



European
Commission



European
Maritime
Day
Poole 2017



“The Future of our Seas”

CONFERENCE REPORT



Maritime
Affairs



European Maritime Day

A conference... and much more



This year marked the 10th anniversary of the EU's Integrated Maritime Policy and the 10th edition of the European Maritime Day – an occasion to network, discuss and forge joint action that has become a fixture in the European maritime community's agenda. EMD 2017 was hosted in Poole, UK, on 18 and 19 May. Over 600 participants attended the plenary sessions and numerous thematic panels of this intense two-day conference dedicated to *The Future of our Seas*.

As the European Commissioner for Environment, Maritime Affairs and Fisheries Karmenu Vella remarked in his opening speech, the *“European Maritime Day is a showcase of European innovation”*. The ideas and the unfaltering spirit of initiative of the European maritime community are the key to harness the immense potential of the blue economy – which is predicted to double in size by 2030 – and that is why the EU is forging important partnerships with Member States, coastal communities, industry and researchers.

The EMD is among the high-profile ocean initiatives sponsored by the Commission and it complements its policies for the protection and sustainable use of the oceans – from the push to improve international ocean governance and maritime spatial planning, to the development of a circular economy policy and a dedicated plastics strategy. It offers a **unique forum for Europe's maritime community** to get together and join in the efforts for healthy and thriving seas.

This year's EMD introduced corporate responsibility as a pivotal dimension of ocean sustainability. Commissioner Vella encouraged business leaders attending EMD2017 to look ahead to the Our Ocean conference (Malta, 5-6 October) and put forward their own commitments for the protection of the oceans and a greener value chain. Indeed, remarked Vella in his speech, *“sustainability is where Europe has a real competitive advantage”*, and it is where major economic opportunities lie.

The conference also offered a **leadership exchange**, a **practitioner's exchange on sea-basin strategies**, and a **project launch for the 2016 European Maritime and Fisheries Fund Blue Growth call**, as well as 27 **workshops** and 10 project pitches around 4 key topics: Innovation & Growth, People & Skills, Safety & Security and Sustainability & Governance.

The **enthusiasm, collaborative approach and commitment** across the sector was palpable throughout the conference. In particular, the 27 workshop organisers invested heavily in time and effort to deliver workshop sessions of extremely high quality with multiple contributions from the whole spectrum of actors working in the maritime sector. Many attendees expressed the desire to push the blue sector beyond its relative infancy and pointed out the need to integrate it in the wider EU policy and funding architecture as a key driver of the EU's future prosperity.

Flanking the conference, the EMD2017 offered a **maritime exhibition** and **matchmaking meetings** for stakeholders, while the **Poole Maritime Festival** ensured the engagement of the general public. In parallel, almost 30 other public events were organised across the EU to celebrate the 10th anniversary of the EMD, the so-called **"Events in Europe"**.

With dozens of events and hundreds of attendees, the EMD2017 confirmed the enthusiasm and passion of the actors across the maritime sector who engaged in meaningful debates and exchanges on how to ensure a healthy and prosperous future for our seas and all who depend on them.



Key Messages

EMD provides a reflection point to take stock of successes and continuing challenges facing the sector. This annual event generates significant momentum across the maritime sector.

A critical insight which was present across many of the sessions and interventions was the appetite to **position more strongly the maritime sector within the wider EU policy and funding architecture** and to **develop the status of the sector – especially through Blue Economy and Blue Growth opportunities, further integration of the sector’s science, research, industry and policy communities** to generate a critical mass – **as a driver of the EU’s future prosperity**. This prompted a general request for a more strongly aligned EU policy and funding framework for the maritime sector, which would also incentivise reciprocal actions at the national and regional / local levels.

There was significant awareness of and support for applying existing models of engagement to develop new forms of collaboration. For example, it was noted that there could be significant policy added value in transferring the **lessons learned from collaborative geographically concentrated mechanisms (such as marine spatial planning and macro-regional strategies)** to new and emerging partnerships, such as trans-regional collaborations.



Stakeholders also called for enhanced support for the development of integrated solutions across traditional geographical boundaries (for example across ports, cities and seabasins) to encourage scaled up efforts and create a greater sectoral dynamism. This would enhance both the visibility and strength of the sector in carving out new solutions for maritime growth and sustainability while positioning the sector more clearly on a par with other, more mature EU sectors

Examples of EU programmes were cited such as ERA-NET Co-funds which require joint EU and member state investment and encourage new forms of governance to facilitate scale dynamics which underpin this type of co-operation. This type of activity could **facilitate innovation by bringing together actors** from the traditional maritime sector and those who operate beyond traditional sectoral boundaries, and offer new insights into the types of skills and competence, connected to the maritime sector, which are likely to be required in the future.

A core topic throughout the EMD was data and information sharing, recognising the **need for further efforts to collate, manage, analyse and disseminate maritime data in order to unlock new solutions for ocean sustainability, innovation and growth.** This call was tempered by a recognised need to understand and manage the risks associated with increased data and data flows, particularly in relation to maritime safety and commercial confidentiality. To support this, it was noted that efforts to accelerate the effective use of maritime data should be coupled with monitoring mechanisms and success measures.

