

Welcome to the LIFE2M Project

Driving Innovation for Sustainable Micromobility in Europe

Funded by the **EU Life Programme** (grant No.101074307), under the topic **Circular Economy and Quality of Life**, LIFE2M project started on 1st December 2022, and will end in November 2026.

LIFE2M aims to promote **micromobility** through the development of innovative technologies as well as **communication campaigns** that address the misconceptions about the microvehicles and raise awareness among citizens.

Why Does It Matter?

As European cities face increasing challenges from pollution, traffic congestion, and climate change, micromobility offers a **sustainable alternative for short-distance travel**, both for people and goods.

LIFE2M aims to reduce the environmental impact through the development of **innovative techniques** and tools and to help decrease the consumption of **resources**, such as **innovative accumulators** based on Hybrid Supercapacitor technology that have a much longer life than current batteries, **reducing** both the environmental impact and the total **cost** of ownership (TCO) of microvehicles.

What Will LIFE2M Deliver?

To bring these objectives to life, pilot actions will be carried out in **four key cities: L'Aquila, Palermo, Florence and Brussels**.

These pilots will involve retrofitting shared microvehicles by replacing traditional batteries with innovative accumulators; this includes e-bikes made of wood and carbon fiber, as well as LEONARDO vehicles, the installation of fast-charging stations, and finally, testing and monitoring them.

Who is Behind LIFE2M?

LIFE2M has a varied consortium that is led by University of Florence, including seven other **partners** that come from 3 different Member States:

1. UNIVERSITÀ DEGLI STUDI DI FIRENZE
2. EUABOUT (BE)
3. UNIVERSITÀ DEGLI STUDI GUGLIELMO MARCONI (IT)
4. UNEED.IT (IT)
5. SILIDEA (IT)
6. ESCO (IT)
7. F&N COMPOSITI (IT)
8. COMUNE DELL'AQUILA (IT)

LIFE2M Project – Events and conferences

LIFE2M consortium meeting in Sabaudia

On 24th June 2023, project partners gathered in the charming town of **Sabaudia** for a dynamic consortium **meeting** that marked a key milestone in the project's implementation.

The meeting was not only an opportunity for strategic discussions but also a vivid display of the commitment and a **shared ambition**: to push the boundaries of **sustainability** and innovation in the mobility sector.

A standout moment of the meeting was the **visit to F&N headquarters**, the partner responsible for the manufacturing of the LIFE2M vehicles. The visit offered a detailed look into two innovative manufacturing methods central to the LIFE2M project:

1. **Process with virgin material recovery - Rolling and Autoclave Curing Process**

The production process includes the collection and quality assessment of prepregs, precise layering in moulds, autoclave lamination for resin curing, and final cutting and finishing to achieve high-quality, dimensionally accurate components.

2. **Process with recovery of polymerized material, poor and off-cuts - Care of the workpiece in the press**

The process includes the collection and preparation of dry composite waste, its blending with liquid resin to form a homogeneous mixture, and the precise filling of moulds to ensure uniform distribution and optimal material performance.

Brussels hosts the pilot / test of Leonardo vehicles

In November **2024**, EUAbout joined the LIFE2M pilots, leading the Belgian **test of LEONARDO vehicles** and expanding the project's reach to **Brussels**.

In fact, the city is shifting from car-centric policies to promoting a more sustainable and active way of daily commute.

The LEONARDO vehicle was developed through the Horizon 2020 project, and it has been further enhanced for testing by the LIFE2M project.

The **key features** of the vehicle include:

- **Lightweight Composite Materials**: ensuring both robustness and attractiveness while reducing weight. The composite material used is both recycled and recyclable.
- **Innovative Design and easy maintenance**: it allows the vehicle to fold vertically, minimizing space and facilitating transport. Also, no unlocking mechanisms are needed and components are extractable, promoting a longer life cycle.
- **SuperCap Battery Support**: these batteries enhance energy efficiency and sustainability.
- **User-Friendly Features**: An on-board battery pack provides a limited range, keeping the vehicle **lightweight** for hand transport or storage at home. It can be conveniently

charged with a **portable charger**. Moreover, an intuitive **smartphone app** allows users to lock/unlock the vehicle, manage settings and access information about nearby charging stations.

CINEA article on LIFE2M

The **European Climate, Infrastructure and Environment Executive Agency** published an **article** on the LIFE2M project on 7th August 2024. The article highlighted that while the market for e-bikes has grown by 20% since 2020, **citizens** still face **concerns** such as limited battery lifespan, high replacement costs, safety issues, and inadequate infrastructure. LIFE2M addresses these challenges by promoting micromobility through innovative technologies and communication campaigns across Europe.

