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Planner's Guide to Sustainable Urban Mobility Planning

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Interreg
Baltic Sea Region

EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND

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www.cities-multimodal.eu

IMPRINT

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Project note
The EU co-funded project **cities.multimodal** – urban transport system in transition towards low carbon mobility (2017–2020) brings together cities, NGOs, universities and other expert partners to facilitate the use of sustainable mobility solutions for citizens in the Baltic Sea Region.

Activities and measures are implemented to promote walking, cycling, public transport and shared mobility services as more favorable alternatives to private car use.

Within **cities.multimodal**, partner cities develop and apply contemporary sustainable urban mobility approaches which are easily adoptable for follower cities. This includes a pilot area SUMP and multimodal mobility points where partner cities test and implement campaigns and innovative ways to involve citizens. Mobility management concepts are developed with different stakeholder groups.

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HOW TO PLAN FOR MULTIMODAL CITY QUARTERS

Many European cities face similar mobility challenges. They struggle with high and increasing volumes of car traffic causing severe congestion, poor air quality, noise pollution and CO_2 emissions. High volumes of cars compromise road safety and can lead to increased health issues among citizens due to reduced physical activity. More generally, car traffic can lower quality of life and take up precious space in cities.

SUSTAINABLE URBAN MOBILTY PLANNING has proven to be an effective approach to deal with these problems and many European cities now develop and implement Sustainable Urban Mobility Plans (SUMPs). In recent years, many cities have begun to promote walking, cycling, the use of public transport and of shared mobility services such as cars, bikes and e-scooters as alternatives to individual private car transport.

Although SUMPs include promotion of active and green modes of transport, these initiatives are still, in many cities, being regarded as isolated measures to overcome very specific challenges. Furthermore, only a few pioneer cities (in the Baltic Sea Region) fully applied this integrated approach of taking into consideration the whole functional urban area and cooperating with political and administrative decision-makers at all levels, with stakeholders and with citizens.

The aim of cities.multimodal

Through the framework of the INTERREG BSR project, **cities.multimodal**, cities, NGOs and expert partners from the Baltic Sea Region have developed and applied a low-threshold planning approach to strengthen environmentally friendly urban mobility. The aim of the project has been to demonstrate how sustainable urban mobility planning can look like, to provide strategy and support the shift towards multimodality in cities, and to provide an approach to more sophisticated planning procedures.

In order to make this process easier, the project focused primarily on dense inner-city areas with growing populations and mixed transportation. Due to limited space in these areas, there was a particularly high need for interventions. Furthermore, inner-city areas with their relatively short distances offer good opportunities for sustainable mobility.

All cities have selected a pilot area close to their city centre which was transformed into a multimodal city quarter through innovative measures and innovative planning processes.

Hands-on planning practices

The present “Planner’s guide to sustainable urban mobility” will give you an insight into the mobility mind-set of the participating cities, the chosen pilot areas, planning approaches and implemented measures in each of the cities. Retracing the implementation process, from planning for participation to the implementation of individual measures, this guide sets out to help planners, politicians and NGOs understand how sustainable urban mobility planning looks like in practice. Many guidelines on sustainable urban mobility planning have been issued, however, the focus of this guide is to present hands-on planning practices and measures to support sustainable urban mobility in city areas and neighbourhoods.

Putting the users first

The starting point for each city involved in the project was an analysis and comparison of the actual state of their local mobility situations. This step was instrumental to enabling the design of a planning process to set objectives relating to how each city would create their multimodal city quarters so that they were tailored to local needs.

Very often, traffic planning processes are organized top-down, with planners usually planning and preparing the interventions from their desk. This project involved a completely different approach. Inspired by the concept of

European Mobility Week 2019 in Karlskrona. Photo credits: City of Karlskrona

sustainable urban mobility planning, the project took a more people-centred approach and focused much more on involving citizens during planning and implementation of measures.

The participation of citizens in this project was not seen as an obligation or burden. Rather, citizens' local expertise was seen as a valuable and crucial input. Only the mobility options that actually meet citizen needs and are easy to use, will be accepted and successful. Inviting and involving citizens to engage in open dialogue also can itself initiate changes to their behaviour towards choosing more sustainable mobility options simply by asking them to ask themselves questions like: How can my personal travel behaviour change in order to create a better city? How much can I contribute?

In order to try less traditional citizen involvement methods like workshops or online surveys, the cities who participated tested different innovative participation tools during the project and before implementing any measures.

Within the project, cities implemented different yet complementary measures to create multimodal city quarters.

Mobility Points – infrastructure that makes change possible

The project took a two-pronged approach. The one was that cities who participated improved mobility infrastructure by building so-called **MOBILITY POINTS**. Mobility points are physical places that enable users to change between at least two sustainable modes of transport (like public transport, bicycle storage infrastructure, sharing offers, etc.). The function of these transport nodes is to increase the visibility, availability and connectivity of sustainable mobility in the city and to provide citizens with the possibility of being mobile without having to own a private car. Each city adapted the concept of the mobility point to its own local circumstances and to the citizens' needs and created one or several showcases for their cities in their respective pilot areas.

Campaigns – support behaviour change

The other prong of the project was that the participating cities developed innovative **CAMPAIGNS** to raise awareness about multimodal and sustainable travelling. Providing good infrastructure is only part of the effort to reduce individual car traffic; what is needed most is actual change to peoples' behaviour. In order to initiate a debate about urban mobility and peoples' daily travel habits, the cities temporarily redesigned streets into car-free or car-reduced zones – so-called **LIVING STREETS**. Citizens were thus invited to imagine, create and experience a life without a car.

Furthermore, **ITC-SOLUTIONS** are essential to making multimodal travelling easy and comfortable. Web and mobile based individual travel planning applications that integrate different transport options (public transport but also sharing options) enable citizens' individualized door-to-door travel.

Within the framework of the project, research on existing travel planning applications in the Baltic Sea Region was carried out to define quality requirements and give guidance to other cities in case they also wanted to procure such ITC-solutions.

The approach of **cities.multimodal** was not only to test different solutions and ways to strengthen multimodal transport in cities, but also to try out these solutions in different urban and cultural settings. Cities in the Baltic Sea Region and all over Europe are facing similar challenges but they are actually very heterogenous in scope, population and in their planning cultures and transport systems. By creating diverse and prominent showcases, the project aimed at presenting a wide range of solutions that can be transferred to many other Baltic and European cities.

The partners

Find out on the following pages, how Aarhus, Kalmar, Karlskrona, Guldborgsund, Gdansk, Pskov, Riga, Rostock, Tartu and Vilnius strengthened multimodality in their cities!

Read about how our expert partners – The Institute of Baltic Studies, The Technical University Berlin, The Union of Baltic Cities and the NGOs Allgemeiner Deutscher Fahrrad-Club Schleswig-Holstein and Polish Union of Active Mobility – supported the planning and implementation processes.

Enjoy the reading and we hope this inspires you to support a change towards more sustainable mobility in Europe!

Main Facts

Programme:	Interreg Baltic Sea Region Programme 2014-2020
Priority 3.5.:	Urban Mobility
Partners:	16 from 8 EU Countries and Russia
Lead Partner:	Hanseatic and University City of Rostock
Duration:	42 months (1.10.2017 – 31.3.2021)
Budget:	3.8 Million EUR

1 Aarhus

Has designed two very simplistic Mobility Points to accomodate the demands of the citizens in a central residential area

2 Riga

The project has given a significant impulse to sustainable and multimodal traffic to a former industrial area

3 Gdansk

Has created a temporary living street in an intersection in a residential area in the city centre close to a primary school

4 Rostock

Has implemented the first three professionally designed mobility points with a full automatic cargo bike sharing scheme

5 Tartu

Reimagined the intersection of the two streets Ülikooli and Vanemuise as a car-free zone for events and leisure and transformed the intersection into a temporary pedestrian zone

6 Guldborgsund

Is investigating how cycling infrastrure and specifically bicycle parking can be improved around the train station

7 Vilnius

Has developed an advanced mobility point based on objectives and principles of a newly adopted Sustainable Urban Mobility Plan and a SUMP for the city quarter Antakalnis

8 Kalmar

Is transitioning from production industry and urban sprawl to innovative service and leisure sector, hand in hand with traffic mitigation measures and active mobility

9 Karlskrona

Has carried out recurring mobility management campaigns which enable informed decisions regarding mobility in the city

10 Pskov

Pskov is the first Russian city to develop a sustainable urban mobility plan: The Sustainable Urban Mobility Plan 2030

SUSTAINABLE URBAN MOBILITY PLANNING FOR CITY QUARTERS

Sustainable urban mobility planning has proven to be an effective approach to solving the mobility challenges that most European cities face. Various master plans for urban mobility and traffic circulation plans present the main question for the **cities.multimodal** project as: how can sustainable urban mobility planning support a shift towards multimodality in our cities?

Although Sustainable Urban Mobility Plans generally are concerned with the promotion of active and green modes of transport such as public transport, cycling and walking, they are still seen as being isolated measures to overcome very specific challenges.

The **cities.multimodal** project demonstrates how sustainable urban mobility planning can advance beyond the traditional predict and provide an approach into much more sophisticated planning procedures, which entail innovative processes and measures in specific city quarters.

The foundation for implementing mobility points, living streets, carrying out campaigns and performing mobility management within partner cities has been sustainable mobility planning. Half of the participating cities have a Sustainable Urban Mobility Plan (SUMP) or are in the process of creating one. For the cities with an already existing sustainable urban mobility plan, the work on **cities.multimodal** has the added benefit of helping to teach important lessons to city planners on how to upscale the city's planning approaches more generally. In some cities, the development of a city SUMP has occurred in parallel with the efforts of a specific city area to the **cities.multimodal** project.

In **Aarhus** specifically, the mobility plan was adopted while the process of the city quarter mobility plan was underway. In contrast, the implementation of the measures of the city quarter mobility occurred prior to the implementation of measures of the city-wide mobility plan. Because of this, the planning approach taken in the city-wide plan was used in the planning process of the city quarter plan. Pilot measures are set to be taken as best practices for the implementation of the city SUMP measures.

Focusing specifically on a certain area can quicken the decision-making process and reduce the amount of time required prior to implementation. The citizens living in or near the pilot area will see measures implemented one year in advance, compared to more comprehensive measures from the mobility plan. Additionally, the measures that come later will be based on an even stronger collaboration between city and citizens.

In **Pskov**, the project provides the framework for the development of the first ever SUMP in Russia. The whole process of developing the plan was accompanied by working groups with the participation of city administration expert groups. These city administration expert groups played an active role in establishing the goals of the future sustainable development of the city of Pskov.

In **Gdansk**, an ambitious SUMP was developed for a large service and administration area of the city. The objectives of the plan were developed in cooperation with the residents, representatives of non-governmental organizations and political and administrative bodies. The objectives of the plan constitute a set of primary guidelines which set the framework for the entire planning process.

Kalmar defined their inner city as the pilot city quarter. The foundation of the SUMP process is the preparatory analysis conducted in the **cities.multimodal** project, along with the planning and implementation of the Mobility Point. These efforts have intensified during the project period, and have come to include mobility management activities as well. The activities were based on the conclusions in the SUMP and will most importantly provide input to the expansion of a SUMP for the entire urban area.

In **Karlskrona**, the city centre was the key area of focus. Development of the city quarter SUMP started during fall 2018 with the goal of creating a strategic document and a vision that could steer the mobility development of Karlskrona. The project group in charge of the development of the SUMP consisted of several important stakeholders such as representatives from different municipal departments, the local regional authority, the public transport provider and local academia.

A number of activities were executed in the pilot area of **Riga**. Numerous meetings with stakeholders were held, and in particular, an urban planning workshop for the "former VEF industrial complex and adjacent territory". This workshop was organised as part of **cities. multimodal** activities in close collaboration with various stakeholders from the VEF neighbourhood. The goal was to bring together the minds and diverse experiences of urban planners, residents of the VEF neighbourhood, businesses and other stakeholders interested in the development of this neighbourhood. The core aim was to create very specific, tangible ideas for the improvement of the urban environment and urban mobility.

In **Rostock**, the city quarter „Kröpeliner-Tor-Vorstadt" (KTV) was selected as the **cities. multimodal** pilot area, in part because public space is very limited and unequally distributed among its users (pedestrians, cyclists, car-drivers and others). The pilot area SUMP serves as a strategic planning document for the project activities. In parallel and at the request of the city quarters' advisory council, the local parliament has decided to develop a framework concept for the city quarter in the years to come. This concept will take a closer look at the city quarter from an urban planning perspective and should provide ideas and solutions to transform the city quarter into a greener and more liveable area with improved traffic organisation. The development of this framework concept will require significant stakeholder and citizen involvement, and in this regard, the city quarter SUMP can provide helpful materials and insights from the analysis and experiences gained through previous project activities.

The **Tartu** city quarter SUMP is primarily a reference document which refers to other planning documents regarding special planning and transportation activities. The SUMP is geographically limited to the central part of Tartu. The aim of the document is to give an overview of the issues and solutions planned for the pilot area. The City of Tartu has been extremely active with reagrd to mobility activities since 2015. Most of these activities culminated in 2019 with the introduction of new bus lines and the opening of an electric bike sharing scheme. Tartu has also prepared a new citywide cycling action plan and is preparing a new light transportation action plan.

Vilnius has recently adopted the Vilnius' Sustainable Urban Mobility Plan. A SUMP has also been prepared for Antakalnis according to the simplified practice and planning culture utilized during the process of putting together the Vilnius SUMP. A significant share of the solutions employed for the Vilnius SUMP will be applied and adopted for the area. During summer of 2018 various activities promoting multimodality in Antakalnis took place. Significant stakeholder and community involvement was achieved through these activities and some other communication campaigns. During the preparation stage of the Antakalnis SUMP, a SWOT analysis was carried out and key problems in the area were identified. One key problem that was identified was a lack of prioritization of public transport and cycling infrastructure. Measures to address these problems were selected for multimodal promotion and enforcement in the pilot area.

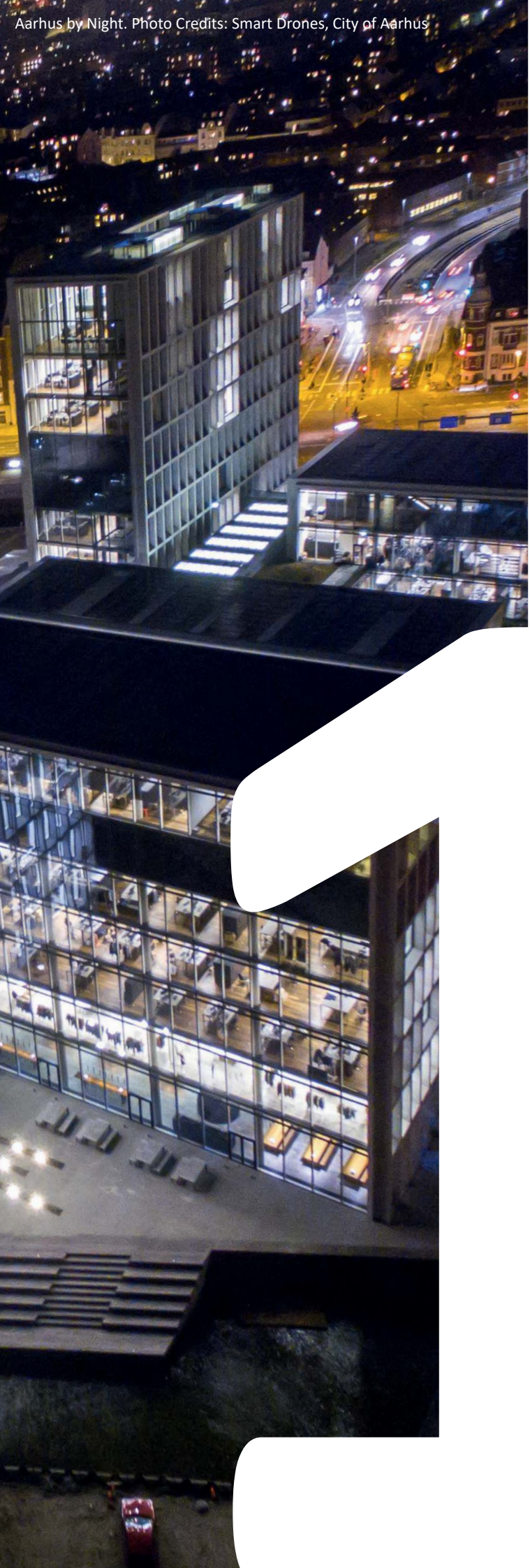
All cities that have participated have created documents containing concrete solutions that can be applied to achieve sustainable urban mobility planning for their city quarters.

Furthermore, all cities have, to varying degrees, involved citizens and other stakeholders in the planning processes. The planning processes vary from consultations to workshops, and in the case of Aarhus, citizens have exerted significant influence on the implementation of the project. Indeed, the idea of making mobility points parking areas for cargo bikes was an idea initiated by the community group of the city quarter. Now the group is also managing the rental of four bike trailers for the citizens of this particular city quarter. The involvement and empowerment of local communities in the planning process is crucial to successful sustainable urban mobility planning. This approach ensures that the planning process will be demand-driven to a much greater degree than what can be achieved through traditional predict and provide strategies. This approach also helps to generate local ownership which has proven to be crucial to these kinds of projects. Conducting a sustainable urban mobility plan for city quarters can be an important first step towards a strong mobility planning mindset. These results might be difficult to monitor and evaluate, but through the implementation of concrete results, the **cities.multimodal** cities have tried to understand the implications of these complex results. Hence, the remaining part of this guide will provide examples of how good planning has created great processes. The impact evaluation of each measure will be available in the project evaluation report. Awareness and acceptance of the measures will be included in this report and demonstrate to what extent the project has managed to implement successful measures based on sustainable urban mobility planning approaches.

