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SUT, MASTS and the D'Arcy Thomson Forum present:
The 10th Anniversary Special of the Salvage, Decommissioning & Wreck Removal Workshop
Thursday 10th November 2022 (Auditorium A)

Navigating the Blue Economy through the Climate Emergency: How do we achieve joined up thinking and improved decision making?

Open

09:00 Karen Seath, Chair, SUT Salvage, Decommissioning & Wreck Removal Committee
[Welcome: A look through 10 years](#)

Session 1: Energy infrastructure use and impact: The need for better decision making

09:10 *Chair: Petra Harsanyi, Marine Station Manager, St Abbs Marine Station*

Abigail Davies, PhD Student, National Decommissioning Centre/University of Aberdeen
[The Energy 'transition': Out of the frying pan, into the fire?](#)

Steve Hall, Policy & Technology Consultant
[Current global marine policies – Time to rethink?](#)

Lee Hanlon, CEO, CessCon Decom
[The circular economy challenge for onshore decommissioning of offshore infrastructure](#)

Charlotte Stamper, Energy Infrastructure Lead, European Metal Recycling
[A virtuous circle? Opportunities for a circular offshore renewables sector](#)

Discussion/Q&A

10:30 *Wrap up/Coffee*

Session 2: The Marine Ecosystem – What are we protecting it for? The need to think differently

11:00 *Chair: Nigel James, Master Mariner and Director, Waves Group*
[Opening: Prevention rather than cure? A Master Mariner's perspective](#)

James Herbert, Secretary General, International Salvage Union
[Lloyd's Open Form and the role of the marine salvage industry in the preservation of marine ecosystems](#)

Mike Elliott, Chair in Estuarine & Coastal Sciences, University of Hull
[The value of biodiversity – A scientist's perspective](#)

Moya Crawford, Managing Director, Deep Tek and D'Arcy Thompson Simulator Centre
[Where we are with the Hazardous and Noxious Substances \(HNS\) Convention – How does this fit in with the opening up of the NE Passage?](#)



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Discussion/Q&A

12:15 *Wrap up/Lunch*

Session 3: Exploration and Removal of wrecks and offshore structure: The Tech and Data need

13:00 *Chair: Andy Matkin, Commercial Manager (Environmental Services), Fugro*

Murray Roberts, Professor of Applied Marine Biology & Ecology, University of Edinburgh
[Exploring the Titanic – the 2022 expedition](#)

Juha Flinkman, Finnish Environment Institute SYKE
[Legacy wrecks as environmental hazards in the Northern Baltic Sea – Case Gulf of Finland](#)

Mark Lawrence, Lead – Digital Services, Waves Group
[How state of the art Technology and Visualisation can help inform decision making](#)

Will Black, Decommissioning Project Manager, EnQuest on behalf of the Subsea Decommissioning Collaboration (SDC)
[A collaborative operator approach using innovative supply chain technologies](#)

Discussion and Q&A

Workshop: Break into four groups to discuss key questions

14:45 *Wrap up/Coffee*

Session 4: Moving the conversation on – Tackling tough topics

15:10 *Chair: Rachael Sinclair, Senior Scientist, SMRU Consulting*

Part 1: Explosives and UXO's – A changing story

Alison Brand, Managing Director, Manta Environmental
[A look back, and how EDGAR \(Explosives use in Decom, Guide for Assessment of Risk\) enables the future](#)

Lisa Zardoni, Decommissioning Engineer, North Sea Transition Authority
[Driving efficiencies with the right decom toolbox](#)

Richard Battrick, Managing Director, UXOcontrol
[Regulatory framework for UXOs, scoping magnitude of problem, differences between explosives and UXOs](#)

Discussion/Q&A

Part 2: Driving topical discussion forward across the 'Quadruple Helix'

Moya Crawford, President, SUT
[The SUT Special Interest Groups, the strength of partnership, and looking forward](#)



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16:20 Dave Paterson, CEO, Marine Alliance for Science and Technology for Scotland (MASTS)
Thoughts from the two workshops – Open discussion

16:30 *Wrap up and Closing remarks.*

We hope you enjoyed the workshop. Thank you for your support, and safe journey home!

