ANNUAL REPORT
ESTONIAN ROAD ADMINISTRATION

2012

DEAR FRIENDS!

2012 was a difficult year for the Estonian Road Administration (ERA), however, it was also a year that opened up many new possibilities. Last year, the ERA received both positive and negative attention from the public.

Most of the employees at the ERA have been part of the organisation for years and so they tend to perceive the impact of the on-going changes differently than those who have joined the ERA only recently. Changes are not made for the sake of changes but to achieve a specific purpose. Former developments were revised through organisational adjustments and new recruitments. Despite the changes in the management, the ERA continued its core activities.

Among other major projects, the year 2012 saw completion of Loo-Maardu road section with 3+3 lanes, unique in Estonia; the entire Pärnu bypass was finally finished, as was Viitna bypass on Tallinn-Narva road and Haljala separate-grade junction; on the western part of Tartu bypass, the construction of Variku overpass and the 14.5-kilometre Võru-Räpina road section was completed.

As to the total distance in kilometres, the works covered 1,600 km (except for cycle tracks, footpaths and bridges), which is less than in previous years, but is still the largest volume of all times in financial terms because of all the complex junctions.

Financially, the ERA delivered a strong performance, and cutting back on administrative costs is a good sign.

In the field of the Traffic Register, the activities of the ERA were aimed at ensuring the stability of the new application software ARIS2 and developing electronic services designed for the cooperation partners.

In the regional offices of the ERA, an average of 270 persons a day took the test (130 theory tests and 140 driving tests); in total, approximately 36,000 driving tests were taken. Next year, the ERA will also include raising the pass percentage of the tests in its priorities.

In the field of public transport, 42 new buses (bought with the resources obtained through CO_2 emissions trading) were put into service for county lines. In 2012, the service of public carriage by bus within counties covered a total of 33.44 million kilometres.

In 2012, the number of fatalities in traffic accidents decreased compared with 2011. Fatal traffic accidents continued to be predominantly characterised by drunk drivers and those exceeding the speed limit.

The activity of the Estonian Road Museum and the events it organised were a source of positivity throughout 2012. In the Estonian Wonder of the Year 2012 competition, the museum came second with 1,033 votes. This is a great recognition.

As for the public image of the ERA, there is still room to grow. The image has to improve and it should happen through the professionalism and work performance of our employees. The attitude of the ERA has to be one that strives to be better, taking into account what the public wants and what real life allows. ■

The year

2013

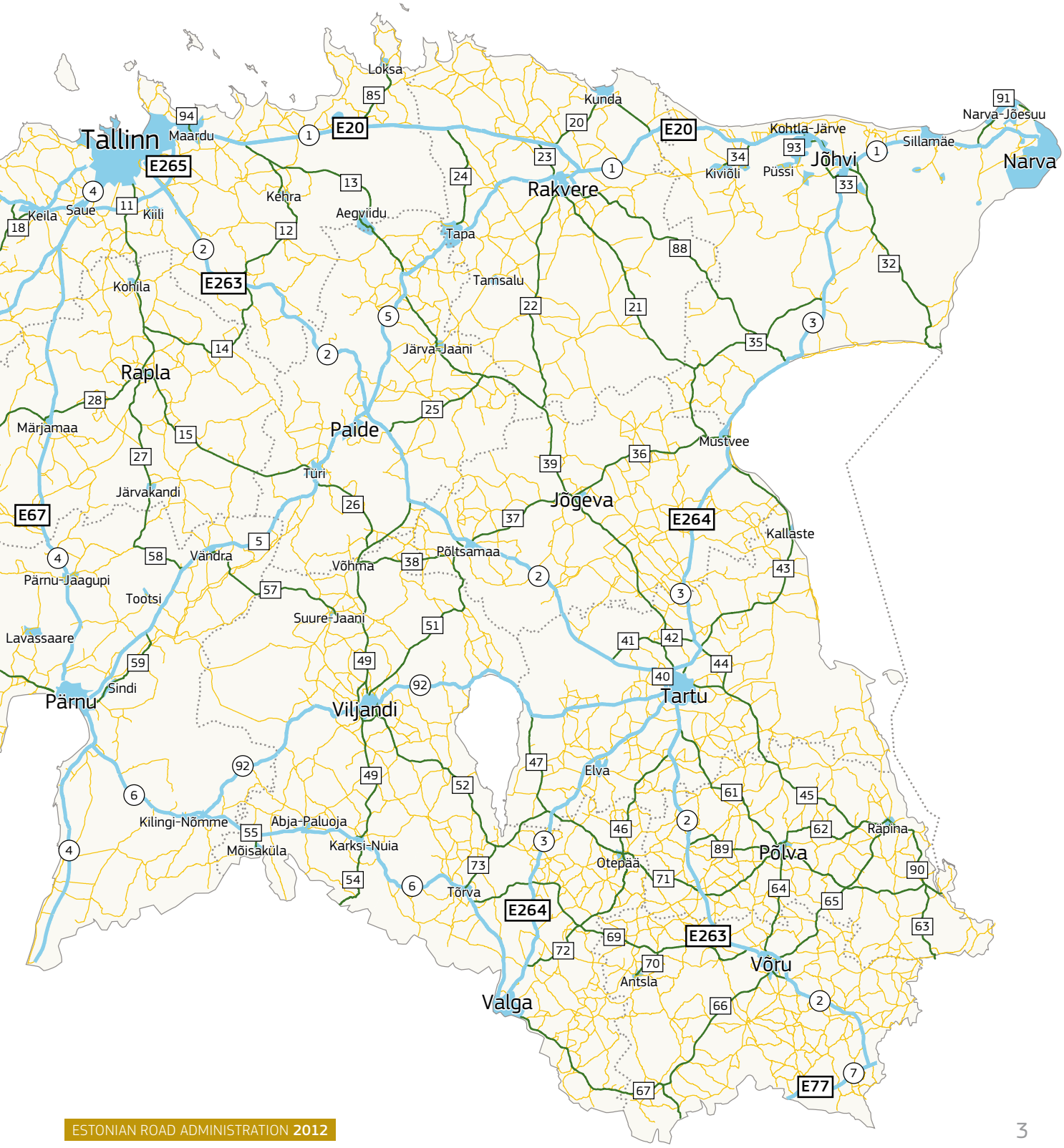
will bring new developments to the Estonian Road Administration, through new goals and action plans, which are based on the recently published strategy for the next three years.

Aivo Adamson
DIRECTOR GENERAL

TABLE OF CONTENTS

ESTONIAN MAIN, BASIC AND SECONDARY ROADS

Main roads
Basic roads
Secondary roads


Loksa
Kunda
Narva-Jõesuu
Tallinn
Maardu
E20
E20
Kohtla-Järve
Sillamäe
Narva
E265
Jõhvi
Kiviõli
Püssi
Rakvere
Keila
Saue
Kiili
Kehra
Aegviidu
Tapa
Tamsalu
Kohila
E263
Järva-Jaani
Rapla
Märjamaa
Paide
Mustvee
Türi
Järvakandi
Jõgeva
E264
Kallaste
E67
Vändra
Põltsamaa
Võhma
Pärnu-Jaagupi
Tootsi
Suure-Jaani
Lavassaare
Sindi
Pärnu
Viljandi
Tartu
Elva
Kilingi-Nõmme
Abja-Paluoja
Karksi-Nuia
Mõisaküla
Räpina
Otepää
Põlva
Tõrva
E264
E263
Võru
Antsla
Valga
E77

ESTONIAN ROAD ADMINISTRATION

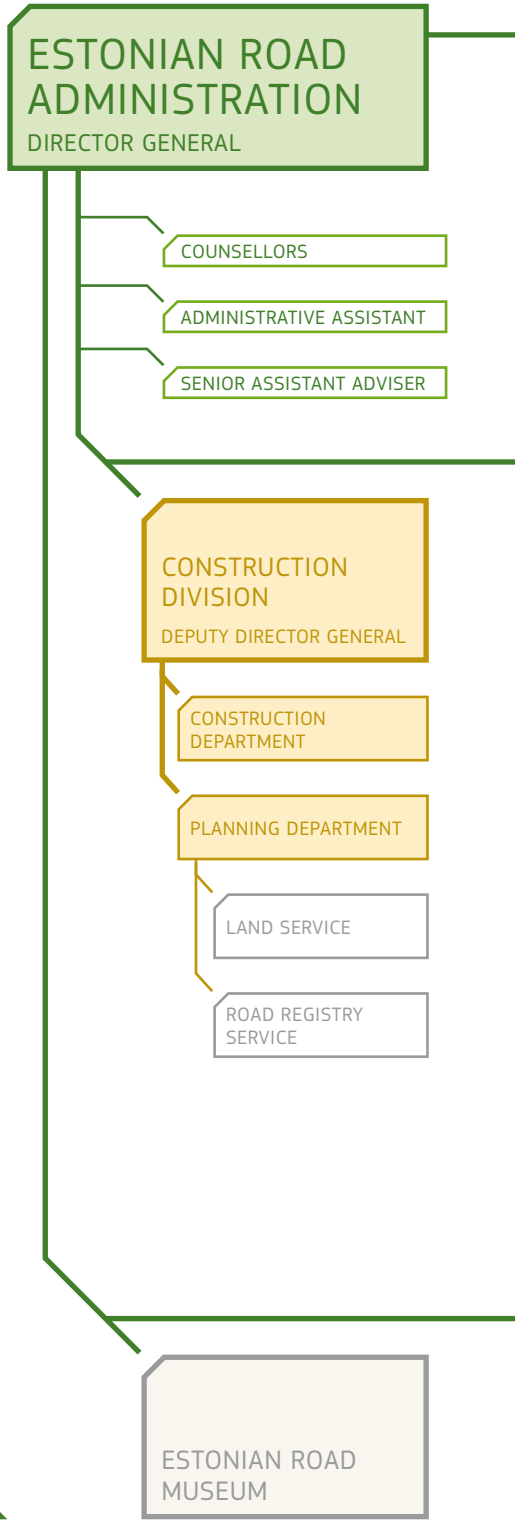
The Estonian Road Administration (ERA) is a government agency operating within the administrative area of the Ministry of Economic Affairs and Communications. On the basis and to the extent prescribed by law, the ERA performs the implementation of state policy and development programmes, management functions, state supervision, and applies the enforcement powers of the state in the field of road management, traffic safety, public transport and the environmental safety of vehicles.

In performing its duties, the ERA represents the state. Its activities are based on the legal acts of the Republic of Estonia and the European Union, international treaties which bind the Republic of Estonia, the regulations and orders of the government of the Republic, the regulations and directives of the Minister of Economic Affairs and Communications and the statutes of the ERA, as well as the relevant regulations of other ministers.

The main functions of the Road Administration are:

- road management and creation of conditions for safe traffic on national roads;
- improvement of traffic safety and reduction of harmful environmental impact of vehicles;
- organization of traffic and public transport;
- state supervision over compliance with the provisions of legal acts within its area of activity and implementation of the enforcement powers of the state;
- management of the National Road Databank, the Vehicle Registry and the Public Transport Information System;
- participation in the development of the legislation regulating its area of activity and making recommendations for amendments in the legislation as well as participation in working out the terminology connected with its area of activity;
- participation in the elaboration of policies, strategies, and development plans in its area of activity and participation in the preparation and implementation of international projects.

The structural units of the ERA were departments and regions in 2012. Region is a regional structural unit. The region implements the state policy and development plans within its area of activity, has a management function and carries out state supervision and enforcement powers in road management, traffic safety, environmental safety of vehicles and manages the register of vehicles, tachograph cards, driving licences and other documents prescribed by law.



THE REGIONS ARE:

THE NORTHERN REGION
with the area of activity in Harju and Rapla county;
THE SOUTHERN REGION
with the area of activity in Jõgeva, Põlva, Tartu, Valga and Võru county;
THE WESTERN REGION
with the area of activity in Hiiu, Lääne, Pärnu, Saare and Viljandi county;
THE EASTERN REGION
with the area of activity in Ida-Viru, Järva and Lääne-Viru county.

STRUCTURE OF THE ESTONIAN ROAD ADMINISTRATION | AS OF 01.01.2012

Road Administration office

Vehicle registration bureau

Regional centre

- PUBLIC RELATIONS DEPARTMENT
- INTERNAL AUDIT DEPARTMENT
- BUDGET DEPARTMENT

MAINTENANCE AND DEVELOPMENT DIVISION
DEPUTY DIRECTOR GENERAL

- MAINTENANCE DEPARTMENT
  - SUPERVISORY SERVICE
  - RESEARCH SERVICE
- TRAFFIC MANAGEMENT DEPARTMENT
- ROAD INFORMATION CENTRE DEPARTMENT
- STRUCTURAL FUNDS DEPARTMENT

TRAFFIC SAFETY DIVISION
DEPUTY DIRECTOR GENERAL

- EXAMINATION DEPARTMENT
- TRAFFIC SAFETY DEPARTMENT
  - TRAFFIC EDUCATION SERVICE
  - TRAFFIC SAFETY PROGRAM SERVICE

TRAFFIC REGISTRY AND PUBLIC TRANSPORTATION DIVISION
DEPUTY DIRECTOR GENERAL

- REGISTRATION DEPARTMENT
- TECHNICAL DEPARTMENT
  - TYPE-APPROVAL AND CERTIFICATE SERVICE
  - TECHNICAL INSPECTION SERVICE
- PUBLIC TRANSPORTATION DEPARTMENT

ADMINISTRATION DIVISION
DEPUTY DIRECTOR GENERAL

- ADMINISTRATION DEPARTMENT
- INFORMATION TECHNOLOGY DEPARTMENT
- PERSONNEL DEPARTMENT
- LEGAL DEPARTMENT
  - PROCUREMENT SERVICE

ROAD ADMINISTRATION NORTHERN REGION
DIRECTOR

ROAD ADMINISTRATION SOUTHERN REGION
DIRECTOR

ROAD ADMINISTRATION EASTERN REGION
DIRECTOR

ROAD ADMINISTRATION WESTERN REGION
DIRECTOR

PERSONNEL

Last year, the HR management at the ERA was characterised by several major changes.

In the spring of 2012, the purposefulness of the business trips and related costs of the ERA's management was sharply called into question by the public. As a result, the then Director General and several members of the management resigned. The events made the organisation critically revise its business trip principles and take measures to help achieve greater efficiency and optimality in the use of resources related to training and business trips.

In public service as a whole, 2012 was a year full of preparations for the implementation of the new Public Service Act, which enters into force on 1 April 2013. In cooperation with ministries and agencies, the composition and assignments of the ERA's body of officials were analysed from the aspect of public authority execution, and preparations were started for turning posts related to support services into jobs. Posts supporting accountancy, HR work, administrative tasks, management, procurements, IT and other fields of public authority will be jobs pursuant to the new Act.

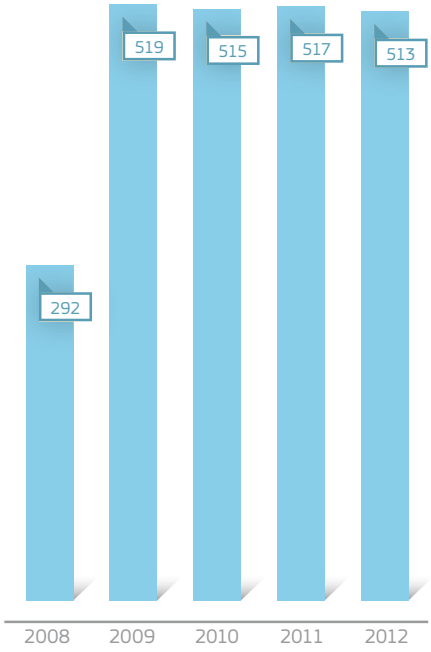
In autumn, the ERA completed assessment of its positions, composition of pay groups and pay analysis in cooperation with Fontes PMP OÜ, a task that had been in progress for six months. This served as a basis for preparing the new ERA salary guide, which complies with the new Public Service Act.

Together with his team, the new Director General, who took office in the summer of 2012, started the initial discussions on both general and sectoral strategies and several activities reforming the organisation in the second half of the year. Among other things, preparations were made for the centralisation of intra-ERA support services. The new Director General also prioritised and continues to prioritise HR management – placing greater value on the field and making it more efficient.

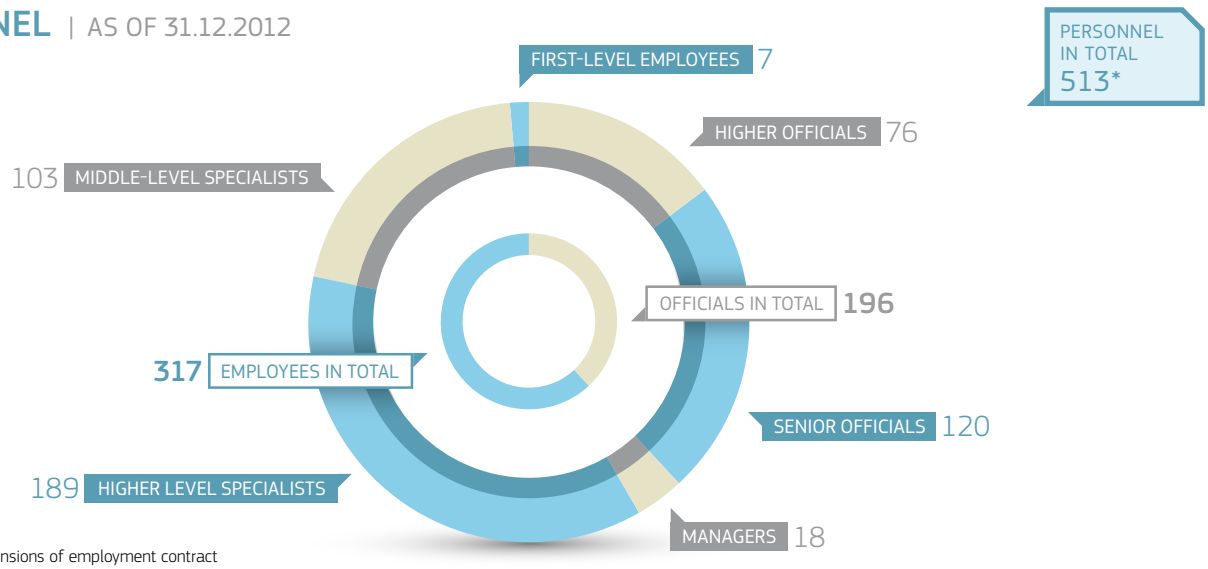
In November 2012, the new HR Manager started work, with the assignment of establishing the HR strategy for the ERA and introducing the corresponding action plan in 2013-2015. ■

NUMBER OF EMPLOYEES

IN 2008-2012



PERSONNEL | AS OF 31.12.2012



* also includes suspensions of employment contract

FOREIGN RELATIONS

The ERA is a member in numerous international organisations as well as a cooperation partner of several international organisations and associations.

The ERA represents Estonia in the World Road Association – PIARC and in the Association of European Vehicles and Driver Registration Authorities – EReg. The ERA is also a member in the Conference of European Road Directors – CEDR; Baltic Road Association – BRA; the European Car and Driving License Information System – EUCARIS; the International Motor Vehicle Inspection Committee – CITA; Confederation of Organizations in Road Transport Enforcement – CORTE; the International Commission for Driver Testing – CIECA. The ERA also cooperates with the Standing International Road Weather Commission – SIRWEC.

During the year, the ERA welcomed road and transport delegations from different countries, such as Vietnam, Finland, Russia, Latvia, etc.

Within the framework of Nordic cooperation, the ERA organised the EasyWay working group meeting, held in Estonia on 7 and 8 June.

As for international cooperation, the ERA participated in numerous joint projects, such as WhiteRoads, a project of the European Union Road Federation, BALTRIS, etc.

2012 also saw the construction of Mazsalaca–Kilingi-Nõmme road, a joint project of Estonia and Latvia; the Latvian part was completed in 2012, the Estonian part received the embankment and underlying layers in 2012 and will be completed in the first half of 2013.

The representatives of the ERA took part in the regular sessions, committee meetings and other regular events of the Baltic Road Association in Lithuania. The presidency of the Lithuanian Road Administration in the Baltic Road Association will culminate in the XXVIII Baltic Road Conference in Vilnius. Next, the presidency will be passed to the ERA.

From 11 to 13 June, the 21st Nordic Road Congress, Via Nordica 2012 was held in Reykjavík in cooperation between the Nordic Road Association and the Baltic Road Association. The ERA participated in the conference together with the Latvian and Lithuanian Road Administration and attended the exhibition.

As a member of the Baltic Road Association (BRA), the ERA manages the website **www.balticroads.net**, a joint project of Finland, Estonia, Latvia, Lithuania and Russia, which provides road information in real time.

In collaboration with the Baltic Road Association, the ERA also regularly publishes the „The Baltic Journal of Road and Bridge Engineering".

In collaboration with the CEDR, regular cooperation took place on both governing board and deputy director, as well as working group level; annual conclusions were made at the CEDR governing board meeting, held in Vilnius on 27 and 28 September.

The work results and financial results of PIARC were approved at the annual meeting held in Lucerne, Switzerland, on 24-26 October; also, a new president was elected for the association, and the programme for the next period between the conferences was adopted. ■

ROAD INFORMATION CENTRE

In September 2011, a new structural unit of the ERA was formed – the Road Information Centre Department. The reason for turning the Road Information Centre into a structural unit of the ERA was the need for better management of the quality of the service, IT development, communication between other state agencies and improvement of the efficiency of distributing intra-ERA information. During 1997-2011, the information service was based on contracts with private entrepreneurs.

At the end of 2011, the team of the Road Information Centre Department was formed of six employees; the IT solution and facilities of the information centre were completed in Tallinn, in the building of the ERA. On 1 January 2012, the servicing of road users started; the service (short number 1510) works around the clock.

The functions of the Road Information Centre Department are informing the public, road users and institutions involved in the management of accidents and emergencies about road conditions on national roads and changes in traffic organisation; also, information about changes in traffic organisation caused by weather or traffic accidents is provided to the road users in real time.

By calling the short number, road users inform the centre about risks on the roads and problems in road maintenance as well as traffic organisation. Received information is forwarded to maintenance providers and experts at the ERA. Also, simple information enquiries are answered and relevant experts of the ERA are found for the customers.

More than 20,000 calls were answered at the Road Information Centre in 2012.

In addition to service by phone, the Road Information Centre prepares daily traffic announcements for the media, containing information on road conditions and traffic restrictions. The announcements are broadcast by the major radio and television channels and web portals. In winter, an overview of driving conditions on major roads is published at 6 a.m. and 4 p.m. Unexpected changes in driving conditions are published around the clock. In the summer period, information on traffic restrictions and road works is broadcast at 6 a.m. Information received from the Rescue Board or Police and Border Guard Board concerning traffic accidents which disturb or completely stop the traffic is published in real time.

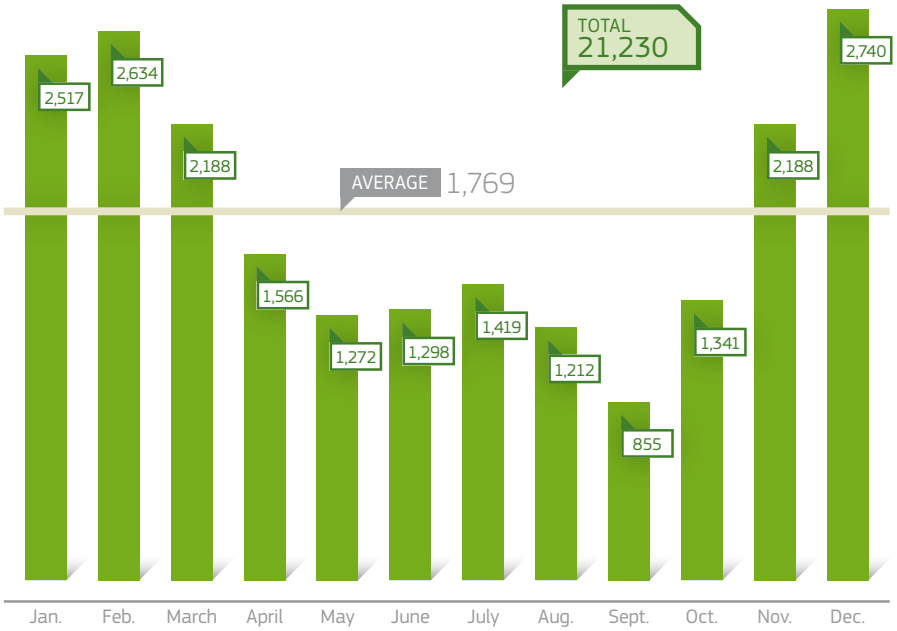
The Road Information Centre also manages the database of traffic restrictions on national roads, containing information on road works and traffic regulations.

In addition to launching the road information service, the ERA also opened the traffic information portal *Tark Tee* (Smart Road) in June 2012, which gathers different types of road information in one electronic environment. Also, a possibility was created for viewing traffic information through a mobile webpage and application created for Android. At the end of 2012, the Road Information page called *Teeinfo* (Road Information) opened on Facebook.

In 2012, preparations were started in the Road Information Centre Department for the launch of a new phone service – traffic register information line. Three new specialists were trained. The traffic register information line receives around 100,000 calls a year. The full launch of the traffic register information line takes place in February 2013 as a service provided by the Road Information Centre Department. ■

THE ROAD INFORMATION CENTRE SERVICE HALL IN THE ERA BUILDING IN TALLINN

CALLS ANSWERED AT THE ROAD INFORMATION CENTRE SHORT NUMBER | IN 2012



ROAD NETWORK | EXISTING ROADS

As at 1 January 2013, the total length of national roads was 16,469 kilometres, i.e. 28.1% of the total length of the Estonian road network, which is 58,768 kilometres. The length of E-roads in Estonia is 995 km.

Compared to 2011, the length of national roads increased by 25.9 kilometres, which brought about the increase of main roads by 4.4 km, basic roads by 3.4 km, and secondary and other national roads by 18.1 km. The increase in the length of the main and basic roads was primarily the result of including the road sections related to the construction of Pärnu bypass in the list of national roads. The main reason for the increase in the length of secondary roads was the construction of new secondary road sections within the construction of main and basic roads.

National roads are comprised of main roads – 1,607 km (9.8%); basic roads – 2,404 km (14.6%); and secondary roads and other national roads – 12,458 km (75.6%).

Compared to 2011, the length of paved roads increased by 191 km, currently amounting to 10,849 km, i.e. 65.9 % of the total length of national roads. Largely, this increase was the result of paving of gravel roads.

