



REPUBLIC OF ESTONIA
TRANSPORT ADMINISTRATION

Road maintenance in Estonia

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REPUBLIC OF ESTONIA
TRANSPORT ADMINISTRATION

Mission

We plan and ensure safe, smart and environmentally friendly mobility in Estonia.

Vision

By 2027, mobility in Estonia is safer and the environmental footprint of the activities of the Estonian Transport Administration has reduced.



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Estonian Transport Administration's strategic goals for 2024–2027



The number of accidents and incidents on land, in the air and on water has reduced, incl.

- people's awareness of safe traffic has increased;
- supervision is based on a threat forecast and is optimally automated.

GOAL



GOAL

The environmental footprint of the activities of the Estonian Transport Administration has reduced.

TRAM



GOAL

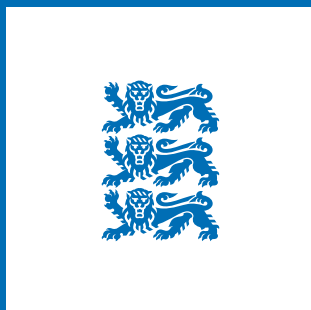
The Estonian Transport Administration uses innovative solutions that improve the mobility environment and enable fast service to customers.



GOAL

The Estonian Transport Administration is an attractive employer, we have a powerful organisation where employees are happy and share common values.

