

D.T1.5.9 INNOVATIVE SOLUTIONS PLANS/PROJECTS

May 2020





Document Information

Version	Date	Author	Organisation	Comment
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Summary

The present report documents the development of each pilot, and the measures taken towards implementing and testing the different innovative solutions. Obviously all pilots are strongly influenced by the corona situation. One of the biggest challenges is to maintain communication with the targeted groups and stakeholders. To overcome these obstacles some of the pilots are working on virtual living lab meetings. Nevertheless, it seems important to raise awareness for sustainable mobility solutions which reach beyond public transport, as users in the current situation switch to private modes of transport. In the following section, the pilots provide an overview of the status and development of innovative solutions in the current situation

1. Bergamo



D.T1.5.9

template for information gathering on innovative solutions

plans/projects

BERGAMO

MAY 2020



ulm university universität
uulm





1.1. Introduction

This template aims to gather information on the innovation process of each living lab, implementing the living labs at pilot level, in particular on the co-design approach and best practices. As part of the deliverables D.T1.5.8 and D.T1.5.9 - “Innovative Solutions plans/ projects” we aim to collect insights from each living lab on their project plans, and innovative solution ideas. The individual input from each pilot, will be combined as lessons learned and best practices to be shared in the final project report.

In the following sections of this template, we kindly ask you to fill out further details on your process of collaborating with respective stakeholders, addressing the identified problems, needs and potential challenges and your lessons learned, such as most successful practices in collaborating and implementing the pilots.

Due to the current Corona crisis, enforcing tight restrictions in every country, we ask you to fill out the template accordingly, **an as good as possible**. This can include statements that explain, why specific interaction with stakeholders could not take place, or were held in another format. Please elaborate in detail, how you did proceed to address the emerging challenges, and what was for instance postponed. You can also use this template to share specific problematics or opportunities that arose due to these special circumstances

1.2. Working with stakeholders

Please describe briefly the ways in which you work with your stakeholders for achieving shared goals. (For example, hosting regular meetings, hosting online meetings, sharing information via an email newsletter)

The main ways used to involve stakeholders in the living lab activities organized at the University of Bergamo are as follows:

- Email newsletter, a tool used, in particular, for the involvement of students and university professors (creation of special "white lists");
- Common website, ATB company, University of Bergamo and related social media in order to update citizens on the progress of the living lab activities and on the experimental projects activated;
- Meetings organized in virtual mode, useful to highlight the problems and mobility needs of students and university professors;
- Surveys and questionnaires necessary to create a critical basis and highlight the potential and criticality of the current system of territorial mobility;
- Press releases and announcements in some local newspapers to give more relevance to the project;
- Virtual "Word of mouth" between university students facilitated by the sponsorship work carried out by student representatives and the Mobility Manager.

In your experience, what worked very well in contacting, collaborating and sustaining stakeholder participation?

A number of communication tools have been found to be more effective including, first and foremost, the dissemination of social information and word of mouth among students.



1.3. Identified Challenges/ Needs and Gaps

In regards to your pilot implementation, what challenges, needs and gaps did you experience?

Challenges

- Contributing to the change of mobility habits in home-school and home-work trips in favour of sustainable modes of transport;
- "Co-designing from the bottom up" of experimental solutions shared by stakeholders;
- Creating a strong sense of identity, belonging and co-responsibility of students towards the university community and encouraging greater sharing with respect to sustainability objectives;
- Contributing to the "think globally, act locally" approach with a wider knowledge of the issues under discussion and their practical implications;
- Contributing to investing in the human-social capital of the university community, promoting greater information, education, training and consequent awareness of the problems and possible solutions with a view to greater dissemination of sustainable mobility practices;
- Multisectoral collaboration in every aspect of decision making, from problem analysis, to the conception of shared solutions, to the analysis of alternatives, to projects and implementation methods.

Gaps

- Difficulties in involving some types of stakeholders active in the field of mobility because they are sceptical about the usefulness and benefits that can be obtained from their participation, with perplexities and skepticism linked, in particular, to the fear of unnecessary loss of time;
- Medium-long technical-bureaucratic timescales for the activation of the experimentations that cause feelings of ineffective productivity of the participatory design path;
- Low experience and habit of the subjects involved in the participatory design procedures;
- Resistance to change with respect to positions, working methods, decision-making processes consolidated over time.

1.4. Working with the target group

Did you experience specific challenges with your identified target group, or did you possibly change your target group during experimentation?

In the field of the solutions to be tested (University Shuttle Service and Carpooling Service) the selected target group is represented by students and technical-administrative staff of the University of Bergamo.

As regards the experimentation of the University Shuttle Service, experimentation activated in March 2019, for the duration of one month, the monitoring data provided by ATB showed an excellent appreciation of students and university staff for the service introduced to the point of requiring its reactivation for a longer period.

Slightly different speech with regard to the next experimentation of a carpooling service (assumed from September 2020, compatibly with the change in the conditions of social restriction). Following in-depth market analysis and an assessment of the real needs of the community and propensity to use the service, we decided to extend the target group initially defined (represented by students and university technical and administrative staff) to the municipal world, thus giving municipal employees the opportunity to use this shared mobility service.



1.5. Developing innovative solutions

Please describe the stage of the developed solution, and which measures did you take to achieve this?

- Definition and identification of the stakeholders involved and the project target group;
- Administration of questionnaires on mobility habits both in the university and in the municipality and analysis of the results;
- Identification and mapping of problems, obstacles and opportunities related to the current state of the mobility system and the development of innovative mobility solutions;
- Creation of mind maps with food for thought to overcome the problems outlined;
- Creation of multiple shared solutions to overcome the critical issues of the current mobility system through the introduction of innovative services;
- Selection of solutions to be tested.

Who was part of developing this innovative solution, and how did they contribute?

