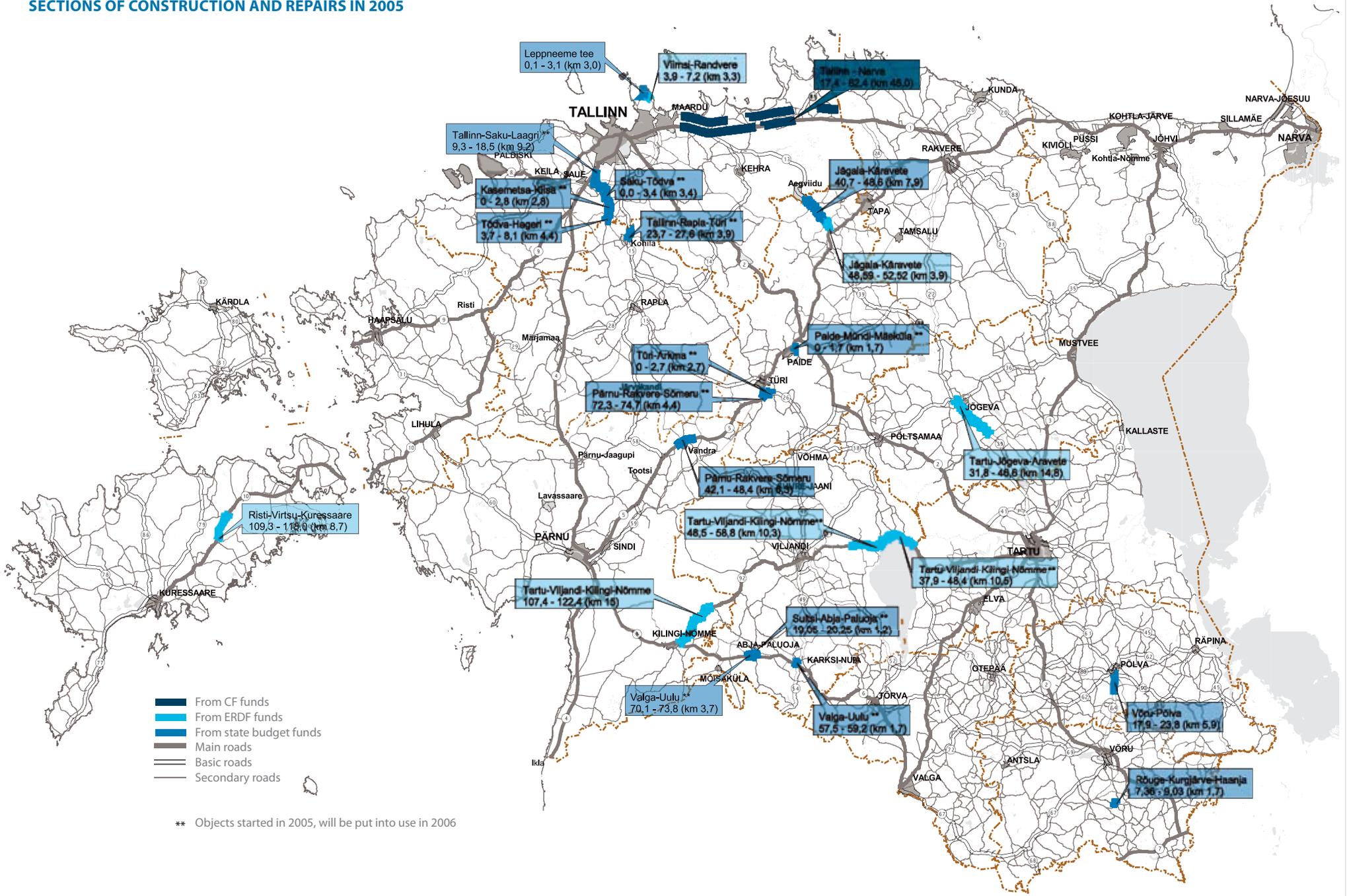
In total, 334,9 km of gravel roads were paved, mostly on secondary roads. The volume of such works was considerably bigger than during previous years. This has become possible due to the implementation of light-weight and cheaper pavement materials – like crushed black rubble obtained from repair works and double-layered surface dressing of gravel roads. 18,6 km of the pavement was contracted by the National Road Administration: Järveküla – Jüri and Assaku – Jüri highway sections and Raeküla road in Harju county; Kuku – Hagudi, Hagudi – Kohila and Kernu – Kohila road sections in Rapla county and Rõuge – Kurgjärve – Haanja road section, complete with light traffic road in Võru county. 316,3 km of pavement were built on account of the funds allocated to the Road Offices to cover the sections between settlements and other roads characterised by high-density traffic in all the counties.

In total, 28,4 km of asphalt concrete pavement, 6,2 km of black pavement mixed-in-plant and 175,2 km of various mixed-in-place substance pavements were laid down. 102,7 km of the latter were built of the material produced by milling of rehabilitation objects' pavements. Double surface dressing of secondary gravel roads

has become popular over the last years as it allows to make the roads dust-free at limited expense. 125,1 km of such roads were built.