Estonian road network > Total length 89,452 km



16,982 km

National roads



23,588 km

Local roads

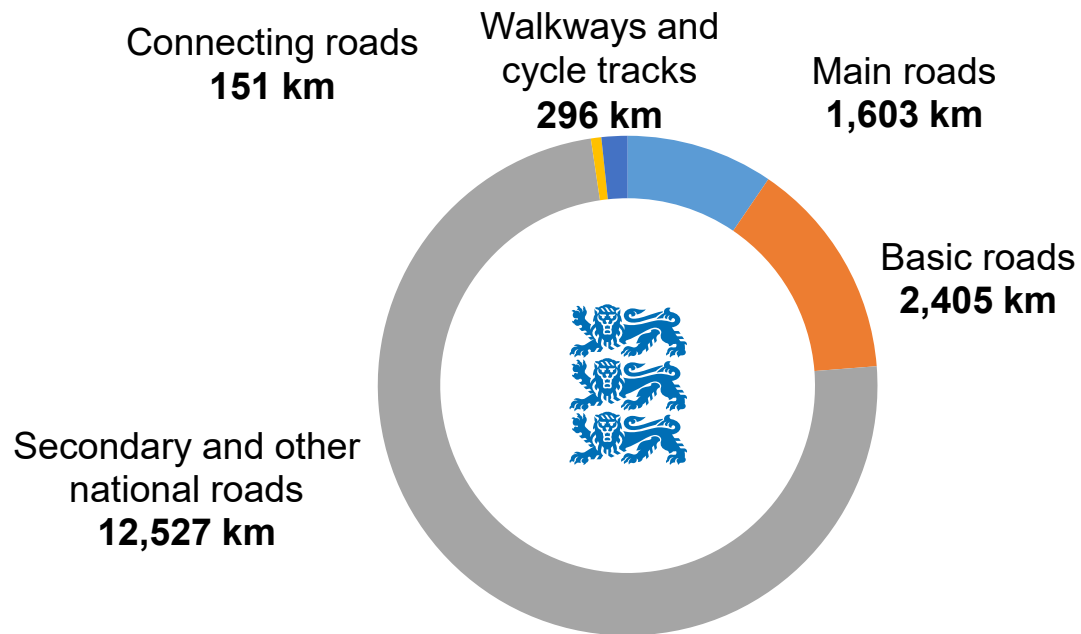


48,882 km

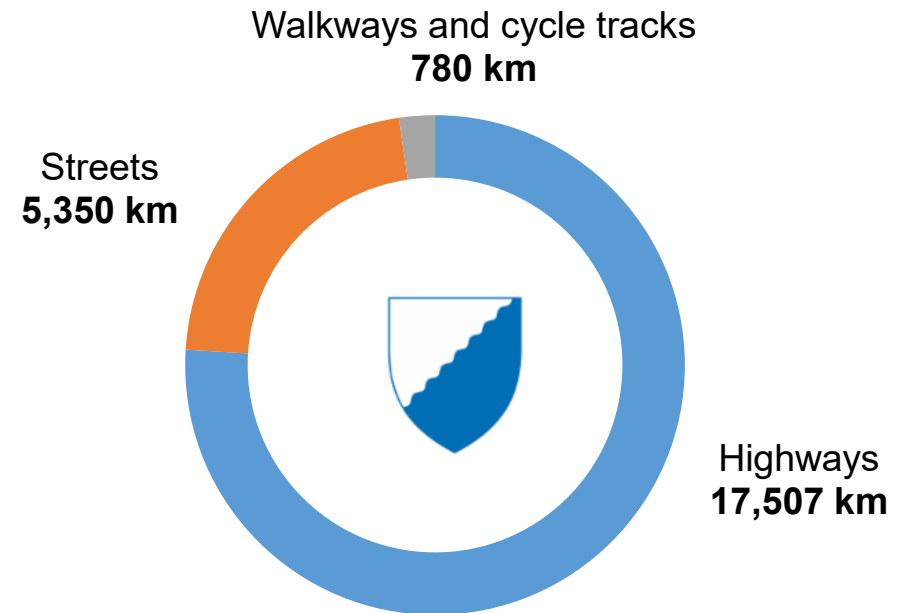
Private and forest roads