Speaker/Chair Biographies

Karen Seath, Chair, SUT Salvage, Decommissioning & Wreck Removal Committee



Karen has worked for over 25 years in the environmental, commercial and academic sectors. With a focus on sustainable strategy, environmental impacts of offshore infrastructure, circular economy (CE) opportunities (reuse/recycling) for decommissioned materials and stakeholder engagement, she leverages her extensive cross-sector network and practical understanding of academic, industry, government and community interfaces, to identify, develop and deliver opportunities for commercial, regulatory and academic entities. As a Marine Biologist, her passion for investigating the impact of man-made activities on the marine environment led her to work on research projects throughout Europe. Following a move into the private commercial sector, where she specialised in risk management and global regulatory affairs, she combined her interests to help commercialise innovative technologies and ideas from academic subsidiaries into the energy sector. Karen's commitment to knowledge sharing, collaborative ways of working and cross sector learnings led her to work strategically to Chief Executive level across the oil and gas decommissioning sector with the member organisation Decom North Sea, and to Chair the SUT's Salvage Decom & Wreck Removal Committee. In 2017 she established her own company where she provides strategic and practical support to organisations. She is currently Blue Economy Lead with the D'Arcy Thompson Simulator Centre, and provides CE and R&D support as Environmental Director with CessCon Decom.

Session 1

Chair: Petra Harsanyi, Marine Station Manager, St Abbs Marine Station

Petra is a marine ecologist with expertise in environmental monitoring, benthic ecology, and ecotoxicology. She is interested in understanding the impacts of marine offshore renewable energy on marine environment. Her current research focuses on how electromagnetic fields (EMFs) emitted from subsea power cables could affect benthic invertebrates in all life stages. Through her doctoral research she studies the effects of EMFs on microbial surface colonisation, epibiotic and sediment microbiomes. Beside her electromagnetic field research, she is interested in genomic analysis of biodiversity and environmental monitoring of coastal zones using unmanned vehicles. Key Interests: monitoring ecosystem health, early development of marine invertebrates, biofouling, use of unmanned vehicles in conservation research.





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Chair – Abigail Davies, PhD Student, National Decommissioning Centre/University of Aberdeen



Abigail is a final year PhD researcher at the National Decommissioning Centre, part of the University of Aberdeen. Her project is the quantification of greenhouse gas emissions as a consequence of oil and gas industry decommissioning. Abigail has 15 years of geoscience experience in the upstream oil and gas industry, working for numerous operators and service companies both offshore and onshore, including Halliburton and Maersk Oil. Her experience ranges from geophysics and seismic interpretation to exploration prospect mapping, geological studies and data management. Abigail has undergraduate and postgraduate teaching and course development experience, and has worked as a teaching associate in the geoscience department at Royal Holloway University London. Abigail gained her MSc in geosciences from Royal Holloway University London, and undergraduate degrees in both geosciences from the University of Aberdeen, and industrial design from the Robert Gordon University.

Steve Hall, Policy & Technology Consultant

Steve Hall is a freelance ocean science, technology consultant based in Wales. He mainly works for clients engaged in the UN Ocean Decade, and in developing new technologies for sustained ocean monitoring. After an initial start in the survey sector and 3 years as an Excise officer specialising in hydrocarbons, Steve worked for the UK Natural Environment Research Council for 27 years, the last 10 in policy, where he led the UK delegation to UNESCO's Intergovernmental Oceanographic Commission and was elected IOC Vice Chair in 2015. During his time at NERC Steve worked in sustained ocean observing, the development of marine autonomous vehicles, education and development of marine legislation. In 2017 he became CEO of the Society for Underwater Technology, later as CEO Pembrokeshire Coastal Forum and Marine Energy Wales, and starting his own business in 2022. His main client today is the Nippon Foundation / GEBCO 'Seabed 2030' project, which aims to compile the first detailed global map of the seafloor during the UN Ocean Decade. He also does volunteer work for the Rising Seas Institute, SUT and IMarEST.



Lee Hanlon, CEO, CessCon Decom



Lee Hanlon has over 20 years' oil and gas industry experience gained through multiple engineering and management roles in commissioning, operations, maintenance and decommissioning, for a variety of oil and gas companies and contractors across Europe. Lee is owner and CEO of CessCon Decom, a decommissioning service provider established in 2018 to deliver safe, innovative, cost-effective and environmentally responsible decommissioning services with a strong focus on the circular economy. As CEO, Lee has grown CessCon Decom into a global decommissioning service provider with 3 decommissioning and recycling facilities across the UK and South East Asia. Lee has a Master's Degree in Engineering Management and has been part of Decom North Sea's Leadership Group for several years. He is committed to developing new methodologies towards his goal of achieving the highest possible reuse and recycling rates of oil & gas infrastructure, further contributing towards establishing the UK as a global leader in the decommissioning sector



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Charlotte Stamper, Energy Infrastructure Lead, European Metal Recycling

Charlotte is the Energy Infrastructure Lead at European Metal Recycling, one of the world's leading metal recyclers that aims to be the global leader in the provision of sustainable materials. Prior to this, Charlotte worked at Scottish Renewables as its policy lead for offshore wind, and also Zero Waste Scotland where she was responsible for setting its strategic direction across the energy infrastructure sector with a particular focus on circular economy. She is both a Fellow of the RSA and a Chartered Waste Manager.