# SECTIONS OF CONSTRUCTION AND REPAIRS IN 2005



\*\* Objects started in 2005, will be put into use in 2006

**ROAD CONSTRUCTION, REPAIRS AND OPERATIONS ON NATIONAL ROADS IN TOTAL**

Activities	Unit	Volume in total	Includes		
			Main roads	Basic roads	Secondary roads
1. Road construction	th. of kroons	297 031,2	50 856,7	44 324,3	201 850,2
<i>Including:</i>					
a) Construction of paved roads	th. of kroons	296 920,0	50 856,7	44 324,3	201 739,0
	km	334,9	-	0,2	334,7
<i>From this by the types of surfaces:</i>					
- asphalt concrete	th. of kroons	146 468,2	50 556,3	42 422,2	53 489,7
	km	28,4	-	-	28,4
- mix in plant	th. of kroons	13 423,7	300,4	782,0	12 341,3
	km	6,2	-	-	6,2
- mix in place	th. of kroons	83 223,6	-	691,5	82 532,1
	km	175,2	-	-	175,2
- surface dressing of gravel roads	th. of kroons	53 804,5	-	428,6	53 375,9
	km	125,1	-	0,2	124,9
b) Construction of gravel roads	th. of kroons	111,2	-	-	111,2
	km	-	-	-	-
2. Construction and reconstruction of bridges	th. of kroons	43 759,5	21 644,2	8 394,8	13 720,5
- reconstructed bridges	pc/m	10/209,6	1/53,6	3/20,2	6/135,8
- reconstructed overpasses	pc/m	-	-	-	-
3. Repairs of roads	th. of kroons	1 210 428,7	743 807,3	205 015,6	261 605,8
a) repairs of pavements	km	152,0	106,1	33,5	12,4
<i>From this by the types of surfaces:</i>					
- asphalt concrete overlays	th. of kroons	925 696,1	714 493,1	140 385,7	70 817,3
	km	146,1	106,1	32,5	7,5
- mix in plant	th. of kroons	954,3	-	630,3	324,0
	km	-	-	-	-
- mix in place (bitumen-gravel, stabilization, macadam)	th. of kroons	12 687,0	-	5 760,6	6 926,4
	km	5,9	-	1,0	4,9
b) repairs of gravel roads	th. of kroons	98 716,7	-	328,2	98 388,5
	km	591,8	-	-	591,8
c) surface dressing	th. of kroons	172 374,6	29 314,2	57 910,8	85 149,6
	km	1436,7	166,0	417,5	853,2
4. Repairs of bridges	th. of kroons	39 350,5	20 181,6	2 031,3	17 137,6
- repaired bridges	pc/m	21/587,4	5/152,6	2/35,4	14/399,4
- repaired overpasses	pc/m	11/432,4	11/432,4	-	-
5. Road operations	th. of kroons	393 050,9	104 844,9	97 868,4	190 337,6
<i>From this:</i>					
- summer service	th. of kroons	266 092,5	61 404,5	63 409,5	141 278,5
- winter service	th. of kroons	126 958,4	43 440,4	34 458,9	49 059,1
Road construction, repairs and operations in total	th. of kroons	1 983 620,8	941 334,7	357 634,4	684 651,7

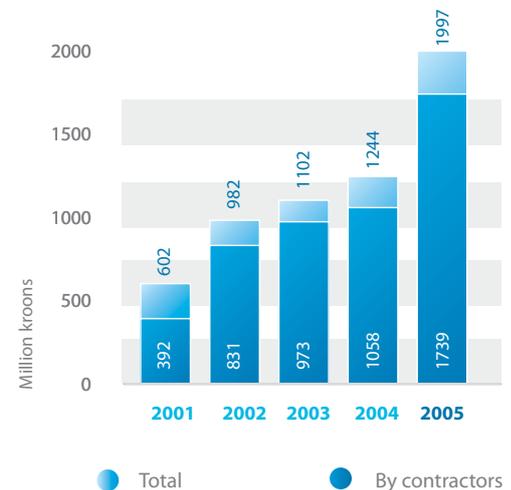
## ROAD CONSTRUCTION, REPAIRS AND OPERATIONS IN 2001-2005

Activities	Expenditures thousands of kroons					Construction and repairs of roads - km bridges - pc/m				
	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
1. Road construction	40 206	117 268	129 720	118 254	297 031					
<i>Including:</i>										
a) construction of paved roads	36 628	117 268	129 631	118 254	296 920	35,8	34,9	63,2	89,4	334,9
asphalt concrete	18 714	99 461	111 980	34 199	146 468	11,4	5,8	14,8	3,3	28,4
mix in plant	7 888	7 710	-	62 190	13 424	8,4	7,7	-	18,4	6,2
mix in place	9 694	3 320	5 769	8 415	83 224	13,6	2,7	7,5	30,5	175,2
surface dressing of gravel roads	332	6 777	11 882	13 450	53 804	2,4	18,7	40,9	37,2	125,1
b) construction of gravel roads	3 578	-	89	-	111	23,6	-	-	-	-
2. Construction and reconstruction of bridges	10 182	11 623	19 151	19 600	43 760					
reconstructed bridges						5/187,4	5/131,7	6/90,5	15/380,2	10/209,6
3. Repairs of roads	286 046	582 269	598 959	741 320	1 210 429					
<i>Including:</i>										
a) repairs of pavements	238 958	471 381	501 192	557 094	939 337	78,4	221,1	76,0	167,3	152,0
asphalt concrete	236 909	471 232	495 554	547 904	925 696	77,4	221,1	75,0	167,3	146,1
mix in plant	247	149	810	970	954	-	-	-	-	-
mix in place	1 802	-	4 828	8 220	12 687	1,0	-	1,0	-	5,9
b) repairs of gravel roads	22 342	38 364	21 045	75 637	98 717	256,7	492,3	294,5	377,4	591,8
c) surface dressing	24 746	72 524	76 721	108 589	172 375	354,5	873,5	799,9	1038,1	1436,7
4. Repairs of bridges and overpasses	14 344	18 095	4 395	3 501	39 350					
repaired bridges						9/190,6	9/218,6	5/127,0	6/95,7	21/587,4
repaired overpasses						5/298,2	2/85,0	-	-	11/432,4
5. Road operations	238 149	241 793	328 187	351 680	393 051					
<i>Including:</i>										
summer service	147 021	151 980	213 812	230 071	266 093					
winter service	91 128	89 813	114 375	121 609	126 958					
Construction, repairs and operations in total	588 927	971 048	1 080 412	1 234 355	1 983 621					

## SHARE OF THE WORKS PERFORMED BY CONTRACTORS IN 2001-2005

		Expenditures (thousands of kroons)				
		2001	2002	2003	2004	2005
Construction, repairs and operations in total		602 095	982 434	1 101 585	1 244 096	1 997 162
Performed by contractors	thousands of kroons	391 658	830 874	973 169	1 058 216	1 738 579
	%	65,0	84,6	88,1	85,0	87,1

Note: In 2005 the share of construction and repairs performed by contractors was 91,9%, the share of road operations performed by contractors was 67,3%



