

Country Report for Estonia

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in the framework of COST Action 385 "Pedestrian Quality Needs"

Overview

Safety and high quality walking routes are common part in modern living-environment and transport system. Walking (and cycling) is considered more beneficial and cost-effective for society, as it is healthy, poses lower demands for infrastructure development, makes transport systems safer, reduces accidents rate etc.

As common to fast-developing countries, Estonian citizens get less walking to school or work year by year, and as a result- walking does not get as much attention as motor vehicle driving. It is especially a problem in the biggest cities, like Tallinn or Tartu, where the walking is decreasing in regular modal split.

Walking is traditionally important and could be further promoted in small towns and villages, where there are fewer public transportation opportunities but also a need for car usage is smaller because the relatively small distances, routes are also especially suitable for light transportation, as well as cleaner outdoors. The fact, that 1/3 of everyday routes in cities are walked or cycled should get much more attention and investments. Estonian decision makers are slow in acknowledging this fact.

A lot is talked about Estonian changeable weather that does not promote outdoors activities. As Scandinavian experience in similar climate conditions shows, this should not be a problem for healthy and environmental friendly moving modes.

1. National strategic documents

1.1. Eesti Rahvuslik Liiklusohutusprogramm aastateks 2003-2015

Estonian National Road Safety Programme 2003-2015

<http://www.mnt.ee/atp/index.php?id=998>

1.2. Eesti Transpordi arengukava 2006-2013

Estonian Transport Strategy 2006-2013

<http://www.mkm.ee/index.php?id=9019>

2. Regional or local strategic documents

2.1. Tallinna teemaplaneering Tallinna tänavavõrk ja kergliiklusteed

Thematic planning of the city of Tallinn: Street network and pedestrian / bicycle routes.

Tallinn University of Technology, 2007 (under way)

2.2. Tallinna Säastva Transpordi Arengukava (PILOT projekti lõpparuande mustand)

Strategy for Sustainable Transport Development (Draft of the final report. PILOT project)

City of Tallinn, 2007

2.3. Tallinna arengukava Ohutu koolitee.

Tallinn Strategy; Safe schoolway.

University of Tartu. 2007 (under way)

2.4. Tartu Säästva Transpordi arengukava (Bustrip projekt)

Strategy for Sustainable Transport Development of Tartu (Bustrip project)

City of Tartu & OÜ Liiklusbüroo, Inseneribüroo Stratum 2007 (under way)

2.5. Pärnu Säästva Transpordi arengukava (Bustrip projekt)

Strategy for Sustainable Transport Development of Pärnu (Bustrip project)

City of Pärnu & Inseneribüroo Stratum 2007 (under way)

2.6. Rakvere Transpordi arengukava

Strategy for Transport Development of the city of Rakvere

City of Rakvere & Inseneribüroo Stratum 2007 (under way)