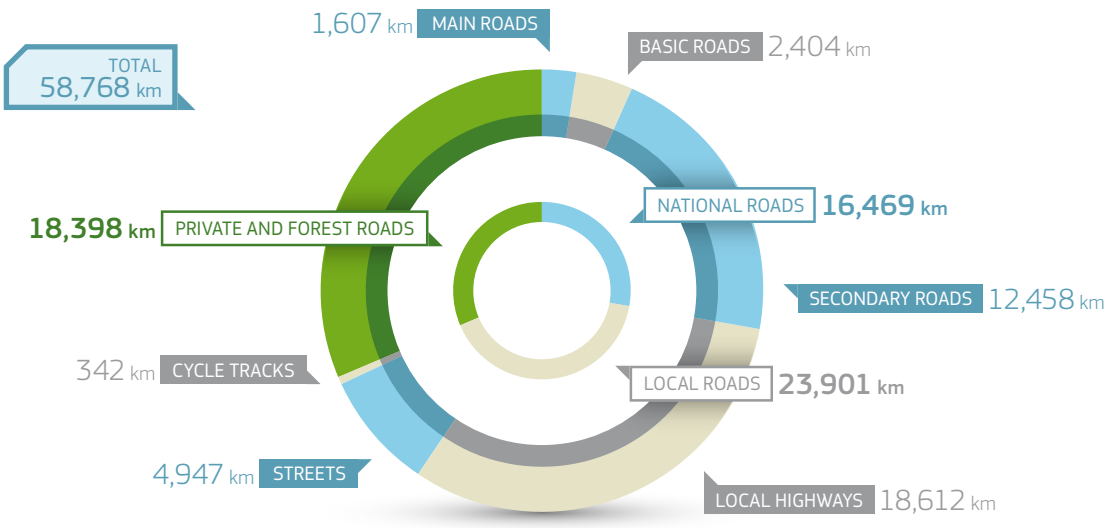
The density of national roads is 364 km per 1,000 km^2; the density of the entire registered road network is 1,300 km per 1,000 km^2 of the territory.

There are 951 bridges on national roads with a total length of 22,605 m, including two wooden bridges with a total length of 30 m.

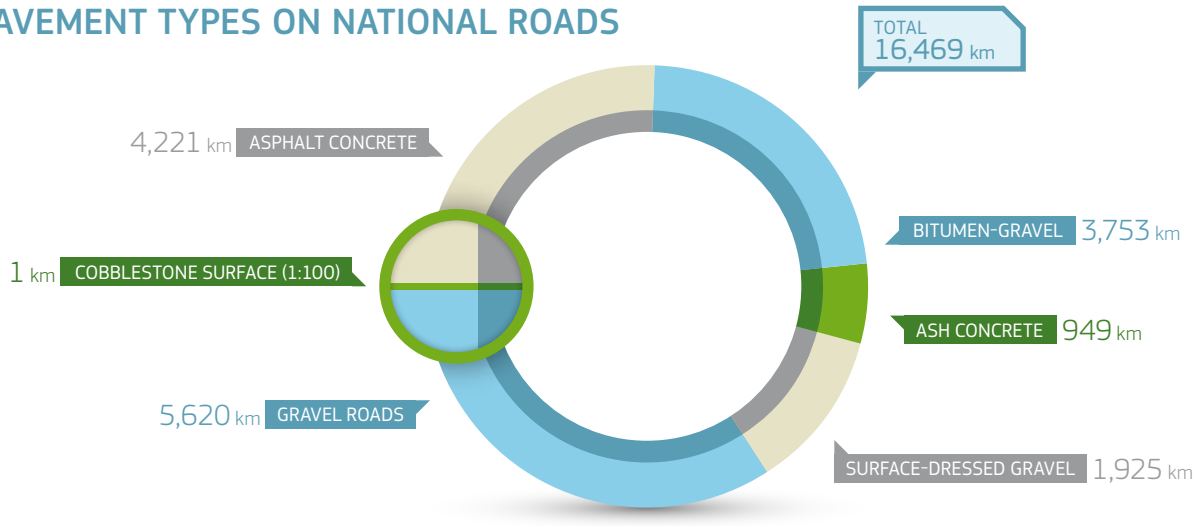
Pursuant to the Road Act there is a National Road Databank for collecting, processing, maintaining and making available data on all public roads. This web-based database contains data on both national roads and local roads and is publicly available at http://teeregister.riik.ee. The Road Administration is the authorised processor of the register and responsible for maintaining it. The ERA supplies data about national roads and local governments about local roads.

The data are constantly updated and new data inserted based on acceptance certificates of road works and new inventories. In cooperation with the Land Board, a special layer for the national road network has been created on the basic map of Estonia. An analogous map layer for local roads will be available in 2013. For visualising the data, there is a map interface of the road databank in the geodetic portal of the Land Board, which currently displays data on national roads. ■

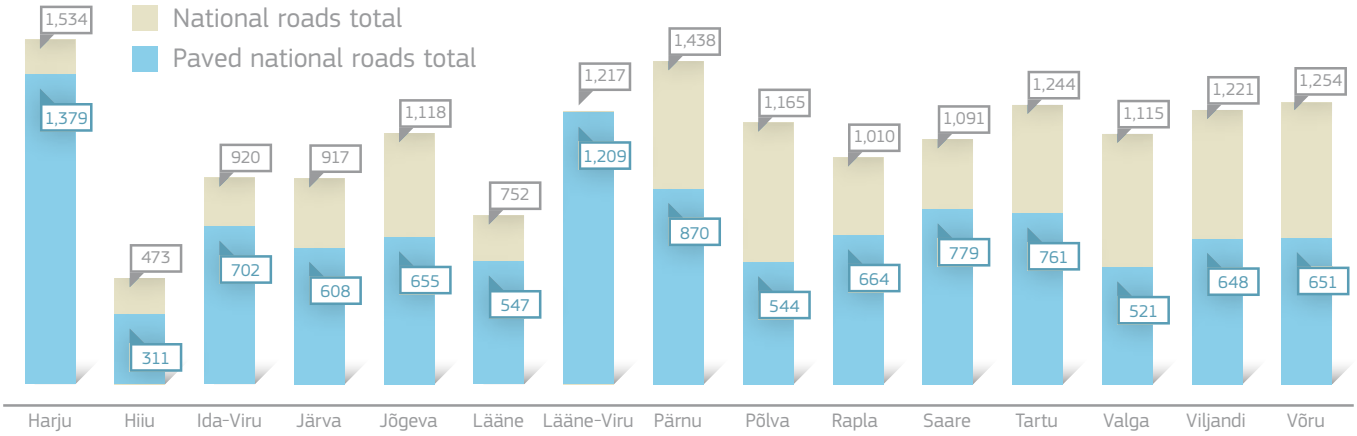
EXISTING ROADS | AS OF 31.12.2012



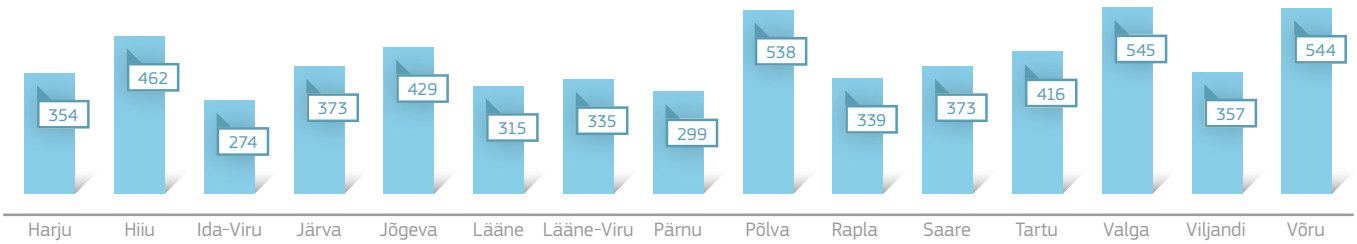
PAVEMENT TYPES ON NATIONAL ROADS



SHARE OF PAVED NATIONAL ROADS | BY COUNTIES IN 2012



DENSITY OF NATIONAL ROADS | BY COUNTIES KM/1,000 KM²



ROAD NETWORK | EXISTING ROADS

ROAD NETWORK | BY COUNTIES AS OF 31.12.2013

COUNTY	INCLUDING									PAVED ROADS			
	TOTAL	CONCRETE	ASPHALT CONCRETE	BITUMEN GRAVEL	ASH CONCRETE	SURFACE DRESSED GRAVEL	GOBBLE STONE SURFACE	GRAVEL ROADS	UNSURFACED ROADS	1 JANUARY 2012		1 JANUARY 2013	
										KM	%	KM	%
Harju	1,533.6	0.2	622.1	385.1	101.9	269.2	0.0	155.0	0.0	1,361.0	89.0	1,378.6	89.9
Hiiu	472.8	0.0	37.6	208.9	0.0	64.9	0.0	161.4	0.0	308.3	65.2	311.4	65.9
Ida-Viru	920.2	0.0	430.2	80.4	47.9	143.0	0.0	218.0	0.6	691.6	75.2	701.6	76.2
Jõgeva	1,117.9	0.0	151.6	314.8	93.5	95.6	0.0	462.5	0.0	642.6	57.8	655.4	58.6
Järva	917.4	0.0	313.6	75.6	58.9	160.5	0.0	308.9	0.0	594.4	64.7	608.5	66.3
Lääne	751.6	0.0	172.5	150.5	9.8	213.4	0.4	204.9	0.0	532.4	70.8	546.7	72.7
Lääne-Viru	1,216.6	0.0	595.6	198.3	358.5	56.2	0.0	8.1	0.0	1,199.9	99.4	1,208.5	99.3
Põlva	1,165.1	0.0	130.7	371.7	5.3	36.3	0.0	621.1	0.0	542.1	46.5	544.0	46.7
Pärnu	1,437.9	0.0	384.3	258.9	29.1	197.6	0.0	567.2	0.7	820.8	57.5	870.1	60.5
Rapla	1,010.3	0.0	250.1	194.6	88.1	131.3	0.1	346.1	0.0	654.9	64.8	664.2	65.7
Saare	1,090.8	0.0	82.2	436.6	0.0	260.5	0.0	311.5	0.0	758.4	69.5	779.3	71.4
Tartu	1,244.3	0.0	328.5	332.8	17.4	81.9	0.0	475.4	8.2	756.7	60.7	760.6	61.1
Valga	1,114.9	0.0	178.4	269.1	43.5	30.1	0.0	576.1	17.6	521.0	46.7	521.1	46.7
Viljandi	1,221.1	0.0	213.5	270.7	13.8	149.5	0.0	573.6	0.0	638.0	52.2	647.5	53.0
Võru	1,254.1	0.0	329.4	205.3	81.0	35.3	0.0	603.2	0.0	635.5	50.7	651.0	51.9
Total	**16,468.6**	**0.2**	**4,220.3**	**3,753.3**	**948.9**	**1,925.3**	**0.6**	**5,592.9**	**27.2**	**10,657.5**	**64.8**	**10,848.5**	**65.9**
Ramps and connecting roads	73.8	0.0	67.1	5.2	0.3	1.1	0.0	0.2	0.0	69.6	100.0	73.6	99.8

PAVEMENT OF NATIONAL ROADS | 2008–2012

PAVEMENT	2008		2009		2010		2011		2012	
	KM	%	KM	%	KM	%	KM	%	KM	%
Asphalt concrete	3,900	23.7	4,039	24.5	4,116	24.9	4,152	25.3	4,221	25.6
Bitumen gravel	3,855	23.4	3,780	22.9	3,798	23.0	3,769	22.9	3,753	22.8
Ash concrete	929	5.6	948	5.8	948	5.8	949	5.8	949	5.8
Surface dressed gravel roads	1,238	7.5	1,420	8.6	1,629	9.9	1787	10.9	1,925	11.7
Cobblestone surface			1	0,0	1	0,0	1	0.0	1	0.0
Paved roads total	**9,922**	**60.2**	**10,188**	**61.9**	**10,492**	**63.6**	**10,657**	**64.8**	**10,849**	**65.9**
Gravel roads	6,565	39.8	6,284	38.1	6,008	36.4	5,785	35.2	5,620	34.1
Total	**16,487**	**100.0**	**16,472**	**100.0**	**16,500**	**100.0**	**16,443**	**100.0**	**16,469**	**100.0**

BRIDGES

As of 31 December 2012, there were 951 bridges on national roads.

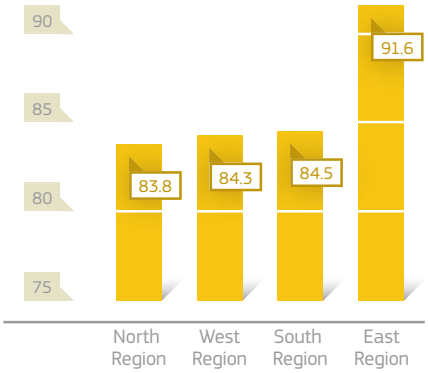
In 2012, the assessment of the condition of bridges on national roads continued with the help of the Pontis software programme. In addition to identifying damage to the bridge construction elements, audit measurements were taken and the corresponding database (bms.teed.ee) was supplemented with additional data and photos. Assessing the condition of bridges by construction elements (beams, pillars, rails, etc.) allows creating a comprehensive database, essential for ensuring consistency of assessment. The unit prices used in the analysis module of the software are based on the costs of bridges repaired or constructed in recent years. Based on unit prices, the costs of repair/replacement of bridges are calculated and corresponding ranking lists are prepared, which, in addition to technical condition of a bridge, also take into account the traffic conditions.

To ensure a consistent reference base, the inspection only includes the bridges of one region each year. In total, 286 bridges in the Southern Region of the ERA were checked in 2012. In the last five years, the condition index of bridges has been on a steady and significant rise. In 2012, the index was 85.6%, compared to 84.8% in 2011 and 72.7% in 2007.

The bridges on main and basic roads were in a similar condition in 2012, as their average condition index was on the same level, 88% and 89%, respectively. The bridges on secondary roads were in a slightly poorer condition, with 81% as the average condition index.

AVERAGE CONDITION INDEXES OF BRIDGES IN THE REGOINS OF THE ERA

AS OF 2012 BY CONDITION INDEX



In 2008-2012, an average of 30-40 bridges were repaired or replaced each year, which has proven sufficient to cover the anticipated wear and tear of the bridge network; maintaining these volumes will lead to the optimum level of the bridge network by 2023. ■

EXISTING BRIDGES ON NATIONAL ROADS | BY COUNTIES AS OF 31.12.2012

COUNTY	TOTAL		MAIN ROADS		BASIC ROADS		SECONDARY ROADS		INCLUDING WOODEN BRIDGES	
	Q	M	Q	M	Q	M	Q	M	Q	M
Harju	149	4,724	64	2,522	13	390	72	1812		
Hiiu	16	119			11	91	5	28		
Ida-Viru	65	1,848	21	807	14	429	30	612		
Jõgeva	54	1,527	10	357	9	493	35	677		
Järva	48	1,012	20	518	5	65	23	429		
Lääne	41	1,103	9	392	9	93	23	618	1	13
Lääne-Viru	49	1,123	11	406	14	262	24	455		
Põlva	59	1,101			21	454	38	648		
Pärnu	115	2,735	15	589	13	526	87	1,620		
Rapla	67	1,662	5	177	11	288	51	1,197		
Saare	38	297	4	31	7	72	27	194		
Tartu	47	1,396	11	849	12	179	24	368		
Valga	56	1,016	7	108	16	301	33	607	1	17
Viljandi	73	1,309	14	260	13	292	46	757		
Võru	74	1,633	7	199	14	443	53	992		
Total	**951**	**22,605**	**198**	**7,214**	**182**	**4,378**	**571**	**11,012**	**2**	**30**

ENVIRONMENTAL MEASURES

CONSTRUCTION OF NOISE BARRIERS

The three major construction projects completed in 2012 – Loo-Maardu bypass, Pärnu bypass and Luige grade-separated junction added 13 noise barriers with a total length of 4,833 metres to the national road network. This was a significant increase compared to the previous years.

Loo-Maardu. In the reconstruction of Loo-Maardu road section on Tallinn-Narva road, 564 metres of noise barrier was built to protect Teemeistri residential buildings in the town of Maardu and the coastal area of Maardu Lake. The height of the noise barrier, constructed from reinforced concrete, is four metres from the road surface. The noise barrier was designed by AS EA RENG and constructed by AS Merko Ehitus. The cost of the noise barrier was 117,944 euros plus VAT.

Pärnu Bypass. The majority of the construction of the Pärnu bypass on Tallinna-Pärnu-Ikla road is located on the territory of the city of Pärnu; therefore, there is an inevitable conflict with the adjacent residential areas – in some places, the distance between the construction site and the nearest houses is just 30 metres. The project design brought the construction even closer to the buildings, which is why extensive soundproofing was inevitable.

A total of 2,632 metres of sound barriers, consisting of 10 structures were built on the Pärnu bypass section on main road No. 4 and on the connecting road between Lihula road. The reason for the large number of structures are gaps in the sound barrier to allow exits from the road. The downside is that this type of solution decreases the acoustic effectiveness of the barrier in lowering the noise levels.

The noise barriers on Pärnu bypass were constructed from the products of German manufacturer K. Schütte GmbH using sound barrier modules made of perforated aluminium sheet, with stone wool insulation and transparent polycarbonate elements on a concrete wall. The noise barriers were designed by OÜ T-Model and installed by OÜ RoadService as a subcontracting project for the consortium AS Lemminkäinen Eesti, AS TREF and AS Teede REV-2. The total cost of the soundproofing project was 1,238,167 euros plus VAT.

Luige Grade-Separated Junction. The crossing area of Tallinn Ring Road and Tallinn-Rapla-Türi road is located in the small town of Luige in Harju county, partially surrounded by the residential buildings of the region. The noise survey, which was carried out in 2007 within the framework of the preliminary design documentation of Tallinn Ring Road and Tallinn-Paldiski road showed an impact on the residential areas that was clearly exceeding the limits.

In 2012, two noise barriers with a total length of 1,655 metres were constructed within the construction project of Luige grade-separated junction. The height of the noise barriers is three metres from the road surface; the barriers were made from perforated aluminium sheet and stone wool insulation noise barrier modules produced by the German manufacturer R.Kohlhauer GhmB. The barriers were designed and constructed by AS Nordecon in cooperation with OÜ KiirWarren.KL. The cost of the noise barriers was 765,155 euros plus VAT. Luige noise barriers will be further developed in 2014 with the completion of Kurna-Luige section on Tallinn Ring Road.

In total, 31 sound barrier objects with a total length of 13.89 kilometres have been constructed on the national roads by the ERA in 1998-2013. ■

STRATEGIC NOISE MAP

In order to perform the obligations of the possessor of the source of noise laid down in the Ambient Air Protection Act, the ERA commissioned the preparation of a strategic environmental noise map for road sections, which are used by more than three million vehicles per year. On the basis of the Traffic Count of 2010, 18 such road sections were identified, with a total length of 158.743 km. The mapped road sections are located in four counties (Harju, Ida-Viru, Pärnu and Tartu counties) and are mostly bordering with major Estonian cities (Tallinn, Tartu, Kohtla-Järve, Pärnu).

The noise maps have been prepared based on noise indicators: L_{den} (day-evening-night noise indicator) and L_{night} (night-noise indicator); the maps display noise indicators L_{den} > 50 dB and L_{night} > 45 dB.

Since strategic noise maps are prepared based on long-term noise indicators L_{den} (day-evening-night noise indicator) and L_{night} (night-noise indicator), the results can only be compared with indicators established and standardised in Estonia (by Regulation No. 42 of the Minister of Social Affairs of 4 March 2002) – L_d (day-noise indicator) and L_n (night-noise indicator), i.e. only the night-noise indicator results can be compared. Based on the residential area night-noise indicator limit 60 dB on the roadside facade of a noise-sensitive building, 123 residential buildings with approximately 400 residents are in a condition, which exceeds the noise limits according to the map.

The action plan for reducing noise in the ambient air, prepared on the basis of the results of the mappings will be completed in 2013.

The strategic noise map was prepared by OÜ Estonian, Latvian & Lithuanian Environment; the preparation of the map was supported by the Environmental Investment Centre. ■

CONDITION OF ROAD SURFACES

The level of comfort of using a road can be established by measuring road surface roughness.

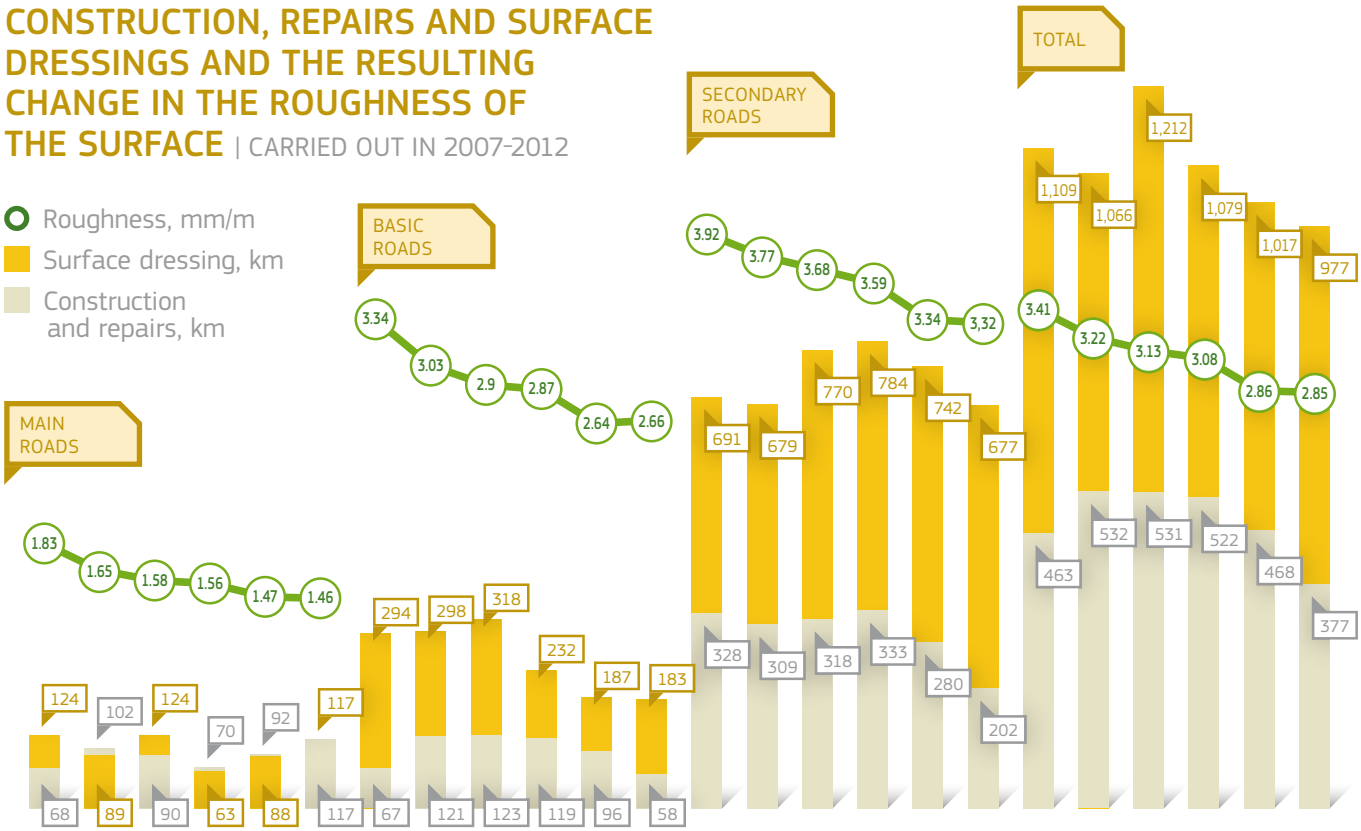
Measurements of road surface roughness (according to the International Roughness Index, IRI) have been carried out and inventories of defects on paved roads have been made since 1995. The load bearing capacity (FWD) of the structure of the roads has been measured since 1996 and rut depth of the surface since 2001. These four indicators of road surface condition together with traffic volumes are the main indicators of the PMS (Pavement Management System). As an innovation since 2011, measurements of the texture (macro and mega texture) of road surface were started, performed alongside the measurement of road surface roughness. For this, a new and more precise laser appliance is used.

Data about the condition of road surfaces is part of the information in the national Road Databank and is publicly available. The ERA uses two kinds of software, EPMS and HDM-4 for analysing the condition of road surface (ranking of condition, need for repairs, cost-benefit calculations etc.). EPMS is special software developed in Estonia for analysing the road surface condition; HDM-4 is international software designed for cost-benefit analysis.

The diagrams displaying changes in roughness show constant improvement in the long run for all types of national roads. However, the tendency has slowed down compared with earlier years. This is due to the reconstruction of rough high-traffic roads built in the Soviet times and restoration repairs performed on these roads, mainly to eliminate ruts caused by wear and tear. So far, there have not been enough resources to sufficiently improve the surface of roads with lower traffic levels.

The average IRI value for the whole network of paved national roads improved in the years 2008-2012 as a result of maintaining the levels of financing of construction, repairs and maintenance of pavements, and reasonable planning of repair objects. While the average roughness of main roads is satisfactory, the average level of roughness of basic and secondary roads is still too high and the speed of improvement of the situation leaves a lot to be desired. For the user of basic and secondary roads this means less driving comfort and large indirect expenses. ■

CONSTRUCTION, REPAIRS AND SURFACE DRESSINGS AND THE RESULTING CHANGE IN THE ROUGHNESS OF THE SURFACE | CARRIED OUT IN 2007-2012



ROAD ADMINISTRATION BUDGET

The Road Administration budget consists of funds for road management, funds for the work of the former Motor Vehicle Registration Centre, and structural assistance for the municipalities (for the road objects in the cities of Tartu and Tallinn).

In the state budget, the total funds for road management must amount to at least 75% of the fuel excise tax (except for fuels with fiscal marking, natural gas and other fuels) and 25% of the intended accrual of the fuel excise tax imposed on fuels with fiscal marking. The distribution of the funds between national and local roads is determined by the Road Act. Apart from that, the budget also includes structural assistance for the municipalities and profit accruing from the economic activities of the ERA (issuing transport permits, rent of quarries).

Reconstruction of national roads was supported from the EU Cohesion Fund (CF), the European Regional Development Fund (ERF) and the INTERREG programme. The basis for the utilisation of foreign support is the strategic plans approved by the Government of the Republic for the projects financed by the European Union in 2002-2007 (1st period) and 2007-2013 (2nd period).

With the support of the CF, it is possible to finance the development of roads that belong to the trans-European transport network (TEN-T). In Estonia, six roads are part of this network, accounting for a total of 6% of the overall length of national roads. These roads are:

- E67 (road No. 4), Tallinn-Pärnu-Ikla road,
- E20 (road No. 1), Tallinn-Narva road,
- E263 (road No. 2), Tallinn-Tartu-Võru-Luhamaa road,
- E264 (road No. 3), Jõhvi-Tartu-Valga road,
- E265 (road No. 11), Tallinn roundabout together with Tallinn-Paldiski road (road No. 8).