## ROAD TRAFFIC

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## ROAD TRAFFIC



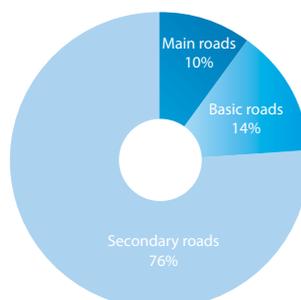
### TRAFFIC

Traffic count on main and basic roads was conducted similarly with the previous years. The count was conducted by the Technical Centre of Estonian Roads Ltd. Traffic count of secondary roads is conducted by local road agencies. Traffic was enumerated in 48 stationary counting points on main and basic roads and in 125 movable counting points on basic roads. In stationary counting points data were collected all the year round, in movable points in spring, summer and autumn. As compared to 2004 the increase of traffic density on Estonian roads has taken a significant leap – 7,4 % on main roads and 5,2 % on basic roads. The average traffic density in 2005 was 3 808 vehicles a day on main roads and 1 279 vehicles a day on basic roads. The road section with the biggest density in Estonia is located on Tallinn-Pärnu-Ikla road at the border of the city of Tallinn, where the traffic density is 29 620 vehicles per day.

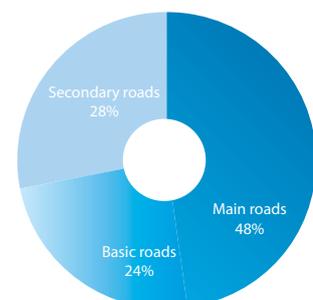
In summer of 2005 a new traffic counting instructions, contracted by the Estonian National Road Administration, were completed by Tallinn University of Technology. The new instructions specify more accurately than ever the methods for traffic counting. Special attention has been given to the organisation of traffic counting on secondary roads to achieve the accuracy and reliability of counting results.

The traffic performance has been determined in co-operation with the Tallinn Technical University from 1995. It can be seen from the attached diagrams that although the main roads form only 9,7% of the national roads, they take 48% of the traffic performance.

### TRAFFIC PERFORMANCE ON NATIONAL ROADS IN 2005



ROAD NETWORK



PERFORMANCE

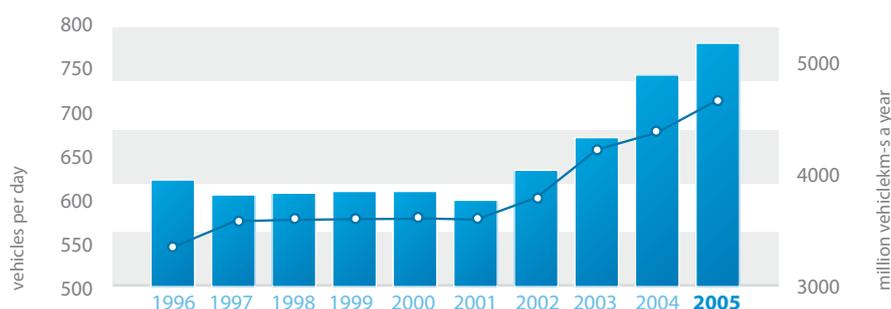
## NUMBER OF VEHICLES

Year	Number in total	Including			Vehicles per 1000 inhabitants	
		Lorries	Buses	Cars	Vehicles in total	Cars
1989	278288	45631	7742	224915	177	143
1990	297469	47295	8202	241972	190	154
1991	328591	58877	8628	261086	211	168
1992	354606	62728	8409	283469	189	188
1993	389059	62971	8663	317425	210	215
1994	440198	61124	6918	372156	232	257
1995	456051	65598	7009	383444	258	269
1996	484731	71304	6829	406598	295	289
1997	510740	76605	6457	427678	309	307
1998	537877	80617	6306	450954	332	278
1999	545926	81030	6196	458700	398	334
2000	552061	82119	6059	463883	404	339
2001	493349	80535	5542	407272	362	299
2002	486182	80179	5306	400697	359	295
2003	522776	83430	5364	433982	387	321
2004	562199	85732	5284	471183	417	350
2005	585175	86201	5194	493780	435	367

Note: The decrease of the number of vehicles since 2001 is due to the compiling of the register

## AVERAGE TRAFFIC FLOW AND OVERALL TRAFFIC PERFORMANCE ON NATIONAL ROADS IN 1996-2005

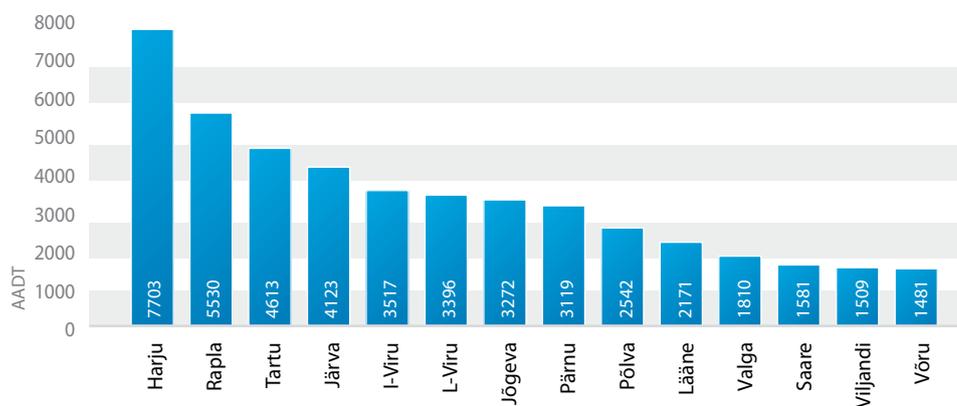
	Traffic flow (vehicles per day)				Performance
	Main roads	Basic roads	Secondary roads	National roads on average	Million vehiclekm-s a year
1996	2 636	1 092	293	621	3 399
1997	2 610	1 054	299	604	3 626
1998	2 811	1 187	254	606	3 638
1999	2 866	1 142	253	608	3 644
2000	2 965	1 096	251	608	3 648
2001	2 888	1 082	237	598	3 593
2002	3 062	1 182	241	632	3 790
2003	3 229	1 156	250	669	4 219
2004	3 520	1 240	277	740	4 372
2005	3 808	1 279	291	776	4 663



