



Quarterly Newsletter April 2020

Secretary's Message

What a start of the year we have had and of course as a growing technology segment we have been hit by the double challenges of the Coronavirus pandemic and also the steep fall in bunker prices, however wind propulsion developments are progressing and as we emerge from this crisis, rebuilding our economies with a focus on the roll out of green, renewable energy projects makes sense. We are seeing the manifestation of collective social and economic action and the power we have to bring about the change we need, however steering that in the right direction and navigating a strong, efficient and resilient decarbonisation pathway is the challenge we will face. Knowing the IWSA family, that is a challenge we all relish!

A quick summary of some of the key moments over the last few months, we warmly welcomed IMO Secretary General Mr. Kitack Lim's comments at European Shipping Week in Brussels when 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."

A big plus is that the wind propulsion systems are ready to go and provide significant savings as retrofit options and even more so as newbuild options on optimised vessels and thus need to be incorporated at the very heart of industry decarbonisation deliberations and pathway development. This fact was amply reinforced by the Comoros flag submission of an information paper for MEPC75 [[MEPC 75-INF.26](#)], which states 'one of the leading decarbonization technologies, direct wind propulsion, is receiving only very limited consideration in this critical debate over the future of shipping.....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.'

The EU has also been instrumental in helping to move the sector forward during this period with the Wind Assisted Ship Propulsion (WASP) project in the North Sea Region seeing its first Ventifoil installation by Van Dam Shipping and sustained progress on the three other installations scheduled for this year including rotor installations by Scandlines and Reederei Rörd Braren and an additional Ventifoil installation for Boomsma Shipping. A steady stream of other project announcements from the large and small vessel sectors has continued to put wind in the sails

We have also welcomed aboard a number of key industry companies as IWSA members, both ClassNK and Becker Marine Systems bring a wealth of experience in their areas of expertise. That level of expertise was also on show during the day long International Wind Propulsion for Shipping Forum held as part of the Green Ship Technology (GST 2020) in Copenhagen. We heard perspectives from across the board, including from BIMCO, Maersk Tankers, ClassNK, DNV-GL, MARIN, SSPA and many other IWSA members (listed below).

Last, but certainly not least, there has also been quite an uptick in published articles, interviews and other media appearances, the recent Al Jazeera piece on wind propulsion alone had more than 23,000 views on youtube and many more when it was aired live (along with five repeats). Another notable article was the one featured in the Engineer, with well over 20,000 reads from LinkedIn alone. (links below)

We face some continued challenges, probably persisting into the second half of the year, however as the economy revives and we focus once again squarely on decarbonising our industry, Wind propulsion stands ready to pull its weight and deliver double digit reductions throughout the fleet.

Gavin Allwright (IWSA Secretary General)

secretary@wind-ship.org

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2. Project Updates & Wind Propulsion Developments

eConowind (Netherlands)



During the docking of the MV Ankie of [Jan van Dam Shipping](#) in January at Royal Niestern Sander shipyard, the first retrofit fixed [eConowind](#) Ventifoil wind-assist system was installed on the 3,600 DWT general cargo vessel. The modular units are wings with vents and an internal fan that use boundary layer suction for maximum effect. The current installation features 2 x 10m wings to later be extended to 16m. The MV Ankie made its first voyage with the installation: Delfzijl-Wagenborg-Hamburg-Norway-Rotterdam. This system has proposed fuel savings of 1000 litres/day. The installation is part of [EU Interreg WASP project](#) [Read More...](#)

In late March, also under the WASP project, Boomsma Shipping also signed a contract with eConowind for a twin VentiFoil installation on the Frisian Sea, a 6400DWT MPP/General cargo vessel. The eConowind-units are both integrated in a specially designed Flatrack from which a folding VentiFoil can be deployed, these are ridged aspirated wing profiles acting as sails. The Flatrack is designed to optimize the handling of the VentiFoil. [Read More...](#) [Watch Time Lapse Video](#)

Neoline (France)



The [Sogestran group](#) is to take a capital stake in [NEOLINE](#) and together with its subsidiary COMPAGNIE MARITIME NANTAISE, will accompany Neoline in financing its first ships and in setting up the pilot line. Neoline's model uses wind energy as the main propulsion of its vessels, a commercial speed of 11 knots, trained and involved crews associated with advanced meteorological routing systems, aiming for 90% reduction in consumption and associated pollutant emissions. [Read More \(English\)](#) [Read More \(French\)](#)

