

Environmental Sustainability Seminar Report – Moving from Principles to Practice

Introduction

On September 28, 2021, over 110 participants joined IMCA's second seminar on Environmental Sustainability. The seminar, hosted by IMCA's Environmental Sustainability Committee, explored key topics from IMCA's Recommended Code of Practice on Environmental Sustainability (the Code). The Code sets expectations on our industry to manage key environmental and climate topics associated with offshore marine construction. Speakers were drawn from across the membership, as well as from the Basque Centre for Climate Change, the Global Maritime Forum, VARD Engineering, KPMG Netherlands, the United Nations Global Compact and Duke University. This Report offers some highlights from the three-hour online event.



Opening Remarks

IMCA's CEO Allen Leatt opened the event pointing out that IMCA's membership spans 65 countries and therefore its work and voice carry a long way. IMCA represents a wide range of companies, numbering over 700 entities, from large publicly-listed companies to small privately-held businesses. Whatever the size or scale, the energy transition, climate, and the environmental agenda are now embedded in both the boardroom and field operations offshore. These are highly material to the future of our industry, to longer term value creation, and wider public good. Allen acknowledged the leadership of IMCA's Environmental Sustainability Committee in developing the Code and recognised its importance as a milestone. He noted whilst it was a first step in the right direction, as an industry there is much to do individually and collectively on how we can move the needle and make progress on the environment. He encouraged attendees to listen, engage and challenge to help us to improve our thinking, decision making and actions.

Keynote Address

The keynote address was given by **Julie Angus, Adventurer and CEO of Open Ocean Robotics**. She shared her experience rowing across the Atlantic, inspiring participants. She explained *"that at the beginning it seemed so huge and challenging and even unachievable, but it was just a series of small steps or...oar strokes and eventually all of those added up, and after 2.5 million oar strokes we rowed across an ocean..."* A key message was that after *"...a series of small steps and eventually you can have something that will make an impact."*

On the crossing Julie and her partner observed less sharks than would have been the case years earlier and a long line of plastic pollution in an area where currents converged near the Caribbean islands. She then explained how this had shaped her and her partner's decision to create Open Ocean Robotics, and to help collect ocean data safely, affordably, and sustainably using autonomous vessels. She noted that autonomous vessels can be low or zero emissions, thereby reducing the greenhouse gas (GHG) emissions associated with ocean data collection. She also offered a recent example of their work with the offshore wind industry and real time marine mammal detection.

IMCA store terms and conditions (<https://www.imca-int.com/legal-notices/terms/>) apply to all downloads from IMCA's website, including this document.

IMCA makes every effort to ensure the accuracy and reliability of the data contained in the documents it publishes, but IMCA shall not be liable for any guidance and/or recommendation and/or statement herein contained. The information contained in this document does not fulfil or replace any individual's or Member's legal, regulatory or other duties or obligations in respect of their operations. Individuals and Members remain solely responsible for the safe, lawful and proper conduct of their operations.

The seminar was then structured around four substantive sessions which covered the six key topics in IMCA's Recommended Code of Practice on Environmental Sustainability, notably: emissions reduction; energy efficiency; circular economy; supply chain engagement; reporting and disclosure; and life below water.

1. Emissions reduction and energy efficiency and management

Erik Bergh, HSEQS Director of DeepOcean, a member of IMCA's Environmental Sustainability Committee introduced the emissions reduction and energy efficiency and management aspects of the IMCA's Recommended Code of Practice on Environmental Sustainability. He explained how the Code is particularly focused on GHG emissions that occur during vessel operations, as this is where the greatest impact likely lies for IMCA members. He then differentiated between the three emission scopes. He noted multiple drivers for emissions reduction, including regulation. He commented that *"we have client and investor demands that come in the form of increased tender requirements around emissions reporting"* and *"investors...are increasingly shying away from companies that don't have a clear focus on emissions reductions."*

Erik then shared carbon emissions reduction actions, touching on 10 possible steps for a decarbonisation roadmap. He pointed out that emissions reduction and energy efficiency and management go hand and hand. He added that companies need to put in a place a structured energy management plan with SMART objectives and targets and could draw on energy management elements from existing frameworks such as SEEMP, ISM or the ISO 50001 energy management standard. And he stressed the important of continuous improvement and bringing emissions and fuel consumption down. He highlighted some of the technical and operational measures in the Code. For example, he called for energy management to be a topic in worksite daily status meetings and performance reports, noting that: *"If you are not talking about it, if you are not asking critical questions, if you are not reporting on energy management, chances are you are not going to see the momentum that you want so that you can start achieving those targets."* He encouraged everyone to get their hands on a copy of the Code and to *"do a deep dive."*

