Innovative Product for Sustainable Micromobility

Bridging Circular Value Chains for Permanent Magnets | **May 19th, 2026**

University Foundation · Brussels

Co-funded by the European Union

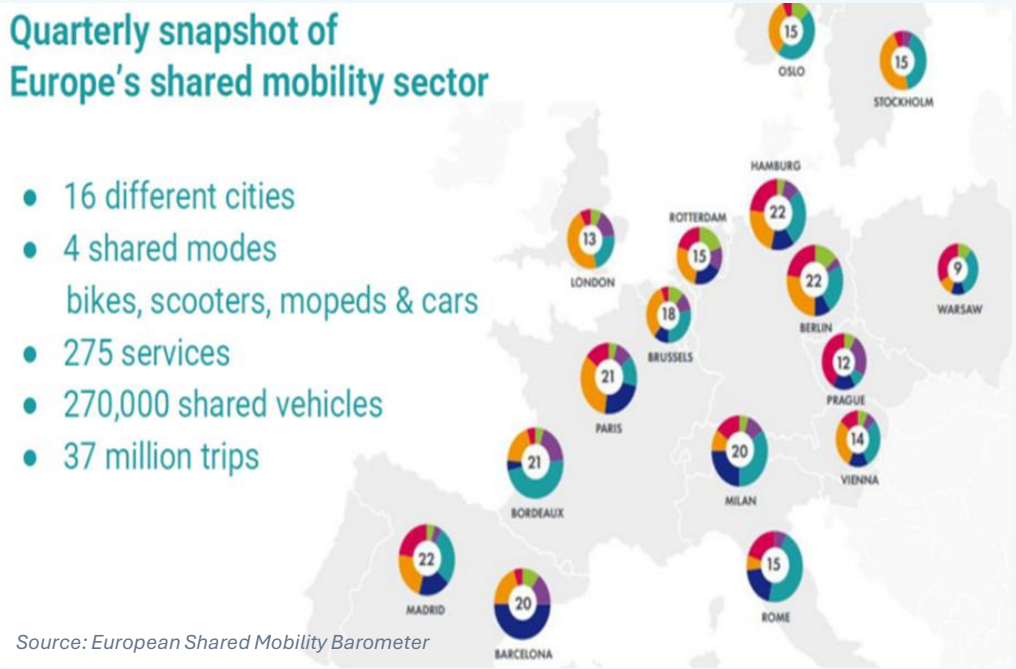
Snapshot of Europe's Shared Mobility Sector

The State of Play

Shared mobility has matured into a mainstream urban transport option, with millions of daily users.

But the picture shows the key facts, but still metro-centric: coverage is strong in large cities, while small and medium towns remain under-represented

This metro-centric gap is one of the key challenges IN-MOB aims to address.



Source: European Shared Mobility Barometer

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Creation of new value chains in less developed regions

MAIN IMPACT

The project will **tackle current infrastructure, regulatory, and adoption barriers** in micromobility, while addressing market failures with **new business models** to support **commercialisation** and **scale-up**.

MAIN OUTPUT

Foster sustainable micromobility by developing and testing (in Funchal and Palermo)

innovative micro-vehicles (MVs) and technologies, including:

- Eco-friendly MVs using **recycled/recyclable** materials
- Vehicles easily **integrated with public transport**
- Solar-powered **fast-charging** hubs with **supercapacitor** and **battery-sharing** technology.
- **In-wheel electric motors** for efficient propulsion

DURATION

36 months
Oct 2023 – Sep 2026

FUNDING

I3 Programme (ERDF)
Total: €4.215.285
EU Grant: €2.950.700

PARTNERSHIP

11 Partners
Italy · Portugal
Slovenia · Belgium

Call: I3-2021-INV2a | Project ID: 101115057

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Project Objectives

Sustainable Micromobility

Promote smart and sustainable micromobility solutions across Europe

Multi-modality

Enhance integration with existing public transport networks

Innovative Batteries

Develop supercapacitor batteries with fast-charging and battery-sharing capabilities

Environmental Impact

Design micro-vehicles from recycled and recyclable materials

New Business Models

Address market failures with new models to support commercialisation and scale-up

Overcome Barriers

Tackle current infrastructure, regulatory, security, and adoption barriers in micromobility

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Project Innovations

Innovative Power Supply System

A battery made entirely of latest-generation supercapacitors

E-bike, E-kick Scooter & Cargo Bike

The new e-bike made out of recycled composite materials & e-scooters that represent the evolution of LEONARDO vehicle

Fast charging hubs

Recharging batteries within minutes

Innovative electric motor

Characterized by the light design and high efficiency

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Building on Complementary Projects

The IN-MOB project builds on and enhances the results of a Horizon 2020 project LEONARDO

- **Aim of the project**: development of a light urban vehicle that is a smart fusion between a monowheel and an electric kick scooter
- **Duration**: 1st March 2021 - 31st August 2024
- **Funded under**: **Horizon 2020**
- **Total cost**: € 2 203 945,00,
- **EU-funds:** € 1 923 655,76
- **TRL** 6

IN-MOB will also build on LIFE2M project, funded by the LIFE program

- **Aim of the project**: make micromobility more sustainable and promote micromobility as the most efficient urban and peri-urban mobility system
- **Duration**: 1ST December 2022 - 30th November 2026
- **Funded under:** Programme for Environment and Climate Action **(LIFE)**
- **Total cost:** 4 364 927,18 €,
- **EU-funds:** 2 618 681,21 €
- **TRL** 7

Pilot Actions

Palermo

Testing of E-bikes and Cargo-bikes for commuters and logistics

Aim

Integration of vehicles into the urban context and reduction of transport-related pollution in one of Italy's major cities.

Madeira (Funchal)

E-scooter and e-bike sharing system designed for university students and citizens

Aim

Address the geographic and regulatory challenges of an island region while building a replicable model for peripheral European territories.

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Meet the Partners of IN-MOB

Università di Catania
COORDINATOR
WP1-WP6
Italy

Università di Firenze
BENEFICIARY
WP2, WP3, WP5, WP6
Italy

Università di Palermo
BENEFICIARY
WP2. WP3, WP6
Italy

F&N Compositi
BENEFICIARY
WP2-WP6
Italy

GEM Motors
BENEFICIARY
WP1-WP6
Slovenia

Project Vending
BENEFICIARY
WP2-WP6
Italy

EUInnova
BENEFICIARY
WP1,WP2
Belgium

UNEEDIT
BENEFICIARY
WP2, WP5
Italy

Fondazione Marida Correnti
BENEFICIARY
WP2, WP3
Italy

Funchal Municipio
BENEFICIARY
WP2, WP5, WP6
Portugal

ESCO s.r.l
BENEFICIARY
WP2, WP4, WP5, WP6
Italy

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THANK YOU!

For more information

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