How LIFE is driving green mobility

Over the last decade, the LIFE Programme has co-financed 75 projects worth €350 million focusing on four aspects of sustainable mobility:

1. Transport planning and design
   - Promoting multimodal connectivity
   - Using technology and incentives to change behaviour
   - Boosting biodiversity and human wellbeing

2. Fuels
   - Renewable and low-carbon fuels
   - Promoting these new fuels in public and freight transport
   - Overcoming administrative and legal issues for their uptake

3. Greening conventional transport
   - Promoting clean and energy-efficient urban mobility
   - Minimising noise and promoting health
   - Integrating EU policies to transition to green mobility

4. Innovative materials and technologies
   - Greener materials and components for transport
   - Reducing emissions from the construction of mobility infrastructure
   - Enhancing circularity in mobility

Many people depend on a well-functioning and efficient mobility system. Yet, transport causes high levels of greenhouse gas (GHG) emissions, resulting in negative impacts like climate change, air pollution and noise. The European Commission has launched its ‘Sustainable and Smart Mobility Strategy’ and other actions to reduce these emissions. Several LIFE projects support these actions.

A fundamental transport transformation: Commission presents its plan for green, smart and affordable mobility [Link](https://ec.europa.eu/commission/presscorner/detail/en/ip_20_2329)
Renewable and low-carbon fuels: LIFE ‘N GRAB HY!

Heavy-duty vehicles like waste collection lorries are responsible for around 5% of the EU’s total GHGs.

Belgium’s LIFE ‘N GRAB HY! project team showed that hydrogen is a green alternative to power these heavy-duty vehicles.

Results
• The team built two fully homologated 26-tonne hydrogen-fuelled waste collection lorries
• These lorries were deployed in the Eindhoven greater region and Cologne's Hürth area
  • The vehicles were a resounding success, significantly reducing noise, air pollution, and emissions
  • Demand for the project’s lorry manufacturer has grown substantially because of the project – it now produces 50 such vehicles per year

Innovative materials and technologies:
LIFE+ COBRA

Around 21% of vehicles’ particulate matter (PM) comes from their brakes. Also, the use of phenolic resins in manufacturing brake pads uses a lot of energy, and water, causing GHG emissions.

The LIFE+ COBRA project developed a next-generation and green braking system.

Results
• The team developed the new system based on cement instead of phenolic resins
• Substituting organic materials with cement reduced energy consumption by 80%
• The Global Warming Potential (GWP) of the product was reduced by about 60%
• Water consumption was down by 42%
• The brake pads improved environmental performance as no harmful chemicals were used during the braking process
Transport planning and design: U-MOB LIFE

University campuses act as the start and end transit points for many journeys. Introducing sustainable urban mobility practices on campuses across the EU can reduce CO₂ emissions and help mitigate climate change.

The team behind U-MOB LIFE created a university network to exchange knowledge about sustainable mobility best practices among European universities.

Results
- U-MOB LIFE today has 85 universities participating in its network
- The team raised awareness of the potential positive impact of sustainable mobility management on university campuses in terms of CO₂ emissions reduction
- They helped university campuses create sustainable mobility action plans
- This network is a tool for fewer CO₂ emissions thanks to the improved mobility of the university community
- 16 universities took part in the project’s sustainable mobility contest
- City councils, regional and national authorities, transport agencies, and civil society groups joined the network

Greening conventional transport: LIFE BrennerLEC

Traffic on the regional section of the A22 highway in Italy is responsible for 41% of Nitrogen Oxide (NOx) emissions, which are damaging to the environment and human health.

The LIFE BrennerLEC project experimented with dynamic speed management on a 91km stretch of the motorway to examine the impact on traffic fluidity and air quality.

Results
- The team combined dynamic speed limit reduction and dynamic lane activation strategies during periods of heavy traffic
- They also managed the maximum allowed speed limits according to air quality
- They managed traffic flow near the biggest urban areas via intelligent road signs
- There was a 10% reduction of NO₂ concentrations via an average speed reduction of 14 km/h
- Traffic jams were down on average by two hours a day
- 10% reduction in overall travel times
- Overall, the measures improve air quality, protect the climate and reduce noise
EU policy on green mobility

The European Green Deal includes a target to reduce transport-related GHG emissions by 90% by 2050. To meet this goal, the Commission adopted the Sustainable and Smart Mobility Strategy in 2020. This Strategy presents Europe’s vision for the transport system of the future – sustainable, smart, and resilient. It comes with an action plan listing 82 initiatives in 10 key areas for action, each with concrete measures.

In December 2021, the EU launched the New Urban Mobility Framework, comprising measures to develop urban transport systems that are safe, accessible, inclusive, affordable, smart, resilient and emission-free.

Also in 2021, the European Commission adopted a package of proposals to make the EU’s climate, energy, land use, transport and taxation policies fit for reducing net greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels. The so-called Fit for 55 package has potential implications for road, rail and aviation.

Milestones for a smart and sustainable future

- 30 million zero-emission cars on Europe’s roads
- 100 climate neutral European cities
- high-speed rail traffic to double
- carbon neutral journeys under 500 km
- large scale automated mobility
- zero-emission marine vessels market ready
- zero-emission large aircraft market-ready
- most cars, vans, buses, and new heavy-duty vehicles are zero-emission
- rail freight traffic to double
- fully operational, multimodal, connected Trans-European Transport Network
- zero-emission large aircraft market-ready
- 2030
- 2035
- 2050

Learn more
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How to apply for LIFE funding
The European Commission organises annual calls for proposals. Full details are available at ec.europa.eu/life

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