

SUSTAINABLE  
OCEAN  
SUMMIT

**INVESTING IN OCEAN FUTURES:**  
Finance and Innovation for the Blue Economy

**Paris / 20 - 22 November 2019**

2019



## SCHEDULE AT A GLANCE

### DAY 1 – CONFERENCE

WEDNESDAY 20 NOVEMBER

08:30	13:00	<b>Side Event: ARICE Workshop and Lunch (Invitation only)</b>	Salon 3 Consuls
12:00	13:15	~ <b>WOC Members Lunch (WOC Members only)</b> ~	Bibliothèque Lasteyrie
13:15	13:30	Welcome and Introductory Remarks	Salons Lumière et Montgolfier
13:30	15:00	<b>Plenary Session: Ocean Executive Forum: The Signature SOS Multi-Sector Panel of CEOs</b>	Salons Lumière et Montgolfier
15:00	15:30	~ <b>Afternoon Break</b> ~	Les 3 Salons
15:30	17:00	<b>Plenary Session: Investing in the Blue Economy: The Role of Institutional Investors, Banks and Investment Firms in Ocean Sustainable Development</b>	Salons Lumière et Montgolfier
17:00	17:30	~ <b>Late Afternoon Break</b> ~	Les 3 Salons
17:30	19:00	<b>Parallel Sessions:</b>	
		1. U.N. Law of the Sea: New Legally Binding Instrument on Biodiversity in Areas Beyond National Jurisdiction (BBNJ) and Ocean Industries	Salons Lumière et Montgolfier
		2. Sustainable Blue Economy Finance Principles	Salon 3 Consuls
		3. Ocean NETs: Responsible Negative Emissions Technologies (NETs) for CO2 Sequestration at Sea	Bibliothèque Lasteyrie
19:00	19:15	<i>Special Presentation: One Ocean Foundation</i>	Salons Lumière et Montgolfier
19:30	21:30	~ <b>SOS Cocktail Reception</b> ~	Les Deux Magots

### DAY 2 – CONFERENCE

THURSDAY 21 NOVEMBER

08:30	10:00	<b>Parallel Sessions:</b>	
		1. Ocean Funds: Focused Finance for Sustainable Seas	Salons Lumière et Montgolfier
		2. U.N. Decade of Ocean Science and SMART Ocean-SMART Industries: Advancing Ocean and Climate Data Collection from Ships and Platforms	Salle Chaptal
		3. Blue Economy Blockchain: Linking Around the World and Across the Sectors for Ocean Sustainable Development	Salon 3 Consuls
		4. Social License and the Blue Economy: Roles, Responsibilities and Opportunities for Innovation	Bibliothèque Lasteyrie
10:00	10:30	~ <b>Morning Break</b> ~	Les 3 Salons

10:30	12:00	<b>Plenary Session: The Navy and Maritime Industries: Exploring Synergies in Ocean Sustainable Development, Safety, Security and Stewardship</b>	Salons Lumière et Montgolfier
12:00	13:30	~ Lunch (All SOS Delegates) ~ ~ Special Lunch Forum ~	Les 3 Salons
12:10	13:20	Global Blue Economy Innovation Network: Accelerators, Incubators and Challenge Competitions for Ocean Sustainable Development	Salon 3 Consuls
13:30	15:00	<b>Parallel Sessions:</b> 1. Investing in People: Young Ocean Professionals, Sustainable Development and Careers in the Blue Economy 2. Biofouling, Invasive Species and the GEF-UNDP-IMO GloFouling Partnerships Project: Guidance, Standards and Regulators 3. Ocean EIA: Solutions, Best Practices and Collaboration for Assessing Threat, Risk and Impacts to High Seas Biodiversity	Salons Lumière et Montgolfier Salon 3 Consuls Bibliothèque Lasteyrie
15:00	15:15	<i>Special Presentation: 2020 U.N. Ocean Conference</i>	Salons Lumière et Montgolfier
15:00	15:30	~ Afternoon Break ~	Les 3 Salons
15:30	15:45	<i>Special Speech: Brune Poirson, Minister of State, attached to the Minister for the Ecological and Inclusive Transition, France</i>	Salons Lumière et Montgolfier
15:45	17:15	<b>Plenary Session: Women in Ocean Industries: Leadership, Sustainable Development and Maritime Security</b>	Salons Lumière et Montgolfier
17:15	17:30	~ Late Afternoon Break ~	Les 3 Salons
17:30	19:00	<b>Parallel Sessions:</b> 1. Impact Investment, Blended Finance and the Blue Economy 2. Seabed 2030: Accelerating Ocean Industry Leadership on Global Seafloor Mapping 3. Offshore Energy: Oil and Gas Industry Role in Advancing Offshore Renewables	Salons Lumière et Montgolfier Salon 3 Consuls Bibliothèque Lasteyrie

## DAY 3 – CONFERENCE

### FRIDAY 22 NOVEMBER

08:30	10:00	<b>Plenary Session: COPERNICUS Collaborative Vision for a Sustainable Ocean: Investment and Innovation for Ocean Data and Deliverables</b>	Salons Lumière et Montgolfier
10:00	10:15	<i>Special Briefing: IPCC Report on Ocean and Cryosphere</i>	Salons Lumière et Montgolfier
10:00	10:30	~ Morning Break ~	Les 3 Salons