Municipality	City SUMP	City Quarter SUMP
Rostock	●	●
Karlskrona	●	●
Kalmar	●	●
Aarhus	●	●
Riga	●	●
Gdansk	●	●
Vilnius	●	●
Tartu	●	●
Pskov	●	●
Guldborgsund	●	●

Mindset mapping in cities.multimodal municipalities. Green indicates a city or city quarter level SUMP mindset and that the city is performing sustainable urban mobility planning on either level. Purple indicates that the city is not performing sustainable urban mobility planning on either city level or city quarter level.

Cyclists in Kalmar. Photo credits: Jan Magnusson, City of Kalmar



Aarhus by Night. Photo Credits: Smart Drones, City of Aarhus

AARHUS

City of Aarhus	
City area	470 km²
Population size	325 000
Unemployment rate	3.8%
Average annual temp	7.8 °C
Population growth	1.0%
Pilot Area	Øgaderne
Size	5 km²
Population	10 000

Modal split (Numbers from 2018)

7%	22%	43%	28%

Car ownership rate	300/1000

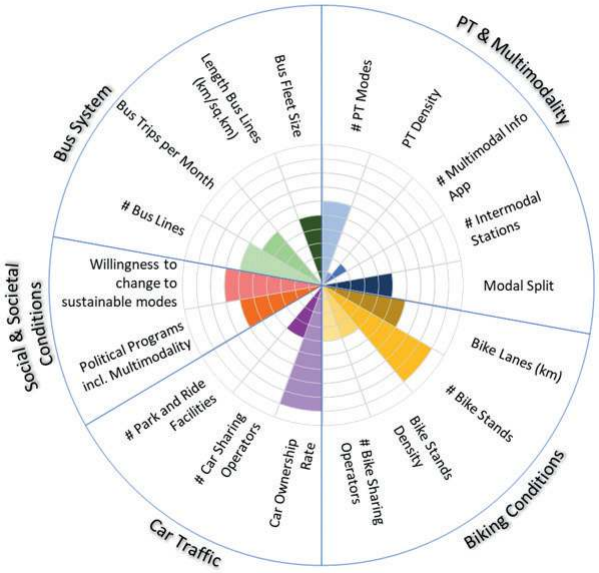
Of all partner cities, Aarhus has the highest bicycle usage in the modal split and the second lowest car ownership rate. This corresponds to the higher use of more sustainable transport modes. Aarhus has a huge network of bike lanes (700 km) and 9000 bike stands in public spaces. Previously, there has been a free bike sharing service where a 20 kroner coin is inserted as insurance at the bike rack and is returned once the bike is given back. In summer 2018, the bike sharing operator Donkey-Republic started operating in Aarhus. The main mobility challenge of Aarhus is that too many cars take up too much space, especially in the inner city.

Aarhus is a growing city. In 2030, it is estimated that around 50 000 more people will live there. This represents population growth of more than 10% and the existence of 30 000 more jobs. One consequence of this population growth will be that approximately 20 000 more cars will be moving through the city if nothing is done now to change mobility patterns. This is a major issue given that the road

network already now at certain high-traffic times of the day suffers from congestion.

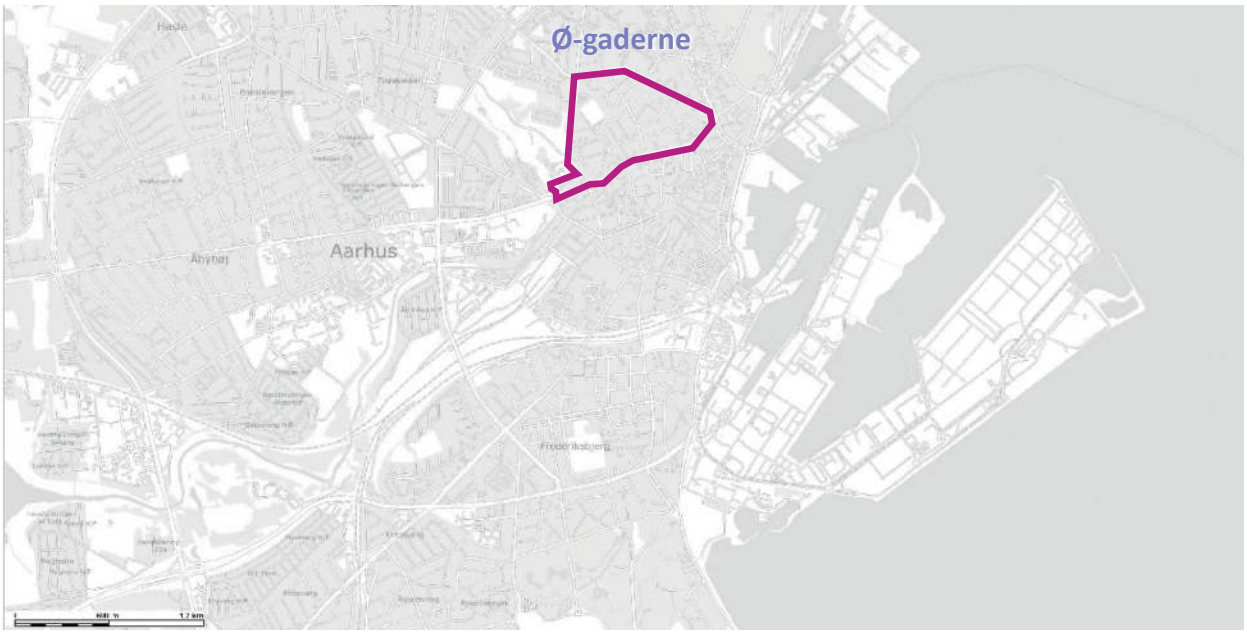
In the Municipal Development Strategy (2016), Smart Growth is a high priority. The city's continued densification means it is all the more important that Aarhus relocates travel destinations closer to each other and makes the public transport system more efficient. By following this strategy, the demand for transport should decrease. Furthermore, mobility is an important part of the Municipal Development Strategy and is supported by infrastructure projects such as the almost completed light rail and super commuter bike paths. In this project the focus was on investigating how existing road infrastructure can be used more efficiently. This was determined through citizen participation which allowed citizens to voice the challenges they face with their ability to be flexible with their transportation. Also, test persons who volunteered for various mobility solutions are contacted directly and given an opportunity to submit their input. The idea behind this kind of citizen involvement is that smart mobility inspires these people and provides the necessary framework to make it possible for eventual real behavioral changes in travel. Thus, it can be said that instead of implementing mobility management measures such as promoting mobility options via campaigns, the city of Aarhus pursues a unique and innovative approach to change the mobility behavior of the citizens to a more sustainable one.

Multimodality Indicators Ranking
Aarhus



Compared to the other **cities.multimodal** cities Aarhus performs well concerning multimodality conditions. It reached the status of a:

Start-Up City **|** **Scale-Up City** **|** Lighthouse City



View of the Stone Brigge and the UNESCO Historical Centre of Riga

RIGA

City of Riga

Size city area	304 km²
Population size	698 529
Unemployment rate	7.7%
Average annual temp	6.9 °C
Population growth	- 1-2%
Pilot Area	VEF neighbourhood
Size	1 km²
Population	1,700 inh. + 15,000 visitors/day

Modal split (Numbers from 2018)

14%	9%	31%	47%

Car ownership rate	262/1000

The Sustainable Development Strategy of Riga is a very positive support for the public urban transport system. The strategy outlines that the urban rail transport should be fully integrated into the urban public transport system. In addition, 'Park and Ride' facilities will be built in order to bolster public transport.

The city is monocentric, with many suburban micro districts lying within a 5 km radius of the core of the city center. 83% of all residential buildings in the city are within 300 m of a public transit stop. Population density in Riga is also the second highest among the studied cities, making public transport both an efficient and affordable solution.

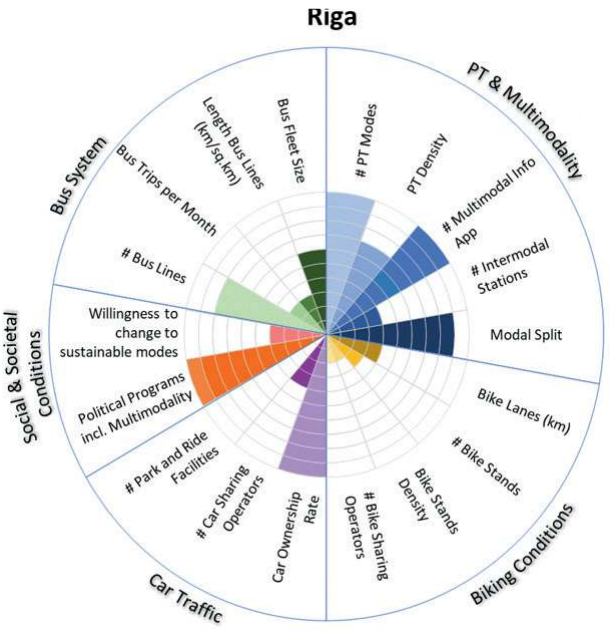
Long traditions for sectoral city planning and inefficient cross-sectorial collaboration between city departments have historically slowed new multimodal projects. In the pilot area in particular, accelerated privatization of state-owned properties during the 1990's failed to take prospective infrastructure into consideration. As a result,

unfortunately, now considerable funds need to be invested to make changes. Low user awareness of the term ‘sustainable transportation’ and rather low willingness to adjust to sustainable mobility modes (unless they offer the same convenience as a private car) were difficult barriers to overcome.

Urban public transportation in Riga is mostly comprised of electric vehicles, including trams, trolleybuses, certain city buses and trains. By 2030, the city plans to replace the entire public bus fleet with sustainable vehicles driven by electricity, hydrogen and other alternative low or zero-emission fuels. Furthermore, a network of hydrogen filling stations is being set up in the city. In the city of Riga overall access to public transport stops is good; bus stops are within 300m of residential buildings in 83% of the city territory.

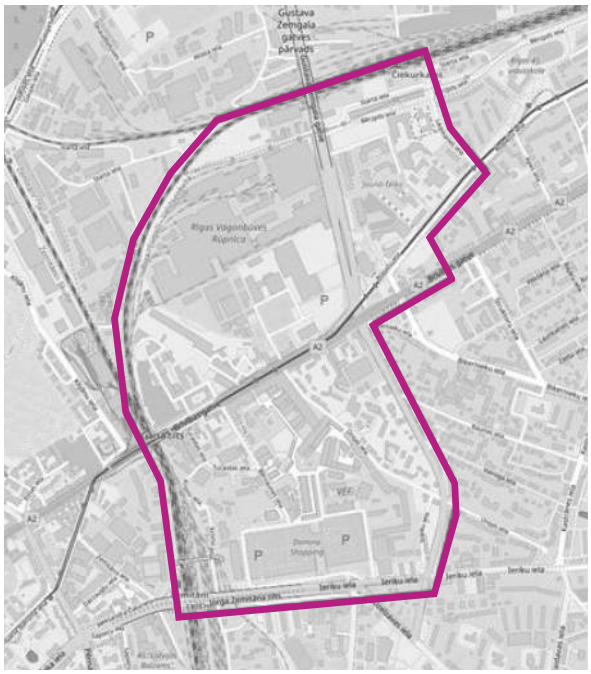
The pilot area is strategically located close to the city center, which borders the Historic Centre of Riga (the UNESCO World Heritage site). The Historic Centre of Riga is a multi-functional area, which features city center buildings (commercial, public and residential), industrial buildings and infrastructure buildings (technical and transport). Local businesses fortunately have expressed willingness to collaborate in order to develop the neighborhood by raising its overall urban qualities, such as liveability, comfort, attractiveness, etc. No specific plans, programs or strategies to guide mobility management have yet been developed. This matters for the city as well as for the focus area and its institutions. However, it was discussed that mobility management must be viewed in the context of common city planning documents and sectorial development plans to be further developed by city departments and municipal companies in the future.

Multimodality Indicators Ranking



Compared to the other **cities.multimodal** cities Riga performs well concerning multimodality conditions. It reached the status of a:

Start-Up City **|** **Scale-Up City** **|** Lighthouse City



GDANSK

City of Gdansk	
Size city area	262 km²
Population size	463 000
Unemployment rate	1.72%
Average annual temp	9.3°C
Population growth	0.3%
Pilot Area	Central Service Area
Size	15 km²
Population	57 150

Modal split (Numbers from 2018)

21%	6%	41%	32%

Car ownership rate	572/1000

Gdansk has several mobility-related strategies. There is the '2030 Plus Development Strategy', the 'Operational Program Mobility and Transport' and the Sustainable Urban Mobility Plan (SUMP).

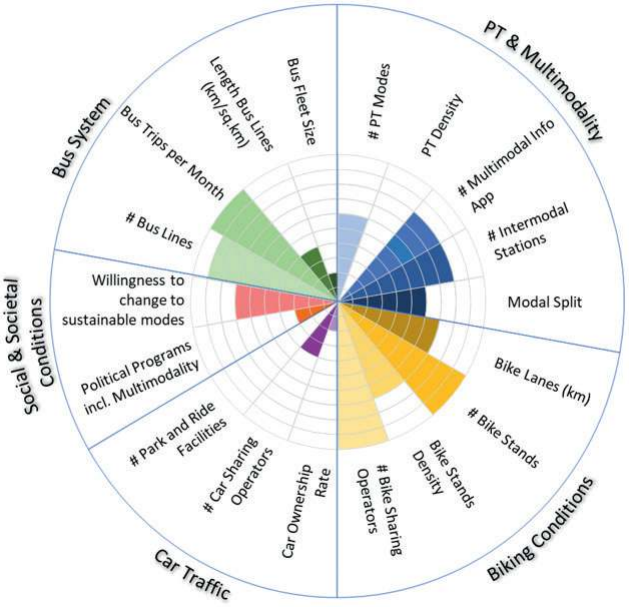
Gdansk has 70 bus lines, 819,4 km of bus network and the highest number of bus passengers per month among the cities.multimodal cities. The city also has several bike sharing companies, the highest number of public bike parking stands of all the **cities.multimodal** cities and the second longest bike lane network. Despite of this, the modal share of mobility of cycling remains rather low.

The city of Gdansk implemented its first public bike sharing system in the autumn of 2018. This system is comprised of 660 stations and 4080 electric bikes. Within the central Gdansk area there are 368 stations and 2226 bikes. For less than three euros per month, citizens can access 90 minutes of cycling per day. Meanwhile, paid parking zones for cars have been introduced. These two measures together could

encourage more people to switch from private cars to bicycles.

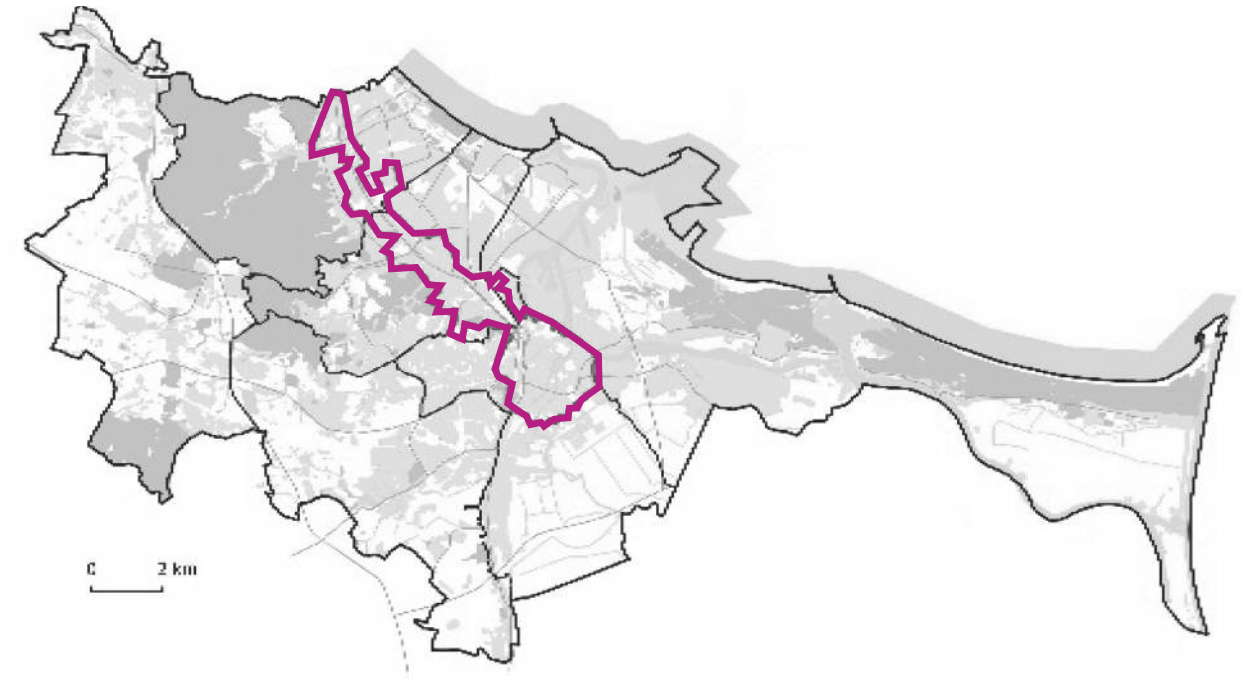
The City of Gdansk plans to intensify the introduction of Mobility Management (MM) measures in order to encourage citizens to commute more often by bike and on foot. The fact that Gdansk has been given the status of an accreditation center for Cycling Friendly Employers (CFE) provides numerous opportunities for the city to influence employers in the pilot area to promote cycling culture. Moreover, Gdansk will work on real data and offline analytical and simulation programs in order to build the most efficient sustainable transport strategy and offer it both for the citizens as well as local enterprises.