In February, [EDF](#) and Neoline signed an agreement for the issue of Energy Saving Certificates (ESC), a first in the maritime world valuing energy savings. EDF has conducted studies on the 136m Neoliner design, with savings of 600,000 MWh over 15 years, equivalent of three 6 MW wind turbines for 10 years or a 9,000 pop. town's energy consumption over the same period. [Read More \(English\)](#) [Read More \(French\)](#)

Norsepower (Finland)



As part of the [EU Interreg North Sea Region WASP project](#), [Norsepower](#) is preparing to install one of their rotors onboard the Scandlines hybrid ferry MV Copenhagen this summer. The 169.5m long vessel with a capacity for 460 cars or 96 transport trucks, and 1,300 passengers, services the crossing between Rostock, Germany and Gedser, Denmark. Norsepower has also announced a new installation order from a European shipowner for two of the largest Rotor Sail units to be installed on an existing cargo vessel. Preparations for that installation will take place soon and full installation scheduled for Q4 2020. This comes on the heels of the successful trial results of two Rotor Sails onboard Maersk Tankers' [Maersk Pelican](#) [Read More...](#)

Windship Technology (UK)



[Windship](#) prepares to develop Carbon Neutral Vessels by combining Wind Power rigs and other proven emission reduction methods to reach Net Zero Emissions. As global shipping emissions are rising, this is a priority project. On the 6th February, Windship performed a wind tunnel test at the University of Southampton Wolfson Unit. This was based on a 20th scale model through various wind angles. The test proved the previous CFD findings showing the Windship solutions has, by a good margin, the highest power density of any wind auxiliary system in the world to date. Showing that Windship Rigs correctly fitted to a bulk carrier or tanker will cut its emissions and fuel by at least 30% per annum. Present at the testing were representatives from Lloyds Register and several Leading Charterers/Owners. [Read More...](#)

Anemoi Marine Technologies (UK)



[Anemoi](#) are celebrating two years of their systems being in operation, their Rotors having completed over 56.5 million revolutions each and sailed 175,000 nautical miles globally, visiting over 40 ports. The Rotors continue to demonstrate ongoing efficiency and significant fuel savings for Anemoi's clients. To accurately quantify savings, Anemoi have collaborated with a number of industry bodies such as VTAS (Vessel Technology Advice and Support – a collaboration between BMT and Black & Veatch), who are providing independent reliable and accurate performance analysis to Anemoi and their clients including case studies of operating vessels. This continued success and development has resulted in the expansion of Anemoi's team. New appointments have been made on the Board and within their Finance and Marketing departments, to support the increasing global adoption of their green technology. [Read More...](#)

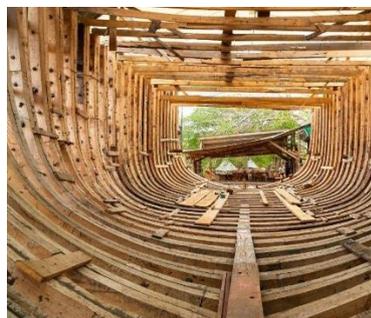
TOWT (France)



If [TOWT](#) moved about a thousand tonnes of cargo under sail since 2011, it should now be possible to do it... in a single shipment. TOWT promotes an environmentally-demanding strategy of sail main propulsion in order to launch a fleet of efficient, cost-optimised sailing cargo ships. With a sense of History, scientific reality, and a genuine environmental ethos as well as... with several cargo-owners signed onboard, including [Ethnic Drinks](#), the [Smart Sailing Cargo Ship](#) project accelerates drastically, together with Herskovits & Tobie naval architects as a radical, but also economically viable, realistic, reliable and tangible logistical solution.

Indeed, with 70m OA, 1,000 tonnes payload moved by 3,000 sqm of sail at 10 knots, it will reduce TOWT's clients' transatlantic carbon footprints to/from North & Central America as well as W. Africa by 90%. First launch scheduled early 2022. Read More... [Ethnic Drinks](#) [A Real Blue Deal](#) [Le Havre](#) [Armateurs de France](#)

Sail Cargo Inc. (Costa Rica)



On March 25th the [SAILCARGO INC.](#) team achieved a major milestone: they hoisted the *gammon knee* of sailing cargo ship *Ceiba* into place; it is now standing proudly at the bow of the ship. This massive hulk of hardwood weighs approximately 320kg (700lbs), and was lifted with ease using ropes, pulleys, and human strength. Made of pure Guapinol (*Hymenaea courbaril*), it represents months of work - from lofting the templates, sourcing and milling the trees, cutting out the individual elements and joining them together... a true accomplishment. We are now 75% done the framing of *Ceiba*, and her full potential is being revealed. It feels particularly powerful to hoist this mighty cutwater into the bow of our flagship during these heightened times; a symbol for a clean future, for resilience. Launch date is end of 2021, sailing mid-2022