10:30	12:00	<b>Parallel Sessions:</b>	
		1. The Digital Ocean, Big Ocean Data and the Ocean Cloud	Salons Lumière et Montgolfier
		2. Port Resiliency to Sea Level Rise and Extreme Events: Private Sector Collaboration to Advance Infrastructure Adaptation, especially for Small Islands and Developing Countries	Salle Chaptal
		3. Responsible Deep Sea Mining	Salon 3 Consuls
		4. Moving Commercial Seafood to Sustainability: Innovation and Investment	Bibliothèque Lasteyrie
12:00	13:30	~ Lunch (All SOS Delegates) ~	
			Les 3 Salons
12:10	13:20	~ Special Lunch Forum ~	
		Roundtable of Ocean Industry Association Leaders (ROIAL)	
			Salon 3 Consuls
13:30	15:00	<b>Parallel Sessions:</b>	
		1. Corporate Investment and Philanthropy for Ocean Sustainable Development Solutions	Salons Lumière et Montgolfier
		2. De-Risking Investment in the Blue Economy: The Role of the Ocean/Maritime Legal and Insurance Communities	Salon 3 Consuls
		3. Port Reception Facilities: Economically Viable Port Waste Disposal for Ballast Water, Hydrocarbons and other Ship-Based Waste Streams	Bibliothèque Lasteyrie
15:00	15:30	~ Afternoon Break ~	
			Les 3 Salons
15:30	17:00	<b>Parallel Sessions:</b>	
		1. Public Funding for the Blue Economy: Multi-Lateral Development Banks for Risk Mitigation, ODA for Ocean Sustainable Development and Major Government Initiatives	Salons Lumière et Montgolfier
		2. Blue Worlds: The ESA Initiative Towards Space Projects Support for Sustainable Ocean Activities – The Case of Autonomous Shipping	Salon 3 Consuls
		3. Ocean Energy: Scaling Up Low Carbon Energy from the Sea	Bibliothèque Lasteyrie
17:00	17:30	~ Late Afternoon Break ~	
			Les 3 Salons
17:30	18:50	<b>Plenary Session:</b> Ocean 2030: Blue Economy Business Projections (covering ocean transportation, energy, food, tourism and minerals)	Salons Lumière et Montgolfier
18:50	19:00	Closing and Acknowledgements by World Ocean Council	Salons Lumière et Montgolfier

## SUSTAINABLE OCEAN SUMMIT 2019

### Opening

- Paul Holthus, Founding President and CEO, World Ocean Council
- Henk van Muijen, Chairman, Board of Directors, World Ocean Council
- Olivier Mousson, President, Hôtel de l'Industrie
- Frédéric Moncany de Saint-Aignan, President, French Maritime Cluster; Chair, SOS 2019
- Achim Steiner, Administrator, U.N. Development Programme (UNDP) [video]

## OCEAN INVESTMENT AND INNOVATION

### Plenaries, Parallels, Workshops

#### Investing in the Blue Economy: The Role of Institutional Investors, Banks and Investment Firms in Ocean Sustainable Development

##### **Framing questions**

- What are the experience, barriers and risks for institutional investment, banking and investment firms to work with ocean industries and sustainable development?
- Can existing investment programs targeting ocean industries (e.g. shipping, fishing, aquaculture, etc.) transition to including sustainable development and scale up investor interest across the ocean economy?
- How are ocean dimensions assessed across entire portfolios, and which ocean industry sectors or issues are most relevant to investors?

##### **Chair/Moderator**

- Jacques Demers, Chair, York University Pension Fund

##### **Keynote Speaker**

- Emma Navarro, Vice President, European Investment Bank (EIB)

##### **Speakers/Panel**

- Philippe Desfossés, CEO (ret.), French Public Service Additional Pension Scheme (ERAFP)
- Laurence Pessez, Director, Group Corporate Social Responsibility, BNP Paribas
- Michael van Niekerk, Managing Director, Peakview Strategy
- Divaldo Rezende, Global Head of Climate and Social Finance, Aenergy
- Ted Janulis, Founder, Investable Oceans
- Paul Taylor, Global Head of Shipping and Offshore, Societe Generale

## Impact Investment, Blended Finance and the Blue Economy

### **Framing questions**

- What is the role of “Impact Investing” in addressing the complex, long term, global challenges of ocean sustainable development?
- Is “Blended Finance” necessary to ensure that investment in the Blue Economy can achieve the temporal and spatial scale needed to tackle these issues?
- How can impact investors best engage and partner with the other components of the investment community to develop blended finance arrangements for ocean sustainable development?

### **Chair/Moderator**

- Lionel Le Maux, President, Aqua Asset Management

### **Speakers/Panel**

- Michael Adams, President, Ocean Assets Institute
- Nicolas Pascal, Director, Blue Finance
- Jean-Paul D’Offay, Director Regional Integration, International Cooperation and Regional Integration Division, Department of Foreign Affairs, Seychelles
- Valeria Ramundo Orlando, Vice President, Blended Finance, Rare
- Laurent Develle, Attorney at Law, Of Counsel, Froiep Legal S.A.
- John Virdin, Director, Ocean and Coastal Policy Program, Nicholas Institute for Environmental Policy Solutions, Duke University

## Ocean Funds: Focused Finance for Sustainable Seas

### **Framing questions**

- Why is there a need for specialized funds on ocean topics and sectors?
- What is the experience to date in developing and implementing funds dedicated to the Blue Economy and innovation?
- What is needed for ocean funds to deliver both meaningful, scalable sustainability impact as well as competitive market returns?

### **Chair/Moderator**

- Michael Adams, President, Ocean Assets Institute

### **Speakers/Panel**

- Jacques Demers, Chairman and Managing Partner, AGAWA Partners
- Olivier Raybaud, Founding Partner, Blue Oceans Partners
- Lisa Hubert, Sustainable Agriculture Director, Althelia Funds
- Jürgen Zeitlberger, Programme Officer, Blue Natural Capital Financing Facility (BNCFF)
- Francisco Saraiva Gomes, CEO, Pontos Aqua
- Max Gottschalk, Founding Partner, Ocean 14 Capital

## Corporate Investment and Philanthropy for Ocean Sustainable Development Solutions

### **Framing questions**

- Are major ocean industries or non-ocean industries investing directly in ocean sustainable development and innovation, or is this being pursued via corporate philanthropic efforts?
- What approaches are being used to identify and curate the priority issues and the candidates for investment, and how best to replicate and scale up successful corporate investment in sustainable development solutions?
- What has been the experience to date with corporate investors or philanthropic foundations engaging directly with the private sector on ocean sustainable development, biodiversity conservation, supporting sustainable fisheries, reducing illegal fishing, etc.?

