

International Windship Association

Quarterly Newsletter – Summary – February 2019

Secretary's Message

The last few months of 2018 and into early 2019 have seen the continuation of the momentum that was building over the previous year. There have been multiple project announcements and many of these are listed below or you will have seen on the IWSA news page and congratulations go out to all of those projects moving forward. Significantly, we have also seen an upswing in interest from ship owners to both learn more about wind-assist and primary wind propulsion and also to engage and look at test installations. We expect a series of follow-up announcements to be coming out in time for the IWSA AGM in May.

A message that is clear and resonates in the market is that wind propulsion solutions are a key component for decarbonisation pathways for the industry, but that policy and reports do not yet reflect that strongly. Increasingly important is that by linking wind propulsion technology with other changes such as vessel and voyage optimisation, this reduces the amount of alternative low carbon fuel required, potentially less storage capacity and total power requirement, thus also facilitating the uptake of those systems in the market.

This newsletter will also highlight many of the upcoming IWSA activities, for as the market turns towards wind propulsion as part of that decarbonisation toolbox, so IWSA and our members are also turning up the dial on the outreach, information and network development that will support this encouraging wave of interest, and in turn help to create a sustainable technology segment going forward.

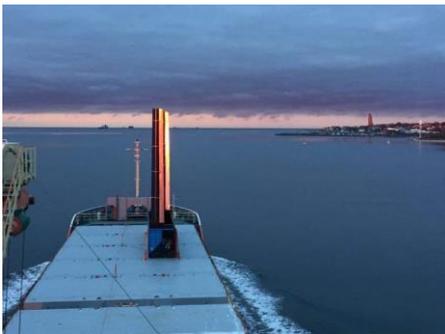
Gavin Allwright

IWSA Secretary

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www.wind-ship.org

Project Updates & Wind Propulsion Developments



eConoWind (Netherlands) - eConoWind unit installed on Lady Christina (Wijnne Barends) Emden to Plymouth, then Plymouth to Rami & Pietersari (maiden voyage 19 Nov-14 Dec). Unit offloaded and remained in Pietersaari for a week, sailing back to Emden on the Lady Clarissa. eConowind foldable unit comprises a 40ft container deploying two folding out 'VentiFoil' that are ridged 'aspirated wing-profiles' which act as sails. Took 1 hour to install & mostly had good winds (6/7Bft) from several directions producing combinations of extra speed/ savings. Savings highest when the motor power was reduced to keep the speed the same. 800 liters/day savings recorded during a good stretch. We also encountered headwinds and too strong winds a few times, during which time the unit was folded down to reduce extra drag. Wijnne Barends was very positive & 2nd series of practical tests at the end of Feb/ Mar. www.econowind.nl



MariGREEN (Germany) - According to validated performance models & route simulations, the annual ave. power potential of the rotor installed on "Fehn Pollux" - approx. 100 -150 kW in addition to main engine power. These values naturally depend on the wind conditions. In this case they apply to a trade along the coasts of N. & W. Europe. Depending on the required ship speed & actual power of the main engine, savings of approx. 10-20% can be expected on the "Fehn Pollux". Speed reduction leads to higher % savings, so a combination with slow steaming allows higher overall percentage savings. www.mariko-leer.de



Neoline announces agreement with Renault Group – Neoline has entered into an exciting partnership with the Renault Group to transport Renault cars aboard new build Neoliners on a France-Canada route. During the recent Assises de la Mer maritime conference, Groupe Renault announced the signing of a 3-year partnership with Nantes start-up Neoline. <https://www.neoline.eu/en/>
<https://www.maritimejournal.com/news101/industry-news/bold-move-to-primary-wind-propulsion>



Norsepower (Finland) - ready to rent out its wind-assisted rotor sails – lease financing package will allow owners to make fuel savings straight away without the cost of buying its wind power units. [Read](#) Norsepower raised a further €3.6m for expansion & growth. [Read](#) and also announced its multi award-winning Rotor Sail Solution tech has won the national Quality Innovation Award, in recognition of the techs ability to demonstrate a clear environmental benefit. [Read](#) Further Norsepower News - <https://www.norsepower.com/news>



Smart Green Shipping Alliance (UK) - set to test Sail Technology on Ultrabulk Vessels. A £100,000 12-mth feasibility study funded by InnovateUK, Institution of Mechanical Engineers (IMechE) + private investors has begun examining potential of fitting sail tech. onto Ultrabulk ships (import biomass into UK to cut carbon emissions). Collaboration between SGSA, dry bulk cargo transporter Ultrabulk, Humphreys Yacht Design, & Drax, operator of UK's largest power station. [Read More...](#) www.smartgreenshippingalliance.com



Bound4Blue (Spain) – Fishing Vessel : Currently building 20m wingsail for the Balueiro II. Ground-tested in Mar, then sent to Panamá for final integration. Cargo Vessel Naumon: Construction will start in a few months and integration - last quarter of 2019 (supported by EU Grant) - owned by La Fura dels Baus (theatre co.)will use the vessel to celebrate 500 years of Magallanes 1st circumnavigation of the globe with a worldwide show – sustainability/installing bound4blue's system + transmit the values of art/culture/education & inclusion/respect for women, especially to young people, globally.

