

Deep sea mining: Exploring the unknowns

Multi-stakeholder conference

Speakers



Lowri Evans, Director-General, European Commission, DG Internal Market, Industry, Entrepreneurship and SMEs

Lowri Evans was appointed Director-General of DG Internal Market, Industry, Entrepreneurship and SMEs on 1 September 2015. She has been Director-General in DG Maritime Affairs and Fisheries from 2010 to 2015. Prior to that, she has worked in several policy areas in the European Commission notably Competition and Employment. She started her professional career in audit and accountancy with Deloitte.



Ricardo Serrão Santos, Member of European Parliament

Mr Santos is a Member of the European Parliament since July 2014 and full Member of the Committee on Fisheries. He is also the Vice-Chair of the Parliament Intergroups on "Seas, Islands, Rivers and Coastal Zones" and on "Climate change, Biodiversity and Sustainable Development".

Ricardo holds a PhD from the Universities of Liverpool and the Azores. A Marine Researcher for 30 years, he has over 300 scientific papers and books published. He is a member of the Scientific Council of the Oceanography Institute of Paris and President of EurOcean. He was Associated Editor of "Marine Biodiversity" and Speciality Chief Editor of "Frontiers in Marine Science/Deep-Sea Environments and Ecology". He has been a member of the scientific councils and chair of evaluation panels of the Portuguese Ministry of Science and Higher Education and Portuguese Delegate at ESFRI and the EC Committee of Research Infrastructures. Ricardo has also been the President of IMAR-Institute of Marine Research, and Pro-Rector and Director of the Department Oceanography and Fisheries at the University of the Azores.

He has received several honourable mentions, prizes and awards, among which the Gift to the Earth by WWF in 2002. In 2012 he received the Autonomous Insignia of Recognition of the Azores. In 2013, he was knighted "Chevalier de l'Ordre de Saint Charles" by SAS Prince Albert II of Monaco. RSS was honoured as member of the "Portuguese Academy of Sciences" (Class of Sciences, Section of Biological Sciences) in 2009 and of the "Portuguese Navy Academy" (Class of Arts, Letters and Sciences) in 2008.



Sybille van den Hove, Director, Median

Dr Sybille van den Hove is Director of Median, a small research, teaching and consulting company in Barcelona and Visiting Professor at the Institute for Environmental Science and Technology (ICTA) of the Autonomous University of Barcelona. Her background is in physics and ecological economics. Her research interests all focus on sustainability transformation. They include sustainability governance; decision-making and policy formation under conditions of complexity; science-policy interfaces; integration of natural and social sciences research; environmental research strategies; and environmental strategies of corporations. Currently she works on biodiversity governance (including in particular deep-sea issue); precaution and innovation; and business transformations towards sustainability. She is the chair of the Scientific Committee of the European Environment Agency. Median is a partner in the MIDAS project and was a partner in the HERMES and HERMIONE projects.



Ann Dom, Deputy Director, Seas At Risk

Ann Dom is Deputy Director of Seas At Risk, the European association of environmental NGOs working to protect the marine environment of the European seas. Seas At Risk has currently 30 member organisations in 16 countries. Ann has a long standing expertise on EU environmental policy and its integration into sector policies. At Seas At Risk, her work focuses on the EU's Marine Strategy, the Integrated Maritime Policy and Blue Growth strategy, with a special focus on maritime spatial planning, aquaculture and deep sea mining. Before joining Seas At Risk in 2012 Ann was employed at the European Environment Agency and the Environment Directorate General of the European Commission. She also worked as a consultant and researcher and taught at the Free University of Brussels. Ann holds Master's degrees in Physics and in Environmental Assessment.



Flor Diaz Pulido, Deputy Head of Unit Resource Efficiency and Raw Materials (GROW/C2)

After studying Law and European Law at the Autonomous University of Barcelona and European Law at Granada University, Flor DIAZ PULIDO completed studies on International Affairs at Barcelona Central University, including periods at Cambridge University, Sciences Politiques (Paris) and the "Haute Etudes Internationales" in Geneva. She joined the Commission in 1995 at the legal affairs department of DG Fisheries in 1995. She moved later on into Energy matters (1999, DG ENER: inter-institutional matters; internal market and legal affairs) and DG MOVE (2002, Aviation and maritime transports: internal market, consumer affairs related to Transport, passenger rights), where she was appointed Head of Sector and later Deputy Head of Unit since 2009. In 2013, she has joined DG GROW in 2013 as Deputy Head of Unit in Unit C2 Resource Efficiency and Raw Materials.



