

(Projects funded under the Call 2014 onwards must use this format)



LIFE Project Number
<LIFE17 ENV/IT/000212>

Final Report
Covering the project activities from 01/07/2018¹ to 30/06/2021

Reporting Date²
<15/09/2021>

LIFE PROJECT NAME or Acronym
<I-SharE LIFE>

Data Project

Project location:	Italy and Croatia
Project start date:	<01/07/2018>
Project end date:	<30/06/2021>
Total budget:	€ 5,667,071
EU contribution:	€ 3,398,535
(%) of eligible costs:	59.97%

Data Beneficiary

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¹ Project start date

² Include the reporting date as foreseen in part C2 of Annex II of the Grant Agreement

This table comprises an essential part of the report and should be filled in before submission

Please note that the evaluation of your report may only commence if the package complies with all the elements in this receivability check. The evaluation will be stopped if any obligatory elements are missing.

Package completeness and correctness check	
Obligatory elements	✓ or N/A
Technical report	
The correct latest template for the type of project (e.g. traditional) has been followed and all sections have been filled in, in English <i>In electronic version only</i>	✓
Index of deliverables with short description annexed, in English <i>In electronic version only</i>	✓
<u>Mid-term report</u> : Deliverables due in the reporting period (from project start) annexed <u>Final report</u> : Deliverables not already submitted with the MTR annexed including the Layman's report and after-LIFE plan Deliverables in language(s) other than English include a summary in English <i>In electronic version only</i>	✓
Financial report	
The reporting period in the financial report (consolidated financial statement and financial statement of each Individual Beneficiary) is the same as in the technical report with the exception of any terminated beneficiary for which the end period should be the date of the termination.	✓
Consolidated Financial Statement with all 5 forms duly filled in and signed and dated <i>Electronically Q-signed or if paper submission signed and dated originals* and in electronic version (pdfs of signed sheets + full Excel file)</i>	✓
Financial Statement(s) of the Coordinating Beneficiary, of each Associated Beneficiary and of each affiliate (if involved), with all forms duly filled in (signed and dated). The Financial Statement(s) of Beneficiaries with affiliate(s) include the total cost of each affiliate in 1 line per cost category. <i>In electronic version (pdfs of signed sheets + full Excel files) + in the case of the Final report the overall summary forms of each beneficiary electronically Q-signed or if paper submission signed and dated originals*</i>	✓
Amounts, names, and other data (e.g., bank account) are correct and consistent with the Grant Agreement / across the different forms (e.g., figures from the individual statements are the same as those reported in the consolidated statement)	✓
Mid-term report (for all projects except IPs): the threshold for the second pre-financing payment has been reached	n.a.
Beneficiary's certificate for Durable Goods included (if required, i.e., beneficiaries claiming 100% cost for durable goods) <i>Electronically Q-signed or if paper submission signed and dated originals* and in electronic version (pdfs of signed sheets)</i>	n.a.
Certificate on financial statements (if required, i.e., for beneficiaries with EU contribution $\geq 750,000$ € in the budget) Electronically Q-signed or if paper submission signed original and in electronic version (pdf)	✓
Other checks	
Additional information / clarifications and supporting documents requested in previous EASME letters (unless already submitted or not yet due) <i>In electronic version only</i>	✓
This table, page 2 of the Mid-term / Final report, is completed - each tick box is filled in <i>In electronic version only</i>	✓

**Signature by a legal or statutory representative of the beneficiary / affiliate concerned*

1 Table of contents

1 Table of contents	4
2. List of keywords and abbreviations	5
Executive Summary	5
Introduction	6
Administrative part	8
Technical part	9
6.1 Technical progress, per Action	9
6.2 Main deviations, problems and corrective actions implemented	10
B. Implementation actions	10
Action B3 - User research: Recruitment of I-SharE beta users and surveys	10
Action B4 - Co-design of the services	11
Action B5 - Implementation and Tuning of the services	12
Action B.6 Sustainability and project continuation	15
Action B7. Replicability and transferability	18
Action C1 - Monitoring of the impact of the project actions	20
Action D1 - Public awareness and dissemination of results	22
Action E1 - Project management	24
6.3 Evaluation of Project Implementation	27
6.4 Analysis of benefits	32
Key Project-level Indicators	41
Comments on the financial report	44
8.1 Summary of Costs Incurred	52
8.2 Accounting system	52
8.3 Partnership arrangements (if relevant)	52
8.4 Certificate on the financial statement	52
8.5 Person-days used per action	52
ANNEX	53
9.1 Technical Annex	53
9.2 Administrative Annex	53
9.3 Answer to EASME letter Ref.Ares (2021)2222581 - 31/03/2021 and supporting documents	Errore. Il segnalibro non è definito.

2. List of keywords and abbreviations

CB: Coordinating Beneficiary

AB: Associated Beneficiary

MTR: Mid Term Report

BUs: Beta Users

EV: Electric Vehicle

FERROVIENORD: company, part of FNM Group, managing and maintaining the railway infrastructure

GA: Grant Agreement

ICA: Internal Cooperation Agreement

KOM: Kick Off Meeting

PM: Project Manager

PMC: Project Management Committee

SaaS: Software as a Service

TRENORD: company, part of FNM Group, operating and managing rail passenger transport service

URG: Research Guide

3. Executive Summary

The main objective of the I-SharE LIFE project are:

- to demonstrate the economic and technological feasibility of car-sharing models (with 100% electric vehicles) for small and medium-sized urban areas
- to measure their potential environmental and socio-economic effects
- to reduce air pollutants
- to mitigate greenhouse gas emissions produced by road transport and urban mobility.

I-SharE LIFE has the ambition to evolve the model of electric car-sharing, developed in large metropolitan cities, and to export it to the province and inland areas with low population density, also verifying the replicability and transferability in other urban areas with similar characteristics.

The innovation of I-SharE LIFE lies not only in the use of electric vehicles, but also in their sharing in different modes of transport and at different time intervals, so that the whole intermodal chain is emission-free.

The project intends to innovate intermodality (train + car) through a car-sharing service in the 4 demonstration sites in Lombardy (Bergamo, Como, Bollate, and Busto Arsizio) and 1 in Croatia (Osijek), where the Local Public Transport is integrated with other sustainable mobility services.

For this purpose, five models of electric car sharing services have been designed and tested to verify their effectiveness on the market and their environmental and economic sustainability in small and medium city contexts and in specific areas of use.

Thanks to the activities of all Partners, we are now able to say that the project has achieved excellent results both in Italy and Croatia and the replicability phase exceeded expectations.

Analysing the results achieved by the project, the following considerations should emerge:

ENVIRONMENTAL BENEFITS. The project has demonstrated, through the data collected both in the 5 demo sites and in the replicability sites, that environmental benefits have been achieved in reducing GHG emissions (carbon dioxide, carbon monoxide, PM10 particulate matter, nitrogen oxides) in the first part of the project, while, between 2020 and 2021, the service was seriously affected and limited by the consequences of the Pandemic.

MARKET UPTAKE. The project has demonstrated the economic results of the 5 Business Models on the market. The SWOT analysis has highlighted the strength and weakness of each model and each business model refers to a detailed BP showing cost structure and revenues. From the market analysis related to the project the distinction between business models dedicated to B2C and B2B targets is no longer considered a best option; there is an increasing demand for mobility services that might be as integrated, flexible, modular and adaptable as possible to the surrounding operational context, both from the point of view of the customer journey and from the point of view of the reference target.

INTERMODALITY. The integration of car sharing services with trains and local Public Transport, is seen as a strength factor of the project. The new product launched in February 2021 by E-VAI, "car plus train", which integrates the cost of a Trenord train ticket with the last mile car sharing service provided by E-VAI, is attracting interest from the B2C market, registering new subscriptions in a period that still suffers restrictions due to the Pandemic.

TECHNOLOGICAL PLATFORM. The high IT platform development potential, as the core IT platform is based on an advanced, data-driven BPM (Business Process Manager) software, allows a wide range of activity data recording, their collection, catalogue, management, and analysis activities. The IT platform design and development, based on Agile methodologies and Co-design, helped in making specific solutions to user and operator's request, more flexible for further changes or future improvements.

REPLICABILITY AND TRANSFERABILITY. The replicability phase has exceeded the expectations in terms of the number of charging stations installed and contracts signed with new Municipalities both in Lombardy and Croatia.

COMMUNICATION AND DISSEMINATION. All the activities of communication and dissemination have reached the foreseen targets. Moreover FNM, ASSTRA and Dyvolve are constantly communicating with the National, Regional and Local administrative levels of the government, to implement policies supporting sharing and electric mobility in the National sustainable mobility regulatory framework.

4. Introduction

I-SharE LIFE has four types of objectives:

O1) Environmental Objectives: in the context of the EU directives cited in the proposal, I-SharE LIFE will demonstrate innovative - e-carsharing models aiming at addressing pollution and emissions of GHG from road transport and aiming at reducing pollutants and mitigating emissions of GHG in small to mid-sized urban areas (about 35.000 to 115.000 inh.).

The Objectives are pollutants reduction of 800 kg/y in NOX, 900kg/y in CO, 84 kg/y in PM10 and, GHG reduction of 270 t/y CO2-e, renewable energy increase of 160 MWh/year and energy consumption reduction 900 MWh/year.

O2) Market Uptake Objectives: forecasts of the car sharing global market range between 4 and 7 B\$ in 2020. Europe is regarded as the biggest market with a forecasted value of 2.1 B€ in 2021. Actual market share of US, Europe, and Asia- Pacific is estimated 0,65-1 B€ in 2015, with a European share of 61 % of the worldwide car sharing membership and nearly 66% of the vehicles deployed, accounting for about 400M€. Car sharing market is expected to quadruple in the years from 2016 to 2024, and an annual growth rate of about 35% per year is estimated by 2024. I-SharE LIFE Business and Marketing Plans aim at facilitating market uptake in small to mid-sized urban areas, a non-obvious market for car-sharing services.

I-SharE LIFE's focus is cities with 35.000-115.000 inhabitants, that is urban areas in which the penetration of EVs and car-sharing services are not widespread as they are in bigger urban areas.

The uptake of the innovative I-SharE business models of e-car sharing and of the I-SharE technological platform is expected to produce revenues (900,000 €) and to create new jobs (14 new employees are expected during the lifetime of the project).

O3) Demonstration Objectives: I-SharE LIFE aims at demonstrating the technological and economic feasibility of e-carsharing models of service tailored to smaller urban areas in Lombardy and Croatia, to facilitate the uptake of e- and shared mobility in a wider range of urban context. I-SharE LIFE includes specific sustainability and replicability & transferability Actions, aiming at guaranteeing the economic feasibility in the 5 demonstration sites and replicability in further 34 sites.

I-SharE LIFE includes specific sustainability, replicability & transferability Actions, to guarantee the economic feasibility in the 5 demonstration sites and replicability in further 34 sites, 17 in Lombardy, Italy, and 17 in Eastern Croatia.

Contracts and agreements have been finalized in the dedicated Actions of I-SharE LIFE (A.2 Permits and Agreement procedure).

O4) Communication Objectives: I-SharE LIFE aims at increasing awareness on the opportunities linked to e-car-sharing services, to generate interest in PAs, enterprises, and the general public at regional, national and international levels. Diversified communication, dissemination and networking activities will contribute to the large-scale communication of the project. Behavioural change will be facilitated by demonstration of economic feasibility, the involvement of beta testers and a co-design process aimed at involving relevant stakeholders and at overcoming behavioural barriers.

The dissemination activities will spread information about the I-SharE LIFE project using the most efficient ways to guarantee the maximum visibility, an optimal exploitation and development of the project results coming from the five I-SharE Business Model that will run in Italy and in Croatia. In particular, relevant websites, articles on thematic magazines (more than 2000 people made aware), newsletters (more than 4000 people made aware) and similar, leaflets and social media channels (e .g. LinkedIn - about 500 contacts in continuous expansion) will be used for the communication; regarding the general and local dissemination and networking activities, will be organized events (about 10 0/15 0 visitors expected), technical workshop (about 50/80 visitors expected) ANCI partners' meetings.

Expected Long Term results: I-SharE LIFE is giving an answer to the need for reducing the impact of air pollution in the long term, also by fostering innovation and low emission transport solutions, as recalled by the EC strategy “A Clean Air Programme for Europe” And the new targets stated in the “Green Deal”. I-SharE LIFE also contributes to the promotion of EVs and use of alternative modes of transportation. In Italy a total of 23 recharging structures have been installed in 14 different railway stations along FerrovieNord railway line while the “Public” model has been replicated in n. 31 Municipalities. In Croatia, during I-SharE LIFE project activities, the first car sharing service was introduced in the City of Osijek wider area after a series of service modelling activities and beta user testing - a standard station-based car sharing model, where B2C customers (citizens) can pick up and drop off vehicles at GPP car sharing points currently implemented across 23 locations throughout the Osijek Urban Agglomeration (City of Osijek, City of Valpovo, City of Belišće, municipalities of Čepin, Bilje, and Antunovac). This represents a huge overachievement of initial project goals and a sound foundation for future service extensions and new service models introduction (for instance, B2B models).

Replicability and transferability: the electric vehicle sharing models proposed by the project are “market - driven” and could be easily replicated in other Italian and Croatian medium and small urban areas, as well as in other EU medium and small urban areas.

In Italy E-VAI has contractualized the service in 50 locations (considering demo sites + replicability), more than foreseen in the proposal.

In Croatia, Dyvolve and City of Osijek managed to expand the car sharing service to 23 locations using a standard B2C model which provides an easy to use, pay-per-use car sharing service, that enables citizens

and area visitors to use car sharing to travel either from point A to point B (car sharing stations, that is) or to plan multi-modal trips using shared e-cars together with an already existing bus and tram network. This in turn ensures the seamless planning and travelling across the Osijek Urban Agglomeration and provides the new users the opportunity to try and test a car sharing service - something that wasn't available in the past.

Market strategy and economic feasibility: a marketing and strategy plan has been produced both by Italian and Croatian partners at the end of the project to evolve their service portfolios by creating new ad hoc tariffs or introducing new services to support the customer journey; to leverage the experience and skills acquired directly on the I-SharE LIFE project and on the market in order to expand its services throughout the Lombardy region, Osijek Urban Agglomeration and beyond; to establish commercial links with these users and even create brand ambassadors.

5. Administrative part

The Project activities proceeded as scheduled till 1st COVID-19 Lockdown in March 2020. Then FNM and the Project Management Committee had to face the Pandemic. The previous activities foreseen in the proposal have been re-assessed through a new project plan with corrective actions and a re-scheduled Gantt that have been agreed with the NEEMO Monitoring team. Various virtual meetings were held, thanks to Google project tool, to strictly keep under control the new activity plan, both plenary meetings and between FNM and single beneficiary.

Activities have been implemented to respect the new project plan shared with the European Commission in the Official Progress report of 30.09.2020:

- corrective actions for management, planning and check technical activities
- corrective actions for management, planning and check administrative and financial activities
- communications with EASME and NEEMO
- virtual meetings with partners and PMC to manage new issues due to pandemic
- new procedures defined to monitor project status, to avoid issues during the execution of activities, especially related to project communication and coordination and to support dissemination actions.

Main deviations, problems and corrective actions implemented

Delays due to the Pandemic were principally related to the Physical Events and Beta Users feedback process. The protracted health emergency and the National Government sanitary disposals has forced I-SharE LIFE Consortium to cancel face to face meetings and events and organize them via the web. Rescheduling of all the actions has been discussed in the PMC and agreed with the NEEMO Monitoring Team.

All the activities related to the activation of the service and the "go to market" of the new car sharing models, the new IT platform, App release, back office and payment gateway, were done remotely so delays have been minimized. To the contrary, the operational activities related to the physical management of the electric car sharing fleet have been stopped or limited for safety, while the personnel in charge of the fleet management have been equipped with safety devices, to comply with the provisions of the Italian government.

After the first lockdown (March- June 2020) citizens re-started using the service promoted by the I-SharE LIFE project, feeling safer using electric Car Sharing services than Mass Public Transport, but the project Revenues have been seriously affected by COVID and the situation persisted for the following months and until the end of the project. In fact, our national government, in line with decisions taken in other European countries, continues to alternate periods of lockdown with periods of partial reopening. At the present we don't know how the situation will evolve.

It is quite impossible to make revenues in this situation, it is already difficult to pay salaries.

To implement the project correctly the Project Management Committee decided to change internal procedures: activities have been stressed and implemented to share decisions on corrective actions of

common interest to face the new situation. Personnel days spent on actions have been reassessed following the new situation and some minor budget shifts between cost categories have been agreed with the monitoring team.

On the financial front the new situation had consequences that are better detailed in chapter 8 of this report. During the Pandemic period E-VAI and City of Osijek offered their services to Municipalities, Civil Protection Directorate, volunteers associations and professionals involved in the management of essential services, operating in medicines' transport, meals delivery, medical and staff etc.

