

WASP News

Putting the **Sail** Back into **Sailing**

June - 2020

The WASP (Wind Assisted Ship Propulsion) project

Funded by the Interreg North Sea Europe programme, part of the European Regional Development Fund (ERDF) it brings together universities, wind-assist technology providers with ship owners to: research, trial and validate the operational performance of a selection of wind propulsion solutions on five vessels, thus enabling wind propulsion technology market penetration and contributing to a greener North Sea transport system through harvesting the regions abundant wind potential.

WASP Sets Sail

At the end of October last year we had the formal launch of the Wind-Assist Ship Propulsion (WASP) Project, with half of the funding provided by the Interreg North Sea Europe programme, as part of the European Regional Development Fund (ERDF) and the other half contributed by the project partners including five shipowners....

Van Dam installs Ventifoil system

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Scandlines installs Rotor Sail

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Wind Assist Ship Propulsion (WASP) project sets sail

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system through harvesting the regions abundant wind potential. Wind-assist technology providers with Wind propulsion, shipping logistics and innovation experts are now monitoring and evaluating operations of two of the installations and eagerly awaiting the following three as they come online. They are developing pathways and applications to tackle the regulatory and business-related issues that are often major barriers to the uptake of new technologies and will be starting to deliver business models structures, third party validations and numerous research papers

and other key deliverables over the coming year. This expertise is drawn from Chalmers University of Technology, Katholieke Universiteit Leuven, Kühne Logistics University, Green Transition Denmark, Nord University, SSPA, HHX.blue and these are supported by the International Windship Association and the Netherlands Maritime Technology Foundation.

[Read more... Project Launch Press Release:](#)
[Download](#)

Van Dam Shipping - the first WASP partner to install wind-assist system

In January this year, Van Dam Shipping made good on the contract signed with Netherlands based eConowind six months earlier to install a fixed two wing 'Ventifoil' system on the 3,600 dwt general cargo ship, the MV Ankie. The retrofit installation of the twin, ten-metre tall Ventifoils was undertaken during a routine docking cycle for the vessel at the Royal Niestern Sander shipyard. The second step of the installation, after rigorous testing of this initial phase is to then extend them by a further six metres.

The MV Ankie, made its first voyage with the two wings installed, sailing for Wagenborg from Delfzijl to Hamburg, onwards to Norway and then back to Rotterdam and has been operating with the wings for the past four and half months, being closely monitored and the performance assessed by the project. The RINA classification society carried out the design approval, foil production and construction supervision together with the commissioning protocol preparation.

The Ventifoil system is a form of 'suction wing', which is a wing sail with vents and an internal fan that use boundary layer suction for maximum effect.

For eConowind BV, located in Groningen, the Netherlands, it is the first commercial installation of their Ventifoil system after a series of seatrials and tests. The wind-assist system was developed over the past three years supported by

an EU backed grant and this first commercial deployment of their system marks a significant milestone for the company in bringing their technology to market in the North Sea region and beyond.

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Boomsma Shipping signs agreement for the third WASP installation

On 27 March, Boomsma Shipping signed the contract for the second installation of a Ventifoil system, this system will also involve two wings however this time the units are both integrated in a specially designed Flatrack from which a folding VentiFoil can be deployed. The Flatrack is designed to optimize the handling of the VentiFoil and it enables the vessel operators to move the units around the ship using the onboard hatch crane thus giving them optimal flexibility during loading and unloading operations etc. This design has similar flexibility to the earlier containerised test systems developed by eConowind and can also cut down on initial installation time, this flexibility also lends itself to the potential for it to be used on several vessels.

