

# Natural Propulsion Seminar

Monday, 13 June 2022



Day chairman: Rogier Eggers

10.00 hr	<b>Members only meetings: please check the exact planning directly with your consortium.</b> <ul style="list-style-type: none"><li>WASP Interreg project meeting</li></ul>
12.00 hr	<b>Registration (from 10.00) &amp; lunch</b>
13.00 hr	<b>Opening Blue Week 2022</b> <p>Guilhem Gaillarde, Chairman Blue Forum &amp; Rogier Eggers, Chairman Natural Propulsion Seminar Gavin Allwright, Secretary International WindShip Association IWSA</p>
13.10 hr	<b>Session 1: Modelling</b> <ul style="list-style-type: none"><li><b>EEDI/EEXI: on the flip side of the IMO50% guidelines</b> Francesco Stella, Performance Engineer, Computed Wing Sail, France</li><li><b>Effective wind modelling for performance predictions, including for EEDI/EEXI</b> Joost Schot, Project Manager, MARIN, The Netherlands</li><li><b>Demonstrating the performance of wind propulsion technology on sea-going vessels</b> Sofia Werner, Manager Strategic Research, SSPA, Sweden</li><li><b>Identifying the potential for energy efficiency gains in wind-hybrid propulsion systems</b> Joshua Lacey, Assistant Professor, KU Leuven, Belgium</li><li><b>Q&amp;A / panel discussion led by Gavin Allwright (International Windship Association)</b></li></ul>
14.45 hr	<b>Pause</b>
15.10 hr	<b>Session 2: Project updates</b> <ul style="list-style-type: none"><li><b>OPTIWISE Horizon Europe research project</b> Rogier Eggers, Project Manager, MARIN, The Netherlands</li><li><b>Material selection considerations for WASP applications</b> Thomas James, Marine Business Development, Hexcel Corporation, USA</li><li><b>SeaKite, by Yves Parlier</b> Yves Parlier, CEO, Beyond the Sea, France</li><li><b>Neoliner pilot-project: a sailing entrepreneurship feedback</b> Jean Zanuttini, President, Neoline, France</li><li><b>All Sail Set: fully wind powered retrofits for low-cost container service</b> Miles Keeney-Ritchie, head of company, Aloft Shipping, UK</li><li><b>How solar power could help to accelerate the transition towards sustainable shipping</b> Sarah Arntz, COO, Wattlab, the Netherlands</li><li><b>SKYTUG: Primary wind propulsion for all ships</b> James McGarley, Managing Director, Bluewater Engineering Limited, UK</li><li><b>The potential of Wind-assistance on the CataMARIN</b> Anton Kisjes, Project Manager, MARIN, The Netherlands</li></ul>
16.20 hr	<b>Pause</b>
16.45 hr	<b>Session 3: Ships &amp; Propulsors</b> <ul style="list-style-type: none"><li><b>Wind Ship Assisted propulsion: no time to loose. Suction Sail part of the solution</b> David Ferrer Desclaux, CTO, Bound4Blue, Spain</li><li><b>Advanced Wing Systems innovations in wind assisted ship propulsion</b> Greg Johnston, Founder &amp; CEO, Advanced Wing Systems, USA/Australia/Spain</li><li><b>Wind propulsion for Shipping: today's best ready-to-implement solution to reduce immediately emissions</b> Nils Joyeux, CEO &amp; Co-founder, Zephyr &amp; Borrée, France</li><li><b>Q&amp;A / panel discussion led by Gavin Allwright (International Windship Association)</b></li></ul>
18.00 hr	<b>Closure &amp; drinks</b>

