Interreg North Sea Region WASP
European Regional Development Fund

EUROPEAN UNION

Project Duration
18 June 2019 - 30 June 2023

Total Budget: **€5,393,222**
EU funding: **€2,251,612**

https://northsearegion.eu/wasp

WASP News

Putting the Sail Back into Sailing

February - 2022

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.

Tharsis Shipping Installs Wing Sails

In November, Tharsis Sea-River Shipping installed two retractable wing sails on the 88m, 2,364 dwt diesel-electric general cargo vessel, MV Tharsis at the Neptune Shipyard in Hardinxveld-Giessendam...

WASP Project Impact Widens

One of the key deliverables from the project is the further uptake of wind-assist technology in the North Sea region and beyond...

Interview with Rörd Braren

An Interview with **Anna Braren** Managing Director from Rörd Braren about the installation on MS Annika Braren...

Tharsis Sea-River Shipping Installs Two Retractable Wing Sails on the MV Tharsis

In November, Tharsis Sea-River Shipping installed two retractable wing sails on the 88m, 2,364 dwt diesel-electric general cargo vessel, MV Tharsis at the Neptune Shipyard in Hardinxveld-Giessendam, near Rotterdam. The work was undertaken at the same time as the vessel was having its air lubrication system upgraded.

The 3m x 9m TwinFoil units are supplied by Netherlands-based eConowind and the units are both integrated in a specially designed aluminium Flatrack from which the folding TwinFoil's can be deployed. The TwinFoil uses a wing with a flap principle similar to those used by aircraft during landing and take-off.

This installation was delayed by the ongoing pandemic but we are all very excited as this is the final installation as part of the WASP project and the vessel has been in constant use over the last few months. The performance of the wing sails is being carefully monitored and evaluated and that data will be used to further refine the models and tools under development in the project.

Read more...

WASP Project Impact Widens

One of the key deliverables from the project is the further uptake of wind-assist technology in the North Sea region and beyond, and we are delighted to see over the past six months a number of announcements to that effect. Scandlines has announced that the German flagged sister ship of the MV Copenhagen, the hybrid ferry MV Berlin, will be outfitted with it's own rotor sail in May 2022.

MV Copenhagen

Read more...

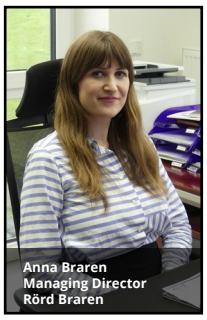
CIP3600 General Cargo Vessel with Twin Ventifoils & diesel-electric propulsion | copyright Conoship International

Early this year, Conoship International announced the building of six, 3600 dwt general cargo vessels to be fitted with dual ventifoil systems installed in similar configuration to those installed on Van Dam Shipping's MV Ankie.

Read more...

Rörd Braren Interview

Anna Braren, Managing Director, Rörd Braren


Anna Braren
Managing Director
Rörd Braren

Can you tell us a little about the ship and about the rotor sail?

The ship is named the Annika Braren, and it is an 86-meter-long, 5,035 dwt multi-purpose freighter that was built in 2020. In April, we fitted an 18-meter-high by 3-meter-wide rotor system supplied by the Ecoflettner company.

How did the installation process go?

Things went very well, even though there were some delays due to the Corona virus crisis. There were some delays in delivery of some of the rotor parts but all-in-all the construction took one year from order. The installation itself took only 8-10 days and was very fast with no problems at all. The SEC yard in Leer made very good preparations so when the ship came in it was quick and easy to install the rotor sail.

How did the crew react to this new wind propulsion system?

The crew were pretty excited as this was something very new. We had some crew lessons covering how the rotor sail works and what their tasks would be etc. The Ecoflettner company people stated that there was little for the crew to have to do as the rotor sail would operate as an automatic system. The crew did wonder if there would be any problems, for example; would the view from the bridge be obscured, but those concerns were unfounded.

The ship has a striking profile with the new rotor installed, what has been the reaction from people who have seen the ship?

Some people; shipping enthusiasts and freelance photographers, that have seen the ship have taken pictures and sent those to us and many of them have seemed very surprised to see a vessel with such a tower on her bow. However, they haven't asked us what it is but rather researched what that tower was after seeing the ship. The Annika Braren certainly isn't the first with a rotor sail installed but it is still not a usual sight at all.

What are the next steps?

We have had the assessment of the rotor operations by SSPA and a day of sea trials and a testing route day were arranged for that. We are looking forward to the full results after one year of operation, in May this year, but we are also very interested in the preliminary operational results too.

