UK future marine infrastructure in focus at MATS

The future direction of the UK's marine research infrastructure and how to succeed in taking on solo global ocean challenges are on the keynote billboard for this year's tenth Marine Autonomy and Technology Showcase (MATS), organiser the National Oceanography Centre (NOC) has announced.

The event will run from November 5-7, at NOC's dockside facilities in Southampton, with the NOC operated research vessel RRS *James Cook* due to be alongside.

Confirmed keynote speakers include NOC chief executive Dr John Siddorn, who will outline his vision for NOC, after taking over the reins earlier this year.

He is joined by Dr Katherine Hill, Lead Scientist on NERC's Future Marine Research Infrastructure (FMRI) programme, who will focus on work done so far exploring marine science aspirations for 2040, to guide future investment in the UK's Marine Research Infrastructure.

They will be joined by Conrad Humphreys, who will bring his unique inspirational insight as British yachtsman, business owner, adventurer and explorer, including being the youngest entrant in the Whitbread Round the World Yacht Race (now Volvo Ocean Race) and sailing solo in the Vendée Globe.

Alongside the keynotes, MATS technical sessions will tackle critical themes on marine autonomy including the blue economy, robotics and remote data, artificial intelligence and next generation autonomous platforms while visitors will have the chance to meet a wide range of companies and organisations in the exhibition area.

Mark Hamson, NOC Innovation Centre manager, says, "We are incredibly proud to be hosting our 10th Marine Autonomous Technology Showcase. The focus on the future of the UK's marine research infrastructure is vital, and we're excited to bring together such a remarkable lineup of speakers and sessions.

"It's an opportunity to not only reflect on where we are now but also to look ahead and explore the innovations that will shape the future of ocean research."

Dr Hill adds, "I'm looking forward to sharing our insights so far as part of our consultation on shaping future marine infrastructure and opportunities for strengthened partnerships with industry. At its core, FMRI is focused on maximising information value for investment in marine research infrastructure by bringing observations and digital tools together in new and innovative ways.

"This brings both challenges and opportunities. There is no single ideal solution. However, we have an opportunity to consider the niche roles of different technologies in our observation toolkit. How do uncrewed surface vessels work in complement with satellites? How are sensors developed complementary to model parameterisation? How to we bring the combined toolkit together to drive integration and maximise impact?"

Huw Gullick, Associate Director of NOC Innovations, adds: "We're delighted to also have Conrad with us, to bring into the marine autonomy world some of that inspiration and drive he has shown in the amazing ocean journeys he's undertaken and how he's translating that into business today."

In addition to the keynotes and technical sessions, MATS includes a drinks reception sponsored by the NOC Innovation Centre on Tuesday, 5 November, and an evening social event sponsored by Exail on Wednesday, 6 November.

For more information about MATS, the programme, registration and further sponsorship opportunities, click here.

- Ends –

About the keynote speakers:

Dr John Siddorn. Chief Executive of the National Oceanography Centre.

Since joining NOC in 2020 as Associate Director of Digital Ocean; John has championed the embedding of digital approaches to furthering science, including through the use of digital twins and has been key to thought leadership in his field and in shaping the current landscape of digital twin innovation.

Prior to joining NOC, John held positions at the Met Office where he was Head of the Ocean Forecasting R&D Department (OFRD) group and co-chair of the National Partnership for Ocean Prediction (NPOP). His personal research was on developing ocean models with a focus on interactions between the ocean and atmosphere, and understanding how those interactions underpin predictability for climate and for high impact events. Amongst other responsibilities, he led the Newton Programme's India project which developed the science and modelling capability across climate and weather timescales, coordinating work in the Met Office and in UK academia with that at the Ministry of Earth Science in India.

John's background is in shelf seas modelling and he led the ocean model developments based on NEMO for applications across the Met Office for a number of years before becoming Head of Ocean Forecasting in 2014.

Prior to his career at the Met Office John worked for the Natural Environmental Research Council at Plymouth Marine Laboratory as a mathematical modeller in a biogeochemistry modelling team with the primary responsibility for implementing marine dynamical models

Dr. Katherine (Katy) Hill, Lead Scientist, NERC Future Marine Research Infrastructure.

As Lead Scientist, for NERC's Future Marine Research Infrastructure programme, Katy provides scientific leadership and representation for the FMRI programme at a national and international level. Katy brings a truly global perspective to the FMRI programme. Her career has focused on the scientific planning, development and delivery of sustained ocean observations and research infrastructure nationally, internationally and through intergovernmental programmes. This includes a period as Scientific Officer for Australia's Integrated Marine Observing System when Katy lead the national planning, prioritisation for investment and community engagement to optimise the use and impact of that strategic national investment. Katy is currently the Lead Scientist for UK Global Ocean Observing (funded by Defra), Vice Chair for the World Meteorological Organisation's (WMO) Advisory Group on Ocean, and a member of the UN Ocean Decade Data Coordination Group. For the past 4 years Katy has led the coordination of the G7 Future of the Seas and Oceans Initiative aimed at raising political awareness and agreeing on priorities for joint action in sustained ocean observing across G7 members. Katy is also Chair of the UK's Marine Environmental Data and Information Network,

Conrad Humphreys. British Yachtsman, Business Owner, Adventurer & Explorer

Conrad is a triple round-the-world yachtsman. He competed as the youngest entrant in the Whitbread Round the World Yacht Race (now Volvo Ocean Race). As skipper, he led his team to victory in the BT Global Challenge by dominating the race and winning 4 out of 7 legs. Conrad became the fifth British yachtsman in history to complete the legendary Vendée Globe, single-handed, non-stop around the world without assistance despite major setbacks when his yacht's rudder suffered significant damage when it collided with a floating object en-route to the Southern Ocean.

For more information, contact elaine.maslin@noc.ac.uk

About the NOC

NOC is the UK's leading institution for integrated coastal and deep ocean research. NOC undertakes and facilitates world-class agenda-setting scientific research and technology development to understand the global ocean by solving challenging multidisciplinary, large scale, long-term marine science problems to underpin international and UK public policy, business and societal outcomes. NOC is a company limited by guarantee set up under the law of England and Wales (11444362) and registered as a charity (1185265).

NOC operates the Royal Research Ships James Cook and Discovery and develops technology for coastal and deep ocean research. Working with its partners NOC provides long-term marine science capability including: sustained ocean observations, mapping and surveying; data management and scientific research and advice.
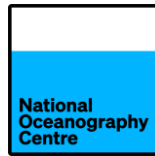
Among the resources that NOC provides on behalf of the UK are the British Oceanographic Data Centre (BODC), the Marine Autonomous and Robotic Systems (MARS) facility, the National Marine Equipment Pool (NMEP), the National Tide and Sea Level Facility (NTSLF), the Permanent Service for Mean Sea Level (PSMSL) and British Ocean Sediment Core Research Facility (BOSCORF).