Stakeholders	Contribution
ATB S.p.a company. (Local Public Transport Operator)	Illustration of the network and evaluation of the criticalities of the current system of Local Public Transport on road; analysis of the innovative solutions that can be tested in the territory; strong collaboration in the activation of the university shuttle service
Autoservizi Locatelli (Private suburban transport operator)	Creation of innovative mobility solutions to increase the intermodality of travel with particular reference to the connection between the railway lines on Dalmine and the suburban bus lines.
Bergamo Basin Local Public Transport Agency (Mobility planner)	Analysis of the current state of the public transport network and identification of critical issues; comparison of feasibility between the various experimental solutions designed with reference to the current state of state economic resources allocated to the development and implementation of Public Transport; strong collaboration in the planning and activation of the new experimental service of university shuttle buses.
Mobility Manager of the University of Bergamo (Prof. Maria Rosa Ronzoni)	Evaluation of alternative project solutions; creation of "white list" of university students' contacts; coordination of living lab meetings at university sites, as well as collaboration for the activation of the experimental university shuttle bus service; experimentation of incentive solutions for the practice of university carpooling (experimental creation of reserved parking spaces and related vertical signs); organization of events dedicated to sustainable mobility;



<p>Target group (Students and university lecturers; municipal employees)</p>	<p>"Co-design" of experimental solutions; testing of services</p>
<p>Municipality of Dalmine (Mobility Department)</p>	<p>Participation in some living lab meetings; illustration of the sustainable mobility policies of the municipality; openness to the introduction of incentive mechanisms to encourage the spread of carpooling (reserved parking spaces in the municipality)</p>
<p>Tenaris Dalmine S.p.a. (Company producing steel pipes, cylinders and car components)</p>	<p>New sustainable mobility technologies (hydrogen) and principles of operation of hydrogen vehicles; illustration of best practices activated by Tenaris in the field of sustainable mobility</p>
<p>Società Bringme S.r.l. (Carpool company)</p>	<p>Development of the monitoring platform and shared construction with the municipal offices of the questionnaire on travel habits; development of the carpooling platform</p>



1.6. Implementing Innovative Solutions

Please describe the implementation process of your innovative solutions based on how you address aforementioned challenges, needs and goals based on a timeline:

What is the current status of your proposed solution?

The Municipality of Bergamo, in particular, has decided to implement three particular innovative experimental solutions:

- experimental activation of a free shuttle bus service dedicated to students and technical-administrative staff of the University of Bergamo;
- start-up of a carpooling service, reserved for the university world and municipal employees;
- creation of guidelines for the subsequent activation of a common integrated digital ecosystem.

UNIVERSITY SHUTTLE BUSES

The objective set by the Municipal Administration as a basis for the development of this service has been to increase accessibility between the University of Bergamo and some strategic nodes of the city's mobility.

On the basis of these premises, thanks to the important collaboration and contribution of the University of Bergamo, as well as the contribution of the Company ATB S.p.a. and the Bergamo Basin LPT Agency, a new line has been activated on an experimental basis on the Dalmine-University of Bergamo branch Caniana Railway Station of Bergamo for five weeks from March 2019, allowing students and university staff to take advantage of a free and dedicated service.

CARPOOLING PILOT

The carpooling service that will be activated in September 2020, also based on the results that emerged during the living lab meetings, is targeted:

- - on the one hand, to students and technical-administrative staff of the University of Bergamo;
- - on the other hand, to municipal employees to facilitate their travel to and from work.

The phase of preparation of the documentation and direct assignment of the service, as well as the stipulation of the contract with the company Bringme was finalized in December 2019.

The project for the activation of the service, whose inauguration was originally scheduled for April 2020, as a result of the emergency situation generated by the COVID19 epidemic, has undergone changes in content and timing.

As a result of the spread of the pandemic, the scenario has changed completely, the activation of the carpooling service has been suspended at the moment, but at the same time we have devised a modification of the project that is able to be well aligned with the restrictions of the current emergency situation. In particular, on the one hand, we will activate a platform and related application for mobile devices to monitor the environmental, economic and time saving benefits linked to the activation of the agile work from home policies that characterize this particular period; on the other hand, we think it is very important to fully understand the movement dynamics of students and municipal employees and how these may change during and at the end of the emergency period.

Therefore, we have built a questionnaire that will be soon submitted to the registered users on the monitoring platform, which can be activated as early as the end of May, with these main objectives in mind:

- To have an up-to-date database of systematic travel arrangements for students/undergraduate students and municipal employees;
- To identify the travel modes used by pre-COVID users, during the emergency and those foreseeable at the end of the emergency;



- Measure the propensity of individual users to change (even conditionally) their travel habits in the home-school and home-work journeys, understanding the real mobility needs of users and the possible modulation of the future carpooling service;
- Measure the propensity to participate in the next phase of service activation. The ultimate objective is in fact to activate the carpooling service when obviously the conditions of restriction will vary; in this sense it seemed appropriate to set the month of September 2020 as a predictable time target.

The time phase between the activation of the monitoring platform and the related questionnaire (by the end of May 2020) and the activation of the carpooling service (by the end of September 2020) therefore marks the beginning of an important phase of participatory construction with all the actors involved in the future carpooling service, aimed at creating a service that can be as effective and efficient as possible.

As anticipated, from the month of September 2020 the carpooling platform and related reward mechanisms will also be activated:

- on the one hand, the activation of competitions combined with the distribution of prize money in digital vouchers;
- on the other hand, the provision of parking spaces dedicated to the service.

In addition to the temporary experimentation of horizontal and vertical signage carried out in the areas owned by the University, at the Dalmine headquarters, the Municipality of Bergamo intends to dedicate specific parking spaces, in car parks located in the immediate vicinity of the municipal offices, and possibly to sign agreements with the company ATB and Parcheggi Italia for the concession of reserved parking spaces in private areas.

GUIDELINES

The objective of the creation of guidelines for the subsequent activation of a common integrated digital ecosystem, whose drafting began in February 2020, is to try to understand how the carpooling service integrated with the Local Public Transport service can work and what benefits this integration can bring to the various actors involved, both on the demand and supply side.

On the demand side we will try to analyse the specific needs and expectations of the target group of the experimentation, consisting of municipal employees and university students, both in terms of accessibility to static and dynamic data related to Local Public Transport and carpooling services, and by investigating how the two integrated services work.

On the offer side, starting from June 2020, we will set up real technical comparison tables that can facilitate dialogue between the main policy makers and transport operators in the area.

In this case, the guidelines will contain specifications on sharing methods, type and quality of data, regulatory and financial implications, as well as an in-depth analysis of the business models that can potentially be activated as a result of adherence to the ecosystem.

In particular, three implementation phases have been highlighted: the first phase, ending at the end of June 2020, will highlight the requirements of the common ecosystem based on the needs and suggestions made by students and municipal employees. The second phase, ending at the beginning of October 2020, will highlight the additional policy requirements suggested by operators and policy makers. The actual drafting of the guidelines will start in October and will end at the end of the project with the presentation of the results achieved (deadline 30 November 2020).



1.7. Lessons Learned

How did you overcome the above identified gaps, needs and challenges?

What were the main lessons learned?

(For instance practicalities in regards to stakeholder engagement, implementation, or communication with local actors and testing.)