Throughout the various EMD sessions and stakeholder workshops there was also a strong demand expressed to **improve Ocean Literacy of EU citizens** both to ensure sustainability challenges can be met through cohesive efforts and to unlock the huge potential which exists for the sector's key stakeholders to take advantage of emerging opportunities. Public awareness and ownership of how our seas are managed in the future was felt to be a key priority for action which can be accelerated by ensuring that the sector's scientific, research, enterprise and public sectors work more effectively in tandem and receive stronger support to facilitate public engagement.



Key note speeches

Janet Walton, the Leader of Poole Council opened the EMD with a warm welcome to Poole, describing the natural harbour, the thriving collaboration of Poole's many maritime actors and institutions and the growing importance of the UK's maritime industry, which is expected to be valued at £200 billion by 2020.



Commissioner Karmenu Vella noted the important landmark of ten years of the EU's integrated maritime policy and pointed to key successes such as the €260 million which is invested in EU Ocean Research and the OECD's prediction that the Blue Economy will double in size by 2030. Several contributory sub-sectors to the maritime sector were mentioned in their notable contributions to the sector's development and growing success. These include the EU's 60% share of global wave energy developments, the thriving pace of marine biotechnology research and the acceleration of newer innovations such as aquaculture production. He stressed that healthy marine ecosystems impact positively on the quality of life of EU citizens, and concluded by stating that EMD is 'here to stay'.



Jean D'Amour, the Quebec Minister of Maritime Affairs outlined Quebec's maritime ambitions by referring to the province's eight million inhabitants, yet driving access to its maritime economy through a global reach of 100 million consumers. The 2015 Maritime Strategy outlined clear goals for jobs and growth

and has so far created over 7,000 jobs. He noted the scale of public-private-partnerships in Quebec's maritime sector, signalling the importance of industry engagement and investment. The 'Quebec Maritime Network' has supported the province to extend its reach of collaboration, seeing a signed maritime co-operation agreement and a specific workstream on the Atlantic Ocean through the France-Quebec Institute. At the cutting edge of research and innovation, Quebec has a strong marine biotechnology sector.

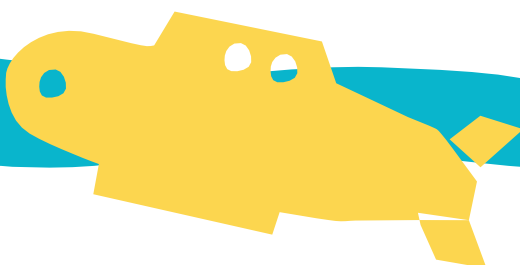
Barbara Jackson, activist and CEO of 'Race for the Baltic' provided inspirational keynote speech on collective actions to clean up the Baltic Sea. She described a range of projects and programmes which have benefited from significant investment – including from industry – to develop fresh momentum and activism in supporting the twin objectives of ocean sustainability and innovation. She underlined the importance of social innovation to deliver the transformational solutions required to address sustainability challenges.



Alan AtKisson, author and CEO of the AtKisson Group provided the second inspirational keynote and offered key insights into how innovative, convening approaches can engage large-scale private investment (such as crowd-funding) to support ocean sustainability. He pointed to the key achievement of having ocean sustainability recognised in the UN's Sustainable Development Goals (SDGs) leveraging new momentum in addressing the sustainability of our oceans and seas.

“ Whenever you say **‘climate change’**, also say **‘ocean’**.
Whenever you say **‘Blue Economy’**, say **‘sustainable’**.
Keep raising the bar in Europe ...
and the world will follow. ”

