

# DELIVERABLE D.T2.3.6 - PILOT FINAL REPORT

Report summarising implementation of pilot in Nagykalló region

Version 2 May 2019

## **Final report**

# (Period March 2018 - August 2018)

General data	
Project partner	Self-Government of Szabolcs-Szatmár-Bereg County
Pilot name	I5/Real-time bus information forecast at Nagykálló
	I4/Public participation for better bus station
Pilot location	Nuts0: HU, Hungary
	Nuts1: HU3, AlföldésÉszak
	Nuts2: HU32, Észak-Alföld
	Nuts3: HU323, Szabolcs-Szatmár-Bereg
Person(s) responsible	SZSZBMÖ: Gábor Zimborán
for pilot	Municipality of Nagykálló:
implementation	Sándor Véghseő
Pilot starting date	10/2018
Pilot ending date (if	
applicable)	5/2019
Author of the interim	SZSZBMÖ: Gábor Zimborán
report	Municipality of Nagykálló:
	Sándor Véghseő

## Reported period

Steps undertaken in period March 2018 – August 2018/May 2019



#### SZSZBMÖ:

The physical investments of the bus stops were considerably delayed due to difficult public tender procedures and limited capacities of the construction sector therefore the pilot preparation work from the point of view of SZSZBMÖ could start only at the end of October 2019 when all final technical parameters have been clarified. After a thorough market research, at the end of October we invited 3 bidders to take a part in the purchasing procedure of the passenger information panels. The production of the panels started at the end of January 2019, and the effective pilot could be started and finished in the last week of May when the 8 information panels has been installed and connected to the ÉMKK (PT operator) system, furthermore the audio passenger information system has been also put Into operation.

Parallel with the installation we launched the publicity campaign in which information materials, posters were printed and disseminated.

## Municipality of Nagykálló

According to the contract signed with the architect designer, the deadline for drawing up a plan and tender documentation suitable for the execution of the work was 31 January 2018. The architect designer completed the documentation by 3 September 2018, so the work has been significantly late. The contractor was selected, and the contract for execution (works) was signed by the municipality on October 3, 2018.

The construction work started and the winner company produced all the structural components of the bus stops and assembled them on the premises by the end November.

Street furniture (selective waste collector, bicycle storage, flower boxes) were built also by the same company.

Power supply to operate wifi, lighting an.d digital passenger information were built in by cooperation with a local electrician contractor and the builder of the passenger information system.

The pilot section of Nagykálló was finally implemented in May 2019.

We created a unique logo for the project, which we will use next to the Rumobil logo during the campaign. Information brochures were made, which was sent to households through news spreaders.

Stickers on buses about the new bus stops were presented.

We create a new questionnaire survey in front of the Korányi Gimnázium, where measured user (passenger) satisfaction and distributed promotional items with the logo of the project among the public opinion polls. To do this, we prepared a variety of gift items and a questionnaire counter with a project logo.

Due to the length of planning processes, the implementation of the pilot project has suffered a critical delay. Completion is expected by the end of May 2019, which also affects the publication campaign. As part of the campaign, we have already implemented a children's drawing competition. For the rest of the campaign, a public opinion survey will be carried out with the involvement of stakeholders. Public opinion research is linked by promoting the project. We also produce a brochure that is sent to all the households in Nagykálló (30-31.05.2019).



## Difficulties encountered and solutions found in reporting period

### SZSZBMÖ:

The main problem occurred during the pilot implementation was the significant delay that hold back the purchasing procedure of the information panels. Therefore the production also could not start

During the pilot implementation several consultations became necessary. Numbers of consultation were conducted with Nagykálló and the builder of the passenger information system according to the technical requirements of the installation relating to the power source installation (230 V), fixing of the panels, Wi-Fi installation and placement, technical preparation of loud passenger information. These hold back some phases of the implementation.

Thanks to the very efficient cooperation and on the spot project consultation between Nagykálló, the builder of the passenger information system and SZSZBMO these questions were solved in a short time.

