



DAHER LAYS THE CORNERSTONE FOR THE SHAP'IN INNOVATION CENTER FOR COMPOSITE AEROSTRUCTURES OF THE FUTURE

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Daher new 1,600-square-meter Shap'In TechCenter will bring together the company's full spectrum of aerostructures and composites expertise in a single facility to be located on Daher's existing site at Saint-Aignan-de-Grandlieu in the Jules Verne industrial innovation cluster near Nantes, France. Its operational startup is planned in October 2022. This €7.5 million project is supported by €800,000 in funding from the French Aerospace Industry Modernization Fund, and will respond to technical, economic and environmental challenges faced by the industry – while also training young talent. Shap'in will employ 160 people, half of whom will work on research and development projects.

Advanced composites in general – and thermoplastics in particular – are true game changers in the world of aerostructures because they enable the production of components that are simultaneously lighter and stronger than the materials previously used, and at lower cost. Another

major advantage is that they can be recycled/repurposed as part of a circular economy. The resulting performance gains are therefore significant, and help limit aviation's environmental impact.

The Shap'In TechCenter's key purpose is to drive Daher's consolidation of its leadership in aerostructure technologies, which are key to the aerospace industry's success in meeting the twin challenges of competitiveness and reduced environmental impact.

A unique facility and resources

To ensure the 100% alignment of innovation and manufacturing, Shap'In is located on Daher's Saint-Aignan-de-Grandlieu site, adjacent to its specialized production plant for thermoplastic aerospace components – which is one of the largest facilities of its kind in the aerospace industry.

This combination of innovation center and production plant brings together a unique set of skills and resources that will accelerate innovation in aerostructures and the methods and processes used to manufacture them. Shap'In will capitalize on the technological advances made by Daher in the design and production of aircraft wings, tails and engines by enabling designs to be put into production faster and with greater agility, thereby shortening the lead time to product maturity.

At the cornerstone unveiling ceremony, Daher CEO Didier Kayat said: “We are extremely proud to see this project come to fruition; a process that has accelerated significantly in recent months thanks to the support we have received from the France Relance national recovery plan. Together with Log'In, our future logistics acceleration platform at Toulouse; and Fly'In, the Tarbes innovation center dedicated to the forward development of our aircraft product range; Shap'In further underlines our determination to embrace the future, and will showcase how our technological expertise feeds into a cutting-edge French industry. It also will considerably extend our ability to develop disruptive technologies and their production processes. We are putting the needed resources in place for Daher to remain at the forefront of our industry, while also ensuring our status as a key player in tomorrow's low-carbon aviation sector.”

360° innovation

Shap'In has been developed around three key axes:

Expertise:

- People: By bringing R&D and production teams together, they will be able to work collaboratively and benefit from each other's ideas in shortening the development and innovation cycle;
- Materials: While previously dispersed across a number of regions, all Daher composite material testing laboratories (which also work on behalf of other leading aerospace prime contractors) will now come together at a single site;
- Processes: The TechCenter will oversee new developments in production, new processes (e.g. induction welding, etc.), digital integration, etc.

Equipment and resources:

- Shap'In will incorporate pre-development resources that bridge the gap between laboratory testing and the production line, as well as facilities for analyses of materials and finished products;
- These resources will make it possible to conduct research on reducing production costs,

reducing the carbon footprint and boosting performance, with the ultimate aim of positioning Daher in new markets and setting the company distinctively apart from its Asian and American competitors;

- Being fully aligned with the Daher Open Innovation strategy, Shape'In also will provide the opportunity for selected manufacturers of production machinery essential for the manufacture of composite structural components to test their future developments on site in partnership with Daher.

The decision in favor of the Nantes region:

- The Nantes technology hub boasts a very rich and diverse local R&D network (including the IRT Jules Vernes R&D institute for advanced manufacturing technologies, the EMC2 competitiveness cluster, etc.) in which Daher already is heavily involved;
- The Nantes region overall is recognized in the aerospace industry for its expertise in advanced composites, and its ability to respond effectively to tomorrow's aerospace challenges, which include the recycling of material offcuts.

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