The funds of ERF can be used for financing the development of all other roads that are not part of the TEN-T network.

The State Budget Act of 2012 with regard to the ERA was approved by Order No. 560 of the Government of the Republic of 22 December 2011 in the amount of 285.8 million euros. The amount also includes support from the EU.

Budget costs are divided into operating costs (personnel and management) and investments, and they also contain the forecast expenditure on local government projects (the reconstruction of Ülemiste crossing in Tallinn and the Eastern roundabout connecting Tallinn-Tartu-Luhamaa road and Jõhvi-Tartu-Valga road). The local government projects are financed from the budget of the Road Administration as the final beneficiary. The operating costs cover road maintenance work, aimed at ensuring the required service level of the roads and creating comfortable and safe conditions for the road users throughout the year. Expenses of maintaining the organisation and the calculated costs of the operations of the Traffic Register are also categorised as operating costs.

Investment funds are used for the development of the road network (construction of new roads and bridges, construction of grade-separated crossings, etc.), as well as for road and bridge repairs with the aim of restoring their quality that has dropped due to wear and tear. Apart from the development and maintenance of the road network, the investment costs also contain expenses for the organisation and supervision of road traffic (development of automatic speed control system, traffic count, the instalment of road weather stations, development of the Traffic Register Information System) and development of relevant computer software.

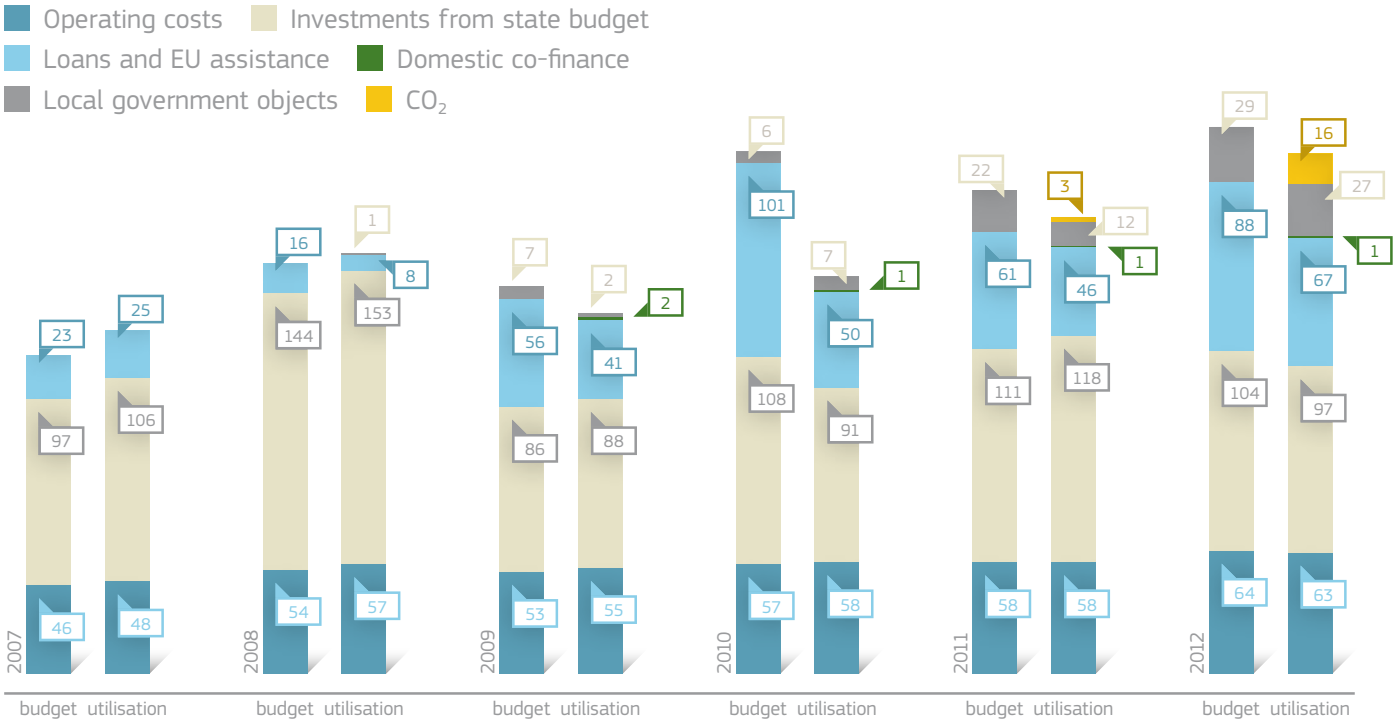
According to the principle of distributing road management funds, the resources at the disposal of the ERA in 2012 also included structural assistance from the EU, co-financing of certain objects supported from funds, as well as resources for other important state-financed objects on main roads. The rest of the resources for repairing other main, basic and secondary roads and the major part of the operating costs (including road maintenance) remained at the disposal of regional road administrations ■

FUNDS ALLOCATED FOR ROAD MANAGEMENT AND THEIR DYMANICS

IN 2007-2012, MILLION EUROS

YEAR	BUDGET TOTAL	BUDGET LOANS AND ASSISTANCE	UTILISTATION TOTAL	UTILISTATION OPERATING COSTS	UTILISTATION INVESTMENTS STATE BUDGET	UTILISTATION INVESTMENTS LOANS AND EU ASSISTANCE	UTILISTATION INVESTMENTS DOMESTIC CO-FINANCE	UTILISTATION INVESTMENTS LOCAL GOVERNMENT OBJECTS	UTILISTATION INVESTMENTS CO_2 BUS
2007	165.979	22.816	179.720	48.317	106.477	24.734	0.192		
2008	214.232	16.234	218.961	56.881	153.324	7.989		0.767	
2009	202.536	62.058	187.261	54.581	87.687	40.584	1.917	2.493	
2010	271.241	106.605	206.179	58.224	91.202	49.595	0.639	6.519	
2011	251.818	83.523	237.616	58.198	117.774	45.790	1.135	11.786	2.933
2012	285.780	117.025	271.830	63.081	97.176	66.770	1.675	27.162	15.966

Remarks: **1.** Budget resources contain also earnings. **2.** Utilization is together with funds transferred from 2011. **3.** Since 01.07.09 Traffic Registry has joined Road Administration and their funds for 2nd half-year are reflected in the table



Remarks: **1.** Overflow is caused by the overflow of earnings. **2.** Budget is without transferred funds, utilised resources are altogether. **3.** Since 2009 2nd halfyear data is together with Traffic Registry.

ROAD ADMINISTRATION BUDGET

ROAD MANAGEMENT

FUNDS OF 2012

	PLANNED FUNDS (THOUSAND EUROS)	RECEIVED FUNDS (CASH EXPENDITURE) (THOUSAND EUROS)	SHARE (PERCENT)
ASSIGNMENTS, TOTAL	**297,170.5**	**271,830.6**	**91.5**
from state budget 2012	285,780.4	260,440.5	91.1
revenue of the state budget	167,610.1	146,032.3	87.1
owner's income	745.2	2,835.5	380.5
EU assistance	87,990.0	66,769.6	75.9
local government partnership	29,035.1	27,161.8	93.5
CO_2		15,966.0	
domestic co-finance	400.0	1,675.3	418.8
funds transferred from 2012	11,390.1	11,390.1	100.0
revenue of the state budget	11,390.1	11,390.1	100.0

ROAD MANAGEMENT

FUNDS OF 2012

	PLANNED FUNDS (THOUSAND EUROS)	RECEIVED FUNDS (CASH EXPENDITURE) (THOUSAND EUROS)	SHARE (PERCENT)
EXPENDITURES, TOTAL	**297,170.5**	**271,830.6**	**91.5**
In the use of ENRA state institutions, total	**149,405.2**	**142,766.4**	**95.6**
From the state budget, total	146,054.7	139,415.9	95.5
staff costs	6,451.6	6,275.8	97.3
administration costs	46,744.4	46,083.9	98.6
investments	91,770.1	83,318.6	90.8
repairs of roads and structures	90,009.0	82,085.5	91.2
projection	1,264.7	960.1	75.9
purchase of land	180.9	156.9	86.7
other investments	315.5	116.1	36.8
owner's income	621.6	2,010.7	323.5
domestic co-finance, OSAMAT, boundary objects	400.0	1,674.7	
other costs	67.0	52.2	77.9
State agencies, total	**146,054.7**	**139,415.9**	**95.5**
Northern Region	29,798.5	27,656.1	92.8
Eastern Region	28,874.2	25,130.5	87.0
Southern Region	46,132.5	44,487.9	96.4
Western Region	41,249.5	42,141.4	102.2
Funds transferred from 2011	**3,350.5**	**3,350.5**	**100.0**
administration costs	445.5	445.5	100.0
investments	2,905.0	2,905.0	100.0
for construction and reconstruction of roads and buildings	2,883.3	2,883.3	
In the use of ENRA's central office, total	**147,765.3**	**129,064.2**	**87.3**
Investments, total (state budget + foreign assistance)	100,675.9	83,959.6	83.4
construction and reconstruction of roads and structures	97,100.8	65,682.5	67.6
purchase of land	2,045.5	1,079.8	52.8
other investments	1,529.6	1,215.6	79.5
domestic co-finance		0.6	
CO_2 and CNG buses and others		15,981.1	
Staff costs	3,811.2	3,424.7	89.9
Administration costs and others (incl TR business costs)	5,991.2	5,565.0	92.9
Earmarking (membership fees)	88.7	88.7	100.0
Owner's income	123.6	824.8	667.3
Local government objects	29,035.1	27,161.8	93.5
Funds transferred from 2011	**8,039.6**	**8,039.6**	**100.0**
administration costs	147.0	147.0	100.0
investments	7,892.6	7,892.6	100.0
purchase of land	1,057.0	1,057.0	100.0
construction and reconstruction of roads and structures	6,269.6	6,269.6	100.0
automatic traffic supervision system, automatic traffic counter system, road weather stations, IT costs, inventory	566.0	566.0	100.0

ROAD MANAGEMENT BUDGET

UTILISATION OF FUNDS ALLOCATED FOR THE MANAGEMENT OF NATIONAL ROADS | IN 2012

	PLANNED FUNDS (THOUSAND EUROS)	UTILIZATION (ACTUA COSTS) (THOUSAND EUROS)	SHARE (%)
FUNDS, TOTAL	**297,170.5**	**285,827.1**	**94.4**
ROADS	**242,003.3**	**220,972.6**	**77.3**
Road service	46,471.5	44,348.9	15.5
summer service of paved roads		19,239.0	
summer service of gravel roads		7,003.0	
periodic service		1,709.0	
road structures service		662.7	
winter service		15,735.2	
Road repairs	69,059.1	67,057.4	23.5
repairs of paved roads	41,268.8	38,171.7	
surface re-dressings	14,758.4	14,538.7	
repairs of gravel roads	8,794.9	9,114.2	
repairs of road structures	4,237.0	5,232.8	
Construction and reconstruction	126,472.7	109,566.3	38.3
roads	105,482.1	89,892.9	
road structures	20,990.6	19,673.4	
BUILDINGS	**296.5**	**88.9**	**0.0**
repairs in road master areas and centres	296.5	88.9	
ACQUISITION	**2,136.2**	**1,826.2**	**0.6**
machinery and vehicles	154.0	121.5	
information technology	764.6	682.5	
inventory	30.9	4.5	
traffic supervision system, traffic counter system, road weather stations	1,186.7	1,017.7	
PROJECTION	2,410.9	2,129.7	0.7
LAND PURCHASE AND LAND USE PLANNING	3,624.1	2,634.4	0.9
TRAFFIC EDUCATION	1,249.7	1,248.9	0.4
OTHER EXPENDITURE	13,492.70	10,639.4	3.7
RESEARCH	490.2	445.3	0.2
OWN FUNDS**	745.3	1,090.7	0.4
TR production costs	1,597.8	1,534.5	0.5
EARMARKINGS	88.7	88.7	0.0
Local government projects	29,035.1	27,161.8	9.5
CO_2 Buses	0.0	15,966.0	0.0

*Palnned funds are together we transferred funds from 2011. Foreign assistance transfers with 0.

** costs from owner's income excl works on the roads.

MAINTENANCE OF NATIONAL ROADS

Maintenance providers underwent some organisational changes.

Through the merger of five state-owned companies, AS Eesti Teed was established, which will continue the maintenance of roads under the agreement signed on 30 March 2012. On 24 August, AS TREV-2 Grupp united its subsidiaries AS Põlva Teed, OÜ Valga Teed and OÜ Kolm Teed into a single company AS Kagu Teed, which will continue performing the maintenance agreements in Põlva and Valga counties.

44.3 million euros was used for road maintenance in 2012, of which 15.7 million euros was spent on winter service and 28.6 million euros on summer service. Maintenance costs per one kilometre of national roads were 2,693 euros (2,350 euros in 2011 and 2,300 euros in 2010).

Road Users' Perception of Driving Conditions on National Roads

Organising road management and creating safe driving conditions is one of the core functions of the ERA. In order to develop a road environment that is road user friendly, feedback has been collected from drivers already since 2002. The goal of the surveys is to use the information obtained through the questionnaires for assessing the driving conditions and management of national roads from the perspective of road users and to receive an overview of the changes in road user satisfaction through the years.

In 2012, the ERA organised two surveys on satisfaction with driving conditions – in early March, a survey on the 2011/2012 winter driving conditions was carried out; at the end of the summer period, a survey on the summer driving conditions was conducted. In both surveys, two driver groups were questioned – the so-called regular drivers (a sample of the part of the population with a driver's licence) and lorry drivers (a sample of lorry drivers of the population of internal road transport vehicles in the register of economic activities). The ERA made an important observation that lorry drivers tend to be more critical when assessing the driving condition and the organisation of road management.

Both the regular drivers and lorry drivers perceived the winter driving conditions on national roads as good; 72% of the regular drivers and 67% of the lorry drivers described the driving conditions as good or very good. The highest scores were given to the main national roads Tallinn- Narva, Tallinn-Tartu-Võru-Luhamaa and Tallinn-Pärnu-Ikla roads – 67% of both the regular drivers and lorry drivers described the driving conditions on these roads as good or very good. The driving conditions on other major roads, too, were perceived as good or very good in the winter of 2011/2012 (56% of the regular drivers and 52% of the lorry drivers, respectively). The driving conditions on minor roads received significantly lower scores (38% as good or very good and 49% as poor or very poor according to regular drivers; 34% as good or very good and 67% as poor or very poor according to lorry drivers).

82% of the regular drivers perceived the summer driving conditions on national roads in 2011 as good. Of the lorry drivers, 67% described the summer driving conditions on national roads as good. The main roads received the highest scores (79% of the regular drivers and 81% of the lorry drivers); the minor national roads received the lowest scores (51% and 33%, respectively).

The effectiveness of the winter road maintenance was perceived as good or very good by

DISTRIBUTION OF MAINTENANCE WORK OF NATIONAL ROADS BETWEEN PERFORMERS WAS AS FOLLOWS:

- AS TREV-2 Grupp – 3,294.5 km (20%). Service operations are performed by AS TREV-2 Grupp in Rapla county and by its subsidiary AS Kagu Teed in Põlva and Valga counties.
- AS Lemminkäinen Eesti – 9,35.4 km (5.7%). Service operations are performed by the company's Virumaa department in Ida-Viru county.
- OÜ Sakala Teed – 1,241.8 km (7.5%). Service operations are performed in Viljandi county.
- AS Nordecon – 2,073.4 km (12,6%). Service operations are performed by a department of Nordecon AS in Keila region of Harju County, and by its subsidiaries OÜ Hiiu teed in Hiiu County and AS Järva teed in Järva county
- AS Vooremaa Teed – 1,113.6 km (6.8%). Service operations are performed in Jõgeva County.
- AS Üle – 1,591.4 km (9.7%). Service operations are performed by AS Üle in Kose and Kuusalu regions of Harju County, and by its subsidiary OÜ Lääne Teed in Lääne county
- AS Eesti Teed – 6,217.9 km (37.7%). Service operations are performed in Lääne-Viru, Pärnu, Saare, Tartu and Võru counties.

MAINTENANCE OF NATIONAL ROADS

65% of the regular drivers. The opinion of the lorry drivers of the effectiveness of the winter maintenance was approximately 20% lower than that of the regular drivers.

Perceptions of the summer road maintenance were similar to those of the winter maintenance. In the summer of 2012, the summer maintenance was described as good by 66% of the regular drivers and 55% of the lorry drivers.

It is important for the ERA to maintain the satisfaction level of the road users by preventing the effects of wear and tear on the roads and meeting the requirements of the winter service levels. The ERA is a consumer-oriented organisation – as the driving conditions improve, the expectations and needs of the road users also increase, which shapes the future efforts of the ERA regarding road maintenance.

Ice Roads

Of the six ice roads managed by the ERA, two could be opened for traffic in 2012:

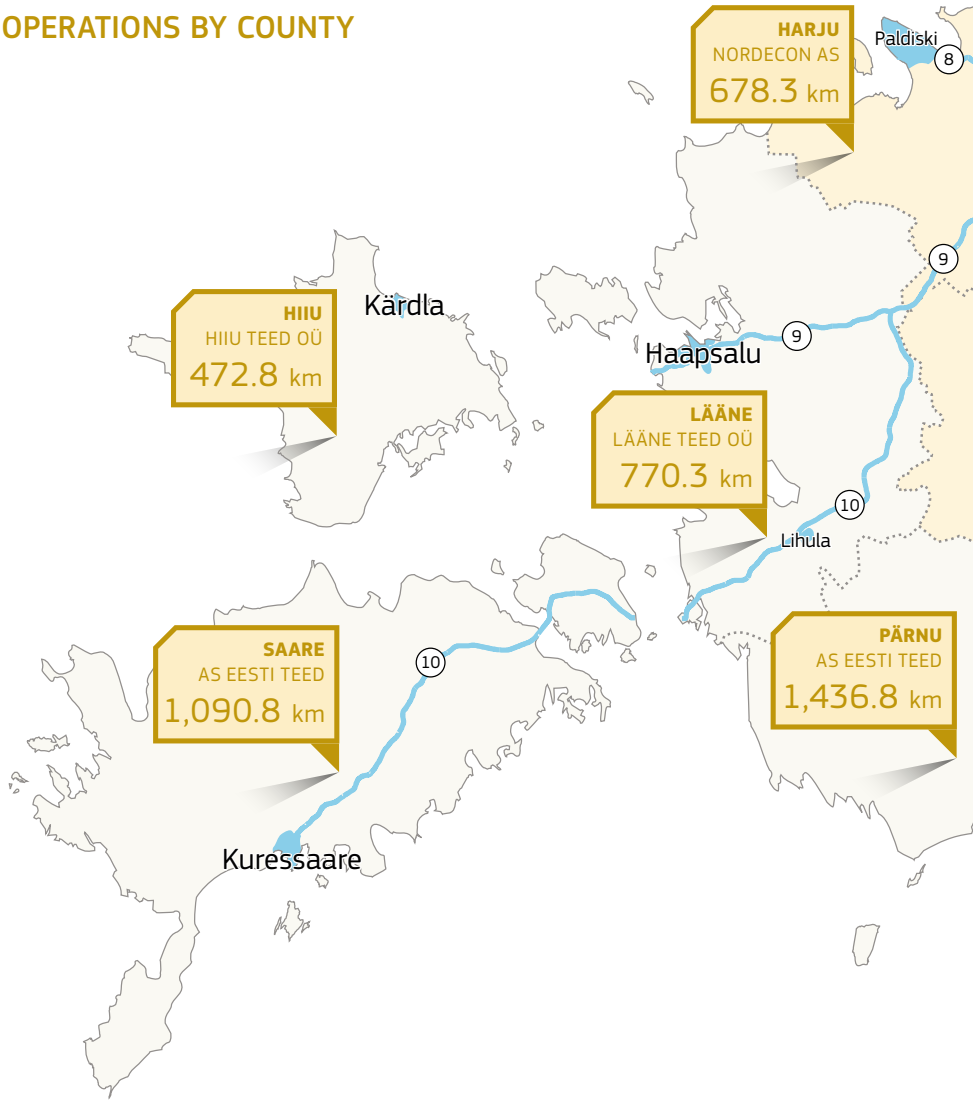
- Haapsalu-Noarootsi ice road with the length of 3.8 km was open for 13 days; the road was built by OÜ Paralepa Sadam;
- Rohuküla-Sviby ice road with the length of 10.2 km was open for 9 days; the road was built by OÜ Lääne Teed.

Examinations were performed on Tärkma-Triigi and Munalaiu-Kihnu ice roads, but they did not qualify for opening.

The ice conditions on Heltermaa-Rohuküla and Kuivastu-Virtsu ice roads did not allow examinations to be carried out.

In total 39.4 thousand euros was spent on building the ice roads. In the official opening times, a total of 5,316 vehicles used the ice roads, which is 7 euros for a crossing per vehicle.

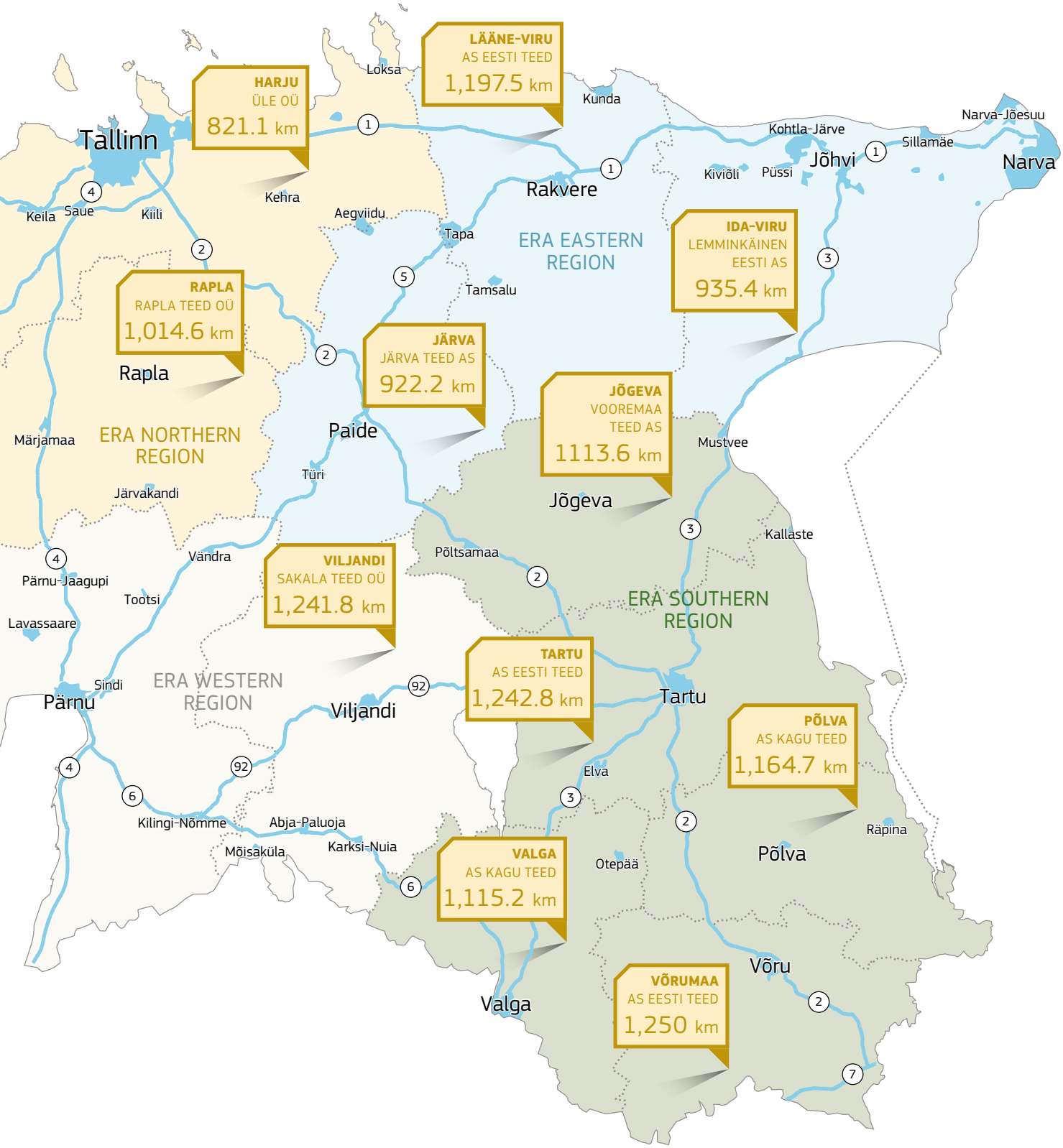
DISTRIBUTION OF MAINTENANCE WORK OF NATIONAL ROADS BETWEEN PERFORMERS OF SERVICE OPERATIONS BY COUNTY



Information System of Road Weather Stations

The development of the information system of road weather stations continued in 2012 – 26 new road cameras were mounted, 15 of which are located on Tallinn-Pärnu-Ikla road in the city of Pärnu, showing real-time picture. Also, a new electronic variable message sign was installed at Luhamaa border checkpoint on road No. 7, direction Riga-Pskov.

