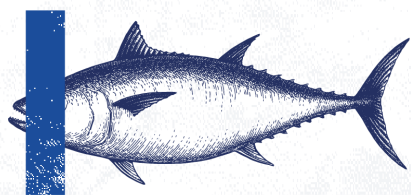


WED. 16 JUNE 2021 — 9.00 - 17.30 CET



# PROTECT OUR OCEANS

## the challenge of Europe's global leadership

Science-policy perspectives on the issues of  
contaminant dispersal, biodiversity loss and  
climate change

2021 Aix-Marseilles University European Conference

Under the high patronage of MEP Maria Da Graça Carvalho

Scientific coordination by Dr. Richard Sempéré, CNRS/Aix-Marseille University

# Participant's Workbook



2021 United Nations Decade  
of Ocean Science  
2030 for Sustainable Development



European Committee  
of the Regions

#ProtectOurOceans

# “Welcome!”



Prof. **Eric Berton** President of  
Aix-Marseille University

**Aix-Marseille University (AMU) is eager to engage with hundreds of participants from all parts of Europe and across the world on the challenge of protecting our oceans, which play a key role for the future of our planet.**

Since its creation in 2012, AMU is committed to help address global societal challenges through its scientific contribution, including by engaging with partners across Europe and beyond. As the second French university in terms of participation under the *Horizon 2020* framework-programme for research and innovation, AMU will continue to improve its contribution to EU and international collaborations under Horizon Europe for the seven years to come. We will thus work hard with our European partners to enhance collaboration and help achieve the ambitious *Mission Starfish 2030: Restore our ocean and waters* together with relevant public and private stakeholders from marine science and from the maritime sector.

Coordinated by Dr Richard Sempéré, Director of the new *Ocean Sciences Institute* (see page 18) and organised by AMU's Brussels Office, this European Conference is an opportunity for researchers, civil society and industries to network and imagine innovative solutions capable of addressing the challenge of protecting the ocean as a global public good!

## PARTNERS



United Nations  
Educational, Scientific and  
Cultural Organization



Intergovernmental  
Oceanographic  
Commission



2021 United Nations Decade  
of Ocean Science  
for Sustainable Development



European Committee  
of the Regions



European  
Commission



Eurofleets+



Institut  
Sciences de l'Océan  
Aix-Marseille Université





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# Agenda

09:00 Welcome

- 09:05
- ERIC BERTON, President of Aix-Marseille University
  - MARIA DA GRAÇA CARVALHO, Member of the European Parliament
  - RICHARD SEMPÉRÉ, Scientific Coordinator of the European Conference

## **Opening plenary: Tackling marine ecosystem disturbance caused by climate-change**

The plenary will bring together experts offering a variety of perspectives on the challenges of understanding marine biodiversity and ecosystem functioning in facing climate change. We will discuss the impact of climate change on ocean ecosystems and its various and cumulative effects that are not yet fully understood. In contrast, is the decisive role of oceans on climate change sufficiently considered? As a way forward, panellists will discuss how to better observe, understand and monitor global change, including by enhancing the use of infrastructures and technologies.

*Moderator:* CAROL ROBINSON, Prof. at East Anglia University, Chair, Scientific Steering Committee, IMBeR

- 09:30
- Marine Biodiversity: our Life, our Future***
- ADELINO CANARIO, University of Algarve, Faro – CCMAR
- Marine microbes in a changing sea***
- MAR BENAVIDES, French National Research Institute for Sustainable Development (IRD) / Aix-Marseille University
- 10 min. Q&A*

- 10:00
- Can science help prevent from further impact of climate-change on marine ecosystems?***
- SOPHIE GAMBARDELLA, Centre for International and European Studies and Research-CERIC, CNRS/Aix-Marseille University
  - GEIR JOHNSEN, Norwegian University of Science and Technology-NTNU
  - JEAN MARC FROMENTIN, Marine Biodiversity, Exploitation and Conservation (MARBEC) Research Unit-IFREMER
  - AODHÁN FITZGERALD, Lead Coordinator, Eurofleets+
- 15 min. Q&A*

- 10:45
- Towards a digital twin of the Ocean***
- MARTIN VISBECK, Helmholtz Centre for Ocean Research-GEOMAR, Kiel
- 10 min. Q&A*

11:05 – 11:20 COFFEE BREAK

## ***Intermediary sequence: Synergies between the UN Decade of Ocean Science for Sustainable Development & the Starfish Mission of Horizon Europe***

Structuring of European and international networks to advance ocean science is a challenge. This session will discuss how can the ambitions of the 2021-2030 United Nations Decade of Ocean Science for Sustainable Development and the Starfish Mission 2030 of the European Union be combined, to set a comprehensive and coordinated Research and Innovation agenda and to enhance collaboration between scientific communities across the world.

*Moderator:* KARL STOECKEL, Head of Aix-Marseille University Brussels Office

- 11:20
- VLADIMIR RYABININ – Executive Secretary of the Intergovernmental Oceanographic Commission, UNESCO
  - PASCAL LAMY – Chair of the Board of the *Starfish Mission (Horizon Europe framework-programme for Research and Innovation)*
  - GENEVIÈVE PONS – Director General of Europe Jacques Delors
- 15 min. Q&A*



