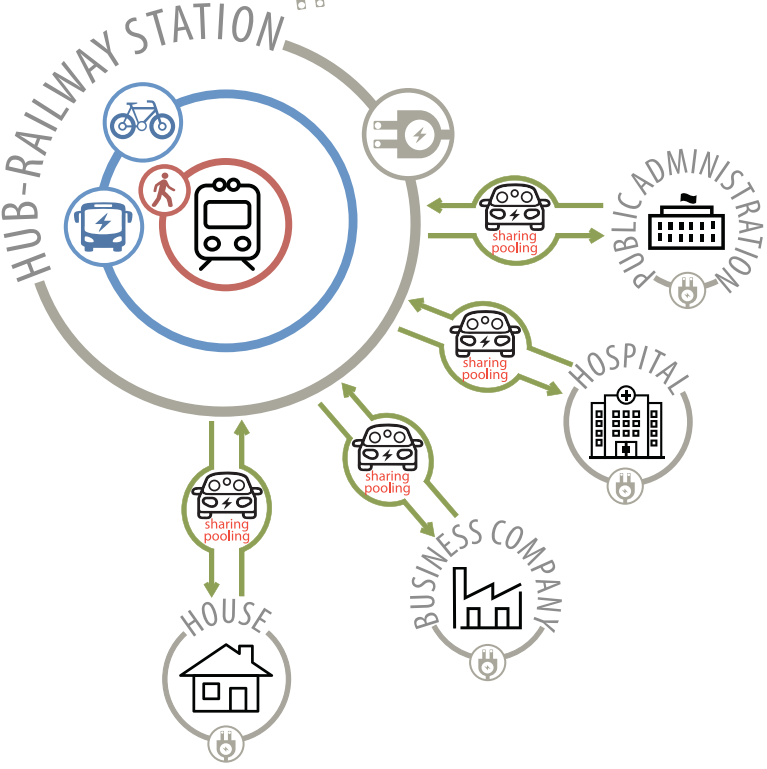
# I-SharE LIFE

Innovative sharing solutions
for full electric travels
in small and medium size urban areas




**First results to 10 months from Kick-Off**

This project has received funding from European Union's
Life Programme under Grant Agreement
N° LIFE 17 ENV/IT/000212 I-SharE LIFE

## I-SharE LIFE Project– Innovative sharing solutions for full electric travels in small and medium size urban areas

FNM coordinates, in partnership with ASSTRA, E-Vai, Nordcom, Poliedra, Dyvolve and the city of Osijek, the European sustainable mobility project I-SharE LIFE.

The main environmental target of I-SharE LIFE is the reduction of pollutants and atmospheric loads, in particular PM10 and NO2; this aim is also compounded by a more climate-related aim, i.e. the mitigation in the emission of greenhouse gases from road transport and urban mobility.

To this end, the project tests, in particular, five electric car sharing service models, including integration with the public railway service to verify transport effectiveness, environmental and economic sustainability in medium-small sized urban contexts and in specific areas of use.

50 electric cars are to be used in the demonstration actions in the four cities in Lombardy, Italy, and further 8 e-cars will be used in the demonstrations sites in Osijek, Croatia.

I-SharE LIFE has the ambition to evolve the electric car sharing model, developed in metropolitan cities, and to export it to the province and to inland areas with low population density and it will allow to create opportunities for innovative replicability and transferability in other cities with similar characteristics.
Start date: 01/07/2018
Expected end date: 30/06/2021
Website: http://www.i-sharelife.eu/

**The following actions have been defined for the development of the project:**

### A. Preparatory actions

A1 Stakeholder mapping and activation of the engagement process
A2 Permits and agreements procedures

### B. Implementation actions

B1 Set up of the basic infrastructure and equipment at the demonstration sites
B2 Roadmap and Technical specification of the I-SharE technological platform
B3 User research: recruitment of I-SharE Beta Users and surveys
B4 Co-design of the services
B5 Implementation and tuning of the services
B6 Sustainability and project continuation
B7 Replicability and transferability

I-SharE LIFE
Innovative sharing solutions for full electric travels in small and medium size urban areas