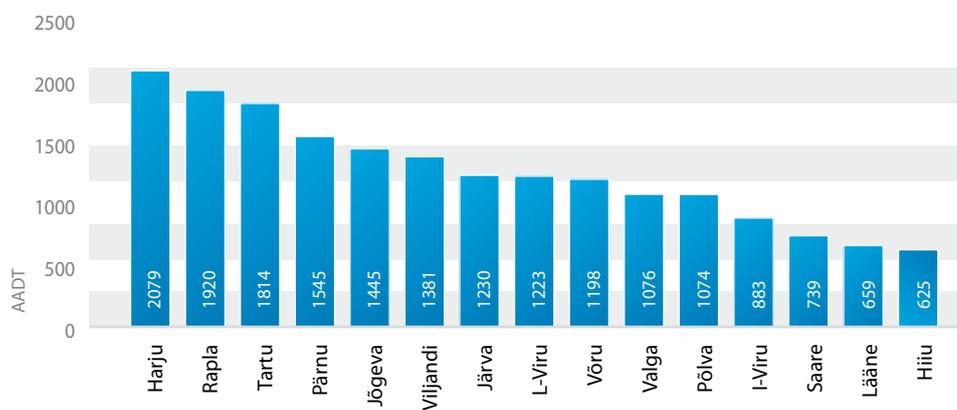
## AVERAGE TRAFFIC DENSITY IN COUNTIES

per 1 km

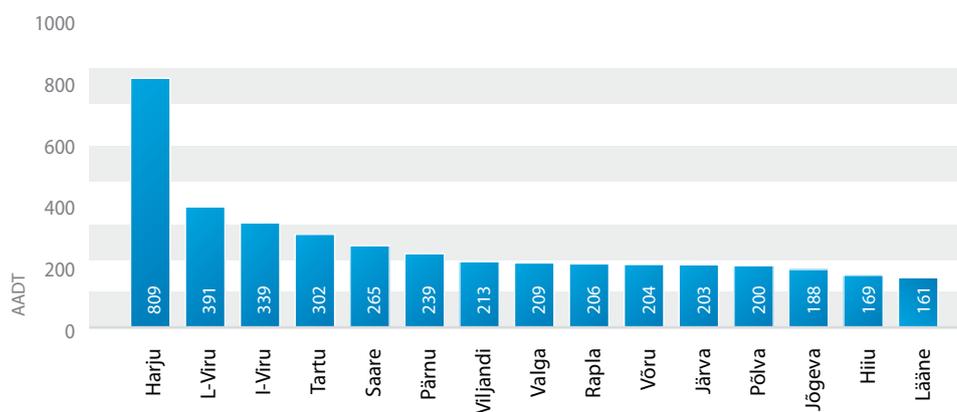
### MAIN ROADS



### BASIC ROADS



### SECONDARY ROADS



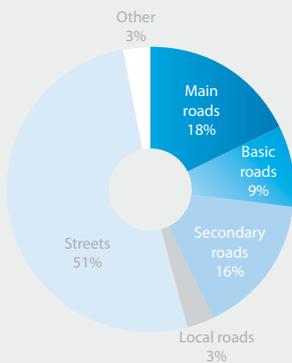




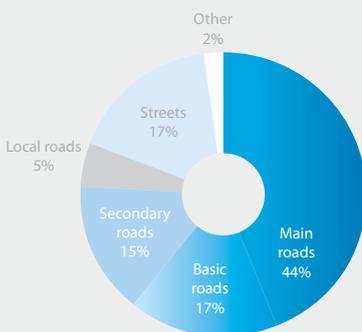
## TRAFFIC SAFETY

<b>TRAFFIC ACCIDENTS</b>	<b>50</b>
<i>Traffic Accidents Involving Children</i>	50
<i>Number of Vehicles, Traffic Accidents and Fatalities - Diagram</i>	51
<i>Traffic Accidents - Diagram</i>	51
<i>Traffic Accidents with Casualties on Main and Basic Roads - Map</i>	52
<i>Traffic Accidents by Type - Table</i>	53
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<i>Drunken Drivers</i>	55
<i>Traffic Accidents Caused by Drunken Drivers - Diagram</i>	55
<i>Traffic Studies</i>	55
<b>TRAFFIC EDUCATION</b>	<b>56</b>

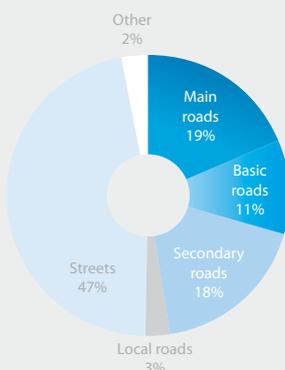
## TRAFFIC SAFETY



TRAFFIC ACCIDENTS



FATALITIES



CASUALTIES

### TRAFFIC ACCIDENTS

Over the last seven years the activities of the Estonian National Road Administration in the field of traffic education have been conducted in accordance with the Estonian National Traffic Safety Programme and its priorities until year 2015. At the end of 2005 we can state that while some changes for better can be noticed in the behaviour of road users and the number of people killed in traffic has not grown over the last couple of years, the number of people having suffered traffic injuries is still high.

In total, there were 2 306 traffic accidents with casualties occurred, where 167 people were killed and 2 973 injured. The number of cars increased to 367 cars per 1 000 people (in 2004, the respective indicator was 350). The data of traffic surveys indicate that traffic density on roads is growing, above all, on main and basic roads.