12:05	Presentation of Aix-Marseille University Brussels Office: <i>How it works, how to collaborate with</i>
12:05 - 13:55	LUNCH BREAK
<b>European Commission's priorities for Research and Innovation</b>	
13:55	• JEAN-ERIC PAQUET, Director-General for Research and Innovation, European Commission
<p><b>Second plenary: The challenge of contaminant dispersal</b></p> <p>This plenary will see two scientific keynotes and a roundtable bringing together experts and stakeholders with a variety of viewpoints on what options and risks policy-makers must grapple with to achieve a healthier ocean.</p> <p>Panellists will provide expertise on how pollutants threaten marine ecosystems and food safety, evaluate the effectiveness of past initiatives to reduce marine pollution and discuss critical knowledge gaps as well as urgent policy actions to achieve a clean ocean.</p> <p><i>Moderator:</i> CARLE BONAFIOUS-MURAT, Senior Liaison Officer in Brussels, CPU &amp; President of the CLORA</p>	
14:15	<p><b><i>Distribution and threat to marine ecosystems of plastics and their organic additives in the marine environment</i></b></p> <p>• RICHARD SEMPÉRÉ, CNRS/Aix-Marseille University</p> <p><b><i>Mercury in our oceans: the natural story of a contaminant</i></b></p> <p>• LARS-ERIC HEIMBÜRGER-BOAVIDA, CNRS/Aix-Marseille University</p> <p><i>10 min. Q&amp;A</i></p>
14:45	<p><b><i>Are EU science and policy agendas aligned to take a step forward for cleaning the ocean?</i></b></p> <p>• EVE TRUILHÉ, Centre for International and European Studies and Research-CERIC, CNRS/Aix-Marseille University</p> <p>• NIAL MCDONOUGH, Chair, JPI Oceans</p> <p>• GAËLLE HAUT, Surfrider Foundation Europe</p> <p>• DELPHINE VITALI, Deputy Director for Biodiversity and Sea, Provence-Alpes-Côte d'Azur Region</p> <p><i>15 min. Q&amp;A</i></p>
15:30-16:00	COFEE BREAK
<p><b>EU policies and programmes to protect our oceans (Horizon Europe, EIT, NDICI, Erasmus+,...)</b></p> <p>The EU intends to take a responsibility in global ocean governance, particularly through setting up an integrated R&amp;I agenda that helps overcome existing obstacles to collaboration. As part of the Green Deal and the new 'Horizon Europe' framework-programme for research and innovation, one of the five Horizon Europe Missions is foreseen to mobilise all relevant stakeholders to help protect oceans. Furthermore, the European Parliament, the Council and the European Commission have reached an agreement in early 2021 to set up a EU-wide Knowledge and Innovation Community dedicated to maritime issues, water and seas in the course of the 2021-2027 programming period.</p> <p><i>Moderator:</i> CÉLINE DAMON, Head of European Research Unit, Aix-Marseille University.</p>	
16:00	<p>• MARIA DA GRAÇA CARVALHO, Member of the European Parliament</p> <p>• ELISABETTA BALZI, Head of Unit "Healthy Oceans &amp; Seas", DG Research and Innovation, European Commission</p> <p>• MONICA VERBEEK, Executive Director, Seas at Risk</p> <p>• PHILIPPE DELAPORTE, Vice-President for Research of Aix-Marseille University</p>
16:45	<p>Final Q&amp;A</p> <p>• Closing Remarks by RICHARD SEMPÉRÉ, Scientific Coordinator of the Conference</p>



# MODERATORS

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**Prof. CAROL ROBINSON**

Professor of Marine Sciences, University of East Anglia

Carol Robinson gained her BSc in Marine Zoology and PhD in Public Health Engineering from the University of Newcastle upon Tyne, UK. She then undertook postdoctoral research at the University of Wales, Bangor before moving to Plymouth Marine Laboratory, where between 2001 and 2007, she led the [Atlantic Meridional Transect](#) (AMT) programme, an ecological and biogeochemical time series study. She is currently a microbial oceanographer at the University of East Anglia, UK where her research focuses on the role of marine bacterio-, phyto- and zooplankton in the global cycling of carbon and oxygen, and how this varies in space and time and with changing environmental conditions. She is the Chair of the Scientific Steering Committee of the global research network IMBeR ([Integrated Marine Biosphere Research](#)), which aims to promote the interdisciplinary marine research required for ocean sustainability. She has also served as the President of the [Challenger Society for Marine Science](#), and is currently Chair of the [NOC Marine Facilities Advisory Board](#), and Co-Chair of an ICES/PICES working group on [Ocean Negative Carbon Emissions](#) and a SCOR working group on [Mesopelagic Respiration](#).



**Prof. CARLE BONAFOUS-MURAT**

Senior Liaison Officer, French Rector's Conference (CPU),  
President of the CLORA

Carle Bonafous-Murat is Professor of Irish literature at Sorbonne Nouvelle University. He is a specialist in Irish and Northern Irish poetry as well as modernist literature. He previously taught at the Lyon 2 University and Le Mans University.

He held various positions at Sorbonne-Nouvelle, such as Head of Master's programme in Irish studies (from 2003 to 2008), Head of Graduate School for English, German and European Studies (from 2007 to 2009) and Vice-president for research (from 2012 to 2018). Carle Bonafous-Murat was elected President of Sorbonne Nouvelle University in December 2014, position he held until December 2018.

He was Board Member of the *Île-de-France INNOV* Technology Transfer Office from 2012 to 2018.

He is currently Co-Lead of the *International Research Network in Medical Humanities* coordinated by Sorbonne Nouvelle University and the CNRS.

At national and European level, he was Head of Committee for European Affairs of the French Rector's Conference (CPU) from January 2017 to December 2018. In 2019, he was appointed Senior Liaison Officer at the French Rectors' Conference (CPU), in charge of the CPU's Brussels Office. Carle Bonafous-Murat, is also President of the Club of associated French research organisations (CLORA) in Brussels.



**Ms. CÉLINE DAMON**

Head of Europe Research Unit, Aix-Marseille University

Graduate of the Grenoble Institute of Political Studies and holder of a Master's Degree in European Studies from the Institute of European Studies in Brussels, Céline Damon has more than 15 years of expertise in European programs.

