

CREATE - City Report

Tallinn, Estonia

Past, Present and Future mobility challenges and opportunities in Tallinn

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II. Introduction

As part of the CREATE project, research work was undertaken in all ten CREATE cities to gain an overview of the conditions linked to mobility and assess data availability in each city. City partners provided relevant qualitative and quantitative information about their city and hosted a Focus Group involving key local stakeholders. This report summarises research findings in the city of Tallinn, Estonia. First, the monograph reports on the analysis of the Focus Group, second the city profile provides additional relevant data about Tallinn. This report will serve as the basis for the CREATE's cross-city comparison.

III. Context & Methods

Tallinn's City Report is based on the combined analysis of the 'city profile' quantitative and qualitative data provided by the city of Tallinn and the analysis of the Focus Group.

On the 1st of February 2017, the city of Tallinn hosted a Focus Group that aimed to gather key stakeholders to discuss past, current and future issues related to urban transport in Tallinn. In total 14 participants attended the Focus Group. The participants were carefully chosen as stakeholders representative of different key sectors in Tallinn. A range of experts, who all demonstrated deep understanding of Tallinn's past, present and future transport and urban planning, took part in the Focus Group. Ten participants represented Tallinn's local authority, including nine local transport policy-makers from the transport department and one participant from the planning department. One participant represented both the National Government and civil associations lobbying for sustainable mobility. Three participants were academics. Of those three, two were from engineering departments and one from an urban planning department. Participants all signed consent forms and confidentially agreements.

The focus group was conducted in English by Dr. Cavoli from UCL. It followed a topic guide which was previously sent to all participants (See Annex A). The topic guide is divided into three parts. The first part focuses on understanding Tallinn's past related to urban transport and planning. The second part addresses the present situation, including defining the biggest challenges the city faces. Finally, future challenges and opportunities related to urban mobility and planning in Tallinn were discussed. In order to analyse data from the Focus Group and undertake a cross-city comparison, a framework matrix was established following the topic guide. First, key data was transcribed from the recording of the focus group. Second, content analysis was applied. The results are summarised in the monograph below.

The City Reports and the cross-city comparison work undertaken in the context of CREATE aim to improve policy-making and planning in Tallinn and other CREATE cities by providing tailored advice for each city.

Where opinions are expressed about the causes of change or the significance of specific aspects, these are with the sole intention of guiding further analysis under the CREATE programme and to act as a starting point for that further qualitative analysis.

IV. Tallinn Monograph

1. Understanding the past

The first question discussed during the focus group was *‘How has urban transport and land-use evolved over the past 10 to 15 years in Tallinn?’* Participants were asked to think about any significant societal, demographic or cultural changes, or changes related to mobility demand. Participants were also asked to describe *how public authorities responded to those changes. How have urban transport and land use policies evolved over the past 10 to 15 years?*

I. Defining moments in History

As with other former Soviet countries, one of Estonia’s defining historical moments was its departure from the Soviet Union, when independence was declared in 1991. Following this, deep structural economic and political reforms were put in place, primarily associated with increased liberalism and capitalism. This led to Estonia’s membership of the European Union in 2004. Shortly after this, the country joined the Euro in 2011. Since the 2000s Estonia’s GDP¹ has been gradually increasing making Estonia one of the strongest economies of the new EU member states². Estonia has been at the forefront of the information technology (IT) sector since the mid-1990s, and has one of the most advanced e-Government platforms in Europe. Their governmental IT system also allows non-residents to become *e-residents*³. This programme has proved successful in Tallinn, the capital city, and has contributed to an increase in annual revenues for the city.

¹ Gross Domestic Product

² The new EU member states often refer to member states who have accessed the European Union from or after 2004. They include: Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia who joined in 2004, and Bulgaria and Romania who joined in 2007 and Croatia in 2013.

³ Virtual residency

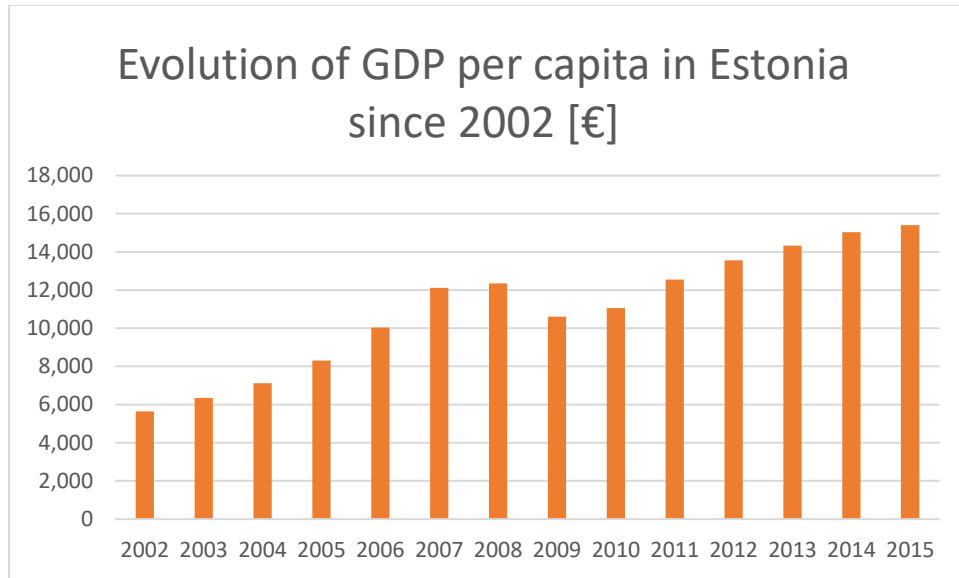


Figure 1 Evolution of GDP per capita in Estonia in Euros. Source: Statistics Estonia

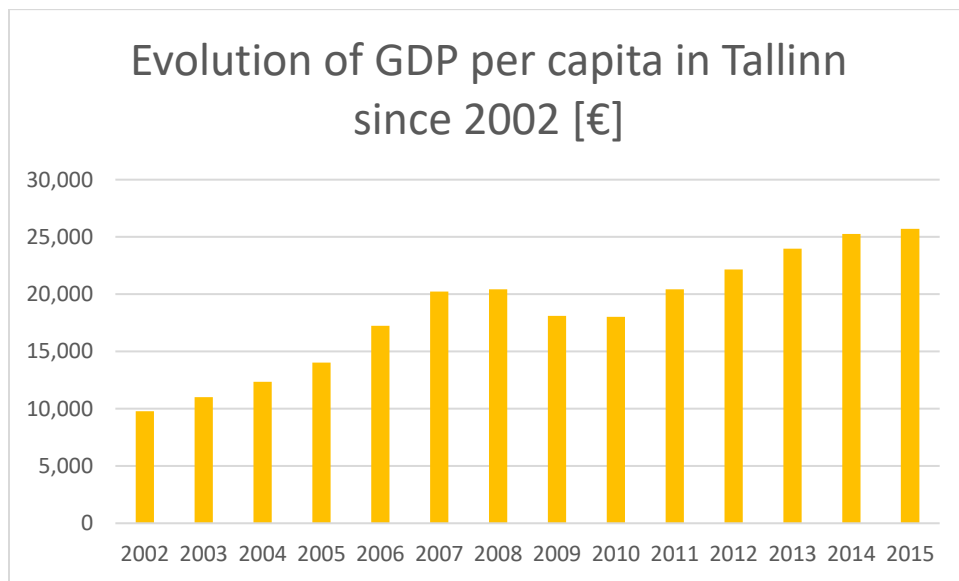


Figure 2 Evolution of GDP per capita in Tallinn in Euros. Source Statistics Estonia

