



Uachtaránacht na hÉireann ar
Chomhairle an Aontais Eorpaigh
Irish Presidency of the Council
of the European Union
eu2013.ie



THE ATLANTIC A SHARED RESOURCE

PROGRAMME

23 - 24 May 2013

MARINE INSTITUTE

RINVILLE, ORANMORE, GALWAY, IRELAND

EUROPEAN COMMISSION

Directorate-General for Research and Innovation
Directorate D – Internal Cooperation
Unit D.2. – North America, Latin America and Caribbean

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Objective

Good stewardship of the oceans, the management and sustainable utilisation of marine resources, the protection of marine and coastal environments and safety at sea are among the goals of the Integrated Maritime Policy of the European Union. In turn, this policy is a vital tool in meeting the objectives of the Europe 2020 Strategy. The Irish Presidency of the European Union is ready to cooperate with the European Commission in delivering on this policy, in particular as regards the Atlantic Strategy and its implementation through the Atlantic Action Plan.

The objective of this event is to provide a vision for enhanced cooperation on both sides of the Atlantic and a set of jointly agreed priority actions to provide the means to achieve these goals.



The societal and economic values for countries located on the Atlantic Ocean shores are significant and the potential for further development is great.

Recognizing the essential role of international partnership to achieve shared objectives and the potential of greater cooperation to advance our knowledge of the Atlantic Ocean, the Irish Presidency together with the European Commission invites the involvement of international partners in tackling the challenges confronting the citizens of the North Atlantic coastal states.

Realising this potential will demand not only the ability to make observations and obtain data, but an understanding of ecosystem functioning and interactions and an ability to model, forecast and predict the ocean system.



Outline

Day 1

A Scientific Workshop (by invitation only) dedicated to discussing the research and innovation requirements needed between now and 2020 in order to have:

- A truly predictive capacity for the major risks and changes in the dynamics of the Atlantic Ocean, its circulation system and the interplay between the Atlantic Ocean and the portion of the Arctic region that borders the Atlantic Ocean;
- A fully integrated multi-modal Atlantic Ocean Observation and Forecasting System installed and operating, providing real-time data streams on-line;
- A mapping programme undertaken for critical areas of the Atlantic seafloor to underpin the accuracy of predictive models and forecasts and their outputs (including key tectonic, volcanic, and potentially unstable seabed sites).



Day 2

Will include a presentation on the outputs and recommendations of the Day 1 Scientific Workshop and a showcase of current transatlantic projects. Political leaders will be invited to discuss a political statement, the **Transatlantic Galway Declaration**, which will be the milestone for enhanced science, technology and observation cooperation on both sides of the Atlantic that will revolutionise our common understanding of key ocean processes critical to our climate, prosperity, security, health and well-being. The afternoon session will include the launch of the EU's **Atlantic Strategy Action Plan**.



Participants / Stakeholders

High Level Political representatives from the North Atlantic Coastal States and the European Commission will include:

- *Mr Enda Kenny T.D., Taoiseach (Prime Minister of Ireland)*
- *Mr Simon Coveney T.D., the Irish Minister for Agriculture, Food and the Marine*
- *Ms Maria Damanaki, the EU Commissioner for Maritime Affairs and Fisheries*
- *Ms Máire Geoghegan-Quinn, the EU Commissioner for Research, Innovation and Science*
- *Representatives from Canada*
- *Representatives from the EU Atlantic Coastal States*
- *Representatives from the United States of America*

Leading Scientists, Representatives from Marine and Oceanographic Institutes, Funding Agencies, Research Performing Organisations and Industry.

Organisers

This conference is organised jointly by:

- The Marine Institute (Ireland) on behalf of the Irish Presidency and
- The European Commission, the Directorate-General Research and Innovation in close cooperation with the Directorate-General for Maritime Affairs and Fisheries and the Joint Research Centre.



Marine Institute, Galway, Ireland



Conference Venue

MARINE INSTITUTE, RINVILLE, ORANMORE, GALWAY, IRELAND

How to reach the venue:

From the Airport

There are 3 major airports in the Republic of Ireland - Dublin Airport, situated 200 km east of Galway city, Shannon Airport, situated 70 km south of Galway city, and Cork Airport, situated 190 km south of Galway city.

