Cycling to School:

Exploring Key Factors Influencing School-Going Children's Mobility Choice to Cycle in Tallinn, Estonia

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MSc Thesis Spatial Planning

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UNIVERSITY & RESEARCH

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ABSTRACT

Cycling and other active travel modes have dominated sustainable transportation policy agenda of many cities worldwide. Cycling is deemed beneficial for individuals' health and well-being while contributing to livability. There is of course a variation to the adoption of cycling and cycling cultures in cities. Amsterdam and Copenhagen are considered frontrunners while others are only taking their first steps. Tallinn, Estonia belongs to the latter category, setting up their first comprehensive approach on cycling in 2018 - the Tallinn Cycling Strategy. Amongst other measures, the strategy aims to make cycling safer and more attractive in the vicinity of schools across the city in order to increase the share of cycling to school among all mobilities to 25% by 2027. This demographic group are seen as a crucial to influence the potential future of Tallinn's cycling culture. Despite the abundant literature on cycling, there is little to no focus on this particular age group in aspirational cycling cities. This research explores factors (social, cultural, and spatial) that influence cycling to school in Tallinn among children in the ages of 13-16. The research includes street observations, a survey (n = 511) at various schools and focus groups sessions with children, parents and mobility experts. Additionally, expert interviews were carried out in Gothenburg, Sweden due compare cycling in the two cities and gain inspiration for planning guidelines and design interventions for Tallinn. The findings support the need for comprehensive strategies including cycling infrastructure modifications and convenient parking solutions both at home and school, an improved cycling training programme and promotional campaigns specifically designated for school-going children. The research is conducted in collaboration with the Tallinn cycling coordinator.

Keywords:

School-going children

Active school travel

Cycling culture

Tallinn

Gothenburg

Cycling infrastructure

Sustainable mobility

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Finally, I'd like to thank my **family and friends**, especially **Bas Heerink**, who offered constant support through the research. Their willingness to read my report, take additional photos and bring me a cup of tea when I was busy writing was much appreciated.

Pictured: My nephews who prefer cycling or kick biking to other modes at all times.

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1 INTRODUCTION

Cities are increasingly investing in active mobility strategies encouraging walking or cycling in place of private car travel (European Comission, 2016; Johansson, Laflamme, & Hasselberg, 2012). The expected benefits associated with active mobility are predominantly for increasing health and well-being. The attraction here is twofold. Firstly, cycling is considered the most sustainable transport mode in cities, also suitable for longer trips usually taken by car or public transportation. As Pucher and Buehler (2017) state: "Cycling is environmentally, socially and economically sustainable" (p.689).

Next, children are increasingly performing sedentary activities and child obesity is a growing health care concern. Walking and cycling to school offers children higher levels of physical activity, but also psychological gains such as having more social interactions. Simultaneously, a reduction in the number of parents driving their children would make active transportation safer, but also benefit the environment (Easton & Ferrari, 2015; Ermagun & Samimi, 2015; Helbich et al., 2016; Larouche, Stone, Buliung, & Faulkner, 2016; Mitra, 2013). Numerous governmental programmes, such as the Safe Routes to School in the United States (McDonald et al, 2013), School Travel Plans in New Zealand (Hinckson, 2016) and Travelling to school initiative in the UK (Easton & Ferrari, 2015) are examples of this.

Mobility research tells us that travel is a choice and a derived demand (Dijst et al, 2013). However, the choice to cycle to school is not always self-evident. According to the NOA model, the fundaments of travel choice behaviour are determined by the needs (e.g. travel cost and time, comfort and flexibility of modes, etc.), opportunities (available modes and travel distance) and abilities (monetary and time resources) (Dijst et al, 2013). In addition, in cities where there is a less established cycling culture, multiple barriers such as lack of cycling infrastructure and traffic safety and lack of facilities have been found (de Souza et al, 2014; Iwińska et al, 2018; Sharma et al, 2019).

Most existing literature on cycling for children focuses on the USA, Canada and England, but also Denmark and the Netherlands which are more advanced in cycling. In comparison, Tallinn, Estonia where approximately 1% of all trips is done by bicycle (Maanteeamet, 2017) seems to not be addressed. This could be expected in a city where infrastructure is primarily built for cars and snow is expected in winter months. However, weather considerations aside, in comparable cities such as Helsinki or Gothenburg 11% and 8% of all trips are done by bike respectively (Maanteeamet, 2017). Similarly to Tallinn, Gothenburg, the birth place of Volvo, has a high car usage, yet even there 15% of school trips are done by bicycle (VTI, 2017).

Tallinn adopted the Tallinn Cycling Strategy in 2018 and appointed its very first Cycling Coordinator, who is in charge of implementing the strategy (Jüssi et al, 2018). The strategy aims at 11% of cycling of all mobilities, and 25% of cycling of all mobilities for travelling to and from school (Jüssi et al, 2018). School children are one of the two main target groups[1] of the strategy as they are seen as the future of Tallinn's cycling culture. The strategy involves retrofitting streets for cycling that are identified as main routes for school commute as the highest priority. However, as there is such a low percentage of cyclist, it becomes important to understand what the barriers to cycling for school-going children could be and what planning and design interventions can be carried out to improve the situation for cycling and reach the goals set in the cycling strategy.

In collaboration with the Tallinn Cycling Coordinator, this research therefore aims to understand which key factors influence school-going children's mobility choice for cycling to and from school in Tallinn. The goal is to provide actionable recommendations

[1]The other target group consists of commuters and students (Jüssi et al., 2018).

that can encourage cycling to school based on the findings generated.

Through a mixed methods approach, this research discovers the factors influencing cycling to school in Tallinn, including a survey of 500 school-going children, focus groups with pupils, parents and experts to isolate the factors and observations of the current conditions in Tallinn in relation to these factors (sub-question 1). Additionally, a comparison with current design guidelines and planning interventions in the city of Gothenburg will be made (sub-question 2). Together, the two case studies will provide a comprehensive overview of key factors contributing to cycling to school and allow the formulation of planning guidelines and design interventions for the city of Tallinn (sub-question 3).

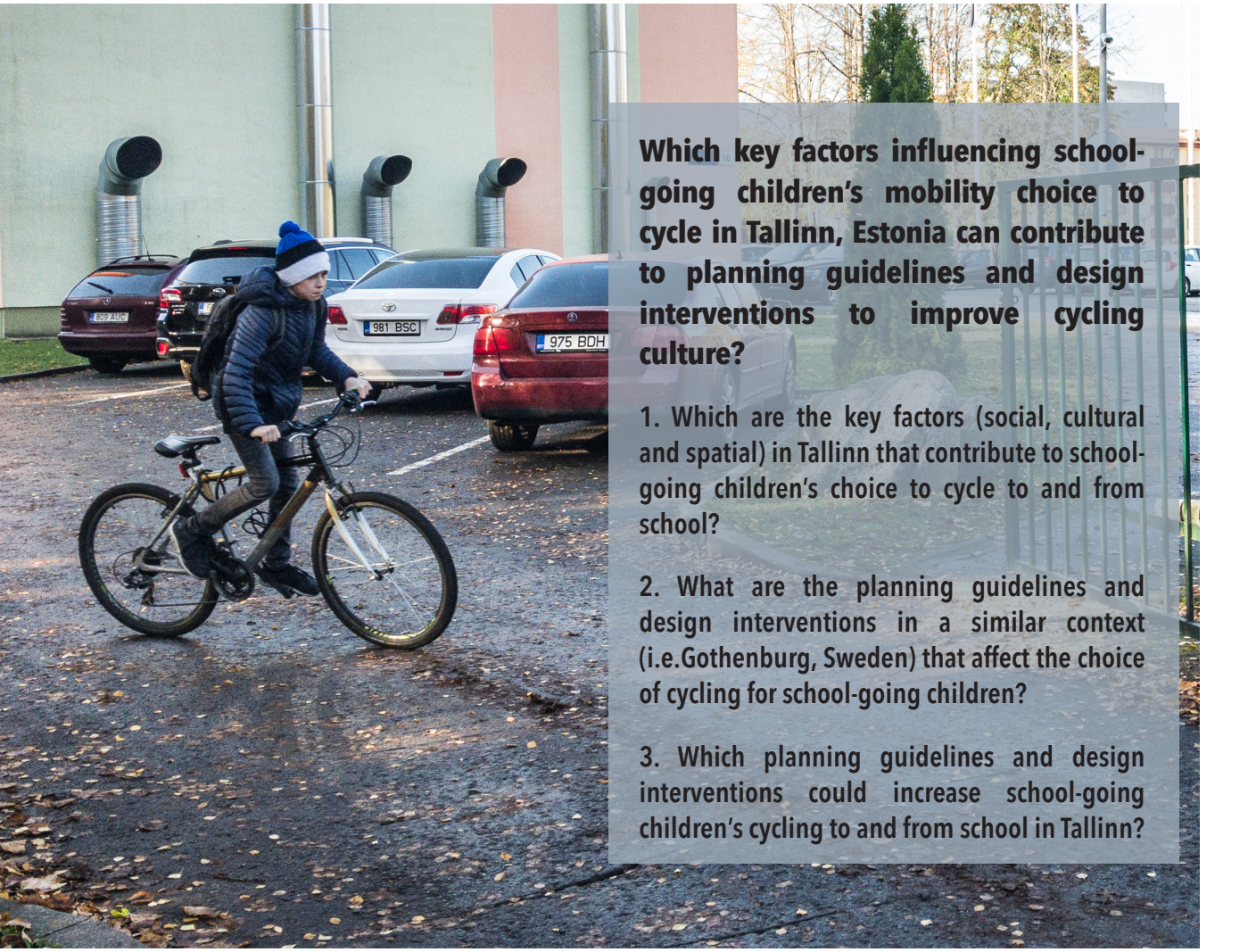


Figure 1: Research questions

2 THEORETICAL FRAMEWORK

This chapter draws the framework for factors influencing the mobility choice of school-going children from literature worldwide in order to understand cycling to school in Tallinn. The chapter covers the explanation of the following:

1. Travel behaviour and travel behaviour in children (Children's Independent Mobility and Active School Travel);

2. Mitra's model of school transportation (2013) – the framework used for this research, including the domains of external factors (1), urban environment (2), household (3), the child (4);

3. Findings from related studies, including key factors influencing active school travel.

The chapter concludes that although various domains of influence have been identified, active school travel is understood similarly across different studies and it is an outcome determined by a complex interplay of factors.

2.1 Travel behaviour & children's travel choice

Before making school travel choice explicit, first an understanding of general travel behaviour has to be established. The NOA model (figure 2) identifies needs (N), opportunities (O) and abilities (A) as determinants of travel behaviour. Needs describe motivational factors (e.g. travel costs and time, comfort, and flexibility of available transport modes), social factors (opinion of others and what is considered normal) and emotions. Opportunities include available transportation modes and travel distance, and abilities looks at monetary and time resources, but also skills and capacity to use different travel modes. Needs, opportunities, and abilities are influenced by societal developments, such as economic growth and changes in values and norms. For instance, economic growth enables more people to own a car (Dijst et al, 2013).

Researchers have also studied travel behaviour from the viewpoint of perceived costs and benefits, moral and normative concerns, and affect. From a moral perspective, people may consider the environmental consequences of their mode choice and thus decide to use a less polluting mode, even though driving would be more comfortable and more time efficient. The norm activation theory (Schwartz, 1977) captures this effect and is often used for explaining low-cost behavioural changes and good intentions, including the choice for cycling. Apart from other factors, contextual factors, such as the quality of public transport or fuel prices may singlehandedly rule out any other factors for mode choice. While studies have also looked at travel behaviour from a geographic and economic perspective, psychological models have been proven to be most comprehensive in understanding travel behaviour (Dijst et al, 2013).

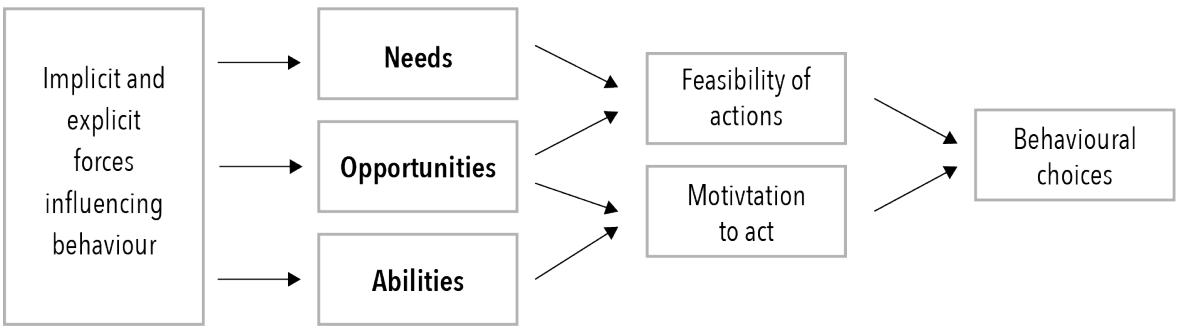


Figure 2: The NOA model (Dijst et al, 2013)

In contrast to adults, children's mobility is largely determined by their independence from their parents or caregivers. Children's Independent Mobility (CIM) is a concept that tries to capture the extent of this independence by looking at the freedom children have to leave their home on their own (O'Brien, Jones, Sloan, & Rustin, 2000). According to Carver et al. (2014), CIM includes activities that children can do independently, such as crossing main roads, travel to places aside school, travel home from school, travel by public transport, bicycle and go out after dark. Carver et al. (2014) and Schoeppe (2013) add that children who have greater independent mobility walk, cycle or use other active transport modes more often to go around their neighbourhood without adult supervision.

Children's independent mobility is linked with Active Travel to School, also known as active school commute and active school transportation. Active travel means walking or cycling to school instead of taking the car or public transport which are in-active or passive transportation modes (Easton & Ferrari, 2015; Lee, Orenstein, & Richardson, 2008). Active school travel has many benefits for the child, including higher levels of physical activity and psychological gains such as potentially having more social interactions. On the contrary, children who are chauffeured are more likely to perform sedentary activities and have weight issues (Easton & Ferrari, 2015; Ermagun & Samimi, 2015; Helbich, 2017; Larsen, Larouche, Buliung, & Faulkner, 2018; Oja et al., 2011; Schoeppe et al., 2013).

2.2 A behavioural model of school transportation

When considering the travel choice of school-going children, the following domains of influence are considered important:

1. External factors
2. Urban environment
3. Household
4. The child

These domains are based on the behavioural model of school transportation (figure 3) which Mitra (2013) derived from a systematic review of articles written on active travel in children and youth. Mitra's model is an expansion of previous frameworks drawn by McMillan (2005) and Panter et al. (2008) and it adds to these in ways which make Mitra's model relevant for this research. Firstly, Mitra differentiates between escorted versus independent trips and mode choice and argues that family members have a crucial role in determining school travel outcome. Secondly, the model argues that the travel outcome of a child and a youth are different, based on ecological theories of human behaviour (Mitra, 2013).

Next, the four domains of Mitra (2013) are explained. Where relevant recent literature on active travel has been used to support Mitra's findings.

External factors (1)

The **natural environment,** such as the city's morphology, the weather and climate, influence active transport among children. Studies from the Nordic countries report a decrease in cycling rates in winter months, but usually children switch to walking (Larouche et al., 2016). If children are used to cycling on a daily basis, they are less likely to change their habits due to the change in season, which can be observed for example in the Netherlands (Helbich et al., 2016; Larouche et al., 2016).

Policies can encourage or discourage walking or cycling, such as the possibility to use a school bus and provision of bike parking at school (Mitra, 2013). Availability of public transport, including nearest bus stop and free or discounted use of the system can also determine children's mode choice (Broberg & Sarjala, 2015; Ermagun & Samimi, 2015). Additionally, as municipalities opt for less local schools and schools enlarge their catchment area, less active school trips can be expected (Easton & Ferrari, 2015; Helbich et al., 2016; Murtagh, Dempster, & Murphy, 2016).

Urban environment (2)

The **urban structure, built environment** and **social environment** influence children's school mode

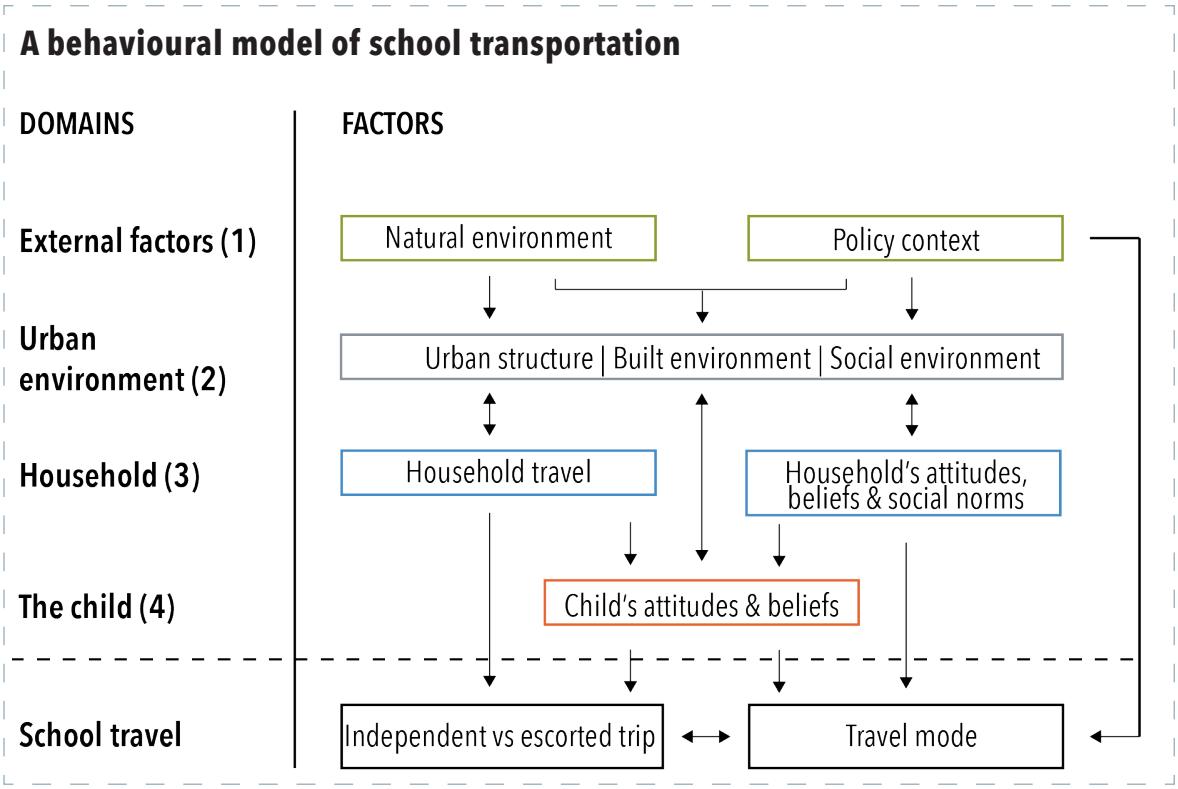


Figure 3: A simplifed model of school transportation, based on Mitra (2013).

choice. Mitra (2013) explains five links between neighbourhood characteristics and school travel outcome:

1. Proximity to school;

Short distances are more feasible for walking or cycling. Distances may increase due to lack of available secondary schools in the neighbourhood and the possibility to freely choose the school the child attends (Curtis, Babb, & Olaru, 2015; Mitra & Buliung, 2015).

2. Traffic and personal safety concerns;

Availability of sidewalks and cycle paths, low traffic volume, lower proportion of heavy traffic and busy and major roads positively influence AST (Carver et al., 2014; Sharmin & Kamruzzaman, 2017). Insufficient traffic lights and pedestrian crossings, and major roads crossings have a negative effect on AST (Mitra & Buliung, 2015; Sharmin & Kamruzzaman, 2017; Veitch et al., 2017)

3. Improved street connectivity;

Connectivity of streets that are suitable for walking and cycling enable active school travel. However, connectivity of streets that create heavy traffic have the oppositve effect. Panter et al (2010) argues that higher number of route choices, but less-connected streets, meaning that they are quieter, are more likely to trigger children to cycle.

4. Comfort and attractiveness;

The importance of enjoyment and comfort of walking and cycling.

5. Opportunity to produce and maintain social capital;

Maintain social capital through active transport is enhanced via sense of community in the

neighbourhood, but also between children and grownups who engage in active transport.

Household (3)

Social norms and values, and the **travel options** contribute to school mode choice. Children are more likely to engage in active transport if they live in a carless household. Relatives, friends and even teachers may disapprove parents' choice for active school travel (Bennetts et al., 2018; Mitra, 2013).

Second, general household activity, such as driving to work in the morning makes it convenient to drive the child to school (Mitra, 2013). Some families might not have the time for active transport (Stark, Frühwirth, & Aschauer, 2018), however, if parents are not available when school starts or ends, children are more likely to walk or cycle (Mitra & Buliung, 2015).

Third, parents' confidence about child's physical and cognitive capabilities, and their awareness of the benefits of active transport plays a role. According to Bennetts et al (2018) parents are less scared of danger if they are confident about their child's capabilities.

Additionally, the perception of traffic safety by parents is crucial (Fyhri & Hjorthol, 2009; Scheiner, Huber, & Lohmüller, 2019; Sharmin & Kamruzzaman, 2017; Veitch et al., 2017; Villanueva et al., 2013). If parents find it unsafe for their children to walk or cycle, children are more likely brought to school by car.

The Child (4)

Children themselves have an **opinion about their transportation options** and consider their cycling capabilities and efficacies. These attitudes also change over time as they become more independent in their teenage years and make their own decisions about their mode of transport (Mitra, 2013). Veitch et al (2017) found that if children enjoy cycling, it contributes largely towards their traveling behaviour. Furthermore, there are also differences among boys and girls, as boys are often more independent and more likely to play outside. Girls however are more prone to fear and perceived traffic danger (O'Brien et al., 2000; Villanueva et al., 2013).

Figure 4: Cycle parking at a school in Gothenburg - an external factor that influences children's active travel by bicycle.

2.3 Other studies on active school travel

The number of variables, domains and factors can vary between studies, yet it is clear that active school travel is understood in a similar way. More importantly, active travel is rarely an outcome of a single factor but a complex interplay between various factors (Deka, 2013; Easton & Ferrari, 2015; Mitra & Buliung, 2015; Pucher, Dill, & Handy, 2010).

Dividing factors identified in case studies in Germany (Scheiner et al., 2019), the UK (Easton & Ferrari, 2015), Sweden (Johansson et al., 2012) and the USA (Stewarta et al., 2012) into Mitra's (2013) domains highlight the similarities between studies. This overview also shows that some studies chose to use specific variables (distance to school) in combination with more general categories (neighbourhood characteristics) (Stewarta et al., 2012).

While researchers agree that no single factor can determine active school travel, key factors that have a more prominent influence have been identified.

Key factors influencing active school travel:

- Distance / proximity to school (Broberg & Sarjala, 2015; Ermagun & Samimi, 2015; Mitra & Buliung, 2015);
- Road, traffic and perceived safety (Broberg & Sarjala, 2015; Carver, Timperio, & Crawford, 2013; Johansson et al., 2012);
- Street connectivity (Broberg & Sarjala, 2015; Helbich et al., 2016).

Table 1: Overview of factors / domains identified as influencial factors for active school travel across the world.

External factors (1)	Urban Environment (2)	Household (3)	The child (4)
Weather (Stewarta et al., 2012)	Distance to school (Stewarta et al., 2012)	Family schedule constraints (Stewarta et al., 2012)	Individual characteristics (Easton & Ferrari, 2015; Johansson et al., 2012)
School characteristics (Easton & Ferrari, 2015; Stewarta et al., 2012)	Neighbourhood characteristics (Stewarta et al., 2012)	Family values and culture (Stewarta et al., 2012)	Subjective norms and attitudes (Scheiner et al., 2019)
Policy environment (Johansson et al., 2012)	Physical / built environment (Johansson et al., 2012; Scheiner et al., 2019)	Subjective norms (Scheiner et al., 2019)	
Transport environment (Scheiner et al., 2019)	Trip characteristics (Scheiner et al., 2019)	Family resources (Johansson et al., 2012; Stewarta et al., 2012)	
	Social environment (Johansson et al., 2012; Scheiner et al., 2019)	Family characteristics (Johansson et al., 2012)	
	Parental fear of traffic and crime (Scheiner et al., 2019; Stewarta et al., 2012)	General household context (Easton & Ferrari, 2015)	
	Parental fear of traffic and crime (Scheiner et al., 2019; Stewarta et al., 2012)		

Nevertheless, experience from various countries has shown that investments in infrastructure alone have not brought the desired outcomes and thus educational programmes are also essential in influencing children's travel behaviour (Deka, 2013; Mitra & Buliung, 2015; Pucher et al., 2010).

Factors influencing active school travel also vary between younger children and the adolescences. Both Mitra (2013) and Johansson et al. (2012) agree that active commute to schools decreases as children get older. While younger children generally prefer to walk to school or use the walking school bus, the youth tend to prefer public transport (Mitra & Buliung, 2015; Hinckson, 2016). Hinckson (2016) also found that both younger and older children enjoy traveling with their peers, although they use different modes of transportation.

2.4 Application of Mitra's model for this research

Comparison of Mitra's model (2013) with previous case studies shows that Mitra provides a wide range of factors that can determine active school travel. This research therefore adopts Mitra's model (2013) and uses the four domains of external factors (1), urban environment (2), household (3), and child (4) (see page 12, figure 3) to identify factors influencing active school transportation. However, in its simplicity, it excludes socio-demographic and economic indicators for travel behaviour, e.g. income and race.

Mitra's model is used to identify factors both in Tallinn and in Gothenburg. To illustrate what the findings could include, the model is explained in the context of the Netherlands (Pucher & Buehler, 2008) (figure 5).

Factors influencing cycling to school in the Netherlands

External factors in play are mild climate and flat landscape (natural environment) and the encouraging policy context such as cyclists' priority in traffic and provision of bike parking at schools.

Urban environment factors are densely populated cities (urban structure), an extensive network of separated cycling paths (built environment) and cycling culture which makes the bike an acceptable mode choice by many (social environment).

On household level, many families have more than one bike and children are encouraged to cycle (household travel). Cycling is well-perceived by parents as it is considered safe and many people cycle (attitudes, beliefs and social norms of the household).

Children choose to cycle because many of their friends also cycle. Cycling is also encouraged through cycle training early on at school which makes both children and parents confident about their behaviour in traffic (attitudes, beliefs and social norms of the child).

Figure 5: Cycling to school in the Netherlands (source: fietsersbond.nl)

3 METHODOLOGY

This research explores key factors that influence school-going children's (aged 13-16) mobility choice to cycle in Tallinn, Estonia. Based on the findings, planning guidelines and design interventions are drawn to improve cycling to school and cycling culture in Tallinn as a whole.

The research requires both quantitative and qualitative methods to understand what factors influence school travel (quantitative/qualitative), how they influence school travel (qualitative) and why they influence school travel(qualitative) in Tallinn. Qualitative methods also helped to identify planning guidelines and design interventions from Gothenburg for inspiration purposes.

Figure 6 shows the overview of methods carried out for this research. The starting point of the research are the four domains proposed by Mitra (2013). In each step, at least two or more domains were researched. The domains included in each step are highlighted with the colours codes of each domain.

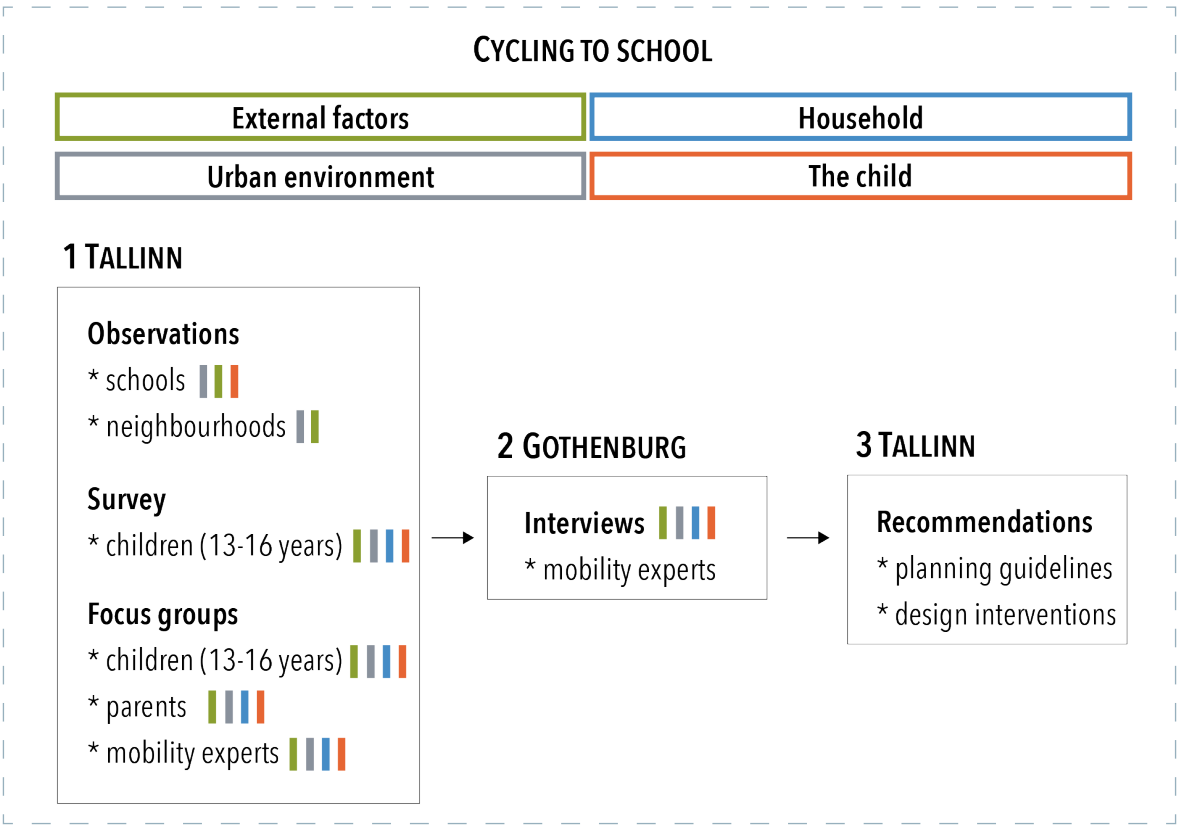


Figure 6: Operational frame, based on the four domains of Mitra (2013).

3.1 Ethics approval

This research is concerned with children who are considered vulnerable groups according to the European Commission. Therefore, extra care was taken in dealing with ethical issues (Hughes et al., 2010). Thus, the research protocol was submitted to and approved by the Wageningen University and Research Social Sciences Ethics Committee who declared the research satisfactory in tems of dealing with ethical issues and its compliance with the Netherlands Code of Conduct for Research Integrity (see Appendix I).

3.2 Observations

Observations were carried out around three schools in Tallinn. These schools were among the five that were also included in the survey (see table 2 and figure 7 on page 18). Observations were carried out at each school from 7:40 until 8:00 in the morning, because school starts at 8:00.

Observations forms (Appendix II) were used at each school to note the following:

- Date, time frame and weather conditions
- Number of cyclists entering school premises
- Number of cyclists wearing a helmet
- Number of bikes at cycle parking
- Number of kick bikes
- Other notable observations
- Location of cycle parking on school premises (concept map)
- Photos of cycle parking
- Photos of the surroundings

Table 2: Schools included in this research

School	Location	Number of children	Catchment area	Included in:	
				Survey	Observations
Tallinna Kristiine Gümnaasium	Kristiine	849*	Local	x	x
Tallinna Mustamäe Reaalgümnaasium	Mustamäe	757*	Local	x	x
Tallinna Kuristiku Gümnaasium	Lasnamäe	913*	Local	x	x
Tallinna Laagna Gümnaasium	Lasnamäe	753*	Local	x	
Tallinna Kunstigümnaasium	Põhja-Tallinn	674*	City-wide	x	

* Source: Tallinn Education Department, 2018

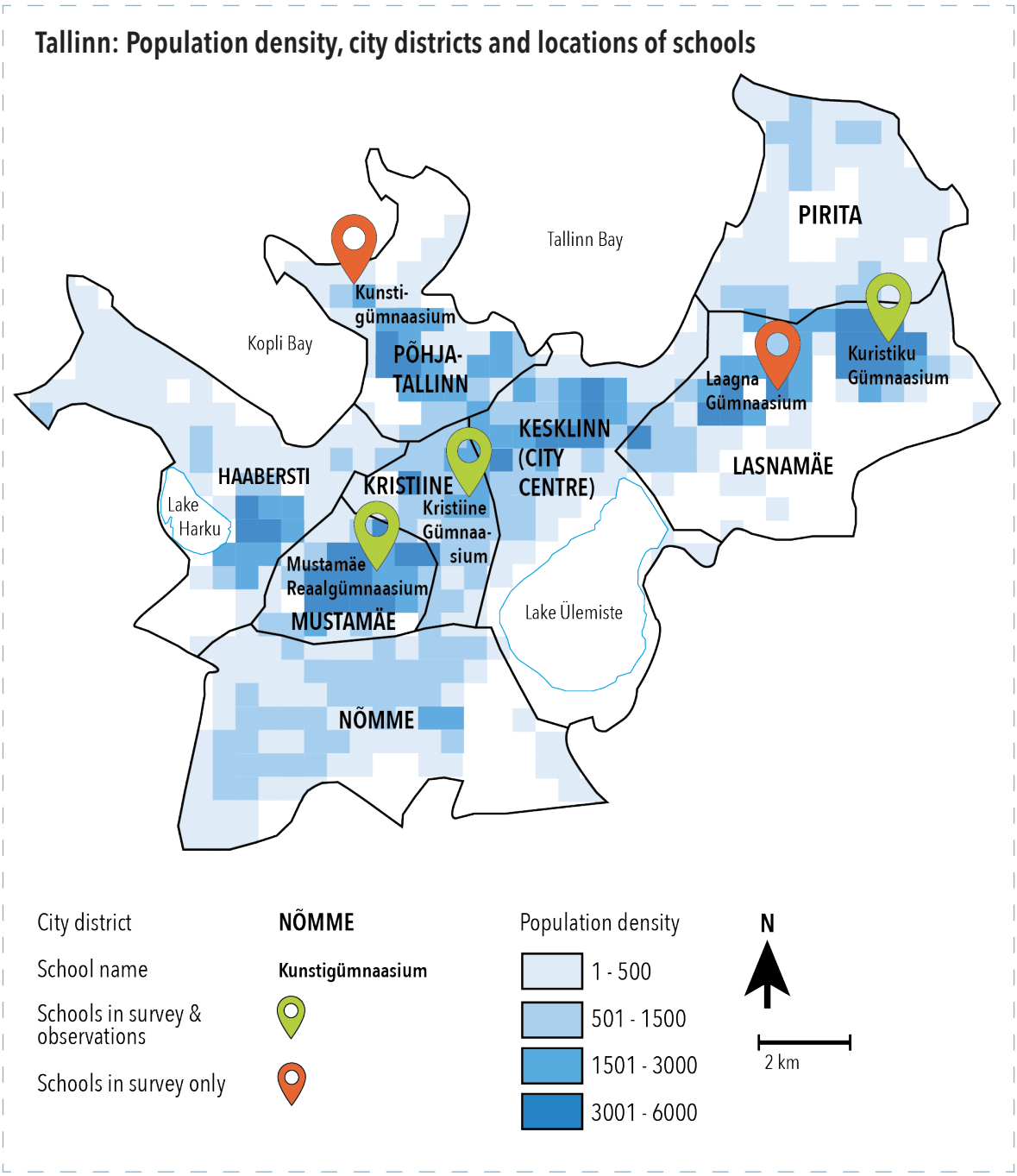


Figure 7: Map of Tallinn with population density, city districts and location of schools.

3.3 Survey among school-going-children

A survey was carried out among 13-16-year-old (grades 7-9) school-going children to gain a general understanding of pupils' attitudes and beliefs about cycling and barriers for cycling to school. The survey was carried out at five schools, resulting in 511 responses. This represents 5% of school-going children in Tallinn in forms 7-9 (Tallinn Education Department, 2018).

This demographic group was chosen as the target group of the study by the Tallinn Cycling Coordinator, as this age group is expected to more likely cycle longer distances in Tallinn compared to younger children. Additionally, at the age of 15, children do not need a cycling licence anymore, and at 16, a helmet is no longer required (Traffic Act, 2010). Thus, they represent the youngest group that could have independent mobility via cycling.

Topics covered in the survey included bike ownership, usual school transport mode, distance to school, uptake of cycling to school and different barriers to cycling. For the complete survey, see Appendix III.

The survey was carried out in combination with a promotional activity that the Cycling Coordinator offers to schools across Tallinn. The coordinator began his in-school presentation with a short survey via KahootTM - an interactive survey tool the pupils can access using their phones. The tool enabled a more playful way of taking the survey in comparison to more traditional survey tools. However, the use of KahootTM and the 10-minute time-frame meant that the survey consisted of only 10 multiple choice questions with up to four fixed answers. This limited the amount and kind of data collected with the survey.

Descriptive statistics were used to analyse the data in SPSS in order to build an overall view on cycling to school among the school-going children.

3.4 Focus group sessions

Once the surveys had been completed, three focus groups were carried out to gain in-depth information about additional barriers to cycling, and how and why these barriers influence cycling to school. Focus group participants were identified via tutors of grades 7-9 at various schools and through the network of the Tallinn Cycling Coordinator. Additionally, the invitations (Appendix IV) were shared on two Facebook groups, namely "Tallinn Rattarikkaks" (Tallinn bicyclefull) and "Linnad ja Liikuvus" (Cities and mobility).

The participants were invited to take part in a recorded focus groups session of one hour. Two of the sessions were planned at the Kristiine Youth Center and one at an office space provided by one of the experts. Afterwards, the three sessions were transcribed (Appendix V) and analysed by the use of an excel table (Appendix VI) that utilized Mitra's (2013) four domains for active school transportation.

The three focus groups included:

1.School-going children aged 13-16 (6)

Six children participated in the focus group, representing the target group of this research. The aim of the session was to validate the survey data and to understand the underlying causes for the findings of the survey.

Because the efforts described above did not result in the desired number of participants, the children were instead identified through a cycling training school, a recommendation by one of the parents. These children thus represent a group that have a bike and feel confident when cycling. Since the session took place during a training class, it was limited to 20 minutes.

2. Parents of school-going children (3)

This focus group included 3 participants who helped to interpret the findings of the survey in a more objective manner. Parents can generally have a broader view on their children's behaviour and offer insights that the children may not consider themselves.

3. Tallinn's mobility experts (6)

This focus group consisted of 6 mobility experts whose daily work is also concerned with cycling and thus offered a professional perspective on cycling to school. In contrast to the other two focus groups, this session helped to identify recommendations for improving cycling to school while also considering realistic possibilities within the city administration.

3.5 Expert interviews

Gothenburg has a somewhat similar context to Tallinn with its comparable climate and population size. The city has more cycling than Tallinn, but less than cycling cities such as Amsterdam and Copenhagen. Thus, it offers the possibility to compare Tallinn with Gothenburg and to gain inspiration for planning guidelines and design interventions for Tallinn.

For this aim, interviews were chosen as a suitable form of data collection. Questions were formulated based on the findings in Tallinn, with a special focus on measures that Gothenburg takes to improve cycling to school and in the city as a whole. The interviewees were identified via personal networks in Gothenburg and emails were sent out to acquire about their willingness to meet and their availability during a week the researcher was in Gothenburg. This resulted in three interviews with six cycling, mobility and traffic experts from the private and public sector. The interviews were recorded, transcribed (Appendix VII) and analysed.

4 CASE DESCRIPTIONS

This research includes two case studies – Tallinn, as the main case study, and Gothenburg, as a comparison case and point of inspiration for Tallinn (see figure 8 for the location of the two cities). The cities are comparable in terms of weather and population size, and both are working on improving the conditions for cyclists, although in different stages. For both cities, this chapter offers:

1. A general description and issues related to mobility choices,
2. Overview of cycling in the city,
3. Insights into the current cycling strategy, and
4. Cycling trends among children.

Figure 8: Location Tallinn and Gothenburg

4.1 Case description Tallinn

Tallinn (see figure 9 on page 22), the capital of Estonia, is a mid-density city on the southern coast of Gulf of Finland. The strategic location enabled Tallinn to become a trade city and to become part of the Hanseatic league since the 13th century. Throughout time, Estonia has been occupied by various powers which all reflect in the building style of the cityscape. Tallinn's old town belongs to the UNESCO world heritage (Tallinn City Tourist Office n.d.). Tallinn is currently undertaking many large-scale infrastructure developments, including improved connections between the port of Tallinn and the city centre, and the construction of the Tallinn Main Street which focuses on giving more space for pedestrians and cyclists on a 1.5 km stretch in the city centre.

Tallinn offers fare-free public transport for its residents since 2013. Car ownership has grown rapidly since Estonia's independence from the Soviet Union in 1991. According to Eurostat (2018), Estonia ranks 9th among can ownership in the European Union. Policies regarding the reduction of car use in Tallinn are limited, involving fuel tax, higher parking fees in the city centre and bus priority lines. Thus, it is not surprising that the promotion of sustainable transportation through fare-free public transport has not been effective. Instead of reducing car rides, the system has gained public transport riders ar the cost of pedestrians and cyclists (Cats, Susilo and Reimal, 2017; Hess, 2017; Poltimäe and Jussi, 2017, Leesment, 2018).