Alan AtKisson, *CEO of the AtKisson Group*

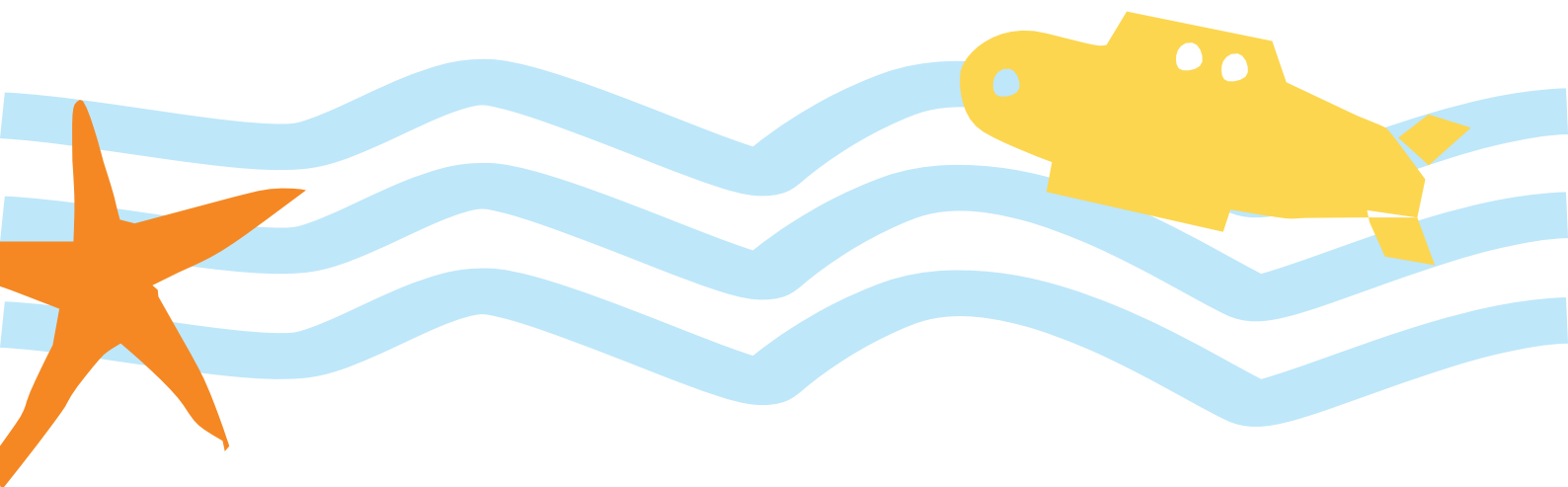


Jon Copley, marine biologist and chief scientist at the National Oceanography Centre of the UK, spoke about his fascinating journeys to the deepest part of the oceans exploring a stunning array of life in the most hostile environments on earth, which has led him to, among others to work with the BBC on the forthcoming series the Blue Planet 2. He highlighted among others the extraordinary technological advances in mapping technology and data processing that continue to improve our understanding of the ocean floor.



“ As well as **specific initiatives tackling marine environmental challenges**, such as banning free plastic bags, **wider policies can also help** to improve ocean health. For example, **integrated public transport policies can benefit the ocean** by helping to reduce the large proportion of microplastic pollution that comes from car tyres. ”

Jon Copley, marine biologist and chief scientist at the National Oceanography Centre of the UK



Leadership Exchange Session

The Leadership Exchange Panel Debate which followed comprised seven speakers from across the spectrum of the maritime ecosystem, **discussing opportunities and challenges for sustainable development of the seas**. A key topic for discussion was the effectiveness of measures which seek to incentivise sustainable behaviours and practices from actors across the whole spectrum of the maritime ecosystem. This raised the issue of context and understanding ‘what works’ based on evidence of sustainability performance. Some argued that **self-regulation encourages greater personal ownership of targets and objectives** while others noted that – in some cases – **imposed regulations are more effective in driving new practices and conformance to sustainability objectives**.

An additional factor to support the imposed regulatory approach was suggested in working towards a ‘level playing field’. Into this mix, it was noted that the relationship between self-regulated practices and economic competitiveness requires careful consideration. **Pragmatism must also play a role in determining over time what works well / less well in addressing ocean sustainability measures**. Importantly, consumer demand and pressure for change (for example, in supporting sustainability measures) incentivises behaviour and can offer a positive alternative to a regulatory framework which is perceived to be imposed by policy makers. By way of conclusion there was strong support for a proportionate approach to regulation, underpinned by clarity of process.

It was noted that **drivers of sustainable innovation can accelerate progress through such mechanisms as a single, public national portal, providing access to information across regions and coastal areas**. Building on this topic of solutions for sustainable innovation, it was suggested that technology transfer from other (non-maritime) sectors into the maritime sector can deliver significant leaps for the maritime sector (for example, in developing lighter weight security equipment, the application of autonomous technologies and managing predictability of accidents). A key challenge for the sector, here, was noted in that **the transferability or ‘borrowing’ of technologies from other sectors is not common practice**, making the pace of change slower.



Delivering on the EU's ocean climate change targets has some notable successes, for example, in the marine renewables sector. It was recognised that this requires large-scale efforts (including infrastructure investments) to make this effective. The example of tidal energy in Scotland – through the MayGen project – demonstrates both what is possible to achieve this as well as the challenges to deliver this type of activity.

The risk financing required for a project of this scale is significant and **financial institutions remain risk-averse** in committing to such investments where technologies remain at the testing stage. It was suggested that the Commission and the EU 'level' remains the most feasible route to the financing of such activity, given the level of investment required.

The 'voice' of EU regions in decision making and actions to support **MSP** was noted, in order to ensure that awareness, commitment and ownership from local actors.

Recognising that **sustainable development of the seas offers challenges and opportunities**, there was a call to address simultaneously globalisation and environmental actions.