Multimodality Indicators Ranking Gdansk



Compared to the other **cities.multimodal** cities Gdansk performs very well concerning multimodality conditions. It reached the status of a:

Start-Up City | Scale-Up City | **Lighthouse City**



ROSTOCK

Hanseatic City of Rostock (HRO)

Size city area	**181 km²**
Population size	**209 587**
Unemployment rate	**6.8%**
Average annual temp	**10.1 °C**
Population growth	**0.25%**
Pilot Area	**Kröpeliner-Tor-Vorstadt (KTV)**
Size	**15 km²**
Population	**19 656**

Modal split (Numbers from 2018)

30%	**18%**	**34%**	**17%**

Car ownership rate	**442/1000 (city level)** **355/1000 (pilot area)**

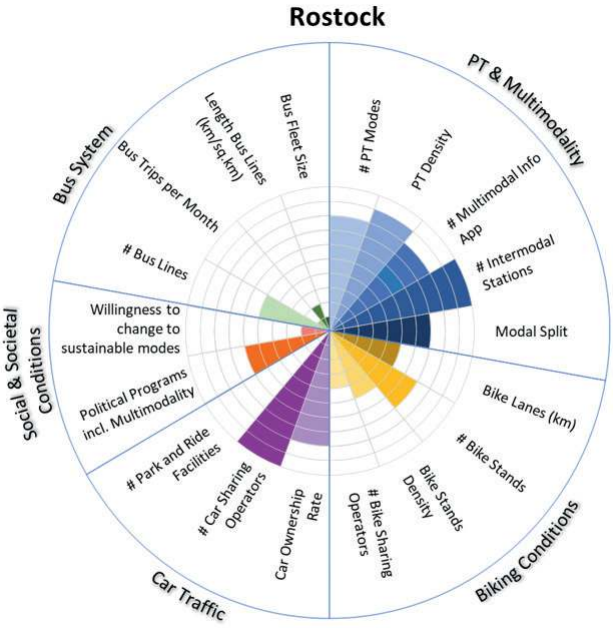
Rostock has strong political support for public transportation including trams, city-buses, regional busses, ferries, and city-trains, all of which can be accessed with one unified ticket. More than 90% of households in the pilot area can reach a bus or tram stop within 400m. The city center is small in terms of space which makes walking the preferred mode for local errands.

Due to the new Mayor (born in Denmark) who is an enthusiastic cyclist, and activities of NGOs (Radentscheid, fridays for future etc.), the effort for cycling promotion is growing recently. Rostock has about 200 km of paved bike lanes and is currently working on the establishment of a cycle highway network. Compared to other cities. multimodal cities Rostock counts for the highest number of public and private car sharing operators. Shared mobility is constantly developing although the city has no public bike sharing system until now.

Mobility Management since several years became a topic in the Hanseatic City of Rostock. The city's administration established a Mobility Management team in 2017 comprised of five employees. In 2020 the team has been integrated in the Mobility Office. The work of the team is based on the Mobility Management Concept – part of the 'Mobility Plan Future' (Rostock's SUMP). The concept defines how Mobility Management can be integrated into the city's administration and details Mobility Management topics at the municipal (mobility platform, information) and company level (consultations, e-mobility). Before the cities.multimodal project no strategic approach regarding Mobility Management for schools, kindergartens, or inner-city investors has yet been developed.

The pilot area is characterized by a broad offer of mobility services, good spatial accessibility and local citizens who are deemed likely to use eco-modes. However, public space is very limited and not very well-adapted to the needs of pedestrians or cyclists. Stationary traffic, originating traffic and terminating traffic are the biggest challenges; integrated concepts are needed to redistribute the public space equally. The newly planned housing area "Werftdreieck" in the pilot area represents a good opportunity to develop a mobility concept providing alternative mobility solutions to future residents. The topic of traffic safety is highly relevant to the surroundings of local schools and kindergartens. This will be used as a trigger to start mobility management measures in several pilot institutions.

Multimodality Indicators Ranking



Compared to the other **cities.multimodal** cities Hanseatic City of Rostock performs very well concerning multimodality conditions. It reached the status of a:

Start-Up City | Scale-Up City | **Lighthouse City**

TARTU

City of Tartu	
Size city area	39 km²
Population size	97.000
Unemployment rate	3.4 %
Average annual temp	6.2 °C
Population growth	-0.25%
Pilot Area	Vaksali and central areas
Size	2 km²
Population	14 400

Modal split (Numbers from 2018)

40%	6%	28%	26%

Car ownership rate	398/1000

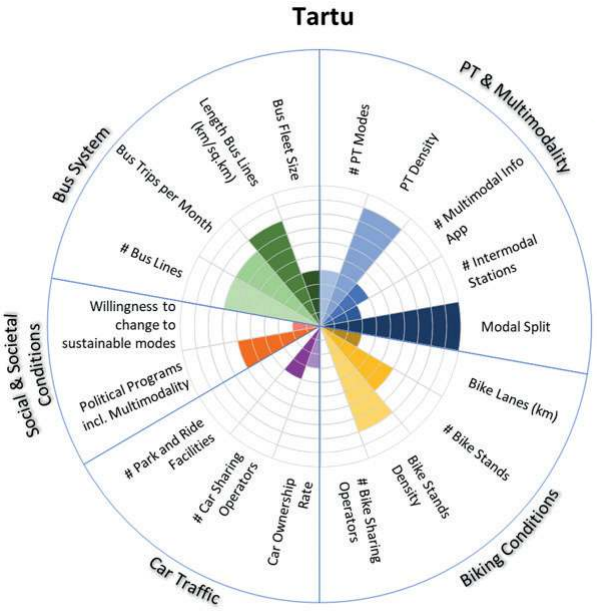
The city of Tartu has a high population density (and the smallest city area) compared to the other **cities.multimodal** cities. The distance between the city border and the city center is no more than 4 km, and a large share of the population lives within a distance of 1.5 km of the city center.

In terms of the city environment for cycling and pedestrian traffic, one of Tartu's biggest advantages is its round, compact and mostly flat topography. The city government is actively engaged in Mobility Management and has been consistently investing in infrastructure for cycling. There have been large investments for example in cycling lanes, like the construction of a new cycling corridor to connect the city. Furthermore, streets are being narrowed to reduce car speed and give more room for cyclists and pedestrians. Estonia's first electric bike sharing scheme was introduced in the Summer of 2019 with 80 stations and 600 bikes (400 electric and 200 non-electric)

Unfortunately, citizen engagement in reducing car usage is irregular and mostly project based. Also, climate change awareness is rather low and the impacts of transportation on the environment is seen as less relevant. Additionally, urban sprawl is negatively affecting the number of people who opt to use a private car.

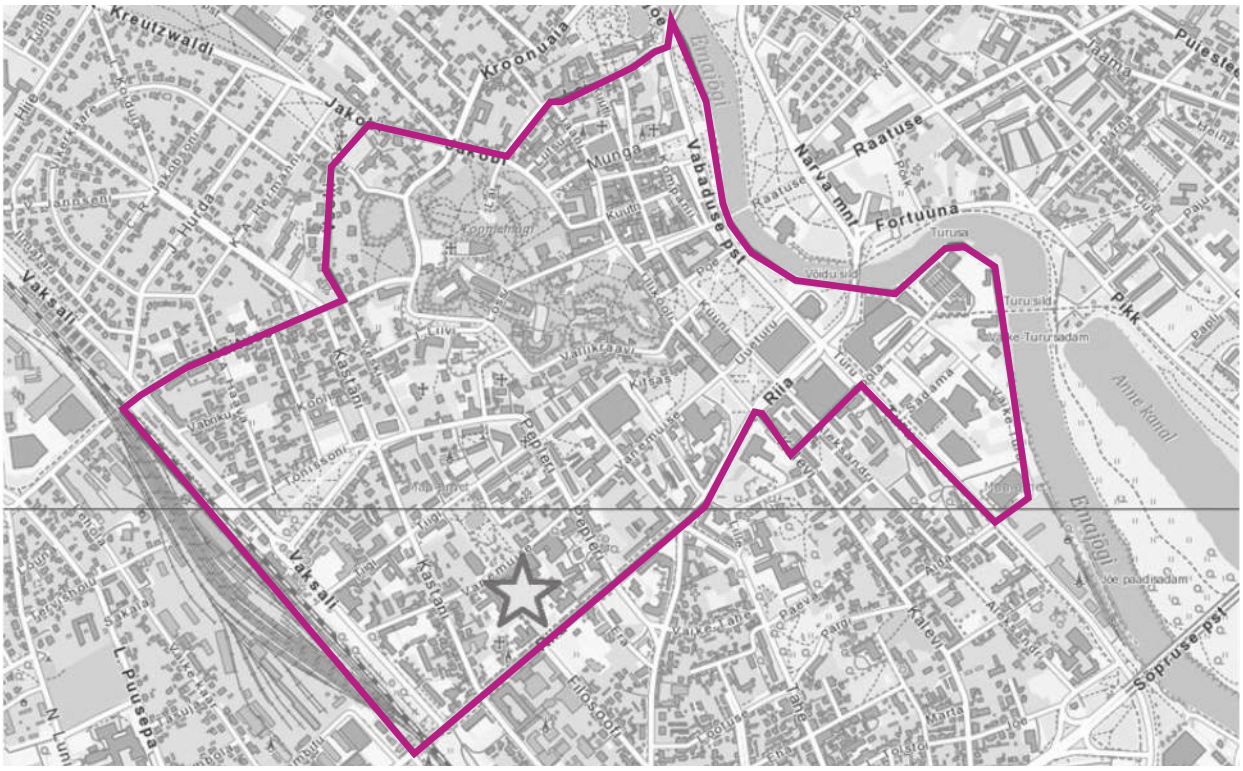
In the future, better coordination with surrounding municipalities to connect surrounding settlements with the city's public transportation and light traffic network can help to fully capture its potential. Promotion of benefits of active transportation, dedicated bus lanes, restricted car usage in the city and raising parking prices in the city may be further opportunities. However, one potential future threat is that the perception of the private car as the quickest mode of transportation in the city remains dominant. Therefore, improvements to public transportation could reduce cycling and walking and not actually impact private car use. The lack of a strategy for citizen engagement is seen as another future threat.

Multimodality Indicators Ranking



Compared to the other **cities.multimodal** cities Tartu performs well concerning multimodality conditions. It reached the status of a:

Start-Up City **| Scale-Up City |** Lighthouse City



GULDBORGSUND

City of Guldborgsund (Nykøbing Falster)

Size city area	**8 km²**
Population size	**17 000**
Unemployment rate	**4.8%**
Average annual temp	**9.3 °C**
Population growth	**0%**
Pilot Area	
Size	**1 km²**
Population	**None**

Modal split (Numbers from 2018)

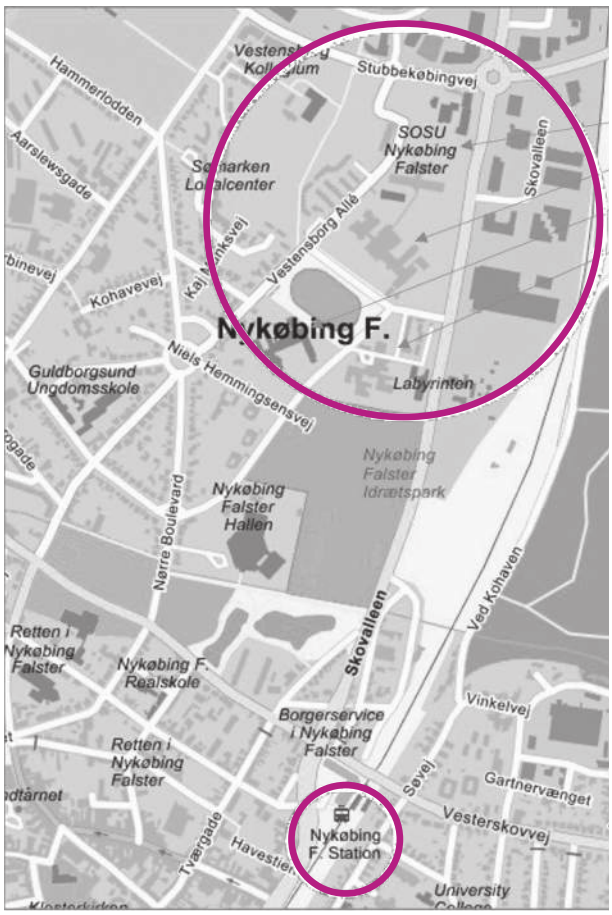
-	-	-	-

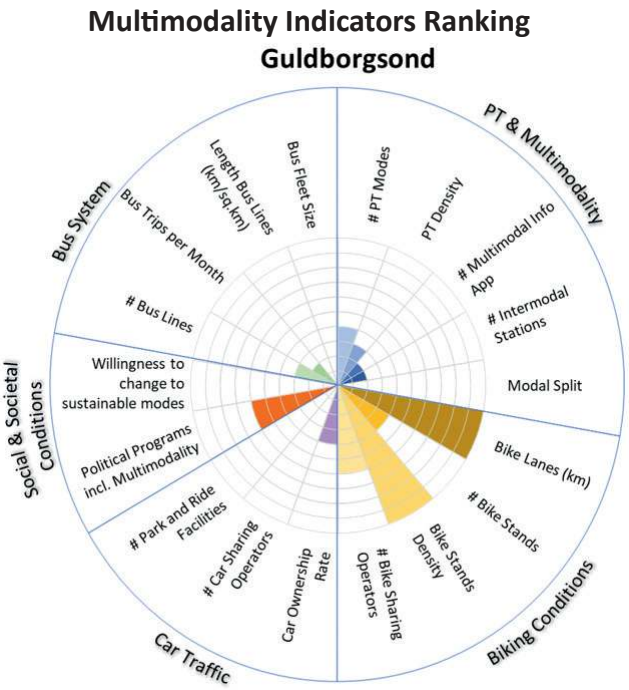
Car ownership rate	**418/1000**

Though Denmark has a relatively long tradition of bicycle use and investment in cycling infrastructure, there are still areas that could benefit from improvements. Guldborgsund, for example, has quite an underdeveloped bicycle network. There are no car sharing operators in the area and there is very limited public transport available, which leaves owning a private car as the only option. Furthermore, the small local population makes it challenging for private operators to make investments profitable.

Guldborgsund also has few bicycle stands – one of the key reasons for establishing bicycle parking facilities in the pilot area. The pilot area for mobility points is delineated by three large roads, one along the harbour quay and one along the railroad tracks, which provide impermeable

borders. At the train station square, a number of bus routes, regional roads and city streets meet. This point is the main traffic point in the area, and due to its configuration, provides regular traffic congestions and poses a threat to traffic safety.





Compared to the other **cities.multimodal** cities Guldborgsund currently has high potential to improve multimodality and mobility management conditions. It has the status of a:

Start-Up City | Scale-Up City | Lighthouse City

VILNIUS

City of Vilnius	
Size city area	401 km²
Population size	617 000
Unemployment rate	4.8 %
Average annual temp	6.1 °C
Population growth	0.2%
Pilot Area	Antakalnis district
Size	7 km²
Population	14 400

Modal split (Numbers from 2018)

25%	2%	49%	25%

Car ownership rate	443/1000

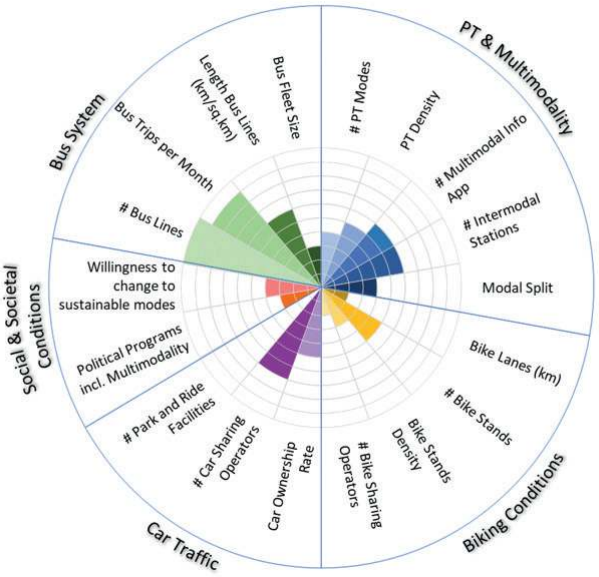
The city of Vilnius has a historic city center in which walking traditionally has been the prevalent transport mode. Vilnius has 122 bus lines – the highest number of all the **cities.multimodal** cities. Despite having a well-established bus network, Vilnius demonstrates the third lowest public transport usage across the whole project. Vilnius also has the lowest modal split of cycling among the **cities.multimodal** cities. There are also just a few specific programs and strategies in existence that address multimodality in the public transportation system.

On the base of land use planning, the city has been divided into three conceptual zones: central, middle and peripheral. The central zone contains both the old town and the city center that is being developed. In the middle zone lie the dense residential areas, industrial districts, historical suburbs as well as a wide range of services. In the peripheral zone lie satellites, as well as reserve territories for urbanization and as of yet un-urbanized territories. There are large green areas inside the city as

well (forests and parks) and the city structure follows the riverbank.