The main lessons learned on the topic of stakeholder involvement are the following:

- the inclusion of the positions of the various stakeholders in the decision making process, involved since the preliminary analysis and conception of possible solutions, as well as the system of the various knowledge of the same, has made it possible to inform and consciously influence a wide range of stakeholders;
- the building of a relationship of trust with the stakeholders, helped by the understanding of the different points of view and their motivations, has allowed the construction of a group of "human resources" and has facilitated the resolution of problems and the creation of shared solutions;
- listening to and correctly interpreting the wishes of all stakeholders involved led to the development of winning value proposals consistent with expectations;
- the involvement and collaboration of a wide range of stakeholders has created a "virtuous circle" of mutual drive towards sustainable behaviour in order to strengthen and transfer the environmental sustainability model to the university community;
- the guarantee, provided to all potentially interested stakeholders, of free access to the process of involvement, on equal terms and with the faculty to assert their points of view and their reasons, was fundamental for the results achieved to be perceived as fair by all stakeholders, creating a continuous circle of improvement in relations;
- investment efforts to identify and build relationships with stakeholders have increased confidence in the project environment, minimised uncertainty and accelerated problem solving and decision making.

2. Crema

TEMPLATE

for information gathering on innovative solutions

CREMA

MAY 2020



2.1. Introduction

This template aims to gather information on the innovation process of each living lab, implementing the living labs at pilot level, in particular on the co-design approach and best practices. As part of the deliverables D.T1.5.8 and D.T1.5.9 - “Innovative Solutions plans/ projects” we aim to collect insights from each living lab on their project plans, and innovative solution ideas. The individual input from each pilot, will be combined as lessons learned and best practices to be shared in the final project report.

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2.2. Working with stakeholders

Please describe briefly the ways in which you work with your stakeholders for achieving shared goals. (For example, hosting regular meetings, hosting online meetings, sharing information via an email newsletter)

Regular meetings (before COVID-19 in presence and now mostly online) with institutional stakeholders and supplier have been carried out in order to set up the APP based DRT system and be able to follow with test phase in Pavia and run the pilot in Crema.

Due to the postpone of the “go live” phase of pilot with users of DRT service in Crema, we had no contact in this reporting period with users and tester those are most important target group for the pilot. In general, we planned to run the recruitment with social media and specific email communications.

In your experience, what worked very well in contacting, collaborating and sustaining stakeholder participation?

Social media are the most responsive channel for communicate with users and to recruit a general and varied target.

Some specific target group need some other way to communicate, for instance, students are good engaged through their teachers who stimulate and sustain participation; elder users have to be contacted personally by phone and give them some kind of return for participation (incentive or answer to their specific needs..)

2.3. Identified Challenges/ Needs and Gaps

In regards to your pilot implementation, what challenges, needs and gaps did you experience?

In the current emergency situation, the main challenge is to reach non institutional stakeholders with communications:



- Elders: usually are not friendly with digital instruments and is hard to engaged them for an online living lab
- students: schools are closed and is difficult to communicate with their teachers who are the reference for contacting them. Besides, projects with companies are suspended and they could have less interested in participating
- employees of ATS (Health Area Agency) have other priorities and some constrains due to their work (for instance: nurses, doctors and front office employees)

2.4. Working with the target group

Did you experience specific challenges with your identified target group, or did you possibly change your target group during experimentation?

The main challenge is related to the challenges we mentioned in the previous point: identification of target group will strictly depend on the evolution of the emergency situation and based on the people we will be able to contact and engage. Probably we will need to change our target group and according it to new features of use PT, and especially DRT services.

2.5. Developing innovative solutions

Please describe the stage of the developed solution, and which measures did you take to achieve this?

DRT pilot is running in background: the APP is not live for the users in Crema, but the internal operator manages the booking working in parallel with APP and the storic system.

We have tested the application on area of Pavia and asset some functionalities useful to start in Crema, but in our pilot area we faced some more problems that cannot ensure the usual standard level of service and for this reason we cannot go live. We are working in close collaboration with supplier of the APP based system in order to solve all these criticalities and be able to go live as soon as possible.

Who was part of developing this innovative solution, and how did they contribute?

Stakeholders	Contribution
SHOTL (supplier of APP base system)	<ul style="list-style-type: none"> - Set up of features in specific area (Pavia and Crema): stops, maps... - Training of internal operators and drivers
Agenzia Trasporto Pubblico Pavia	<ul style="list-style-type: none"> - Authorization to shift from usual PT service for test areas in Pavia



2.6. Implementing Innovative Solutions

Please describe the implementation process of your innovative solutions based on how you address aforementioned challenges, needs and goals based on a timeline:

If technical problems will be solved and the contingency situation will allow us to run the service with no constrains, we will recruit users for test group for DRT pilot in June and will be able to involve them for an online living lab at the end of June.

We will try to recruit a new target communicating with social network for recruitment and ensuring to have digitalized people.

What is the current status of your proposed solution?

We are running test phase in Pavia:

- From September 2019 in area Stradella and area Varzi (suburban service of province of Pavia) that substituted the line PT service with DRT APP based
- From October 2019 in Pavia urban area shifting existing night DRT service to the APP based service able to manage real time.
- End March 2020, facing the emergency situation, we started a new DRT service (no app based) in Lomellina Area (province of Pavia) that substituted line PT service

We are running pilot in Crema only in background and, If technical problems will be solved and the contingency situation will allow us to run the service with no constrains, we foreseen to run the APP based service “Online” with test users, in July.



2.7. Lessons Learned

How did you overcome the above identified gaps, needs and challenges?

What were the main lessons learned?

(For instance practicalities in regards to stakeholder engagement, implementation, or communication with local actors and testing.)

3. Osijek

TEMPLATE

for information gathering on innovative solutions

OSIJEK

MAY 2020



3.1. Introduction

This template aims to gather information on the innovation process of each living lab, implementing the living labs at pilot level, in particular on the co-design approach and best practices. As part of the deliverables D.T1.5.8 and D.T1.5.9 - “Innovative Solutions plans/ projects” we aim to collect insights from each living lab on their project plans, and innovative solution ideas. The individual input from each pilot, will be combined as lessons learned and best practices to be shared in the final project report.

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3.2. Working with stakeholders

Please describe briefly the ways in which you work with your stakeholders for achieving shared goals. (For example, hosting regular meetings, hosting online meetings, sharing information via an email newsletter)

The collaboration with stakeholders takes place through different channels and events. Besides regular sharing information via email and phone calls, the relevant stakeholders are being informed about the project activities during various mobility events in Osijek region including implementation phases of other related projects. Furthermore, social media channels are also an effective way for improving and sustaining the cooperation with stakeholders.

Currently, working with stakeholders during workshops and living labs is very limited due to the Corona crisis and related restrictive measures.