**C1 Monitoring of the impact of the project actions**

**D1 Public awareness and dissemination of results**

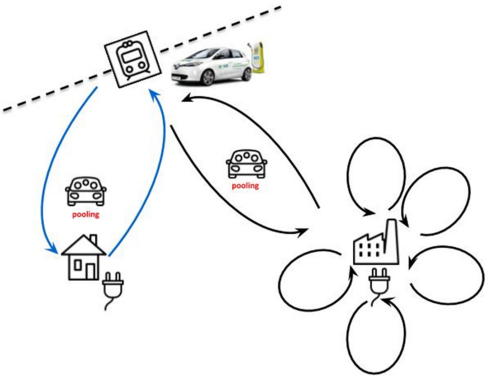
**E1 Project Management**

**Demonstrations sites**

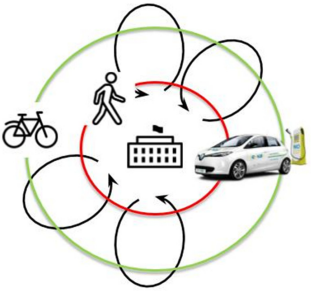
The project includes demonstration sites in Italy, in 4 small to mid-sized cities in Lombardy, and in Osijek, Croatia, characterized by different types of mobility demands and needs:

**Model 1.**
**Service for commuters (for the journey home - train station) and for neighboring companies for work missions - in Busto Arsizio** (83.000 inh.), the Metropolitan area with many commuters to Milan and it is also close to the Malpensa international airport.

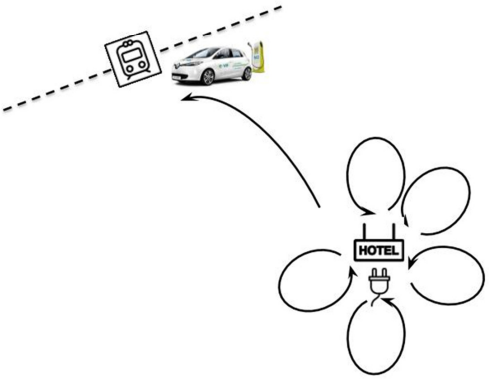
**Model 2.**
**Service for commuters (for the journey home - railway station) and for the employees of the neighboring companies to reach industrial areas not supplied by public transport - in Bollate** (36.000 inh.), a small-size town in the peri-urban area of Milan with some important industries.



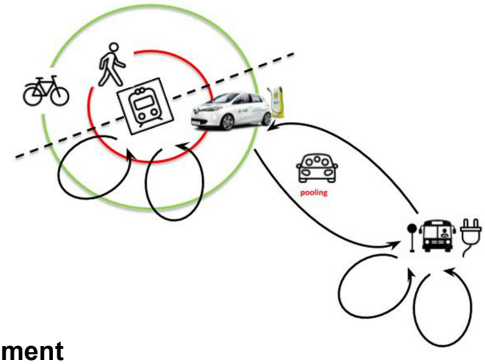
**Model 3.**
**Service for the public administration for work missions and for citizens - in Bergamo** (112.000 inh.), a high-density industrial city with strong mobility demand that activated incentive policies for e-mobility in its SUMP.



**Model 4.**
**Tourist-dedicated service - in Como** (84.000 inh.), a well-known tourist city town that wants to develop electric mobility both in the city and along the shores of Lake Como.




**Model 5.**
**Intermodal services - in Osijek,** (108.000 inh.), in Eastern Croatia, the fourth largest city in the country, intends to test innovative intermodal car-sharing services.




## DELIVERABLE E.1 – Project Management

During the Kick Off Meeting on 17/18 July 2018, where I-SharE LIFE project officially started, the Partners shared and defined the internal Project Management procedures and established the Project Management Committee (PMC).

The PMC, chaired and coordinated by FNM, is composed by the referents identified by the seven Partners, it meets monthly and it has the task of checking and reporting on the progress of the activities for which each Partner is responsible as well as updating the other members on the new risks arise.

In particular, FNM has produced the following Deliverables:

- Project monitoring and evaluation procedures
- Quality control procedures for project outputs
- Risk management and mitigation plan
- Report of the Kick Off Meeting

**DELIVERABLE A.1 – Stakeholder Mapping and activation of the engagement process**

The activity of the FNM group has always been aimed at creating value for the stakeholders of the territory and for the whole community: collaborative networks and synergies have been established with the regional and local communities from a very long time. The positive effects of medium and long term are represented by a strong contribution to the development of the social and economic fabric of our territory.

FNM, in collaboration with all the Partners, finished the activity A.1, aimed at providing stakeholder mapping, to identify the main actors / subjects interested in the project and to identify a strategy for a significant and effective engagement process.

Stakeholder mapping allows:

1. Design and demonstrate the efficacy of innovative service models of E-car sharing in 5 pilots;
2. Replicability and transferability of the service models.

