Sustainable Technology and Economic Pathways for Electrified mobility systems in EU-27 by 2030

EV-STEP

Electromobility +

What is the objective of EV-STEP ?

EV-STEP is a two year research project focusing on the long-term strategic analysis of electric mobility in Europe: technology choice, energy balances, emissions, economics

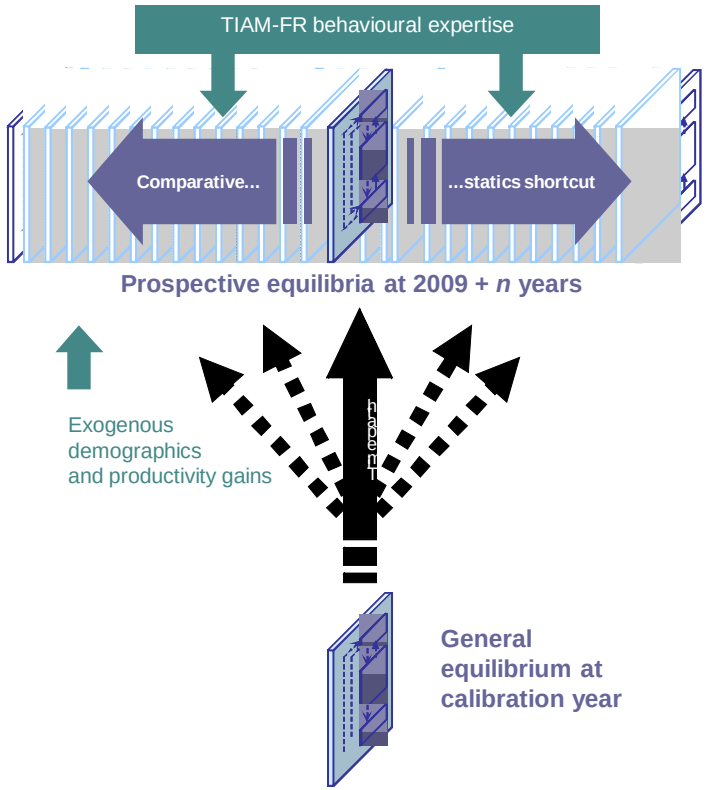
Assessing the conditions and implication of an enhanced development of pure or plug in hybrid electric vehicle through an integrated and shared systemic modelling approach.

- develop the framework for an integrated technical and macroeconomic evaluation of electrified mobility
- carry out long-term policies evaluation up to 2030 and 2050

What will EV-STEP do and how?

EV-STEP's research work is based on two modelling frameworks for which the contributors have strong expertise

TIMES Pan-EU model



IMACLIM-S

What will EV-STEP do and how?

EV-STEP will enhance and connect the two models to more adequately treat the new paradigms introduced by electromobility and in particular the interplay between:

- ❑ Mobility systems (vehicles, infrastructures, and demand patterns)
- ❑ Electric systems & Pan-EU energy systems
- ❑ Macroeconomic impact

What will EV-STEP bring?

Policy evaluation

- Detailed results with country level information considering the interconnected dimension of the European energy system
- Contribute to the establishment of a cost effective decision making process

Models

- Advances in the modeling and comprehension of transport/economic system interactions and transport/ global energy systems interactions
- Advances in hybridation of Bottom-Up and Top Down models

Who is behind EV-STEP?

ARMINES -CMA (France)

The Centre for Applied Mathematics (CMA) of Mines ParisTech is ARMINES' research centre involved in *EV-STEP*. Its research activities include computer science, system control, optimization and dynamic systems modeling.

CMA is the official representative of the French government at the IEA/ETSAP implementing agreement and cofounded a Chair "Prospective modeling for sustainable development".

USTUTT –IER (Germany)

The Institute of Energy Economics and the Rational Use of Energy (IER) in the energy faculty of the University of Stuttgart (USTUTT) carries out research and teaching in the field of renewable energies, system analysis, technology assessment and energy economics.

USTUTT-IER is the official representative of the German government at the IEA/ETSAP implementing agreement.

RISOE-DTU (Denmark)

The System Analysis Division at RISOE-DTU has for many years worked with modelling energy demand, energy systems, analysis of market design, policy regulation, and scenario development. Parts of the System Analysis Division have expanded their focus to include the transport system.

RISOE-DTU is the official representative of the German government at the IEA/ETSAP implementing agreement.

SMASH (France)

The Société de Mathématiques Appliquées et de Sciences Humaines (SMASH) is a research organisation involved in the development of mathematical methods applied to the social sciences.

SMASH has conducted research in energy economics and planning and has specific competence on modelling and databases in the field of energy, transport and the environment.