Airport Bus

Citylink – www.citylink.ie

- Dublin to Galway (2 hours 30 minutes).
- Cork to Galway (3 hours).

GoBus - www.gobus.ie

- Dublin to Galway (3 hours).

Bus Eireann – www.buseireann.ie

- Shannon Airport to Galway Airport (2 hours 15 minutes).
- Dublin to Galway (2 hours 50 minutes).
- Cork to Galway (4 hours).

Car Hire

Car hire firms can be found on the internet.

Hotel – Venue Transfer

A number of hotels will offer special rates to participants (see separate leaflet on venue and access). The proposed hotels are 15 - 20 minute drive from the meeting venue. There will be a bus transfer organised by the Marine Institute to bring delegates to and from their hotels on both days.

For further information contact/Email: events@marine.ie



Scientific Workshop

Aims & Objectives:

The identification of the research, innovation and infrastructural requirements needed to be in place, by 2020, to provide key components of and a framework for a truly predictive capacity to enable an assessment of the major risks and changes in the dynamics of the North Atlantic Ocean and Circulation System, including Atlantic-Arctic trans-boundary issues.

This will be based on a clear identification and prioritisation of:

Key Infrastructural requirements including:

- A framework for a fully integrated multi-modal Atlantic Ocean Observation and Forecasting System installed and operational providing real-time data streams on-line;
- A framework for a co-operative seabed (bathymetric and habitat) mapping programme undertaken for critical areas of the Atlantic seafloor to underpin the accuracy of predictive models and forecasts and their outputs (including key tectonic, volcanic, and potentially unstable seabed sites).

Key Research and innovation requirements including:

- Current co-operative and/or regional research programmes/projects addressing critical Atlantic Ocean issues;
- Critical gaps in current knowledge (e.g. stressors, etc);
- Technological needs in terms of appropriate spatial distribution of observation systems, new sensor and sensor arrays and communication systems.

Key Questions to be answered:

1. What are **common (Europe-US-CAN) knowledge gaps** where co-operative research efforts are needed?
2. How can **we (Europe-US-CAN) better share knowledge on** existing activities, projects or systems already in place and how can connectivity between on-going knowledge generation be assured?
3. How to foster **joint (Europe-US-CAN) access to existing knowledge to maximise its exploitation and impact** (e.g. access to data, needs for data exchange and standards)?

Output:

Workshop Report summarising and making recommendations regarding:

- Knowledge gaps identified and recommendations to deal with them jointly;
- Ways to maximise sharing of existing knowledge (or of knowledge being generated);
- Ways to support joint access to existing knowledge to maximise its exploitation and impact.





