



Saint-Nazaire, February 16, 2021

**A decisive leap forward into the future of navigation
and for the development of the industrial sector in Brittany and Pays de la Loire**

CHANTIERS DE L'ATLANTIQUE TO INSTALL A FIRST-OF-ITS KIND SOLID SAIL/AEOLDRIVE SYSTEM ON ITS SITE

Chantiers de l'Atlantique announced today the upcoming installation of a first-of-its-kind model of Solid Sail/AeolDrive, its solution for sailing propulsion adapted to large ships, on the very heart of the shipyard,. This announcement was made during an e-event broadcasted live from the MSC Virtuosa in Saint-Nazaire. The event gathered the presidents of the Regional Council of Brittany and Pays de la Loire as well as the local and regional industrial partners involved in the project and Jean le Cam, skipper and technical consultant on the project since its beginning.

The recording of the live will be available today at 8:00pm on this link:

https://fr.solidsail.fr/Nantes/Chantiers-Atlantique/2021-02-16_1/

It is one of the highest composite masts of the world, towering 95 m above the ground (311 feet). It will be installed in 2022 on Chantiers de l'Atlantique's site. The centerpiece of the system, the rigging named AeolDrive – a mast tiltable through 70° – will support the Solid Sail, a 1,200 m² (1,435 yd²) sail made entirely of composite materials, both high-performance and foldable.

This installation will split into two phases. The first one with a 38 m long mast (125 ft) and a sail of 550 m² (657 yd²) during the fall of 2021, and the second a year later on a 1:1 scale. Just like the previous prototype on a 1:5 scale – which has been tested for two years on a pier of the harbor of Pornichet – the system will be combined with a balestron able to rotate through 360 °. A system of force and position sensors will enable the aerodynamic and kinematic performances of the assembly to be evaluated while monitoring the stress levels in the mechanical elements.

It will be the first step of the technical validation necessary prior to the Solid Sail/AeolDrive solution commercialization and application to large ships. This solution was developed by Chantiers de l'Atlantique in the frame of its R&D program started in 2008, Ecorizon. This program is dedicated to enhance the large ships' energetic effectiveness and environmental impact. The shipyard aims to develop "zero-emission" ships before 2050, thus answering the regulations issued by the Climate Paris Agreement and to the goal of a carbon-neutral Europe by then, as part of the "European Green Deal".

The first commercial application for the Solid Sail/AeolDrive solution is destined to 200 m (655 ft) long cruise ships designing and manufacturing. These ships will use both a sailing propulsion and engines, thus reducing greenhouse gas emission by more than 50 %. Other applications, including some with regard to cargo ships and large pleasure boats, are considered.

The Solid Sail/AeolDrive solution is the fulfillment of a cooperative work between Chantiers de l'Atlantique and its industrial partners. They are from Brittany (Multiplast, AvelRobotics, SMM Technologies, CDK Technologies, Lorima, G SEA Design, Blew Stoub, Ocean Data System, Pixel Sur Mer and Awentech) for the mast and the sail, and from Pays de la Loire (MECA, Wichard, Nov-BLM, Lancelin, Baudin Chateauneuf and PL Marine) for the fitting equipment. With the support of the regions Brittany and Pays de la Loire and of the local authority of Lorient and Vannes, genuine technological and industrial sectors sprouted around this innovative concept.

"A collective dynamic has been established around the Solid Sail /AeolDrive project, thanks to the mobilization of many regional players. It is based on companies with a solid and renowned reputation which now want to explore a new and promising market." stated **Laurent Castaing, General Manager of Chantiers de l'Atlantique**. *"We are going to maintain this momentum so that we can move up a gear when, after the final phase of testing, we can move on to the marketing of a solution adapted to the current and future challenges of an even more environmentally friendly navigation system."*

"When innovation meets the needs for environmental and marine transition, you can know for sure that Brittany isn't far behind!" emphasized **Loïg Chesnais-Girard, President of the regional council of Brittany**. *"These new sails and rigs are the fruit of a beautiful collaboration between our manufacturers and our two regions. They push further the limits of knowledge and participate to create a more sustainable future. Brittany is proud to be part of this new industrial adventure, side by side with regional companies of ocean racing, which were able to use their technologies and expertise, beyond competitive sailing, in service of new projects."*

"The Solid Sail/AeolDrive project is a perfect illustration of the performance and industrial excellence displayed by Chantiers de l'Atlantique and the partner companies. This project, proudly supported by the region Pays de la Loire, is born from an exemplary collaborative process by the whole industry of the region who is now leading the race of large sails propelled ships." stated **Christelle Morançais, President of the regional council of Pays de la Loire**. *"It is an essential step for our shipbuilding industry, which made the environmental transition not only a way to diversify its activity, but also a technological challenge it intends to overcome."*

Additionally, Solid Sail/AeolDrive received support from the ERDF (European Regional Development Fund), called to action by the Pôle Mer Bretagne Atlantique (Brittany Atlantic Sea Pole), and from the PIA (Programme d'Investissement d'Avenir – Investment Program for the Future) operated by ADEME, the French Energy Management Agency, as well as funds from the 2020 European Research and Innovation Program (LeanShips project).



From a scientific and academic point of view, the project was led in association with the TRI Jules Vernes, the ENSTA Bretagne (Grande École of engineering) and the Catholic Institute of Arts and Crafts of the West Coast.

About Chantiers de l'Atlantique

Located on the Atlantic coast of France, Chantiers de l'Atlantique is an engineering and construction company for complex maritime works (cruise ships, naval vessels ships, electrical substations for offshore wind power, etc.) and services to civilian and naval fleets.

Thanks to the expertise developed by its staff and its network of co-producers, combined with a leading industrial tool, the company is one of the world leaders in the design, manufacture, assembly and commissioning of high added value ships and maritime works.

Chantiers de l'Atlantique is recognized worldwide thanks to passionate and committed men and women, its proactive R&D approach, its industrial tool at the cutting edge of technology, in constant improvement and its advanced techniques mastery, which allow to build environment-friendly innovative ships and marine installations, with a permanent care for quality and respected deadlines.

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