Stakeholder analysis focus is mainly based on local (small city) level since service models are located in a defined sites and this is the main concern of the Project at the present. However, in order to achieve I-SharE LIFE objectives of replicability and transferability, it is very important to identify and engage stakeholders that support management solutions implementation on a National and International level.

The final result of the deliverable was mainly the construction of two different stakeholder maps:

- **Urgency Map**: all the stakeholders are placed according to the urgency for their involvement in order to achieve the aim.
- **Importance Map**: all the stakeholders are placed according to their urgency and relevance for achieving the aim.

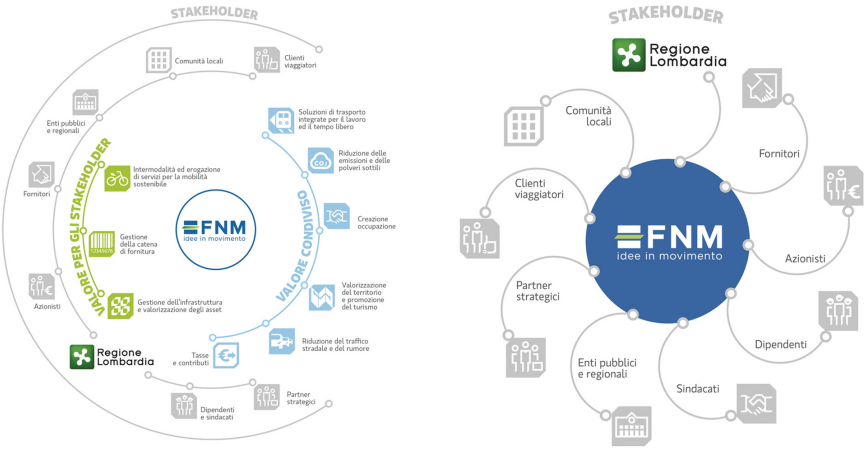



**Figure 1 – Value Chain and FNM Stakeholder Mapping**

Three urgency maps were set according to the project actions and locations:

- **Urgency Map for the Italian Demosite** (Project Actions: A2, B1, B3, B4, B5, B6)
- **Urgency Map for the Croatian Demosite** (Project Actions: A2, B1, B3, B4, B5, B6)
- **Urgency Map for the Italian Demo sites focus on replicability and transferability** (Project actions: B7).

The next step was the **importance map** where also the relevance rather than just the urgency is considered. Starting from the results of the urgency maps, here the *stakeholders* had been clusterized with a different perspective to get the hierarchy of this network.

Below the results of the urgency maps constructed for the different actions:

**Italian Demo Sites – Urgency Map A2, B1, B3, B4, B5, B6**

AIM: Design and demonstrate the efficacy of innovative service models of E-car sharing in 5 pilots.

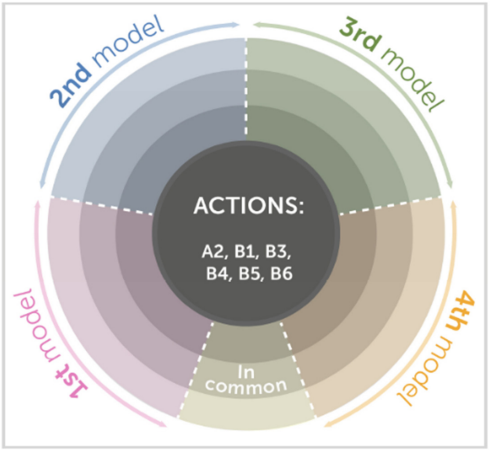



**Figure 2 - Urgency map for Italian Demo Sites**

In the table below all the stakeholders placed in the urgency map are listed according to the urgency level.