Following EASME communication of 23.04.2020, I-SharE LIFE partners FNM, E-VAI and City of Osijek claimed costs related to COVID19 activities (mail of 10/04/2020) on the I-SharE LIFE budget external costs category. After the Monitoring meeting held on 5.3.2021 and the following EASME communication, minor budget shifts from categories have been authorised together with the possibility of claiming added costs related to the project video realized for the last monitoring meeting.

6. Technical part

○ 6.1 Technical progress, per Action

Actions	Foreseen start-date	Actual start-date	Foreseen end-date	Actual end-date	Status
A. Preparatory actions					
A1. Stakeholder mapping and activation of the engagement process	III 2018	7/2018	IV 2018	04/2019	Completed
A2. Permits and agreements procedure	III 2018	7/2018	IV 2019	09/2019	Completed
B. Implementation actions					
B1. Set up of the basic infrastructure and equipment at the demonstration sites	III 2018	10/2018	III 2019	09/2019	Completed
B2. Roadmap and Technical specification of the I-SharE technological platform	IV 2018	10/2018	I 2019	03/2019	Completed
B3. User research: Recruitment of I-SharE beta users and surveys	IV 2018	10/2018	II 2019	09/2019	Completed
B4. Co-design of the services	II 2019	4/2019	III 2019	03/2020	Completed
B5. Implementation and tuning of the services	II 2019	4/2019	II 2021		Completed
B6. Sustainability and project continuation	IV 2020		II 2021		Completed
B7. Replicability and transferability	IV 2020		II 2021		Completed
C. Monitoring of the impact of the project actions					
C1. Monitoring of the environmental and socio-economic impacts	I 2019	1/2019	II 2021		Completed
D. Public awareness and dissemination of results					

D1. Dissemination planning and implementation	IV 2018	9/2018	II 2021		Completed
E. Project Management					
E1. Project management	III 2018	07/2018	II 2021		In Progress

○ 6.2 Main deviations, problems and corrective actions implemented

B. Implementation actions

For technical reporting related to Action from A1 to B2, please refer to the Mid Term Report.

○ Action B3 - User research: Recruitment of I-SharE beta users and surveys

COMPLETED
<p><u>Objectives:</u> Create a guide in order to select Beta User and collect their feedback</p> <p><u>Expected Results:</u> I-SharE User Research Guide (URG) (12.2018). Recruitment of Beta Users in each demonstration site in a process during which those users are asked to use the I-SharE services. (01.2019). Report on User Research Activities (09.2019).</p> <p><u>Achieved:</u> Poliedra starting by an Activity Plan in which all phases have been described: customer journey, user research guide steps (stakeholder mapping, Roundtable workshop, analysis of the results) and the on-field activities defined a URG that details the phases of the recruitment process and has the aim to support beneficiaries in running autonomously User Research activities. URG is made up of: Recruitment Screener, Diaries and Interviews and Personas. The prepared materials have been explained to beneficiaries involved locally in the recruitment of Beta Users with User Research Training Workshops.</p> <p>To intercept BUs, different recruitment screener distribution channels were selected and at the end 10 BUs were involved in each demo site (as planned), apart from Bollate, Busto Arsizio and for Como, where they were respectively 8, 5 and 3.</p> <p>Main deviations, problems and corrective actions implemented From July 2019 to September 2019 a beta version of the new application and e-cars were made available in the different demo sites to BUs, that were trained to test the service at least two times in a period of 3 weeks. All the users mostly made on average one test per day. Most active days recorded 5 and 4 tests by User. BUs were asked to test the service and to give their feedback through Diaries and Interviews.</p> <p>All the quantitative and qualitative feedback were elaborated and shared with partners and many comments have been already exploited to improve the service experience, the app and other touch points. The report on User Research activities was delivered in time by the 26th of September.</p>

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○ Action B4 - Co-design of the services

<p><u>Objectives:</u> Create a toolbox to co-design the service models proposed</p> <p><u>Expected results:</u> Report on the Toolbox and Co-Design Activities (12/2019 date expected - 03/2020 final date, delayed due to the postponement of other partners activities).</p>
COMPLETED

Poliedra is responsible for the methodological framework and of the on-field activities in Italy, while Dyvolve is the coordinator for the activities in Croatia. NordCom is responsible for IT-related issues. All other beneficiaries, namely City of Osijek and FNM, are responsible to support Poliedra and Dyvolve in the implementation of the activities.

Poliedra started the first co-design activities by defining a first Activity Plan presented during the Project Meeting in March 2019. In April 2019, NordCom started to prepare for the test and environment platform for selected Beta Users testing, with distinguished access to the app beta program and a separate way to handle extended service data needed for user research, according to privacy and GDPR regulations and analysis requirements expressed by Poliedra. In May 2019, Poliedra, NordCom and E-VAI, according to the privacy and the GDPR regulations, analyzed the new website platform to find the best way to register Beta Users. In June 2019, during the workshop in Region Lombardy, Poliedra supported ASSTRA and FNM in the afternoon session with stakeholders to fix the basis for the upcoming co-design activities. In July 2019, Poliedra started the preparation of the contents for the workshop, through the analysis of the interviews and the Diaries' results. Dyvolve held calls with Osijek to keep track of the app development and started the preparation of potential topics based on the BU testing results which might be interesting for co-design workshops.

August-September 2019: Poliedra started to define the date and place where the workshops of co-design are going to be held and organized different meetings and calls with E-VAI, NordCom and FNM in Italy and some calls with the Croatian partners to define, starting from Diaries' results, the themes on which work on during the co-design workshops. Dyvolve held a call with Poliedra regarding Diaries' results and next steps in terms of organizing co-design workshops.

October-November 2019: Poliedra drafted a first version of the Co-Design Toolbox with all the tools and techniques to be used in the different demo sites workshops. Dates and participants of the workshops have been identified: 19/11/2019 workshop in Bergamo (20 participants), 12/12/2019 workshop in Bollate and Busto Arsizio and 30/01/2020 in Como and 29/01/2020 in Osijek. Poliedra prepared the material for the co-design workshops and completed the organization of these meetings. Dyvolve and Poliedra held two calls to identify themes and topics applicable also to the Osijek site. Based on this, Dyvolve held separate calls with the City of Osijek and GPP (local PT provider) to confirm the selected themes and discuss further steps in organizing the workshops: detailed topics, tools, dates, venue and logistics of the events.

Poliedra shared with Dyvolve initial impressions and experiences from using the Co-Design Toolbox in the Bergamo workshop. With Poliedra's support, Dyvolve proceeded to prepare materials and tools for the Osijek workshop.

December 2019: Poliedra sent to Dyvolve the final version of the toolbox which contains the tools for the co-design workshop in Bergamo and other material used for co-design activities in other sites. Poliedra also has started to write the B4 Deliverable. Dyvolve prepared all the tools and activities for the workshop.

12/12/2019 co-design workshop for Bollate and Busto demo sites was attended by a total of 27 participants.

January 2020: 30/1/2020 co-design workshop in Como. Poliedra, with the support of E-VAI, contacted different stakeholders of the Como area to participate for the workshop including: the Municipality of Como and the Hotel association, City assessors, and Hotel manager and a B&B householder, together with the Beta Users involved in the testing phase.

29/01/2020 co-design workshop in Osijek. It was agreed that Dyvolve and the City of Osijek with the help of GPP invited different stakeholders, including Beta Users, and sent invitations for the workshop during January.

February 2020 - March 2020: Poliedra collected and analyzed all results and feedback obtained from the stakeholders and Beta users during the co-design activities, focused on the "as it is" service evaluated during the testing phase. The great job done during these meetings was the basement for defining the B4 Deliverable on the toolbox and co-design activities.

Main deviations, problems and corrective actions implemented

About the "Report on the Toolbox and Co-Design Activities", as communicated during the first project Meeting in March 2019, Poliedra had produced these deliverables with three months delay due to the necessity of waiting for the completion of E-VAI and NordCom tasks necessary to put the service in place for the testing phase (see B3 Action). Nordcom, in coordination with E-VAI and GPP, set up a single point of contact to collect and track any technical and operational issues to be solved that are emerging daily from the practical use of the preliminary version of the platform. No budget deviation was needed. For E-VAI, due to the Covid-19 pandemic and governmental restrictions on mobility within Europe, the budget foreseen for costs in the 'Travel' category was obviously not used.

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○ **Action B5 - Implementation and Tuning of the services**

Foreseen	Achieved
<p>1. Report on the setup of operational procedures:</p> <p>a. implement commercial staff divided by targets</p> <p>b. standardize /engineer commercial process per targets (PA, commuters, companies)</p> <p>c. standardize operational procedures per Business Model</p> <p>d. tunes agreements defined in A2</p>	<p>With regard to the organisational structure of E-VAI, the commercial area was divided internally into individual business units in proportion to the business models offered on the market, in order to organise the sales force more efficiently.</p> <p>B) Commercial contracts were standardised according to the logic defined in the draft contracts and agreements presented in action A2, to speed up sales processes. E-VAI also provides support to GPP in organizing their upcoming commercial activities for the car sharing service. Draft commercial contracts for future users in Osijek were made.</p> <p>C) With respect to the Operations area, the implementation of the new platform for the management of E-VAI Car-Sharing services, led to:</p> <ul style="list-style-type: none"> ● Reconfiguration of the fleet vehicle management platform based on rental planning methods and the substantial characteristics of the business models offered on the market ● Clustering of the entire E-VAI customer base within the categories, consisting of the 5 service models currently offered on the market ● Digitization of the main operating processes <ul style="list-style-type: none"> ○ Reshaping of the fleet planner ○ Redefinition of the registration and registration process by the end user <p>Implementation of the Fast-track App for internal use only, for employees to manage vehicles as requested by customers booking planning. Direct integration between the website and the social network pages, in order to keep E-VAI customers and stakeholders always up to date with the news of the service.</p> <p>D) As tuning agreement related to Demo Sites, the following activities were carried out:</p> <p><u>Bergamo Demo Site:</u></p> <ul style="list-style-type: none"> ● A total of 12 locations have been contracted, which have implemented the "public" model 3 within their respective urban areas. In addition, a total of 17 car sharing electric vehicles were implemented, which can be booked via APP by municipal employees and citizens at different times of day. <p><u>Como Demo Site:</u></p> <ul style="list-style-type: none"> ● Certainly, Covid 19 made it impossible to activate the model n.4 "Touristic"; mainly due to the mobility restrictions. Moreover, the two hotels that carried out the field-testing of the business model did not want to continue with the activation of the service (not interested in the added value and not prepared to make the economic investment). ● As an alternative way, the mobility service of E-VAI has been activated in Como with n. 10 EVs, which is based on a pay per use model and includes vehicles, located in the dedicated parks at the railway station of Como Borghi, Como Camerlata, Como Nord). <p><u>Busto Arsizio Demo Site:</u></p> <ul style="list-style-type: none"> ● A total of 4 locations have been contracted, which have implemented the "easy-station" model 1 within their respective urban areas. In addition, a total of 8 car sharing electric vehicles were implemented, which can be booked via APP by corporate employees and commuters at different times of day. <p><u>Bollate Demo Site:</u></p> <ul style="list-style-type: none"> ● A total of 2 locations have been contracted (Municipality and Solvay corporate), which have implemented the "Public" model 2 and "Corporate" model within their respective operation areas. In addition, a total of 2 car sharing electric vehicles were implemented (one per each), which can be booked via APP by corporate employees and commuters at different times of day. <p><u>Osijek Demo Site:</u></p> <ul style="list-style-type: none"> ● Beside implementing and running the initial 4-car sharing station pilot using Intermodal business model, the activities were executed to make the car sharing services more accessible by implementing additional 14 car sharing stations across the City of Osijek wider area.

	<ul style="list-style-type: none"> Moreover, within B7 Action, new Municipalities (Čepin, Bilje, Antunovac) and cities (Valpovo, Belišće) were engaged to implement necessary conditions for opening 5 new car sharing stations, thereby increasing the car sharing service area. So, in total 23 car sharing stations across cities of Osijek, Valpovo and Belišće, and municipalities of Čepin, Bilje, and Antunovac were implemented using the same car sharing solution with seamless service booking app.
<p>2. Continuous beta user feedback</p>	<p>During the test handled in Activity B3, the partners' consortium decided to make available, during the testing phase, a beta version of the App just to be used by Italian Beta Users, while a bare version of the App with specific adaptations had been used in Croatia. Beta Users tested the service during the B3 activity. The selected Users had to share their personal point of view by filling a digital diary or by holding live-interviews, in which they underlined positive and negative aspects of the service, ideas for changes and opportunities for improvement of the I-SharE services. Poliedra worked with Nordcom and E-VAI to redefine the App tested during the B3 activities. Many of the technical issues reported during the testing phase had been solved immediately.</p> <p>Also, B4 co-design activities results had been integrated into B5 activities and all inputs collected during these moments had been used by beneficiaries for defining a final and updated version of the service.</p> <p>December 2019 - January 2020: Poliedra analyzed the feedback obtained from the co-design workshops, sharing useful insights with E-VAI and NordCom to spot technical issues found in the App during the testing phase and think about new solutions.</p> <p>March 2020 - April 2020: Poliedra identified the best methodology and tools to gather Beta User's feedback about the service used after the testing phase. Due to the COVID-19 Poliedra investigated new web online tools (as Mural or Mentimeter), The activities and the Deliverable had to be postponed because most Beta Users in these months stopped to use the car sharing service and worked at home. The deliverable deadline was then set to December 2020.</p> <p>May 2020: Poliedra selected the online tool for the web workshop and shared the choice with E-VAI and FNM with also the activities and themes for the workshop. Poliedra also proposed the tool to the Croatian partners that had to decide if to use it or plan the workshop in presence.</p> <p>June - July 2020: Poliedra contacted all the Beta Users who had participated in the service test by sending them a survey to understand who continued or not using the service in the various demo sites. Due to Covid-19 many Beta users haven't responded, since in some cases the BUs did not work there anymore or didn't give the availability to participate in the online workshop scheduled for October.</p> <p>September 2020: Poliedra analyzed the results obtained by the survey and decided to divide the Beta Users in two groups: 1) Beta Users who continued to use the service and 2) Beta Users who no longer used the service for various reasons. Poliedra shared with the Croatian partner the methodology and the themes covered during the workshops.</p> <p>October 2020: two online workshops were held on 6th and 8th of October in which in addition to the BUs also E-VAI, FNM, NordCom as well as Poliedra participated. The two workshops held using Teams and Mural, turned out to be very interesting and participatory. The Croatian partners organized their workshop that was held on 23rd of October. At the same time, all Italian results obtained were analysed by Poliedra.</p> <p>November 2020-December 2020: Poliedra wrote the final Deliverable on the continuous Beta Users feedback adding also the croatian ones. The last 11th of December Poliedra shared the Final Report with all Partners and on the 18th of December Poliedra sent it to the Partner Coordinator (FNM).</p>
<p>3. Report on the Software Development</p> <p>a. Refine and integrating IT platform according to designed BM</p> <p>b. Agile software development</p>	<p>a) The I-SharE technology was made available to GPP to enable every facet of the e-car sharing basic management processes in the first half of May 2019, finalized with an on-site activity at Osijek GPP's premises (7-8.05.2019).</p> <p>The same was done with the more complex E-VAI's business and organization, with the aim to run ordinary and innovative I-SharE business models with the new platform by the end of November 2019, after a thorough and extensive testing phase.</p> <p>As a result, much of the GPP, E-VAI and NordCom organization's energy spent in the second half of 2019 and in the first half of 2020 was focused on technology deployment as the goal, and the go-live date as the objective. However, technology was only a component to reach a result.</p> <p>A pre-production phase started 20.1.2020, with the goal to overtake the old operational IT systems in E-VAI by February 15, 2020. This phase was prolonged to April 15, 2020, in order to collect further small</p>