Estonian road network

National roads 16,982 km



Local roads 23,588 km

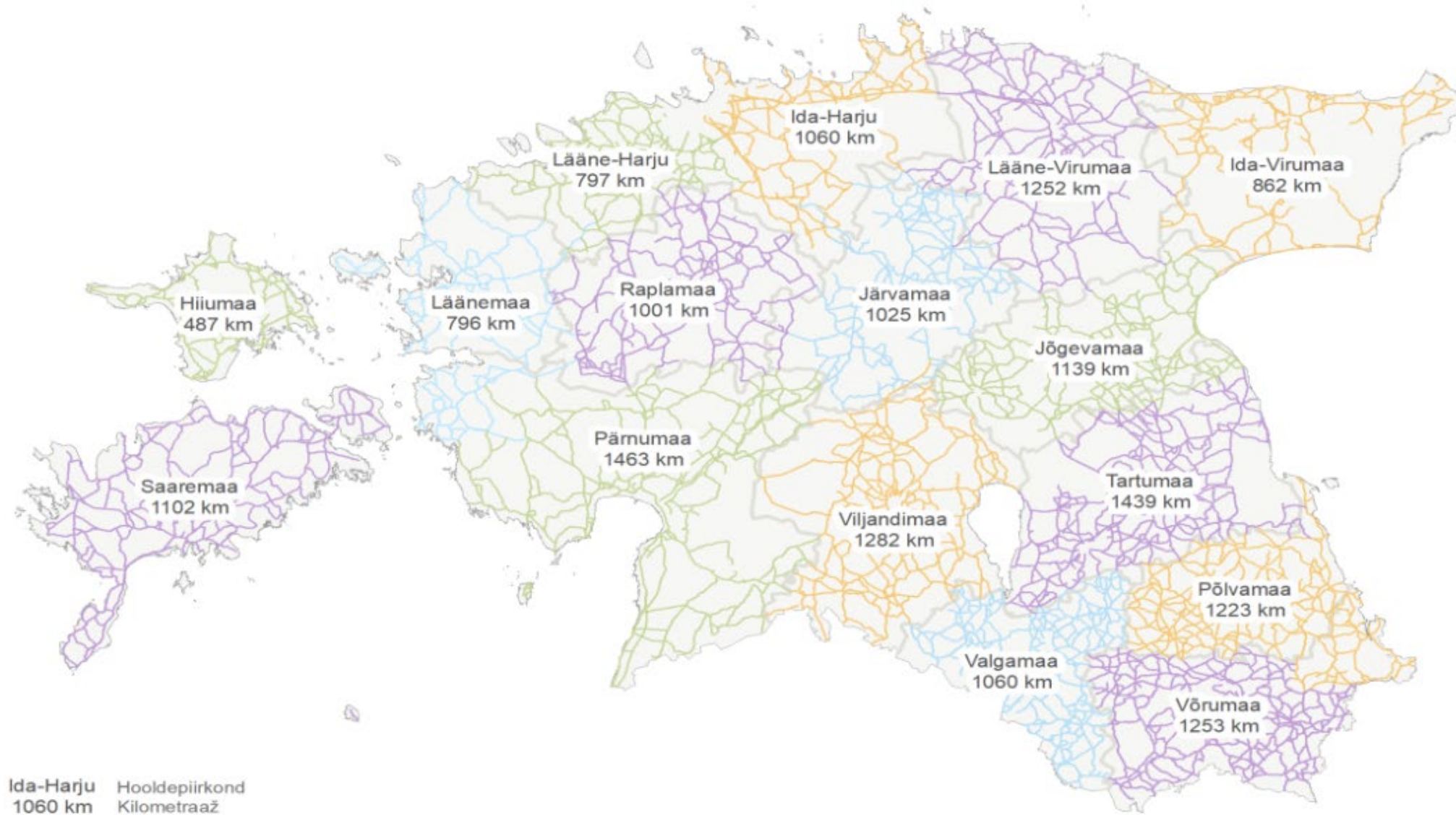


Among national roads, there are **947 km of E-roads** and **1289 km of TEN-T roads**.