Professor Anil Markandya of the Basque Centre for Climate Change gave a talk framing the imperative for action on emissions noting that the present global path of emissions is seriously above what it should be to achieve the desired targets of stabilising the world's temperature increase to 1.5°C or even to achieving 2°C. He pointed out that emissions would *"have to decline about 7% to 8% a year for the next ten years to put us on a path for stabilization of temperature at 1.5°C. This is the equivalent of the COVID effect in 2020 happening every year!"*. If we continued with business as usual, temperatures would rise by around 3°C with severe consequences. He commented that the energy transition *"depends on the on many actions by many players."* He then offered some examples of what can be done to get us started on that path. He cited the important role regulation has played and the role for non-state actors, highlighting key multistakeholder initiatives, such as the Poseidon Principles, the Sea Cargo Charter and the Getting to Zero Coalition.

Jesse Fahnstock, Project Manager of the Global Maritime Forum commented that the initiatives Professor Markandya mentioned emerged out of the work the Global Maritime Forum, with its member companies. The Getting to Zero Coalition has over 150 member organisations, most of which are companies, but not simply shipping companies but companies throughout the value chain. Jesse then put in context the overall transition that shipping is about to undertake and presented an 'S curve trajectory.' He then focused his words on scalable zero emission fuels. He explained what is meant by zero emissions and that in the long run the fuels used in shipping would need to be net zero on a life cycle basis. He said there are not any fuels that can do this now.

He added: *"The promising fuels of tomorrow, if you made them today, they would generate some kinds of CO₂ emissions in their production and supply chain. However, some of these fuels do have the potential to get very close to zero. That may be because they actually contain no carbon atoms. Hydrogen and ammonia do not contain carbon atoms or because they can be feasibly produced using net zero carbon sources, for example, advanced biofuels or that they can use both green hydrogen and net zero carbon sources."* He then explained the importance of scalable zero emissions fuels, noting that a successful transition would require a very steep rate of change once technologies are available.

2. Circular economy and supply chain engagement

Arjen Leendertse HSE Manager, Norway, Subsea 7, and a member of IMCA's Environmental Sustainability Committee, introduced the circular economy concept. It takes a prominent place in the Code. He stepped through the 9Rs Framework of the Ellen MacArthur Foundation. These principles can be applied to waste or end-of-life products. For example, he explained that for the top three categories of "refuse," "rethink" and "reuse," this is dealing with methods fundamental to the way we conduct our services or how our products work. He referred to this as "the pinnacle of circular economy and should be a goal for all the products and services that we have in a sustainable future." He added that "there was no magic formula to drive this process, but what we really need to do is to starting engaging with our management, with our product development teams, our commercial departments, and last but not least also our suppliers." He invited attendees to join in the journey from a linear economy to a circular one.

Hannah Crutchley, Regional Manager, APAC of Global Maritime, and a member of IMCA's Environmental Sustainability Committee, then provided a brief taster of the supply chain engagement section of the Code. She explained that this section of the Code is to address the importance of the supply chain in achieving our sustainability and environmental objectives. She explained that *"as IMCA contractor and supplier members, we understand that the value of our supply chain packages can be a larger proportion of the revenue on an EPIC project, and at times in the range of 60-70%"*. She pointed out that this presents a significant opportunity for delivering environmental improvements in our overall project delivery and is also a risk to achieving our environmental goals.

The Codes states it is good practice that environmental sustainability objectives are cascaded to the supply chain, to assess the criticality of suppliers, and to set environmental performance expectations and incentives. She commented that *"as part of the standard supply chain process, we need to follow up on the performance and evaluate our suppliers after project delivery, and we can do this through progress meetings, workshops, audits, reporting and lessons learned."*

Andreas Buskop, General Manager, Engineering Department of Vard Engineering Brevik spoke on a practical solution to a complex problem, applying circular economy in the business case for offshore vessels. He noted the green shift could present a significant business opportunity. Their vision is *"to create a clear pathway for establishing the most efficient and environmentally-friendly shipping."* He explained the green shipping programme that they are part of is based on the Norwegian Maritime Cluster. It includes all major players in the value chain, with public and private participation. They are developing 35 projects, 10 of which had been implemented to date. The idea is *"to make profits on emissions reductions with significant escalation potential."*

He then put the initiative in the context of IMCA's Code and applied the 9Rs Framework of the Ellen MacArthur Foundation from the Code to consider the circularity of the initiative. They considered four different scenarios and their outputs in terms of carbon footprint. He commented that: *"If we include a circular economy the results are surprisingly interesting, showing that the zero-emission vessel will always produce the lowest CO₂, but due to the energy profile and scope of conversion, we can find candidates that will give a better economy and a lower carbon footprint thinking in a circular economy."* He concluded that *"there are opportunities not seen before in circular economy, improving the economics and environment."*

