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## EDF launches Hynamics, a subsidiary to produce and market low-carbon hydrogen

At Hannover Messe, the international trade show dedicated to industry, EDF announces the creation of “Hynamics”, a new subsidiary for the Group<sup>(1)</sup> responsible for offering effective low-carbon hydrogen for industry and mobility.

With this commitment, EDF’s ambition is to become a key player in the hydrogen sector in France and around the world, as well as consolidating its contribution to the fight against climate change and for a low-carbon world.



According to a report released by McKinsey<sup>(2)</sup>, hydrogen consumption will represent 18% of the world’s final energy demand in 2050. 95% of hydrogen is currently produced from fossil fuels. Unlike this method, which produces a lot of carbon dioxide, Hynamics has opted for water electrolysis to produce its hydrogen, a technology that does not emit very much CO<sub>2</sub> at all, as long as the electricity used itself comes from low-carbon production methods.

Hynamics offers two different low-carbon hydrogen solutions:

- **For industrial clients**, for whom hydrogen is a necessity (refinery, glassware, agri-food, chemistry etc.), Hynamics installs, runs and maintains hydrogen production plants, by investing in the necessary infrastructure;
- **For mobility providers**, both public and professional, Hynamics helps link up different areas with service stations to provide hydrogen to recharge fleets of commercial vehicles, like trains, buses, bin lorries, utility vehicles and means of waterway transport. These services constitute an additional asset for the Electric Mobility Plan announced by the Group in October 2018.

At the end of March 2019, Hynamics teams have identified and work on some 40 target projects, in France as well as other European countries including Belgium, Germany and the United Kingdom.

Hynamics is the result of an “intrapreneurial” project led by ten or so employees and nurtured within EDFPulse Expansion, the Group’s start-up incubator. After the acquisition of EDF’s stake in the French company McPhy, a leading player in this market, the creation of this new subsidiary confirms the EDF Group’s ambition when it comes to low-carbon hydrogen, and applies it to new uses.

*For more information and to get in touch with the teams at Hynamics, visit [hynamics.com/en](https://hynamics.com/en)*

Cédric Lewandowski, EDF Group executive director in charge of Innovation, corporate responsibility and strategy announced: *“The production of hydrogen without CO<sub>2</sub> emissions is a key factor in the ecological transition. By embracing a new area of activity, the Group is capitalising on its employees’ skills, expertise and capacity for innovation, for the benefit of our clients. Together with all the different stakeholders, EDF would like to contribute to the French and European hydrogen sector in an international market that represents a fantastic opportunity in terms of growth and jobs.”*

Christelle Rouillé, Hynamics’s Managing Director, explained: *“Working with industry and different regions by supporting their decarbonation projects is a challenge that Hynamics plans to embrace with a solution for producing hydrogen without CO<sub>2</sub> emissions with multiple uses and in an economically efficient way. We are focusing in particular on industry and mass mobility, two sections of the economy that produce a lot of CO<sub>2</sub>, with a view to nurturing partnerships.”*

### **EDF and hydrogen: extensive expertise**

In 2002, EDF and the Karlsruhe Institute of Technology set up a joint laboratory based in Germany, the EIFER (European Institute for Energy Research). Working with EDF’s R&D teams in France, this centre has built up some impressive, solid expertise in the field of hydrogen.

In June 2018, EDF Pulse Expansion acquired a 21.7% stake in McPhy, a French company that designs, manufactures and integrates hydrogen equipment. Hand in hand with a commercial, industrial and research partnership, this investment marked EDF’s arrival on the hydrogen market.

- (1) EDF Pulse Croissance Holding is the 100% shareholder in Hynamics.
- (2) “Let’s develop hydrogen for the French economy”, 2018 Afhypac report, produced with McKinsey

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A key player in energy transition, the EDF Group is an integrated electricity company, active in all areas of the business: generation, transmission, distribution, energy supply and trading, energy services. A global leader in low-carbon energies, the Group has developed a diversified generation mix based on nuclear power, hydropower, new renewable energies and thermal energy. The Group is involved in supplying energy and services to approximately 39.8 million customers<sup>(1)</sup>, 29.7million of which are in France. It generated consolidated sales of €69 billion in 2018. EDF is listed on the Paris Stock Exchange.

(1)The customers were counted at the end of 2018 per delivery site; a customer can have two delivery points: one for electricity and another for gas

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