<p>c. Setup of IT assisted services according to models</p>	<p>change requests, make some major adjustments to the systems and prepare transition and switch off of old systems.</p> <p>After two conference calls among involved partners discussing overall scenarios and some service configuration requirements, Nordcom has designed a subproject, to implement IT system features and integration with GPP payment and accounting systems to market the new car sharing service in Osijek. The solution proposal has been submitted to Croatian partners for approval and subsequent achievement. Development of the new features and integration with payment gateway and invoicing systems took about a month. The first release of the IT platform for commercial use is going to be ready for delivery as a public service managed by GPP by August 2020.</p> <p>b) Agile software development comprises various approaches to software development under which requirements and solutions evolve through the collaborative effort of self-organizing and cross-functional teams both in Milan and Osijek, involving car sharing operators' customer(s)/end user(s) in the demo sites and beyond there. It advocates adaptive planning, evolutionary development, early delivery, and continual improvement, and it encourages rapid and flexible response to change. This has been particularly useful to remap and rebuild operations planning and car relocation tools</p> <p>c) Architectural pattern represents a holistic view of both infrastructure and the implementations built atop, so that organisations can have a common vision for collaboration. Also, as we inherited someone else's work about existing processes, business models (E-VAI's Regional Electric), we get up to speed refactoring of existing operational tools when we've followed established patterns.</p> <p>The following was accomplished:</p> <p>Simplicity for reuse and consistency. As development standards and architectural patterns are applied to multiple data integration for different business projects, Harmony between common infrastructure and individual solutions. For a car sharing solution to be organized in the I-SharE platform architecture, the infrastructure (especially the service data production servers and the interfaces they support) enables that architecture.</p> <p>Better user experience. When designing the app and the web frontend, we put ourselves in the user's shoes. What we've found ineffective in a website is something users will likely find ineffective themselves. That happened in internal first design with businesspeople from the car sharing operators to submit early pre-release software to beta users for first evaluation. The codesign workshops help to collect needs and <i>wish-to-have</i> issues to improve UX globally and from local users' point of view.</p>
<p>4. Implementation of the final version of the service</p>	<p>Main implementation and integrations with external legacy systems were completed and put under test in the first half of November 2019. In the pre-operations phase, the I-Share technological platform had run in parallel with the existing IT systems, finally prepared, and operations held in a transition status for a while. Due to COVID-19, switch off was postponed till May 26, 2020, and then the old platform was completely dismissed.</p> <p>Osijek benefitted from the E-VAI's experience also in the second part of the project. A localized version supporting the Croatian language was made available to GPP service users for testing. The free app is available for Croatian users both on Google Play and Apple Store, starting from the second half of November 2019. This allowed GPP to invite several small local companies and beta users to use the service in exchange for continuous feedback on mobile app and car systems usage. Main implementation and integrations with GPP's external legacy systems are completed in July 2020. Technical and functional issues related to future operations of the new car sharing service, considering existing GPP IT systems and processes for PT services, client and business management were resolved. The app and the whole system, including the integration with payment and invoicing systems were deployed in Autumn 2020, and the system was opened to public in December 2020. User Guide and FAQ (in Italian, English, Croatian) were defined.</p>
<p>Comments: Problems and corrective actions taken or foreseen</p> <p>The implementation plan was different and compressed in its duration. The early availability of the Core Platform Development Framework, already available in the PoC phase, allowed a rapid setup of the first beta release. Efforts were devoted to customizing the solution according to modified processes, detected UX, co-design results, specific e-car sharing operator's business needs, to migrate and update 3rd party-developed systems like CRM or SAP HANA and the E-VAI's new informational website in a suitable cloud infrastructure managed by NordCom. The pre-operations phase took more time than expected as further compulsory</p>	

change requests emerged and some relevant corrections to the systems had to be taken (such as payment gateway integrations for Osijek car sharing solution, bug fixing on Android/iOS mobile apps and Back Office applications). A rapid but thorough analysis of interfaces and information exchange with IT services and systems to be adopted by GPP for car sharing commercial services was also needed, with a test environment made available by each software provider/owner involved. System Integrations were made possible via web services.

The I-SharE LIFE project budget foresaw for action B5, that E-VAI would directly implement the charging stations within the different contracted locations, bearing the costs of underground excavations, construction, and connection to the energy network. In fact, E-VAI is not an energy provider and does not carry out these activities within its business; for this reason, E-VAI did not report all the costs budgeted for action B5 and for the cost category "Other direct costs", as it is a company that provides shared, electric, intermodal, and innovative mobility services and not electricity infrastructure.

Finally, E-VAI did not make investments (CAPEX) within the I-SharE LIFE project, preferring operational costs (OPEX) and staying in line with its business development plan. For this reason, as also foreseen in the I SharE LIFE proposal related to the social KPI, E-VAI has structured its commercial area with two more resources to achieve the expected objectives. In the 2017 budget, in addition to the sales manager, only low-level sales figures were foreseen within the E-VAI sales area, i.e., "sales operators", with a daily cost of €125.00, while, during the project implementation phase, E-VAI realized that staff with more experienced profile was needed to enter the complex market of Municipalities and Public Administrations. For these reasons n.2 people with more than twenty-year experience in the world of work within Lombardy region were employed holding a qualified and responsible role, i.e. "Key Account Manager".

COVID-19 pandemic and related limitations to service development and usage caused a project team to reassess personnel resources' usage and allocation beyond what was initially planned in the project proposal (specifically related to physical setup and configuration of new services for new customers). Nevertheless, all activities were executed on time (as per agreed deadline dynamics) but using more personnel man-days (specifically Dyvolve). This in turn didn't cause planned budgets to be overspent beyond overall partner's budgets.

○ **Action B.6 Sustainability and project continuation**

Foreseen	Achieved
I-Share Technological Platform Sustainability and Project Continuation Plan.	<p>Technological Platform Sustainability and Project Continuation Plan outlines all of the foreseen goals in terms of:</p> <ul style="list-style-type: none"> - the use of a common artefact model for documentation during development, facilitating collaboration in the initial development process and improving reuse or refactoring in the maintenance process. - overall knowledge management to improve both the initial development process and the maintenance process aspect, - enabling continuous quality assessments, - optimising the resource usage during software development tasks, considering the energy consumption of used equipment (hardware and software). - models for working offline on certain tasks (requirements elicitation with stakeholders or early interface design activities), - project management using a Sustainability Maturity Model, - using energy-efficient processes for software design, and - goals' assessments followed by goals' definition from further optimization activities. <p>Delivered plan also expanded on lessons learned from developing and implementing two separate instances in Italy and Croatia, thereby giving valuable and actionable steps to mitigate risks in future implementations of similar systems.</p> <p>A list of requested features for the second release of the platform (especially for E-VAI version) is already under definition. This will be a review and continuation of the original I-SharE technological platform detailed roadmap agreed with the car sharing operators, to enhance performance, data usability, and commercial appeal for end users and companies.</p>
I-Share Business Models of electric car-sharing services	<p>Planned activities / goals regarding the I-Share Business Models of electric car-sharing services Sustainability and Project plan for Italy were achieved, as described below:</p> <p>“RENEWAL OF THE AGREEMENT WITH FERROVIE NORD” - After 32 months of project implementation, charging infrastructures have been implemented in the following FERROVIENORD railway stations:</p>

<p>Sustainability and Project plan:</p> <p>1.The details of the sustainability and continuation activities for the I-SharE Business Models to be implemented in Italy are the following:</p> <ul style="list-style-type: none"> - Renewal of the Agreement with Ferrovienord; - Renewal of the Agreement with the Energy Provider. - Optimization of Fleet Management. - Implementation of business activities to increase the number of Customers. <p>2.The details of the activities for the I-SharE Business Model to be implemented in Croatia are listed in the following:</p> <ul style="list-style-type: none"> - Agreement between the City of Osijek and GPP covering scope of the service provided, duration, responsibilities, service levels, conditions for service extensions - Integration of Car-sharing service into GPP service portfolio <p>a) Definition of basic service portfolio and pricing models</p> <p>b) IT functional specification of service portfolio</p> <p>c) Beta testing of Service portfolio integration</p>	<ol style="list-style-type: none"> 1. Saronno Sud - 2 recharging structures implemented 2. Castano Primo - 1 recharging structure implemented 3. Palazzolo Milanese/Paderno Dugnano - 2 recharging structures implemented 4. Cormano Cusano - NO recharging structures implemented 5. Seveso - NO recharging structures implemented 6. Varese Casbeno - 2 recharging structures implemented 7. Garbagnate Milanese - 2 recharging structures implemented 8. Busto Arsizio North Station - 2 recharging structures implemented 9. Busto Arsizio Via Indipendenza - 2 recharging structures implemented 10. Bollate North - 2 recharging structures implemented 11. Bollate Center - 2 recharging structures implemented 12. Como Borghi - 2 recharging structures implemented 13. Como Camerlata - 2 recharging structures implemented 14. Castellanza Station - 2 recharging structures implemented <p>“RENEWAL THE AGREEMENT WITH THE ENERGY PROVIDER” - Following a survey carried out among the main operators in the sector, the company Be-Charge expressed interest in the trial proposed by E-VAI and FerrovieNord and, therefore, on 6/05/2019 E-VAI entrusted Be-Charge with the experimental shared charging service for electric vehicles. Throughout the entire period of the trial, Be-Charge guaranteed the continuous management and maintenance of the charging infrastructure, with a guarantee of operation 7 (seven) days a week, 24 (twenty-four) hours a day. In addition, it has guaranteed the charging of the cars by the public against payment.</p> <p>When the collaboration agreement expires in May 2022, E-VAI will conduct a new market selection to find a new energy partner, to expand and scale up the capillarity of the current infrastructure network of charging stations. The trial agreement could remain the same in terms of content and duration, but it is possible that the free-of-charge condition for the implementation of the infrastructure will no longer be guaranteed due to the expansion of the electric mobility market within the Italian territory.</p> <p>“OPTIMIZATION OF THE FLEET MANAGEMENT” - As of today, the fleet of vehicles provided by E-VAI for the implementation of the I-SharE LIFE project is composed of the following characteristics</p> <ul style="list-style-type: none"> - Numbers of vehicles - 73 units (of which 50 were originally envisaged by the project and 23 resulting from the replication actions) - Model - Renault Zoe - Type of power supply - Full electric - Power - 52 KW and 41 KW - % vehicles LIFE fleet (Renault Zoe 52KW) - 30.5% - % fleet vehicles LIFE (Renault Zoe 41KW) - 69.5%. <p>Analysing the number of bookings related to the I-SharE LIFE project vehicles, it emerged that during these months the employees of the municipalities still do not use the Mobile App 100% to make their reservations and use the vehicle. This anomaly, which derives from the lack of "education" and "culture" on sharing mobility of Italian companies and municipalities, does not allow the E-VAI back-end platform to correctly receive all the data deriving from the use of the vehicles.</p> <p>In order to solve this anomaly and make the use of the fleet more efficient for its customers, E-VAI aims to increase its investments in the next few years in operational training "in the field", aimed at creating, developing and disseminating throughout the Lombardy region a solid "culture" of sharing mobility and how to use it, which are at the basis of the evolution of mobility, of the service offered by E-VAI and of the functioning and processing of data at IT level.</p> <p>“Implementation of business activities to increase the number of Customers.” - The Public model has met with great success within the I-SharE LIFE project, thanks to which E-VAI has succeeded in contracting as many as 48 municipalities within the Lombardy region over the last 3 years. It is possible to assume that, by maintaining a strong commercial and marketing presence in the Lombardy region, there can be an average growth rate of 10% per year for the public model. In addition, it should be considered within the growth, that the average duration of the contracts stipulated with the Municipalities is 24 months, a duration that is in line with the economic needs and the mobility development plans of the Municipalities themselves, therefore it is necessary to renew the contracts themselves, which never have a confidence percentage of 100%. For further details please refers to pag. 41, chapter 7, key project-level indicators.</p>
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	<p>Planned activities / goals regarding the I-Share Business Models of electric car-sharing services Sustainability and Project plan for Croatia were achieved, as described below:</p> <p>„AGREEMENT BETWEEN THE CITY OF OSIJEK AND GPP “– Following up on starting project activities and pilot implementation, the multi-year agreement between the City of Osijek and GPP (public transport operator) was signed stipulating terms and conditions for the car sharing service scope and usage scenarios. The current agreement ensures the future service accessibility in the City of Osijek wider area, with new municipalities having the letters of intent signed and implementing initial car sharing stations, thereby having a good foundation to clearly define service levels, possible additional car sharing stations in their geographies. Follow-up agreement with HEP (energy provider) currently being negotiated for the period beyond 2021, will insure continuous use of charging infrastructure free of charge until the new pricing scheme is negotiated and the payment for e-Charing is introduced nationally (at the current moment, HEP is providing EV charging services free of charge to all customers across Republic of Croatia), priority in use of EV charging stations built through I-Share project for e-cars used in car sharing service, the use of EV charging stations for overnight charging at the designated spots, and the continuation of supplying EV chargers with electric energy from renewable sources.</p> <p>„INTEGRATION OF CAR-SHARING SERVICE INTO GPP SERVICE PORTFOLIO“ – Based on the comprehensive analysis of current GPP’s public transport service offering, integration options were defined (both B2B and B2C taking into consideration current services such as bus or tram, and services in implementation such as bike sharing and e-scooter sharing), adequate service portfolio and pricing models were modelled and defined, relevant IT functional specification of service portfolio that will support future GPP’s integrated service portfolio was also defined with relevant beta testing procedures and steps needed. Relevant business model optimisations were executed in order to create proposals for future competitive car sharing business models and related business activity plans.</p> <p>GPP is majority owned by the City of Osijek, therefore, the service as a public transportation option has a strong basis to ensure continuity in the city metropolitan area. Maintaining communication and good relationships between partners and recognized stakeholders and including them in the development and planned co-design of the service helped to recognize the benefits of continuation and to identify common interest in further developing and promoting the service. This will ensure renewal of necessary permits and contracts. To ensure uptake of the service and transferability to other areas, project actions and solutions needed to be presented in a transparent way by:</p> <ul style="list-style-type: none"> - providing details on the steps and requirements to implement car sharing service - enabling cooperation and integration of services in neighbouring municipalities - organising promotions and visibility of the project activities and solutions in regions - monitoring and ensuring a continuous quality of implemented service
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Main deviations, problems and corrective actions implemented

COVID-19 pandemic and related limitations to service development and usage caused a project team to reassess personnel resources’ usage and allocation beyond what was initially planned in the project proposal. Nevertheless, all activities were executed on time (as per agreed deadline dynamics) but using more personnel man-days (specifically Dyvolve). This in turn didn’t cause planned budgets to be overspent beyond overall partner’s budgets.

○ Action B7. Replicability and transferability

Foreseen	Achieved
<p><u>Replicability and transferability activities in Italy:</u></p>	<p>As already anticipated in the mid-term report of September 2020, the model 3 "Public" has been the most successful business model within the project I-Share Life, finding great results in the action of replicability and transferability.</p> <p>At the same time, model 3 "Public" is not easy to implement and activate in the market, as it requires the respect of numerous procedures, which must be carried out during the different phases of the</p>

<p>Obtainment of municipal resolutions and determinations (where applicable)</p> <p>Promotion of the services through communication activities, marketing, events</p> <p>Signature of contracts / conventions (both with public and private individuals)</p> <p>Obtainment of Public Land Occupancy Ordinances (where applicable);</p> <p>Obtainment of the Permits for Construction and all other necessary public permits.</p> <p>Infrastructure (charging infrastructures and e-vehicles)</p> <p>Activation of IT systems and related services</p>	<p>commercial negotiation with public bodies, and which are foreseen within the regulations of the Italian Public Procurement Code. In view of this, E-VAI's commercial area moved ahead of the market, carrying out the commercial replicability activities of the business models as early as October 2019; this allowed E-VAI to be able to reap the first results, i.e., the conclusion of contracts, before the end of the project.</p> <p>To date the municipalities who have signed the replicability and transferability contract are 31 units (plus the 19 locations within the demo sites area, the result is 50 units).</p> <p>There are also ongoing negotiations for corporate clients, but no replicability contracts have been signed yet.</p> <p>Before contracting a new customer, E-VAI's Commercial Area, through its sales agents, must comply with a negotiation process consisting of a series of stages, which contain and envisage the execution of a series of operational procedures and activities.</p> <p>As mentioned, in the case of negotiations with public subjects, the contractualisation process can be severely slowed down due to the numerous regulations that govern the economic relationship; in the case of negotiations with private subjects, the customer acquisition process has a short duration, allowing the providers of sharing mobility services to plan their revenues more easily.</p> <p>There are 33 parking spaces provided by the contracted municipalities for the exclusive use of E-VAI, since in some location's spaces in public car parks (generating episodes of vandalism on vehicles) or private car parks of the municipality were used without creating appropriate horizontal and vertical signs.</p> <p>After 36 months of project implementation, charging infrastructures have been implemented a total of 23 recharging structures have been installed in 14 different railway stations, including bays for the pick-up and drop-off of E-VAI vehicles, horizontal and vertical signage to quickly identify the areas dedicated to the car sharing service and reserved parking areas to prevent others from parking their private vehicles.</p> <p>To date (30/06/2021), E-VAI has achieved the following results within Action B7:</p> <ul style="list-style-type: none"> • 50 contracted locations (locations of the 4 demo sites are also counted within this number) • 75 contracted vehicles (within this number are counted the 50 vehicles, foreseen by the project that have been divided between the 4 demo sites and the new replicability sites, plus the new 25 vehicles dedicated exclusively to replicability); <p>Regarding the promotion of the services offered by E-VAI for the I-share Life project, in the week <u>between 15-23 September 2020, 4 events for the European Mobility Week ("e-mob") were held</u>, with the participation of numerous local government representatives and citizens.</p> <p>This initiative was very useful for the Como site, where currently E-VAI continues to negotiate with the municipal administration and local hotels for the provision of LIFE service models.</p>
<p><u>Replicability and transferability activities in Croatia (Osijek Urban agglomeration):</u></p> <p>Letters of intent between City of Osijek and Valpovo, Belišće, Čepin and Bilje (target number of cities: definition and content alignment on Letters of intent between Osijek and other UA cities</p> <p>Location assessment & definition throughout</p>	<p>Osijek pilot region managed to ensure sound foundations for replicability and transferability beyond project scope and related time.</p> <p>Relevant letters of intent between City of Osijek and new Municipalities (Čepin, Bilje, Antunovac) and cities (Valpovo, Belišće) were defined, negotiated, and mutually signed, giving necessary prerequisites to start implementing the service beyond initial pilot region already during project time period. What followed were specific location assessments and definitions throughout the areas of newly signed municipalities and cities, which were documented in B7 deliverables. Assessments of location characteristics across UA cities and location list definition were also delivered.</p> <p>Adequate cost structure and the budget for car sharing capabilities in newly signed municipalities and cities was also modelled and defined. Appropriate cost structure definition and budget assessment for car sharing capabilities in defined cities was executed to align possible future business models with the local citizens' needs of newly signed municipalities and cities travelling across Osijek Urban Agglomeration.</p>