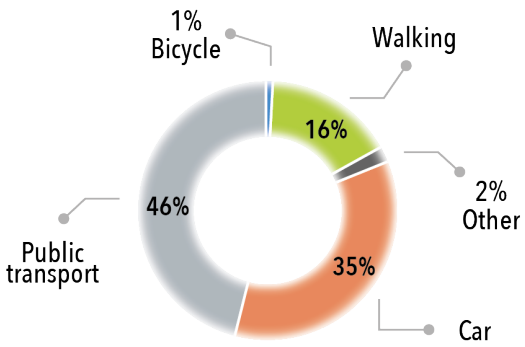
4.1.1 Cycling in Tallinn

Cycling paths started to appear in Tallinn around 1998. National and local development plans drawn up in the 2000s, such as the Transport Development Plan 2006-2015, Tallinn Development Plan 2006-2015 and Tallinn Environmental Strategy focused on cycling and walking with the goal to increase traffic safety through constructing shared paths, calming motorized traffic and increasing connectivity (Jüssi et al., 2018; Antso, 2012).

"Tallinn Cycling Traffic Strategy – Stage I" was written in 2012 to pave the ground for the 2018 Tallinn

Tallinn

Mode share [3]



Inhabitants	440 776 [1]
Land area	159 km² [1]
Population density	2817 inhabitants/km² [1]
Passenger cars per 1000 inhabitants	408 [2]

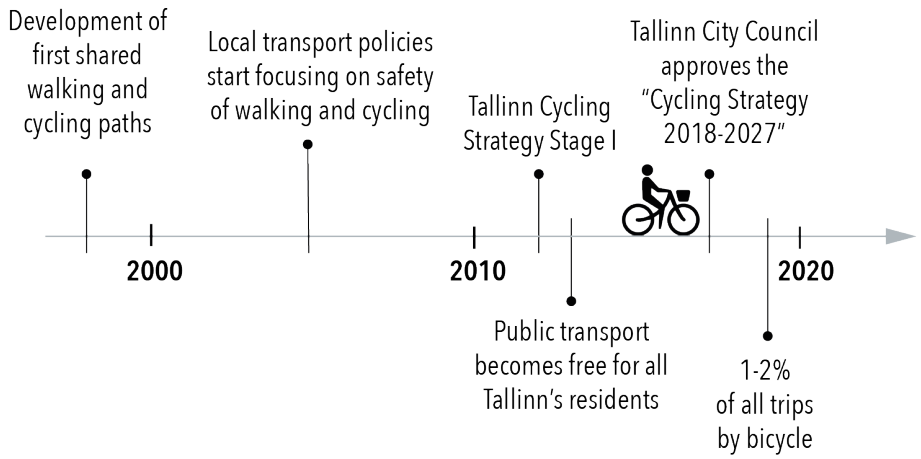


Figure 9: Infographics about Tallinn.
Sources: [1] Tallinn City Office (2018), [2] Pukk (2015), [3] Eesti Uuringukeskus (2017)

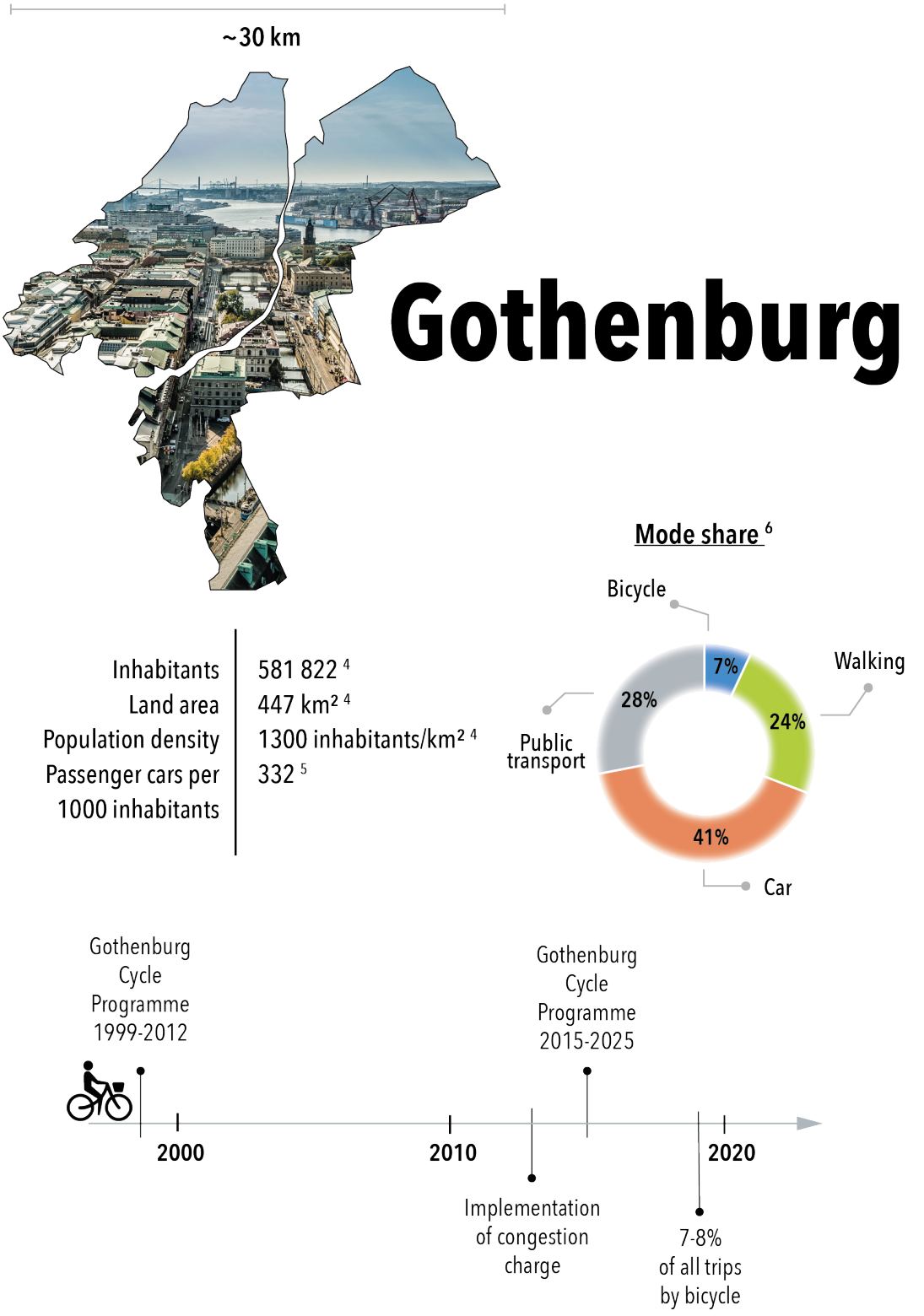


Figure 10: Infographics about Gothenburg.
Sources: [4] World Population Review (2018), [5] Statistics Sweden (2019), [6] City of Gothenburg. (2017a)

Cycling Strategy. The study looked at cycling trends and offered recommendations for the development of cycling infrastructure and related activities, which the Tallinn Municipal Service Department used until 2018 (Antso, 2012).

Cycling in Tallinn is considered unsafe and lacking in facilities. In a 2012 study (Antso, 2012), 75% said that Tallinn has few cycling paths and 90% stated that the cycling paths are not connected. A 2017 survey among Tallinn's inhabitants found that 61% of the participants were dissatisfied with the possibilities of parking the bike at home. The overall traffic situation for cyclists was rated a 2.5 out of 5 (Eesti Uuringukeskus, 2017).

Cycling is an important part of many current development plans. "Tallinn Development Plan 2014 – 2020" and the national spatial planning act "Estonia 2030+" view cycling as a part of everyday mobility, accessibility and high-quality living environment. The "Tallinn Development Plan 2014-2020" aims to increase the length of cycling paths and "Tallinn 2030" sees the importance of increasing the share of cycling (Jüssi et al., 2018).

4.1.2 *Tallinn Cycling Strategy 2018 - 2027*

The Tallinn Cycling Strategy, approved by the city council in 2017, ties in with the city's ongoing development plans. Most crucially, the reconstruction of roads has to follow the guidelines set in the Cycling Strategy (email conversation with Erik Sarapuu, Feb 2019).

The 2018 Tallinn Cycling Strategy seeks out to change the current image of cycling in the cityscape - no visible cycling paths, not many cyclists and not many cycle parking spots. The overall aim is to improve

Figure 11: Goals of Tallinn Cycling Strategy 2018-2027

the quality of life in Tallinn through contributions to health, mobility, safety and the living environment (Jüssi et al., 2018).

With commuters, students and school-going children as main target groups, the cycling strategy aims to reach five goals by 2027 - see figure 11).

The goals are set to be reached through developing cycling networks, (re)constructing cycle paths and crossings according to standard solutions and through comprehensive maintenance. Safety for cyclists is a principal theme in all these developments. Additionally, the strategy includes parking norms (e.g. minimum one per apartment building), technical solutions and an overview of supporting activities and communication next to the improvements in infrastructure. A brief implementation plan with activities and responsibilities concludes the strategy (Jüssi et al., 2018).

Nevertheless, in 2019, the Cycling Strategy fell behind its implementation plan. According to the current cycling coordinator, the Cycling Strategy should be implemented in practice since it is approved by the city council. However, in reality, the reconstruction of roads in Tallinn follows the 2014-2020 development plan. This means that the objective for 2019 to build the cycling network through the city centre will start later than planned. Other activities are carried out according to plan, even though there is no designated budget for cycling-related activities (email conversation, Feb 2019).

4.1.3 Children and cycling in Tallinn

Children in the age of 7-14 years in Tallinn mostly travel to school by public transport, followed by walking. Many parents choose to chauffer their children to school by car due to long travel time by public transport, perception of low traffic safety and lack of suitable public transport connections (Eesti Uuringukeskus, 2017). Children's travel choice is also largely influenced by the fare-free public transport system, which allowed fare-exemption for children already prior to 2013 (Cats et al., 2017).

Children in Estonia have to wear a helmet until they are 16 years old and have a cycling license from 10-15 years if they are cycling on the road Programme (Antso, 2012; Tallinna Road Administration, n.d.). According to Tallinn Road Administration (email conversation, Nov 2018), 3646 children in the age of 10-15 had a cycling license, while only 3% of the licenses are owned by children aged 13-15 in 2018.

In the Tallinn Cycling Strategy, middle and high school children are considered an important target group. The strategy aims to retrofit the infrastructure for cycling in the vicinity of schools and provide comfortable and safe cycling conditions for children. Specific measures include the reconstruction of cycling paths in the 1km radius of schools, provision of cycle parking at schools with a parking norm of one spot per every three students, and traffic calming around the school (Jüssi et al., 2018).

4.2 Case description Gothenburg

Gothenburg (see figure 10 on page 22), the second largest city in Sweden, is located on the west coast of the country between Oslo and Copenhagen. The city is known as the largest port in the Nordic countries and the birth place of Volvo. The majority of the city is built in the 1600s by the Dutch who were familiar with building on the marshlands. Although most buildings were destroyed in fires, the channels still remind the city of its Dutch heritage (Gothenburg Tourist Centre, n.d.). Currently the city is undergoing a large development boost, with large-scale housing and infrastructure projects being implemented across the city. The construction of West Sweden package, Hising bridge and Marieholm tunnel are visible in the cityscape today (City of Gothenburg, 2017a).

Gothenburg's inhabitants have a high preference for a car in everyday travel. However, due to the congestion charge, difficult access to the city centre and unfavourable parking situation, car use has not increased compared to previous years. Instead, expansion of the public transport lines has brought more users to the public transport system. In Gothenburg, 332 people out of 1000 own a car, which is less compared to many other European cities. However, the high percentage of car use indicates a car culture in Gothenburg, which can be accounted for the heritage of Volvo in the city (City of Gothenburg, 2017a; interviews Gothenburg, Jan 2019).

4.2.1 Cycling in Gothenburg

Some cycling infrastructure in Gothenburg dates back to the 1970s, however, an increase in building cycling infrastructure started in the late 1990s (interviews Gothenburg, Jan 2019). In 1999, Gothenburg approved its first cycling programme that aimed to increase the share of cycling by 12% by 2012 and reduce bicycle injuries and related deaths. The programme focused primarily on traffic safety, but important measures were also the removal of curb stones, widening cycling paths and year-round maintenance (City of Gothenburg, 2015).

In 2012, 6% of all trips in Gothenburg were done by bicycle and cycling infrastructure was expanded from 360 km in 1999 to 470 km in 2012. However, the goals set in 1999 had not been reached because the programme lacked weight and cycling was not given high priority. A 2012 survey among cyclists indicated that while they are aware that cycling lanes are there, they do not meet the quality expectations, and accessibility is considered the main issue for cycling in the city (City of Gothenburg, 2015).

In 2013, Gothenburg implemented a congestion charge in the city centre with the aim to reduce congestion, improve the environment and invest in the West Swedish Package (Börjesson & Kristoffersson, 2015). Within the next two years, the city saw a 25% increase in cycling bringing the share of cycling to 7-8%. In 2015, the current cycling programme was approved, which increased the investments into cycling from €5 million to €10 million per year (interviews Gothenburg, Jan 2019).

4.2.2 Gothenburg Cycle Programme 2015 - 2025

In 2015, the current Cycle Programme was implemented. The programme is part of the Gothenburg 2035 Transport Strategy that focuses on the development of travel, urban transport and delivery of goods in Gothenburg and aims at a city where people are able and want to use the public transport, walk and cycle. The Gothenburg 2035 plan goes hand in hand with the Development Planning Strategy and the Green Strategy that together set out a comprehensive plan for the development of Gothenburg (City of Gothenburg, 2015).

The current cycling programme 2015-2025 aspires to make Gothenburg an attractive cycling city. The programme has formulated two main goals - see figure 12).

Figure 12: Goals Gothenburg Cycle Programme 2015-2025

The cycling programme sets out to work with four main areas of interest:

1. Infrastructure – functional requirements for the cycling network, parking and cycling through construction sites, and planning principles are drawn for cycling routes, crossings, cycling through construction sites and for parking;

2. Operation & Maintenance – enabling cycling all year round through sweeping and salting routes, clearing leaves and providing good lighting;

3. Support & Services – e.g. bicycle rent, connections with public transport, smart solutions, bicycle charging, repair and pumping stations;

4. Communication – behaviour-influencing campaigns for employers, schools, students, etc.

The Gothenburg Traffic Department has the main responsibility for the implementation of the Cycle Programme. Each year, based on the programme, an action plan is drawn up with the costs involved. The city's project leader for cycling is generally satisfied with the implementation of the programme, however, states that the lack of human resources plays a role as many people are involved with other, large scale projects currently undertaken in Gothenburg (interviews Gothenburg, Jan 2019). Although the cycling programme has received continuous support from the public administration, traffic experts are afraid that the change of political power in the city council might lead to more car-orientated developments once again (interviews Gothenburg, Jan 2019).

4.2.3 *Children and cycling in Gothenburg*

Cycling among children and youth has decreased in Gothenburg and is primarily replaced with walking and taking the public transport. However, children in the age of 7-14 are still the most frequent bicycle users among other age groups. In school travel among 7-14-year olds, 47% is done by car, 23% on foot, 11% by public transport and 15% by bike. Cycling has decreased mostly among older children, possibly because taking the public transport is free of charge for school children (VTI, 2017).

The children in Sweden are required to wear a helmet until they are 16 years old. No other restrictions for bicycle use for children are implemented in Sweden (interviews Gothenburg, Jan 2019).

The current cycling programme aims to adapt the cycling environment according to the needs of children and the youth. Accordingly, the cycling infrastructure has to ensure that children in years 10-12 can cycle on their own. This means that cycling paths will be separated from other traffic to provide safety, good orientation on cycling infrastructure will be ensured and cycling paths will be wider to provide space for the different cycling speeds (City of Gothenburg, 2015).

Children's school routes will be improved by identifying the needs of children's school trips and based on the findings, improve the school's physical environment and work with measures to improve cycling behaviour. Essential in this process is the participation and dialogue between the city and the children, parents, school and district administration (City of Gothenburg, 2015).

Image source: Google Maps

Figure 13:

Street profile

Tallinn, Nõmme tee

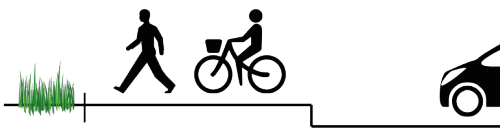
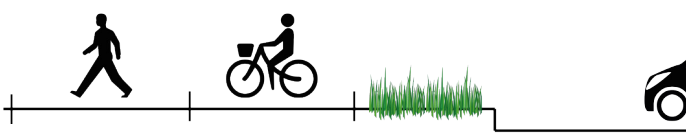


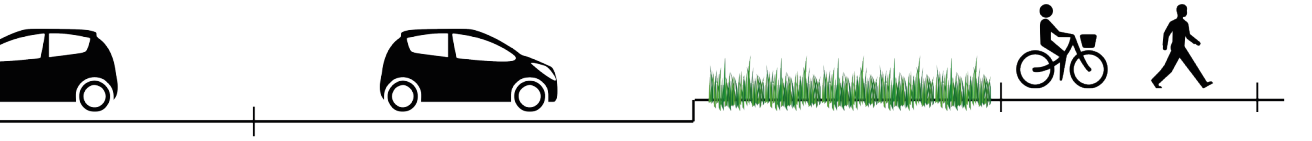
Image source: Google Maps

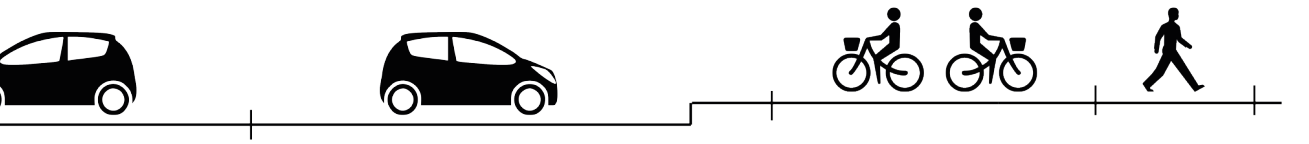
Figure 14:

Street profile

Gothenburg, Torpagatan







5 RESULTS

Cycling to school provides children the required daily physical activity levels. In the theoretical framework, an exploration of what influences children's active travel choices was made. In this chapter, these theoretical viewpoints are adapted for Tallinn and Gothenburg.

This chapter includes:

1. Trends and barriers to cycling in Tallinn (observations, survey and focus groups);

2. Trends, planning guidelines and design interventions that enable children to cycle to school in Gothenburg (expert interviews).

5.1 Trends and barriers to cycling in Tallinn (RQ1)

Through a three-step research (observations, survey and focus groups), section 5.1 answer the first sub-question:

Which are the key factors (social, cultural and spatial) in Tallinn that contribute to school-going children's choice to cycle to and from school?

5.1.1 Cycling to school in the cityscape (observations)

Observations were carried out at three schools in the morning before the start of the first class. For each school, the number of cyclists and kick bikers, number of bikes at the cycle parking, condition of cycle parking and age of cyclists were noted (see table 3). Additionally, general cycling conditions in the schools' neighbourhoods were observed and photographed.

Kristiine Gümnaasium

Kristiine Gümnaasium (see observation form 1, Appendix II) is located at Nõmme tee, which has a shared cycle and pedestrian path. Speed on the adjacent street where the main entrance is located is limited to 30 km/h. The surrounding area consists of primarily private houses, but also apartment buildings are located at close proximity of the school.

Between 7:40 and 8:10 in the morning, 15 pupils arrived to school by bike and 26 by kick bike. All kick bike users are primary school children, while among cyclists also some teenagers are spotted. The cycle parking (figure 15) is located at the back of the building and cannot be spotted from the entrance. However, the parking is rather extensive and also places for kick bike parking are provided. There are 23 bikes at the cycle parking, mostly mountain bikes.

Table 3: Overview observation results

Observartions	**Kristiine Gümnaasium**	**Mustamäe Reaalgümnaasium**	**Kuristiku Gümnaasium**
Nr of cyclists/kick bikes entering school premises	15/26	7/16	11/15
Nr of bikes at cycle parking	23	10	18
School level of cyclists	70% primary 30% secondary	100% primary	90% primary 10% secondary
Location of cycle parking	Behind the school	At the entrance	At the entrance

Mustamäe Reaalgümnaasium

Mustamäe Reaalgümnaasium (see observation form 2, Appendix II) is located between apartment buildings and right next to another large school, the Tallinn Arte Gümnasium. There is no designated cycling infrastructure within the neighbourhood, however, the bigger surrounding roads do have cycling paths.

During the observed time, 11 pupils arrived to school by bike and 18 by kick bike. All these pupils were of younger age. The school premises have two cycle parking spots with a roof, one located at the school's entrance and another between the two schools, which pupils of both schools can use. The other school has its own cycle facility in front of the entrance. At the cycle parking (figure 17) both bikes, mainly mountain bikes, and kick bikes were parked.

Figure 15: Cycle parking at Kristiine Gümnaasium

Figure 16: Cycle parking at Kuristiku Gümnaasium

Kuristiku Gümnasium

Kuristiku Gümnasium (see observation form 3, Appendix II) is at the close proximity of the city boarder of Tallinn, surrounded by apartment buildings on one side and a large park on the other. There is a cycle path on the street in front of the school and the speed on the road is limited to 30km/h.

During the observations, 11 pupils arrived to school by bike, mainly primary school pupils, but also a few older ones. 15 younger pupils arrived by kick bike. The cycle parking(figure 16) is located right next to the school's main entrance and has a roof and camera surveillance, however, only front wheel locking option. This issue is essential in this case because many mountain bikes and kick bikes are instead attached to the ramp rail where frame locking is possible.

Figure 17: Cycle parking at Mustamäea Reaalgümnaasium

Overall observations on cycling conditions

Observations were made about the cycling infrastructure while cycling in the school's neighbourhoods. First, existing cycling paths are almost always shared with the pedestrians (figure 18) which are in some cases divided by a clear line to show on which side cyclists or pedestrians should line. However, in many places these paths are narrow which mean that there is little room for cyclists to pass pedestrians. When these slow mode paths pass bus stops, there is virtually no space left for cyclists. This means that cyclists have to slow down and carefully pass the people waiting at the bus stop (figure19).

Second, in many cases when crossing large intersections, it is necessary to stop at least twice to cross the street because the traffic lights are not synchronized (figure 20). One would press the button to call for the first light to go green and has to repeat the activity at the next light. In these situations, the cyclist has to stop in the middle of the street on an island which is often just narrow enough for the bike to fit.

Third, many of the cycling paths are in poor condition and in some places signage on the roads has faded. Also, in some cases when crossing a street, the cycling path continues, but the curb stone (figure 21) is so high that it is not possible to get on the path while on the bike. Cycle paths can also be found ending suddenly, which proves the lack of connected cycling network in Tallinn.

Finally, no bikes where seen parked outside apartment buildings. Cycle parking facilities outside of apartment buildings were not spotted, although bikes were seen parked on balconies.

Figure 18:
Shared walking and cycling paths that are too narrow for double use.

Figure 19:
A shared walking and cycling path that passes a busy bus stop.

Figure 20: Traffic lights are not syncronized for smooth crossing of intersections

Figure 21: High curb stones are an obstacle for smooth cycling.

Observation conclusions

- Cyclists to school are primarily younger children, among whom also kick bikes are popular;
- Mostly mountain bikes are used;
- Cycling parking at schools is provided, but varies in size and location, and only allows front wheel locking;
- Traffic calming is used around schools;
- Cycling paths are often narrow and stop when passing bus stops;
- Cyclists have no priority when crossing streets;
- Curb stones and other obstacles together with difficulties when crossing intersections make cycling unsmooth;
- Cycle parking facilities outside of apartment buildings do not exist.

5.1.2 Cycling trends among school-going children (survey)

The survey resulted in 511 responses from five schools, representing 5% of the school-going children in forms 7-9 (13-16-year olds) in Tallinn (Tallinn Education Department, 2018). 28% of the participants study at Kristiine Gümnaasium, 22% at Kunstigümnaasium, 19% at Kuristiku Gümnaasium, 20% at Laagna Gümnaasium and 12% at Mustamae Reaalgümnaasium (figure 22).

A majority of the pupils do have a bike

Among the children, 66% have a bike, 13% do not have a bike and bike ownership is unknown for 20% (question was not included for one school) (figure 23). 43% of the children have cycled to school before (figure 24), while 52% say that they would like to bike to school (figure 25).

Most pupils go on foot, only 7% take the bike

When asked how they usually go to school, the majority of 47% says they go to school on foot, followed by 34% who take the public transport. 12% are taken to school by car and only 35 children (7%) have chosen the bike as their mode of school transportation (figure 26).

To determine how far the children live from school they were asked to indicate how long it would take if they came to school on foot. The largest proportion of 37% lives less than 10 minutes away, 27% live 10-20 minutes away, 24% live further than 30 minutes away and 12% live 20-30-minute walking distance from their school (figure 9).

Pupils cycle from a range of distances

Combining data about distance to school and transport mode (figure 28 on page 36) shows that pupils living closest to school are most likely to walk while the ones living furthest away are most likely to take the car or public transport. Meanwhile, the ones cycling to school live anywhere from less than 10 minutes away to more than 30 minutes walking away from school.

Children who live less than 10 minutes away, walk to school the most (83%), followed by public transport (8%), biking (5%) and car chauffeuring (4%). Among the children who live 10-20 minutes away, walking in still highest (47%), followed by public transport (34%), car chauffeuring (9%) and cycling (9%). Children living 20-30 minutes away from school on foot, mostly use public transport (59%), followed by car chauffeuring (17%), walking (16%) and cycling (9%). Children living furthest away use public transport most often (63%), followed by car chauffeuring (24%), walking (9%) and cycling (5%).

School and neighbourhood characteristics influence mode choice

Comparing school transportation mode and the journey time between schools (figure 29 and 30 on page 36) shows that school's neighbourhood, location and catchment area influence mode choice. Walking (56%) and cycling (11%) are highest at Kristiine Gümnaasium which is a local catchment school located in a low-density neighbourhood. Kristiine has also the highest percentage (46%) of pupils living less than 10 minutes walking from the school. Laagna Gümnasium ranks second in walking to school (51%) and cycling to school (8%) and compared to Kristiine, students also live further away, especially with a distinctive increase in the 20-30-minute range. Similarly, to Kristiine, it is also a local catchment area school.

Mustamae Reaalgümnaasium ranks 3rd in walking (50%) and cycling (7%) to school and also most students (69%) live in the 20-minute walking range from school. However, interestingly the school has the highest percentage of chauffeuring by car. Kuristiku Gymnasium, which is also a local school, has lower numbers for walking (43%) and cycling (6%) and also more pupils live further away (29% more than 30 minutes walking). This could be because the school is located on the edge of the city and more pupils might be travelling from outside the city. Finally, Kunstigümnaasium ranks last in walking (35%)

Figure 22:Share of participants

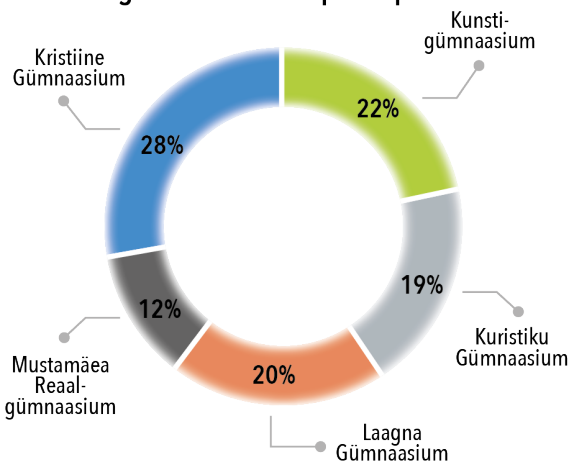


Figure 23:Bike ownership

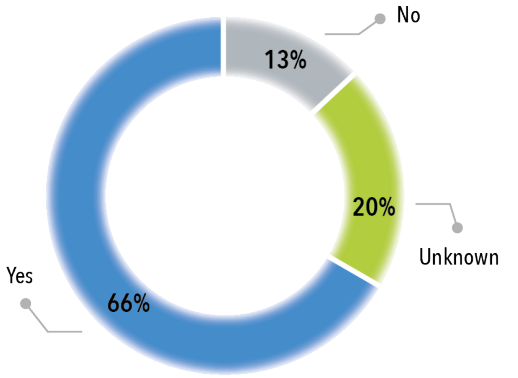


Figure 24:Have you ever cycled to school?

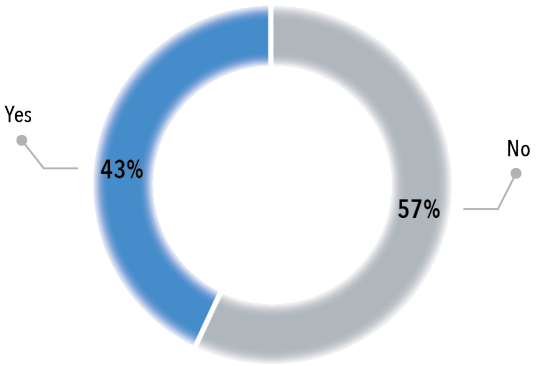


Figure 25: Would you like to cycle to school?

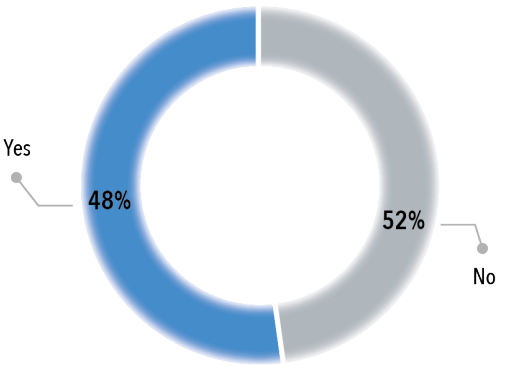


Figure 26:Share of transport modes in school travel

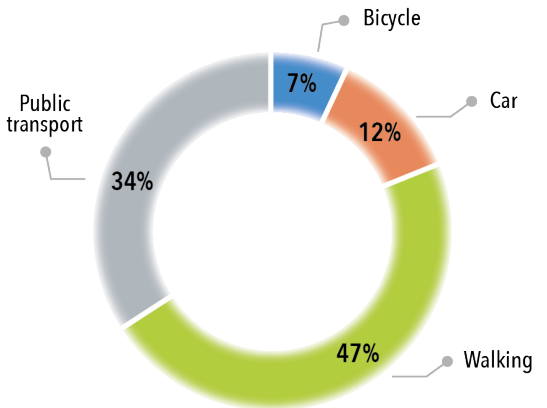


Figure 27: Length of school travel on foot

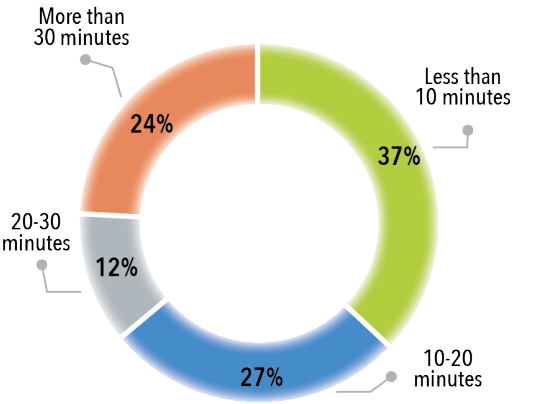


Figure 28: Journey lenght versus transport mode

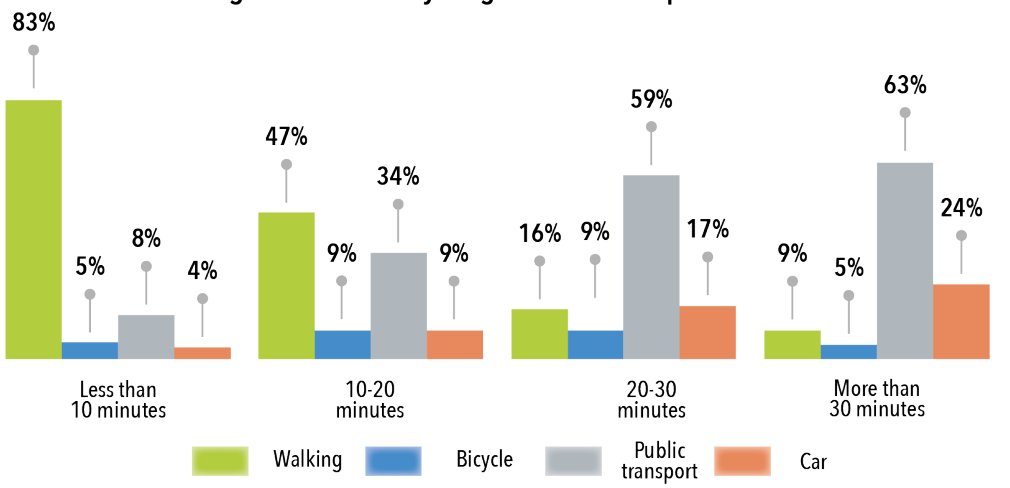


Figure 29: Transport mode at different schools

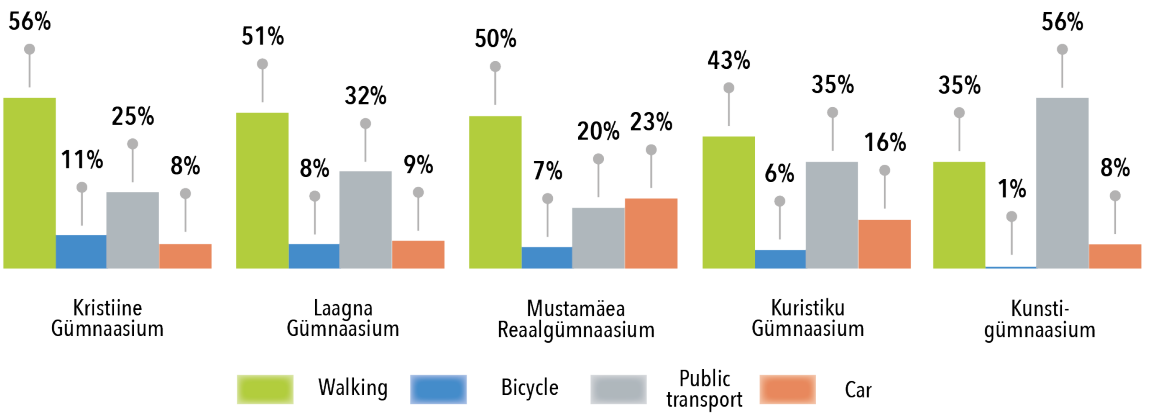
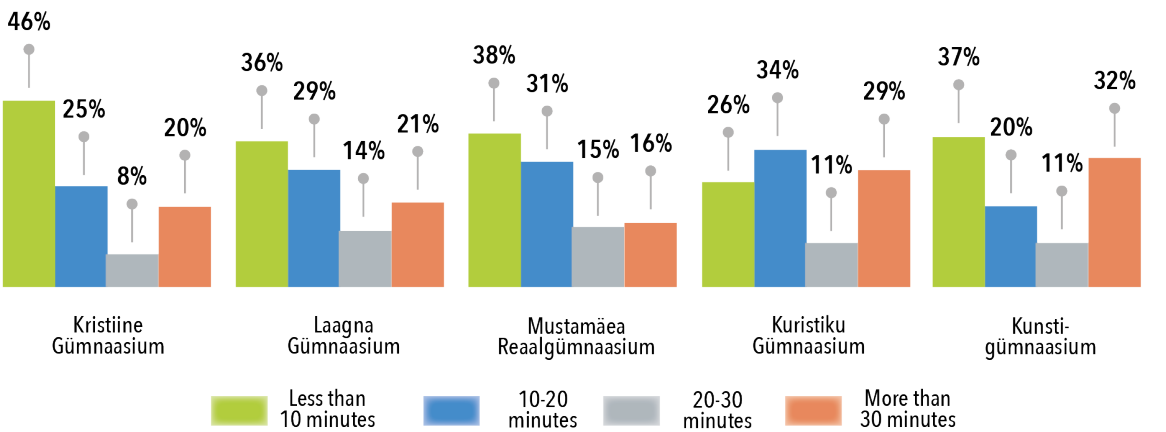


Figure 30: Journey length on foot at different schools



and cycling (1%) and highest in public transport use (56%). With a specialisation in art, the school attracts pupils from across the city. Additionally, the school has also a good tram connection with the city centre.

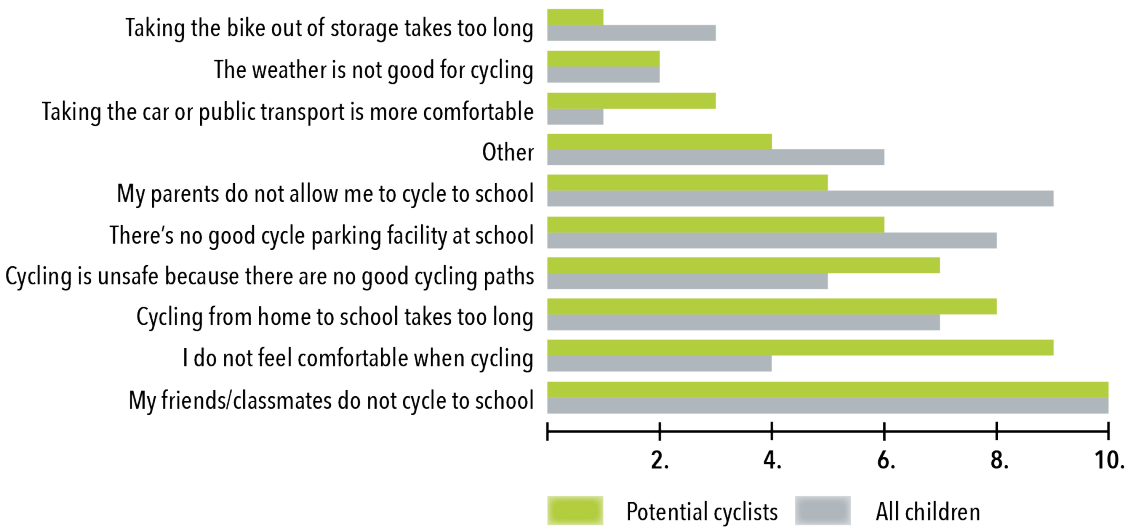
The weather, lack of cycling storage and comfort of motorized transport make cycling less attractive

The final part of the survey focused on different factors that hinder pupils cycling to school. Figure 31 presents ranking of these factors for two groups – for all pupils who participated in the survey and for potential cyclists (have a bike; would like to cycle to school; currently use other modes). The top three factors are the same for both groups, stating that the weather, bike storage at home and the fact that car or public transport are more comfortable are the most chosen factors. The least chosen factor for both groups is social influence by their friends and peers.

However, many differences appear in the ranking of the rest of the factors. Among all pupils, not feeling comfortable when cycling is high on the list, yet for potential cyclists it ranks on place nine.

Overall, the data shows that the potential cyclists are more concerned about cycling facilities and are constrained by their parents, while all pupils are more concerned about safety and comfort of cycling. This could mean that the potential cyclists have more knowledge about the actual cycling conditions and are less worried about the safety issues and would like to have better parking facilities both at home and at school.

Figure 31: Ranking of factors hindering cycling to school



Survey conclusions

- Bike ownership among the children is not an issue as more than 66% have a bike;
- More than half of the children have cycled to school before and indicate that they would like to bike if conditions allow;
- Mode share findings correspond with the survey from 2017 (Eesti Uuringukeskus), indicating most pupils walk to school, followed by taking the public transport;
- 7% indicated cycling as their primary mode choice;
- Different transportation modes correspond to the travel distance at the different schools;
- Cycling is most popular where children live closest to the schools;
- Storage at home, the weather and car and public transport being more comfortable modes are main factors hindering cycling to school.

Figure 32:
Appropriate bicycle parking is not provided at homes, at schools and elsewhere in the city which results in bikes parked anywhere else than the designated parking spot, if it exists.


EESTI POST


KRISTINE
PRISMA
APOLLO
KESKUSE

5.1.3 In-depth exploration on cycling to school (focus groups)

In order to gain further insights into cycling and expand the information gathered through the survey and observations, focus group sessions with parents, children and Tallinn mobility experts were held. The results of the sessions were categorized according to Mitra's model (2013) and divided into external factors (1), urban environment (2), household (3), and the child (4).

External factors (1)

Cold weather and rain are (perceived) barriers to cycling

The weather conditions in Tallinn prove to be a crucial barrier to cycling to school as parents admit that cycling is unlikely during winter months, but also on days when it is rainy. However, in many cases for children it could be more the perception of unsuitable cycling conditions than the actual weather of the day. The parents explained that cycling with grey weather and little rain is unlikely if the child does not know that it is okay to cycle in such weather. However, cycling experience is these conditions is needed to gain such knowledge. Three of the experts agreed with these statements. They added that weather can be an even bigger barrier for adolescents than younger children, because it could imply wearing different clothing, e.g. rain suit, instead of jeans and white sneakers. The children stated that they would only cycle to school in warmer months (April – September).

"People already have attitudes about the weather, especially in the teenage years. Smaller children wear rain clothes, but in that age, you still want to wear jeans and white sneakers, so how can you go by bike."

- Tallinn mobility expert 3-

Poor maintenance and darkness lead to less cycling in winter months

One of the parents said that objectively cycling is possible throughout three seasons. In winter months cycling is complicated not due to the weather but poor maintenance of cycle paths. Next to the weather, the parents believe that darkness is even a greater barrier for cycling than rain as children tend to stop cycling to school when they have to complete at least one of the school journeys in the dark.

The school's catchment area and location determine children's transport mode

When discussing policies relevant to cycling, one parent mentioned that Tallinn has so called magnet schools in the city centre that attract children from all over the city and beyond. It is likely that children who attend these schools have a longer school journey and less children would cycle. The local catchment schools mainly admit pupils from the adjacent neighbourhoods and the shorter distances enable more children to cycle. Two experts added that now that the city is planning on building new large centralized schools in Tallinn, their location choice is crucial for enabling active school travel.

