

# 2 ONE DAY WORKSHOPS via ZOOM

**NEXTGEN**  
Marine **BATTERY**

WORKSHOP • 19 OCT 2021

**NEXTGEN**  
Marine **HYDROGEN**

WORKSHOP • 20 OCT 2021



**International Experts – Innovative Solutions**

## **Focus on Sub IMO / Sub 24m Professional Craft**

Online Workshop • International Group  
12.00 to 17.00 (UK)

## **Relevant to Professional – Commercial – Military:**

End-user Organisations • Operators • Boat Builders  
Equipment Manufacturers • Naval Architects • Safety Integrators  
Ports & Harbours • Maritime Legislators • Classification

## **Next Generation Energy – Power and Propulsion for:**

Work Boats • Pilot Boats • Patrol Craft • Search & Rescue  
Wind Farm Support • Offshore • Survey Vessels • Police & Security  
Training & Charter Vessels • Superyacht Tenders

**Attend BATTERY or HYDROGEN Workshop: £100 per day**

**Attend both Workshops – Save 25%: £150 for 2 days**

Military / Government / Ports Rate: £75 per day (£100 for 2 days)

## **For further information:**

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[www.nextgen-marine.com](http://www.nextgen-marine.com)

<b>THEME: Utilisation of Battery-Electric for Marine Power &amp; Propulsion</b>	
11:45 – 12:00	Log on and Join the Group
<b>GLOBAL OVERVIEW of Battery Evolution &amp; Safety: Past - Present - Future</b>	
12:00 – 12:10	<b>John Haynes – Workshop Lead</b> Workshop Aims & Objectives / Global & Regional Opportunities
12:10 – 12:40	<b>Dr John Warner – Chairman, NAATBatt / Author, Handbook of Lithium Ion Batteries</b> How Battery Performance is Evolving - Knowledge Transfer from Other Transport Sectors
12:40 – 13:00	<b>Alan Cartwright – Director, Blabey Engineering / Principal Surveyor, Mecal</b> Engineering Design Verification of Battery-Electric Systems & Vessels
13:00 – 13:20	<b>Bram Jongepier – Senior Design Specialist, De Voogt Naval Architects B.V. (Feadship)</b> Battery-Electric Opportunities and Challenges for Superyachts and their Tenders
13:20 – 13:45	<b>Q &amp; A Session</b> <b>Future Battery Capability / Classification - Compliance - Safety</b>
13:45 – 14:00	Break
<b>ENABLING TECHNOLOGY for Marine Battery-Electric and Hybrid Systems</b>	
14:00 – 14:20	<b>John Haynes – Managing Director, Shock Mitigation / NEXT GEN Marine</b> The Hour of Power - Hybrid Solutions for Workboats, Patrol Vessels and Superyacht Tenders
14:20 – 14:40	<b>Brad Bisailon – Dir North American Industrial Market, American Battery Solutions (ABS)</b> Developing a Modular, Scalable Battery Solution for Onboard Power in All Vessels
14:40 – 15:00	<b>Paul Holland – Managing Director, Energy Solutions</b> Marine E-Mobility Infrastructure & Rapid Shoreside Charging
15:00 – 15:30	<b>Q &amp; A Session</b> <b>Feasibility of Battery-Electric - Hybrid Systems - Viable Applications - Duty Cycles</b>
15:30 – 15:40	Break
<b>ONBOARD INTEGRATION of Marine Battery-Electric Systems in Vessels</b>	
15:40 – 16:05	<b>Nigel Stuart – Marine Consultant / Former MD, Spirit Yachts &amp; Discovery Yachts</b> Lessons Learned from Hybrid Battery-Electric Applications in Build and in Service
16:05 – 16:30	<b>Jamie Marley – Managing Director, Marine Electrification Solutions</b> Designing & Installing Battery-Electric Systems for Multiple Applications
16:30 – 17:00	<b>Q &amp; A Session</b> <b>Applications using Battery-Electric / Hybrid Systems</b>
17:00	<b>Finish &amp; Download CPD Certificate</b>

Find out how innovative system designers are pushing the boundaries and creating a realm of new possibilities.