Your confidence and support of our team is **appreciated, especially now more than ever**. Our eco-shipyard, Astillero Verde, is the largest employer in our little coastal community, which is one of the (financially) poorest area in the country. We are dedicated to providing stability to our team and community during this global situation and would like you to know that a portion of your investment goes directly to our local crew as wages, while another portion goes to supporting businesses in our area, and keeping our local economy alive. Our mission is to prove the value of clean shipping, and we are fuelled by people from more than 20 nations investing in this cause. Contact Danielle Doggett (info@sailcargo.org) [Read More...](#)

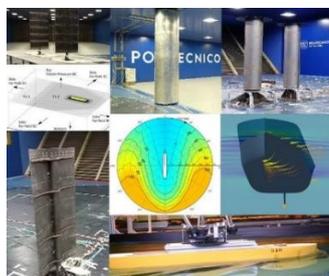
Blue Technology (Denmark)



No more green and blue discussion conferences or sustainability gatherings discussing solutions for the future.
We already have the technologies.
It is time to deliver.

Blue Technology released its Joint Industry Project Proposal and approaching potential project partners, with the aim to have a zero-emission demonstrator ready by 2022 and the much larger version of the 'Liberty' vessel in service well before 2030. For more information contact: Brian Boserup, Blue Technology CEO mail@bluetechnology.dk [Read More...](#)

Blue Wasp Marine (Netherlands)



The wind-assist specialists: Blue Wasp Consulting is now online Two PhD students from the Sail Assist research group at Delft University of Technology have moved their research to the private sector, offering expert and independent advise on wind-assist for stakeholders in the maritime industry. What does wind-assist mean for your fleet? How will these devices integrate with your ship systems and operation? Explore the next generation of wind-ship technology with Blue Wasp! [Read More...](#)

Lo Entropy (Denmark)



Pleased to announce we have an investor in place for the initial funding of the liner service between Oostende and Ramsgate, due to operate from May 2021. We continue to look for regular palletised cargo suppliers for the service. We would welcome volunteer helpers over the summer months in Denmark for the refit and would like to talk to interested sailing crew looking for full time employment. Contact Geoff Loentropy@gmail.com. [Read More...](#)

3. New Members & Registered Supporters

We are delighted to welcome the following new members to IWSA:



[ClassNK](#) (Associate Member)

Press Release: [ClassNK joins IWSA – 28Jan2020 & Graphics](#)



becker marine systems

[Becker Marine Systems](#) (Full Member)

Press Release: [2020-03-02 Press Release Becker Marine & IWSA](#)



[Blue Wasp](#) (Full Member)

4. Other News & Announcements



IMO MEPC 75 – Wind Propulsion Info Paper Submission

The wind propulsion info paper submitted by the Comoros flag has been accepted as [MEPC75 Inf.26](#) and is now available to all delegates and is also publicly available through IMO docs and a pdf copy can be downloaded here too. 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.”**

NOTE: Further technical submissions will be made at subsequent IMO MEPC sessions.



International Wind Propulsion for Shipping Forum (Denmark)

On 10th March, we welcomed a series of experts in wind propulsion technologies and operation to the forum, as a special part of the annual Green Shipping Technology conference. The proceedings were opened by keynote speaker, Christian Baekmark Schiølborg, Manager of Maritime Technology and Regulation at BIMCO who set the scene detailing the growing interest in wind propulsion systems in the industry and how that fits into the decarbonisation drive in shipping. The rest of the day was spent exploring the development of wind propulsion solutions, from finance to technical issues,

regulatory, policy, projects and the future. **Press Release** [Download](#) **Full Event Summary Report** [Download](#) [BIMCO](#) [HHx.Blue](#) [Norsepower Oy](#) [Airseas](#) [eConowind](#) [Wind+Wing Technologies](#) [Van Dam Shipping](#) [Maersk Tankers A/S](#) [AYRO](#) [HSBA SSPA](#) [Kuhne Logistics University \(KLU\)](#) [MARIN](#) [Blue Technology](#) [Celtic Cruises Ltd/Lo Entropy](#) [Schormanns Maritima](#) [Sail Cargo Inc.](#) [WiSP project](#) [WASP \(Wind Assisted Ship Propulsion\) project](#) [ClassNK Wind-assist guidelines](#) [DNV-GL wind-assist guidelines](#)

The forum was followed by the main GST 2020 conference and during that quite a number of IWSA members made presentations on their wind propulsion projects: [Airseas](#), [eConowind](#) and [Nayam Wings](#).