| Models | Level of urgency | | |
|---|---|---|---|
| | 1st circle of urgency | 2nd circle of urgency | 3rd circle of urgency |
| **1st Model** - *Busto Arsizio* | • LIUC - Università Cattaneo<br>• Commuter Association<br>• Ferrovie Nord Milano<br>• Municipality of Busto Arsizio - Castellanza<br>• E-vai Sales Advisor Model 1<br>• User of the already existing Model | • Students<br>• Malpensa Fair<br>• Camera di Commercio<br>• Confartigianato<br>• Associazione Commercianti<br>• Province of Varese<br>• Trenord | - |
| **2nd Model** - *Bollate* | • Solvay<br>• Citizens Association<br>• Ferrovie Nord Milano<br>• Pirelli<br>• Commuters association (Poliedra)<br>• Assolombarda<br>• Municipality of Bollare<br>• User of the already existing Model | • Trenord<br>• Hospital<br>• Associazione Commercianti<br>• Camera di commercio<br>• Confartigianato<br>• E-vai Sales advisory | - |
| **3rd Model** - *Bergamo* | • Bergamo University Città Bassa (employees)<br>• Hospital<br>• ATB Bergamo<br>• Municipality of Bergamo<br>• User of the already existing Model (Maccagno) | • Uniacque<br>• Mobility Manager<br>• Bergamo University Città bassa (students)<br>• AEGEE (Associazione degli stati generali degli studenti)<br>• Province of Bergamo<br>• Politicians<br>• Unione artigiani<br>• E-vai sales advisory | • Regional Authority - UTR<br>• Tribunale<br>• Consorzio di Bonifica<br>• Fairs |
| **4th Model** - *Como* | • Municipality of Como<br>• Associazione albergatori<br>• Hotel and camping close to the station<br>• Users of the model 4 in Ravenna | • Como railway<br>• Province of Como<br>• TPL agency (Como, Lecco, Varese) | - |
| **In common** | • A2A<br>• ACI<br>• Enel<br>• Lombardy Region | | |

**Croatian Demo Sites - Urgency Map A2, B1, B3, B4, B5, B6**

AIM: Feasibility of the service models in Osijek.

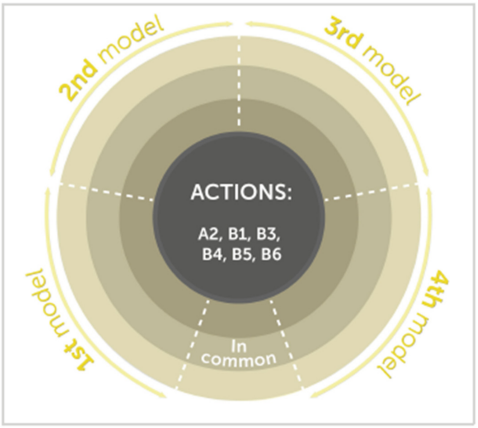



**Figure 3 - Urgency map for the croatian demo sites**

During the activity of creating the map the fifth model was added, already described in the proposal. At the end of the activity it was clear that the model that would have best matched their use case was the third, due to the number of public companies that may be involved in the city of Osijek. They also suggested a 5th model to be considered for the current project. In the following table all the *stakeholders* are included in the urgency map based on the level of urgency.

| Models | Level of urgency | | |
|---|---|---|---|
| | 1st circle of urgency | 2nd circle of urgency | 3rd circle of urgency |
| 1st Model | • Users of the bike sharing | - | • City of Belišće<br>• City of Valpovo<br>• City of Valpovo<br>• Antunovac Municipality<br>• Bilje Municipality<br>• Čepin Municipality<br>• Darda Municipality<br>• K. Vinogradi Municipality<br>• HŽ Passenger Transport |
| 2nd Model | - | • Hospital | • Chamber of economy<br>• HŽ Passenger Transport |
| 3rd Model | • City of Osijek<br>• Sportski objekti Ltd.<br>• Osječki Sajam<br>• Ukop Unicom<br>• BIOS<br>• University of Osijek<br>• Osijek - Barnja County | • Employees fair<br>• Tržnice<br>• Users of the bike sharing | |
| 4th Model | • Municipality of Como<br>• Associazione albergatori<br>• Hotel and camping close to the station<br>• Users of the model 4 in Ravenna | • Touristic board of the city of Osijek<br>• Tourist boards<br>• Zračna luka<br>• PP Kopački rit | • Zeleni Osijek (NGO) |
| 5th Model | • Transport users | • Portanova<br>• Users of the bike sharing | • Students associations |
| In common | • HEP energy company<br>• GPP Ltd | | |

**Italian Demo Sites – Urgency Map B7**

AIM: Replicability and transferability of the service models.