The location and design of cycle parking at school matters

The cycle parking facilities provided by the school influence cycling to school. The parents stated that a child should feel confident about leaving their bike at the cycle parking. They agreed that the facility should at least have a roof or some kind of shelter to prevent the bikes from getting wet. The possibility to lock the bike from the frame is essential. Three experts added that the location of the parking facility is crucial - preferably at a visible spot right next to the school's entrance. Such positioning of cycle parking makes it convenient for the child to park their bike quickly, but also other children will see that it is possible to cycle to school.

"Parking facilities at schools are usually not under a roof, which means that even if you bike in dry conditions, the bike can be wet when you take it from the parking."

- Parent 3 -

In parents' opinion, the children also worry about the bike lights being stolen, which are compulsory by law during darkness. Availability of free bike lights at school at all times is offered as a solution, which could be provided to schools by the city administration. Reflectors, which are compulsory for pedestrians in the dark, are already given out in abundance. If similar could be done with bike lights, it would be less likely that the lights are stolen.

When the children themselves described cycle parking facilities at their schools, of which some are located in Tallinn and some close by Tallinn, the situation seems to vary largely. The two schools located outside of Tallinn in smaller towns have up to hundred parking spots and are full even when there is snow. In contrast, the three schools in Tallinn have far less parking spots available and usually there are not many occupied spots. The children admit that many of their school mates are brought by car and many take the public transport. Younger children (up to age 12) are more often seen on a kick bike. One of the pupils highlighted that the difference between schools in Tallinn and outside can be caused by the provision of free public transport in Tallinn. In other municipalities public transport is less available and costlier, thus leading to more cyclists.

Cycling training could be part of school curriculum

Finally, the parents discussed the organisation of cycling training with leads to obtaining the cycling license. In their view, the training is boring for the children, they do not learn how to cycle and the way the theory is presented is frightening and does not encourage children to cycle. They proposed that more funding should be put into the training and ideally, it could be part of education. Right now, children have to do swimming lessons at a certain age and also do some hours of skiing in the winter. Cycling training could be implemented into the curriculum in a similar way at a certain school level and be accompanied by a campaign to receive a discount for a helmet or other accessory. The topic was not discussed neither in the children's nor the experts' focus group.

Figure 33: Cycle training could be incoorporated into the school curriculum

The Urban Environment (2)

Non-existent cycle parking at apartment buildings is a major constraint to everyday cycling

Cycle parking is considered a major issue for people living in apartment buildings in Mustamäe and Lasnamäe. This topic was most discussed and agreed upon by all participants in both the parents' and experts' focus groups. Since most apartment buildings do not have cycle parking facilities, bikes are kept either in the basement or inside the apartment in the corridor or on the balcony. However, the basements are small and narrow which makes getting the bike out difficult. Since incidents of theft are report annually, people tend to keep their bikes inside the apartments.

Two of the parents agreed that taking the bike out of storage in an apartment building takes more time than simply unlocking and hopping on the bike. This is likely in neighbourhoods with private housing and less densely populated city districts. Parents and experts agreed that it is likely that pupils prefer to walk to school instead of cycling if getting the bike out and locking it at school takes more time than walking. Nevertheless, the children do not consider cycle parking at home an issue because most of them live in a private house, while the one living in an apartment finds it easy to get his light racing bike up and down the stairs.

Both parents and the experts suggested to have a bicycle parking facility in between the apartment buildings. This could be a locked shed, similar to the current sheds for garbage disposal. However, the experts agreed that it is not about choosing the appropriate solution for cycle parking, but the difficultly lies in starting this process. For instance, housing co-operatives can apply for a partial funding for reorganizing or landscaping the outdoor space of their apartment buildings, but the implementation of bicycle parking is rare. The experts advise to make the implementation of a bike parking facility a funding requirement for such projects. Co-operatives either would not know that getting funding for a bicycle parking facility is available nor see the need for its implementation in the current situation where cycling uptake is low.

Figure 34: Apartment buildings are surrounded with cars and no bicycle parking is provided.

Tallinn lacks connected cycling infrastructure and cycling culture

The three parents agreed that a prevailing issue in Tallinn is the lack of cycling infrastructure and cycling culture. While the infrastructure exists in various places across the city - primarily as shared paths for cyclists and pedestrians or as cycle lane on a road - many of these paths are not connected to each other or end suddenly. Cycling on car roads is not favoured by any of the parents and it is a shared opinion that cycling smoothly is not possible due to multiple road crossings and traffic lights. Lack of cycling culture and lack of continuous paths could be the reason why pedestrians do not walk on their side of the shared paths and thus make it more complicated for cyclists to pass.

"Usually there's a mom with a buggy on one hand and a dog in the other, walking all over the shared path. You can see for yourself how you pass them."

- School-going child 1 -

Four of the children added that cycling infrastructure in Tallinn is unsafe with dangerous crossroads and unexpected drivers. They agreed that the shared paths are a problem because pedestrians do not consider cyclists when walking on these paths. One of the children stated that when he does bike to school, he plans his route in advance to avoid stopping at traffic lights and cut through between buildings where possible.

Well-maintained infrastructure and "drop-off" zones around schools could contribute to safety

Experts did not discuss details of the condition of cycling infrastructure, yet considerations were given on how to improve infrastructure around schools. Two experts stated that attractive and well-maintained school cycling routes are essential. Also, the main cycling routes leading to school in the first 200 metre radius from the school should be inspected and retrofitted since that is the area that is used by most pupils. They propose working with schools that are interested in increasing their pupils' cycling to school. The experts also mentioned the "Safe school routes" programme where children in forms four to nine (10-16 years) map their school route and indicate unsafe places on the route. The programme, led by the Tallinn Road Administration, could be further expanded to "Active routes to school", which would include the considerations of factors that enable or hinder walking or biking to school.

"At the same time, there are a lot of cars. Estonian schools have effectively avoided a so called „kiss and fly "zone where you could say bye and go, there's no place for that. The area in front of the school is full of cars and it is dangerous to go through by bike."

- Parent 1 -

Two parents added that arriving to school by bike in the morning is dangerous because many parents bring their children to school by car and drop them off right at the school's front door. The same issue came up also at the experts' session. A "drop-off" zone further away from the main entrance would be helpful to improve the safety situation according to the parents and experts. Additionally, the experts suggested that cars could be forbidden at a certain road section in the morning, for example 20 minutes before schools starts to avoid congestion in front of the school.

Densely populated districts need more attention to allow for cycling

In relation to neighbourhood density, two experts stated that a more densely populated district such as Lasnamäe or Mustamäe would be a good starting point for retrofitting for cycling. On one hand, there is a lot of old infrastructure that should be fixed. On the other, constructing a metre of cycle path in one of these neighbourhoods would bring many more cyclists than in Nõmme, where much more infrastructure has to be constructed for the same

amount of people to benefit from it. These areas also need a solution for convenient cycle parking as mentioned by the parents and described earlier.

Household (3)

Parents believe that cycling is unsafe, yet perceive it worse than it actually is

Two parents stateed that they are not bothered by the fact that their children do not want to cycle to school. One of the parents said that she feels like her children are not careful enough and are occupied with other things. Another one mentioned that she knows exactly how her daughter behaves in traffic, and thus feels comfortable with her cycling alone. Overall, while these two parents do not prohibit cycling for their children, they also do not actively encourage them to do so.

"It's very important that (cycling to school) seems safe for the parents. Even when a child wants to (cycle to school), if for a parent the journey doesn't feel safe, the child will not be allowed to cycle."

- Tallinn mobility expert 2 -

While two of the three parents are active cyclists themselves, they believe that it can indeed be unsafe for their children to cycle. However, all parents agreed that if parents do not cycle themselves, their perception of traffic safety is low. This statement was also supported by four experts, adding that if a parent does not cycle, it is unlikely for them to encourage their children to cycle. One expert added that if a parent would once cycle to school, they would potentially also have a better idea of the actual cycling conditions which is often better than expected. The experts conclude that working with parents on their attitudes about cycling is crucial in getting more children to cycle to school.

"I wake up very late and don't have the time anymore to walk to school. The school is on the way (to work)."

- School-going child 2 -

Children are sometimes not allowed to cycle because of expensive bikes

Children said that none of their parents have permitted them from cycling to school due to unsafe conditions. However, the children especially in this group have either expensive racing or mountain bikes, which their parents do not allow them to use for other purposes than training. The ones cycling to school have other bikes available, for example a retro bike from one's grandfather.

The parents also acknowledged that other parents may prohibit their children from cycling to school because the children often have expensive bikes. For this issue they proposed that parents could think about which bike the child has for cycling to school, and possibly get a cheaper bike to encourage cycling to school.

Chauffeuring the children by car is a comfortable choice

Parents' willingness to take their children to school by car influences children's mobility choices. One of the parent stateed that she even did so herself for a while since the school was on her way to work. However, all parents are aware that it is a major issue for safety in the morning and wish the parents would drop off the children a little further away from the main entrance of the school. This issue was apparent also in the children's sessions as two of the pupils get a daily lift to school from their parents since the school is on their way to work. Additionally, one child who does cycle to school himself stated that he is one of the only ones cycling at his school. He attends a private school where parents are generally wealthy and always bring their children to school by car.

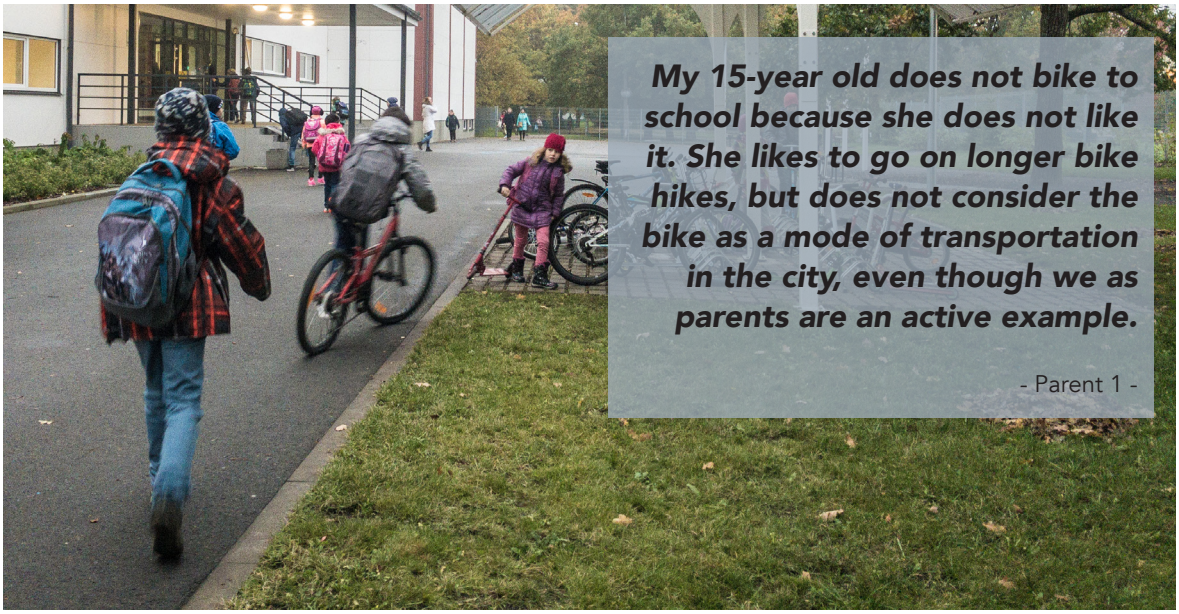


Figure 35: Primary school children are more likely to cycle to school.

The Child (4)

Children might not be aware of the benefits and the fun cycling offers

While parents can influence the child's mobility decisions, it is also clear that the children themselves, especially in the ages of 13-16, have an opinion about how they go to school. One of the parents said that his daughter does not acknowledge cycling in the cityscape although she does like to cycle for recreation. The reason for this could be that the child is not aware of the fun benefits of cycling, such as having a different perspective on their neighbourhood and that they could cycle together with friends. The parents suggested for the city districts to organise group cycling activities designated for children, which are beneficial for the children, but also present the leaders of such rides with infrastructure issues on the route.

When reflecting on the outcomes of the survey, the experts had difficulty believing that children are not influenced by their peers when it comes to choosing their transport mode. Instead, they suspected that the pupils cannot objectively assess their behaviour. Furthermore, the factor in the survey about cycling being uncomfortable, which ranks higher that friends opinion, can also for some children be related to the opinion of other children, since they might feel uncomfortable because of what the others think.

"A car-free classroom" campaign could encourage more active transport to school

The experts agreed that all kind of supportive information and campaigns could lead to more children cycling to school, but especially in reducing the number of pupils being brought to school by car. First, it is important to create the habit of walking to school at least the last 300-400 metres from early on. The comparison where another child is brought to school by car should be avoided. Second, a campaign similar to the on-going "smoke-free classroom" could be implemented either in warmer school months or at the same time with the Tallinn's Sustainable Mobility month. "Car-free classroom" would give children the option to choose their active transport mode, because the aim is not to get everyone to cycle, but simply move more. Stickers and other kind of rewards could be given for the class once the whole class is choosing for transportation modes other than the car.

Conclusions focus groups

- Cycle parking at apartment buildings is very limited which is a major constraint for daily cycling;
- Tallinn's cycling infrastructure lacks connectedness and smoothness;
- A good cycling infrastructure and drop-off zones in the vicinity of schools is essential to activate more cycling to school;
- Parents' perception of safety is probably lower than the actual safety conditions;
- Parents can prohibit cycling because many children have expensive mountain or racing bikes;
- Chauffeuring by car to school is common and results in lack of safety in front of schools in the mornings;
- Children themselves could not be aware of the fun benefits of cycling;
- The perception of bad weather in children is probably worse than the actual bad weather conditions, and could especially be a barrier for the youth;
- Poor road maintenance and darkness in the autumn and winter months results in less cycling;
- Schools' catchment area and location determine if children can cycle to school;
- Location, design and technical parameters of bicycle parking at schools are essential for a good parking solution.

5.1.4 Conclusions on cycling to school in Tallinn

The observations, the survey and the focus group session helped to identify the factors that influence cycling to school in Tallinn (figure 36). Overall, the results of the data collection methods match and complement each other, however, some differences were also identified.

External factors (1)

The weather was ranked the highest hindering factor in the survey. On one hand, this is the case, especially during autumn and winter months. On the other, both experts and parents agreed that the pupils may simply not be aware that cycling is also possible in colder and cloudier weather.

The school's catchment area and location, and cycle parking at school were factors that have a clear influence based on outcomes of the observations, surveys and the focus groups. Provision of free public transport was discussed a bit in the focus groups, but knowing that many pupils opt for public transport and it is free, it is clear that it certainly has an influence on mode choice.

Urban environment (2)

Neighbourhood characteristics, such as density of the neighbourhood was proven relevant in the survey. Children tend to walk and cycle more in less dense neighbourhoods, but also where more children live close to the school. The factor was also discussed in focus groups were both experts and parents believe that retrofitting Mustamäe and Lasnamäe city districts for cycling could have a high impact on cycling uptake.

Parking at home can be considered the most prominent issue in cycling to school in Tallinn. It ranked high in the survey, lack of parking facilities was noted during observations and it was the most discussed topic during focus groups. Parking is especially problematic in apartment buildings.

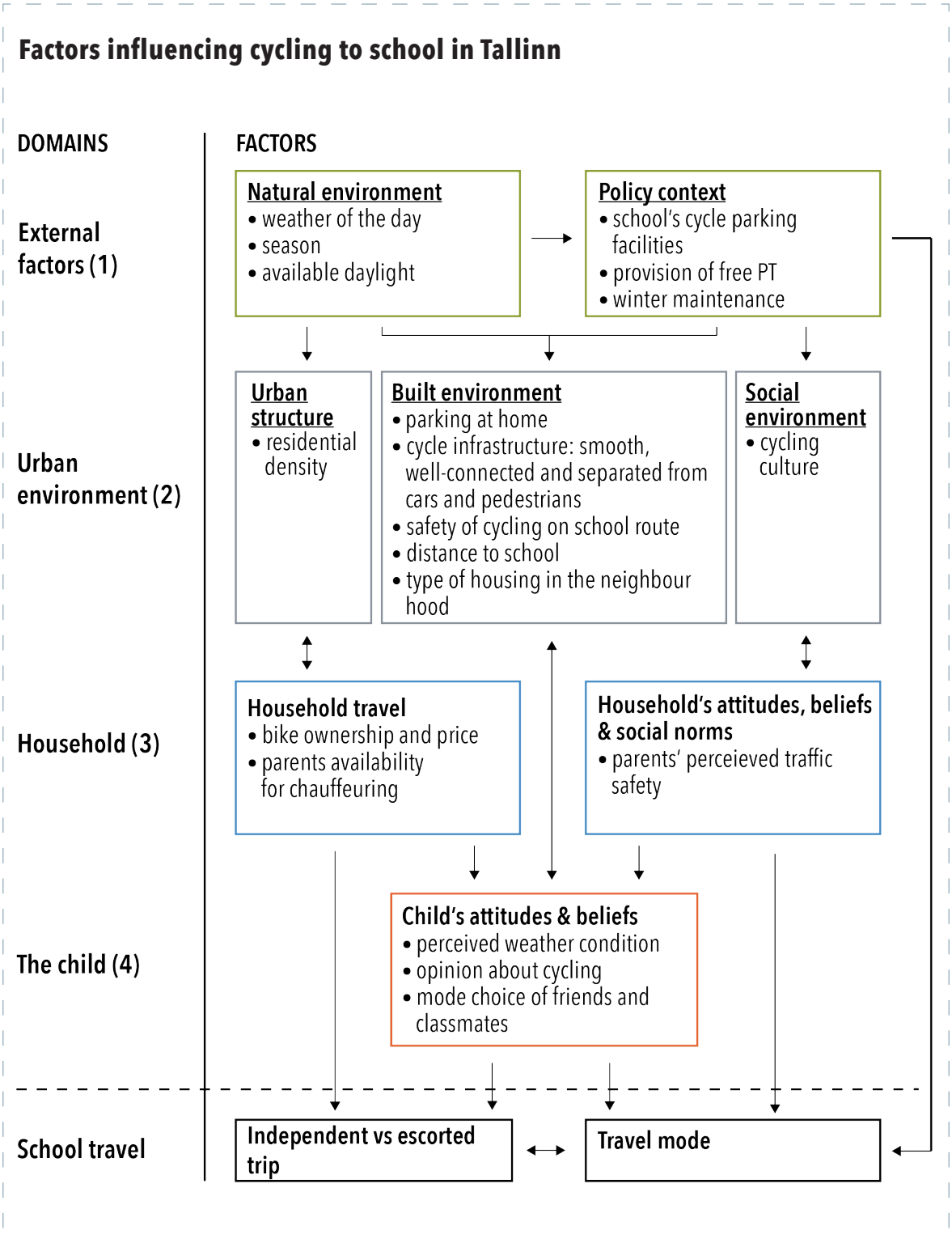


Figure 36: Overview of factors influencing cycling to school in Tallinn

Next, issues with cycling infrastructure in general and close to schools were discussed most prominently in the focus groups, but were also observed during the observations. However, in the survey, the lack of good cycling paths only ranked 5th among all pupils and 7th among potential cyclists, out of ten factors. Similarly, potential cyclists were less likely to say that they do not feel comfortable when cycling, while among all, the same indicator ranked 4th. This could mean that potential cyclists have more cycling experience and are satisfied with the provided infrastructure on school route. Instead, lack of facilities and cold weather hinder them from cycling to school. However, when promoting cycling among a wider population of pupils, infrastructure developments are more important as well.

Household (3)

Parents' availability and willingness to chauffeur children to school by car is seen as a crucial issue in Tallinn among parents and experts. The survey however did not show as high numbers for chauffeuring as expected. Although chauffeuring is still much more popular than biking, it ranks lower than walking and public transport.

Next, the survey showed that the majority of pupils do have a bike, yet the bike children have is most often a mountain bike. As a more expensive bike, both pupils and parents are concerned for the bike being stolen, which together with poor cycling facilities means that pupils are less likely to cycle to school with a mountain bike. The influence of parents' perception on traffic safety was somewhat apparent during the survey as among all students' parents not allowing pupils to bike to school ranked 5th. However, focus group discussions resulted in the understanding that the factor is of crucial importance for pupils' cycling uptake.

The child (4)

In the child category the findings between methods were somewhat contradictory - the influence of other pupils and friends was not chosen as a high hindering factor in the survey. However, both parents and experts suspect that pupils were not able to objectively observe their behaviour and believe that other's opinion is of crucial importance, especially in teenage years. They also believe that "lack of comfort while cycling", which ranked 4th among all pupils, may also incorporate lack of comfort due to the opinion of others.

Figure 37: A new slow traffic path that is considered a good development by cyclists.

Figure 38: More cyclists are seen on Tallinn's streets in the spring.

5.2 Cycling to school in Gothenburg

Gothenburg with its comparable population size, location and weather was chosen as a comparison and as a source of inspiration for improving cycling to school in Tallinn. Interviews with six cycling and sustainable mobility experts from local government and from consultancies were carried out to discuss Mitra's (2013) four domains influencing active travel to school – external factors (1), urban environment (2), household (3), and the child (4). The interviews offered an understanding of the trends and barriers to cycling in Gothenburg, but more importantly, gave many examples of interventions Gothenburg is actively carrying out to increase cycling in the city. Thus, this chapter answers the second research question:

What are the planning guidelines and design interventions in a similar context (i.e.Gothenburg, Sweden) that affect the choice of cycling for school-going children?

5.2.1 Planning for cycling in Gothenburg (expert interviews)

Currently, 6-8% of all trips in Gothenburg are made by bike. These cycling trips are made possible by the extensive cycling infrastructure that covers the whole city. Additionally, congestion charges implemented in 2013, cycling as an important topic on the policy agenda and yearly investments of about €10 million are crucial for making cycling a convenient transportation mode in the city. Among the cyclists, cycling is most popular among children aged 6-14 years.

External factors (1)

Free public transport and free choice of schools reduces active transport

All school children in Gothenburg get a free public transport card which allows them to take the bus or the tram at any time of the day. While the card is extensively used by the schools for different excursions and cities with the whole class, children make use of it for school travel even if they only live one bus stop away. While taking the public transport is still better than taking the car, experts believe that it does not reduce the number of pupils taken to school by car.

Additionally, parents in Gothenburg can choose which school their child attends, which the experts believe increases the travel distance to school. Also, spare time activities could be located far away from the school, making active transport a less convenient option.

"Another topic for Sweden is the public transport in many cities. The pupils get a ticket to use the public transport for free. Then they are not encouraged to cycle and take the public transport instead."

- Gothenburg mobility expert 5 -

Provision of cycle parking at schools varies and could be improved

Provision of bicycle parking facilities varies largely between schools, but in general terms, the situation has room for improvement. Some schools have no parking facilities, some have only a few places and some do not provide good locking possibilities. The schools themselves are responsible for ordering the parking facility and also lack the money to provide proper parking. Only at schools that are part of the city's projects for improving active travel to school (see section on urban environment), the city is responsible for setting up the parking facility.

In early 2019 a comprehensive study was being completed about cycling possibilities across schools in Gothenburg. The study notes down the amount

of bike parking places and a plan will be drawn for improvements. One of the preliminary findings of the study shows that if bicycle parking is below pupils' standards, the parking is not used and bikes are locked anywhere else instead.

Guidelines for parking facilities are provided by the city

The city provides parking guidelines for bicycle parking at public property, including recommendations for distance to entrance and how it should be possible to lock the bike (figure 39). However, the city cannot act if the recommendations are not implemented. In the city centre, the city together with the consultants is working on the provision of additional cycle parking places, especially at public transport stops. In these new developments, providing good support for the bike is crucial to avoid the bike falling down with the wind. Additionally, a roof is sometimes provided to a part of the parking spots.

Winter maintenance and winter cycling campaigns attract more winter cyclists

As expected, the number of cyclists reduces in Gothenburg once it gets colder and rainier. Although about 2/3 of cyclists stop cycling in the winter, the 1/3 who continues to cycle, cycle a lot. Thus, in terms of cycle trips, the number is about half in the winter compared to summer. In these months, the city focuses on providing high-quality maintenance for the clearance of ice and snow, but also leaves.

In previous years, the city has worked with a winter cycling campaign with the goal to have about 300 winter cyclists. For people who signed up for the programme, the city provided bicycle winter tires for free. The city has also considered some other ideas for increasing cycling in the winter, but currently lack the money for carrying out winter cycling campaigns.

As Gothenburg is undertaking large-scale infrastructure projects throughout the city, the city sees the opportunity to increase cycling trips in this period. The project makes traveling by car difficult and will also make public transport trips less convenient and more time consuming. Therefore, people might decide to take the bike instead, especially between shorter distances in the city centre (figure 41).

Figure 39: A good example of a cycle parking at a secondary school in Gothenburg.

The Urban Environment (2)

Gothenburg is hilly, spread out and lacks cycling culture

Although Gothenburg aims to become a cycling city, the city still has a long way to go to reach comparable numbers to Amsterdam, Copenhagen, or even Malmo, a city in the south of Sweden. Malmo currently has a 25% share of cycling, which is the largest in Sweden. This difference in cycling numbers between Gothenburg and Malmo is related to the different mentality about cycling. While both cities are regarded as old industrial cities, Gothenburg is the city of car industry and the car is very important for the city.

There are also other urban factors that play are role in determining cycling in Gothenburg. Compared to Malmo, Gothenburg is hilly and spread out, but there are also physical barriers, such as the Göta älv river with only three bridges for cyclists and pedestrians, and a ferry. Major highways and railways are also barriers with little crossings for cyclists. Malmo in contrast is a small, very dense city. Additionally, the ongoing large-scale infrastructure projects in Gothenburg make cycling less convenient, due to missing signs, uneven surface and numerous detours.

Shared slow traffic lanes most common in Gothenburg

The cycling infrastructure in Gothenburg is considered well-developed and safe, however, in many places the quality is bad and the width of cycling paths and shared paths could be improved (figure 40). Overall, most of the network consists of shared slow traffic paths and only in some streets with less that 2000 cars a day, cyclists share the road with cars. Speed pumps and low speed limits make such sharing possible.

New cycling strategy asks for clear separation between cyclists and pedestrians

In the past, the idea of a safe cycling network was that it is safer to combine cyclists with pedestrians rather than with cars, and more space had to be given for cars. However, the current cycling strategy points out

"In the cycle plan for Gothenburg it is mentioned that the separation should be better. It's better to move the cyclists closer to the car traffic, for example if you have a row of trees on the street it's better to place this row of trees between the pedestrians and the bicycles instead of the cars and the cyclists."

- Gothenburg mobility expert 4 -

Figure 40: Cyclists share a two directional path with pedestrians. Photo credits: Merit Kaal

Figure 41: Clear instructions and signage for passing through constructions sites is important. Photo credits: Merit Kaal

Figure 42: Cyclists and pedestrians are clearly divided.
Photo credits: Merit Kaal

Figure 43: Another example of a clear division between modes.
Photo credits: Merit Kaal

Figure 44: Cycle path and sidewalk are separated by a line of trees

that in all new developments cyclists and pedestrians have to be separated which is also the result of much conflict between pedestrians and cyclists. The current cycling strategy states that new cycling paths have to be 3.6 metres wide which according to the experts helps a lot with prioritizing cycling in the city.

Where old cycling infrastructure exists, the city tries to separate existing shared paths with a clear line, but often the paths are too narrow. When building new paths either different materials are used or a clear thick white line on asphalt is drawn to make the separation. If possible, cyclists are separated from the pedestrians with an even greater physical barrier, such as a row of trees (figure 44), because it is much more likely for bikes and pedestrians to cross each other than for cyclists and cars. Nevertheless, cars do cross cycling paths especially around schools where parents want to drop off their children as close to the entrance as possible.

Step-by-step, the cycling infrastructure around schools is being improved

The city of Gothenburg has set out to carry out projects to improve the safety and accessibility for active travel to school. Every year, the city chooses a few schools to work with. The choice of schools is often combined with areas where other infrastructure projects are planned. While these schools might not be the ones needed such a project most at the moment, it is also a matter of convenience for the city.

Together with the school, the children and the parents, an inventory of the current situation, including unsafe locations is drawn up. Such a study is followed by adjustments to the physical environment, which is combined with working on influencing the behaviour of pupils and parents. Similar projects are popular also in municipalities around Stockholm, where they sometimes also work with larger areas and include several schools at once. In such cases, the work is carried out to improve the overall safety of the traffic system and people living in the neighbourhoods are also included in discussions.

When building new schools, the developers make a thorough plan for mobility and accessibility where bicycle parking location and a drop off zone are included. Additionally, it is important to consider the movement of deliveries and other services, such as garbage disposal to ensure that a garbage trucks and similar larger vehicles do not cross the bicycle path.

Parking facilities at homes are commonly provided, but lack in quality

In Gothenburg, owners of apartment buildings are encouraged to provide cycle parking on their property and follow the guidelines set by the city (City of Gothenburg, 2017b) for cycle parking. The guidelines include recommendations on how to make the parking effective and how to choose a bike rack that is functional. Bicycle parking is normally provided for apartment buildings outside the city centre (figure 45), although in many cases these facilities lack in quality. It is common that bicycle rooms do not have bike racks to properly lock the bike and as many people have access to these rooms, bicycle theft can be an issue. In the city centre cycle parking at home is more complicated due to the old houses and lack of space outside of the buildings and in the basements. However, the provision of cycling parking and its quality varies between neighbourhoods, some having fancy and efficient parking rooms while in others people choose to store their bike on their balcony instead.

New property development has to follow the parking policy set by the city, which sets the minimum requirement for cycle parking – one bike per person in a locked area. A parking and mobility study is required in the development phase of building new housing. As different kind of bikes such as cargo bikes are starting to gain popularity, the experts also see the need for more variation in parking facilities to provide good storage for different bikes.

Household (3)

Car chauffeuring is a popular school travel mode in Gothenburg

Car chauffeuring is a widely acknowledged problem with school travel in Gothenburg. Parents take their children by car even if they could easily walk or cycle

Figure 45: Bicycle parking outside of an apartment builging in Gothenburg.

to school. First, the chauffeuring means that children are not walking or cycling to school. Second, the cars also cause a lot of traffic around schools in the mornings, making travelling to school actively less safe for other children. Consequently, the unsafe environment causes more parents to chauffer as well.

Parents of the older children may also use chauffeuring in order to spend some time with the child. As teenagers tend to be away from home, the car becomes a new place for catching up.

When drop-off zones are introduced, they are not effective

In order to reduce traffic congestion in front of the school's entrance in the mornings, Gothenburg has considered the implementation of drop-off zones, but these efforts have been unsuccessful. Sometimes also schools have taken the initiative to discover places where children could be dropped off and then share the information with the parents, but without much success. Instead, working with behaviours of parents is now more considered, and activity also supported by the schools.

In municipalities around Stockholm mobility planners have attempted to implement drop-off zones. These places a designated for parents to drop off their children and if effective, less traffic is expected at the school's entrance. However, in cases where such a zone was made several hundred meters from the school, the measure was not effective. Instead, drop-of-zone closer to the school could have a better effect. However, since parents are in a hurry and often miss signs indicating the zone, a drop-off zones alone do not result in the desired effect. An additional measure, such as restricting traffic in the neighbourhood, could be more effective.

The Child (4)

Free public transport and lack of habit to cycle result in low cycling among the youth

Children in Gothenburg receive a free public transport card which leads to many children traveling to school by tram or bus even on short distances. Additionally, in the 1980s children below 12 years were not allowed to cycle in traffic, which might have led to schools not encouraging cycling even today. Consequently, children lack the habit of cycling to school from a

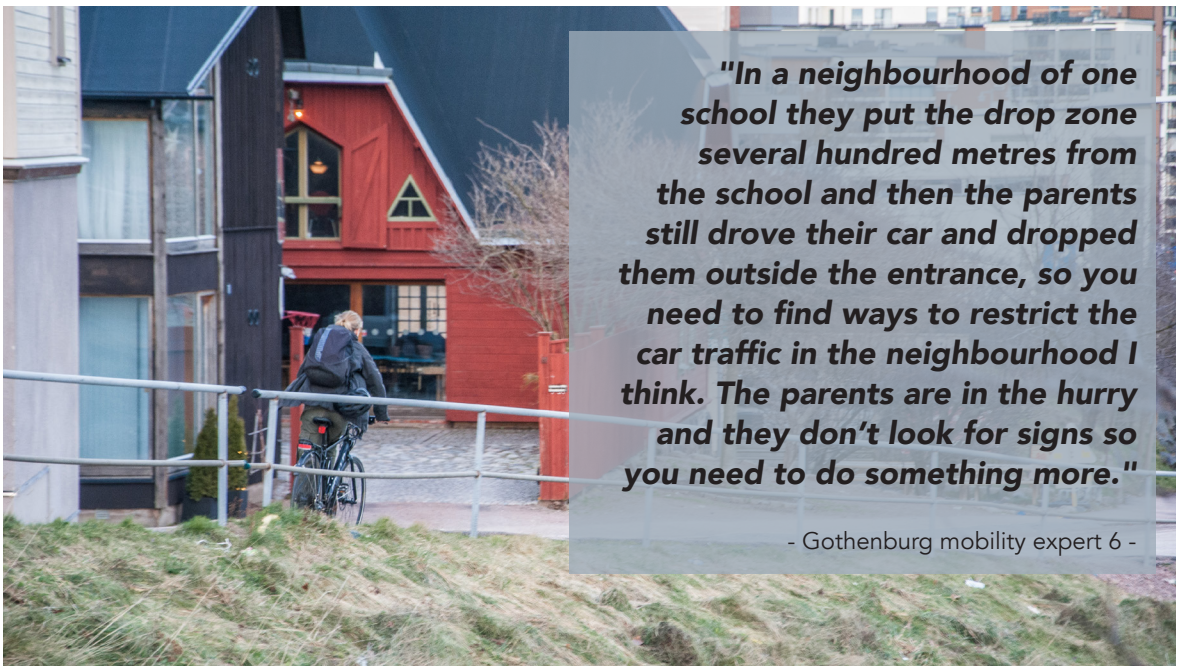


Figure 46: A teenager cycling home from school that is located on a hill.

- Challenge to learn about sustainable travel habits for children aged 10-12 years;
- Children earn points by walking, cycling, another active mdoe or the public transport and by skipping the car trip;
- Children who are driven can earn points if they are dropped of at a designated spot 500m from school;
- The challenge is accompanied with activities about the environment, health and road safety;
- The top three classes receive large prizes for the whole class - tickets to amusement parks and smaller adventure parks, cinema tickets are awarded for weekly leaders.

Figure 47: "På egna ben" - an active school trave campaign in the Gothenburg region.
Illustrations and more information - paegnaben.se

young age and very few pick up cycling when they reach teenage years.

Most youngsters in Gothenburg use the public transport. Apart from convenience, taking the bus also involves meeting friends on the bus or tram and using a different transport mode means that the child is not part of the social group.

Various campaigns for active school travel, but targeted to younger children

Gothenburg has several campaigns for promoting active school transportation. However, all the activities are for younger children up to age 12 and their parents. Since older children go to school by themselves, but the younger ones are dependent on their parents, the city has prioritized activities with younger children and parents.

A popular annual challenge for children in grades 4-6 (ages 10-12) is the "På egna ben" (meaning "On your own feet"), which was created by the Gothenburg Traffic and Public Transport Authority about ten years ago and is now managed by the city's traffic department. In the challenge, pupils are encouraged to walk or cycle to school for five weeks which earns them points and the possibility to win prizes, such as a visit to the amusement park for the whole class. The challenge is open to all municipalities in Västra Götalandsregionen and Halland. Each municipality appoints their own local project manager who is responsible for enrolling schools and administrating the challenge on a local level. Gothenburg has always had the goal to have 100 participating classes, yet so far, the record is around 85 classes. The challenge is very popular and other cities in Sweden are also planning to participate soon (figure 47).

5.2.2 *Conclusions on cycling planning in Gothenburg*

Gothenburg has undertaken various measures to enable cycling in Gothenburg and is actively working on increasing the share of cycling. Although the share of 7% may not seem much compared to famous cycling cities, a wide range of measures has been implemented to reach this share of cycling. Figure 50 presents the general overview of factors influencing cycling to school in Gothenburg.

Gothenburg has an extensive cycling network. However, as the share of cycling is increasing, the old infrastructure lacks behind in safety and accessibility. One of the most important measures in the current cycling programme is the strict separation between cyclists and pedestrians by using clear lines, different materials or physical barriers. Additionally, by widening cycling paths, the city ensures that cyclists with different speeds can make use of the cycling paths simultaneously.

In order to improve the infrastructure around schools, Gothenburg works methodologically with a couple of schools every year. The schools are identified in areas where other infrastructure developments are taking place and together with the school, parents and the children, physical improvements are undertaken to enhance safety and accessibility, but also cycle parking and behavioural change for both the parents and the children receive much attention.

Next to the comprehensive projects, the city is working on influencing travel behaviour among children and the parents through different campaigns. Gothenburg focuses its efforts especially on younger children, up to 12 years old and their parents. This choice is motivated by children being more dependent on their parents up to this age, but also on the possibility to pick up the habit of active school transportation early on that the children will hopefully take with them as they get older.

To provide good cycle parking both at homes and at schools, the city has drawn up different guidelines. Documents for property owners and public buildings, including schools, offer recommendations for how to provide cycle parking that is effective, safe and functional. New developments, including both residential areas and schools, have to make a mobility and accessibility plan, and follow the parking policy that includes the required number of bicycle parking spots.

Finally, as the winter weather reduces cycling in Gothenburg, the city is constantly improving its maintenance strategies to provide good cycling conditions year around. Previously, winter cycling campaigns have been carried out where cyclists could receive winter tires for free.

Figure 48: The river remains a barrier for active travel in the city.

Figure 49: The city's topography makes cycling more challenging.

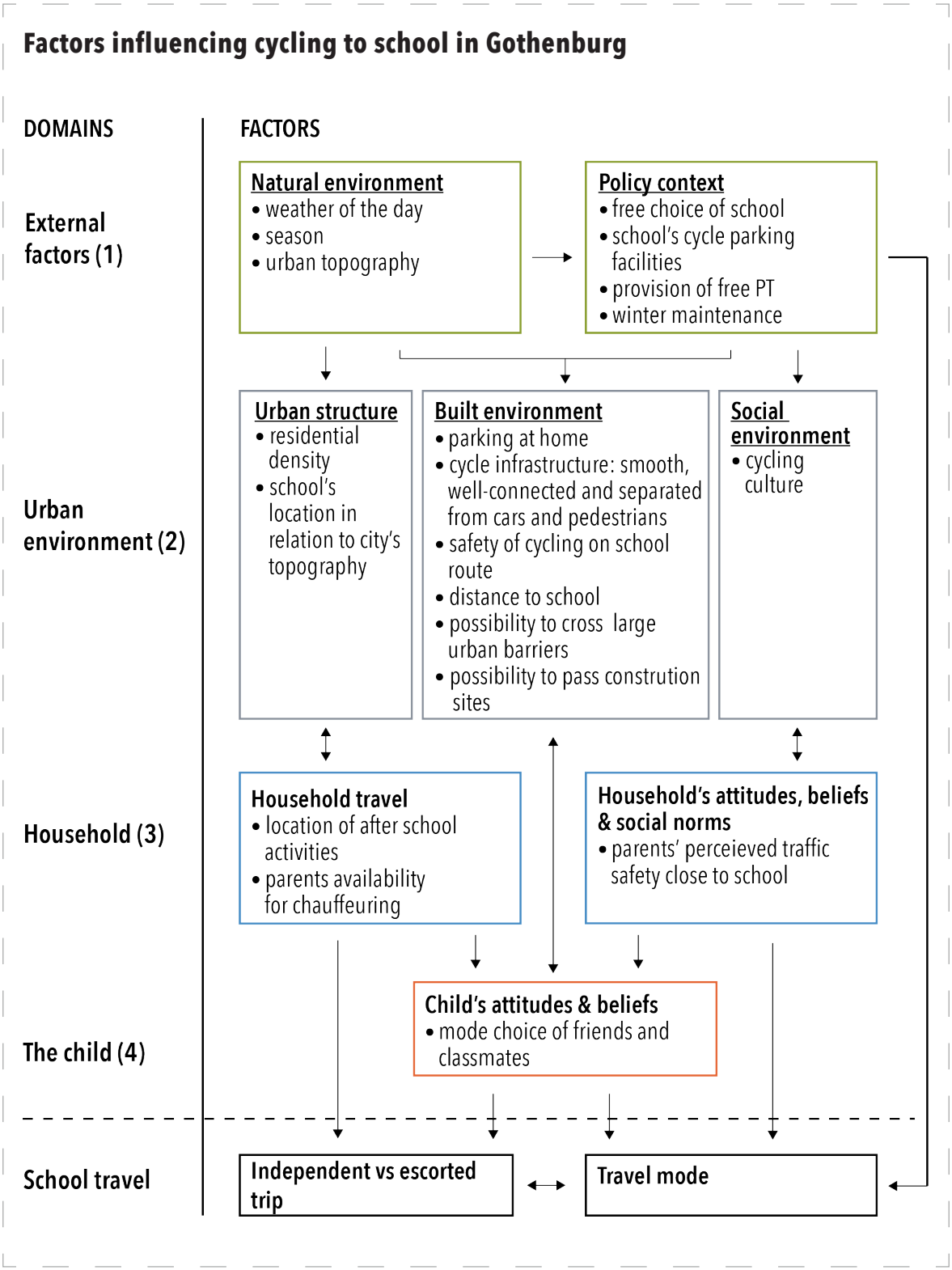


Figure 50: Overview of factors influencing cycling to school in Gothenburg.