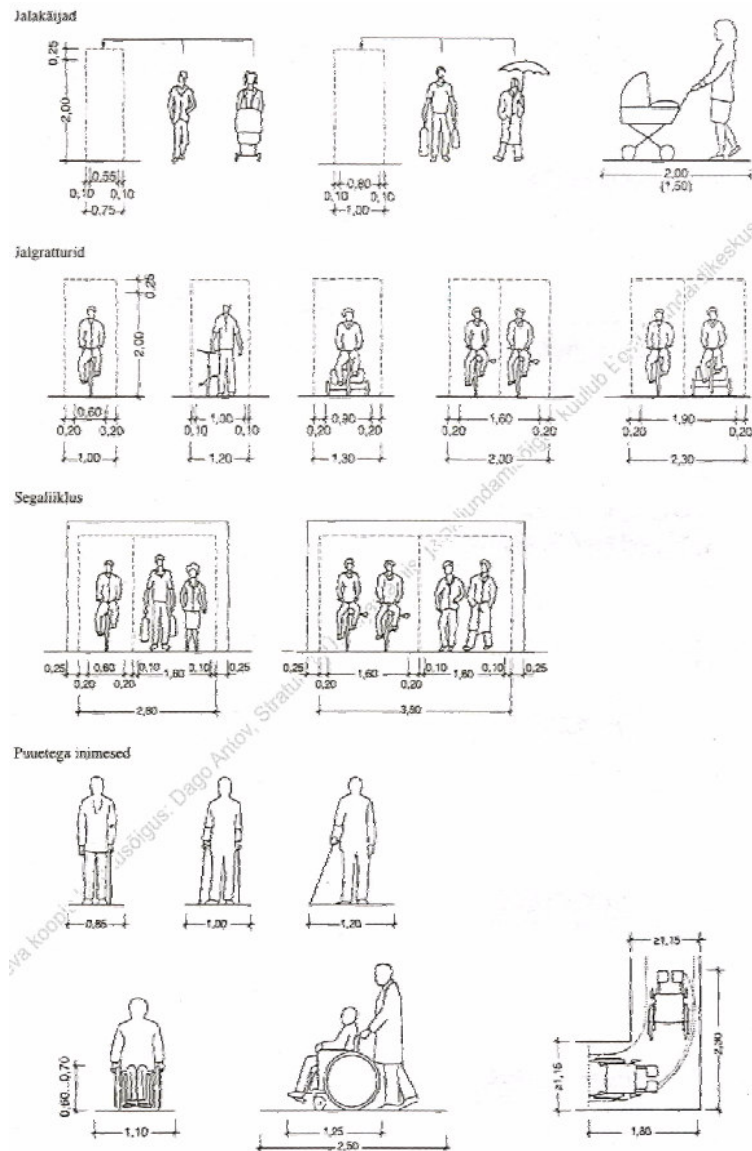
3. Design Standards and Guidelines

3.1. Eesti Standard EVS 843:2003 Linnatänavad.

Estonian Road Design Standard. Urban streets

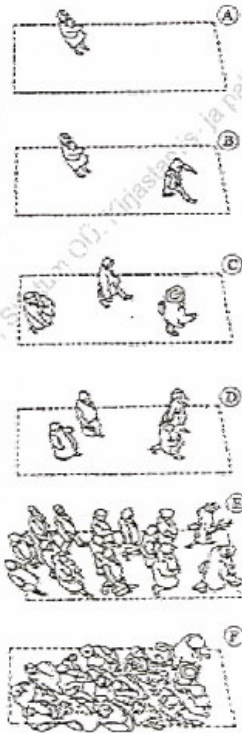
Guidelines for Urban Street Design are published by the Eesti Standardikeskus (Estonian Centre of Standardisation)

This standard defines the mean parameters of all types of road users (including pedestrians and wheelchair users) ...



Joonis 6.4 – Kergliikluse ruumivajadus ristproffilis, mõõtmised (m)

...as well as the level of service (LOS), including pedestrian footpaths. The LOS is defined on 6 levels (A..F) based on pedestrian traffic parameters, like area used by pedestrians (pedestrians per sq.m) and traffic flow levels (pedestrians per minute per meter of footpath width)



Joonis 6.1 - Jalakäijate teenindustasemed

The design standard also deals with roadway (including footpath) parameters, pedestrian facilities at crossings, intersections, parking, buss tops, etc.

3.2. Tee projekteerimise normid ja nõuded

Road design guidelines and rules

Guidelines for Road Design are published by the Ministry of Communications and Economics

<https://www.riigiteataja.ee/ert/act.jsp?id=26215>

<http://wlex.lc.ee/wlex.cgi?do=show&url=https://www.riigiteataja.ee/ert/act.jsp?id%3d763437>

Similar to the urban street design standard, this document gives guidelines for the design parameters of rural roads, dealing also with pedestrian traffic facilities.

3.3. Liikumispuudega inimeste liikumisteede tähistamise ja tähiste paigaldamise juhend

Guidelines for the signing of pathways for disabled people.