II. Tallinn – key urban transport and land-use changes over the years

Evolution of Urban Planning: Increased Urban Sprawl

Participants reported that urban sprawl has increased sharply in Tallinn since the early and mid-2000s, in parallel with the rise of private motorised vehicles. During the Soviet time, building on agricultural land was forbidden. Following Independence, lands in rural areas were given back to their previous owners who sold them to newly privatised companies. Ownership reforms did not specify requirements for density, and, according to some participants it “went too far” and led to unplanned low-density

developments. More generally, since Independence, the rights of private owners have taken precedence over the Soviet ‘general planning’ rules. As a result, numerous industries relocated outside Tallinn’s city centre where property prices were low. Commercial malls built on the outskirts of Tallinn became a common sight and led to increased reliance on private car use. Private developers also started to build low density houses. Residents who could afford a private motorised vehicle started to move to Tallinn’s suburbs aspiring to live in privately owned houses. As highlighted by one participant:

“Soviet cities were very much concentrated in apartments, [90% of residents in Tallinn’s city centre live in apartments], so the opportunity to live in a privately owned suburban house was very important for people”.

To respond to this demand, banks started to issue mortgages from the 2000s (that did not exist during the Soviet time), leading to a real estate boom in the mid-2000s. In parallel, increased access to cars led people to convert their secondary ‘country side’ house into their primary home, leading to increased car trips between Tallinn and neighbouring rural areas. Those developments were not part of a spatial planning strategy and were not integrated with any transport plans or policies. There was a general lack of urban policy response. The lack of public transport provisions in suburbs and other basic facilities (such as schools or medical centres) led to car dependent patterns for trips between Tallinn and its suburbs.

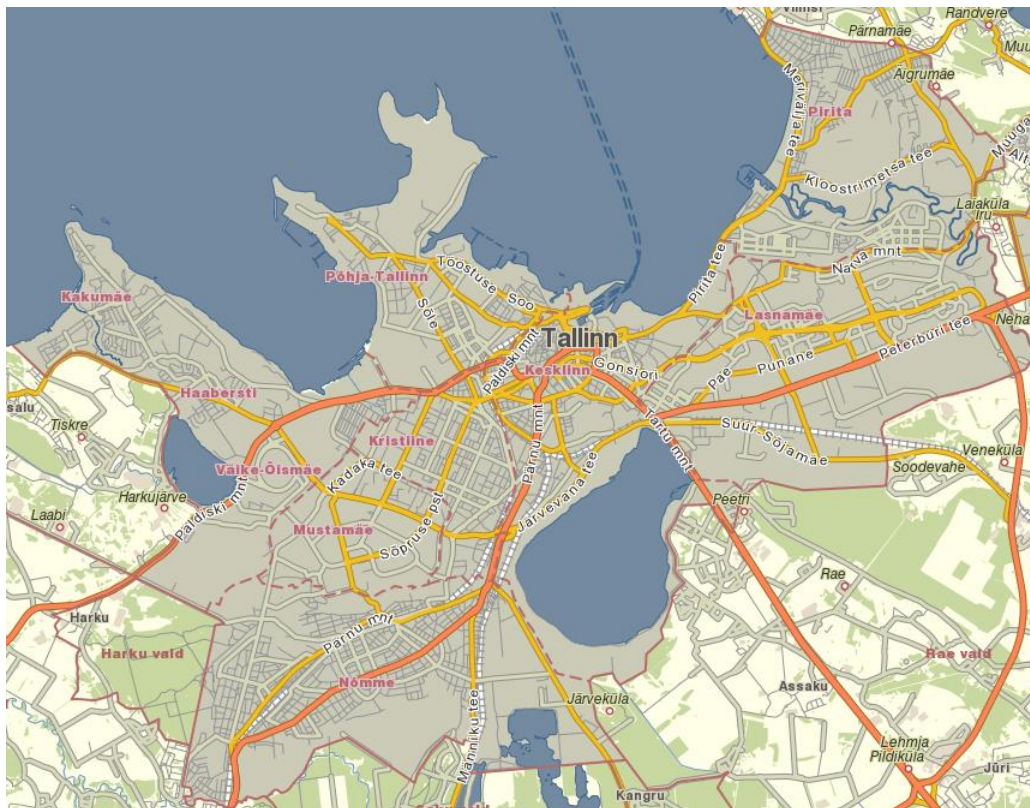


Figure 3 Map Tallinn in 2017. Source: www.tallinn.ee

Increased car ownership levels

Under Soviet rules, car ownership levels were very low. Obtaining a car was extremely complicated and most people could not afford them – they were considered as “luxury objects”. Following the independence and the continuous GDP growth, in particular since the 2000s, car ownership levels grew gradually and cars started to be viewed as “practical affordable objects” (as illustrated in figure 4). As incomes increased and banks offered loans, a growing number of people started to purchase vehicles. This also coincided with the entry to the EU in 2004 when access to the common market made buying new and second-hand cars more convenient and cheaper. Car ownership levels went down slightly during the 2008 financial crisis but they started rising again following the crisis. Similar trends can be noticed in Tallinn, as illustrated in the graph below indicating the number of passenger cars in Tallinn since 2003.

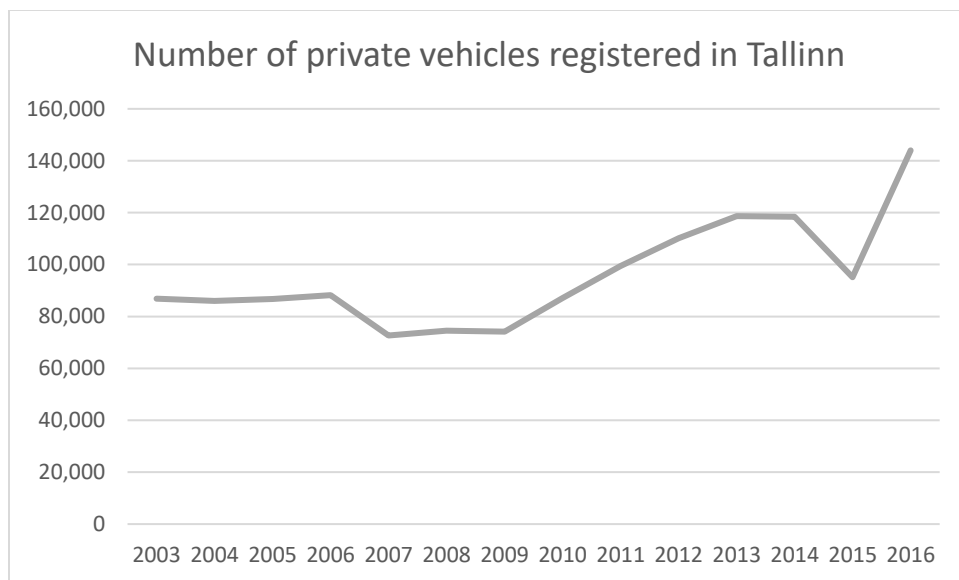


Figure 4 Number of private vehicles registered in Tallinn. Source: Estonia Road Administration⁴

Decreasing fuel prices

In parallel with the increased accessibility to private motorised vehicles, fuel prices have been going down in Estonia (as illustrated in figure 5). These changes led to improved conditions for car owners and for car users in Tallinn; commuting by private car has become increasingly affordable.

