



Interreg Europe action plan template



Action Plan for the region of Tartu



Part I – General information

Project: Optimisation of Public Transport Policies for Green Mobility - OptiTrans

Partner organisation(s) concerned: Tartu City Government

Country: Estonia

NUTS2 region: South-Estonia

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The project

OptiTrans project addresses policies aiming to disconnect mobility from carbon emissions in rural and suburban areas through strengthening the share of public transport in the modal split. OptiTrans therefore addresses mobility concepts or public transport strategies. While many cities have successfully adopted policies to promote public transport in cities and other carbonneutral forms of transport (cycling, electricity-powered vehicles), shifting demographic patterns in suburban and rural areas have rather diminished public transport's modal split share outside urban centres.

The OptiTrans project aims to increase the share of public transport in urban and suburban mobility by increasing the capacity of transport managers to plan and organize public transport, by introducing innovative solutions to improve the quality of public transport, by raising awareness of urban residents and by using environmentally friendly transport modes. The goals of Tartu City Government are to develop activities necessary for raising the level of public transport service and connecting public transport and other sustainable modes of transport.

The consortium is consisting of partners from Germany, Estonia, Greece, Spain, Italy and Croatia.

OptiTrans partners engaged in an interregional learning where these questions were addressed in thematic seminars and mutual peer reviews. Baseline studies and an investigation of good practices furthermore have build capacities and gained knowledge integrated in Action Plans.

Involved project partners represent local and regional public authorities who are in charge of mobility/transport strategies, planning and implementing public transport. Each partner has therefore the necessary capacities to lead in Phase 2 the implementation of the Action Plan being produced in result of the Phase 1 capacity building process.

The project lasts 60 months (01.01.2017- 31.12.2019 phase I and 01.01.2020 - 31.12.2021 phase II).

Action Plan

The Action Plan is the main outcome of the project for partner cities involved in the project. The Action Plan is based an interregional learning (mutual peer reviews and best practices) and on a base study of Tartu regional public transport carried out within the framework of the OptiTrans project.

This Action Plan is in line with the process of sustainable planning, climate resilience and sustainable mobility planning in the City of Tartu as manifested in the City Development Plan 2018-2025, City Master Plan 2030+ and in the Energy and Climate Action Plan of the Tartu city - Tartu Energia 2030+ (currently under development) proposing the actions and their coordination for increased multimodality of transportation, improved regional public transport services and the share of active modes of transportation.

The focus of the Action Plan is to enhance multimodal connections, better connectivity between city and the surrounding areas and the use of sustainable transport modes in daily movements of inhabitants of Tartu region.



Implementation of the Action Plan is creating an opportunity for mitigating the effects of private car usage in Tartu metropolitan area and is helping to increase the share of sustainable transport modes in urban transportation.

The action plan has been developed in the process of co-creation, which included mapping the relevant parties, involving them in preparations, and evaluating results jointly. In practice, the involvement model saw dedicated workshops for reviewing the transport management aspects and analysing the situation in Tartu. In addition to workshops, public discussions were held to give an overview of the working group's activity, introducing its results, discuss with the public, and to gather ideas and suggestions. The action plan has been compiled as a result of ideas and proposals of both the working groups and public discussions. For achieving high-quality and publicly acceptable results, the action plan plays a significant role in involving different stakeholders:

Tartu Linnatransport - municipal company which organises public transport services in the city of Tartu.

Tartumaa Ühistranspordikeskus - public organisation which organises public transport services in Tartu County.

South Prefecture of the Estonian Police - responsible for the activity of the Police and Border Guard Board in South Estonia, including Tartu and Tartu County.

The working group : Jalgrattalinn Tartu - spokesperson of sustainable transport in Tartu for more than 10 years.

Tartu's Association of Mobility Activists - citizens' initiative which stands out for the equal treatment of road users.

The Non-Motorised Traffic Committee of the City of Tartu - working group within the City Government, tasked with initiating and processing development projects related to non-motorised traffic.

ELRON - national service provider of passenger train traffic.

The strategic planning unit of the South region of the Estonian Road Administration - active in regional transport projects related to road infrastructure.

The Ministry of Economic Affairs and Communications - policy developer and implementation body of transport policy at the national level.

The adjacent rural municipalities to the city of Tartu - organises their transport services within the borders of local government units. The adjacent rural municipalities also provide a living environment to the commuting residents of new residential areas.

