
OCEANS: THE LAST **GREAT** **EXPLORATION** CAMPAIGN ON EARTH

THE ATLANTIC OCEAN RESEARCH ALLIANCE (AORA)
An ocean research cooperation between the European Union,
Canada and the United States of America

5 Years of cooperation | **5** Priority areas
| **500+** Research teams



AORA
ATLANTIC OCEAN RESEARCH ALLIANCE

THE ATLANTIC: OUR SHARED RESOURCE
MAKING THE VISION REALITY

WHAT IS THE GALWAY STATEMENT?

The **Galway Statement on Atlantic Ocean Cooperation** was signed in Galway, Ireland, on 24th May 2013 by the **European Union, Canada** and the **United States of America**. This marked the birth of the **AORA**.

This ambitious cooperation has five key objectives:

- Improve ocean health and stewardship
- Promote sustainable management of resources
- Facilitate improved ecosystem assessments and forecasts and deeper understanding of vulnerabilities and risks, including climate change
- Generate new tools to increase resilience, conserve rich biodiversity, manage risk and determine social, environmental and economic priorities
- Create ocean literacy and awareness by promoting our citizens' understanding of the value of the Atlantic, how it affects us, and how we affect it



WHY DOES THE OCEAN MATTER?

The ocean is the life support system of our planet. Covering more than **70%** of Earth's surface, it is, on average, about **4,000 metres** deep and contains **1.3 billion** cubic kilometres of water, which is **97%** of the world's water. The ocean provides essential protein for **three billion people** and will be key to delivering future food security for the world's rapidly growing population.

The ocean is also Earth's last great frontier. Only **5%** of the ocean floor has been mapped, leaving **342 million km²** undiscovered. **Twelve humans** have walked on the moon but only **three** have explored the deepest part of the oceans.

In 2010, the **Organisation for Economic Co-operation and Development (OECD)** valued the ocean economy at **USD 1.5 trillion** annually and predicted that this figure would double by 2030, providing **40 million direct jobs**. The blue economy of the future will be a knowledge economy, driven by data and information. It will provide new sources of renewable

ocean energy, sustainable sources of food and feed, new medicines and products, and safe, secure and intelligent transport.

But we can't ignore the threats. About **40%** of the world ocean is heavily affected by human activities including pollution, depletion of fisheries and loss of coastal habitats. About **eight million tonnes** of plastic waste enters the ocean each year. Greenhouse gases are causing ocean warming and sea levels are rising.

The world is waking up to the importance of the ocean. The United Nations has designated the next decade (2021-2030) as the **Decade of the Ocean**. Moreover, the **UN 2030 Agenda Sustainable Development Goals (SDGs)** include a goal dedicated to the conservation and sustainable use of the oceans (SDG14), while oceans are explicitly recognized in several others. Delivering on these ambitious UN goals will require scientific cooperation and new forms of partnership.



A dark blue hand is shown holding a ribbon that features the flags of the European Union, Canada, and the United States. The ribbon is positioned diagonally across the upper right portion of the page. The background is a light blue gradient with a large yellow shape on the right side.

WHY DO WE NEED AORA?

The Atlantic Ocean is immense; it stretches from the Arctic to Antarctica. The challenge to explore, understand, harness and manage the Atlantic Ocean's potential is too great for any single nation. AORA is the first step towards a partnership approach; it is an ambitious programme of scientific cooperation on ocean research between the **European Union, Canada** and the **United States of America**. Through AORA, the Earth's second largest ocean, the Atlantic Ocean, is the test bed for a large-scale programme of collaborative ocean research.

By strengthening our partnerships and working together, we can foster innovation, generate new ideas and push technological boundaries. We can deliver more accurate and timely weather prediction, smarter search and rescue capabilities, renewable ocean energy to power homes and businesses, new medicines and products, healthy foods, and a thriving seafood industry that will sustainably feed generations to come. We can create a knowledge-driven Atlantic Ocean economy that provides new jobs and sustainable blue growth.

WHAT DOES THE AORA COOPERATION LOOK LIKE?

Transatlantic cooperation has been successfully embedded within scientific teams funded by the **EU Horizon 2020** research projects, working together in Atlantic-wide field campaigns leading to new discoveries and knowledge. There are now **500+ research teams** working across and along the Atlantic Ocean.

Collectively, research calls are being made targeting Atlantic Ocean research. The **EU Horizon 2020** research programme has so far invested **EUR 140 million** in dedicated, Atlantic-focused calls. In **Canada**, alignment of research in the priority areas is being realised through existing mechanisms and programmes by the Canadian ocean science and technology community. Both **ocean science performers and funders are engaged in/or supporting Galway Statement research consortia and trilateral working groups.**

The United States of America has coordinated annual research calls through the **US National Science Foundation (NSF)** and the **National Aeronautics and Space Administration (NASA)** and developed a science plan – a **Collaborative International Research programme on the Coupled North Atlantic-Arctic System**. The ocean science community in Canada and the United States of America are integrated into the Galway Statement tagged **Horizon 2020** research projects to-date. The Galway Statement also represents a first step in an all-Atlantic cooperation, which led to the signing in 2017 of the **Belém Statement on Atlantic Research & Innovation Cooperation** between the **European Union, South Africa and Brazil**. As a result, an all-Atlantic research community is being built, based on a strong, socially inclusive and sustainable model of regional development.

