

The goal for Tartu is to reduce private car use to 25% of all travels by the year 2040

Category: Environment & Climate

1. Issues faced: What was the problem/issue that was solved with the Good Practice? Why was it a problem?

Mobility in Tartu has been trending in the wrong direction since the beginning of 2000. The increase in the standard of living has made private transportation ever more accessible, and the city sprawl deemed private cars more essential than ever. According to research from 2013-2018 the use of private cars has been growing ca 1% in a year. At the same time walking and the use of public transportation in different ways has been decreasing around 1,5% in a year (Tartu jalgrattaliikluse strateegiline tegevuskava 2019-2040, page 10).

When the use of private cars is constantly increasing then the city was also facing the problem of decreasing air quality and rising noise level that in the longer perspective is harmful for the living environment. Maintaining green city living and clean environment has been Tartu's focus for decades; therefore Tartu has always tried to make environmentally conscious decisions regarding its environment, industry, infrastructure and the health of its citizens.

2. Methods / steps / tools used: How was the good practice implemented?

To reverse the negative trend in mobility and environment and to encourage citizens and visitors to use more public transportation, then Tartu has been making the city more cyclist and pedestrian friendly with two main solutions:

- 1) **Tartu Smart Bike Share** – a public, self-service bike share system for short trips.
- 2) **New public transportation network and buses that use only CNG.**

The decision for both of the success stories came from SmartENCity project (www.smartencity.com) where Tartu is one of the lighthouse cities.

Tartu Smart Bike Share:

Various bike-sharing systems have been successfully set up in ca. 700 cities all over the world but the comprehensive approach taken by Tartu to cover the entire city can serve as a good practice. After all, it is more likely that people will use the system if they can get to their exact destinations, not just the approximate neighbourhood. Tartu added an electric bike share system as a new service to its public transportation system on 8th of June 2019 with 69 docking points across the city of Tartu and all together 750 bicycles of which 500 are electrical and 250 are regular.

However, the planning of the project started already in 2014 with analysing the baseline and completing a plan for the project. In 2017, the citizens took part in a survey to find out the best and most needed docking stations in the city where to take and leave the bicycles. Out of 2400 points, 69 are located on the map now as stations and covering the full city. In the beginning of 2018 the procurement took place and in the beginning of June 2019 Tartu Smart Bike Share was opening.

Tartu Biogas Buses:

On 1 July 2019 the new public transport route network along with a fleet of 64 new environmentally friendly biogas buses were launched in Tartu. There were also significant changes to the bus route network that was completely revamped by using mobile data, expert input and local citizens through participative methods. The new route network reduced the number of bus lines down to 13 and added two night buses. In order to get citizens to use more public transportation it was very important to listen to locals and experts to change the routes so that people are willing to travel more with public transportation.

Since the beginning of 2020 all the route network is serviced by the 64 brand new gas buses that have A/C, low floors for better access and new validators that allow passengers to purchase tickets with their contactless bank cards as well.

In the big picture there are a lot of benefits of biogas public transportation, but it was more important to start at the same time with renewing the routes and to engage citizens. The citizens were engaged in the form of awareness-raising measures such as events and were informed about the benefits of gas buses and how the use of gas buses affect their living environment (less noise, less particulates, less GHG emissions etc.). The possibilities and benefits of the new route network were also communicated whilst promoting the use of public transport in general.

3. Specific/measurable results, benefits and recognitions (e.g. awards): what were the results of the good practice?

Tartu Smart Bike Share

More than 100 km of new bike lanes have been built over the past five years. Now it is possible to travel from one side of the city to another on bicycle road by not meeting any cars at all. This is highly important due to the need of safety and well-being of the citizens and visitors.

Since the opening of Tartu Smart Bike Share it has been used to drive through total of 2 779 820 km with 1 028 258 rides.

Smart Bike Share has been a very useful addition to public transportation during and after the spread of COVID-19, as the possibility to get the virus in open air during the ride was a lot lower than inside the public bus.

In 2020 there will be opened 10 new sharing points and also additional bicycles to use.

Tartu Biogas Buses

Previous 26 bus lines were replaced with 13 lines that were constructed according to citizens and experts collaboration.

All 64 public buses in Tartu are operating on natural gas.

The total mileage of city buses during first 8 months (from July 2019) was about 3,300,000 kilometers in Tartu and about 8,500,000 journeys were made.

In 2020 it is planned to start producing Biomethane near Tartu and to use most of it for local buses.

4. Lessons learned: what problems/issues did the implementers of the good practice face, and how have they overcome any problems or challenges in the implementation of the practice?

Tartu Smart Bike Share

As the Smart Bike Share was free of charge at the beginning of the project for 1-3 months to get more people to register and use the system then it happened that some of the bicycles were not used in the proper manner. The electrical bicycles were used so often that they did not get enough time to charge the battery. The result was that the use of Smart Bike Share was limited, so that during the night time it is not possible to take the bicycle from the station.

There has been several technical issues both with the bicycles as well as with IT solutions. As the service provider is located in Canada, then there are often challenges with time difference that slows down the process.

Tartu Biogas Buses

In order to achieve efficiency and savings, the gas fuelling station needs to be in close proximity – it is not reasonable for a bus driver to get additional fuel from the other side of the city. This will count as working hours while no passengers are served.

The engines of gas buses will not start without a warm-up procedure once temperatures drop below -10°. In colder climates, engine malfunctions can thus be expected. Securing long-term, sufficient and reliable fuel supplies is a prerequisite for introducing more biogas buses in a city.

During Covid 19 we also experienced the fear of using public buses for transportation. After the lockdown ended Tartu brought back also electrical bicycles to Smart Bike Share and it was a nice alternative to still help people to use the public transportation.

5. Specific/additional (web)references: links to further information, Youtube video, images, documents

Tartu Smart Bike Share additional information and statistical facts: <https://ratas.tartu.ee/>

Using Tartu Smart Bike Share during Covid-19:
<https://www.youtube.com/watch?v=zC80uQg06sM>

News article about Tartu Biogas Buses in English: <https://news.err.ee/1020949/tartu-buses-start-using-biomethane-to-reduce-environmental-impact>

Biogas buses in Tartu – SmartENCity project - <https://smartencity.eu/about/solutions/gas-buses-in-the-whole-city-of-tartu/>

Additional information:

Dana Neemre

Tartu County Tourism Foundation

dana.neemre@visittartu.com