After an experience in Brussels, she created and led the AMU European Operational Support Unit in charge of the EU's framework programmes. Under her leadership, AMU has greatly improved its participation in the EU research program, ranking it 2nd in French universities in terms of participation in the Horizon 2020. Having led the European Operational Support Unit to maturity, she now holds the position of European Strategy Policy Officer and is heading the Unit for EU R&I policies at the Research and Technology Transfer Department of Aix Marseille University (AMU), which provides support to any Horizon Europe-related topics for the university (teacher -) researchers and oversees the CIVIS Alliance activities related to research and innovation.

Céline Damon has a strong expertise in lobbying, awareness-raising and detection on European research and innovation programs; networking at national and European level.



**Mr. KARL STOECKEL**

Head of Aix-Marseille University's Liaison Office in Brussels

Karl Stoeckel is Head of Aix-Marseille Université's Liaison Office in Brussels and Secretariat Member of the Universities Informal Liaison Offices Network ([UnILiON](#)). He studied law and political science at Paris 1 Panthéon-Sorbonne University and University of *Paris Est Créteil*. He has ten years of experience in the fields of higher education, research and innovation in France and at the European level. He is former Secretary General of the non-for-profit student health insurance *La Mutuelle des Etudiants* (from 2010 to 2013). His responsibilities included the application of the EU Solvency II Directive. He joined the French Rector's Conference (CPU) in 2013 as Advisor to the Board in charge of Parliamentary Affairs, where he was responsible for monitoring major pieces of legislation, including the annual budgets for higher education, research and innovation, the reform of vocational education and training, the modernisation reform for the French national health system as well as the law laying down the current French rules for the merger of Universities. At Aix-Marseille University's Brussels Office since February 2018, he monitored the preparation process of the 2021-2027 EU programmes (including *Horizon Europe*, the *Digital Europe Programme* and the *Cohesion Policy* legislative package). He contributed to the building and the success of the alliance coordinated by Aix-Marseille University "CIVIS – a European Civic University" composed of nine universities across Europe and selected in 2019 as part of the new *European Universities Initiative*.



# SPEAKERS

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**Prof. ÉRIC BERTON**

President of Aix-Marseille University

Eric Berton is full professor of exceptional class in mechanical engineering at Aix-Marseille University. He is recipient of the national Ph.D. and Research Supervising Bonus and has been awarded numerous academic distinctions, including the CNRS Bronze Medal in 2000, the Medal of the Aeronautics and Astronautics Association of France (1998), the Medal of the University of the Mediterranean (2000). Prof. Berton is also Knight in the French Order of Academic Palms (2010) and Knight in the French Order of the Legion of Honour (2015).

Eric Berton is the author of 117 scientific publications in books and peer-reviewed journals.

He was Dean of the Faculty of Sport Sciences of Aix Marseille University (Feb. 2010 - Dec. 2019) and Vice President Innovation and Valorisation of Aix Marseille University (Jan. 2012 - Jan. 2020). During his tenure as Vice-President, he was also President of two major incubators, *IMPULSE* and *Belle de Mai*.

He was Director of the Aix Marseille University/CNRS Institute of Movement Sciences (ISM) Etienne-Jules Marey from 2012 to 2020.

Eric Berton was elected President of Aix-Marseille University on 6 January 2020.



**Prof. MARIA DA GRAÇA CARVALHO**

Member of the European Parliament -

Patron of the European Conference

Maria da Graça Carvalho is currently a Member of the European Parliament. She is actively engaged in ITRE, IMCO, FEMM, PECH and AIDA committees, while she is also co-chairing the parliamentary intergroup on Long-term, Sustainable Investments and Competitive European Industry.

She was a senior advisor of Commissioner for Research, Science and Innovation, Carlos Moedas, from November 2014 to December 2015. Previously, she was a member of the European Parliament between July 2009 and May 2014 and in that capacity, she was one of the rapporteurs of Horizon 2020. From 2006 to 2009 she was also Principal Adviser to President Barroso in the fields of Science, Higher Education, Innovation, Research Policy, Energy, Environment and Climate Change.

She served as a Minister of Science and Higher Education of the XV Constitutional Government of Portugal and Minister of Science, Innovation and Higher Education of the XVI Constitutional Government. She is a Full Professor at the Instituto Superior Técnico (University of Lisbon).





### **Dr. VLADIMIR RYABININ**

Executive Secretary of the Intergovernmental  
Oceanographic Commission of UNESCO  
Assistant Director-General of UNESCO

Dr. Ryabinin is oceanographer, climatologist, marine engineer. He graduated from the Oceanological Faculty of the then (1978) Leningrad Hydrometeorological Institute and was candidate of physical and mathematical sciences (equiv. to PhD 1982) and Doctor of Sciences (1995). He used to work as a postdoc, junior, senior, principal scientist and head of a laboratory at the Hydrometcentre of Russia, was a principal researcher at two European Commission projects in Malta, the Executive Director of the International Ocean Institute and senior scientific officer of the World Climate Research Programme (WCRP) at WMO. Dr. Ryabinin lectured at the Moscow State University. His most important research projects included studies of turbulence in stratified fluids, analytical research on the ocean thermocline and its variability, creation of the first soviet system for medium-range weather prediction, studies of bottom ice gouging in the Russian Arctic, a number of shelf engineering projects, development of a marine meteorological prediction system in Russia, and authoring of a third generation wind wave model. He participated in the development of the Russian Federal Program "World Ocean", supervised marine forecasting research in Russia, contributed to the initial design of the Global Ocean Observing System, JCOMM, International Polar Year, and a number of initiatives of WCRP such as some grand science challenges, International Polar Partnership Initiative, etc. The focus of coordination of climate research under WCRP was on polar matters, cryosphere, stratospheric processes, ocean, atmospheric chemistry, sea-level rise, climate services, observation and modelling, etc. Dr. Ryabinin authored a monograph and more than a hundred of publications.