<p>Valpovo, Belišće, Čepin and Bilje</p> <p>Assessment of location characteristics across UA cities and location list definition</p> <p>Definition of cost structure and budget for car sharing capabilities in Valpovo, Belišće, Čepin and Bilje</p> <p>Appropriate cost structure definition and budget assessment for car sharing capabilities in defined cities</p> <p>Service implementation by GPP using previously defined cost structure and locations</p> <p>Overall installation of service capabilities across defined locations using defined budget and equipment structure</p> <p>Definition of Car Sharing service package (including service portfolio, necessary capex structure, budget needs, operational procedures) for the future replications on other cities in Osijek Urban Agglomeration: this includes commercial package definition with all business model components, its correlation with Osijek public transport main services, and its cross-selling usability.</p>	<p>Steps and relevant procedures for service implementation by GPP using previously defined cost structure and locations were defined and documented (as per planned B7 deliverables / milestones) and overall installation of service capabilities across defined locations using defined budget and equipment structure was executed (beyond planned budget).</p> <p>In order to sustain future strategic plans, the Car Sharing service package (including service portfolio, necessary capex structure, budget needs, operational procedures) for the future replications on other cities in Osijek Urban Agglomeration was defined, including commercial package definition with all business model components, its correlation with Osijek public transport main services (bus & tram), and its cross-selling usability.</p>
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Main deviations, problems and corrective actions implemented

As described in deliverables B7, due to the great success of the model 3 "Public" in the Italian market, it was decided to also report on the costs of the replication vehicles, which as of 30/06/2021 total 75 units. Specifically, the rental fee paid by E-VAI to the supplier of long-term rental services was reported, together with the fee for the black-boxes needed for IT management of the vehicles. The reporting of the replication cars explains the deviation of the costs related to the category 'external assistance costs'. Moreover, to spread the Replicability Phase, the competencies of new key Account Managers (see B5) were essential.

In general, COVID-19 pandemic and related limitations to service development and usage caused a project team to reassess personnel resources' usage and allocation beyond what was initially planned in the project proposal. Nevertheless, all activities were executed on time (as per agreed deadline dynamics) but using more personnel man-days (specifically Dyvolve). This in turn didn't cause planned budgets to be overspent beyond overall partner's budgets.

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o Action C1 - Monitoring of the impact of the project actions

Foreseen	Achieved
<p><u>Expected results:</u> Monitoring plan (21/06/2019) First monitoring report (14/04/2020) Second monitoring report (14/05/2021)</p>	<p>Poliedra is responsible for the coordination of the action, the definition of the methodology, the drafting of the reports and the lesson learned identification. Dyvolve and E-VAI will provide a major part of the necessary data, while FNM, NordCom and Osijek will support the activities as regards their competences. Poliedra organized a preliminary meeting on 05/02/19 with E-VAI and FNM to set up the monitoring plan and to agree on the specific indicators to be used and the data transmission aspects.</p> <p>01/03/19 Poliedra organized a video conference with Dyvolve and the City of Osijek to discuss the monitoring plan and to agree on the specific indicators and data collection. City of Osijek reported on having included the electric cars in their fleet management system to track the vehicles. This was agreed with Poliedra as a good way of collecting data for indicators.</p> <p>18-20/03/19 Poliedra presented during the first Project Meeting the methodology of the Monitoring Plan and the partners and Monitor gave us positive feedback and approved it.</p> <p>In April 2019 Poliedra accessed the KPI tool and started to fill in it with data on the baseline. In the meantime, structured information data needed to feed the KPI tool are checked on the test environment to be extracted in each format for data analysis purposes; input of missing information is supposed to be realized through registration phase and personal profiling of customer users (means of transportation mainly used).</p> <p>In May 2019 Poliedra started to write the Deliverable: "Monitoring of the impact of the project actions" and to ask different partners the information needed to fill in the KPI box.</p> <p>The Deliverable, reviewed by partners, has been finalized on a scheduled deadline in June 2019.</p> <p>During the project meeting in September 2019 Poliedra shared the advancement on monitoring aspects. In October and November Poliedra revised all KPIs estimated to better fit the Web Tool requirements. This update involved all the partners and was supervised by the LIFE monitor. In agreement with the monitor, the updated KPI has been uploaded to the LIFE Web Tool for EASME evaluation. In December 2019 the final version of the KPI was delivered according to all the improvements suggested by the monitor. An update of the Monitoring Plan Report, documenting the last changes, is in progress. The Database manager (Nordcom) is fine tuning the procedure for data download and elaboration.</p> <p>Nordcom provided to Poliedra a first dataset from Osijek and E-VAI's testbed, including mileage travelled by project e-cars, anonymous rentals info by beta users, with pickup and drop off details (parking, date/time) for initial data analysis and KPI calculation.</p> <p>Nordcom also keep monitoring project website statistics, made available to partners on request. A full update of this data has been provided in March 2020 and will be given again subsequently on request.</p> <p>The 14th of February 2020 a full revision of the Monitoring Plan Report was delivered. The revision was required by EASME to guarantee coherence with the final update of the KPI on the Web Tool.</p> <p>At the beginning of April Nordcom started to download, pre-elaborate and transmit to Poliedra the data for the first monitoring report. Throughout the month of April there was a daily data exchange between Nordcom and Poliedra to overcome some issues in the data elaboration. Poliedra elaborated a first draft of the First Monitoring Report that was shared with project partners. A final version, including the acceptance of partner contribution by Poliedra, was delivered the 14th of May 2020.</p> <p>The First Monitoring Report provides all the KPIs that are calculated to monitor the environmental performance of the I-Share LIFE project, in terms of air quality, GHG emissions and energy consumption. Current values of KPIs are compared with the baseline and the expected final values. In April 2020 I-Share LIFE project showed to be on the right path towards the fulfilment of all the performance required.</p>

	<p>The Italian side of the project reached an average 60% fulfilment of the environmental KPIs, while Croatian KPIs are already at 91%.</p> <p>Replication activities have started since the 3rd quarter of 2019 even though the related project activity, according to the Technical Application Form, will officially start in the 4th quarter of 2020. The replicated car-sharing models, public and corporate, are still in development and settlement, also due to the COVID emergency. A proper estimate of their potential impacts will be provided as soon as the main characteristics of the replication will be available, especially in terms of service models and number of vehicles in use.</p> <p>In November 2020 NordCom provided Poliedra with the data recorded in the semester April-September 2020. Poliedra processed the data and drafted an intermediate report, not required by the I-SharE LIFE project, to keep track and monitor the usage of the service during this period. This report is used as an internal monitoring and as an initial work for the final report. As expected, the pandemic lowered significantly the use of the electric car share service. Since most of the vehicles were not used in their car-sharing configuration in this period, E-VAI relocated some of the vehicles for social/medical use. Those data are also collected and will be reported in the Final Monitoring Report.</p> <p>The results of the First and Intermediate monitoring reports were presented during the 3rd CE Official Monitoring Visit in March. The LIFE/CINEA monitors suggested important amendments in order to report the monitoring data in a clearer way (e.g. more suitable unit of measurement) and with more focus on the environmental benefits of the project. The suggestion will be included in the following reports and presentations.</p> <p>At the end of June 2021, Poliedra received from NordCom the data about the last period of the service run (October 2020 - June 2021). The data analysis and the writing of the Final Second Monitoring Report has been closed at the end of June/beginning of July 2021-</p> <p>The draft of the Second Monitoring Report has been shared with project partners for revisions and published by the end of the project.</p> <p>This deadline was changed in agreement with FNM and LIFE monitors in order to guarantee a full monitoring of service running and the final Second Monitoring Report was postponed in order to include all the data of the shared vehicles run during the project. The 16th of July was set as the deadline within the partners consortium.</p> <p>The final report includes data until June 20 provided by NordCom and includes KPIs calculated for the LIFE web tools, to be discussed with LIFE monitors.</p> <p>The Final Monitoring Report will be delivered together with all other final reports of the projects.</p>
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Main deviations, problems and corrective actions implemented
During the 3rd CE Official Monitoring Visit in March 2021 the new deadline of the Final Second Monitoring Report (June-July 2021) was shared and agreed. The new deadline allows the analysis of all data collected until the end of the project.

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o Action D1 - Public awareness and dissemination of results

Expected results:

- Increase of the project’s visibility to external members of the Consortium, thus broadening the project acceptance and influencing the uptake of its results and ensure a wide visibility participating to project-related and external events.
- Organize conferences and local events (technical workshops) in each State (one in Italy, one in Croatia) and use other main relevant meetings to maximize synergies.
- Raise local interest and improve local understanding of the project.
- Support the development of the project dissemination material by contributing with the five I-SharE Business Models.
- Spread information and awareness raising activities

Foreseen	Achieved
<p>SUB ACTION C1 DA: COMMUNICATION</p> <ul style="list-style-type: none"> ● Website information ● Articles on thematic magazine ● Newsletters and similar ● Leaflets ● Social Media 	<p>SUB ACTION C1 DA: COMMUNICATION <i>To communicate the beginning of the project to external stakeholders of the Consortium, Partners undertook various communication actions:</i></p> <p>Actions from July 2018 to July 2019 have been reported in the MTR</p> <p><u>Website information:</u> Sept. 2019 - GPP posted news about the activities for the European Mobility Week where they presented I-Share. July 2020 – Uploaded leaflets Oct. 2020 - Presentations of Technical Workshop were uploaded on the website Dec.2020 - Presentations of the First dissemination event was uploaded on the website June.2021 - Presentations of the Final dissemination event and brochures and Layman’s report were uploaded on the website</p> <p><u>Articles on thematic magazine:</u> Sept. 2019 - Different articles have been written about the events in the 4 demo sites:” New car sharing services for tourists” about Como demo site; “New car sharing services for commuters and employee” about Bollate demo site; “Car Sharing in Bergamo” about Bergamo demo site; “New car sharing services for commuters & city users” about Busto Arsizio demo site. Different articles about the project “Projects with e-bikes and e-cars in Osijek” and new service in Osijek within “European Mobility Week” coverage in the city Nov.2019 - GPP wrote an article for their bi-monthly publication about new services in the city ASSTRA published advertising on Public Transport (ASSTRA magazine referred to the PT sector, 3800 copies) about the project (number 1/2; 3/4; 5/6 ; 7/8 ; 9/10; 11/12 – year 2020 http://www.asstra.it/stampa/rivista.html); (number 1/2; 3/4 – year 2021 http://www.asstra.it/stampa/rivista.html)</p> <p><u>Leaflets:</u> From Sept.2019 to Jul. 2020 – ASSTRA with other partners worked on leaflets. On Jul.2020 ASSTRA sent the final version of the leaflets to partners to have the final validation and the final version was uploaded on the website.</p> <p><u>Social Media:</u> Sept.2019 - E-VAI/FNM posted on LinkedIn and Twitter news regarding the events in the 4 demo sites (more than 500 views); Dyolve posted on LinkedIn news regarding presentation of I-Share in Osijek during European Mobility Week (590 views); GPP (Osijek PT company) posted on Facebook their programme for the European Mobility Week which included presentation of I-Share and new car sharing service for the city (5 likes) Poliedra posted on Facebook news regarding their speech at the Conference in Bergamo (14/10/2019). Poliedra posted on Twitter news regarding its dissemination activity about project to Sicab Italy China in Shanghai (23-10-2019) Nov.2019 - GPP posted on Facebook promoting their bi-monthly publication with the image of the title page mentioning new electric mobility in the city (27 likes) Dec.2019 - FNM posted on LinkedIn promoting car sharing in Bergamo Oct.2020 - Partners posted and shared on social media (Twitter and LinkedIn) information promoting the Croatian Technical Workshop and the performed activities in the Croatian Technical Workshop. Nov.2020 - Partners posted and shared on social media (Twitter and LinkedIn) information promoting the first dissemination event. Dec.2020 - Partners posted and shared on social media (Twitter and LinkedIn) information promoting the first dissemination event and the performed activities in the First dissemination event. May.2021 - Partners posted and shared on social media (Twitter and LinkedIn) information promoting the final dissemination event. Jun.2021 - Partners posted and shared on social media (Twitter and LinkedIn) information promoting the final dissemination event and the performed activities in the Final dissemination event.</p> <p><u>Newsletters and similar:</u></p>

	<p>advertisements about Project's event on "Pillole di mobilità" (Asstra newsletter, 4241 members): Sept.2020 - about the Croatian Technical Workshop; Oct.2020 - about the Croatian Technical Workshop; Nov. 2020 - about the First Dissemination event and Croatian Technical Workshop results; Mar.2021 – about the final event on June 2021; May2021– about the final event on June 2021; Jun.2021- about the Final Dissemination event results.</p>
<p>SUB ACTION C1 DB: DISSEMINATION AND NETWORKING</p> <ul style="list-style-type: none"> ● General dissemination ● Local dissemination ● Networking activities ● Partners' meetings 	<p>SUB ACTION C1 DB: DISSEMINATION AND NETWORKING Actions from July 2018 to July 2019 have been reported in the MTR</p> <p><u>Local dissemination:</u> Sept. 2019 - E-VAI planned, organized, and managed a series of events in the 4 demo sites of the I-Share Life project and participated in the National Event on Electric Mobility organized by Lombardy Region with the following Roadmap: Bollate – 15-9-19 (>500 partic.); Como – 16/9/19 (>500 partic.); Bergamo – 18/9/19 (>500 partic.); Busto Arsizio – 19/9/19 (>500 partic.); Milan - E-MOB – 26-28/9/19 (>500 partic.) Event by the City of Osijek and GPP for the European Mobility Week which included the presentation of the project and made electric cars available for a test ride for the interested public – 20/9/19 (>100 partic.) Oct. 2019 - Speech about project by Poliedra at the Conference "Guidati dalla sostenibilità. Il futuro della mobilità a Bergamo: design ed innovazione progettuale" (14/10/2019) – 150-300 partic.). Speech about sustainable urban mobility by Poliedra at the Conference of SICAB in Shanghai (23/10/2019). Nov.2019 - Speech about project by FNM at Ecomondo (7-11-2019) EASME (European Commission) event: Session 1 – Supporting actions to promote Sustainable Mobility. Croatian Technical Workshop (26-10-2020) – from Jul.2020 to Oct.2020 there was the organization of the event. There were 75 visitors.</p> <p><u>Partners' meetings:</u></p> <ul style="list-style-type: none"> · Project meeting in Milan (12-9-2019): Organization of the Technical Workshop Meeting in Osijek and the First Dissemination Event in Rome to be held in September 2020; Discussion about a draft of leaflets to share in different event for dissemination activity; · 2nd Monitoring & PMC Meeting (Conf Call) 11-03-2020: Presentation of D1 activities to partners and monitors; Discuss of Notice Board and Leaflet; Discuss about the Croatian Technical workshop. Due to Covid-19, ASSTRA asked to postpone the Technical Workshop in Croatia to Mid October 2020. · PMC Meeting (31-07-2020) ASSTRA informed partners that Technical Workshop in Croatia has been re-scheduled on 26/10/2020 due to Health Emergency and for the same reason it will be by web. The First Dissemination Event in Rome has been re-scheduled by the end 2020 (date to be defined). · 3rd Project Meeting (15-10-2020): Technical Workshop in Croatia organization (26-10-2020): Agenda and Last minute discussions on workshop execution; 1st Dissemination Event in Rome organization (10-12-2020); Next events' proposal discussion (2nd Dissemination event) · 3rd Monitoring Meeting (Conf Call) 05-03-2021: Presentation of D1 activities to partners and monitors; · Final Meeting (Conf Call) 29-04-2021: Presentation of D1 activities to partners; · Meeting (Conf Call) 14-06-2021 and 21-06-2021: Meetings in order to coordinate final dissemination event's speeches; <p><u>Networking activities:</u> Poliedra-Dyvolve coordination for B4 Action (29/10/2019) Poliedra-Dyvolve call regarding Action B4, alignment of co-design workshop themes and topics (7/11/2019) Poliedra-Devolve call regarding Action B4, alignment of tools and techniques from the Co-Design Toolbox for the purpose of Osijek co-design workshops. Oct.2020 - Publication on ASSTRA website the link to download technical workshop's presentations and preparation of report of Milestone Technical Workshop. Nov.2020 - Report of Milestone "Croatian Technical Workshop" was first circulated; validated and the Final Revision was circulated. Dec.2020 - Publication on ASSTRA website the link to download technical first dissemination event's presentations and preparation of report of Milestone First dissemination event. May.2021 -Meeting for Networking activities between I-Share Life and Life for Silver Coast. Jun.2021: a representative of project LIFE/IP PREPAIR had a speech during Final Dissemination event</p> <p><u>General dissemination:</u> From Sept.2020 to Nov. 2020 - ASSTRA began to organize the First dissemination event.</p>

	<p>First dissemination event (10-12-2020) (116 visitors). From March.2021 organization of the Final dissemination event. Final dissemination event (23-06-2021) (116 visitors).</p>
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Main deviations, problems and corrective actions implemented

Beginning of activities, initially planned for the IV quarter 2018, anticipated to July 2018.