Tartumaa Ühistranspordikeskus - organiser of public bus transport in Tartu county.

The Union of Tartu County Municipalities - represents the local governments in Tartu County and is a cooperation partner to regional transport development projects.

In the compilation process of Action plan was analysed the impact of the process of rapidly increasing private car usage in Tartu and envisaged as three main scenarios for 2030 (Figure 1). Intensive car usage is having significant impact on traffic regulation, street safety, living environment, cost of everyday services, health and urban planning inside and outside of the city.

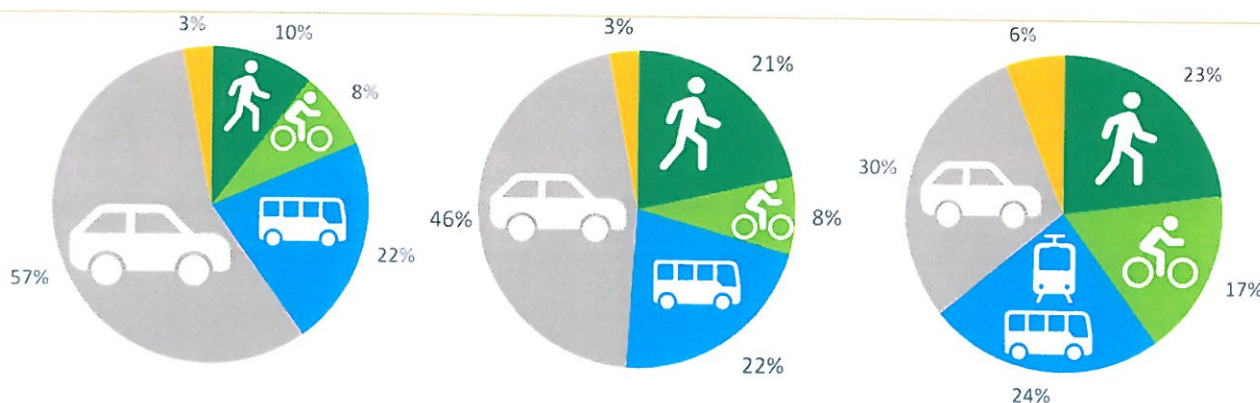


Figure 1. Urban mobility scenarios (LAZY, MODERATE and AMBITIOUS) for 2030 in Tartu

The Action Plan is based on ambitious scenario and will support the overall goal of City of Tartu on reducing 40% of their CO₂ emission by 2030, by reducing the emissions from private transportation by 15% and make public transport sector fully renewable.

The aim of the Action Plan is to reduce the impact of rapid increase of private car usage caused by urban sprawl (and increase of cross border commuting) by providing more convenient public transport systems that are developed in multimodal transport model, and by this providing more adequate response for the needs of the commuters. The action plan aims also to develop of other environmentally friendly modes of transport in the Tartu metropolitan area besides bus transport.

The Action Plan was coordinated and worked out by the Tartu Region Energy Agency in cooperation with Tartu City Government.

The Action Plan is considering suggestions from peer review given in Tartu in October 2018. The experts recommended that the action plan include activities that will help to identify and respond to the demand for mobility services in the Tartu region. An important recommendation was the development of various sustainable and environmentally friendly modes of transport and their better integration, especially on the border of the city. Peers highlighted some good practices from Andalusia (coordination amongst different administrators, demand-based transport services), Pesaro (bike network implementation) and Seville (bike promotion and multimodal integration).



Part II – Policy context

The Action Plan aims to impact:

- Investment for Growth and Jobs programme
- + European Territorial Cooperation programme
- + Other regional development policy instrument

The role of Tartu City Government

The objective of the transport policy of Estonia and the city of Tartu is to ensure available, convenient, safe, and sustainable mobility options to people and companies. A high-quality infrastructure and a smooth transportation system are essential for everyday operations.

The Tartu City Government is responsible for organising public urban space, developing the street network, and for ensuring the usability of road and streets in the city. The City Government has the regulative authority to shape the urban space, organise traffic, provide public and municipality transport services, as well as organise parking. The City Government cooperates with other parties and the community to develop the traffic and mobility of Tartu.

Tartu City Government is in charge of both preparing and implementing the City Development Plan 2018 - 2025 and different sectoral development plans.