# Zero Emission Seminar

Tuesday, 14 June 2022



Day chairman: Christian Veldhuis

9.00 hr	<b>Members only meetings: please check the exact planning directly with your consortium or project leader.</b> <ul style="list-style-type: none"><li>• International Windship Association members meeting</li><li>• WASP Interreg project meeting</li></ul>
12.00 hr	<b>Registration &amp; lunch</b>
13.00 hr	<b>Zero Emission Seminar</b>
	Welcome words and opening: Christian Veldhuis, Chairman Zero Emission Seminar
13.10 hr	<b>Session 1: Ships solutions</b> Chair & moderator: Christian Veldhuis <ul style="list-style-type: none"><li>• <b>The future of container ships: methanol and beyond</b> Emiliano Austi, Director Fleet Technology Maersk, Denmark</li><li>• <b>Low carbon ship design</b> Alexandre Bellot, Research Project Coordinator, LMG Marin, Norway/France</li><li>• <b>Q&amp;A or panel discussion</b></li></ul>
14.10 hr	<b>Pause</b>
14.20 hr	<b>Session 2: Storage Challenges</b> Chair & moderator: Christian Veldhuis <ul style="list-style-type: none"><li>• <b>Sodium Borohydride: bringing a solid hydrogen carrier on board ships</b> Hans te Siepe, Director, H2 Circular Fuel BV, the Netherlands</li><li>• <b>Safety challenges when integrating clean fuels on board ships</b> Willemien Verdonk, Senior Specialist, Lloyds Register, the Netherlands</li><li>• <b>Q&amp;A or panel discussion</b></li></ul>
15.20 hr	<b>Pause</b>
15.30 hr	<b>Session 3: Power solutions</b> Chair & moderator: Christian Veldhuis <ul style="list-style-type: none"><li>• <b>ICE developments and challenges</b> Kaj Portin, General Manager Sustainable Fuels &amp; Decarbonisation, Wartsila, Finland</li><li>• <b>H2 PEMFC developments, challenges and steps towards standardisation</b> Jogchum Bruinsma, Application Manager Maritime, Nedstack, the Netherlands</li><li>• <b>Q&amp;A or panel discussion</b></li></ul>
16.50 hr	<b>Small pause</b>
17.00 hr	<b>Session 4: Zero Emission Chain</b> Chair & moderator: Christian Veldhuis <ul style="list-style-type: none"><li>• <b>The role of LCA in sustainable ship design</b> Jelena Dolecek, Water Revolution Foundation, the Netherlands</li><li>• <b>Zero Emission shipping research: progress made and steps to take</b> Alex Grasman, Specialist, MARIN, the Netherlands</li><li>• <b>Q&amp;A or panel discussion</b></li></ul>
18.00 hr	<b>Drinks at the bow</b>

# Joint initiative Blue Forum & FPSO Research Forum

Wednesday, 15 June 2022



Day chair: Session 1: Saskia Kunst & Olaf Waals  
Sessions 2 & 3: Guilhem Gaillarde & Olaf Waals

**Till 8.30 hr** Registration & coffee

**8.30 hr** Good Morning pre-forum financial Session:

**Sustainable Investments enabling your route to zero**

A round table organised with Prow Capital, ABN AMRO, ING Bank, Rotterdam Maritime Service Community

**10.00 hr** Opening FORUM & Welcome words

Guilhem Gaillarde & Olaf Waals, MARIN  
Petra de Groene, Director Economic Affairs and Sustainability, City of Rotterdam

**10.15 hr** Session 1: Renewable Energy Production & Storage

Chair & moderator: Saskia Kunst | Chairman Supervisory Board Energy Transition Fund Rotterdam, Director Switch2Offshore

Quandr session and audience interaction: Olaf Waals, Manager Offshore @ MARIN

- **Trends in Floating Wind Market & Engineering**  
Fons Huijs, Consultant Floating Wind, GustoMSC, the Netherlands
- **Scaling up Offshore Floating Solar Production**  
Don Hoogendoorn, CTO, SolarDuck, the Netherlands
- **Green FPSO: a floating solution for large storage capacity offshore**  
Jaap de Wilde, Senior Project Manager, MARIN, the Netherlands
- **H2Sines-RDAM: First Green Hydrogen Export - Import corridor between Portugal and the Netherlands**  
Grégory Bartholomé, Engie, France
- **Gravity Storage System for Renewable Energy**  
Robert Werner, General Manager, Heindl Energy, Germany
- **Q&A or panel discussion**