Web site contents are regularly updated

Milestone reschedule - First Dissemination Event in Rome and Technical Workshop in Croatia foreseen by 30/06/2020 had been rescheduled. Technical Workshop in Croatia (26-10-2020) and the First Dissemination Event in Rome (10-12-2020). The delays didn't depend on ASSTRA but due to COVID-19. The Italian government prohibited the holding of events and conferences, and it limited the travels. Due to a Health Emergency, they had been on the web. The postponed activities had not a significant impact on the project because there were no other deliverables cascading from those events. For the same reasons the Final dissemination event (23 June 2021) was carried out on the web. For ASSTRA, due to the Covid-19 pandemic and governmental restrictions on mobility within Europe, the budget foreseen for costs in the 'Travel' category was not used but ASSTRA had more personnel costs to manage dissemination activities in remote mode. For E-VAI and Dyvolve, due to the Covid-19 pandemic and governmental restrictions on mobility within Europe, the vast majority of budget foreseen for costs in the 'Travel' category was obviously not used.

○ **Action E1 - Project management**

Objectives: Project Management aims at getting the right balance between scope, quality, time schedule and costs to achieve all the positive values in realizing clean-electric transport "sharing" solutions that have inspired I-Share LIFE Project.

Expected Results: FNM is responsible for the overall coordination of the project, chair the Project Management Committee, and keep in contact with the European Commission and other stakeholders, which includes:

- overall work planning, progress monitoring and communication flow between all beneficiaries including the organization of the project meetings and monitoring meetings
- establishment and management of decision-making structures and procedures including Grant Agreement and Internal Partnership Agreement
- reporting to EC (Mid Term Report, progress reports and the final report including financial reporting)
- quality control of milestones and deliverables
- technical & financial monitoring
- official contacts with the EC and general external representation
- coordinate the works of The Project Management Committee (PMC) made up of the partner's PM and be responsible for the proper implementation of the project activities.

Results Achieved: The Project Management activities proceeded as scheduled till 1st COVID-19 Lockdown. Then FNM and the PMC had to face the Pandemic. The previous activities foreseen in the proposal have been re- assessed through a new project plan with corrective actions and a re-scheduled Gantt that have been agreed with the NEEMO Monitoring team. Various virtual meetings were held, thanks to Google project tool, to strictly keep under control the new activity plan both between FNM and single beneficiary and plenary.

The following Milestone of Action E1 (After MTR) have been achieved:

- 2nd Project Meeting 12.09.2019
- 2nd Monitoring Visit 11.03.2020
- Official progress Report 30.09.2020
- 3rd Project Meeting 15.10.2020
- 3rd Monitoring Visit 5.03.2021
- Final Meeting 29.04.2021
- Final Report 15.09.2021

Following activities have been implemented and increased to respect the new project plan shared with the European Commission in the Official Progress report of 30.09.2020:

- corrective actions for management, planning and check technical and financial activities
- communications with EASME and NEEMO

- virtual meetings with partners and PMC to manage new issues due to pandemic
- new procedures defined to monitor project status, to avoid issues during the execution of activities, especially related to project communication and coordination and to support dissemination actions.

The Beneficiary Coordinator (FNM):

- monitors that the action is carried out correctly and properly
- acts as the intermediary for communications between the beneficiaries and the Agency
- review the completeness and accuracy of the documents and information needed by the Agency
- submits the deliverables and reports
- ensures that all payments are made to the beneficiaries without unjustified delay and informs the Agency of the amounts paid to each beneficiary.

The Associated Beneficiaries:

- take part in the monthly PMC web calls and web meetings to have updates on progress of Action activities (no longer quarterly meetings)
- update monthly report, both technical and financial, using the project management tools Google Drive
- ensure the quality of the Deliverables and Milestones following procedures
- guarantee the achievement of the project objectives implementing corrective actions to face issues created by COVID.

Main deviations, problems and corrective actions implemented

Due to COVID-19 pandemic FNM top management entered the project in april 2020 to ensure continuity both in holding internal processes and in project activities. Especially Mr. Piuri (FNM Group General Manager and I-SharE LIFE project Leader) and Ing. Erba (FNM Head of Strategic Planning and Development Unit - Financial Manager) was assigned to I-SharE LIFE project.

Project delays in some activities due to the Pandemic lockdown were principally related to the Physical Events and Beta Users feedback process. The protracted health emergency has forced us to cancel face to face meetings and events and organize them via web call. Rescheduling of all the actions has been agreed with the NEEMO Monitoring Team.

All the activities related to the IT platform, App release, back office and payment gateway were done remotely, so delays have been minimized, while the operational activities related to the use of the electric car sharing services have been stopped or limited for safety reasons and the personnel in charge of the fleet management have been equipped with safety devices.

Thanks to FNM and PMC management activities, the project has been correctly implemented in the foreseen period. Project Management procedures have been stressed and implemented to share decisions on corrective actions of common interest to face the new situation.

On the financial front the new situation had few minor consequences as better detailed in chapter 8 of this report. Following EASME communication of 23.04.2020, I SharE LIFE partners (FNM, E-VAI and City of Osijek) claimed costs related to COVID19 linked to the project, as described in the mail of 10/04/2020, on the I SharE LIFE budget external costs.

After the Monitoring meeting held on 5.3.2021 and the following EASME communication, budget shifts from categories have been authorised together with the possibility of claiming added costs related to the video done for the last monitoring meeting.

Deliverable Index

Actions	Deliverables	Deliverables Foreseen date	Transmission date	New dates agreed with NEEMO (COVID -19)
B. Implementation Actions				
B1.Set up of basic infrastructures and equipment at the demonstration sites	Report on the set up of basic infrastructures and equipment at the demo sites	27/09/2019	27/09/2019	
B3. User research: Recruitment of I-SharE beta users and surveys	Report on User Research activities	28/06/2019	28/09/2019	
B4. Co- Design of the Service	Report on the toolbox & co-Design Activities	18/12/2019	18/03/2020	
B5. Implementation and Tuning of the Service	Report on the setting up of the operational procedures	31/12/2019	27/12/2019	
	Report on Beta Users feedback process	30/09/2020	18/12/2020	18/12/2020
	Report on software development	30/09/2020	29/09/2020	
	Report on implementation I SharE LIFE business models	15/03/2021	15/03/2021	
B.6 Sustainability and project continuation	Renewal Agreement with FEREROVIENORD	30/11/2020	n.a. signed till 2022	
	Sustainability and project replication Plan	31/03/2021		30/04/2020
	IT Platform sustainability and continuation plan	31/03/2021		30/04/2020
	Update BP for I SharE LIFE Business Models	31/03/2021		30/04/2020
B7. Replicability and transferability	Signature of letters of intent with municipalities or private subjects	31/12/2020	26/02/2021	26/02/2021
	Budget with costs structure for replication sites	31/03/2021	31/03/2021	
	Definition of I-SharE LIFE car service package	31/05/2021	31/05/2021	
	I-SharE LIFE replicability & transferability plan	31/05/2021	31/05/2021	

	Marketing and Strategy Plan	31/05/2021	31/05/2021	
	Report on set up of basic infrastructures & equipments	31/05/2021	31/05/2021	
C. Monitoring of the impact of the project actions				
C1. Monitoring of the environmental and socio-economic impacts	Monitoring plan	21/06/2019	14/02/2020	
	First Monitoring Report	14/02/2020	14/04/2020	
	2nd Monitoring Plan / Final Monitoring plan	30/04/2021	20/7/2021	30/07/2021
D. Public Awareness and Dissemination of the Project Action				
D. Public Awareness and Dissemination of the Project Action	I-SharE LIFE Leaflets	30/09/2020	30/09/2020	
	I-SharE LIFE demo sites brochures	31/05/2021	31/05/2021	
	I-SharE LIFE Layman's report	31/05/2021	31/05/2021	
	I-SharE LIFE After Life Plan	31/09/2021	26/07/2021	31/07/2021
E. Project Management				
E1. Project management	Report of the 2nd Project Meeting	11/10/2019	7/10/2019	
	Report of the 3rd Project Meeting	10/07/2020	15/11/2020	15/11/2020
	Progress Report	30/09/2020	18/09/2020	
	Report of the final meeting	14/05/2021	14/05/2021	
	Audit Report	30/09/2021	15/09/2021	
	Final Report	30/09/2021		15/09/2021

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○ 6.3 Evaluation of Project Implementation

For Actions from A1 to B3 please refer to Mid Term Report

O1,O2,O3,O4 please refers to objectives of chapter 4 - Introduction

Action	Foreseen in the proposal	Achieved	Evaluation
B. Implementation actions			
B3. User research: Recruitment of I-SharE beta users and surveys	<p><u>Objectives</u></p> <p>O2,O3,O4</p> <p><u>Expected Results</u> Understand user behaviours, needs, and motivations by selecting Beta Users for each demo site to test the service and give feedback on the experience</p>	<p>User Research activities have been really challenging. The consortium decided to test the service in general in accordance with the beta version of the new app in Italy and the new solution in a bare version with specific adaptations in Croatia.</p> <p>In Italy this led to accelerating the process for having a beta version of the app to test with Beta Users. There has been a big effort of project management and organization to coordinate all the aspects needed to be ready with the test on time (even if later than previewed). A long perspective plan has been necessary to anticipate, foreseeing all the crucial steps, adapting tasks to reality.</p> <p>This has helped to have all the aspects in place for the testing phase (app, EVs recharging infrastructure) by interacting with all the different partners of the I-SharE consortium responsible for different aspects. User research has supported the understanding of the non-obvious market of small to mid-sized urban areas for car-sharing services (O2).</p> <p>By testing the service many useful aspects arise to demonstrate the feasibility of e-carsharing models and to tailor them to smaller urban areas in Lombardy and Croatia (O3).</p> <p>The test helped to increase the awareness of opportunities linked to e-car-sharing services, so as to generate interest in PAs, enterprises, and the general public in the demo sites, involving also the beta testers (O4).</p>	<p>A first analysis of the service by Poliedra has allowed us to identify some pain and gains of the service as it was and has allowed us to improve it before the testing phase with Beta Users.</p>
B4. Co-design of the services	<p><u>Objectives</u></p> <p>O1,O2,O3,O4</p> <p><u>Expected Results</u> Implement and improve the service model and its touchpoint if the Users involved in the testing phase suggest some improvements during the co-design workshop</p>	<p>The co-design process collected important aspects by involving relevant stakeholders in addition to the Beta Users, this helped overcoming behavioural barriers.</p> <p>Furthermore, thanks to the co-design workshops in the various demo sites, many suggestions and points of view from the users emerged, which have made possible to improve it and implement the bugs still present in the App and on the website. Finally, the comparison between these users and the operator further clarified the various steps necessary for using the service.</p>	<p>The co-design workshops helped to improve and implement the service itself, the platform, and the touch points, by including the point of view of the end user and stakeholders, not just focusing on the provider one. With the changes and additions, users have welcomed the services with more enthusiasm.</p>

<p>B5. Implementation and tuning of the services</p>	<p><u>Objectives</u></p> <p>O1,O2,O3,O4</p> <p><u>Expected Results:</u> Standardization and engineering of the processes of permits and agreements for the two business models, which have the greatest impact on the market during the testing phase in the 4 demo sites. Rapid, structured setup process of new services, based on the business models, but also tailored on customer needs.</p>	<p>There were various activities, which we needed to perform under implementation and tuning of the services.</p> <p>First step in implementation was preparing the system and the car sharing organization to test and experiment with business operations. Fine tuning involved performing customization in the new platform configuration and setup customizing as per the project scope. It included creating users and business roles, defining organization structure and operational management rules, etc.</p> <p>As we've been collecting feedback from beta users, car operators and real customers, we were pushing out gradual upgrades, adding new features, or rolling out on board systems on an entirely new car fleet; looking beyond go-live to overall organizational goals will get us on the path to long term success in both regions (Lombardy and Osijek Urban Agglomeration)</p>	<ul style="list-style-type: none"> ● The operational and commercial methodology developed by E-VAI for the I-Share Life Project has proved to be effective and efficient and, for this reason, will be engineered and ● standardized within the organization for the future development of market opportunities. ● The sales and marketing force is constantly evolving to better control the territory and the identified market segment. ● The operating division is also constantly evolving to maintain EV allocation and maintenance service levels, as well as customer service and back-office. ● The platform will support the continuous evolution of business models, trying to respond in an increasingly personalized way to customer needs through the completion of functionality. ● Continuous beta user feedback process is implemented in both regions (Italy and Croatia) ● Software development and support processes are ● streamlined.
<p>B6. Sustainability and project continuation</p>	<p><u>Objectives</u></p> <p>O1,O2,O3,O4</p> <p><u>Expected results:</u> I-Share Technological Platform Sustainability and Project Continuation Plan I-Share Business Models of electric car-sharing services Sustainability and Project Continuation Plan</p>	<p>Some foreseen measures have already been utilized to ensure the sustainability of the I-Share technological platform: use of a common model for documentation, collaboration in the development process, sharing knowledge and best practices internally, implementation of cloud-based solutions. By signing a contract with the energy provider, E-VAI has the possibility to replicate Model 2 of the project in Italy at the railway's stations along the FERROVIENORD network thus expanding the initial scope of their service. This positively affects the continuation of the service in the Lombardy region.</p> <p>The City of Osijek and GPP are in continuous communication with other partners to further develop an optimal service portfolio and pricing models based on real needs in the Osijek urban Agglomeration as well as best practices. The car sharing service is in the process of full integration within the GPP service portfolio and is being further developed by assessing options for B2B models' introduction.</p>	<p>Adequate analyses, modelling, evaluations, and implementations were executed to create Sustainability and Project Continuation Plans for Technology platform and Business models.</p> <p>Renewals of adequate agreements with Energy providers, Train service providers and Public Transport providers were signed.</p> <p>Car sharing service portfolio and pricing models were defined.</p>

<p>B7. Replicability and transferability</p>	<p><u>Objectives:</u> O1,O2,O3,O4</p> <p><u>Expected results:</u> Ensure Replicability and transferability of project results to new geographies in a sustainable way, both in terms of business and environment.</p>	<p>Letters of intent with municipalities or private subjects were specified, negotiated, and signed. Adequate budget modelling with costs structure for replication sites was executed and defined. I-SharE LIFE car service packages for Italy and Croatia were delivered.</p> <p>I-SharE LIFE replicability & transferability plans for both geographies were modelled and delivered, based on a defined set up of basic infrastructure & equipment.</p> <p>Marketing and Strategy Plans for Italian and Croatian regions were created.</p> <p>Related to Italian pilot action, in the experimental contract with the energy provider Be Charge a list of railway stations is included where the setup of the recharging infrastructures for the implementation of model 2 is foreseen. (O1). This will help in the replicability and transferability phase of business models within new locations. (O2-O3).</p>	<p>Technological, process-based, budgetary, and contractual preconditions to replicate and transfer project results to new territories / business clients were defined and delivered.</p>
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C. Monitoring of the impact of the project actions