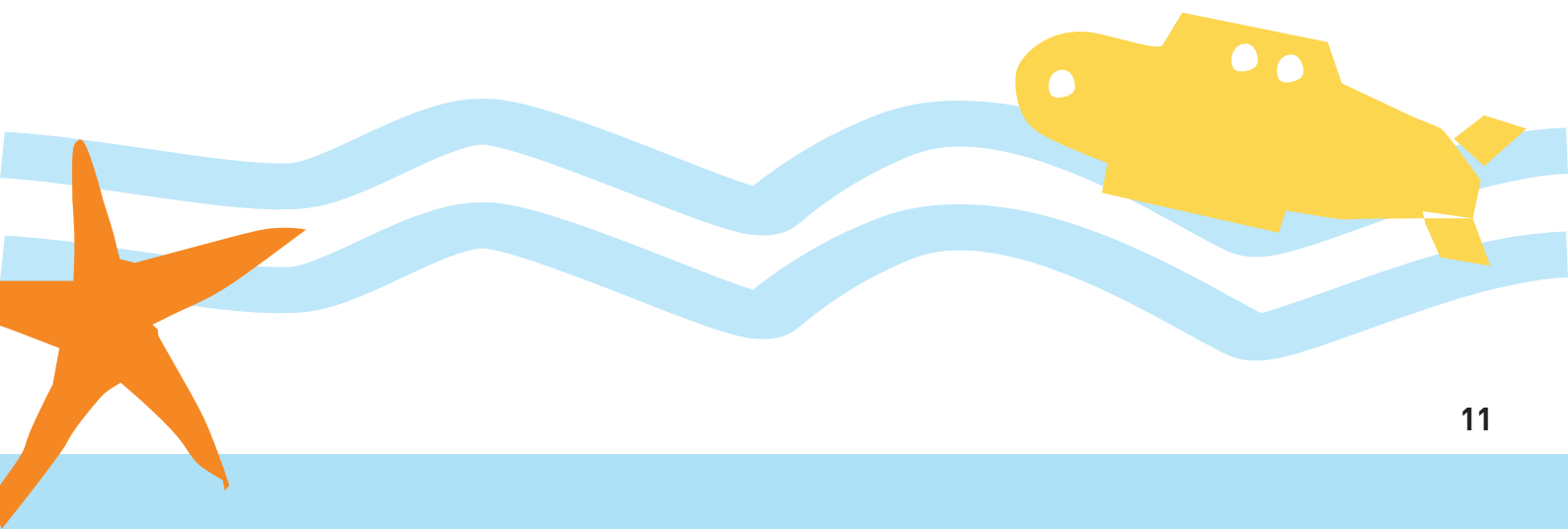


Blue growth at sea-basin macro-regional level

Sea basin strategies and macro-regional maritime cooperation already deliver blue growth throughout EU coastal areas. **EU strategic planning and funds are of critical importance** for programs carried out by networks such as the INTERACT Knowledge of the Seas Network (Interreg programmes) or for the implementation of sea basin strategies like the EUSBR as well as blue economy projects supported by H2020 (eg ocean energy). In this frame, the networking of regional stakeholders is also very important, as it advances the exchange of best practises, the transfer of knowledge and expertise among the partners, academia, RTD initiatives and SMEs. Furthermore, sea basin strategies benefit the economy of the non EU countries who participate (eg EUSAIR -Albania, Bosnia, Montenegro, Serbia).

The future priorities for sea basin strategies and the funding for boosting blue growth in sea basins will have to be organised regionally and be based on the further networking of the stakeholders, geographical clustering of business related to maritime economy, SMEs, RTD projects and national and regional administrations to reduce the administrative burden and the risk of investments.

Thus, the new close co-operation culture which is being developed among the stakeholders in sea basins is of great importance as a critical element for the better planning of the strategies, the widening of funding, the further development of opportunities and also as an asset to close the existing gaps (such as the lack of the proper networking of stakeholders or the lack of knowledge about EU funding -especially ESIF-, the higher engagement of industry, education and training of project managers etc) and to tackle successfully the challenges towards a more effective planning and implementation of blue growth projects.



Blue growth in action: launch of EMFF projects on skills, creative solutions and technology

The EMFF is providing seed money to public and private partnerships to turn policy objectives into action and accelerate blue growth at the local and regional level. The “Blue Growth in action” session marked the official launch of 15 projects with a budget of over 7,5 M€ selected under the EMFF 2016 “Blue Growth” calls for proposals: Blue Careers, Blue Labs and Blue Technology.

The session kicked off with the presentation of 3 projects: **BBMBC**, aiming at equipping students with the right skills to work in the blue biotechnology sector; **AMALIA** using invasive marine seaweed to produce aquaculture feed and nutrition and health applications and **NESSIE** focusing on corrosion challenges for offshore energy installations.



The presentations were followed by a panel discussion on how to scale up/accelerate Blue Growth in practice. The panel agreed that preconditions for an expanding blue economy were:

- 1) **putting the right people in the right place** by providing training schemes involving the industry and strong work-based learning to equip students, workers and unemployed with the specific and needed skills (i.e. business skills etc) for a job in the blue economy,
- 2) **bringing creative ideas and taking research results closer to the market** by combining multi-disciplinary teams of researchers, industry and local stakeholders and
- 3) **accelerating the pathway from research to innovation**, mobilising **investments** and combining different funding streams.

The panellists also agreed on the need to enhance company/industry involvement and active engagement including large industry players, to build support across sectors and regions through smart specialisation strategies to raise the profile of Blue Growth in the political agenda, but also to identify and showcase success stories, introduce a step-change from mainly public-driven research to a privately led agenda, and finally break down 'silos' between regions, sectors, stakeholders to combine know-how on Blue growth, address common needs and facilitate technology transfer from other sectors.