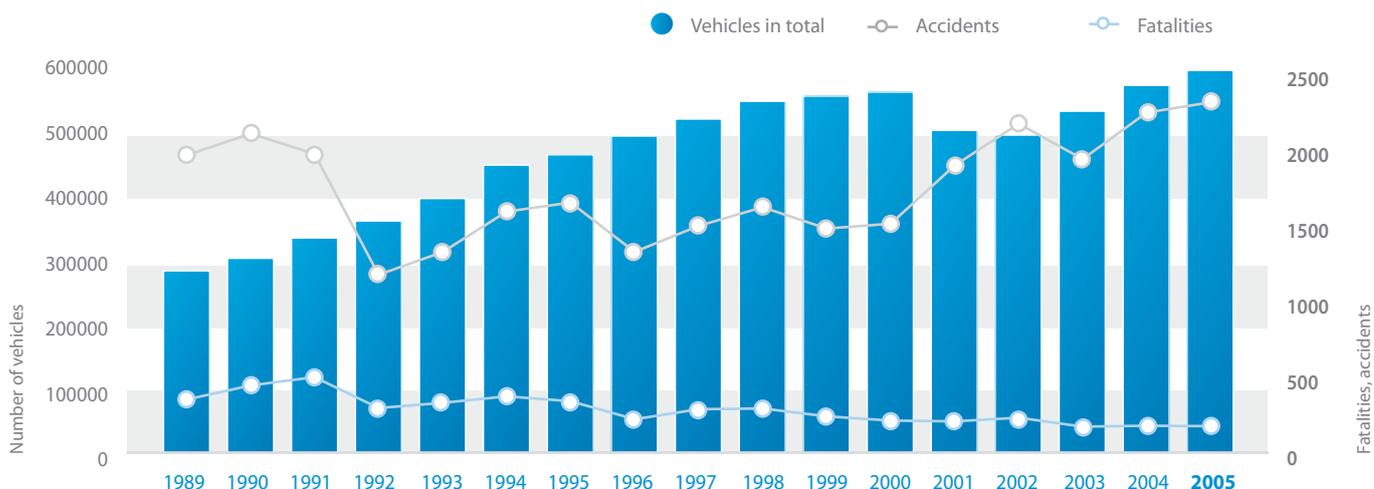
18% of all the traffic accidents and 44% of all the victims of traffic accidents were registered on main roads, contributing only 2,8% of the whole road network. In total, 417 (in 2004, respectively, 373) traffic accidents, 74 fatalities (in 2004, respectively, 51) and 569 casualties (in 2004, respectively, 560) were registered on main roads. Almost every fifth traffic accident on a main road was fatal and every third person killed was a light road-user. The highest incidence of car accidents can be noted on Tallinn – Narva highway in Ida-Virumaa and on Tallinn – Tartu – Võru – Luhamaa highway in Tartu and Harju counties.

### TRAFFIC ACCIDENTS INVOLVING CHILDREN

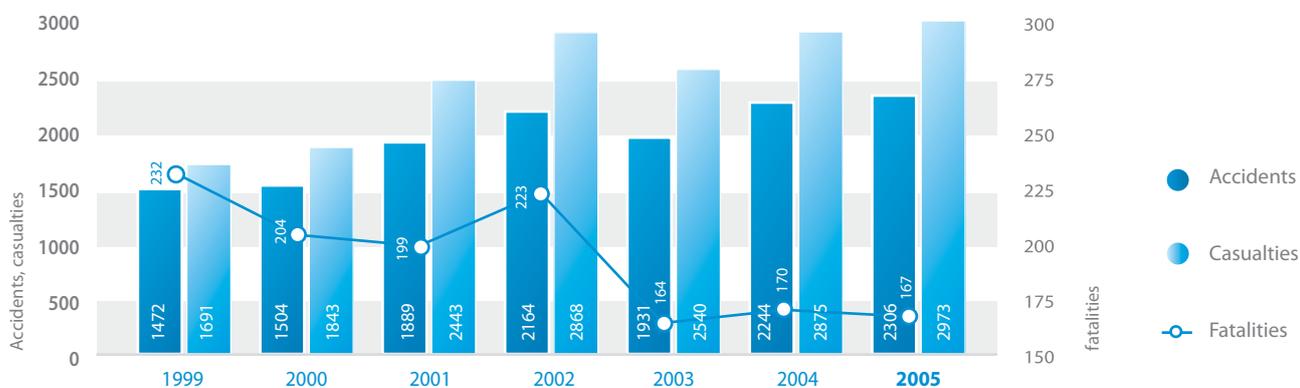
248 (215 in 2004) up to 15-year-old pedestrians and drivers of vehicles were involved in traffic accidents, 155 (134 in 2004) of them caused the accidents themselves. 7 (7 in 2004) children were killed and 225 (196 in 2004) children were injured as independent road users. The youngest motor vehicle driver having caused an accident was 13 years old. Intoxication was ascertained in two young pedestrians. Children are more and more frequently involved in traffic accidents while driving a bicycle, a moped, a motorcycle or scooter. Almost every fourth traffic accident, where children were involved, was a bicycle accident. Three fourths of the traffic accidents involving children occurred in towns, incl. 36% in Tallinn.

The number of children, who were injured while they were travelling as passengers in cars, is still high. The level of the use of children's security equipment is low like before. The relevant research carried out by the Scientific Centre of Traffic Safety in 2005 showed that only 38% of the children, who would need special security equipment, used it. In 2005, 5 (1 in 2004) up to 15-year-old children were killed and 131 (132 in 2004) up to 15-year-old children were injured while driving in a car, 59 (90 in 2004) of them were fastened by a seatbelt as required. The older a child is, the less often he or she uses a seatbelt. A total of 341 (in 2004, 376) children were injured and 12 (in 2004, 9) children were killed in 344 (in 2004, 317) traffic accidents.