Road maintenance contracts

- 16 countrywide contracts with the sum amount of about 44 mil € (2024)
- The three principal spheres of work of a maintenance undertaker – routine service, periodic service and retain repairs, are all included in a single contract that lasts for 5 years.
- We are evaluating 80% for price and 20% for valued criterias (experience, newer service trucks, extra trucks)
- The evaluation and payment for routine service is fully performance-based. That means there is no counting of amount of work that has to be done; the attainment of the requiered service level is what counts.
- 2024 we have 8 different companies doing 16 contracts, Verston Eesti AS, has 5 contracts

Road maintenance by counties



Classification of the roads

Classification of the roads - Levels of service

ADT	Required level of service			
	Main road	Basic road	Secondary road	Local road
Over 1000	3	3	3	3
251-1000	3	2	2	2
Up to 250	-	1	1	1

Requirements for the state of the road

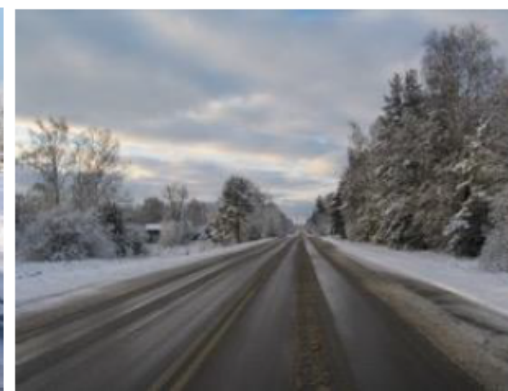
Level 1



Level 2



Level 3



Road requirements by service levels and service cycle times

Indicators	Requirements for the state of road by service levels			
	1	2	3	4
State of road surface				
Allowed road condition	Packed snow or icy road surface is allowed with anti-skid treatment in unsafe spots.	Packed snow or icy road surface is allowed with entire anti-skid treatment	Sidewalk and all wheel tracks free of snow and ice de-icing	Sidewalk and road pavement is free of snow and ice entire de-icing
Required minimal friction coefficient	0,20 and at risk areas 0,25	0,25 on whole driveway	In wheel tracks 0,30 and in other driveway 0,28	0,30 on whole driveway
Width between snow mounds	> 6 m or at least road width	> 8 m or at least road width	Whole driveway and shoulders	Whole driveway and shoulders
Snow critical thickness				
Allowed depth of loose snow	< 10 cm	< 8 cm	< 4 cm	< 3 cm
Allowed depth of slush, mix of salt and snow	< 5 cm	< 4 cm	< 2 cm	< 2 cm

Maximum Service Cycle Time (h)					
Require d level of service	Snow and slush re-moval	De-icing, anti-skid treatment	Salt-snow mix re-moval	Sidew alks cleani ng and skid contr ol	Treat ment of other road faciliti es
4	2	2	4	6	8
3	5	4	8	8	12
2	12	8	-	12	24
1	24	12 (spots)	-	12	36

Road maintenance expenses summer/winter (2024)

Whole budget for 16 contracts: 44,1 mil €

Summer routine maintenance: 13,7 mil €

Winter routine maintenance: 21,3 mil €

Periodic maintenance: 4,8 mil €

Retain repairs: 4,3 mil €



Road maintenance expenses summer/winter

Since our contracts are service level and performance-based then the price of each type of work is unknown for us precisely, but the most expensive part of the road maintenance contracts are types of works in which three of the below are used:

1. Service trucks, graders, tractors
2. Workforce/labour
3. Materials



Main summer routine maintenance works

- Maintenance(road signs, road marker posts, road shoulders etc) and small repairs, patchwork of the paved roads and of pathways (potholes, cracks etc)
- Cleaning of the road surface from dirt, dust, gravel, pebbles etc
- Removing litter from road and roadland
- Mowing of the roadsides and roadland and ditches
- Dust control and grading of the gravel roads
- Cleaning the culverts and the ditches for drainage