Robert van de Ketterij, Managing Director, IHC MTI

Robert van de Ketterij started his career as PhD student at the Centre for Technical Geosciences at Delft University of Technology. From mid 1999 to 2001, he worked as naval architect for DAMEN Shipyards in Gorinchem. In 2001 Van de Ketterij joined IHC, working until 2005 as designer of large hopper dredgers at IHC Holland Dredgers. In 2005 he joined the Royal Netherlands Navy, as assistant professor at the Netherlands Defence Academy until 2007, when he returned to IHC as knowledge development manager at MTI Holland (Royal IHC's R&D Institute). In this position he was responsible for R&D projects in the fields of fluid mechanics, dynamics, deep sea mining, and setting up the CSR program of Royal IHC. In addition, he was responsible for the department working on Industrial Properties issues.

In 2014 he became technical and project coordinator of the EU project 'BLUE MINING'. As of February 2015 van de Ketterij holds the position of Managing Director of IHC MTI (formerly MTI Holland).



Matthew Gianni, Political and Policy Advisor, Deep Sea Conservation Coalition

Matthew Gianni is an independent advisor and advocate for ocean conservation and is based in the Netherlands. He is a co-founder of the DSCC and is currently its Political and Policy Advisor. Matthew regularly speaks on marine conservation issues at a variety of international fora, including the United Nations General Assembly oceans working group, the Fisheries Committee of the European Parliament, and the American Association for the Advancement of Science. He has actively participated in oceans-related negotiations at the United Nations General Assembly, the UN Food and Agriculture Organization, Conferences of Parties to the Convention on Biological Diversity, the International Seabed Authority and elsewhere. He has authored several reports related to fisheries and marine biodiversity on the high seas.

More recently he has represented the Deep Sea Conservation Coalition at meetings of the International Seabed Authority and provided recommendations, on behalf of the coalition, on the regulation of seabed mining. Mr. Gianni is a partner in the MIDAS Project and the Atlas Project, multi-million euro initiatives funded by the European Commission involving scientific institutes from across Europe to research the dynamics of deep-sea ecosystems in the Atlantic Ocean and potential environmental impacts of deep-sea mining worldwide.



Sven Teske, Research Principle at Institute for Sustainable Futures, University of Technology Sydney

Dr Sven Teske is a Research Principle at Institute for Sustainable Futures, University of Technology, Sydney. Dr Teske has 20 years' experience in technical analysis of renewable energy systems and market integration concept. He has published over 50 special reports about renewable energies including the "Global Wind Energy Outlook" and "Solar Generation". Sven was a lead author for the IPCC Special Report Renewables (Chapter 10: Scenario analysis) which was

published in 2011. He was a member of the expert review committee for the IEA World Energy Outlook in 2010 and 2011 and is a member of the advisory panel of the Japanese Renewable Energy Foundation. Sven also has practical experience in small-scale utility development. He originally developed the concept for a green utility and founded in 1999 the “Greenpeace energy eG” – Germany’s first cooperative in the power sector. Dr Teske was the Renewable Energy Director at Greenpeace International for 10 years.



Phil Weaver, Managing Director, Seascope Consultants Ltd, MIDAS coordinator

Professor Phil Weaver trained as a geologist and became Director of the NERC Strategic Research Division at the National Oceanography Centre, Southampton in 2006. He left NOC in 2010 to set up Seascope Consultants Ltd, though he remains a Senior Visiting Fellow of NOC. Phil has coordinated five large EC-funded European research projects investigating a range of marine topics. The latest “Managing Impacts of Deep Sea Resource Exploitation” (MIDAS) is concerned with assessing the environmental impacts of deep-sea mining. The project brings together academics, industry, social scientists and NGOs and has completed many months at sea collecting environmental data. Phil presented some results from the project at the International Seabed Authority annual meeting in Jamaica in 2015 and has just completed a review of deep-sea mining for the Convention on Biological Diversity.



Philomène Verlaan, University of Hawaii, Advisory Committee on Protection of the Sea, International Marine Minerals Society

Dr Philomène Verlaan is an oceanographer specialized in the biogeochemistry and ecology of deep-sea ferro-manganese nodules and crusts (Ph.D., Imperial College London) with extensive sea-going experience (22 - so far - oceanographic research cruises and nine submersible dives). She is also an attorney-at-law specialized in international law of the sea (J.D., Florida State University; Member of the Florida Bar). She assists international public and private organizations in negotiating the complex interface between marine science and law of the sea to achieve environmentally and commercially responsible uses of marine resources compatible with the Law of the Sea Convention, humankind’s “Constitution for the Oceans.” Author of over 50 (so far) refereed publications, she is a Visiting Colleague at the Department of Oceanography, University of Hawai’i, Senior Technical Adviser, Advisory Committee on Protection of the Sea, Coordinator of the International Marine Minerals Society’s Code of Environmental Management of Marine Mining, on the editorial board for Marine Georesources and Geotechnology and the International Journal of Marine and Coastal Law, and Fellow of the Institute of Marine Engineering, Science and Technology.