## NUMBER OF VEHICLES, TRAFFIC ACCIDENTS AND FATALITIES



## TRAFFIC ACCIDENTS IN 1999 - 2005



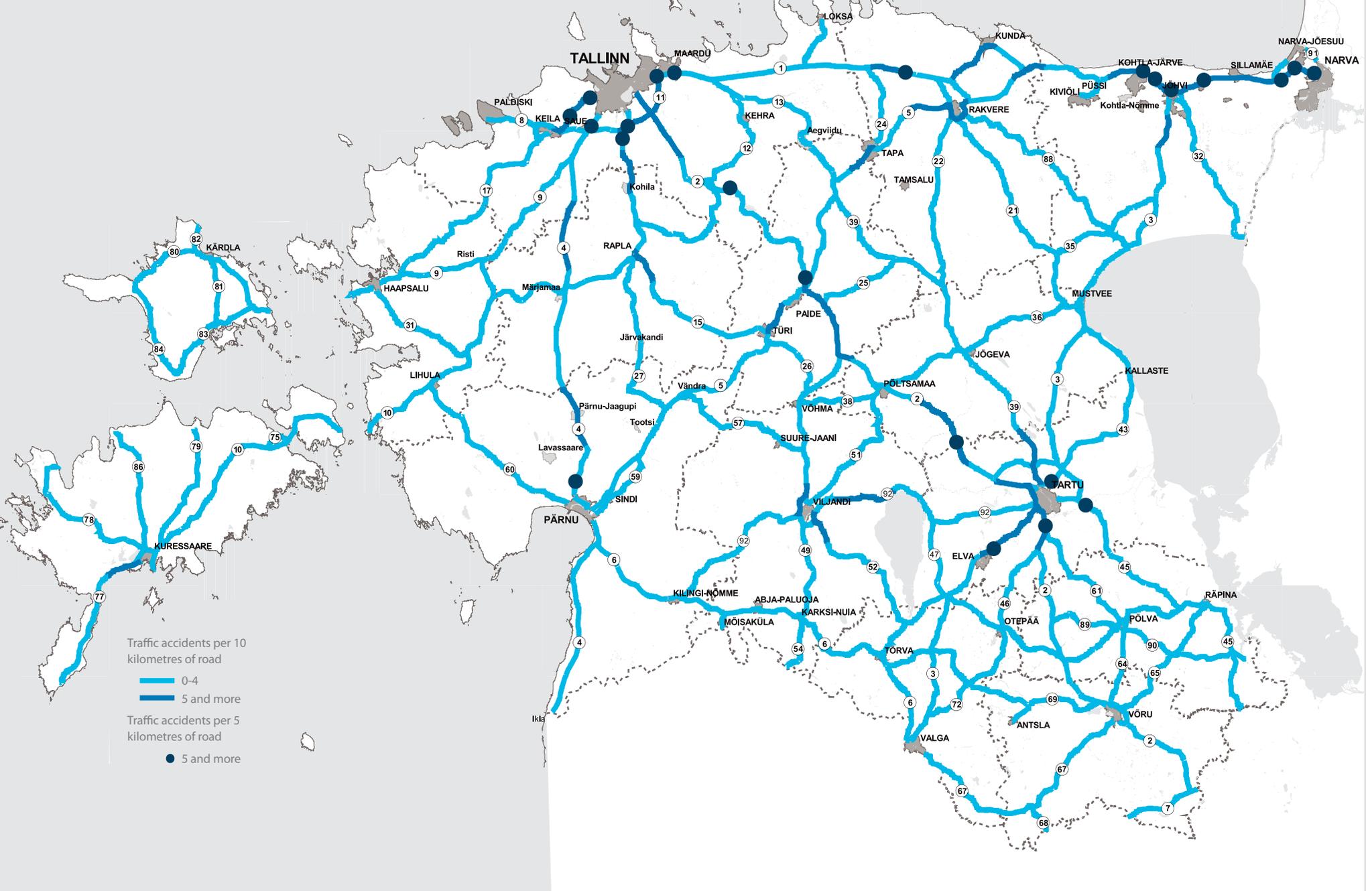
## TRAFFIC ACCIDENTS IN ESTONIA IN 1995 - 2005

Ratio

	Ratio										
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total traffic accidents	1644	1318	1490	1613	1472	1504	1889	2164	1931	2244	2306
1995=100%	100,0	80,2	90,6	98,1	89,5	91,5	114,9	131,6	117,5	136,5	140,3
Traffic accidents per 10 000 vehicles	36,0	27,2	29,2	30,0	27,0	27,2	38,3	44,5	36,9	39,9	39,4
Traffic accidents per 100 000 inhabitants	115,4	93,7	107,0	116,9	107,3	110,0	138,8	159,6	142,9	166,5	171,6
Fatalities	332	213	279	284	232	204	199	223	164	170	167
1995=100%	100,0	64,2	84,0	85,5	69,9	61,4	59,9	67,2	49,4	51,2	50,3
Fatalities per 10 000 vehicles	7,3	4,4	5,5	5,3	4,2	3,7	4,0	4,6	3,1	3,0	2,9
Fatalities per 100 000 inhabitants	23,3	15,1	20,0	20,6	16,9	14,9	14,6	16,4	12,1	12,6	12,4
Fatalities per 100 accidents	20,2	16,2	18,7	17,6	15,8	13,6	10,5	10,3	8,5	7,6	7,2
Fatalities per 100 injuries	17,5	13,8	15,2	14,3	13,7	11,1	8,1	7,8	6,5	5,9	5,6
Casualties	1897	1547	1835	1990	1691	1843	2443	2868	2540	2875	2971
1995=100%	100,0	81,5	96,7	104,9	89,1	97,2	128,8	151,2	133,9	151,6	156,6
Traffic accidents caused by drunken drivers	481	317	379	423	322	318	391	495	394	393	424
1995=100%	100,0	65,9	78,8	87,9	66,9	66,1	81,3	102,9	81,9	81,7	88,1

Notes: 1. The number of vehicles registered in the Motor Vehicle registration centre  
2. Number of inhabitants registered in the Statistical Office

**TRAFFIC ACCIDENTS WITH CASUALTIES  
ON MAIN AND BASIC ROADS**



## TRAFFIC ACCIDENTS BY TYPE

Collisions involving two vehicles have become a serious problem. 689 (668 in 2004) collisions between motor vehicles were registered, involving 52 fatalities (48 in 2004) and 1 050 casualties (1 014 in 2004) among drivers and passengers. The number of accidents has increased approximately by one third both, on urban and rural roads, however, fatalities occur usually only on roads with more dense traffic and bigger driving speeds. The main causes of collisions were ignoring the rules on the crossroads, using inappropriate driving speeds, mistakes when passing, changing lanes or turning. The bigger share of accidents in the first and last quarter of the year indicates also the inability of the drivers upon driving in winter conditions and in the dark.