5.3 Comparison cycling to school in Tallinn and Gothenburg

In literature, researchers have shown that in general terms, a common understanding exists in terms of what influences the uptake of cycling among children. Therefore, it is not surprising that many of the key factors that influence cycling to school in Tallinn and in Gothenburg are the same.

However, also some differences occur (see overview of differences in figure 51 on page 59).

The availability of daylight was considered a factor for cycling in Tallinn. Although it was not specifically discussed in Gothenburg, it cannot be concluded that it does not have an effect, although days are somewhat longer compared to Tallinn.

Provision of free public transport for children in Gothenburg came across in all interviews in Gothenburg, although it was rarely mentioned in Tallinn. Nevertheless, as all Tallinners ride public transport for free, it certainly has an influence on school children as well.

The difference in morphology in the two cities results in additional factors that should be considered for Gothenburg. While Tallinn is rather flat without major physical barriers within the city, Gothenburg is a hilly city with a large river and many railways and highways within the city. Thus, children may be less likely to cycle to school if they live on a hill or the school is located on a hill, or, if they have to cross one or more of these major barriers with little connections.

In Tallinn, due to the lack of cycle parking at apartment buildings, cycling is less convenient for people licing in apartment buildings. Thus, the type of housing in the neighbourhood is a crucial factor. However, in Gothenburg cycle parking is generally provided in apartment buildings, which makes the factor less relevant for Gothenburg.

Parents' perception on traffic safety was not discussed in interviews about Gothenburg. Although some parents may still be concerned about safety, their feeling of safety is probably higher compared to parents in Tallinn because cycling is seen as more common and accepted, and cycling infrastructure is provided across the city. Nevertheless, the perceived safety around the school in the morning is likely still similar, because car chauffeuring creates unsafe situations in both cities. Additionally, the type of bike children have in Tallinn plays a role. In Gothenburg it might be a factor, however, perhaps less relevant since cycle parking is generally of higher qyality.

In Gothenburg, the location of after school activities was mentioned as a factor influencing mode choice. This links to the free choice of schools in Gothenburg, because the school may be located in one part of the city, far away from home, while after school activities might be located in the city centre, close to home or elsewhere, making distances between destinations too long for active travel. It is likely that this factor also influences mode choice among children in Tallinn, as after school activities can be located across the city.

Finally, regarding the child, in Tallinn the child's opinion about cycling at the suitable weather condition for cycling were important. However, in Gothenburg such factors were not specifically mentioned. Therefore, it could be considered that since cycling is more popular overall, than children's opinion about cycling is overall better compared to Tallinn and thus less relevant to consider when researching active school travel in Gothenburg.

The Gothenburg case study offers several different measures for Tallinn to improve cycling to school and cycling in the city as a whole. Since Gothenburg is not as advanced in cycling as Amsterdam or Copenhagen, the measures and learning points fit well for a city that is only starting with comprehensive developments for cycling (see more in recommendations in section 6.2).

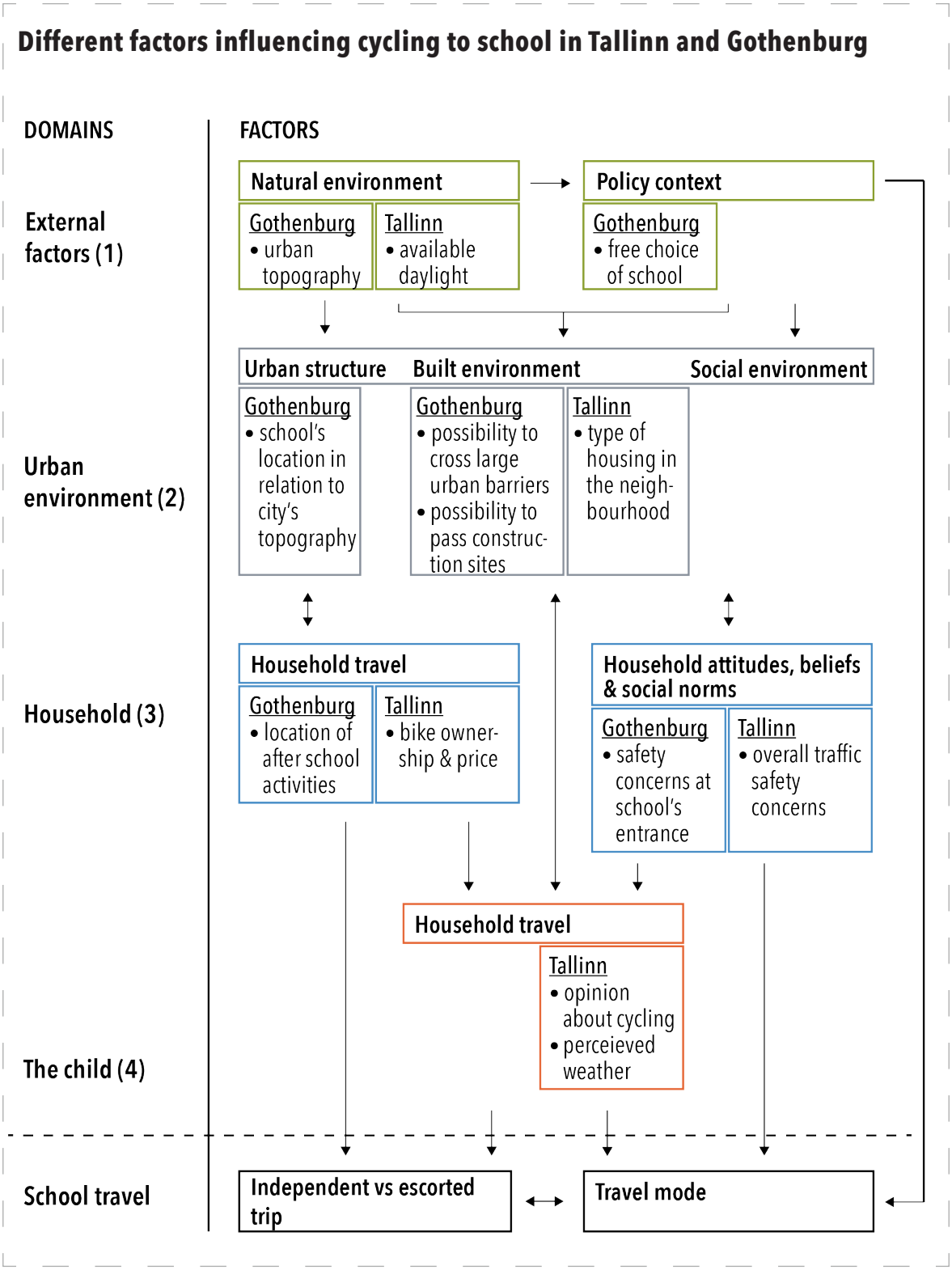


Figure 51: Different factors that influence cycling to school in Gothenburg and Tallinn

6 DISCUSSION

Through qualitative and quantitative methods, this research explored the factors that influence cycling to school in Tallinn and looked for inspiration for improvements from Gothenburg. The observations, survey and focus groups in Tallinn and interviews in Gothenburg resulted in a comprehensive overview of social, cultural and physical factors that play a role in school-going children's mode choice in ages 13-16. This chapter offers a discussion of the findings in light of previous studies on school travel across the globe.

6.1 Cycling to school

External factors (1)

Adolescence in Tallinn consider the weather as the main barrier for cycling to school. On one hand, this is explained as Tallinn does experience harsh winters and a lot of rain in autumn. On the other hand, parents and experts are certain that children may associate cycling only with sunny weather. Although Mitra (2013) and Helbich (2016) state that changes in season have little effect on changing mode choice, weather is indicated as a key factor for active mode choices in Czech Republic (Hollein et al., 2017) that has comparable weather patterns to Estonia.

As distance to school is considered the most prominent barrier to active school travel, policies on parental choice for schools (Easton & Ferrari, 2015) and the school's catchment area (Mitra, 2013) can determine how far children live from their schools. This study purposely opted for schools in Tallinn with a local catchment area and thus a high share of active travel was found in the survey. Different results would be expected if the survey included schools located in the city centre that attract pupils from across the city. In Gothenburg, where parents can choose the school their children attend, higher shares of motorized transportation can be seen. In Sweden in general, the primary and secondary schools are separated, thus a longer travel distance to school is more common among adolescences (Johansson et al., 2012).

Public transport is free of charge for school-going children in both Tallinn and Gothenburg. Therefore, it is common for the youth to opt for this more comfortable option as they become more independent (Mitra, 2013; Mitra & Buliung, 2015). Although generally taking the public transport allows some walking, experts believe that in both cities the pupils opt for public transport even on shorter distances that would be suitable for both walking and cycling. In Estonia, much more cycling to school can be seen in towns outside of Tallinn because the pupils have less public transport options and often no free public transport cards. Similar findings have been discussed in Finland, where public transport ridership is high (Broberg & Sarjala, 2015).

Cycle parking facilities at schools were much discussed both in Tallinn and Gothenburg. Pupils in Tallinn generally regard cycle parking not sufficient and thus opt for other modes. Observations showed that in all schools locking the bike was only possible from the front tire. Higher bike usage was seen at one school where a security camera was provided. In Gothenburg, large variation in cycle parking quality were seen. According to Mitra (2013), provision of cycle parking is part of the schools mobility policy and thus influences children's mode choice. Hinckson (2016) also found that in schools where active mobility initiatives were not implemented, pupils found cycle parking limited and not appropriate for use. Together with low security measures, these conditions prevented pupils from cycling to school.

Urban Environment (2)

A prominent issue in cycling in Tallinn is the lack of cycle parking facilities at homes. This applies especially to people residing in apartment buildings where taking the bike out of storage is inconvenient and takes too long for daily cycling. Poor quality of cycle parking was also found in Gothenburg, although a parking facility is generally provided.

Previous studies have not elaborated on parking facilities at home. However, Kaplan et al (2016) found that in Denmark children living in an apartment are less likely to cycle and more likely to walk. Similarly, active commute was found more prominent in children living in an apartment in Sweden (Johansson et al., 2012). Contrarily, Broberg & Sarjala (2015) report that children living in private houses in Finland are more likely to take up active transport, because the smaller blocks provide a more suitable environment for walking and cycling.

In Tallinn, pupils living in less dense neighbourhoods are expected to cycle more, consistent with the Finnish study. This could be related to having an easy access to a bike, but is likely linked with the reduced availability of bus stops in such neighbourhoods similarly to Finland (Broberg & Sarjala, 2015). This research did not ask pupils to specify their living condition in the survey. Nevertheless, the findings indicate that one of the reasons cycling uptake may vary between private housing and apartments is the availability and quality of cycle parking.

Next, the survey in schools clearly indicated that most children travel to school actively if they live within a 30-minute walking distance from the school, while cycling is more likely in the 10-30-minute range. This corresponds to findings of many studies that report that distance between home and school is the key barrier for active school commute (Broberg & Sarjala, 2015; Carver et al., 2014; Deka, 2013; Helbich et al., 2016; Hollein et al., 2017).

Regarding cycling infrastructure, this research found availability of connected and safe cycling paths, and its strict separation from pedestrians crucial for enabling cycling to school. Shared paths causing conflict between cyclists and pedestrians was also problematic in Gothenburg. Connectivity and traffic safety aspects have been reported as significant variables in many studies (Broberg & Sarjala, 2015; Helbich et al., 2016; Hollein et al., 2017). Strictly separated cycling paths from the pedestrians are described important by findings of Pucher & Buehler (2008) in Germany, Denmark and the Netherlands, yet similar findings have not been discussed in studies about children.

Household (3)

Low percentage of chauffeuring to school was a surprising finding in this research. The share is believed to be higher by experts and was also reposted higher in an earlier study (Eesti Uuringukeskus, 2017). However, congestion in front of schools in the mornings could also be caused by the parents of younger children. This would be in line with Carver et al (2013) who found that primary school children are more likely to be chauffeured. Such explanation is also consistent with studies indicating that young adolescents are more likely to travel independently (Helbich, 2017; Mitra, 2013; Mitra & Buliung, 2015). Estonia's limited policies regarding car use may also lead to more parents driving children to school as many drive to work themselves. This is in keeping with the findings of Deka (2013) and Helbich (2016), who state that policies aimed to reduce car use will have an influence on car chauffeuring in school transportation.

Parents perception of traffic safety for cycling in Tallinn was found crucial in allowing children to cycle. This is consistent with earlier studies (Carver et al., 2013; Deka, 2013; Easton & Ferrari, 2015; Mitra & Buliung, 2015). Surprisingly though, in Gothenburg where cycling infrastructure is more developed compared to Tallinn, 47% of school trips are done by car (VTI, 2017). While this percentage is related to many factors, it can also mean that the current infrastructure does not comply with parents' expectations for traffic safety for children. Adapting the cycle paths for the children's needs is of the aims of the current cycling programme (City of Gothenburg, 2015).

Finally, as children in Tallinn primarily have mountain bikes, parents may not allow their children to take this bike to school. This is related to the low safety measures of school's parking facilities. Such findings have not been discussed in earlier studies.

The Child (4)

Children who cycle in Tallinn are primarily younger school children. This is consistent with findings of Potoglou & Arslangulova (2017), who found that active travel to school peaked at age 12 and decreases from there. Similar findings are reported in Sweden (Johansson et al., 2012) where active travel is replaced with public transport, consistent to the information gathered in Gothenburg. Considering that increasing age of children is related to improved cognitive abilities and independence (Carver et al., 2013; Mitra & Buliung, 2015), more active travel could be expected in adolescents. However, as in both Tallinn and Gothenburg taking the public transport is free for school-going children and most of their peers take the public transport, opting for this mode is understandable.

The choice for public transport is reported as a comfortable option for the youth (Hollein et al., 2017). In New Zealand (Hinckson, 2016), the adolescence found taking the bus a convenient, cool and fun option that allows them to hang out with friends. Thus, as discussed in the focus groups, mode choice is influenced by friends' opinion and choice of mode. Additionally, at the age of 13-16, the children have formulated their own opinion about different modes (Johansson et al., 2012; Mitra, 2013; Mitra & Buliung, 2015), which corresponds to the results of this study.

Finally, this research identified children's opinion on the weather and its compatibility to cycling as a factor for mode choice. Pupils who have little cycling experience may believe that colder weather and rain drizzle is not suitable for cycling. Generally, cycling is considered comfortable only in warmer months, from May until September. Such findings have not been discussed earlier. Instead, when cycling is an habitual activity, it is not influenced by the changes in season (Helbich, 2017; Helbich et al., 2016; Mitra, 2013). However, improving perceptions on suitable conditions for cycling through campaigns and activities could be useful in attracting new pupils to cycling.

Figure 52: Bikes parked at a school that has no cycle parking facility in Gothenburg

Figure 53: Good example of cycle parking in Tallinn

Figure 54: Good example of cycle parking in Gothenburg

6.2 Recommendations for cycling to school in Tallinn

To conclude this study, actionable recommendations were drawn for the city of Tallinn and the Tallinn Cycling Coordinator. These recommendations do not only have the potential to increase cycling and active travel to school, but also increase the uptake of cycling in Tallinn as a whole. Thus, this section answers the final research questions:

Which planning guidelines and design interventions could increase school-going children's cycling to and from school in Tallinn?

The recommendations are divided into the four domains proposed by Mitra (2013) that have been discussed throughout this report. For each recommendation, planning guidelines and design interventions (if applicable) are drawn. Additionally, a note of the scope of the measure is indicated, focusing either on school-going-children specifically or on potential cyclists in the city as a whole.

Most importantly, at the end of the chapter, a comprehensive approach is explained that combines actions from many separate guidelines described first.

External factors (1)

Winter cycling campaigns

Scope: Overall cyclists

Factor: Weather / season / available daylight

See sections: 5.1.3 & 5.2.1 - external factors

Planning guidelines:

- partner with bike shop(s) in the city;
- decided what benefits the campaign would entail

Examples include:

- offering free lights for cyclists without lights
- offering a discount on winter tires;
- offering a discount on bright clothing;

- limit the number of discounts given to a certain number (e.g. 200)
- ask for commitment through online sign-ups in order to receive the discount
- organize a 'winter bike to work day' (winterbiketowork.org) as part of the international initiative.

Provision of good cycle parking at schools

Scope: School-going children

Factor: cycle parking at school

See sections: 5.1.3 & 5.2.1 - external factors

Planning guidelines:

- Provide guidelines for the schools on how to choose a cycle parking that is safe and convenient to use.
- Guidelines should also include instructions on the location and size of the parking facility.
- Example: Gothenburg (link)

Urban environment (2)

Drop-off zones for improved traffic safety at schools

Scope: School-going children

Factor: safety on school routes

See sections: 5.1.3 & 5.2.1 - urban environment

Design interventions:

Introduction of drop-off / kiss-and-ride zones in the school's proximity to reduce congestion at school's entrance.

Such zones could be implemented when retrofitting cycling infrastructure in a selected school's vicinity. Vanwolleghem et al (2014) emphasize some crucial elements of a kiss-and-ride zone that can make such an intervention successful:

- Located on the school's approach road that parents also use to drive to work;
- A designated zone that is separated from the road, and not just a spot on the sidewalk.

Planning guidelines

- Cooperation with children, parents and teachers when choosing the suitable locations for a drop-off zone is essential

Cycle parking facilities at apartment buildings

Scope: Overall cyclists

Factor: cycle parking at homes

See sections: 5.1.3 & 5.2.1 - urban environment

Planning guidelines

- Introduce a guideline booklet for property owners, including recommendations for making cycle parking safe and convenient for the user (see example Gothenburg by following the link at source City of Gothenburg 2017b).
- Ensure that property owners are aware of such a document and make it easily accessible on the website.
- Include cycle parking as a funding requirement for the "Hoovid korda" initiative and other similar projects that receive funding from the city.
- For new developments, cycle parking should be included in the general parking requirements.

Developing new and retrofitting old cycling infrastructure

Scope: Overall cyclists

Factor: cycle parking at homes

See sections: 5.1.3 & 5.2.1 - urban environment

Planning guidelines

- Strict separation between cyclists and pedestrians by means of using different materials, clear lines or physical barriers (from flower pots to trees).
- Where possible, provide wider cycle paths to allow for different cycling speeds, which is crucial for children and is in line with future cycling trends, such as electric bikes.
- Ensure smooth crossings at intersections with traffic lights by allowing cyclists cross without having to stop on the street islands.

Notes:

Good cycling infrastructure alone will not enable the whole potential of cycling. Nevertheless, the Gothenburg example shows that a comprehensive and safe cycling infrastructure is what has facilitated the current 7% of cycling in all mobilities at 15% of cycling in school transport. While Gothenburg has a cycling network, the city is now extensively redesigning their cycling paths to allow for more cyclists and less conflicts between different modes. The Tallinn Cycling Strategy already offers a comprehensive and detailed list of requirements and solutions for infrastructure improvements, which are all important in infrastructure development. However, in line with the findings, some of the measures are worthwhile highlighting.

Household (3)

Making car use less attractive for parents

Scope: School-going children / parents

Factor: parents willingness to chauffeur children

See sections: 5.1.3 & 5.2.1 - household

Planning guidelines

The travel behaviour of parents directly influences the behaviour of children. Only minimal measures have been implemented in Estonia to make car use less attractive. However, as many successful cycling cities exhibit, making car a less convenient travel mode draws people to active travel. Policies that have been implemented in many cities include:

- Congestion charge;
- Expensive parking in city centres;
- No provision of free parking at work place;
- Taxes on gas prices.

The child (4)

Changes in "cycle training" for children

Scope: School-going children

Factor: child's opinion about cycling

See sections: 5.1.3 & 5.2.1 - the child

Planning guidelines

Main recommendations for changes include

- Focus more on the development of cycling skills
- Test cycling skills in a real traffic environment
- Develop theory lessons into interactive sessions to make them more fun for the children

Different approaches for the cycle training:

- Keep as is, but implement the above recommendations
- Seek funding options to provide better training, or increase the price of the training
- (parents may be more willing to pay if they know its highly beneficial);
- Implement cycle training as a part of school curriculum
- As part of physical education class in a specific school year in autumn/spring (similar to swimming lessons approach).

Active travel campaigns for school-going children

Scope: School-going children

Factor: child's opinion about cycling

See sections: 5.1.3 & 5.2.1 - the child

Planning guidelines

- A city-wide campaign/competition with attractive prices that would trigger the whole class.
- Within a short time, (e.g. one month, two weeks), pupils can earn points if they travel to school actively. Extra points could be rewarded if they travel actively with their parent or friends.
- The competition could also be designed in more similar lines as the "smoke-free classroom" which expands over a longer period of time.

Notes:

For the age group studied in this thesis, a suitable campaign would be something similar to the current "smoke-free classroom" competition. Instead, it could be called "car-free classroom" which means that active travel is encouraged. In Gothenburg, a similar campaign/ competition between schools is carried out, called "On your own feet" which is widely successful across the region and beyond.

Group cycling activities for children

Scope: School-going children

Factor: child's opinion about cycling

See sections: 5.1.3 & 5.2.1 - the child

Planning guidelines

- Organize fun group cycling activities for school-going children;
- The rides can be targeted at different age groups;
- The activities could be initiated by the local districts, who take the children from the district on rides in the district;
- Passing school routes on these rides would show children the best routes for school travel.

Notes:

By bringing children on accompanied fun bike rides in the city, the leaders of these rides could note down isses with cycling safety for children on the route.

A comprehensive approach for improving active school travel

Scope: School-going children

Planning guidelines

1. Identify schools with some of these requirements in mind:

- Located in an area where other infrastructure developments will take place to combine efforts;
- School is interested in working with improving active travel to school;
- The school has a local catchment area to ensure that many pupils live in active travel distance.

2. Let pupils, parents, teachers, inhabitants identify issues for active travel (but for cycling and walking separately). This could be combined with the current "Safe school routes" initiative by the Road Administration and expanded into a more comprehensive investigation.

3. Include pupils, parents, teachers and inhabitants in design discussions, especially when designing for drop-off zones. Participation here and in the previous step also helps to raise awareness about active travel.

4. Combine physical improvements with campaigns targeted at changing travel behaviour.

- Consider involving primary school children as they already travel actively more often and will potentially keep cycling as they grow up.

5. As proposed by experts and parents, such comprehensive campaigns could be started in Mustamae and Lasnamae city districts as interventions would be beneficial for a higher number of pupils.

Factor: combination of many

Notes:

Gothenburg systematically works with a couple of schools each year to improve the physical environment for active travel and in combination tge city works with campaigns that influence travel behaviour of children and parents. Such an approach was also supported by the experts' group in Tallinn. The comprehensive approach would include many of the recommendations elaborated earlier, however, the planning guidelines here bring the different measures together.

6.3 Limitations

This research involved a mixed methods approach including a survey, observations, focus group sessions and expert interviews. However, the extent and quality of the survey and the focus group sessions has to be considered carefully due to financial and time constraints posed for this research

First, the survey had to be short and concise. The survey was carried out in schools in collaboration with the Tallinn cycling coordinator who was granted access to the schools through his aim to promote cycling. His presentation was limited to 45 minutes (the length of one class). Thus, the time span for the survey was limited to 10 minutes.

Next, the use of KahootTM limited the style of questions included in the survey. For the short time span, it was crucial to have an engaging survey, which lead to using an online survey tool. However, due to financial constraints, several survey tools were not available and it was decided to use KahootTM. This meant that only multiple-choice questions were possible, without the option to add personal answers. Together with the time constraint, it meant that the survey included 10 multiple choice questions that were only able to grasp the most essential information.

Second, the focus group sessions were held with less participants than originally planned. The parents' session only included three parents of which two are active cyclists themselves. Although the parents seemed to be able to offer a broad view on cycling to school, conversation with a larger group of parents could have been more insightful. The children's focus group was limited to participants who participate in cycling training, thus eliminating pupils who, for example, feel uncomfortable when cycling. This group of pupils did represent the potential school cyclists. However, as they primarily own expensive racing bikes and their trainers discourage them to cycle outside of trainings due to possible negative health effects of too much cycling, their view on cycling to school could be somewhat limited and constrained.

Finally, the discussion section primarily reflects on previous quantitative research, since qualitative studies are very limited. Nevertheless, the study has been able to support findings by previous researchers and more importantly, offer insights into active travel to school that can be used for better understanding for school travel behaviour in Tallinn and elsewhere.

7 CONCLUSIONS

Physical activity among children has rapidly decreased in the past decades as children perform more sedentary activities and are often driven to school. Enabling active school travel would introduce some extent of physical activity back into children's lives. Among active travel modes, cycling allows commute on longer distances than walking and is thus a suitable alternative to motorized daily travel in a city.

Tallinn adopted its first cycling strategy in 2018 and is gradually retrofitting the city for cycling. Among other aims, the strategy aims to develop safe cycling infrastructure around schools to enable cycling to school. In collaboration with the Tallinn Cycling Coordinator, this research identified key factors that influence cycling to school in Tallinn and proposed planning guidelines and design interventions to improve cycling conditions in Tallinn.

7.1 School-going children's mobility choice to cycle

1. Which are the key factors (social, cultural and spatial) in Tallinn that contribute to school-going children's choice to cycle to and from school?

By working through Mitra's (2013) domains for school travel, factors related to external factors, urban environment, household and the child were identified for cycling to school in Tallinn.

External factors (1)

Cold weather and lack of daylight in autumn and winter months prevent many school-going children from cycling in Tallinn. School's catchment area and location play a role in relation to distance to school which is a decisive factor in choosing between active and motorized modes. Schools themselves discourage cycling by providing cycle parking facilities that do not comply with children's and parents' safety standards for bicycle parking.

Urban Environment (2)

Lack of bicycle parking facilities at apartment buildings makes cycling an inconvenient mode choice for everyday travel. Cycling infrastructure that lacks in connectivity, safety and lack of separation from cars and pedestrians is another major contributor to low cycling numbers. On school routes, safety issues are especially reported in front of the school's entrance in the mornings, caused by heavy car traffic.

Household (3)

Findings of this research indicate that parents of younger children are probably the cause of congestion at schools' entrances in the mornings. Parents have many reasons for chauffeuring their children – perception of low traffic safety on school routes and in front of schools, and lack of confidence in child' behaviour in traffic. Cycling may not be seen as a viable option since cycle parking facilities at schools provide little security for expensive bikes. As policies on reducing driving to work are limited, chauffeuring the child is convenient.

The child (4)

School-going children in age 13-16 have an opinion about their mode choice and may choose not to cycle because they believe the weather is not suitable. Public transport is a popular mode choice among adolescences, which is free of charge and allows travelling with friends.

2. What are the planning guidelines and design interventions in a similar context (i.e.Gothenburg, Sweden) that affect the choice of cycling for school-going children?

Gothenburg is ahead from Tallinn in terms of overall cycling numbers (7%) and also in cycling to school (15%). These numbers have been reached by years of work on a safe and well-connected cycling network. To increase cycling, Gothenburg is now mainly focusing on increasing accessibility and providing for different cycling speeds by widening cycling paths, which also makes cycling safer for children. Clear separation between cyclists and pedestrians is crucial in retrofitting cycling infrastructure.

Conditions for cycling to school vary across the city and are determined by the city's topography. Driving children to school is prevalent. The city works comprehensively with a couple of schools each year. In cooperation with the school's staff, parents and children, physical improvements for active travel are drawn and implemented. Campaigns on travel behaviour for parents and younger children are carried out in parallel to infrastructure developments. "På egna ben" is an annual regional active travel campaign for children aged 10-12 that encourages walking and cycling through an attractive rewards programme.

The city is also actively involved with improving conditions for cycle parking both at home and at schools. Gothenburg provides parking guidelines for apartment building owners and for schools that enables them to choose a convenient and safe cycle parking option. Finally, Gothenburg claims to have the best winter maintenance in the country, ensuring that cyclists can continue their active journeys throughout the colder months.

3. Which planning guidelines and design interventions could increase school-going children's cycling to and from school in Tallinn?

External factors (1)

Schools have to take responsibility in providing safe and convenient cycle parking. The city can support this by drawing up guidelines for the location and technical parameters of the facility. Winter cycling campaigns could attract more cyclists in autumn and winter months.

Urban environment (2)

Cycle parking facilities at apartment buildings can be enforced by making cycle parking facilities a funding requirement for different subsidies. Providing guidelines for housing property owners can help with opting for convenient and safe parking facilities.

Infrastructure developments should closely follow the guidelines set in the Cycling Strategy. Separation between cyclist, pedestrians and cars is crucial, together with allowing for smooth crossings of intersections. Drop-off zones close-by schools can aid in decreasing congestion around schools and making active travel safer.

Household (3)

Making car use less attractive through various policies can overall reduce driving among parents. Campaigns dealing with parents' attitudes about active travel are essential in changing attitudes about how their children travel to school.

The child (4)

Incorporating cycle training into school curriculum ensures that all children have the skills to cycle in the city. That would also increase parent's opinion about children's capabilities. Active travel campaigns for children, either on school or city level, can make

cycling a fun activity that turns into a habit. Group cycling activities for children can additionally provide children proof about the ease and fun of cycling in different weather conditions.

Finally, the main research question can be answered:

Which key factors influencing school-going children's mobility choice to cycle in Tallinn, Estonia can contribute to planning guidelines and design interventions to improve cycling culture?

Key factors to be address are:

Safety on school travel routes

- Through comprehensive projects that simultaneously work with improvements in schools' physical environment and travel behaviour campaigns for children and parents;

Cycle parking at home and schools

- Through providing guidelines for schools and housing property owners for choosing a convenient and safe cycle parking;

Safe, smooth, connected and separated cycling infrastructure

- Through implementing measures already provided in the Cycling Strategy.

7.1 Recommendations for further research

This study identified several factors that could further enhance the understanding of school travel behaviour in future research. For instance, including variables about cycle parking facilities at homes could provide in-depth knowledge about why active school travel varies between children living in a private house or in an apartment building. As this study showed, the type of bike the children have in relation to safe parking facility at school proved relevant in Tallinn, which could also provide further insights into why pupils cycle to school nor not.

For further research in Tallinn, the findings of this research could be translated into a quantitative study, similarly to many previous studies on active school travel as has been done in many previous studies. This way, clear correlations and variables that have stronger associations with cycling to school can be identified. Additionally, a more comprehensive survey at schools could be carried out. While many findings of this study can be translated into insightful survey questions, simple modifications of the survey used for this research would already provide further information. Questions about their home type (private or apartment) and friends travel mode would be crucial.

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APPENDICES

Appendix I: Ethics approval

WAGENINGEN
UNIVERSITY & RESEARCH

6706 kn Hollandseweg 1 Wageningen | The Netherlands

To whom it may concern

The following project proposal has been reviewed by the Social Sciences Ethics Committee (SEC):

Title: Urban Form and Cycling: Exploring School-Going Children's Independent Mobility for Designing Cycling Paths in Tallinn, Estonia
Project team: Onne Kask, Wendy Tan
Funding: -
Period: September 2018 – March 2019
Location: Tallinn, Estonia

The Committee has concluded that the proposal deals with ethical issues in a satisfactory way and that it complies with the Netherlands Code of Conduct for Research Integrity.

With kind regards,

Professor Dr Marcel Verweij
Chair Social Sciences Ethics Committee

DATE
11-12-2018

SUBJECT
Ethical approval of research project

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Wageningen University & Research is specialised in the domain of healthy food and living environment.

Appendix II: Observation forms

Observatin form 1

School: Tallinna Kristiine Gümnaasium

Date: Oct 11, 2018 **Time:** 7:40 - 8.00

Weather conditions:

Cloudy, 7°C

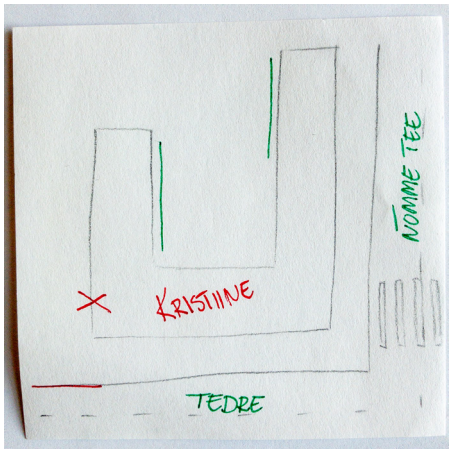
The numbers:

# cyclists entering school ground	15
# cyclists wearing a helmet	5
# bikes at cycle parking	23
# kick bikes	26
# skateboards	1

Notes:

Kick bikes only used by primary school students; half of the cyclists also primary school; A student arrives with a kick bike driven by his mother; extensive kick-bike parking; bike lock front wheel only.

Location of cycle parking at school premises



* red marks the main entrance
** green marks the cycle parking

Photos: Cycle parking

Photos: Cycling conditions / neighbourhood characteristics

Observatin form 2

School: Tallinna Kuristiku Gümnaasium

Date: Oct 18, 2018 **Time:** 7:40 - 8.00

Weather conditions:

Cloudy, 10°C

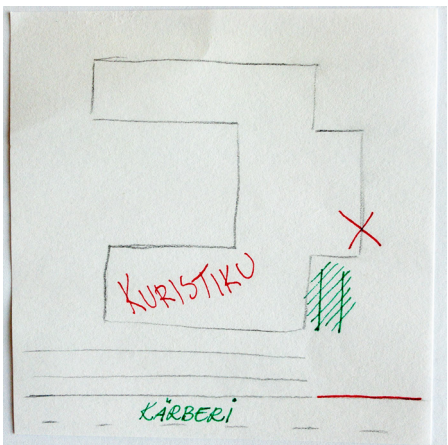
The numbers:

# cyclists entering school ground	11
# cyclists wearing a helmet	9
# bikes at cycle parking	18
# kick bikes	15
# skateboards	0

Notes:

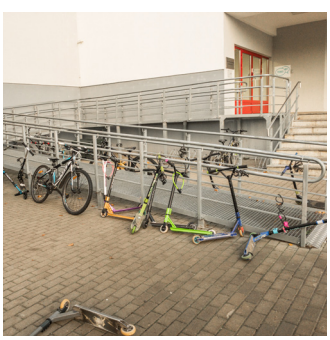
Cycle parking has camera surveillance; a child is brought to school by car but with a bike; 90% of cyclists are younger; only front wheel parking, many bikes attached to the railing instead.

Location of cycle parking at school premises



* red marks the main entrance
** green marks the cycle parking

Photos: Cycle parking



Photos: Cycling conditions / neighbourhood characteristics

Observatin form 3

School: Mustamäe Reaalgümnaasium

Date: Oct 12, 2018 **Time:** 7:40 - 8.00

Weather conditions:

Fear, clear sky, 8°C

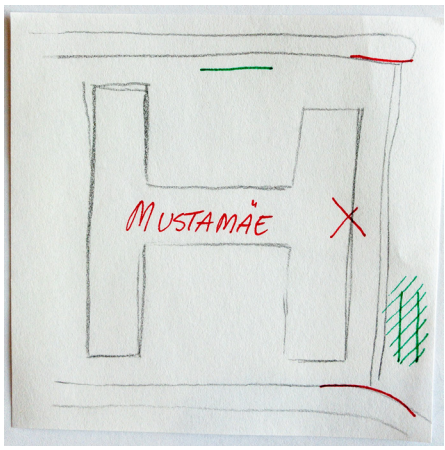
The numbers:

# cyclists entering school ground	7
# cyclists wearing a helmet	2
# bikes at cycle parking	10
# kick bikes	16
# skateboards	0

Notes:

All pupils arriving either by bike or by kick bike are primary school pupils. Cycle parking has a roof, but only front wheel parking. Another similar parking spot next to the school.

Location of cycle parking at school premises



* red marks the main entrance
** green marks the cycle parking

Photos: Cycle parking

Photos: Cycling conditions / neighbourhood characteristics

Appendix III: Survey questions

1. Do you have a bike?

a. Yes

b. No

2. Have you ever cycled to school?

a. Yes

b. No

3. Would you like to cycle to school?

a. Yes

b. No

4. How do you usually go to school?

a. On foot

b. By bike

c. By car

d. By public transport

5. How long would it take for you to walk to school?

a. Less than 10 minutes

b. 10-20 minutes

c. 20-30 minutes

d. 30 minutes or more

6. (Sometimes) I don't cycle to school, because

a. Cycling from home to school takes too long

b. Taking my bike out of storage takes too long

c. Taking the car of public transport is more comfortable than biking

d. None of the above

7. (Sometimes) I don't cycle to school, because

a. The weather is not good for cycling

b. Cycling is unsafe because there are no good cycling paths

c. I don't feel comfortable when cycling

d. None of the above

8. (Sometimes) I don't cycle to school, because

a. My parents don't allow me to cycle to school

b. My friends/classmates don't cycle to school

c. There's nowhere to park the bike at school

d. None of the above

9. I would cycle more to school if

a. If others would do so as well

b. If cycling would be safer

c. If there was a good cycling path between home and school

d. Other, please specify

Appendix IV: Focus group invitations

Appendix V: Focus group transcriptions

Focus group 1 - Parents

Date: Dec 5, 2018

Original language: Estonian

* text in grey boxes is a translation of (part of) the above text into English.

Õnne: *Teema tutvustus ja küsitluse tulemused - 7% sõidab regulaarselt rattaga kooli.*

Parent 1: Seda on isegi päris palju ma ütleks. Mida regulaarselt tähendab?

Parent 2: Seal on ikkagi see ma arvan, et kui ilmad on väga viletsad ja teeolud ei luba, et siis nad ikkagi ei sõida.

Parent 1: Mis koolides te käisite? Ma arvan, et on väga suured erinevused koolide vahel. Ma käisin hiljuti Rahumäe põhikoolis, oktoobri kuu lõpus, vilets ilm ja see oli rattaid täis.

Parent 2: Loomulikult, see on ju selline piirkond.

Parent 1: Ma arvan, et kooli ümbrusest ja kooli keskkonnast sõltub väga palju. Aga ühtegi kesklinna kooli ei kaasanud küsimustikus, jah?

Tallinna hariduse põhiline eripära on terav vastandumine kesklinna ülelinnalise valikuga koolide ja mitte kesklinna kohalike valikuga koolide vahel. Seda oleks huvitav olnud uurida, et kas asjaolu, et sul on THK või TIK mis võtab lapsi Viimsist Tabasaluni.

The main feature of Tallinn's education is the sharp confrontation with the schools in the city centre with a city-wide catchment area versus neighbourhood schools with a local catchment area.

Õnne: *Küsitluse ja koolide valiku seletus*

Parent 1: Ei ole võimalik see, et ei mõjuta kooli kaugus või valiku piirkond, et kooli mis võtab enda ümbrusest lapsi või kool kuhu tullakse kaugemalt.

Parent 2: Valim on selles mõttes okei, et kui sul on piirkonna kool, ei ole eliitkool kus mõni käib Rakverest ka. Sessuhtes ongi mõistlik võtta need koolid, kus liiklemine kooli peaks toimuma suhteliselt lähedalt.

Parent 1: Mis on ratta definitsioon?

Õnne: Jalgratas

Parent 1: Ehk siis tõukerattaid ei võta sisse?

Õnne: Otseselt küsitluses ei ole jah, kuigi kui ma vaatlemas käisin,

Parent 1: Mõnedes kohtades on pooleks umbes (jalgratas ja tõukeratas)

Õnne: Eks see on selline asi, mis tuli vaatluste põhjal välja. Samas tõukerattaga siiski pigem sõidetakse nooremates klassides.

Parent 2: Tõukerattaga ei kaasne igasuguseid ohutusnõudeid, kuna ta pole ära defineeritud, et mis ta siis on.

Parent 3: Kiiver on ikka kohustuslik, või võib see olla lasteaia oma teema.

Õnne: Koolides on tõukeratta parkad olemas.

Parent 1: Faktorid mis mõjutavad tõukeratast ja mis jalgratast on väga erinevad. Kasutatakse erinevatel distantsidel, tõukeratast on palju lihtsam hoiustada, välja võtta. Asjad mis rattakasutust takistavad ei ole takistused tõukeratta puhul. Ehk tegelikult selle 7% juurde võivad tulla ka need, kes sõidavad tõukerattaga.

Factors that influence biking or taking the kick bike are very different. They are used for different distances, kick bike is much easier to store, easier to take out. Things that hinder the use of a bike are not a barrier for a kick bike.

Õnne: Teeme sellise tutvustava ringi, kas teie lapsed sõidavad jalgrattaga, miks sõidavad, miks ei sõida? Ja kaua see aega võtab?

Parent 2: Täpsustame, et ainult see, et kas nad sõidavad kooli ja tagasi? Mul sõidabki see 6nda klassi tegelane, siis kui on enam-vähem ilusamad ilmad, mingil hetkel vist muutub tüütavamaks. Talle meeldib rattaga sõita, et kui läheb liiga pimedaks, siis ka ei taha väga sõita enam. Ja meil ei lähe kaua aega, ma arvan rattaga kodust kooli on 5-10 minutit, 5 kui ei oleks ülekäike. Jalgsi käies oleks 15 minutit.

My 6-grader cycles when the weather is kind of okay, at some point it becomes more annoying for her. She likes to bike, but when it gets darker, she cycles less. It takes 5-10 minutes to bike to school, it would be 15 minutes on foot.

Õnne: Kas jalgrattaluba on?

Parent 2: Vanemal lapsel on (7.-9. klass). Aga nooremale ma ütlesin, et teisel lasin teha, ja pole kunagi kontrollitud ja seisab kuskil sahtli põhjas.

Parent 3: Meil ei viitsita keldrist ratast võtta, see on jube aega nõudev ja sellepärast ei sõideta. In our case they are too lazy to take the bikes out of the basement. It takes a lot of time and that's why they do not cycle.