In your experience, what worked very well in contacting, collaborating and sustaining stakeholder participation?

The City of Osijek is currently working on a few separated projects related to mobility innovations and solutions. This mostly means that the same list of stakeholders is more or less actively included in those projects' implementation activities. As the relevant stakeholders get aware of overall mobility goals of Osijek region their interest to active participation in the project grows. To ensure that awareness and interest of stakeholders, the comprehensive approach by sharing different projects' benefits is an efficient and helpful strategy. Creating and sharing a bigger picture of transport system planning process and related activities ensures the positive perception about active participation among the stakeholders.

Additionally, the great effect on sustaining stakeholder participation can be accomplished by active communication via social media channels and sharing project updates regularly.



3.3. Identified Challenges/ Needs and Gaps

In regards to your pilot implementation, what challenges, needs and gaps did you experience?

The main recognized challenge relates to combining this project and pilot element implementation with other mobility projects and their activities. As mentioned before, the list of relevant stakeholders in mobility projects is usually the same for all projects that are developing in parallel with SHAREPLACE project and that considers a significant expectation on participation and regular interaction with stakeholders.

Due to Corona crisis and related restrictions, communication with stakeholders and some project activities are currently limited (living labs, workshops, service testing). For example, the public transport service in pilot region hasn't been operating at all or very limited. Furthermore, significant number of public transport users switched to private transport modes and working from home regulations decreased the need for traveling and number of daily commuters.

3.4. Working with the target group

Did you experience specific challenges with your identified target group, or did you possibly change your target group during experimentation?

Previous project activities and work with stakeholders provided an insight into mobility needs for various target groups. The further steps, during the co-creation process, should ensure more information about the user expectation on new mobility solutions. In regards to the MMTP planning tool, the most relevant target groups consist of daily commuters who already use public transport services or have the potential to switch from private transport modes to the public. In regards to the DRT pilot element, there are two main target groups, students and elderly people.

Regardless of the Corona crisis regulation, the focus of pilot implementation in Osijek is to answer the recognized mobility need of mentioned target groups. However, further pilot implementation could continue with smaller groups. For example, testing phases will probably engage fewer test users than planned, workshops may be organized online with selected users.



3.5. Developing innovative solutions

Please describe the stage of the developed solution, and which measures did you take to achieve this?

The successful collaboration with stakeholders depends on the level of interests and activeness of engaged participants. To ensure that kind of participation, it is crucial to adjust the approach, or the way of communication, according to the profiles and interests of working group members, whether it is a classical workshop or some other solution provided.

The 4th Living lab, that has been planned for March 2020, had the focus on three main workgroups: user assessment survey, DRT service co-design workshop, MMTP web application presentation and beginning of start-up phase. Even though the living lab should take place before Corona crisis, a combination of different solutions and tools for activities has been planned to keep and to sustain active collaboration among the participants. The planned workshop tools included available online forms and tools but also the proven “in site” workshop solutions.

The Corona crisis impacts on developing more innovative solutions based on digitalization and online approach. In Osijek pilot region, it considers developing more interactive online tools and forms to achieve the same living lab goals and more direct communication with preferable participants. Still, a lot depends on overall Corona restrictions and regulations that impact on the number on daily trips, negative behavioural changes to private transport modes, limited public transport operations...

Who was part of developing this innovative solution, and how did they contribute?

Stakeholders	Contribution
Dyvolve Ltd.	Developing solutions, activities and tools for living labs, surveys, testing phases.
City of Osijek	Supporting the communication with stakeholders, organizing events
GPP - public transport operator	Providing information about current services, organizational and operational characteristics and infrastructure related to providing public transport services
Prototyp Ltd. - IT developer	IT support for maintenance and improvement of MMTP web application according to the user feedback



3.6. Implementing Innovative Solutions

Please describe the implementation process of your innovative solutions based on how you address aforementioned challenges, needs and goals based on a timeline:

Even though, the Corona situation in Croatia is getting better there are still big impacts left on the current mobility needs and overall transport system status. In regards to achieve the pilot implementation goals, it is crucial to place the planned project activities in the right time. Furthermore, the critical elements of the pilot activities will be organized online with adjusted tools and approach to target groups and other participants.

What is the current status of your proposed solution?

The next steps in the pilot implementation process will take place according to Corona crisis status. The participants will be contacted and engaged in a collaboration with the City of Osijek and other key stakeholders. The planned workshop activities will be switched to online forms and tools and organized depending on public transport restrictions. If possible, some activities will take place in June. Otherwise, September will be the option.



3.7. Lessons Learned

How did you overcome the above identified gaps, needs and challenges?

The active cooperation with the City of Osijek and key stakeholders supports the pilot implementation. Furthermore, readiness to ensure different ways of communication with target groups and workshop participants mitigate the risks of project implementation activities. Continuously monitoring of situation and regulations related to Corona crisis helps to adjust the approach and time plan to get the best possible results of the activities.

What were the main lessons learned?

(For instance practicalities in regards to stakeholder engagement, implementation, or communication with local actors and testing.)

The main lesson learned are focussing on:

- Sustaining communication with key stakeholders and target groups via different communication channels regularly;
- Raising awareness about benefits of the project in a wider mobility context;
- Being informed about overall status of transport system especially public transport service operations;
- Preferring and using more online interactive tools and forms for project activities;

4. Ulm



TEMPLATE

for information gathering on innovative solutions

ULM

MAY 2020



ulm university

universität

uulm





4.1. Introduction

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Please describe briefly the ways in which you work with your stakeholders for achieving shared goals. (For example, hosting regular meetings, hosting online meetings, sharing information via an email newsletter)

In your experience, what worked very well in contacting, collaborating and sustaining stakeholder participation?

Civic tech community Ulm

- joining existing activities at Verschwoerhaus (instead of creating new structures, we go to the places where the community and know-how already gather)
- regular meetings (project driven but also broaching the issue of mobility in general), with the corona situation those were switched to online get-togethers where possible
- Sharing information via e-mail and in a Slack-Channel

Civic tech community (general)

- sharing know-how during community events was only possible until end of february, after then all our in person events were cancelled
- twitter

City employees/municipality

- e-mails and meetings
- with corona we switched to virtual meetings where possible

NVBW (Baden-Württemberg regional transport authority)

- e-mails
- personal meeting at a conference in February, web conference call in May

SWU (Ulm public utilities)

- mostly e-mails, meeting scheduled for June (probably online)

New Mobility Service (NMS) Providers

- car sharing company in Ulm resisted all efforts to access data
- federal car sharing association lobbies against fair data provision (disrespecting the COMMISSION)



DELEGATED REGULATION (EU) 2017/1926)

- no cooperation with car sharing company in Ulm possible, up to now no other NMS providers in Ulm

Personal meetings and phone calls often work better than e-mails. Coincidental meetings with interested parties (other cities, members of the civic tech community, other institutions,...) are often contributing far more to the project's objectives than originally promising, official partnerships.