## Municipality of Nagykálló

The project had to be reconsidered several times, including the implementation of plans delivered in the first round would have been twice as expensive as the available budget, so there were two types instead of the planned four types 4 so that mutations of one type were approved for each location except one in the town-center.

The other difficult case was the power supply issue. Unfortunately, the solar system according to the original plans was not able to be developed because preliminary market research on the information panels showed that no such system is available for delivery time. In Hungary, these information panels operate on mains power. Accordingly, each of our locations is equipped with a unique meter for the power supply.

Due to the critical delay in the design process, we ran the race over time and tried to speed up the construction work.

Since the originally planned solar system would have greatly increased the cost of investment and did not provide complete safety in terms of electricity supply, it was necessary to design and build a network connection, the time of which was not calculated in our original vision. Until the construction of the electrical supply, the construction of the digital information and the conduct of the publication campaign also suffered a considerable delay.

## **Final results**

## Resource requirements (planned versus actual)

## SZSZBMÖ:

## Pilot investment

There was a slight increase in the total cost of the pilot investment. The initial budget was 25.000 € in total that included the purchase of 8 information panels with software, purchase of 10 traffic monitoring system and the related costs for the installation.



In contrast the pilot implementation cost finally 10.789.920. HUF (approx.: 33.620 €) which includes the following items:

- Production of 8 db real time information panels 9.550.400. HUF (approx..: 29.752 €)
- Transportation & installation cost 1.239.520. HUF (approx..: 3.868 €)

According to the prior consultation with the project core-consult, the 10 traffic monitoring system were not purchased because the busses operating in the pilot line are equipped with gps transmitters so they be able to provide precise geo-data about their whereabouts and speed. The budget saved was shifted to finance the increased cost of the panels.

Three people were directly involved to prepare the tender procedures of the delivery and assembly contract for the project. They also contributed to the related tasks and consultations.

Hour spend: 480 hour including preparation, purchasing process, consultations and documentation preparation.

Personel cost: 1.300 € that includes the cost of the approximately work done relating to the pilot implementation by 3 project employees involved in the project.

# Municipality of Nagykálló Pilot investment

There was an increase in the total cost of the pilot investment. The initial budget was 56.000 € in total that included the purchase of 8 bus stops.

The total cost of pilot implementation was 21.898.356. HUF (approx.: 68.435 €) which includes the following items:

- Production of 8 bus stops 17.907.000. HUF (approx..: 55.960 €)
- Building electrical supply 3.991.356. HUF (approx..: 12.475 €)

## **Publicity campaign**

For the implementation of the publicity campaign is responsible the URBS NOVUM Nkft. which is owned by the municipality. The started in 2018 with the drawing competition, but the most of the communication materials we make in May 2019 because of the pilot delay.

The initial budget was 11 000 € (approx..: 3.522.676. HUF)

The content of the campaign was the following:

- Direct Marketing (sending leaflets to all households in Nagykálló)
- TV interview in local tv
- Drawing competition
- Public opinion research linked by promoting the project

Time: 3 000 Hour

Personnel: 4 Person

Costs: 15 800 EUR



## Interfaces and dependencies with other groups - stakeholders

#### SZSZBMÖ:

The tree main stakeholder involved in the pilot implementation were the North-Hungarian Transport Center (ÉMKK.-PT operator), E-on (regional electricity provider) and the local residents.

The ÉMKK has very important role in several phase of the pilot. First of all ÉMKK provided us a list for potential bidder which have already implemented similar project in the field of PT and have the appropriate expertise. Based on this list we selected the 3 bidder and implemented the purchasing process. Second of all ÉMKK provided a proposed "technical content" that included all requirements that has to be considered by such information panels that were installed in the pilot area. Furthermore they ensured a "system use contribution document" and an expert who contributed to the technical handover of the panels.

E-on had an important role in the power supply and the related consultation, as well as in the related permission procedure

We involved the local residents in the collection of the necessary data to the quantitative evaluation. They provided useful data in the questionnaire and surveys. ÉMKKalso provided us the exact numbers, data relating to the PT use, lines etc. from their internal system.