-go!ODS award: b4b awarded for contributions to SDG goal 14 [Read More...](#)
-Innovators Under 35 David Ferrer Desclaux, b4b CTO/Cofounder - one of 2018 Europe's Innovators (MIT Tech Review) + Visionary of the Year. [Read More...](#)
-Hello Tomorrow Global Challenge: selected as Top 500 deeptech startups & one/six aeronautics track finalists (4,500 worldwide applications) [Read More...](#)

- Article and video about bound4blue's solution: [Watch & Read](#) & [Watch](#)
- Article regarding bound4blue's presence at the COP24 in Poland: [Read](#)
- Article - b4b one of the four maritime startups to watch out in 2019: [Read](#)



Anemoi Marine Technologies (UK) - The *MV Afros*, an Ultramax bulk carrier fitted with Anemoi's Flettner Rotor system, has been named 'Ship of the Year' at the prestigious Lloyd's List Greek Shipping Awards 2018. The 64,000 dwt new build vessel, managed by Piraeus-based Blue Planet Shipping, is the first geared dry bulk carrier to be equipped with Flettner Rotors. www.anemoimarine.com
www.worldmaritimeneews.com/archives/266727/flettner-rotor-fitted-ultramax-wins-ship-of-the-year-award/

This installation on a globally trading bulker making long trans-oceanic voyages is yielding invaluable data regarding Rotor performance and optimisation.

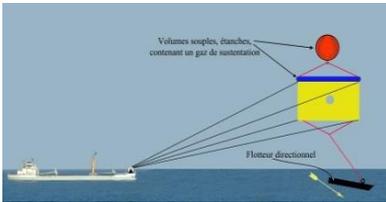
Chantiers De L'Atlantique (France) - Ponant begins Solid Sail system trials - The French-flag cruise line has partnered with Chantiers de l'Atlantique to test the solution (fibreglass, carbon & epoxy resin panels in a carbon-slat frame) on board the 89-m luxury yacht, *Le Ponant*. Solid Sails (2 patents filed) of 300m² + were installed on *Le Ponant* in Marseille before the three-masted ship set sail for Cape Verde & a transatlantic voyage – one year prototype (50% scale) testing on the company's sailing vessel. www.bunkerspot.com/global/47065-global-ponant-begins-solid-sail-system-trials



Peutz (Netherlands) - Wind tunnel tests of DynaRig and Flettner rotor - Together with MARIN, Peutz has set-up a research project into wind assisted ship propulsion. The goal is to contribute to effective & safe wind assisted propulsion. A DynaRig sail and a Flettner rotor have been wind tunnel tested at the Peutz facility in Molenhoek, Netherlands. The wind tunnel data from these challenging combined tests are used to validate the models for use on a free sailing scale model in the Marin Wind Lab experiments. More information – contact n.moonen@peutz.nl



Blue Technology (Denmark) - Secures Funding for Further Project Development – Congratulations to Brian and the Blue technology team on securing substantial Danish Maritime Fund funding to develop the sail prototype. More details: www.bluetechology.dk



Verna Inventions (France) - Details of the prototype:
http://inventions.a.verna.free.fr/voile_prototype.htm
Short film of the prototype is this:
http://inventions.a.verna.free.fr/film_prototype_voile_auto_portee.mp4

Small Cargo Vessel Segment Developments

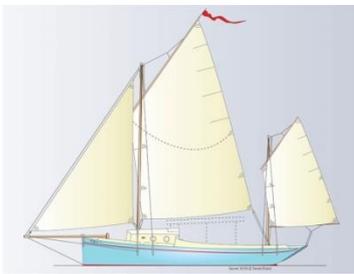


Deputy Vice-Chancellor, Research, Innovation and International, Professor Derrick Armstrong and Mr Simon Bennett, General Manager, Sustainable Development at CNCo after the MOU signing