### **Chair/Moderator**

- Christian Lim, Co-Founder and Managing Partner, Blue Oceans Partners

### **Speakers/Panel**

- Vincent Doumeizel, Vice President, Food & Sustainability, Lloyd's Register Foundation
- Wassim Daoud, Head of Sustainability and CSR, Ponant Foundation
- Rob Johnson, Managing Director, Sea Pact
- Lea d'Auriol, Founder and Executive Director, Oceanic Global Foundation
- Gavin Allwright, Secretary, International Windship Association (IWSA)
- Frédéric Degret, Founder and President, NOAH ReGen, Blue Economy Investment Platform (BEIP)
- Charlotte Gardes, Deputy Head of the Financial Stability, Accounting Standards and Corporate Governance Unit, Ministère de l'Économie et des Finances, France

## **Public Funding for the Blue Economy: Multi-Lateral Development Banks for Risk Mitigation, ODA for Ocean Sustainable Development and Major Government Initiatives**

### **Framing questions**

- What is the role of multi-lateral and public development banks in mitigating risk as a key enabling condition for increased private financing of the sustainable Blue Economy?
- What is the role of bilateral Official Development Assistance (ODA) and major government initiatives in advancing ocean sustainable development?
- What are the barriers or constraints to optimizing the role of public funding in support of increased private financing of the sustainable Blue Economy, and how can these be addressed?

### **Chair/Moderator**

- Olivier Raybaud, Founding Partner, Blue Oceans Partners

### **Speakers/Panel**

- Guillaume Chiron, Deputy Head of the Agriculture, Rural Development and Biodiversity Division, French Development Agency
- Gerard Alleng, Climate Change Senior Specialist, Inter-American Development Bank (IDB)
- Piera Tortora, Coordinator, Sustainable Ocean for All, OECD



## **De-Risking Investment in the Blue Economy: The Role of the Ocean/Maritime Legal and Insurance Communities**

### **Framing questions**

- What are the key risks, concerns and constraints associated with investing in the expanding ocean economy?
- What is the role of the ocean/maritime insurance and legal communities in relation to these ocean development and sustainability risks and issues?
- How can the ocean/maritime insurance and legal community best coordinate its efforts globally with the ocean business community and the ocean investment and innovation communities?

### **Chairs/Moderators**

- Liv Monica Stubholt, Partner, Selmer
- Jonathan Webb, Partner, Holman Fenwick Willan

### **Speakers/Panel**

- Richard Turner, Managing Director, RSA Insurance Group; President, International Union of Marine Insurance (IUMI)
- Falk Niehörster, Head of Catastrophe Research, DEVK Re; Founder, Director, Climate Risk Innovations
- Chip Cunliffe, Director, Sustainable Development, AXA XL - Ocean Risk and Resilience Action Alliance (ORRAA)
- Philip Roche, Partner, Norton Rose Fulbright
- Joshua Brien, Special Advisor, Cooley LLP
- Dazhen Zhang, Australian National Centre for Ocean Resources and Security (ANCORS), University of Wollongong
- Justin Mundy, Senior Adviser, Willis Towers Watson

## Sustainable Blue Economy Finance Principles

### **Chairs/Moderators**

- Liesel van Ast, Acting Ecosystems, Biodiversity and Blue Economy Lead, UNEP Finance Initiative
- Louise Heaps, Head of Blue Economy, WWF-UK

### **Speakers/Panel**

- Magdalena Mihordea, Maritime Policy and the Blue Economy, European Commission
- Chip Cunliffe, Director, Sustainable Development, AXA XL
- Tenke Zoltani, Founder, Better Finance; Development Finance Advisor, UNDP
- Dennis Fritsch, Researcher, Responsible Investor
- Justin Mundy, Senior Adviser, Willis Towers Watson
- Matt McLuckie, Director of Research, Planet Tracker

### **Format**

1. Welcome and Introduction by European Commission and UNEP Finance Initiative
  - How is the Blue Economy relevant to financial institutions?
  - Overview of the Sustainable Blue Economy Finance Principles
  - Responsible Investor Survey Preliminary Findings
2. Examples of Finance Sector Action on the Blue Economy  
Presentations on actions financial institutions and other key stakeholders are taking to contribute to financing the Blue Economy, illustrating ways in which the Principles can be implemented
3. Structured Table Discussions  
Exploring opportunities for financial institutions to implement the Principles
4. Table Report Back and Session Summary

## **Blue Economy Blockchain: Linking Around the World and Across the Sectors for Ocean Sustainable Development**

### **Framing questions**

- Which ocean business sectors have been the focus of efforts to apply blockchain, and what are the progress and challenges in developing blockchain in these sectors?
- Are there opportunities to develop synergies among the ocean sectors which are working to implement blockchain?
- What is the role of blockchain in the sharing of market data, scientific data, payment, investment to best facilitate ocean sustainable development, and is there a role for blockchain as a broader framework for ocean economic governance and sustainability?

