

CASE STUDY

Debrecen

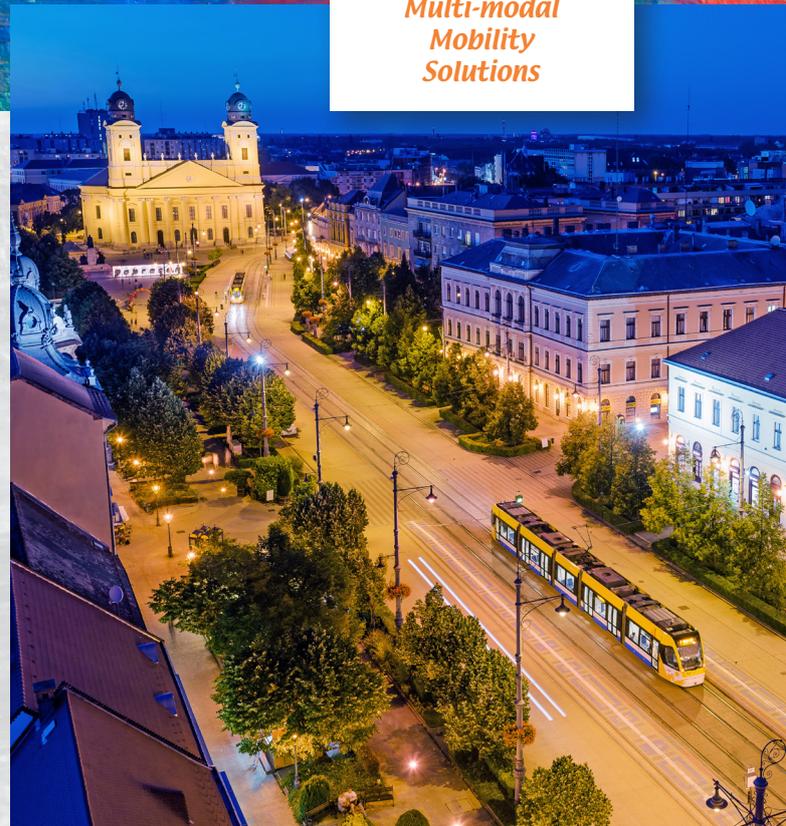
Connecting the dots - mobility hubs as game changer



*Integrated
Multi-modal
Mobility
Solutions*

Context and rationale

Debrecen has about 200.000 inhabitants (second largest city in the country) and is located in the eastern part of Hungary, about 30 km away from the Romanian border. Debrecen has elaborated and adopted several strategies, programmes and plans related to sustainability issues, including a development plan “Debrecen 2030”, an Integrated Urban Development Concept, Sustainable Energy Action Plan, a Smart City Strategy, and a Sustainable Urban Mobility Plan. There is a dedicated mobility department in the city administration. The urban development department, the urban management department, the city’s parking management company, the public transport company, and the Debrecen Training Centre are all involved in mobility planning as well.



Initial challenges and needs

The excessive growth of car traffic poses a significant challenge to the city. In the 1990’s, an estimated 50.000 cars were used in the city. This figure has since doubled and will continue to increase rapidly in the coming years. The situation will be exacerbated by the increase in commuting and transit traffic, which is the result of economic development in recent years. The Municipality of Debrecen has a significant goal to reduce the city’s car traffic and allow space for sustainable and alternative modes of transport through sustainable and innovative methods. A

solution to this problem can be the construction of a micromobility network, which can ensure access to areas currently not covered by the existing public transport network. To understand the exact needs, the biggest shortcoming for the local administration currently is **data analysis capacity**. Although a passenger counting system has already been established on several vehicles operated by the city’s public transport company, the data collected already exceeds what existing departments can thoroughly analyse. In addition, the collected data does not represent the entirety of the city’s public transport usage behaviour.