Parent 1: Mul on kolm last, kodu uksest kooli ukseni on 1100 m, jalgsi kõndida umbes 15 minutit. Vanem on 15, tütarlaps, ei sõida rattaga kuna talle ei meeldi. Talle meeldib rattaga matkata, aga linna liikluses ratast kui transpordivahendit ei tunnista üldse, vanemate üsna aktiivsest eeskujust vaatamata.

My oldest is 15, a girl, she does not bike to school because she does not like it. She likes to go on longer bike hikes, but does not consider the bike as a mode of transportation in the city, even though we as parents are an active example.

Parent 1: Keskmine ja väiksem sõidavad aegajalt kooli tõukerattaga (11 ja 8) aga rattaga pole ma neid kooli minemas veel näinud. Miks rattaga ei sõida, selleks on mitu põhjust. Infra on keeruline, peab ratta tooma ja see vajab mõtlemist, ole nii niisama, et astun uksest välja ja lähen ratta

peale. Ratta peab kusagilt kätte saama.

There are many reasons for why they do not cycle. Infrastructure is complicated, you have to take the bike out of storage and put it back, it takes some effort. It is not just stepping out of the door and hopping on the bike. You have to get it out first.

Parent 2 ja Parent 3: Meil on sama jah.

Parent 2: Meil on rattad koridoris.

We keep our bikes in the hallway.

Parent 1: Nüüd kool on teinud kooli juures ka rattahoidmise kohad, et see ei ole teemaks. Teine asi on see, et mina kui lapsevanem ei taha seda, sellepärast et tegemist on kesklinna lähedase alaga ja panna laps seal regulaarselt rattaga sõitma, seal ei ole selleks kohta. Ta sõidab Kadrioru piiril ja seal on nii, et hommikul kui lapsed kooli lähevad, koolis on 1300 last, ja kõik lähevad enam-vähem samal ajal kooli. See tänavalõik, kust lapsed kooli lähevad on inimesi täis ja rattaga seal sõita ei saa. Ma olen proovinud, sa liigud inimese kiirusel laste vahel . Mingis osas, kui ei ole nii tihe, saad sa võitu aga mingist kohast alatest saab sõita vaid kõnniteel ja mööduda teistest ei saa kuna see on lapsi täis. Ja samal ajal on seal autode virr varr. Eesti koolides on hoolikalt hoidutud nö kiss and fly tsoonist, kus öelda tsau ja mine, selleks ei ole kohta lihtsalt. Tekib autode puder ja sealt läbi minna rattaga on ohtlik. Seega mina kui lapsevanem seda ei taha ja laps ise ka ei viitsi. Kui laps käib tõukerattaga koolis, siis kõik need asjad langevad ära. See on väike, mahub inimeste vahelt läbi, selle kaasavõtmine ukse kõrvalt ei võta hetkegi aega. Ajavõit on u 1,5 korda ja see on ägedam kui jalgsi käimine.

Another thing is that I as a parent do not want my children to cycle to school, because it is an area on the edge of the city centre. There is no place for a child to cycle there on a daily basis.

The street section that children use most to go to school is crowded with people and you cannot cycle there.

At the same time, there are a lot of cars. Estonian schools have effectively avoid a so called „kiss and fly" zone where you could say bye and go, there's no place for that. The area in front of the school is full of cars and it is dangerous to go through by bike.

Õnne: Siit juba osad põhjused koorusid välja, aga ma olen nüüd sinna paberile pannud kirja listi, mis küsimustikust välja tuli. Võiks need üks haaval siis läbi käia ja mõelda, et mis need võiksid tähendada. Ja võiks tekkida diskussioon.

Parent 2: Kui me mõtleme sügisel kooli mineku aega, siis põhiline faktor olekski paduvihm. Valgust on siis veel piisavalt.

If we think about going to school in autumn, it is mainly the heavy rain. At that time there is still enough light.

Parent 3: Ei ole halba ilma, on vilets riietus. Vihmariideid selga ja käib küll.

There's no bad weather, but bad clothing. Put on your rain cloths and it works just fine.

Parent 2: Minu jaoks olekski see mingi ilge paduvihm. Kevadel kui kõik sulab on ka halb, siis ei sumpa sealt läbi. Ikka on märg ja vastik.

For me it's the heavy rain. In the spring when everything is melting it's also bad, because you cannot go through with your bike. It's wet and nasty.

Parent 1: Mina pean rattailma tabelit, ehk kirjutan üles endale, milline ilm rattasõiduks on. Ja ta ongi paari km kommuudi kohapealt, mitte rattasportlasele. Ja halba ilma meil praktiliselt ei ole. Selle aasta novembris oli kolm päeva, kus väga ratta selga ei tahaks minna. Väide et on halb ilm kehtib viiel päeval kuus. Talvel kahtlemata ei saa sõita, ja pigem on tegemist teede hooldusega.

Parent 2: Mhm.

Parent 1: Asjaolu et maja ees on jää, ei ole mitte halb ilm vaid tegemata töö. Ärme aja segamini ilma ja teehooldust.

The fact that there's ice in front of the house, is not bad weather but bad maintenance. Let's not mix up weather and road maintenance.

Parent 2: Prillikandjana ma kommenteeriks, et ma ei saa paduvihmaga sõita, ma ei näe mitte midagi.

Parent 1: Seenevihmaga 1-2 km on sõita täitsa okei, aga selleks peab olema sõitmise kogemus, kui sa vaatad aknast välja ja räästas tilgub ja on hall, kui läheksid välja ja sõidaks 100m, siis saaks aru, et pole probleem, aga kuna sa pole kunagi proovinud, siis sa ei tea.

With little rain it's okay to cycle a few kilometres, but for that you need the experience of cycling with rain. If you just look out of the window and see a grey sky and dripping water and then go out and ride the bike for 100m, you'd realize that it's not a problem. But if you haven't tried, then you wouldn't know.

Parent 2: Võibolla nad fantaseerivadki selle külma efekti, et oi tuul puhub

Parent 1: Pimedus on teine asi. Tallinna koolikorraldus on niisugune, et vähemalt keskkonnakoolid on ülerahvastatud, mis tähendab et neil on kohati kaks vahetust. Lapsed kes hommikul lähevad, tulevad kooli kella 8ks ja kes õhtul käivad, lõpetavad kooli kell 6. Seega kui on vähegi sügis, siis sa kas lähed kooli pimedas või tuled koolist pimedas. Kui koolid oleks vähem punnis, saaks lapsed minna hiljem kooli, oleks paremini välja puhanud ja ühtlasi oleks ka valge. Et pimedus on psühholoogiliselt hullem faktor kui vihm. Kuiva pimeda ilmaga on raskem minna välja kui uduvihmaga valges.

Darkness is psychologically worse factor than rain. It's much harder to go outside with a dark but dry weather than with a small rain during daylight.

Parent 2: See väga pime aeg ongi ju praegu, kus idee järgi ei sõidetagi väga ratastega.

Parent 1: 2km otsa on praegu kindlasti rattaga parem teha kui jalgsi. Aga selleks, et seda arvata, on vaja kogemust,

Õnne: Siin on huvitav see, et need kes elavad kooli lähedal, on valinud selle põhjuse.

Parent 2: Et jalgsi läheb kiiremini kui rattaga. Aga siin tuli läbi juba see, et sa pead minema kuskile, kolm ust avama, et keldri boksini jõuda, ja lisaks kui sul on need turva elemendid mida sa pead kasutama, kiiver pähe jm, ja lisaks kooli juures veel parkimine.

Sometimes walking to school can be faster than biking. You have to go somewhere, open three doors to reach your basement box, and additionally you also have to use safety elements, wear a helment, etc, and then you also have to park the bike at school.

Parent 3: Meie kooli juures küll ei ole väga palju rattaid.

Parent 2: Et pigem jah see, et kus sul see ratta hoidmine kodus just on. Kortermajades paratamatult on see kuskil keldris.

It's more about where you store the bike at home. In apartment buildings it's inevitable that it's in the basement.

Parent 1: Seepärast on Mustamäe üks koht mis eristub Nõmmest või Rahumäest, eri piirkondades on eriti sorti majad, asutus ja erinevad aspektid, Viimsis sa küllad ratta garaažist välja ja lähed.

That's why Mustamäe is different from Nõmme or Rahumäe. Different districts have different housing, density and various aspects that influence cycling. In Viimsi you take the bike out of the garage and go.

Parent 2: Ongi üks nivoo, lükkad välja hüppad selga, pead garaaži ukse kinni ainult panema, aga Mustamäel ikkagi roni sinna alla, liigud kitsaster koridorides..

Parent 3: Lükka ratas trepist ülesse..

(In an apartement building you would often opt for) pushing the bike up the stairs.

Parent 2: Ja kui keegi hoiab veel rõdu peal..

And some people also keep the bike on the balcony.

Parent 1: Ja teine aspekt on et lapsi viiakse autoga kooli päris palju, autosõiduga rattasõit võtab tõesti palju aega.

Õnne: Siin küsimustikus ei olnudki autoga viijate osakaal nii suur, et pigem ühistranspordiga.

Parent 1: Kesklinna koolides tuuakse ilmselt rohkem lapsi autoga kohale.

Õnne: Kuidas seda probleemi võiks lahendada?

Parent 2: Mustamäel ja sarnastes piirkondades oleks ideaalne nende prügimajade kõrvale teha ka rattamajakese, kus on ka lukuga süsteemid. Aga samas turvalisuse ja varastamise küsimus on suur, et läheks miljon aastat enne, kui keegi usaldaks oma ratast jätta mingisse majakesse keset hoovi.

In Mustamäe and similar areas it would be ideal to build bike storage sheds next to the trash sheds with a locked system. But at the same time, it's an issue of safety and deft, it would take a long time before people would be willing to leave their bike in such a shed.

Parent 1: Ma arvan, et te eksite..

Parent 2: Et inimesed usaldavad?

Parent 1: Ma usun, et ratta varguste hulk on Eestis langenud, tunnetuslikult, mul ei ole ühtegi numbrit, et seda tõestada. Murdehetk oli see, kui tekkisid kesklinna Bikeep parklad, mobiiliga lukustatavad parklad, ja inimesed hakkasid sinna rattaid jätma. Kuhu jätab üks, sinna jätab teine, jne, ja sellest tekkis arusaam, et ratta võib jätta avalikku ruumi. Enne seda nii ei olnud, mu naine kes 5 aastat tagasi käis linnas tööl, ta mingil juhul ei jätnud ratast mitte kuhugi välja. 5 aasta eest see oli mõeldamatu. Ühiskond on rikkam, keegi ei tule enam sadulat varastama.

I believe the number of bicycle deft has declined in Estonia. The breaking point was when we got the Bikeep parking facilities in the city centre and people started to leave their bikes there. Once someone left their bike, another one did so as well and from that an understanding emerged that it is possible to store your bike in the public space.

Parent 2: Ma arvangi, et ongi suur vahe avalikul ruumil Kesklinnas ja Mustamäe majakeste vahel, sest mina tean oma kogemusest, et iga aasta käiakse sees ja varastatakse rattaid, kuigi on korralikud lukud ja naabrivalve. Vahe on ka lühiajaliselt ja pikaajalisel parkimisel, kui parkida sinna majakesse, siis pannakse silm peale. Ma ise jätaks rahulikult.

There's a considerable difference between public space in the City Centre and between the apartment buildings in Mustamae. I know from my own experience that every year bikes are stolen (from the basements) even though there are good locks and neighbourhood watch.

Parent 3: Ka lühiajaliselt varastatakse, mänguväljaku kõrvalt või poe kõrvalt. Siis lähed politseisse avaldust tegema, et kuidas täiskasvanud inimene lapse rattaga sõidab.

Parent 2: Mida kallim ratas, seda suuremad on inimestel hirmud, et jääd sellest ilma. Ja selle alternatiiv ongi siis, et on seinte peale kodus, mustamäe väikestes korterites, teinud stanged, kuhu tõstavad oma rattad. Keldrisse ei julgeta jätta enam.

The more expensive the bike, the bigger the fears to lose it. The alternative is to put the bikes up on the wall in the small apartments of Mustamae. People don't dare to store their bikes in the basement anymore.

Parent 1: Ma usun, et see hoiuruumi teema ka aeglaselt muutub.

Parent 2: Aga see võtab aega lihtsalt.

Parent 1: Aga mida veel selle alla panna saab?

Parent 2: Et kuidas kiiremini kooli saada? Siis on see juba infrastruktuuri küsimus , et kuidas teed on ja üleminekud, et kas lähed sujuvalt. Või rattasõidu kultuur, et kui on rattatee, siis on rattatee, ja jalakäijad seal ei töllerda ees.

How to get to school faster? Then it is a question of infrastructure, how the roads are and transitions, so that you go smoothly. Or the cycling culture that if there is a bike path, it is a bike path, and pedestrians are not walking there.

Õnne: Võime edasi ka minna, et need asjad siin kindlasti kattuvad.

Parent 2: Meie kooli juures on aga ma ütleksin jälle, et see on tavaline plönn, kuhu sa selle ratta paned, see vene kool on meie kooli kõrval, ja poiss kunagi jättis tule külge, see on läinud. Siis ventiile seal näperdatakse. See võiks olla lihtsalt ka nelja seina, väikse katusega, väikene selline moment, parkla on hästi naljaka koha peal ka veel, kahe kooli vahepeal,

Õnne: Üks on vahepeal ja teine on kooli ees.

Parent 2: Vahest ongi nii, et esimene on täis ja siis panevad sinna kõrvale.

Parent 1: Osad parklad on odavalt saadud, ja palutakse ratas sinna panna. Aga minnes tagasi ilma juurde, meil on päris palju sellist ilma, kus päeva jooksul on mingi sadu ja seetõttu on märg.

Some parking facilities have been affordable at the time and we are asked to park the bike there. But going back to the weather, we have a lot of days where there is rain during the day and that's why (the bike) is wet.

Parent 2: Sellepärast see katus on

Parent 1: Kooli rattaparklad ei ole enamasti katuse all, mis tähendab et sa sõidad kuivas aga ratas võib olla tüütult märg. Aga mul on tunne, et ka see tasapisi muutub. Mõtteviis koolidel linnal tervikuna on muutumas, parkimise probleem kooli juures on asi mis ühelt poolt tasapisi leeveneb, kuna koolid teevad parkimiskohti, teiselt poolt kui rattakasutus kasvab, siis ta jällegi peab olema tasakaalus.

Parking facilities at schools are usually not under a roof, which means that even if you bike in dry conditions, the bike can be wet when you take it from the parking.

Õnne: Lapsed ise veel ütlesid, et kuigi kohad on olemas koolis, siis nad ei julge rattaid sinna jätta, kuna rattad on kallid.

Parent 2: See kallid rattad ongi ja ema isa räägivad, et vaata see maksis ja vidinaid ka varastatakse. Loo moraal, et ära osta liiga kallist ratast kooli sõitmiseks.

Expensive bikes in an issue and then mom and dad are saying how much the bike costs. Moral of the story, don't buy a too expensive bike for cycling to school.

Parent 1: Vidinate kohta on üks arvamus, et vidinate hinnad on kukkunud.

Parent 2: Need ei maksa midagi eriti.

Parent 1: Esituled on paar eurot, tagatuled on paar eurot. Koolid või haridusamet või maanteeamet võiks jagada vabalt neid väikseid tulukesi. Ja tehagi selgeks lastele, et kui sul on sellega probleeme, et sul ei ole tuld või sa ei julge ratast parkida kuna sa arvad, et tuli võtetakse ära, siis võta kooli kantseleist kooli logoga odavad tuled. Nagu jagatakse helkureid praegu. Mul on kodus suur karp helkureid kuna kõik annavad neid.

Schools or the city's Education Office or Road Administration could give out bike lights for free. And explain children that (if they don't want to bike because) they don't have the lights or they are afraid to leave the bike in the parking because the lights will be stolen, then it is possible to pick up new lights from the school. Similar as giving out reflects right now.

Parent 2: mhm

Parent 1: Võta need odavad tuled ja ära põe nende pärast. See võiks olla kampaania või asi mida korraldab avalik sektor ise.

Take the cheap lights and don't worry about them. It could be a campaign or something organized by the public sector.

Parent 2: Ja mida oleks nii palju, et keegi ei viitsi hakata seda varastama, sest sa saad selle tasuta kuskilt. Kes helkurit siis varastaks.

Parent 3: mhm

Õnne: Kas see parkla ise ei peaks olema mingit moodi?

Parent 2: Ta peaks ikkagi katusega olema..

(The parking) should be with a roof.

Parent 1: Katus võiks olla või mingi varjualune kas või.

(It should have) a roof or at least some kind of shelter.

Parent 2: Üks asi on päike..

Parent 3: Ja see mõjub kummile ka.

Õnne: Kas see, kuidas ratast kinnitada saab, on oluline?

Parent 1: Raamilukk on ilmselgelt vajalik, esiratta kinnitus on tõesti mõttetu.

The frame lock is obviously necessary, fastening the lock at the front wheel is really pointless.

Õnne: Kuidas 21. rattaparkla välja näeb?

Parent 1: Keskmine. Erinevad variandid erinevate kinnituste jaoks aga pigem okei.

Õnne: Ma olen näinud, et enamasti ongi see kuhu saab esiratta panna, ja kallimad rattad on kaldtee kõrval oleva käsipuu küljes.

Parent 2: Käsipuu küljes jaa, sest sinna saab toetada keskmise kohaga, vahest ongi, et need on väga naljakad, isegi lähed kuskile poe juurde, lükkad oma rattakese sinna ja ta kipub vildakile vajuma, teine ei mahu sinna vahele.

Parent 1: Kaks asja, üks on see, et oli arutelu betoonist kaarekeste üle, Kiili betoon, kes neid toodab, ütles selle peale, et mis te mõlisete, see on kõige müüdavam rattalukustussüsteem. Klient tahab, meie toodame. Spetsialistid hoidke mokk maas. Klient on ehituse projektijuht. Sina ehitad poodi või teed koolis remonti, sul on linnukene, et vaja rattaparkla osta, vaatad hinnakirjast, mis kõige odavam on, teed oma linnukese ära ja korras. Kes tahab näha kõige edevamat näidet tutikast case-st, minge Mustamäe elamussapsse, seal on imeilus sepistatud rauast rattaparkimissüsteem, püüdke ratast sinna kinnitada. Sellega võrreldes need betoonist rõngad on juba väga head.

Parent 2: Ta on ebapraktiline aga ilus disain.

Parent 1: Ta on lihtsalt disainielement.

Parent 2: TTÜ juures on suured rõngad, vot sinna on jube hea, sinna lükkadki sisse, tugi vasakult ja paremalt.

Parent 1: Jaa, need on väga head.

Parent 2: Kõik need madalad mõttetud asjad ei hoia su ratast püsti.

Parent 1: Imetabane superministeeriumi hoone, käisime testimas selle rattaparklat. Jällegi disainer on teinud tööd ja mõelnud välja, et oleks äge. Maas tuled välja post, painduv, posti otsas on mumm, mõte on selles, et sa paned selle luku sellest läbi. Ja ükski normaalne lukk sealt läbi ei mahu kuna see aas on liiga väike. Disainer pole testinud seda disaini ühegi normaalse rattalukuga. Kui sul on mingi toru, siis sa kuidagi ikka saad panna ratta sinna aga kui sul on aasakene maas, aga kui on lihtsalt post, sinna ei pane mitte mingil viisil

Parent 2: Väga innovatiivne eksole.

Parent 1: Aga praktilisus lihtsalt ununes ära.

Parent 2: Ma arvan, et see neljas punk on põhimõtteliselt

Parent 3: Väga hea, autoga on mugavam.

Parent 2: Isegi mina üks aeg viskasin oma lapsi autoga kooli, sest ma sõitsin sealt mööda kui autoga tööle läksin. Ma ei tea miks, aga nii see oli.

Even I at one point took my children to school by car because I drove by when driving to work. I don't know why, but I did.

Parent 1: Nii see on lihtsalt.

Parent 2: Hullult kohe läksid nii mugavaks, Äkki sa viid, unustage ära.

Parent 3: Ma ei tee seda viga, et ma ühe korragi viin neid sinna.

Parent 2: Mul oli kahju ka, miinuskraadid ja nii see nagu läks.

Parent 1: Miks see halb on, objektiivselt kui on mugavam viis saada punktist A puntki B, siis miks seda mitte kasutada.

Parent 2: Eriti kui ta jääb sulle teele ette, mitte sa ei tee ekstra ringi selleks ja ei jää tipptunni ummikutesse. Ikka võtavad selle, mis on mugavam.

Parent 1: Miks ei peaks.

Õnne: Kas selline variant oleks mõeldav, kui peaks mingi maa minema rattaga ja siis ühistranspordiga, kas selline variant oleks mõeldav Eestis?

Parent 1: Kas see peaks olema eesmärk? Kas laps peab elama koolist nii kaugel, et ta peab sellist asja tegema.

Parent 2: See ühistranspordi mugavus on suhteline mõiste, ma ei usu, et neil hommikuti on väga mugav ühistranspordis kus nad on nagu silguliisad koos kõik. Aga nad ikkagi valivad selle.

Parent 1: Kus oleks Tallinnas sellist situatsiooni vaja, Tallinnas ongi valiku koolid ja vanemas kooliastmes laps pannakse valikuliselt teatud koolidesse. Aga need kõik eeldavad kesklinna sõitmist, ja kesklinnas kombinatsioon et viid lapse autoga kesklinna piirile ja sealt läheb rattaga, on ikka tüütu. See kõik eeldabki seda, et me ütleme et on okei, et ühistransport on kodust kaugel ja laps käibki umbes tund aega kooli.

Parent 2: Ma arvangi, et see kui me räägime põhikooli viimasest kolmest klassist. See on ikkagi vanemate teadlik valik olnud, et kuhu kooli nad oma lapsed on pannud. Reeglina siis laps ei ütle, et ma tahan teise kooli, gümnaasiumis juba hakkavad ise valima.

It's a conscious choice of parents which school they have out their children. As a rule, a child does not choose the school, only in high school they start to choose more.

Parent 1: Ma ütleks et kui see on mugavam, siis seda probleemi ei peagi lahendama.

Parent 2: Siis me peaks juba vanemaid muutma hakkama ja see pole mõelda.

Parent 3 : Kristol käib klassis üks kelle vanemad kolisid ära aga laps tahab samas koolis edasi käia.

Parent 2: Selliseid asju saaks küll ainult kampaania korras teha, et kõik rattaga kooli

There could be a campaign, something like „everyone bikes to school.

Parent 1: Selleks ei ole põhjust, kui sul on mugav trammiga kooli sõita, siis sõida. Me ei pea rattakasutust suruma kohtadesse, kus inimesel on teine ja parem alternatiiv olemas.

Õnne: Ühistransport pole probleem, pigem on see autode teema, ummikud,

Parent 2: See ongi naljakas tendents et ma lähen jalgsi, mul on 5 minutit kooli minna kodust ja lähed ja vaatad ka kuidas nad seal saksa gümnaasiumi juures sügelevad, no miks sa pead kooli ette kohe selle lapse maha panema. Pane ta seal kaugemal, kõnnib kolm meetrit, vaene laps. Ma ei usu ka et nad kõik on algklassilapsed.

Parent 1: Terve 21. kooli ümbruses ei ole kohta, kus last maha panna. Kooliees on halb aga igal pool mujal on ka halb. Seal pole kusagil sellist kohta kus saaks peatuda ja lapse maha panna. Kui ei ole kunagi mõeldud, et kuidas oleks mugav last autoga kooli tuua, siis ei ole mugav.

Parent 2: Nojah laps ütleb, et on mugavam aga vanemate seisukoht võib midagi muud olla. See haakub jälle selle viiendaga, et vanemad ei luba. Turvalisuse ja kontrolli küsimus.

Parent 3: Mul on süda rahul küll kui ta bussiga läheb. Kui ta läheks rattaga, siis ma muretseks. See läheb maja eest ja tuleb maja ette.

I am glad when he takes the bus. If he'd take the bike, I'd worry. (The bus) leaves from in front of the house and arrives in front of the house.

Parent 2: Mul seda mittelubamise või põdemise varianti ei ole. Kui ma ise näen, ja tean kuidas laps sõidab, esimeses klassis ma ka väga rahulik ei oleks.

I do allow them to cycle and don't ail about it if i have seen and know myself how the child rides the bike.

Parent 3: Vanemate laste puhul ma mõtlen ka, et sellised uudud on.

Õnne: Aga see on pigem enda hirm, aga kas te ütleksite ka, et ära mine rattaga.

Parent 3: Ei mulle selles mõttes sobib, et ta ei viitsi võtta ratast välja.

I am not bothered by the fact that he's too lazy to take the bike (out of storage).

Parent 1: Ma täiesti usun, et ühiskonnas on vanemad kes tõesti ei luba. Mina ka ei tahaks lubada.

Parent 2: Jaja muidugi.

Parent 3: Ma ei keela aga mul on endal lihtsam. Ma ei ole seda otseselt välja öelnud.

I don't forbid him (to cycle to school), but it's easier for me.

Parent 1: Vanemate mittelubamine peegeldab kahte asja, ühiskonna mentaliteeti ja mentaliteet peegeldab seda et ongi ohtlik rattaga sõita.

Parents now allowing (to cycle) reflects two things, the mentality of the society and that mentality reflects the danger of riding a bicycle.

Parent 2: Aga ongi.

Parent 3: Ma isegi oleks täna jalakäija auto alla ajanud.

Parent 2: Ilma faktor tuleb juurde.

Parent 3: Ja kui veel rattur oleks, siis ei tea kuidas ta läitub, kas tuleb ratta seljast maha. Oleks laps rattaga olnud oleksin ma alla ajanud selle.

Parent 1: Ehk siis õigusega ei luba.

Parent 3: Selliseid hulle on veel nagu mina.

Parent 2: Tulebki vanemate käest küsida, et ütle miks sa ei luba. Kui sa arvad ja näed igal pool tondi ja mõtled, midagi ei ole veel juhtunud aga mõtled välja, võibolla see erinevus ongi, et sina ju ka ei sõida rattaga aga mina ju sõidan, ma olengi hulljulge, kui mäest alla sõidan väga ei pidurda. See tulebki sellest enda käitumismallist. Kui sa ise midagi teed ja tunned ennast turvaliselt, ja mina tunnen ennast ratta seljas mugavalt, seal ongi suur erinevus.

It comes from (parents') own behavioural pattern. If you do something yourself and feel safe, and I feel comfortable on the bike, that what makes a huge difference.

Parent 1: Siis on ka variant, et on väike kogukond vanemaid kes ise sõidavad hulljulgelt ja tahavad, et laps nii ei tee. Kasutad ennast pigem negatiivse näitena,

Parent 2: Mina leian et last tuleb natuke usaldada, see on järgmine punk mis haakubki sellega, et mõni laps ei tunnegi ennast mugavalt ratta seljas. Ja see ei kipugi rattaga sõitma. Ja ma ei ole see ema, et mina tunnen ennast väga hästi, lõpeta ära kas oled minu tütar või ei ole.

Õnne: Aga mis te sellest jalgrattaloast arvate?

Parent 1: Kas see haakub kuidagi selle teemaga?

Õnne: Et kui ei tea kuidas laps sõidab, siis pärast lubade saamist võiks see kindlam olla.

Parent 1: Kas te olete kursis rattaloa saamisega?

Parent 2 ja Parent 3: Jaa.

Parent 3: Täitsa rasked testid olid seal.

Parent 2: Nad teevad seal oma trikid, umbes nagu auto eksamil.

Parent 3: Väljas.

Parent 2: Panevad koonused püsti.

Parent 1: Milles seisneb koolitus?

Parent 2: Teooria..

Parent 3: See oli suht väike, lühike, mingi paar tunnikest, 5 tundi

Parent 2: Millegipärast paljud kukuvad läbi.

Parent 1: Sellepärast lapsed pannakse tuppa kinni, ja loetakse neile lihtsalt teooriat. Laps tuleb tagasi ja ütleb et midagi nii igavat pole ma elus veel kuulnud, rattaluba on minu kogemuse järgi täiesti mõttetu, mitte et ta peaks olema mõttetu.

The children are locked into a room and they are read theory. The child returns and says it was the most boring thing she has ever heard. In my experience, the cycle license is pointless, although I don't think it should be pointless.

Parent 2 ja Parent 3: Nojah

Parent 1: Praeguses situatsioonis tuleb inimene klassi ette, ja räägib meile, mina olen kuulanud, ja see on tõesti igav. Ta ei ole praktiline, ta ei ole huvitav, kindlasti ei innusta last rohkem sõitma, pigem hirmutab, sest nii palju asju peab teadma ja arvesse võtma. Eksamil ka kontrollitakse,

et kas sul on signaal 'kell, kas sul on tuled jne

It is not practical, it is not interesting, certainly does not encourage the child to ride more, rather scares, because so many things have to be known and considered.

Parent 3: Peabki olema ju

Parent 2: See hirmutamise moment ongi vale. Esiteks hakkab pihta sellega, et saadetakse mail, et nüüd on koolis võimalik teha rattalube, ja arvestage, et alla selle aasta lapsel PEAB olema see olema. Kui neid kinni peetakse, kontrollitakse. Nii hakkab pihta see koolituse promomine. Mu poeg sai need load veel tasuta, siis oli mingi kampaania, ja praegu on 25 eurot. Kuna ma saan aru ,et kui ma 25 euroga ID kaardi teen, ma saan asja mida ma kasutan, siis seda ei ole iial küsitud, keegi ei kontrolli.

Parent 3: See on mõttetu. Võiks jah koolitusi tasuta teha.

Parent 2: Mingi eeskirjaga on paika pandud, et alla 14 aastasetel peab see olema. Kui lube ei ole, võibki sul laps ainult maja ees ringe teha.

Parent 1: Rattaluba praegusel kujul ei innusta kedagi rattaga sõitma, ta on reeglite lugemine, neid sõitma ei õpetata. Neid küll testitakse.

The cycle license (/training) in its current state doesn't encourage anyone to cycle, it's a reading of theory and they are not taught to cycle.

Parent 2: Testitakse jah

Parent 1: Kontroll peaks olema õpetatud oskuste test. Aga seal on lihtsalt oskuste test ilma õpetamiseta.

Parent 2: See võiks siis olla nii nagu autogagi, et alguses oled kuskil kinnise platsi peal ja lõpus saadetakse kesklinna

Parent 1: Aga kui me räägime sellest, et selle asja hind on 25 eurot lapse kohta, siis selle raha eest sa saadki tädi, kes tuleb klassi ja loeb teksti maha.

Parent 2: Justjust

Parent 1: Tegelikult on vaja seda, et võtad 10 last, ja õpetad nad sõitma, mis moodi vahetada käiku, mis moodi minna mäest üles, mismoodi pidurdada, vaadata. Seda see 25 eurot ei kata.

Parent 2: Seda kindlasti jah.

Parent 1: Kui me tahaksime, et see luba oleks praktiline, et lapsed õpiksid mingit sõitu, siis ta peaks olema kas kallim, või kellegi poolt finantseeritud, praegu mudel annabki meile selle, mille eest me maksame.

Parent 2: Ma arvangi, et nagu praegu kultuuriministeerium pani palju raha juurde ujumisõpetusele, et nüüd on ujumist koolidesse palju rohkem lükatud, nad võiksid rattasõidu promo ka, see on ka turvalise kasvatuse üks moodul.

Recently the Ministry of Culture added a lot of money for swimming lessons and now it's pushed much more in schools. They should also do that for cycling training, it is a module of safe education.

Parent 1: Me oleme nüüd nr 6 juures, siis asi mina me totaalselt ei tee ja millel võibolla alguses väga suur mõju ei ole, aga oleks hea algus, Tallinnas korraldatakse regulaarselt täiskasvanute grupi rattasõite, mitte keegi pole ma veel näinud, et oleks korraldatud noortele samasugust asja.

Kui teha lastele orienteeritud rattagrupi sõite. Näiteks võtamegi Viimsi või Kakumäe kandi lapsed kokku ja teeme linnavalitsuse korraldusel sõidu koduümbruse teedel. Laps ise ei pruugi minna aga tal sõbranna läheb, et hakata arusaama et ratta sõitmine on tegelikult lõbus ja sellega saab näha asju mida sa muidu ei näe. Sul ei pruugi vanemad rattaga sõita või sõbrannat kellega minna aga kambavaim töötab. Aga praegu ei tegele keegi selliste asjade korraldamisega lastele. Täiskasvanutele on neid jalaga segada.

Kuuenda punkti üks lahendus on see, et tehke selline programm. Raha see palju ei võta, aga hariduslik ja promoefekt oleks päris suur.

What if we'd organize group bicycle rides for children. We could take the children of Viimsi or Kakumae and the city district itself would organize a ride around the neighbourhood. It would create an understanding that riding a bike is fun and you can see things that you usually wouldn't see. Your parents may not cycle nor your friend, but the group factor works.

One solution would be to make such a programme. It wouldn't take a lot of money, but it would have a high effect on cycling education and promotion.

Parent 2: Jajah

Parent 1: Kas te teate, Põhja-Tallinna linnavalitsuse juhid käisid sõitmas Põhja-Tallinna linnaosa teedel? Paar rattaentusiasti oli kaasas, ja pandi Kommunaalamet, Transpordiamet ja Põhja-Tallinna juhid rataste peale ja sõideti nendega ringi. See oli täielik kaos, liikluseeskirju rikuti lakkamatult.

Parent 2: Aga kui hakata sealt Niine taavalt minema, seal on ju õudne sõita. Kalamaja piirkonnas seal.

Parent 1: Kui panna samad asjad lastele käima, siis korraldajad saavad samuti aru, et kus on töötavad kohad. Korraldaja tuleb järgmine päev linnaosavalitsusse ja ütleb, sel ei ole ülekäigul sellist märki, seal on keelumärk mida seal ei tohiks olla, sellekoha peal on auk, seal on äärekivi kiiga kõrge. Kui seda hakata tegelikut tegema, ja teha läbi linnaosavalitsuste või huvikeskuste, siis see omakorda tekitab arusaamist, kus on kohad, kus on probleemid ja kohad, kus on hea sõita.

Parent 2: Ametnik saab ka kaardistada seda reaaleluliselt. Kunagi ma tegin ettepaneku enne valimisi, et sõidame punktist A punkti B, vaata, kuidas sa saad rattaga, ei saa. Äärekivid on kõrged ülekäigu kohtades.

Parent 2: See seitse tundub nüüd, et kattub ühe teise punktiga.

Parent 3: Mhm

Parent 2: Võtab liiga kaua aega, et selle me arutasime ära või on veel midagi lisada?

Ja siis on see massipsühhoosi koht, nr 8. Mis on nagu positiivses võtmes. Et kui sõber sõidab, sõidad sina ka. Minul on ainult positiivsed asjad, et kuna meil on kodus viis ratast, ja poisi sõpradel ei olnud rattaid, siis meil oli põhimõtteliselt koguaeg mingi väike rattalaenutus. Meil ei ole need miljoni eurosed rattad ja minul kahju ei ole, vähemalt kasutavad. Gümnaasiumi lõpuks ei olnud väga paljudel poistel üldse rattaidki. Meil oli loogiline, et koguaeg olid rattad

kodus.

If your friend rides a bike, you do as well. I only have positive experience with that, because we have five bikes at home and my child's friends didn't have bikes, we basically had a little bike rental at all times. We don't have expensive bikes and I don't mind, at least the bikes are used.

Parent 3: Mul on ka. Ainult keegi ei viitsi välja võtta.

Parent 2: Ja nüüd nad ikkagi käivad neid suuri tiire tegemas sõpradega. Et kui sõber ei sõida, siis ei sõida mina ka.

Õnne: Samas see on alles 8ndal kohal.

Parent 2: Selles vanuses nendel on ikka see arvuti ja telefoni maania ja kõik need muud asjad, rattasõit segaks.

In this age they have the computer and phone mania and ohter things that would interfere with cycling.

Õnne: Võib ka olla see, et minnakse koos bussiga või jalgsi kooli, et miks mina pean üksi rattaga minema.

Parent 2: Koos käimise harjumus on suur. Aga et kuidas seda nüüd muuta..

Parent 1: Minu ettepanek käis selle alla ka.

Parent 2: Et teha sellised kampaania variante.

Parent 1: Rattaga sõitmise harjumus ma usun muutub läbi selle, et meil on tõukerattaid tekkinud väga palju. See on vaheetapp või ligipääsu tee. Aga selleks et tänav oleks tõukerattasõbralik on vaja teist asja kui rattale. Et tõukeratta ja jalgrattakultuur täiendavad üksteist natukene.

Kes on lõunamaades käinud teavad et elektritõukerattad on seal tänavapildi täiesti teiseks teinud. Et küllap see tuleb meile ka.

Parent 3: Just lugesin, et 10km saab sõita tõuksiga.

Parent 2: Ratta saab samamoodi mootoriga, väntad, väntad ja vahepeal tõmbad mäest üles mootoriga. Aga see on kallis lõbu.

Parent 2: Tõukeratas ja ratas kui ma lähen tagasi punkti pole mugav, siis tavalise jalgratta puhul sa ikkagi tõused kuskile kõrgemale oma põranda turvalisest nivoost, aga tõuke rattaga on suht okei. See on palju turvalisem. Kui midagi on, panen ühe jala maha.

Parent 1: Tõukerattaga kukkunud olete?

Parent 2 ja Parent 3: Ei

Parent 1: See on palju hullem kui jalgratas. Tõukerattal on rattad palju väiksemad, ta on väga palju tundlikum.

Parent 2: Igasugused kivikesed jm.

Parent 1: Näiteks plaaditud ruudukestega tänavakeskkond on tõukerattaga väga ebamugav. Ja variante kukkuda on koguaeg. Ta on ohtlikum kindlasti.

Parent 2: Et tegelikult on tõukeratas vilets alternatiiv rattale. Praegu on tõukerattad suuremate

ratastega ka. Minu lapsed just ütlesid, et nad tahaks seda suuremate ratastega. Seal on see disaini küsimus ka.

Pole turvaline, kuna pole häid rattateid. No see teema on siit koguaeg läbi tulnud. Sest praegu on Euroopa rahadega tehtud asula väliseid kergliiklusteid. Kõik valgustusega ja ilusad. Ja siis sa jõuad Tallinnasse. Ja saigi otsa.

At this moment a lot of light traffic roads have been made outside of settlements with European money. All with great lighting and nice. But then you arrive in Tallinn and it ends.

Parent 1: Järve metsas olete näinud, mis tehakse? Vaadake, mis seal tehakse, raha läheb sinna palju. Seal tehakse rattasilda. Me paneme hoogsasti raha rattateedesse kui spordiprojektidesse, selleks et sõita linnast välja ja teha trenni. Järvemetsas pole eraomandust, keegi ei vaidle vastu. Rattateid me teeme linnast välja ilusasti, kohtadesse, kus on kindlasti tore sõita, aga mis ei vii kooli.

Õnne: Aga need teed, mis linnas tehakse?

Parent 2: Need naljakad triibud näiteks, meil triibutati Sütiste tee uuesti kaunilt ära. Keda see huvitab, mitte kedagi. See ei ole väga turvaline alternatiiv. Kui on klotsid pandud vähemalt, betoonist piir, see vähemalt kaitseb, ja annab natuke isoleeritud tunde. Lõpuks valid ikkagi kas viletsa jalakäijate tee või sõidad koos autodega kui julged.

Õnne: Linnas on populaarsed kergliiklusteed, mulle tundub, et jalakäijatel pole vahet, kust see joon läheb ja käivad ikkagi seal kus tahavad.

Parent 2: Meil ei ole veel seda kultuuri, et inimene hoiaks rangelt. Kui see joon läheks sujuvalt läbi kõikide teede, see oleks üks asi, aga meil ongi nii, et punktis A punkti B läheb midagi ja siis saab otsa. Hea näitena on nüüd see Mustamäel Akadeemia tee, mis TTÜ juurest Õismäe poole viib. Seal on kõik ilusti ära tasandatud. Aga mingi hetk saab see muinasjutt lihtsalt otsa.

We don't have the culture yet that people would strictly hold out of the way (from cyclists on a shared path). It the line was constant, that would be one thing but we have something from point A to B and then it ends.

Parent 1: Septembri kuus tegi Tallinna linna andmekorje kogumaks kokku Tallinna rattateede keerulisi kohti. Linnas on geoinformaatikute punt ja nad kogusid u 1500 punkti. Võimalikud probleemsed kohad rattadeedel lähevad kolme kategooriasse, kõrge äärekivi, ebatasane tee ja muu. Kirjutati kahte asja, puuduvad markeeringud et rattur, sinu tunnel on seal. Ja lisaks liikluskorralduse probleemid. See on ilmselt läbi ajaloo kõige inforikkam allikas Tallinna rattasõidu tingimuste kohta.

Õnne: Küsin lõpuks viimase küsimuse, et kui te nüüd vaatate seda listi, et kas teie arvamusel selline järjestus on tõene?

Parent 2: Ma ei usu

Parent 1: Kindlasti mitte, see on ikkagi laste arvamus. Selles suhtes ta on õige, et kui lapsed tunnevad niimoodi, siis subjektiivsest vaatevinklist on õige. Ilm on pigem ettekääne, liikluskorraldus ja probleemid peab olema nr 1.

Parent 2: See on nende jaoks ka kõike arusaadavam variant. Et kui sa mõtled halb ilm, siis saad aru, et

tuul, külm, vihm. Aga teiste kohta peab kauem mõtlema. Selles mõttes ta ei kajasta reaalseid tingimusi.

Õnne: Millised oleks kolm asja, mille puhul saaks kahe aasta jooksul midagi teha?

Parent 3: Nr 3.

Parent 2: Nr 9, kui me räägime linna siseselt, kui on vaja sõita punktis A punkti B aga me peamegi arvestama, et igalt poolt sõidetakse kooli.