**NEXT GEN Marine Battery Workshop** enables attendees to learn how power and energy performance is increasing.

**Battery-Electric & Hybrid Powertrains** can improve efficiency, make fuel savings and reduce emissions.

**Here & Now Technology** looks at how marine can select viable solutions today.

**Next Generation Innovations** are approaching commercial release.



John Haynes



John Warner



Alan Cartwright



Bram Jongepier



Brad Bisailon



Paul Holland



Nigel Stuart



Jamie Marley

<b>THEME: Utilisation of Hydrogen for Marine Power &amp; Propulsion</b>	
11:45 – 12:00	Log on and Join the Group
<b>GLOBAL OVERVIEW of Hydrogen for Transport &amp; Energy: Land - Air - Sea</b>	
12:00 – 12:10	<b>John Haynes – Workshop Lead</b> Workshop Aims & Objectives / Global & Regional Opportunities
12:10 – 12:40	<b>Capt Muhammad Shafique – Chair, Alternative Fuels, IMarEST / Member State Rep to IMO</b> Forms of Hydrogen - International Standards & Classification
12:40 – 13:00	<b>Albert Willemsen – Environment &amp; Sustainability Manager, ICOMIA (Int Marine Industries)</b> International Hydrogen Strategies – Legislation & Regulations
13:00 – 13:20	<b>Meg Dowling – Engineer, American Bureau of Shipping (ABS)</b> Classification: Hydrogen and Fuel Cell Systems for Vessels
13:20 – 13:45	<b>Q &amp; A Session</b> <b>Infrastructure - Availability - Transport - Compliance - Safety</b>
13:45 – 14:00	Break
<b>ENABLING TECHNOLOGY for Marine Hydrogen Power and Propulsion</b>	
14:00 – 14:20	<b>Julian Morgan – Founder &amp; Managing Director, KPM Marine</b> Lightweight Structures and Clean Air for Battery - Hydrogen - Fuel Cell Systems
14:20 – 14:40	<b>David Yorke – Market Development Manager, Ballard Power Systems Europe</b> Are Vehicle Fuel Cells suitable for Marine Applications?
14:40 – 15:00	<b>Prof David Grant – Head of Advanced Materials Research Group, University of Nottingham</b> Potential of Solid State Hydrogen for Marine Power and Energy Applications
15:00 – 15:30	<b>Q &amp; A Session</b> <b>Feasibility of Hydrogen Systems - Viable applications - Types of Vessel - Duty Cycles</b>
15:30 – 15:40	Break
<b>INTEGRATION of Marine Hydrogen Systems in Vessels</b>	
15:40 – 16:05	<b>James Roy – Managing Director, Lateral Naval Architects</b> Can Superyachts Lead the Journey to a Hydrogen Based ZERO?
16:05 – 16:30	<b>Trevor Jasper – Engineering Manager - Low Carbon Technologies, CMB.Tech</b> Experience of Hydrogen Vessels in Service
16:30 – 17:00	<b>Q &amp; A Session</b> <b>Applications using Hydrogen / Fuel Cell Systems</b>
17:00	<b>Finish &amp; Download CPD Certificate</b>

The EU and UK Hydrogen Strategy - adopted in 2021 - aims to accelerate the development of clean hydrogen.

NEXT GEN Marine Hydrogen Workshop enables attendees to learn where hydrogen could provide solutions.

Next Generation Onboard Energy needs to be safe, reliable, improve efficiency and reduce emissions.

Hydrogen Technology looks at how marine can identify viable solutions for various applications.

Hydrogen Infrastructure will need rapid investment - with focus on flexibility and safety.



Muhammad Shafique



Albert Willemsen



Meg Dowling



Julian Morgan



David Yorke



David Grant



James Roy



Trevor Jasper

**De Voogt** was set up by the legendary designer Henri de Voogt in 1913. De Voogt then began cooperating with the De Vries and Van Lent yards. The partnership flourished after the creation of Feadship. Today this technical office for naval architecture and engineering is the creative centre of the organization. As well as designing yachts in the classic Feadship tradition, De Voogt is increasingly asked to develop revolutionary new concepts.

[www.feadship.nl](http://www.feadship.nl)

**American Battery Solutions - ABS** develop and manufacture the highest quality lithium-ion batteries and battery systems to serve marine applications, electric vehicles, industrial and commercial transportation. ABS has a world-class team of dedicated engineers with decades of experience in designing advanced battery systems. ABS Marine systems range from generator replacement solutions to the highest energy density batteries for marine power and propulsion.

[www.americanbatterysolutions.com](http://www.americanbatterysolutions.com)

**Ballard Marine** Center of Excellence in Denmark is dedicated to engineering, manufacturing and servicing fuel cell applications. Ballard is actively involved in projects including megawatt-scale marine power solutions with ABB, development of HySeas III the world's first sea-going renewables-powered car and passenger ferry. Also participation in European H2PORTS project and Flagships project to demonstrate fuel cell powered ferries and barges.

[www.ballard.com](http://www.ballard.com)

**Lateral Naval Architects** provide complete engineering expertise to the superyacht industry, from project conception to delivery. Core competence is engineering but unique focus is on meaningful innovation to enable superyachts that meet the demands of today's owners and those of the future. Lateral deliver in depth naval architecture and engineering services across the disciplines of structural engineering, outfit engineering, mechanical and systems engineering.

[www.lateral.engineering](http://www.lateral.engineering)

**CMB.TECH** is a developer and integrator of hydrogen solutions with the focus on engineering, hydrogen production, industry and marine applications. CMB.TECH has over 40 skilled and passionate engineers who work on the latest state of the art and future technologies. CMB.TECH has partnerships with several engine manufacturers and has retrofitted existing diesel engines to dual fuel and monofuel. Shipping has been part of CMB's DNA for 125 years.

[www.cmb-tech.com](http://www.cmb-tech.com)

**American Bureau of Shipping - ABS** has been promoting the security of life and property and preserving the natural environment since 1862. With 4000 technical professionals around the world and a passion for making the world a safer place, while also delivering practical and innovative solutions, ABS assist the marine and offshore industries. ABS is on the cutting edge of technologies related to technical evaluation services, vessel performance and marine fuels.

[www.eagle.org](http://www.eagle.org)

**International Council of Marine Industry Associations - ICOMIA** has been representing the global marine industry since 1966. ICOMIA brings together national marine industry associations in one global organisation and represents them at an international level, presenting a strong and united voice when dealing with issues challenging the industry. 37 national associations are members of ICOMIA including the United States and most European countries.

[www.icomia.org](http://www.icomia.org)