Many of our stakeholders had problem using web conferencing tools in the beginning of the pandemic but it is getting better. In meetings, it helps a lot to set up strict rules on moderating and how to ask questions or discuss issues.

4.3. Identified Challenges/ Needs and Gaps

In regards to your pilot implementation, what challenges, needs and gaps did you experience?

- Egoism instead of collaborative mindsets
- city employees often work on the exact same topics without knowing that somebody else is doing the same work, no knowledge sharing within the municipality
- conflict between citizen oriented services and monopolistic ambitions of public transport agencies is a real problem
- all players in the field of public transport want to develop their own, exclusive solution instead of working together towards a "one fits all" solution with open standards
- different knowledge levels about what open data means
- no consistent position on data policy within the city administration (regarding data quality, documentation of data flows, licensing, legal basics, line of argumentation in favour of open data as a way to dispel concern about publishing data as open data)

4.4. Working with the target group

Did you experience specific challenges with your identified target group, or did you possibly change your target group during experimentation?

Target group switched from commuters in industrial area towards a low-threshold and demand-oriented intermodal mobility solution

Challenges:

- missing awareness of the need for intermodal mobility solutions, open APIs and benefits thereof
- accessibility of target groups
- privacy concerns
- time consuming, extensive coordination vs just do it and try what works
- complex billing mechanisms (grant funding etc.)
- Corona specific: as for everybody else, public life was shut down almost completely for two months and still is restricted, as a consequence the number of users of our service is and so is the use of services like Openbike



4.5. Developing innovative solutions

Please describe the stage of the developed solution, and which measures did you take to achieve this?

Ulmrouting is in continuous development but already in operation, openbike as proof of concept is at the end of the start up phase

Ulmrouting:

- we took open source software that already existed
- localized language and adapted it for use case of Ulm
- future challenges concentrate less on software than on integration of data and on regularly getting up-to-date versions of that data

It is more about finding out what is feasible and works out in day-to-day business instead of always inventing new solutions which fail once they are reality-checked

Openbike:

- developed open source software for bike sharing system: backend and frontend
- set up support system for user inquiries
- monitoring for trackers
- open hardware trackers: partly bought, partly built ourselves

Who was part of developing this innovative solution, and how did they contribute?

Stakeholders	Contribution
Civic tech community City employees/Municipality NVBW SWU NMW Providers	Co-creation of solutions, providing know-how and inspiration Support as test users Important and essential knowledge exchange, cooperative work towards an open data landscape perceived incentive for cooperation is small, no in depth knowledge exchange Car sharing company not really interested in cooperation, no other NSM providers in Ulm



4.6. Implementing Innovative Solutions

Please describe the implementation process of your innovative solutions based on how you address aforementioned challenges, needs and goals based on a timeline:

We try to intensify and foster cooperation with entities who are interested in working with us voluntarily. There is no use of a cooperation in which one party simply is not interested in working together. The good and continuous exchange with the civic tech community and NVBW is going to be maintained throughout the whole project duration.

Furthermore, we especially want to engage with the city employees. First of all, in their roles as test users, they and their feedback is vital to a successful implementation of the pilot. This is why we communicate closely with our test users via our own blog <https://ulm.dev/blog>. Moreover, we already set up an online support system the test users can address in case of questions or problems. In addition, we want to establish a regular get-together of users of Openbike in order to develop better solutions (for software as well as hardware). This was unfortunately not feasible due to Corona.

Parties who are not interested in the solution and the benefits of open data yet should be persuaded via proof of concept. Therefore, results will regularly be communicated widely. Furthermore, personal meetings/web conferencing will continuously be used for promoting cooperation.

Groups who have not yet been identified as stakeholders but turn out to affect/be affected by the project will be invited to find out together with the project team how their ideas and concerns can be taken into account in the further course of project.

What is the current status of your proposed solution?

- start up phase of Openbike is running
- before Corona, bikes we used quite well (41 rents in 7 days with 6 bikes)
- now user numbers are down
- tracking hardware further developed
- digitransit has moved <https://digitransit.ulm.dev/>
- new data sources opened by NVBW, but there still are quality issues
- in discussion with parking provider in Ulm to publish occupancy data as open data
- interest of open data community in Openbike and Digitransit quite big



4.7. Lessons Learned

How did you overcome the above identified gaps, needs and challenges?

We have not yet overcome most of these challenges as they are either closely intertwined with how the municipality works or how mobility providers view their business models.

To overcome them, we need to continuously promote the benefits of our solution, especially in front of decision makers on various levels.

What were the main lessons learned?

(For instance practicalities in regards to stakeholder engagement, implementation, or communication with local actors and testing.)

- Decision makers need to be properly informed
- Concerns about data security need to be taken very seriously and information on data security need to be displayed so people understand what does and does not happen with their data
- communication needs to be adapted to the state of (technical) knowledge of your counterpart
- Data policy for the city needs to be formulated and then taught to city employees who work with data

5. Zalaegerszeg



D.T1.5.9

template for information gathering on innovative solutions
plans/projects

MAY 2020



ulm university universität
uulm





5.1. Introduction

This template aims to gather information on the innovation process of each living lab, implementing the living labs at pilot level, in particular on the co-design approach and best practices. As part of the deliverables D.T1.5.8 and D.T1.5.9 - “Innovative Solutions plans/ projects” we aim to collect insights from each living lab on their project plans, and innovative solution ideas. The individual input from each pilot, will be combined as lessons learned and best practices to be shared in the final project report.

In the following sections of this template, we kindly ask you to fill out further details on your process of collaborating with respective stakeholders, addressing the identified problems, needs and potential challenges and your lessons learned, such as most successful practices in collaborating and implementing the pilots.

Due to the current Corona crisis, enforcing tight restrictions in every country, we ask you to fill out the template accordingly, **as good as possible**. This can include statements that explain, why specific interaction with stakeholders could not take place, or were held in another format. Please elaborate in detail, how you did proceed to address the emerging challenges, and what was for instance postponed. You can also use this template to share specific problematics or opportunities that arose due to these special circumstances

5.2. Working with stakeholders

Please describe briefly the ways in which you work with your stakeholders for achieving shared goals. (For example, hosting regular meetings, hosting online meetings, sharing information via an email newsletter)

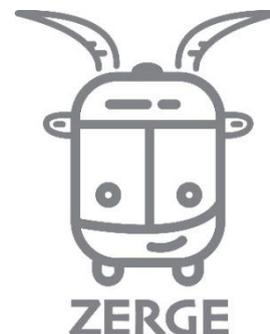
In your experience, what worked very well in contacting, collaborating and sustaining stakeholder participation?