Mobility Management is being practiced in the Vilnius pilot area together with the residents of the planned multimodal Mobility Point neighborhood.

Multimodality Indicators Ranking
Vilnius



Compared to the other **cities.multimodal** cities Vilnius performs well concerning multimodality conditions. It reached the status of a:

Start-Up City **| Scale-Up City |** Lighthouse City

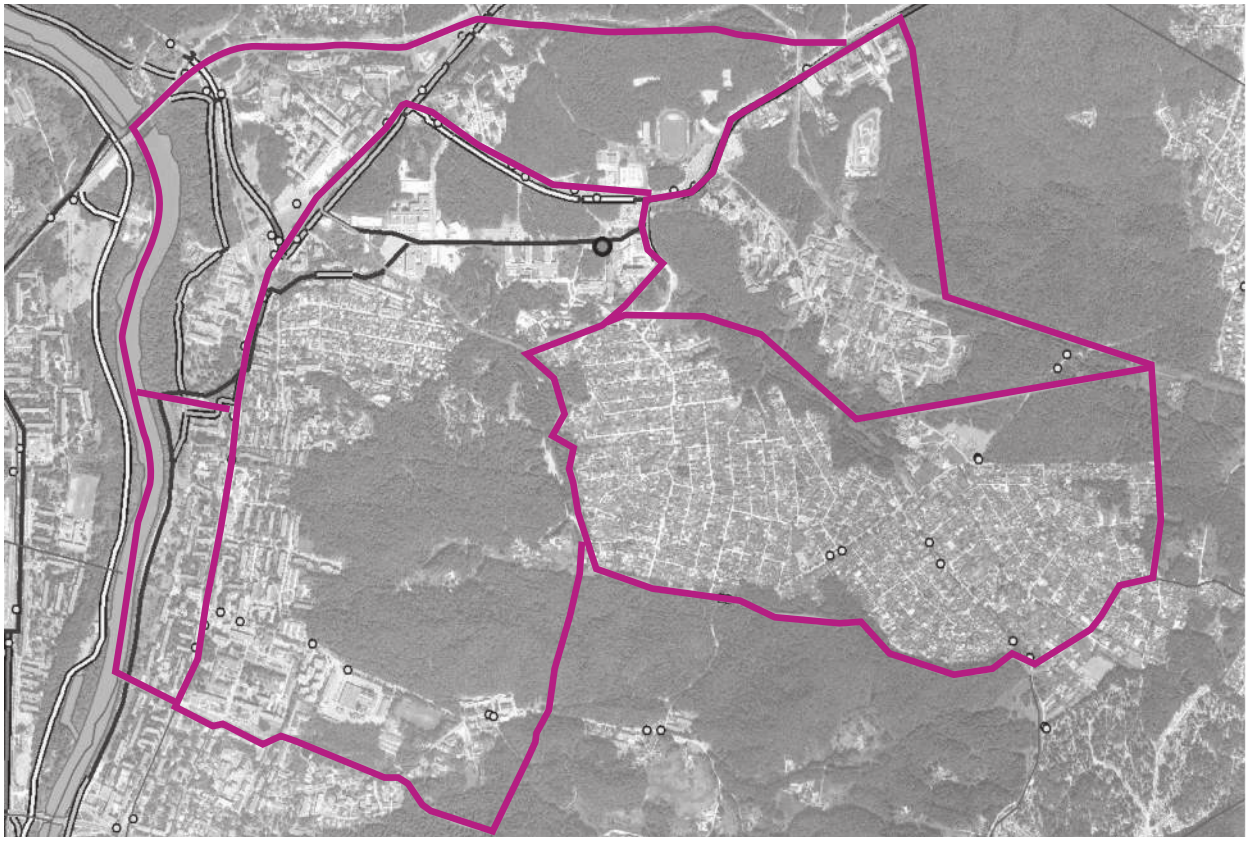


Photo credit: Jan Magnusson, Kalmar Municipality

KALMAR

City of Kalmar	
Size city area	20 km²
Population size	38 000
Unemployment rate	7.1%
Average annual temp	8.5 °C
Population growth	1.5%
Pilot Area	
Size	1 km²
Population	10 200

Modal split (Numbers from 2018)

15%	20%	59%	6%

Car ownership rate	415/1000

Kalmar is one of the smallest cities.multimodal cities. It also has the highest share of car users, the second highest share of cyclists and the lowest share of public transport users of the cities.multimodal cities. Public Transport alternatives are few, for example the pilot area is only connected by public bus services.

There is strong support, predominantly from influential citizens, for the continued use of private cars and for unrestricted car access to the downtown area, supported by low or no parking fees. At present, there have been few political attempts to promote modal alternatives.

A strategic mobility plan was developed in 2015 but has never been approved. Currently, there are ongoing efforts aimed at achieving an over-arching Mobility Strategy for Kalmar. This work has been initiated by the Department of Planning and Development but is important to several other Departments as well; not least to encourage more children to walk and bike to school as a regular part of

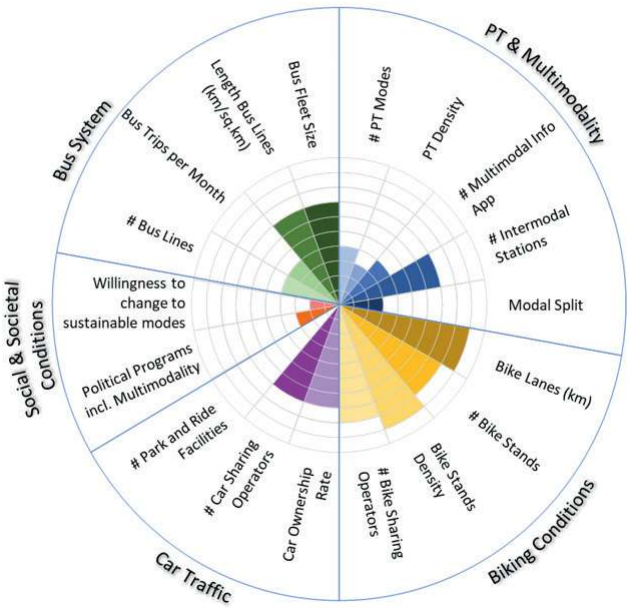
their afternoon activities. The challenge lies in the fact that there is a considerable barrier between perceived safety and actual security on bike paths. In fact, while the perception of security is decreasing, actual security is increasing. So far it seems that environmental arguments such as dependence on fossil fuels, air and noise pollution and traffic congestion have little to no impact on modal shifts or traffic behavior. Therefore, citizen involvement, communication programs and identification of target groups will be crucial for future campaigns.

Kalmar is, however, well equipped with city development plans. The “Fördjupad Översiktsplan (FÖP)” meaning “In-depth overview plan” covers the entire municipality. The pilot area is covered by two sub-FÖPs. However, neither sustainable mobility nor multimodality have been directly addressed.

Kalmar also has favorable financial conditions for fostering sustainable development. National subsidies titled “Stadsmiljöavtal 2016-2018” (Environmental City Agreement 2016-2018) were granted a few years ago. The purpose of these subsidies is to encourage and support the creation of sustainable urban environments. In Kalmar this financing stream has already been used to realize a study of existing bicycle infrastructure and to identify bottlenecks. In addition, Kalmar performed a study of mobility issues related to the new university campus. This study predicted that traffic levels will increase in the years to come.

Additional external funding was sought to finance Mobility Management activities in Kalmar, including engaging with schools and businesses.

Multimodality Indicators Ranking
Kalmar



Compared to the other **cities.multimodal** cities Kalmar performs very well concerning multimodality conditions. It reached the status of a:

Start-Up City | Scale-Up City | **Lighthouse City**

KARLSKRONA

City of Karlskrona

Size city area	**21 km²**
Population size	**36 853**
Unemployment rate	**8.7%**
Average annual temp	**9.4 °C**
Population growth	**0.01%**
Pilot Area	
Size	**-**
Population	**11 670**

Modal split (Numbers from 2018)

2%	5%	66%	27%

Car ownership rate **418/1000**

Karlskrona is characterized by its proximity to the sea. The city lies on a group of islands (33 in total). As a result of this, Karlskrona is a city growing in finite space. As of now, there are numerous possibilities for cycling (bike paths, bike parking etc.) in and to the smaller villages in the surrounding area. But even better infrastructure and mobility management is needed for a modal shift to be possible. The 2050 plan is under development and the growth is expected to spread radially from the city center, thus densifying and connecting the smaller villages and suburbs of the surrounding areas. A traffic strategy SUMP is underway, and a bicycle strategy is already in place which guides decisions in relation to cycling infrastructure. The 2050 plan has identified some broad goals such as mixing buildings with different functions, creating a greener city, enhancing renewable energy, improving public transport and building more effective infrastructure.

The pilot area is the city center, which is located on Trossö Island. The city center is most dense area of the city.

Because the city is designated as a world heritage site, the preservation of the city's naval heritage needs to be taken into consideration during any work on the city's road network or buildings. Fortunately, given that the city center is compact, and distances are quite short, possibilities for cycling and walking are great.

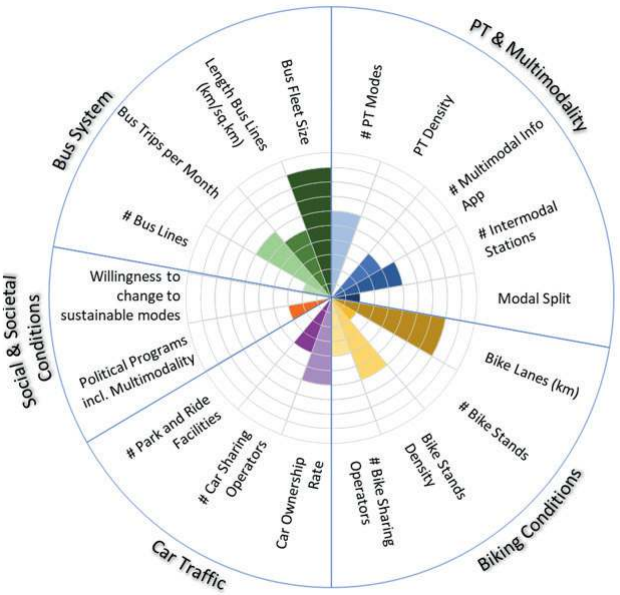
Public buses in Karlskrona are 100% fueled by Biofuel: HVO100. The city also has intermodal freight transport. The postal service (Postnord) has a center where letters and packages are distributed from lorries and trains to bikes, e-vehicles and cars.

Blekingetrafiken, the local public transport provider, has a smart phone application and a website where you can book multimodal journeys, see traffic information, find timetables and buy bus passes.

Because the pilot area of Karlskrona is located on an island, it faces considerable obstructions to growth because of limited space. There is also only one main way in and out of the city, which causes a traffic flow bottleneck. Furthermore, space for parking along the waterfront takes up many attractive city areas.

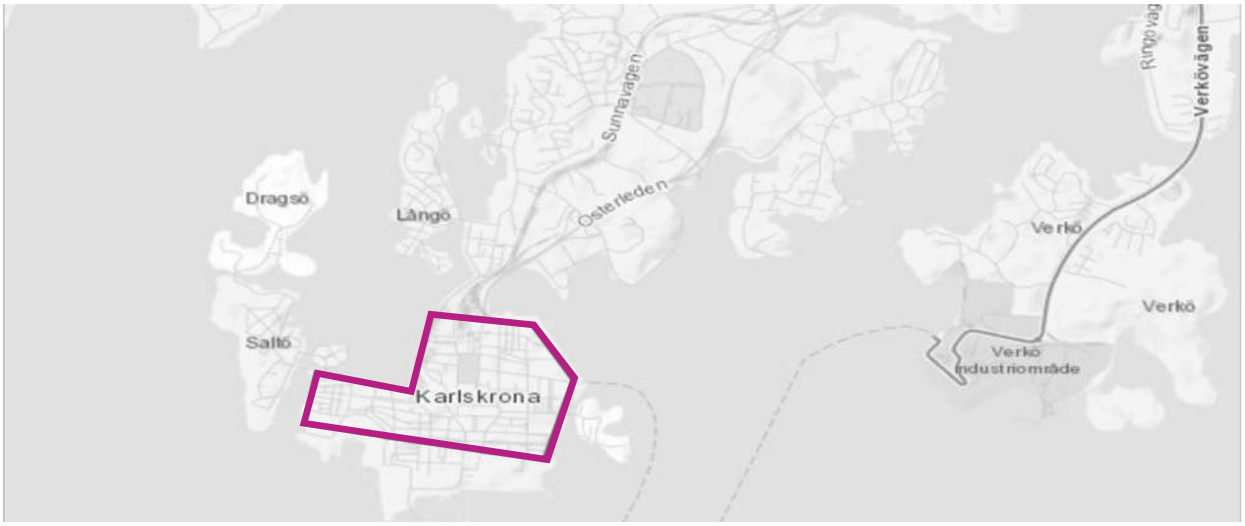
The central station provides three sustainable modes of transport: Bike parking, train and bus. There is also an area where car- and bike-sharing stations are situated, and where one can switch to a ferry to continue ones journey.

Multimodality Indicators Ranking
Karlskrona



Compared to the other **cities.multimodal** cities Karlskrona currently has high potential to improve multimodality and mobility management conditions. It has the status of a:

Start-Up City | Scale-Up City | Lighthouse City



PSKOV

City of Pskov, Russia

Size city area	**96 km²**
Population size	**209 840**
Unemployment rate	**0.69 %**
Average annual temp	**5.9°C**
Population growth	**0.6 %**
Pilot Area	**Old City of Pskov**
Size	**5 km²**
Population	**15 600**

Modal split (Numbers from 2018)

23%	6%	33%	38%

Car ownership rate **662/1000**

Pskov is the smallest of the **cities.multimodal** cities in terms of area and in relation to the population it's the second most dense city in the project.

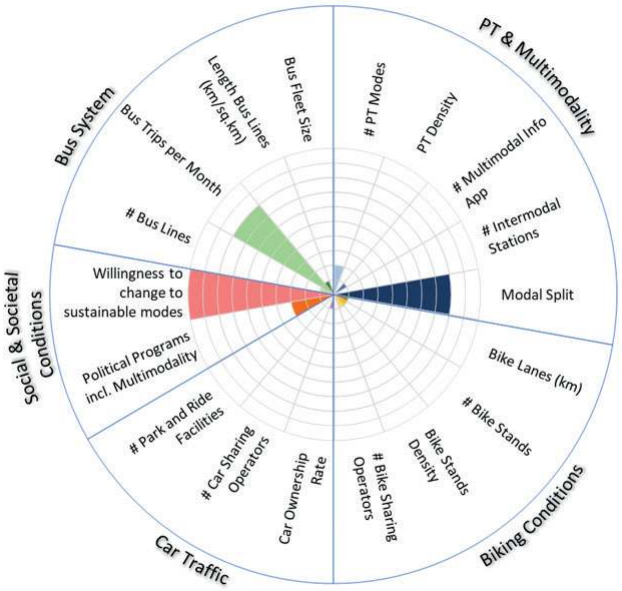
There are good pre-conditions for implementing Mobility Management in Pskov. City officials and certain groups of inhabitants expressed a strong interest in increasing sustainable transportation modes. Numerous activities took place and many investments have been made to improve cycling conditions in Pskov. Though educational institutions are very interested in reducing private car usage, there are factors limiting these efforts such as the perception among some of the population that active transportation modes are for low-income segments of the population. Furthermore, the perception that active modes of transport should be used only during favourable weather conditions, the perception that active transport is not very safe, and the fact that the city budget is quite limited are all barriers to building a successful transport system.

Pskov has the highest car ownership rate among all **cities.multimodal** cities. Besides buses, there are very few alternatives to private cars. Walkability is low, so improvements must be made to pedestrian infrastructure to support this mode of transport. Though there were some improvements of cycling infrastructure, there are still many improvements to be made.