#### Nagykálló:

As key actor, the ÉMKK (PT operator), the Magyar Közút (road operator) and the citizens of the town had important role in the consultation process and negotiations. During the implementation and planning, we continuously consulted with the SZSZBMÖ (PP12) contact person about the construction of the bus-stops.

## Risks and risk mitigation

## SZSZBMÖ/Municipality of Nagykálló:

We have identified two risks associated with the proposed pilot action: 1) the public competition/contest, and 2) vandalism.

- 1) Public participation in investment planning processes always involved risks and therefore require very good and effective moderation by skilled personnel. To implement a professional process moderation, we have used different media to steer the competition and to communicate its boundaries.
- 2) Vandalism of public property is a well-known problem everywhere. The proposed approach involving both designers/students and kindergarten children aims to lead to broad public ownership. In other areas, pride of the local population successfully decreased destruction by vandalism.



## Achievement of pilot project objectives

#### SZSZBMÖ:

The physical investments of the bus stops were considerably delayed due to difficult public tender procedures and limited capacities of the construction sector therefore the pilot preparation work from the point of view of SZSZBMÖ could start only at the end of October 2019 when all final technical parameters have been clarified. After a thorough market research, at the end of October we invited 3 bidders to take part in the purchasing procedure of the passenger information panels. The production of the panels started at the end of January 2019. and the effective pilot could be started and finished in the last week of May when the 8 information panels has been installed and connected to the ÉMKK (PT operator) system, furthermore the loud passenger information system has been also put Into operation.

Parallel with the installation we launched the publicity campaign in which information materials, posters were printed and disseminated.

#### Municipality of Nagykálló:

Unfortunately, the pilot investment was only completed at the very end of the project, so we were unable to carry out public research and passenger traffic measurements until the end of the project. However, the retail feedback received during the implementation of the investment is positive, suggesting that the project will achieve its goal of contributing to increasing the popularity of public transport in Nagykálló

## Lessons learnt and recommendations.

Positive feedbacks have been received from the passengers, and they are happy to use the passenger information devices, lighting and wi-fi working. Only the height of the bus stops is considered to be exaggerated by the passengers, but it was necessary, because after the fixing of the information panel it must be under the required height. So, the comments on pilot are positive because they are responding to real needs of the population. In October 2019, there will be municipal elections and the pre-eminence of this, but Rumobil's investment pilot has never been on the agenda of opposition political groups.

Public transport has become more comfortable and the information panel enhanced this comfort.

We have made every effort to make public transport more attractive, the rest of the transport company has to make its timetable more predictable, and to make the timetable more tailored to the needs of the passengers, especially in the evenings and weekends. Currently a real-time mobile application is being developed by the transport company.

The feeling of comfort during the waiting period is critical, because after the bus has taken off, the protection and predictability are OK. The frequency of service is another key to the popularity of public transport and the journey time, which in our case does not mean a significant difference compared to driving in the short term.



## **Photos**

Please complete your report by pictures documenting pilot implementation (provide short labelling of each of them).



Photo 1. Pilot project consultation

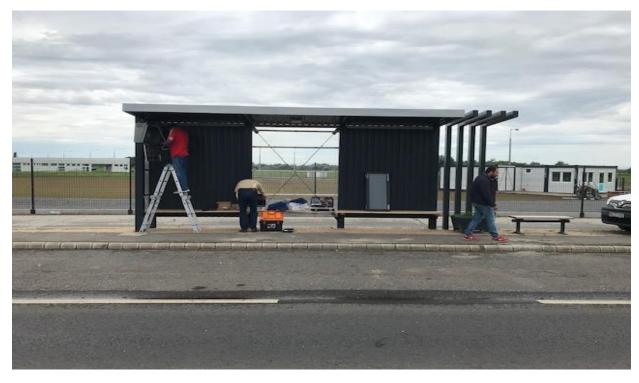


Photo 2. Panel installation at Nagykálló





Photo 3. Real time information system in operation



Photo 4. Refurbished bus-stop at Nagykálló





Photo 5. Panel installation at Nagykálló