Õnne: Kindlasti on ka see, et kui nr 9 muutub, siis muutuvad ka teised punktid.

Parent 2: 6. punkt, et kuidas saaks teha neid ühissõitmisi

Parent 1: Mina ütleks seda, et tasapisi hakata muutma haridust, et see kehalise kasvatuse idee mulle meeldib, et pannagi, et mingis kooliastmes on kohustuslik teha mingisugune kogus rattasõidu koolitust. Suuskadega saadakse hakkama, saadakse rattaga ka ma arvan.

I would say to slowly start changing education, I like the idea of Physical Education so that at a certain school level it's compulsory to do some amount of cycling training. If with skiing it's possible, I think it's also possible with biking.

Parent 2: Suusatamisel sa lähed ja laenad suusad Nõmme spordikeskusest. Sa ei pea omama neid vahendeid aga sa pead selle läbi tegema. Rattaga saaks täpselt samamoodi. Kui me räägime uisutamisest või suusatamisest, siis rattaga sõitmiseks on aega palju rohkem kui suusatamise ilma meil on.

Parent 1: Koolide rattainfra on kindlasti selline asi, mida linn saab öelda, et tehke reeglid ette, et koolid jälgiksid, ja kui on tunne, et on nõudlust, siis vastavalt laiendaksid oma rattaparklat. Kui koolis on ratta panemiseks koht, kuhu laps ei karda ratast jätta. Ja see tulede jagamine, seda võiks ka teha. Et juba mingi aspekti pärast sa ei pea muretsema. Ameerikas on nii, et mingisuguses vanuses lastele antakse kogu perele terve aasta kehtiv kõikide rahvusparkide külastamisõigus, mis muidu on päris kallis. Et võiks midagi sarnast teha, et mingisuguses vanuses, saad sa tasuta näiteks rattakiivri, mis oleks selline tõuge.

Ja ettepanek haridusametile, et mingis klassis me räägime lastele rohkem jalgrattasõidust, või ka tõukerattasõidust, lapsed saavad endale 50% soodustusega kiivri hankida, antakse neile tuled.

Schools cycling infrastructure is definitely something that could be regulated by the city, and when it seems that there is need for expanding the cycle parking, then it should be done. It should be a place where the child is not afraid tos tore their bike.

At some age there could be a campaign to give out free bicycle helmets, to give a sort of push. And a proposal for the Tallinn Education Department to at a certain school level to talk more about cycling and offer a helmet with 50% discount and free lights.

Parent 2: See on küll hea mõte, et mingisugune soodustus

Parent 1: Ja midagi teha nende rattaloa treeningutega.

Parent 2: See rattaluba süsteem on tõesti täiesti kummaline. Ja mingu kogemus, praegu on igasugused äpid ja et Hollandis ühes kommuunis tehti tööriista laenamise äpp, et igaüks endale akutrelli ei soeta. Et mingi piirkond, keegi tahab ratast, tahab sõita, ta ei hakka endale selleks ratast

ostma. Minul seisavad rattad, vahepeal mitte keegi neid ei kasuta. Ja jäävad ka väikseks rattad, ma annaks need ära kuskile. Ratas on mõnedele kättesaamatu ja kallis. Aga odavaid variante on nii palju.

Focus group 2 - Mobility experts

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* text in grey boxes is a translation of (part of) the above text into English.

Õnne:	Alustame esimesest poolest, kus on need graafikud, visake pilk peale. Kas tulemused on loogilised? Kas miski tekitab küsimust?
Expert 4:	Kas ma saan õigesti aru, et see tavaliselt kooli lähen autoga on 11,6%?
Õnne:	Jah
Expert 2:	Kas sul on jalgrattas, andmed puuduvad? Mis see tähendab?
Õnne:	Esimeses koolis, kus käisime, ei olnud see küsimus küsimustikus olemas
Expert 6:	Seleta, et sellepärast ei ole andmeid.
Expert 4:	Autoga nii väike osakaal on üllatav, võib-olla sellepärast, et koolid on piirkonna koolid. Mingite teiste uuringute käigus on auto osakaal suurem ka kooliminemisel.
Expert 6:	Kas 6.-9. klass kõik vastasid ära?
Expert 5:	Enamasti küll tegid kõik klassid läbi, kuskil oli üks klass puudu, seda saab teada muidugi ainult koha peal.
Expert 6:	Kas oli mõni erinevus ka klasside vahel?
Expert 5:	See oli minu otsus küsida võimalikult vähe isiklikku infot. Kuna ma allkirju ei kogunud, siis pärast võib see kurjasti kätte maksta lapsevanemate poolt.
Expert 6:	Kas lapsevanemad olid kursis sellega?
Expert 5:	That is the point. Ka nimed olid randomiseeritud programmi poolt.
Expert 6:	Kui lihtne telefoni teel selle info kogumine on?
Õnne:	See programm on väga lihtne
Expert 5:	Kahooti seletus.
	Võibolla üks probleem oligi see, et nad tahtsid kiiresti vastata ja seega ei mõelnud läbi oma vastuseid. Nad arvasid, et punktid ja õigest vastused on olulised.
Expert 6:	Mis küsimised küsimustikus olid?
Õnne:	Küsimustiku seletus.
Expert 6:	Kas nad oskavad hinnata kui kaua nad kooli tulevad?
Expert 2:	Kas vaatasite, et kas koolide lõikes tuli ka suuri erinevusi? Ühe korra rattaga sõitnud – 46% on päris kõrge.
Expert 4:	Isegi tavaliselt rattaga 6,9% on hea tulemus.
Expert 5:	Võibolla nooremad sõidavad rohkem, mida vanemad, seda vähem.
Expert 2:	7.-9. (klass) on pigem juba vanad.
Expert 5:	Võibolla nooremana käisid tõuksiga kooli, oli äge ja cool.
Expert 2:	6,9% on pigem hea tulemus tavaliselt.

Expert 6: Inimeste ajataju. Kui kaua võtab aega siit Viru Keskusesse minek. Mis sa pakud? Kui me küsimuse suurelt grupilt, siis 2+3x inimesed hindavad erinevalt seda. Võibolla koolieminekul see aeg kristalliseerub.

Õnne: Küsimustiku selgitus Marile

Expert 2: Kas need põhjused nad panid ise või olid ette antud?

Õnne: Ei, need olid ette antud.

Expert 1: Kas tõukerattas läks arvesse rattana? Tõukeratas on jalgsi käimisega võrreldes poole kiirem ja kohati sama kiirus, mis jalgrattaga.

Compared to walking, kick bike is twice as fast and sometimes same speeds as a bicycle.

Õnne: Ma ise nägin koolide juures, et väiksemad sõidavad tõuksiga, aga küsimust oli vanematele suunatud.

Expert 1: Siis küll.

Expert 4: See on jah pigem algkoolis.

Expert 1: Kui sul praegu hakkavad ärimehed 30+ tõuksiga sõitma, siis võib ka uus põlvkond ka vanemaid tõuksiga käima hakata.

Õnne: Liigume siis lk teisele poole. Võiks läbi arutada selle listi ja arutada, mis võiksid olla need tegurid, mis selliste tulemusteni viivad. Kui vaatame esikolmikud nende listide juures, siis mis te arvate sellest?

Expert 6: Kuidas sa seda tegid? Mida need õpilased nägid seal küsimustikus?

Õnne, Expert 5: Küsimustiku seletus

Expert 1: Kas vaatasite, miks käiakse rattaga koolis?

Expert 5: See on suunatud küsimus, kõik vastasid ühe ekraani ees. Seega ei saanud eraldi suunatud küsimusi küsida.

Expert 4, Expert 2: Tehniliselt teiste lahendustega oleks võimalik, aga hetkel ei olnud võimalik.

Expert 6: Kuidas see list on koostatud? Oleks hea neid protsente näha.

Expert 5: Küsimustiku seletus. Süsteemi raamidesse pidime mahutama küsimused.

Metoodika selgitamine

Õnne: Vaatame top 3 igast kategooriast

Expert 1: See, kes läheb jalgsi kooli elab koolile nii lähedal, et ta ei ole mõtet minna rattaga kooli. Meie eesmärk ei ole panna lapsi, kes kilomeetri kõnnivad, see polegi sihtgrupp. Ratta väljavõtmine ja selle lukustamine võtab ebaproportsionaalselt kaua aega. Tean oma laste pealt, kes lähevad Vanalinna kooli, neil pole mõtet hakata ratast keldrist välja vedama. Ja isegi kui see oleks ukse ees, poleks neil mõtet. Lähevad ühe peatuse trolliga ja mõnikord kõnnivad jalgsi.

The one who is going to school on foot lives so close that there's no point to go by bike. Our aim is not to make children who walk one kilometre to cycle. But taking the bicycle out of storage and locking it (at school) takes proportionally too much time.

Expert 2: Aga kui sa vaatad tulemusi, siis näiteks kui vaadata, kes lähevad kooli jalgsi, siis siin on päris korralikult neid, kes lähevad kooli 10-20 minutit või 30 minutit. Mis võiks ju tegelikult olla täitsa okei rattaga liikumiseks. Ka jalgsi liikuja hulgas võib olla neid, kes võiksid rattaga kooli minna.

Expert 4: See näitabki seda, et need kes on lähemal kui 10 min, on peamiselt pannud, et väljavõtmine võtabki liiga kaua aega. Ja võibolla järgmised on pigem märkinud seda, et vanemad ei luba või ei ole ilma ja muid põhjuseid.

Expert 1: Kas siin saaks vaadata ka arvuliselt, et mitu läheb jalgsi või autoga kooli (graafik paberil). On ju ka neid, kes viiakse kooli kilomeetri kaugusele. Ainuke viis last kooli saada, muidu kaob teepeal ära.

Expert 6: Kas vaatasite ka seda, kuidas nad tulevad koolist?

Õnne: Lähen / Tulen oli kaldkriipsuga

Expert 6: Väga paljud viivad, aga tulevad ühistranspordiga.

Expert 4: Aga rattakasutusele keskenduses see ikkagi jääb, et kui sa lähed, siis ikka tuled ka rattaga.

Expert 6: Natuke on võimalust, eriti tõukekaga, et lähed autoga ja tuled tõukekaga ja ühistranspordiga.

Expert 2: Sellesmõttes mõjutab, et kui sa saad hommikul autoga kooli, siis ilmselgelt sa ei tule ka rattaga. Et kui sa tahad rattureid juurde saada, siis nende arvelt, kes viiakse kooli saaks.

Expert 1: See teine, vanemad ei luba rattaga kooli sõita on mitme asja puhul väga tõenäoline.

Expert 2/Expert 4: Ja põhjendatud.

Expert 1: Kui vanemad ise ei julge rattaga sõita mingil põhjusel, siis veel väiksem on tõenäosus, et lastel lubatakse.

If parents themselves are afraid to cycle for some reason, the likelihood that they'll allow their child to cycle is even smaller.

Expert 4: Samas ta on osaliselt on põhjendatud, aga samas on vanemate hirmud suuremad, kui see reaalselt on. Et kui vanemad saaksid ise kord kodust kooli ratta sõita..

It is partly explained, but at the same time parents fears (of safety issues) are bigger than the actual safety concerns. If parents would cycle to from home to school once themselves..

Expert 1: See ongi see kogetud hirm, aga me saame seda aktsepteerida.

Expert 6: Tallinnas on see põhjendatud.

Expert 2: Ma ei tea, millised teekonnad vastajatel on, võibolla see on vägagi põhjendatud.

Expert 4: Samas on see, et kui nad lähevad jalgsi, et kui jalgsi juba lubatakse minna, et siis võiks juba rattaga ka lasta.

Expert 2: Ma arvan, et sellel on väga suur vahe.

Expert 1: Arutelu koolide asukohtades. Kas tuli vahe ka välja koolide suhtes? Kristiines näiteks

on rattatee (Nõmme teel).

Expert 6: Võiks olla kooli kohta, see on see vaatluste teema, et kui see sama tabel, mis siin all on, oleks ka koolide kaupa.

Expert 2: Millest üldse selline koolide valik?

Expert 5: Seletus. Oktoobris. Ja võrdleme sarnaseid koole.

Expert 6: Aga see ei ole ainult septembri lugu käia koolis rattaga.

Expert 1: Nõukaaegsed kortermajade piirkondade koolid

Expert 2: Siis olekski huvitav näha, et kui need on sarnase iseloomuga kohtades, et kas siis on vahe, näiteks Mustamäel või Lasnamäe.

Expert 5: Selleks oleks rohkem andmeid vaja, alguses peaks omavahel võrdlema. Magala rajoonide koolide statistikad ikkagi kattusid, sest väga paljud tulid jalgsi ja elasid tõesti hästi lähedal.

Expert 6: Kõige väikse korjealaga on see Õismäe kool.

Õnne: Võtaks ühe grupi siit, ja keskenduks sellele.

Expert 1: Võtame selle autoga kooli-liikujate grupi, sest eesmärk on saada lapsed värsket õhtu hingama hommikuti ja ka ühistranspordi peale jalgsi minemine ja tulemine anna elementaarse koormuse.

Expert 5: Lisaks kogu see saastamine, ja müra jm mis autoga liiklemisega kaasneb.

Expert 1: Linna tipptunni koormamine, kooli ümbruse ohtlikuks tegemine.

Expert 5: Võtaks ühe nende koolide piirkonna kaardi lahti ja vaataks, kus on toimunud liiklusõnnetus, kõik liiklusõnnetused on kaardistatud.

Ma olen päris kindel, et koolide juures on mitmed inimesed sisse sõitnud üksteisele.

Expert 2: Minu arust on näiteks huvitav see, et rattaga sõitmiseks ei ole head ilma, et ole üldse top 3s, mis suure inimese mõttemaailmas oleks küll esimesel kohal.

Õnne: Tegelikult kui vaadata kõiki andmeid korraga, siis ilm on number üks. Selles valimis on ainult 230 inimest.

Expert 1: Okei, üldvalimis on ilm number üks.

Expert 4: Kellel ratast ei ole, et tea, et rattaga saab sõita ka halvema ilmaga.

The ones who don't have a bike don't know that you can also bike with bad weather.

Expert 3: Ilmaga ongi see, et inimestel on hoiakud juba, eriti pubeka eas. Väiksemad lapsed lähevad kiletunkedes, aga selles vanuses paned ikka teksad ja valged ketsid, kuidas ma siis lähen nüüd rattaga.

People already have attitudes about the weather, especially in the teenage years. Smaller children wear rain clothes, but in that age, you still want to wear jeans and white sneakers, so how can you go by bike.

Expert 5: Tegelikult rattaga riided ja jalanõud saavad vähem mustaks ja märjaks.

Expert 4: Aga neile ei tundu see nii. Sa pead olema seda praktikas kogenud, et teada, et see nii

on.

Expert 5: Ja rattaga sõita on turvalisem kui kõndida, veel üks fakt.

Expert 1: See on elementaarne, et see kooli viiv rattateede taristu peab olema atraktiivne ja korras, parkimisvõimalus vahetult peaukse juures nähtaval kohal.

It's elementary that the cycling infrastructure leading to school has to be attractive and maintained.

Cycle parking has to be next to the front entrance (of the school).

Expert 2: Üliloluline on ikkagi ka see, et vanema jaoks peab see tunduma turvaline. Isegi kui laps ise tahab, siis kui vanema jaoks ei tundu see teekond turvaline, siis ei lubata.

It's very important that (cycling to school) seems safe for the parents. Even when a child wants to (cycle to school), then if for a parent the journey doesn't feel safe, the child will not be allowed to cycle.

Expert 4: Sõltub ka vanusest, 7. vanemal on veel rohkem võimu, 9. kui ta tahab, siis ta läheb ise, isegi kui vanemad arvavad, et ei ole turvaline.

Expert 6: Ratas mingi hetk annab vabaduse. Ilmselt see oleneb finantsilisest ja sotsiaalsest taustast, aga kui sa tahad jääda hiljem linna peale ja takso jaoks ei pruugi raha olla, siis see on täpselt see koht, kus saaks ratast kasutada selle asemel.

Expert 1: Kuna ma olen ka lapsevanem, ja mul on teismeline tüdruk 9ndas, ja ma saan vaadata telefonist, kust ta on. Siis ma suveöödel kella poole 1 paiku hakkasin vaatama, oli Pirital või Kalamajas, väntasid ringi paari sõbrannaga. Hängisid ratastega linnapeal.

Expert 1: Kas te vaatasite ka ratta parkimistingimusi kooli juures?

Expert 2: Kas siis vastab tõele, et pole sobivat kohta?

Õnne: Kohad on olemas kõikides koolides, Kristiines on maja taga, enamus kohtades saab kinnitada vaid esiratta. Igal pool ei ole katust peal.

Expert 1: Aga miks see parkla maja taha viidud on? (Seal on ruumi)

Expert 5: Kunstigümnaasiumis oli ka maja taga, küsisin, et miks see sinna viidud on,

Expert 1: See ongi, et igasugused väiksed detailid hakkavad mängima, ja miks on oluline panna põhilise sissekäigu väga nähtavasse kaugusesse. Kui rattaga tulijad on nähtavad, siis nad tekitavad eeskuju teistele. Ja sa ei peida seda ratast kuskile maja taha ära. Miks öeldakse näiteks, et tramm on parem kui metroo linnaruumis ühistranspordi edendamiseks, sest ta on nähtaval.

Expert 3: Miks see sõprade/klassikaaslaste mõju viimane on? Ma kujutaks ette, et see mõjutab väga-väga palju.

Expert 6: Kui hästi need inimesed suudavad oma otsuseid analüüsida. Selleks on ka isiksuse testid, mis välistavad erroreid. Küsimuste meetod, kus küsitakse sama asja viiel erineval viisil. Inimesed ei vasta ausalt küsimustele oma olemuselt.

Expert 1: Kui 7% ütleb, et nad lähevad rattaga kooli ja need on u 1000 koolid, siis see tähendab, et seal peaks olema umbes 70 parkimiskohta, või 30 vähemalt kui mõelda seda

vanemat vanuseklassi. Ma ka kasutaks vaatlusi selleks, et mis tegelikult toimub. Hommikusel kooliminemise ajal paari tundi vaadelda, mis seal koolide eest toimub.

Vaatluste puhul oleks huvitav jälgida ka tõukside arvu.

Expert 6: Minu arust selleks, et seda asja kuidagi linna seisukohalt käima lükata peakski olema üks kool, kes oleks ise huvitatud et nende õpilased tuleksid ja see eeldaks ka ümbritseva infra ülevaatamist.

To start (making the situation better) from a city point of view, there should be one school that would be interested in their pupils cycling to school, and that would also require the inspection of the surrounding infrastructure.

Expert 1: See on see ohutu koolitee. Kas sa tead seda rakendust ohutu koolitee kaardistamine? Maanteeametil on selline koolidega koostöös, 4.-7. klassidega koostöös tehakse. Kõik õpilased selles vanuseastmes mingil hetkel teevad selle läbi, nad kaardistavad oma koolitee, näitavad ära, mis on ohtlikud kohad ja näitavad, kuidas nad liiguvad. Ja see oleks üks koht kui võiks maanteeametiga koos seda natuke arendada, et see poleks mitte ainult ohutu koolitee kaardistamine, vaid oleks hästi aktiivselt liigutav koolitee. Ja Tartu Ülikoolis on liikuma kutsuv kool, kus nad praegu keskenduvad põhiliselt vahetundide ajal aktiivsetele tegevustele ja liikumise integreerimisele tunni ajal aga neil on ka rubriik väljas liikumise kohta. Aga võiks ka suurendada seda aktiivse liikumise osa selles

The Tallinn Road Administration is doing the mapping of „Safe Roads to School"with forms 4.-9. All pupils in these years at one point map their school journey and show which places are dangerous and show how they move. This could be where this initiative could be developed to also include active journey to school.

Expert 6: Ma ei tea kas see on üleskutse aga vähemalt Paasalis on nii, et ei tohi last kooli viia autoga ja kool peab olema 600 m raadiuses.

Expert 2: See läheb üle koolipoliitikaks.

Expert 6: Mina näeksin küll seda, et kui kooli toomine teatud teelõikudel keelatakse ära. Kooli sõitmine, kuna ta on nii kontsentreeritud ajas, siis need samad autod, kes toovad kooli on kõige suuremaks ohuks kooli tulevatele lastele.

I would see that bringing (the child to school by car) at certain road sections is permitted. Since arriving to school takes place in a very short time frame, the same cars that bring (their children to school) are the biggest danger to other children arriving to school.

Expert 4: Koolide ümber mingi maani, see juba mõjutaks.

Expert 5: Kuskil oli, nad tegid ühesuunaliseks ühe liikluse tänaval hommikuti

Expert 1: Lilleküla. Kusjuures, see soodustab kihutamist tänavalt.

Expert 5: Hommikuti?

Expert 1: Kui sa muidugi pidid seal kahes suunas nügima, siis nüüd on need, kes lähevad jalgsi seal olematul kõnniteel rohkem ohus.

Expert 6: Mingid asjad on väga institutsionaalsed. Näiteks 20 min enne kooli algust, et tohi mingit teatud teed mööda sõita autoga.

Some things are very institutional. For example 20 minutes before the start of school, it's permitted to drive on a certain road.

Expert 2: Minu ajal oli vahepeal, et maja ette ei lastud enam parkida, sest seal nii umbes. See juba tähendab, et kuskilt vanalinna äärest peab see laps kõndima 10-15 min.

Expert 1: 2-3 aastat tagasi kui mu laps oli väiksem algklassides, siis me tegime VHK juhtkonnaga lapsevanemale lendlehed, kus näitasime punktidega ära kus koolimajad on ja kuhu saab koolist eemale last auto pealt maha lasta.

Expert 5: Kas töötas?

Expert 1: Mingi hetk nad panid isegi lepingute juurde selle. Ma käisin loendamas seal, et palju siis tuleb vene tänavalt koolimaja ette. Selle lühikese 15-20 minuti jooksul ei ole see palju autosid, 50-70 aga nad tõesti suudavad selle umbe sõita ja inimestele jääb mulje, et kõik toovadki lapsed autoga kooli. Mailis Reps toob alati oma lapse autoga kooli. Millegipärast nad arvavad, et nad ei saa muud moodi oma last kooli toimetada.

Expert 4: Sellepärast tulebki osaliselt tegeleda vanematega hoopis. Üks asi on infra loomine, aga teine asi on vanemate mõtlesime mõjutamine.

It's important to deal with parents. One thing is developing the infrastructure, but another is changing the attitudes of parents.

Expert 6: Siin on see, et ÜT/autoga on kooli minek mugavam. Aga kui see ei oleks enam mugavam, siis

Expert 4: Ühistranspordiga võiks olla mugav

Expert 1: Oleneb vahemaast, ma kujutan ette, et kui ma kuskilt Meriväljalt hakkan linna tulem, siis igatahes on mugavam bussiga tulla ja siis kõndida natuke.

Expert 4: Siin see autoga on teine, et ma ei tunne end rattaga sõites mugavalt. Siin võiks täpsustada, et kas ta ei tunne end ratta seljas mugavalt või ma ei tunne end turvaliselt,

Expert 5: Enesekindlalt

Expert 6: Mugavus on ka see, et koolis ei peagi mugav olema.

Expert 4: Kas see ei või osaliselt minna rohkem selle kaaslaste ja üldise populaarsuse punkti alla. Et sellepärast ei tunne end mugavalt, et teised vaatavad sind natuke imelikult.

(Feeling uncomfortable) might actually fit under the point of friends and popularity. That you don't feel comfortable because others look at your strange.

Expert 5: Mul on usku noorpõlve, et meie ajal oli see küll suur probleem, aga näiteks kui vaadata erinevaid vastusevariante. Ma tahaks sellesse uskuda,

Expert 2: Samas siin on ju ainult üks segment vastanutest.

Expert 4: Ma kahtlustan ikka, et osaliselt see mugavus tuleb ka sellest, et nad ei tunne ennast nii hästi.

Expert 2: Võibolla need, kellel ei ole seda soovi, nemad on rohkem mõjutatud sellest, et see pole populaarne ja neil pole seda soovi, sest nende sõbrad ei sõida. Aga need, kelle vastused siin on, nende hulgas see pole nii suur arvamus.

Expert 6: Huvitav, et siit ei tule ka välja, et ma elan liiga kaugel või mingi distantsi probleem.

Expert 1: Või asjade vedamine.

Expert 5: Küsisime, et need kes üldse ei sõida, need ütlesid, et elavad liiga lähedal või kaugel.

Expert 2: Võibolla siin peaks mingi klaster analüüsi tegema, et vaatama neid, kes lähemalt tulevad autoga.

Expert 6: Ju seal on ka see, et päris lähedalt on.

Expert 1: 3-4km kauguselt näiteks

Expert 2: Sest praegu me ainult spekuleerime, mida võiks

Expert 4: Ilmselt kuni 30min võiks olla

Expert 1: Aga ühistranspordiga on ka, et kui sa elad niimoodi 3km kaugusel koolist ja pead sinna ühistranspordiga minema, siis see võib ebaproportsionaalselt kaua aega võtta. See võibki seal 10-20 min peal olla aga kui ta läheks rattaga saaks ta rohkem ikkagi värsket õhku. Võib ka vaadata seda gruppi, kes ühistranspordiga tuleb suhteliselt lähedalt.

Expert 6: Suures pildis tundub, et kus rattaga käimine võiks väga hõlbus olla ongi näiteks Mustamäe, ta on tihe ja majadevahelist infrat on suht lihtne.

From a larger perspective it seems that cycling could be very easy for example in Mustamäe, it's densly populated and the infrastructure between buildings (is easy to develop).

Expert 4: Ja on seda vana infrat mida saaks korda teha. TTÜ projektiga seoses Ajutine Mustamäe, ma sain aru et neil on mingite koolidega plaanis, et nad võtavadki osa rattateedest ja vaadatav, kas nad saavad kuidagi neid ideid kuidagi ajutiselt rakendada.

Expert 6: Nõmme, Pirita, Põhja-Tallinn on tiheduselt teine. Nõmmel, need kes tahavad minna, saavad ka praegu minna.

Expert 5: Kõigis kolmes on halvem ühistransport kui Mustamäel.

Expert 6: Meeter, mis sa pead rattateed rajama Mustamäele, toob rohkem kasutajaid ja on kõvasti odavam, Nõmmel ühe potentsiaalse lapse jaoks peab päris palju teed rajama. Ma ei näe Nõmmel probleeme, nad tegid küll selle Hiiu, mis on absurd. Nõmme suurel määral on okei.

A meter or cycling path that has to be constructed in Mustamäe brings more users and is much cheaper. In Nõmme you'd have to construct quite some roads for one potential child.

Expert 4: Piirkonniti on tehniline lahendus samuti erinev.

Expert 6: Koolist väljuvad mingid 2-3 põhisuunda, et need on mingisuguse 200 m raadiuses, kuna seal toimub kõige suurem kontsentratsioon, siis need on korras.

Two to three main directions leaving from school should be fixed in a 200m radius. That's where the concentration (of kids moving) is the largest.

Expert 5: Ka ülekäigud

Expert 6: (Expert 5), sul on isiklik kogemus Lasnamäega, eksole? Kuidas seal ratta parkimine hoonete juures on? Et pigem peab vist ülesse vedama?

Expert 5: Seda ma tahtsingi öelda.

Expert 2: Et probleem ei ole kooli parkimises, vaid kodu parkimises.

Expert 5: Minu rattas näiteks minu maja lifti ei mahuks.

Expert 1: See on nüüd hoovid korda teema.

Expert 2: Aga see küsimus, et kodu juures ei ole parkimiseks sobivat kohta, vastuse variandina ei olnud jah?

Expert 5: See on see hoiuruumi küsimus, näiteks kui sul on viie kordne maja ja all kelder, siis see pole ka mõnus aga vähemalt ta pole kodus sul. Praegu ma ka iga kord vean korterist alla Ma tahaks näha kedagi, kes 20kg ratast viitsib vedada iga päev. Ja tööl ma viin kolm korrust ülesse.

It's a question of storage, for example if you have a five-floor building with a basement, at least the bike is not inside your home. Right now, I take my bike downstairs all the time. I would like to see someone who would want to take a 20kg bike up and down every day.

Expert 6: Selge. Tegelt see ei ole lahe. Mingi hetk meil käis isegi üks mõte läbi seal jalgrattastrateegias, lihtsustada Lasnamäe, Mustamäe, hoonete vahele sarnaselt läbi prügikastidel on ruumid, et sul on ratta..

At one point we were even discussing the idea for cycle parking between apartment buildings in Lasnamäe and Mustamäe for the Cycling Strategy. To build something similar like the rooms for garbage disposal.

Expert 5: Keegi käis mu käest küsimas ka, siis ma ütlesingi et prügikonteinerite ümber tekkisid väikesed hooned kuhu saab võtmega sisse, need tekkisid kuna seal käisid igasugused inimesed keda et tahetud, ja et need oleks ühes kohas ja keegi ei soriks seal. Oli vajadus ja oli lahendus. Samamoodi parklatega hoovid korda, samamoodi et sa võid ka taotleda.

Expert 2: Kui sul on variant et sa saad teha parkimiskoha versus rattaparkla siis, rattaparkal jaoks pole vajadust.

Expert 5: Täpselt. Nad ei mõtlegi selle peale, vajadus võiks olla tulevikuks.

Expert 6: Aga miks ei ole munitsipaal rattaparklat?

Expert 4: Ma kahtlustan, et isegi paljud üürnikud ei ole seda sealt kunagi väljagi lugenud või

teadlikud, et selline võimalus tegelikult on olemas.

I suspect that many tenats haven't even read or know that asking for cycle parking from the apartement association is actually possible.

Expert 1: Minu arust võiks panna jalgrattaparkal lisamise Hoovid kroda rahastustingimuseks.

(Implementing cycle parking) could in my opinion be one of the financing criteria for the „Fixing the gardens" project.

Expert 2: See peaks olema pigem pool nõudena, mitte et ühistu..

Expert 5: Seal olid teised tingimused ka, see ei ole nii lihtne. Rohelust oli ka, et ei tohi kõike maha võtta.

Expert 2: Ja kui palju näiteid on, kus roheluse asemel tehakse parkimiskohad. See on see sama argument, et keegi ju ei sõida täna rattaga, et miks meile need rattaparklad.

See on üks väga suur mõttekoht, et kuidas kortermajade juues parkimine korraldada. Lahendusi on olemas igasuguseid, aga kuidas selleni jõuda, et tehtaks.

How to arrange cycle parking at apartment buildings is a very important point of consideration. Different solutions are possible, but how to get it done?

Expert 5: Aga kui sul on 2000 eurone ratas, siis sa ei hoiaks seda seal nkn.

Expert 2: See on pigem äärmuslik kui me räägime siin 7.-9. klassi õpilastest.

Expert 6: See on aja küsimus ma arvan. Mina ei alahindaks Lasnamäe turvalisust ka.

Expert 5: Lasnamäel on kõik okei, aga planeerimine on raske, sest kõik ütlevad, et ehitage meile parklad autodele

Expert 6: Hommikul sa ikkagi kalkuleerid oma variandid läbi, et kas ma vean seda, kas ma lukustan, kas lukustan uuesti..

Expert 2: Ma isegi mõtlen, et teisele korrusele ratta vedamine on jube tüütu.

Expert 5: Ja rattad kaaluvad päris palju.

Expert 1: Kopenhaagenis ei ole väga head parkimise tingimusi, nad lihtsalt hoiavadki väljas aga lihtsalt pikaajaliseks hoidmiseks on muidugi parem kui saad kuskile alla panna.

Expert 6: Väljas hoidmiseks, näiteks Lasnamäe puhul, ma kujutan ette, et seal ei ole ka kohti, kus ratast hoida.

Expert 2: Seal on need vaibakloppimis torud.

Expert 5: Minu mõte oligi see, et need prügi konteinerite majad, sama hästi võiks sellise teha, sa saad rattad püsti panna sinna, ja juba töötab.

Expert 2: Ma mõtlen lihtsalt, et probleem ei ole selles, et ei leita ruumi või lahendust, milline see võiks olla, lihtsalt ei leita seda raha, mille eest seda teha.

Expert 5: Raha leitakse, aga tahet pole.

Expert 4: Tahe tuleb sunniviisiliselt hetkel tekitada. Pluss ma kahtlustan et ikkagi on päris palju ka seda, et ei teatagi üldse, et selline asi on olemas. Kui ühistul pole tekkinud mõtet, et ta tahaks mingit autoparklat suurendada, siis ta ei ole tõenäoliselt kunagi uurinud mingite toetuste skeemi

The will must be created with enforcement at this moment. I also suspect that there are still many who don't know about the possibility (of creating cycling parking). I the co-operative has never wanted to increase the car parking, they wouldn't know the different subsidy schemes available.

Expert 2: Ma kardan, et kui sa võtad need ühistud, siis need on ülisuured, mis tähendab seda et selle ühistu peale need ratta mõtteviis on vähemus, ja selle sööb ära see ülejäänud suur ühistu, kes mõtleb autparkimisele.

Expert 5: Ja kui sul on vanemad inimesed

Expert 4: Vanemaid inimesi on väga palju, kes ratastega sõidavad.

Expert 2: Täna nägin just ühte kes sõitis seda Liivalaia rattateed pidi. Sõitis nii aeglaselt, et ma arvasin, et ta kukub kohe külili. Aga siis ma mõtlesin, et sellepärast me ju seda teemegi.

Expert 1: Sinna kaks ratturit kampaaniale oleks tegelikult vaja vanemaid inimesi.

Expert 6: Just see Lasnamäe, Mustamäe võiks soodustada hoovides olevate jalgrattaparkimist. Ma ei näe, et seal mingit infrat oleks, kuhu seda. Ise ka ei viitsiks

Expert 4: Kui Tartus hakati maja Smart City raames ümber tegema, siis tegelikult piisas täiesti sellest, kui ma ütlesin, et majas võiks olla ka ratta hoiuruum, kuhu sa saad kaldteedpidi sisse. Ja kohe kui ma lisasin sinna mõtte, et ka lapsekärusid on seal hea hoida, siis see läkski ilusti sisse. Keegi poleks muidu selle peale tulnud, sest keegi ei oska seda teemat tõstatada. Kellelegi ei ole lõppkokkuvõttes midagi selle vastu,

Expert 5: Oluline on ka see, et keegi ei hakkas seda hiljem mingil muul otstarbel kasutama, või muid asju seal hoidma.

Expert 4: Seda peab jah hiljem jälgima, aga kui oleks keegi, kes tooks selle teema sisse, kas ühistust endast või väljastpoolt pool sunniviisiliselt projektina, siis ühistutel võibolla ei ole midagi selle lisanduse vastu.

Expert 5: Sama on äärekividega, ah saate küll hakkama, aga kui ütled, et kas te olete mõelnud inimestele ratastoolides, et kuidas nemad saavad – okei, teeme nulli. Peab tooma teise grupi juurde.

Expert 4: Ka see, et paljudel on alguses lapsel jalgrattas vaid vabaajaveetmiseks. Seda on ka vaja kuskil hoiustada.

Expert 1: Väga paljud lähevad lasteaeda.

Õnne: Kas on veel mingeid punkte, mida oleks oluline mainida selle teema juures?

Expert 3: Väärtuste ja hoiakutega on ka oluline tegeleda. Me võime küll selle keskkonna luua aga kui tal on väärtused nagu meil, et sõidame autoga, meil on kiire, ja jalgrattaga ongi võibolla tüütu ja pean selleks vastavalt riietuma. Kui ma istuna autos, panen õhukuse jope ja ma ei pea muud panema, muidu panen kindad, mütsi. Et nende hoiakutega tegelemine on tegelikult väga raske koolides lastevanematega.

It's also important to deal with values and attitudes. We can create (a safe cycling) environment, but if people usually take the car, are busy and find cycling annoying (then the change will not happen).

Expert 1: Igasugune toetav infotegevus ja algusest peale, et laps harjuks esimesest klassist peale käima 300-400 m jalgsi sinna kooli ja ei teki seda võrdlus momenti, et näe tema tuuakse autoga treppi ja mina kõnnin

All kind of supportive informative activities, and the child should get used to walking 300-400m from form one and we should avoid the comparison where they see that another child is brought by car but they have to walk.

Expert 6: Võiks olla ka see, et need uued koolid, mida suure hooga tehakse, et need paigutuksid ka linnaruumis nii, et..

Expert 1: Riiklikke gümnaasiume mõtled? See asukoha valik saaks toetada nii rongi kui ka rattaga liikumist.

When building new schools, a (smart) location choice can support both mobility by train and by bike.

Expert 2: Mina veel mõtlen, et selle töö tulemusi võiks veel vaadata, et eesmärk on ju see, et mida need noored ise mõtlevad, et kas nad on valmis ja mis neid takistab, või ehk ongi vanemate hirmud. Et kuidagi rohkem tähendust anda. Et praegu see on hästi selline üldine. Ja need on erinevates kohtades asuvad koolid, et väga raske on neid niimoodi kommenteerida.

Expert 6: Suured asjad, mis on oluline, on see viimane raadius kooli ümber oleks pigem turvalisem. Tal on kõige suurem efekt, kooli uksest käib 100% lapsi läbi, sealt edasi on võimalik leida need, rongi pealt jõuda põhi koolidesse, näiteks et raudtee tänav saaks korda Nõmmel.

Expert 2: Ma praegu veel mõtlesin, et see mis Expert 1 enne mainis, vaatlemise osas, et kui sa vaatad nende koolide osas on mingid erisused, ja siis vaatad kohapeal, et ongi see rattaparkla ukse ees või muud paremad tingimused, et sellised seoseid luua. Et sa näed et seal kus on loodud mingid tingimused, sõidetakse rohkem.

Expert 1: Vaata üle jah need parkimiskohtade asukohad.

Expert 6: Nõmmel ühes koolis tehti kuidagi monstrumiks see, mingi veider ogadega

Expert 1: Klassidevaheline võistlus, et kui praegu on suitsu vaba klass näiteks, sellised kampaaniad.

Competition between different forms, right now we have the „smoke free class", similar campaigns (could be useful).

Expert 6: Mis see tähendab?

Expert 3: Terve klass kuu aega ei suitseta.

Expert 1: Ja siis tekib sul rühmasurve, et alles siis saad seda randmekad kanda kui kogu klass on suitsuvaba. Ma ei tea kui hästi see töötanud on?

Expert 3: See on iga aasta, seega jätkusuutlik, aga vist on positiivseid tulemusi ka.

Expert 1: Siis võiks olla autovaba klass.

Expert 3: Ja jalgrattaga kooli.

Expert 1: Ma isegi ei tahaks seda ratta asja

Expert 6: Las nad ise mõtlevad välja, mis see alternatiiv on.

Expert 1: Aga just see, et treppi ei tooda.

Expert 2: Just et kes kuidas, mõni tuleb ühistranspordiga, mõni rattaga, mõni jalgsi mõni toimekaga. Et ei pea olema et kõik peavad rattaga tulema.

Expert 1: Ja see ka et, kui mõnel on tempel otsa ees, et ratas, siis me ei taha, et kõik auto asemel rattaga sõidaks.

Expert 6: Käia on ka suhteliselt okei.

Expert 1: Et näiteks terve mai kuu ja terve september ka näiteks, kui on see harjumuse tekkimise aeg.

Expert 3: 4.-9. klass ohutu koolitee kaardistamine, see pidi olema hästi linna teha, et kas nad kasutavad neid andmeid või mitte.

Expert 2: Kas seal ei ole ka nii, et koolidel endal on ligipääs andmetele ja nad näevad neid tulemusi.

Expert 1: Kui Tallinnas on see keskkonnasõbraliku liikumise kuu, siis samal ajal võikski olla autovaba, sama formaat mis see suitsuvaba klass on.

When Tallinn has the month of environmental-friendly mobiliy, then at the same time there could be a „car free" campaign (at schools), similar to the „smoke-free class".

Expert 2: Kui ma mingi aeg tagasi vaatasin riiklikku tervise arengukavad, siis otsitakse ka mingeid uusi ja ägedais asju, liiga vähe tajutakse seda seost, et see küll, et ei liiguta ja see on probleem, aga sellele üritatakse leida nagu sellised teistsuguseid lahendusi kui see et äkki üritame igapäevasesse liikumisse panustada.

Expert 6: Et see kui sa teed 360 päeva natukene on parem kui üks päev liiga palju.

Expert 1: Seda ütlevad paljud linnad, kes ratta edendusega tegelevad, et üks Rootsi linn, kuus aastaid tegid koguaeg seda rattaga tööle ja kooli kampaaniat ja koguaeg numbrid kasvasid, ja siis jätsid ära kuna numbrid olid nii head, ja kohe andis tunda.

Expert 1: Ei tohi last tuua lähemale kui lähim ühistranspordi peatus. Kui ühistranspordiga tulijad peavad nii või naa kõndima sealt bussi pealt, siis sama hästi võib selle lapse seal maha panna.

Expert 2: Aga nii pidi seda sõnumit seades kõlab see väga ebapopulaarselt.

Õnne: ja mõnes koolis on see sissepääs kohe seal peatuse kõrval.

Expert 3: aga kui valida mingisugune kool või piirkonda välja, kes oleks nõus, et seal näidata ja selle kooli peal kaardistada olukord, siis lood keskkonna neile ja siis pärast

jälle kaardistad ja näitad, et näe, toimis ja teistel koolidel on ahha efekt.

Expert 1: Võibki vaadata, ka et kas nendest koolidest keegi on selle liikuva kutsuva kooli liige.

Expert 2: Või kui leida selline näide, kus juba ongi hästi ja rattakasutust on kõrge. Kes oleks teistele eeskujuks ja saaks juba tänaste tulemuste pealt ennast promoda.