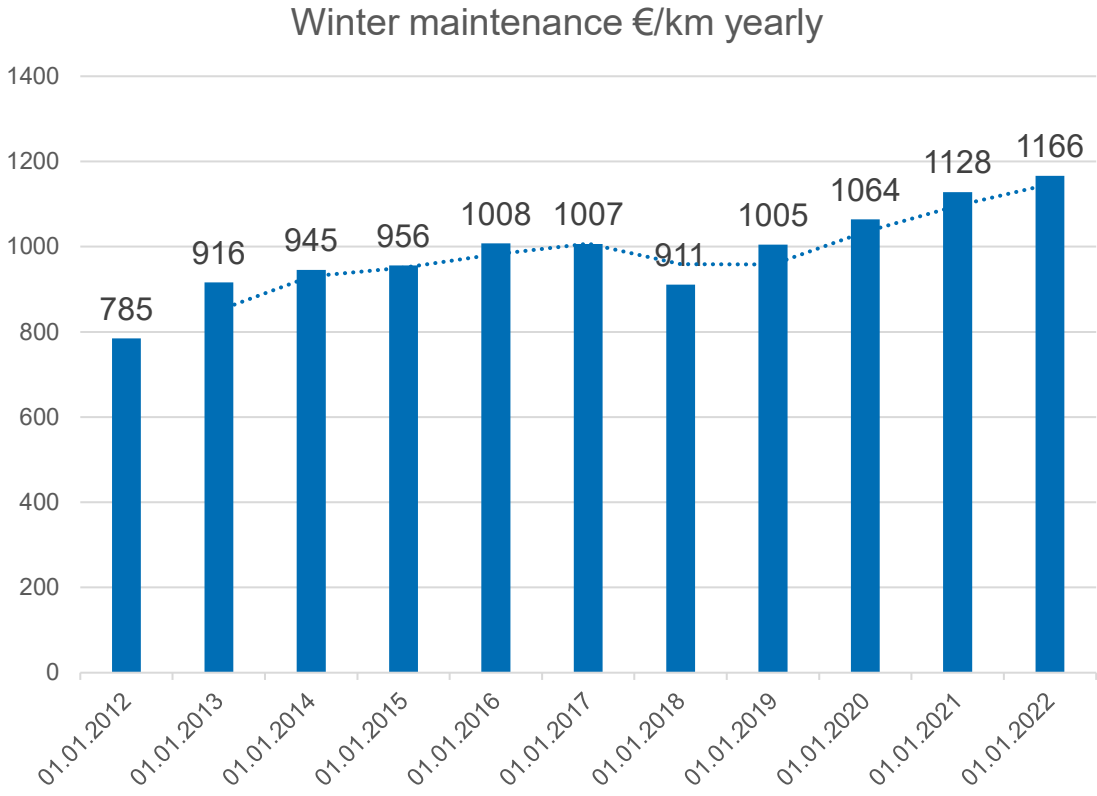
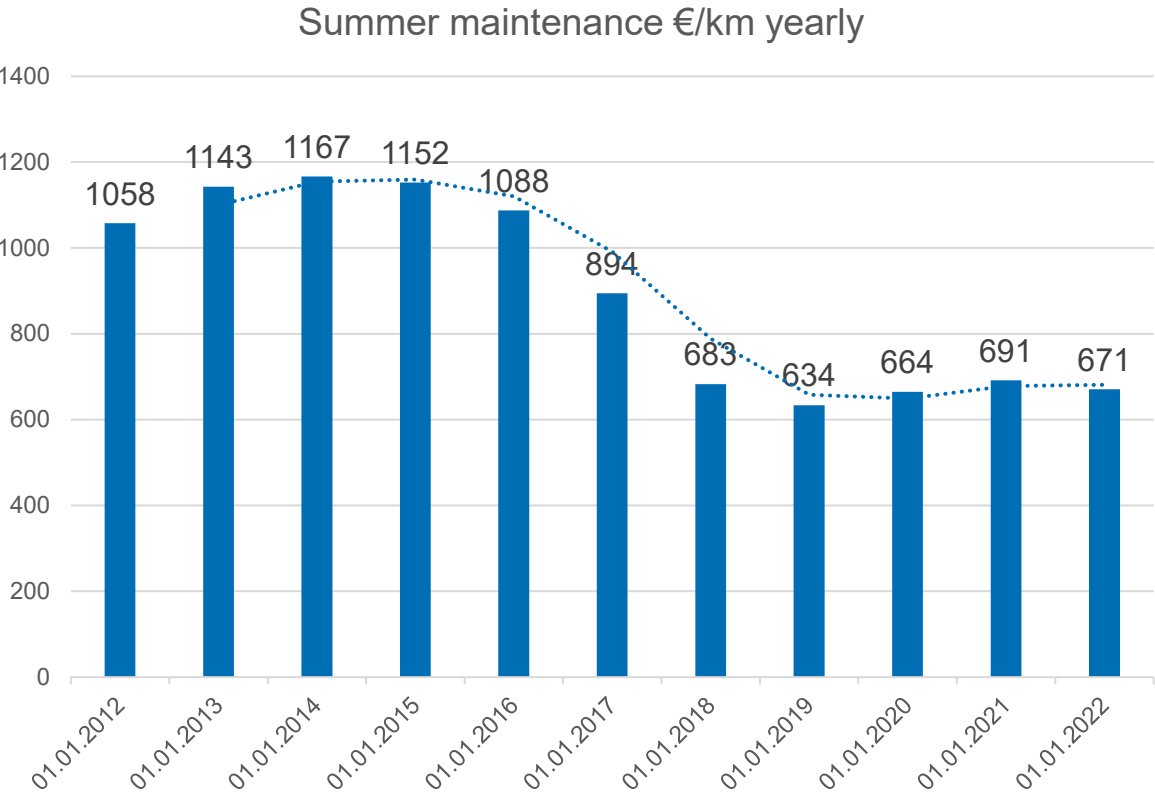
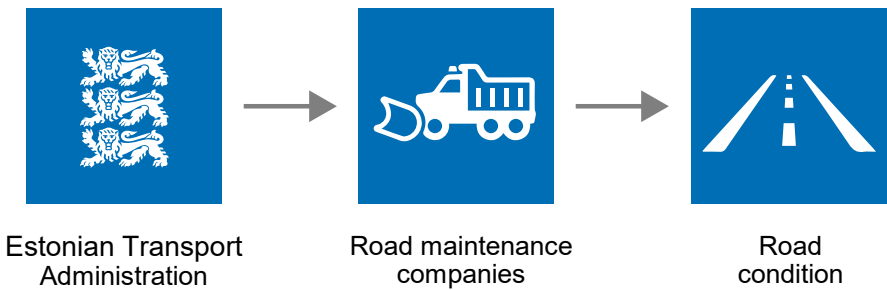