The session ended with a group photo where all the 15 projects selected under the 3 Blue growth calls went on stage which nicely captured the "Blue growth" spirit.



Workshops

A total of 27 workshops was delivered with four core themes:

- **Innovation and Growth**
- **People and Skills**
- **Sustainability and Governance**
- **Safety and Security**

Innovation and Growth

This was the most popular theme for workshops with 10 delivered sessions across the whole spectrum of innovation and growth measures, policies, funding and practices.

A great many 'local' examples were discussed which allowed attendees to gain new insights into actions taking place on the ground. It is impossible to do justice to the depth and breadth of insightful discussion which took place. New learning and collaboration opportunities are clearly continuing beyond what has been recorded in this report.



Four key themes were prevalent across the workshops and were also evident in the main messages from the other conference themes, suggesting their overall importance to the direction of the maritime sector. These were:



- **Boosting blue growth and innovation through a stronger EU strategic orientation**

- It was felt that the sector could optimize efficiencies and reduce fragmented and diluted efforts through a clear EU policy and funding framework which would also position the sector as a clear contributor to the EU's economic growth ambitions. This could be achieved through such activities as greater consolidation of existing networks, platforms and clusters as well as EU-level actions to accelerate cross-EU collaborative efforts, such as was seen in the EU's 'clean skies' programme.
- There is strong evidence at the regional level that strategic connectivity (for example of policies, funding and projects) generates momentum to classify the maritime sector as a priority. Scaling this type of activity across the EU would increase the likelihood of generating strategic EU project pipelines of activity and support efforts to address the investment gap from research to commercialisation.
- Furthermore, it was noted that there has been a strong acceleration of demand for the more traditional actors and specialisms within the maritime sector to seek out new forms of innovation collaboration with non-sector partners (for example, science and industry actors with a more horizontal focus on key enabling technologies). There is already evidence that this type of interaction is generating highly innovative solutions for the sector's future direction. Iain Shepherd from Marine South-East in England described this type of collaboration as a move towards the creation of *'industrial estates of the sea'*.

- **Consolidating and moving beyond geographical concentration**

- The sector has benefited greatly from EU efforts to 'join forces' across neighbouring regions, such as in Sea Basin Strategies and Macro-Regional Strategies. Many regions and Members States also encourage geographical clustering of related activities in the maritime space. It was noted that clusters offer added value to maritime actors (especially enterprises) in how they can facilitate connections between SMEs and large organisations (such as original equipment manufacturers – OEMs), as well as promoting international collaborations. Notably, collaborations between SMEs and large organisations can also help to reduce the burden of high risk investments, especially for SMEs and start-ups.
- It was felt that there is huge potential in encouraging greater trans-regional collaboration where regions seek out and connect with partners across EU territories who share ambitions and where common strategic goals can be developed. To this end, it may be worth exploring the setting-up/support for a Blue Growth Smart Specialisation Platform.
- Such type of collaboration was also considered as a positive 'market disruption' mechanism by encouraging new actors to engage: **'Disruption often comes from the outside'**. This type of action could also make stronger in-roads in encouraging greater local / national level investment in scaled-up activities (such as the development of new infrastructure and facilities) in areas where under-investment is a key barrier to innovation and growth (such as the blue bioeconomy).



“ **Quadruple helix innovation**
be the basis of **blue growth** ”

John Breslin, *SmartBay Irelands General Manager*



- **Positioning Ocean Literacy as a driver of growth and innovation**

- There was strong demand to redefine efforts concerning Ocean Literacy in a way which encourages greater private sector engagement and investment. This would boost efforts to address the growing awareness of EU citizens for improved sustainability of our oceans and seas. It was widely recognised that this requires transformational social change in attitudes and behaviours. Local public authorities were felt to be critical actors in facilitating this development, and to bridging the gap and challenge between incentivising engagement with regulatory frameworks (for consumers and service providers) and connecting this to consumer demand, to address the gap between citizen's needs and how the private sector can be supported to meet this demand through innovative products and services.
- There was also strong support for making the 'quadruple helix' a stronger component of the sector's future direction. Here, the traditional private, science / research and public sector actors are better connected to the citizen stakeholder groups, not just as an inclusive measure but as a strategic driver of new growth and innovation, such as is evident to address Ocean Literacy. The IMTA sector (integrated multi-trophic aquaculture) is a case in point where growing public awareness and demand is supporting the acceleration of economic and environmental gains through the maritime sector, yet requires greater public sector investment to maximise benefits.

“ This [the ocean renewable energy sector] is one of the **last industrial sectors** in which Europe is still a **global leader**, so we need an EU commitment to support deployment. ”



Victor Bouissou, *EU Affairs Manager, DCNS Energies*

- **Enhanced data sharing measures to optimize growth and innovation opportunities**

- It was recognised that an improved approach to knowledge sharing/data exchange would open up new opportunities to address the challenges of the maritime sector. This would also reduce risks, especially of the private sector, in understanding where specific market opportunities exist across the maritime sector. There are many challenges to achieve this, not least in the commercial risks involved in data sharing.

