

## Alstom inaugurates its new hydrogen fuel cell production platform in Aix-en-Provence

- Almost €6 million invested in a 100% « made in France » fuel cell production unit
- Alstom's subsidiary, Helion Hydrogen Power, positions itself as a strategic French player in the hydrogen sector
- Alstom's hydrogen strategy is part of its ambition to be the leader in green and smart mobility worldwide.

**10 December 2021** – On 10 December 2021, Alstom inaugurated its new hydrogen fuel cell manufacturing platform on the site of its subsidiary Helion Hydrogen Power, in Aix-en-Provence, in the presence of Renaud Muselier, President of the Provence-Alpes-Côte d'Azur region, Deputy President of Régions de France, and Jean-Baptiste Eyméoud, President of Alstom France.

*« Our subsidiary Helion Hydrogen Power is an innovation start-up with comprehensive expertise in hydrogen technology, from design to industrialization and manufacturing, both of the core cells and of complete subsystems. It complements our know-how in hydrogen trains and enables us to offer competitive solutions to our customers. With this fifth location in the South of France, four of which being in the Aix-Marseille Provence metropolitan area, Alstom confirms its presence and its contribution to the economic and social dynamism of the region. A new building based in Aix-en-Provence will bring together by 2023 all of Alstom's R&D, engineering and production activities in the metropolitan area, currently based in Aix-en-Provence (on 2 sites) and Vitrolles », explained **Jean-Baptiste EYMELOUD**, President of Alstom France.*

*« As early as 2017, with our Regional Climate Plan "Une COP d'avance", we identified the development of renewable energies as a priority to make Provence-Alpes-Côte d'Azur a carbon-neutral territory by 2050. We have made a concrete commitment to the development of hydrogen, which is a real environmental and industrial asset for the South region. Thanks to our Regional Hydrogen Plan, the actors of this sector have been able to benefit from nearly 2 million euros, and the support of our Regional Interest Operations "Energies of Tomorrow", "Economy of the Sea" and "Industries of the Future". Finally, as part of our Climate Plan 2 "Keeping our COP ahead", we have decided to strengthen this support through new actions for the coming years, » declared **Renaud MUSELIER**, President of the Provence-Alpes-Côte d'Azur region, Deputy President of Régions de France.*

### **6 million invested in a 100% Made in France fuel cell production unit**

The industrial platform for the manufacture of hydrogen fuel cells in Aix-en-Provence was created thanks to a significant investment plan since the beginning of Helion Hydrogen Power (in 2001). Nearly 6 million euros have been injected to increase production capacity tenfold, while reducing the associated manufacturing costs. The Alstom subsidiary is thus able to meet the growing demand for high-powered fuel cells, both in France and abroad.

Helion Hydrogen Power can produce up to 4 fuel cell stacks and 1 fuel cell subsystem (FC Rack) per day.

### **One of the first 100% French fuel cell manufacturing platforms**

A new production unit was set up at the beginning of 2021 to standardise and automate the manufacture of stacks, to integrate and assemble them in order to produce FC Rack fuel cell systems covering a wide range of power ratings (from 100 kW to over 2 MW).

This new production line, which is partly robotised, is equipped with the latest technological advances and ensures fast, reliable and reproducible assembly of the stacks.

All the components that make up the FC Rack are assembled in a 200 m<sup>2</sup> building, bringing the total area of the production line to 1,200 m<sup>2</sup>.

With this new industrial platform, Helion Hydrogen Power is positioning itself as a strategic French player in the hydrogen sector. It is one of the leaders of a sector that is preparing to meet the strategic challenges of sustainable development and the reindustrialisation of the region. The Alstom subsidiary aims to increase its workforce to 80 people by 2030.

### **Production based on a unique and modular product, adapted to various applications**

Helion Hydrogen Power now has the capacity to manufacture its own battery cores at its Aix-en-Provence site.

*« By manufacturing our own cores, we are in a strong position in an increasingly competitive sector »,* explains **Vincent Mahéo**, President, Helion Hydrogen Power.

The company has also developed a battery subsystem based on a simplified and modular architecture that can be reproduced in series. This standardised brick, called FC Rack, is composed of 4 stacks and can deliver an electrical power ranging from 100 to 200 kW. This flexible system, covering a wide range of power, can power various heavy mobility and stationary applications, more specifically

- Heavy mobility: rail, sea, river, construction and mining equipment
- Genset: temporary power supply for specific events and construction sites, power supply for refrigerated containers, shore power supply for ships, power supply for auxiliaries for ships, etc.
- Emergency power supply for industrial sites, telecoms and data centres.

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