Municipality of Tallinn/Tallinna Linnavalitsus 21.06.2006

<http://tallinn.andmevara.ee/oa/page.Tavakasutaja?c=1.1.1.1&id=104984>

4. Surveys

4.1. Tallinlaste rahulolu uuring: Linnaruum.

Satisfaction survey of the citizens of Tallinn. Urban space
Tallinn,

- Satisfaction of Tallinn citizens towards a number of areas of urban space, including parking, traffic safety and impacts, greenery quality, pedestrian safety, pathway quality, street lighting, etc. The survey gives also trends over years between the present and previous surveys.

4.2. Alaealine linnas, uurimus,

Survey. Adolescent in the City.
City of Tallinn, 2007

- Questionnaire survey, dealing with a number of questions, including movements, like:
 - how you go to the school?
 - when you go to the school?
 - what type of movements you use (walking, cycling, motorized transport, etc.)
 - what are your risks on your everyday movements?

4.3. Tallinna elanikkonna turvatunde uuring, 2006

Survey of the security feelings of the population of Tallinn

- Sample: 1000 adult citizens of Tallinn (age 15-74)

4.4. Uuring “Liikluse ohtlikkus laste kooliteel ja kooli ebaturvalisus”,

Schoolway safety and school security
Faktum & Ariko, 2006

4.5. Tallinna liiklusloendused 1973- 2007.

Traffic volume surveys in Tallinn
Tallinn University of Technology.

4.6. Tallinna linna liikluskeskkonna ohutus ja selle võimalikud arengud

The safety of traffic environment of Tallinn and its possible development.
Inseneribüroo Stratum, Tallinn, 2003

4.7. Tallinna liikluse arengukava. Ülesehitus ja struktuur

The strategy of traffic in Tallinn. Contents and structure.
Inseneribüroo Stratum, Tallinn, 2005

4.8. Tallinna säästva transpordisüsteemi arengu lähteseisukohtade väljatöötamine

Basics of the sustainable transport development of the city of Tallinn.
Inseneribüroo Stratum . Tallinn, 2005

4.9. Tallinna ülekäiguradade ohutustamiskava

Safety development plan for the urban pedestrian crossings in Tallinn.
Inseneribüroo Stratum, Tallinn 2006

4.10. Liikluse rahustamine Tiskre elamurajoonis

Traffic calming in Tiskre residential area.
Inseneribüroo Stratum, Tallinn 2006.

4.11. Liiklusohutusliku olukorra uuring: Eakad liikluses

Survey of road safety situation of elderly.
Inseneribüroo Stratum, 2003

4.12. Kooliõpilaste koolitee ohutustamine.

Creating the safe schoolway?

Inseneribüroo Stratum 2003.

4.13. Abinõude valik jalakäijate ja jalgratturitega toimunud liiklusõnnetuste ning neis kannatanute arvu vähendamiseks.

Choosing measures for the decrease of pedestrians and bicycle road accidents and casualties. Part 1 , 2.

Inseneribüroo Stratum, 2002-2004.

4.14. Kooliõpilaste veo ohutuse eeluuring

Pilot survey on schoolchildren transportation

Inseneribüroo Stratum, 2004

4.15. Liiklusõnnetuste arvu ja liiklusalaste õigusaktide seose analüüs

Relationship between the number of road accidents and legislation acts

Inseneribüroo Stratum, 2004

4.16. Omavalitsuste osa liikluskeskkonna ohutustamisel

The role of the local municipalities in development of the safety environment

Inseneribüroo Stratum 2005

4.17. Liikluskäitumise monitooring LiMo. 2001, 2002, 2003, 2004, 2005, 2006

Road user behaviour monitoring (LiMo project).

Inseneribüroo Stratum, 2001-2006.

4.18. Pärnu reguleerimata ülekäiguradade liiklusohutuse audit

Road safety audit of non-signalised pedestrian crossings in the city of Pärnu.

Inseneribüroo Stratum, 2006.

4.19. Jalakäijate ülekäiguradade liiklusohutuse audit Tartu linnas.

Traffic Safety Audit of Pedestrian Crossings in Tartu.