**12.00 hr** Lunch

**13.30 hr** Session 2: Sustainable Alternative Energy Carriers & Power: changes ahead in operations & logistics

Chair & moderator: Guilhem Gaillarde, Manager Ships @ MARIN

Quandr session and audience interaction: Olaf Waals, Manager Offshore @ MARIN

- **Charging Offshore: e-Buoy concept**  
Govert Wagenaar, Bluewater, the Netherlands
- **Terminals for new energies: developments aheads**  
Philippe Lavagna, Product account Manager, Imodco / SBM Offshore Group, Monaco
- **Sustainable Alternative Power for Ships: environmental performance and financial considerations**  
Maarten van der Klip, PROW Capital, the Netherlands
- **Wind Hunter - creating zero emission vessels**  
Kentarō Shima, General Manager, Technology Research Center, MOL, Japan
- **Wind: the ready-to-use sustainable power source for shipping**  
Gavin Allwright, Secretary, International Wind Ship Association, UK
- **Q&A or panel discussion**

15.15 hr **Pause**

15.45 hr **Session 3: Local & Regional energy transition actions and strategies**

Chair & moderator: Guilhem Gaillarde, Manager Ships @ MARIN

Quandr session and audience interaction: Olaf Waals, Manager Offshore @ MARIN

- **SWIM hydrogen-electric propulsion: accelerating the energy transition in Rotterdam with an iconic water taxi**  
Maarten Fonteijn, Head of Thrust, Enviu, Jonas Brendelberger, Co-founder zepp.solutions, Gijsbert van Marrewijk, Co-founder Flying Fish, the Netherlands
- **Engine Off, Shore power on: plugin-in the world's largest crane vessels to clean power from the shore**  
Meike Kolthof, Sustainability Manager, Heerema, the Netherlands
- **Impacts of zero carbon electrofuels for shipping in the case of the Shetland Islands**  
Nikolaos Chrysochoidis Antsos, Principal Hydrogen Consultant, Ricardo, UK
- **Energy transition pathway in Balearic Islands**  
Pep Malagrava Rigo, DG Energy & climate Change and Ferran Rosa Gaspar, Institut Balear de l'Energia, Spain
- **Achieving a complete renewable energy supply with indigenous resources in Hawaii: the ambitions, plans, current status and challenges**  
Richard Rocheleau, Director, Hawaii Natural Energy Institute, USA
- **Q&A or panel discussion**