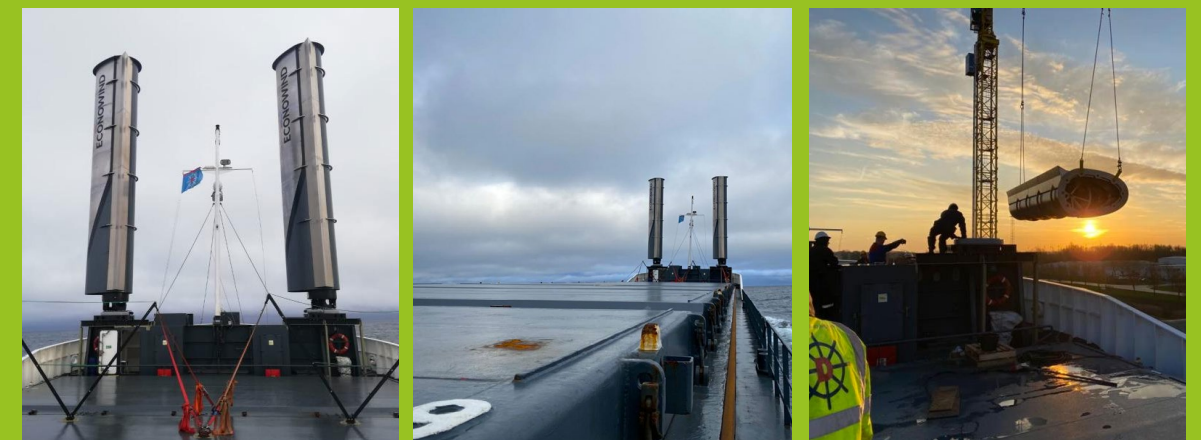
The installation of the system is scheduled for September 2020, barring any delays given the current situation, and fuel savings are expected to be in area of the 10%, and this performance will be monitored and evaluated throughout the rest of 2020 & 2021.

[Read more...](#)



Johan Boomsma (left) and Frank Nieuwenhuis (right) sign contract "Corona-Free" online

Watch the timelapse video of the MV Ankie and the Ventifoils in action: [WATCH NOW](#)





Scandlines installs Rotor Sail on the MV Copenhagen ferry in just hours

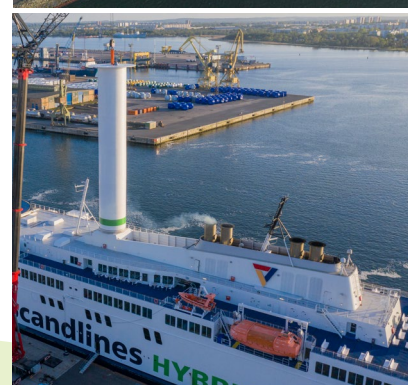
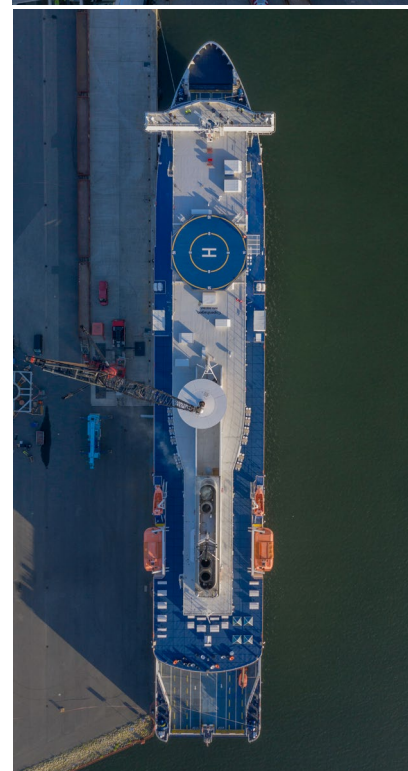
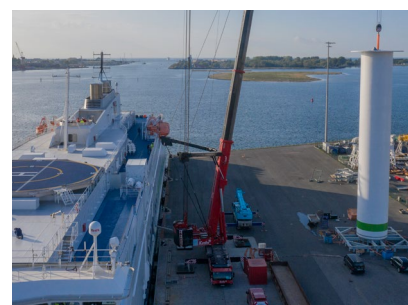


On the 25 May 2020, the Scandlines ferry, MV Copenhagen made port in Rostock to be transformed overnight into a wind-assist hybrid vessel. The installation of the large 30m tall Rotor Sail supplied by the Finnish company Norsepower Oy Ltd took only a few hours meaning that the ferry was ready for operations the next morning, and this installation is expected to reduce emissions by an estimated 4-5 percent.