3. Reporting and framing environment and climate in broader sustainability

Idalisse Bernier, Environment Director of TechnipFMC, and a member of IMCA's Environmental Sustainability Committee introduced the reporting elements of the Code. She noted that every member should demonstrate how it addresses or manages environmental aspects in its operational and business activities in the area of sustainability. She said we need to understand what the material environmental topics are our industry has, what are those legal requirements and regulatory trends that are defining these topics. We also need to define, capture, and report relevant information that can tell us how we are performing and advancing in the climate challenge facing our world. She emphasised the importance of establishing a baseline for measuring and monitoring our industry progress.

Idalisse called on our industry *“to own the narrative and lead the way on its environmental performance and progress.”* She acknowledged that in doing so, it *“brings a series of challenges...mainly in ensuring we have a set of aligned indicators that show us how we are performing, not only to compare ourselves against each other within the industry, but with the new challenges of the energy transition and climate change, collectively determine how our industry is collaborating for a lower carbon future together.”* She then emphasised the disclosure principles in the Code and the importance of self-evaluation. She then introduced attendees to the IMCA self-assessment tool to be rolled out in 2022.

Alexandra Monteiro, QHSE Adviser of TechnipFMC, and a member of IMCA’s Environmental Sustainability Committee, further discussed how IMCA and its members are taking action on monitoring and measuring industry progress. She noted that *“IMCA and its members should work together on industry-specific guidance on material environmental indicators to set the path for establishing a baseline that will help the industry in improving our environmental performance”*. She added that it was important to consider the applicability of international reporting frameworks and standards. The Code also recommends members demonstrate how environmental aspects are managed and explain why and how environmental and climate-related risks are taken on board in business strategies and operations. Alexandra commented that *“once we have the specific guidance on performance indicators and established a baseline, we will be in a good position to lead the way for the marine industry to improve environmental performance and collaborate to face challenges and achieve common benefits.”*

Wim Bartels, a KPMG Sustainability Partner opened his talk by stating that he heard about emissions reductions and the actions that were being taken as members of IMCA and about the circular economy, and he would add to that external reporting developments. Over the past years, there has been increased attention for that aspect of disclosure. He commented that with the Task Force on Climate-related Financial Disclosures (TCFD) initiative, *“the attention for disclosure, particularly also by financial stakeholders...has...risen to another level than ever before.”* He added that it might make *“regulators aware that there may need to be a next step in reporting towards further standardisation and further alignment.”*

Wim offered three key takeaways: firstly, that transparency on climate in particular and sustainability in a broader sense will become part of mainstream reporting; secondly, that international standardisation is underway and will be implemented shortly; and thirdly, that climate change needs to be addressed most urgently in light of the financial risks and opportunities for companies.

4. Life below water

Ezrah Schraven, Global Sustainability Consultant of Fugro, a member of IMCA’s Environmental Sustainability Committee, introduced the life below water section of the Code. Ezrah explained that *“When we talk about life below water we inevitably talk about biodiversity, and when we talk about ecosystems, we inevitably talk about biodiversity,”* reminding attendees of the definitions of biological diversity and ecosystem, and the associated benefits. She noted that biodiversity is in rapid decline. She observed that *“next to CO2 emissions, corporate stakeholders are giving more and more attention to biodiversity.”* She offered examples of some potential impacts the offshore marine contracting industry could have on biodiversity. Ezrah then stepped through some of the recommended measures in the Code. She also recommended looking at the Science-based Targets Initiative (SBTi) which is developing specific targets for biodiversity.

Suzanne Johnson, Senior Advisor, UN Global Compact’s Ocean Stewardship Coalition presented on ‘scaling the global impact of sustainable ocean businesses. She introduced the UN Global Compact (UNGC), a special initiative of the UN Secretary General two decades ago, which emphasises the private sector’s role in advancing UN goals. She referred to it as *“the largest corporate sustainability initiative in the world”* with 13,000 company as signatories. The UNGC includes a focus on how to advance the UN Sustainable Development Goals (UN SDGs) through the oceans. She noted that *“the global economic output is reliant on a healthy ocean.”* She then shared the new ‘sustainable ocean economy’ narrative. The High-Level Panel on the Sustainable Ocean Economy, headed by Norway’s Prime Minister, together with 14 other Heads of State, emphasises the need to protect the

ocean while increasing its productivity in a way prosperous for all. The UNGC Ocean Stewardship Coalition brings together ocean industry players, NGOs, UN & multilaterals, research and academia, NGOs, and Governments.