### **Mr. PASCAL LAMY**

President of the Paris Peace Forum  
Brunswick Europe Chair  
Chair of the Board of the *Mission Starfish 2030: Restore our  
Ocean and Waters*

Pascal Lamy is the President of the Paris Peace Forum and Brunswick Europe Chair. He shares his other activities between the Jacques Delors think tanks (Paris, Berlin, Brussels), the presidency of the UNWTO ethics of tourism committee, of the French Committee of the Pacific Economic Cooperation Council (PEEC), and the Musiciens du Louvre orchestra (Marc Minkowski). He is also holds positions in various French, European, and global boards or advisory boards ( Mo Ibrahim Foundation, IFPRI, CERRE, TMEA, Transparency International, Alpbach Forum, Beijing Forum, World Trade Forum, WEF global risks, Europaeum, Collegium international etc.). He is affiliate Professor at the China Europe International Business School CEIBS, Shanghai, and at HEC (Paris).

From 2005 to 2013, Pascal Lamy served for two terms as Director General of the World Trade Organization (WTO). He previously was European Commissioner for trade (1999-2004), CEO of Crédit Lyonnais (1994-1999), Chief of Staff to the President of the European Commission Jacques Delors and his G7 sherpa (1985-1994), Deputy Chief of Staff to the French Prime Minister (1983-1985) and to the French Minister for Economy and Finance (1981-1983).



### **Mr. JEAN-ERIC PAQUET**

Director-General for Research & Innovation  
European Commission

Jean-Eric Paquet has been the Director-General of DG Research and Innovation of the European Commission since 1 April 2018.

Mr Paquet began his career in the European Commission in 1993 in the Directorate-General for Transport, in the International Relations area, and later as assistant to the Transport Director-General, Robert Coleman. In 1999 he joined the office of Mr Verheugen (Member of the European Commission in charge of enlargement). In 2002 he became the deputy head of office of P. Busquin, member of the European Commission in charge of Research policy. Mr Paquet was EU Ambassador in the Islamic Republic of Mauritania between 2004 and 2007. He returned to transport in 2007 where he led the development of the Trans-European Transport Network policy. As Director for the “European Mobility Network” he was responsible for Europe’s transport infrastructure policy and investment strategies, the single European rail area, inland waterways and port policy. He joined DG Enlargement in November 2013 where he took over the Directorate in charge of relations with Albania, Bosnia & Herzegovina, Serbia, Kosovo. In January 2015 he became Director for Western Balkans, adding Montenegro and the FYROM to his portfolio. In November 2015 he was appointed Deputy Secretary-General of the European Commission responsible for Better Regulation and Policy Coordination (economic governance, internal market and competitiveness, resource efficiency and employment, education and social policies).



### **Dr. ELISABETTA BALZI**

Head of Unit “Healthy Oceans & Seas”, Directorate-General  
for Research and Innovation, European Commission

Elisabetta Balzi is Head of Unit “Healthy Oceans & Seas” at the Directorate General for Research and Innovation of the European Commission.

Prior to her current position, Elisabetta Balzi was the Head of the Bioeconomy Unit at the European Commission’s Joint Research Centre. She has coordinated the development and implementation of the EU Bioeconomy Strategy and Action Plan, and she has been in charge of the European Commission Knowledge Centre for Bioeconomy.

Before joining the JRC, Elisabetta worked at the Commission’s Directorate-General for Research and Innovation as Deputy Head of the Bioeconomy Strategy and of the Marine Resources Units. In these roles, she was responsible for coordinating the design, implementation and international cooperation activities of the EU Research and Innovation Framework Programme in the field of food, agriculture, forestry, marine resources, and bioeconomy, from the Sixth Framework Programme to Horizon 2020.

Elisabetta Balzi holds a PhD in Sciences.



### **Dr. NIALL MCDONOUGH**

Chair of the JPI Healthy and Productive Seas and Oceans  
Director of Policy, Innovation and Research Support  
Services, Marine Institute, Ireland

Niall McDonough has responsibility for promoting and developing marine research in Ireland in accordance with national and international strategic and policy objectives.

Niall is originally trained as a marine biologist, with research interests in aquaculture, fisheries and marine resource management. He holds a BA Mod. from Trinity College Dublin (1993) and a PhD from Queen’s University Belfast (1998).

He has previously held management roles with the Environmental Change Institute at the National University of Ireland, Galway, and the Centre for Marine Resources and Mariculture at Queen’s University, Belfast, attracting significant research funding to both centres and coordinating a number of national and international research projects. From 2009-2017, he served as Executive Director of the European Marine Board (EMB), a pan-European marine science network based at the InnovOcean campus in Ostend, Belgium.





### **Ms. GENEVIÈVE PONS**

Director General of Europe Jacques Delors (AISBL)  
Honorary Director of the European Commission  
Former Director of the WWF's European Office

Geneviève Pons was in charge of environmental and climate matters in Mr. Jacques Delors' Cabinet during his last two mandates as President of the European Commission (EC) (1991-1995). She thereafter held several management positions at the EC. In 2013, Geneviève was appointed Director of the ILO's Legal Service, and in June of 2015 as Director of the WWF's European Office. From November 2017 until December 2019, she headed Jacques Delors Institute's Brussels Office. In January 2020, she was appointed as the head of *Europe Jacques Delors* (AISBL), the latest in the family of think tanks carrying on Jacques Delors' European vision. She is a graduate from Sciences-Po Paris, the Sorbonne, and ENA.

Geneviève is considered by Politico as one of the most influential women in Brussels, notably in the field of environment. She is an active member of Ocean Unite and of the Antarctica2020 coalition, which aims to protect the vast marine areas around Antarctica.

She is a member of the European Commission's Mission Healthy Oceans, Seas, Coastal and Inland Waters, chaired by Pascal Lamy. She is also the Vice President of Transparency International Europe, and a member of the jury for the European Book Prize.

Since 2019, alongside Pascal Lamy and Pierre Leturcq, Geneviève has published a series of articles on trade and the environment, the first, second, third, fourth and fifth of which are currently available. All her recent publications can be found [here](#).

Geneviève Pons is a Knight of the Legion of Honour.