Micronesian Sustainable Transport Centre (MSTC) – Majuro, Marshall Islands-hosted the Pacific Islands Transport Forum & Expo in Suva, Fiji, 8-10 Nov 2018 (panel discussions [here](#), [MCST website](#)). In her [keynote speech](#), the RMI President Hilda Heine requested MCST to develop a proposal to the Green Climate Fund for a transition to sustainable sea transport in the Pacific. Conference outcomes include: [Laucala Declaration](#), is [open for signatures](#) by all willing partners. Swire Shipping & MCST signed MOU for [Project Cerulean](#), (aims to demonstrate the viability of a commercial, sail-powered freighter in the Pacific region.) Another ongoing project, Transition to Low Carbon Sea Transport, in partnership with GIZ, Hochschule Emden-Leer, and WAM, will demonstrate wind-powered shipping in two settings in RMI: intra-lagoon and inter-island. They aim to share as much information as possible about these projects + keen for input/feedback from IWSA network.



Sail Cargo Inc. (Costa Rica) - The Keel has been laid! - the ship is born. Members of the team travelled abroad twice to attend wooden boat shows + a lot of media attention has helped spread word of Project *Ceiba* worldwide – sharing our vision of sustainable shipping to as many people as possible, so that we can help transform the maritime industry #seashippingchange. [Project](#) // [Business Plan](#) // [Contact](#) // [Keel Laying Video](#)



Go Sail Cargo (Australia) –Range of multiple use cargo ships - positive grant assessment result & new production ready version of successful electric ferry, the Secret 33. Commissioned by ocean research org - zero emission/acoustic footprint mini research vessel. Lugsail yawl rigged 10-metre boat. Hull: same as ferry + ballasted keel Power: Oceanvolt AXC 10 inboard. Pax. Capacity: 12 Cargo: 3tn (pallet). Boat: super-efficient inter island services. Also well proven boat – 8kn, 8kW + fold-out solar array, carbon fibre yard/derrick + 2 berths. Delivery worldwide - via flat-rack container. 2 new larger sail cargo vessel designs are progressing well (i) Aluminium schooner rigged ro ro cat (4-containers) (ii) Steel monohull, schooner rigged 16 pax. (8 cabins) + 16-container [Further details](#)



SS Eileen II (Germany) - Recent coop agreement with Hochschule Leer/Emden, running the Green Sailer project. <https://www.hs-emden-leer.de/fachbereiche/seefahrt-und-maritime-wissenschaften/projekte/greensailer> Further work is underway to demonstrate the ecological/ economic benefit of sail cargo + theme of vessel energy-management. Broadening operation tasks by enlarging passenger facilities for island-services + offshore maintenance services. <http://wind-ship.org/en/schormanns-maritima-iwsa-associate-member/>



Timbercoast (Germany) - The AVONTUUR is currently on her 4th transatlantic sail cargo voyage. Come July 2019, the AVONTUUR will return to Hamburg with a full cargo hold of organic and fairtrade goods including AVONTUUR Rum and coffee. Timbercoast is currently seeking collaborative and progressive sponsorship opportunities to further elevate the awareness around a clean shipping sector. www.timbercoast.com



Sail Line Fish (UK) - Low/zero emission fishing operation in Shetland. Recently completed access to foreshore - to build a small workboats & fishing vessel harbour. 8 X redundant Oil Terminal jetty fenders (ave. 20tn each) now on site - as a main part of the structure. Intention: power thru wind power - shore generated electric + sail power. Live lab for developing all assoc. systems incl. Balpha Mast.
 - Funding progress with Balpha Mast orders + grant applications.
 - Balpha Mast demo yacht ‘Balpha Global’ - Norfolk Broads spring/summer sailing planned. Successful 2018 – demos in Neths, Thames & S’ton Boat Show. Discussing Balpha Mast with yacht builders as new build www.saillinefish.com/

New Members & Registered Supporters



New Member - [AirSeas \[France\]](#)



New Member – [Computed Wing Sail \[France\]](#)



New Member – [Hamburg Ship Model Basin \[HSVA\] \(Germany\)](#)



WING FORCE PARTNERS

New Member – [Wing Force Partners \(Australia\)](#)



New Supporter - [Avelaj \[France\]](#)



New Supporter - [Mathis Rühl Architecture Navale](#)

IWSA News, Announcements & Upcoming Events

Canada & US Spring Tour 2019 (25 March – 11 April)

Canada

25 Mar – British Columbia Institute of Technology – Marine Transport - seminar for students & faculty

27 Mar – Port of Vancouver – IWSA seminar hosted by Port of Vancouver (1400-1700)

29 Mar – Montreal/Ottawa – IWSA seminar & policy briefings (tbc)

United States

01 Apr – Washington DC – Policy briefings in Washington DC & IWSA NGO Seminar (venue/time tbc)

02-04 Apr – CMA 2019 – Attending three days of CMA 2019 conference in Stamford, Ct. - the largest US shipping conference. (IWSA - Official Supporting Organisation). Alternative fuels and propulsion panellist on 03 April. [Read More](#)

05-07 Apr – San Francisco Boat Show – the Secretary will give a talk on Sunday 07 April along with local member Wind + Wing, also have their trial rig on show & booth there. IWSA & W+W seminar aboard Cat on Fri, 05 Apr (late afternoon).