Despite existing political and financial risks, Pskov sees a range of opportunities to implement mobility management in the Pilot Area:

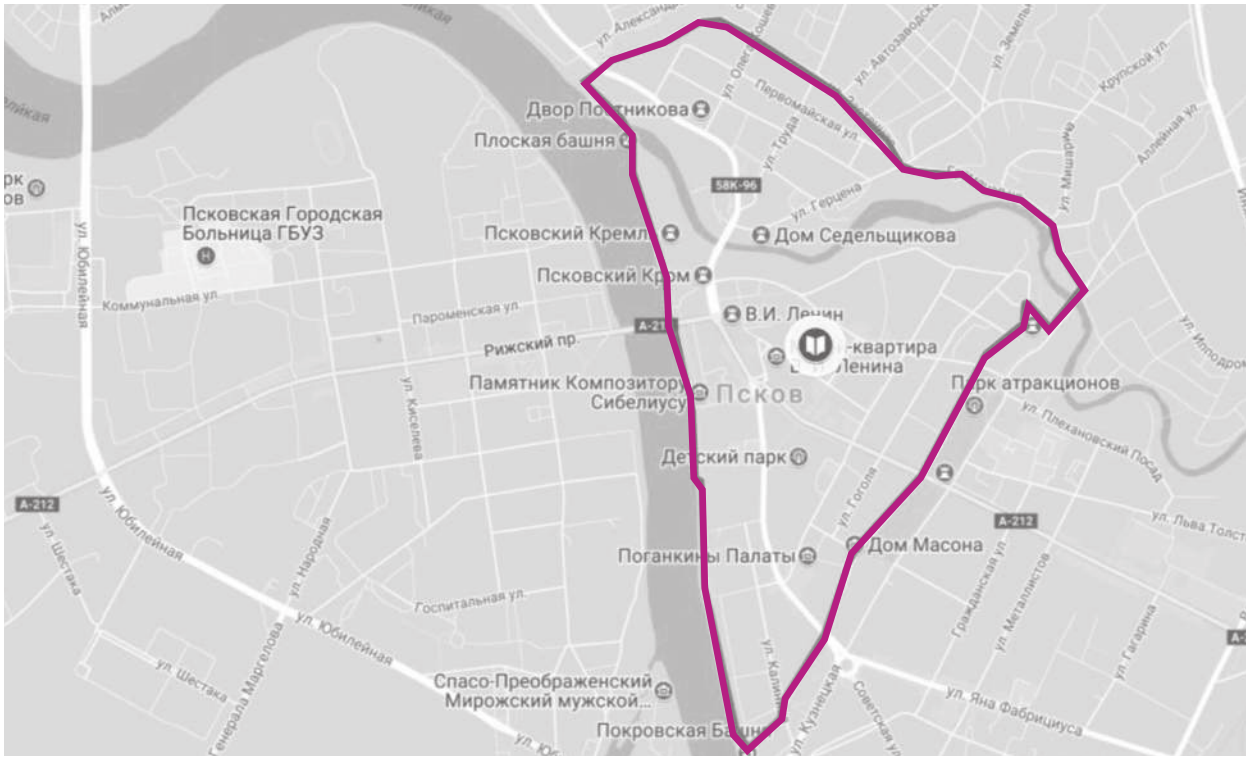
1. Create a traffic management centre.
2. Create a Public Council for the Development of cycling on a participatory basis.
3. Carry out activities in schools, encourage the use of bicycles and public transport, inform locals about the skills of safe behaviour on the road.
4. Create map-schemes for cycling and pedestrian routes.
5. Increase coverage in the media and on the official Pskov website concerning the development of cycling and active lifestyles and support for the Car Free Day event.
6. Limit the possibility of parking in the central part of the city by developing a system of paid parking.

Multimodality Indicators Ranking
Pskov



Compared to the other **cities.multimodal** cities Pskov currently has high potential to improve multimodality and mobility management conditions. It has the status of a:

Start-Up City | Scale-Up City | Lighthouse City



TESTING NEW AND INNOVATIVE WAYS TO INVOLVE CITIZENS

Sustainable Urban Mobility Planning means planning for people instead of vehicles. In order to achieve this, planning authorities need to move past traditional transport planning practices and open up urban mobility development to debate and engage in dialogue with users of transportation, to understand their needs and concerns.

A dialogue-based participation process is paramount and is a prerequisite when analysing local mobility problems, developing common objectives and targets, identifying mobility strategies and selecting measures. Mobility is the glue that holds people's daily lives together. Their needs and concerns as well as their local knowledge can contribute to the development of effective plans and measures.

Furthermore, citizen involvement encourages citizens and stakeholders to take ownership of sustainable mobility ideas, transport policies and projects and creates mutual trust between authorities and citizens. It is important that citizens feel that they can influence decisions that will affect them in their daily lives.

Citizen involvement needs to be planned for from the beginning of a project, and ideally when first developing a mobility plan. This requires resources to be reserved, responsibilities to be defined and activities to be planned accordingly. Too often, citizen involvement is "added on" in a late stage of implementation, with no budget set aside, meaning that the full scope of benefits to the project cannot be realized.

During the **cities.multimodal** project, the partner cities planned and implemented a variety of different mobility measures and activities in their pilot areas, and planned to test some (for them) new ways to involve citizens into the process.

The cities who participated shared their experiences, methods and tools through a "market of methods" at the beginning of the project, and then chose whichever methods were most relevant and useful for their purposes and tested these methods during the 18-month project.

Success factors for prosperous citizen involvement

Engaging in citizen involvement can become unpredictable and detrimental to the desired outcome if the involvement activities are not meticulously planned. Based on the collective experiences of the **cities.multimodal** cities and expert organizations, we have defined their success factors for citizen involvement below:

- **Setting the context**
  In order to effectively engage citizens, it is wise to set clear context for the involvement from the very beginning and make it clear that the focus is on the future. This ensures that the citizens will be naturally incentivized to participate because they can thus shape how their future might look. Honesty is the best policy in terms of setting the context and establishing what can and cannot be influenced. It is important not to make promises that cannot be kept.

- **Reaching the right people**
  Citizens will be more prone to participate in citizen involvement if they feel that the matter is relevant for them. To ensure a representative mix of citizens it is crucial to dedicate some time towards reaching citizens in hard-to-reach groups. Bringing together citizens from different communities for a common purpose will result in societal synergies important for promoting e.g. new and sustainable modes of mobility. One way to reach diverse groups of citizens is to

Working documents from the interactive workshop in "Øgaderne" Aarhus where the Mobility Points were first discussed.

use different communication channels and formats for promoting the activities. In order to map out the different target groups and communication channels, it is beneficial to prepare a simple and explicit communication strategy.

- **Communicating the benefits – without exaggerating**
  A communication strategy for citizen involvement activities is not complete without defining the messages that will be communicated to the different target groups. To convince citizens to take part in citizen involvement, the benefits and purpose of their participation should be clearly communicated. For the sake of transparency, citizens should be informed about the possible outcome of their input from the beginning of the process. Involving citizens when it's actually too late is likely to lead to broken trust that may be very hard to rebuild.

- **Managing the process – take control and give it up**
  Managing the citizen involvement process from the very first stages of planning to the implementation of the results is a prerequisite for success. First, a timeline of the involvement needs to be established. It is worth noting that citizens should be consulted already before there are any finalised plans, so that the citizens' contributions still matter and can influence the actual outcome. Second, always expect the unexpected. Societies are always changing and involving citizens requires always being prepared for adapting the process and having a 'Plan B' for unexpected turns.

- **Using professional facilitation**
  Involving a professional mediator, facilitator, moderator or local VIP or "ambassador" for the topic might be a good idea. This will ensure a professional process, bring in some new ideas for facilitation and guarantee that the necessary skills are represented. It might also decrease stress and pressure on civil servants who need to deal with a lot of criticism, allowing the person from outside to facilitate the dialogue, come to agreements and decide on solutions in a more objective way.

- **Accepting failure – and learning from it**
  Sometimes a citizen involvement process does not go as planned despite of meticulous planning and convincing communication. In these cases, it is important to also accept failure and maintain an honest dialogue with the citizens.

CITIZEN INVOLVEMENT IN THREE CITIES

KARLSKRONA: Citizen feedback on cycling infrastructure

In 2019 during the annual summer campaign for sustainable mobility, the municipality of Karlskrona tested out a new method of involving its citizens in dialogue about sustainable mobility and mobility habits. This new method was added to the summer campaign because it became clear that the existing campaign focused more on talking to instead of with residents. As a result, the decision was made to specifically get citizens' feedback on cycling infrastructure and use this as a conversation starter about sustainable mobility more generally.

The summer campaign included a stand with e-bikes and electric cars that were placed at various locations throughout the city for certain events from June to August. Aside from trying out the e-bike and getting information about electric cars and carsharing, citizens were presented with maps of the city and asked to mark locations where they experienced a lack of or issues with cycling facilities or infrastructure. The idea was to collect qualitative feedback from the users and engage them at the same time.

In addition to mapping, a survey covering the same topics was also conducted. In order to engage more respondents, the survey included a competition in which respondents could win an air-bag cycling helmet. The idea behind the two complementary aspects of the involvement method – the dialogue and the survey – was to help reach both people who were already interested, as well as those who needed a little more encouragement. Meanwhile, through this dual method abroad we also gained both qualitative and quantitative data on the mobility situation in Karlskrona.

Results and recommendations

In total we gathered 166 survey responses as well as a list of oral feedback from the participants. This was summarized in a report which was then shared with local politicians to help them better understand the attitudes and ideas of their constituents. The report will also be used in the future when planning and implementing cycling measures.

The initiative was successful because it provided input from citizens that had been missing in the first version of the campaign. We have found that people like being asked and listened to and that their input is extremely valuable in planning new measures.

The participants were a representative selection of the local population and included various age groups, men and women as well as both sceptics and supporters of enhanced sustainable transport infrastructure. Meeting people directly on the ground also enables you to involve perspectives and voices that do not usually engage in citizen involvement activities, and who do not tend to voice their opinions in the media or to the city.

Lessons learned

- Do not be afraid to change a method or project, even if it has already started. A new perspective might make all the difference.
- Entice people with competitions and prizes. It does not have to be something huge for people to get interested.
- Have a conversation starter. In this case the map made it easy for people to be concrete and specific about locations, needs and concerns.
- Allow people to try something fun. Whenever it was possible, citizens had the opportunity to test out the electric bicycles that we were asking them about, for example. People really seemed to enjoy it and left having had a positive experience.
- People like being heard and meeting the people who are planning mobility face-to-face. This face-to-face interaction humanizes "the city" and creates a forum for direct dialogue.

Karlskrona's citizen involvement campaign, including vehicles from the municipal car and bike sharing system.

Resources

The initiative was planned in collaboration with the logistics department and the project department of the city. The planning process only spanned a few weeks and the direct costs were covered by municipal funding – though the project manager's hours were funded through **cities.multimodal**. Two summer interns also supported the initiative, and were responsible for planning and conducting the survey, organizing competition and giveaways, producing the map and materials for the dialogue and booking the tent and locations for the events.

In addition to the face-to-face communication, a Facebook ad was posted to raise awareness of the activities. This Facebook ad reached almost 54 000 people who ranged in age from 18 to 65+ and were roughly 50/50 men and women.

CITIZEN INVOLVEMENT IN THREE CITIES

RIGA: VEF neighbourhood workshop

In relation to implementing the Mobility Point in Riga in the former VEF industrial complex and adjacent territory, Riga Energy Agency facilitated a workshop in June 2018. Stakeholders from the City of Riga, urban planning experts and citizens participated. The workshop was organized as part of the "MadCity" event, a two-day long international happening event dedicated to discussing unconventional ideas for the development of cities.

Co-creation

Sustainable urban mobility planning should be driven by those who are at the heart of the transport system: civil society. The involvement of citizens in urban planning is crucial for the joint analysis of local mobility problems, the development of common objectives and targets, the identification of mobility strategies and the selection of measures that are widely accepted and supported.

In the case of the VEF Mobility Point, a workshop seemed to be the most appropriate engagement method. This is because this format facilitates exchange and collaboration with citizens; citizens and stakeholders become active, creative players of the planning process, while the planning authority takes a facilitative role. Co-creation is especially suitable for implementing measures like mobility points, living street concepts etc. The goal of the workshop was to bring together different stakeholders from urban planners, residents of the VEF, businesses operating at the VEF and other stakeholders interested in developing the VEF neighbourhood, with the aim of creatinge very specific, tangible ideas for improving the urban environment.

Several main objectives regarding mobility and transport in the city and te VEF sector in particular had been identified prior to the workshop:

- Development of crossing solutions for the mains streets of the focus area (Brīvības street and Gustava Zemgala street)
- Improvement of pedestrian and bicycle flows in the whole VEF neighbourhood
- Propositions and reflection about Mobility Management solutions including proposals for the most suitable location(s) and preferred functionality of the Mobility Points.

These objectives were set according to the current challenges of mobility and transport infrastructure in the city of Riga. The following weaknesses were identified: a lack of unified planning and management of city streets, rail networks and public transport; a fragmented street network resulting in traffic flow congestion; insufficient amounts of pedestrian, cycle and segregated public transport lines, leading to poor multimodal accessibility to different places; and inefficient organisation of logistics (cargo flows) in the city, and other.

Planning the workshop

When planning a workshop, it is important identify the following:

- SMART (specific, measurable, acceptable, realistic, time related) goals for the meeting
- which resources are needed and available (time, finances and personnel)
- which key stakeholders should be involved
- which channels to use to communicate with the various stakeholders
- an external facilitator and moderator for the workshop
- relevant, basic and provoking material – Some pictures of the focus area, presentations, maps, stationary etc.

In the case of the VEF neighbourhood, both experts and members of civil society were involved. Residents and employees of the VEF neighbourhood are familiar with the current situation, while urban planners possess a wide range of theoretical knowledge relating to possible solutions and alternative approaches of what could be done at all, together, as well as with the

practical experience and tools necessary how to make a positive change and bring this site to life. It is also quite important to investigate who is living in the area, and what are the interests, resources and challenges they have. Stakeholders were invited through Facebook and personal invitations.

Results of the workshop

The day started with an introduction to the workshop – the purposes, method of the workshop and a brief description of selected urban mobility issues to be discussed. Afterwards, the participants were asked to assess the area in terms of mobility and multimodality regarding the usage of transport modes as well as spatial accessibility. The main issue that was identified was the insufficient quality and accessibility of the urban space – buildings, transport infrastructure, shops etc. More specifically, the following issues were identified:

- Fragmentation of the three main zones (commercial, public and residential)
- Insufficient space for pedestrian traffic (due to cars or old streets lacking in pedestrian-friendly infrastructure)
- Transport is mainly used to travel outside the zone and not within the zone

After the first workshop segments, seven multi-disciplinary teams comprised of a mix of experts and local stakeholders created countless new ideas for the development of the VEF neighbourhood – with an emphasis on urban mobility and multimodality, liveability and vibrancy, innovations and green technologies, as well as financial incentives aimed to supporting development of the area.

The ideas included:

- The creation of a roundabout crossing at Gustava Zemgala Gatve and Brgvības gatve along the tram line
- The creation of a new elevated pedestrian-cyclist bridge
- Innovative solutions for the reconstruction of the VEF bridge
- Intelligent traffic lights
- New mobile applications for car parking, mobile squares, etc.
- Several ideas for potential locations of the Mobility Points and their preferred functionality.

The ideas and proposals raised and put forward in the workshop will be included in the new City Master Plan that is currently being developed.

Lessons learned

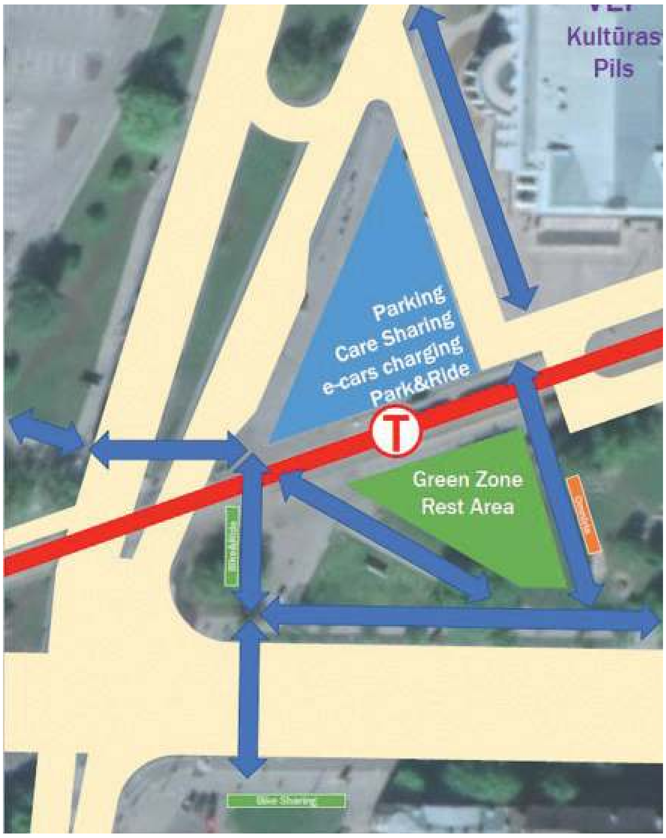
Through working and co-creating strategically together with stakeholders and citizens we have learned the following:

- The citizens were interested in participating
- With issues and objectives clearly defined, it was easier to think collectively about solutions.
- By involving the users, we ensure that the solutions match their needs.
- Involving and informing citizens about mobility projects helps ensure ultimate acceptance of the solution. It also guarantees the efficiency and validity of the project, as the project will as a result be more likely to meet the needs of the inhabitants.

Recommendations

After working with participation workshops, we can give the following recommendations:

- Define a clear objective
- Be conflict-sensitive throughout the process. Conflict prevention actions should be taken to reduce the risk of disputes and reduce tensions
- Be clear and open about your process and transparent about how decisions will be made
- Critically review the efficacy of the participation strategy in order to enhance participation in future activities
- Be aware that although behavioural change is a long-term process that cannot be fully achieved through a short intervention like a workshop, a workshop can still possibly initiate behavioural changes.



Analysis of the focus area during the Urban Planning Workshop and initial proposal in Riga. Photo credits: Riga Energy Agency.

Image from the Urban Planning Workshop in Riga. Photo credits: Riga Energy Agency.

What cargo bike type are you? Rostock asks. Photo credits: City of Rostock

CITIZEN INVOLVEMENT IN THREE CITIES

ROSTOCK: Parking pocket stand & cargo bike test

Every year in September, the City of Rostock organizes a car-free day in cooperation with a number of partners. The event is called **"Climate Action Day"** (Klimaaktionstag). For one day, the centrally located four-lane street "Lange Straße" is closed-off for car traffic and the streets are taken over by a fair at which people can meet local organizations, hear about new initiatives, and find associations all working on climate protection, and see what they are doing and get inspired to take action themselves. The parking stalls in the street serve as stand areas and are free for local organizations to use.

In September, 2018 the **cities.multimodal** team in Rostock used the opportunity to get citizen feedback on which cargo bikes would be most suitable for a local cargo bike sharing system. That day, citizens could test different cargo bikes – both two-wheeled and three-wheeled, with and without electric assistance.