The work on the installation had of course started earlier in the spring, and the voyage on the 26 May was not the first voyage for the rotor. Back in mid-April, the unassembled rotor sail was shipped from the harbour of Klaipeda in Lithuania to Rostock. The rotor sail was produced in Goldap in the eastern part of Poland and from

there transported 300 km by road to Klaipeda. The diameter of the rotor is five meter and the transportation was challenging. In some places, power lines had to be removed to make room for the rotor. However, in the afternoon of Monday, 20 April, the coaster with the rotor sail arrived in the harbour of Rostock ready for the installation a month later, if everything went to plan and there were no delays due to the coronavirus, luckily all went well.

The MV Copenhagen is one of two hybrid ferries operated by Scandlines operating on the Rostok (Germany) – Gedser (Denmark) route and was put into service in 2016, at 169.5m in length and a capacity of 1,300 passengers and 460 cars or 96 lorries she has a service speed of 21 knots [Read More...](#)



Short interview with Jan Van Dam, Van Dam Shipping



Question 1:
Why did you decide to join the WASP project (your vision, deciding factors etc.)?

We decided to join because I am convinced that the always blowing wind can save fuel in a modern way and so help to save the consumption of fuel per transport ton/mile .

Question 2:
You have been operating for a couple of months now, what have you learned so far? Has this followed your original plan? (your perceptions/experience in operations)

All projects at the beginning have some difficulties and we had some glitches in the computer system and some breakdown with the flaps. The crew has had to learn to work with the system and now everything seems to be working well.

Question 3:
Do you have any insights into best practice, barriers or challenges that we can learn from at this early stage?

We made several good test runs with a fuel saving of 10%. One day we had a 12% fuel saving and also 1mile/hr more speed too !!

Question 4:
Anything else you would like to share?

We all need to have some patience as we need time to collect the correct data and information to share with different parties in the project. Thanks and stay healthy and hope to see all of you again soon .

"We decided to join because I am convinced that the always blowing wind can save fuel in a modern way"

Jan Van Dam - Van Dam Shipping



In late January, a wind propulsion information paper was submitted by the Comoros flag for IMO MEPC 75 scheduled for April 2020 but now postponed, though still entered into the public record and available to all delegates. It outlines many of the advantages and potential of wind propulsion and includes references and a section of the WASP project

The Executive Summary reads: "The decarbonization of shipping is the defining issue of the coming decade; however, currently, one of the leading decarbonization technologies, direct wind propulsion, is receiving only very limited consideration in this critical debate over the future of shipping. Direct thrust from wind propulsion technologies offers a technically and commercially viable near-term solution that can already save 5% to 20% of fuel and associated emissions as wind assistance, with the potential for much higher benefits as the technology develops or is deployed on optimized newbuild ships. Wind solutions are cost-effective, do not depend on alterations to port infrastructure and ensure shipowners have improved operational autonomy in mitigating the risks and uncertainties of being commercially dependent on the unknown cost and availability of alternative fuels. Therefore, the adoption of wind solutions will greatly assist the global fleet in reducing net emissions in the short-term, reducing the carbon intensity of the whole fleet, and better enable to meet IMO GHG reduction targets."

[MEPC 75-INF.26 – Wind propulsion solutions \(Comoros\) \(1\)](#)

Additional more technical submissions will be made at subsequent IMO MEPC sessions and these will feature further contributions generated by WASP partners and from the project deliverables.