### **Dr. MONICA VERBEEK**

Executive Director of Seas At Risk

Dr. Monica Verbeek is the executive director of Seas At Risk, the Brussels-based umbrella organisation of environmental NGOs from across Europe that promotes ambitious policies for marine protection at European and international level. Seas At Risk has over 30 member organisations from 17 countries. It addresses issues ranging from marine litter, (deep sea) fisheries, aquaculture and shipping to cross-sectoral EU level initiatives such as the Marine Strategy Framework Directive and Blue Growth, including deep-sea mining.

Before joining Seas At Risk, Monica Verbeek worked as an independent marine environmental consultant, and as a biodiversity campaign coordinator for Greenpeace Netherlands. During her extensive experience with marine environmental campaigns, stretching back to the early 1990s, Monica Verbeek was successful in pushing for marine environmental protection policy decisions at national, European, regional (North East Atlantic) and UN level.

Before joining the environmental movement, Monica Verbeek was trained as a biologist and worked as a researcher; she holds a Master's degree in biology (received with honours) and a PhD degree in behavioural ecology from the Wageningen University in the Netherlands.



### **Mr. AODHÁN FITZGERALD**

Lead Coordinator of the Eurofleets+ Project

Aodhán Fitzgerald is the lead Coordinator of the Eurofleets+ Project with overall responsibility for the management and execution of the project.

Aodhán is the Section Manager of the Research Vessel Operations team at the Marine Institute, Ireland. For the past 15 years, Aodhán has been coordinating the operations of Ireland's two research vessels as Program Co-ordinator for the RV Celtic Explorer and RV Celtic Voyager and the 3000m depth-rated ROV Holland I. He is currently project managing on behalf of the Marine Institute the procurement and delivery of the new MI Research vessel "Tom Crean".

Aodhán holds a BSc in Marine Science, an MSc in Environmental Science, and a Diploma in Ship Management. Aodhán was Chair and Vice Chair of the International Research Ship Operators (IRSO) Group from 2013- 2016. He has hosted European Research Vessel Operators (ERVO) group meetings and is a member of the ERVO Executive Committee. Aodhán is a nominated expert to the European Marine working group 'Next Generation European Research Vessels' (WG ERV). Aodhan has acted as an external expert for Enterprise Ireland in the assessment of Marine Technology start-ups and has provided external expert input to a variety of Infrastructural procurement programs internationally.





**Prof. ADELINO CANÁRIO**

Centre of Marine Sciences, University of Algarve

Adelino V.M. Canario received an honours degree in Biology from the University of Lisbon (Portugal) and a PhD from the University of East Anglia (Norwich, UK).

He is professor of Cell Biology and Reproductive Physiology at the University of Algarve, distinguished professor at Shanghai Ocean University, and director of the Algarve Centre for Marine Sciences.

His research interests include the comparative physiology and endocrinology of fishes, the mechanisms of sex determination, adaptation to extreme and special environments, and chemosensory biology in relation to reproduction and behaviour.

He is a member of the Scientific Council of the Foundation for Science and Technology of Portugal, member of the Advisory Board of the National Agency for Innovation, national representative and Vice-Chair at the European Marine Biological Resource Centre, Member of the national committee for Polar Research and national representative at the Scientific Committee for Antarctic Research (SCAR).



**Dr. DELPHINE VITALI**

Deputy Director of Biodiversity and the Sea and Head of Circular Economy and Waste department, Provence Alpes Côte d'Azur Region

Delphine Vitali holds a doctorate in Geography from the University of Provence on the issue of transversality in the management of river hydrosystems in France.

Director of Biodiversity and the Sea and Head of Circular Economy and Waste department, Regional Council Provence Alpes Côte d'Azur.

Responsible for the implementation of regional waste planning, declining the hierarchy of treatment methods resulting from the European Directive on the Regional Territory.

Leads a global project undertaken by the Region on the fight against plastic waste in natural environments, support for the structuring of recovery sectors and the development of knowledge of impacts on human health, environments and biodiversity and the mobilization of actors.



**Ms. GAËLLE HAUT**

Surfrider Foundation Europe

Gaëlle Haut is European Affairs Project Manager at Surfrider Foundation Europe. She is one of the association's representatives to the European institutions and works from the Brussels office of Surfrider Europe, which currently has three employees. Surfrider Foundation Europe has been working for more than 30 years to protect the ocean, the seas, the coastline, the aquatic environment and all the people who enjoy them. Gaëlle works for the adoption and the correct application of measures at the European level to further protect these environments. Gaëlle Haut had previously worked for a consultancy and two NGOs in Spain and Canada, as a project assistant and a project and communication officer in support for European and local projects on environmental protection, political support, youth and innovation issues. She has volunteered for several environmental summits. Gaëlle holds a Master in International and European Studies from the Institute of political studies-Sciences Po Grenoble (France). More information on Surfrider Foundation Europe: [www.surfrider.eu](http://www.surfrider.eu)



### **Prof. GEIR JOHNSEN**

Professor in Marine Biology

Norwegian University of Science and Technology, NTNU

Geir Johnsen is a professor in marine biology at the Department of Biology (NTNU), Prof II at University Centre on Svalbard (UNIS), and is one of the founding partners in a NTNU spin-off company Ecotone using new optical techniques for mapping and monitoring the marine environment. He is a key scientist in the Centre of excellence (CeO) "Autonomous Marine Operations and Systems (AMOS). Currently he is on a 1 year research stay at University of Hawaii at Manoa, Honolulu working with spectral bioluminescence in different taxa and mapping and monitoring of coral reefs.

Research areas: Marine ecology and biodiversity, Bio-optics, Photosynthesis, Pigment chemotaxonomy, Underwater robotics and sensor development for in situ identification, Mapping and monitoring of bio-geo-chemical objects of interest in the marine environment

He has been an adviser for 47 MSc students and 17 PhD candidates. Currently, he advises 3 MSc students and 5 PhD candidates.