### **Chair/Moderator**

- Fred Sullivan, Founder and CEO, Venture Acceleration

### **Speakers/Panel**

- Deanna MacDonald, Founder and CEO, BLOC
- Vjeran Ortynski, Chief Business Development Officer, CargoX
- Walter Purio, Chairman and Founder, QuayChain Pte Ltd
- Jens Paulsen, Manager, Deloitte Blockchain Institute

## SPECIAL FORUMS

### **Global Blue Economy Innovation Network: Accelerators, Incubators and Challenge Competitions for Ocean Sustainable Development**

#### **Framing questions**

- How can the growing ocean innovation “ecosystem”, i.e. accelerators, incubators, challenge competitions, etc. best connect and collaborate to optimize addressing ocean sustainable development challenges?
- Which ocean sustainable development issues would be best served by improved communication and synergies among the ocean innovation “ecosystem”?
- How can the Ocean Business and Investment Community best engage with the innovation “ecosystem” to develop, deliver and implement solutions in support of the Blue Economy?

#### **Chair/Moderator**

- Paul Holthus, Founding President and CEO, World Ocean Council

#### **Speakers/Panel**

- Ronny Waage, Founder and Managing Director, Heron Advisory
- Joshua Berger, Founder/Board Chair, Washington Maritime Blue
- Ruben Eiras, Director General, Maritime Policy, Portugal
- Boris Teillant, Project Developer, Atlanpole / Pôle Mer Bretagne Atlantique
- Admiral Emmanuel Gouraud (ret.), Member, Mer Angels

#### **Participants**

Representatives of ocean sustainability related accelerators, incubators, challenge competitions

## Roundtable of Ocean Industry Association Leaders (ROIAL)

### Framing questions

- How can ocean industry associations work together to advance global business leadership, collaboration and action on “Corporate Ocean Responsibility” at the scale and pace needed to address ocean challenges?
- What are the priority sustainable development challenges facing ocean industries, synergy and coordination in the Ocean Business Community?
- From among those challenges, which can be best addressed by ocean industry associations interacting?

### Chair/Moderator

- Paul Holthus, Founding President and CEO, World Ocean Council

### Association Representatives

**Association of International Seafood Professionals (AISP):** Katherine Hawes, Board Member

**BIMCO:** Aron Frank Sørensen, Head of Maritime Technology & Regulation

**Cruise Lines International Association (CLIA):** Tom Boardley, Secretary General, Cruise Lines International Association (CLIA) Europe

**Global Aquaculture Alliance (GAA):** Melanie Siggs, Director of Strategic Engagements

**Institute of Marine Engineering, Science and Technology (IMarEst):** Bev MacKenzie, Technical and Policy Director

**International Association of Classification Societies (IACS):** Robert Ashdown, Secretary General

**International Association of Dredging Companies (IADC):** Rene Kolman, Secretary General

**International Association of Lighthouse Authorities (IALA):** Francis Zachariae, Secretary General

**International Chamber of Shipping (ICS):** Stuart Neil, Communications Director

**International Energy Agency (IEA) - Ocean Energy Systems (OES):** Henry Jeffrey, Chair

**International Fishfeed and Fishoil Organisation (IFFO):** Petter Martin Johannessen, Director General

**International Marine Minerals Society (IMMS):** Greg Stemm, President

**International Seafood Sustainability Foundation (ISSF):** Susan Jackson, President

**LNG Marine Fuel Institute (MFI):** Margot Matthews, CEO

**Nautical Institute (NI):** David Patraiko, Director of Projects

**Society for Underwater Technology (SUT):** Steve Hall, CEO

**World Federation of Engineering Organizations (WFEO):** Jean Dambreville, Executive Director, Ingénieurs et Scientifiques de France (IESF)

## PLENARY SESSIONS

### Ocean Executive Forum: The Signature SOS Multi-Sector Panel of CEOs

#### **Framing questions**

- What is the ocean industry CEO perspective on ocean economic activity to 2030, especially in relation to ocean economy investment and innovation opportunities?
- What opportunities and risks do ocean industry CEOs think that these scenarios create for each sector, for the ocean economy and ocean business community overall, and for the ocean itself?
- How do ocean industry leaders view the Sustainable Development Goals (SDGs) in relation to projected ocean economic activity and future risks and opportunities?

#### **Chair/Moderator**

- Paul Holthus, Founding President and CEO, World Ocean Council

#### **Keynote Speaker**

- *Shipping*: Philippe Louis-Dreyfus, Chairman, Louis Dreyfus Armateurs

#### **Panel**

- *Ocean Data and Technology*: Oliver Plunkett, CEO, Ocean Infinity
- *Aquaculture*: Anne-Kristine Øen, Managing Director, Salmon Group
- *Ocean Energy*: Laurent Albert, CEO, Seabased
- *Submarine Cables*: Didier Dillard, CEO, Orange Marine
- *Seabed Mining*: Greg Stemm, Managing Director, CIC Marine Minerals; President, International Marine Minerals Society
- *Cruise Tourism*: Edie Rodriguez, Americas Brand Chairwoman, Ponant Cruises
- *Fisheries*: Lori Kennedy, Co-founder, Louisbourg Seafoods
- *Classification*: Bruno Dabouis, CEO, Marine and Offshore (North America, South Europe, North Africa), Bureau Veritas

## **Ocean 2030: Blue Economy Business Projections** **(covering ocean transportation, energy, food, tourism and minerals)**

### **Framing questions**

- What is the future of industry activity in key ocean economic sectors, and what investment and innovation opportunities will this generate?
- What are the key trends, geographies, assumptions, opportunities and constraints for each sector through to 2030, the time frame of the U.N. SDGs?
- What opportunities and risks do these scenarios create for each sector, for the ocean economy and ocean business community overall, and for the ocean itself?

