Sustainable mobility | Electrified Mobility

ELECTRIFIED MOBILITY

OUR STRENGTHS

- Partnerships to support **our industrial partners** in the development and validation of their technologies.
- Industrial partnerships for **the joint development** of our technological products.
- A **modeling-based approach**, adapted for a range of products to reduce the development cycle time.
- The capacity to produce **prototypes** making it possible to:
  - validate the technological promise of the various building blocks developed,
  - take into account industrialization constraints from the outset.
- Comprehensive and **specific experimentation facilities**: engine test benches, electric engine test benches, HIL test benches, rolling test benches, battery test benches, climatic test benches, optical diagnosis, ORC test benches, fuel cell test benches
- A differentiated control approach based on **predictive control algorithms** capable of adaptation to the different applications covered by our industrial partners.

At the Rueil site, **a vehicle test bench and an electric engine test bench** consolidate IFPEN's capacity to work on electric powertrains and their power electronics, and reinforce its range of hybrid and electric vehicle evaluation services.

In 2021, the Lyon site acquired:

- a new test bench for a **hydrogen IC engine,**

- a **fuel cell test bench with a power of 210 kW** that will be used to test complete fuel cell systems for automobile applications as well as for buses, trucks and non-road machinery.
A test platform has also been set up in partnership with EREM. Thanks to this platform, it is possible to conduct endurance test campaigns covering several motor-inverter pairings.

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Our strengths

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