DRT pilot element

The communication with the potential users was managed via several channels, the most important ones were the living labs. So far four living labs were held, the first two with the representatives of the sub-municipality of the concerned territories within the city and the local representatives of inhabitants. The third living lab was a field test in four steps: at first the three routes were tested with the representatives of the sub-municipality of the concerned territories within the city and the local representatives of inhabitants, later three different organised field tests were held in the three DRT areas where the local inhabitants could participate and share their thoughts. The aim of these events was to introduce the project, to give feedback and to get to know the future users. The field test in June 2018 was a really successful event.

On 30th October 2019, the fourth living lab was held before the actual start-up phase to show:

- all the information for the potential users,
- the aim of the test,
- how to use the test service (booking platform for the bus via internet or phone),
- the three routes,
- the brand of the service: logo and brochure,
- the timetables and
- the visual information elements on the bus.



The inhabitants showed high level of interest for the test, although the participants were divided into two main groups, one who was enthusiastic about the service and the other who were not satisfied with the routes and the timetables (new demands appeared but at this level of planning, no new need is possible to accomplish, these will be considered in the second testing phase in autumn 2020).



Figure 1: 4th living lab in the DRT pilot element before the start of the testing phase

Unfortunately, between the third and fourth living lab there was not much communication between the project partners and the local inhabitants as the implementation process needed a lot of effort. The colleagues of the Municipality contacted the local inhabitants via email (those who participated on the previous living labs and who gave their contact in the online/paper-based questionnaire) before the fourth living lab. 600 copies were printed from the brochure (main information about the service) for this event, the local representatives and the members of the sub-municipality took them to spread it among the residents. At least 700 other copies were printed in order to distribute it in the concerned areas to promote the service and to involve as much user as it possible.



Z3 Csertán Sándor u. ➔ Hóvirág utca
➔ Cserhegyi út ➔ Toposháza

IRÁNY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50											
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Z3 Toposháza ➔ Cserhegyi út
➔ Hóvirág utca ➔ Csertán Sándor u.

IRÁNY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50											
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A ZERGE járatok önálló útvonalon találhatóak fel- és leszállóhelyek nem kiegészítésként, hanem megállóként, így kényelmesebb a városban és a környéken való közlekedés.

Z1 Csertán Sándor u. ➔ Kertváros, autóbusz ford. ➔ Gálafej ➔ Vasútállomás

IRÁNY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50											
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Z2 Csertán Sándor u. ➔ Ebergényi utca ➔ Gógányhegy ➔ Csertán Sándor u.

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Z1 Vasútállomás ➔ Gálafej ➔ Kertváros, autóbusz ford. ➔ Csertán Sándor u.

IRÁNY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50											
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Z2 Csertán Sándor u. ➔ Ebergényi utca ➔ Gógányhegy ➔ Csertán Sándor u.

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Z1 Vasútállomás ➔ Gálafej ➔ Kertváros, autóbusz ford. ➔ Csertán Sándor u.

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Figure 2: Brochure about the main information (usage and timetables)

Before the living lab, online and paper-based articles were published on different channels. The paper-based newspapers were printed totally in 59.000 copies, while the online local news portal published an article about the service and the living lab. Mobilissimus also wrote a post on its Facebook page. The continuous communication would have been better but regarding the taken steps, the paper-based newspapers reached plenty of people and the communication via email (invitation letter) were really successful.

With the technical partners, the colleagues of the Municipality and Mobilissimus communicated via more channels: emails and phones, and personal meetings were held as well in Zalaegerszeg. Two main field tests were organised with the participation of the technical department of the Municipality of Zalaegerszeg and the urban management company of the city, the first was on 30th August 2019 where the final site preparation' needs and timetable related questions were discussed. Concerning the outcomes, it was a useful test as the exact location of the stops with timetables were determined together with the needed site preparation (where cutting bushes/branches is needed). The second field test with the technical partners and the colleagues of the Volánbusz Zrt. (bus service operator) was held on 10th October with the purpose to finetune the timetables and to test the three routes. It was a successful event as well, the timetables were finalized and the site preparation related issues were discussed again.

Carpooling pilot element

The communication with the representatives of the companies went through via more channels: emails, phones and personally on the living lab events. The communication was not always successful, needed to get in touch with them more times, hard to keep them committed toward the project. On the first living lab six employers participated, but after the third event, only two of them stayed committed and showed interest for further participation, so the colleagues of the Municipality and Mobilissimus had to restart the engagement and involvement process due to different reasons:

- high level of fluctuation among the employees (those who earlier participated in the project have left the companies),
- low interest,
- no motivation.

The level of interest was low in case of each living lab.

The potential users, the employees were addressed through the representatives of the companies. An online questionnaire was sent to them to fill out about the service. For the successful engagement, a good contact



person was needed who wanted to participate in the project and made effort toward the implementation of the pilot element (e.g. a representative of a company offered for the winner a one-year free parking option or a three-day free holiday).

In February 2020, new companies were addressed again and finally six companies, including the Municipality as well, planned to participate in the project.

5.3. Identified Challenges/ Needs and Gaps

In regards to your pilot implementation, what challenges, needs and gaps did you experience?

DRT pilot element

During the implementation process, more challenges/needs and gaps were identified. The most relevant one is related to the communication process; it is clear that more communication would have been needed during the planning process. After the third living lab, there was not any kind of communication toward the residents, only some weeks before the actual start of the testing phase. More newsletters and online news should have been taken. Some people on the fourth living lab noticed the lack of information between the two events. It was also hard during the implementation process to find the potential users and to find the way how to communicate with them. The representatives of the territories were asked earlier to communicate and spread the information and the online/paper-based questionnaire toward the inhabitants.

The political influence on the start of the start-up phase meant a challenge during the implementation phase as well. The representatives of the sub-Municipality of the three territories changed during the election in October 2019, so the new representatives needed to be addressed.

It is also hard to work together with all the stakeholders (project partners, bus service operator, representatives of the technical departments, external experts, IT developer, residents). Coordinating all of them to finalize everything on time in an appropriate quality is a big challenge.

On the fourth living lab a new demand appeared on a partly new territory that can be considered during the full operation phase in the autumn. The users (the actual users', the drivers' and the dispatchers' point of view) already gave feedbacks about the service that need to be monitored continuously and answered properly.