- It was noted that measures such as anonymising, generalizing and 'data cleansing' can reduce these risks somewhat, but that a change in attitudes and behaviours is required to encourage all actors to embrace this type of collaboration. The challenge and the opportunity lies in encouraging an ethos which prioritises an 'all for one and one for all' approach to data sharing

Sustainability and Governance

A total of six workshops and one project pitch presentation session were organised around the Sustainability and Governance theme. The topics discussed were wide-ranging including marine plastics, smart port cities, sustainable fishing, maritime air pollution, maritime spatial planning, the economic benefits of Marine Protected Areas (MPAs) to the blue economy, and innovative approaches to marine environment management. The complexity of marine and ocean governance and stakeholder engagement were interactively evidenced across the different sessions.



“**Healthy stocks lead to more profitable fleets**”

Natacha Carvalho, Fisheries economist at the Water and Marine Resources Unit of the Joint Research Centre (JRC) in Ispra, Italy

The main messages that emerged from the workshops were:

- **Integrated solutions to tackle sustainability are needed**

- Across different workshops, it was evidenced that despite the existence of scientific research¹, **a lot of evidence is still not fully used for policymaking and regulatory purposes**. A number of International and EU regulatory frameworks² are in place giving guidelines on the way global issues should be tackled (e.g. marine plastics and microplastics, marine waste, maritime spatial planning, maritime air pollution). However, concrete solutions need to be found and implemented locally and regionally, bringing challenges regarding enforcement of regulation, which varies across countries.

- It was noted that, if standards were strictly adhered to and properly enforced, immediate tangible results would be produced (e.g. emissions reductions). It was argued that new regulation is still needed in some geographical areas and for tackling specific issues, including the Arctic region and the Mediterranean. **Better communication across borders is thus also crucial.**
- Global partnerships are needed to tackle global problems and coordinated actions and incentives across countries are necessary to facilitate behavioural change. The circular economy approach to sustainability was discussed as a solution to face existing challenges. **Transdisciplinarity** was highlighted as a way to encourage citizen participation and empowerment on global sustainability issues. Collation of previous projects results and lessons learned from them should be actively used in current and future marine projects.

“ Transdisciplinarity (is a way) to **encourage citizen participation and empowerment (...)** for the pleasure of seeing the world as one ”

Juan Baztan, *Université de Versailles,*
coordinator of “Marine Sciences for Society” network (FR)



¹ Examples of scientific publications and reports discussed during the EMD 2017 sessions on Sustainability and Governance included:

- Baztan J., Jorgensen B., Vanderlinden J.P., Pahl S., Thompson R., Carrasco A., Miguelez A., Huck T., Garrabou J., Broglio E., Chouinard O., Surette C., Soudant P., Huvet A., Galgani F., Paul-Pont I. (2015), Protected Shores Contaminated with Plastic: From Knowledge to Action, in Coastal Zones Solutions for the 21st Century, Elsevier.

- Merlino, S., Locritani, M., Stroobant, M., Mioni, E., Tosi, D., (2015). SeaCleaner: Focusing citizen science and environment education on unraveling the marine litter problem. *Marine Technology Society Journal* 49: . doi:10.4031/MTSJ.49.4.3

OCEANA (2017), North Western Waters – Status and Potential Productivity of Fish Stocks, May.

² Examples of regulatory frameworks discussed include: Common Fisheries Policy (Regulation (EU) No. 1380/2013); Directive 2008/56/EC establishing a framework for community action in the field of marine environmental policy - Marine Strategy Framework Directive; the UN Resolution 2/11 on Marine Plastic Litter and Microplastics, Framework Directive on Maritime Spatial Planning (MSP, 2014/89/EU); designation of Emission Control Areas under the International Maritime Organization’s MARPOL Convention.

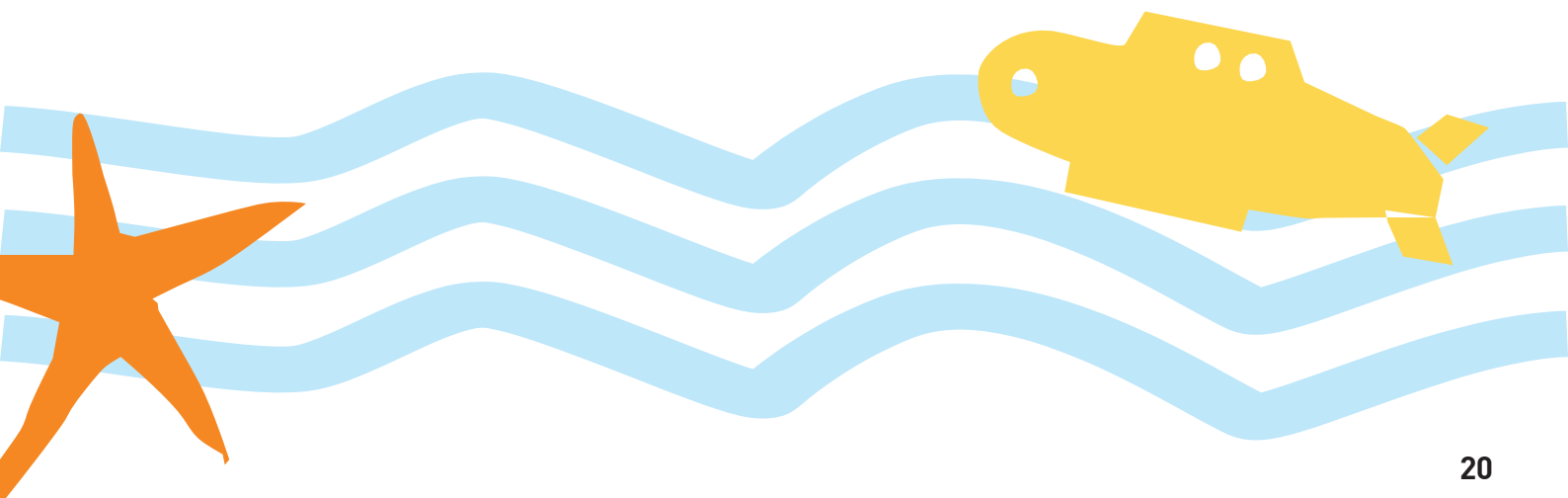
- **Stakeholder participation is necessary to ensure the sustainability of the marine environment**

