





# I SHARE LIFE

# LAYMAN'S REPORT







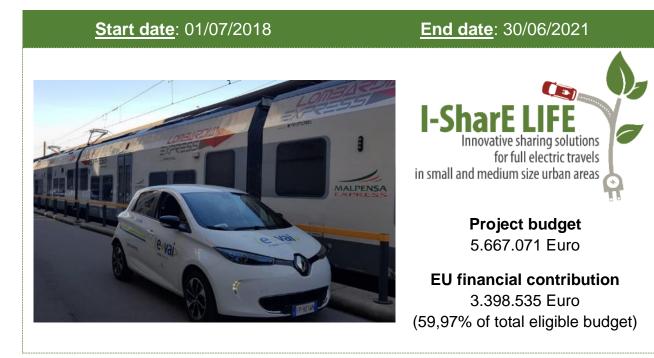


### **GENERAL INFORMATION**

I-SharE LIFE project is positioned within the thematic **priority for air quality and emissions including the urban environment** of LIFE Sub-programme for environment and resource efficiency.

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

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



### www.i-sharelife.eu





### CONTEXT AND ENVIRONMENTAL TARGET

I-SharE LIFE

The main environmental target of I-Share LIFE is the reduction of pollutants and atmospheric loads, in particular PM<sub>10</sub> and NO<sub>2</sub>; this aim is also compounded by a more climate-related aim: the mitigation in the emission of greenhouse gases from road transport and urban mobility.

A total of 50 e-cars were used in the demonstration actions in the four cities in Lombardy, Italy, and further 8 e-cars were used in the demonstration sites in Osijek, Croatia.

The general aim of I-Share LIFE is to reduce the number of conventional internal combustion vehicles circulating in the participating cities, thus reducing the atmospheric load of pollutants in the urban areas, as well as to demonstrate the technological and economic feasibility of a transition to electric car sharing in small to mid-sized urban areas in Italy and Croatia.

The focus on small to mid-sized urban areas also allows for innovative replicability and transferability opportunities in other small to mid-sized urban areas.











# **GENERAL OBJECTIVES**

### Environmental

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.).

### Market uptake

I-Share LIFE Business and Marketing Plans has aimed at facilitating car sharing market uptake in small to mid-sized urban areas, a non-obvious market for car-sharing services.

#### Demonstration

I-Share LIFE has aimed at demonstrating the technological and economic feasibility of e-carsharing models of service tailored to smaller urban areas in Lombardy and Croatia, in order to facilitate the uptake of e- and shared mobility in a wider range of urban contexts.

### Communication

I-SharE LIFE has aimed at increasing awareness on the opportunities linked to e-car-sharing services, so to generate interest in PAs, enterprises, and the general public at regional, national and international levels.









# **PROJECT ACTIONS**

### A Preparatory actions

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

### **B** Implementation actions

B1 Set up of the basic infrastructure and equipment at the demonstration sites

B2 Roadmap and Technical specification of the I-SharE technological platform

- B3 User research: recruitment of I-SharE Beta Users and surveys
- B4 Co-design of the services
- B5 Implementation and tuning of the services
- B6 Sustainability and project continuation
- B7 Replicability and transferability
- C1 Monitoring of the impact of the project actions
- D1 Public awareness and dissemination of results
- E1 Project Management







### **DEMONSTRATION SITES**





Demonstration sites	Description	Area (kmq)	Inhab. (n.)	Popul. density (ab./kmq)
Model 1: "Easy- station" Site: Busto Arsizio	The metropolitan area with many commuters to Milan and it is also close to the Malpensa international airport	30,66	83.532	2.724,46
Model 2: "Easy- station plus" Site: Bollate	A small-size town in the peri-urban area of Milan with some important industries.	13,12	36.548	2.785,67
Model 3: "Public" Site: Bergamo	A high-density industrial city with strong mobility demand that activated incentive policies for e-mobility in its SUMP	40,16	121.000	3.016
Model 4: "Touristic" Site: Como	A well-known tourist city town that wants to develop electric mobility both in the city and along the shores of Lake Como	37,34	85.000	2.231
Model 5: "Public and Corporate Service" Site: Osijek	In eastern Croatia, the fourth largest city in the country, intends to test innovative intermodal car-sharing services	150	108.048	632,34