Inseneribüroo Stratum, 2002

4.20. Rapla maakonna liiklusohutusprogramm.

Road safety plan for the county of Rapla.

Inseneribüroo Stratum. Tallinn 2001.

4.21. Liiklusohutusaudit. Läbiviimise põhimõtted ja kord.

Road safety audit. Principles and procedure rules.

Inseneribüroo Stratum Tallinn 2002.

4.22. Tallinna liiklusõnnetuste kohtanalüüs.

Road accident spot analysis in Tallinn

Inseneribüroo Stratum Tallinn 2002.

4.23. Fooriprogrammide ja –parameetrite mõju liiklusohutusele.

Influence of traffic signal programmes and parametres on road safety.

Inseneribüroo Stratum Tallinn 2003

4.24. Liiklusohutus laste ja nende vanemate seas.

Road safety among children and their parents

TNS Emor 2007.

4.25. Liiklejate hoiakud vöötradade suhtes

Road user attitudes towards pedestrian crossings
TNS Emor 2007

4.26. Eesti liiklusohutuse tegevuskava aastateks 2008-2013.

Estonian road safety development plan for 2008-2013.
Tallinn University of Technology, 2007

4.27. Liikluse rahustamise tehniliste vahendite analüüs ja soovitude täpsustamine nende kasutamiseks

Choosing the traffic calming measures. Analysis and recommendations for implementation.
AS Teede Tehnokeskus, 2005

4.28. Liiklusõnnetuste majandusliku kahju määramine

Economic loss of road traffic accidents
Tallinn University of Technology (TTU), 2005

4.29. Liiklusõnnetuste koondumiskohad Eesti maanteedel

Evaluation of Black Spots on Public Roads
Tiit Metsvahi, TTU, Tallinn 1999, 2002 ja 2005

4.30. Jalakäijahelkuri kasutamine elanike poolt

Pedestrian reflectors usage by road users
TNS Emor, 2005 (and previous studies from 2002, 2003)
<http://www.mnt.ee/atp/failid/hel6.pdf>

4.31. Transpordiliik, mida lapsed kasutavad kooli ja kodu vahel liikumiseks.

Indikaator nr B.6

Transportation mode used by children for movements between the school and home. Indicator B.6.

http://www.tartu.ee/?lang_id=1&menu_id=2&page_id=571

4.32. Juurdepääs avalikele haljasaladele ja kohalikele põhiteenustele.

Indikaator nr A.4.

Access to public green space and main local services. Indicator A.4.
Kersti Kõivik. City of Tartu, 2004

4.33. Annelinna koolide õpilaste linnaliikluses osalemine

Participation of students of Annelinn schools in urban traffic.
Helen Biin, Katrin Parv. City of Tartu, 2005

4.34. Autovaba päev Tartus.

Car free day in Tartu
Valikor Konsult OÜ, Tartu 2006.

4.35. Projekti "Minu koolitee" Tartu linna 2007. a tulemuste analüüs

Analysis of the results of the project: „My way to school“
Valikor Konsult OÜ. Tartu, 2007.

4.36. Tartu ja tartlased

City of Tartu and it's citizen
Anneli Kährrik, Mare Ainsaar., Kersti Kõivik. City of Tartu, 1998, 2003.
http://www.tartu.ee/?lang_id=1&menu_id=2&page_id=571

4.37. Kohalikud liikumisvõimalused ja reisijatevedu. Indikaator nr A.3.

Local movement possibilities and passenger transport. Indicator A.3.
Kersti Kõivik. City of Tartu, 2004

**4.38. Jüri Uljas. „Transport, keskkond ja elukvaliteet Tallinnas“
Sotsioloogiline uurimus,**

Transport, environment and life quality in Tallinn- the sociological survey
Tallinn, 2001, 2007

4.39. Projekt „Kuldne Saabas“

Project Golden Boot
REC Estonia, 2006

4.40. Tallinna kesklinna koolide õpilaste liikumiste uuring ja suhtumine koolibussi käivitamisse”

Survey of the movements of schoolchildren of schools located in the centre of Tallinn and their attitudes towards the school bus implementation
University of Tartu, Institute of Geography/TÜ Geograafia Instituut, 2006