<p>C1. Monitoring of the environmental and socio-economic impacts</p>	<p><u>Objectives</u> O1,O2,O3,O4</p> <p><u>Expected Results</u> to support all I-SharE LIFE activities providing a complete, updated, and easily accessible monitoring that observes and measures the project progress and its impacts, and share them transparently within the consortium and towards the community of practice.</p>	<p>The monitoring activity contributes to monitor the achievement of all the objectives (O1, O2, O3, O4). Poliedra organized preliminary meetings with E-VAI and FNM and video calls with Dyvolve and the City of Osijek to set up the monitoring plan and to agree on the specific indicators to be used and the data transmission aspects.</p> <p>It was agreed to have data transmission at fixed term, the first one after 3 months from the launch of the service on the market.</p> <p>The methodology of the Monitoring Plan was shared with partners and approved.</p> <p>In April Poliedra accessed the KPI tool and started to fill in it with data on the baseline.</p> <p>In the meantime, structured information data needed to feed the KPI tool are checked on the test environment to be extracted in each format for data analysis purposes.</p>	<p>The monitoring of the project was carried out respecting the schedule and adding an extra step. There were four steps of monitoring: the monitoring plan, the first monitoring report, the intermediate monitoring report (not planned in the proposal and only for internal use), the second and final monitoring report.</p> <p>This activity faced some issues concerning the quality of data collected, especially in the initial months of the project. When the new platform of data collection came into use (April 2020), the data was much completer and more reliable than before.</p> <p>The data analysis showed that the service had a promising start and was on the way to meet all the expected targets, but the pandemic strongly lowered car sharing use, and the results are certainly below the initial expectations.</p> <p>The LIFE/CINEA monitors helped during the project to correctly compile the LIFE Web Tool KPI, discussing and agreeing the best</p>
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			methodologies to calculate KPIs, define baseline, and respect the constraints of the Web Tools.
D. Public awareness and dissemination of results			
D1. Dissemination planning and implementation	<p><u>Objectives</u> O3,O4</p> <p><u>Expected Results</u> Spread information about I-SharE LIFE project using the most efficient ways to guarantee the maximum visibility, an optimal exploitation and deployment of the project results</p>	<p>ASSTRA and partners increased the project’s visibility through different channels: brochure, roll-up, notice board, presentations, speeches during different conferences, news on project’s website. We spread information and awareness raising activities through social media and articles on thematic magazine and newsletter. To raise local interest and improve local understanding of the project,</p> <ul style="list-style-type: none"> ● ASSTRA and FNM organized a Technical Workshop in Milan ● ASSTRA, FNM and Croatian partners organized an Online Croatian Technical Workshop. <p>We created contacts with other LIFE and European projects: a representative of project LIFE/IP PREPAIR had a speech during Technical Workshop and Final Dissemination event and ASSTRA invited to participate to the events to the coordinator of the project LIFE IP Zero Emission and Life for Silver Coast partners.</p>	<p>We evaluated the success of dissemination activities through:</p> <ul style="list-style-type: none"> ● Number of post views on social media ● Interest shown by participants to conferences where we disseminated project results ● Number of visitors to Italian and Croatian Technical Workshop ● Feedback received by stakeholders that participated to technical workshops ● Quality of the results obtained during working groups organized in the workshop ● Number of visits on project website
E. Project Management			
E1. Project management	<p><u>Objectives:</u> O1,O2,O3,O4</p> <p><u>Expected results</u> Overall Management of the Project. The Project management methodology established in the E.1 deliverables has been regularly followed till March 2020. After the 1st COVID phase Project Management methodology has been updated as described in chapter 6.2, always guaranteeing the correct implementation project, in line with the formalized procedure, roles and responsibilities of each partner</p>	<p>FNM oversees managing the Overall work planning, progress monitoring (both technical, administrative and financial) reporting and communication flow between all Beneficiaries and between beneficiaries and EU, including agenda and timing for the meetings. Following and managing all these project processes FNM also achieves the objectives declared in the proposal (O1,O2,O3,O4)</p>	<p><u>Results:</u> Due to COVID-19 the project Management procedures have been intensified to achieve the project results and respect both quality and timeline as rescheduled. All the activities foreseen in the I SharE LIFE project have been properly implemented in line with the new Gantt shared with NEEMO. To properly implement all the actions in this Pandemic period some cost categories, especially Personnel Costs, augmented while some budget shifts were needed. More details in chapter 8.</p>

○ 6.4 Analysis of benefits

Direct quantitative environmental benefits

The overall distance run by all the electric vehicles, including those in the replication sites, during I-SharE LIFE project is 1,058,396 km in 21 months.

The total value includes 918,097 km run in Italy and 140,299 km in Croatia.

These values are well below expectations, and this reflects on the environmental benefits produced by the project compared with the targets set at the beginning of the project.

In this chapter are presented the KPIs coherent with the project proposal structure. The focus on KPIs for the LIFE Wen Tool is in chapter 7.

To calculate the saving of air pollution emission we must consider the distance that would have been travelled by private ICE cars in a hypothetical scenario where I-SharE LIFE project was not implemented. The best way to provide this estimate was to interview car sharing users to understand their mobility option if car sharing was not available. We decided not to pursue this option because it would affect the user experience of the travellers with an excessive burden and for privacy related issues. The estimate was then based on literature review outcomes.

A shift from private vehicle use to car sharing results in lowered vehicle kilometres travelled (VKT). Car sharing users do shorter trips when using shared cars instead of their own car because of emphasizing variable driving costs, such as per hour and/or mileage charges (Shaheen, 2019). The choice of a car trip instead of other mobility options (e.g., TPL, bike) are also less frequent for the same reason.

To include these facts in the estimate we considered a factor that transforms the kilometres travelled by I-SharE LIFE electric shared cars into kilometres not driven by ICE cars.

According to the literature review (e.g., Shaheen, 2019), and considering the different service models, we set two different parameters for Italy and Croatia. In Italy we chose a low value (1.3) because models such as corporate (that are not studied yet in scientific literature) do not appear to produce a significant VKT reduction. In Croatia we choose a high value (2.0) since the service model integrated with public transport (no specific studies are still available on this specific model) seems to be the most promising in reducing distance run by private cars.

Another important set of values to estimate air pollution emission is the pollution emission factors per kilometres. In addition, in this case we considered different values in Italy and Croatia, according to the average vehicle in the two countries. The chosen emission factors provided by Lombardy Regional Agency for Environment Protection and the Croatian Agency for Environment and Nature are listed in the following table.

	NO _x	CO	PM10
	mg/km	mg/km	mg/km
Italy	433	442	60
Croatia	500	600	70

Table: Pollution emission factors of ICE cars for Italy and Croatia. Source: Lombardy Regional Agency for Environment Protection and the Croatian Agency for Environment and Nature

Given those premises the estimate of the emission saved by I-SharE LIFE is calculated by multiplying the distance run for the emission factors. The tables show the total project values and the average yearly values.

Italy	21 months	1 year
NOX	398 kg	227 kg/year
CO	406 kg	232 kg/year
PM10	55 kg	31 kg/year

Table: Emission saved by I-SharE LIFE in Italy. Source: Poliedra.

Croatia	21 months	1 year
NO _x	70 kg	40 kg/year
CO	93 kg	53 kg/year
PM10	9.8 kg	5.6 kg/year

Table: Emission saved by I-SharE LIFE in Croatia. Source: Poliedra.

The total yearly emissions saved, compared to the expectations, are significantly lower, between 32% for CO and 44% for PM10.

	Total saved emissions (Italy + Croatia)	Expected saved emissions (Italy + Croatia)	Percentage
	kg/year	kg/year	%
NOX	267.25	800	33%
CO	284.80	900	32%
PM10	37.09	84	44%

Table: Emission saved by I-SharE LIFE. Source: Poliedra.

The pandemic importantly reduced the outcomes of the project especially because the average yearly emission saved are calculated also considering lockdown months when the service was nearly not running. Considering only the months when the pandemic effect was low (e.g., the initial 5 months of the project) the results were significantly closer to expectations. This makes us confirm that the initial target, the expected saved emission, was correct and feasible in a standard scenario.

For greenhouse gas we considered only CO₂ emissions. The calculation for the CO₂ emissions considers the actual savings for ICE cars substituted by electric car sharing and considers the emissions due to car and batteries manufacturing.

The emissions factors for CO₂ are listed in the following table.

		Italy	Croatia
CO2e emissions from the ICE cars	g/km	169	165
CO2 from battery	t /year	0.78	0.78
Vehicle manufacturing	t/year	0.4	0.4

Table: Emission factor for CO2 in Italy and Croatia. Source: (Mia Romare et al.).

To include the vehicle and battery manufacturer emissions we considered two parameters chosen in the range found in literature (MOMO project): the substitution ratio of private cars with shared cars is set to 2 for Italy (this low value mainly due to the corporate car sharing which has likely a ratio equal to 1) and 5 for Croatia.

	Distance km/year	N° E-cars	N° ICE cars	Emission saved t/year
Italy	524,627	50	100	70
Croatia	80,171	8	40	20

Table: Yearly CO2 emission saved in Italy and Croatia by I-SharE LIFE. Source: Poliedra

The total emission saved is 90 t/year. Compared to the target estimated at the beginning of the project (269 t/year) in terms of CO2 the project reached 33% of the target.

The I-SharE LIFE project made use of clean and renewable energy only. To estimate the energy consumption and saving the following parameters from scientific literature (Nealer et al. 2015) were considered.

Consumption rate per km ICE cars	Consumption rate per km E-cars
kWh/km	kWh/km
0.6	0.15

Table: Consumption rate per km for ICE cars and E-cars. Source: (Nealer et al. 2015)

The total energy saved is 415,000 kWh/year. Considering the target of 916.000 kWh/year, I-SharE LIFE reached 45% of the target.

Qualitative environmental benefits. Several studies such as Shaheen (2019), Chapman (2020) and The State of European Car-Sharing by MOMO project provide evidence of the environmental benefits of car sharing.

The electric car sharing service produces significant environmental benefits. The main benefit for the quality of the air is due to the electric engine that does not emit air pollutants locally, a major benefit for high-polluted areas such as the city of Lombardy and the whole Po Valley in general. The positive effect of electric

cars is even bigger if the electricity used to run the cars is produced by clean sources such as wind or solar farms, in this case pollutants are not emitted at a wider scale. In I-SharE LIFE, the energy purchased to run the cars is produced by clean and renewable sources.

The reduction of emissions is also increased by the fact that some car-sharing users experience a mobility behavioural change: the shared car is considered as a mobility option with lower frequency than a private car because it is clearer to the user the price of each trip with a shared car. Car sharing become a part of a wider mobility strategy that allow citizens, especially in dense urban areas, to avoid the purchase of a private car and adopt more sustainable options that includes vehicle-sharing (car, scooters, bikes, ...), LPT, private bikes and walk (Shaheen, 2019).

This fact is also important to tackle climate change since the use of renewable sources of energy guarantee a carbon neutral service.

Car sharing also produces positive impacts on the acoustic pollution in cities because e-cars produce much less noise than ICE cars.

Another positive environmental benefit is because in general each shared car substitutes several private cars (MOMO project estimated that each Car-Sharing vehicle replaces at least four to eight personal cars, but other studies had even higher estimates). This fact determines that in cities it is necessary to dedicate less space to parking, increasing space available for social activities or for urban vegetation.

Economic benefits (e.g., cost savings and/or business opportunities with new technology etc., regional development, cost reductions or revenues in other sectors); state the number of full time equivalent (FTE) jobs created, showing a breakdown in qualified/non-qualified staff.

Thanks to the I-SharE LIFE project, it was possible to propose the business models on the market at a more convenient price (about 50% less), especially for public administration customers who do not have much budget available to start up shared and ecological mobility projects.

Internally at E-VAI, the project allowed the replication of business model no. 3 throughout Lombardy, which resulted in an increase in resources (6 new FTEs) located within the different areas of Operations, ICT and Sales (including the marketing department). Obviously, in these last three years there have been some exits from the company, both for voluntary redundancies and for secondments to other companies in the FNM group. The final human resources balance shows a positive result of +6 FTE:

- 2 FTE - Management of the IT department and governance of the maintenance and evolution process of the new car sharing platform
- 2 FTE - Key Account Managers in the commercial area and a new manager in the Marketing department to increase the number of B2B and B2C customers in Lombardy
- 2 FTE - New operators dedicated to the provision of the car sharing service, through data monitoring and customer support during the different rental phases
- Thanks to the new technology implemented (car sharing platform) in the E-VAI company, it has been possible to manage the service at an operational level, digitalising many operational processes and at the same time reducing the use of daily paper.

Social benefits. The implementation of model no. 3 (Public) within several municipalities in lombardy, which are small and isolated from large urban centres, has had numerous positive effects:

- Connection to the main airports and the main railway stations of the lombardy region
- Implementation of an ecological, technologically innovative, and shared mobility solution for the citizens of the municipality
- Each car sharing car takes at least 6 own cars off the road, thus reducing dust pollution and increasing air quality
- Creation of a "culture" in the use of interactive and digital services using smartphones as a tool for accessing information and using products

The implementation of model no. 3 "Public" thus brings tangible and intangible benefits to all localities both near large urban centres and in rural and isolated areas

Replicability, transferability, cooperation. Thanks to the funding provided by the I-SharE LIFE project, starting from the beginning of 2019, E-VAI has been able to directly test on the market the business models within the 4 demo sites. This experimentation allowed to collect data on the market, through the workshop organized by the partner Poliedra, and to refine the contractual and economic structure of each model. In September 2020, during the Covid-19 pandemic, E-VAI began to replicate on the market model no. 3 "Public", which had been most successful during the experimentation phase, throughout the Lombardy region. As described in paragraph 2, it is thanks to the financing of external costs that the economic offer, presented to local public administrations, turned out to be very convenient in terms of costs and benefits. Throughout the three-year period of the project, E-VAI never needed to ask for funding from third parties, which could in some way increase the level of performance and dissemination of model no. 3 "Public" within the Lombardy territory. E-VAI leveraged its organisational structure, increased by 6 FTE thanks to the financing of the I-SharE LIFE project, its expertise/know-how in the sharing mobility sector and its own competences to achieve the project results. E-VAI has never considered pure or mixed bundling with other companies in the sharing mobility sector, as this is not foreseen by the I-SharE LIFE project nor by its business plan. Moreover, there are currently no products on the market that can be assimilated into a single innovative, shared, intermodal with the Lombardy railway transport and environmentally friendly mobility offer.

Best Practice lessons. During the three years of the I-SharE LIFE project, E-VAI clashed several times with obstacles coming from the lack of "culture" and propensity of the Lombardy municipalities towards the activation of innovative sharing mobility services; at the same time, these barriers allowed E-VAI to learn, define and use new negotiation techniques, offering ancillary and less rigid products (pay-per-use service) compared to the "Public" model.

In addition to the question of the compatibility of the service offered, E-VAI has had to clash several times with the municipal administrations over the question of the exclusive assignment of parking spaces and the use of the recharging columns present in the area.

In fact, in the past few years, thanks to national government subsidies, many municipalities have begun to focus their attention on the infrastructure of their territory, starting to issue expressions of interest to identify energy providers, who were willing to install free of charge (including the costs of digging the road surface and connecting the electrical cables) recharging stations within the urban perimeter.

At the end of this process of installation and dissemination of new charging infrastructures, many energy providers, in agreement with the municipal administrations, decided to guarantee the free use of these infrastructures in order not to preclude their use by private parties. For this reason, following the formalisation of the agreement to activate the service, E-VAI had several problems in obtaining the allocation of spaces and the exclusive use of at least one of the two recharging sockets in each column.

In order to overcome this "operational" limitation, E-VAI decided to bring forward the issue of obtaining permission to use the parking spaces and the recharging columns between the negotiation phase and the contractual phase. This decision made it possible not only to speed up the operational activation phase of the car sharing service, because it was resolved at a preliminary stage of the agreement, but also to have a fixed location where customers could pick up and drop off the service vehicles.

Finally, over the years it has been possible to verify how the installation time of a charging station varies from 6 to 9 months, not only because of the latency of the procedures for obtaining permits for excavation and construction work, but also because of the physical activation of the charging station meter, which can only be carried out by the company Enel S.p.A.

Innovation and demonstration value: About the Innovative electric car sharing service models, LIFE EU funding at the national and international level allowed the development of a new ICT platform for advanced car sharing services and related business models.

A high IT platform development potential, as the core IT platform is based on an advanced, data-driven BPM (Business Process Manager) software, with specific structures for developing maintenance applications, that allows a wide range of activity data recording, their collection, catalogue, management and analysis activities.

The demonstration value gained includes:

- ❖ User-friendliness characteristics
- ❖ Decision-making capabilities
- ❖ Advanced use and data analysis
- ❖ More, extended and original application Features both on frontend and Backoffice side
- ❖ Enhanced Communication channels
- ❖ Hardware – Software integrations made easier by design (for synergic activities with MaaS systems and other Public Transportation services - See FNM Group and GPP)

IT platform design and development, based on Agile methodologies and Co-design, helped in making specific solutions to user and operator's request, more flexible for further changes or future improvements. This approach forced us to apply knowledge integration in software and process design subprojects, emphasizing a collaborative, team-based approach that aimed to deliver software platform solutions in short, iterative cycles, respecting quality criteria.