⁴ Note that the drop in the number of vehicles in 2007, 2008 and 2009 is due to data cleaning as explained by local technicians in Tallinn.

Evolution Fuel prices in Estonia (in Euro)

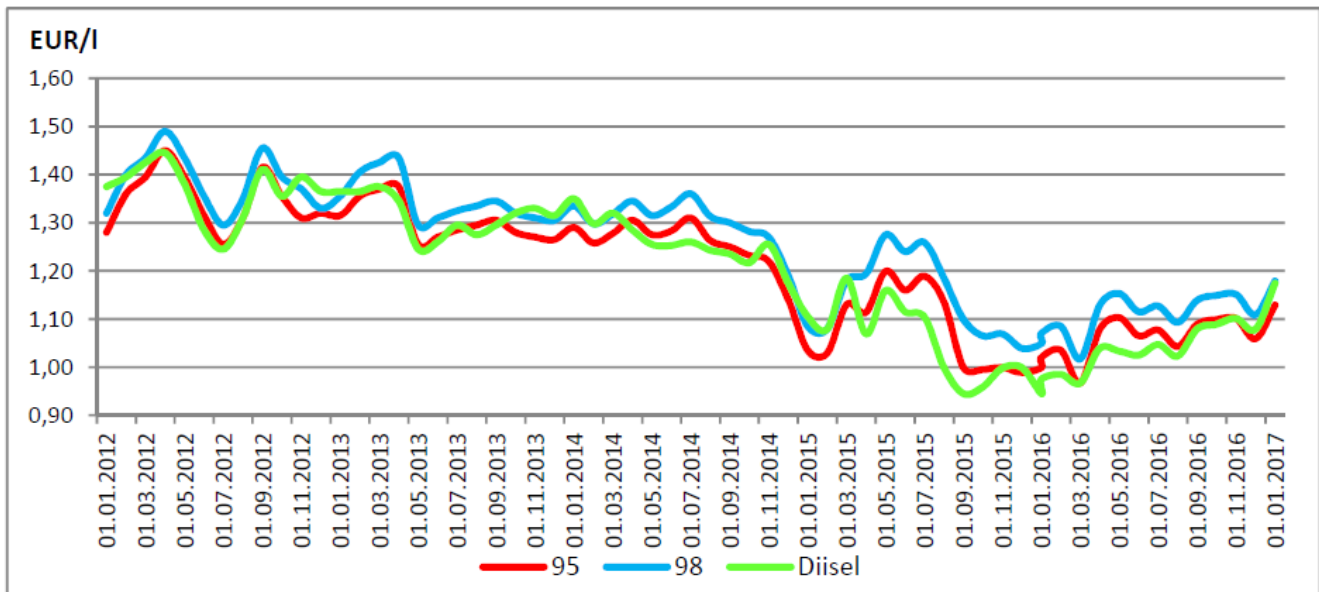


Figure 5 Evolution Fuel Prices in Estonia. Source: Liiklusloenduse tulemused 2016. aastal Maanteeamet.
https://www.mnt.ee/sites/default/files/content-editors/Failid/Liiklusloendus/2016/aruanne_2016.pdf

Changes in Modal Share

Tallinn's continuous urban sprawl and increased in car ownership levels have led to gradual changes in modal share. Walking has been gradually decreasing whereas car use has been increasing. Within the city centre the use of public transport remains high but it falls drastically outside the city centre where densities are low and public transport facilities sparse. With the increase in urban sprawl, commuting time has also been increasing. Over the past five years, the use of the bicycle has become more common in Tallinn. This is partly explained by the "Global trend of renaissance of cycling" leading to a rise in cycling culture. Since joining the European Union in 2004, Estonia has benefitted from access to structural funds leading to significant investments in transport infrastructure. Rail was targeted and various developments within Tallinn and connecting Tallinn to neighbouring cities were established. This has led to an increase in freight and passenger rail transport in Tallinn.

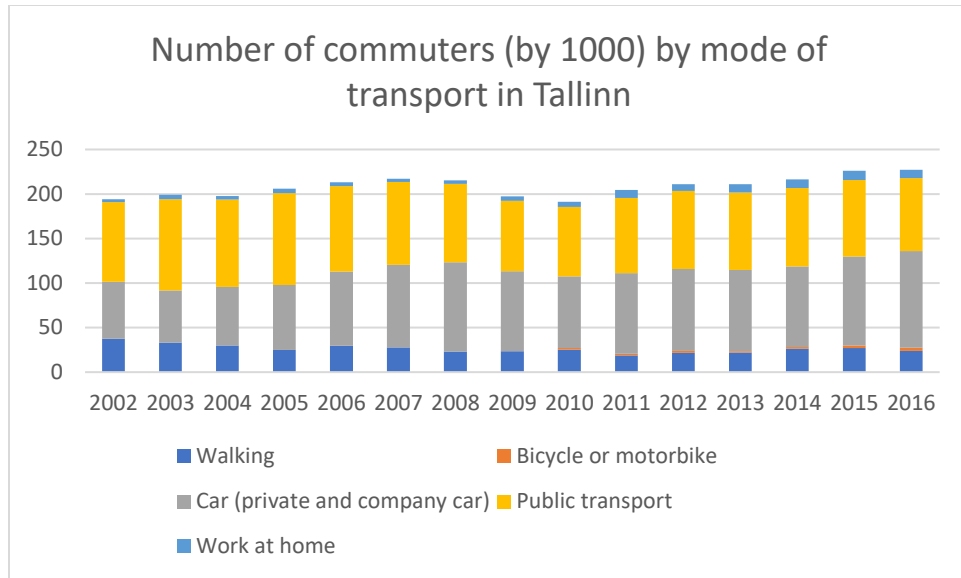


Figure 6 Number of commuters (by 1000) by mode of transport in Tallinn. Source: Statistics Estonia; Labour Force Survey, testimony-based