645 (619 in 2004) collisions of motor vehicles with pedestrians, forming 28% of the total number of accidents were registered. Every fourth pedestrian accident on the road was a fatal one, 2/3 of all the pedestrian accidents occurred in the five biggest towns in Estonia. In Tallinn, 290 cases when pedestrians were struck by a vehicle, involving 9 fatalities among the pedestrians, were registered. The cases of

crossing roads at places not intended for that purpose have decreased; accidents involving pedestrians converge more and more clearly to the junctions of the capital, pedestrian crossings and public transport vehicle stops, where approximately 2/3 of all the pedestrian accidents of the capital city were registered. Nevertheless, the number of accidents increased at unregulated crossings of the capital city – both on crossroads and pedestrian crossings – where in 2005 127 pedestrian accidents with three fatalities were registered. For years there were problems with children, who had just started school, but last years pedestrian accidents caused by teenagers have become more frequent. Vehicle drivers, making a mistake to some extent more frequently in urban traffic, caused half of the all the pedestrian accidents. 2/3 of pedestrian accidents on rural roads took place in the dark, where the casualties were mainly pedestrians without reflectors. 25 (24 in 2004) pedestrians were killed on the roads in the dark.

Cyclists or moped drivers were involved in 248 (279 in 2004) accidents, 14 (10 in 2004) of the cyclists were killed and 247 (256 in 2004) were injured. Cyclist accidents have

become a problem primarily among up to 15-year-old children, who formed one fifth of all the injured cyclists. Conflicts between pedestrians and cyclists have become more frequent. The main mistake of cyclists is disregarding the required signal before manoeuvres and mistakes on crossings.

The share of pedestrian and cyclist accidents is the biggest on Pärnu – Rakvere, Ääsmäe – Haapsalu and Tallinn – Rapla – Türi highways. Nearly ¼ of all the accidents with injured persons were one-vehicle accidents. In the total of 582 accidents (537 in 2004), 47 (41 in 2004) people were killed and 851 (799 in 2004) were injured – the main problem was over-speeding and overestimating ones abilities especially in winter weather conditions and in the dark. Novice and inexperienced drivers are more frequently involved in accidents. 44% of the drivers driving off the road had consumed alcohol. The number of such type of accidents decreased significantly in 2003 on account of drunken drivers. The number of such accidents is, nevertheless, demonstrating a growth trend over the last couple of years.

## TRAFFIC ACCIDENTS BY TYPES

	Traffic accidents					Fatalities					Casualties				
	Total	Including				Total	Including				Total	Including			
		National roads	Local roads	Streets	Other places		National roads	Local roads	Streets	Other places		National roads	Local roads	Streets	Other places
<b>TOTAL</b>	2306	998	68	1171	69	167	128	8	28	3	2973	1418	90	1387	78
<i>incl. in daytime</i>	1577	674	56	798	49	98	73	7	15	3	2044	988	75	928	53
<i>at night</i>	729	324	12	373	20	69	55	1	13	0	929	430	15	459	25
<i>By types</i>															
Collision of motor vehicles with moving vehicles	937	405	14	508	10	66	61	0	4	1	1297	613	21	653	10
<i>incl. with motor vehicle</i>	689	305	9	375	0	52	48	0	4	0	1050	519	16	515	0
<i>with motor/bicycle</i>	248	100	5	133	10	14	13	0	0	1	247	94	5	138	10
Collision of motor vehicles with obstacle	80	54	3	19	4	6	3	1	2	0	106	79	6	17	4
<i>incl. with standing vehicle</i>	29	16	2	9	2	3	1	1	1	0	41	27	4	8	2
Collision with pedestrian	645	121	7	471	46	45	32	0	13	0	638	99	8	482	49
One-vehicle accident	582	405	38	131	8	47	32	5	8	2	851	608	51	179	13
Other accidents	62	13	6	42	1	3	0	2	1	0	81	19	4	56	2

## ACCIDENTS IN COUNTIES

Compared to the last two years, the number of traffic accident fatalities decreased in town of Pärnu, Harju and Lääne counties. In town of Tartu, Pärnu and Viljandi counties and Saaremaa the number of traffic accident casualties went up. In 2003-2005 there have been no traffic accident, ending with fatalities, in Hiiu county.

### TRAFFIC ACCIDENTS IN 2003 - 2005

Counties, towns	Traffic accidents			Fatalities			Casualties		
	2003	2004	2005	2003	2004	2005	2003	2004	2005
Towns in total	863	994	993	19	30	22	986	1125	1174
Including:									
Tallinn	590	665	647	13	20	16	672	740	783
Tartu	154	204	206	1	2	3	173	244	232
Pärnu	65	56	71	2	1	0	79	64	87
K-Järve	20	11	16	1	3	1	23	14	17
Narva	34	58	53	2	4	2	39	63	55
Counties in total	1068	1250	1313	145	140	145	1554	1750	1799
Including:									
Harjumaa	186	274	263	32	34	30	247	380	342
Hiiumaa	7	13	9	0	0	0	10	17	10
Ida-Virumaa	92	101	126	13	23	18	133	137	164
Jõgevamaa	67	46	58	10	4	9	108	69	82
Järvamaa	60	72	70	9	7	7	100	112	112
Läänemaa	45	47	48	6	4	2	64	61	59
Lääne-Virumaa	114	110	147	15	16	16	154	157	192
Põlvamaa	25	44	43	2	2	2	38	66	59
Pärnumaa	54	59	74	6	10	15	90	90	104
Raplamaa	49	67	65	14	9	9	65	110	97
Saaremaa	47	67	71	2	3	4	80	91	107
Tartumaa	133	146	130	19	13	15	193	197	160
Valgamaa	53	37	51	2	4	2	70	41	76
Viljandimaa	75	82	100	9	7	11	109	99	159
Võrumaa	61	85	58	6	4	5	93	123	76
<b>TOTAL:</b>	1931	2244	2306	164	170	167	2540	2875	2973
Comparison with the previous year (%)	-10,8	-15,9	2,7	-26,4	3,6	-1,8	-11,5	13,1	3,4