Suzanne introduced the sustainable ocean principles, which serve as a baseline for ocean industries. These principles relate to the health and productivity of the ocean, governance, data sharing, transparency, and climate action. Industry-specific guidance for applying these principles is available, including for the oil and gas, offshore renewables, and shipping sectors. Companies sign on to the principles to demonstrate their engagement and stewardship towards the ocean, and they can be used by the finance sector for due diligence. They also look through the lens of five tipping points: sustainable seafood; set sail for the decarbonised shipping; harnessing ocean electricity; end waste entering the ocean; and mapping the ocean.

She commented that *“Over twenty percent of the GHG reduction that needs to happen in order to keep us to a 1.5 or even 2 degrees scenario can happen in the ocean.”* She noted that the UN Secretary General had described this as Code Red for Humanity and pointed out that *“taking ocean action is also climate action.”* She concluded that this year is *“the Blue Road to COP26, and we are highlighting that the ocean holds vast untapped resources to support inclusive sustainable development and provide more low carbon food, renewable energy, sustainable transport, and nature-based solutions”*.

Professor Doug Nowacek of Duke University spoke on the importance of sound to animals in the ocean, knowledge of their capabilities and susceptibilities, known impacts and means of managing them. He commented that there is more biological sound underwater than people realise. For example, fish, invertebrates, and mammals make and receive sound for key life functions such as reproduction, territory defence, foraging, predator avoidance and spatial orientation. He distinguished between intentional production of underwater sounds (e.g., through sonar or geological surveys) and incidental sound. He then stepped through the potential effects of noise on marine mammals from non-observable to interference with communication (e.g., auditory masking or temporary or permanent hearing damage), to behavioural responses (e.g., vocal changes, effects on feeding and habitat abandonment) to physiological effects (e.g., stress) to stranding causing injury or death. Across this spectrum, he explained, they generally increase in severity but decrease in occurrence.

He then talked about passive acoustic monitoring. He also noted that many activities such as pile driving or geological surveys come with monitoring requirements, and science benefits from these. Professor Nowacek offered various approaches to noise mitigation: Vessel quieting (IMO guidelines, incentives, and certifications); noise dampening technologies (e.g., marine vibroseis as an alternative to traditional air gun surveys, and bubble curtains); strategic and operational planning; and operational mitigation and seasonal and area closure approaches.

He concluded by highlighting some of the partnerships for progress on ocean noise and further knowledge resources. For example, academics have contributed to the www.dosits.org website with resources produced by animals and behavioural impacts. Moreover, the E&P Sound and Marine Life Joint Industry Programme is a longstanding programme which has engaged industry partnerships to address these issues. Professor Nowacek then explained the cross-sectoral international alliance, the Global Alliance for Managing Ocean Noise.

Conclusion and next steps

Stig Clementsen, Chair of IMCA’s Environmental Sustainability Committee and Chief Sustainability Officer at DOF thanked all the presenters, the committee and IMCA for their work on the seminar. He commented that the Recommended Code of Practice on Environmental Sustainability had been presented in a particularly effective way and the external speakers had given inspirational inputs which brought to light the different elements of the Code.

Nadine Robinson, IMCA’s Technical Adviser on Environmental Sustainability then gave some practical information. She explained that the outputs from the seminar would be included in an event report and that a link to the video would be circulated to attendees. The report would be considered by the Environmental Sustainability Committee in its future work planning. She noted the new self-assessment tool to help members analyse and

reflect on whether they were meeting the expectations of the Code. It has been piloted by ESC member and will be available in 2022.

Nadine called on any interested attendees to send their details to sustainability@imca-int.com if they would like to be part of a wider network around environmental sustainability for the offshore marine contracting industry. She then noted that this year's IMCA environmental and safety awards would open soon for nominations. Nadine then echoed Stig's thanks to the speakers, panellists, and Environmental Sustainability Committee members, and to attendees for participating in the seminar, asking them to complete the short exit survey. Nadine then thanked the ESC Chair, Stig Clementsen noting that it was his vision to have the event and it was great to see it materialise.

Stig then offered some final words to close the seminar highlighting that *"the world is on fire."* The UN Secretary General had called it a Code Red for Humanity. He commented that *"Our world and our industry need to tackle the twin challenges of decarbonisation and environmental sustainability."* He noted that IMCA rose to the challenge by issuing its first Recommended Code of Practice on Environmental Sustainability (see www.imca-int.com/committees/environmental-sustainability/), *"the Code that we have worked out together."* He added that *"In the years to come, we need to adhere to the Code and to demonstrate those results within our marine contracting industry. Doing this together, and sharing best practice is a strategy we believe in, in IMCA. This seminar is just the end of the beginning for IMCA and its members. I would like to wish you good luck with this work going forward, and again thank you for making this successful seminar."*