WHAT ARE THE KEY AREAS OF COOPERATION?

AN ATLANTIC OCEAN MAP

Surveying has begun to discover and map the entire Atlantic. Using the latest technology, we are making groundbreaking discoveries, including previously uncharted undersea volcanoes and mountains. Atlantic seabed mapping campaigns are fundamentally increasing our knowledge of underwater terrain and habitats, why ocean currents move the way they do, and why species migrate to certain places and not others.

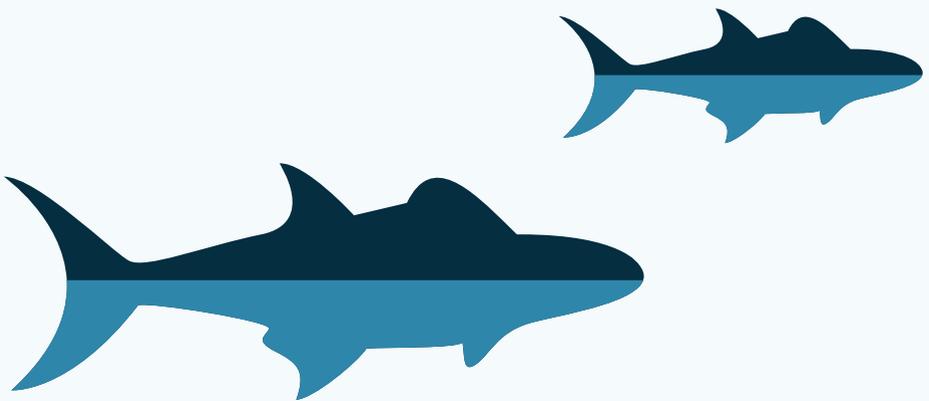
OCEAN OBSERVATION

We know that change is here. Climate change, ocean acidification, sea level

rise, flooding and extreme weather are affecting all countries and all communities. We want to properly measure these changes and how they will affect us. Our coordinated efforts are helping to create a blueprint for the next generation of ocean observation. Analysing big ocean data will help us understand, predict, protect and build a sustainable blue economy.

A HEALTHY OCEAN

Most life on Earth is in the ocean and human activity is its greatest threat. Marine research provides the knowledge and tools to build a sustainable blue



economy and a healthy ocean for generations to come.

A PLASTIC-FREE OCEAN

All the plastics made in the last century are still with us today. Every year, millions of tonnes of plastics make their way from the land into the ocean, where they pose a threat to marine life and enter the human food chain. Plastic pollution of the oceans is one of the great environmental challenges of our time.

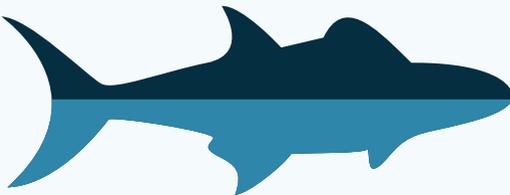
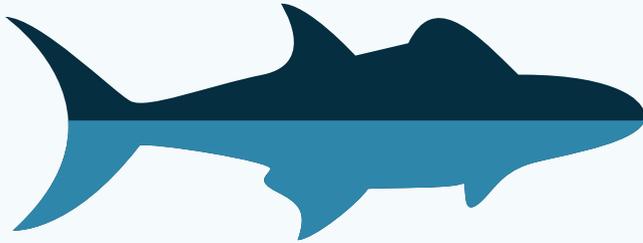
FOOD FROM THE OCEAN

9.7 billion people will live on Earth by 2050, yet only **3% of our food** currently

comes from the sea. Our research teams are finding smarter ways to sustainably catch and grow what we will need so that together we can help feed the world.

OCEAN LITERACY

We want to create a community of Atlantic Ocean-engaged citizens.



WHAT CAN YOU DO?

Be an advocate for the Atlantic Ocean and for a sustainable blue future. Speak to and educate your elected representatives. And

as a practical first step, why not engage with your local community and suppliers to stop using single-use plastics?

www.atlanticresource.org/aora/onefrontierleft

SUPPORT AORA IN 4 SIMPLE STEPS:

01

Share this brochure with a colleague

03

Promote the work of AORA in your own work

02

Tell one other person about what you have learned

04

Continue the conversation online @AtlanticAll

Read more about The Galway Statement and the work to date: Open the camera on your phone, hold the camera up to the QR code, tap on the link.

Web: www.atlanticresource.org
Email: info@atlanticresource.org
Twitter: @AtlanticAll



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