Main winter routine maintenance works

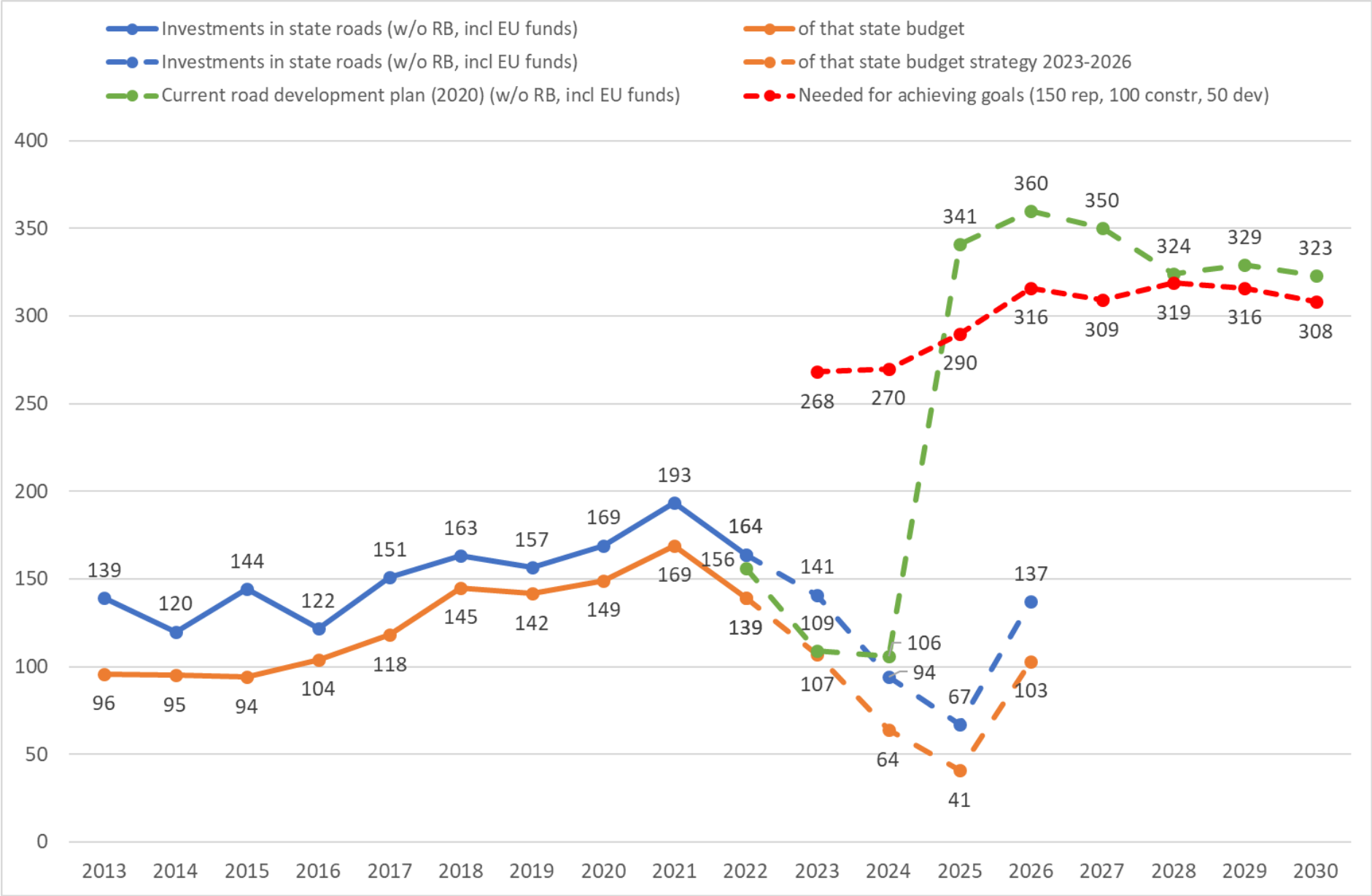
- Snow and slush prevention from the roads and side of roads with the front and side plough of service truck, graders and tractors
- Cleaning intersections, turn-offs, acceleration and deceleration lanes, public vehicle stops, waiting platforms, road and pedestrian crossings, parking lots, bridges, overpasses and tunnels of snow
- Cleaning roads signs of snow
- Ice prevention by sprinkling chlorides, abrasive materials or their mixtures
- Removing ruts and irregularities
- Mechanical coursing with the scarifier blades and tooth blades or service trucks and graders
- Placing markers

