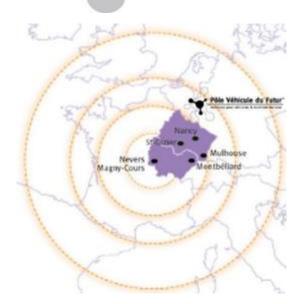


Cluster Pôle Véhicule du Futur French automotive & mobility cluster, East of France

Solutions for future vehicles & mobility



500 members

435 companies & 101 000 iobs

Objective 2022: 600 members













Mobility as a Service



Industry 4.0



Connected Vehicle



Autonomous Vehicle



Perfo

A team of 22,5 people at your service Association created on July 2005

Innovation: 5 Strategic Areas

Energy and Propulsion

Hybrid and electric powertrains; Fuel cell, hydrogen; Recharging stations

Materials, Composites, Recycling

Material features & light-weight materials; New smart materials; Reuse and recovery of usable materials

Industry 4.0

Innovation Process; Digitalisation, Smart devices ; Robotic

Connected and autonomous Vehicle

Automated driving; Geolocation; Systems Safety

Mobility as a Service

Data: Services: Uses

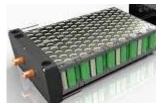


Energy & Propulsion innovation activities

- Hybrid and electric powertrains
 - > Batteries, Supercapacitors.
 - Power electronics, e-architecture.
 - > E-Motors











- Fuel cell Hydrogen
 - **Components**
 - Complete vehicles









- Recharging stations
 - **>** Batteries
 - > Hydrogen













- Non-automotive uses of Hydrogen
 - > Stationnary
 - > Energy
 - > Process decarbonization













Hydrogen activities

ACCELERATE THE DEVELOPMENT OF THE HYDROGEN SECTOR IN **GRAND EST REGION**













































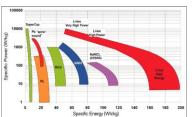
Battery activities – Innovative projects and ecosystem animation

- Battery pack and integration projects
- Battery components, made by already existing industry
- Involved in collaborative projects (France, Europe).
- Involved in working groups
- Ecosystem animation, missions in France, Europe...or worldwide





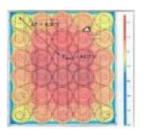




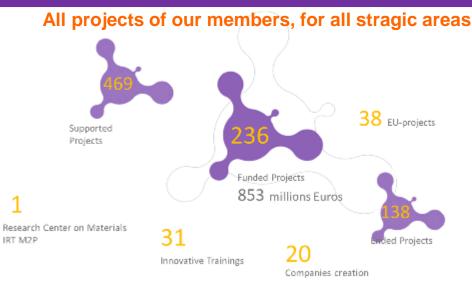
















Recommendations for batteries

Support industry for diversification towards batteries when applicable

Support **battery** market with Zero **Emission Areas** in cities

Battery circular economy is everywhere: 2nd life, energy grid, fast charging, buses strategy, recycling.

When battery is not in its optimal areas, forget it! (Hydrogen, efuels, biofuels, ...).

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