Expert 6: Nõmmel on mõlemas suunas see olemas, hooned, kus on hea parkida ratast, ja koolid, kellel parklad olemas. Mustamäed ma soovitaks kõige rohkem, seal ei ole majade juures võimalik parkida. Seal on alguspunkti probleemid.

Expert 3: Kui muuta mingi pisike asi, et võibolla ei olegi vaja teed ehitada. Võibolla ongi vaja ainult neid rattahoidjaid, ja vaadata, kas siis juba tulemused paranevad.

Expert 2: Vahel on ka pisikeste asjade realiseerimine päris keeruline.

Focus group 3 - School-going children

Date: Dec 22, 2018

Original language: Estonian

* text in grey boxes is a translation of (part of) the above text into English.

Instructor: Ühte asja ma võin sulle kohe täpsustada, et siin mul ei ole kõik kutid Tallinnast. Nad küll sõidavad rattaga trenni väga kaugelt näiteks Tabasalust või Sauelt, rattaga trenni sõitmine on täiesti tavaline.

Õnne: Kus te elate ja kus te koolis käite?

Child 2: Sauel ja Saue Gümnaasiumis.

Child 3: Vasalemmas ja Saue Gümnaasiumis.

Child 6: Siin samas mäe üleval ja Tallinna Saksa Gümnaasiumis

Õnne: Kas sõidate rattaga kooli?

Child 2: Ei

Child 6: Ei

Õnne: Kui kaugel sa elad koolist?

Child 2: Mingi 1 km

Õnne: Siis lähed jalgsi või kuidas?

Child 2: Ma ärkan nii hilja ja siis ei jõua jalgsi minna ja isa viib otse. Kool jääb tee peale.

I wake up very late and don't have the time anymore to walk to school. The schools is on the way (for my dad on his way to work).

Õnne: Oled kunagi läinud rattaga kooli?

Child 2: Suvel jah

Child 5: Elan nõmmel ja käin Mustamäe Gümnaasiumis. Ja käin ka rohkem suve poole kui ilma on, siis lähen rattaga.

I cycle more in the summer when the weather is better. I April and May, less in September.

Õnne: Mis need kuud on?

Child 5: Aprill, mai, septembris käin harva.

Child 1: Ma elan Tabasalus, käin Tabasalu Ühisgümnaasiumis ja rattaga koolis ei käi kuna ma elan koolis u 200m kaugusel.

Child 4: Käin Audentese Erakoolis, elan Kakumäel, suvel käin rattaga.

Õnne: Kaugel sul see maa on, mis sa pead rattaga sõitma?

Child 5: Ma ei oskagi öelda nii.

Õnne: Aga kuidas sa tavaliselt kooli lähed?

Child 5: Jalutan bussi peale ja sõidan siia

Õnne: Aga kui rattaga lähed, kaua aega võtab?

Child 5: Max 20 minutit.

Õnne: Aga kuidas klassikaaslased, ka teate kuidas on parkimisvõimalused koolis? Või kui kõik tingimused oleks rattaga sõitmiseks olemas, kas siis läheks rattaga?

Child 6: Ei autoga

Child 4: Ma läheks

Child 1: Ma ka läheks

Õnne: Kas vanemad lähevad samas suunas, kas sellepärast on hea autoga minna?

Child 5: Põhimõtteliselt. Nüüd on load endal ka kohe, siis enam pole vahet.

(I go by car) because it's on the way for my parents. Soon I will get my driver's license, then it also doesn't matter anymore.

Õnne: Kas klassikaaslased käivad rattaga?

Child 1: Klassikaaslaste kohta päris täpselt ei tea aga parkimiskohti on päris palju ja kui lund ei ole siis on täis ka. Et ikkagi käiakse.

(At Tabasalu) there are many parking places, about 100 and when there's no snow, many people cycle. It's in front of the school.

Child 3: Paartükki ikka käib.

Õnne: Tundub, et maakohtades käiakse rohkem kui Tallinnas. Aga kui sõidate rattaga, siis kui kooli ei sõida, siis vabal ajal linnas sõidate rattaga? Kuidas teile tundub ratta taristu? Kas on turvaline?

Child 2: Trenni ma küll Tallinnas teha ei tahaks.

Child 4: Ma ka ei tuleks

Child 3: Trenni kõrvalt eriti vaba aega ei jää üle

Child 1: Linnas on ilma rattata lihtsam, sest kui sul on kallim ratas, siis muretsed, et see varastatakse ära.

If you have a more expensive bike, you're worried that it will be stolen.

Instructor: Trenni koormus on tegelikult päris suur, suvel on päris pikad, ratta trenn on 3h. Väljaspool seda aega ka treenerid ei soosi väga rohkem seal sadulas olla. Pigem inimesed, kes rattatrennis ei käi liiguvad vabal ajal rattaga rohkem.

Õnne: Tuleme nende parkimisvõimaluste juurde koolis tagasi. Sa ütlesid et parkla on täis – kus see parkla on koolis?

Child 1: Kooli peaukse ees. Hiljuti tehti juurde ka kohti, sinna mahub 100 ratast rahulikult.

Õnne: Kuidas sinu kooli juures on?

Child 5: Parkla on ka ukse ees aga kohti on palju vähem. Käiakse pigem vähem.

The parking is in front of the building, but there aren't that many places. Not many cycles.

Child 4: Meil on 3 erinevat kohta parkimiseks, spordiosakonna pool, suure maja ja väikse maja oma, seal on selline 5-10 kohta. Seal väga mitte keegi ei käi kooli rattaga, isegi mitte suvel. Ma olen üks vähestest.

Õnne: On sul mõni idee, et miks ei käida rattaga?

Child 4: Rikkad vanemad, tuuakse autoga. Bensiini raha pole probleem.

At Audentes there is parking at different places, but almost no one cycles, not even in the summer. I am one of the only ones. The parents are rich and they are brought by car.

Õnne: Aga mis sul saab kui isa näiteks läheb varem ära?

Child 2: Siis olen varem üles ärganud ja jalgsi läinud.

Õnne: Kuidas Saksa Gümnaasiumi juures on parkimisega?

Child 6: Seal on 10 sellist vahet ja tavaliselt 1-2 on täis kevadel. Et pigem on vähem. Seal lapsed küll käivad tõukeratastega aga need tulevad siis kas klassiruumi või fuajeesse. Et pigem käiakse tõukeratastega kuni 5-6 klass ja hiljem kas bussi, autoga või jalgsi.

(At my school) the kick bike is preferred (to bike) up to 5-6 form and later they come by bus, car or on foot.

Õnne: Miks sa septembris ei käi rattaga koolis? Ilm on ju tegelikult sarnane.

Child 5: Ma arvan et kooli alguses lihtsalt väga ei viitsi enam, suvel saab nii palju sõita.

Õnne: Kuidas teil ratastega on? Kas on üks või rohkem ja kõik on kallimad trenni rattad?

Child 2: Mul on kolm.

Child 6: Üks vähe halvem on ka, aga enamasti on kallimad.

Instructor: Üks asi on see, et neil enamikel on tõesti kallid võistlusrattad ja seda ei saa esiteks kesklinnas jätta kuskile ja maanteerattaga meie teedel ka.. Võistlusratas ei taha retsida ja jäetakse pigem trennis käimiseks. Ma treenerina ei soosi ka seda et võistlusrattaga käiakse koolis. On neid varguseid olnud ja pigem mingi tavaline odav rattas osta ja sellega koolis käia.

Õnne: On teil olemas odavamad rattad?

Kari ja Child 4: Noogutavad

Child 1: Mul ei ole. Mul ei ole vaja seda.

Õnne: Aga odavamat ratast julged jätta kooli juurde?

Child 4: See on selline 30 aastat vana, vanaisa oma.

(The bike I dare to park at school) is about 30 years old, it belonged to my grandpa.

Õnne: Kas see on alati enda otsus, et ei lähe rattaga kooli või vanemad näiteks ei luba minna?

Enamus vangutavad pead.

Child 2: Mul isa ei luba võistlusrattaga kuskile minna, näiteks poodi.

Child 3: Mul on kevadeti ja sügiseti nii et pool kooliteed sõidan rattaga ja ülejäänud kõnnin. Lähen 3km alguses rattaga rongile, siis viin ratta ema juurde ja sealt lähen jalgsi kooli. Ma ei taha ratast kooli juurde viia. Pigem selleks, et siis selle rattaga trenni tulla.

Õnne: Kus kodus ratast hoiate?

Keldris, garaažis.

Child 1: Kortermajas korteris. 3. korrusel. Need on nii kerged rattad

(I keep my bike) in the apartment on the 3rd floor. The bikes are very light (racing bikes).

Instructor: Võistlusrattal ja tavarattal on väga suur kaalu erinevus.

Õnne: Et sellega pole probleemi, et oleks liiga keeruline ratas välja võtta..

Õnne: Kui me mõtleme rattateede taristu peale, siis ütlete, et Tallinnas väga ei tahaks sõita. Mis sellel siis viga on?

Child 2: Suur liiklus, iga 100m tagant on valgusfoor, ja kui trenn on siis tahaks ikkagi sõita mitte seisma jääda koguaeg.

There's a lot of traffic and after every 100m there's a traffic light. An especially during training you want to ride rather than stop all the time.

Child 3: Ristmikel on ohtlik ka.

Crossroads are also dangerous.

Child 1: Autojuhid on ettearvamatud.

Drivers are unexpectable.

Child 6: Jalakäijad ka absoluutselt ei vaata, nemad on nö kõige tähtsamad seal tee peal. Ratturid peavad ise vaatama, kuidas mööda saavad.

Pedestrians do not look at all, they consider themselves most important on the road. Cyclists need so see for themselves where to go.

Child 4: Noogutab.

Child 1: Tavaliselt on nii, et tullakse oma lapsevanker ühes käes ja koer teises käes, üle kergliiklustee, siis vaata ise, kuidas mööda saad sealt.

Usually there's a mom with a buggy on one hand and a dog in the other, walking all over the shared path. You can see for yourself how you pass them.

Child 6: See on hästi levinud muster Eestis jah, eriti just Tallinnas.

Õnne: Nüüd ehitatakse juurde teid, kas tundub, et olukord läheb paremaks?

Child 4: Isegi kui on rattatee, ikkagi inimesed kõnnivad seal.

Even if it is a bike path, people still walk there.

Instructor: Rattatee ei ole trenni tegemiseks. Kui tavainimene sõidab 15-20km/h, siis meie trennis grupiga sõidame 30-40km tunnis. Kiiruse vahe on suur, kui keegi peaks rattateel ette tulema, see kokkupõrge on päris korralik. Ohutum on sõita autoteel.

Õnne: Kui rattatee ja kõnnitee oleks täiesti eraldatud, kas siis oleks julgem ja turvalisem?

Child 2: Kindlasti

Child 6: Noogutab.

Child 1: Kultuuride erinevus ka, Hollandis on hästi palju rattureid.

Õnne: Kui mõtlete oma klassikaaslastele, mis aitaks, et teie vanused rohkem rattaga sõidaks?

Child 2: nad ei viitsi koolis käia, naeravad.

Child 3: Sauel on küll kooliesine rattaid täis. Kool on linna keskel ja ümberringi pole kaugel käia, hea rattaga käimise vahemaa.

Child 6: Kas Sauel on tasuta ühistransport? Tallinnas näiteks on see, et kui sul on kool kesklinnas, siis lähed ühistranspordiga, aga Sauel võtad pigem ratta kui auto varianti ei ole.

In Tallinn, if your school is in the city centre, you go with public transport (it's free), but in Saue you'd rather take the bike if you don't have the option to be driven by car.

Child 1: Kergliiklusteede kohapealt veel seda, et neid tehakse uusi, niiet need liiguvad kuskile väiksematesse asulatesse, kui ma praegu käin trennis, siis distants on 13km aga tänu uutele teedele vahemaad lühenevad ja paari aasta pärast on ehk mingi 7 km. Liikumiseks on head aga trenni tegemiseks ei ole kõige paremad.

Õnne: Kui sa mais sõidad rattaga kooli, siis kuidas sulle see rattateekond tundub?

Child 5: Minu jaoks on üsna mugav. Tavaliselt ma planeerin endale selle tee enne valmis, et kus on vähem foore. Lõikan majade vahelt ka. Käin tavarattaga, millega ei käi rattatrennis.

I usually plan my route in advance to avoid traffic lights and cut through between buildings.

Appendix VI: Focus group analysis

Analysis 1: External factors

External factors		Parents				
		# mentions	Problem quote	Solutions quote	# mentions	Problem
Natural conditions	**Weather**	3	"If we think about going to school in autumn, it is mainly the heavy rain. At that time there is still enough light. " - Parent 2		3	I cycle n weather Septem
			"With little rain it's okay to cycle a few kilometres, but for that you need the experience of cycling with rain. If you just look out of the window and see a grey sky and dripping water and then go out and ride the bike for 100m, you'd realize that it's not a problem. But if you haven't tried, then you wouldn't know." - Parent 1			(At Taba places, a snow, m the scho
	Road maintanence	1	"The fact that there's ice in front of the house, is not bad weather but bad maintenance. Let's not mix up weather and road maintenance. " - Parent 1			
	Darkness	3	My 6-grader cycles when the weather is kind of okay, at some point it becomes more annoying for her. She likes to bike, but when it gets darker, she cycles less. - Parent 2			
			"Darkness is psychologically worse factor than rain. It's much harder to go outside with a dark but dry weather than with a small rain during daylight." - Parent 1			
Policy context	**Magnet schools vs neighbourhood schools** *also relevant for "proximity to school" - urban environment	2	"The main feature of Tallinn's education is the sharp confrontation with the schools in the city centre with a city-wide catchment area versus neighbourhood schools with a local catchment area." - Parent 1			
			"It's a conscious choice of parents which school they they have out their children. As a rule, a child does not choose the school, only in high school they start to choose more." - Parent 2			

Children		Experts		
n quote	Solution quote	# mentions	Problem quote	Solution quote
nore in the summer when the r is better. I April and May, less in ber. - Child 5		3	"The ones who don't have a bike don't know that you can also bike with bad weather." - Expert 4	
asalu) there are many parking about 100 and when there's no any people cycle. It's in front of ool. - Child 1			"People already have attitudes about the weather, especially in the teenage years. Smaller children wear rain clothes, but in that age, you still want to wear jeans and white sneakers, so how can you go by bike." - Expert 3	
		2	When building new schools, a (smart) location choice can support both mobility by train and by bike. - Expert 6 & 1	

External factors		Parents		
		# mentions	Problem quote	Solutions quote
Policy context	**Cycle parking facilities at schools**	3	"Parking facilities at schools are usually not under a roof, which means that even if you bike in dry conditions, the bike can be wet when you take it from the parking." - Parent 1	Schools cycling infrastructure is def something that could be regulated when it seems that there is need fo cycle parking, then it should be do a place where the child is not afraic bike. - Parent 1
				"(It should have) a roof or at least s shelter." - Parent 1
				"(The parking) should be with a roo
				"The frame lock is obviously neces the lock at the front wheel is really Parent 1
	Compulsory bike lights (and deft)	3		"Schools or the city's Education Of Administration could give out bike And explain children that (if they do bike because) they don't have the l are afraid to leave the bike in the p the lights will be stolen, then it is p up new lights from the school. Simi reflectors right now." - Parent 1
	Cycling license (& training)		The children are locked into a room and they are read theory. The child returns and says it was the most boring thing she has ever heard. In my experience, the cycle license is pointless, although I don't think it should be pointless. - Parent 1	Recently the Ministry of Culture ad money for swimming lessons and n much more in schools. They should cycling training, it is a module of sa Parent 2
			It is not practical, it is not interesting, certainly does not encourage the child to ride more, rather scares, because so many things have to be known and considered. - Parent 1	I would say to slowly start changing the idea of Physical Education so th school level it's compulsory to do s cycling training. If with skiing it's po also possible with biking. - Parent 1
			The cycle license (/training) in its current state doesn't encourage anyone to cycle, it's a reading of theory and they are not taught to cycle. - Parent 1	At some age there could be a camp free bicycle helmets, to give a sort proposal for the Tallinn Education D at a certain school level to talk mor and offer a helmet with 50% discou lights. - Parent 1
Other	**Kick bike**	3	"Factors that influence biking or taking the kick bike are very different. They are used for different distances, kick bike is much easier to store, easier to take out. Things that hinder the use of a bike are not a barrier for a kick bike." - Parent 1	

	Children			Experts		
	# mentions	Problem quote	Solution quote	# mentions	Problem quote	Solution quote
finitely by the city, and or expanding the ne. It should be d to loosetheir	5	The parking is in front of the building, but there aren't that many places. Not many cycle. - Child 5		3	Cycle parking has to be next to the front entrance (of the school)." - Expert 1	
ome kind of		(At Tabasalu) there are many parking places, about 100 and when there's no snow, many people cycle. It's in front of the school.- Child 1				
of." - Parent 2						
sary, fastening pointless." -						
fice or Road lights for free. on't want to ights or they arking because ossible to pick lar as giving out						
ded a lot of ow it's pushed d also do that for afe education. -						
g education, I like hat at a certain ome amount of ssible, I think it's						
paign to give out of push. And a Department to e about cycling unt and free						
	1	(At my school) the kick bike is preferred (to bike) up to 5-6 form and later they come by bus, car or on foot. - Child 6		2	Compared to walking, kick bike is twice as fast and sometimes same speeds as a bicycle. - Expert 1	

Analysis 2: Urban environment

Urban environment		Parents				
		# mentions	Problem quote	Solutions quote	# mentions	Prob
Neighbourhood built envirionment	**Population density** (private houses vs apartment buildings)	3	"That's why Mustamäe is different from Nõmme or Rahumäe. Different districts have different housing, density and various aspects that influence cycling. In Viimsi you take the bike out of the garage and go. " - Parent 1		3	(At T park whe peo scho
			"(In an apartement building you would often opt for) pushing the bike up the stairs." - Parent 2			In Ta city tran you' don' drive
	Bike storage at home	3	"Infrastructure is complicated, you have to take the bike out of storage and put it back, it takes some effort. It is not just stepping out of the door and hopping on the bike. You have to get it out first." - Parent 1	"In Mustamäe and similar areas it would be ideal to build bike storage sheds next to the trash sheds with a locked system. But at the same time, it's an issue of safety and deft, it would take a long time before people would be willing to leave their bike in such a shed." - Parent 2	0	(I ke on th very
			"Sometimes walking to school can be faster than biking. You have to go somewhere, open three doors to reach your basement box, and additionally you also have to use safety elements, wear a helment, etc, and then you also have to park the bike at school." - Parent 2			
			"The more expensive the bike, the bigger the fears to lose it. The alternative is to put the bikes up on the wall in the small apartments of Mustamae. People don't dare to store their bikes in the basement anymore." - Parent 2			
			"And some people also keep the bike on the balcony." - Parent 2			

Children		Experts		
lem quote	Notes	# mentions	Problem quote	Solution quote
Tabasalu) there are many ing places, about 100 and n there's no snow, many ole cycle. It's in front of the ol. - Child 1		3	rom a larger perspective it seems that cycling could be very easy for example in Mustamäe, it's densly populated and the infrastructure between buildings (is easy to develop). - Expert 6	
llinn, if your school is in the centre, you go with public sport (it's free), but in Saue d rather take the bike if you 't have the option to be en by car. - Child 6			A meter or cycling path that has to be constructed in Mustamäe brings more users and is much cheaper. In Nõmme you'd have to construct quite some roads for one potential child. - Expert 6	
ep my bike) in the apartment he 3rd floor. The bikes are light (racing bikes). - Child 1	Others live in private houses with basement/ garage	5	"The one who is going to school on foot lives so close that there's no point to go by bike. Our aim is not to make children who walk one kilometre to cycle. But taking the bicycle out of storage and locking it (at school) takes proportionally too much time." - Expert 1	At one point we were even discussing the idea for cycle parking between apartment buildings in Lasnamäe and Mustamäe for the Cycling Strategy. To build something similar like the rooms for garbage disposal. - Expert 6
			It's a question of storage, for example if you have a five-floor building with a basement, at least the bike is not inside your home. Right now, I take my bike downstairs all the time. I would like to see someone who would want to take a 20kg bike up and down every day. - Expert 5	(Implementing cycle parking) could in my opinion be one of the financing criteria for the „Fixing the gardens" project. - Expert 1
			The will must be created with enforcement at this moment. I also suspect that there are still many who don't know about the possibility (of creating cycling parking). I the co-operative has never wanted to increase the car parking, they wouldn't know the different subsidy schemes available. - Expert 4	How to arrange cycle parking at apartment buildings is a very important point of consideration. Different solutions are possible, but how to get it done? - Expert 2

Urban environment		Parents			
		# mentions	Problem quote	Solutions quote	# mentio
Neighbourhood built envirionment	**Safe cycling infrastructure**	2	"It is a question of infrastructure, how the roads are and transitions, so that you go smoothly." - Parent 2		4
			At this moment a lot of light traffic roads have been made outside of settlements with European money. All with great lighting and nice. But then you arrive in Tallinn and it ends - Parent 2		
			"The street section that children use most to go to school is crowded with people and you cannot cycle there." - Parent 1		
			"At the same time, there are a lot of cars. Estonian schools have effectively avoid a so called „kiss and fly" zone where you could say bye and go, there's no place for that. The area in front of the school is full of cars and it is dangerous to go through by bike." - Parent 1		

Children			Experts		
ons	Problem quote	Notes	# mentions	Problem quote	Solution quote
	Pedestrians do not look at all, they consider themselves most important on the road. Cyclists need so see for themselves where to go. - Child 6			It's elementary that the cycling infrastructure leading to school has to be attractive and maintained." Expert 1	The Tallinn Road Administration is doing the mapping of „Safe Roads to School"with forms 4.-9. All pupils in these years at one point map their school journey and show which places are dangerous and show how they move. This could be where this initiative could be developed to also include active journey to school. - Expert 1
					Two to three main directions leaving from school should be fixed in a 200m radius. That's where the concentration (of kids moving) is the largest. -Expert 6
					To start (making the situation better) from a city point of view, there should be one school that would be interested in their pupils cycling to school, and that would also require the inspection of the surrounding infrastructure. -Expert 6
	There's a lot of traffic and after every 100m there's a traffic light. An especially during training you want to ride rather than stop all the time. - Child 2				
	I usually plan my route in advance to avoid traffic lights and cut through between buildings. - Child 5				
	Drivers are unexpectable. - Child 1				
	Crossroads are also dangerous. - Child 3				

Urban environment		Parents				
		# mentions	Problem quote	Solutions quote	# mentions	Prob
Neighbourhood built envirionment	**Parents' perception of traffic safety**	3	I as a parent do not want my children to cycle to school, because it is an area on the edge of the city centre. There is no place for a child to cycle there on a daily basis. - Parent 1			
			"The street section that children use most to go to school is crowded with people and you cannot cycle there." - Parent 1			
			"At the same time, there are a lot of cars. Estonian schools have effectively avoid a so called „kiss and fly" zone where you could say bye and go, there's no place for that. The area in front of the school is full of cars and it is dangerous to go through by bike." - Parent 1			
			I am glad when he takes the bus. If he'd take the bike, I'd worry. (The bus) leaves from in front of the house and arrives in front of the house. - Parent 3			
			Parents not allowing (to cycle) reflects two things, the mentality of the society and that mentality reflects the danger of riding a bicycle. - Parent 1			
Social environment	**Cycling culcture**	2	"Or the cycling culture that if there is a bike path, it is a bike path, and pedestrians are not walking there." - Parent 2		4	Even still v
			We don't have the culture yet that people would strictly hold out of the way (from cyclists on a shared path). It the line was constant, that would be one thing but we have something from point A to B and then it ends. - Parent 2			Usua bugg in th share yours Chil

Children		Experts		
lem quote	Notes	# mentions	Problem quote	Solution quote
	None of the children are not allowed to cycle to school, apart if using the epensive bike)	4	If parents themselves are afraid to cycle for some reason, the likelihood that they'll allow their child to cycle is even smaller. - Expert 1	It's important to deal with parents. One thing is developing the infrastructure, but another is changing the attitudes of parents. - Expert 3
			It is partly explained, but at the same time parents fears (of safety issues) are bigger than the actual safety concerns. If parents would cycle to from home to school once themselves.. - Expert 4	
			"It's very important that (cycling to school) seems safe for the parents. Even when a child wants to (cycle to school), then if for a parent the journey doesn't feel safe, the child will not be allowed to cycle." -Expert 2	
if it is a bike path, people walk there. - Child 4				
lly there's a mom with a gy on one hand and a dog e other, walking all over the ed path. You can see for self how you pass them. - d 1				

Analysis 3: Household

Household	Parents				
	# mentions	Problem quote	Solutions quote	# mentions	Problem quot
Parents' confidence about child's physical & cognitive capabilities	3	I do allow them to cycle and don't ail about it if i have seen and know myself how the child rides the bike. - Parent 2			
		I am not bothered by the fact that he's too lazy to take the bike (out of storage). - Parent 3			
		I don't forbid him (to cycle to school), but it's easier for me. - Parent 3			
		It comes from (parents') own behavioural pattern. If you do something yourself and feel safe, and I feel comfortable on the bike, that's what makes a huge difference. - Parent 2			
Household activity / mobility options - taking the child to school by car	3	"Even I at one point took my children to school by car because I drove by when driving to work. I don't know why, but I did." - Parent 2		3	I wake up ver anymore to w the way (for n 2
					(I go by car) b parents. Soor it also doesn'
					At Audentes but almost no summer. I am are rich and t
The bike	2	Expensive bikes in an issue and then mom and dad are saying how much the bike costs. Moral of the story, don't buy a too expensive bike for cycling to school. - Parent 2		4	If you have a worried that i
					(The bike I da years old, it b

Children		Experts		
te	Notes	# mentions	Problem quote	Solution quote
	All the children go to cycling training as a free time activity, thus their parents wouldn't be concerned about that (and allowed them to cycle).			
y late and don't have the time valk to school. The schools is on ny dad on his way to work). - Child		5		I would see that bringing (the child to school by car) at certain road sections is permitted. Since arriving to school takes place in a very short time frame, the same cars that bring (their children to school) are the biggest danger to other children arriving to school. - Expert 6
ecause it's on the way for my I will get my driver's license, then t matter anymore. - Child 6				Some things are very institutional. For example 20 minutes before the start of school, it's permitted to drive on a certain road. - Expert 6
there is parking at different places, one cycles, not even in the one of the only ones. The parents hey are brought by car. - Child 4				
more expensive bike, you're t will be stolen. - Child 1				
re to park at school) is about 30 elonged to my grandpa. - Child 4				

Analysis 4: The child

The child	Parents			
	# mentions	Problem quote	Solutions quote	# menti
Cycling attractiveness for children	3	My oldest is 15, a girl, she does not bike to school because she does not like it. She likes to go on longer bike hikes, but does not consider the bike as a mode of transportation in the city, even though we as parents are an active example. - Parent 1	What if we'd organize group bicycle rides for children. We could take the children of Viimsi or Kakumae and the city district itself would organize a ride around the neighbourhood. It would create an understanding that riding a bike is fun and you can see things that you usually wouldn't see. Your parents may not cycle nor your friend, but the group factor works. One solution would be to make such a programme. It wouldn't take a lot of money, but it would have a high effect on cycling education and promotion. - Parent 1	
Opinion of friends and classmates	3	If your friend rides a bike, you do as well. I only have positive experience with that, because we have five bikes at home and my child's friends didn't have bikes, we basically had a little bike rental at all times. We don't have expensive bikes and I don't mind, at least the bikes are used. - Parent 2	See above	

Children			Experts		
ons	Problem quote	Notes	# mentions	Problem quote	Solution quote
			3		All kind of supportive informative activities, and the child should get used to walking 300-400m and we should avoid the comparison where they see that another child is brought by car but they have to walk. - Expert 1
					When Tallinn has the month of environmental-friendly mobility, then at the same time there could be a „car free" campaign (at schools), similar to the „smoke-free class". - Expert 1
			2	(Feeling uncomfortable) might actually fit under the point of friends and popularity. That you don't feel comfortable because others look at your strange. - Expert 4	

Appendix VII: Transcriptions interviews Gothenburg

Interview 1

Date: January 16, 2019

Onne: What is the current situation of cycling in Goteborg?

Expert 1: I think we have the cycle net quite well-developed, but the quality of cycle network is quite bad. We see that we need to improve the width to make it easier to orientate yourself and understand crossings et cetera. But it's quite safe if we're looking at statistics, but people don't feel safe. So we need to improve the quality of the network. When it comes to the amount of cycling it's about 6-7% approximately from all travels made by people living in Gothenburg. We can see that when we introduced congestion charges in 2013 cycling increased quite a lot. Probably because we had the net so it was possible to start cycling. But after that we can see that it hasn't really increased, it has just surfaced out. 2015 we got this cycling strategy approved. After that they have very ambitious goals and very ambitious plans and also from the politicians, the local government got a lot more money to improve the infrastructure for cycling in Gothenburg. But at the same time the total amount that the traffic department should do increased a lot. Unfortunately, we didn't have the personnel resources to actually use the money that we got for improvements. Last year it suddenly started to happen when we started to do more infrastructure improvements and we can see the plan in the coming years that it looks quite good. It's not very good and it's not very bad.

Onne: Do you cycle to work every day yourself?

Expert 1: No I live too far away. I cycle to the bus.

Expert 2: I live nearby but I walk, it takes about 30 minutes. And I live on a hill so cycling upwards would be very hard. So I choose to walk or take the public transportation.

Onne: Is that also something that is a bit unique or different in Gothenburg that it is quite hilly.

Expert 1: Yes, it is quite hilly, but it is also very spread out. But we also have a lot of great barriers, the water, the river. And we only have three bridges that you can actually cycle on. And we have a ferry of course. But we need more connections and we're actually planning for a new connection for bikes and pedestrians. But it will take 5 to 10 years until it's actually there. It takes a long time. And we also have railways and highways almost in the city with very few connections. So that is something we also work to improve. So I think we have except the bridge over the river three projects that we are trying to start. But we need to cooperate with the national traffic department. Then it takes longer time and is more difficult.

Onne: So you mentioned that at one point people started to cycle more. Do you consider that as a turning point for cycling? How was the situation before that?

Expert 1: it was an increase of 20% or 25% in 2 years. It sounds a lot but it's not a huge increase. I would say that it was more or less the same. In 2013 and 14 we started to work with the cycling plan. We had a lot of discussions with citizens in Gothenburg. There was a lot of debate among politicians. Suddenly cycling was on the agenda. And since the increase of 25% people felt that suddenly there are cyclists everywhere. In a way it was a tipping point to make cycling more visible in Gothenburg. But I think all these issues together made that

tipping point.

Onne: Did it take a long time for the politicians to come around? That is also an issue with cycling in Tallinn because they say that there is no cyclist.

Expert 1: No, politicians haven't been the problem in Gothenburg. It is actually how we work and civil servants I would say. And the traffic engineers. In a way of course the politicians as well, but it was a politician who actually was the one who made things happen. It was from the above, really. I wasn't working at Gothenburg at the time so I don't really know how it was before. We had a cycling program before but the implementation of the cycling program was more focused on traffic safety than accessibility and making good infrastructure for cyclists. I think the focus for many years since the 1990s in Gothenburg has been traffic safety. Which is good but if you don't work with accessibility for cyclists at the same time, we have a sort of very safe net that doesn't work very well when there are more cyclists.

Onne: Was the infrastructure already in place 10 years ago? How did that come about?

Expert 1: I cannot tell you about this story. I think since the old programme was approved 1999 it took a few years to work on it and I think it was somewhere in the 90s, the was an infrastructure before that also, we have some infrastructure maybe from the 1970s or 80s. But I think it was in the late 1990s when they started to build much more and also after 1999 you can see an increase in infrastructure. Then the investment amount in cycling infrastructure increased during the years. It was when we made the cycling programme it doubled from 50 million per yer to 100 million per year.

Onne: If you look at the infrastructure itself, then how are the cycling paths, let's say, are they different in different places so that in some places cyclists and pedestrians are separated from each other and from the rest, others maybe sharing with cars.

Expert 1: Not sharing, in some places they are sharing with cars, but that's where there's low amount of car traffic, maybe less than 2000 cars a day, and the speed is very low, so we build speed pumps to ensure that this mixed traffic speed is very low. So we built thousands of speed pumps. But most of the net is on separate bike lanes, but is most often a combination with pedestrians and cyclists. Because that was the safety idea that it was safer to combine pedestrians and cyclists that to combine cyclist with cars and they didn't want to take so much space from the cars that you have a separation between cyclists and pedestrians as well. So now we sort of live with the combination between pedestrians and cyclists. And when the width is there we try to separate with a line, so we mark it on the surface, so you can see where you should walk and where you should bike. But it's too narrow really. And now when we are building we want to separate pedestrians and cyclist to a greater extent than we did before. That is one of the main problems with cycling net we have.

Onne: People who cycle in Tallinn also consider this a big problem because pedestrians are not use to the fact that there are cyclist as well so they walk all over the path. But I guess here people already know that there are more cyclists so for your own safety you stay away.

Expert 2: I think there is quite a lot of conflict between pedestrians and cyclists.

Onne: So that is also the main reason you now build separate lanes?

Expert 1: Yeah… I thought I had a picture.. No..

So sometimes it's different materials, but sometimes it's asphalted the whole way and then we paint a white line to separate the pedestrians from the cyclists. So we try to make it on the old infrastructure but it's not that visible and clear.

Onne: And it certainly takes a lot of space of course.

Expert 1: Yeah, it takes a lot of space.

Onne: Also, now in the Netherlands I've started to look out for this separation more and I realize how much space all these different hierarchies take.

So if we now talk about school cycling, then what would you say about that?

Expert 2: I think we do have a problem with parents driving the kids to school even though they live very nearby and they could easily work or bicycle. And we also give children free public transportation cards so they can ride the tram and the buses which is also a factor of them not cycling that much. But we have different projects where we try to encourage children and their parents to walk and cycle more to school.

We have challenge for children who are 9-11 I think or 10-12 where the whole class participates and they walk or cycle to school for five weeks and they get points and they can win prizes to the amusement park and so on. And then we have communication towards parents and so on to encourage them.

I mainly work with children who are about 6-12 years old. The older children go to school by themselves but the younger children are dependent on what their parents think. So it's the parents who we have to work with in these cases.

We have projects where we also look at schools and see where parents and children think there are unsafe places and then we try to make it safer. So more people will walk or cycle to school.

Onne: In Tallinn what I came across is in the focus groups is also what you said that a lot of people do bring their kids to school by car, which creates a lot of traffic in front of the school in the morning. Have you thought of any kind of ideas how to let them drop the kids further away for example?

Expert 2: Yes, we do try that in some cases and the schools try that themselves also. They find places and go out with information to ask parents to drop them off at these places so the children can walk to school the last part. But most don't. It's convenient to drop them off at the entrance. So we have to work with changing behaviours. And it's not very easy, but the schools also think it's a problem so they want to work with us.

Onne: If you look at the children who maybe already cycle to school, do you also see a kind of pattern that the younger children do cycle more or the older children cycle more?

Expert 2: Yes, they do tend to stop cycling when they get older, and we don't know exactly why. But maybe it's because it's so easy to take the public transportation. So that replaces some of the distances they could've made by bicycle. But I don't know exactly.

Expert 1: The public transport is free for children in school so I guess that is why. I know also for several years they did some interview, it wasn't really about going to school, but it was about how youngsters are traveling, and most of them were going by public transport. And it was also a social thing, so they met with friends on the tram or the bus, if you didn't go by bus or tram you were not part of the social group.

Expert 2: You can also choose which school you want to go to. So some children have a long distance to the school and also activities in the spare time can be far away from school. So the distance can be a problem because Gothenburg is very spread out.

Onne: So doesn't matter where I live, I can choose to go to whichever school?

Expert 2: Yes.

Onne: Okay. In Tallinn it's maybe a bit different because we have schools in the city centre that students can come from wherever, even outside of Tallinn, but then we have to local schools where they really prefer people who live in the area.

Expert 1: I think most people choose the nearest school, especially in that age. In high school it's probably different. But up to grade nine I think most kids go to the nearest school. I'm sure it's different in different areas also.

Expert 2: And the specialised schools are pretty much located in the city centre. But they can be in other parts of the school also.

Onne: How is the school system actually? In Estonia there are 12 grades and the basic / compulsory school is nine years, and after that you go to high school. Is it the same here?

Expert 1: Yeah. It's the same. Actually, I think it's ten years the basic compulsory school from 6 to 16. Then you have high school for three years.

Onne: So it's similar, but then one year extra.

Expert 1: Yes, because now they start one year earlier.

Expert 2: But that is new.

Expert 1: It's like pre-school, it's not grade one, it's pre-school.

Onne: And every school does it now then?

Expert 2: Yes, it's mandatory now. It's very new since last year I think.

Expert 1: Before it was mandatory from age seven.

Expert 2: But now they've added a year before.

Expert 1: But even before almost all kids were doing this first year. So in reality it's not a big change.

Expert 2: The city works very hard to put families to put their kids in pre-school, so we had a very high attending.

Onne: Also in Tallinn we see that younger children tend to cycle more, we also see that they go with kick bike. And we also think it's because they don't care so much about what others think. But when they get older they are pickier in what they wear.

Expert 1: Yeah, like I don't want to wear a big bike helmet.

We have a bike helmet law until you're 15. But I don't know if 14-years olds follow that.

Expert 2: Or even children.

Onne: Does the police check it was well? Can you get a fine easily for it?

Expert 1: I think in practice you could get a fine, but since you're below the age where you can be fined, it means that you have to have your parents with you when cycling and then cycle without a helmet. Then I think the parents are getting the fine. When they introduced this law there was a lot of discussion so in practice the law doesn't mean anything. But there is a law and if you look at younger children, maybe it depends in the area, but where I live all small children wear the helmet. But I also see that when they turn 13 they stop using the helmet.

Onne: I think even today when I see people cycle then even older people wear a helmet. In the Netherlands nobody wears a helmet.

Expert 1: Here quite many wears a helmet. I've lived in the Netherlands for a year, nobody wears a helmet.

Onne: Another thing we have in Estonia is a cycling permit, that you need to have until you're 15 or something like that. So you have to do a training and only then you're allowed to cycle on public roads.

Expert 1: Really?

Onne: It's also something that is not really checked, and the parents are not really happy about the training.

Expert 1: Is it done in school or?

Onne: It's not part of the school programme but usually it is done by schools, some schools offer it at a certain period or sometimes you can also do it in youth centers for example. But you don't have anything like this?

Expert 2: No.

Expert 1: No. Before in the 1980s when I was a kid there was a lot of focus on this traffic training, mainly on the laws but also how to practice. And then the police came to school and had the education with us. And then we got like a diploma and something to put on the bike to show that we have sort of passed the test. But it was not compulsory.

Expert 2: Just to raise awareness.

Expert 1: It was a way to raise awareness and work with traffic safety. But in the 1970 a lot of countries worked with traffic safety, at least in Northern Europe.

Onne: So maybe in Tallinn we are a bit behind in time.

Expert 1: But I know that there are many people wanting the same thing. The discussions are raised now and then because there is conflict and debate on the way cyclists behave and I guess one of the reasons is because we have combined pedestrian and cyclist paths. But I think there is an idea that cyclists do not know the traffic law and the rules and should have training.

Onne: Sometimes you even see that with pedestrians.

Expert 1: I'm very sure that pedestrians are breaking the rules much more often than the cyclists. But at the moment it is a debate.

Onne: If you look more into cycling to school, do you have some examples of some things that you've done? You mentioned the challenge. When I had the focus group with experts they also mentioned that it would be nice to do something similar. Is there anywhere I could find more information about this?

Expert 2: I can write them down for you and send them. We've had the challenge I think over ten years. It's very popular. And other cities in Sweden also want to do it. So we are about to try to expand it which is fun. But then we have a few other projects like the communication towards parents, it's mainly for children who are 6-9 and we send out information to the parents at the beginning of the school year in autumn and then all children get a reflector. You could add more activities to it that are more targeted towards children as well because now we mainly focus on the parents. But I think it's easier if I just send you a list.

Expert 1: (Expert 2), but you also work with travel plans to schools.

Expert 2: Yes, for three schools, which is where we do an inventory of the situation and then we do both physical adjustments and behavioural

Onne: How did you choose these schools?

Expert 2: This year we combined them with other things that were happening in the city district like

building of roads. And we also have a lot of project where we encourage people to cycle more in that area. So then I went out to schools in that area and asked if they were interested. But perhaps that area is not the area what needed it the most, but it was most convenient at this point. Next year we will try to look at some other factors.

Expert 1: We have some ideas that we try to combine different types of measures geographically more to have more effect on travel behaviour in general.

Expert 2: There are also a lot of other initiatives in the city like plan for equal Gothenburg, where certain parts of the city are more in need of activities. It would be nice to do something there and not just in the inner city.

Onne: Do you see that in some areas of the city there is more cycling to more cycling to school than in others?

Expert 2: Yes, for example in Marjona which is kind of a hipster area, the parents and the children do cycle a lot more. It's kind of a green district.

Expert 1: Örgryte-Härlanda. There's another one in the eastern part of Gothenburg, I don't know how it's with going to school but in general they bike a lot more than other parts of the city. Even more than Marjona.

Expert 2: This is the district where we work with schools more this year also.

Expert 1: We don't really know why they bike a lot in that area but the public transport is good but it's not super good and it's quite close to the city, so I guess they are encouraged to bike, the distances are not very far and it's quite good to cycle as well.

Expert 2: Also, large parts are not well serviced by public transport. The trams go up here, but down here maybe there's some buses that don't go as often or not to the right part. Also, young urban residents...

Expert 1: Well-educated, not too rich.

Onne: What about the density of the neighbourhood for example, in Tallinn we see that in areas where there are more private houses people tend to cycle more to school rather than in very dense areas. Have you noticed something like this here?