17.30 hr **Drinks on the deck**

19.00 hr **Dinner (registration required)**

# Ocean Energy Seminar: Mooring systems for renewable Offshore Energy

Thursday, 16 June 2022



In collaboration with: **Mooring Integrity User Group (FPSO research Forum)**

Day chairman: Arun Duggal (SOFEC) & Erik-Jan de Ridder

8.30 hr	<b>Registration</b>
9.00 hr	<b>Mooring systems for Offshore Renewable Energy - morning sessions</b>  Contributions covering experience of mooring systems gained in the Offshore Oil&Gas sector to be possibly applied for floating wind and solar as well as storage units will be presented. <ul style="list-style-type: none"><li>• <b>10 Years of the Mooring Integrity User Group – looking back and forward.</b> A. Duggal, SOFEC</li><li>• <b>Overview of Floating Wind Development in Taiwan.</b> KT Ma, Professor, National Taiwan University</li></ul>
10.00 hr	<b>Coffee break</b>
10.30 hr	<b>Morning session – second part</b> <ul style="list-style-type: none"><li>• <b>FOW Mooring – Key Challenges &amp; Opportunities and a new JIP to address Reliability in Design.</b> T. Hordvik, DNV</li><li>• <b>Synthetic Rope Technologies: Addressing the Mooring Industry’s Evolving Requirements.</b> C. Dewijngaert &amp; R. Faria, Bridon-Bekaert</li><li>• <b>Open Discussion: Future Requirements for Mooring Systems?</b></li></ul>
12.00 hr	<b>Lunch</b>
13.30 hr	<b>Mooring systems for Offshore Renewable Energy - afternoon sessions</b> <ul style="list-style-type: none"><li>• <b>High Strength Mooring Chain – Status &amp; Actions.</b> Dag-Børre Lillestøl, DNV</li><li>• <b>Mooring Chain Fatigue – New Knowledge with input to both O&amp;G and Floating Wind Systems.</b> O. Gabrielsen, Equinor</li><li>• <b>NorMoor JIP Phase 4 – On Chain Reassessment &amp; Life Extension.</b> S. Okkenhaug, DNV</li></ul>
15.00 hr	<b>Coffee break</b>
15.30 hr	<b>Morning session – second part</b> <ul style="list-style-type: none"><li>• <b>Experiences with Full Scale Turret Mooring Measurements.</b> B. Bodaghi &amp; R. Leeuwenburgh, Bluewater</li><li>• <b>Mooring Line Failure Detection in the Absence of Load Monitoring.</b> M. Naciri, SBM Offshore</li><li>• <b>Open Discussion: The Future of Mooring Monitoring for Improved O&amp;M Performance</b></li></ul>
17.30 hr	<b>Drinks at the bow</b>

# Blue Life & Ocean Energy Workshop

## The Future North Sea - A Balanced Powerhouse

Friday, 17 June 2022



Day presenter: Sophie van Hoytema | Day chairwoman: Floor Spaargaren

Energy, food and nature are all competing for space on the North Sea. How do we find the ideal balance between all stakeholders involved? The North Sea is on the one hand already an important source of energy and food, and on the other hand also our largest nature reserve. At the same time, we are getting increasingly more dependent on it by the day.

We are asking a lot from the North Sea and new plans to gain more from it are stacking up. That is why the **Community of Practice North Sea (CoP North Sea), TKI Wind op Zee, and MARIN** join forces to show a glimpse of a successful future of our dear North Sea. The challenge at hand: how can all the stakeholders together make the North Sea a balanced powerhouse?

9.00 hr **Registration & reception**

9.30 hr **Opening & welcome**

Sophie van Hoytema, day presenter | Floor Spaargaren, Blue Life seminar chairwoman

9.40 hr **Plenary session**

- **Setting the stage: The Future North Sea - A Balanced Powerhouse**  
Bob Meijer, TKI Wind Op Zee
- **Round Table**  
Heleen Vollers, Stichting De Noordzee | Nico Buytendijk, CoP Noordzee

10.25 hr **Short break and room change**

10.45 hr **Breakout sessions: round 1**

- **1A: A new business model for the North Sea - Discussion format**  
Our current economic models are based on the principle of economic growth. Within this line of thinking, we want to keep growing our activity at the North Sea and use up more space. However, the North Sea is not infinite, which makes us wonder if there is an alternative, more sustainable business model to explore. We look at what really matters for a sustainable future and how we can use it wisely, whilst at the same time still prosper.
- **1B: Floating solar at the North Sea - Discussion format**  
Wind and solar energy can complement each other, for they derive their energy from different weather elements. Some pilots are already in place near- and offshore, but is floating solar something we can fortify within our catalogue of renewable energy at sea? And keeping system integration in mind, why not in the middle of a wind parc using the connections that are already in place? Looking at large-scale floating solar, some questions arise: how large can build solar panel fields on the water, how much space do they take up, and what are the effects of shadow for sea life below the panels?
- **1C: Energy or migration? The impact of wind farms on birds and bats - Presentation**  
Wind turbines deliver us the essential renewable energy we need for our society. But they come at a cost. Migrating birds and bats find the turbines on their routes and fall victim to the rotating turbine blades. The WOZEP-project aims to quickly learn about the movement of birds and bats and how we can accommodate both their natural migration and our need for renewables from sea.
- **1D: Maritime Spatial Planning of the North & Baltic Sea - Presentation**  
The North Sea is larger than just the space incorporated into Dutch frontiers. This makes the discussion of a roadmap of the sea also an international one. So what are the innovations in shipping, fishery, and multi-use across borders and what lessons can we learn for the 12 participating member states? And which ones do we factor in?