As end of 2012, the information system of road weather stations included a total of 60 road weather stations, 69 road cameras and 5 electronic variable message signs. ■

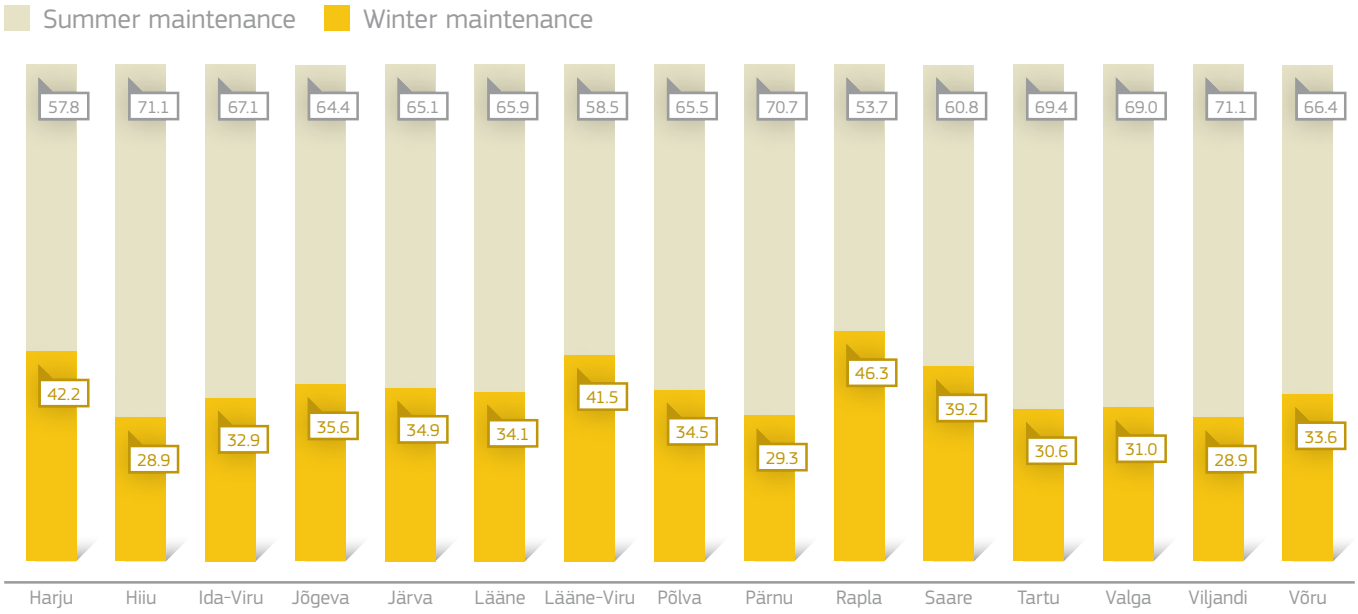

HARJU
ÜLE OÜ
821.1 km
LÄÄNE-VIRU
AS EESTI TEED
1,197.5 km
IDA-VIRU
LEMMINKÄINEN
EESTI AS
935.4 km
RAPLA
RAPLA TEED OÜ
1,014.6 km
JÄRVA
JÄRVA TEED AS
922.2 km
JÕGEVA
VOOREMAA
TEED AS
1113.6 km
VILJANDI
SAKALA TEED OÜ
1,241.8 km
TARTU
AS EESTI TEED
1,242.8 km
PÕLVA
AS KAGU TEED
1,164.7 km
VALGA
AS KAGU TEED
1,115.2 km
VÕRUMAA
AS EESTI TEED
1,250 km
ERA EASTERN REGION
ERA NORTHERN REGION
ERA SOUTHERN REGION
ERA WESTERN REGION
Tallinn
Narva
Jõhvi
Rakvere
Rapla
Paide
Jõgeva
Tartu
Pärnu
Viljandi
Põlva
Valga
Võru
Loksa
Kunda
Narva-Jõesuu
Kohtla-Järve
Sillamäe
Kiviõli
Püssi
Keila
Saue
Kiili
Kehra
Aegviidu
Tapa
Tamsalu
Märjamaa
Türi
Järvakandi
Mustvee
Kallaste
Põltsamaa
Vändra
Pärnu-Jaagupi
Tootsi
Lavassaare
Sindi
Elva
Räpina
Otepää
Kilingi-Nõmme
Abja-Paluoja
Karksi-Nuia
Mõisaküla

MAINTENANCE OF NATIONAL ROADS

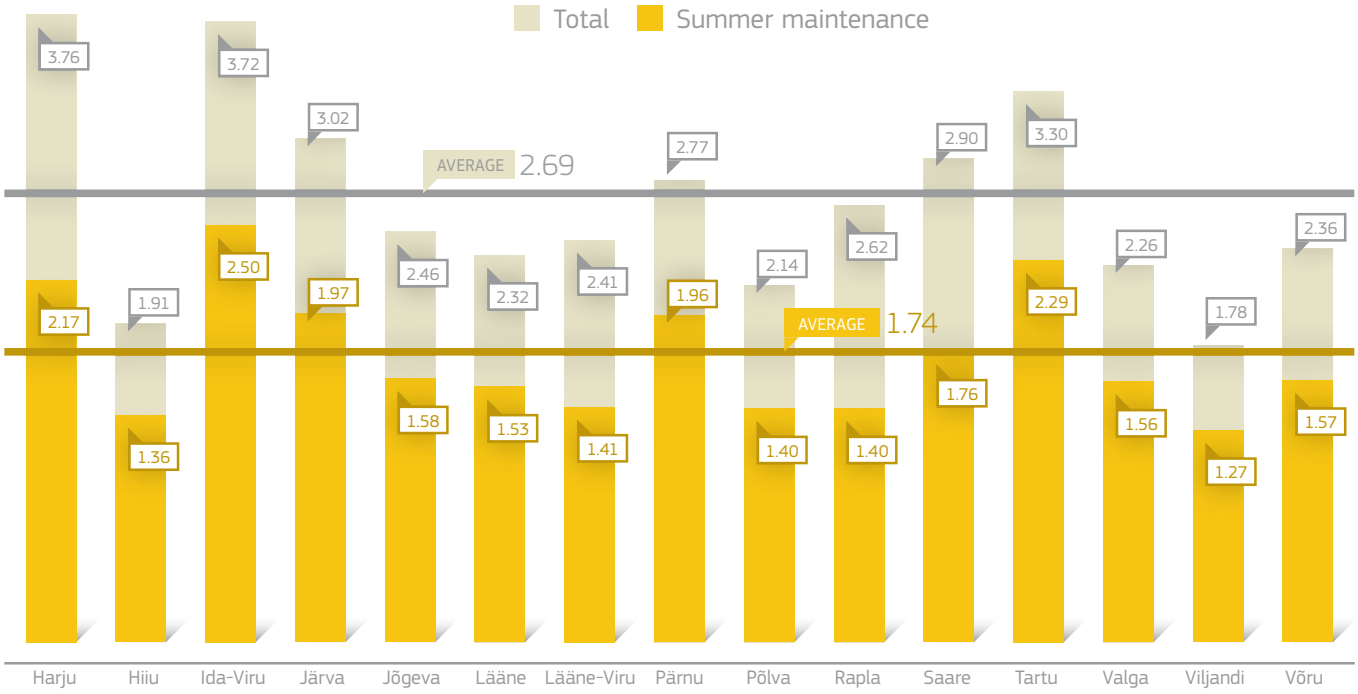
DISTRIBUTION OF ROAD MAINTENANCE BY OF PERFORMERS | BY REGIONS IN 2012

ROAD ADMINISTRATION	PERFORMER OF ROAD SERVICE	ROADS TOTAL	MAIN ROADS	BASIC ROADS	SECONDARY ROADS	INCLUDING: PAVED: TOTAL	PAVED: MAIN ROADS	PAVED: BASIC ROADS	PAVED: SECONDARY ROADS	GRAVEL AND SURFACE ROADS	RAMPS AND CONNECTING ROADS
Northern Region		**2,514.0**	**270.0**	**330.4**	**1,913.7**	**2,013.0**	**270.0**	**330.4**	**1,412.6**	**501.1**	**42.9**
	Nordecon AS	678.3	112.3	56.2	509.8	579.9	112.3	56.2	411.4	98.4	13.9
	Rapla Teed OÜ	1,014.6	48.1	165.4	801.1	665.4	48.1	165.4	451.9	349.2	0.6
	Üle OÜ	821.1	109.7	108.8	602.7	767.7	109.7	108.8	549.2	53.4	28.4
Western Region		**5,012.4**	**517.9**	**734.5**	**3,760.1**	**3,192.3**	**517.9**	**734.5**	**1,939.9**	**1,820.2**	**6.0**
	AS Eesti Teed (Pärnumaa)	1,436.8	221.5	111.1	1,104.2	870.1	221.5	111.1	537.5	566.7	2.1
	AS Eesti Teed (Saaremaa)	1,090.8	73.3	185.6	831.8	779.3	73.3	185.6	520.3	311.5	0.9
	Hiiu Teed OÜ	472.8	0.0	140.0	332.9	311.4	0.0	140.0	171.4	161.4	0.0
	Lääne Teed OÜ	770.3	126.7	73.6	570.0	565.4	126.7	73.6	365.2	204.9	0.2
	Sakala Teed OÜ	1,241.8	96.3	224.3	921.2	666.1	96.3	224.3	345.5	575.7	2.9
Southern Region		**5,886.3**	**420.1**	**865.9**	**4,600.3**	**3,123.0**	**420.1**	**865.9**	**1,837.1**	**2,763.3**	**9.8**
	AS Eesti Teed (Tartumaa)	1,242.8	149.7	173.3	919.7	759.7	149.7	173.3	436.7	483.1	4.7
	AS Eesti Teed (Võrumaa)	1,250.0	71.3	120.4	1,058.4	651.7	71.3	120.4	460.0	598.4	0.7
	AS Kagu Teed (Põlvamaa)	1,164.7	31.0	253.0	880.7	536.8	31.0	253.0	252.8	627.9	1.2
	AS Kagu Teed (Valgamaa)	1,115.2	88.0	164.5	862.7	521.8	88.0	164.5	269.3	593.4	0.0
	Vooremaa Teed AS	1,113.6	80.1	154.7	878.8	653.1	80.1	154.7	418.3	460.5	3.1
Eastern Region		**3,055.1**	**398.8**	**472.8**	**2,183.5**	**2,519.6**	**398.8**	**472.8**	**1,648.0**	**535.5**	**15.0**
	AS Eesti Teed (Lääne-Virumaa)	1,197.5	110.9	203.0	883.5	1,196.3	110.9	203.0	882.3	1.2	4.1
	Järva Teed AS	922.2	136.4	103.8	682.0	606.5	136.4	103.8	366.3	315.7	4.3
	Lemminkäinen Eesti AS	935.4	151.5	165.9	618.0	716.8	151.5	165.9	399.4	218.6	6.6
Total		**16,467.9**	**1,606.7**	**2,403.5**	**12,457.6**	**10,847.8**	**1,606.7**	**2,403.5**	**6,837.6**	**5,620.1**	**73.8**

ROAD MAINTENANCE COST | COUNTIES BY PERCENTAGE IN 2012



COST PER 1 ROAD KILOMETRE | THOUSAND EUROS IN 2012



MAINTENANCE OF NATIONAL ROADS

ROAD CONSTRUCTION, REPAIRS AND MAINTENANCE ON NATIONAL ROADS | IN 2012

ACTIVITIES	ROADS TOTAL		MAIN ROADS		BASIC ROADS		SECONDARY ROADS	
	COST (THOUSAND EUROS)	VOLUME (KM)	COST (THOUSAND EUROS)	VOLUME (KM)	COST (THOUSAND EUROS)	VOLUME (KM)	COST (THOUSAND EUROS)	VOLUME (KM)
Construction of roads and pavements	**89,892.9**		**66,345.3**		**12,503.1**		**11,044.5**	
construction of pavements	89,892.9	222.5	66,345.3	27.7	12,503.1	8.5	11,044.5	186.3
asphalt concrete	85,269.9	52.8	66,345.3	27.7	12,503.1	8.5	6,421.5	16.6
mix in plant and place	1,130.1	24.6					1,130.1	24.6
milled material pavements	1,138.4	68.0					1,138.4	68.0
surface dressing of gravel roads	2,354.5	77.1					2,354.5	77.1
construction of gravel roads	0.0	0.0						
Construction and reconstruction of bridges, viaducts and tunnels	**19,673.4**		**12,146.2**		**5,290.0**		**2,237.2**	
bridges	7 psc / 235 m				1 psc / 69 m		6 psc / 116 m	
viaducts and tunnels	2 psc / 81 m		2 psc / 81 m					
Repair of roads *	**61,824.7**		**15,124.7**		**21,076.5**		**25,623.5**	
repaired pavements	38,171.8	154.3	12,603.9	88.9	17,814.5	49.7	7,753.4	15.7
asphalt concrete	38,075.6	154.3	12,603.9	88.9	17,794.9	49.7	7,676.8	15.7
mix in plant and place	96.2	0.0			19.6		76.6	0.0
repaired gravel roads	9,114.2	306.0					9,114.2	306.0
surface dressing	14,538.7	976.9	2,520.8	117.1	3,262.0	182.8	8,755.9	677.0
Repair of bridges, viaducts and tunnels	**5,232.8**		**2,928.5**		**1330.1**		**974.2**	
bridges	13 psc / 1,111.8 m		4 psc / 740.7 m		6 psc / 273.8 m		3 psc / 97.3 m	
viaducts and tunnels	1 psc / 66.6 m		1 psc / 66.6 m					
Road maintenance **	**44,348.9**		**10,809.1**		**9205.9**		**23,671.2**	
summer maintenance	27,951.0		6,473.8		5,318.9		16,158.3	
winter maintenance	15,735.2		4,335.3		3,887.0		7,512.9	
road structure maintenance***	662.7							
Construction, repairs and maintenance total	**220,972.7**		**107,353.8**		**49,405.6**		**63,550.6**	
Design	**1,601.6**							
Construction and reconstruction of buildings	**154.0**							
Construction, repairs and maintenance total	**222,728.3**							

* All jobs financed by state budget (incl. owner's income) and EU assistance;
** Repair of roads includes periodical operations by sub-contractors;

VOLUMES OF ROAD CONSTRUCIONS, REPAIRS AND MAINTENANCE | 2008–2012

ACTIVITIES	UTILIZED FUNDS (THOUSAND EUROS)					CONSTRUCTION AND RECONSTRUCTION OF ROAD (KM); BRIDGES (PCS/M)				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Road construction	**47,143**	**71,699**	**56,904**	**75,547**	**89,893**					
construction of pavements	45,316	71,699	56,904	75,443	89,893	264.2	394.1	369.8	337.9	222.5
asphalt concrete	34,271	64,686	48,933	68,473	85,270	43.5	168.9	79.0	113.1	52.8
mix in plant and place	7,979	4,806	5,817	4,063	2,268	132.2	153.0	235.9	153.6	92.6
surface dressing of gravel roads	3,066	2,207	2,154	2,907	2,355	88.5	72.2	54.9	71.2	77.1
construction of gravel roads	1,826			104		13.6			2.2	
Construction of bridges, viaducts and tunnels	**5,937**	**9,021**	**7,900**	**11,603**	**19,673**					
bridges				3,109	7,822	13/ 315	19/ 170.7	16/ 247.6	16/ 559.12	7/ 235
viaducts and tunnels				8,494	11,851	3/ 308	1/ 58.2	12/ 542.52	7/ 216.5	2/ 81
Repairs of roads	**80,591**	**34,708**	**64,986**	**64,571**	**61,825**					
repaired pavements	56,466	12,099	41,970	42,027	38,172	268.5	136.9	146.9	130.7	154.3
asphalt concrete	54,769	10,745	38,935	40,516	38,076	250.6	118.6	123.9	118.5	154.3
mix in plant and place	1,697	1,354	3,036	1,511	96	17.9	18.3	23.0	12.2	
repaired gravel roads	8,363	9,092	8,971	9,057	9,114	330.9	532.6	433.5	377.2	306.0
surface dressing	15,762	13,516	14,045	13,487	14,539	1,065.8	1,212.0	1,072.6	1,017.4	976.9
Repair of bridges, viaducts and tunnels	**8,513**	**3,273**	**6,782**	**6,298**	**5,233**					
bridges				5,143	4,378	17/ 279.4	33/ 761.73	22/ 765.4	20/ 479.67	13/ 1111.8
viaducts and tunnels				1,155	855	2/ 262	4/ 282.8		1/ 203	1/ 66.6
Road maintenance	**37,723**	**39,156**	**37,829**	**38,643**	**44,349**					
summer maintenance	26,071	26,464	25,232	25,678	28,614					
winter maintenance	11,652	12,693	12,597	12,965	15,735					
Road maintenance, reconstruction and service total	**179,907**	**157,857**	**174,401**	**196,662**	**220,973**					

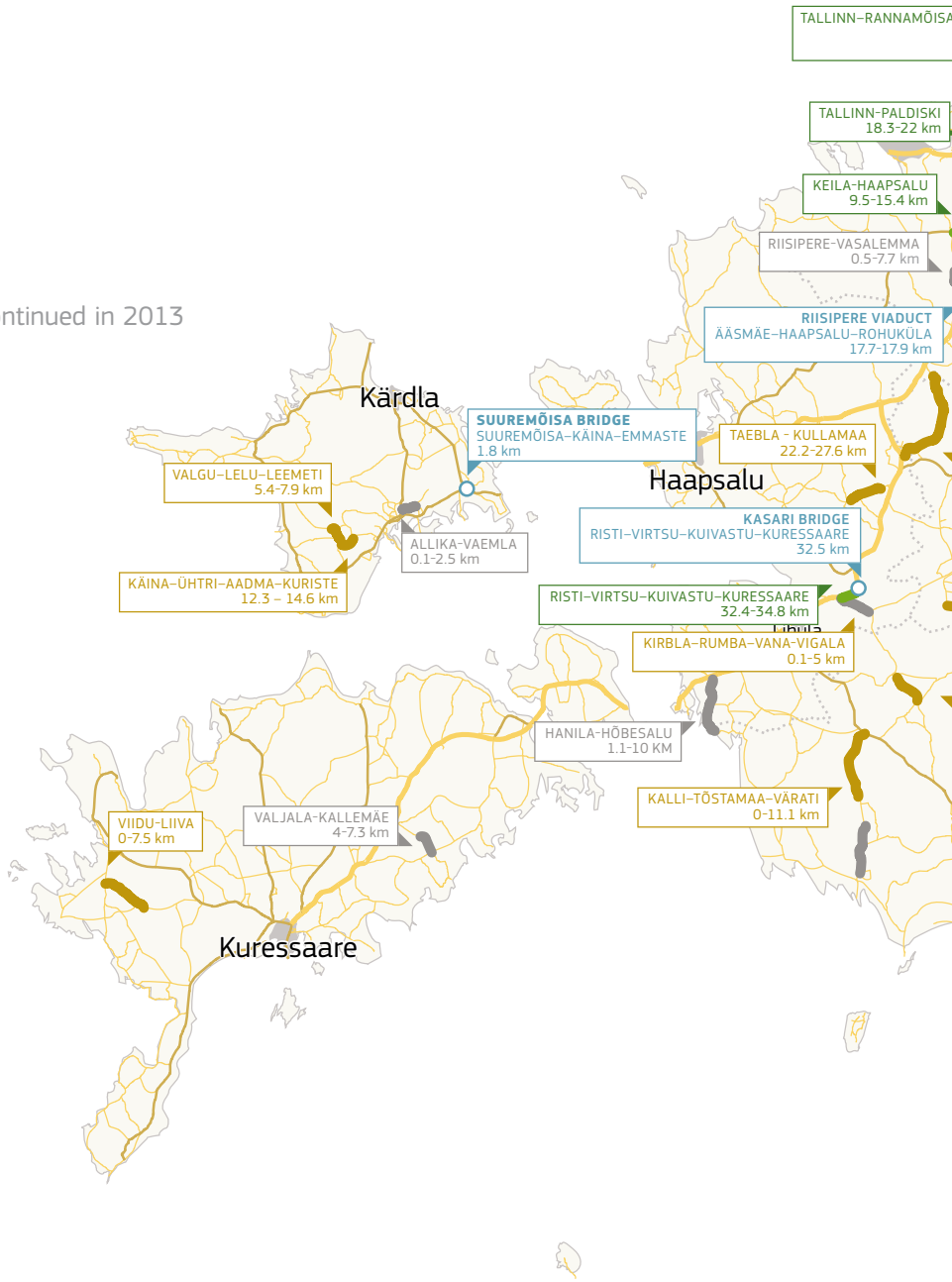
MAJOR CONSTRUCTIONS AND REPAIRS ON NATIONAL ROADS | IN 2012

- Construction and repairing of bridges
- Construction of roads
- Restoration repairs of pavement
- De-dusting of gravel roads
- Repairs of gravel roads

* Objects transferred from 2011

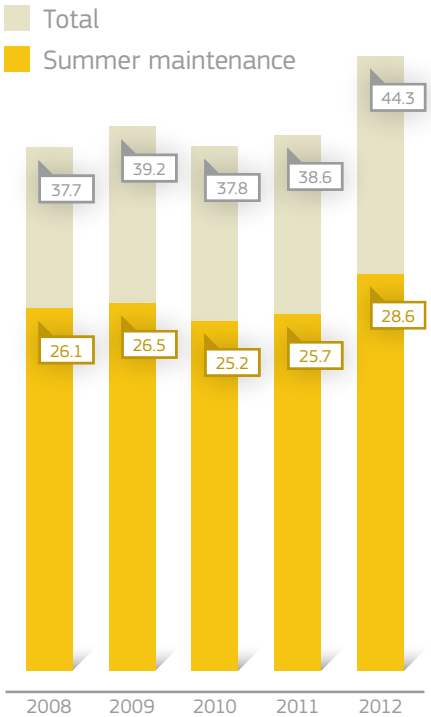
** Objects continued in 2013

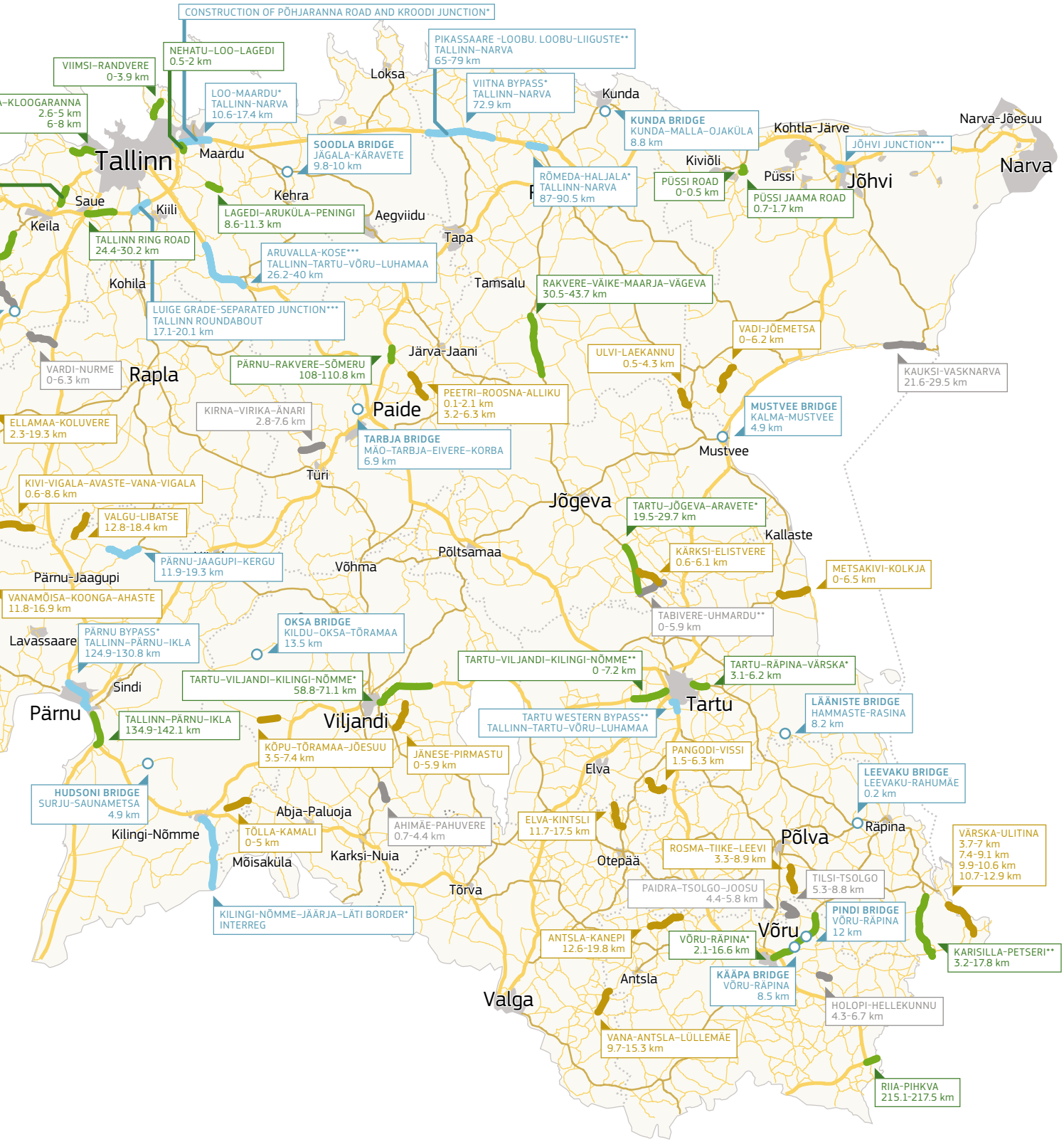
*** Objects transferred from 2011 and continued in 2013



EXPANDITURE ON ROAD MAINTENANCE

IN 2008–2012, MILLION EUROS




CONSTRUCTION OF PÕHJARANNA ROAD AND KROODI JUNCTION*
NEHATU–LOO–LAGEDI
0.5-2 km
VIIMSI–RANDVERE
0-3.9 km
PIKASSAARE -LOOBU. LOOBU–LIIGUSTE**
TALLINN–NARVA
65-79 km
Loksa
VIITNA BYPASS*
TALLINN–NARVA
72.9 km
Kunda
KUNDA BRIDGE
KUNDA–MALLA–OJAKÜLA
8.8 km
Kohtla-Järve
Narva-Jõesuu
JÕHVI JUNCTION***
Narva
Kiviõli
Püssi
Jõhvi
PÜSSI ROAD
0-0.5 km
PÜSSI JAAMA ROAD
0.7-1.7 km
RÕMEDA–HALJALA*
TALLINN–NARVA
87-90.5 km
LOO–MAARDU*
TALLINN–NARVA
10.6-17.4 km
SOODLA BRIDGE
JÄGALA–KÄRAVETE
9.8-10 km
Tallinn
Maardu
Kehra
Saue
Kiili
Keila
LAGEDI–ARUKÜLA–PENINGI
8.6-11.3 km
Aegviidu
Tapa
TALLINN RING ROAD
24.4-30.2 km
ARUVALLA–KOSE***
TALLINN–TARTU–VÕRU–LUHAMAA
26.2-40 km
Kohila
Tamsalu
RAKVERE–VÄIKE-MAARJA–VÄGEVA
30.5-43.7 km
LUIGE GRADE-SEPARATED JUNCTION***
TALLINN ROUNDABOUT
17.1-20.1 km
VADI–JÕEMETSA
0–6.2 km
ULVI–LAEKANNU
0.5-4.3 km
KAUKSI–VASKNARVA
21.6-29.5 km
VARDI–NURME
0–6.3 km
Rapla
PÄRNU–RAKVERE–SÕMERU
108-110.8 km
Järva-Jaani
PEETRI–ROOSNA–ALLIKU
0.1-2.1 km
3.2-6.3 km
Paide
KIRNA–VIRIKA–ÄNARI
2.8-7.6 km
ELLAMAA–KOLUVERE
2.3-19.3 km
TARBJA BRIDGE
MÄO–TARBJA–EIVERE–KORBA
6.9 km
MUSTVEE BRIDGE
KALMA–MUSTVEE
4.9 km
Mustvee
Türi
KIVI–VIGALA–AVASTE–VANA–VIGALA
0.6-8.6 km
Jõgeva
TARTU–JÕGEVA–ARAVETE*
19.5-29.7 km
VALGU–LIBATSE
12.8-18.4 km
Kallaste
KÄRKSI–ELISTVERE
0.6-6.1 km
Põltsamaa
PÄRNU–JAAGUPI–KERGU
11.9-19.3 km
Võhma
METSAKIVI–KOLKJA
0–6.5 km
Pärnu-Jaagupi
VANAMÕISA–KOONGA–AHASTE
11.8-16.9 km
TABIVERE–UHMARDU**
0–5.9 km
OKSA BRIDGE
KILDU–OKSA–TÕRAMAA
13.5 km
Lavassaare
PÄRNU BYPASS*
TALLINN–PÄRNU–IKLA
124.9-130.8 km
TARTU–VILJANDI–KILINGI-NÕMME**
0 -7.2 km
TARTU–RÄPINA–VÄRSKA*
3.1-6.2 km
Sindi
TARTU–VILJANDI–KILINGI-NÕMME*
58.8-71.1 km
Tartu
Pärnu
Viljandi
LÄÄNISTE BRIDGE
HAMMASTE–RASINA
8.2 km
TARTU WESTERN BYPASS**
TALLINN–TARTU–VÕRU–LUHAMAA
TALLINN–PÄRNU–IKLA
134.9-142.1 km
KÕPU–TÕRAMAA–JÕESUU
3.5-7.4 km
JÄNESE–PIRMASTU
0-5.9 km
PANGODI–VISSI
1.5-6.3 km
Elva
LEEVAKU BRIDGE
LEEVAKU–RAHUMÄE
0.2 km
HUDSONI BRIDGE
SURJU–SAUNAMETSA
4.9 km
Räpina
Põlva
Abja-Paluoja
ELVA–KINTSLI
11.7-17.5 km
VÄRSKA–ULITINA
3.7-7 km
7.4-9.1 km
9.9-10.6 km
10.7-12.9 km
Kilingi-Nõmme
TÕLLA–KAMALI
0–5 km
AHIMÄE–PAHUVERE
0.7-4.4 km
ROSMA–TIIKE–LEEVI
3.3-8.9 km
Karksi-Nuia
Otepää
Mõisaküla
TILSI–TSOLGO
5.3-8.8 km
PAIDRA–TSOLGO–JOOSU
4.4-5.8 km
Tõrva
PINDI BRIDGE
VÕRU–RÄPINA
12 km
Võru
KILINGI-NÕMME–JÄÄRJA–LÄTI BORDER*
INTERREG
ANTSLA–KANEPI
12.6-19.8 km
VÕRU–RÄPINA*
2.1-16.6 km
KARISILLA–PETSERI**
3.2-17.8 km
KÄÄPA BRIDGE
VÕRU–RÄPINA
8.5 km
Antsla
Valga
HOLOPI–HELLEKUNNU
4.3-6.7 km
VANA-ANTSLA–LÜLLEMÄE
9.7-15.3 km
RIIA–PIHKVA
215.1-217.5 km

WESTERN CONNECTING ROAD OF PÄRNU BYPASS

The Pärnu bypass is part of E67 Tallinn-Pärnu-Ikla road, which belongs to the trans-European transport network TEN-T, and was a bottleneck on the Via Baltica section running through Estonia.

