

**JEC Composites Innovation Award 2023:
Cetim, winner of the "Aerospace - Process" category
with its SPIDE TP® process**



Clement Callens and Christophe Cornu, Cetim, Matthieu Milot, SONACA and Sébastien Maugis, LOIRETECH. © Cetim

Senlis, 2 march 2023 - Cetim is the winner of the JEC Composites Innovation Awards 2023, in the "Aerospace – Process" category, for the manufacture of a Krueger Flap designed in thermoplastic composite, within the framework of the European R&D project SWING*, part of the European [Clean Sky 2 programme](#), for more efficient wings and more efficient aircraft.

After the exceptional 2022 edition, JEC WORLD, the leading international trade show dedicated to composite materials, their manufacturing technologies and application markets, will take place in Paris from April 25-27, 2023. As each year, the JEC Composites Innovation Awards celebrate successful projects and cooperation between players of the composites industry. The 2023 winners have been announced on March 2nd during a dedicated [ceremony accessible on replay](#) on the JEC Group's web site. Cetim is proud to be part of the Winner of this new edition, in the section "Aerospace – process".

An Innovative Krueger Flap in thermoplastic composite, manufactured with Cetim's SPIDE TP®

Manufactured with Cetim's SPIDE TP®, an in-situ thermoplastic consolidation process, in partnership with SONACA SA, Loiretech, AFPT and ETIM, this Krueger Flap has a complex shape. It outperforms existing solutions in terms of industrial performance, allowing for higher production rates, better process stability, improved product quality and recyclability at the end of its life.

The part, made with PAEK/FC raw materials, is designed in several components: 3 cells for resistant hollow bodies and a skin to fix the whole components and obtain the aero profile. Cetim's laser tape winding process, SPIDE TP®, based on AFPT technology and using Loiretech's innovative heating tools, meets the mechanical and weight challenges required by SONACA (topic manager).

Key benefits of the SPIDE TP® innovative process

- In-situ consolidation with a fully automated process (SPIDE TP® laser tape winding)
- Repeatability and reliability of the process
- Reduction of production costs
- Optimised product quality with improved impact resistance
- Recyclability on waste during production or at end of life.

"We are delighted to receive this prize, which rewards our R&D work on composites and the involvement of all our teams of engineers and technicians in materials, calculations, design ... in the development of the field for over 40 years! It is also a nice recognition for this European project whose main objective is in phase with our everyday mission, that of contributing to the development of concrete solutions for a competitive, greener and sustainable industry," declares Clément Callens, head of Cetim's polymers and composites department.

Cetim had already won a JEC Composites Innovation Award in 2015 for its "Quilted Stratum Process" (QSP®) thermoforming process, in 2016 for its fast peeling machine and in 2018 for its innovative recycling line of plastic and thermoplastic composites waste (ThermoPRIME® and Thermosaïc®).

The Krueger wing will be exhibited on the "Innovation Planet" area of the JEC WORLD trade show which will be held from April 25 to 27, 2023 in Paris-Nord Villepinte. Cetim will exhibit on its booth L50/Hall 6, many demonstrators in connection with its know-how on the whole value chain of composites: conception, manufacturing, testing, recycling, trainings.

Access the SWING project video: <https://youtu.be/D7XZCrgGdqE>

About the JEC Composites Innovation Awards

Over the last 25 years, the JEC Composites Innovation Awards program has involved more than 1,900 companies worldwide. 214 companies and 527 partners have been rewarded for the excellence of their composites' innovations and fruitful collaboration. These composites champions are awarded based on multiple criteria such as partner involvement in the value chain, complexity, or commercial potential of the project. The competition is open to any company or R&D Center with a strong collaborative innovation or concept to present. The success of each competitor is closely linked to the partnerships and collective intelligence involved. More than just a ceremony, these awards are an opportunity to bring possibly undisclosed projects in the limelight as well as a source of inspiration and stimulation to an expert audience always eager to reach out towards new horizons.

"The SWING project is part of the European Clean Sky 2 programme, for more efficient wings and more efficient aircraft. It has received funding from the CleanAviation subprogramme of Horizon Europe research and innovation programme under grant agreement N° 864453".

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About Cetim

Cetim, the Technical Centre for Mechanical Industry, was established in France in 1965 in order to improve companies' competitiveness through mechanical engineering, transfer of innovations and advanced manufacturing solutions.

With 1100 experts and 8000 customers in more than 50 countries, Cetim has become a world leading player, providing customers with independent expert advice and support through:

- innovation projects (from R&D to solution industrialization)
- design and redesign of products and processes
- testing (standardized and customized tests to qualify and characterize materials and components)
- consultancy (advice, failure analysis)
- Cetim Academy® trainings.

Its multidisciplinary competencies (metallic and composites materials, surface treatments, manufacturing processes, assembly, sealing, fluid and flows, NDT, ..) and its 50 years of experience, make it an essential actor for the industry and the future challenges and technologies, especially in the aerospace, automotive, energy, oil and gas, mechanical components and process industry.

Cetim is labelled Carnot and member of the Réseau CTI. www.cetim-engineering.com