PROGRAMME

DAY 1 - 23 May 2013	
8:00 - 08:45	REGISTRATION
08:45 - 09:00 (15 min)	1. Introduction: Aims & Objectives Dr Peter B. Heffernan, CEO, Marine Institute, IE
09:00 - 10:00 (60 min)	2. Identification of Key Challenges – interactive session (Q&A) Chair: Prof Mike St John, Technical University of Denmark (FP7 Project EuroBASIN), DK
10:00 - 11:00 (60 min) 10 min presentation	3.1. Status Reports: Seabed and Seabed Habitat Mapping Initiatives Canada: Mr Stephen Locke, Director, Geological Survey of Canada – Atlantic, Natural Resources Canada, Bedford Institute of Oceanography, CA Europe: Mr Alan Stevenson, British Geological Survey, UK USA: Prof Larry Mayer, Director, Center for Coastal and Ocean Mapping, Co-Director, Joint Hydrographic Center, Professor of Earth Science and Ocean Engineering, University of New Hampshire, USA Europe: Habitat Classification Issues - Dr Jacques Populus, IFREMER, FR <i>Questions & Answers</i>
11:00 – 11:30	COFFEE BREAK
11:30 – 12:10 (40 min) 10 min presentation	3.2. Atlantic-Arctic trans-boundary issues Canadian perspectives: Ms Georgina Lloyd, Science & Technology Program Manager, Arctic Science Policy Directorate, Aboriginal Affairs and Northern Development Canada Europe perspectives: Prof Lars-Otto Reiersen, Arctic Monitoring and Assessment Programme, NO US perspectives: Dr Brendan P. Kelly, Assistant Director - Polar Sciences, White House Office of Science and Technology Policy, USA <i>Questions & Answers</i>
12:10 – 13:00 (50 min) 10 min presentation	3.3. Status Reports: Current status of Operational Oceanography/Forecasting Canada: Dr Brad de Young, Professor and Head, Physics and Physical Oceanography, Memorial University, CA Europe: Mr Pierre Bahurel, Mercator Ocean (FP7 Project MyOCEAN), FR USA: Dr John Ruairidh (Ru) Morrison, Executive Director, Northeastern Regional Association of Coastal Ocean Observing Systems (NERACOOS), USA Europe: Data Exchange Issues - Ms Sylvie Pouliquen, IFREMER (FP7 Project SeaDataNet), FR <i>Questions & Answers</i>
13:00 – 14:00	LUNCH
14:00 – 14:50 (50 min) 10 min presentation	3.4. Status Reports: Current Ocean Observation Infrastructures Canada: Dr Kenneth Denman, Chief Scientist, Ocean Networks Canada and Professor, School of Earth & Ocean Sciences, University of Victoria, CA Europe: Dr Christoph Waldmann, Centre for Marine Environmental Sciences (MARUM), Bremen , (FP7 Project COOPEUS), DE USA: Dr David O. Conover, Division Director for Ocean Sciences, GEO Directorate, National Science Foundation, USA <i>Questions & Answers</i>
14:50 – 15:50 (60 min)	4. General Discussion Chair: Dr David Mills, Centre for Environment, Fisheries and Aquaculture Sciences, UK
16:00 – 16:30	COFFEE BREAK
16:30 – 17:30 (60 min)	5. Conclusions: Prepared Workshop Summary and Recommendations Presented by Chairs (St John and Mills) followed by Discussion
18:00	- END -
19:00	Dinner for workshop participants

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DAY 2 - 24 May 2013	
8:00 - 08:30	REGISTRATION
08:30 - 09:00 (30 min)	<p>1. Introduction to Ocean Literacy experiences</p> <p>Canada: Ms Jane Rutherford, Global Practice Lead, Ocean Technologies, Foreign Affairs and International Trade Canada</p> <p>Europe: Dr Jan Seys, Flemish Marine Institute (VLIZ), BE</p> <p>USA: Ms Paula Keener, Director of Education Programs, Office of Ocean Exploration and Research, National Oceanic and Atmospheric Administration, USA</p>
09:00 - 10:15 (75 min)	<p>2. Showcasing some prominent examples of transatlantic cooperation – from Atlantic coastal states</p> <p>Copernicus/MyOCEAN: Ocean Monitoring and Forecasting Prof Nadia Pinardi, University of Bologna, Italy</p> <p>INFOMAR: Integrated mapping for the sustainable development of Ireland’s Marine Resources Mr Koen Verbruggen, Geological Survey of Ireland</p> <p>COOPEUS: TransAtlantic cooperation in the field of environmental research infrastructures Dr Christoph Waldmann, Centre for Marine Environmental Sciences (MARUM), Bremen, Germany</p> <p>EuroBASIN: Basin Scale Analysis, Synthesis and Integration Prof Mike St John, Technical University of Denmark</p> <p>The Blue Planet Initiative of the Group of Earth Observation (GEO) Prof Trevor Platt, Plymouth Marine Laboratory, UK</p> <p>Advancing the generation of Climate Data Records from Earth Observing Satellites through transatlantic cooperation Dr Alan Belward, Head of Unit “Land Resource Management”, Institute for Environment and Sustainability, Joint Research Centre, European Commission</p> <p>Canada: Transatlantic Cooperation Dr Doug Wallace, Canada Excellence Research Chair in Ocean Science and Technology, Dalhousie University, Canada</p> <p>USA: Study of Environmental Arctic Change (SEARCH) Prof Peter Schlosser, Deputy Director and Director of Research of the Earth Institute, Columbia University, USA</p>
10:15 - 10:45	COFFEE BREAK
10:45 – 11:15 (30 min)	3. Report and Recommendations from the Scientific Workshop on Day 1 followed by Question and Answer session
11:15 – 12:45 (90 min.)	<p>4. Panel discussion: Insights from the conference and next steps</p> <p>Remarks from:</p> <p>Ms Lowri Evans, European Commission - Director-General for Maritime Affairs and Fisheries</p> <p>Mr Robert-Jan Smits, European Commission - Director-General for Research and Innovation</p> <p>Mr Dominique Ristori, European Commission - Director-General of the Joint Research Centre</p> <p>Ms Helen Joseph, Director, Oceanography and Climate Branch Fisheries and Oceans, Canada</p> <p>Dr Kerri-Ann Jones, Assistant Secretary for Oceans and International Environmental and Scientific Affairs, U.S. Department of State</p> <p>Mr Tom Barrett, Director of the Advisory Services Department, European Investment Bank</p> <p>Mr Tore Nepstad, CEO and Managing Director of the Institute of Marine Research, Norway</p> <p>Chair: Dr Peter Heffernan, Marine Institute</p>
13:00 – 14:15	Buffet lunch & networking opportunities