Policy context

Name of the policy instrument(s) addressed: **Tartu City Development Plan 2018 - 2025**

The Development Plan of Tartu City is the main planning tool for the city, including planning of the city transport system. In the planning phase of OptiTrans project the main policy instrument was defined as the Transport Development Plan of the City of Tartu 2012-2020. The city political leadership has taken the position that, for the sake of clarity, all sectoral development plans will be integrated into the city development plan after their expiry. Therefore, in the case of Tartu, the policy instrument has also been changed and, from 2020, it is a Development Plan of the city of Tartu 2018-2025.

According to the survey of movements carried out in 2018 the modal split of Tartu City is as follows: private cars 46%, public transport 21,5%, pedestrians 21,5%, cyclists 8% and other modes 3%. The statistics of recent years show that the use of public transport and walking is in slight decline in Tartu. By contrast, the use of private cars is increasing by 1,5% annually especially for transport between the urban centre and the expanding city outskirts and surrounding municipalities (urban sprawl). This leads to congestions on major traffic routes and threatens Tartu's ambitions to reduce CO2 emissions within the city. The municipality therefore aims to work closely together with the municipalities in its surroundings to integrate residential areas located at the city's fringes in its Development Plan. One of the main goals of the Tartu City Development Plan 2018-2025 is the



development of a sustainable and environmentally friendly urban area, where mobility has a significant role to play. Urban sprawl and the accompanying change in people's living places and jobs are highlighted as an important trend. In order to solve the problems arising from urban sprawl, it is considered important to ensure the development of Tartu as a comprehensive and coherent urban area, including integrated planning, infrastructure development and service organization.

The change creates the preconditions for a wider regional impact of the Action Plan. The scope of the Tartu City Development Plan is broader and there are also more stakeholders involved. It is particularly important that the municipalities around Tartu are more closely involved in this thanks to this change.

Part III – Details of the actions envisaged

ACTION 1:

Name of the action: **Development of multimodal mobility points**

1. Relevance to the project

The OptiTrans project aims to increase the share of public transport in the mobility of urban and suburban areas, and the use of green modes of transport in urban areas. The Tartu City Government aims to develop activities required for raising the level of public transport service and joining public transport with other sustainable modes of transport.

As it was discussed during peer reviews in October 2018 in Granada, in July 2019 in Thessaly and also in February 2019 in Abruzzo the big challenge for cities today is urban sprawl. The problem is somehow existing in every metropolitan area. Granada's urban area is also facing the same problem. In order to respond early to the changes that are taking place and to anticipate potential problems in the future, it is highly advisable to start designing multimodal centers at the city border, where those from further afield can park their car comfortably and move on either by public transport, using a bicycle or walking. Here we mean, in particular, centers where the user can park the bicycle quickly and safely, move on by tram or bus. Bicycle and car sharing services should also be available at such hubs. The good example here is The city of Trikala bus station is a very good example of how a successful multimodal hub can be planned and provides many services commuters would like to have (Park and Ride, Luggage Shelters, Hotel, Shops etc.). In discussions in Abruzzo revealed that often transport managers are not aware what is the transport demand and what kind of transport services commuters prefer in certain areas. Discussions led participants on conclusion that the first step in planning of multimodal transport points is to find out what kind of transport services are needed and which are the future trends.



2. Nature of the action

The increased usage of private motorized vehicles in cities and its far reaching consequences on climate change and the environment, require cities to adapt a more “sustainable multimodal urban transport”, providing its citizens with better alternatives to the private car. Mobility points are an effective approach to multimodality as they provide “efficient integration of multiple mobility services that have the potential to compete against the flexibility and convenience of private cars”.

According to survey of movements of Tartu region carried out in 2018 the share of movements made by private car is rising steadily at a rate of 1.5% per annum.

The results of the survey show that, while the car use of the inhabitants of Tartu constitutes about 28% of the daily traffic in the city, the figure for the whole urban area was 46%. From these numbers, we see that the main reason for private vehicle travel is urban sprawl. The situation is quite worrying and solutions need to be found for the daily commuters to use more economical means of transport in the city - bus, bicycle, walking, etc. At the same time, road users must be provided with convenient facilities for combining different modes of transport. The results of the study show that road users often opt for a private vehicle because it is faster and more convenient. One solution to improve this situation is to create multi-modal mobility points for high-traffic streets entering the city as well as for the downtown area. Comfortable and easy-to-use mobility points allow commuters to spend less time combining different modes of transport. In addition to better linking of different modes of transport, it is also necessary to increase the speed of public transport (especially buses in Tartu) and to create fast direct connections between different transport nodes.