Session 2

Chair: Nigel James, Master Mariner and Director, Waves Group



Nigel is a Master Mariner and Director of Waves Group, with primary responsibility within the Company for marine casualties, claims, disputes, and litigation. He has extensive experience within all aspects of marine casualty response, incident management and accident investigation. As a Member of the SCR Panel at Lloyd's he is regularly involved with marine salvage and wreck removal operations and working as a Marine Warranty Surveyor occasionally involved with both offshore construction and decommissioning projects.

James Herbert, Secretary General, International Salvage Union

James Herbert started his career as a British Army officer before training as journalist at the BBC where he worked for number of years. He moved to the Shell Group and rose to be head of Group media relations where he handled numerous shipping incidents and drills. After a period as a senior civil servant in the UK, James set up his own communications consultancy with a specialty in maritime PR and marine casualty management and he has more than 25 years' experience of the shipping industry. In his career James has responded to more than 400 incidents and issues and he is a published author in marine casualty management. James was the ISU communications adviser for 14 years, supporting the three previous Secretary Generals and he now combines the role of Secretary General with ISU communications.



Mike Elliott, Chair in Estuarine & Coastal Sciences, University of Hull



Mike is the Director of International Estuarine & Coastal Specialists (IECS) Ltd and also the Professor of Estuarine and Coastal Sciences at the University of Hull, UK. He was Director of the former Institute of Estuarine & Coastal Studies (IECS) at the university from 1996-2017. He has a wide experience and interests with teaching, research, advisory and consultancy including estuarine and marine ecology, policy, governance and management. Mike has published widely, co-authoring/co-editing 20 books/proceedings and >350 scientific publications. He has advised on many environmental matters for academia, industry, government and statutory bodies worldwide and is a member of many national and international committees linking marine science to policy. Mike is a past-President of the international Estuarine & Coastal Sciences Association (ECSA) and is now Vice-Chair of Future Earth Coasts and a Co-Editor-in-Chief of the international journal Estuarine, Coastal & Shelf Science; he currently is or has had Adjunct Professor and Research positions at several universities worldwide.



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Moya Crawford, President of the SUT; MD, D'Arcy Thompson Simulator Centre and Deep Tek

Moya has worked in the marine and offshore world for over forty years, combining hands-on experience in onsite operations, with positions at executive level. Her core background is the marine salvage industry in the specialist field of deep water cargo recovery. Since the early 1990s, as Managing Director of Deep Tek Ltd, she has concentrated on taking innovative salvage technology, developed on a principles-based approach, into the oil and gas sector; working predominantly between the UK and Norway. Her commitment to building sustainable, technology-led business that is informed by the best available marine science underpins her new role as Managing Director development of the D'Arcy Thompson Simulator Centre Limited at the University of St Andrews' Eden Campus, a joint venture between Deep Tek and the University's wholly owned subsidiary StAAR Ltd. She is the current President of the Society for Underwater Technology and also the Chair its International Salvage & Decommissioning Committee, and sits on the Advisory Board of the Marine Alliance for Science and Technology Scotland (MASTS).



Session 3

Chair :Andy Matkin, Commercial Manager (Environmental Services), Fugro



Andy is a marine environmental scientist with 15 years' experience specialising in marine environmental survey services. Andy has experience in survey design, environmental data collection, analysis, reporting and project management. Andy joined Fugro in 2018 and is currently the environmental commercial manager and the general manager of Fugro's environmental office in Edinburgh. Prior to this, he spent 3 years in Houston in a business development role for a marine survey company specialising in geophysical, geotechnical and environmental surveys, with an emphasis on developing the environmental services within North and Latin America. He has held project management roles focusing on environmental, geochemical and multidisciplinary surveys, including the successful management of a multiclient regional environmental survey in West Africa. Andy represents Fugro on the SUT Decom and Wreck Removal Subcommittee, and on the Marine Environmental Sciences SIG. Andy is a Member of IMarEST, Chartered Scientist and Chartered Marine Scientist.