Delegation meeting with Members of French Parliament at National Assembly (Feb. 2020)

awareness and engage dialogue with members of Parliament, maritime administration, local and national government and NGO. *Wind Ship* is fully supporting IWSA's development and events, trying to offer new opportunities to reinforce the voice of wind propulsion also at EU/IMO level. Supported by French Shipowners Association, they organised a workshop for March 18th promoting wind propulsion to French institutions (maritime administration, MPs ...) and shipowners, while postponed this event promises to be an important one where existing and emerging wind-shipowners as well as finance and technical experts were expected to share their experience.

Europe-Atlantic hub: Association *Wind Ship* takes off

French wind propulsion projects recently gathered into an association “*Wind Ship*”, to have a voice at local and national level and take joint actions as IWSA's local Europe-Atlantic hub. About 15 members are part of the organisation including projects' developers, wind-propulsion technology suppliers & future wind-shipowners. These are the key-players for wind propulsion solutions takeoff.

Since January, they have started to build a local and national network, to raise





TU Delft Research Article (Netherlands)

Will Sails of Steel Make Ships More Sustainable – research article from TU Delft, article by Science editor Jos Wassink [Read More...](#)



Wind Assist Ship Propulsion Project (WASP) – North Sea Region The WASP (Wind Assisted Ship Propulsion) project

funded by the Interreg North Sea Europe programme, part of the European Regional Development Fund (ERDF) to the tune of €5.4 million has been officially approved and launched in October. The project 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 thus enabling wind propulsion technology market penetration and contributing to a greener North Sea transport system through harvesting the regions abundant wind potential. Shipping partners; Scandlines, Boeckmans Ship Management, Reederei Rörd Braren, Boomsma Shipping and Van Dam Shipping. Wind propulsion, shipping logistics and innovation experts will be monitoring and evaluating operations and developing pathways and applications to tackle the regulatory and business-related issues that are often major barriers to the uptake of new technologies. This expertise is drawn from Chalmers University of Technology, Katholieke Universiteit Leuven, Kühne Logistics University, the Danish Ecocouncil, Nord University, SSPA, HHX.blue and supported by IWSA and the Netherlands Maritime Technology Foundation. [READ MORE](#) + [Press Release](#)



Al Jazeera Program: Wind Propulsion on Counting the Costs

(20 Feb 2020) IWSA Interview talking shipping pollution, low carbon emissions and wind propulsion's solution's potential – video section starts at 16:30 mins [Watch Video](#)

8-11 sept 2020
leading international
maritime trade fair
smm-hamburg.com



SMM 2020 (Hamburg) - mantour organizes Booth at Hall A5 and presentation cycle "Future of Shipping"

At SMM 2020 in Hamburg mantour organizes a booth (A5.515) together with partner companies to present ground-breaking technologies for the future of shipping. Econowind and GEPS Techno will join the booth. On Thursday, September 10th the presentation cycle "Future of Shipping" will show technologies

for the upcoming Zero Emission Shipping. Amongst the presenters are members of IWSA, EU-funded projects, Zero Emission Shipping Technologies. The opening presentation will be held by a member of EU-Parliament. After the presentation cycle there will be opportunities for discussions at the Booth. If you are interested to join the booth and/or presentation cycle, please contact sm@conzes.eu



STEERER (Structuring Towards Zero Emission Waterborne Transport)

Launched in December 2019 to coordinate the establishment and communication of a Strategic Research and Innovation Agenda and an Implementation Plan **towards zero-emission waterborne transport, in cooperation with all key stakeholders needed to facilitate the transformation to clean waterborne transport.** In the definition of STEERER, as well as cutting GHG emissions, all harmful environmental emissions, water pollution and noise emissions have to be eliminated. STEERER's mission is to bring the

various initiatives and sectors' stakeholders together to join forces for a combined effort with the maximum impact for the climate, people's health and Europe's economy. Coordinated by the Waterborne Technology Platform (SEA EUROPE is responsible for its secretariat) & participation of 7 partners from 6 EU countries. STEERER is funded by EU Commission Horizon 2020 programme (€1.5 million over 30 months) [Read More...](#)

New Articles: A recent set of new wind propulsion articles



[The Rise of the Wind Ships](#)



[Wind-Assist Tech Enter Mainstream](#)