### **Chair/Moderator**

- Claire Jolly, Head, Innovation Policies for Space and Oceans, Directorate for Science, Technology and Innovation, OECD

### **Speakers/Panel**

- *Country Spotlight – India*: Manish Singhal, Deputy Secretary General & Head International Division, Federation of Indian Chambers of Commerce and Industry (FICCI), India
- *Shipping*: Stuart Neil, Communications Director, International Chamber of Shipping (ICS)
- *Ocean Energy*: Rémi Gruet, CEO, Ocean Energy Europe
- *Offshore Wind Energy*: Andrei Utkin, Senior Analyst, Global Power and Renewables, IHS Markit
- *Fisheries*: Jean-Louis Meuric, Purchasing Manager, Davigel SAS; Director, Sustainable Fisheries Partnership
- *Aquaculture*: Melanie Siggs, Director of Strategic Engagements, Global Aquaculture Alliance (GAA)
- *Cruise Tourism*: Donald Brown, Vice President, Maritime Policy, Cruise Lines International Association (CLIA) Europe
- *Seabed Mining*: Tom Albanese, CIC Marine Minerals

## **Women in Ocean Industries: Leadership, Sustainable Development and Maritime Security**

### **Framing questions**

- How well is women's leadership in the Ocean Business Community advancing, and how does this relate specifically to ocean sustainable development and the Blue Economy?
- What are the challenges and opportunities for better advancing leadership by women in the Ocean Business Community, especially regarding sustainable development and maritime security?
- What synergies can be developed between maritime security, sustainable development and women's leadership to improve the opportunities for investment in the Blue Economy?

### **Chair/Moderator**

- Christine Ezcutari, Partner, Norton Rose Fulbright

### **Speakers/Panel**

- Manoelle Lepoutre, Senior Vice President, Total
- Christine Valentin, Alumna, Daniel K Inouye Asia-Pacific Center for Security Studies (APCSS)
- Tenke Zoltani, Founder, Better Finance
- Florence Wagner, Director of Coast Guard Function, Operational Center, General Secretariat for the Sea
- Donna Lanzetta, CEO, Manna Fish Farms
- Sofia Fürstenberg Stott, Owner and Chief Advisor, Fürstenberg Maritime Advisory



## **COPERNICUS Collaborative Vision for a Sustainable Ocean: Investment and Innovation for Ocean Data and Deliverables**

### **Framing questions**

- How can EU policy makers advance the role of entrepreneurs, services and industries in developing innovation for ocean monitoring in support of the Blue Economy, such as the Copernicus program?
- How can the Digital Ocean and cloud-based solutions help support innovation for ocean monitoring and ocean sustainable development?
- What are the investment needs and opportunities for improving and expanding ocean monitoring for the Blue Economy?

### **Chair/Moderator**

- Frédéric Moncany de Saint-Aignan, President, French Maritime Cluster

### **Speakers/Panel**

- Pierre Bahurel, CEO, Mercator Ocean International
- Tomas Jonsson, Policy Officer, DG GROW / Space Data for Societal Challenges & Growth, European Commission
- Anne-France Didier, Territorial Policy Advisor, Ministère de la Transition Écologique et Solidaire (MTES), Délégation à la Mer et au Littoral-Pilote ODD14, France
- Rémi Gruet, CEO, Ocean Energy Europe
- Yanis Souami, Founder and CEO, SINAY - Marine Data Solution
- Marilou Suc, Marketing Manager, BIOCEANOR
- Olivier Raybaud, Founding Partner, Blue Oceans Partners

## **The Navy and Maritime Industries: Exploring Synergies in Ocean Sustainable Development, Safety, Security and Stewardship**

### **Framing questions**

- What issues in ocean sustainable development does the Navy share with the commercial ocean industries?
- What are the opportunities for developing synergies between the Navy and ocean industries in tackling these issues?
- How can the Navy and Ocean Business Community best develop and implement collaborative activities on specific areas of mutual interest?

### **Chair/Moderator**

- Christine Valentin, COO, World Ocean Council

### **Keynote Speaker**

- Admiral Christophe Prazuck, Chief of Staff, French Navy

### **Speakers/Panel**

- François Lambert, Secretary General, French Shipbuilders Association (GICAN)
- Jessica Berry, CEO, Maritime Archaeology Sea Trust (MAST); Bradley Soule, Chief Analyst, OceanMind
- Vice Admiral Anthony Dymock (ret.), Trustee, Maritime Archaeology Sea Trust (MAST)
- Admiral Emmanuel Gouraud (ret.), Vice President, NOAH; Member, Mer Angels; Chairman, Conseil en Economie Maritime (GCEM)

## PARALLEL SESSIONS/WORKSHOPS

### OCEAN GOVERNANCE AND PLANNING

**SDG 14.c** *Ensure the full implementation of international law, as reflected in the United Nations Convention on the Law of the Sea for States parties thereto, including, where applicable, existing regional and international regimes for the conservation and sustainable use of oceans and their resources by their parties*

#### **U.N. Law of the Sea: New Legally Binding Instrument on Biodiversity in Areas Beyond National Jurisdiction (BBNJ) and Ocean Industries**

##### **Framing questions**

- How will the legally binding BBNJ agreement affect ocean industries when it is adopted in 2020?
- What are the risks to ocean industries for not participating in the negotiations or providing input to the treaty text as the BBNJ agreement is developed by countries?
- How can and should ocean industries engage with each other and with other ocean stakeholders, including governments, as the BBNJ agreement moves to its final negotiation in early 2020?

##### **Chair/Moderator**

- Anca Leroy, Lawyer-Policy Advisor, French Ministry of Environment, Directorate of European and International Affairs, Member of the European Union "BBNJ" Negotiating Team

##### **Speakers/Panel**

- Francois Bailet, Senior Legal Officer, U.N. Division for Ocean Affairs and the Law of the Sea (DOALOS)
- Catherine Trinkle, Head of Innovation and Technology Policy, BASF
- Paul Holthus, Founding President and CEO, World Ocean Council

## Responsible Deep Sea Mining

### **Framing questions**

- What are the opportunities but also the challenges for advancing responsible deep-sea mining, e.g. protection of environment, technology, regulatory, financing?
- What innovations are needed to ensure deep sea mining addresses these challenges?
- What role can the investment community play in advancing deep sea mining?