As a SaaS, Internal Checklists in solving Incident Management and continuous feedback from the operational staff using the Platform day-by-day, supported to build a solid base of knowledge and to track anomalies, malfunctions, and enhancements.

About the stakeholder involvement a great work in the I-SharE LIFE project was done at the beginning of it. Stakeholders have been selected based on the different demo sites and the project actions for which they are relevant. Each stakeholder had been analysed according to the relevance/urgency they could have in the project. On the results obtained the stakeholders had been distributed according to the different project steps. The activities made by the teams were: the listing of interesting stakeholders by all partners, tools to map the actors and the link to each Italian demo site.

Policy implications: FNM Regulatory Unit and ASSTRA are constantly in communication with the National Government and with Italian Ministry of Infrastructure & Sustainable Mobility, the Italian Ministry of the Ecological Transition and with the Italian Ministry of Economic Development to raise the awareness of institutions towards policies related to Sharing and Sustainable Mobility Systems.

From the beginning of the Project, FNM has organized several meetings with Lombardy Region to disseminate and communicate the objectives of the project and to raise the awareness of institutions towards policies in favour of sustainable and sharing Mobility.

Results of Actions carried out by FNM with policy makers at the National Level

1) D.L. n.73/2021 - "Urgent measures related to the COVID-19 emergency, for companies, work, young people, health and territorial services"

art.51: "Urgent provisions on local public transport "a measure that allocates 50M€ in 2021 for incentives to PA and schools to appoint mobility managers, and to finance sustainable mobility initiatives such as car sharing, carpooling, bike sharing and bike pooling for home - work and home - schools travels (will be converted into Law by 25.07.2021)

2) National Recovery and Resilience Plan (NRP), sent by the Government to Parliament on 25 April 2021 and whose final approval is expected by the end of April: the pandemic, and the ensuing economic crisis, prompted the EU to formulate a coordinated response at both the cyclical level, with the suspension of the Stability Pact and substantial economic support packages adopted by individual Member States, and the structural level, in particular with the launch at the end of May 2020 of the Next Generation EU (NGEU) programme.

Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021 establishing the Recovery and Resilience Facility (hereinafter also the RFF Regulation) sets out the six main areas of intervention (pillars) on which the NRPs are to focus:

- Green Transition
- Digital transformation

- Smart, sustainable, and inclusive growth
- Social and territorial cohesion
- Health and economic, social and institutional resilience
- Policies for new generations, children, and youth.

The Green Transition pillar stems directly from the European Green Deal and the EU's twin goals of achieving climate neutrality by 2050 and reducing greenhouse gas emissions by 55% compared to the 1990 scenario by 2030. The NGEU regulation stipulates that a minimum of 37 per cent of the investment and reform expenditure programmed in the NRPs must support climate objectives.

Italy's overall target, necessary to cover the energy requirements of electric vehicles, is more than 3.4 million recharging infrastructures by 2030, of which 32,000 will be public, fast, and ultra-fast. The project line included in the **M2C2 component of this Plan** (Ecological Transition and Sustainable Mobility) allows for the installation of 21,355 fast and ultra-fast public charging points (which are currently furthest from economic competitiveness and for which there is also a reduced availability of measures and funds). In addition, the development of 40 hydrogen fuelling stations for wheeled vehicles and 9 for rail transport is being financed. The PNRR emphasises the need to provide transparent and non-discriminatory criteria for the allocation of spaces and/or the selection of operators for the installation of electric car charging stations (adequately valuing the price component offered by companies to consumers), and to overcome the regulatory obstacles which, especially in terms of tariffs, still stand in the way of the free provision of electricity for vehicle charging.

To achieve the European decarbonisation objectives, the NRP envisages a fleet of around 6 million electric vehicles by 2030, for which it is estimated that 31,500 public fast-charging points are needed. The measure therefore aims to build enabling infrastructures to promote the development of sustainable mobility and accelerate the transition from the traditional model of fuel-based refuelling stations to refuelling points for electric vehicles. In this regard, the NRP envisages an intervention aimed at developing 7,500 fast-charging points on motorways and 13,755 in urban centres, as well as 100 experimental charging stations with energy storage technologies

National Recovery & Resiliency Plan: approved on 30.04.2021 - 235,12 Mio€

- M2C2 - Ecological Transition and Sustainable Mobility- 23,78B€ (RRF + 0,18 React EU)

The measure aims to build enabling infrastructures to promote the development of sustainable mobility and PT and accelerate the transition from the traditional model of fuel-based refuelling stations to refuelling points for electric vehicles.

3) D.L. n.59/2021 - National plan for complementary investments

- Investment n.9 -1,4 B€ for fleet renewal, buses, trains, and green ships. This line of investment is a complementary investment to the NRRP related to M2C2, mission 2 - green revolution and green transition - Component 2 - energy transition and sustainable mobility.

4) Decree-Law No. 111/2019 "Urgent measures for compliance with the obligations laid down in Directive 2008/20 EC on air quality and extension of the deadline under Article 48, paragraphs 11 and 13 of Decree-Law No. 189/2016 converted, with amendments, by Law No. 229/2016" (the so-called "Climate Decree"), converted into law, with amendments, by art. 1, paragraph 1, L. 12 December 2019, no. 141.: art. 2 of Decree-Law 111/2019 establishes, in the budget of the Ministry of the Environment and Protection of Land and Sea, a fund called "*Experimental good mobility programme*". In the enumeration of the areas outlined for the usability of this voucher, also included is "***the use of shared mobility services for individual use***".

The art. 229, paragraph 2, D.L. 34/2020, converted with modifications by L. 77/2020 and, subsequently, the art. 1, paragraph 692, of L. 178/2020, have provided for a redetermination of the relative funds.

5) L. 160/2019 "State budget for the financial year 2020 and multiannual budget for the period 2020-2022": art. 85 of this law contains the following provision "*In the estimate of the Ministry of Economy and Finance, a fund to be distributed is established with an allocation of 470 million euros for the year 2020, 930 million euros for the year 2021 and 1. 420 million euros for each of the years 2022 and 2023, of which*

a share of not less than 150 million euros for each of the years 2020, 2021 and 2022 shall be allocated to interventions consistent with the purposes set forth in Article 19, paragraph 6, of Legislative Decree No. 30 of 13 March 2013, of which up to 20 million euros for each of the aforementioned years shall be allocated to initiatives to be launched in environmental economic zones. The proceeds of the auctions of CO2 emission quotas referred to in Article 19 of Legislative Decree no. 30 of 13 March 2013, paid to the State budget in 2020, 2021 and 2022, from the share of the Ministry for the Environment and the Protection of Land and Sea, for an amount of €150 million for each of the aforementioned years, which is acquired by the Treasury, shall contribute to the establishment of the fund".

Article 86 of the same law further provides that: *"Using the availability of the fund referred to in paragraph 85, the Minister for the Economy and Finance is authorised to intervene by granting one or more guarantees, against payment, also with reference to a collective portfolio of operations and to a maximum extent of 80 per cent, in order to support specific investment programmes and operations, also in public-private partnership and also carried out with the intervention of universities and private research bodies, aimed at realising economically sustainable projects that have as their objective the decarbonisation of the economy, the circular economy, support for young and female entrepreneurs, the reduction of plastic use and the replacement of plastic with alternative materials, urban regeneration, sustainable tourism, the adaptation and mitigation of risks on the territory deriving from climate change and, in general, investment programmes and projects of an innovative nature and with a high level of environmental sustainability and that take into account social impacts'.*

The above provisions must be read in conjunction with Article 64 of Decree Law 76/2020.

6) Decree-Law no. 76/2020 "Urgent measures for simplification and digital innovation", converted into law, with amendments, by art. 1, paragraph 1, Law no. 120 of 11 September 2020: Article 64 of Decree-Law 76/2020 identifies the scope of the guarantees and interventions referred to in Article 86 of Budget Law 160/2019: *"The guarantees and interventions referred to in Article 1(86) of Law no. 160, may concern, taking into account the guidelines that the Inter-Ministerial Committee for Economic Planning may issue by 28 February each year and in accordance with the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions No. 640 of 11 December 2019 on the European Green deal:*

(a) projects aimed at facilitating the transition to a clean and circular economy and integrating production cycles with low-emission technologies to produce sustainable goods and services.

*(b) projects aimed at accelerating the transition towards **sustainable and intelligent mobility**, with particular reference to projects aimed at fostering the advent of automated and connected **multimodal mobility**, suitable for reducing pollution and the scale of pollutant emissions, including through the development of intelligent traffic management systems, made possible by digitalisation [...]"*.

Actions carried out by FNM with policy makers at the Regional Level

FNM, together with Lombardy Region, promote Sustainable and Shared Electric Mobility as follows:

1) Regional Resolution: Delib. G.R. n. XI/4275 - Approval of the document "Main challenges and priorities for the employment of the European Regional Development Fund (ERDF) 2021-2027" and of the document "Main challenges and priorities for the employment of the European Social Fund Plus (ESF+) 2021-2027 and start of negotiations on the European Structural Investment Funds for the period 2021-2027": these documents provide for the promotion of electric, multimodal and sustainable mobility as a fundamental objective.

2) Regional Resolution: Delib. G.R. n. XI/3924 - "Approval of the document Smart Mobility & Artificial Intelligence strategy and projects for the innovation of the mobility system of Regione Lombardia": this

document aims to promote sustainable mobility and car sharing.

3) **Regional Resolution: Delib. G.R. n. XI/4373** "Facilitation measure for public entities for the construction of an infrastructure for the electric recharging of vehicles in the Lombardy territory (L.R. 9/2020) approved by Delib. G.R. 11/4323 of 15 February 2021 - Extension of lake and river mobility and allocation of funds".

4) **Regional Resolution: Delib. G.R. n.XI/4155** "Approval of the smart specialization strategy for R&I - S3" approved by the Delib. G.R. n.XI/4155 of 30 December 2020 identify:

- Area of specialization: "Sustainable Mobility"
- Ecosystem of Innovation n. "Ecosystem of Smart & Sustainable Mobility".

5) **Regional Law n.9/2020** "Interventions for economic recovery": Art. 1 paragraph 5 of this regional law provides measures for sustainable & shared mobility.

6) **Regional Territorial Plan (PTR)**: the latest update of the PTR was approved by D.c.r. no. 1443 of 24 November 2020 (published in the Official Bulletin of the Lombardy Region, Ordinary Series, no. 50 of 7 December 2020), as an attachment to the 2020 Regional Economic and Financial Document.

Dyvolve, together with the City of Osijek, had been engaged in activities related to ensuring Sustainable Mobility project will be co-funded in the future from the following instrument:

National recovery and Resilience Programme (RRF) 2021-2023 for the Republic of Croatia

- C1.4. Development of a competitive, energy sustainable and efficient transport system
- **C1.4. R5 Greening of traffic**
- C1.4. R5-I3 Program for co-financing the purchase of new alternative fuel vehicles and the development of alternative fuel infrastructure in road transport
- C1.4. Development of a competitive, energy sustainable and efficient transport system
- **C1.4. R4 Improving the public transport system**
- C1.4. R4-I1 Procurement of alternative propulsion vehicles
- C1.4. R4-I2 Modernization of tram infrastructure
- C1.4. Development of a competitive, energy sustainable and efficient transport system
- **C1.4. R5 Greening of traffic**
- C1.4. R5-I3 Program for co-financing the purchase of new alternative fuel vehicles and the development of alternative fuel infrastructure in road transport

National Environmental Protection and Energy Efficiency Fund of the Republic of Croatia

- Energy efficient vehicle co-financing program (focused on electric and plug-in hybrid vehicles and related charging infrastructure)

Cohesion Policy 2021-2027 for the Republic of Croatia

- Mobility-As-A-Service (MAAS) projects
- R&D programs for innovative green & digital transport solutions
- Demand-responsive transport (DRT) projects
- City Transport Depo refurbishments
- Micro mobility Scheme development projects

7. Key Project-level Indicators

The table shows all the values of KPIs that fill the Web Tool requests.

For each KPI the table report:

- the start value: the actual value of the KPI at the beginning of the project
- the target end value: the value of the KPI that at the beginning of the project was set as a target to reach at the end of the project
- the actual end value: the value of the KPI that is calculated at the end of the project based on the project results
- the % of target achieved: the percentage of the target value set at the beginning of the project that was achieved by the project. For KPIs in the groups 4, 5 and 8, the percentage is calculated as actual reduction from the start value, divided by the target reduction from the start value. For KPIs in the groups 10, 11, 12, 13 and 14, the percentage is calculated as actual end value divided by the target end value
- in many cases the beyond end values were not modified since the targets in a non-pandemic scenario can be confirmed. Values that already exceeded target values were updated.

As already explained, environmental KPIs (green) in general did not meet the targets because the actual use of the car sharing service was below the expectation. This is mainly because the pandemic significantly lowered the success of the services. This is true especially for Italy, while in Croatia, the KPIs show in general values very close to the targets.

Social and networking KPIs (yellow) reached in general successfully their targets, in some cases well beyond expectations. The reason is that the project partner ASSTRA, in charge of the related tasks, was focused and engaged in reaching the targets since the early stage of the project.

Economic KPIs (red) shows that the jobs created were in line with the target, with an extra job created in Italy. Costs, revenues and future funding seems well balanced for a future continuation of the e-car sharing services.

KPI NR	CONTEXT	FIRST LEVEL DESCRIPTOR	START VALUE	TARGET END VALUE	ACTUAL END VALUE	% of target achieved	BEYOND END VALUE	UNIT
1.5	ITALY	Project length	0	1,714,650	918,100	54%	3,400,000	km
<p>It has been considered sensible to insert here the distance run by the I-SharE LIFE e-cars in the municipalities involved in the project (end value) and those where the continuation of the project is expected. This distance is directly proportional to the reduction of km run using conventional fuels and therefore to the improvement of the relevant environmental parameters in the area. The estimated increase in the next 3 years is due to a lower impact of pandemic (+20% of distance run by each car) and the increase of the fleet (from 80 to 110 cars).</p>								
1.5	CROATIA	Project length	0	153,300	140,300	92%	600,000	km
<p>It has been considered sensible to insert here the distance run by the I-SharE LIFE e-cars in the municipalities involved in the project (end value) and those where the continuation of the project is expected. This distance is directly proportional to the reduction of km run using conventional fuels and therefore to the improvement of the relevant environmental parameters in the area. The increase in the next 3 years is due to a lower impact of the pandemic and the increase of the fleet (from 8 to 10 e-cars for the B2C business model and from 0 to 30 for the B2B business model).</p>								

1.6	ITALY	Persons who changed their behaviour or practices due to the project actions	0	450	480	106%	850	Number of residents within or near the project area
The persons who changed their behavior or practices due to the project actions are counted as the car-sharing subscribers								
1.6	CROATIA	Persons who changed their behaviour or practices due to the project actions	0	250	256	102%	1000	Number of residents within or near the project area
The persons who changed their behavior or practices due to the project actions are counted as the car-sharing subscribers								
KPI NR	CONTEXT	FIRST LEVEL DESCRIPTOR	START VALUE	TARGET END VALUE	ACTUAL END VALUE	% of target achieved	BEYOND END VALUE	UNIT
4.1.1	ITALY	Gasoline	1,576,080	788,040	1,166,872	52%	0	kWh/year
<p>The reduction in gasoline consumption is estimated assuming that all trips made within the I-SharE project will substitute trips made with average ICE vehicles.</p> <p>The calculation considers the trips made 3 years after the end of the project as reference to estimate begin and end values. The consumption rate per km of ICE cars is set to 0.6 kWh/km [Nealer, R., Reichmuth, D., Anair, D. (2015). Cleaner Cars from Cradle to Grave How Electric Cars Beat Gasoline Cars on Lifetime Global Warming Emissions, Union of Concerned Scientists November 2015]</p> <p>The electricity used by electric vehicles will be produced only by clean and renewable resources, so the final value of gasoline consumption is set to 0.</p>								
4.1.1	CROATIA	Gasoline	486,000	378,000	389,796	89%	0	kWh/year
<p>The reduction of gasoline consumption is estimated assuming that all trips made within the I-SharE project will substitute trips made with average ICE vehicles.</p> <p>The calculation considers the trips made 3 years after the end of the project as reference to estimate baseline and end values. The consumption rate per km of ICE cars is set to 0.6 kWh/km [Nealer, R., Reichmuth, D., Anair, D. (2015). Cleaner Cars from Cradle to Grave How Electric Cars Beat Gasoline Cars on Lifetime Global Warming Emissions, Union of Concerned Scientists November 2015]</p> <p>The electricity used by electric vehicles will be produced only by clean and renewable resources, so the final value of gasoline consumption is set to 0.</p>								
6.1	ITALY	CO	3.2	1.6	2.4	50%	0	kg/day
<p>The reduction in CO emissions is estimated assuming that all trips made within the I-SharE project will substitute trips made with average ICE vehicles. The calculation considers the trips made 3 years after the end of the project as reference to estimate begin and end values. The electricity used by electric vehicles will be produced only by clean and renewable resources.</p> <p>Emission factors of an average ICE Italian car is provided by Lombardy Regional Agency for Environment Protection and is 442 mg/km.</p>								
6.1	CROATIA	CO	1	0.69	0.72	90%	0	kg/day
<p>The reduction in CO emissions is estimated assuming that all trips made within the I-SharE project will substitute trips made with average ICE vehicles. The calculation considers the trips made 3 years after the end of the project as reference to estimate baseline and end values. The electricity used by electric vehicles will be produced only by clean and renewable resources.</p>								