Citizens were invited to first do a **"What cargo bike type are you?"** test and to try out different types of cargo bikes, provided by a local cargo bike dealer, to see which cargo bikes they felt were easiest to handle and which type of bike and cargo box they valued the most. Afterwards, they gave their feedback with stickers on a poster. The team also made notes of the oral feedback of people testing the bikes.

Results

The two-wheel e-cargo bike turned out to be the most popular model. The individuals who tested the bikes revealed that even though three-wheeled cargo bikes seem to be more stable and safer, they can be difficult to ride. The outcomes of the test were used to decide on the type of cargo bike the city would tender for a planned fully automatic cargo bike sharing system.

It is important to test new mobility solutions like cargo bikes or e-scooters before implementing the final solution. By testing new solutions, valuable insights and feedback from different types of future users can be gathered. Furthermore, the testing of the cargo bikes, allowed to promote the future Mobility Points and the upcoming cargo bike sharing system simultaneously.

Resources

It is very often a good idea for small initiatives to piggyback onto larger existing events that high numbers of people know about and attend. In this case, about 1,000 citizens visited the Climate Action Day. It is a well-known annual event in Rostock that has been running for 10 years. Because this event is promoted through PR and an event website, there was no need for any specific communication activities to promote the cargo test bikes aside from the stand itself.

The required budget to realize the stand, survey and cargo bike test was very small. There were no fees for the stand and the graphic designer the team worked with participated in the project on a voluntary basis. In total, the initiative cost only 50€, which was the cost for renting the cargo bikes. That being said, this was only possible because this was part of a bigger larger and free event where the costs were covered by the municipality. Organizing the event took approximately one work week in hours.

Cargo bike test. Photo credits: City of Rostock

MOBILITY POINTS
SUPPORTING A MULTI MODAL LIFESTYLE

The main aim of the **cities.multimodal** project is to promote more space-efficient and sustainable transport modes by promoting multimodality in cities. This ambition entails introducing new infrastructure measures as well as working to change people's mobility behaviour through campaigns and Mobility Management activities.

The goal is to facilitate a shift from private motorized vehicles to more sustainable transport modes like walking, cycling, public transport, car sharing and ride sharing. Therefore, one core activity in **cities.multimodal** has been to develop, run and evaluate Mobility Points. A Mobility Point is an infrastructure measure that serves as an interchange between different sustainable transport modes and that should embody the possibilities that multimodality provides for citizens when moving around a city.

In **cities.multimodal,** the project partners have exchanged ideas and concepts through meetings, peer reviews, study visits and workshops, providing feedback to their fellow partner cities. The results of this process have been compiled in this guide to provide practical and hands-on advice for other city and transport planners regarding how to plan, design, promote and run durable Mobility Points.

Mobility Points promote sustainable mobility solutions

A Mobility Point is a physical place which enables the interchange between at least two sustainable mobility modes like walking, cycling, micro-mobility, public transport, green cars, carsharing or ride sharing. The intention is to create sustainable mobility options that are convenient and easy for citizens to use, thus providing the possibility to be mobile without owning a car. Add on features such as parcel and post distribution, shared economy functions and equipment, material recycling, and so on, are highly encouraged.

Mobility points could have the following features:

- Bicycle racks/parking/storage
- Sharing systems for bikes, cargo bikes or cars
- Public transport
- E-charging stations for bikes or cars

The goal of implementing Mobility Points is to directly or indirectly increase the number of people using sustainable mobility modes. This increase correlates to a sought-after decrease in the number of people using private motorized vehicles. The need and purpose for building Mobility Points can vary from city to city and neighbourhood to neighbourhood. In one place the purpose might be promoting a particular mode of transport or raising awareness about a specific service. Metrics and indicators must match the purpose of specific measure. Even though the ultimate goal is to change the modal split, it is important to set relevant, measurable goals that match the specific measure and the purpose of the measure as it relates to Mobility Points.

In order to be sustainable, the Mobility Point needs to address the three aspects of sustainability – the social dimension (space efficiency, safety and health), the economic dimension (attractive cities and commercial benefits) and the environmental dimension (air and noise pollution and fossil fuel dependency). Bear in mind that most measures will address some of the aspects more than others.

Densification is a current trend in city planning in the EU. However, to be able to have more people living and moving in our cities we also need to redistribute space. A private motorized vehicle requires more than 20 m^2/unit in comparison with a pedestrian that requires just under one m^2/unit. Smart solutions for the future liveable city must balance transport modes far more efficiently than current trends in order to address the challenge of urban mobility. For cities to maintain their appeal, offer shopping, entertainment, job opportunities and

Mobilty workshop held on ”Artemis” in Rostock. Photo credits: Karolin Köhn

leisure, they must provide reliable, safe and affordable mobility much more space-efficiently than they currently do.

Planning a mobility point

The decision to build or develop a Mobility Point should always serve a specific purpose and begin with a specific need or demand from citizens. Regardless of whether or not the need and purpose is the result of an analysis or a political initiative, it is crucial to identify and formulate the purpose and aim of the initiative. This will form the foundation for success in the challenges that come up along the way, and that continue until the Mobility Point becomes an integrated part of city development and is accepted by the citizens who then actually use the Mobility Point.

It is not possible to form a full list of variables to be taken into consideration when planning Mobility Points. For some cities building a Mobility Point will be a natural part of a greater development with strong support and acceptance, whereas for others it will be seen as a bold action and will require a guerrilla-like strategy. This will also depend on the mobility mindset of the city, as described in chapter 2.

We have tried to list, in no specific order, some questions to consider when developing a Mobility Point:

- Is the Mobility Point included in a city development plan, mobility plan, master plan, etc.?
- What is the purpose of the Mobility Point and which goals do we want to achieve?
- Which functions should the Mobility Point contain and why?
- Where should it be located and why?
- Is there any political support?
- Division of responsibilities: who is planning the Mobility Point?
- Citizen involvement process: who organises it? time and money? target group?
- Note: Plan for monitoring and evaluation, including time schedule and budget.

Promoting a mobility point

Mobility Points are measures that can enable changes in attitudes and behaviour. Disseminating and communicating information about them is essential to gaining the local acceptance and support that is necessary.

Whatever your strategy is, a Mobility Point needs to stand out, be visible, attract attention and preferably become the talk of the town. This way, it can make citizens aware of solutions that address a much bigger challenge. This awareness is fundamental to the process and is the first step towards achieving real behavioural change.

Forcefully Introducing solutions rarely provides a solid foundation for success. Therefore, it is imperative that you are securing citizen approval in the development of a Mobility Point, and this critical success factor must be listed as one of the parameters to measure the development towards a desired behaviour.

- Citizen involvement in the design and planning process is paramount
- Plan for an inauguration event
- Create an accompanying campaign around the Mobility Point
- Have ongoing communication and promotion
- Plan the whole process from the beginning – citizen involvement, timing, budget considerations, resources, cooperation with media, communication, evaluation etc.

Evaluation of the Mobility Point

Ultimately, you will need to show what effect the Mobility Point has had. Even though the purpose in the long run is to change mobility behaviour, it is important to develop specific indicators that measure other parameters related to behavioural change:

1. How many people locally know about the Mobility Point?
2. How many locals have tried a service related to the Mobility Point?
3. Are the users happy with the Mobility Point and the services?

To collect data, you need to plan:

- Which type of data do you need (qualitative vs. quantitative)?
- How you collect the data
- How you analyse the data
- What are the lessons learned
- How to proceed

Although general policy and guidelines can be extremely useful, every city needs to plan and adapt to local circumstances and conditions. The best way to know what effect the Mobility Point has had is to decide upon measurable goals from the outset, collect data and evaluate the process. These actions are all imperative for future measures and next steps working with mobility management.

In the following pages, five good examples of Mobility Points will be presented. Each of them is unique to the city in which they have been implemented, and can hopefully provide some sense of how Mobility Points can look.

Mobilty workshop held on ”Artemis” in Rostock. Photo credits: Karolin Köhn

Snapshot from Karlskrona's citizen involvement campaign, including vehicles from the municipal car and bike sharing system.

MOBILITY POINTS IN AARHUS

Aarhus has experienced a significant boom in cycling in recent years. This has likely resulted from both the investments the city has made in improving its cycling infrastructure , as well as from the city's increasingly restrictive measures concerning car traffic in the city.Aarhus has a large number of citizens living in residential areas with limited parking space for cargo bikes and other special bicycles, which is an issue that needs to be addressed.

Two Mobility Points were created, both conveniently located near a car sharing facility, as well as a bus network. Cargo bike racks were installed, which took the place of only one parking spot for cars at each location. One of the Mobility Points was also equipped with a bike air pump and at both locations a tree has been planted in accordance with the city's policy of planting 10,000 trees before 2025. The Mobility Points have been operating since November 2019 and have been highly popular from the outset.

The purpose of the Mobility Points is to benefit those choosing to travel by bike or public transport instead of by private car. By locating the Mobility Points close to car sharing, e-scooter sharing and bike sharing facilities, the hope is that usage of sharing services will increase at the expense of private motorised vehicles.

Citizen participation is a key to success

Stakeholders were involved from the beginning of the project, which has been the single most important aspect in the process of establishing the Mobility Points. Through citizen workshops and mappings of challenges and solutions, it was concluded that there was a need for this type of measure in the pilot area Øgaderne, in Aarhus. The idea of focusing on parking for cargo bikes came directly from citizens themselves and they were also part of identifying the exact locations of the future Mobility Points.

While it can be daunting at first to take on establishing a Mobility Point, those initial efforts can really have a positive impact. In Aarhus, the Mobility Point mindset is already spreading, and additional Mobility Points are now being considered throughout the city.

Mobility Point "Sølystgade" in Aarhus. Photo credits: City of Aarhus

MOBILITY POINT IN KALMAR

Kalmar is characterized by a high share of bike users compared to both other cities in southern Sweden and other cities in the **cities.multimodal** project. However, there is no secure bicycle parking in the city centre, which hampers peoples' willingness to bike to the city.

A Mobility Point offering safe storage for bicycles will be developed. The Mobility Point will be strategically located within the city centre, adjacent to the central bus and train station. There will also be bike rentals available at the Mobility Point, as well as car-sharing alternatives within walking distance.

The Mobility Point will address cyclists' needs for safe bike storage if they are combining bicycle and public transportation in order to go shopping or spend time in the city center. It is expected that this new level of bike security will increase the number of people biking into the city center as well as the amount of time they spend there, as they will feel more comfortable leaving their bike parked. The measure is connected to the larger aim of increasing the status and priority of cycling in the city.

The Mobility Point supports the city's SUMP goal of increasing sustainable transport modes to representing a minimum of 50% of the modal split by 2025.

Planning a pilot can create more structural changes

The preparatory Mobility Point analysis conducted within the **cities.multimodal** project marked an important step in realizing a need for mobility management, as well as realizing the mutual benefit of corporation between different municipal departments. Being part of the **cities.multimodal** project has thus been instrumental in changing how the municipality views mobility management. Capacity building has not only led to widening the understanding of mobility challenges but has also made sustainable urban mobility planning an integral part of transport planning.

The Bike garage in Kalmar. Photo credits: Jessica Johansson

The Bike garage in Kalmar. Photo credits: Jessica Johansson

MOBILITY POINT ROSTOCK

Rostock has a strong network of public transports and an increasing share of cyclists, but private car ownership is still high and even increased in recent years. Public space in the city centre remains dominated by cars, leading to congestion and high parking pressure.

Since some years sharing operators for cars and e-bikes made their services available in Rostock, however there is still limited usage, knowledge and acceptance of this mode of transport among the general public. This is also due to a lack of visibility in public space of these mobility options.

To address these challenges the City of Rostock wants to develop a city wide-network of Mobility Points, and within **cities.multimodal**, a pilot with three Mobility Points in the most densely populated city quarter “Kröpeliner-Tor-Vorstadt”.

The new Mobility Points are located in dense housing areas, bringing mobility options close to people’s homes and making alternative as comfortable and attractive as possible. Furthermore, the three pilots are adjacent to public transport and city train stops, facilitating transfers between different modes.

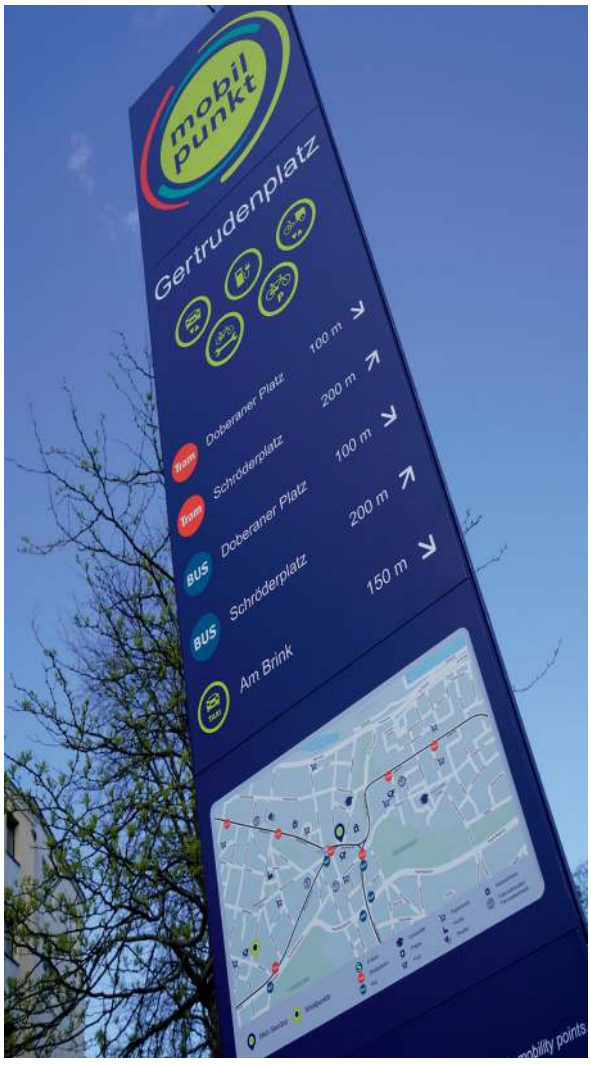
At each of the three Mobility Points users find car sharing vehicles, public cargo bikes and bicycle racks. All points are visualized by a sign providing information on available services (bus and tram stops, carsharing vehicles etc.) in the surrounding area. One of the Mobility Points also includes a bicycle service station.

The pilot area “Kröpeliner-Tor-Vorstadt” is characterized by narrow cobble stone streets, unequally shared by pedestrians, cyclists, car-drivers and others. The Mobility Points aim at offering an attractive alternative to private cars and decreasing private motorised vehicles. The idea of sharing instead of owning mobility solutions shall be promoted by making these options more visible in public space.

External experts can be useful when dealing with local challenges

In order to set up the Mobility Points, it was necessary to identify a legal framework that enables reserved parking on public land for car sharing operators. To do this it was necessary to identify examples from other German cities and organize several rounds of discussions between the various stakeholders.

We learned that external experts can be particularly helpful when it becomes necessary to persuade local or federal politicians and other key decision-makers.



Mobility Point at Gertrudenplatz in Rostock
Photo credits: BOOB Werbung

MOBILITY VILNIUS

Vilnius city adopted a SUMP in 2018 that suggested additional MPs throughout the city, including in the pilot area. Vilnius already has four Park & Ride (P+R) facilities.

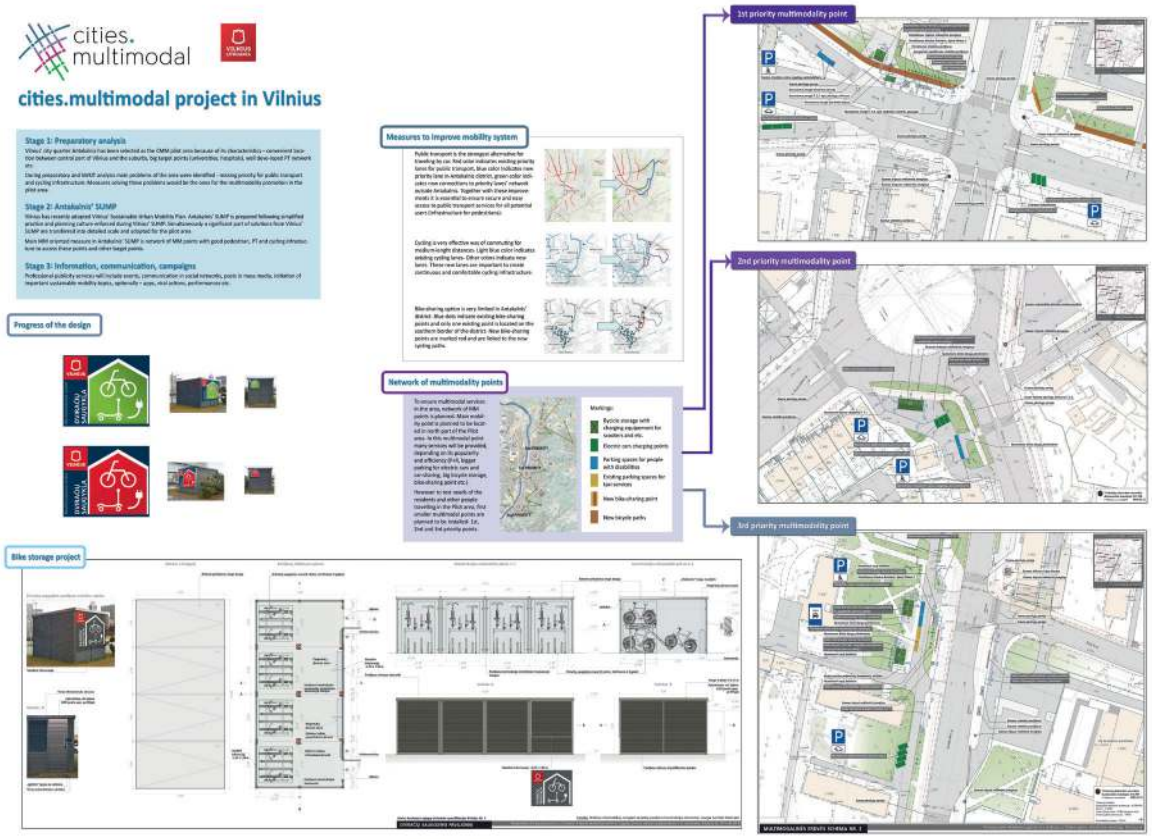
The pilot area, Antakalnis' city quarter, is situated on the north-east side of the densely urbanised part in Vilnius city. The area has a well-developed public transport system, a high transit level and a low car ownership rate in comparison to Vilnius city as a whole. However, it lacks sufficient infrastructure for cycling and other services usually provided at mobility points.