- Dialogue, consultation, active participation, and better coordination of stakeholders in the public, private, academic and non-profit maritime sectors are needed to make maritime and marine policies more visible, targeted and understandable to different audiences. This also includes efforts of coordination and action across the different maritime sectors and traditional boundaries (e.g. ports and cities, land and sea) to better understand each other's needs and enable integrated solutions.
- Cooperation and involvement of manufacturers and industry is needed to tackle global challenges (e.g. marine litter, maritime air pollution). Cohesive marine strategies and initiatives across academia, policymakers and industry are needed. Sustainability in value chains could be motivated through incentives. Knowledge brokerage is needed to transfer stakeholder needs and research results into policy and practice. Better communicating existing challenges through positive simple messages that trigger behavioural change is also needed. It is crucial to engage citizens to better understand, prevent and reduce environmental threats to seas and coasts. Coastal communities, including indigenous communities dependent on marine resources, should be empowered in developing policy and solving marine issues.



“ **Ports have a hybrid identity:** they reflect commercial interests but also the concerns of local communities ”

Sotiris Raptis, *Senior Advisor Environment & Safety, European Sea Ports Organisation (ESPO)*



- **Innovative technologies should be used to tackle marine societal challenges**

- New technologies have the potential to provide climate-smart solutions to tackle marine societal challenges, and reduce significantly air, water and noise pollution. Examples presented and discussed during the EMD included the use of innovative monitoring methods and satellite technologies to tackle air quality in port cities, the use of real time data for port traffic monitoring, traffic management systems for emissions control, use of alternative cleaner fuels for vessels, mixing energy sources for environmental impact reduction and waste management technologies by conversion into energy for supplying port systems. **These technologies, if applied through a holistic approach to sustainability, have the potential of contributing to efficiency gains in marine and maritime environments,** and their use can have significant positive impacts at local levels (e.g. improved local air quality and public health).
- As more data is available, produced and shared towards more smart and autonomous systems, cyber security needs to be a foundation of the architecture of infrastructure projects. Public-private cooperation is needed to identify demand for innovative solutions, overcome technological barriers and enable product and process innovation for the benefit of maritime and marine sustainability.

“ How can we **build an innovative approach** that includes all stakeholders to empower citizens in **reducing marine plastic pollution?** ”

Ned Dwyer (*EurOcean*) – *Marina project*



“ Europe can catch **60% more** (fish) in less than 10 years if we **fish sustainably** ”

Lasse Gustavsson, *Executive Director, Oceana in Europe*

- **Mainstreaming sustainability is necessary to minimise impact and protect marine environments**

- The discussions during the EMD workshops made clear that there is a need to increase awareness of all stakeholders about marine related societal issues (e.g. increased 'branding' of Marine Protected Areas, acknowledgement of the high risks associated with the use of Heavy Fuel Oils (HFOs) in the Arctic through the Arctic Commitment). Environmental problems should be translated into concrete examples to industry, but also to society in general. Above all, generating behavioural change requires positive messages that have resonance with people's intrinsic values. Scientific results need to be diffused as case studies that are appealing and understandable to all stakeholders. Increasing ocean literacy is a priority.



People and Skills

The conference included seven workshops and five presentations on People and Skills, covering three main topics:

- **Ocean Literacy**
- **Marine Data**
- **Education and Skills**

Overall, the workshops demonstrated **the need for more investment in skills development for the marine and maritime sectors in order to support related career pathways**. This was complemented by the importance of activities aiming at raising awareness of ocean-related issues.