The project has achieved a **significant impact**, reducing energy consumption by 93%, atmospheric pollution by 95%, and CO₂ emissions by 85%.



Read the full article [here](#).

Consortium Meeting in Palermo

A consortium **meeting** was held in **Palermo**, hosted by Esco Mobility and coordinated by the Università degli Studi di Firenze. The event brought together **project partners**, the Project Officer, and the Monitoring Expert for a strategic review of progress and a look ahead at the **next** implementation **steps**.

The meeting also benefited from the active participation and support of **local institutions**, including the Municipality of Palermo, AMAT, LINK, the University of Catania (UNICT), and the University of Palermo (UNIPA).



Consortium meeting in L'Aquila

A **meeting** was also held in the prestigious “Cesare Rivera” Room at Palazzo Fabbioni in **L'Aquila**, one of the pilot cities, which offered a valuable opportunity to present the project's forward-looking innovations. In this city, hybrid supercapacitor **batteries** and solar-powered charging **stations** will be **tested**.

Furthermore, several **e-bikes** will be **retrofitted** with the new battery technology, while others will be newly assembled using recycled or low-impact composite materials.

The LIFE2M project continues to build strong local **partnerships**. *Stay tuned as we move closer to launching pilot activities across all partner cities!*



Green Week

LIFE2M had an honour to participate at the **EU Green week** organised by the **European Commission** in June 2025. As one of Europe's flagship events on environmental policy, it provided a powerful platform for the project to highlight its contribution to sustainable urban mobility and **engage** directly with the **public** and key **stakeholders**.

At the **LIFE2M exhibition stand**, visitors were introduced to the project's innovative solutions, including e-bike prototypes and the LEONARDO e-scooter. Visitors were also invited **to test** the **vehicles** first-hand.

In addition, the LIFE2M team conducted on-the-spot **interviews** and **surveys** with attendees to better understand public perceptions of micromobility, that will help refine the project's future development.

We warmly **thank** the **CINEA agency**, our project advisor for the invite, and **LIFE programme** for organization. This achievement was made possible thanks to the strong collaboration with our valued **partners**: University of Florence, EUABOUT, UNEEDIT, ESCO, F&N Compositi, Comune dell'Aquila, Silidea, and Università degli Studi Guglielmo Marconi.



LIFE2M International Conference – CYPRUS 2025

The LIFE2M project was proud to take centre stage at the **12th International Conference on Sustainable Solid Waste Management**, held in **Cyprus** in **2025**. This event brought together key players from across Europe to explore innovative solutions for sustainable development, circular economy, and climate action.

Speakers from the partner organizations, Università degli Studi di Firenze, F&N Compositi, EUAbout, and UNEEDIT, shared their expertise, highlighting the technical and strategic **developments** achieved to date. The session also welcomed representatives from **IN-MOB** and **LIFE Comp0live**.

We would like to express our sincere **thanks** to the conference **organisers**, Konstantinos Moustakas and Maria Loizidou, for offering LIFE2M a prominent platform and for fostering cross-project exchange, particularly through the coordination of LIFE IP CYzero WASTE.



LIFE2M at the LIFE GREEN COMPOSITE conference

On July 10th, 2025, the LIFE2M project was proudly presented during the final conference of the **LIFE GREEN COMPOSITE** project, held in **Italy**. Representing LIFE2M, **Paolo Sospiro** highlighted the project's goals, key innovations, and its potential to transform urban mobility across Europe.

ISPRA article on LIFE2M

In a recent **article** published by **ISPRA**, the LIFE2M project was featured as a **leading example** of how micromobility can align with the principles of the circular economy. The piece also drew attention to the project's strong **user-centric approach**, including surveys and awareness campaigns.

LIFE2M featured in Platinum – Aziende & Protagonisti

LIFE2M has been featured in *Platinum – Aziende & Protagonisti*, the **Italian magazine** dedicated to business, research, and innovation, distributed with *Il Sole 24 Ore*.

Read the article on page 104:

https://lnkd.in/drF4TB_N

USGM at the SDEWES Conference

The **Università degli Studi Guglielmo Marconi** (USGM) represented the LIFE2M project at the **2025 Dubrovnik Conference** on Sustainable Development of Energy, Water and Environment Systems (SDEWES).

We sincerely thank you for reading this document. Your interest in our projects is greatly appreciated, and we hope it provides a useful insight into our work and achievements. For more information and updates, please visit our website or contact our team.