Within the pilot area small scale mobility points will be established to raise awareness of the positive impacts of MPs among the public.

By providing charging points for bicycles, scooters and cars, as well as car- and bike-sharing options and bike & go possibilities the goal is create awareness and influence transport choices to include more sustainable mobility options. The expected result is reduced transit levels and proportion of trips by a PMV, while the usage of public transport, proportion of cyclists and pedestrians will be increased.

To most people in Vilnius mobility points equals Park & Ride. The focus was thus to widen the concept and deepen the understanding of mobility points among decision makers and the general public. A strong communication strategy was developed and a number of local events were organized, giving people the opportunity to ask questions and provide input. In the process so far, the most important progress has been the successful inclusion of municipality departments, local politicians and citizens, to gain a high level of commitment to the project.

It has also been highly important to be able to adapt and change project plans. The initial location of one of the MPs was changed, as it was not well received by the local community and also posed some legal challenges in terms of the own ership of that particular piece of land.



MOBILITY POINT GULDBORGSUND

The inner city of Nykøbing Falster (in the municipality of Guldborgsund) is characterized by narrow one-way streets with few options for car or bike parking. The general geographic layout of the city results in avoidable traffic congestion and traffic accidents. The traffic situation has a negative effect on local commerce as bike tourists do not tend to spend much time shopping and meeting in the city centre when they lack viable bicycle parking options.

The Mobility Point will be placed in the inner city of Nykøbing Falster. This is a lively area that is densely filled with shops and restaurants, and which lies adjacent to the main train station. This Mobility Point will offer parking solutions for cyclists.

This Mobility Point will enable two sustainable transport modes to be combined, namely cycling and traveling by public transport. The bicycle storage point is part of an overall strategy to increase the number of cyclists; Especially bicycle tourists who should have a positive impact on local commerce.

External experts can help speed up the process

One of the most important lessons learned through this process has been that there was a need for assistance from external mobility experts. Many of the questions and challenges we face are problems that other cities face too, and the involvement of external experts and exchange of related experiences between cities could have sped up our decision making and planning process.

MOBILITY POINT RIGA

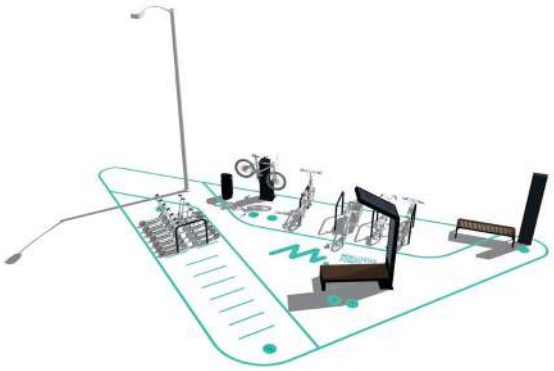
The City of Riga struggles with traffic congestion, noise and air pollution and the consequences of urbanization and economic growth. Urban sprawl and missing links between different modes of transportation and low public awareness about sustainable transport modes and multimodality has led many citizens to live in the suburbs, where they are dependent on their car to take them to work in the city centre.

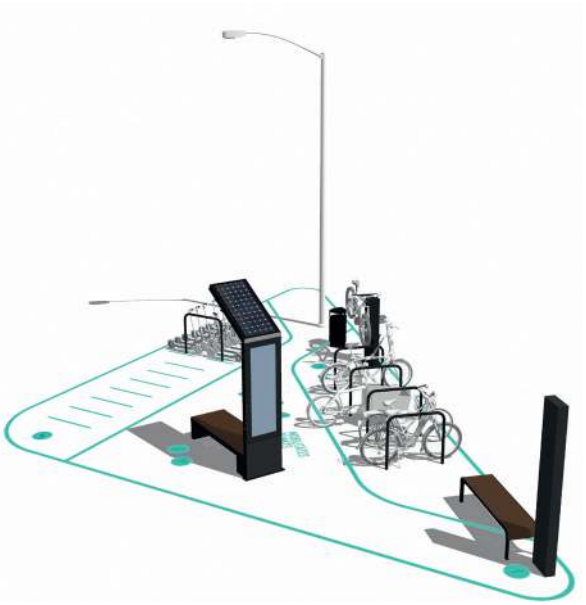
The first pilot Mobility Point in Riga is located near one of the main public transportation transfer hubs for busses, trolleybuses, trams, minibuses and trains. The Mobility Point offers real-time displays of the public transport schedule, as well as car-, bike- and scooter-sharing facilities, electric scooter parking, solar panel benches with USB chargers, bicycle repair kits, and so on.

The purpose of the Mobility Point is to make it easier for the general public to choose sustainable transportation over their private motorised vehicles. The Mobility Point will improve mobility offers and transport connections.

A Mobility Point cannot stand alone

One of the lessons learned in the project is that individual measures cannot stand alone. They need to be part of a comprehensive city plan.





Visualisations of the Mobility Point in Riga

LIVING STREETS

Participatory and awareness campaigns to promote sustainable mobility and create more liveable cities

A shift towards more environmentally friendly and sustainable mobility can only be achieved if people change their mobility behaviour. To achieve this, availability and access to green modes of transport must be provided and awareness about the alternatives to single occupancy car use must be promoted.

The aim of **cities.multimodal** is to do both of these things. By setting up Mobility Points, cities improve the accessibility to, and availability of, sustainable modes of transport and make it easier for people to switch between different options. In order to raise awareness about sustainable mobility, the mobility points were supported by jointly developed and individually implemented campaigns.

Reclaim and rediscover

The campaigns developed within **cities.multimodal** were targeted at the general public. The objective was to raise awareness about people's individual mobility behaviour and present them with more sustainable transport solutions.

The participating cities also wanted to start a public discussion about the way their streets were used and address the issue of more equal distribution of limited city space. The campaigns aimed to encourage citizens to rediscover and reclaim the city's streets as a liveable public space.

"Imagine that the street in front of your house is temporarily transformed into a lively, green, car-free meeting point for your neighbourhood. This is what a Living street is all about!"
– Lisa Wiechmann, project coordinator City of Rostock

cities.multimodal was inspired by the Belgian Living streets project in Ghent. Each summer, starting in 2013, residents occupy the streets in front of their houses and, for two to three months, transform them into car-free (completely or partially), pop-up living spaces. Residents install greenery and benches, set up barbecues etc.

The initiators and organisers of the Living streets initiative are residents of the area. They have full autonomy to decide upon the layout of the street, with the City of Ghent administration serving as supervisors and facilitators only. In doing so, they enable the temporary street changes through granting necessary permissions and providing traffic signalling and street furniture. In Ghent the Living streets initiative began as a project to strengthen social cohesion and dialogue between neighbours.

Meibloemstraat-Ooievaarstraat in Ghent. Source: www.leefstraat.be

LIVING STREETS CONCEPT

Inspired by Ghent, the cities.multimodal partners developed a Living Streets concept:

1. Creation of car-free zones

The aim is to create an intervention in the street. During the intervention, parking pockets, intersections and/or streets are partially or completely closed off to vehicle-traffic. Traffic thus needs to be rearranged, the signage system needs to be adapted and/or (natural) barriers need to be erected to delineate the new area.

These spaces thus transform into green, social meetings points. For the redesign, different kinds of street furniture are arranged in the streets, including flowerpots, greenery, benches and seats, etc.

2. Temporary changes

The interventions are temporary, so the transformation of the public space takes place for only a limited period of time. This duration can range from several days to a few months.

After the campaign, the streets are restored to their initial appearance. The temporary changes are not meant to prototype future planned permanent infrastructural changes; rather, they should instead aim to initiate a debate on the use and potential of local streets instead.

3. Participatory approach

The intervention must be planned and implemented with active involvement of the local community and local stakeholders like citizens, shop owners, decision makers and civil servants. The involvement of a broad group of stakeholders helps ensure greater acceptance of the changes and helps to spread the initiative to many people.

On the following pages, examples of the Living Streets Concept are presented.

Living Streets in Gdansk. Photo credits: The City Hall of Gdansk

AARHUS: PEDESTRIAN SUMMER STREETS

The City of Aarhus converted the two streets "Vestergade" and "Graven" into pedestrian zones from June to October 2019. The objectives were to increase the number of people using the streets, to enrich the appearance of the streets by introducing new greenery, to improve road safety and reduce conflict among users by lowering the speed limit and to actively involve the business community and street associations in the project.

Vestergade

Throughout most of the year, "Vestergade" is a one-way inner-city street with narrow sidewalks. It has cafés, second-hand shops, businesses and a diverse selection of eateries. Despite the variety of local businesses, Vestergade is not a particularly busy street. Pedestrians, cyclists and drivers move through the area relatively smoothly, but general traffic is negatively affected by business-related traffic. The speed limit for cars is 50km/h.

Graven

"Graven" is one of the oldest streets in Aarhus and is the main artery of the Latin Quarter. For most of the year it is referred to as a "cycling street", because cyclists are given priority and the one-way car traffic must heed all bicycle traffic.

Residents in the area live side-by-side with local coffee shops, second-hand stores, art galleries and other small boutique stores. Many young people frequently visit a grassy spot in the area known locally as "Hipster højen" (Hipster Hill), where they hang out, play music and drink.

The intervention

In summer of 2019 both streets were opened up as pedestrian streets. A new signage system was introduced to indicate the new pedestrian zones. Both cars and bikes now had to adjust their pace to pedestrians. The speed limit for cars, bikes and e-scooters was reduced to 15km/h.
To create a more functional and livable urban environment, the separation of the street and the sidewalk was removed to create one cohesive shared space. Cafés, bars and restaurants moved outdoor serving into the streets, which were now freshly decorated with plants and trees.

"We choose to come here because of the great atmosphere and because there are more places to sit down outside at the cafés."
(Pedestrian in Graven)

Planning

Preparation for the summer streets initiative in Aarhus began six months prior to the official opening in June 2019. Aside from the administrative and regulatory preparation necessary to create this new pedestrian street, the municipality launched a series of conversations with the local communities of both streets. By adopting different participation formats, the municipality actively involved the different local stakeholders in the design and organisation of the summer streets. Associations, shop-owners, gastronomes and residents engaged in numerous activities.

The role of the city was to coordinate the different stakeholders and their interests.

Residents' focus and interests:

- Accessibility (to their home)
- Peace, quiet and privacy
- Personal inspection of the area

"It's a problem when you have your own car and now and then want to park your car outside your home"
(Resident of Graven)

Pedestrian Summer Street in Aarhus, 2019. Photo credits: City of Aarhus

Businesses' focus and interests:

- Turnover
- Easy accessibility for customers and goods
- Good atmosphere/ positive publicity

"Vestergade is an important part of the city center and over time it has developed and offers a lot. The summer pedestrian street initiative and the slow traffic means that stores and other traders get noticed. It makes things livelier and increases turnover for one of the oldest streets in the city,"

(Trader in Vestergade)

Cyclists:

- Easy accessibility
- Distance from vehicles
- Sense of being prioritized

"There are now more pedestrians, which is great in terms of atmosphere, but it creates more chaos. As a cyclist, I often come close to cycling into someone. More pedestrians are both good and bad. You should be able to cycle unhindered."

(Cyclist in Graven)

The budget of 47 000 € for creating the Pedestrian Summer Streets was covered jointly by the City of Aarhus and local street associations.

Recommendations

The City of Aarhus learnt the following from implementing the summer streets intervention:

- Early involvement of shopkeepers and residents is crucial
- Thoroughly prepared dialogue with different and potentially opposing interests/needs/ prioritisations is paramount
- Finding a good balance between the various interests of the local community is important
- Consideration of residents or business owners who require vehicle access or parking space due to needs relating to the delivery of goods, due to reduced mobility, or due to private ownership of a parking space is essential
- Providing alternative parking solutions or allowing for limited access for specific interest groups is beneficial
- Signposting and providing a clear vision for how the street must be used and kept clean helps avoid conflicts among users
- Starting planning early to make sure all permissions for closing the streets are in place in time is crucial

TARTU: LIVING STREET ON THE INTERSECTION OF ÜLIKOOLI AND VANEMUISE

The City of Tartu reimagined the intersection of the two streets Ülikooli and Vanemuise as a car-free zone for events and leisure and transformed the intersection into a pedestrian zone from June 27th to 29th, 2019. The City simultaneously aimed at promoting its new bike share system and a new bus line.

The Intersection of Ülikooli and Vanemuise

The intersection of these two streets is highly trafficked, though the vehicle traffic moves at low speeds. This intersection is the entrance to the heart of the city and funnels traffic from two main directions.

The intervention

The "Living street" intervention was in place for three days in June 2019, in connection with the Tartu City Day and the inauguration of new buses and bus lines. The intersection was closed off to vehicle traffic, and couches, stools, sandboxes and swings were placed out on the street instead. In collaboration with local cultural institutions, an entertainment program was organized in the newly designed area during the three days of traffic calming.

Planning

The intervention was planned by the Tartu City Government's departments of Culture, Municipal Property, Communal Services, City Planning and Public Relations. In total, the preparation phase lasted nine months, though initial ideas had been developed as early as autumn 2018. The involvement of local stakeholders (like the Tartu Transport Company, AS GoBus and several cultural institutions) and the development of the intervention concept spanned from October 2018 to February 2019. From February onwards, concrete preparations and planning for the campaign commenced. The cultural program was developed in cooperation with the Tartu Art Museum, the Tartu Electricity Theater, HaleBopp singers mixed choir, the Tartu Vanemuise Theater, Tartu University, Tiigi Culture House, the Museum of Estonian Literature, the Tartu 2024 Culture Capital leadership group and various landscape architects.

The final program for the three days was:

- **27th of June**
  – Street closure and Movie Music Silent Disco at 22:00
  – Creation of 3D artwork to mark the 150th anniversary of Estonia's first song festival
- **28th of June**
  – Book fair with 70 local writers
  – Open air cinema of "Grease" with sing-along accompanied by local mixed choir
- **29th of June**
  – Charity ball to collect money for a walking robot
  – Presentation of the new bus and public transportation system

The main event was the presentation of Tartu's new buses. The presentation included six different thematic buses, which were a music bus, a poetry bus, a science bus, a travel story-telling bus, a quiz bus and an information bus.

In total the cost of the initiative was 25 000 €

Recommendations

- Due to limited resources, the city decided to focus on events instead of physical changes
- Enough resources are necessary in order to physically change the shape of the street or intersection
- Combining several ongoing or planned events can help to overcome budget constraints
- The longer the street can be closed off to vehicle traffic, the less the intervention is perceived as an event and the more the redesign leads to the adaptation of new mobility patterns

Snapshots from Living Street event in Tartu

GDANSK: LIVING STREET – “ULICA PEŁNA ŻYCIA”

During the European Mobility Week in 2019, the City of Gdansk closed off an intersection to car traffic for two weeks and transformed the intersection into a small man-made beach, to serve as a meeting point for the neighborhood.

The purpose of the measure was to show that streets can also be a pleasant meeting point where people can gather, talk, read, play, do sports, interact as a community and learn more about their neighborhood.

Ulica Pełna Życia

The intersection is located in a residential area in the city centre close to a primary school. It is a junction of three streets with frequent but not heavy car traffic. Most traffic in the area results from parents driving their children to the nearby school in the morning and afternoon. The speed limit is 30km/h.

The intervention

The intervention was implemented the week prior to the 2019 European Mobility Week and lasted until the end of the Mobility Week. For these two weeks, the intersection was transformed into a small beach with sand, deckchairs, palm trees and flowers. A daily program, running from 10 a.m. to 8 p.m., included workshops and physical activities, and was organized in co-operation with local associations and shops. Some of these activities include guided walking and cycling tours, free bike repair services, info points regarding municipal waste sorting services and health services, etc.

“Above all, we want to show that the way in which we use public space is entirely up to us. These can be spaces occupied by car traffic or used for spending time together, playing or relaxing. In this way, our action is to encourage us to change the face of the streets surrounding us, but also to change our way of thinking about how we can use the street” (Remigiusz Kitliński, manager of the Activity Mobile Unit)

Planning

Preparations for the intervention commenced in June 2019 and took a total of three months. The Active Mobility Unit of the Municipal Facilities Management Department mainly

City Hall of Gdansk: Living Streets in Gdansk

The pictures present Living Street campaign, gardening workshops as part of the space arrangement process, creative workshops and natural barriers (palm trees) used to close off the intersection.
Photo credits: The City Hall of Gdańsk.

coordinated the event. Most of the preparation time was devoted to involving local partners and specifying details of the collaboration. Local authorities played a crucial role, being responsible for managing the roads, road-safety and traffic organization throughout the city. In particular, the Gdansk Roads and Greenery Management Authority was heavily involved in preparing the traffic organization, spatial planning and organization of city street furniture.