It was unexpected, but it was also good that we had the vessel operating for one year before the rotor was installed, so we can confirm the amount of fuel used in the first year and then compare that with the second year with the wind-assist system in operation.


ANNIKA BRAREN


ANNIKA BRAREN


ANNIKA BRAREN

WASP Project Holds General Assembly in Denmark

On the 30th of November and the 1st of December, the General Assembly of the WASP Project took place in Nykobing Falster, Denmark. With project partners and invited guests we discussed project progress, and we also got the opportunity to discuss the results of the first sea trials, performed on the vessels of Scandlines, Boomsma Shipping and Rörd Braren. The technology providers visited to give their views on these first results, and the business case was further discussed with financial experts.

On the second day of the General Assembly, we visited the Scandlines ferry MV Copenhagen, where we saw the impressive 30-meter Norsepower rotor sail in action.

Despite a limited attendance due to all the developments and restrictions around the Covid epidemic, the participants agreed that the gathering was useful, interesting and fun.

"It was great to see everyone face-to-face during the first General Assembly since the project kick-off in 2019 in Rotterdam, and we're looking forward to the next General Assembly in 2022!"

Kasper Uithof, Innovation Manager, Netherlands Maritime Technology

Final Sea Trials Underway on the Fleet

Sofia Werner, SSPA on the bridge of the M/V Frisian Sea (Oct 2021)

SSPA has been conducting sea trials on the vessels in the fleet. To find out more about the process SSPA presented a paper at the Wind Propulsion conference in September for the Scandlines sea trials.

Read more...

They have also documented the September sea trials conducted by SSPA on the MS Annika Braren, which had the rotor sail from Ecoflettner installed in May 2021.

Read more...

Test Area for M/V Frisian Sea

Engineering Webinar

The eagerly anticipated webinar on the how, what and where, nuts and bolts issues of wind-assist installations was held in September. If engineering and wind-assist systems are your thing , then this is the webinar for you.

The expert panel included:

- Johan Boomsma, CEO of Boomsma Shipping ("the shipowner")
- Frank Nieuwenhuis, CEO of eConowind ("the technology provider")
- Professor Joshua Lacey, KU Leuven Faculty of Engineering Technology - Group T Leuven Campus, Department of Mechanical Engineering ("the third-party expert")

The webinar was hosted by the WASP project lead, Netherlands Maritime Technology and moderated by Craig Eason, editor of Fathom World.

Watch Here

Newsletter Back Issues

June 2020

January 2021

July 2021

Also check out the WASP Project Youtube channel for past Webinar recordings and ship videos – with more to come... Youtube Channel

2021 Wind Propulsion Innovation Awards

The WASP project and four of our project partners were shortlisted for the second Wind Propulsion Innovation Awards hosted by the International Windship Association. These included; HHX blue, Scandlines, Van Dam Shipping and Rörd Braren. The shortlist was compiled by an independent panel of 27 leading industry judges while voting was open to all. With over 40,000 votes cast there was sizeable competition for these awards, and this recognition was greatly appreciated and helped spread the project message worldwide.

Read more...

IMO MEPC 77

While this meeting failed to raise the decarbonisation ambition at IMO, there was significant news on the wind propulsion front.

A new circular, MEPC.1/Circ.896 'Guidance on treatment of innovative energy efficiency technologies for calculation and verification of the attained EEDI and EEXI' was adopted that has substantial guidance updates for the assessment of wind-assist devices in the calculation of the Energy Efficiency Design Index (EEDI) that is used for new build vessels and the Energy Efficiency Existing Ship Index (EEXI) which will come into force next year. These guidelines help to clarify the processes and approaches for the calculation of the wind system and also takes the top half of the system performance data to reflect more closely the contribution of wind-assist devices.

This amendment was supported by EU members: Germany, Finland, France, Netherlands and Spain along with Japan, Comoros and the Royal Institution of Naval Architects (RINA)

Read more...

COP26

The global climate meeting saw calls for increased ambition and action in the maritime sector. Along with the general call for the removal of fossil fuel subsidies and global methane pledge to reduce 30% of emissions from LNG by 2030, there was a 'Declaration on Zero Emission Shipping by 2050' gaining support from 14 countries. This was further strengthened by a well-supported industry initiative, the 'Call to Action for Shipping Decarbonisation' calling on the IMO to adopt Zero CO2 by 2050 and the 'Clydebank Declaration', another industry call to set up green corridors between ports along with a 'First Movers Coalition' with low emissions purchasing commitments from a collection of large corporations, the World Economic Forum and the US. All of these declarations along with pledges on green finance and a just transition in shipping have increased the pressure on IMO and EU to further decarbonise the sector.

