

Climate, environment and circular economy | Life cycle analysis (LCA)

LIFE CYCLE ANALYSIS (LCA)
OUR NETWORKS

SCORELCA

SCORE LCA *« We are partners of the SCORELCA network, a cooperative **LCA and environmental quantification** research structure created on the initiative of some leading French companies (EDF, Engie, Renault, Saint-Gobain, TotalEnergies and Veolia), with the support of ADEME. Its objectives are to :*

- *define LCA research programs,*
- *facilitate exchange between the various players involved in the use of LCA with a view to establishing best practices in the field,*
- *contribute to European and international scientific dialog for the purposes of technological intelligence concerning LCA.*

*In particular, we have built a state of the art in the field of **prospective energy and resource analyses**, and developed a methodology to guide LCA practitioners wishing to carry out a prospective LCA. We have also drawn up a state of the art concerning the **incorporation of the spatial dimension in LCA** and proposed practical recommendations concerning its integration in different studies. »*

Anne Bouter, LCA engineer, IFPEN

ECOSD (ECO-DESIGN OF SYSTEMS FOR SUSTAINABLE DEVELOPMENT)

« We are a member of the EcoSD network, led by companies and universities and supported by the public authorities, created to encourage collaboration between researchers and industrial players in the field of the eco-design of systems for sustainable development. ***Research on LCA methods and tools*** *is one of the priorities and gives rise to collaborative research projects and doctoral theses. We have already contributed to several studies led by the network, notably relating to :*

- *the environmental assessment of different mobility services,*
- *the assessment of the criticality of resources in LCA.*



Also, in March 2017, alongside Irstea (French National Research Institute of Science and Technology for the Environment and Agriculture), INRA (French National Institute for Agricultural Research) and the école des Métiers de l'Environnement engineering school, we organized a seminar dedicated to ***spatialization in life cycle analysis****. The event brought together around one hundred academic, industrial and institutional sector representatives. »*

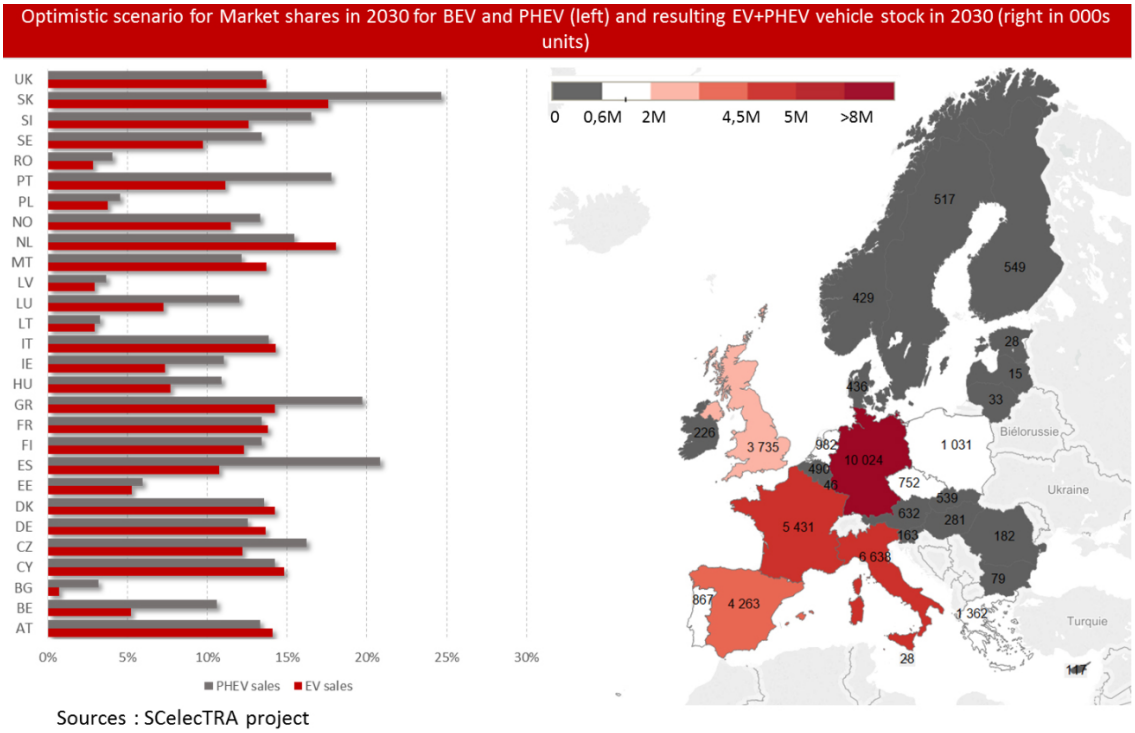
Sandra Beauchet, LCA engineer, IFPEN

H2020 PHOTOFUEL PROJECT

> *« The aim of the PHOTOFUEL project is to develop biocatalytic fuel production technologies. We are responsible for evaluating:*
>
> - *the impact of these technologies on fuel composition,*
> - *their behavior on engine performance. »*
>
> ***Anne Bouter and Cyprien Ternel, LCA engineers, IFPEN***

EUROPEAN SCELECTRA (*SCENARIOS FOR THE ELECTRIFICATION OF TRANSPORT*)

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> *«We coordinated the SCelecTRA project as part of the ERANET-Electromobility program, the objectives of which were to:*
>
> - *identify **public policies promoting the development of European electric mobility** out to the year 203,*
> - *evaluate their environmental impacts and external costs.*



Parts de marché et flottes en UE à 2030.

The main conclusions of the project relate to the following areas:

- *electric vehicle penetration scenarios for the European market by 2030: more than sixty or so scenarios were generated using a Times economic optimization model. The most optimistic scenario reveals that the share of electric vehicles in the European car market could be as high as 30%,*
- *the environmental benefits of electric vehicles: the report emphasizes the importance of the battery production component in the overall environmental assessment of electric vehicles,*
- *the study of public policy instruments revealed that scrappage schemes and electric vehicle purchase incentive programs are more effective than measures relating to fuel taxes,*
- *the development of a network of recharging terminals is a decisive factor in the development of the electric vehicle market,*
- *the additional demand for electricity will be covered by new capacity rather than lower consumption in other sectors.»*

Benoît Chèze**, **IFPEN

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Life cycle analysis: Our networks

Link to the web page :