### **Chair/Moderator**

- Francis Vallat, Founding and Honorary Chairman, French Maritime Cluster and European Network of Maritime Clusters

### **Speakers/Panel**

- Francis Vallat, Deepsea Mining Group, French Maritime Cluster
- Johannes Post, Managing Director, DeepSea Mining Alliance (DSMA)
- Jean-Marc Sornin, President, ABYSSA
- Greg Stemm, Managing Director, CIC Marine Minerals; President, International Marine Minerals Society
- Henk van Muijen, Managing Director, IHC Mining

## OCEAN AND CLIMATE

- SDG 14.2** *By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans*
- SDG 14.3** *Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels*
- SDG 14.a** *Increase scientific knowledge, develop research capacity and transfer marine technology*

### Port Resiliency to Sea Level Rise and Extreme Events: Private Sector Collaboration to Advance Infrastructure Adaptation, especially for Small Islands and Developing Countries

#### **Framing questions**

- How can the ocean business and investment community best ensure that ports and essential coastal infrastructure are being adapted to ensure resiliency during extreme events, especially in small islands and developing countries?
- How can the Ocean Business Community best collaborate with other key stakeholders, e.g. multilateral/bilateral development assistance, national governments, science institutions, etc.?
- What is the best way to develop and implement a global, multi-stakeholder leadership alliance to ensure ports and coastal infrastructure worldwide are ready, resilient and able to minimize the impacts of extreme events on communities, businesses and economies?

#### **Chair/Moderator**

- Paul Holthus, Founding President and CEO, World Ocean Council

#### **Speakers/Panel**

- Jason Pratt, Vice President, Group Health, Safety and Environment, DP World
- Greg Fisk, Business Development Director, BMT
- Shimrit Perkol-Finkel, Co-Founder and CEO, ECONcrete
- Brigitte Vlaswinkel, Operations and Research Director, Oceans of Energy
- Nicolas Swetchine, Group Head, International Key Accounts and Infrastructure Markets, LaFargeHolcim
- Michael Adams, President, Ocean Assets Institute

## Ocean NETs: Responsible Negative Emissions Technologies (NETs) for CO2 Sequestration at Sea

### **Framing questions**

- What are the requirements of the International Climate Agreement (Paris 2015) for negative emissions technologies (NETs) to remove atmospheric CO2 to meet planetary safe limits for global temperatures?
- What is the state of information on the potential ocean-based NETs, what science is available on them, and what are the risks and benefits of Ocean NETs?
- What is needed to advance careful, science-based consideration of Ocean NETs as a potentially viable, important means to address increasing atmospheric CO2, and what are the investment opportunities associated with this?

### **Chair/Moderator**

- John Ridley, Managing Director, Ocean Nourishment

### **Speakers/Panel**

- Wil Burns, Founding Co-Executive Director, Forum for Climate Engineering Assessment; Professor of Research/Co-Director, Institute for Carbon Removal Law and Policy, American University
- John Munford, CEO, Marine Resource Management
- Philip Kithil, CEO, Ocean-based Climate Solutions
- John Ridley, Managing Director, Ocean Nourishment

## Ocean Energy: Scaling Up Low Carbon Energy from the Sea

### **Framing questions**

- What are the status and prospects for ocean energy: wave, tidal, current, floating solar, ocean thermal energy conversion?
- What are the barriers to scaling up ocean energy?
- What are the investment needs and opportunities for expanding and accelerating offshore wind and ocean renewable energy?

### **Chair/Moderator**

- Britta Schaffmeister, CEO, Dutch Marine Energy Centre

### **Speakers/Panel**

- Laurent Albert, CEO, Seabased (*wave power*)
- Jean-Christophe Allo, Commercial Director, Sabella (*tidal power*)
- Brigitte Vlaswinkel, Operations and Research Director, Oceans of Energy (*offshore floating solar*)
- Julien Marchal, Vice President, Naval Energies (*OTEC*)
- Henry Jeffrey, Chairman, Ocean Energy Systems, International Energy Agency
- Rémi Gruet, CEO, Ocean Energy Europe

## Offshore Energy: Oil and Gas Industry Role in Advancing Offshore Renewables

### **Framing questions**

- How is the oil and gas industry transforming into the offshore energy industry and supporting the development of offshore renewable energy?
- How can the offshore energy industry best accelerate the transition to offshore renewable energy, e.g. through investment, technology transfer, expertise, etc.?
- What are the scenarios for a more integrated portfolio of ocean-based energy sources in the future?

### **Chair/Moderator**

- Brent Wanner, Lead, Power Sector Modelling, World Energy Outlook, International Energy Agency

### **Speakers/Panel**

- Brent Wanner, Lead, Power Sector Modelling, World Energy Outlook, International Energy Agency
- Patrik Möller, CEO, CorPower Ocean
- Amélie Elkik, Founder, Blue4Sea
- Johan Sandberg, Senior Manager Business Development, Offshore Wind, Aker Solutions

## OCEAN KNOWLEDGE, RESEARCH AND TECHNOLOGY

**SDG 14.a** *Increase scientific knowledge, develop research capacity and transfer marine technology*

### **U.N. Decade of Ocean Science and SMART Ocean-SMART Industries: Advancing Ocean and Climate Data Collection from Ships and Platforms**

#### **Framing questions**

- What is the most effective way to coordinate between ocean scientists and ocean industry operators in order to engage industry in data collection and sharing in support of the U.N. Decade of Ocean Science?
- What are the investment opportunities linked to greater industry involvement in data collection and sharing, and how can these be developed?
- What are the priority locations, topics and technology to engage more ships and platforms of opportunity in collecting data?