He has published more than 130 papers in international scientific journals and been a co-editor for the books: "Ecosystem Barents Sea" (Tapir Academic Press) and "Phytoplankton pigments: Updates on Characterization, Chemotaxonomy and Applications in Oceanography" (Cambridge University Press, 2011).



### **Dr. MAR BENAVIDES**

IRD Microbial Oceanographer, Aix-Marseille University

Mediterranean Institute of Oceanography

Dr. Mar Benavides is a microbial oceanographer specialized in nitrogen fixation. After a PhD degree in Oceanography from the University of Las Palmas de Gran Canaria, she was a postdoc at the Leibniz Institute for Baltic Research Warnemünde, followed by a Marie Curie fellowship at the Institute for research and development (IRD) in New Caledonia, and a postdoc at the University of Copenhagen. Since 2018, Mar is an IRD researcher at the Mediterranean Institute of Oceanography at the Aix-Marseille-University in France. In oceanographic expeditions accounting for ~400 days at sea along >30000 Km, she has investigated nitrogen fixation encompassing a wide variety of ecosystems (eastern boundary upwellings, temperate coastal ecosystems, dark ocean, coral reefs), organisms (plankton, corals) and geographical areas (North Atlantic, South Pacific, Mediterranean Sea). Her original and multidisciplinary approaches to study nitrogen cycling in the ocean have been recognized by international and national awards (IAPSO and CNRS early career scientist medals in 2019 and 2021).



### **Dr. SOPHIE GAMBARDELLA**

Researcher at the Centre for International and European

Studies and Research (CERIC) UMR DICE (CNRS/Aix-Marseille University)

Sophie Gambardella is a research fellow at the CNRS (CERIC UMR DICE 7318). Her research is in the field of international environmental law. Her research focuses more specifically on the international management of marine biological resources.

Most of her works have, as a point of convergence, a reflection on the "defragmentation" of international environmental law.

Her research aims at understanding the dichotomous construction of the law of the sea, which results in the coexistence of a logic of conservation and preservation; to reflect on the way in which marine environmental law is articulated with the other branches of international law; and to think about the relationship between science and law in the field of marine biodiversity conservation.





### **Dr. JEAN-MARC FROMENTIN**

MARBEC Research Unit, French Research Institute for  
Exploitation of the Sea (IFREMER), Sète, France

After a Ph.D in marine ecology at Paris-Sorbonne University and a post-doctorate at Oslo University, Jean-Marc Fromentin (JMF) joined Ifremer in 1998 as a researcher. His research activity focuses on the impacts of environmental and anthropogenic drivers on marine populations. In parallel, JMF carried out a strong expertise activity on highly migratory fish stocks within the scientific committee of the International Commission for the Conservation of Atlantic Tunas (ICCAT).

JMF coordinated from 2000 to 2013 the ICCAT Atlantic Bluefin Tuna Assessment Panel, made up of around 50 international scientists, which establishes scientific advice and recommends management measures. Since 2015, JMF is the deputy director of the MARBEC research Unit, which brings together researchers from Ifremer, IRD, CNRS and Montpellier University working on marine biodiversity. JMF is also co-chairing of the IPBES assessment on "Sustainable Use of Wild Species", the final report of which is expected to be presented to the IPBES 9 plenary in 2022. JMF is the author or co-author of more than 100 research articles published in international scientific journals and of 80 scientific documents and reports.



### **Prof. Dr. MARTIN VISBECK**

Head of the Physical Oceanography research Unit at  
GEOMAR Helmholtz Centre for Ocean Research and  
Professor at Kiel University, Germany

His research interests revolve around ocean dynamics and the ocean's role in the climate system with particular emphasis on the Atlantic. Internationally he supports ocean and climate science, integrated global ocean observation and ocean sustainable development. As the speaker of the German excellence cluster "The Future Ocean" in Kiel, he is advancing integrated marine sciences by bringing together a wide range of disciplines and Kiel-based institutions to work on ocean-human issues. Amongst others he is leading the EU AtlantOS Project on sustained ocean observing in the Atlantic.

He serves on a number of national and international advisory committees including the Joint Scientific Committee of the World Climate Research Programme (WCRP) and leadership council of the Sustainable Development Solutions Network (SDSN). He chairs the German Future Earth Committee, the German Sustainability Platform 2030 and the Advisory Committee for Earth Observations at ESA. He is President-Elect of The Oceanography Society (TOS), and was elected fellow of the AGU, AMS, and the European Academy of Sciences. Martin Visbeck is involved in strategic planning and decision-making processes about the ocean and sustainable development at a national, European and global level.



### **Dr. PHILIPPE DELAPORTE**

Vice-President for Research at Aix-Marseille University

Philippe Delaporte CNRS Research Director since 2003. He holds a doctorate in physics and is a specialist in optics and photonics.

He obtained an engineering degree from the National School of Physics of Marseille in 1984, then a doctorate in physics from Aix-Marseille University. In 1988, he became CNRS research fellow, and was awarded the Bronze Medal of the CNRS three years later. His scientific activity focuses on the physics of short pulse laser-matter interaction and the development of new photonic processes for surface structuring and micro / nano fabrication.

Director of the "Lasers, plasmas and photonic processes" laboratory (LP3 - AMU-CNRS) from January 2012 to December 2019, he has many activities and functions associated with his areas of expertise: Vice-President of the Photonics and Imaging Competitiveness Cluster Optitec (2013-2019), Member of the Board of stakeholders of the European partnership Photonics21, Member of the Strategic Council of the regional microelectronics center Arcsis, expert for national and international projects and member of scientific committees of several international conferences.

Philippe Delaporte has coordinated numerous national and European projects and several collaborations with industry. He is the author of over 150 publications in international peer reviewed journals and has taken part as guest in 90 lectures.