Regarding the full operation phase of the testing of the DRT service, it was postponed (including the living lab planned to hold right before the start) from April to August/September 2020 due to the Corona virus. Online news were published about it in several local/regional channels.

Carpooling pilot element

There are more challenges or gaps in the carpooling pilot element, mainly that the level of interest is low (e.g. low number of participations on the living lab events). In this case the communication is the most important question, a continuous communication should have been done toward the companies and the potential users to stay engaged during the implementation process.

As it has turned out during the personal meetings and the questionnaire, the main challenge is to find appropriate incentives for the employees to share their cars.

The fluctuation from the employees' side is a strong challenge, as the earlier engaged ones who were willing to participate in this test have already changed their workplace. All in all, it is hard to engage the local target groups and keep them engaged.



Regarding the testing phase of the carpooling service, it was postponed (including the living lab planned to hold right before the start) from April to August/September 2020 due to the Corona virus. The companies were informed via email and phone.

5.4. Working with the target group

Did you experience specific challenges with your identified target group, or did you possibly change your target group during experimentation?

DRT pilot element

There was no change in terms of the target group in this pilot element, the residents of the three DRT areas were addressed on more channels. The communication is a challenge with them, the most effective way to “find them” is through the local representatives of the Municipality or via local news portals.

Another challenge is to make it really well understandable that this new service is a test and the aim is to measure/find out the actual needs. Apart from this, new demands appeared that need to be considered but during the fourth living lab held before the first testing phase it was hard to make them understood that within this project it is not possible to solve everyone’s problem and the demand will be investigated in the full operation phase.

During the preparation time the schedules and the routes were modified based on the feedbacks given by the residents and the operator. These changes will be communicated some weeks before the postponed second testing phase in August toward the users, while the colleagues of the Volánbusz Zrt. (operator of the DRT buses) were already contacted in February/March 2020.

Carpooling pilot element

There was no change in terms of the target group, only in the direct companies due to the lack of interest and high level of fluctuation in terms of the employees (e.g. at one participating company there were 10 employees who showed interest toward the project but one year later, none of them work for that company anymore). Because of this, new companies need to be addressed to participate in the project.

It worked out well that the physical workers are hard to reach as they are normally not allowed to use mobile phones during their worktime.

In February 2020, new companies were addressed to participate in the project, and finally the postponed testing phase can start in August with 6 companies.

5.5. Developing innovative solutions

Please describe the stage of the developed solution, and which measures did you take to achieve this?

DRT pilot element

During the planning process more steps were taken to finalize the service for the start up phase, such as personal meetings with the different stakeholders, and field tests with the representatives of the Technical Department of the Municipality. The three routes were tested by minibuses at least four times. The exact locations of the timetables were determined during these tests together with the necessary site preparation locations (where cutting the bushes/branches is needed). Before the start of the first testing phase these tasks were done, the timetables were placed out some days before the actual start and the site preparation was also done earlier.



Figure 3: Timetable on an electric pylon at a designated stop

An online booking system was prepared by a local IT company, before the real start of the first testing phase of the bus service there were already about 70 registered users. Users could also check-in for the buses via phone, the dispatcher of the Volánbusz Zrt. (bus service operator) handled the phone calls and registered the people into the online booking system. The three lines appeared on the dynamic passenger information system in two affected stops within the city. The drivers handled the passengers via the booking system, both drivers got tablets in which they can see the list of the registered users in case of each line and monitor if the journey really realized.



Figure 4: The drivers checked on a tablet if the passenger had a registration or not

The communication tasks before the start of the start-up phase had a strong role, articles were published in two paper-based newsletters and on more online sites as well. The testing phase has started on 6th November after a press conference with participation of vice major, the representative of the Mobilissimus Ltd. and the Volánbusz Ltd. (bus service operator). It could have been evaluated after a long planning process in which more communication and visual elements were prepared, such as the logo, the timetables (made in three different colours for the three DRT areas) into each designated stop and the brochure.



Figure 5: Three types of timetables for the three different areas

Visual and information elements were prepared as well into the minibuses: name of the lines, order of stops with the possible transfer options and the information how to register/check-in for the buses (phone number of the dispatcher and name of the booking webpage).



Figure 6: Order of stops with the possible transfer options within the minibuses

Carpooling pilot element

In this pilot element three living labs were held, the last one was in September 2018. There was not much advancement in this pilot element, engaging and communicating with the representatives of the companies is a challenge.

The fourth living lab was postponed from April 2020 to August due to the Corona virus, but before the living lab the companies need to be addressed and it also needs to be figured how to make the pilot attractive for the employees. For that, a good communication and incentive system is required.

The procurement process for the carpooling application is going to be finished in June 2020.

Who was part of developing this innovative solution, and how did they contribute?

DRT pilot element

Stakeholders	Contribution
Decision makers	Participation on determining the exact date of the start of the first testing phase. More personal and phone discussions were held with the vice mayor, who finally participated on 6 th November (first testing day in the DRT pilot element) in the press conference. The vice mayor contributed to solve some ad hoc, the DRT operation related issues before the actual start.



Technical stakeholders	Participation on the field tests based on operational questions: determining the exact locations of the timetables, placing them out into each stop. Participation on more discussions.
Volánbusz Zrt.	Participation on the field tests to test preliminarily the three routes and to finetune the timetables. The drivers and the dispatchers participated on education about the usage of the web-based booking system as it has a special surface for the drivers and the dispatchers. The representatives of the Volánbusz Zrt. distributed the information about the new service on more channels.
IT expert	Prepared a web-based booking system for the users to check-in for the buses, made separated surface for the users, the drivers and the dispatchers.
Users	Participation on the living labs and filling out the online questionnaire about the needs and expectations.
External experts	The representative of the urban management company who deals with the site preparation related issues participated on two field tests in order to determine the exact location of the branches that need to be cut. The company managed to cut the bushes/branches before the start.

Carpooling pilot element

Stakeholders	Contribution
Decision makers	Participation on determining the exact date of the start of the testing phase and sending formal letter to the directors of the big companies in order to engage them.
Technical stakeholders	Participation on a discussion about the temporary designated carpooling stops.
Representatives of the companies	Participated on the living labs, some of them recruit employees for the testing phase.
OSZKÁR	The founder of the OSZKÁR carpooling company will sign a procurement to create a closed group for the pilot and agreed to send statistics regularly about the actual use.