## DRUNKEN DRIVERS

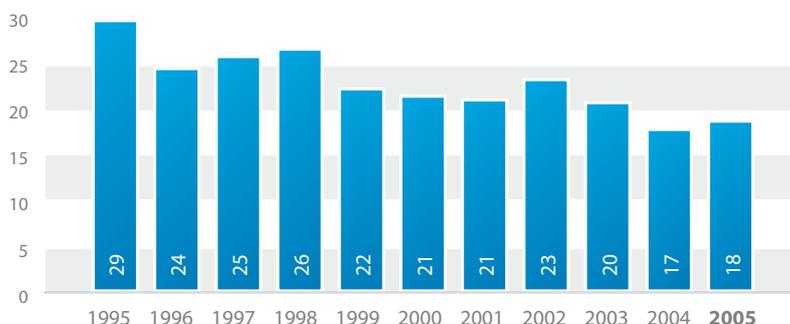
The decrease of the number of people killed in the three last years has been achieved by the decrease of the number of drunken drivers among the drivers involved in traffic accidents. While in 2002 68 persons were killed in accidents, where drunken drivers of motor vehicles were involved, in 2005 45 people lost their lives in such accidents. Drunken drivers were involved in 18% of all the registered traffic accidents with injuries; in 2002 this indicator amounted to 23%. At the

same time it appears from the statistics of police raids that drunken drivers have not disappeared from the roads – from among the drivers of motor vehicles involved in traffic 1,2% were drunken, in 2002 there were 3,3% of such drivers and 1,5% in 2004. 465 drunken drivers were involved in traffic accidents (449 in 2004), 428 of them (390 in 2004) drove a motor vehicle. Four drivers of motor vehicles each caused at least two traffic accidents involving casualties when being intoxicated.



## TRAFFIC ACCIDENTS CAUSED BY DRUNKEN DRIVERS

(% from traffic accidents with casualties)



## TRAFFIC STUDIES

Wide-scale monitoring of traffic behaviour was conducted in the area of traffic studies, involving the establishment of main traffic accident concentration sites on highways, complete with recommendations for enhancing the safety. Options for fitting automated speed detection cameras on highways were searched. Expert commission for explaining the reasons of serious traffic accidents continued its work. Technical equipment for calming the traffic was studied to give recommendations for their utilisation. Economic evaluation on winter tire use was completed and economic damages caused by traffic accidents were determined. Public opinion survey on the use of seat belt and reflex reflectors was completed. Two road sections, which may cause a traffic hazard, were audited from the point of view of traffic safety, one on Tallinn – Rapla – Türi highway and the other on Viljandi detour road.

Due to launch of police data system Polis implementation of new traffic accidents data processing system was continued. Estonia was given access to Pan-European electronic database of traffic accidents CARE and made preparations for forwarding Estonian data to the aforementioned database.

In 2005, the National Road Administration and regional Road Offices spent 8,7 million kroons on traffic education while 3,1 million kroons were spent on traffic studies and drafting legal acts.

## TRAFFIC EDUCATION

### TRAFFIC EDUCATION

In 2005, activities influencing the attitude and behaviour in a positive way were continued in the area of traffic education.

As the result of work done over years the use of both the seat belts and reflex reflectors has increased considerably whereas the number of drunk drivers is dropping, therefore, protecting both themselves and the other road users from accidents and serious consequences. These results are largely attributable to teaching of children, information consistently distributed over media channels, services offered to the population at public events organised within the framework of traffic safety campaigns and, of course, direct communication with people.



Campaigns taking place every spring with a motto 'Wear the Seatbelt!' are well known by now. Since 2005, a test stand is available as a part of the campaign, demonstrating all the interested parties the necessity of using the seat belt – seat belt protects people against dropping out from a revolving car during the drive. Exposition demonstrating the necessity of seat belt is available all the year round at all the bigger fairs related to

car industry; one can also ask the presence of the exposition at various events.



Campaign anticipating drunken driving and supposed to work against wide-spread promotion of alcoholic drinks, characteristic of summer, was called 'First Sleep it Off, Then Drive' and caught lots of attention due to its attractiveness.



Like it was done before, the possibility to use breath analysers – free of any charge – was offered at the events possibly involving alcohol consumption. The purpose of this traffic safety campaign – unique, if we are to decided on the basis of feedback gained from numerous countries – conducted during the summer weekends at musical music events connected with the consumption of alcohol was to provide the audience with breath analysers, therefore reducing the likelihood of driving a motor vehicle in a drunken state and acknowledging the people of possible consequences.



The every-autumn campaign for promoting the use of pedestrian reflex reflectors was launched under the motto 'Show Yourself! Always Wear a Reflector' in 2005. Promoted through information carriers available both in towns and the countryside, intended to both the young and old target groups, the message of the campaign remained visible also during the winter period to follow.



Police vehicles were also supplied with reflectors within the framework of a cooperation agreement concluded between the National Road Administration and the National Police Administration with the purpose of assuring the safety of pedestrians moving around on highways in the dark, ignoring the risks, by providing them with a reflector. The National Road Administration also supplies reflectors to all the participants of training events, informing them of the necessity of being visible in the dark and wear the reflector, as required.

The project for supplying kindergartens with reflector vests, required to assure the visibility of a group of children crossing the road or moving along the road, was also developed further as the result of the necessity of being visible in traffic.



Traditionally, the competition on skills of safe bicycle driving and knowing the traffic rules for children aged from 10 to 12 years was organised at the last weekend of May in Järva county, at Veskisilla.



Teams of four members, formed of the best children having won the county and school competitions, were present at the competition to take traffic tests and compare their ability of controlling their bikes on trick trails. The Järva county team won the competition. Võitjaks tuli Järvamaa võistkond.



The children can only be trained in matters related to safe traffic if the teachers of kindergartens and general education schools have obtained the necessary skills and knowledge.



Here the traffic education of the National Road Administration and Road Offices can contribute a lot by helping to organise in-service training for teachers and providing the necessary instructions and guidelines to students training to become teachers.



In 2005, numerous traffic education materials were completed, available for the teachers and trainers of both the children's institutions and driving schools:

- Traffic stories – textbook intended for 3<sup>rd</sup> class
- Bicyclist's ABC – a study film on different bike types and necessary equipment. The film is introducing some basic truths on bicycling while preparing the young cyclists for independent participation in traffic.
- Part I of study film 'Traffic Behaviour of Children' – the film is supposed to point the attention of teachers and parents to the most common mistakes children are making in traffic.
- Overtaking and separation distance – the film provides an overview of safe positioning of a vehicle on a driveway and the required separation distance between the vehicles.

The children were given new traffic calendar for 2006, suitable for using in kindergartens and schools or at home, helping them to remember some of the basic truths about traffic behaviour on daily basis.