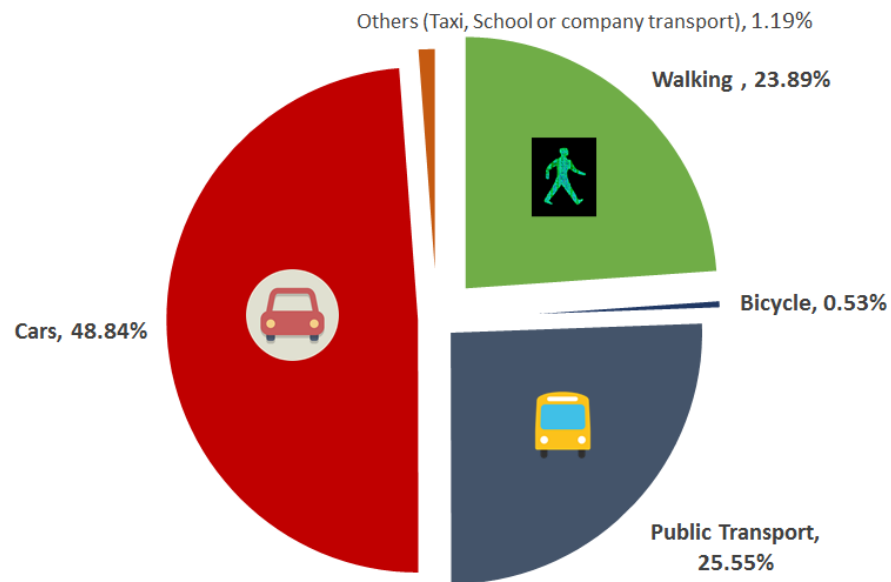


Figure 7 Estimated modal share in Tallinn

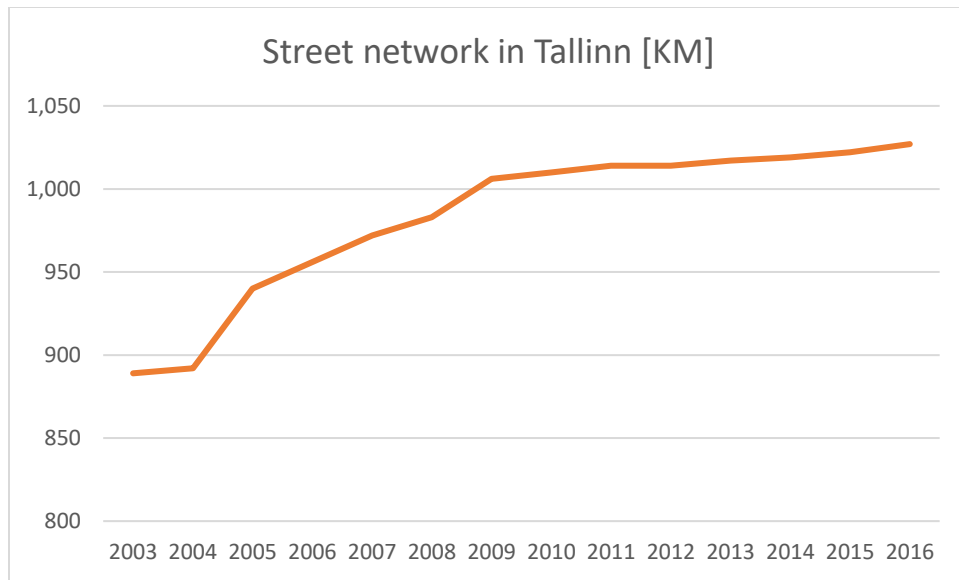


Figure 8 Kilometers of street network in Tallinn. Source: Tallinn Municipal Engineering Service Department

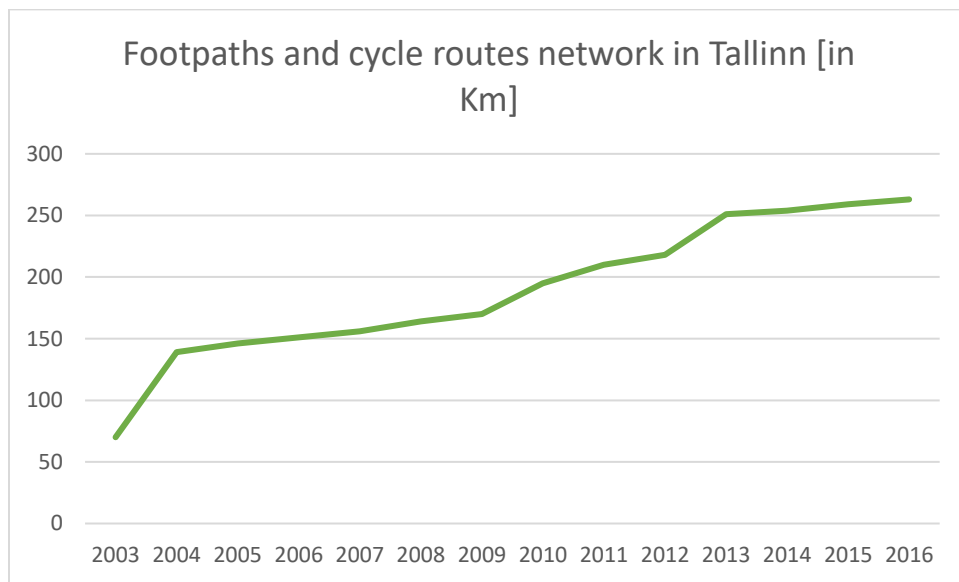


Figure 9 Kilometers of footpaths and cycle routes in Tallinn. Source: Tallinn Municipal Engineering Service Department

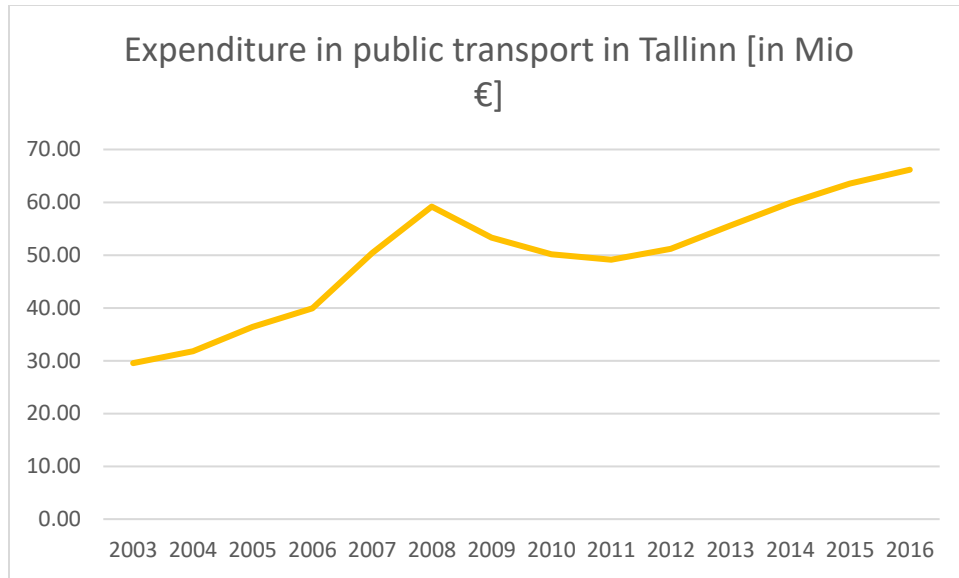


Figure 10 Expenditure in public transport in Tallinn [in Mio Euros]. Source: Tallinn Transport Department

Demographic Changes

Overall, Estonia's population has been decreasing, as many Estonians are going to live and work abroad. However, Tallinn's population has been gradually increasing since 2004. Participants mentioned that it is common for people who live outside Tallinn to register themselves as local resident of Tallinn so that they can benefit from certain advantages such as free public transport. This might affect the accuracy of the population data for the Tallinn region; potentially more people might be living in Tallinn's neighbouring cities than officially registered.

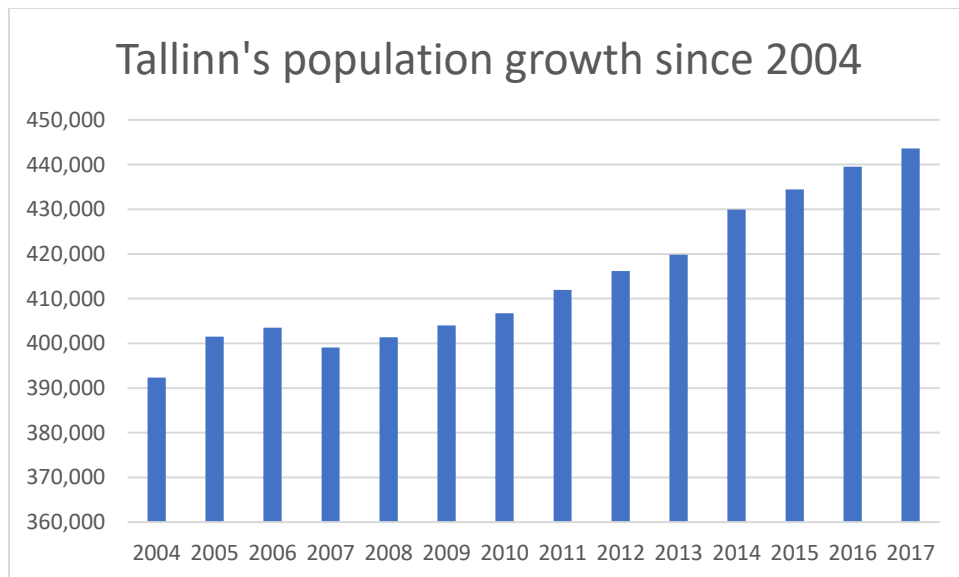


Figure 11 Tallinn's population growth since 2004. Source: Estonian Ministry of the Interior, Population Register