Employees of the companies	Participated on one living lab and shared their needs and expectations personally or in the online/paper-based questionnaire.
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5.6. Implementing Innovative Solutions

Please describe the implementation process of your innovative solutions based on how you address aforementioned challenges, needs and goals based on a timeline:

DRT pilot element

As one of the main challenges was related to the communication issues, before the actual start of the start-up phase more articles were released online and offline in order to reach as many people as possible. Mobilissimus wrote the articles and the colleagues of the Municipality sent to more channels. More journalists were invited for the press conference and articles were sent to more national wide sites about the start of the testing phase as well. It was also a significant part of the communication to tell that this is just a one and a half month long test until 22nd December and that this is a new service to test for everyone (for the users, the project partners, the drivers, the dispatchers and the IT developer as well).

The representatives of the three territories asked more hundreds of brochures to distribute it to the residents by placing it into each post-box. The decision makers were involved in the project start-up, participated on the press conference.

As it turned out in the last one month of the preparation phase, the continuous communication between the stakeholders is an important part of the successful evaluation. The feedbacks are collected continuously on more channels:

- from the drivers,
- from the dispatchers,
- from the users via the booking system,
- from the users via an online/paper-based questionnaire
- from online and offline communication channels (letters, webpages, Facebook pages, etc.).

The feedbacks about the service need to be documented and considered during the second testing phase, some exact examples from feedbacks: changing of the end station is required (bus service operator), the name of some bus stops (users), simplifying the timetables (users).

Regarding the postponed full operation phase, there are two scenarios for the second testing phase:

1. Postponing the second testing phase to August/September 2020 and hold the living lab personally in August before the start. In this case, only the date of the testing would change according to the following time plan:
 - May - service hub procurement
 - May - August - service hub development
 - May - route and schedule finalization based on the feedbacks
 - May - July - finalizing the graphic elements (order of stops, timetables, info letter, etc.)
 - July/August - communication activities & living lab



- From August/September till end of September/beginning of October - start of the second testing phase
 - October - evaluation phase (2nd user assessment)
2. A recovery plan was prepared in case there will be not opportunity for the actual testing. The following two solutions were elaborated:
- Preparing every necessary inputs (graphic elements, IT solution, etc.), analyzing the needs and expectations for the testing with a detailed practice guide. The final version can be tested/operated after the pandemic situation (funded by the city and not the SHP project).
- +
- The budget that was supposed to spend for the DRT bus operation can be reallocated in order to prepare an even better IT solution (maybe application) for the DRT IT background, so **it will be available for the Municipality for a later testing as a more professional version** (not just a basic web-based solution as it is now, but an application with some added value). The application/IT solution can be tested with a test group from usability and User experience's point of view.

An additional solution was also made:

- Use of a PT network planning software which ensures the analysis of current transport network (all bus lines in Zalaegerszeg with every departure) and the planned DRT lines, showing in simulation as well (e.g. interchange options). For this the whole network of Zalaegerszeg will be built up within the program (stops, lines, departures). **ADDED VALUE:** visualisation of better integration of the newly tested SHP DRT service into the existing PT system.

Carpooling pilot element

The main challenge was how to engage the companies, but in February three new companies decided to participate in the project.

The other big challenge is the motivation, it is going to be solved in the following way: a motivation system/award need to be determined together with the companies.

Regarding the postponed testing phase of the carpooling service, there are two scenarios:

1. Postponing the testing phase to August/September 2020 and hold the living lab personally in August before the start. In this case, only the date of the testing would change according to the following time plan:
 - May - procurement of the application (renting as a service)
 - May/June - graphic element (info letter)
 - June/July - online meeting with company representatives to catch up the process
 - May/June - creating the closed group within the Oszkár app
 - July/August - living lab with potential users
 - July/August - September - testing phase
 - October - evaluation phase (user assessment)

In this case, the next living lab (fourth one) with the representatives of the companies is planned to hold online in June in order to engage them again and to discuss the details of the testing phase.

2. A recovery plan was prepared in case there will be not opportunity for the actual testing. The following two solutions were elaborated:
- Real test with a low number of participants but at least with 3 people, and detailed documentation of their behaviour change and experiences.
- +
- Another solution is a study, a conceptual description of how the closed group system would operate and also detailing the financial related questions. In this case it needs to be considered that in other deliverables this recommendation might appear as well, so the content has to be defined according to it.

What is the current status of your proposed solution?

DRT pilot element

The start-up phase has started on 6th November 2019 after a press conference and run until 22nd December.



Figure 7: ZERGE bus is waiting for the departure

After the start-up phase, Mobilissimus analysed the results from the statistics that can be downloaded from the booking system and the feedbacks from the online and paper-based questionnaire made after the first testing phase. The postponed second testing phase will start probably in August 2020 and lasts till the end of September or beginning of October according to the plans. More meetings were held in February and March 2020 with the colleagues of the Volánbusz Zrt. and the project partners to discuss the feedbacks given for the questionnaire and the user statistics and to create a system adjusted more to the actual needs for the second testing phase.

During the implementation of the full operation phase, based on the feedbacks, some route modifications were required on the Z1 line, where two new service areas will be integrated. The end station of the other two lines will be changed to Kertváros where social facility for drivers is available. The schedules will be more adjusted to the school and working time. The service is going to be operated with vehicles having better mechanical condition.



5.7. Lessons Learned

How did you overcome the above identified gaps, needs and challenges?

DRT pilot element

In the last one month before the actual start of the first testing phase an active communication campaign has started, all the information elements were designed and printed. A more active communication started between the different stakeholders via email/phone and personally.

Carpooling pilot element

Mobilissimus and the colleagues of the Municipality agreed to start a more active communication campaign in June 2020 in the carpooling pilot element with the involvement of the decision makers.

What were the main lessons learned?

(For instance practicalities in regards to stakeholder engagement, implementation, or communication with local actors and testing.)

DRT pilot element

As a summary it can be stated that the continuous communication between the stakeholders has a big effect on the success of the work. The information about the pilot and the online and paper-based questionnaires should have been distributed more effectively in the involved areas.

The start-up phase could have started with a more active cooperation of each concerned stakeholder. As it is a new service for everyone (for the users, the project partners, the drivers, the dispatchers and IT developers), a lot of experiences are collected. One concrete example is that there were some elements in the web-based booking system that came into consideration after signing the contract and it took a huge effort to convince the IT developer to manage that modification within the system.

All in all, the reception of the service is positive, but the received feedbacks need to be considered for the next testing phase that the project partners already made in the beginning of 2020 (e.g. route and schedule modification according to the needs).

Carpooling pilot element

The project partners will start a more active communication campaign in June in order to run a successful pilot, and the motivation system need to be figured out among the stakeholders as soon as possible.