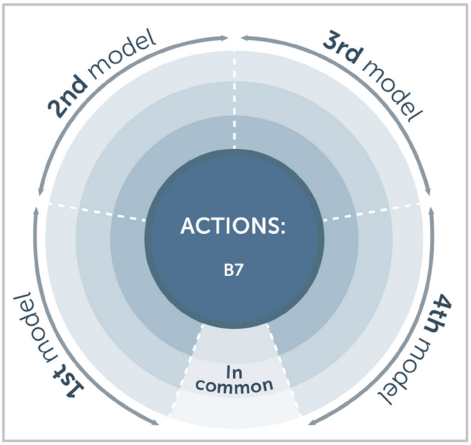



**Figure 4 - Urgency map for the replicability on the italian demo sites**

In the following table all the stakeholders are included in the urgency map based on the level of urgency.

| Models | Level of urgency | | |
|---|---|---|---|
| | 1st circle of urgency | 2nd circle of urgency | 3rd circle of urgency |
| 1st Model | • Hospital of Como<br>• Confcommercio of Como<br>• Confartigianato of Como<br>• SEA airport of Busto Arsizio | • Industrial Federation of Como | • ABB of Bergamo<br>• Fenaris of Bergamo<br>• Gewiss of Bergamo<br>• Schneider Electric of Bergamo<br>• Confartigianato of Bergamo<br>• Camera di commercio of Bergamo<br>• Ascom of Bergamo<br>• Ares solar of Bergamo<br>• Industrial federation of Bergamo<br>• City of Milan |
| 2nd Model | • Hospital of Como<br>• Confcommercio of Como<br>• Confartigianato of Como | • Trenord<br>• Hospital<br>• Associazione Commercianti<br>• Camera di commercio<br>• Confartigianato<br>• E-vai Sales advisory | • ABB of Bergamo<br>• Tenaris of Bergamo<br>• Geniss of Bergamo<br>• Schneider Electric of Bergamo<br>• Confartigianato of Bergamo<br>• Camera di commercio of Bergamo<br>• Ascom of Bergamo<br>• Ares solar of Bergamo<br>• Industrial federation of Bergamo<br>• City of Milan<br>• Politecnico di Milano - sede Como |
| 3rd Model | • Asf autolinee Como<br>• Università dell'Insubria of Busto Arsizio | - | - |
| 4th Model | • Como Next<br>• Camera di commercio of Como<br>• Brembo with Confindustria | • Como railway<br>• Province of Como<br>• TPL agency (Como, Lecco, Varese) | - |
| In common | • ACI | • ATS | • Politecnico di Milano<br>• Aribi |

**Importance map**

AIM: place all the stakeholders according to their urgency and relevance for achieving the aim.

This graph is divided into 4 sections according to 2 axis:

1. Urgency
2. Relevance

The sum of those two parameters determinantes the importance of the different stakeholders.

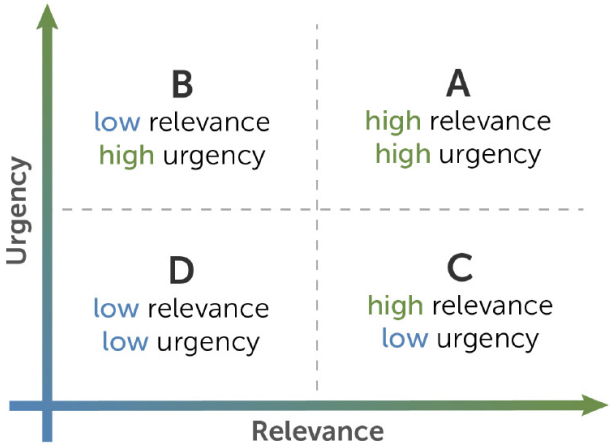



**Figure 5 - Urgency map for the replicability on the italian demo sites**

According to the characteristics of the stakeholder they had been positioned in one of the four quarters.

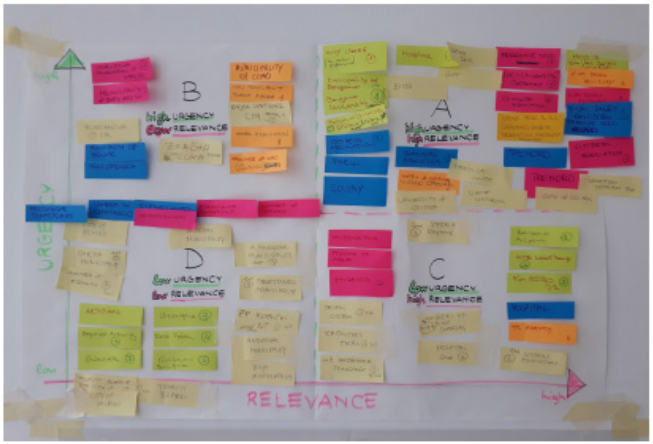



**Figure 6 - Importance map**

**DELIVERABLE B.2 – Roadmap and technical specifications of the I-ShareE LIFE technological platform**

This action, conducted and coordinated by Nordcom, consists of the preliminary design of the software platform. It includes the definition of the Roadmap documents and the technical specifications of the platform.