Road maintenance

16 road maintenance contracts in total



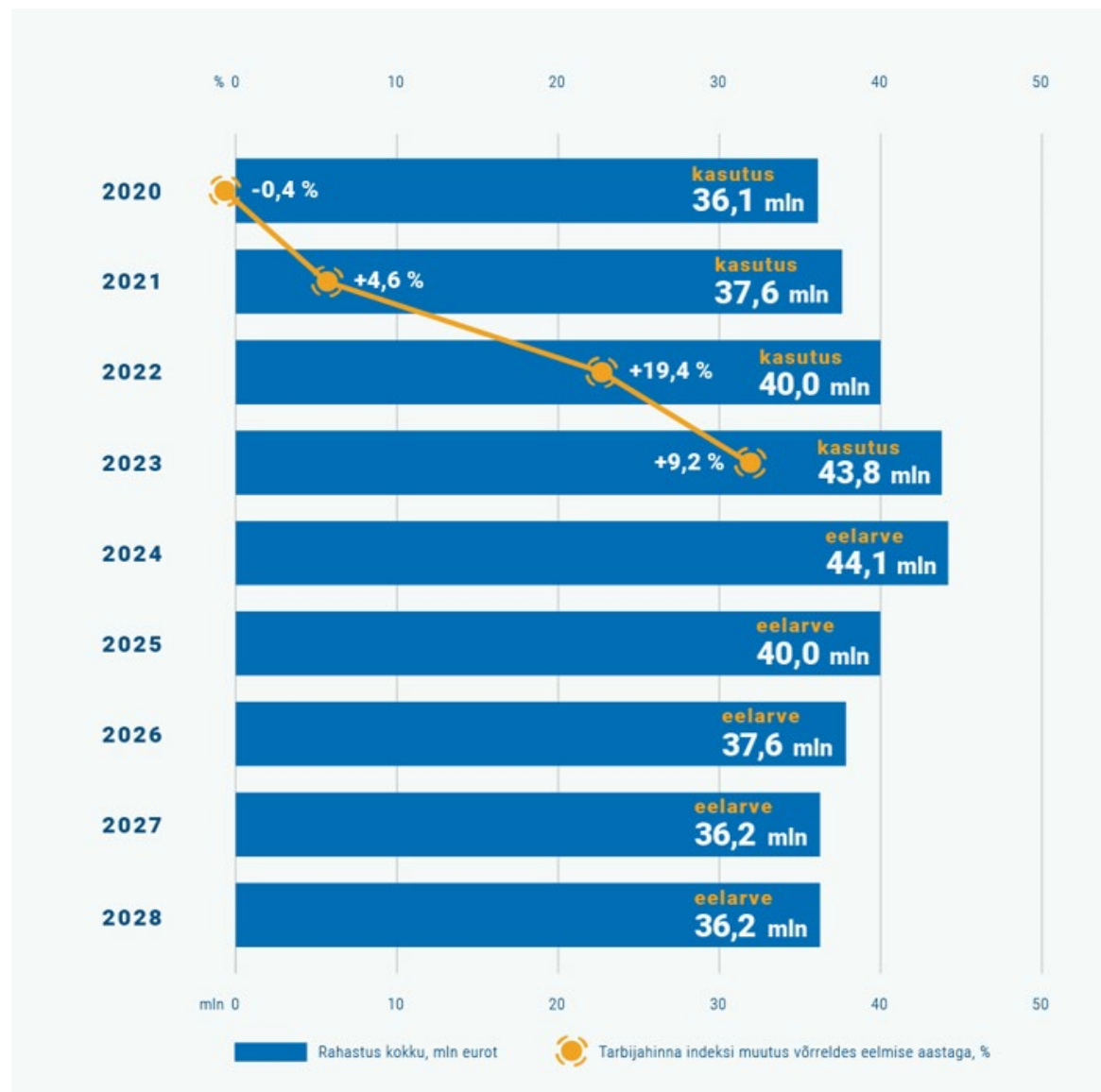
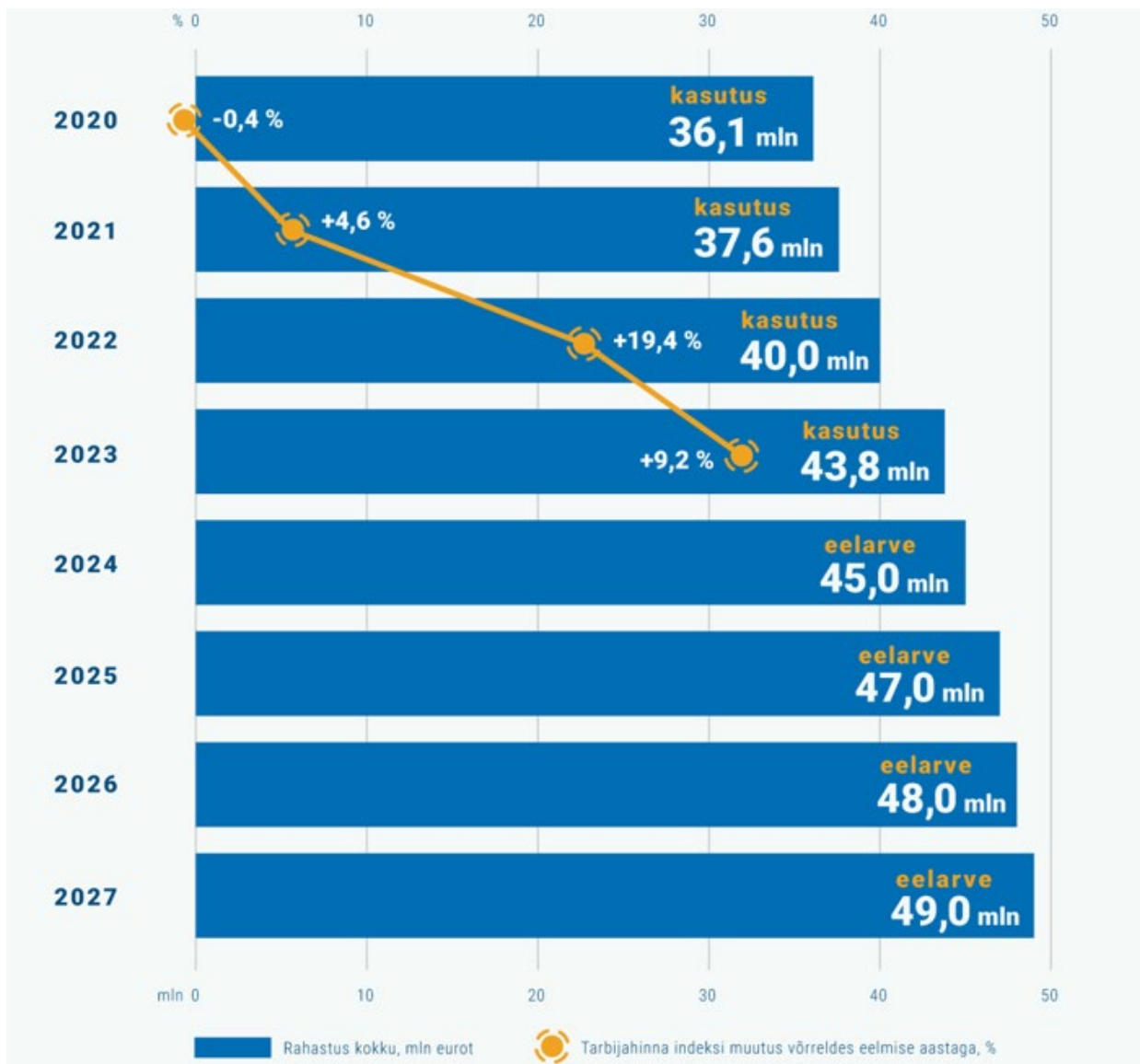
Road investments