Recent Events

Natural Propulsion Seminar



On the 28 May, we had the 8th Natural Propulsion Seminar hosted by MARIN as part of the annual Blueweek conference, while this was moved to an online event, the quality of presentations was maintained, and IWSA Secretary General moderated the Q&A and discussion sessions. A WASP presentation focusing on 'The human factors perspective on wind-powered vessels' operations' was delivered by Nicole Costa, Project Manager Research, SSPA, highlighting the potential impacts of training and operational understanding on the performance of wind propulsion systems

<https://www.blueforum.org>

Links to recorded presentation will be released shortly on the Blueweek website.

International Wind Propulsion for Shipping Forum

On 10 March, the International Wind Propulsion for Shipping Forum took place in Copenhagen, as a special forum hosted by Informa as part of the Green Ship Technology conference. The proceedings were opened with the keynote delivered by BIMCO and the forum was a full day of presentations, panel discussions and debate on the issues surrounding wind propulsion technology. Sofia Werner (SSPA) and Vasileios Kosmas (Kuhne Logistics University (KLU) made an excellent presentation on WASP objectives, work packages and future deliverables and this generated a lot of interest among the participants. Furthermore among the other presenters and panellists we had a good representation from WASP project partners in the room, including Orestis Schinas, HHx.Blue, Jan Van Dam, Van Dam Shipping and the event was moderated by the IWSA Secretary General, Gavin Allwright. We also had very informative presentations from two of the technology providers engaged with WASP, Norsepower Oy and eConowind



Download: [Press Release – International Wind Propulsion Forum](#)

Download: [International Wind Propulsion for Shipping Forum – Full Report](#)

INNOV'SAIL 2020 (Upcoming Conference)

Another conference that has moved online, but will feature some WASP member presentations is the INNOV'SAIL 2020 Conference. During the three days of the conference, 15-17 June 2020, there is an opportunity to see the most recent research in sailing – both competitive and commercial. There is also the INNOV'SAIL 2020 B2Match platform where participants can connect and book individual virtual meetings during the three days of the conference.

Register at:

www.chalmers.se/INNOVSAIL



On 24 February, the IMO Secretary General Mr. Kitack Lim at European Shipping Week in Brussels backed more development of wind propulsion – he stressed the need for urgent action on emissions and the “urgent need” to develop concrete measures to support IMO’s initial strategy to reduce GHG emissions from shipping. He supported ambitious regulatory targets that will act as catalysts for technology, triggering research, development and innovation. He stated: “Zero emission shipping requires the development, widespread availability and affordability of new zero-carbon marine fuels or propulsion technologies, such as renewable hydrogen, ammonia or wind propulsion.”

<https://safety4sea.com/imo-sec-gen-stresses-need-for-urgent-action-on-emissions/>

Interesting Articles, Interviews, Podcasts & TV on Wind Propulsion

[Back to the Future: Wind Power Could Cut Shipping's CO₂ Emissions](#), Maritime Executive

[The Power of Wind](#), Drydock Magazine

[Wind Two](#)

Arronax Pod Cast: Featuring co-owner Frank Nieuwenhuis and technical director and system inventor Guus van der Bles from Dutch solution provider Econowind, about the system, its abilities and how they see wind solutions being used in a decarbonised shipping industry.

[Wind-Assisted Propulsion Technologies Enter Mainstream](#)

The Motorship naval architects are looking at optimising ship designs

[Interview with IWSA Secretary General](#), Hansa International Maritime Journal

[The rise of the wind ships](#), The Engineer

[Wind Propulsion on Al Jazeera program: Counting the Costs](#)

Short interview talking shipping pollution and wind propulsion's solution's potential – starts at 16:30 mins

[Interview \[Part Two\] The Future of Wind Propulsion Solutions – Adoption & Finance](#)

[Interview \[Part One\] The Future of Wind Propulsion Solutions – challenges, technology and trends –](#)

Partners & Contact