OCEAN LITERACY

- There is a gap related to ocean literacy between schools and the post-compulsory education institutes, with a general demand to improve education and awareness for all students, and not only for the youngest ones. To support this, the knowledge and expertise of those already actively involved in the sector have a key role to play, including policy makers, business leaders and citizens.
- If on one side professionals working in the maritime sector should be more aware of ocean sustainability, on the other side those working in ocean sustainability should be more aware of what is going on in the maritime sector.
- Policy-makers should prioritise the development of an all-ages coherent, comprehensive and sustained ocean literacy programme. Local political leaders, such as mayors, can play a critical role in developing partnerships with the private sector, the schools and local policy makers to facilitate this process
- Only by investing in ocean-related education of all citizens, it is possible to support a sustainable use of our oceans for the present and the future. Citizens should be more aware of the social, economic and political impact that oceans have on our lives.
- **For this reason, it is necessary to create an open discussion between all the actors involved, with the aim of clarifying the common needs and develop a common strategy.**

MARINE DATA

The availability of marine data is increasing, but this has to be accompanied by an assurance of its reliability. Data needs to be reliable, cost-effective and fit for purpose., There is a need for a better understanding of the specific aims and intentions of using marine data in order to maximise their value. There was a call for greater sharing of data across private enterprises and public authorities to address the marine challenges facing our societies. This requires better consideration of data sources and analysis to ensure that marine data adds value to the future development of the sector. **The role of the industry should be clearly positioned within the marine data agenda, in order to engage private sector partners in the collection and use of such data. Importantly, it was noted that there is an increasing awareness of the value of marine data to the daily operations of marine industries. At the same time, sharing data across public institutions and private enterprises would offer greater scope for improving data reliability.**



EDUCATION AND SKILLS

Concerning skills and education, a critical issue for discussion was the insufficient collaboration between educational institutes and industry which is urgently needed to overcome the gap between educational offer and labour market needs. The EU initiative Blueprint for sectorial skills cooperation on maritime technology was presented as a good effort to better work in this direction.

Another big challenge that was presented is the lack of EU harmonisation concerning skills and accreditation in the small commercial vessel sector. This has a negative impact on worker mobility, due to uncertainties as regards recognition of formal and informal education.

The lack of mutual recognition of certification across EU Member States is holding back the development of the small commercial vessel sector. It was noted that skipper qualifications from seven Member States shared between 80% and 90% of skills content, but they are not aligned in a way which would allow learners or employers to recognise this. It was proposed that a European Common Core Curriculum System for the skipper qualification could support this.

The topic of recycling sea litter was also discussed as a critical area of development in relation to education and skills. An example was shared regarding the categorisation of sea litter and how this supports recycling efforts.

One of the workshops also focused on skills transferability from one sector to the other. The blue economy is changing very rapidly and it needs a flexible workforce which can adapt to new working environments and technologies. This would certainly have a positive impact on the economic development of the marine and maritime sectors.



Safety and Security

EMD included two workshops on maritime Safety and Security, which is recognised as a **key enabler of the Blue Growth strategy** since industries operating in the maritime domain demand safe, secure and sustainable marine resources and waters.

With respect to Safety, a number of innovative projects were discussed including:

- Vessel Triage <https://www.raja.fi/vesseltriage>
- Baltic Sea MIRG <https://www.raja.fi/mirg>
- ChemSAR <https://blogit.utu.fi/chemsar/>
- ECGF TR Network <http://www.ecgff-trainingportal.eu/>

They addressed preparedness at sea focussing on developing and sharing practices. The projects' aims are based on supporting rescue operations in case of vessels, seafarers and passengers facing hazardous conditions, including noxious substances. Response teams are transnational and require common communications, codes, operational guidelines and procedures to maximise interoperability and coordination between authorities.

Preparedness implies educational cooperation and training where the European Coast Guard Function (ECGF) Training Network aims to enhance such cooperation and share knowledge, skills and best practises to achieve efficient use of resources and optimise operational results.



These projects have an operational dimension that could contribute to underpin and operationalise the safety aspects of the regional maritime strategies e.g. in the Arctic in relation with the International Maritime Organisation (IMO) <http://www.imo.org/en/> or the Arctic Council <http://www.arctic-council.org/>

Regarding Security, the EU CISE 2020 project <http://www.eucise2020.eu/> was presented and discussed. The main aim of this pre-operational initiative is to prepare for setting up a Common Information Sharing Environment (CISE) which allows exchange of information across sectors and borders to maximise awareness and response. Since “nobody has a complete maritime awareness picture”, as quoted by a speaker, information sharing between authorities and agencies is key to address concurrently maritime safety and security.

The EU CISE 2020 project originates from the Integrated Maritime Policy (2007) and the EU Maritime Security Strategy (2014). Speakers from Member States expressed a strong interest in the project. They suggested next steps should be considered to pave the way for EU CISE 2020’s future. Options should be discussed on how to address the transition of the project into operational structures dealing with awareness and response.

It was also noted that the governance dimension of CISE should be further explored and addressed such as the Member States’ role including the issue of balancing the commitment and the voluntary approach, transfer of Intellectual Property Rights (IPR) and technical support. It was suggested that coordination of CISE with the European Border and Coast Guard Agency should be fully considered and addressed.



See you at EMD2018 in Burgas, Bulgaria!



Hand over ceremony :

Councillor Lindsay Wilson, Mayor of Poole

and Ruska Boydzhiara, Deputy Mayor "European Policies and Environment", Burgas Municipality