The drafting of the Roadmap document includes the functional definition of the web-based platform, defining the scope of intervention and the implementation objectives.

This initial task is an important part of the design process. It requires the shared analysis at the business and operational level of the functional requirements of the platform, its purpose and its objectives. This step establishes a clear direction of the IT project and helps to focus on setting it up and meeting the objectives of the technology platform.

The Roadmap document also specifies the plan and the future objectives of the platform and, roughly, the timeline of implementation of its functionalities, defining their priorities.

To this end, technical meetings and conference calls were held to examine the requirements and constraints of the new platform with the Croatian partners and with E-Vai.

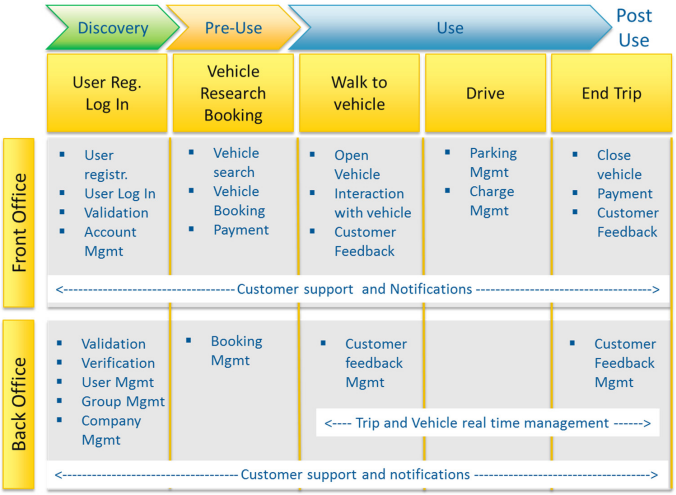



**Figure 7 – Car Sharing Process – End User Experience**

This activity involved:

1. Research and definition of the scope of the subjects involved and related NDAs among the companies they belong to.

2. Creation of functional specifications or a summary document of the required characteristics.
3. Identification, analysis and selection of third-party suppliers. These activities required and require the research, identification and selection of third-party suppliers, products and services needed to carry out the project.
4. Selection of technology, technical specifications, web application structure and integration architecture between the various systems involved, implementation timeline. The resulting document from this activity is the technological project of the platform, with the description of the development environment, the technical solutions of third parties involved, the structure of the web application and the framework and components of development and integration.

The Roadmap Document, subject to evolution during the testing phase of the new car sharing services, thanks to the contribution from the forthcoming co-design phase, will indicate the completion dates for the first demo version of the Web application with the features or modules included in it.

The **technical specifications document**, once defined, will illustrate the technology used for the infrastructure and the development, implementation and integration of the software.

The development of the technology platform will start from the functionalities performed by the existing software elements, evolved into a new architecture based on a new core system for operations management. The main improvements will concern the efficiency of the booking process, access control, usability, innovative fleet management and the connection of car fleets for corporate car sharing. The software platform structure, enabling the new business models that the project is going to test, includes several software components, with a significant upgrade and integration of IT solutions already in use (where / when possible).

They include:

- Vehicle booking app / web application (frontend / backend)
- Back-office system for the management of vehicles / fleets
- User management system
- The operational database and business intelligence and reporting tools for further business, mobility and environmental analysis
- Calculator of rates and rental prices
- Electronic payments and billing systems

In order to develop the software solution, a demo test and development environment will be created in this phase, with the functionality of Proof of Concept, consisting of at least a minimum configuration for the new platform and enabling the test service for a small initial set of vehicles. For this reason, a laboratory distribution of the reference architecture for the solution will be

developed during the project. In this way, it will be ensured that the current e-vai operational system is not affected by any activity during the development phase.

**DELIVERABLE B.3 – I-SharE User Research Guide**

Poliedra delivered, within the I-SharE LIFE project, the User Research Guide, which aims to support partners in the activities of involving users of the proposed e-car-sharing service, in a logic of co-design of the service.

The User Research Action aims to understand the user's behaviors, needs and motivations through observation techniques, analysis and feedback methodologies. First "beta users" must be selected, ie users who test the service at each demonstration site. These users are asked to use the I-SharE LIFE services, including the technology platform, to evaluate the user experience, the features and to provide feedback.

For the recruitment of beta users the guide proposes the "Recruitment Screeners", ie questionnaires that help the beneficiaries to select the users who have the characteristics of the target audience. The guide reports the questionnaires elaborated to identify the beta users of the service in both Italian and Croatian pilot sites (commuters, employees of public and private companies, occasional users).