Innovation developed

In the framework of FastTrack, the team from Debrecen, now part of the city's public transport company (DKV), has worked on the creation of integrated mobility hubs in Debrecen. The objective is to improve the public transport system of the city by **offering several types of mobility solutions** to the citizens, making it easier for them to reach destinations that are not covered by the current public transport network. As a result, the expectation is that more people will choose public transport and leave their car at home, which will reduce traffic congestion and CO₂ emissions in the city. As a result of their planned mobility innovation, Debrecen passengers who otherwise could not access public transport services at certain locations of the city will be able to use such aided by complementary micromobility vehicles. It will be a free-floating system, but the vehicles will be left and picked up at their designated locations. The city will identify the weak points within the network and make the services accessible and inclusive, so everyone can quickly and efficiently use the urban public transport services. The integrated mobility hubs will enable the passengers to use e-scooters or bicycles (electric or regular) to connect to the nearest stop from where they can quickly continue their journey to their desired locations around the city. In case of small travel distances and only micromobility vehicles are used, DKV will still receive an amount of income from the usage. It is very important that the mobility innovation must not reduce walking or regular bicycle travels, but targets reduced car usage in the city.

The passengers will be able to utilise a MaaS application on their smart device, making them able

to purchase their public transport tickets and passes as well as pay their micromobility service fees. The business model includes two versions. One version allows an individual with a public transport pass to pay a discounted price on the e-rollers or bicycles (electric or regular) and there is a version where the public transport pass would include an amount of time which can be used for micromobility travels. The application will also provide route planning that combines the different modes of transport if the desired destination makes it viable.

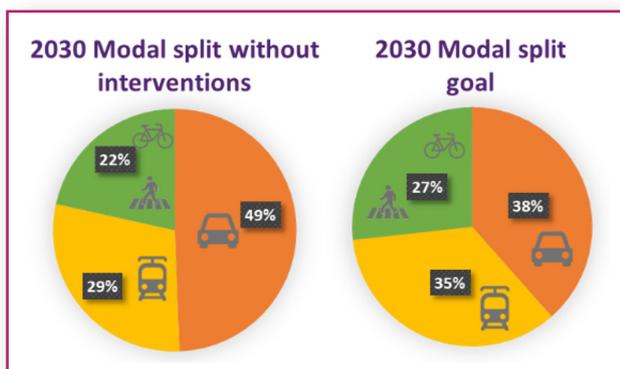
Lessons learnt along the FastTracking way

"During ambassadorial city site visits, discussions and workshops, the representatives of local solutions and the input sharing with other partner city delegates has enabled us to include ideas and data into our reports. Through the networking that took place within FastTrack, we have been able to obtain valuable connections and relationships, such as our close relationship with BKK Budapest who have provided us with presentations of their good practices in the capital that are being utilized in the planning of our innovative measure in Debrecen."

István Tóháti, DKV

Each Capacity Building Week within the FastTrack project presented an opportunity to assess what they have seen and experienced from the Ambassador cities, to hear the Local Affiliates' opinions, to evaluate the good practices from other cities and to create reports with the most relevant information while taking into consideration the relevant context of Debrecen. The reports then were shared with relevant decision makers from DKV and the city, which further strengthened their commitment towards the project in the planned services.

FastTrack helped Debrecen to envision the micromobility services applied to the needs and characteristics of the city, to be aligned with their most pressing traffic problems and to deliver as a real solution.