III. Tallinn – How did public authorities respond to changes in urban transport and land-use?

Free Public Transport

The various changes described above contributed to the public authorities' decision to make public transport free in Tallinn available to all local citizens in 2013. Prior to this decision being made, public transport was already heavily subsidised - 70% of its running costs were subsidised and 30% were made from the price of passengers' tickets. Residents who live outside Tallinn do not benefit from free public transport and therefore have no incentive to use public transport. According to a participant that "increased the willingness to drive by car for those who are living outside the city boundary". This is also accentuated by the fact that, outside Tallinn, public transport accessibility is limited and the quality of public transport is poor compared to Tallinn's.

Sustainable mobility policy measures

- Parking Fees

In 1993 Tallinn's city council introduced parking fees in certain areas in the city centre. Parking fees have been gradually increased since then. The parking zone has also gradually expanded throughout the city.

- Bus lanes

In 2012 the city council established a corridor of circa 23 kilometers of connected bus priority lanes. Prior to this the city had a number of bus priority lanes but they were not connected. A study was commissioned in 2008 to establish where to locate those bus lanes.



Trolley Bus in Tallinn, 2012, Guillaume Speurt⁵

⁵ Reference: https://commons.wikimedia.org/wiki/File:New_and_old_trolley_bus_in_Tallinn.jpg

- Participation in EU projects

In 2005 the city of Tallinn participated in the EU funded CIVITAS SMILE project focusing on sustainable mobility. Tallinn was part of a Consortium with the city of Malmö (Sweden), Norwich (UK), Suceava (Romania) and Potenza (Italy). The project generated best practice information regarding bus network improvements. In 2008 Tallinn also participated in CIVITAS MIMOSA. In the context of this project, several measures were tested in Tallinn, including reviewing public transport information graphics to improve the image of public transport and user experience. As stated by a participant: “It was a big step for Tallinn to participate in EU research and development projects”. Furthermore, in 2012 Tallinn received funding from Interreg to establish transport links between Helsinki and Tallinn and to connect Tallinn’s urban node with the airport. This led to the development of an on-going tram project to connect the city centre to the harbour and to the airport; the airport has been accessible by tram since September 2017. A feasibility study has also been done to build a tunnel between Tallinn and Helsinki. In 2016, circa 9 million trips were made between Helsinki and Tallinn. The majority of those trips involved getting to the harbour most often by driving through the city centre.

- Park and Ride

In 2013 a new public transport ticketing system allowed people to use public transport for free if they use the park and ride facility. Four park and ride sites (containing approximately 300 car places) were established mostly in the outskirts of the city. The difficulty for the city of Tallinn is that it owns very little land, so the city has limited choice and depends on the national government to get the schemes approved. The park and rise system targets residents who live outside of Tallinn and who commute to Tallinn by car. The city council plans to build more park-and-ride facilities.

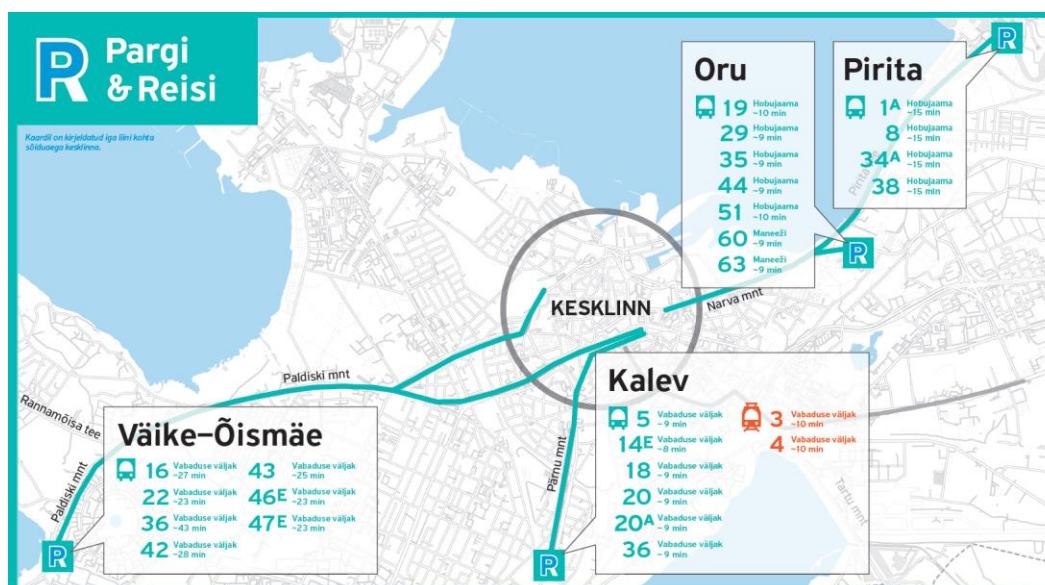


Figure 12 Park and Ride sites in Tallinn. Source: www.tallinn.ee

Planning policy response to changes in urban transport and land use

Tallinn General (spatial) Plan was established in 2001, but it has not been renewed since then. As described by one participant, there is “an absence of comprehensive plans” for the city. Tallinn is divided into eight city districts and each city district has its own urban plan. But these plans do not contain action plans with a specific timetable. District plans were described by one participant as “nice books of all the wishes without any particular schedules to implement those lists”. As far as planning permission is concerned, the priority is given to private developers and the city council has limited control over how private land is used. Property rules, and indirectly planning rules, are decided at the national level and therefore potential changes should be decided by the government.

The city of Tallinn does not have a sustainable urban mobility plan, and has no action plan related to transport. One participant joked that local policy-making processes follow the motto: “Just action, action, and only then, thinking”. In 2016 the city council, in collaboration with the national level, initiated a process to establish a Sustainable Urban Mobility Plan.

2. Defining the present

The second part of the focus group raised questions relating to the present situation in Tallinn. Participants were first asked ‘*What are the biggest challenges for urban transport and mobility in Tallinn?*’ Then they were requested to describe *current policy priorities for urban transport in Tallinn*. Finally, participants were asked ‘*What influences transport policies in Tallinn?*’ for example, regional, national or supranational influences or demands coming from local citizens such as lobby groups or the press, etc.

I. Urban Governance in Tallinn

Who makes decisions in Tallinn?

Tallinn’s city council is responsible for transport policy and infrastructure within the city’s boundaries (the total land use area is 159,2 km²), as illustrated in table 1. Trams, trolley-buses and buses located within Tallinn’s administrative borders are fully integrated and are managed by two operators, Tallinn City Transport (owned by the City Council) and a private operator MRP Linna Liinid (as illustrated in Table 1 below). However, commuter trains and the regional bus network are managed by the national level. Tallinn’s City Council is responsible for planning public transport services and developments and for managing parking and traffic.

