



**Focus on Sub 24m Vessels
Relevant for 25m to 100m – Ports & Harbours**

13.00 to 17.00 (UK)
14.00 to 18.00 (EU)
08.00 to 12.00 (US EST)

Relevant to Professional – Commercial – Military

End-user Organisations • Operators • Boat Builders • Refit Yards
OEM Manufacturers • Engineers • Naval Architects • Designers
Classification • Legislators • Ports • Harbours • Marinas

Next Generation Energy – Power – Propulsion

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

NEXT GEN HYDROGEN Workshop: Standard Rate £120

Military / Government / Academia / Ports / British Marine
RINA / IMarEST / UKHMA: Discount Rate £95

Supporters



For further information:

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www.nextgen-marine.com

THEME: What are the Tipping Points for Marine Hydrogen, Methanol and Ammonia?

Session 1 – Hydrogen, Methanol and Ammonia as Marine Fuels

13:00 – 13:10	John Haynes - Workshop Lead, NEXT GEN Marine Global & Sector Opportunities for all forms of Hydrogen
13:10 – 13:30	Prof Alasdair Cairns - Chair of Propulsion Systems, University of Nottingham The Potential of Green Ammonia and Methanol to Decarbonise Commercial Vessels
13:30 – 13:50	Jonathan Hall - Head of Research & Advanced Engineering Projects, MAHLE Powertrain HyJet - Hydrogen Jet Ignition for High Performance Vessels
13:50 – 14:10	Kirk Waltz - Director BD - Clean Energy Transition, ABS (American Bureau of Shipping) Green Corridors and US Government Investment in Clean Energy
14:10 – 14:30	Panel Discussion - Q & A Session - Technology and Infrastructure What are the Opportunities and Challenges for Hydrogen, Methanol and Ammonia?
14:30 – 14:40	Break

Session 2 – Hydrogen, Fuel Cell and Dual Fuel Innovation on Vessels

14:40 – 14:55	Jamie Warner - Business Development Manager, CMB.TECH Lessons from First Ports and Vessels using Hydrogen and Dual Fuel Engines
14:55 – 15:25	Europe - United States - Canada - New Zealand - Japan Updates on Hydrogen Vessels / Fuel Cell, Battery-Electric, Foiling
15:25 – 15:40	Albert Willemsen - Environment & Sustainability Lead International Hydrogen Strategies / Opportunities for New Vessel Builders and Refit Yards
15:40 – 15:50	Break

Session 3 – Hydrogen Policy, Safety and Regulations

15:50 – 16:05	Kai Reichelt - Marine Engineer - Business Development Manager Testing, RINA Why Hydrogen and Derivatives are now being considered as Alternative Energy for Ferries
16:05 – 16:20	Peter Van de Graaf - Decarbonisation Business Development Manager, Lloyd's Register Lloyd's Register view on Hydrogen Guidance and Rules
16:20 – 16:35	Meg Dowling - Corporate Technology Engineer, ABS (American Bureau of Shipping) Update from US Activity and ABS Requirements for Hydrogen Fueled Vessels
16:35 – 17:00	Panel Discussion - Q & A Session - Compliance Organisations What are the Obstacles and Barriers to Classification of Hydrogen Vessels?

END: 17:00 (UK)



John Haynes



Alasdair Cairns



Jonathan Hall



Kirk Waltz



Albert Willemsen



Kai Reichelt



Peter Van de Graaf



Meg Dowling

Workshop Lead – John Haynes

'Since running the first edition of NEXT GEN Marine HYDROGEN in October 2021 the world has changed. Following 2022 political instability in Europe, energy security and the drive for alternative fuels is urgent. For marine it is now essential to establish which fuels are viable and what will be required onshore.'

'UK, EU and US Hydrogen Strategies aim to accelerate the development of clean Hydrogen. Significant government funding on both sides of the Atlantic will rapidly build Hydrogen infrastructure. Much of this will be around ports, leading to a ready supply of Hydrogen for marine power and propulsion.'

'Industry experts and dynamic discussions examine the potential for Hydrogen – with safety the main priority. Technology is reaching high readiness levels and barriers to Hydrogen adoption are rapidly being removed. We now need to identify when and where alternative fuels will be available for maritime operations.'



The University of Nottingham provides exceptional research-led education. Nottingham is a member of the UK's prestigious Russell Group of universities, a founding member of the global Universitas 21 network and is consistently among the QS world top 100 universities. The Faculty of Engineering focusses on developing impactful research across all 22 research centres and institutes. From buildings, infrastructure and transportation to innovative technology.

www.nottingham.ac.uk

MAHLE Powertrain (MPT) is a leading engineering consultancy focussing on complete powertrain development. Providing support across a range of industries, MPT's expertise covers system engineering of ICE with traditional and alternative fuels, such as eFuels, hydrogen, ammonia and electrified solutions including hydrogen fuel cell and high-performance batteries. MPT is leading the HyJet consortium with partners including University of Nottingham, Clean Air Power and the RNLI to develop sustainable propulsion solutions for retrofit to high-performance marine vessels.

www.mahle-powertrain.com

Lloyd's Register is a global professional services company specialising in engineering and technology for the maritime industry. Lloyd's Register are the world's first marine classification society, created more than 260 years ago to improve the safety of ships. Technical expertise is offered in more than 70 locations, serving clients based in 182 countries. Lloyd's Register is a leading provider of classification and compliance services to the marine and offshore industries.

www.lr.org

The American Bureau of Shipping (ABS) is an American maritime classification society established in 1862. Its stated mission to promote the security of life, property and the natural environment, primarily through the development and verification of standards for the design, construction and operational maintenance of marine and offshore assets. ABS core business is to provide global classification services to the marine, offshore and gas industries. ABS develops its standards and technical specifications, known collectively as the ABS Rules & Guides.

www.eagle.org

RINA Ship classification has been at the core of the RINA business since its inception in 1861. RINA integrated services for the complete shipping cycle include design, building, shipyard management, inspection and testing of materials / components. Surveys to maintain the class are used by merchant ships, ferries, ro-ro, yachts, cruise ships, naval and offshore vessels. RINA is authorized to carry out surveys onboard by 116 international flag authorities. RINA is involved in new propulsion systems including Hydrogen, Methanol and Wind-Assisted Ship Propulsion (WASP).

www.rina.org

www.nextgen-marine.com