4.40. Tartu Lõunakeskuse kliendiuuring

The client survey of the shopping centre Lõunakeskus, Tartu
University of Tartu, Institute of Geography /TÜ Geograafia Instituut, 2004,2005,2006

4.41. Inventory and compiling of a European Practice Guide on Road Safety Education targeted at young people (ROSE 25)

Tiiu Rõivas, University of Tartu, Institute of Geography

4.41. Ülevaade Emajõe ületava linnaliikluse mahust ja dünaamikast Tartus

Urban traffic crossing the river Emajõgi in Tartu- Amount and dynamics
Andres Kluge, University of Tartu, Institute of Geography, 2004

4.42. Kaubanduskeskuse mõju linnasisesele liikumisele Lõunakeskuse näitel

Influence of the shopping centre on interurban movements- example of Lõunakeskus, Tartu
Andres Kluge, University of Tartu, Institute of Geography /TÜ Geograafia Instituut, 2004

4.43. Turu sild- tartlaste lemmik

Turu bridge- the favourite of the citizen
Marko Lodjak, University of Tartu, Institute of Geography , 2006

5. Published papers

5.1. Dago Antov, Siim Sõõt. Toward Improved Traffic Safety: Road Use Perception and Behavior in Estonia. Journal of the Transportation Research Board. Transportation Research Record No 1818, Washington, D.C., 2002. pp. 1-6.

5.2. D.Antov, T.Rõivas, H.Rõuk & Ü.Mander. Pedestrian safety at urban crossings in Estonia. WIT Transactions on Ecology and the Environment. The Sustainable City IV. Urban Regeneration and Sustainability. Editors: Ü.Mander, C.A.Brebbia and E.Tiezzi. WITPress Southampton, Boston, 2006. pp. 797 – 806.

5.3. Antov, D.; Rõivas, T.; Rõuk, H. (2007). Investigating drivers' behaviour at non-signalised pedestrian crossings. The Baltic Journal of Road and Bridge Engineering, 3, pp.111 - 118.

5.4. Antov, D.; Rõivas, T.; Oja, T. (2005). The public perception towards the road safety measures in Estonia. Brebbia, C.A.; Bucciarelli, T.; Garzia, F.; Guuarascio, M. (Editor). Safety and Security Engineering (633 - 641).WIT Press

5.5. P.Sürje, M.-L. Hääl, T.Metsvahi, D.Antov. Environment and Road Safety in Estonia. 9th International Conference "Road Safety in Europe", 21-23 sept. 1998, Bergisch Gladbach, Germany

5.6. T. Metsvahi, I.Pihlak. Estonian Streets Design Code, Vilnius 1998.

5.7. D. Antov, T.Metsvahi. How did we set the Road Safety Quantitative Objectives for Estonia. Technical reports of International Seminar "Nordic – Baltic Traffic Safety Day's", Tallinn, 1999.

5.8. A. Marksoo, T. Rõivas. Objective and subjective factors for labour commuters in affecting the choice of their place of work. TRÜ toimetised 726 Geograafia- alased töid Tartu 1986,39-63

5.9. A. Kluge, T.Rõivas Lõunakeskus ja Tartu linna sisesed liikumisvood
Publications Instituti Geographici Universitas Tartuensis 89(2004)123-136

6. Articles in newspapers

6.1. Jalakäijad tuleb tõsta esiplaanile. By Urmas Suik.
Pedestrians should be brought to the front.
Sakala, 20.07.2005

6.2. Unustatud jalakäijad. By Jaak Poom.
Forgotten pedestrians.
Eesti Ekspress, 24.06.2004

6.3. Autojuhid contra jalakäijad. By Madis Jürgen
Drivers contra pedestrians
Eesti Ekspress, 24.11.2005

7. Facts, figures and available statistics

7.1. Statistical data of casualty road accidents and traffic is comprehensively available from the Estonian Road Administration Office of Road Safety Information, who maintains a statistical database. Some information about recent statistics and road safety analysis is available at:

<http://www.mnt.ee/atp/?id=250> (in Estonian)

<http://www.mnt.ee/atp/?id=646> (in English)

7.2. The main statistical data on transportation is also available at the website of Statistics Estonia:

<http://pub.stat.ee/px-web.2001/Database/Majandus/Majandus.asp>

7.3. Data about all road accidents (including material damage only) is held by the Foundation of Traffic Insurance (Liikluskindlustusfond, LKF)

<http://www.lkf.ee/index.php?0>

7. General atmosphere

(i) The attitude of car drivers towards pedestrians can be assessed to be not really respectful even the situation has improved over last years. For instance, if taking a look how car drivers yield to pedestrians at non signalized crossings, the situation has been improved, even it is still far away of satisfactory (Ref.:4.17).

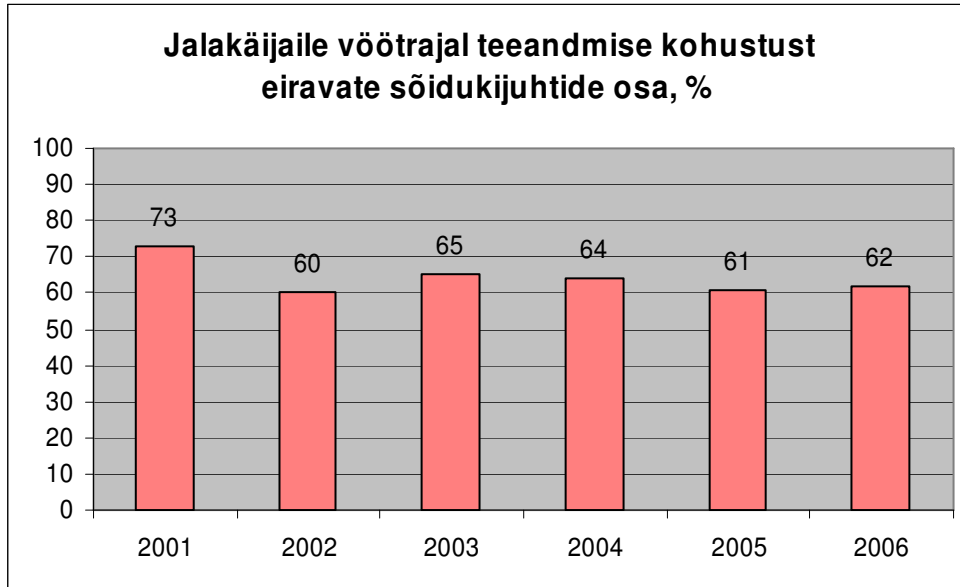


Figure 7.1. Percentage of drivers, ignoring the give-way rules at pedestrian non-signalised crossings

(ii) There is still a big problem with crossing design facilities, especially for crossings with old shape. These crossings are often dangerous, because of low standard of construction, even comparing with new design standard. Sometimes the pedestrian crossings are introduced on streets with raised speed limit (up to 70 km/h). On these crossings normally a pedestrian would not voluntarily try to impede the traffic on a street in order to cross safely the street (Ref.:5.3).