Entity	Estonia's national government	Tallinn Transport Department	Tallinn's public transport operator (Tallinn City Transport Ltd)	Private transport operator (MRP Linna Liinid LLC)
Responsible for	<ul style="list-style-type: none"> • Commuter trains • Regional bus network 	<ul style="list-style-type: none"> • Planning, ordering and monitoring public transport services in the city financing the system (fares, tariffs, subsidies) public transport development • Parking managing and parking control • Traffic management via traffic signs, traffic lights etc. 	<ul style="list-style-type: none"> • 89% of total public transport volume including trams and trolleys 	<ul style="list-style-type: none"> • 11% of total public transport volume

Table 1 Repartition of responsibility for transport provision in Tallinn

The city of Tallinn does not need the approval of the national government to decide how to spend its budget. The city council can take decisions independently from the national government. However, private property laws are regulated by the national level and the local authority has limited control over privately owned lands or buildings. The majority of the local budget comes from income tax. Approximately 11% of Tallinn's budget is provided by the national level. As stated by a participant there is "*Little leverage for the local authority to raise money*". In that respect, parking tickets and fines have been an effective way for the local authority to raise its budget and gain increased autonomy.

What influence local policies in Tallinn?

Local policies in Tallinn are strongly influenced by policies coming from the national level. Until recently the national government in Estonia and the City Council in Tallinn were governed by two different political parties. "*For a long time there was a struggle between the city and the state*", stated one participant. Since October 2016 a coalition between the Centre Party, the Social Democratic Party and the Pro Patria and Res Publica union rules the national level. This coalition is aligned with the local party, so now "there seems to be more willingness to co-operate". This might influence local policies positively.

The most recent changes in the planning regulations were initiated by the national government to stimulate the economy. The changes aimed to accelerate the planning application process by reducing bureaucracy. Numerous stakeholders, including architect associations, were consulted and voiced their concerns, but their views did not influence the government's final decision.

The decision to make public transport free for all residents was a decision made by politicians for various reasons, but, according to some participants: "It was not the outcome of transport planning decisions or transport policy analysis".

Participants also mentioned that EU funding – either coming from research and development programmes or from structural funds - influences decisions made at the local level. It steers investment and policy decisions related to transport.

Where does the city of Tallinn get its guidelines from?

It depends on the topic, but usually, for technical projects the guidelines come from the national level. In some cases, Tallinn uses European guidelines.

Which funding agencies does Tallinn approach if the city wants to get funding?

Estonia has been receiving funding from the EU structural funds. Both the national and the local government are reluctant to get loans (in February the city had none) but they are keen to get EU grants and to access structural funds. They have been involved in several CIVITAS programmes, in particular SMILE and MIMOSA. In some cases, structural funds have fostered the development of extensive highway infrastructures linking neighbouring cities to Tallinn. One participant highlighted that "these are contradicting policies" as it is likely that it has contributed to the worsening of congestion levels in Tallinn.

I. What are the biggest challenges for urban transport and mobility in Tallinn?

- Car dependence & high levels of car use

Most participants agreed that car dependence is one of the city's biggest challenges. Car use levels are high and so is congestion. Citizens, in particular residents of Tallinn's suburbs, expect to be able to commute by car to Tallinn.

- Lack of urban and transport planning

Issues related to uncontrolled urban sprawl, as previously mentioned, are a major challenge for the city of Tallinn. There are still no regional rules that make public transport links compulsory for new-build developments within and outside Tallinn. Public transport and land use policies are not yet integrated. More generally, the absence of planning documents poses problems for transport policies. Currently, there is no planning document covering the whole city. The only comprehensive plan dates from 2001. The individual urban plans produced by each of Tallinn's eight district areas, are not integrated.

- **Lack of multi-level governance collaboration related to urban planning**

There are “*institutional gaps relating to the organisation of public transport at the regional level*”, the city-region “*lacks an integrated planning for housing, spatial and mobility issues*”, as described by participants. The only transport decisions made at the regional level concern the bus network; but other modes, such as trains, park-and-ride or accessibility by bike, are not included. There is a need to put in place institutional changes to foster collaboration between the national, regional and the local level to deliver integrated urban and mobility planning. One of the steps that was taken by public authorities to address this challenge was the decision to employ one person who would spend half of her time working for the road authority at the national level and half of her time working for the transport department at the local level. That person was tasked with the elaboration of the Sustainable Urban Mobility Plan for Tallinn. Initiatives like this one could help build bridges between levels of governance.

- **Road Safety for pedestrians and cyclists**

In Tallinn, road accident rates are very high, especially for pedestrians. Part of the problem is that the street design “is very technical and does not support pedestrians or cyclists”.

- **Limited understanding of transport demand in and around Tallinn & lack of evidence-based policy-making**

The city of Tallinn does not have a comprehensive household survey, but in 2015 a one-day travel diary survey was undertaken. However, the data has not yet been fully analysed and only focused on Tallinn, not its suburbs. The city lacks data at the regional level: “There is a need to understand mobility patterns around Tallinn” highlighted a participant. Data modelling is not currently harmonized across modes: ideally it should include car travel and public transport. As emphasized by a participant “it is also about the political will to base our decision on actual scientific research, perhaps that is not yet common practice” and is not reflected in current budget allocations. The city is currently developing a Sustainable Urban Mobility Plan but lacks data to inform it.

- **Lack of taxes to discourage people from owning a car**

Estonia’s national government does not tax car registration or other related taxes linked to car ownership. It is not currently legal to establish a congestion charge in Estonia, as it is not formally included as a legal measure local authorities could implement. Until now, the governing party at the national level has not considered changing the law to include a congestion charge. Car taxation policies were not aligned with the previous political party’s philosophy, but participants noted that this might change with the current government.

II. What are the current policy priorities for urban transport in the city?

The lack of urban mobility plans makes it difficult to understand what Tallinn’s current transport policy priorities are. Policy-makers rely on short-term plans that are established at the start of each financial year, but there are no long-term strategic plans. Current mobility projects include:

- Designing liveable streets

The 'Main Street Project' is an on-going collaborative project between the national government and the city council to redesign a street in the city centre (see illustration in Figure 13). The objective is twofold: firstly to improve the public space by reducing car traffic, secondly to improve the street's connection with the popular harbour area. This is a pilot project that also involves collaboration between the town planning and associations of architects. This project is co-funded by the European Union.