Expert 1: We can see that some parts, for example the suburbs where we have a lot of immigrants and a lot of unemployment etc, they don't cycle. And own a bike to a much lesser extent than the rest of Gothenburg. But I think it's partly because it's far away, and you can bike in the neighbourhood, but if you want to go to the city centre it's too far to bike. And I think there isn't a culture to bike since a large part of the population is from other parts of the world. So I guess we have to work in another way there to improve cycling. There is a cycling infrastructure..

Onne: Do they then use the public transport?

Expert 1/Expert 2:Yes.

Onne: So they don't have cars either I guess.

Expert 1: No, they use the public transport.

Onne: Have you already though of some programmes to do there or are you still thinking about that.

Expert 1: No, we don't have any programmes at the moment. We don't have the resources at the moment. But I think there are other organisations who are doing some initiatives in these areas.

Expert 2: A lot of initiatives for social sustainability in these areas, but maybe not transport wise.

Expert 1: I think there is bike kitchen in two areas.

Onne: What is that?

Expert 1: It's an idea that they collect or try to get old bikes that don't work and then they sort of.. It could be used in different ways, but then they have a workshop where you can come, fix your bike and then you get it. But the idea is one thing. And also they have a bike lessons for those who cannot bike. I think the idea is to be a meeting point and also to encourage people to start biking. It's done differently, sometimes it's part of something bigger, people working with public health or.. But the idea is a workshop where you can fix your bike.

Onne: Some other things I found out in Tallinn that matters for cycling to school there is the parking situation both at school and at home. What we see a lot is that people living in private houses cycle more, and they also have a place to store their bike. In dense areas where you have apartment buildings there's nowhere to out your bike. What people do is if you have a bike then most often it's inside the apartment. In many cases there's no elevator or the bike doesn't fit in, so imagine just taking it up and down every day, it's a lot of work. They do have boxes in the basement where they can store whatever, and some people do store their bikes there, but again it's not so convenient because it's very narrow. And bikes have been stolen as well from the basements. But outside the apartment buildings there's no other facility. So I was wondering if you've had a similar situation here or is it common that apartment buildings have cycle parking?

Expert 2: I think it's quite common but I think many house owners also allow each person one bike for example. We did a project where you could test electrical bike for three months, and when I talked to the smaller building owners they said that it might be a problem for people who live in their houses because they are only allowed one bike. So they couldn't have a regular bike and then test this bike also.

Expert 1: If you look at the big apartments area outside or the city centre, it's quite often that they do have bike parking. Sometimes it could be problems with theft, and they could not always be convenient and sometimes they are awful, but if you come closer to the city centre, maybe it's older houses, and they don't have much space outside the house or in the basement, it's more difficult. For example in Marjona, they have problems to arrange bike parking, or at least convenient bike parking. So then they have these regulations for just one bike per person or something. So we have both situations. But if you build a new house or a new property, you have to build bike parking according to your parking policy. The policy regulates the number of bike parking you have to build and you have to make it in a locked area. So you have to have one bike place per person living in a house in a locked area.

Onne: In Tallinn there's nothing like this yet. So often they build a new house and later discover that they forgot about the bikes.

Expert 1: But most houses are old so we sort of have to live with the situation. We try to help them and encourage them to provide good bike parking and we have done some bike parking guides for those who have a property with advice on how you can maintain the bike parking and regulate it different ways to make it more useful and effective. But also how you can choose a bike rack or something like that that is also very functional and maybe more effective.

Onne: And how is it at schools?

Expert 2: It varies but I'd say overall not so good. There is still a lot of parking space for cars which in many cases can be made into parking spaces for bicycles instead, which is good but overall,

I don't think there's not enough.

Expert 1: We have a political decision made 1.5 years ago saying that all properties owned by the municipality or municipal company, we own a lot of houses, both for apartments and schools for example, we have to make an inventory of the amount of bike parking and make a plan to improve it. It doesn't say we have to improve it but we have to make a plan. So the department working on schools, I don't know if they are finished, but they are investigating the bike parking at all schools in Gothenburg.

Expert 2: A very large inventory. They have a lot of factors in and I think they even had students in the summer to really look and talk to the people who work there to see what do they want, what do they need, how can you expand and so on.

Expert 1: It's very comprehensive.

Expert 2: I think it will be done now in January. So that will be a very good document for us to look at. There's been inventories done before, but not really this comprehensive.

Expert 1: But you can tell that there are political ambitions from all parties to improve the cycle situation at the houses and properties the municipality is responsible for.

Onne: What are the requirements that you consider when building or improving a cycle parking facility?

Expert 2: Usually the school itself has to order the parking spaces from the department that works with the properties. So we don't usually go in and build them. Only in projects like I'm working with now with the two schools because then we make a deal with the property department that we can be on their land. So it's very divided, this is our property and that's their property. And then there's a third party so there's a lot of bureaucracy.

Expert 1: But there are recommendations for bicycle parking: distance to entrances, then how it's used that you have to be able to lock your bike properly in the bike parking. So there are recommendations and demands but if they don't follow them we sort of cannot do anything but I know that they realize, in this inventory that they did, that if the bike rack isn't good, people don't use them, they put the bikes everywhere else but not in the bike racks. So I know, we have some dialogues and we have given them advice.

Onne: We see that in Tallinn as well now that when the schools had the chance to choose the bike racks, they don't actually always know what's the best one, or safest or most convenient one. What the children and parents find important is that you can lock the bike from the middle, at a lot of parking you can only do it from the tire, and then that there would be a roof on top and stuff like that, and that it's at a visible place at school so also others who don't cycle yet can see that there are people coming by bike.

Expert 2: I also think that one of the biggest problems is that schools don't have any money to do this. We had a big reorganisation in the city where they have their own department now, they used to belong to the city district administrations and they didn't have a lot of money then. I don't know if the situation has changed now. It would be good if we could work with schools more and do these kinds of arrangements where we arrange the parking.

Expert 1: We shouldn't pay that. I don't think we should do that. I think it must be arranged in another way. Since they are doing this inventory to actually show the problems, it has to be discussed and decided how to finance the bike parking facilities and we shouldn't do that. It the property department maybe who should do that or there should be special money just to do that. But I don't think it's the right way to go for us to do it.

Expert 2: We will see how it turns out.

Expert 1: It has to be solved

Expert 2: The problem is that we have a lot of old schools, not a lot of old schools because we are quite a lot behind in building new schools.

Onne: This inventory that you mentioned, are there any interim results available?

Expert 2: We are waiting for them. They said January probably but, perhaps any day now.

Onne: Could I possibility be able to get the report as well?

Expert 2/Expert 1: Sure, yeah.

Onne: In the end I'm also wondering about the process of all this, so how do you deal with this and who are involved in the cycling programme? How do you get things done?

Expert 1: We have a group, of course some responsibility is on school or different departments of the city, but the main responsibility of the cycling programme is the traffic department. We are the one mainly who build the infrastructure, the public bike parking and bike parking at public transport stops, etc. In the traffic department we are about 250 people, it's quite big. We have people working with traffic in the master plan, so the whole area planning together with the planning department, also responsible of the traffic in the planning of new areas for example. We have a group of people whom I lead from different parts of the department, working with planning in the beginning, working with traffic design, analysis, communication, maintenance. So we are a group of people from all responsible areas at the department. And every year based on the cycle programme, we make an action plan. We have a long-term action plan, that is more for internal use, based on the cycle programme, and based on that one we make yearly action plans. And that plan is then short of implemented at the different parts or units of the department. In our daily work we try to make sure that it follows the cycle programme.

We also, it's not only the daily work, we try to develop new ways of working, guidelines, etc when we see that here's something we are lacking. Maybe we see that it's some kind of knowledge we are lacking, when we test something new we make sure we evaluate that, so see if we want to change some guidelines. We also have the investments, we have four-year periods, and this four-year period we have almost 400 million Swedish Krona (€38 million), so we also make plans how to use this 400 million in the best way.

So in that way we try to coordinate the work and make sure it's based on the strategies and intention of the cycle programme. But in reality all our colleagues are working with cycling and make sure that all of them are following the guidelines and intentions and goals of the cycle programme doesn't always work.

Basically, I would say that the implementation is working quite well, the problem is mainly that we lack personnel resources, because we have so much to do in Gothenburg, we have this West-Swedish package, we are building the railway tunnels, and we are planning huge large new areas, which means that we allocate our resources in these projects. And it's also a lack of traffic planners in general in Sweden, so it's difficult to hire new personnel because there aren't any. We need traffic planners and traffic designers.

Onne: Are you the main person in the city responsible for cycling?

Expert 1: Yes.

Onne: Expert 2, and you're also working on it full time?

Expert 2: I work with children and youth for behavioural change for active transportation in general. It's a full-time position.

Onne: Are there more people who are only focusing on cycling or active transportation?

Expert 1: Yes, we have someone working on the public bike system and other service design for cyclists. We have one traffic engineer that is only working with bike planning and there are also other traffic engineers but they are not only working with bike planning, but a part of it is bike planning. But it's not that many who are just working with bikes. But we have social city planning, who are working on the big picture with the traffic planners, there are two who are mainly focusing on bike, but they are working with other projects as well. There's somebody at all parts.

Expert 2: Then we have at our unit few project managers who work with mobility management activities and biking comes in there of course.

Onne: In Tallinn right now there's only one person who is responsible for the cycling strategy. And everyone he's working with is doing a little bit, it's one part of their job. So you can imagine that it's very difficult to get something done.

Expert 1: Yes, it is. But I think since we have the cycle programme, and we are making these action plans every year, it's visible what we need to do. And then we have to report if we have done it or not. Sometimes it takes longer time, but still there is the responsibility and we have to do it.

Onne: And the cycle programme, is that also put together by you and your colleagues?

Expert 1: We had a large group working with the cycle programme. We had working groups responsible for different areas, one for communication, one for dialogue, one for traffic planning, one for traffic design, one for maintenance. I think we had five or six different working groups. It was many people involved. And I was the project manager and together with a colleague finally wrote this, but they had written some kind of document that we could use. I think one of the most important things for a successful implementation of the cycle programme is to involve as many as possible in the making of the programme so they feel like they own and are responsible for what we decided to do and what principles we decided to follow.

Onne: That's perhaps also something that is lacking in the Tallinn cycling strategy because there were four people who were responsible for putting it together, and there were more people involved, but not that in depth. And now the person who is actually implementing it has nothing to do with it.

Expert 1: And we also have this group working with the implementation which is also very good way to do it. And then we are doing evaluations every year. To see how we developed and how it's going.

Onne: What are the main goals set for the next ten years?

Expert 1: In the cycling programme we only have two goals and they are very big. It's to triple cycling to 2025 compared to 2011 and we have to goal that 75% of the citizens should think that Gothenburg is a cycling-friendly city. And then we have safety goals that we also follow, but it's not in the cycle programme, but in the safety programme. So that's the goals but then we have strategies or goals that we should build a good infrastructure. Right now we are about to finish a long-term infrastructure plan for the cycle net and we are working with maintenance and main focus up to now has been winter maintenance, so we have developed the way we are doing ice and snow clearance and we are extending it to all parts of Gothenburg, so next

year the whole of Gothenburg has much better ice and snow clearance. Best actually that we know of at the moment. And we also work with communication and mobility management and that's now going very well. The things we are doing are good but the resources have declined in several years unfortunately. But we are also working with developing different service and I think we are working more on services than mobility management than we did before, like the applications and how we can work with combined mobility and provide different platforms, but it takes some time.

We are building three new train stations, we are starting to build them now, in quite central parts of Gothenburg, so there will be cycle garages for example, and that is something we are working very hard with.

Onne: You mentioned maintenance, I guess you do see that when the weather gets colder and rainier that people start to cycle less, is there anything else you do apart from the maintenance?

Expert 1: We have some winter cycling campaign, not this year, but last winter.

Expert 2: We do a winter cycling campaign where municipalities can enter and we can say we want to have 300 winter cyclists in Gothenburg, and we pay for the winter tires, and people can apply to get free tires. So they can cycle in the winter.

Expert 1: We've had some different ideas for different campaigns to make more people cycle during the winter, or when it starts raining or gets colder, but unfortunately, we don't have the resources to do it.

It's mainly maintenance we are working with to make more people cycle in the winter, unfortunately. We can see that when we look at the amount of bike travels, it's about half during the winter compared to the summer, but I think we lose 2/3 of the cyclists compared to the summer, but those who cycle, the 1/3, they cycle a lot. But now as I said we have this big infrastructure projects starting now, or at the end of last year, it will be quite complicated to go by car or public transport in the city the coming years. It will work with public transport but for some people it will be more complicated or maybe take longer time. I think that is a good opportunity for us to increase cycling. Especially for the short distances in the central part of Gothenburg.

Interview 2

Date: January 18, 2019

Onne: Explanation of thesis research in Tallinn and results

Expert 3: It sounds like the same problems as we have here as well (parking and how to lock the bike)

How about Tallinn, are there a lot of slopes?

Onne: No, so that's quite different from Gothenburg.

Expert 4: Could you see any socio-economic differences between the schools? Or some groups of people more likely to cycle or bring their kids to school by car?

Onne: I think it wasn't that apparent in this survey. I did see that younger children tend to cycle more compared to the teenagers. … I also heard that here in Gothenburg measures taken are also targeted at younger children.

Expert 3: Yeah, here in Gothenburg all school children get a bus card, so most people don't take their bikes to school.

Onne: We can start with what you do in general.

Expert 3: I work a lot with early planning. Traffic planning in an early stage, visibility studies and so on. Not only with cycling, but we are trying to work more with cycling, but it's hard to find the jobs, that's the problem.

Expert 4: I am working with the design part and not exclusively with cycling but all types of traffic. But early stages as well. So we do sketches and compare different solutions. And then we try to find the best solution and then we go to the people who make the real drawings to build from. So more the physical design of infrastructure and sometimes even parking areas for bicycles.

Onne: Do you only do new projects or sometimes also rebuilding/ reconstruction?

Expert 4: in Gothenburg it's almost only old projects / changing the existing infrastructure. It's already built everywhere, it's very unusual that we have a new area to work with. So it's a lot of changing in the existing infrastructure to make it better and to prioritize cycling in many cases. Maybe you take one area from cars and make the bicycle path wider and stuff like that.

Expert 3: And I work with parking as well. There's the same change, you decrease the parking from cars and increase bicycle parking. So we see the change in Gothenburg but we also have a change in the political leadership, so we are not sure what is going to happen in the future. They have been working a lot with mobility management and decreasing car traffic, and we think the new rulings want to work more with cars. We're not sure.

Onne: I was wondering about that. I also asked expert 1 and she said that politicians so far have been very much in favour of bicycles. That is something that is still lacking in Estonia.

How would you describe the situation for cycling right now in Gothenburg?

Expert 3: We have a lot of big projects running in the city now and there are problems with cycling (infra) running through the projects. The signs are missing, it's bad surface on the path and so on. There are a lot of detours.

Onne: You mean because of the temporary changes?

Expert 3: Yeah. I think that's the big problem right now. And we also have the Göta älv (river) as the big

barrier. It's a problem, you only have like two bridges and a ferry. So you need to connect the city better over the river.

Onne: Are there plans to do that?

Expert 3: I don't think so.

Expert 4: They try to build a bicycle bridge, but because of the shipping traffic it's very hard to build new bridges. So there were some big problems. They were pretty far in the project, they had the drawings and everything but then they stopped it because of the shipping industry.

I think compared to many other cities we have quite a good bicycle network, you can go almost everywhere on the cycle path but what I feel that quite a big problem can be that you're not consequent when you design paths and you don't prioritize cycling if you have a very narrow part of the street for example. It's easier to just narrow the bicycle lane instead of the cars. So you don't prioritize cycling when you say you will prioritize in all these fine documents, and when you come out to the real place you don't keep the measures anymore.

Expert 3: I agree.

Expert 4: But I think that's something that is getting better and better as well. You really try when you make these new plans for new neighbourhoods and stuff like that. You really try to do it well from the beginning. Everyone has to make changes and maybe it will not be as good as you wanted to but I think they try. And we try as well, we try to do as best as we can in our projects to really say what we think and try to make as good solutions as possible to show the municipality that we think we have a solution here that can work. Maybe it will be a little bit worse for the cars but in the end, it will be good for the city.

Expert 3: Like you mentioned, I think we have a parking problem as well for bicycles, especially close to public transport. There's always lack of good parking. So you could take the bus for example in the last part.

Onne: Do you know anything about bicycle theft or something, does it happen?

Expert 3: Yes, it's the same, you want to lock it by the frame. And also if you put your bike in the parking with the front wheel, it's quite a windy city, so the bike will flip over or break.

Expert 4: Or someone just walks by and kicks it and the you have a broken wheel.

Expert 3: So yes there's a big problem with that.

Many offices are starting to have bicycle rules and so on. And when you build new houses you have to have good parking facilities.

Onne: What are the requirements for building new housing? Are there any guidelines you should follow?

Expert 3: Yes, you have to do a parking and mobility study. I can send it to you, I think they have it in English.

Expert 4: We also have problems with old bicycles in parking lots. Especially near the central station. Those kinds of places where a lot of people want to cycle but it's full because people leave their bikes and it's very hard for the municipality to remove them. Because they have to stay there for a long time and when they can remove them they need to store them for another time, because people have the right to get their bicycles back. So there are a lot of old bicycles in the parking lot. They should be removed but it's hard work to do that.

I imagine there are systems for that (such as in Amsterdam with marking the bikes), but it's hard in Sweden because of so much bureaucracy. It can be that the city has stolen your bike

if they remove it because it's your bike and you have the right to park there. So even if it's old and broken the city has stolen it of they remove it. So it's quite complicated.

Onne: How is Gothenburg compared to Malmo? I've heard that there is much more cycling over there.

Expert 3: Yes, it is much more cycling down there. It's flat but it's much windier. I think it has a lot to do with mentality as well. Gothenburg is a car city with Volvo.

Expert 4: If we are between 8 and 12% here, they are 20 or 25%. It's quite big differences.

Expert 3: I don't think they have better lanes or parking, just that taking your bike is more natural.

Expert 4: They have a lot more bicycles in shared traffic together with cars. In Gothenburg we need to build bicycle paths everywhere because here we think that it's the solution. You need a bicycle path, otherwise you don't cycle. But in Malmo, and Lund…

Expert 3: And Stockholm as well, they have a lot of cycling in mixed traffic.

Expert 4: I don't know who is wrong or who is right but apparently it works quite well in Southern Sweden.

Onne: Maybe it's also because the cars are more used to the bikes.

Expert 4: Yeah, and if you have the critical mass of cyclists, it's easier to take your space in the traffic. If we are only with 8% or something it's harder to take your position in traffic.

Onne: That's a problem in Estonia as well. Most of the bike lanes are shared in Tallinn.

Andras: It has been a problem here as well but as you say we always separate bicycles from pedestrians in the city centre, but if you go outside the city centre we have these common paths as well. And I think this is something you do in the bigger cities. If we go to the cities around Gothenburg, smaller municipalities, they still use the common path for pedestrians and bicycles.

Expert 3: And even if you do it, there is the possibility to separate them. People always do what they want, especially when they are looking at their phones or listening to music, they just cross and go all over the place.

Expert 4: In the cycle plan for Gothenburg it is mentioned that the separation should be better. It's better to move the cyclists closer to the car traffic, for example if you have a row of trees on the street it's better to place this row of trees between the pedestrians and the bicycles instead of the cars and the cyclists. Because this kind of separation is better for everyone.

Expert 3: But you also want some separation between the cars and the cyclists.

Expert 4: Yes, you want some kind of safety strip. But you want clearer separation between pedestrians and cyclists because it's easier for them to go into the other traffic area. If you drive a car you don't drive up on the bicycle path.

Expert 3: But it happens. Especially around the schools where they want to leave their children very close to the school so there have been problems with parents driving on the bicycle lanes.

Onne: So now that you think about schools, what is your opinion about that?

Expert 3: I think it's hard to say that it's like this in Gothenburg, because we have so many places where there are old schools that were built before… In the area where I live it was built even before the cars were so common, so there's no bicycle lanes or anything because it's just small streets where there was mixed traffic when the school was built. And there are problems now because there are a lot of cars and no bicycle lanes. But then we have newer areas where you think about bicycles and everything from the beginning. So I think it'd quite different in the

city.

I'm not really sure about the older children. I think we have been working mostly with primary schools and day care centres.

Expert 4: I haven't worked much with schools at all. I had one school where we tried to make the parking better for bicycles. More places, and so that you can lock the bicycle from the frame.

Onne: Do you also consider a roof for the bicycle parking?

Expert 4: Yeah…

Expert 3: I think there's a problem in Gothenburg because you have to have a building permit to build the roof so it's just easier to put up bicycles parking without.

Expert 4: And when it's raining in Gothenburg it's doesn't rain straight down, it rains to the sides, so… You need a really big roof.

I don't know so much about schools but when you build parking lots close to public transport you often try to have a roof. If you cannot have it for all the spaces you at least have it for some of the spaces, for when a lot of people are cycling in the summer, then it's maybe not that important. You can use the spaces under the roof at winter time. At public transport they are better and better.

Onne: Have you also looked at parking in old neighbourhoods? Or houses that don't have parking? How does it go in residential areas?

Expert 3: I think it's a no question actually, nobody is really working on that. People are just putting their bikes outside or inside the apartments or try to find a basement or so.

Onne: I was surprised yesterday, I went across the river to a school there. And then I took the bus really close to the campus there and there were really new apartment buildings, and those people also had their bikes on the balconies.

Expert 4: It's because they get stolen.

Expert 3: Even if it's in the basement in the locked area…

Expert 4: Because there are so many people who have access to these rooms and people don't close the door and they get stolen. And very often in these rooms you don't have a bicycle rack to lock it to. Maybe it's just a big room where you place your bike and then it's very easy to lift it out if you get access through the door.

I think the people who build the houses…

Expert 3: They don't think about that.

Expert 4: They think, oh we have a bicycle room, that's good enough. And that's it pretty much. And then you see others that have very fancy bicycles rooms. I think it's quite big differences between different areas.

Expert 3: If you want to promote as a bicycle friendly neighbourhood, they have extremely good

Expert 4: Glass windows to the bicycle rooms and two-story bicycle racks and stuff like that.

Expert 3: And others just see it as a cost.

Onne: I also heard that this neighbourhood, Marjona, is very popular with cycling, but especially here it's very difficult with parking.

Expert 3: I can imagine that, it's old buildings. We have some many different kinds of cycles as well, is it called box cycle, cargo bikes.

Onne: Are those poplar here?

Expert 3: Yes, they are starting to be, especially here in Marjona. So you need different kind of spaces now.

Onne: And do you know what is the reason they are cycling more in this neighbourhood?

Expert 4: I think the car use is less, not as many people who lives here has their own car.

Expert 3: But I don't know why.

Expert 4: Because this is an old workers quarter. I think people here are more environmentally friendly. It's their thing.

Onne: Do you know other neighbourhoods where there's maybe more cycling?

Expert 3: I'm thinking of Qvilla. It's a quite new neighbourhood on the other side by.. They are trying to promote that neighbourhood in the same way, new and environmentally friendly. But I'm not sure what it really looks like.

Expert 4: Here we have some of these bicycle rooms with big windows so you can see the parking.

Expert 3: I think those are the places actually.

Expert 4: And then where we have many students, close to where they build the student apartments, there you can see a lot of cyclists as well.

Expert 3: And actually, that's quite hilly areas.

Expert 4: A lot of students go by public transport as well instead of cycling, it's not as in Lund or Malmo where a lot of students take the bike, here they take the tram instead.

Expert 3: Could be also because it's just so convenient to go by public transport?

Expert 4: Yes, and it's very hard to get caught, so you can almost ride for free.

Expert 3: And I think the fact that school children get their bus card, I think that decreases bicycle use.

The school that you went to, I live in that area so my children when they grow up they can go to that school. We have a lot of neighbours whose children to go that school and they never ride their bikes. They just take the bus, and it's like 5 stops, 2 stops.

Expert 4: But why give the card to all the children. When I grew up, I'm from the west coast, I only got the bus card if it was more than 6km to school.

Expert 3: Here everybody. I don't know why but they do. My children have 200 meters to school and they get the card. But then they have quite a lot of excursions, they go to the theatre and museums, then they have to use their bus cards. So I don't know if it's easier to give it to everybody.

Onne: Do you think it also reduces car use? Maybe parents say that they can take the bus.

Expert 3: I don't think so actually. Unfortunately.

Expert 4: But it's better they go by bus than by car.

Expert 3: Yes, it is. But I still don't think it reduces the car rides.

Onne: Have you done any projects to make it more difficult for cars?

Expert 4: Yes, we had one.

Expert 3: It's actually the one where my children will go. But they didn't make it harder for the cars, they just made it better for the pedestrians.

Expert 4: But they also wanted to remove the possibility to drive close to the school. So you stop at the bus stop instead.

Expert 3: But nobody uses that. It was the intention. I think they actually didn't do anything about it, it

was just one of their ideas.

I think Denmark has that kind of restriction. Just like 200-300 meters around schools.

Expert 4: Maybe it's hard because you always have to when you have some dysfunction, the parking lot for these cars has to be 25 meters from the entrance, which means that you always need some kind of road going up to the school, and parking areas, and then the parents use these parking places to leave their children. It's really hard to really stop them from going there.

Expert 3: In some years ago, Gothenburg worked with something they called walking school bus, it was in the neighbourhoods, maybe five parents were taking all the children and walking with them once a week to school. So they were walking together. I'm not sure if they have those kinds of projects anymore. They were working with that for 10 years or so.

Onne: If you look back at the least 10 years and how cycling has developed in Gothenburg, do you see any important milestones, or if you look at your own projects, after the completion you see some.

Expert 4: I think the new bicycle path was quite good. Thanks to the cycle programme it's easier for people who work at the municipality point out that it says here, we need 3,6 meters wide bicycle lanes because it says so in the programme. And I think that has helped a lot do really prioritize cycling. There are a lot of things in the programme that are not so good, but I think some things a really good and that it's important to show that we have this document and it's agreed by the politicians in Gothenburg. So this is what we are going to design.

Expert 3: I also think that electrical bicycles have made a big change.

Onne: I heard that you could get subsidies for it.

Expert 3: Yeah but not anymore, new government. I think 20% or 12% of the price. But even before that they started to get popular. So I think these two things.

I cannot say any special projects, it's small the strategy and so on.

Expert 4: I was in the strategy project, so that's my project.

Onne: How was the process of putting the programme together?

Expert 4: Oh it was huge. And we did so much work, but they've chosen only part of it to make this programme. But there were many different working areas. The was one strategical, there was design part, communication and all different kinds of working groups to make this. And I'm glad they did because they have a lot of material to work further on with.

Expert 3: Was it the politicians who took the decision to make it or was it the people working…

Expert 4: I think it was the people working at the municipality. But they needed to have the politicians with them. And they agreed to the documents when it was finished.

Expert 3: Do you know if every political party agreed?

Expert 4: No, but it was the majority.

Onne: Explanation how the cycling strategy came to be in Tallinn.

Expert 4: We were at a conference in Norway and in Oslo they have 30 people working with cycling. In Gothenbrug there are 1-2 and some people who do it part of the time. So it's a big difference.

Expert 3: Oslo is really trying to be the bicycle city now. I think the size of Gothenburg and Oslo is almost the same. And they have 30 people working there.

Expert 4: And it's even hillier.

Expert 3: And worse weather.

Expert 4: I lived in Oslo for one summer 10 years ago and it was not good for cyclists. They have done massive work in these last 10 years. And they are going forward.

Expert 3: They are moving parking by the streets and making it a bicycle lane and so on.

Expert 4: And they are very inspired by Denmark. They look at Denmark and do the same pretty much.

Onne: If you think about the process of how these changes come to be, then how does it work. You work together with the municipality? Do you apply for projects?

Expert 3: It's the other way around. The municipality has the money and they need help.

Expert 4: They ask us as consultants.

Onne: So different companies can apply for these projects?

Expert 4: Yes, and they have a framework agreement. If they have a project they send it to the first one on the list. And they said they got the job with fixed costs. It's very hard to get work from the municipality outside these frameworks.

Expert 3: Sometimes they do that.

Expert 4: If there's something that doesn't fit into the framework agreement, they have to ask more than one and then we need to give them a budget and how we want to do the work. But it's very uncommon that we have a suggestion for them. It's the other way around.

Onne: This framework, is it closely related to the cycling programme?

Expert 4: They had a special cycling framework before, but the new one will start any day now. It's design in general and we have cycling inside that. And then we have other frameworks…

Expert 3: Communication and mobility management.

Expert 4: Yes, and other things like that, but I don't think they have only a cycling framework. It's more design or investigation.

Onne: Another thing in Tallinn, and in general is that if parents don't think it's safe to cycle, they won't allow their children to cycle either.

Expert 3: And if you ask the parents, they usually say that they need cars for work, and if you ask at work, they say they need the cars to drop off their children.

Expert 4: And they need to use the car because it's so unsafe for children close to the school because there are so many cars.

Onne: You said that the new politicians are probably more car orientated, why do you think that is?

Expert 4: One of the parties before the election they wanted to build more parking spaces and said that it should be cheaper to park in the city centre. And that scares me a little bit.

Expert 3: And during the election they said everything is car hostile, all the projects are car hostile. It's the main treat they have. So I think they are quite into cars I think. But we are not sure yet, we haven't seen any real new projects. But there might be a change.

Expert 4: We also had a new party in this election. I don't know if you heard about it, the democrats, they only have one question. And it was to stop the Westlinken, the train tunnel they are building under the city. It was their only question in the election and they got 17% of the votes. And we have no idea what kind of ideas they have about cycling and stuff like that because nobody knows anything about that party.

Expert 3: And I also think we have newspapers that are quite car-friendly

Expert 4: or against Westlinken.

Expert 3: Yes, anything that's environmentally good.

Onne: In the Netherlands there are also some examples of lowering the parking prices in the city centre because they are afraid that shops lose money because people buy more online.

Expert 4: But there are also many investigations about stuff like that showing that a lot of shops, if you close down car traffic and make it nicer to walk and stuff like that, it increases the income for the shops. But they are so afraid to lose customers.

Expert 3: It's the same here. If there's a shop closing down, it's Westlinken's fault. Everything it's Westlinken's fault. They have hardly started this project.

Expert 4: It was quite fun when I was in the Netherlands in Zwolle, they have a bicycle share of 50% or something like that. One question asked a question how much do you spend on bicycle infrastructure compared to the car infrastructure, and they said we build what we need to build, we don't care if it's for the cyclist or for the cars, we build what's best for the municipality. And I think you've come quite far when you see it was a whole system and you have a bigger picture.

Expert 3: You solve a problem.

Expert 4: You solve a problem instead of thinking if it's a cycle measure or for the cars. I hope we can get there. In Gothenburg it's still that we have this money to build things for the bicycles. But maybe we need to do that now in the beginning to really start the projects but further on I think it's not necessary

Expert 3: Yes like you say we see the whole picture more.

Interview 3

Date: Jan 16, 2019

Expert 5: One of the links I sent you was about a Swedish study we did, when we looked at what age children are recommended to cycle, so we checked what is said in different countries in Europe, and actually I've seen that in Estonia it was 14 years and the test.

Couple of the things you mentioned I recognize from Sweden. The safety issue and the age when you're allowed to cycle, but this about parking is nothing that I have heard of in this context.

Another topic for Sweden is that the public transport in many cities, the pupils get a ticket to use the public transport for free. Then they are not encouraged to cycle and take the public transport instead. I live in Mandal which is the neighbour city to Gothenburg and my daughter she get the ticket for the public transport and it's actually just from two o'clock in the afternoon and after that, but anyways they use it in the morning because they are lazy. And there's also this age limit, from the 80s it was said that you shouldn't bike until you're 12 years old in traffic. And because of that a lot of schools say that you're not allowed to bike to school. So children don't have this habit and they don't continue biking when they get older.

Expert 6: In Sweden it's a law for children until 15 to wear a bicycle helmet.

Onne: It's also in Estonia.

Expert 6: Ah, it's the same in Estonia. Did they find that it was a barrier for them to cycle that they have to wear a helmet?

Onne: It didn't really come up in discussions, so it seemed that it wasn't really a barrier. But the children's group that I met already went to a cycling training, so they probably have a different perspective on it. But I can imagine that especially in the age group that I am looking at it can be a bigger deal than in younger children.

Expert 5: Another issue is this with a free choice of school. Nowadays you're allowed to choose which school you want to go to. So maybe you don't have a school close by, it could be in another city, or another part of the city, so the distances get too long. And all schools are not public either, they are private and sometimes they are not built in the best location or they haven't checked that the surrounding is safe. That is also a reason why cycling isn't that high as it could be. I don't know how it's in Tallinn, if it's the same or.

Onne: It depends on the school. The schools that were in the survey take children who primarily live in the area, I don't actually know how it's regulated, but you can put your school into any school I think.

Expert 5: I was thinking of another theme, if it's not just the school trips but also traveling to free time activities. Sometimes it's the parents who want to spend time with the children, and if they are teenagers, you don't sit at the dinner table and discuss things, so the car and chauffeuring is the new dinner table so to say where you could hear what the youths are talking about or thinking about. So that's another issue, I don't know how big it is, but we have seen that in some qualitative studies.

Onne: Yes, I've also seen that combing by sometimes.

Do you know any examples of projects for how these problems have been tackled? Either by infrastructure measures or campaigns or anything.

Expert 6: There are many municipalities who work with infrastructure and they cooperate with schools and the parents, groups of parents the pupils, the children. But I think in most municipalities the neighbourhoods around the school are quite safe from the beginning, but they increase it anyway, but the problem is always the parents driving their cars into the areas close to the schools. There have been some municipalities who use this walking school bus concept, which has been quite successful in Lidingö, municipality outside Stockholm. There was one school that really worked hard with these walking school buses. Do you know the concept?

Onne: I think I heard about it. Is it that a parent is walking to school with more children?

Expert 6: Yes, you just walk a lot of children one day a week. So you don't have to drive your children to school by car, the other parents are walking with them to the school, and you don't lose a lot of time on your way to work. That could be an argument for some parents that they need to be at their work place and they don't have time to walk or cycle with the children. But the walking school buses, they are quite hard to start and find the parents living close to each other, to make the parents create this school bus, and to create the schemes and rules and how to cooperate. So the school has to help the parents to form this walking school bus community or group, but the schools are not very good at it. But when they succeed, it has been a great change in the traffic environment around school. At least the school in Lidingö that I've been working with.

Onne: Do you know what age the children were who were using this walking school bus?

Expert 6: They are 6-9, maybe 10. If they are older they don't want to be part of the school bus

Expert 5: Another thing is when you plan the city, some municipalities they introduce checklists. If you want to for example start a sports arena or something like that, which prerequisites have to be matched before you can do that. The location should be good, there shouldn't be any roads with lots of traffic and things like that. So that you have a checklist and that is often not at the traffic authority but at the other side the city development department, and also when you give permission to start building, those things could be checked again. So that you a city in a good way.

I also think that we work more with younger people than teenagers. We have a lot of commissions where we look at a special school and where we look at how much parking is needed and how you can create good bicycle connections to the school and where you should place the parking and things like that.

Expert 6: There are a lot of campaigns I think. Check your bicycle so it's safe and all parts are working and the bell and the lights and everything.

Onne: Do you do anything with, let's say the municipality giving out free bike lights or any kind of financial support where you can get money for a helmet or a bike or anything?

Expert 5: I think the municipality could give out reflectors and things like that, otherwise I haven't heard of bicycle helmets and things like that.

Expert 6: We used to have lotteries where you can win a helmet. I'm not sure, most people need a helmet so maybe they don't need one extra.

Onne: You also mentioned the problem of taking the children to school by car. Have you heard of anything where let's say in the morning it's not allowed to come very close to the school or some kind of restrictions like that?

Expert 5: There are these pick-up zones and other zones that are placed a bit away from the school where you're allowed to drop the children. I think you know more about those Expert 6?

Expert 6: I know most about these things in municipalities around Stockholm. In a neighbourhood of one school they put the drop zone several hundred metres from the school and then the parents still drove their car and dropped them outside the entrance, so you need to find ways to restrict the car traffic in the neighbourhood I think. The parents are in the hurry and they don't look for signs so you need to do something more. It hasn't worked in these municipalities. If you have the drop-zone close to the school, it works, if you are far away from the entrance, it doesn't work. It's tricky I think.

Onne: In Tallinn what they often say is that it's very difficult to also find where to make this zone because there's no space. So I wonder if these zones are something that they have now managed to put in place or they were something that was decided upon when the schools was built?

Expert 6: No, they try to fit it in the environment and sometimes you have to turn your car in a bad way and you really don't have any space. But the cars are dropping the kids near the entrance anyway. It's an improvement if you arrange it in a more proper way. It's not very good but it's better.

Expert 5: Jaa, we've had some commissions for different municipalities, mostly in the Stockholm region and then they are building a new school and they want help to design the area there, so then you can more freely decide where the parking should, for the personnel and here should be the drop-off zone and here are the deliveries and things like that. So it is easier if you think about all things like that in advance and also see to it that the deliveries don't cross the bike way. For example the garbage trucks and things like that, driving the the school yard and thinking things through that it is efficient and logical and place efficient.

Expert 6: Sometimes in that municipality that I work in a lot, they have this private school and they were given a land area that was an industrial area so the closest neighbour was reloading different trucks, really large trucks, taking off stuff from one truck and putting it on the other trucks. So there were a lot of trucks just outside the school and that's horrible planning. The municipality owned this area and they sold it to the private school. And then there were large problems with the combination of a lot of children going to the school and the trucks are going to the neighbourhood. So you need to plan new schools much better than they've done in that municipality I think.

Onne: I've heard that in Gothenburg every year they take a couple of schools and try to make sure they have better parking and try to fix the infra around it, does it also happen in other municipalities?

Expert 5: I think in this region, in Western Sweden, there are concepts used in lots of municipalities. For example, 'walk on your own legs' and 'make a school travel plan' and things like that. So it's like a concept from the region, they don't have to find their own ways of doing it. I don't know what it's like in Stockholm and other places, do you know Expert 6?

Expert 6: I think it's quite similar, they have this systematic work of taking one or two schools each year and look at their environment and make some interviews with some of the kids and the teachers and so. But they don't have any measures to do something about the car traffic, the parents chauffeuring. They don't want to put demands on the parents, because some of the schools they need their pupils for the school's economy and so on. So they do a lot of nice work with the infrastructure, but not so much with the behaviour. Except for the ones who use these walking school buses. They've been successful, but there are quite few of them.

Onne: Do you know how these schools are usually chosen?

Expert 6: They have a list of all the schools in the municipality and then they took them one by one. Another municipality close to Stockholm they combined it with when they were working with the whole area, around the schools, with many schools, they were working with speed plans in that area and they were taking a larger grip of the traffic system and to make a safer system. So then the choose this schools and both the parents and children going to the school and the people living in the houses near the school were invited to meet so they could together discuss the traffic safety and other aspects around traffic in their neighbourhood. So they took a large neighbourhood every time and combine it other measures.

Onne: I guess that make sense to do it at the same time.

Expert 6: That was very good, they were able to make all the infrastructure changes at the same time in the same area.

Onne: Maybe some more general questions, if you look at the trends in cycling or any kind of changes in cycling, then are there some kind of things or changes, that when developments take place, they focus more on certain things, like making the roads larger or in a different way or campaigning more or anything.

Expert 5: That's a complex question, we can start with the trends. I think cycling among young people is going down, also in the rural areas. And the people who cycle more nowadays it's more in larger cities. Middle class people going to work. So that was about the trends. What was the second part of the question?

Onne: In cycling-related developments what are the things that you see? In Gothenburg they for example said that the infrastructure is good, and now when they are redeveloping some areas they make sure that the pedestrians and cyclists are very clearly separated, and they make the paths wider, for example.

Expert 5: One trend is for example this larger variety in vehicles in the bicycle paths, so you have electrical bikes, normal bikes and slow bikes and everything, so you need to work with that. And the bicycle paths today are a mix of cyclists in a slow and moderate speed. In Gothenborg they call this trend the fast bikers mixed with mothers drinking cafe latte, and the women they go with their mobile phone and they are a bit distracted. So that's a challenge. You have to design the infrastructure in another way now.

Onne: If you look back, I guess in nowhere in Sweden cycling is on the level of Copenhagen or Amsterdam, but if you compare it to Tallinn, then it is a lot more. Would you say that in the last 10 years there was a kind of trigger that made this possible that you now have more cyclists than ten years ago?

Expert 5: I think electrical bikes is one trigger, it makes cycling easier for people who are a bit older, 50+ or something like that.

Expert 6: People living denser I think. The cities are growing from the inside more than expanding. There's not so much urban sprawl. The developments are more inside the city and in the outskirts. So I think it's more densely populated in most cities and there are more people in the cycling distance. But I think that's a slow and small trend.

Onne: If you compare the different cities in Sweden, I've heard that in Malmo there's a lot of cycling, I don't know how it is in Stockholm. Which city has the most cycling and how does Gothenburg rank in this list?

Expert 5: In Gothenburg 8% of the trips are made by bike, in Malmo I think it's about ¼, and Stockholm is about Gothenburg, or what would you say Expert 6?

Expert 6: Yes it's about Gothenburg, maybe a little bit more. Maybe 10%, at least in the inner part.

Onne: Do you think there's a reason why in Malmo it's more?

Expert 5: There have been books written about this, I think the closeness to Copenhagen is one thing, but also that Malmo used to be an industrial or workers down and it was part of the tradition. Gothenburg is also a worker down but it's car industry town, so car is very important for the city and car driving has a strong case because of that. Malmo is also almost only city centre, Gothenburg is more spread out, and there are a lot of not populated areas, but if you look at a map, Malmo is only very dense with people everywhere and it's rather small.