### **Dr. RICHARD SEMPÉRÉ**

Director of the Mediterranean Institute of Oceanography  
(Aix-Marseille University, Toulon University, CNRS, IRD)

Richard Sempéré, PhD, is oceanographer, marine and atmospheric geochemist and director of research at CNRS. Currently, he is Director of the Mediterranean Institute of Oceanography-MIO and Director of the Aix Marseille University Ocean Sciences Institute. His research focus on exploration of sources and sinks of natural organic matter in aquatic environments, the intersection of the carbon cycle and microbial communities under global change conditions. He is also studying plastics, plastic additives, endocrine disruptors and organic contaminants in atmospheric and aquatic systems. Richard Sempéré studied in French Universities (Perpignan, Brest, Paris Sorbonne) and was post-doctoral fellow in Tokyo, Japan. He has been a member of several CNRS, IRD committees including national biogeochemistry equipment- WG for INSU/CNRS (CSOA), CNRS national committee, member of the CNRS/INSU scientific committee as well as IRD national committee. He was associate editor of Marine Chemistry and review editor of Aquatic Microbial Ecology and Marine Ecology Progress Series journals and Co-PI of several projects such as UVECO, MERMEX, MEDPOP, Blue Pollut and CareMed and PI of the JPI-Ocean project Andromeda. He is author or co-author of 110 scientific publications in peer review journals and supervised 11 PhD, 10 post-doctoral fellows and more than 50 engineers or Master course students. He has been guest editor of one special issue on the MERMEX project in Progr. Oceanogr. Richard Sempéré has founded and managed successively the research units LMGEM and MIO. He is member of the executive committee of the Cluster *Pôle Mer Méditerranée*.



### **Dr. LARS-ERIC HEIMBÜRGER-BOAVIDA**

CNRS Research Scientist at the Mediterranean Institute  
Oceanography, Aix-Marseille University

Dr. Lars-Eric Heimbürger-Boavida was trained in analytical and environmental chemistry at the University of Jena and the Leibniz Institute for Baltic Research Warnemünde. After a PhD in Chemical Oceanography at the Oceanographic Laboratory at Villefranche sur Mer, he was postdoc at Geosciences Environment Toulouse and Junior Professor at the University of Bremen. Since 2015, Lars-Eric is CNRS research scientist at the Mediterranean Institute of Oceanography at Aix-Marseille University in France. Much of his research addresses the fundamental questions of how much mercury resides in the oceans, how much we have added and which portion makes its way up the marine food chain. Trying to find answers, he participated in over 30 oceanographic cruises to the Mediterranean, Black and Baltic Seas, the Atlantic, Pacific, Southern and Arctic Oceans. He was plenary speaker at the 14th International Conference of Mercury as a Global Pollutant and co-organizes the conference since 2015. Lars-Eric co-authored the United Nations Environmental Programme Global Mercury Assessment 2018 and the Arctic Monitoring and Assessment Programme for Mercury 2021.



### **Dr. ÈVE TRUILHÉ**

Director of the Centre for International and European  
Studies and Research (CERIC), Aix-Marseille University

Eve Truilhé is Research Director at the CNRS, she is Director of the Centre for International and European Studies and Research (CERIC) at Aix-Marseille University.

She is an expert in European environmental law, her main research topics focus on the links between science and law, scientific expertise and uncertainty, and environmental litigation.

She teaches European environmental law at Aix-Marseille University, and heads the "Clinic" of the Environment.

She is the author of numerous articles and books including: "Environmental Law of the European Union" (*Droit de l'environnement de l'Union européenne*, Larcier Bruxelles, 2015, 409 pages) and "The Environmental Trial - From the Trial on the Environment to the Trial for the Environment" (*Le procès environnemental – Du procès sur l'environnement au procès pour l'environnement*, collab. M. Hautereau-Boutonnet, Dalloz, 2021, 250 pages).

# SCIENTIFIC & ORG TEAM



**Dr. RICHARD SEMPÉRÉ, Scientific Coordinator**

Director of the Mediterranean Institute of Oceanography  
(Aix-Marseille University, Toulon University, CNRS, IRD)



**Dr. PASCALE RICARD**

CNRS researcher at Centre for International and European  
Studies and Research (CERIC), Aix-Marseille University



**Mr. NAOUFAL AOUANE**

Deputy EU Liaison Officer  
Aix-Marseille University's Liaison Office (Brussels)



**Dr. LARS-ERIC HEIMBÜRGER-BOAVIDA**

CNRS Research Scientist at the Mediterranean Institute  
Oceanography, Aix-Marseille University



**Dr. MAR BENAVIDES**

IRD Microbial Oceanographer, Aix-Marseille University  
Mediterranean Institute of Oceanography



**Mr. KARL STOECKEL**

EU Liaison Officer, Head of Aix-Marseille University's Liaison  
Office (Brussels)



## AMU's Liaison Office (Brussels)

Aix-Marseille University (AMU) was the first French University to open a permanent representation to the European institutions in January 2016, located at the heart of the European quarter.

Attached to the Cabinet of AMU's President, the EU Office is internally responsible for

- Providing the latest information on future EU programmes to AMU's research Units and Faculties
- Providing research Units and Faculties with networking opportunities to increase their participation in European collaborative projects
- Facilitating contacts with EU institutions and preparing AMU's delegations during their visit to Brussels
- Advising the Board and the Management of the University on EU programmes and European strategy

AMU Office in Brussels is externally in charge of

- Increasing the visibility of AMU's potential in Education, Research and Innovation
- Providing EU institutions and partners with direct access to Research, Innovation and Education expertise from AMU
- Monitoring future EU programmes and funding opportunities

*Address: rue du Trône 62, 1050 Brussels, Belgium.*





**2021** United Nations Decade  
**2030** of Ocean Science  
for Sustainable Development

### **What is the United Nations Decade of Ocean Science for Sustainable Development?**

*On 5 December 2017, the [United Nations proclaimed a Decade of Ocean Science for Sustainable Development](#), to be held from 2021 to 2030. This Decade will provide a common framework to ensure that ocean science can fully support countries' actions to sustainably manage the Oceans and more particularly to achieve the 2030 Agenda for Sustainable Development.*

The Decade will provide a 'once in a lifetime' opportunity to create a new foundation, across the science-policy interface, to strengthen the management of our oceans and coasts for the benefit of humanity.