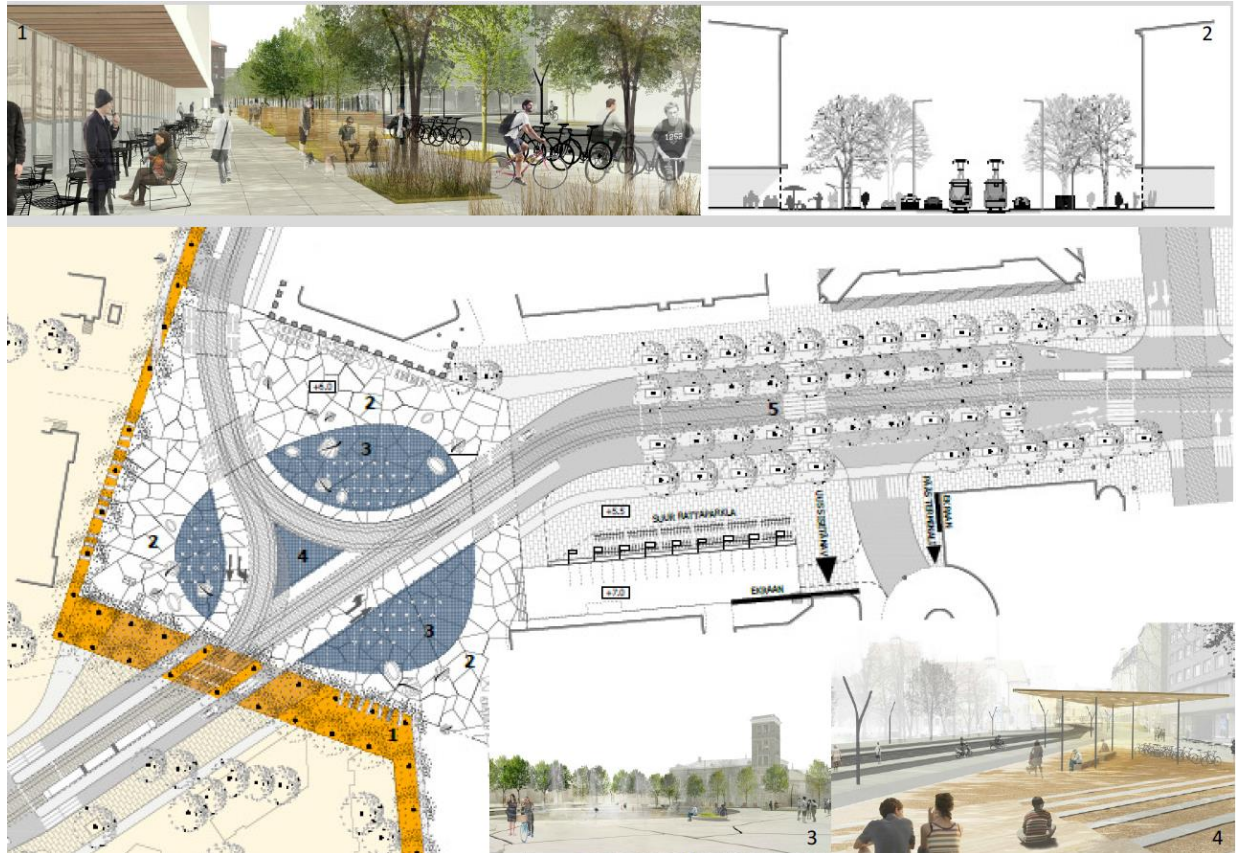


Figure 13 Tallinn 'main street' project. Source: www.tallinn.ee

- Improving road connectivity

There are on-going plans to build a new road to improve connectivity to the harbour area in the city centre. The street is being built so that it can accommodate car traffic. As mentioned by one participant it would “allow 30% to 40% more cars into the city centre” but this is incompatible with other sustainable mobility policies. The road is planned to be built by the waterfront and will also constitute a physical barrier preventing pedestrian access to the waterfront. These contradictory policies are explained by the fact that political decisions are made to ‘please’ different lobby groups, including car owners who tend to be “very vocal”. But also, this is the continuation of infrastructure projects that have been planned for decades.



Tallinn's aerial picture of the harbour area. Source: Willa <http://willa.me/take-the-tallinn-cruise-in-estonia/>

What are the challenges for delivering those priorities?

- **Politics**

Politicians want to make popular decisions that are not necessarily contributing to the common good or that are not always based on rational urban planning.

- **'Old school thinking'**

One of the obstacles is that many stakeholders still have an 'old school thinking' 'engineer-focused' way of solving traffic problems.

- **Lack of comprehensive strategy**

The absence of a comprehensive strategy and action plan is a barrier.

- **Lack of cross-departmental co-operation**

The different stakeholders are not 'joined-up' by a common plan. Usually, different policy departments do not co-operate but act as "independent bodies".

- **Inconsistent political and policy plans**

On the one hand the importance of giving the "Waterfront back to the people" is acknowledged, and on the other hand there are plans to build a road along the waterfront.

3. Shaping the future

During the last part of the focus group participants discussed the future of mobility in Tallinn. Participants were first asked ‘*What are the future challenges the city is likely to face in the coming years*’ for example, demographic changes. Finally, the discussion focused on potential innovative policies that could accelerate sustainable mobility in Tallinn.

I. What are the future challenges Tallinn is likely to face in the coming years?

Current challenges in Tallinn are likely to continue and there might not be political will to address transport and urban planning problems; “*With every year the problem solving becomes more difficult*” emphasized one participant.

Public authorities estimate that Tallinn’s gradual population growth will continue, but at manageable rates as indicated in figure 14.

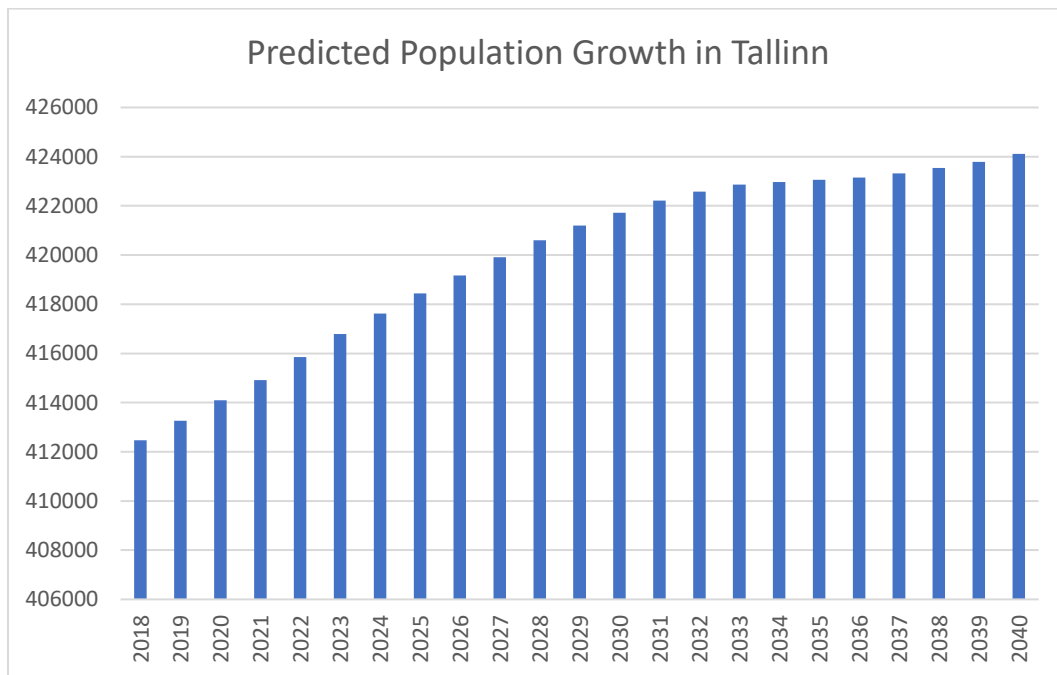


Figure 14 Predicted population growth in Tallinn. Source Tallinn's city council

III. What are the future opportunities in Tallinn?

- Congestion

Congestion might encourage people to start using other modes of transport, such as walking or cycling or public transport if it goes faster.