Murray Roberts, Professor of Applied Marine Biology & Ecology, University of Edinburgh

Murray Roberts is Professor of Applied Marine Biology & Ecology at the University of Edinburgh's School of GeoSciences. He leads the Changing Oceans research group, chairs the Joint Working Group between St Abbs Marine Station and the University and coordinates the European Horizon 2020 iAtlantic project. He studies structural habitats in the deep ocean, notably those formed by cold-water corals, to enhance plans for their long-term management and conservation. His previous roles include Reader and then Professor of Marine Biology and Director of the Centre for Marine Biodiversity & Biotechnology at Heriot-Watt University in Edinburgh (2009-16) where he coordinated the development of the Lyell Centre (2012-15). Before moving to Edinburgh, he was based at the Scottish Association for Marine Science (1997-2009) with a period as Marie Curie Fellow at the Centre for Marine Science, University North Carolina Wilmington in the USA (2007-09). His work on cold-water corals and deep-sea biology has taken him to sites off the UK, Norway, Ireland, the SE United States and Cape Verde off West Africa. Murray is senior author of the 'Cold-water Corals', the first book covering the biology and geology of these important deep-sea habitats, a contributing author to the 2014 and 2019 Intergovernmental Panel on Climate Change Reports and a consultant to the United Nations Convention on Biological Diversity.





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Juha Flinkman, Marine Scientist, Finnish Environment Institute SYKE



During his career as scientist, Flinkman worked in research of ecology and status of pelagic food webs, fish and zooplankton populations. Last 12 years Flinkman has worked as the manager of Finnish research vessel Aranda. Flinkman has had a lifelong relationship with both occupational and recreational diving, having worked as Diving officer for University of Helsinki, and scientific diving coordinator in FIMR and SYKE. Flinkman's diving interests have always been focused on wrecks. Flinkman was among the first Nordic divers entering the realm of technical diving. Flinkman and his dive team Badewanne www.badewanne.fi have undertaken research primarily of 1st and 2nd World War wrecks Gulf of Finland. This research is mostly historic, but increasingly concerning environmental problems associated with legacy wrecks. Besides managing research vessel Aranda, Flinkman is also involved in pre salvage work on environmentally hazardous wrecks at SYKE.

Mark Lawrence, Lead – Digital Services, Waves Group

Mark began his maritime career as a commercial diver and following an MPhil in Marine Archaeology at St Andrews University, became a professional marine archaeologist working on submerged sites off the UK, in the Mediterranean and the Baltic and off the US and Australia. In the UK, Mark worked under contract to the Department for Culture, Media and Sport in support of the Protection of Wrecks Act 1973, specialising in remote sensing equipment to visualise historic wrecks. In 2008 Mark co-founded Advanced Underwater Surveys Ltd. (ADUS) which specialised in 3D subsea visualisation. High-profile surveys have included the Deepwater Horizon oil rig, which lies at a depth of 5000ft in the Gulf of Mexico, and a 3D visualisation of the parbuckled Costa Concordia. Now incorporated into the Waves Group, ADUS is continuing to develop capability. Advancing technology means it is now possible to acquire high resolution 3D data and understand assets in challenging environments better than at any stage in the past. This data has proved to better inform the decision-making processes for our clients, and increase certainty of outcomes.



Will Black, Decommissioning Project Manager, EnQuest on behalf of the Subsea Decommissioning Collaboration (SDC)



Will is a chartered project professional with over 23 years' experience working in the Oil and Gas sector, 15 of those in Major Capital Projects. He has managed projects for over 10 years and transferred these skills into the decommissioning sector in 2014. Will now works in the Decommissioning Directorate within EnQuest where mature assets are taken to the end of their productive life and decommissioned in a safe, efficient and environmentally responsible manner. Thinking this was going to be a short assignment before returning to Capital Projects he has never looked back. The challenge of decommissioning offshore installations in this sector is just too big to be drawn away from.



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Session 4

Chair: Rachael Sinclair, Senior Scientist, SMRU Consulting

Rachael is a Senior Scientist at SMRU Consulting and has 11 years' experience in marine mammal science. As a consulting scientist within the SMRU Consulting Europe team she has experienced a range of consultancy work for various industries and sectors including offshore renewables, offshore civil engineering and oil and gas. Rachael specialises in pre-present offshore wind farm impact assessment work, and has produced scoping chapters, baseline characterisation, quantitative underwater noise impact assessments, cumulative impact assessments, ES chapters, RIAA chapters, shadow EPS assessments and MMMPs for numerous UK offshore wind farms.