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DAY 2 - 24 May 2013

14:30	Family picture
14:45 - 16:45	<p>5. Opening Mr Enda Kenny, T.D., Taoiseach (Prime Minister of Ireland)</p> <p>6. Key messages about the research and innovation requirements needed between now and the next decade</p> <p>7. Individual remarks Ms Maria Damanaki, Commissioner for Maritime Affairs and Fisheries Ms Máire Geoghegan-Quinn, Commissioner for Research, Innovation and Science Political Representatives from: Atlantic Coastal States (Canada, France, Portugal, Spain, UK, USA) Mr Simon Coveney T.D., Irish Minister for Agriculture, Food and the Marine</p> <p>8. Galway Statement and Presidency closing remarks</p>



Background Information

Canadian background information

In March 2011 the Council of Canadian Academies was asked by the Canadian Consortium of Ocean Research Universities (CCORU) to undertake an initiative on ocean science in Canada to identify priority research themes with the support of a Core Group of 22 ocean experts from Canada and abroad. This activity culminated in the development of the workshop report, '40 Priority Research Questions for Ocean Science in Canada'.

http://www.scienceadvice.ca/en/assessments/other/ocean_science_phase_one.aspx



The report was publicly released on July 17th, 2012. A key challenge for Canada's science community is determining strategic research priorities that will be of value to both those who conduct research and for those who use research.

The report, 40 Priority Research Questions for Ocean Science in Canada identifies 40 priority research questions that, if answered, would have the greatest impact on addressing future opportunities and challenges relating to ocean science in Canada. The 40 questions are grouped according to the following research themes:

- Improving fundamental scientific understanding
- Monitoring, data, and information management
- Understanding impacts of human activities
- Informing management and governance

Following the publication of the workshop report, CCORU asked the Council to conduct an assessment of the needs and capacities with regard to the major research questions in ocean science that would enable Canada to address the 40 priority research questions. The Expert Panel is chaired by Dr. David Strangway, O.C., FRSC, former President of the Canada Foundation for Innovation. The Expert Panel



will meet in the Spring of 2013 to discuss the results of the peer review process. The final report is expected to be released later this year.

<http://scienceadvice.ca/en/assessments/in-progress/ocean-science.aspx>

Science and technology form an important foundation for delivering on Canada's Northern Strategy and provide the knowledge necessary for sound policy and decision-making. As a signature deliverable of the Northern Strategy, a new Canadian High Arctic Research Station (CHARS) will be built in Cambridge Bay, Nunavut opening in 2017. CHARS will provide a year-round, world-class science and technology facility in Canada's North that complements and anchors the extensive network of smaller regional facilities across the North. The mandate for CHARS is broad and ambitious - partnerships will be fundamental to the stations success and to ensure CHARS is fully delivering on its mandate and mission. To that end, international collaborations will be promoted as the program is phased-in.

http://www.science.gc.ca/Canadian_High_Arctic_Research_Station-WS74E65368-1_En.htm

EU background information

The EU's Integrated Maritime Policy (IMP), led by the Commission's Directorate General MARE, aims at a more coherent European approach to maritime issues in order to contribute to the creation of sustainable growth and jobs from sea-related activities. The IMP was recently complemented by two Communications: 'Developing a Maritime Strategy for the Atlantic Ocean Area' and 'Blue Growth: opportunities for marine and maritime sustainable growth'.

http://ec.europa.eu/maritimeaffairs/policy/sea_basins/atlantic_ocean/documents/com_2011_782_en.pdf

http://ec.europa.eu/maritimeaffairs/documentation/publications/documents/blue-growth_en.pdf



The Maritime Strategy for the Atlantic Ocean Area announced that an Action Plan would be adopted in 2013, which will indicate specific projects and actions that could benefit from EU financial support. All interested parties were invited to contribute and to identify key investment and research priorities, as well as concrete project ideas.