08 Apr – California State Maritime Academy – seminar for students and faculty.

09-11 Apr – Seatrade Global Cruise Conference, Miami – Environmental panellist, 09 April AM. [Read More](#)

Sponsored by: [Anemol Marine Technologies](#), [Dasivedo Design](#), [eConowind](#), [Inerjy](#), [MARIN](#), [Neoline](#), [Norsepower](#), [Oceanfoil](#), [Peaceboat – Ecoship Project](#), [Sail Cargo Inc.](#), [Smart Green Shipping Alliance](#), [Wind + Wing Technologies](#)

Activities supported by **Green Marine** www.greenmarine.org, **NAMEPA** www.namepa.net & **SHIPPINGInsight** www.shippinginsight.com



Blueweek – Natural Propulsion Seminar – We are looking forward to the NPS again this year, 27-29 May, Energie, La Defense, France. The presentation papers are coming in and we are looking forward to a great meeting this year. The Natural Propulsion Seminar will be on 29th May and we will hold the **IWSA Annual General Meeting** on 28th May, 0900-1200 – there will also be IWSA Europe – Atlantique and IWSA Europe – North Sea & Baltic Wind Propulsion Hub meetings in the afternoon. [Register Here](#)



IWSA Europe – Atlantic Hub Activities: Master students from Nantes University, are conducting a study for IWSA Europe Atlantic hub with support of Airseas, CRAIN and Neoline. The study should provide inputs for project developers to feed their market studies. Looking at worldwide trades by sea, the aim is to link transported goods with players, vessels and operation patterns. Students conducting the research will conduct interviews within the industry. Launched Nov '18, to be finalized by May 2019.



IWSA German Office Activity – Office opened in RE & sustainability NGO cluster in Bonn (next to [World Wind Energy Assoc. \(WWEA\)](#)). In March, German Office meeting with German Ministry of Economy – “[National Masterplan Marine Technologies](#)” to position wind propulsion systems within the focus on Zero Emission Shipping. New address: Charles-de-Gaulle-Straße 5, 53113 Bonn, Germany [Contact](#)



IWSA Europe - North Sea & Baltic: Wind Propulsion Hub Meetings: Moving ahead with development of IWSA's 2nd regional wind propulsion hub, IWSA Europe – North Sea & Baltic. Initial meetings held in Hamburg in Nov. Next steps: Full stakeholder analysis, developing a key focal project & holding stakeholder engagement conference in 2019.



New IWSA Brochure: We are producing a new 16+ page colour IWSA brochure – feat. 8 pages of general wind propulsion information & IWSA activity information + membership directory & advert space. Initial 1000+ print run & pdf version. Advert space available (update every 6 months) + inserts for pamphlets. [Contact](#)



Technical Seminar – Running a two day seminar (Oct 2019), IWSA in partnership with the Royal Institute of Naval Architects (RINA) at RINAs London HQ. The call for papers will be going out this spring – technology, testing, installations and impact of wind propulsion. *Request call for papers, attend the event or sponsor the seminar?* [Contact](#)



Awards Program: Technology Readiness Level (TRL) Award Program for wind propulsion tech providers will be launched this year. Each designated level will be certified by transparent 3rd party assessment criteria + approved by expert panel. In addition, a small number of voting Awards will be run for research & contributions to the development of wind propulsion, etc. *Interested in getting involved?* [Contact](#)



Short Film: Professionally produced 3-5 min film with the goal of introducing wind propulsion tech and developments to the logistics and shipping industry, but also to the general public. Include: need for change, wind propulsion can deliver, tech, barriers/drivers etc. *Interested to help fund this project?* [Contact](#)



Small Vessel Publication: A 50+ page pdf report on the small cargo sail vessel sector, available technologies, economic/business plans, routes & cargos. Small vessel project profiles, updates + expert input. *Sponsors & contributors – interested?* [Contact](#)

Upcoming Events & Conferences

March



Green Ship Technology and Shipping2030 Europe - 19-22 Mar, Copenhagen. (IWSA - Official Supporting Org) Speaker line-up includes: Gavin Allwright, IWSA Sec. & Diane Gilpin, CEO, SGSA. 20% saving - VIP code FKT3544IWSA during [registration](#)