Implemented actions:

- **a study including public survey** will be conducted for the development of the multimodal mobility points. Study will answer main questions: where and in what capacity multimodal mobility points are needed. What kind of services they must offer for commuters. Which transport modes do the commuters mostly use and what is their real transport needs. The study will take in to account current and expected traffic flows and long term spatial developments in Tartu ´s metropolitan area. The study report is the basis for the city government to plan where and to what extent multimodal mobility points will be built over the coming years.

3. Stakeholders involved

Tartu Linnatransport, Tartumaa Ühistranspordikeskus, South Prefecture of the Estonian Police, The working group Jalgrattalinn Tartu, Tartu Liiklejate Koda, Tartu Kergliikluskomisjon, ELRON, The Strategic Planning Unit of the South region of the Estonian Road Administration, The Ministry of Economic Affairs and Communications, The adjacent rural municipalities to the city of Tartu, Tartumaa Ühistranspordikeskus, The Union of Tartu County Municipalities



4. **Timeframe:** 2020-2021; In 2020 initial task of the spatial study and of the survey will be drafted and carried out a public tender to find a company who is able to conduct the study. The study will be carried out in the first half of 2021 (from January to June of 2021) and results with report based of what the city government can decide how many, where and in what capacity multimodal mobility points are needed in the city borders in order to meet commuters needs and decrease the modal share of private car transportation.
5. **Costs:** 50 000 euros; the cost of conducting the survey
6. **Funding sources:** municipal funding

ACTION 2

Name of the action: **Interconnected Public Transport Services**

1. Relevance to the project

The OptiTrans project aims to increase the share of public transport in the mobility of urban and suburban areas by increasing the capability of transport arrangers to plan and organise public transport; by introducing innovative solutions to increase the quality of public transport; by raising the awareness of the residents of the city; and by increasing the use of green modes of transport in urban areas. The Tartu City Government aims to develop activities required for raising the level of public transport service and joining public transport with other sustainable modes of transport.

Positive and inspirational examples are from cooperation between municipalities of Andalusia region in Spain (DRT system based on taxis), Thuringia in Germany (integrated schedules and coordination of different public transport players). Experiences of both regions shows that a well-planned and demand oriented public transport network is a valid tool to raise the modal share of public transport also in rural and peripheral areas.

2. Nature of the action

Interconnected **Public Transport Services** are removing the artificial gaps between different transport services and will provide a seamless experience for the end-users. Existing gaps are caused by different managerial practices of the public transport service providers and are originated from different nature of public mobility services (city vs rural vs regional vs international transport etc). Existing information systems of multiple service providers will be integrated in-to single real-time monitoring system and first public display stands to show commuters real-time information in mobility points will be installed.

One of the problems of Tartu city traffic is the inadequate connection between the city center (where the county and city bus terminal is located) and the railway station. It has been repeatedly pointed out by commuters that



train users do not always get off the train station quickly enough by public transport. It is not possible to set up city bus schedules so that you can reach the train directly and quickly from the downtown area and vice versa. In this situation, the city's public transport operators see the only way to set up a separate shuttle bus line between the railway station and the city centre, which allows for every train leaving the city center quickly, and vice versa.

Shuttle bus will be using exclusively renewable energy sources (biomethane) helping to mitigate the extensive carbon emission caused by the private cars in urban transportation.

Implemented actions:

- Testing of the compatibility of real-time information systems of different transport modes and installation **2-3 information kiosks** at important transport nodes.
- Piloting **shuttle bus** connection between the city centre and railway station.

3. Stakeholders involved

Tartu Linnatransport, Tartumaa Ühistranspordikeskus, The Strategic Planning Unit of the South region of the Estonian Road Administration, The adjacent rural municipalities to the city of Tartu, Tartumaa Ühistranspordikeskus and The Union of Tartu County Municipalities.