Road maintenance expenses 2024–2027

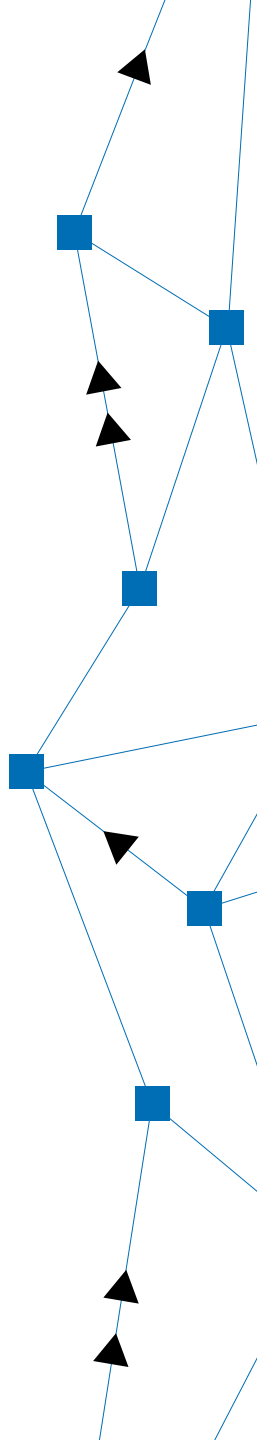
Road maintenance expenses	2024	2025	2026	2027
Road maintenance	45.0	47.0→40	48.0→37,6	49.0→36,15
Repair of gravel roads	5.0	5.0	5.0	7.0
Maintenance of paved roads	20.7	23.0	23.5	24.0
Repair of paved roads	8.4	16.7	19.5	20.0
Bridge reconstruction and repairs	9.0	8.1	6.7	6.6
Reconstruction works	3.4	5.6	11.7	32.3
Other investments	0.5	0.5	1.2	1.2
Preparation of the road network maintenance measures	1.4	0.9	1.0	1.3
Investments in road network maintenance in total	93.4	106.8	116.6	141.4
Implementation of the action plan to reduce noise pollution in ambient air	0.0	0.0	0.6	0.6
Development and modernisation of the network of Intelligent Transport Systems (ITS) and other road related equipment	1.2	0.4	0.5	0.5
Development of infrastructure promoting more sustainable modes of mobility	0.0	2.0	4.2	6.0
Reconstruction of hazardous traffic zones	0.8	0.7	2.3	5.1
Paving of dust-free coating on gravel roads	0.0	0.0	0.0	1.4
Construction works (including viaducts and traffic junction crossing the Rail Baltic route)	51.5	58.8	41.3	17.2
Preparation of road network development measures	6.4	6.8	7.2	7.2
Investments in road network development in total	59.5	68.7	56.1	38.0
Total road maintenance expenses	152.9	175.5	172.7	179.4

Road maintenance expenses 2024–2028 (updated)



Work done on National roads

Item	Unit	2021	2022	2023	2024 prognosis
Repair of gravel roads	km	317	265	192	159
Surface dressing	km	1,195	1,125	926	778
Repair of paved roads	km	241	179	219	89
Bridge repairs	projects	20	5	22	21
Reconstruction works	km	90	40	20	19
Noise barriers	projects	4	1	1	4
ITS infrastructure	projects		1	1	3
Mobility infrastructure	projects		1	8	9
Black spots reconstruction	projects	42	35	39	17
Paving gravel roads	km	335	40	18	-
Construction	km	13	25	6	15
TOTAL	km	2,191	1,674	1,375	1,060



Other interesting topics considering road maintenance in Estonia

- We use about 3000 tonnes of chlorides per county, which means about 50 000 tonnes of chlorides in the winter across Estonia
- We do not differentiate roads by public transport or school buses, our only definition is service level of the road. Most of the public transport is on the lowest service level roads.
- During heavy snowstorms we have a guideline to get main roads open in 12 hours, Basic roads in 24 hours and secondary and other national roads in 72 hours. When we can not provide those numbers, then the continuity of a critical service is interrupted and we must declare a emergency situation.
- We have about 250 service trucks in Estonia



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