Steps to take

1. Set the location and discuss feasibility of implementation with Road and Greenery Management as well as Public Transport Operator
2. Obtain a special permit for using the street
3. Rearrange routes and adjust public transport schedules
   a. Inform the residents about the changes
4. Have a temporary traffic organization plan created, agreed upon and approved by the Commission for Temporary Traffic Organization and Road Lane Occupation.
5. Procure services: photographers, video producers, logistics management services, and services for space organization and gardening workshops
6. Arrange temporary road signage to be installed before launching the campaign
7. Install natural barriers to close off the area (palm tree barrels, bike racks)
8. Meet and involve local partners
9. Prepare and implement an information campaign to promote the campaign on local radio, news, and social media channels and prepare and distribute promotional posters, written announcements and analogue and direct communication

The cost of the intervention was 24 000 €.

Recommendations

The City of Gdansk learnt the following from their summer streets intervention:

- It is important to cooperate closely with and listen to local stakeholders throughout the planning stages. This encourages acceptance of the measures and can help to reduce conflicts later
- Involve both supporters and opponents and listen to their criticisms, needs and priorities and take it all into consideration
- Prepare a communication strategy in order to respond quickly to possible criticism in news media and social media
- Strategically plan communications activities so that messages reach the right target groups. Involve external communications experts
- Preparing such an important intervention takes time. The more time you devote to involve all stakeholders before implementation the greater participation you receive.

ICT SOLUTIONS CAN SUPPORT MULTIMODALITY

Digital innovation and new technologies support the development of a multimodal city by providing solutions that make being multimodal easier and more attractive for users. To understand how multimodality is achieved with the help of Information Communication Technologies (ICT), it is important to understand what ICT solutions are, how to develop these solutions and how they can support the development of multimodal cities.

In the context of multimodality, ICT solutions have broad applications ranging from real-time travel information at bus stops via web/mobile-based applications to smart traffic systems. Given the many potential use cases, the report "ICT solutions for travel planning", **cities.multimodal** focuses on ICT solutions in the context of web and mobile based applications that support door to door travelling for the individual user.

ICT solutions for travel planning

The report gives an overview of how ICT solutions can support multimodality by highlighting which functionalities to consider, what to consider while developing or modifying ICT solutions and what the future trends related to ICT solutions and multimodality are. The document may also be valuable in the procurement process to ensure that all parties understand the importance of functionally convenient solutions and that they are aware of some of the challenges that project partners have faced while developing solutions.

ICT solutions support the development of multimodal cities in several ways including the creation of new public transportation models and connected transportation networks. For example, the use of ICT technologies in the form of web- and mobile-based applications has made carsharing and ridesharing easier for users. Furthermore, mobile-based applications can be connected to public transportation networks, enabling real time travel information to be accessed by users, making alternative transportation much more efficient and convenient for its end users.

Challenges relating to a lack of financial resources or skilled developers can make developing ICT applications a difficult and costly endeavor. That being said, new applications and technological breakthroughs continue to contribute to unlocking the potential of ICT mobility solutions in cities, so we hope these trends develop further in the future.

Recommendations

The report gives the following recommendations to cities when starting an ICT solution development process:

Antiquated policies and data systems

Among the challenges listed, issues related to the General Data Protection Regulation (GDPR) and outdated city policies were not frequently mentioned. However, both these issues have broad applicability to cities across Europe and are, therefore, important to mention.

Recommendation:
City data collection systems should be made GDPR compliant

GDPR is often seen as a hinderance to collecting and sharing information, which has been noted in interviews with city partners. Regardless of the opinions on GDPR, it is a fact that policy makers and city officials must be aware of in an information driven world.

GDPR compliant information systems can have several benefits that include establishing trust between city dwellers and city officials; decreased storage and maintenance costs by identifying outdated data, redundancies, and inconsistencies and removing them. This will

also lead to a more up to date catalogue of data, which can be used to drive innovation and improve decision making processes. Further, information gathering processes can be optimised, which increases the reliability of data, better informing the development of an ICT mobility solution.

Recommendation:

City officials must review and identify policies that are unnecessarily hindering the development of ICT mobility solutions and remove them.

City policies can restrict access to the mobility market because of outdated operational requirements (limits on licenses for new mobility services; varying regulations in different neighbourhoods) or pricing regulations like hindering dynamic pricing. Such policies can slow down or even prevent the introduction of new mobility solutions like bike sharing, e-scooters, or car share schemes to name a few in the city. Reviewing outdated laws and policies that unnecessarily hinder the rollout of new mobility solutions will make it easier for cities to develop, test, and implement innovative ICT solutions.

Information gathering

Gathering relevant and accurate data on travel patterns, user preferences and needs will be crucial in the development of an ICT solution. As previously mentioned, city partners have identified gathering information for developing an ICT solution as a challenge. A few recommendations have been identified that will help guide cities information gathering initiatives.

Recommendation:

Conduct surveys or incorporate questions related to an ICT solution into other public transport surveys

Creating surveys for gathering information on user preferences, needs, and travel patterns will be helpful in creating a functional application. As previously mentioned, too many features may clutter an application and render it unusable. As a solution to this problem, surveys can help identify features that mobility users would like to use; in turn, this will help cities avoid unnecessary costs by developing features that are undesirable or not necessary. Further, existing transportation surveys can be updated with new questions regarding ICT solutions, therefore saving time and energy on creating a completely new survey.

Recommendation:

Use cell-phone data to collect information on travel patterns and user feedback

As most people use smart-phones, it would be a good opportunity to gather active crowd-sourced information like mobile surveys or customer feedback or passive data provided by cell-phone carriers, which can include location data revealing travel patterns. Similar to surveys, this will increase the quality of data used in developing an ICT solution.

Incentivizing the use of multimodal solutions

One of the main challenges faced by cities around the world is finding ways to incentivise the use of multimodal transportation options as an alternative to private car use. To compete with private cars, mobility applications supporting multimodality must be convenient, cost effective, and enjoyable to use. Given the convenience that comes with owning a car, providing a competitive alternative can be a challenging task. Therefore, this section focuses on recommendations that can be used to incentivise the use of mobility options.

Recommendation:

Consider using a "gamification" feature to incentivise good travel behaviour

As previously mentioned, gamification is a feature being used by application developers to encourage the use of an application by rewarding "good" behaviour. For example, a mobile ICT solution could display a statistical breakdown showing the environmental impact of users' travel patterns, highlighting areas where they can improve their transportation habits. Another example would be if a user chooses cycling or public transportation, then they can be rewarded with a point scheme for cheaper transportation fares. A social element that compares a user's environmental impact with a community of people could also be included, therefore encouraging environmentally friendly travel behaviour.

Recommendation:

Consider initiating a marketing campaign to support alternative transportation methods

City marketing initiatives have been found to be effective methods to inform citizens about alternative forms of transportation. For example, in the Bay Area located in the United States, they have a "Spare the Air" day which provides city commuters a free day of public transportation to raise awareness about the harmful effects of private transportation. There were two "Spare the Air" days in the Bay area one year, and it was found that public transport ridership increased 8.2% on those days, which amounts to an additional 40 000 riders. Similarly, On September 22nd, cities across Europe participate in "The Car Free Day", an event tied to the Urban Mobility Week that raises awareness for urban mobility issues and encourages the use of sustainable transport options. With mobile technology and the wide reach of social media marketing, such campaigns may be an effective way to encourage the use of an ICT solution.

Expanding Mobility Routes

Based on partner responses, route planning overwhelmingly favoured motorised transport routes. These routes include main roads, highways, or other means that allow for motorised transport. Even Google Maps, which can arguably be one one of the most accurate route planners, plans routes according to established roads. This leaves other routes like walking and cycling paths unused.

Recommendation:
Cities should include cycling paths and pedestrian walkways in an ICT solution

The report found that pedestrian and cycling paths were underrepresented in route planning for ICT solutions. Adding such routes may increase the convenience of alternative transportation methods such as walking and cycling. Further, having cost-free transportation routes may entice travellers to choose an eco-friendly option rather than private car travel.

Transparency and Collaboration

The report finds that several partner cities have some sort of private mobility service that is being used. Private companies are also being used in parts of the application development process including payment processing or integrating private mobility options into the public application itself. Cities need the technology developed in the private sector to help with the development of a mobility solution. Further, community members who will be using the application must be consulted and informed about the process. Therefore, the following recommendations focus on creating a transparent environment that encourages collaboration between all the stakeholders involved.

Recommendation:
Cities should identify stakeholders involved in developing an ICT solution

Several different stakeholders have been identified throughout the report. Stakeholders can include public entities like local, regional or national officials; private companies and corporations; city dwellers and interest groups. In order to formulate a comprehensive plan, it would be beneficial for cities to identify relevant stakeholders in the development process and engage with them throughout the process to ensure that the final solution is meeting the needs of those involved.

Recommendation:
Engage with private companies and collaborate on the development of an ICT solution

The report has identified several companies of the mobility market that are developing innovative solutions in the mobility market. Some companies may be developing new transportation options that could be integrated into a city. Further, it was mentioned that cities may have to partner with private companies and outsource services that they may not be capable of developing themselves, like payment processing or application maintenance.

Therefore, it would be in the best interest of the cities to engage with these companies and openly discuss how they can work together to safely integrate mobility solutions into their city.

FEEDBACK ACROSS BORDERS –
PEER REVIEWS IN CITIES.MULTIMODAL PROJECT

Within our project, the 10 city partners planned and implemented a variety of different measures and activities – locally. To get feedback, input and "fresh eyes" on processes, plans, strategies and activities, we used the method of peer reviewing across borders. This helps to broaden the own horizon, get new ideas and perhaps overcome blocks, learn from other's experiences and expertise. Learning from colleagues from other cities and even from other countries gives very valuable input to everyday work in a municipality.

Split in two groups, cities were reviewing each other's processes, plans, activities and measures, depending on their need of feedback at a certain point in time. Meeting more informally in small groups facilitated a different way of discussion and exchange than within project meetings and provided the possibility of deeper exchange. An important part of the peer review meeting was an extensive site visit – that means the reviewers could get their own impression of the city, the situation and circumstances, they can meet other people involved and give more concrete feedback. Also the reviewers usually benefited from the visit – by giving feedback based on own expertise and experience, they often also learned new things and got new ideas.

The peer review process is done in three steps:

1. Peer review Preparation

- The purpose is to get to know the city processes and measures, facts, timetables etc. agree on a schedule for the other activities etc., deice whom to involve.
- Involve the host city and the reviewers.
- The host city prepares documents about the activities/measure/process to be send to the reviewers, including relevant material that is available.
- The reviewers are preparing themselves with the material well in time and decide whom to bring to the peer review visit from their team.

2. Peer review visit

- The aim is to facilitate exchange and discussion among colleagues/experts on the specific activities that the cities carry out in the project
- The duration was approx. 1-1½ days, depending on each city's needs
- It is recommended to pursue different ways to facilitate the event, e.g. discussions, work-shops, site visit etc

3. Peer review report

- The report includes a summary of the discussions during the visit and outlines the findings, suggestions and ideas from the reviewers
- Summary and reflections from the host city
- Reflections how to proceed further
- Target group are partner cities and their local partners. The reports will help them to review their multimodal transport concepts and raise their awareness for new opportunities in selected city quarters to make a change.

Peer review in Kalmar, January 2019

In Kalmar, the location for the planned Mobility Point was peer-reviewed by colleagues from Vilnius, Tartu and Guldborgsund. Despite the early planning stage, discussions and feedback from the reviewers made an impact. The outcome of the peer review is not a product or an end result, it is the beginning of new ways of working, ideas to test, concepts to consider and evaluations to be conducted – all a result of the fruitful and inspiring discussions.

Peer review in Guldborgsund, April 2019

In Guldborgsund, the group reviewed the Mobility Management activities at the campus area as well as the Mobility Point in the city centre and at the railway station. Discussions evolved mainly around the Mobility Points, the reviewers brought their own experiences and it became clear that every city defines their mobility point, its purpose and design slightly

Peer review in Gdansk

different. Nevertheless, these discussions led to new ways of thinking and developing ideas on how to continue the planning.

Peer review in Rostock, May 2019

In Rostock, Mobility Management measures with educational institutions, mobility point locations and the test for a living street campaign were reviewed. On every topic, Rostock received comprehensive feedback and concrete ideas for improvement on every topic. All ideas on how to make the surrounding of the school campus safer by better signage, greenery or simple infrastructural works were taken into account. Concerning Mobility Points, it was advised to consider lighting and to evaluate the possibility of integrating a solar panel solution. The reviewers also gave input on the living streets like visualization, picnic or one-day test event.

Peer review in Riga, September 2019

In Riga, a variety of **cities.multimodal** mobility measures in the pilot area were reviewed, including Mobility Management activities with companies and the planned Mobility Points. Feedback and input by the reviewers was appreciated and the city planned to take into account all ideas on how to improve the pilot area. One of the most important learnings for the host city was to focus more on the functionality of the mobility points in the planning phase. Mobility measures need to be planned based on a comprehensive plan to be successful. With regards to the mobility management activities, the reviewers remarked the importance to inform companies about the benefits (such as optimization of the company resources, health and safety) and to give good examples on other large companies where the mobility management activities are implemented successfully.

Peer review in Gdansk, September 2019

In Gdansk, the reviewers gave feedback and input to the mobility management activities and especially on different campaigns, like the “Bike to work” campaign, Bike trailers rental campaign, Cycle Friendly Employer Certification Scheme and the Living Street campaign. Feedback was given on mobility measures like the cyclist counter, bike-sharing scheme and a pedestrian bridge as well as on mobility management activities with schools. The reviewing cities especially took learnings home from the Living Street concept and the shared bike-sharing scheme, planning to do something similar in their respective cities and using Gdansk´s experiences.

Peer review in Vilnius, October 2019

In Vilnius, the peer review focused on the planned mobility points and their locations as well as on citizen involvement ideas and plans. Lively discussion among the reviewers took place on the shared experience with challenging citizen involvement processes and the NIMBY problem – when citizens want that something changes, but they don´t want to have the solution (like a Mobility Point) in their ”backyard”. Especially the input on looking at public space in a holistic way, not only from a mobility or transport perspective, but also including urban planning and environmental perspectives – and to communicate this to the citizens, could be a selling point for some measures and increase acceptance.

CONCLUSIONS

No matter where you are in the Baltic Sea Region – or in Europe in general – Sustainable Urban Mobility Planning is a crucial step towards multimodality in cities. Over the last three years, ten cities in the Baltic Sea Region have worked together, exchanged ideas and concepts and reviewed each other's multimodality measures in order to find out how and why sustainable urban mobility planning matters.

City quarter SUMP

Despite starting from very different mobility mindsets, all participating cities have ended up with a city quarter SUMP that supports the implementation of **cities.multimodal** measures. The plans naturally differ in scope and content - some are more technical and analytic while others focus much more on citizen participation and how to meet their demands. Regardless, the cities all have one thing in common: they believe all this work was well worth the effort!

Mobility points, living streets and campaigns

In addition to the sustainable urban mobility plans, many successful measures have been implemented in the participating cities. In this report, mobility points, campaigns and living street initiatives have been presented; but those activities are far from the only ones that have been carried out. Mobility management in city quarters, schools and companies has also been a focus of this report. The results are collected in a toolbox which is available on the **cities.multimodal** website.

The mobility points in the cities vary in scale and concept, from the advanced mobility point in Riga to the simple, yet, very useful cargo bike parking in Aarhus. Although inspired by mobility points in cities like Ghent and Bremen – the cities also found their own way through successful implementation, in a world in which mobility is becoming increasingly undefined and new business models are emerging constantly. Supporting living streets and campaigns is a great way for cities to apply sustainable mobility planning in a tangible way. The measures have been, to a very high degree, citizen-driven, or at the very least, have involved citizens during the ideation and planning process. The measures have not only changed the built environment but also supported the planning process. They help to visualize how a city could look like in the future in a simple and direct way. Meanwhile, living streets and campaigns can facilitate the collection of direct feedback from citizens.

ICT tools

Aside from the mentioned measures, the consortium also investigated the use of ICT tools. A report of the findings is available on the **cities.multimodal** website. Although ICT tools have not directly been implemented as part of the project, they are viewed as an important tool in promoting multimodality. At the same time, the value and sustainability of the different tools must be measured and evaluated.

When cities deal with complex matters like citizen demands, new business models, new mobility services, and new management tools, it is extremely important that the cities are aware of their own goals and ambitions relating to mobility. Sustainable urban mobility planning and a strong mobility mindset is the way forward to tackle these challenges. The **cities.multimodal** project shows the way.

Peer review in Aarhus

Peer review in Aarhus

Peer review in Gdansk

Peer review in Aarhus


Hanse- und Universitätsstadt
ROSTOCK


Tartu
city of good thoughts


KARLSKRONA
KOMMUN


GULDBORGSUND


AARHUS
KOMMUNE


City of Kalmar


CITY OF
VILNIUS


berlin


REA
Riga Energy Agency


SUSISIEKIMO
PASLAUGOS


GDAŃSK


adfc
Schleswig-Holstein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OF THE BALTIC
CITIES
SUSTAINABLE CITIES
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