The construction of Ehitajate Street and the western connecting road are the first two stages of the master construction project of Pärnu bypass. The main purpose of the design of Pärnu bypass is to improve safety, traffic conditions and road environment, as well as to develop the connections of the trans-European transport network TEN-T and bring Pärnu bypass into conformity with valid standards.

On 23 September 2009, the ERA signed a construction agreement with the consortium run by AS Koger & Partnerid for the construction of Ehitajate Street as part of Pärnu bypass; on 3 November 2009, a second agreement was signed with the consortium for the construction of the western connecting road. In the summer of 2010, SIA Binders became the leading partner of the consortium. According to the agreements, the western connecting road had to be finished in October 2010 and Ehitajate Street in September 2011.

The consortium, which consisted of Latvian company SIA Binders and Estonian company AS Koger & Partnerid left both the construction of Ehitajate Street and the western connecting road unfinished in the early spring of 2011.

On 2 September 2011, the ERA and the consortium AS Lemminkäinen Eesti, AS TREF and AS Teede REV-2 signed an agreement under which the unfinished construction was continued.

Construction work was resumed on the 5.8-kilometre, 2+2 lane road section with a separating strip on Tallinn road and Ehitajate Street. 2.9 km of collector roads, 9 km of cycle and pedestrian tracks, 5 km of bicycle and pedestrian tunnels and 2.5 km of noise barriers were constructed.

On the western connecting road, the unfinished work was resumed on the 2.8 km 1+1 lane road section between Tallinn and Lihula roads. Also, construction work was completed on the 0.9 km 2+2 lane section with a separating strip on Lihula road and 1 km of crossing roads and roundabouts, two bicycle and pedestrian tunnels and communications.

A new bridge was built across the River Sauga, with 1+1 lanes and a 4 metres wide cycle and pedestrian track. The bridge can bear an exceptional load carrying vehicle of up to 360 tonnes. The total width and length of the bridge is 16.5 m and 70 m, respectively.

This was a construction object where the road was located in urban conditions. Before the start of road works, comprehensive reconstruction of different communications was carried out. What is more, the construction

of Ehitajate Street was performed in the conditions of continuous traffic, which meant that constant rearrangements had to be made in the traffic for heavy vehicles, public transport and the local residents.

On 9 October 2012, Ehitajate Street and the western connecting road of Pärnu bypass were opened with a ribbon-cutting ceremony, which marked the official conclusion of the construction of Pärnu bypass. The cost of the construction of Ehitajate Street and the western connecting road was 26.2 million euros, 80% of which was financed from the EU Cohesion Fund.

The total cost of the four stages of Pärnu bypass was 39.7 million euros, which was 22% less than the initially planned 51.1 euros. Within the framework of the project, a total of 9.63 km of main roads (Via Baltica), 7.38 km of collector roads and city streets, 16.69 km of cycle and pedestrian tracks, 9 cycle and pedestrian tunnels and 2.6 km of noise barriers were built.. ■

TABIVERE–PIKKJÄRVE ROAD SECTION

The comprehensive reconstruction of Tabivere-Pikkjärve road section, located on Piibe road between the cities of Tartu and Jõgeva began in September 2011 and was finished in early October 2012.

The total cost of the works commissioned by the Southern Region of the ERA was 4.36 million euros, which included the enforcement of the embankment on the 10 km road section on Tartu-Jõgeva-Aravete road, new ditches and culverts, and a new two-layer asphalt concrete surface.

In addition to improved driving comfort, the road works also significantly increased the safety of cycle and pedestrian traffic, as a safe traffic environment was created for the cyclists and pedestrians in both the rural municipality of Tabivere and Palamuse. As a result of the road construction, the residents of the rural municipality of Tabivere received a three metres wide and slightly more than 800 metres long cycle and pedestrian track at their disposal, connecting Tormi village to the small town of Tabivere. The rural municipality of Palamuse received a cycle and pedestrian track with the length of nearly 2.7 km, running from Nava junction to Pikkjärve, where the track meets the pavement constructed at Kaarepere overpass a year earlier.

On Tabivere-Pikkjärve road section, four bus stops were built and, as additional value, a resting area for drivers was built by the road in Õvanurme, with 16 parking places for passenger cars and seven for goods vehicles, benches and toilets.

Of the milled asphalt left over from the road work, two road sections in Jõgeva county received new, dust-free surfaces: Mullavere-Saadjärve road to the extent of 1.5 km and two sections on Tabivere-Uhmardu road of local importance, the total length of which is slightly more than 2.3 km.

Tabivere-Pikkjärve road section was designed by OÜ SKA Inseneribüroo; the construction work was performed by AS Tref; owner supervision was carried out by OÜ P.P. Ehitusjärelevalve and AS Infragate Eesti.

With the conclusion of the construction of Tabivere-Pikkjärve section on Tartu-Jõgeva-Aravete road, the first, 44 km section connecting two important county centres – the cities of Tartu and Jõgeva on Piibe road – has been renewed in its entirety. To achieve this, reconstruction works have been carried out, stage by stage, since 2005, when the first section on the basic road between Kaarepere and Jõgeva was finished. Next, Tartu-Tabivere road section was reconstructed in 2006-2007 and in 2011, Kaarepere overpass was finished, replacing three at-grade railway intersections and making traffic on Piibe road much safer. ■

VIITNA BYPASS

The history of Viitna bypass dates back to 1974, as, among other things, the road route of Viitna bypass was laid down.

The construction of new road sections from the border of Lääne-Viru county to Aaspere began in 1985. Viitna overpass was finished in 1987. The works on Viitna bypass began on the end that faces the city of Rakvere; however, the work came to a halt in 1992. Only a couple of kilometres in one direction and part of the embankment had been finished. As the construction was resumed in 2010, the embankment was covered with trees and bushes.

The design and construction agreement was signed on 8 December 2009 with AS Lemminkäinen Eesti, AS Teede REV-2 and AS Tref. The road section was designed by OÜ Reaalprojekt; supervision was performed by OÜ Vealeidja together with AS Celu Inženier. The construction work began in the spring of 2010. The initial completion deadline was August 2011; however, due to disputes regarding the transfer of land, the deadline was postponed. Viitna bypass was finished on 20 July 2012.

A new, 8 km class I road section with 2+2 lanes passing by Viitna urban region was designed and constructed. The new road section connected the existing 2+2 lane sections around Viitna. A grade-separated crossing with lighting was constructed, utilising the existing (built in 1987) overpass on Viitna-Koljaku road. Access roads and collector roads were built to ensure access to the roadside property. With the completion of the new road, driving time decreased significantly. Before, driving speed was limited to 50 km/h and 70 km/h in Viitna. On the bypass, the speed limit is 90 km/h and 110 km/h in summer. At the same time, traffic safety increased considerably, as well, since the majority of traffic was moved away from the residential area and pedestrians. This also resulted in lower noise and pollution levels in the urban region of Viitna.

The construction of Viitna bypass was part of the master project of Valgejõe-Rõmeda road section, which also included the reconstruction of Liiapeksi-Loobu road section to the extent of 20 km before Viitna bypass. In the third stage, the old Tallinn-Narva road running through Viitna will be reconstructed to the extent of 6.1 km; the road will remain in use as a collector road for Viitna bypass. The third stage also includes repairing the overpass leading across Viitna bypass together with the 1.6 km road section on Viitna-Koljaku road.

The total cost of the construction of Viitna bypass was 8.5 million euros, 85% of which was financed from the EU Cohesion Fund. ■

ESTONIAN ROAD MUSEUM

2012 was a successful and active year for the Road Museum. A total of 38,249 people visited the museum (plus the theatre audience of 2,000 people), which is an all-time record.

The museum gained popularity and recognition through coming second in the *Estonian Wonder of the Year 2012* competition and being awarded the Most Family Friendly Museum title by the magazine ***Pere ja Kodu*** („Home and Family"). 2012 was also an anniversary year – Varbuse post station, the only completely preserved post station in Estonia, currently housing a museum, turned 150 in May.

The increasing number of visitors and great public interest in our activities gives a clear message that the history of roads and traffic is a fascinating field worth discovering. In order to keep up the visitors' and the public's interest in the museum, the exhibition environment together with its activities and programmes is constantly improved.

Seasonal Exhibition and Research Activities

The Road Museum's seasonal exhibition Laadawärk focused on the history of fairs. The goal of the exhibition was to highlight the changes that people's everyday life and mobility had undergone during the past 150 years. The fair route had three central stops: Valkla inn, Ambla shop and Hauka fairground. The centrepiece of all three fair images was the activities of the people of the corresponding era at the fair, illustrated by the museum workers through different activities and stories.

The research activities of the museum focused on the history of roads and traffic. The main research topics were the peasants' roads obligation and the possibilities of moving around in the 19th century. Since 2012 was an anniversary year, the focal point was the history of Varbuse post station and the development of the later *teemeistrikeskus* (road master centre). The study revealed new facts and aspects concerning both Varbuse post station and Kanepi teemeistrikeskus.

Of the 20th century topics, a research project on the distribution and accessibility of Soviet cars in Estonia is a major subject, also part of the museum's new permanent exhibition on the car era. The research activities of the museum continue to focus on Estonian bridge heritage. In addition to new information boards, the Director General of the ERA approved the list of historical bridges in the spring of 2012, aimed at ensuring a more authentic preservation of the most remarkable examples of Estonian bridge heritage. A majority of the museum's research activities concentrated on the development of the new permanent exhibition on the car era.

Collections

In total, 5,096 items were added to the museum's collections in 2012. This number contains the acquisition of new exposition items as well as the systematisation and registration of earlier items in the MUIS database. By the end of the year, the collections comprised a total of 30,703 exposition items.

Of the more valuable items, the most important ones are track chain excavator E-304 used in soil work, passenger car VAZ-2101 (in its original condition) released in 1971, a breakthrough in automobile usage in Estonia, and passenger car Pobeda GAZ-M-20 that belonged to the famous Estonian composer and choir conductor Gustav Ernesaks. The object collection was supplemented by a rotating car, light truck GAZ-69 and several copies of horse-drawn vehicles. The museum also received the photo collection of Arnold Volberg, Estonia's most remarkable engineer of road machinery.

As a result of restoration work outside the museum, passenger car GAZ-24, bulldozer T-100 and an outdoor kitchen were restored. Of the period of horse-drawn vehicles, work

was performed on a cart and spring-carriage. The restoration of two-seat goods transport scooter Muravey and light truck GAZ-69 deserves special attention in the conservation and restoration work of the museum. Also, the restoration of seven models of road construction machinery constructed by Estonian engineer Boris Upine should be highlighted. Many of these models are actually functioning and allow us to observe the working principles of the machines. In the future, the restored models will be put on display in the museum's Machine Hall.

Programmes and Events

The museum's visiting season 2012 began on 1 May, when, in addition to the activities of the museum, the entire summer of tourism in Põlva county was introduced. At the Museum Night, a drive-in cinema was organised for the first time in the museum – the first Soviet disaster film, *The Midday Ferry* was shown. One of the biggest events of the museum has always been the Post Station Day, which was dedicated to bus journeys this time. Tens of historical buses were up on display.

The top events in July were *Postitee pillerkaar* (Postal Road Revelry), a joint event organised by companies operating on the historical Postal Road, and the birthday of the museum, dedicated to the 150th anniversary of Varbuse post station.

In August, English humour classics were performed – the audience could enjoy G.B. Shaw's *Misalliance*, a witty family comedy directed by Roman Baskin.

The last big event of the season was the Grandparents Day, celebrated with a grand procession of Volgas. 37 older and newer Soviet dream cars rolled by, plus different models from the Gorky Automobile Plant. The event was complemented by the exhibition 80 Years of Gorky Automobile Plant, presented in virtual form on the museum's webpage and also put on display at Tartu Motoshow.

The autumn period included the traditional Father's Day special programmes and the conference on the history of roads; the year ended with the traditional Christmas Road programme.

Traffic Education

In the field of education, that is a priority for the museum, the year started with the pilot project *Minu tee, ise teen* (My road, my responsibility). The aim of the project was to take traffic education out of the museum in the low season. A total of three schools were chosen to participate in the project (Tartu Kivilinna Gymnasium, Võru Kreutzwald Gymnasium and Põlva Coeducational Gymnasium).

Two new educational items were included in the traffic programmes: a rotating car and the body mass calculator. The rotating car has mostly made adults and older students more interested in traffic education; also, greater interest was shown in the family programmes. The museum's activities in the field of traffic education were supported by OÜ Rovico, who organised a seasonal exhibition on breathalysers. The exhibition remains open in 2013.

The traffic week in May and September focused on the adequate traffic behaviour of students. The family day on traffic safety, held in June, concentrated on the safety of family travels. Of the events organised by the ERA, the regional stage of the bicycle competition *Vigurivänt* took place in September. ■

TRAFFIC COUNT

Changes in Estonian economy are directly reflected in the results of the 2012 traffic count.

While in 1998-2007 the traffic volume steadily increased by about 6-10% per year on main and basic roads, the traffic volume dropped in 2008-2010 and showed a slightly rising tendency again in 2011 (an increase of 0.5%). Compared to 2011, the traffic volume in 2012 increased by 0.1% on national roads, with a 1.3% increase on main roads and 0.9% on basic roads. On the secondary roads, however, the traffic volume decreased by 3.6%.

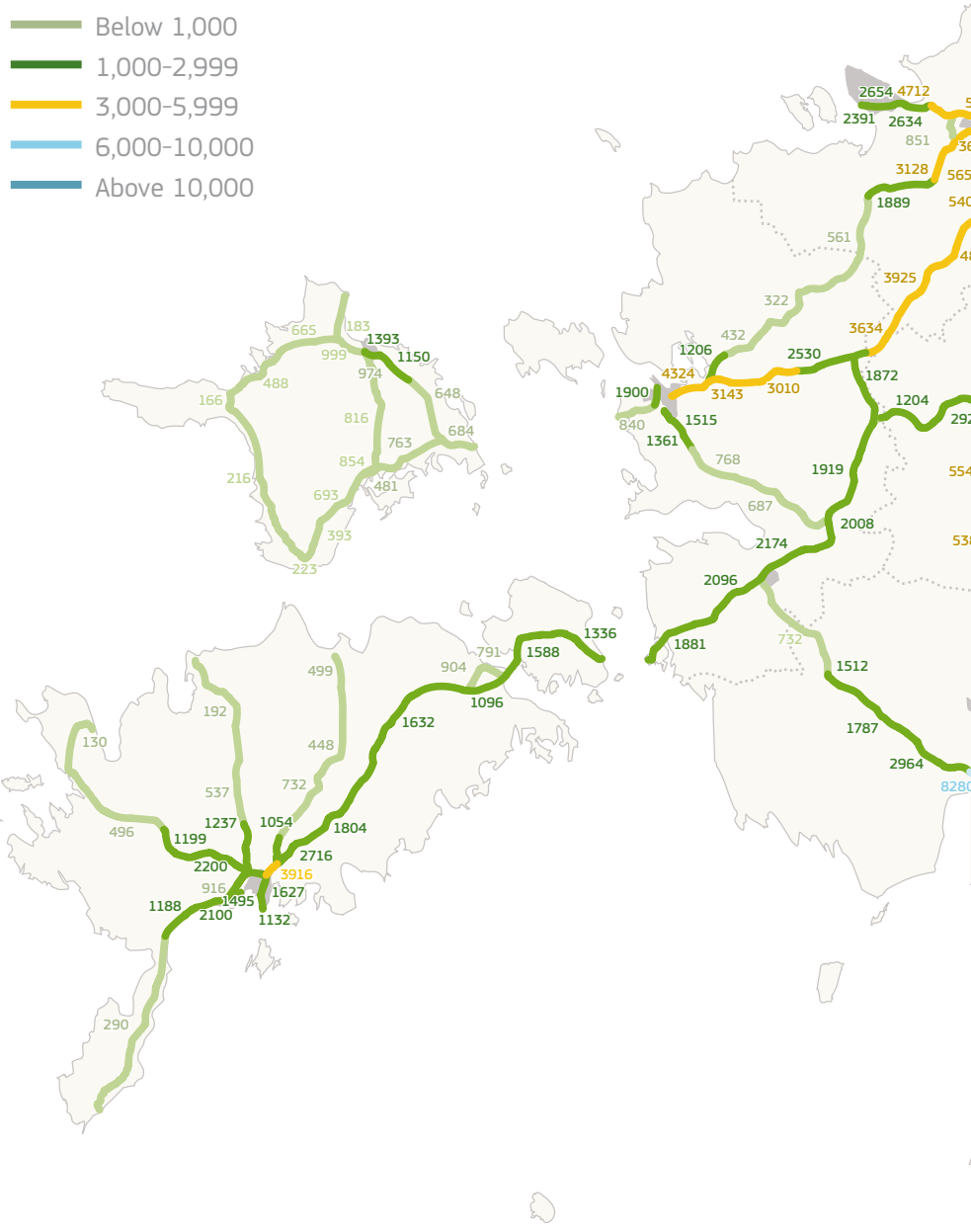
The road section with the greatest traffic volume continues to be the section bordering on the city of Tallinn on Tallinn-Pärnu-Ikla road. The average annual traffic volume was 31,411 vehicles a day on this 700-metre section (13.0-13.7 km) of the road.

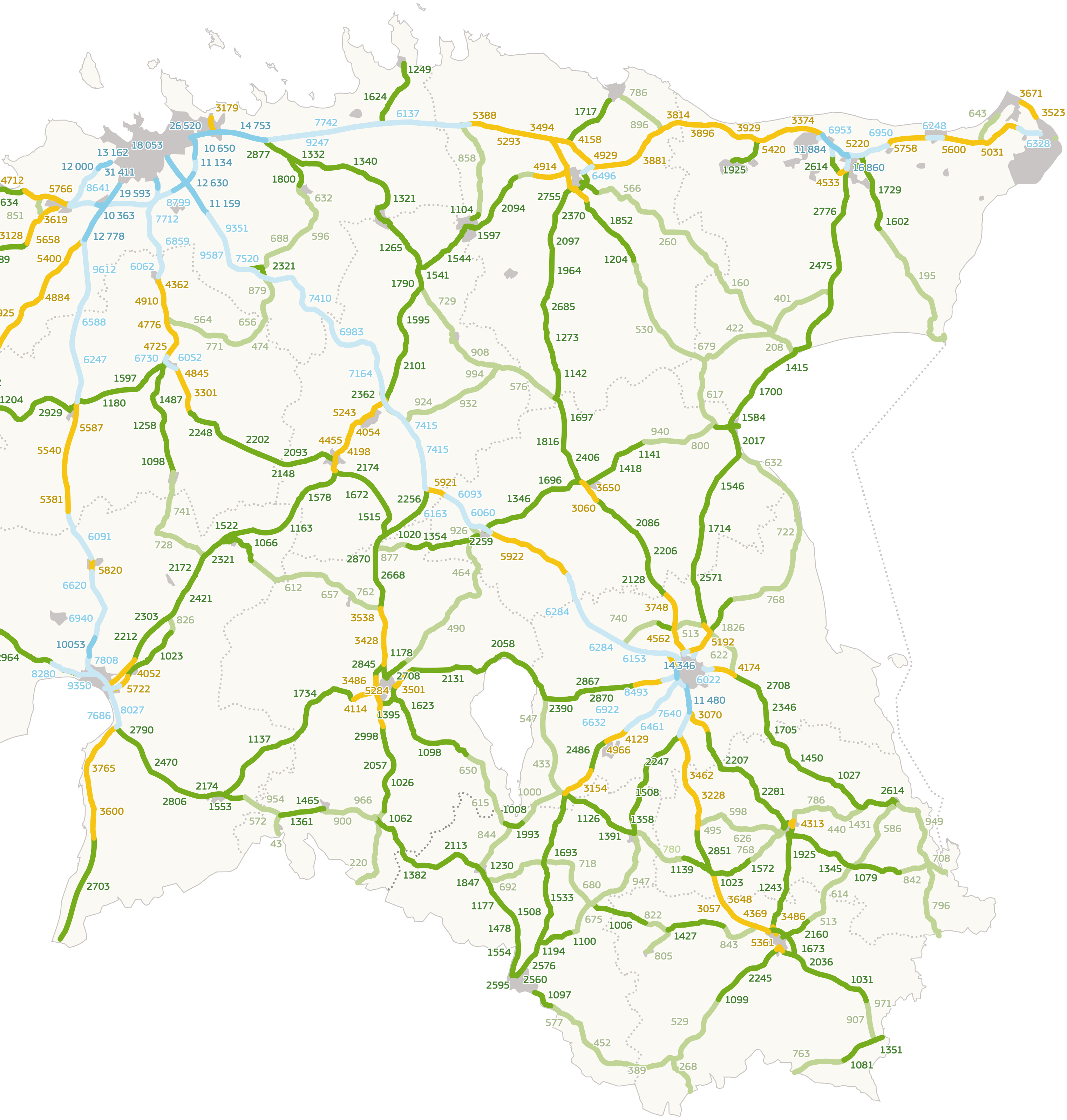
Since the summer of 2012, data of stationary counting points is transferred to the portal **tarktee.ee** every 15 minutes. This was made possible by the upgrade of the communication equipment of stationary counting points in 2011.

At the end of 2012, the four-year traffic count period was completed, during which actual traffic count was conducted on all traffic count sections of national roads. As a result of the count, there is comparable and high-quality traffic count data on the entire national road network for the first time.