David Billett, Deep Seas Environmental Solutions Ltd.

David Billett is a deep-sea biologist with over 40 years’ experience of the deep-sea environment, including mid-ocean ridges, abyssal sediments, seamounts, coral mounds, submarine canyons and continental slopes. He has a particular interest in 1) the potential effects of climate change on deep-sea ecosystems, 2) distinguishing between natural and man-made

impacts, 3) the environmental management of offshore deep-water fisheries, oil and gas production and mining, and 4) the spatial and temporal management of man's activities in the deep ocean. David is a member of the Legal and Technical Commission (LTC) at the International Seabed Authority (ISA). The LTC is an expert group of 24 with skills in environment, resources, engineering and law that advises the Council of the ISA in their decisions. David is one of three experts on environmental matters. He has been responsible for setting standards and protocols for the exploration of deep-sea minerals including spatial management measures.



Kris Van Nijen, General Manager of Global Sea Mineral Resources, DEME

Kris Van Nijen has been with the Belgian marine solutions provider DEME for over 15 years in various roles abroad and at the head office in Belgium. From 2006 to 2010, he was the area manager for Africa, where he first came in contact with offshore diamond mining in Namibia. From 2010 to 2014, based in Singapore, he was the general manager of OceanfLORE and responsible for the development of offshore contract mining services. OceanfLORE is a 50/50 joint-venture company between DEME and the Dutch technology innovator Royal IHC. In 2014 Kris became the general manager of Global Sea Mineral Resources (100% owned by the DEME group), which signed an exclusive 15-year contract with the *International Seabed Authority* for the exploration of polymetallic nodules in the Clarion Clipperton Zone.



Iain Shepherd, Acting Head of Unit, European Commission, DG MARE

Iain Shepherd is a senior expert at the Directorate General for Maritime Affairs and Fisheries. A physics graduate, he worked for many years at the Joint Research Centre in support of scientific EU policies on issues such as nuclear reactor safety, humanitarian aid and fisheries control. He provided technical expertise to the inter-Commission service group that was set up to develop a more integrated approach to the EU maritime policy, subsequently joined the Task Force within the Directorate General for Maritime Affairs and Fisheries and then moved to the Atlantic, Outermost Regions and Arctic Unit. He has contributed to a number of initiatives aimed at promoting growth in the blue economy and has special responsibility for the Marine Knowledge 2020 initiative to widen access to information about the sea and for a new process to obtain an agreed picture of the nature, size and dynamics of the EU's blue economy. He is presently acting as head of the unit responsible for maritime policy in the Atlantic, Outermost Regions and Arctic.

Chair and moderator



Monica Verbeek, Executive Director, Seas At Risk, Chair person

Dr Monica Verbeek is the executive director of Seas At Risk. She also serves as vice president of the South Western Waters Regional Advisory Council for fisheries and as member of the executive committee of the Long Distance Regional Advisory Council. Dr Verbeek has previously worked as an independent marine environmental consultant and as a biodiversity campaign coordinator and ocean ecology campaigner for Greenpeace Netherlands. During her extensive experience with marine environmental campaigns, stretching back to the early 1990s, she was successful in pushing for marine environmental protection policy decisions at national, European, regional (North East Atlantic) and UN level. She has trained as a biologist and has a PhD degree in behavioural ecology.



Torsten Thiele, Global Ocean Trust and visiting Fellow at the LSE Institute of Global Affairs, Moderator

Torsten Thiele is a Visiting Fellow at the LSE Institute of Global Affairs, where he focuses on ocean governance and blue finance. He is Founder of Global Ocean Trust, a charitable corporation, following a year spent as 2014 Harvard Advanced Leadership Fellow. Torsten sits on the Science and Stakeholder Board of the EU Project SenseOcean and has participated as IUCN observer both in the Annual Meetings of the international Seabed Authority and in the United Nations General Assembly Working Group and Preparatory Committee for a High Seas Biodiversity Agreement. He is a frequent conference speaker on ocean issues, technology and funding.

Thiele spent over two decades structuring international financings in the City of London. He was part of the initial team that set up the European Bank for Reconstruction and Development and acted as Principal Banker. As Head of Telecom Project Finance for Investec Bank plc from 2007 till 2013 he negotiated project debt facilities and technology investments, including in the subsea cable sector. Torsten Thiele holds graduate degrees in law and in economics from Bonn University, an MPA from the Harvard Kennedy School and an MPhil in Conservation Leadership from the University of Cambridge.