Alison Brand, Managing Director, Manta Environmental



Dr Alison Brand is a Chartered Environmentalist, Marine Scientist, and Scientist who has been the Managing Director of Manta Environmental Limited since 2015. Alison is experienced working in marine environmental science in consultancy and academic research roles. She studied the epibiotic colonisation of a stabilised coal waste artificial reef for her PhD. She currently specialises in Environmental Modelling and has developed underwater noise models for: Explosives use in Decommissioning (EDGAR), Seismic Impacts (SIGAR), and Impact Piling (PIGAR). Alison is a member of the SUT Decommissioning & Wreck Removal Sub-Committee and chairs the explosives technical group (XCOM). She is also a member of the Underwater Sound Forum and the UK Acoustics Network. As a past Open University lecturer Alison is experienced in teaching STEM subjects. She contributed to the EIA module of the MSc in Decommissioning at Aberdeen University.

Lisa Zardoni, Decommissioning Engineer, North Sea Transition Authority

Lisa Zardoni is the Decommissioning Engineer at the North Sea Transition Authority with primary focus on the SNS and EIS areas of the UKCS. She works closely with operators, supply chain, other regulators and trade associations to promote cost effective decommissioning, sharing learnings and technology implementation. Lisa holds an MSc in Aerospace Engineering from the Politecnico di Milano University and an MSc by Research in Cavitation Modelling for DYNA3D from the Cranfield University. She is chartered and member of the Institution of Mechanical Engineers. Prior to joining the NSTA she worked in different engineering roles, both on international and UK projects, with the most recent work experience as principal engineer (verification and certification) with DNV-GL.



Richard Battrick, Managing Director, UXOcontrol



Richard is a Strategic advisor and Senior Executive delivering value to clients through risk management and conformity assessment activities, routinely providing support in compliance for public-private and defence related sectors to commercial organisations, international corporate entities, financial institutions, including government and non-government organisations.



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Dave Paterson, CEO, Marine Alliance for Science and Technology for Scotland (MASTS)

Professor David M. Paterson FMBA holds a personal chair in Coastal Ecology at the University of St Andrews and is Executive Director of the Marine Alliance for Science and Technology for Scotland (MASTS). He also Chairs the Sullom Voe Oil Terminal Environmental Advisory Group (SOTEAG) and is also working on the ecological effects of oil and gas decommissioning. He has 25 years of experience in research on marine systems and held a Royal Society University Research Fellowship at Bristol before moving to St Andrews. He established the Sediment Ecology Research Group (SERG) and continued his work on the dynamics and ecology of coastal systems. SERG has an international reputation for innovation and scholarship in marine science and strong national and international funding. Professor Paterson has led many successful interdisciplinary projects (EU and National). Recent research involves biodiversity, ecosystem function, ecosystem services, and global change biology particularly the effects multiple stressors (ocean acidification, temperature and hypoxia). He also advises industry, academic institutions and Scottish Government (and has served as a trustee for several important marine organisations).



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CessCon Decom provide bespoke, cost effective, fit-for-purpose and environmentally responsible decommissioning services to our clients. We provide a vast range of services across the full decommissioning lifecycle from initial studies and surveys, offshore asset preparation for removal, and onshore dismantlement and recycling, with a key focus area of project specific and bespoke Engineering Down and Cleaning solutions. From our bases in Livingston, and The Energy Park Fife, UK and Brunei, South East Asia we provide decommissioning services to the onshore and offshore oil and gas, power and chemical industries. We work with all major oil and gas operators, heavy lift and transportation contractors in order to provide the most effective solutions for our clients



Fugro is the world's leading Geo-data specialist, collecting and analysing comprehensive information about the Earth and the structures built upon it. Through integrated data acquisition, analysis and advice, we unlock insights from Geo-data to help our clients design, build, operate and decommission their assets in a safe, sustainable and efficient manner. Employing approximately 10,000 talented people in 65 countries, Fugro serves clients around the globe and provides integrated offshore solutions for the



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decommissioning, abandonment and removal of oil and gas infrastructure from the surface to the seabed. We also support our clients in the restoration, and long-term monitoring and reporting, of decommissioned sites. Our expertise spans the full project life cycle and includes optimised monitoring, planning and support to streamline your offshore operations and meet or exceed your decommissioning requirements.