The Commission proposal for “Horizon 2020” provides for a strong support to the Integrated Maritime Policy (IMP) as well as the priorities of the Atlantic strategy in order to maximise the innovation potential of future research activities in an integrated and strategic way.

http://ec.europa.eu/research/horizon2020/index_en.cfm

The Commission’s Joint Research Centre’s (JRC), as in-house science service, provides evidence-based scientific support to EU policies, in particular to the EU’s Integrated Maritime policy and the priorities of Horizon 2020 in the areas of marine food production and marine biodiversity, marine microbial ecology, as well as ocean observation technologies and ocean acidification monitoring. It also develops relevant cooperation with research institutions outside Europe, in particular in the US.

<http://ec.europa.eu/dgs/jrc>

Ireland background information

Details of an Integrated Marine Plan for Ireland “Harnessing Our Ocean Wealth” launched by An Taoiseach (Prime Minister) and Mr Simon Coveney T.D., Irish Minister for Agriculture, Food and the Marine in 2012 are available at www.ouroceanwealth.ie.



U.S. background information

In July 2010 President Obama signed Executive Order 13547 establishing America’s first National Ocean Policy, which calls for science-based decision-making as the Nation works to manage the U.S. ocean ecosystems and resources. The National Ocean Policy created a National Ocean Council consisting of 27 Federal agencies and departments, providing a venue for agencies to work together cooperatively, share information, and streamline decision-making. Announcement of Executive Order 13547:

<http://www.whitehouse.gov/the-press-office/executive-order-stewardship-ocean-our-coasts-and-great-lakes>

In February 2013, the Subcommittee on Ocean Science and Technology (SOST) published the document ‘Science for an Ocean Nation: Update of the Ocean Research Priorities Plan’. Structured around six societal themes, this report recommends research priorities designed to advance the understanding of critical ocean processes and phenomena that are relevant to human health, economic well-being, environmental sustainability, adaptation to climate and other environmental change, and national and homeland security.

http://www.whitehouse.gov/sites/default/files/microsites/ostp/2013_ocean_nation.pdf

In April 2013, the White House released the plan for translating the National Ocean Policy into on-the-ground actions to benefit the Nation. With significant public input from a wide spectrum of individuals and interests – including the ocean science community – the National Ocean Policy Implementation Plan



describes specific actions Federal agencies will take to address key ocean challenges. National Ocean Policy Implementation Plan:

http://www.whitehouse.gov/sites/default/files/national_ocean_policy_implementation_plan.pdf

Appendix of specific actions:

http://www.whitehouse.gov/sites/default/files/national_ocean_policy_ip_appendix.pdf

The National Ocean Policy and the Implementation Plan highlight the importance of science, data, technology, and education, specifically noting the use of best available science and technological advances, increasing scientific understanding and data availability, and fostering educational opportunities and public awareness. For more information visit the National Ocean Council Website at: www.whitehouse.gov/oceans.

On February 19, 2013, the U.S. National Science and Technology Council released a five-year 'Arctic Research Plan: FY 2013-2017' that outlines key areas of study the Federal government will undertake to better understand and forecast environmental changes in the Arctic. Arctic Research Plan:

http://www.whitehouse.gov/sites/default/files/microsites/ostp/2013_arctic_research_plan.pdf

The Plan was developed by a team of experts representing 14 Federal agencies, based on input from collaborators including the Alaska Governor's Office, indigenous Arctic communities, local organizations, and universities. Seven research areas are highlighted in the Plan which a roadmap for unprecedented collaboration between U.S. agencies on high impact research activities. Among various areas this 5 year plan proposes ways to promote international cooperation to create a circumpolar observing system.

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