Through special traffic count data analysis software, the volume of short-term traffic counts can be decreased in the future and the proportion of traffic count results calculated by the software can be increased, mainly on secondary roads. For the state, this means lower costs without lowering the quality of the data. ■

ANNUAL AVERAGE DAILY TRAFFIC FREQUENCY | VEHICLES PER DAY




1249
1624
3179
26 520
14 753
7742
6137
5388
1717
786
3671
3523
643
6248
18 053
13 162
10 650
9247
1332
2877
11 134
12 000
31 411
1340
858
5293
3494
4158
896
3814
3896
3929
3374
6953
6950
5420
11 884
5220
5758
5600
5031
6328
4712
5766
8641
19 593
12 630
1800
4914
4929
3881
1925
2614
16 860
4533
634
851
3619
10 363
7712
8799
11 159
632
1321
1104
2094
2755
6496
566
1729
2776
1602
3128
5658
12 778
6859
9351
596
688
1265
1597
2370
1852
260
5400
9612
6062
9587
7520
2321
1544
2097
1204
2475
195
4362
879
7410
1790
1541
729
1964
160
4884
4910
564
656
1595
2685
401
925
6588
4776
6983
908
1273
530
422
208
4725
6730
6052
771
474
2101
994
1142
679
1415
6247
4845
7164
576
1597
3301
2362
924
932
617
1700
1204
1180
1487
5243
4054
7415
1697
1584
2929
5587
1258
2248
2202
4455
940
800
2017
5540
2093
4198
7415
1816
2406
1141
1098
2148
2174
1418
632
5381
1672
1578
5921
1696
3650
1546
6093
2256
1346
741
1515
6163
6060
3060
1522
1163
2086
1714
722
6091
926
1020
1354
2259
728
1066
5922
2206
2321
2870
877
5820
2172
2668
464
2128
2571
612
6620
762
657
6284
3748
768
2421
3538
740
1826
6940
826
2303
490
4562
513
5192
3428
2058
6284
622
2212
1178
6153
10053
1023
2845
14 346
4174
7808
2708
2131
2867
6022
2708
964
4052
8280
3486
5284
3501
8493
2870
11 480
2346
9350
5722
1734
4114
1623
2390
6922
7640
3070
1395
547
6632
6461
1705
7686
8027
2790
2998
4129
1137
1098
2486
4966
1450
2207
1027
2470
2057
650
433
2247
3462
3765
3154
2281
1026
1508
3228
2174
1000
2614
2806
1553
954
1465
966
1008
786
1126
1358
598
949
3600
572
1361
900
1062
615
4313
440
1431
586
495
626
1993
1391
844
43
2113
780
2851
768
1925
708
1693
220
1230
718
1139
1572
1345
1079
842
1382
1847
692
680
947
1023
1243
614
2703
1533
3648
1177
3057
4369
3486
796
675
822
513
1508
1006
2160
1478
1427
843
5361
1673
1100
1194
805
1554
2036
2576
2245
1031
2560
2595
1097
1099
971
577
529
907
452
1351
763
389
268
1081

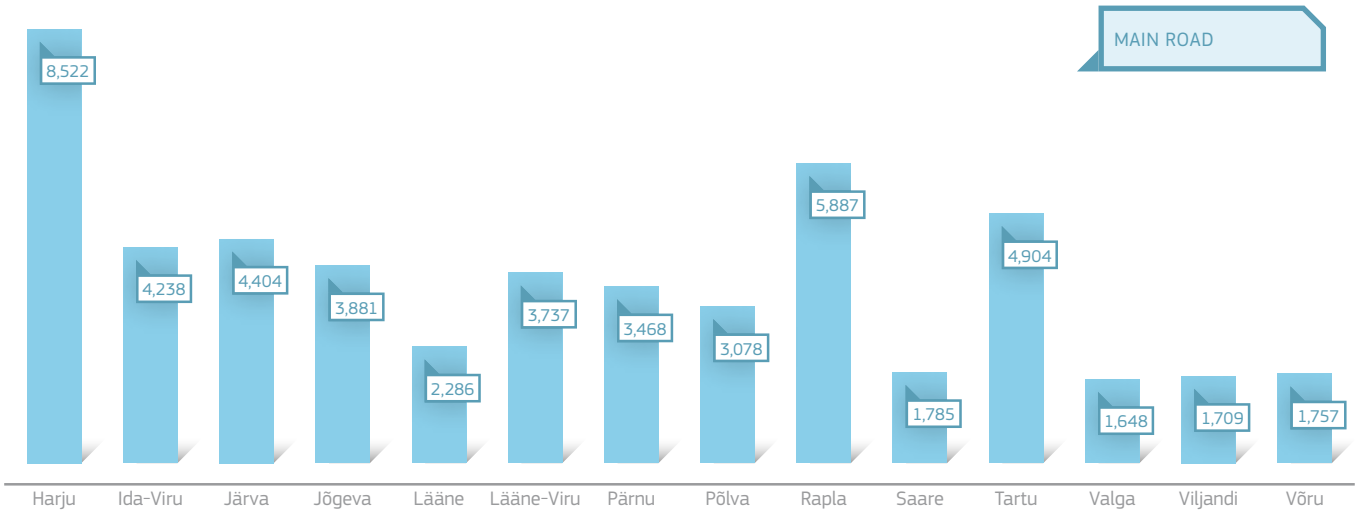
TRAFFIC COUNT

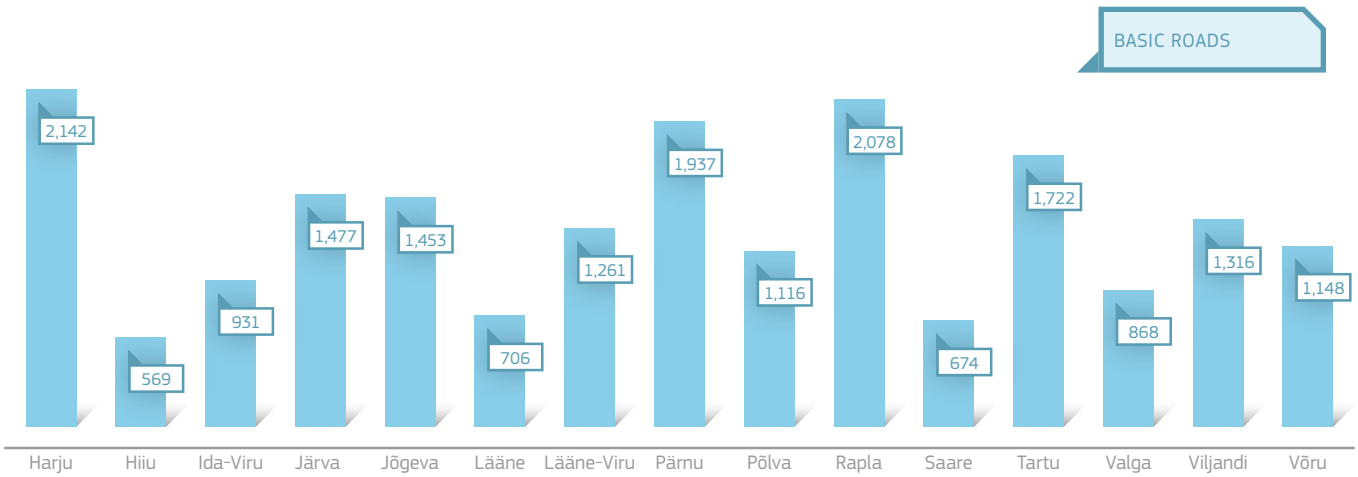
NUMBER OF VEHICLES

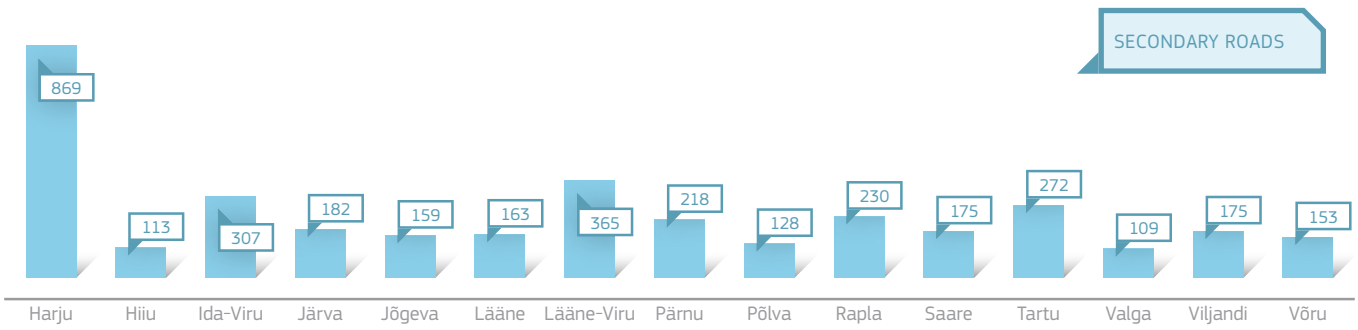
BY COUNTIES AS OF 01.01.2013

	PASSENGER CARS		BUSES		TRUCKS		MOTORCYCLES (INCLUDING MOPEDS)		TRAILERS	
	TOTAL	PRIVATE	TOTAL	PRIVATE	TOTAL	PRIVATE	TOTAL	PRIVATE	TOTAL	PRIVATE
Harju	230,841	151,650	1,749	134	35,076	7,318	11,492	10,098	25,647	11,310
Tallinn	157,494	100,413	1,393	73	24,003	4,011	6,669	5,658	15,854	5,979
Hiiu	6,362	5,315	23	8	956	422	655	625	1,045	720
Kärdla	2,010	1,625	4	1	418	126	179	170	373	209
Ida-Viru	54,383	46,340	733	71	5929	2131	1863	1760	4625	2730
Narva	18,369	16,138	143	31	1624	570	573	547	1147	590
Kohtla-Järve	12,921	11,057	396	9	1089	388	304	293	817	543
Jõhvi	4,701	3,466	49	3	812	169	151	137	529	275
Jõgeva	17,672	14,528	120	30	2,633	1,112	1,470	1,395	2,673	1,899
Jõgeva	2,966	1,995	25	10	410	117	177	163	335	226
Järva	16,865	13,869	71	25	2,480	935	1,172	1,105	2,180	1,463
Paide	3,706	2,912	12	6	459	129	193	171	454	270
Lääne	14,762	11,031	73	17	2,504	762	893	842	1,993	1,411
Haapsalu	5,665	3,709	20	4	1,171	168	274	249	662	450
Lääne-Viru	30,631	24,745	227	16	5,193	1,945	1,950	1,837	4,317	2,648
Rakvere	7,702	5,785	109	3	1,345	367	392	353	1082	666
Põlva	18,854	16,369	79	34	2,596	1,243	1,227	1,185	2,431	1,714
Põlva	3625	2,962	14	3	657	160	219	209	594	305
Pärnu	39,793	31,677	134	35	6,148	2,316	2,792	2,609	5,726	3,503
Pärnu	16,425	12,424	63	11	2,465	665	1,037	946	2184	1,165
Rapla	19,498	15,960	117	39	2,879	1,214	1,420	1,332	2,652	1,714
Rapla	2,605	1,988	35	1	393	89	188	170	412	215
Saare	18,913	15,442	90	10	2,672	1,114	1,654	1,538	3,125	2,241
Kuressaare	7,094	5,493	51	0	1,110	286	506	461	1220	796
Tartu	64,225	50,198	452	52	9,409	2,780	3,828	3,513	9,898	5,341
Tartu	38,093	28,647	345	26	5,489	1,224	1,955	1,741	5940	2768
Valga	16,492	14,181	56	15	2,224	1,006	993	938	2,121	1,498
Valga	5,678	4,999	10	3	778	316	289	276	661	483
Viljandi	26,355	21,811	241	47	3,877	1,718	2,101	1961	3,607	2,596
Viljandi	8,830	6,927	151	13	1,421	418	676	618	1225	785
Võru	20,176	17,572	142	40	2,975	1,411	1,212	1,135	2,597	1,780
Võru	6,646	5,563	18	3	1,047	346	386	347	886	514
Undefined	6,311	5,270	4	4	494	415	551	534	520	432
Total	**602,133**	**455,958**	**4311**	**577**	**88,045**	**27,842**	**35,273**	**32,407**	**75,157**	**43,000**

AVERAGE TRAFFIC VOLUMES | BY COUNTIES PER 1 KM FOR 24H

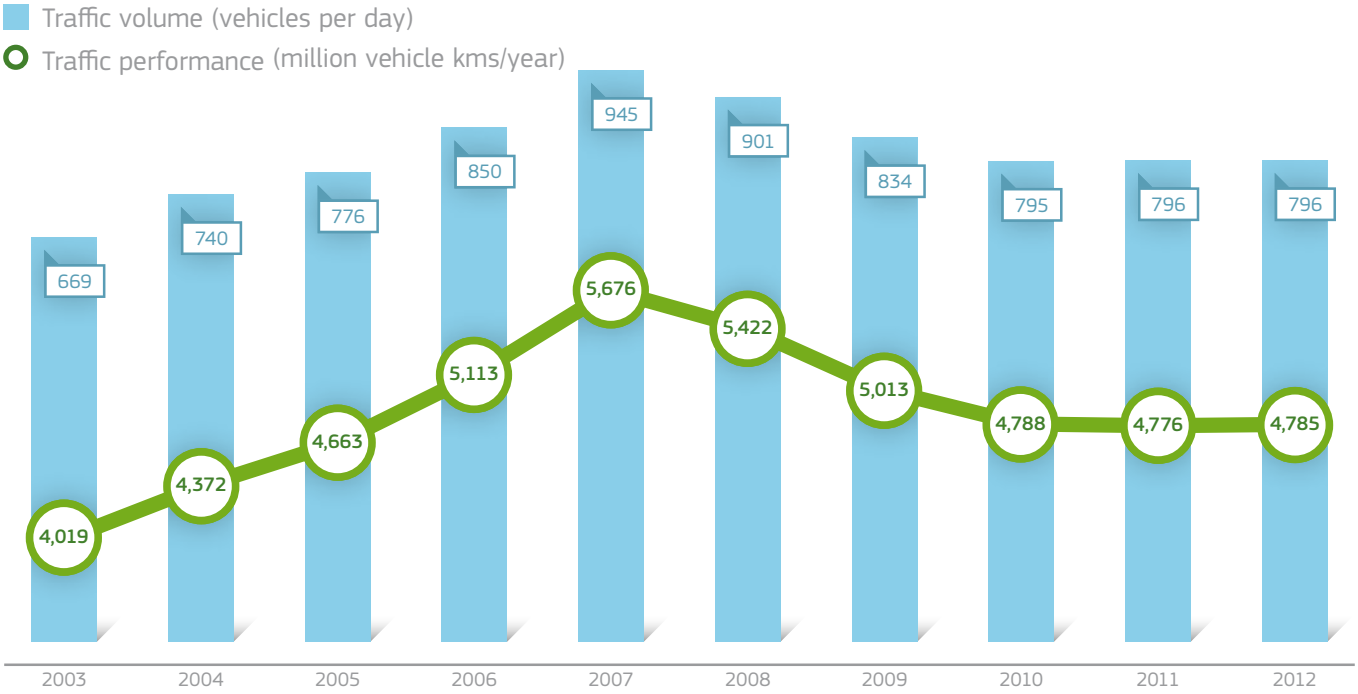






TRAFFIC COUNT

TRAFFIC VOLUME AND PERFORMANCE ON NATIONAL ROADS | IN 2003-2012



PASSENGER CARS FIRST REGISTRED IN TRAFFIC REGISTER | IN 2012 (TOP 15)

MAKE	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	OLDER	TOTAL
Volkswagen	1,746	82	101	301	412	393	323	288	275	301	296	316	370	409	390	305	192	113	76	27	25	36	6,777
Toyota	2,522	54	86	146	195	248	160	141	130	139	111	58	38	26	24	11	5	5	10	0	1	24	4,134
Audi	386	158	124	299	456	396	261	234	158	147	183	195	183	232	191	176	143	89	29	14	12	25	4,091
Ford	843	18	44	190	422	292	176	179	222	224	252	194	177	181	91	51	36	17	10	8	7	22	3,656
Volvo	431	76	67	183	318	340	243	207	249	227	241	170	204	171	116	68	38	10	3	7	1	15	3,385
Bmw	377	153	111	158	243	215	139	167	218	218	215	192	171	147	73	36	50	22	24	11	17	39	2,996
Mercedes-Benz	312	135	104	104	183	167	184	118	104	137	120	115	97	82	58	59	41	25	25	22	15	90	2,297
Škoda	1,750	15	33	72	72	49	33	17	17	28	33	21	25	17	10	3	1	0	0	0	0	0	2,196
Opel	594	22	25	71	90	105	86	102	134	148	132	127	161	147	78	39	35	16	12	9	5	7	2,145
Nissan	1,118	9	9	18	23	36	51	79	76	68	55	29	29	15	14	11	10	6	4	7	0	10	1,677
Peugeot	1,141	7	18	14	27	31	27	25	36	31	24	32	26	27	19	6	15	4	4	1	3	5	1,523
Honda	1,012	18	36	46	41	58	41	44	54	27	23	5	10	13	7	9	5	3	1	1	3	3	1,460
Renault	911	4	10	10	21	29	27	42	66	53	39	24	32	22	26	16	7	7	5	1	2	3	1,357
Kia	953	5	7	10	13	39	40	69	62	69	26	4	6	0	0	0	1	0	0	0	0	0	1,304
Hyundai	892	11	11	14	12	37	52	39	31	29	30	17	10	12	8	2	2	0	1	0	0	0	1,210

CARS REGISTRED IN TRAFFIC REGISTRY | BY SPECIFICATIONS IN 2012

COLOUR	QNTY
black	10,971
grey	8,228
silver	5,692
white	3,676
blue	3,373
dark blue	2,992
dark grey	2,970
red	2,896
brown	1,849
beige	1,306
green	1,146
light grey	935
dark green	798
dark red	625
light blue	441
violet	346
light green	254
golden	238
dark brown	232
yellow	217
orange	203
light beige	128
light brown	98
light yellow	11
pink	8
undefined	1
dark yellow	1
TOTAL	**49,635**

ENGINE POWER (KW)	QNTY
up to 59	3,080
60-74	6,068
75-99	14,753
100-124	14,183
125-149	5,409
150-199	4,564
200-249	1,082
250-299	250
300-399	194
400	7
405	2
408	9
410	1
412	8
416	3
419	1
420	2
423	12
426	2
448,7	1
463	1
486	1
515	2
Total	**49,635**

ENGINE CAPACITY (CM^3)	QNTY
up to 950	543
951-1,150	303
1,151-1,250	1,955
1,251-1,350	557
1,351-1,450	2,390
1,451-1,550	1,033
1,551-1,650	6,901
1,651-1,750	623
1,751-1,850	3,259
1,851-1,950	4,480
1,951-2,150	11,305
2,151-2,350	2,422
2,351-2,550	5,530
2,551-2,750	784
2,751-2,950	1,176
2,951-3,450	4,762
3,451-3,950	533
3,951-4,950	723
4,951-5,950	244
over 5,951	112
Total	**49,635**

DOORS	QNTY
5	36,877
4	10,376
3	1,531
2	844
0	5
1	1
6	1
Total	**49,635**

CHASSIS TYPE	QNTY
Station wagon	22,975
Hatchback	9,584
Sedan	8,663
Minivan	7,202
Coupe	647
Convertible	364
Caravan	91
Special purpose	64
Sports car	30
Limousine	8
Undefined	5
Pick-up	2
Total	**49,635**

TRAFFIC COUNT

VEHICLES SUBMITTED TO TECHNICAL INSPECTION | BY BUREAU IN 2012

EXCLUDING TRACTORS AND THEIR TRAILERS

BUREAU	INSPECTIONS TOTAL	INSPECTIONS PASSED	INSPECTIONS FAILED	PERIODICAL TECHNICAL INSPECTIONS TOTAL	PERIODICAL TECHNICAL INSPECTIONS PASSED	PERIODICAL TECHNICAL INSPECTIONS FAILED	PERIODICAL TECHNICAL INSPECTIONS FAILURE %	NUMBER OF VEHICLES	AVERAGE AGE OF VEHICLES
Haapsalu	7,298	6,311	984	7,071	6,088	980	13.86	6,098	12
Jõgeva	14,146	12,872	1,273	13,880	12,606	1,273	9.17	12,485	14
Jõhvi	25,370	22,778	2,579	23,837	21,298	2,526	10.60	20,937	12
Kuressaare	12,548	11,310	1,238	12,399	11,162	1,237	9.98	11,093	13
Kärdla	4,076	3,761	310	3,980	3,666	309	7.76	3,633	14
Narva	15,622	14,657	964	14,308	13,383	924	6.46	13,157	14
Paide	13,885	13,111	773	13,363	12,589	773	5.78	12,492	13
Põlva	13,230	11,553	1,659	12,924	11,249	1,657	12.82	11,178	14
Pärnu	35,344	32,088	3,233	33,304	30,056	3,225	9.68	29,828	12
Rakvere	23,833	21,839	1,992	23,022	21,059	1,961	8.52	20,913	13
Rapla	8,489	7,949	535	8,149	7,609	535	6.57	7,613	13
Saue	59,849	55,125	4,696	48,504	44,313	4,172	8.60	45,522	11
Tallinn	144,740	13,456	14,204	134,326	120,325	13,921	10.36	119,932	11
Tartu	60,421	54,980	5,391	56,558	51,341	5,169	9.14	51,037	12
Valga	12,918	11,722	1,189	12,473	11,279	1,187	9.52	11,240	14
Viljandi	19,353	17,755	1,595	19,006	17,412	1,591	8.37	17,284	13
Võru	12,034	11,228	797	11,376	10,571	796	7.00	10,450	13
Total	**483,156**	**439,495**	**43,412**	**448,480**	**406,006**	**42,236**	**9.42**	**404,892**	**12**

DEFECTS DETECTED IN THE COURSE OF TECHNICAL INSPECTION | IN 2012, TOP 15

GROUP OF DEFECT	TYPE OF DEFECT	NUMBER OF DEFECTS
Identification and equipment	Accessories and immobilizer	36,298
Fittings	Main beam and dipped beam lamps	19,228
Fittings	Rear registration plate lamp	18,622
Chassis and bodywork	Bodywork	16,375
Chassis and bodywork	Front and rear axle	16,306
Brakes	service brake, secondary and parking brake, decelerator	15,873
Chassis and bodywork	Corrosion and appearance	15,687
Fittings	Front, side and rear side lamps	15,181
Engine	Exhaust systems	11,491
Engine	Exhaust gases of positive-ignition engines with Lambda sensor and catalyst	6,618
Chassis and bodywork	Springs, dampers and stabilizers	6,605
Steering equipment	Steering linkage joints and steering stops	6,346
Brakes	Brake pipes	6,227
Fittings	Direction-indicator and emergency lamps	5,969
Fittings	Front and rear fog lamps	5,927

ROAD STUDIES

The is putting ever more emphasis on the research and use of local and recyclable materials. In 2012, research into several materials started, with the primary goal of testing and analysing the durability of existing local materials.

A thorough study was completed in 2012, in which the behaviour of the mixture of oil shale waste and sand in the embankment of Kukruse-Jõhvi road section on national road No. 1 was observed during three years. It was concluded from the study that in the future, the low-value oil shale waste can be used in the base course mixed with sand. In 2013, instructions on using the oil shale waste in the base course will be published by the ERA.

In the autumn of 2012, a cooperation agreement was signed with AS Viru Keemia Grupp for the exchange of study-related information. The cooperation agreement also includes conducting further studies for identifying and improving the qualities of the industry's waste materials. The goal of the studies is to find the most effective possibilities for using a maximum quantity of waste materials.

The ERA will continue participating in the OSAMAT project, run by AS Eesti Energia. The OSAMAT project is an environmental research and development project aimed at finding new uses for oil shale ash which could also be shared and applied internationally and incorporated into traditional methods. Within the project, different ways and conditions of using oil shale ash and waste in road construction will be tested and demonstrated – through the mass stabilisation of soft peat soil or layer stabilisation of the existing subgrades, using oil shale waste and ash as binder.

In the future, the ERA will actively continue research into local and recyclable materials, with the goal of decreasing the use of new and imported materials in road construction and, at the same time, ensuring the durability of the road structure. ■

PUBLIC TRANSPORT

The functions of the public transport department of the ERA are the management of bus transport, more specifically, the organisation of the management of county lines and issuance of long distance line permits, and the maintenance and development of the public transport register.

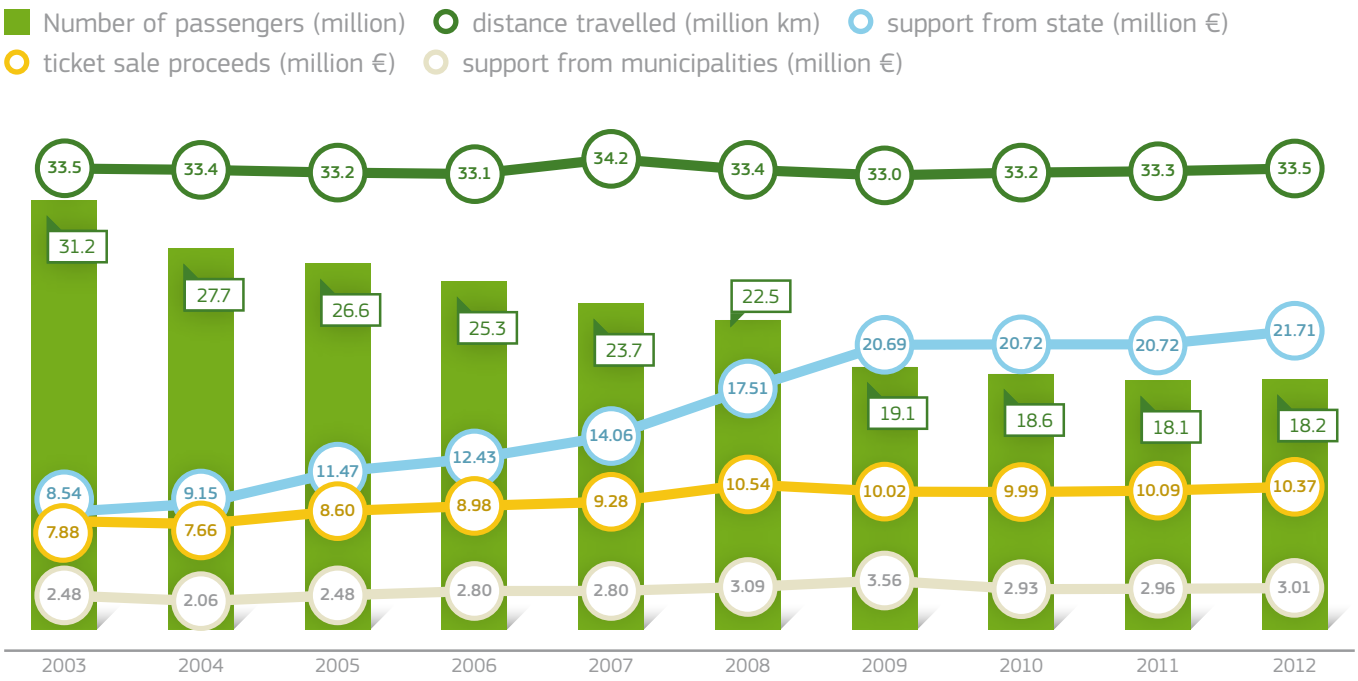
The ERA presents analyses and proposals on the distribution of resources allocated for the support of county lines to the county government. The partners of the ERA in providing county line services are the county governments and regional public transport centres in Harju, Järva and Jõgeva counties, where, according to the procedure of public procurements, public service contracts are signed with the carriers. In 2012, there were 52 contracts signed with the carriers in force, an average of 3.5 contracts per county. In 2012, the procurement proceedings for the signing of the three largest contracts were concluded in Ida-Viru county; regular line services under the agreements started on 1 April 2012, whereas 42 buses purchased by the state were granted to the use of the carrier. The buses were purchased from the Czech company Iveco Irisbus from the resources obtained under the agreement for emissions trading signed between the Republic of Estonia and the Kingdom of Spain.

In 2012, procurement proceedings were commenced in Harju and Lääne-Viru counties due to the expected end of the term of the public service contracts. The public transport department of the ERA also provided consultations in the organisation of procurement proceedings for finding a carrier for the urban lines in the city of Kohtla-Järve. The three abovementioned procurement proceedings will continue in 2013. In the framework of the Green Investment Scheme implemented together with the Kingdom of Spain, procurement proceedings were started for the purchase of natural gas and hybrid buses. Within this project, the ERA signed a procurement contract in November with MAN Truck & Bus AG and Keil M.A. OÜ for the purchase of 7 CNG (compressed natural gas) buses and 3 CNG-electric buses. The buses will start servicing the urban lines in the cities of Pärnu and Narva. At the same time, the project boosted the construction of natural gas filling stations in these cities, thus creating potential for the increase in the use of natural gas vehicles.

