



Sustainable mobility

Connected Mobility



CONNECTED MOBILITY

OUR NETWORKS

EUROPEAN COLLABORATIONS

POLIS: a European network supporting innovation in the local transport sector



IFPEN is part of POLIS, a network of around 80 members including towns/cities, European regions and research players to support the development of innovative and sustainable technologies and policies in the local transport sector. The POLIS network fosters the exchange of experiences and knowledge transfer between local and regional authorities throughout Europe via working groups, events and research partnerships funded by the European Commission. POLIS is one of the leading points of contact for European institutions relating to issues surrounding air quality and mobility.

H2020 CEVOLVER project: facilitating individual access to electric vehicles

The aim of the Cevolver (Connected Electric Vehicle Optimized for Life, Value, Efficiency and Range) project is to make it easier for private individuals to access electric vehicles. Coordinated by FEV and conducted with nine European partners, its primary objective is to increase the energy efficiency of these vehicles via the development of algorithms and the creation of web services. Teams from the IFPEN TE Carnot Institute are contributing their expertise in algorithm control and development.



This project received funding from the European Union's H2020 research and innovation program through grant agreement 824295.

H2020 LongRun project : trucks and coaches more environmentally friendly



The LongRun project "Development of efficient and environmentally friendly LONG distance powertrain for heavy duty trucks and coaches" has just been launched as part of the European Horizon 2020 program. This project, which will last three and a half years, is being conducted with 30 partners* in 13 countries. Its aim is to develop a complete set of more environmentally friendly powertrains for trucks and coaches with concrete objectives to be achieved: 10% energy saving, 30% lower emission exhaust (NOx, CO and others) and 50% peak thermal efficiency. IFPEN teams will contribute their skills in the design and characterization of combustion systems for low CO₂ impact fuels (gas, hydrogen, dual fuels, biofuels), as well as in the development of connected eco-routing and eco-driving services to amplify the reduction of energy consumed. LongRun will also contribute to the development of roadmaps related to powertrains and future low carbon impact fuel to contribute to the European Commission's reflections and guide future R&D programs.

* major truck and coach OEMs and their suppliers and research partners



This project has received funding from the European Union's Research and Innovation Programme Horizon 2020 under Grant Agreement No 874972.

COLLABORATION WITH STARTUPS

Co-development with La Compagnie des Mobilités

IFPEN has a stake in startup La Compagnie des Mobilités, which designs and markets mobile and internet applications dedicated to **soft journeys**. Teams are working together within the framework of an R&D partnership on the development of Geovelo, one of the first "GPS" solutions for bicycles in Europe.

COLLABORATION WITH REGIONS

Atmo Auvergne-Rhone-Alpes

Atmo Auvergne-Rhône-Alpes is the observatory approved by the French Ministry for the Ecological Transition for air quality surveillance and information in the Auvergne-Rhône-Alpes region. It works with IFPEN thanks to the potential of Gecoair™ to fulfil its missions.

AIRMAP project in Lyon

The Airmap project was chosen by the Lyon Metropolis within the framework of its [R]Challenge. The objective is to measure real-time pollutant emissions over a large area, in order to guide urban development and road management decisions, to support better air quality. The project is being conducted in zones crossed by the A7 highway and in various districts in Lyon, in partnership with Vinci Autoroutes (French highways operator) and the Center-East regional roads and highways department. The IFPEN Transports Energie Carnot Institute uses Geco air™ to monitor urban pollution and draw up real-time maps.

Acacias, a project selected by Ademe

Acacias was one of the projects selected within the Primequal (air quality, climate change, energy) call for research proposals for better air quality, launched in 2019 by Ademe. The purpose of the project is to develop new methodologies, initially applied across the Lyon metropolitan area, enabling towns and cities to identify and promote public policies linked to the most environmentally-friendly mobility options.

Collaboration with the Greater Lyon metropolitan area: the Reveal project

IFPEN worked with the Greater Lyon Metropolitan Area on the REVEAL project targeting the reduction in vehicle emissions via the improved environmental efficiency of roads in Lyon and the surrounding area. Objective: to help the metropolis take account of air quality, noise, road safety and congestion in decisions relating to road design. This analysis of existing roads was conducted exploiting real-world data collected in order to draw up a map of emissions across the Lyon metropolitan area.

Understanding the evolution of mobility in the Ile-de-France region

A collaborative partnership has been put in place between IFPEN, Paris Nanterre University and Paris Ouest La Défense (POLD). Initiated within the framework of the *Territoires d'innovation de grande ambition* (TIGA, Ambitious Demonstrators and Innovative Territories) initiative for Ile-de-France, " *Construire au futur, habiter au futur*" (Building in the future, Living in the future), the aim of this partnership is to capture, analyze and model mobility data for the Paris Ouest La Défense area in order to better understand and anticipate work-related journeys. The ultimate objective is to create a

genuine “mobility observatory”: a dynamic map of flows to and from around thirty or so third places across the territory, making it possible to propose services and timetables adapted to users, while facilitating interconnections between the sites.

In addition, IFPEN and around thirty other players active in the mobility sector in the Ile-de-France region have joined forces to analyze the impact of Covid-19 on the transport habits of the Greater Paris region’s residents using surveys. The Mobilité Île-de-France collective wanted to share its past and future findings with the general public, and has set up a website for the purpose. IFPEN contributes data from its bicycle mobility observatory.

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Connected Mobility: Our networks

Link to the web page :