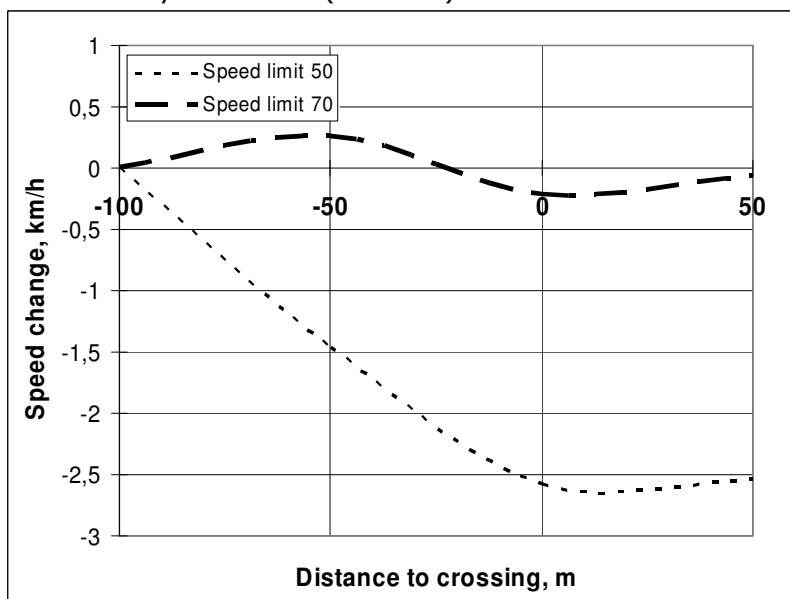


Figure 7.2. Speed changes at the vicinity of pedestrian crossings is depending on speed limit

(iii) The big issue in Estonia is also the implementation of traffic calming areas (woonerf-type), where the road sign often stays as the one and only facility for calming and the rest of measures are still missing (Ref.:4.27).

The pedestrian attitude towards the red light infringement is also a problem, as a big number of pedestrians cross the roadway against red signal (Ref. :4.17).

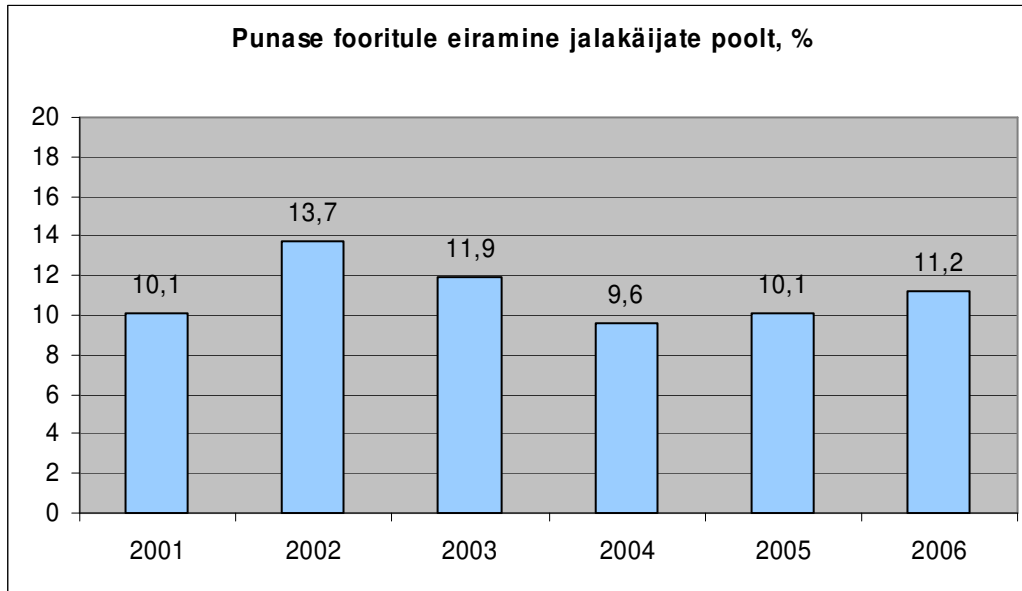


Figure 7.3. Percentage of pedestrians walking against the red signal.

(iv) The traffic signal systems are normally based on traffic signal design standards, which includes the pedestrian issue, but often the interests of pedestrians stay on behind if comparing with motor vehicles, when planning the signalised crossings or intersections.

(v) In public discussions, mainly on municipal level, the pedestrian issues are respected but do not play the most important role. Car traffic seems to be dominating decisions being made for instance in the field of traffic control, although acceptance in necessary concessions towards pedestrian issues exist.