Due to the rising costs of regular bus carriage, the allocation of resources from the state budget has also increased each year. While in 2011, resources were allocated in the amount of 20.72 million euros, the amount was 21.71 million euros in 2012, i.e. an increase of 4.8%. It was not possible to increase the proportion of ticket sale proceeds and support from the municipalities, since the costs of the transport service were rising at the same rate. The number of passengers has dropped in recent years, which is why buses servicing certain lines have been replaced with smaller ones. The route network is being constantly rearranged according to needs; however, the volume of the routes has not been reduced, since this would deprive the current passengers of the possibility of moving around. Due to the cancellation of some commercial lines, the service volumes have increased. The carriers have stopped their services owing to poor ticket sale proceeds; to maintain the service for the passengers, these lines had to be replaced by public passanger services.

The municipalities allocate support for regular bus carriage services based on the necessary journeys of students and some also for travel fare concessions for the elderly. When the number of journeys of the students decreases or remains the same, the proportion of support from the municipalities cannot increase either. Therefore, there continues to be pressure to increase the proportion of support from the state budget in order to ensure sufficient public transport for the necessary journeys of the residents. In 2012 the proportion of support from the state budget has amaunted 61% of the cost. After the generally falling trend, the number of passangers rose by 60.1 thousand. i.e 0.3% in 2012.

PUBLIC PASSANGER SERVICES ON COUNTY LINES | IN 2012



The proportion of state support differs by county, depending on the specifics of the route network, the average number of passengers travelling on the routes and the market situation at the time of the procurement proceedings, which determines the level of the cost per kilometre in the tenders. Thus, the proportion of support allocated from the 2012 state budget was 45.1% in Ida-Viru county, 53.1% in Tartu county, 55.4% in Harju county, 79.4% in Hiiu county, 74.6% in Valga county, 72.3% in Saare and Võru counties. In Ida-Viru county, the proportion of support paid from the state budget decreased due to the use of buses purchased by the state, which allowed to cover expenses arising from the increased costs of the regular services in other counties, as well.

The ERA's partners in the management of long-distance bus lines are the passenger carriers. 33 national long-distance bus line permits were issued and 35 changes in timetables were approved in 2012. Eight line permits were revoked and three line permits were refused. The ERA also started amending the principles of issuing line permits, also engaging the representatives of passenger carriers in the process.

There were 20 supervision proceedings, for instance, regarding compliance with the line permit requirements, technical condition of buses (in cooperation with the Police and Border Guard Board) and the management of regular services on county lines by county governments. In the course of the proceedings, two precepts were issued; three extraordinary inspections were ordered; one driving ban was imposed and recommendations for eliminating the defects were prepared.

Work on the public transport register continued with the further development of the portal peatus.ee, which displays national timetables for all county and urban bus lines, long-distance coaches, international coaches and buses, ferries, flights, trains, trolleybuses and streetcars. In 2012, the portal was visited by an average of 360,000 people a month. In September, there was a noticeable rise in the number of users – a total of 427,000 visits. The continuing increase in the number of the users of the portal signals the necessity of the system for the users of public transport, but also substantiates the need to keep contributing to both the quality of the data and user friendliness of the portal.

In 2012, the ERA started the further development of the register's data composition, also including information about ticket prices of Tartu and Jõgeva county lines. Ensuring access to such information in peatus.ee portal is also one of the priorities of IT development in public transport for 2013.

At the same time, solutions providing information on public transport in real time were improved in 2012; also, data on the city and county of Tartu was included in the information system. In order to also engage the private sector in the development of convenient user applications based on the data of the public transport register, the ERA opened a download channel for the open data of the public transport register. Preparations were made for publishing the data on domestic public transport in Google environment. ■

DRIVING LICENCES AND EXAMINATIONS

The ERA pays ever more attention to raising the level of preparing and testing new drivers so that the provisional driving licence could be granted to a young driver who is already well prepared and sufficiently experienced.

This means that preparation should not be limited to driving lessons provided by the driving school but the learner should also have the possibility of receiving necessary driving practice by driving alongside an accompanied driver. For this purpose, a practical guide for an accompanied driver have been prepared and are available on the ERA home page. The practical guide gives a clarifying overview of the purpose of accompanied driving, role of the accompanied driver and the importance of driving practice in the preparation of a new driver. Also, practical tips are given to the accompanied driver for instructing the driver and successfully conducting the driving practice. In recent years, driving practice alongside an accompanied driver has become increasingly popular – for instance, 7,408 certificates for accompanied driver were issued in 2012, which is 400 certificates more than in 2011.

The accompanied driver is not a driving instructor and does not take on the role of the driving instructor. Whereas the driving instructor's task is to teach the learner and give him or her necessary skills and in-depth knowledge, the role of the accompanied driver is to direct the learner and, on the basis of his or her driving experience, develop the necessary skills in the driver and help him or her acquire safe driving behaviour. In the course of the driving practice, the accompanied driver also gives feedback to the driver and guides him or her towards the right values. The recommended driving practice before taking the driving test is at least 3,000-4,000 km. The more thorough the practice, the safer the behaviour of the new driver in the traffic.

EXAMINERS TRAINING IN 2012

International statistics show that the main cause of accidents is not technical failure of the car or poor traffic organisation but the erroneous behaviour of drivers. For instance, the driver does not pay enough attention in the situation, since he or she was talking on the phone; perhaps the driver was in a hurry, took a risk and crossed the junction with the yellow light to save time. The reasons for the mistakes lie in the person, their behaviour and lack of driving experience. Therefore, sufficient driving practice also helps to prevent accidents.

A major part in traffic safety promotion is played by the driving examiner in the stages of preparing the driver, testing him or her and granting him or her the right to drive. At the annual training of examiners, the general principles of the competency-based assessment method, very different from the traditional assessment based on mistakes, were introduced to the examiners for the first time in 2012. Competency-based assessment is a state-of-the-art assessment system, which allows the examiners to assess the skills and behaviour of the examinee in a way that is much more motivating for the person compared to the traditional assessment method. Each examinee expects to be tested by a reliable, fair and professional expert and hopes to receive thorough and motivating feedback after the test. Also, the new assessment system helps to raise the competence level of new drivers even at the driving test, since the feedback on the driver's performance in the test has an educating content. ■

STATISTICS ON CATEGORY B DRIVING TESTS | IN 2012

BUREAU	PARTICIPANTS	PASSED	PASSAGE RATE %	1ST ATTEMPT PASSED	2ND ATTEMPT PASSED	PASSING RATE %
Haapsalu	770	471	61.2%	464	284	61.2%
Jõgeva	513	359	70%	334	250	74.9%
Jõhvi	1,540	598	38.8%	719	293	40.8%
Kuressaare	668	464	69.5%	467	338	72.4%
Kärdla	190	146	76.8%	143	107	74.8%
Narva	1,663	758	45.6%	826	315	38.1%
Paide	1,356	869	64.1%	846	532	62.9%
Põlva	587	349	59.5%	380	226	59.5%
Pärnu	1,788	956	53.5%	1,059	559	52.8%
Rakvere	1,839	786	42.7%	909	410	45.1%
Rapla	972	570	58.6%	553	354	64%
Saue	33	19	57.6%	24	14	58.3%
Tallinn	8,097	4,010	49.5%	4,416	2,240	50.7%
Tartu	2,943	2,012	68.4%	2,149	1,474	68.6%
Valga	459	344	74.9%	346	264	76.3%
Viljandi	960	599	62.4%	607	394	64.9%
Võru	672	484	72%	502	369	73.5%
Total	**25,050**	**13,794**	**55%**	**14,744**	**8,423**	**57.10%**

ISSUED LICENCES, CERTIFICATES AND CARDS | BY BUREAUS DURING 1.01.2012 - 31.12.2012

BUREAU	PROVISIONAL DRIVING LICENCE	ACCOMPANIED DRIVER'S CERTIFICATE	DRIVING LICENSE	DRIVING INSTRUCTOR'S CERTIFICATE	RESTRICTED DRIVING LICENCE	PLEASURE CRAFT OPERATOR CERTIFICATE	ADR CERTIFICATE	PERSONAL WATER-CRAFT OPERATOR'S CERTIFICATE	DRIVER QUALIFICATION CARD	TAXI DRIVER'S QUALIFICATION CARD	INTERNATIONAL DRIVING PERMIT
Haapsalu	303	128	765	2	9	30	16		80	4	6
Jõgeva	312	188	742	9	2	15	9		83	1	4
Jõhvi	590	463	2,452	5	5	64	108		589	11	6
Kesklinna	1,404	590	10,286		1	349	48	7	445	338	207
Kuressaare	406	93	1,194	4	14	42	15		102	8	18
Narva	662	254	2,232	15	15	70	78		516	43	14
Paide	485	209	1,208	15	13	2	34		204	4	7
Põlva	249	116	771		18	19	27		114	5	10
Pärnu	934	412	2,870	13	29	101	91	4	453	21	13
Rakvere	736	477	2,182	5	24	45	61	5	393	27	13
Rapla	396	182	929	8	7	21	33		118	1	10
Saue	390	533	2,317	11	1	70	83	1	311	19	38
Tallinn	3,558	2,390	10,447	73	54	491	441	20	1,148	401	215
Tartu	2,110	962	7,138	38	40	256	122	1	767	139	79
Valga	307	85	886	2	11	24	25		139		1
Viljandi	558	195	1,541	3	12	27	36	1	210	14	10
Võru	451	131	1,529	2	12	10	20		178	7	12
Total	**13,851**	**7,408**	**49,489**	**205**	**267**	**1,636**	**1,247**	**39**	**5,850**	**1,043**	**663**

TRAFFIC SAFETY SITUATION

Activities of the National Traffic Safety Programme 2003-2015

2012 was the tenth year in which the organisation of work on traffic safety was based on the National Traffic Safety Programme 2003-2015. Whereas 223 fatalities in traffic accidents were registered in Estonia before the programme started in 2002, the number of fatalities in the first year of the last stage of the programme was 87. The goal Estonia has set is to have fewer than 75 fatalities a year in traffic (the average number of 2013-2015) by the end of the programme in 2015; to achieve this, the number of fatalities in 2012 could not exceed 94. This interim goal was met.

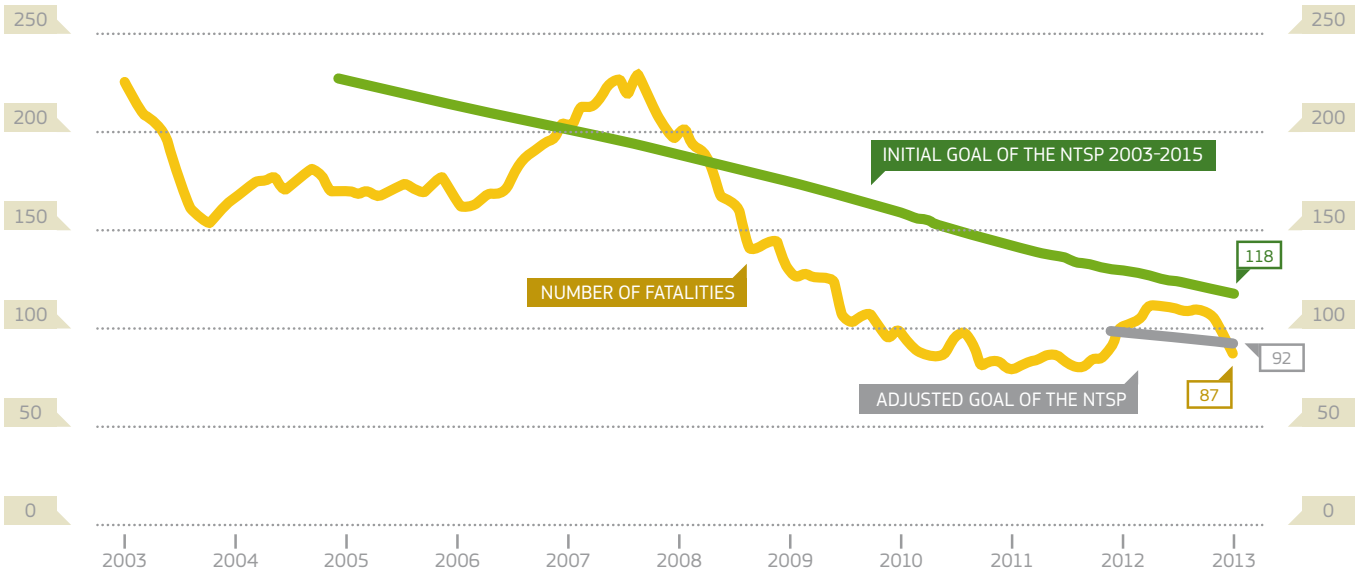
In setting the goals for the programme, Estonia proceeded from the traffic safety programmes of the European Union (EU). According to the fourth EU traffic safety programme, all member states must make their contribution to the common goal – decreasing the number of fatalities in traffic by half by the year 2020 compared with 2010. Since as many as 79 people lost their lives on Estonian roads in 2010, this is a very ambitious goal for Estonia – in 2020, the number of fatalities cannot exceed 40.

The implementation plan for the traffic safety programme comprises various activities aimed at educating the road users and increasing their awareness, improving the quality of the training of new drivers, making traffic supervision more efficient, reducing the effects of accidents, and shaping a safer traffic environment. In addition to the ERA and the Ministry of Economic Affairs and Communications, the programme also involves experts of the Ministry of Internal Affairs, Ministry of Educations and Research, Ministry of Social Affairs, Ministry of Justice, Ministry of Finance, Police and Border Guard Board, Estonian Rescue Board, Association of Estonian Cities, Association of Municipalities of Estonia, Tallinn University of Technology and Tallinn City Government.

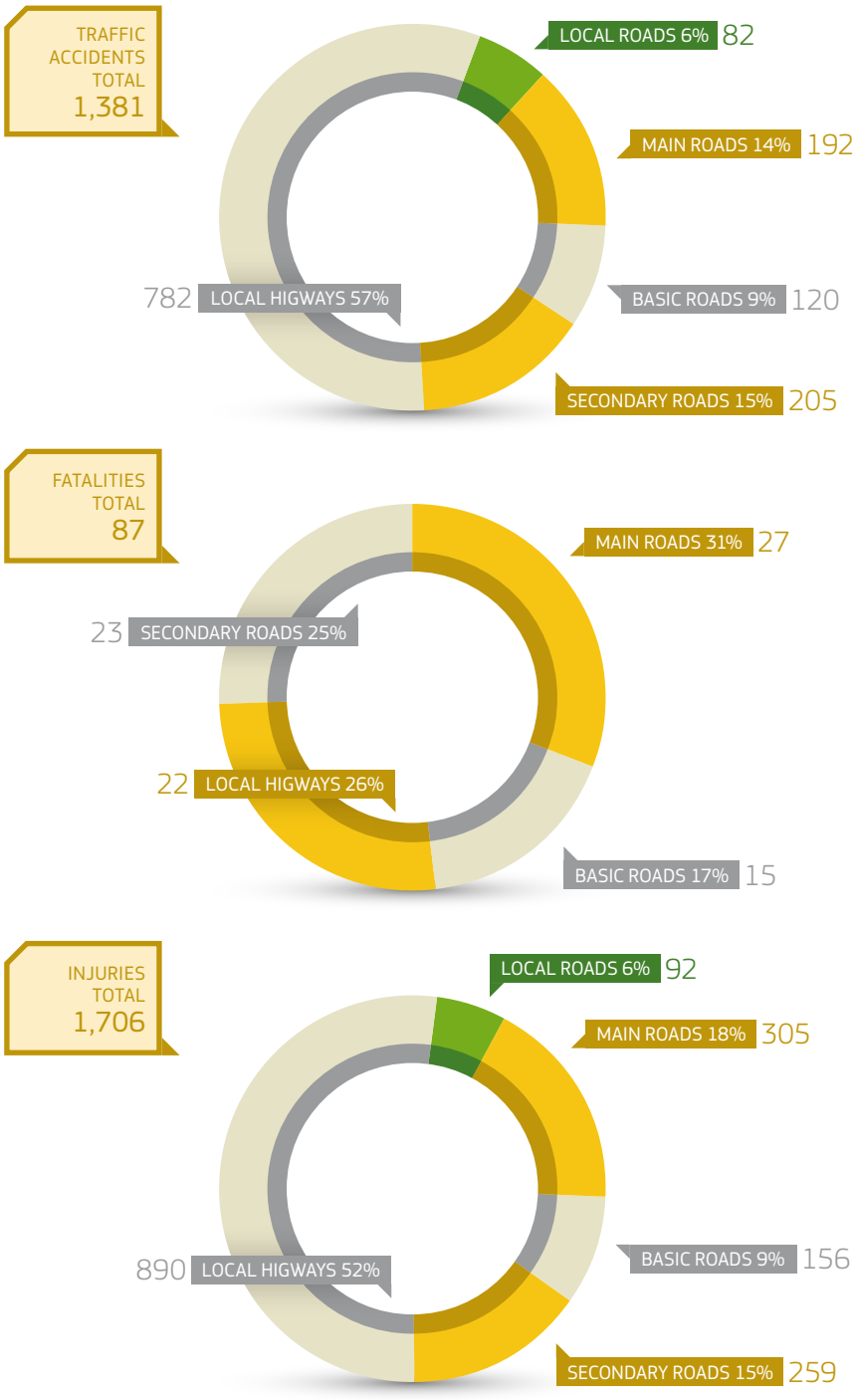
There has not been a steady improvement in the traffic safety situation since the implementation of the programme. In the first year of the programme, the number of fatalities dropped by approximately 25% and this level could be maintained in the following couple of years. However, in 2006-2007, the number of fatalities again rose to about 200. In the first stage of the programme, 2003-2007, several goals could not be achieved.

In 2008, an improvement occurred in the second stage of the programme, as the number of fatalities dropped by nearly one third in a year. The most successful year of the decade was 2010, with 79 fatalities. The reason for this improvement not only lies in the programme. In 2008-2010, the number of both accidents and victims decreased in the whole of Europe, largely due to the global economic crisis. Nevertheless, the positive impact of the traffic safety programme should not be underestimated: in 2011-2012, the number

NUMBER OF FATALITIES IN TRAFFIC IN 12 MONTHS COMPARED WITH THE GOAL OF THE TRAFFIC SAFETY PROGRAMME | AS OF 31.12.2013



TRAFFIC ACCIDENTS WITH FATALITIES AND CASUALTIES | IN 2012



of fatalities has not shown a considerable increase compared with the crisis years. While Estonia had been among the EU bottom states in traffic safety together with Latvia and Lithuania for years, today Estonia has raised its level and reached the average of the EU member states.

Pedestrians Most at Risk

The main problem was the safety of pedestrians. Whereas 14 pedestrians were killed in traffic in 2010, the number rose to 30 in 2012, i.e. 35% of all fatalities in traffic. What is particularly remarkable is the change in the situation during the past two years. Whereas in 2011, the rise in pedestrian fatalities was mainly caused by the increasing number of pedestrian fatalities in city traffic, in 2012, a heavy increase occurred in the number of fatalities on roads outside cities, and not only at night-time. Although traffic volumes have increased on major main roads, an increasing number of fatalities was registered on smaller basic and secondary roads, which also have few cycle and pedestrian tracks.

Nearly 40% of all pedestrian fatalities occurred at night-time. Middle-aged road users, who are also less accustomed to wearing a reflector, are most at risk.

People's greater interest in a healthy lifestyle and the notion that travelling by bicycle is cheaper than using a car or a bus have significantly contributed to the importance of bicycle as a means of transport in our traffic environment. Whereas there was a sharp rise in bicycle accidents in 2011, the situation somewhat stabilised by the end of 2012, with the number of accidents dropping to the level of 2008-2009. Behaviour at unregulated intersections and not keeping a safe lateral distance when passing a cyclist stand out as the two most risky situations. Also, cyclists tend to lack safe riding skills on wet roads.

TRAFFIC SAFETY SITUATION

A Safer Year for Drivers

The number of singe vehicle accidents with severe consequences started to increase in October 2011. The number of lives lost in such accidents was as high as 10 in the first half of 2012, compared with 6 in 2011. However, the situation was opposite in the last quarter of the year – there was only one fatality in the last quarter of 2012 compared with 12 a year earlier. There were also 50% fewer accidents registered in the 4th quarter compared with the same period a year earlier. The number of single vehicle accidents decreased by a total of 8% during the year and the number of fatalities in single vehicle accidents dropped as much as 30%. The main causes of single vehicle accidents are generally insufficient driving experience and drunk driving. However, against the background of the general falling trend in single vehicle accidents, no improvements can be detected in the cities of Tallinn, Tartu and Narva, where the proportion of young people is larger than anywhere else in Estonia.

The number of power driven vehicle collisions has been high throughout the year. Accidents have decreased in counties outside large cities and increased in the cities of Tallinn, Tartu and Narva. There were somewhat fewer accidents in the 1st quarter and fatalities in the 4th quarter of 2012 than in the same period of 2011. The total decrease in power driven vehicle collisions was 4% during the year, with a 12% decline in the number of fatalities in such accidents.

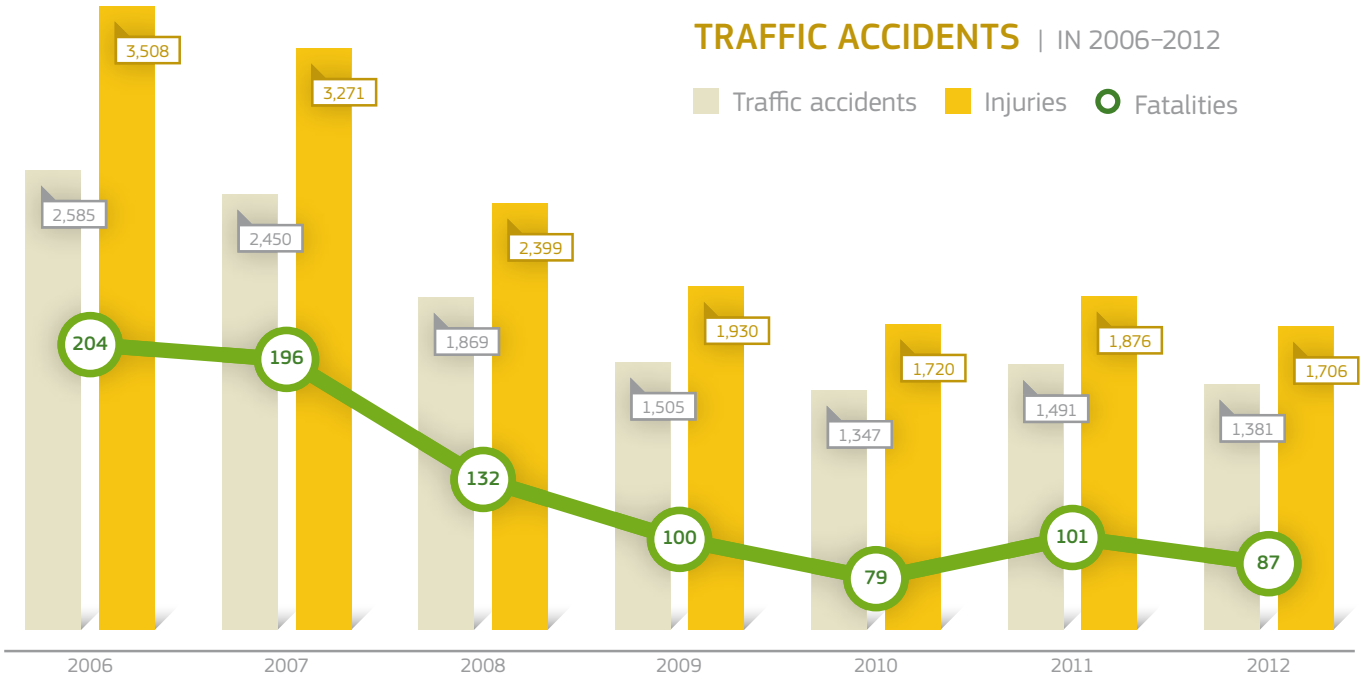
In 2012, a total of 42 people (56 in 2011) were killed driving in a passenger car and 932 injured (1,006 in 2011). An estimated 30% of people who were killed and 10% of those who were injured were not wearing their seatbelt.

Drunk Drivers

In 2012, drunk drivers (not including drivers with traces of alcohol consumption) were involved in a total of 170 traffic accidents, in which eight people were killed and 231 injured. A year earlier, there were a total of 180 accidents, with 14 fatalities and 257 injured. In that respect, 2012 was the most successful year (starting from 1990, as this type of statistics was first recorded). At the same time, however, there was an increase in the number of both accidents and fatalities in Harju county and Lääne-Viru county. The number of accidents was higher in Tallinn, Tartu, Kohtla-Järve, Järva county, Saare county, Valga county and Võru county compared with earlier periods.

When adding drunk cyclists to the drunk drivers, the number of fatalities in traffic caused by the over-consumption of alcohol was ten. One pedestrian and one cyclist were killed in accidents that involved a drunk power driven vehicle driver, and six people were killed driving in the car with a drunk driver.

The youngest drunk driver causing an accident was a 15-year-old boy riding a moped; the boy himself was also injured. The youngest drunk driver driving a car was a 16-year-old driver who had a moped driver's licence.



There were a total of 4 drunk minors among drivers of power driven vehicles.

Accidents on Roads

Although the main roads form less than 3 % of the Estonian road network, approximately one seventh of accidents resulting in fatalities and casualties and nearly one third of the victims killed in them were registered on these roads.

During 2012, a total of 192 accidents with fatalities and casualties were registered on the main roads, in which 27 people were killed. A year earlier, the number of accidents was 240, with 33 fatalities. The greatest improvement took place on Ääsmäe-Haapsalu-Rohuküla road, where the number of accidents registered decreased by eight compared with 2011, and none of them were fatal. The situation also turned for the better on Tallinn roundabout, where the number of accidents decreased by seven. No fatalities were registered on Pärnu-Rakvere road, Risti-Virtsu-Kuressaare road and Tartu-Viljandi-Kilingi-Nõmme road. The most accidents were registered on Tallinn-Paldiski road. Considering the traffic volume on this road, there were twice as many accidents per kilometre travelled and 2.5 times as many per kilometre as the average on main roads. The Ida-Viru section on Tallinn-Narva road and the Tartu county section on Tallinna-Tartu-Võru-Luhamaa road stand out negatively as road sections with particularly large numbers of fatalities. A third of all fatalities on all main roads was registered on these two road sections.