April



CMA 2019 – Apr 02-04 2019 Stamford, Ct, USA (IWSA - Official Supporting Org) - Leading shipping conference in US – Meet dynamic cross-section of industry leaders. 2018 -2,000+ visitors **03 Apr** – IWSA Sec. on alternative propulsion panel

09 April - Seatrade Global Cruise, Miami USA - IWSA Secretary General on environmental impact of cruise vessels & options for reducing that impact panel

May



Blueweek & Natural Propulsion Seminar –La Defense, Paris 27-29 May 2019
MARIN is hosting the annual tech focused event. IWSA Secretary will be co-chairing the Natural Propulsion Seminar (29 May)- IWSA Annual General Meeting (28 May AM) + Wind Propulsion Hub meetings (PM). [Registration](#) required & free of charge

June

Norshipping 2019, Oslo, Norway – IWSA Secretary and many IWSA members will be attending, acting as panellists and with booths, more information to follow.

Green Ship for the Future - AGM, Copenhagen, Denmark – IWSA Secretary will be presenting an update of wind propulsion to the association.



GREENTECH 2019 – [Green Marine 12TH Annual Conference](#) (Cleveland, Ohio) Jun 5-7. Discussing issues directly related to Green Marine environmental certification's performance indicators, GreenTech 2019 will tackle emerging issues & other topics relevant to shipping and port sustainability, such as:

- The Human Factor of shipping sustainability
- Dredging and habitat restoration
- Big Data / Data analytics
- Traffic management

Latest Articles, Interviews and Reports on Wind Propulsion



Energy Transitions Commission's report – Mission Possible: Reaching net-zero carbon emissions from harder-to-abate sectors by mid-century. [Full Report](#)

High level industry group outlines the possible routes to fully decarbonize cement, steel, plastics, trucking, shipping and aviation (represent 30% of energy emissions today and could increase to 60% by mid-century as others decarbonise). IWSA contributed a significant amount of information to the commission and we are pleased to see that material was taken into account in the full report. Wind Assist included in section "How to Reach Zero Emissions from Shipping (p44)

"Wind-sail assistance technologies could also very significantly reduce fuel use." (p76)

Ship & Bunker



Wind Power More Predictable than Volatile Bunker Prices – Diane Gilpin, Founder & CEO of Smart Green Shipping Alliance (SGSA) [Read](#)

New article on Wind Propulsion by IWSA Secretary General, Gavin Allwright, in the influential monthly Greek business magazine Greek Business File. Also included in this issue, an interview with **Costas Apodiakos** – one of the main players involved in the development of the rotor wind-assist cargo ship AFROS, with IWSA member, Anemoi Marine technology rotors installed already nominated as Ship of the Year in the Lloyd's list Greek Shipping Awards of 2018, www.economia.gr



Article: The Answer is Blowin' in the Wind – good round up of some of the recent wind propulsion developments & announcements - more to come [Read](#)



Creating Tailwind for Wind-Assisted Shipping: North Sea Region – Interreg Sail Project – conclusions restated, recent developments and pathways forward. *'The North Sea Region Programme supports innovation that reduces the heavy CO2 footprint of sea carriers... the SAIL project (2012-15) that helped kick-start wind-assisted shipping propulsion (WASP), a low-carbon freight solution which is now in growing demand. SAIL also played a core role in the early formation of the IWSA.'* [Read](#)



Collection of Excellent Ship Finance Publications – Dr-Ing Orestis Schinas, Professor of Shipping and Ship Finance, Head of Department of Maritime and Logistics, [Hamburg School of Business Administration](#) Including: **The HSBA Handbook on Ship Finance**. Springer Verlag, ISBN: 978-3-662-43410-9, also available in Chinese. & **Green Ships through Export Credit Schemes** - [LIST](#)



Interview: Green4Sea - Wind Propulsion is an Attractive Solution Towards Decarbonisation [Read](#)

For Further Information

For interview requests, membership info and IWSA events schedule, please contact IWSA Secretary, [Gavin Allwright](#) Registered supporter, assoc. & full members receive full quarterly newsletter.

Check IWSA [Website](#) & Membership page for full list of members.

Registered Supporter – Free (requested donation)

Associate Member (open to all that share our goals) - €200 (SMEs), €1,000+ (large organisations)

Full Member (reserved for wind propulsion projects) - €300 (SMEs), €1,000+ (large organisations)

NOTE: All membership fees and additional contributions are used solely to fund IWSA programs, activities and events.

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