The guide therefore includes useful tools for collecting feedbacks, with templates of user diaries and interviews. In fact, beta users will be asked to try out services or infrastructures as they are and to tell personally, through diaries and interviews, the positive and negative aspects, ideas and opportunities regarding the proposed innovative service.

Finally, the guide provides indications on the construction of the Personas, ie archetypes of users built on the basis of the contents of diaries and interviews. A "Person" is a visual and textual presentation of a representative user of a particular group with shares needs or common patterns of behavior.

The Personas help the project group to understand the different types of users, to create empathy, to understand their needs and habits. The co-design activities of I-SharE LIFE are therefore based on the different profiles corresponding to the personas.

The prepared materials were illustrated to the beneficiaries involved locally with two training workshops conducted by Poliedra. Training Workshops are then followed by field activities: screening, diaries and interviews, construction of the Personas.

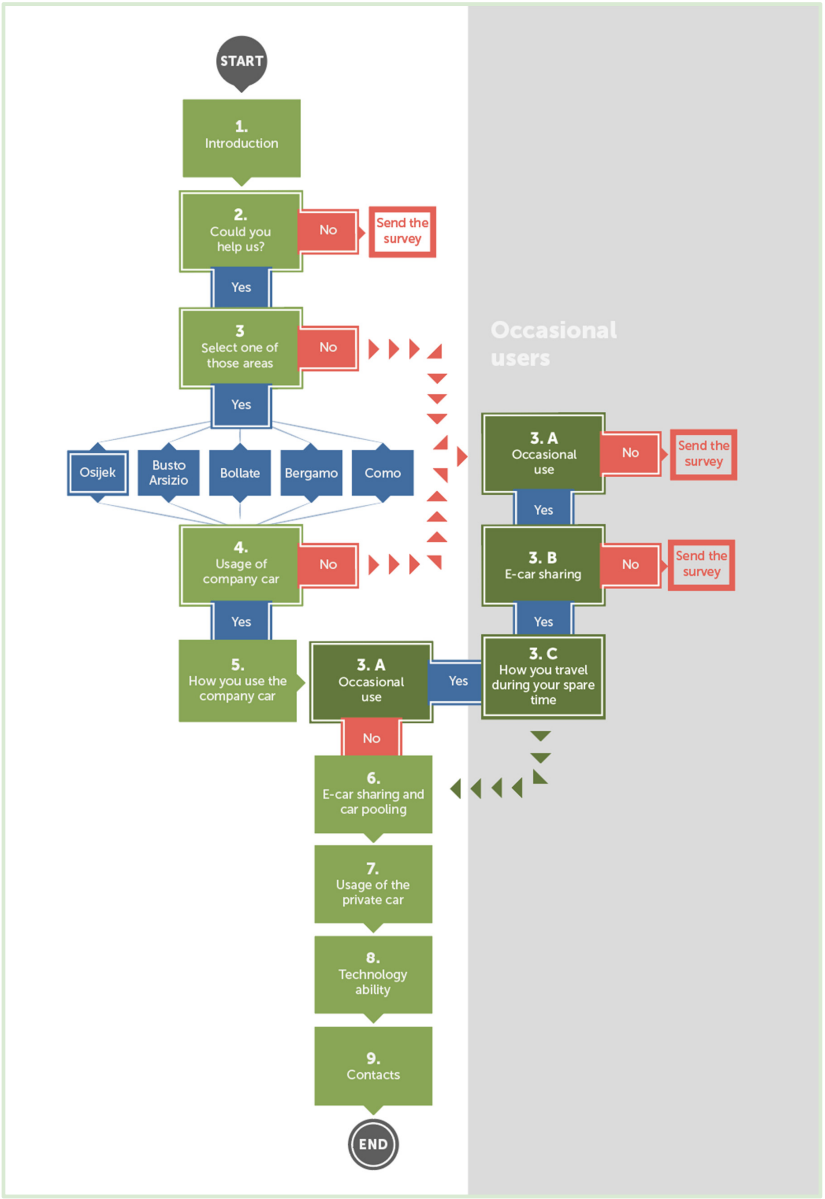



**Figure 8 – Screener scheme for the recruitment of the commuters and occasional users**

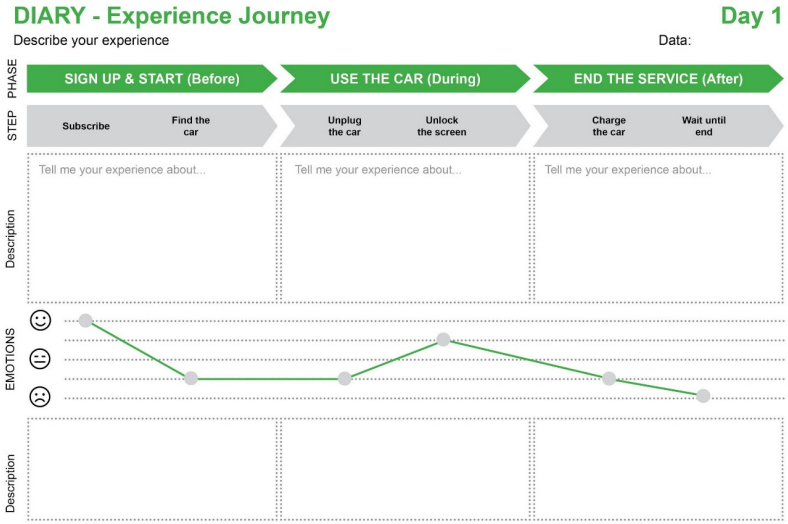



**Figure 9 – Diaries for beta users for collecting feedbacks during the testing phase**

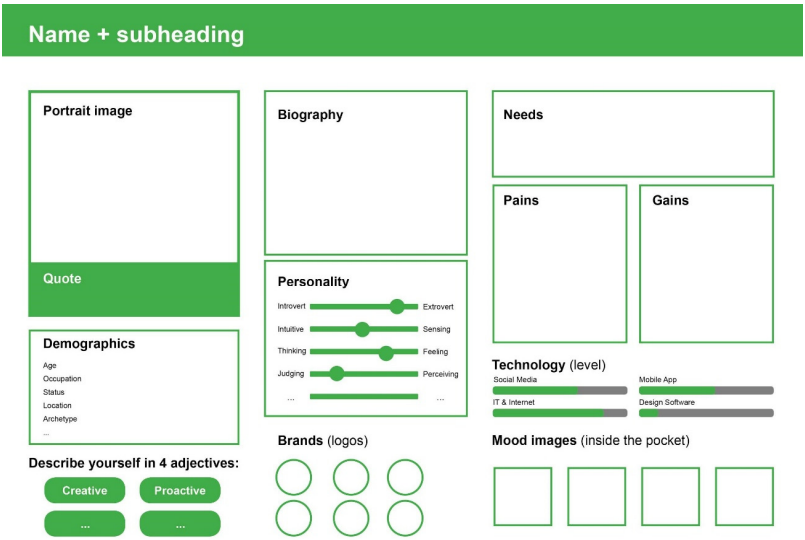