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### **BUSINESS MODELS: RESULTS AND ENVIRONMENTAL BENEFITS (1/5)**

Model 1 "Easy-station"	Emission savings*			
Site: Busto Arsizio Railway Station (Departure) Railway Station (Arrival)	NOx (kg)	CO (kg)	PM10 (kg)	CO2e (t)
	64	65	9	25
Crew Creation by Carpooling system House	Duration: october 2019 - march 2021			
Employee/Commuter Corporate	Total Kilometers Travelled: 146.848			
Airport	<u>N° of Electric cars</u> : 9			9
	* The calculation of the estimated environmental benefit was made considering the number of trips and km that would have taken place with traditional vehicles (ICE), had the I-Share LIFE service not been implemented			

#### Description of model

The aim of the model is to offer an eco-sustainable and innovative mobility service that responds not only to the needs of commuters, who use the train every day and who make the last mile to reach their workplace, but also to the needs of companies, which need to reduce the costs of their company fleet, optimizing its use and improving the number of vehicles. Specifically, the customer journey of the service includes the following 4 macro-phases:

- 1. The commuter customer will have at his disposal an electric vehicle, which he will find at his home, from which he will go every morning to train station A, here he will leave the vehicle in a parking lot, reserved for him, including a charging point;
- 2. Employees of companies located near railway station A (e.c. 1-2 km), arriving at railway station A, may use the vehicle, left by the commuter customer, to make the last mile and thus reach their place of work;
- 3. Private or public companies, located near railway station A, will thus be able to use the vehicle to carry out business missions throughout their working hours, provided that they return it at the appointed time at the reserved car park of railway station A;
- 4. The commuter customer, upon his return to train station A, will return his vehicle to the appropriate parking lot and return to his home.



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## **BUSINESS MODEL: RESULTS AND ENVIRONMENTAL BENEFITS (2/5)**

Model 2 "Easy-station plus"	Emission savings*			
Site: Bollate Railway Station Railway Station	NOx (kg)	CO (kg)	PM10 (kg)	CO2e (t)
	4	4	1	2
Crew Creation by Carpooling system House Employee/Commuter Corporate	Duration: october 2019 - march 2021			
	<u>N° of Electric cars</u> : 2 * The calculation of the estimated environmental benefit was made considering the number of trips and km that would have taken place with traditional vehicles (ICE), had the I-Share LIFE service not been implemented			2
Airport				

#### Description of model

The aim of the model is to offer an eco-sustainable and innovative mobility service that responds not only to the needs of commuters, who use the train every day and who make the last mile to reach their workplace, but also to the needs of companies, which need to reduce the costs of their company fleet, optimizing its use and improving the number of vehicles. Specifically, the customer journey of the service includes the following 4 macro-phases:

- 1. The commuter customer will have at his disposal an electric vehicle, which he will find at his home, from which he will go every morning to train station A, here he will leave the vehicle in a parking lot, reserved for him, including a charging point;
- 2. Employees of companies located near railway station A (e.c. 1-2 km), arriving at railway station A, may use the vehicle, left by the commuter customer, to make the last mile and thus reach their place of work;
- 3. Private or public companies, located near railway station A, will thus be able to use the vehicle to carry out business missions throughout their working hours, provided that they return it at the appointed time at the reserved car park of railway station A;
- 4. The commuter customer, upon his return to train station A, will return his vehicle to the appropriate parking lot and return to his home.



MAY STATION.