Still as a good sign, the biggest cities in Estonia (Tallinn, Tartu, Pärnu, Narva, Rakvere, etc.) the sustainable transportation planning has been started, which normally includes measures for pedestrian traffic improvement in order to encourage sustainable modes of transportation change to development of the modal split towards motorization development. (Ref.: 2.1...2.6).

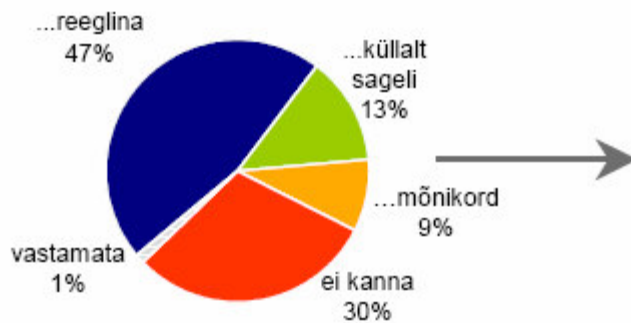
(vi) During last 5...6 years the road safety auditing (inspection) has become more known and used. Today the audits are often dealing with existing roads/streets or junctions, but the design RSA are also getting more popular. As the procedure rules say (Ref.: 4.21), RSA report should deal with pedestrian safety issues as well. There are few examples in Estonia, when RSA has especially been carried out with the purpose of pedestrian safety improvement. (Ref.:4.18, 4.19).



Figure 7.4. Examples of audited crossings near Pärnu.

(vii) An important issue in Estonia is a pedestrian safety on rural roads especially in darkness and under conditions of poor visibility. As the Traffic Acts demand pedestrians to use pedestrian reflectors when moving on rural roads in darkness, this issue has been highlighted by the Estonian Road Administration, Department of Road Safety as one of the important safety measures. The usage of reflectors has been regularly surveyed and pedestrian attitudes towards reflector usage are known (Ref.: 4.20).

2005, n=996



How often do you use pedestrian reflectors on rural road in darkness?
 (Usually 47%, often 13%, sometimes 9%, never 30%, no answer 1%)

Figure 7.5. The usage of pedestrian reflectors on rural roads.

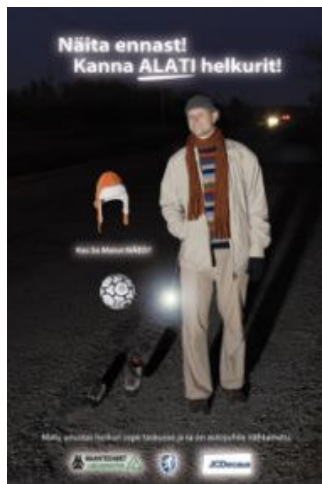


Figure 7.6. Advertisement for encouraging reflectors usage.

Similar to the reflectors usage, is the campaign which promotes the usage of reflecting vests for children moving in groups.



(viii) There are no special voluntary organisations of pedestrians in Estonia. Pedestrian interests are sometimes protected by bicycle organisations or green movement.

Further activities needed:

- National strategy for promoting and facilitating walking activities.
- Creation on scientific analyses on factors that inhibit the development of walking and cycling?
- Improvements in traffic data collection, including the walking
- Awareness building of planners, architects, developers and decision-makers on rationale, needs and possibilities for walking.
- Pilot actions in bigger cities for development on walking network system
- Extra roads for commuting cyclists/walkers in parallel to highways heading to main cities
- Pedestrians and cyclist road investment increase
- Building-up better image of pedestrians

Clarifying the benefits of promoting walking, cycling as well as calming of traffic in Estonia, like:

- Decrease of traffic accidents.
- External costs of transportation will decrease.
- The spending on transportation and new massive infrastructures made by public sector, private sector and citizens, will decrease.
- More attractive walking, cycling, rolling etc..
- The use of public transportation is more attractive, because walking is important link in use of it.

- The congestion will decrease; city-traffic is calmer and smoother.
- The access to services will improve for children, youth, elderly, disabled and poor people.
- The health and well-being of all citizens will improve because of more active life style and less environmental pollution.