#### **Chair/Moderator**

- Paul Holthus, Founding President and CEO, World Ocean Council

#### **Speakers/Panel**

- Vladimir Ryabinin, Executive Secretary, UNESCO Intergovernmental Oceanographic Commission (IOC)
- Paul Holthus, Founding President and CEO, World Ocean Council
- Veronica Willmott Puig, Project Manager ARICE, International Cooperation Unit, Alfred Wegener Institute
- Amos Barkai, CEO, OLSPS



## Seabed 2030: Accelerating Ocean Industry Leadership on Global Seafloor Mapping

### **Framing questions**

- What is Seabed 2030, how is it important to the Ocean Business Community and sustainable development, and how does it relate to the World Ocean Council's Smart Ocean – Smart Industries Ocean Platform?
- How can ocean industry operators share existing bathymetric data to support improving seabed knowledge and mapping and/or collect and contribute crowdsourced bathymetry data to Seabed 2030?
- What are the technologies, procedures and practices for collecting new bathymetric data that can contribute to Seabed 2030?

### **Chair/Moderator**

- Rob Adams, Senior Vice President, New Ventures, PGS

### **Speakers/Panel**

- Paul Holthus, Founding President and CEO, World Ocean Council
- Helen Snaith, Head of Seabed 2030 Global Centre, British Oceanographic Data Centre, National Oceanography Centre, UK
- Evert Flier, Norwegian Mapping Authority Hydrographic Service; Member, Crowd-sourced Bathymetry Working Group, International Hydrographic Organization (IHO)
- David Millar, Government Accounts Director, Americas, Fugro

## The Digital Ocean, Big Ocean Data and the Ocean Cloud

### **Framing questions**

- What are the status, trends and forecasts for the development of the Digital Ocean, Big Ocean Data and the use of Cloud Computing for ocean sustainable development?
- What are the benefits (economic, sustainability, operational oceanography, maritime security, etc.) from a Digital Ocean that produces Big Ocean Data and harnesses Cloud Computing in support of Agenda 2030, and what are the challenges to achieving these benefits?
- What are the opportunities for better industry leadership and collaboration in advancing the Digital Ocean, Big Ocean Data and Cloud Computing for the Blue Economy?

### **Chair/Moderator**

- Sofia Fürstenberg Stott, Owner and Chief Advisor, Fürstenberg Maritime Advisory

### **Speakers/Panel**

- Yanis Souami, Founder and CEO, SINAY - Marine Data Solution
- Mogens Mathiesen, Senior Vice President, Head of Strategy and Partnerships, Ocean Data Platform Foundation
- Walter Kuehnlein, Chairman, Board of Directors, German Association for Marine Technology (GMT)
- Jan-Bart Calewaert, Head, EMODnet Secretariat, European Marine Observation and Data Network (EMODnet)
- Isabelle Duvaux-Béchon, Head, Member States Relations and Partnerships Office, European Space Agency (ESA)

## **Blue Worlds: The ESA Initiative Towards Space Projects Support for Sustainable Ocean Activities – The Case of Autonomous Shipping**

### **Framing questions**

- What is the European Space Agency (ESA) “Blue Worlds” initiative?
- What are the shipping/maritime world’s challenges to develop and implement automation tools for ship navigation, situational awareness and ultimately autonomous shipping?
- How can space projects, data and technology existing today improve and increase support to activities linked to autonomous shipping?
- What gaps could be covered by future systems (in earth observation, telecommunication, positioning, technology, etc.), and where could some coordinated work and planning be beneficial to make sure that the user needs are taken into consideration?

### **Chair/Moderator**

- Isabelle Duvaux-Béchon, Head, Member States Relations and Partnerships Office, European Space Agency (ESA)

### **Speakers/Panel**

- Stefano Ferretti, Earth Observations Directorate, ESA
- Piera di Vito, Downstream Business Applications Department, ESA
- Daniel Fischer, Directorate of Operations, ESA
- Piero Messina, Co-coordinator, Blue Worlds Initiative, ESA
- Maria-Grazia Abete, Co-coordinator, Blue Worlds Initiative, ESA

## MARINE POLLUTION/IMPACTS

- SDG14.1** *By 2025, prevent and significantly reduce marine pollution of all kinds, including marine debris and nutrient pollution*
- SDG 14.2** *By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans*
- SDG14.a** *Increase scientific knowledge, develop research capacity and transfer marine technology*

### Port Reception Facilities: Economically Viable Port Waste Disposal for Ballast Water, Hydrocarbons and other Ship-Based Waste Streams

#### **Framing questions**

- What is needed to ensure that adequate, economically viable port waste reception facilities are able to handle ballast water residues, hydrocarbons and other waste streams from vessels coming to port?
- What models, examples and best practices exist for scaling up port waste reception facility development, especially in developing country port cities?
- How can port users (shipping, cruise tourism, oil and gas, fisheries, renewable energy, etc.) collaborate with each other and with the investment community (public and private) to advance industry leadership in accelerating the development of economically viable port waste reception facilities that are able to handle ballast water residues, hydrocarbons and other waste streams?

#### **Chair/Moderator**

- Nuno Matos, Managing Director, Eco-Oil; Honorary Chairman, Euroshore

#### **Speakers/Panel**

- Fabienne Vallée, General Manager, President of the Board, SeaTopic; Manager, “Blue Ports” Project (Coordinator, Port of Brest)
- John Alonso, Project Technical Analyst, GEF-UNDP-IMO GloFouling Partnerships, Marine Environment Division, International Maritime Organization (IMO)
- Vincent Favier, CEO, Ecoslops
- David Turton, CFO and Company Director, SeaBin

## FOOD SECURITY: SUSTAINABLE FISHING AND AQUACULTURE

- SDG 14.4** *By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans*
- SDG 14.6** *By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies*

### Moving Commercial Seafood to Sustainability: Innovation and Investment

#### **Framing questions**

- What are the priority innovations that leadership fishing and aquaculture companies would like to see, especially regarding sustainability?
- How can the linkages between the fishing, aquaculture and seafood sectors with the Blue Economy innovation community be improved and accelerated?
- What investment opportunities would these innovations create?