## **BUSINESS MODEL: RESULTS AND ENVIRONMENTAL BENEFITS (3/5)**

**Emission savings\*** Model 3 "Public" Site: Bergamo **PM10** NOx CO (kg) CO<sub>2</sub>e (t) (kg) (kg) 52 53 7 20 Duration: october 2019 - march 2021 Total Kilometers Travelled: 89.457 N° of Electric cars: 7 \* The calculation of the estimated environmental benefit was made considering the number of trips and km that would have taken place with traditional vehicles (ICE), had the I-Share LIFE

#### **Description of model**

service not been implemented

The "Public" model is intended for medium and small urban areas, which are geographically "isolated" and poorly served by the local public transport service, thus being suitable for the needs of municipal administrations and citizens.

- Municipality: electric vehicles, contracted by the municipal administration, or by local authorities or associations, will be used within a specific time slot to carry out work missions and service operations;
- Citizens: outside the time slot reserved for the public administration, the electric vehicle will be made available to all citizens of the Municipality who, by registering for the service on the website or via the APP, will be able to use it in sharing through an instantaneous logic ("Just in time") and make rentals A to A (same pick-up and drop-off location) or A to B (different pickup and drop-off locations).







## **BUSINESS MODEL: RESULTS AND ENVIRONMENTAL BENEFITS (4/5)**

<u>Model 4 "Touristic"</u> <u>Site: Como</u>		Emission savings*		
Airport	NOx (kg)	CO (kg)	PM10 (kg)	CO2e (t)
	13	14	2	5
Railway Station	<u>Duration</u> : october 2019 - march 2021 <u>Total Kilometers Travelled</u> : 23.069			
	<u>N° of Electric cars</u> : 2			2
	* The calculation of the estimated environmental benefit was made considering the number of trips and km that would have taken place with traditional vehicles (ICE), had the I-Share LIFE service not been implemented			

#### Description of model

The "Touristic" car sharing model makes it possible to meet the daily mobility needs of customers of hotels and recreational associations who want to use an electric vehicle for a few hours a day in order to make visits and trips to tourist sites:

- 1. Specifically, tourist customers who arrive at the railway station can rent a vehicle to continue their journey and reach the hotel / tourist facility where they will spend their stay;
- 2. At this tourist-hotel structure, equipped with reserved parking and ad hoc recharging point, the aforementioned vehicle can also be booked by other customers and, at certain times, by employees of the structure itself, to carry out trips and visits to tourist resorts, present in the area, also accessing limited traffic areas.



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## **BUSINESS MODEL: RESULTS AND ENVIRONMENTAL BENEFITS (5/5)**

	Emission savings*			
Model 5 "Public and Corporate Service"	NOx (kg)	CO (kg)	PM10 (kg)	CO2e (t)
Site: Osijek	122	161	17	40
University Tram station Municipality	<u>Duration</u> : october 2019 - march 2021 <u>Total Kilometers Travelled</u> : 122.301			
	<u>N° of Electric cars</u> : 8			
	* The calculation of the estimated environmental benefit was made considering the number of trips and km that would have taken place with traditional vehicles (ICE), had the I-Share LIFE service not been implemented			

#### Description of model

The objective of the "Intermodal" model is to create ad hoc workstations ("Points"), where the mobility service is provided both to business users during working hours (from 9.00 to 17.00) and to the public for the rest of the day (from 17.00 to 9.00). Specifically, the cars will be collected and released in any of the ad hoc stations ("Points"), as these car parks will be located near the train and / or other multimodal stations, in order to allow the continuation of the journey with a solution integrated and continuity alternatives. The service will be structured to provide flexible fares and integrated with local public transport services (bus, tram, etc.) for future users (business and private), allowing for both use-only tariffs and prepaid and post tariffs. -paid, both models for the ownership of third-party vehicles that are part of the car-sharing fleet.



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# **MAIN DISSEMINATION EVENTS**









#### PROJECT COORDINATOR





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REGIONE

LAZIO

**SUPPORTER** 





UITP ADVANCING PUBLIC TRANSPORT

ERGAN



tm Transport Malta

















# WHERE FIND MORE INFO?

### http://www.i-sharelife.eu/



**PROJECT NEWS** 

**DISSEMINATION EVENTS** 

**TECHNICAL WORKSHOP** 

CO-DESIGN WORKSHOPS

**PROJECT DOCUMENTS** 

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