

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:

Event Manager - Claire Donnelly +44 (0)7709 675258

Email - claire@shockmitigation.com

www.nextgen-marine.com

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

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

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

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



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

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

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

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

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

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

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