12.00 hr	<b>Lunch</b>
13.00 hr	<b>Breakout sessions: round 2</b>
	<ul style="list-style-type: none"> <li> <b>2A: Safety at sea - Presentation</b>            In the Netherlands, three offshore wind parks are open to certain types of vessels: Egmond aan Zee, Princes Amalia, and Luchterduinen, while others remain closed off. What are the main dangers of letting vessels pass in these parks with expensive installations and what can we do to mitigate those risks? With the recent storm, we have seen a glimpse of the damage ships can do to a wind turbine. Is a guardrail a potential solution, or rather floaters surrounding the monopile?         </li> <li> <b>2B: Get creative with seaweed - Discussion format</b>            Can you eat it? Can you make clothes out of it? Can you make money with/ from it? Seeing as the answer is 'yes' to each question, you might start to think that seaweed is the new gold. What can you actually do with seaweed? How big will the demand be, and how can we make that demand grow? And why should we invest in seaweed? We ask the new experts on this natural resource why it's smart to move from bitcoins to seaweed in the new blue economy.         </li> <li> <b>2C: Green shipping - How can we build a wind farm emission-free - Discussion format</b>            For the construction and maintenance of wind farms, an array of vessels are needed. With the offshore wind sector reaching maturity, the demand for more sustainable ships is growing. And the industry is responding to it. This is one other step needed towards emission-free wind farms.         </li> <li> <b>2D: Installation with a nature-inclusive perspective - Presentation</b>            The installation of wind turbines can be a disruptive process for the natural environment in which they are build, such as vibrations when drilling a monopile into the ground. GBM Works is one of the companies working on a solution to mitigate this disruption. Additionally, they are part of the consortium of SIMOX, a project that is researching alternatives to conventional hammering. But what are the consequences of these 'new sounds' and how can this project help policy in setting new norms and ways of measuring sound.         </li> </ul>
14.15 hr	<b>Break and room change</b>
14.30 hr	<b>Breakout sessions: round 3</b>
	<ul style="list-style-type: none"> <li> <b>3A: Realisation of a Maripark – Discussion format</b>            There are different types of industrial areas at sea such as hydrogen, wind, and food farms. Looking at the activities above and under the water surface, is there a way to combine multiple activities at one location. At the moment, multiple pilots are being rolled out and can hopefully give us valuable insight into large-scale applications.         </li> <li> <b>3B: Alternatives for renewable energy - room for wave and tidal energy? - Discussion format</b>            When discussing renewable energy at the North Sea, wind energy is the dominant source. At the same time, the potential of floating solar is getting tested in pilots near- and offshore. But what about other forms of renewable energy such as wave and tidal? What is their place in this ecosystem?         </li> <li> <b>3C: Monitoring of the renewable energy concept and its impact on the ecosystems - Discussion format</b>            When new renewable energy concepts are deployed it is important to monitor them in different areas, such as loads and impact on the natural ecosystem. To be aware of the habitat changes, biologists frequently discuss the importance of collecting data to be able to monitor this. SSE Renewables is a company that is working on offsetting this.         </li> </ul>
15.45 hr	<b>Plenary closing - The new map of the North Sea</b>
16.00 hr	<b>Drinks and closure - End of the 2022 BlueWeek edition</b>