- 4. Timeframe:** 2020-2021; The shuttle bus will start service from January 2020 and pilot will last until December 2021. Integration of information systems will be started in February 2020 and information kiosks will be installed in May of 2021.
- 5. Costs:** 400 000 EUR; The cost of running of the shuttle bus is 180 000 euros in year. Total cost of piloting of shuttle bus is in period 2020-2021 360 000 euros. The integration of information systems will cost 10 000 euros and installation of 3 information kiosks will cost 30 000 euros.
- 6. Funding sources:** municipal funding.

ACTION 3

Name of the action: **Extended City Public Transport Services**

1. Relevance to the project

The OptiTrans project focuses on the promotion of public transport and other sustainable and environmentally friendly modes of transport at regional level. Increasing urbanization and the conurbation that it brings will pose complex challenges for transport managers - how to address people's mobility needs with the least possible negative impact on the environment. The partner regions involved in the OptiTrans project are all solving

similar problems, how to organize the day-to-day movements of people at regional level and how to organize cooperation between different parties.

Within the OptiTrans project the Tartu City aims to develop activities required for raising the level of public transport service and joining public transport with other sustainable modes of transport.

As part of the project, a meeting was held in Abruzzo in April 2018 to discuss this particular topic. The partner regions presented ways in which they plan to organize people's mobility at regional level. Several good examples came from the Abruzzo region of Italy, the Thuringia region of Germany and the Andalusian region of Spain. One possible solution to connect suburban areas to sustainable transport solutions was to expand existing urban public transport networks to suburban areas.

2. Nature of the action

On 1 July 2019, the City of Tartu switched over to a new bus route network, one that differs significantly from the existing network. Buses constitute the only form of public transport within the City of Tartu. There are 15 bus routes in the city. Old network consisted 26 bus lines. The new route network differs significantly from the existing route network in terms of itineraries, the number of lines, as well as the frequency of departures. The new route network has fewer total routes, although these routes are more direct, better connected to one another and operate at more frequent intervals. Timetables with a uniform frequency of service ensures that buses serving the same routes will not arrive simultaneously at the same stop. An important principle in the new route network is also the reduction in the number of circular routes and their replacement with pendulum routes, bringing with it a simpler route network. The routes travel in both directions along the same itinerary, and are therefore better understood by users.

Bus routes in Tartu from 1 July 2019

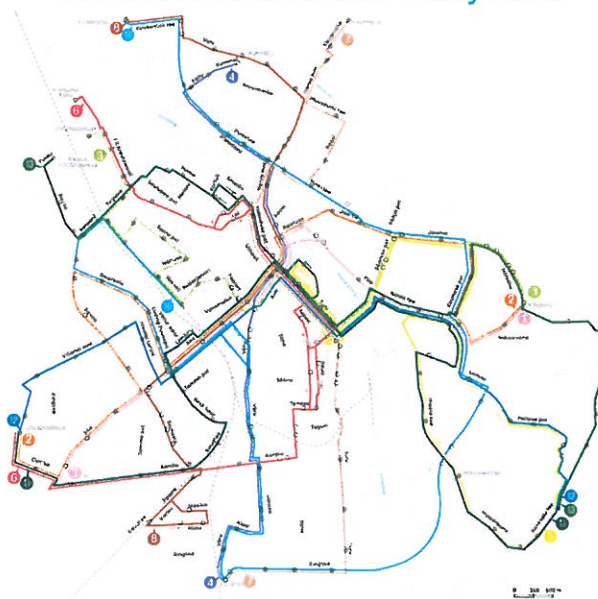


Figure 2 The new bus line network



The new pendulum bus line network makes it easier to change routes and change departure frequencies. This has created very good and flexible opportunities for the future development of the route network.

Over the last ten years (2010-2020), the population of nearby settlements in Tartu has grown by 35% on average. The rapid growth of the population and the concentration of jobs and educational institutions in Tartu have resulted in a significant daily traffic flow, which unfortunately causes the greatest problems in the city of Tartu. Unfortunately, state-run regional public transport does not meet the growing demand (low-capacity buses, inadequate departures). As a result, the city has the only opportunity to expand its public transport network outside the city to save its environment and reduce private car traffic from daily commuters. One of the biggest problems with the extension of urban bus lines is the sharing of public transport costs with neighboring municipalities. Since public transport must be subsidized so that its prices remain attractive to users, the municipalities in whose territory the routes extend also have to contribute to the costs. As a general rule, no municipality is willing to incur additional costs and negotiation is needed to find a mutually acceptable solution.