The emission factor of an average Croatian ICE car is provided by the Croatian Agency for Environment and Nature and is 600 mg/km.								
6.1	ITALY	NO2/NOX	3.1	1.6	2.3	53%	0	kg/day
The reduction in NOX emissions is estimated assuming that all trips made within the I-SharE project will substitute trips made with average ICE vehicles. The calculation considers the trips made 3 years after the end of the project as reference to estimate baseline and end values. The electricity used by electric vehicles will be produced only by clean and renewable resources. The emission factor of an average ICE Italian car is provided by Lombardy Regional Agency for Environment Protection and is 433 mg/km.								
6.1	CROATIA	NO2/NOX	0.82	0.58	0.60	92%	0	kg/day
The reduction in NOX emissions is estimated assuming that all trips made within the I-SharE project will substitute trips made with average ICE vehicles. The calculation considers the trips made 3 years after the end of the project as reference to estimate baseline and end values. The electricity used by electric vehicles will be produced only by clean and renewable resources. The emission factor of an average ICE Croatian car is provided by the Croatian Agency for Environment and Nature and is 500 mg/km.								
6.1	ITALY	PM 10	0.5	0.3	0.34	80%	0.1	kg/day
The reduction in PM10 emissions is estimated assuming that all trips made within the I-SharE project will substitute trips made with average ICE vehicles. The calculation considers the trips made 3 years after the end of the project as reference to estimate baseline and end values. The electricity used by electric vehicles will be produced only by clean and renewable resources. The final value is not zero because the PM10 emitted by the consumption of brakes and tires is taken into consideration. The emission factor of an average ICE Italian car is provided by Lombardy Regional Agency for Environment Protection and is 60 mg/km.								
6.1	CROATIA	PM 10	0.14	0.09	0.09	100%	0	kg/day
The reduction in PM10 emissions is estimated assuming that all trips made within the I-SharE project will substitute trips made with average ICE vehicles. The calculation considers the trips made 3 years after the end of the project as reference to estimate baseline and end values. The electricity used by electric vehicles will be produced only by clean and renewable resources. The final value is not zero because the PM10 emitted by the consumption of brakes and tires is taken into consideration. The emission factor of an average ICE Croatian car is provided by the Croatian Agency for Environment and Nature and is 70 mg/km.								
8.1.1	ITALY	Transport/ mobility (incl. road)	484	301	408	42%	118	Tons of CO2 /year
8.1.1	ITALY	Transport/ mobility (incl. road)	0.18	0.13	0.16	30%	0.06	kg CO2/km
The reduction in CO2 emissions is estimated assuming that all trips made within the I-SharE project will substitute trips made with average ICE vehicles. The calculation considers the trips made 3 years after the end of the project as reference to estimate baseline and end values. The electricity used by electric vehicles will be produced only by clean and renewable resources. In the calculation the CO2 emitted for vehicles and batteries manufacturing is taken into account. That explains why the CO2 emitted beyond the end of the project doesn't reduce to zero. The emission factor of an average ICE Italian car is provided by Lombardy Regional Agency for Environment Protection and is 169 g/km, while CO2 for each battery is 0.78 t /year and for each vehicle manufacturing is 0.4 t/year.								
8.1.1	CROATIA	Transport/ mobility (incl. road)	171	135	138	92%	42	Tons of CO2 /year
8.1.1	CROATIA	Transport/ mobility (incl. road)	0.29	0.27	0.27	100%	0.11	kg CO2/km

The reduction in CO2 emissions is estimated assuming that all trips made within the I-SharE project will substitute trips made with average ICE vehicles. The calculation considers the trips made 3 years after the end of the project as reference to estimate baseline and end values.

The electricity used by electric vehicles will be produced only by clean and renewable resources.

In the calculation the CO2 emitted for vehicles and batteries manufacturing is taken into account. That explains why the CO2 emitted beyond the end of the project does not reduce to zero.

The emission factor of an average ICE Croatian car is provided by the Croatian Agency for Environment and Nature and is 165 mg/km, while CO2 for battery is 0.78 t /year and for vehicle manufacturing is 0.4 t/year.

KPI NR	CONTEXT	FIRST LEVEL DESCRIPTOR	START VALUE	TARGET END VALUE	ACTUAL END VALUE	% of target achieved	BEYOND END VALUE	UNIT
10.2. Involvement of non-governmental organisations (NGOs) and other stakeholders in project activities								
10.2	ITALY + CROATIA	Other	0		16		20	number of individuals
<p>We carried out a process of co-design of business models with several stakeholders; main among others: UNIVERSITA COMMERCIALE LUIGI BOCCONI, UNIVERSITA DEGLI STUDI DI MILANO, UNIVERSITA DEGLI STUDI DI MILANO BICOCCA, KILOMETRO ROSSO, COMO NEXT, ITIA CNR NATIONAL RESEARCH COUNCIL INSTITUTE OF INDUSTRIAL TECHNOLOGIES AND AUTOMATION, FONDAZIONE POLITECNICO, UNIVERSITY OF OSIJEK, COMO MUNICIPALITY TOURISM COUNCILLOR, HOTEL ASSOCIATION.</p> <p>More stakeholders as universities, foundations, and other will be involved for the I-SharE LIFE models.</p>								
10.2	ITALY + CROATIA	Public body/bodies	0		50		70	number of individuals
<p>We carried out a process of co-design of business models with several local and regional administrations; main among others: MUNICIPALITY OF BUSTO ARSIZIO, MUNICIPALITY OF BOLLATE , BERGAMO MUNICIPALITY, MUNICIPALITY OF COMO, RAGUSA MUNICIPALITY, PROVINCIA DI VARESE, AREA METROPOLITANA OF MILAN, PROVINCIA OF COMO, ARPA LOMBARDIA REGIONAL AGENCY FOR THE ENVIRONMENTAL PROTECTION, LOMBARDY REGION, BERGAMO PROVINCE, REGIONAL AUTHORITY UTR, AGENZIA DEL TPL COMO,LECCO,VARESE, ATS, CITY OF OSIJEK, PP KOPACKI RIT, OSIJEK-BARANJA COUNTY, CHAMBER OF ECONOMY, TOURIST BOARD OF THE CITY OF OSIJEK, ANTUNOVAC MUNICIPALITY, BILJE MUNICIPALITY, BIZOVAC MUNICIPALITY, CEPIN MUNICIPALITY, CITY OF BELISCE, CITY OF VALPOVO, DARDA MUNICIPALITY, ERNESTINOVO MUNICIPALITY, K.VINOGRADI MUNICIPALITY, GPP LTD.</p> <p>More municipalities will be involved for the I-SharE LIFE models (Public and Corporate).</p>								
10.2	ITALY + CROATIA	Private for profit	0		54		70	number of individuals
<p>We carried out co-design of business models with several private subjects; main among others: A2A, ENEL, AON S.P.A., EOLO S.P.A., EVAI SALES ADVISORY, GR ADVISORY, POSYTRON, FERROVIENORD, TRENORD, FERROVIENORD, TRENORD, ATB LOCAL TRANSPORT COMPANY, ARST CAGLIARI, ATAM REGGIO CALABRIA, ATM MESSINA, ATV VERONA, ATVO SAN DONA DI PIAVE, CONTRAM CAMERINO, CTM CAGLIARI, ENTE AUTONOMO VOLTURNO NAPOLI, FERROTRAMVIARIA BARI, FERROVIE DELLA CALABRIA CATANZARO, GESTIONE GOVERNATIVA NAVIGAZIONE LAGHI MILANO, GTT TORINO, SOCIETA UNICA ABRUZZESE DI TRASPORTO (TUA) CHIETI, START ROMAGNA RIMINI, TPER BOLOGNA, TRIESTE TRASPORTI TRIESTE, RES SOLAR, HOTEL AND CAMPING, UNIACQUE, BREMBO, MALPENSA FIERA, SEA AIRPORT, ENTE FIERA, , TRIBUNALE, ASF AUTOLINEE, OSPEDALE COMO, PIRELLI, SOLVAY, ABB, GEWISS, SCHNEIDER ELECTRIC, TENARIS, HZ PASSENGER TRANSPORT, BIOS LTD., SPORTSKI OBJEKTI LTD., OSJECKI SAJAM, PORTANOVA, TRZNICE, ZRACNA LUKA.</p> <p>More private stakeholders will be involved for the Easy station and Corporate models.</p>								
10.2	ITALY + CROATIA	Other civil society organisations	0		30		40	number of individuals

<p>We carried out a process of co-design of business models with several organisations; main among others: The main organisations are: COMMUTERS ASSOCIATION, CITIZENS ASSOCIATIONS, CITY USERS, ACI, ASSOCIAZIONE COMMERCianti, CAMERA DI COMMERCIO, CONFARTIGIANATO, CONFINDUSTRIA (UNIVA TRADE UNION), ASSOCIAZIONE COMMERCianti, CAMERA DI COMMERCIO, CONFINDUSTRIA (TRADE UNION), ASSOLOMBARDA, ASCOM, CONSORZIO DI BONIFICA, UNIONE ARTIGIANI, CONFINDUSTRIA LOMBARDIA (ENTREPRENEURS ASSOCIATION), UNIONE DEGLI INDUSTRIALI DELLA PROVINCIA DI VARESE, UTR, ARIBI, OSIJEK SOFTWARE CITY, ZELENi OSIJEK. More stakeholders from civil society will be involved for the I-SharE LIFE models (Easy station, Car plus Train, B2C model).</p>								
11.1	ITALY + CROATIA	No. of unique visits	0	5000	8224	164%	10000	number
11.2. Other tools for reaching/raising awareness of the general public								
11.2	ITALY + CROATIA	Other distinct media products created (e.g. different videos/broadcast/leaflets)	0		17		17	Number of outcomes
<p>We produced 5 leaflets, 6 brochures and 5 videos describing the project outcomes in each of the 5 demo sites. One of the 5 videos was broadcasted on a internet web tv.</p>								
11.2	ITALY + CROATIA	Number of articles in print media (e.g. newspaper and magazine articles)	0		45		60	Number of outcomes
<p>Several articles describing the milestones and results of the projects published on: Thematic magazine: TP "Trasporti pubblici" by ASSTRA, "Paralleli" - house organ of FNM, E-Vai and ASSTRA newsletters "Pillole di mobilità", Other articles published monthly on regional and local newspapers. Further articles are foreseen in the afterLIFE (See the deliverable "Dissemination report and afterLIFE plan" for a complete list).</p>								
11.2	ITALY + CROATIA	Number of different displayed information created (posters, information boards)	0	-	59	-	100	Number of outcomes
<p>2 rollups + 1 notice board per partner (7 in total) + 50 posts on linkedin and twitter. Further info on social media will be posted in the afterLIFE.</p>								
11.2	ITALY + CROATIA	Number of events/exhibitions organised	0	-	14	-	14	Number of outcomes
<p>We organized 2 technical workshops, 2 dissemination events and 10 beta users workshops</p>								
12.1. Networking								
12.1	ITALY + CROATIA	Members of interest groups / lobby organisations	0		250		250	No. of individuals
<p>We considered the individuals that have been involved in all dissemination and communication activities (events, articles, newsletter, social media, etc). Partner ASSTRA chose the interests groups and lobby organization within its network of public transport agencies. Beyond 3 years we estimate the same number of individuals because we want to use the same networking channels to update on the results of the project.</p>								
12.1	ITALY + CROATIA	Students (in higher education)	0		10		10	No. of individuals

A small group of student was involved in the beta testing phase of the project.								
12.1	ITALY + CROATIA	Professionals - experts in the field	0		4241		4241	No. of individuals
<p>We considered the professionals that have been involved in all dissemination and communication activities (events, articles, newsletter, social media, etc).</p> <p>Professionals were reached through the partner ASSTRA (National Association for Public Transport Agencies) network. Beyond 3 years we estimate the same number of individuals because we will use the same networking channels to update the results of the project.</p>								
12.1	ITALY + CROATIA	Other	0		100		100	No. of individuals
<p>We considered the individuals that have been involved in dissemination and communication activities (events, articles, newsletter, social media, etc) who are not in the specific network (professionals and groups of interest) of ASSTRA. The same group of individuals will receive updates about the project in the next three years.</p>								
KPI NR	CONTEXT	FIRST LEVEL DESCRIPTOR	START VALUE	TARGET END VALUE	ACTUAL END VALUE	% of target achieved	BEYOND END VALUE	UNIT
13	ITALY	Jobs	0	5	6	120%	8	No. of FTE
Age group 25-54, upper secondary education, gender male and female, Technical Skills foreseen: Sales, Marketing, IT, Technician to manage infrastructures and fleet.								
13	CROATIA	Jobs	0	9	9	100%	10	No. of FTE
Age group 25-54, upper secondary education, gender male and female, Technical Skills foreseen: Sales, Marketing, IT, Technician to manage infrastructures and fleet.								
14.1	ITALY	Running cost/operating costs during the project and expected in case of continuation/replication/transfer after the project period	0		3,215,905		7,657,800	€
Running costs/operating costs include personnel costs, external costs: external services and consulting, marketing and communication, ICT management (digital platform and black box), vehicles management (rental, maintenance, insurance). We expect a yearly growth of 10% of external and other costs (including the increase number of vehicles to 107 in the third year).								
14.1	CROATIA	Running cost/operating costs during the project and expected in case of continuation/replication/transfer after the project period	0		417,959		3,080,959	€
For Croatia, the current fleet of 8 vehicles deployed in the City of Osijek will be extended slightly (to 10) in the next phase (for the current B2C business model), and might be extended even further based on the project results and average utilization through private or corporate use. The replications are planned for 17 neighboring municipalities (30 new e-cars serving B2C business model and the introduction of B2B business models), all integrated to City of Osijek system (both cars sharing and the rest of public transport system). The overall operating costs will be influenced by producers future e-car pricing schemes, energy cost fluctuations, and possible car sharing companies expanding their presence in pilot areas.								

14.2.1	ITALY + CROATIA	Capital expenditure expected in case of continuation/replication/transfer after the project period					0	€
Both E-Vai and GPP decided to use long term rental approach and not to buy electric vehicles. So, there are no CAPEX (capital expenditure).								
14.2.3.	ITALY	Revenue expected in case of continuation/replication/transfer after the project end					2,400,000	€
Starting from 80 active vehicles in the I-SharE LIFE project, we have estimated a growth of 10% of revenues per year. The calculation considers that the actual revenue for each shared vehicle is about 700 euro/per month for the i-SharE LIFE models.								
14.2.3.	CROATIA	Revenue expected in case of continuation/replication/transfer after the project end					588,600	€
In Croatia, a mix of B2B and B2C offerings are currently being developed and beta-tested. In order to sustain future business models feasibility, a mix of B2B contract offerings and B2C offerings integrated into multi-modal public transport will be deployed.								
14.3	ITALY	Future funding - Grants, subsidies					1,800,000	€
14.3	ITALY	Future funding - Beneficiaries' own contribution					250,000	€
In Italy we expect different direct funding such as National PNRR, European LIFE or INTERREG programs, and subsidies issued by Lombardia Region. Other options such as EIB loans will be assessed after project s end as well. E-Vai will continue to work on autonomous drive and Artificial Intelligence methodologies in order to optimize electric vehicle use. Other Grants/subsidies will be applied to test these new solutions.								
14.3	CROATIA	Future funding - Grants, subsidies					1,640,200	€
14.3	CROATIA	Future funding - Beneficiaries' own contribution					436,000	€
In Croatia, focus of future funding instruments will be put on different grants/subsidies instruments due to relaxed ESIF funding opportunities, different direct funding such as LIFE or INTERREG programs, and subsidies issued by National Environmental Fund. Beneficiaries will ensure their own contribution (worst case estimate at approx. 21%, but realistically more when needed). Other options such as EFSI or EIB loans will be assessed after project s end as well. In Croatia, main focus of future funding instruments will be put on different grants/subsidies instruments due to relaxed ESIF funding opportunities, different direct funding such as LIFE or INTERREG programs, and subsidies issued by National Environmental Fund. Beneficiaries will ensure their own contribution (worst case estimate at approx. 21%, but realistically more when needed). Other options such as EFSI or EIB loans will be assessed after project s end as well.								