#### **Chairs/Moderators**

- Donna Lanzetta, CEO, Manna Fish Farms

#### **Speakers/Panel**

- Karl Almås, Chairman, Aquatech Cluster, Norwegian Center of Expertise
- John Goodlad, Chairman, Fisheries Innovation Scotland
- John Molina, President, Pacific6
- Edouard Le Bart, Southern European Regional Director, Marine Stewardship Council (MSC)
- Katrina ole-MoiYoi, former Director of Sustainability, Victory Farms
- Richard Stavis, Chief Sustainability Officer, Stavis Seafoods; Board Member, SeaPact

## BIODIVERSITY

### Ocean EIA: Solutions, Best Practices and Collaboration for Assessing Threat, Risk and Impacts to High Seas Biodiversity

#### **Framing questions**

- What are the best practices for assessing threat and risk and undertaking environmental impact assessments (EIAs) for high seas biodiversity?
- How can these help inform and ensure that the legally binding BBNJ agreement includes practical, science-based solutions that work with industry and other stakeholders to understand and address priority impacts?
- Is there value in having an international platform or forum for the practitioners and clients of high seas EIAs to advance and improve this emerging field, in support of the BBNJ treaty?

#### **Chair/Moderator**

- John Ridley, Managing Director, Ocean Nourishment

#### **Speakers/Panel**

- Greg Fisk, Business Development Director, BMT
- Patience Whitten, former NOAA Fisheries Official, EIA Specialist
- Tom Matthewson, Sector Lead – Maritime, HR Wallingford
- David Billett, Director, Deep Seas Environmental Solutions Ltd and Emeritus Visiting Fellow, National Oceanography Centre, UK
- Mikael Kamp Sørensen, Head, Ecology and Environment Department, DHI

## **Biofouling, Invasive Species and the GEF-UNDP-IMO GloFouling Partnerships Project: Guidance, Standards and Regulators**

### **Framing questions**

- What is the GEF-UNDP-IMO GloFouling Partnerships Project?
- How is the issue of invasive aquatic species being addressed through guidance, standards and regulators that are affecting a range of ocean industry activities?
- What are the innovation needs and investment opportunities in relation to addressing the global, multi-industry challenge of biofouling and the introduction of invasive species?

### **Chair/Moderator**

- Laurance Langdon, General Manager, HullWiper

### **Speakers/Panel**

- Theofanis Karayannis, Head of Marine Biosafety, International Maritime Organization (IMO)
- Lilia Khodjet El Khil, Project Technical Manager, GEF-UNDP-IMO GloFouling Partnerships, International Maritime Organization (IMO)
- Mikael Kamp Sørensen, Head, Ecology and Environment Department, DHI
- John Alonso, Project Technical Analyst, GEF-UNDP-IMO GloFouling Partnerships, International Maritime Organization (IMO)
- Paul Holthus, Founding President and CEO, World Ocean Council
- Laurance Langdon, General Manager, HullWiper

## Social License and the Blue Economy: Roles, Responsibilities and Opportunities for Innovation

### **Framing questions**

- What are the roles and responsibilities of businesses, sectors, cross-sectoral organizations and governments in relation to social license in the Blue Economy?
- How can the Ocean Business Community work together to address social license issues?
- Who should be investing in the development of innovative engagement practices between business, sectors, governments and communities (or stakeholders) to enhance the social license of the Blue Economy?

### **Chairs/Moderators**

- Judith van Leeuwen, Environmental Policy Group, Department of Social Sciences, Wageningen University
- Michelle Voyer, Australian National Centre for Ocean Resources and Security (ANCORS), University of Wollongong

### **Panel**

- *Ports*: David Bolduc, Executive Director, Green Marine
- *Oil and Gas*: Clement Lavigne, Deputy to Senior VP HSE, Exploration and Production, Total
- *Seabed Mining*: Tom Albanese, CIC Marine Minerals
- *Shipping*: Christopher Fee, General Manager – Environment and Sustainability, Fleet Management, Oldendorff
- *Aquaculture*: Katrina ole-MoiYoi, former Director of Sustainability, Victory Farms
- *Fishing*: Lori Kennedy, Co-founder, Louisbourg Seafoods
- *Ocean Energy*: Bill Staby, CEO, Resolute Marine Energy



## **Investing in People: Young Ocean Professionals, Sustainable Development and Careers in the Blue Economy**

### **Framing questions**

- Where are the job and career opportunities for Young Ocean Professionals in the Blue Economy, i.e. are companies looking for people with an interest and experience in sustainable development?
- What educational, training and professional development opportunities are critical for addressing the growing ocean sustainable development challenges facing the Ocean Business Community?
- What are the professional development needs of the investment community regarding the Blue Economy and ocean sustainable development, and how can these be met?

### **Chair/Moderator**

- Christine Valentin, COO, World Ocean Council

### **Speakers/Panel**

- Cleopatra Doumbia-Henry, President, World Maritime University
- Gail Scowcroft, Associate Director, Inner Space Center, University of Rhode Island
- Marc Le Menestrel, Visiting Professor, Corporate Governance and Sustainability, INSEAD Singapore
- Jennifer Fox, Consultant, Aquatera
- Francois Bailet, Senior Legal Officer, U.N. Division for Ocean Affairs and the Law of the Sea (DOALOS)
- Ernest Tindo, President, African Youth Organization for the Blue Economy