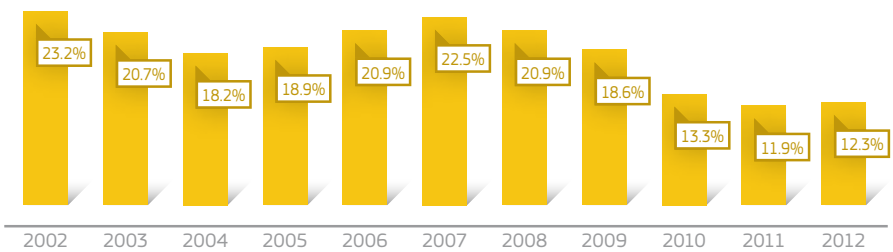
However, the biggest role in accidents is not played by the road section but the road user – his or her skills, abilities, and state of health. 51, i.e. a large majority of the 87 people who were killed in traffic in 2012 lost their lives as a direct consequence of their own mistake or negligence, either by violating the traffic regulations themselves or knowingly driving in a car with a drunk driver. ■

TRAFFIC ACCIDENTS BY COUNTIES AND BIGGER CITIES

IN 2010–2012

COUNTIES, CITIES	TRAFFIC ACCIDENTS			FATALITIES			INJURIES		
	2010	2011	2012	2010	2011	2012	2010	2011	2012
Cities, total	579	669	657	8	22	18	657	762	755
Tallinn	371	442	441	6	12	13	425	517	515
Tartu	118	119	143	0	4	0	130	133	159
Pärnu	55	62	33	1	2	2	64	61	35
Kohtla-Järve	12	14	10	1	2	0	12	18	10
Narva	23	32	30	0	2	3	26	33	36
Counties, total	768	822	724	71	79	69	1,063	1,115	951
Harjumaa	136	163	167	16	16	13	182	206	214
Hiiumaa	7	13	4	1	4	0	6	16	4
Ida-Virumaa	60	56	49	9	10	10	80	72	75
Jõgevamaa	40	51	40	10	6	5	43	67	52
Järvamaa	47	54	46	7	5	3	66	67	76
Läänemaa	20	26	17	2	0	1	27	35	22
Lääne-Virumaa	77	74	70	4	3	8	97	96	83
Põlvamaa	41	35	41	2	3	2	63	56	50
Pärnumaa	58	63	44	2	4	7	98	80	54
Raplamaa	45	27	28	4	6	4	58	44	41
Saaremaa	27	36	34	0	3	1	34	50	37
Tartumaa	81	73	66	6	5	8	105	110	96
Valgamaa	31	35	34	4	3	2	46	60	37
Viljandimaa	50	59	46	2	6	1	84	84	67
Võrumaa	48	57	38	2	5	4	74	72	43
Total	**1,347**	**1,491**	**1,381**	**79**	**101**	**87**	**1,720**	**1,877**	**1,706**
Compared with previous year	-10.5%	10.8%	-7.4%	-21.0%	27.8%	-13.9%	-10.9%	9.1%	-9.1%

SHARE OF TRAFFIC ACCIDENTS CAUSED BY DRUNK DRIVERS | IN 2002–2012



TRAFFIC SAFETY SITUATION

TRAFFIC ACCIDENTS, FATALITIES AND INJURIES BY TYPES OF ROADS AND ACCIDENTS

	TRAFFIC ACCIDENTS				FATALITIES				INJURIES			
	TOTAL	NATIONAL ROADS	LOCAL ROADS	OTHERS	TOTAL	NATIONAL ROADS	LOCAL ROADS	OTHERS	TOTAL	NATIONAL ROADS	LOCAL ROADS	OTHERS
Accidents total	**1,381**	**521**	**782**	**78**	**87**	**65**	**22**	**0**	**1,706**	**724**	**890**	**92**
day time	955	348	547	60	53	37	16	0	1,168	486	609	73
night time	426	173	235	18	34	28	6	0	538	238	281	19
By types												
Collision of motor vehicle with moving vehicle (excl. mopeds)	389	170	215	4	29	28	1	0	597	294	292	11
Collision of motor vehicle with standing vehicle	15	8	5	2	0	0	0	0	18	11	5	2
Collision with pedestrian	378	53	282	43	28	18	10	0	368	36	287	45
One vehicle accidents	318	211	92	15	19	12	7	0	422	293	111	18
Bicycle accidents	142	36	98	8	8	6	2	0	138	30	99	9
Moped accidents	57	19	34	4	1	0	1	0	62	24	33	5
Other accidents	82	24	56	2	2	1	1	0	101	36	63	2

TRAFFIC ACCIDENTS IN ESTONIA | IN 2002–2012

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Traffic accidents total	**2,164**	**1,931**	**2,244**	**2,341**	**2,585**	**2,450**	**1,869**	**1,505**	**1,347**	**1,493**	**1,381**
2,000=100%	100.0	89.2	103.7	108.2	119.5	113.2	86.4	69.5	62.2	69.0	63.8
per 10,000 vehicles	44.5	36.9	39.9	40.0	39.6	40.3	29.2	23.9	21.1	22.4	20.8
per 100,000 inhabitants	159.6	142.9	166.5	174.1	192.6	182.7	139.4	112.3	100.1	111.4	103.1
Fatalities total	**223**	**164**	**170**	**170**	**204**	**196**	**132**	**100**	**79**	**101**	**87**
2,000=100%	100.0	73.5	76.2	76.2	91.5	87.9	59.2	44.8	35.4	45.3	39.0
per 10,000 vehicles	4.6	3.1	3.0	2.9	3.1	3.2	2.1	1.6	1.2	1.5	1.3
per 100,000 inhabitants	16.4	12.1	12.6	12.6	15.2	14.6	9.8	7.5	5.8	7.5	6.5
per 100 accidents	10.3	8.5	7.6	7.3	7.9	8.0	7.1	6.6	5.9	6.8	6.3
per 100 injuries	7.8	6.5	5.9	5.6	5.8	6.0	5.5	5.2	4.6	5.4	5.1
Injuries total	**2,868**	**2,539**	**2,875**	**3,027**	**3,508**	**3,271**	**2,398**	**1,931**	**1,720**	**1,878**	**1,706**
2,000=100%	100.0	88.5	100.2	105.5	122.3	114.1	83.6	67.3	60.0	65.5	59.5
Accidents caused by drunk drivers	503	400	409	442	541	552	391	280	179	180	170
2,000=100%	100.0	79.5	81.3	87.9	107.6	109.7	77.7	55.7	35.6	35.8	33.8

TRAFFIC EDUCATION

In this day and age, when the onslaught of information is immeasurable and inter-generational boundaries are dissipating, increasingly those education methods are applied that focus on explaining specific situations.

This enables learners to experience by doing something, discussing it, making an effort mentally and being the recipient of another person's kindness. In the world at large, experiential, dialogue, adventure, drama and art learning is being implemented successfully. Traffic teachers of the Estonian Road Administration have kept abreast of these developments. Traffic education comprises active learning methods, which encourage learners to engage in reciprocal dialogue and group work, introduce experiential learning, for example, through safety simulations, and involve young people from theatre forums. Even puppets and young researchers have been made to provide traffic related instruction.

Nationwide Activities

2012 was a preparatory period for transitioning to single bases in traffic education work by the Estonian Road Administration. The second half of the years saw the launch of preliminary work to harmonise region-based traffic education activities across the target groups specified in the national traffic safety programme.

Training events were held for students at the upper level of general education schools and at upper secondary schools. Training events and lectures involving active learning, to prevent risk behaviour, were held both by traffic teachers themselves and professionally trained specialists. In total, 71 training events were held at 61 schools and in 35 municipalities, attended by 3,293 students from upper secondary schools and vocational educational institutions.

TRAFFIC TENT ORGANISED BY THE YOUTH CENTRE OF THE CITY OF TARTU

Training events addressing traffic safety during dark hours were held regularly across the nation for students at the upper level, mostly in their 4th year. The Black Puppet practical training event on the need for wearing a reflex reflector was completed by a total of 4,268 children: 1,399 in the Northern Region, 1,169 in the Eastern Region, 1,108 in the Western Region and 592 in the Southern Region. In total, 166 training events were held at 151 schools in 84 municipalities. Furthermore, reflex reflector training events were held for other target groups. For instance, the Southern Region conducted 17 training events on the reflex reflector at nursery schools, at two children's homes and social welfare institutions; the Western Region conducted training events on the reflex reflector both at nursery schools and at associations for the elderly; and the Eastern Region conducted 22 training events for the elderly.

Working with municipalities, traffic teachers from the Estonian Road Authority conducted 62 continued education events for the elderly in 12 counties, for a total of 2,578 elderly people. Training formats varied, including lectures, in-service training (targeting elderly motorists) and conferences on traffic. For the elderly road users in the Northern Region, lectures on traffic safety were given in 18 municipalities, with 1,000 reflective vests handed out. In the Eastern Region, there were held 23 traffic lectures on the subject of safety in pedestrian and bicycle traffic and during the dark hours.

The Safe Trip to School Project, drawing on web-based map applications, was launched. Teachers of life sciences and geography and students in their 4th and 7th years at schools participating in the project mapped during classes on the subject locations and areas posing traffic hazards near their schools. In

TRAFFIC EDUCATION

2012, 10 nationwide training events, attended by a total of 135 from 71 schools, were held for life sciences teachers and upper-level basic school teachers. Work with children was conducted at schools where the teachers have completed relevant in-service training.

Working with other agencies and organisations is a crucial part of the work of traffic teachers. In 2012, there were held, for example, Protect Yourself and Help the Others by the Estonian Rescue Service, Young Survivor by the Estonian Police and Border Guard Board, Dodger, information days by the Estonian Red Cross, counties' Safety Days and Family Days by the National Defence League.

Regional Activities

The Northern Region featured cooperation and involvement in 2012. There was participation in the Safe Community working group and in the work of health services teams in the prevention of injuries in Harju and Rapla Counties.

Cooperative projects for children and students included Mini SOS events; traffic related morning events, such as, *Here and There Throughout the Town*, *The Traffic Hot Shot of Haabersti*, *Dodger*, *Let Us Do Something Good!*; and *KEAT* (Protect Yourself and Help Others) traffic safety camps. The Administration continued to provide training events on regulators' first degree competency for persons accompanying children's groups and information days for teachers and directors of driving schools. For upper secondary school students, *Kaspar's Story* training events were held at the Estonian Chamber of Disabled People, schools and youth centres. Attendance at the *Teeviit* (Signpost) and *Laps ja Pere* (Child and family) fairs and many day events in city districts and rural municipalities included displays of boards with information on traffic safety.

Of the major undertakings, it is worth singling out that in cooperation with the Northern Prefecture of the Police and Boarder Guard Board and the Science Centre AHHAA, the *Look Out! A Car!* traffic performance was staged, target-

SHOW AT AHHAA'S SCIENCE THEATRE, *LOOK OUT! A CAR!*

ing the upper level of the general education school, and, in cooperation with the amateur Kehra Puppet Theatre, the puppet show Kati and Jeti in Traffic, aimed at the pre-school children.

As part of the campaign to promote the use of helmets, in cooperation with social workers, traffic training events were conducted for the least privileged and large families and bicycle helmets were distributed to children.

In September, the *Traffic Education Through the Ages* exhibition was on display at the Kuie School at the Estonian Open Air Museum. Exciting traffic lessons were attended by approximately 850 children.

In cooperation with various authorities, the Safe School competition was held as part of the injuries project in Harju County. In late 2012, an appreciation event was held to thank cooperation partners and active teachers.

The Eastern Region of the Estonian Road Authority continued projects and training events that had proven successful in previous years. The project continued to produce cones for manoeuvrability Tests in order to support bicycle training events at general education schools. In total, 30 schools have participated in the above project over two years. There was the first-ever launch of the cooperative project *Traffic Pram* targeting 13 nursery schools and aiming to provider richer opportunities for addressing traffic education issues at the nursery school level.

In 2012, the main activity was training for groups at risk and for teachers at schools and nursery schools. For teachers at child care institutions, training events were held on travelling by bicycle, making one's way during the dark hours, safety and traffic education methodologies, and the degree competency for persons accompanying children's groups. Furthermore, training days were held for heads of youth centres, driving school instructors, employees of municipalities, heads of clubs for the elderly, and the elderly.

In cooperation with partners, three major safety day events were held, two in Lääne-Viru county and one in Järva county. Good cooperation continued with the Eastern Prefecture of the Eastern Police and Border Guard Board, the Eastern Rescue Centre, the County Government of Lääne-Viru, the Viru Unit of the Estonian Defence League, and the Estonian Red Cross. With the Trauma Council of Lääne-Viru County, cooperation has been going on for years. For the first time, a safety day was held for nursery schools in Narva.

Attendance at 21 day events in towns and rural municipalities included displays of various. The biggest of these were the Safety Days at the Rakvere Põhjakeskus shopping centre and in Järva County.

In the Southern Region, cooperation with various stakeholders has kept evolving, and citizens' initiative and the involvement of traffic safety issues in the activities of the municipality are evident. For instances, 11 projects were submitted by various agencies and organisations under a call for proposals on traffic education; seven of them were co-financed by the Estonian Road Administration. To the 4,355 euros contributed by the Estonian Road Administration, 14,241 euros from municipalities, foundations, educational institutions and other organisation was added through project activity. In addition to projects within regions, traffic education specialists participated in two international projects as trainers and advisers. Traffic education activities and information desks were present at

THE WHAT YOUNG PEOPLE WANT YOUTH FORUM ON TRAFFIC, HELD IN PÄRNU

public events in municipalities, large-scale events in counties and safety day events in rural municipalities / cities on 52 occasions.

The *Ageing with Dignity* conference on traffic safety for the elderly proved a highlight in its own way. The conference was held at the Põlva Cultural Centre, where more than 400 elderly people from all the rural municipalities of Põlva county had come to learn information about their safety.

The core topic of the autumn conference held by the Traffic Education Department of the Southern Region of the Estonian Road Administration in 2012 was bicyclists and their safety. On 27 September, bicycle enthusiasts from the south of Estonia gathered at the Dorpat Conference Centre in Tartu, to discuss the challenges of bicycle traffic and opportunities for creating a safer traffic environment. Riding a bicycle as a way to value healthy lifestyles also received attention. One of the objec-

TRAFFIC EDUCATION

tives for the conference was to contribute to the more effective preparation of bicyclists for coping in traffic – this means, above all, improving the availability of training events for bicyclists and the quality of their delivery.

With the assistance of the cooperation team, presentations were made by speakers from abroad for the first time, to share experiences and good examples from other nations. Uwe Petry, head of a design firm in Germany, presented practices in the creation of bicycle infrastructure in his home country, whilst David Dansky shared the experience of his home city, London, in promoting bicycle riding and training bicyclists for safer urban traffic. The conference was attended by 46 officers of state agencies and municipalities, 29 teachers from general education and driving schools, 10 representatives of bicycle clubs and 19 active people who care. After the conference, a training day for the trainers of bicyclists was held in cooperation with the City of Tartu and included a presentation by David Dansky on his experience and instruction methodologies. The training day was attended by other traffic teachers from across Estonia, in addition trainers of the Southern Regions.

The *What Young People Want* youth forum on traffic, organised by the Western Region's traffic teachers and Haapsalu College of Tallinn University in Pärnu on 16 March, proved very successful and was attended by approximately 80 people, half of whom were upper secondary students from Lääne, Pärnu and Viljandi counties. The rest were tertiary students majoring in traffic safety at the Haapsalu College of Tallinn University and youth workers, hobby school teachers and education specialists from county education authorities. The broader objective for the forum was to bring together school-age young people, decision makers and students of traffic safety in order to identify solutions for making traffic education more interesting and effective. The youth forum was structured as workshops moderated by specialists in their respective fields from the Estonian Road Administration, the Haapsalu College of Tallinn University and the Western Prefecture of the Police and Border Guard Board. The forum concluded with the *Teatrifoorum* organised by the young people themselves and including the simulation of a traffic situation created on the spot.

In 2012, the elderly were an important target group in traffic. 2012 was the European *Year for Active Ageing and Solidarity between Generations*. The purpose of this was to draw attention to the rapidly ageing population of Europe, facilitate an environment that is friendly toward the elderly, and identify solutions and ideas to ensure that ageing involves opportunities of its own. In Lääne county, there was held the *Dignity in Traffic* traffic education conference, attended by more than 60 elderly people in Haapsalu and Lääne county. The conference included a discussion of traffic accident statistics, causes of accidents and instruction of the elderly in what to do in the event of a traffic accident involving injuries. After the lectures, discussions were conducted in various workshops. There were opportunities to discuss and share one's thoughts on the following topics: *I at the Wheel, I as a Bicyclist, I as a Fellow Road User and I Keep Safe in Traffic*.

A TRAINING PROJECT / SAFETY DAY EVENT TARGETING RISK BEHAVIOUR BY YOUTH AT THE PÜHAJÄRVE HOLIDAY RESORT

Traffic Safety Campaigns

Running traffic safety campaigns, including road user training and traffic supervision, makes it possible, as a result of consistent and systematic work, to achieve an improvement in traffic in terms of attitudes that value traffic safety and prudent traffic behaviour. After campaigns with nationwide coverage, normally surveys are conducted to establish changes in road users' attitudes and behaviour.

In four weeks in March 2012, a traffic safety campaign was run to boost the use of seat belts and child safety equipment when driving. The information material for the campaign aimed to explain regulations and safety requirements that apply when transporting a child. The message of the media campaign was aimed at the use of seat belts on the back seats of cars. Compared to 2011, the use of the seatbelts amongst adults travelling on the back seat was up by 4%. According to the results of the survey (based on 1,000 respondents distributed representatively with respect to the population), 94% of drivers, 98% of passengers next to drivers and 82% of passengers on the back seat fasten seat belts. 98% of children are secured with safety equipment. Results of the observational study were on the same order of magnitude. The next objective is to achieve the 90% mark in the use of seat belts on the back seat.

In April and May 2012, a traffic safety campaign was run to boost the wearing of bike helmets and to explain the traffic regulations established for bicyclists in the Traffic Act that took effect in 2011. In addition to the media campaign, the Make Sure It Is Safe! information brochure was prepared (80,000 copies in Estonian and 22,000 copies in Russian) for distribution to bicyclists in order to explain traffic regulations and safe behaviour in various traffic situations. At the same time, a call on drivers to notice and consider road users on two wheels was being issued over radio airwaves. According to the survey conducted after the campaign, 68% of children and 20% of grownups wear helmets while riding a bicycle.

During the three summer months of 2012, a traffic safety campaign and events to support it were conducted in order to reduce drunk driving. In cooperation with the *Selge grupijuht* (Sober Leader of the Group) show of the Kuku radio station, a media campaign was conducted in June. At eight major summer events, information was provided on the consequences of drunk driving, with visitors to the events given the opportunity to use free breathalysers. The service was used by 4,880 to check their condition before getting behind the wheel. Based on a survey of motorists conducted in August 2012, 20% of the respondents, or as many as in 2011, had driven in a state of intoxication once or more times during the past year. Based on the 2012 traffic behaviour monitor, the proportion of drivers in traffic whilst under the influence of alcohol was 1.2%. The next objective is to reduce the proportion of drivers in traffic in a state of intoxication to below 1%.

In eight weeks in July and August 2012, a traffic safety campaign was run with the messages of respecting the top permitted driving speed and the selecting a safe driving speed on rural roads. According to the survey conducted after the campaign, 46% of drivers exceed the top speed limit by 5 km/h on main roads. 41% of the respondents exceed speed limits on basic and minor rural roads by more than 5 km/h. The permitted speed limit is exceeded by more than 10 km/h by 9% of drivers. Compared to 2011, the proportion of those exceeding the top speed limit by more than 5 km/h has declined by approximately 4%. During the last 3-year measurement period, mean change in the trend indicating improvement has been 6%. The next objective is to change attitudes with respect to exceeding the speed limit, move in the direction of harmonising actual driving speed limits,

POSTER FOR THE CAMPAIGN *FASTEN YOUR SEATBELT IN THE BACK SEAT, ALWAYS!*

and reduce the proportion of those exceeding speed limits by more than 5 km/h on rural roads to below 40%.

During three weeks in September 2012, a traffic safety campaign was run to promote the selection of safe driving speeds in settlements and increase pedestrians' safety at unregulated pedestrian crossings. The campaign, employing various messages and media channels, targeted both drivers and pedestrians. After the campaign, road users in Tallinn and Tartu were surveyed. It is estimated that 70% of drivers, the same proportion as last year, stopped at pedestrian crossings to give way to pedestrians. Based on a survey of pedestrians, giving way at pedestrian crossings had become somewhat worse, which may be linked to high driving speeds in settlements – only 22% of drivers (24% in 2011) claimed to respect the top permitted driving speeds in settlements. Nonetheless, the proportion of drivers exceeding the speed limit by more than 5 km/h has declined by

TRAFFIC EDUCATION

ON POSTS ON BICYCLE AND FOOT PATHS, INFORMATION FOR BICYCLISTS ABOUT SAFE BEHAVIOUR WHEN CROSSING ROADS

6% in a year and by a total of 11% in the past two years, being about 19% in 2012. Since the degree of severity of the consequences of accidents involving pedestrians is in direct correlation to the driving speed at the time of the pedestrian being run over, ensuring that the top driving speed limit is respected continues to be the main task for work in traffic work.

During five weeks in November and December 2012, a traffic safety campaign was run to increase the wearing of pedestrian reflex reflectors. As part of the campaign, a total of 100,000 reflex reflectors were distributed to students and elderly road users in the course of training and traffic supervision. 4,000 reflex reflectors, aimed at the least privileged families, were distributed through the branch offices of the Social Insurance Board. Since in 2012 there was no survey on the use of reflex reflectors, this has to be assessed based on the results for 2012. According to the survey, generally 65% of grownups and 86% of children wear reflex reflectors. The immediate objective for the campaign is to explain to pedestrians the risks of making one's way during the dark hours, safe behaviour to prevent accidents and the need to wear reflex reflectors and safety clothing. Most endangered and therefore the primary target group are pedestrians and bicyclists making their way on rural roads during the dark hours.

Up-to-date information on traffic safety was provided weekly by the *Rooli võim* (Power of the Wheel) traffic show on Kanal 2, the *Stop* traffic show on TV 3 and the ETV *Tänavaristlejad* (Street cruisers) traffic show on ETV. The objective for the traffic shows was to provide information about seasonal specifics, explain the gist of important traffic regulations, provide reasons why it is necessary to respect guidelines with the most impact on traffic safety, and provide some idea of the daily work in traffic safety and the topical issues of the day. Traffic shows had an important role to play in providing information and explanations about the new and revised traffic regulations in the Traffic Act that took effect on 1 July 2011.

Traffic education requires a lot of human resources, it is time-consuming and it is resource-intensive; often the spirit of the times dictates that everything be converted into money. In this respect, it is worth recalling that what the late Estonian pedagogue Voldemar Pinn had to say in one of his last pieces of writing: *Teaching Manners is Costly But Not as Costly as Having None.* ■

CHRONOLOGY

March

On 7 March, the press briefing Major road works 2012 was held.

On 7 March, the ERA granted first eight buses purchased by the state with resources obtained from emissions trading to the use of the carrier AS Narva Bussiveod. The remaining 34 county and urban line buses were granted to the use of the carriers in Ida-Viru county during March and passenger service started on 1 April.

On 19 March, business daily Äripäev conducted an interview with the then Director General Tamur Tsäkko at the ERA's car park. On the same day, Äripäev started addressing numerous enquiries to the ERA regarding the administration's business trips; on the following days, enquiries were received from all major newspapers.

On 21 March, Director General Tamur Tsäkko submitted his letter of resignation to the Minister of Economic Affairs and Communications.

On 27 March, an agreement for the construction of the 4th construction area of the western Tartu bypass was signed between the ERA and the representatives of the joint tenderers AS Nordecon, AS Järva Teed and AS EA Reng.

On 28 March, Minister of Economic Affairs and Communications Juhan Parts appointed Erkki Raasuke as the temporary head of the ERA.

On 30 March, the representatives of the ERA and AS Eesti Teed signed the agreements for the maintenance of national roads in five counties.

April

On 8 April, the then Director General Tamur Tsäkko resigned.

On 9 April, Erkki Raasuke started work as the temporary head of the ERA.

On 30 Aprill, a press briefing was held with Erkki Raasuke.

May

On 6 May, a traffic safety campaign for increasing the safety of two-wheel vehicle riders was launched.

On 18 May, the ERA started the pre-registration inspection of mopeds in larger county centres.

June

On 13 June, a press briefing was held to introduce the project Tark Tee (Smart Road).

On 27 June, the Estonian Road Museum came second in the Estonia's Wonder of the Year 2012 competition, with 1,033 votes from the public in the final stage of the competition. In the final, the museum had to admit the victory of the true nature's wonder, Tuhala witch well. Third place went to Kaali Lake, the meteorite crater in Saaremaa.

July

On 6 July, an agreement for the reconstruction of the two last road sections of Valgejõe-Rõmeda road was signed.

On 16 July, the traffic safety campaign Piirkiirusel on põhjus (Speed limits have a reason!) was launched.

On 16 July, Aivo Adamson started work as the new Director General of the ERA.

On 22 July, automatic speed cameras started operating on Tallinn-Narva road in Ida-Viru county.

September

On 12 September, a road information map interface for Android was finished.

According to the survey completed on 26 September on perceptions of a fixed link to the mainland and the current ferry service, the residents of the island of Saaremaa were satisfied with the ferry connection between the island of Muhu and mainland, but were sceptical about the potential rise in ticket prices. At the same time, support for the potential construction of a bridge had somewhat declined.

October

On 9 October, the entire construction of Pärnu bypass was completed to open traffic in the first and second stage of Pärnu bypass was opened.

On 9 October, an agreement for the study of the 2+1 lane road on Ääsmäe-Kernu section of Tallinn-Pärnu road was signed between the ERA and AS Ramboll Eesti, in order to identify the best solution for reconstructing the road section.

On 11 October, a free inspection of vehicle lamps and tyres was conducted across Estonia.

On 12 October, the cooperation agreement between the ERA and the Police and Border Guard Board was renewed.

On 17 October, the ERA received Tartu-Põvvatu road section of Tartu-Räpina-Värska road.

On 30 October, the press briefing Liiklushommik (Morning in traffic) was held.

November

On 14 November, the 14.5-kilometre reconstructed road section on Võru-Räpina road was opened with an official ceremony.

Publisher: Maanteeamet
Design: Disainikorp, Print: Ilotrükk
Tallinn 2013

ESTONIAN ROAD ADMINISTRATION

Pärnu Road 463A | Tallinn 10916
Tel +372 611 9300 | Faks +372 611 9360
E-mail: info@mnt.ee

www.mnt.ee