In order to improve the access of adjacent regions to Tartu, public transport lines needed to be extended to the new urban regions in the outskirts of the city by integrating them with the city's public transport network. The existing bus stop network will be used where possible, and new stops will be added.

Implemented action:

- **analysis** of the need for extended services will be conducted.

3. Stakeholders involved

Tartu Linnatransport, The adjacent rural municipalities to the city of Tartu, The Union of Tartu County Municipalities.

- 4. Timeframe** : 2020-2021; January – April 2020 (drafting of initial task for analysis); May – June 2020 (consultations with neighbouring municipalities); September 2020 (procurement of the performer of the analysis); October 2020 (signing of agreement); November 2020 – June 2021 (conducting the analysis); September – November 2021 (consultations with neighbouring municipalities and submission the plan for extension of bus lines to governments of municipalities)

- 5. Costs** : 30 000 EUR; Estimated cost of conducting the study. The researcher will be found in a public competition.

- 5. Funding sources** : municipal funding.



ACTION 4

Name of the action: **Extended City bike-sharing Network**

1. Relevance to the project

The OptiTrans project aims to increase the use of green modes of transport in urban areas. The Tartu City Government aims to develop activities to connect better public transport with other sustainable modes of transport.

As it was discussed in Peer Review meeting in Granada in October 2018 despite of the fact that the region has a high proportion of foot traffic and the unsuccessfully tested bicycle rental system in Granada, it makes sense to make efforts to develop the segmentation service in partnership with the private sector. Possible solutions for developing car distribution systems and electric bike-sharing schemes in the region have been discussed in different groups. In the regional and local development documents, the need for sharing services is clearly highlighted.

In the project workshop in Abruzzo in April 2018 was paid quite a lot of attention to the development of cycling infrastructure. The participants acknowledged that, based on good examples from the regions involved in the project (Pescara, Seville ...), the infrastructure developed for cycling is helping to increase the use of cycling in the modal split quite quickly.

At the Thessaly meeting in July 2019, which focused on multimodality issues, it figured out quite clear that combining different modes of movement and developing convenient connections is an important prerequisite for creating a sustainable mobility environment. A positive example is the city of Trikkala, where good results have been achieved by combining different modes of transport and services.

2. Nature of the action

Developing a bike sharing system has been one of the mobility priorities of the City of Tartu. A respective feasibility analysis was carried out in 2014 and a business model was developed based on the findings. The analysis showed that the potential number of bike share users in Tartu could be up to 224,000 people annually. The aim of setting up a public bike sharing system is to encourage the use of bicycles and make this a considerable alternative to cars. It is expected that the bike sharing system will bring about decreased environmental problems (noise, air quality), parking issues and problems with traffic intensity. Bike sharing is considered a part of the public transport system of the City of Tartu.

As such, the current bike share system consists of 750 bikes in 69 bike share stations across the city and was launched on 8 June 2019. A total of 510 bikes are electric and the remaining 240 are regular bikes.

In order to rent a bike, the user must have a valid Tartu bus season ticket, or they must purchase a bike share membership.

All in all, the bike sharing launch has been an unprecedented success and currently, nearly a third of Tartu citizens are active users. During the first 7 months the total distance travelled within Tartu's bike-share system was 1 980 000 kilometers.

Most of the bike-share stations within the city are located near to bus stops to enable smooth multimodal rides.