- **Shift in modal share**

As highlighted by one participant, Tallinn has an opportunity not to “*build more capacity for the roads and to provide more capacity for public transport and to provide better cycling and walking facilities and less parking spaces*”. A study undertaken in one of Tallinn’s neighbourhoods near the peninsula (Põhja-Tallinn) highlighted potential future long-term scenarios. The first scenario is a *Car-oriented option*, focused on maximizing car flow. The second scenario is based on a *Car-less future*, where density, access to public transport and pedestrian and cycling space are increased. The last scenario is the *Small town option*, a combination of the previous two options; making space for cars but also for other modes. The *Car-less future* option is considered by some as being the best option to create a liveable space. But to date no decision has been made. Furthermore, the city council has limited control over privately owned land in those areas, so implementing the plan might prove very difficult.

- **Comprehensive transport and urban planning strategy**

In Tallinn, traffic models are owned by two private companies. If these companies could collaborate with developers, future development projects would be more integrated and the city would have a better understanding of how developments are going to affect traffic flow and movements throughout the city. Furthermore, there is an opportunity to establish comprehensive transport and urban plans that connect different geographical areas in and around Tallinn. The SUMP is an opportunity as it “starts to integrate the planning more”. A comprehensive urban planning strategy is also key to overcoming political changes.

- **Private developers are increasingly interested in accessibility**

Accessibility by public transport, cycling or walking is now sought-after by private developers who used to be mainly concerned about parking spaces and access by car. It might become a “new driver” for public policies.

- **Need to assess the impact public and private transport investments have**

Public authorities should be able to understand and assess the impact transport investments have across policy sectors.

- **Cultural changes with a focus on urban life**

Less people seem to own secondary houses in the country-side so more people spend their life in Tallinn. Making cities liveable might become an increased priority. This shift could also lead to decreased car dependency.

- **Teleworking**

Teleworking has become more common as internet connection has been improving in Estonia. People who live outside Tallinn might be able to reduce the frequency of their trips to Tallinn. Similarly, one participant mentioned that older people who are still working should be given the opportunity to work half time and to work from home.

- **Schools should be near residences**

Even though in Tallinn parents are supposed to choose a school located near their home, in practice it does not always happen - in particular as schools or nurseries do not always have available space. This does affect traffic. Schools and nursery should be strategically located according to population data to avoid unnecessary trips.

- **Demand-based public transport**

There is a need to establish demand-based public transport. The city needs to make sure that the current public transport configuration adequately reflects travel demand/mobility.

- **Improved public transport connectivity**

There is a need to improve public transport connectivity to popular parts of the city centre.

- **Potential to increase densification in certain parts of Tallinn (in the North)**

In certain parts of Tallinn (in the North), it would still be possible to build high density developments.

- **Increased connection between Tallinn and Helsinki**

Increased connection between Tallinn and Helsinki could generate new mobility patterns. If public transport is integrated in the plan to build a tunnel, it could increase pedestrian movements in the two cities.

IV. Which innovative policies or technological developments could accelerate sustainable mobility in Tallinn?

- **Sharing economy**

Sharing economy might change “the way we own cars and move around”, but it might also be disruptive and replace ‘things’ that are working well, such as public transport. Taxis are categorized as public transport in Tallinn and are given access to certain spaces reserved for public transport, but some participants questioned this categorization and worry that if they become very popular they could render public transport less popular.

- **Teleworking**

Teleworking could reduce the number of trips made and should be encouraged in Tallinn.

- **Public transport developments in Tallinn and around**

As the city expands, it is important to ensure increased accessibility by public transport in Tallinn’s suburbs and neighbouring cities. The extension of tramlines has the potential to improve public transport within Tallinn and around.

- **Regional transport and planning policies are needed**

Regional policies are needed to ensure that urban planning and transport policies in and around Tallinn are integrated.

- **Integrated transport**

“Institutional innovation” is needed to integrate different modes of transport in Tallinn.

- **Creating a vision of the city**

The city of Tallinn needs to have a vision for what it plans to achieve.

- **Hyperloop**

Hyperloops⁶ might be part of the solution to increase connectivity between Tallinn and other cities.



Figure 15 Illustration Hyperloop. Source & Credit: Credit: Hyperloop Transportation Technologies (HTT)

One participant summarised the conversation by saying that “A lot of small things need to come together to reshape the system, rather than anything huge.”

⁶ An Hyperloop is defined in Wikipedia as comprising “ a sealed tube or system of tubes through which a pod may travel free of air resistance or friction conveying people or objects at optimal^[clarification needed] speed and acceleration”. Source: <https://en.wikipedia.org/wiki/Hyperloop>

V. ANNEX A – CREATE Topic guide S1 cities

Topic Guide Focus Group

Understanding the past

1. How has urban transport evolved over the past 10 to 15 years? (for example, linked to societal and cultural changes, mobility demand, demographics...)
 - a. How about land use?
2. How have urban transport policies evolved over the past 10 to 15 years?
 - a. How about land use and planning policies?
 - b. To what extent have those changes been affected by policies or legislation at the national or supranational level (for example changes at the EU level)?

Defining the present

1. What are the biggest challenges for urban transport and mobility in your city?
 - a. What are biggest challenges at a policy level?
 - b. What are the biggest political challenges?
2. What are the current policy priorities for urban transport in the city?
 - a. What are the challenges in delivering those priorities?
3. What influences transport policies in the city? (for example, regional, national or supranational influences or demands coming from local citizens such as lobby groups or the press, or competition with other cities...)

Shaping the future

- What are the future challenges the city is likely to face in the coming years (for example, demographic changes...)
 - a. And the future opportunities?
- What is the overall strategy for future urban transport policy in the city?
- To what extent can technological developments help solve urban transport problems in your city?
- Which innovative policies could accelerate sustainable mobility in your city?

VI. ANNEX B – CREATE city profile questionnaire

Introduction:

The topic guide below has been compiled to provide the CREATE project basic data about your city. We would like you to complete the questionnaire below by collecting/gathering information about your city. The data should be **official public data** as far as possible. However, we understand that at times it might be difficult to find the relevant data within your organisation. Even though we would recommend that you not provide unofficial data, if you do provide unofficial data (for example online data from Wikipedia) please make an explicit reference in the document.

Your city's administrative structure

- Could you please define the boundary of your city's administration?
 - When we talk about transport in your city, which territory are we talking about? (e.g. city centre, metropolitan area, other?)
 - Could you provide surface of land use area (km²) data, an indicative map, and/or any other useful indicators.

Demography

- How many inhabitants does your city have?
- Do you have historic data about the total number of inhabitants in your city (throughout the past decade or two)?
- Do you have predicted population growth?

Transport institutions

- Which entities are responsible for transport policies and operations in your city? (e.g. which department within your local authority? Any national entities? Any private transport operators?)

Transport Demand and Car Ownership

- What is the modal share/split (% of trips per average workday) in your city?
- Do you have historic data recording the evolution of modal share?
- Could you provide information about the development of the number of private cars (car ownership levels) and the number of driving licenses per inhabitants (city-wide)
- Do you have predictions related to future transport demand in your city?

Economy

- Could you provide data about the development of GDP (Gross Domestic Product) per capita in your city (over the years)?
- Could you provide current and historic data about the development of annual average fuel prices (diesel and petrol) distinguished between net values and taxes [€ per liter]

Local transport plan

- Does your city have a local transport plan and/or business plan or any other equivalent policy-making document? If so, do you have an English version?

Additional data

- Do you have additional data which would be relevant to establish an initial city profile?

Thank you very much for your collaboration. We would be grateful if you could complete and complement the questionnaire in the coming weeks. We need as much information as possible before the mid-term review report to be submitted to the EU Commission at the end of the year. Early next year we will ask you to gather further qualitative and quantitative information about urban transport and transport policy in your city.