[Interview with IWSA SG: IWSA](#)



[Will Wind-Assisted Propulsion Blow the Maritime Industry Away](#)



[Why Pacific Islands are playing critical role in current shipping decarbonization debate](#)



[IMO Sec Gen Kitack Lim at ESWbacks more development of wind propulsion](#)



[Wind-Assisted Can Cut Fuel Costs/Emissions](#)



[Interview \[Part One\] Future of Wind Propulsion Solutions](#) – challenges, technology & trends - IWSA Sec Gen



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

5. Key IWSA Programs 2020+



Wind Propulsion Market Report: 30-page report on developments in the market, technology information & other technical information. + Short – 2-page Briefing paper for policy makers. Sponsorship & Advert space available + inserts for pamphlets. [Contact](#)



IWSA Brochure: 28 page colour brochure – feat. general wind propulsion info & IWSA activities + membership directory & advert space. Initial 1000+ print run & pdf version. Advert space available (next revision Oct 2020) + inserts for pamphlets. [Contact](#)



Awards Program: Technology Readiness Level (TRL) Award Program for wind propulsion tech providers will be launched this year. Designated levels set by transparent 3rd party criteria + approved by expert panel. Also small number of voting Awards: research & life time contributions to 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 in funding this?* [Contact](#)



Webinar & Podcast Series: Quarterly webinars: leading experts/panels discussing wind propulsion tech, latest research, market, policy, logistics etc. Dates to be Announced



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](#)



Industry & Policy Surveys: Assessing the level of technical knowledge and sector development understanding for the wind propulsion segment in the shipping and wider logistics chain and among national, regional and international policy makers.



Education Program: IWSA secretariat and members engage with University, Maritime training centres and School programs whenever possible – seminars, lectures, & project visits + providing materials for the wider education network. *Sponsors – interested?* [Contact](#)

6. Upcoming Events & Conferences

Original Date	Event	Changes
18 Mar	Armateurs de France Workshop , Mar 18th, Paris	Postponed – no date fixed
24-25 Mar	Envirotech for Shipping (Rotterdam) - IWSA presentation	New Date – 20-21 Oct '20
30 Mar-03 Apr	MEPC 75, IMO (London) – IWSA attending + working group	Postponed – no date fixed
31 Mar-02 Apr	CMA Shipping Conference (USA) – IWSA official supporting org	New Date:29 Jun-01 Jul '20
18-19 May	Maritime Transport Efficiency Conf. (Geneva): Wind Vessels module.	New Date – 5-6 Oct '20
25-29 May	Blueweek/Natural Propulsion Seminar (Rotterdam)- IWSA co-org	Online
27 May	IWSA Annual General Meeting (AGM)	Online
1-5 Jun	Posidonia (Greece) - IWSA attending	New Date 26-30 Oct '20
2-4 Jun	Green Marine conference (Montreal) - IWSA presentation	CANCELLED
15-17 Jun	INNOVSAIL 2020 Conference (Gothenburg) IWSA co-organising	ONLINE
8-11 Sep	SMM 2020 (Hamburg) - zero emissions forum - IWSA presentation	No Change
14-16 Oct	GreenPorts & Cruise Congress (Athens):IWSA official supporting org	No Change
9-20 Nov	MEPC 76, IMO (London) – IWSA attending	Postponed to 2021
17-19 Nov	Motorship Propulsion & Future Fuels (Hamburg) IWSA supporting	No Change
9-20 Nov	UNFCCC - COP 26 (Glasgow)	Postponed to 2021

7: Membership & Membership Fee Structure

IWSA welcomes all enquiries from companies/individuals supporting our objectives. Associate member & registered supporter categories are open to all. Full membership is reserved for companies with wind propulsion technologies or heavily involved in the sector. Contact: Gavin Allwright secretary@wind-ship.org

Annual Membership Fees (UK members only +VAT*) – 01 Sep 2020 – 31 Aug 2021

Full Member – Large (more than 250 employees) – €5,000

Full Member – SME (more than 10 employees) – €1,000

Full Member – Individual/micro organisation/NGO (up to 10 employees) – €400

Associate Member – Large (more than 250 employees) – €2,500

Associate Member – SME (more than 10 employees) – €500

Associate Member – Individuals/micro orgs/NGO (up to 10 employees) – €300

Registered Supporter – Company – €100

Registered Supporter – Individual/micro organisation/NGO – FREE + donation **

*NOTE: Only UK members need to add 20% VAT to their membership fee.

**Voluntary 'membership fee' is welcome: €50/donation]