### **Delivering Science for the Future We Want**

Ocean Science combines a variety of disciplines (physical, geological and chemical oceanography as well as marine biology) that study and provide data on the global marine environment (marine organisms, ecosystem dynamics, ocean currents, waves, geophysical fluids dynamics, plate tectonics and the geology of the sea floor as well as fluxes of various chemical substances and physical properties within the Ocean and across its boundaries).

Over the decades, Ocean Science evolved to integrate new societal needs and encourage new partnerships among oceanographers working in different disciplines leading to new discoveries about the ocean's role in climate regulation and coastal ocean processes.

Ocean Science can support business operations (shipping industry, fisheries and aquaculture, etc...) as well as conservation and management activities or coastal communities by predicting Ocean hazards preventing and mitigating disaster risks.

For example, the discovery of oceanic eddies has been important for an understanding of ocean circulation, propagation of sound in the ocean, fisheries productivity, and other ocean processes.

[Learn more](#)







# OCEAN SCIENCES INSTITUTE



The new institute of Aix-Marseille University provides a new approach federating oceanography (including biology, chemistry and physical oceanography), climate science, digital and robotic sciences, marine engineering reinforced by ocean economy and policy, as well as maritime geography and history sciences to implement both research and training activities. The institute is designed to train a new generation of worldwide talented and selected scientists, engineers, lawyers, and managers to tackle challenging oceanic issues. The project will be undertaken through both (1) Master courses-based education that is available at AMU and Ecole Centrale Marseille, (2) high-level research-based training with increased immersion within our research laboratories together with industries of the Innovation Sea Cluster (Pôle Mer Méditerranée) network, IRD, IRSN, IFREMER and the technical department of INSU/CNRS with their top-level marine technology centers.

[Webpage](#) / [Presentation](#)

# AIX-MARSEILLE UNIVERISTY



Aix-Marseille University is the largest French speaking university with 80,000 students, 119 research units, 16 multidisciplinary graduate schools, including the new 'Ocean Science Institute'. The university was founded on 1 January 2012 by the merger of the three previously existing universities in Aix-en-Provence and Marseille. As a comprehensive and research-intensive university, AMU conducts its research activities in the Metropolis of Aix-Marseille with the largest French research organisations (CNRS, CEA, IFSTTAR, INSERM, INRA and IRD). AMU is one of the three first French universities granted as 'Excellence Initiative' in 2016 under the French "Investing for the future" programme (PIA). AMU is ranked the second French university in terms of participation under the European framework-programme for research and innovation Horizon 2020. [Learn more](#)



# PARTNERS



The Intergovernmental Oceanographic Commission of UNESCO (IOC) is the United Nations body responsible for supporting global ocean science and services. [Learn more](#)



The Commission's work is steered by a College of Commissioners, and led by its President. The Commissioners work on specific policy priorities that are set out by the Commission President. [Learn more](#)



The Joint Programming Initiative Healthy and Productive Seas and Oceans (JPI Oceans) was established in 2011 as an intergovernmental platform, open to all EU Member States and Associated Countries who invest in marine and maritime research. [Learn more](#)



Sud Region – *Provence-Alpes-Côte d'Azur* is a regional authority of the Southeast of France. Its area size amounts to 31,400 km<sup>2</sup>. Its capital city is Marseille, second largest city in France. [Learn more](#)



The MIO research laboratory is a component of the OSU-Pytheas Institute and is under the joint direction of Aix-Marseille University, Toulon University, the CNRS and the IRD. [Learn more](#)



A French public research institution, IRD supports an original model of equitable scientific partnership and interdisciplinary, citizen, sustainability science committed to the achievement of the Sustainable Development Goals. [Learn more](#)



European Committee of the Regions

The European Committee of the Regions (CoR) is the voice of regions and cities in the European Union (EU). It represents local and regional authorities across the European Union and advises on new laws that have an impact on regions and cities (70% of all EU legislation). [Learn more](#)



UNiLiON (Universities Informal Liaison Offices Network) is an informal network of 50 Brussels-based liaison offices representing 156 excellent universities in Europe, Japan and Russia. [Learn more](#)



H2020 project funded under the Infrastructures initiative, coordinated by the Marine Institute that brings together a significant group of key marine research actors (in particular research vessel operators) in Europe, North America and Oceania. [Learn more](#)



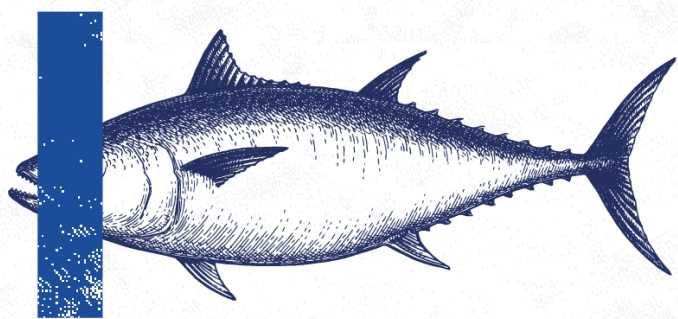
A pioneer in ocean science, IFREMER's cutting-edge research is grounded in sustainable development and open science. [Learn more](#)



The Centre for International and European Studies and Research (CERIC), Aix-Marseille University. [Learn more](#)



The French National Centre for Scientific Research is among the world's leading research institutions. [Learn more](#)



# **PROTECT OUR OCEANS**

**the challenge of Europe's  
global leadership**