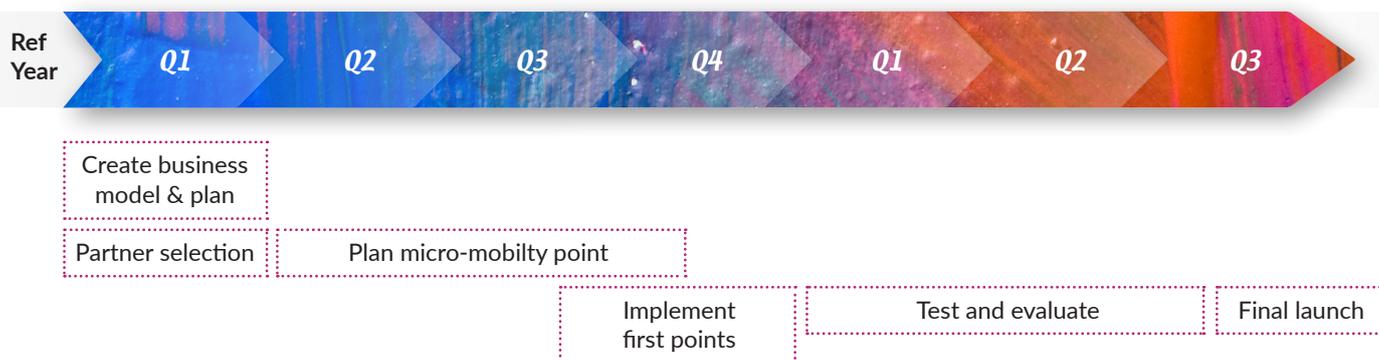
Acceleration factors

- Political will – With specific data and specified intentions, it is significantly more convincing for the city and stakeholder decision makers to be on board with the innovative measure as simple ideas themselves fall short.
- Exchange – Build Expertise- Spread the expertise with relevant services and their decision makers – Increase their commitment to the measure.

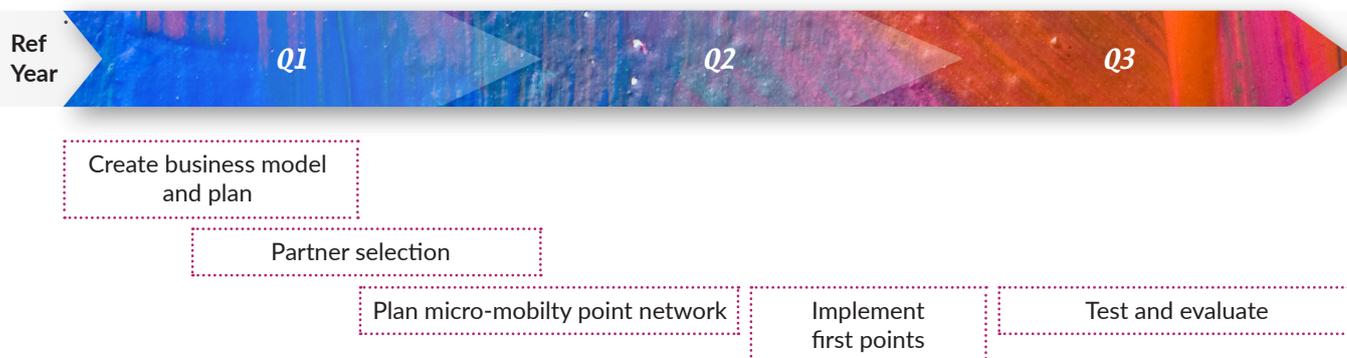
Timeline - The deployment road ahead

The timeline depends on the business model chosen:

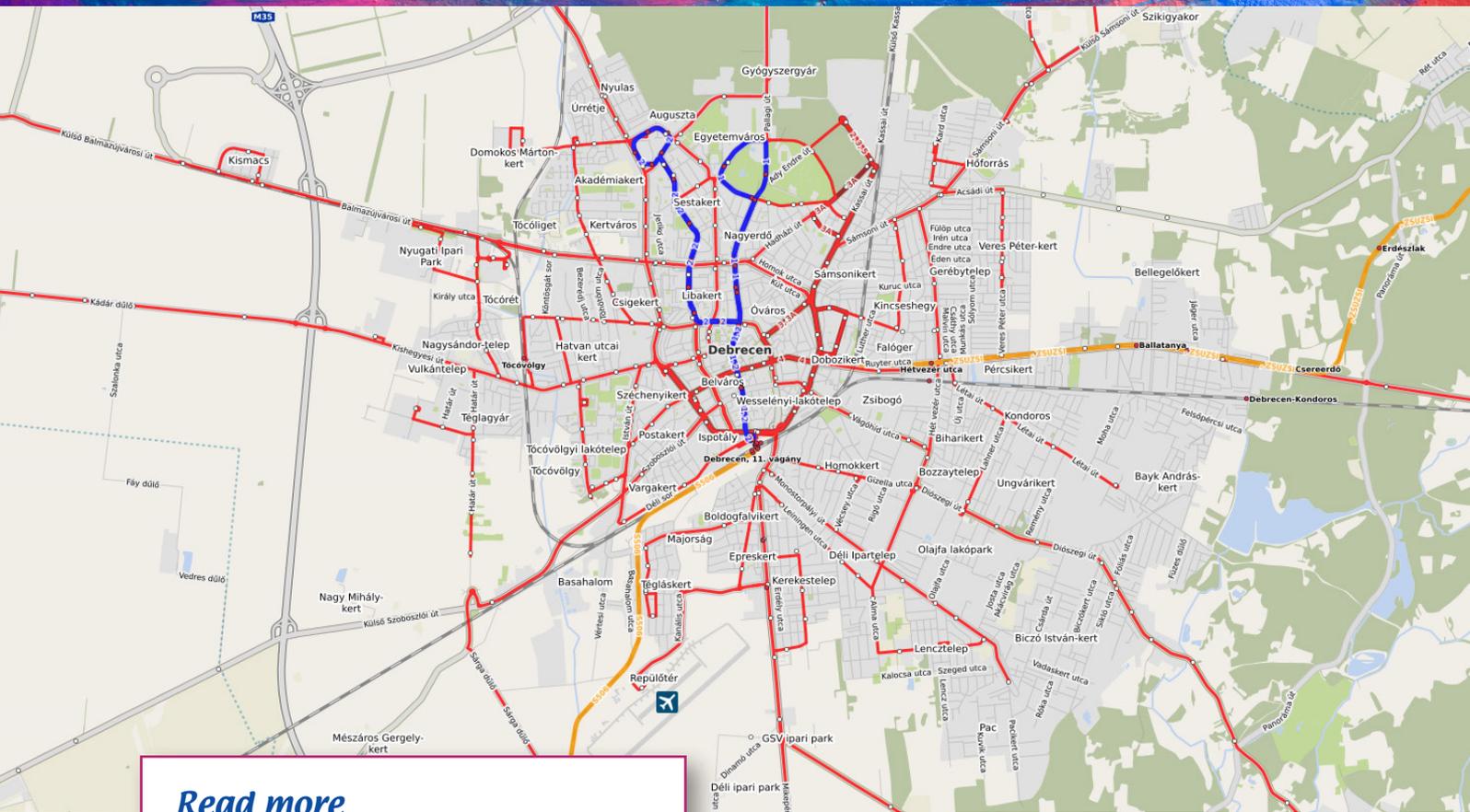
1. The first version is a scenario where DKV must procure and develop everything on its own. This includes all the necessary vehicles and equipment, and then DKV must find a way to organise a seamless service that is adequate for the target audience. Due to the lack of experience, the process would likely include a natural learning process of trial and error and a longer implementation time span, therefore Debrecen estimates 1 year for this version.



2. The second version is a close cooperation between DKV and a private micro-mobility service provider. The close cooperation would mean that private stakeholders bring their experience, good practices and hardware into the project which would drastically reduce the time horizon by making the overall implementation easier for DKV. For this reason, they estimate 6 months for this version.



Before the official launch of the operation, a test period of 3-6 months will be determined in order to learn about user habits and how the city's initial plans align with the actual usage results. This period would add time to both timeline versions.



[Read more](#)

Deployment Plan

[Smart City Strategy of Debrecen](#) (in English)

[DebrecenMob](#), a successful project which engaged citizens to use active mobility and provided a lot of data on commuter habits.

Keep up with FastTrack



www.FastTrackMobility.eu



[@FastTrackMobi](https://twitter.com/FastTrackMobi)



[@FastTrackMobi](https://www.instagram.com/FastTrackMobi)



[CIVITAS-FastTrack](https://www.linkedin.com/company/CIVITAS-FastTrack)



info@FastTrackMobility.eu