**Figure 10 – Personas Template**

**Kick Off meeting in Milan - 17/18 July 2018**


**2nd National Electric Mobility Conference, Milan 27/29 September 2018**

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**The EU Commission meets the LIFE winner projects, Brussels 5/6 November 2018**

**Ecomondo, Rimini 6/9 November 2018**

Produced for the 15th ASSTRA National Conference

15° Convegno Nazionale sul Trasporto Pubblico Locale

ASSTRA ASSOCIAZIONE TRASPORTI

# R-Evolution

## Trasporti pubblici: rotta per il futuro

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13-14 febbraio 2019

*Roma Eventi Fontana di Trevi* Piazza della Pilotta, 4

**I-SHARE LIFE**
This project has received funding from the European Union's LIFE programme under Grant Agreement n.° LIFE17 ENV/IT/000212 I-SharE LIFE

**Partners:**

**ITALY**

FNM - Public Transportation Holding - Project Coordinator
E-VAI - E-car sharing company - Project Partner
NORDCOM - I-Share Tecnological platform - Project Partner
POLIEDRA (Politecnico di Milano) - Sustainabile Mobility - Project Partner
ASSTRA - Pubblic Transport Association - Project Partner

**CROATIA**

DYVOLVE - Mobility Projects & Consultancy Company - Project Partner
Općina OSIJEK - Municipality - Project Partner

## PROJECT COORDINATOR

FNM idee in movimento

## PARTNERS

e·vai FNM GROUP
NORDCOM
ASSTRA ASSOCIAZIONE TRASPORTI
Poliedra Politecnico di Milano
City of Osijek
dyvolve

## SUPPORTERS

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MINISTERO DELL'AMBIENTE E DELLA TUTELA DEL TERRITORIO E DEL MARE
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