Recent Events

Wind Propulsion Conference 2021

The Royal Institution of Naval Architects (RINA) hosted the Wind Propulsion Conference in September, in association with our WASP partner, the International Windship Association. The hybrid conference was held at RINA's London headquarters and brought together many of the leading experts in wind-assist technologies over two days, and was also part of the London International Shipping Week.

THE ROYAL INSTITUTION OF NAVAL ARCHITECTS

Four papers were delivered by WASP partners:

Accelerating the uptake of wind propulsion in shipping -

Z Rafaelova, L Pomaska, V Kosmas and M Acciaro, Kühne Logistics University

Performance prediction and design of wind-assisted propulsion systems -

F Tillig and J W Ringsberg, Chalmers University of Technology

Estimating the Cost of Retrofit for Shortsea Vessels - *O Schinas, HHX.blue*

Speed Trial Verification for a Wind Assisted Ship - *S Werner, SSPA Sweden AB*

Read Abstracts

Report: Barriers and overcoming strategies for accelerating the uptake of WASP

Interreg North Sea Region WASP European Regional Development Fund — EUROPEAN UNION

The purposes of this report are to:

- Identify overcoming strategies to accelerate the uptake of WASP.
- Create a framework that shipowners can consult or adapt to their specific needs in order to evaluate strategies for investments in CO2 abatement technologies.
- Create a foundation of suggestions for WASP technology providers that can be adapted internally to overcome certain market barriers.
- Provide a basis for policymakers with respect to regulation and incentives that can be provided to accelerate the uptake of WASP technologies.
- Provide managerial and policy insights for all stakeholders that are involved in the process, mainly WASP technology providers, shipowners and policymakers.

Recommendations for Industry and Policy Stakeholders - Suggestions to accelerate the uptake of WASP include:

- Implementing economic incentives through program-based crediting mechanisms, investment schemes and tax-breaking for research activities
- Establishing funds and international financing for wind propulsion projects
- Forming partnerships between public and private sector to leverage interests for both parties
- Implementing knowledge sharing platforms organized by impartial organizations and implementing new policies focusing on knowledge diffusion to overcome trusted information barrier
- Starting close collaboration between technology providers by forming alliances on market level
- Enhancing IT infrastructure, environmental management systems, IP management and supporting IP competencies to protect assets of technology providers.

Download Report

Upcoming Events

1. **Enkhuizen Nautical College Course for WASP & Sustainable Shipping-** (11-19 February) WASP Project Seminar
2. **WASP Webinar: Digital Twins -** Wednesday, 23 February 1100-1230 CET. Featuring specialists Professor Joshua Lacey, KU Leuven Faculty of Engineering Technology & Dr. Frederik Gerhardt, Senior Technical Expert, SSPA Sweden AB Register Here
3. **Kühne Logistics University-** Educational seminar - 29 April. This event will be for the KLU's MSc students of the Maritime Logistics course.
4. **WASP Conferences** in both Denmark (May) & the Netherlands (June): More details to follow
5. **EU Maritime Days** 19-20 May
6. **EU Green Week** 30 May - 05 June
7. **IMO MEPC 78** 06-10 June

Report: Scenario development for wind propulsion technology adoption: A theoretical model for agent-based modelling

This report delivered by Nord University has the objective to provide a theoretical basis for a model of wind-assisted ship propulsion technology (WPT) adoption by shipowners. The answer to the question of why shipowners would choose to install WPT will serve as a basis for the development of an agent-based model (ABM) of WPT adoption. This report is the first of two and will focus on the model and its theoretical foundations, while the second report will focus on the model's empirical basis and use in simulations.

Download Report

Partners & Contact

1 NETHERLANDS MARITIME TECHNOLOGY
2 GREEN TRANSITION DENMARK
3 HHX .blue
4 IWSA International Windship Association
5 KLU KÜHNE LOGISTICS UNIVERSITY
6 KU LEUVEN
7 NORD University
8 Scandlines
9 Scheepvaartbedrijf van Dam
10 B
11 BOOMSMA
12 SSPA Your Maritime Solution Partner
13 CHALMERS UNIVERSITY OF TECHNOLOGY
14

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