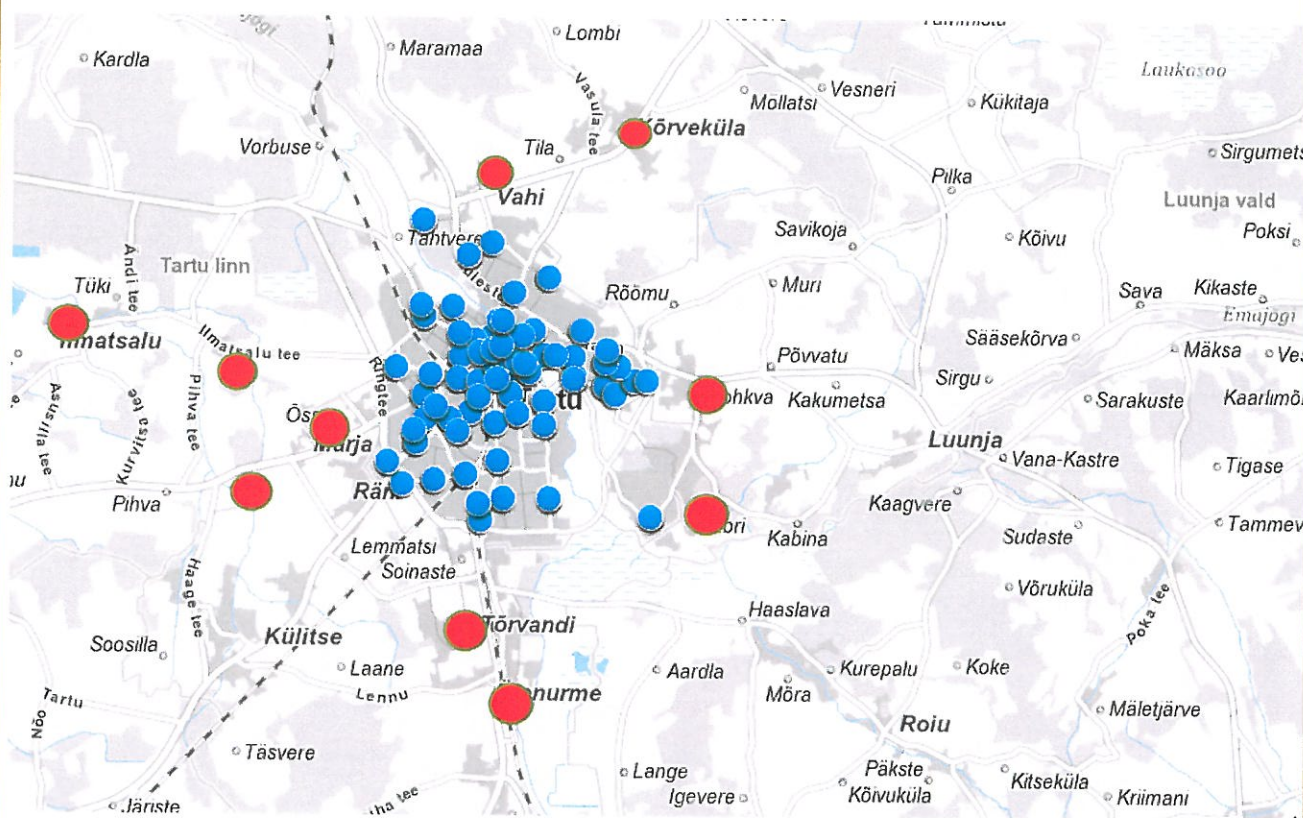


Figure 3 Tartu bike-sharing stations (blue – existing in the city, red – planned outside the city)

In order to link the city with districts outside of and close to the city and reduce the private car traffic from city-sprawl the city bike-share network will be extended to establish the connections between the neighbouring communities, enabling non-motorised travelling from the suburban areas to the city. Main target villages for extension are: Kõrveküla, Vahi, Ülenurme, Tõrvandi, Veibri, Lohkva, Rahinge, Märja, Haage, Ilmatsalu. The extension of bike-sharing will be supported by constructing new light traffic roads in the adjacent areas of the city, such as from Tartu to Rahinge and Ilmatsalu, etc. By extending the area, new recharging docks and e-bikes will be added, and the service area will widen. Recharging docks will be constructed in cooperation with the local municipalities, following the needs of local citizens. The recharging docks will be equipped with security cameras and vandalism-secure infrastructure, and the local community will be involved to prevent vandalism. Fast bicycle connections play an important role in reducing private car usage in daily commuting into the city from the neighbourhoods next to the city border.

Implemented action:



- **installation of 3 new bike-sharing stations** outside the city border in neighbouring villages


3. Stakeholders involved

Tartu Linnatransport, The adjacent rural municipalities to the city of Tartu

4. **Timeframe** : 2020-2021, January-October 2020 (designing works, construction of bases for stations, creating of electricity connections); April – May 2021 (installation of equipment – docks, informational boards, setting up a system, testing)
5. **Costs** : 75 000 EUR (the cost of 1 station including construction works and installation of equipment is approximately 25 000 euros).
6. **Funding sources** : municipal funding (city + surrounding municipalities).

Date: 10.12.2019

Name of the organisation(s): Tartu City Government

Signatures of the relevant organisation(s):  Raimond Tamm, Deputy Mayor