



Building an All-Atlantic Ocean Community Implementing the Belém Statement

Key outcomes and conclusions from the All-Atlantic Ocean Research Forum



From pole to pole All-Atlantic Ocean Research Forum

Key outcomes and conclusions from the All-Atlantic Ocean Research Forum, 3-4 December 2020

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Key outcomes from the
All-Atlantic Ocean Research
Forum

from Pole to Pole

3-4 December 2020

“Science knows no borders. No country is strong or big enough to act on its own. We need to join forces – share our resources, experience and expertise.”

Director-General, Department of Science and Innovation, South Africa Phil Mjwara during the opening of the All-Atlantic Ocean Research Forum

3 December 2020

Introduction

South Africa together with the European Commission, co-hosted the All-Atlantic Ocean Research Forum that took place virtually on 3-4 December with over 500 participants, to showcase the progress of initiatives that have started in efforts to support the implementation of the Belém and Galway Statements. The Forum focused on strategic ways and actions in which the All-Atlantic research activities can contribute to the socio-economic recovery of countries from COVID-19 and the impact it seeks to have on the Atlantic communities and citizens.

The Forum emphasized that there is a need to create another type of science, preparing for post-normal science, especially now with the conditions experienced by countries during COVID-19. The role of science and research in vaccine delivery reminded the science community that they know to change and save the world. During her keynote intervention, Moenieba Isaacs, Acting Director, Institute for Poverty, Land and Agrarian Studies, University of Western Cape, South Africa, emphasized that the Atlantic community need to support, engage, and include everyone in science and research. The only thing that is left is to improve science conveyance to the social community through collaboration for new science. The Forum highlighted the evidence of partnerships blooming with case studies from the Horizon 2020 Project - marine ecosystems, sustainable aquaculture research, ecosystem assessment, and analyzing the DNA of the Atlantic Ocean.

During the Forum, it was highlighted that the digital age presents a remarkable opportunity to map the ocean and understand better its DNA. Stakeholders share their data for greater impact in the new normal and it is aligned with the Galway and Belém Statements data sharing and transfer. They correspond to two of the most evident links between the All-Atlantic Ocean Research Cooperation and the UN Decade of Ocean Science. Looking at the ocean from a user perspective rather than a research perspective will assist the lay public to fully understand what the ocean means to them.

The highlights of the Forum were the announcement of the 24 new All-Atlantic Ocean Youth Ambassadors and the farewell to the 2019 Ambassadors by Jan-Stefan Fritz, from the Horizon 2020 funded AANChOR coordinator and support action. The 2019 All-Atlantic Ocean Youth Ambassadors participated in over 130 events and managed to reach over 20 000 people, 12 of them will remain as mentors to the new cohort.

Yonah Seleti, Acting Deputy Director-General: Research Development and Support, Department of Science and Innovation, South Africa, concluded the Forum with the Ubuntu theme. Ubuntu is an old African term for “humanness” – for caring and sharing. It is a way of life and stresses the importance of community, solidarity, sharing and caring. Ubuntu promotes cooperation between individuals, cultures and nations.

This report presents a more detailed overview of the proceedings of the 3 – 4 December 2020 and initiatives supporting the implementation of the Belém and Galway Statements for the future of the All-Atlantic Ocean Research Alliance.

OPENING - DAY ONE OF THE ALL-ATLANTIC OCEAN RESEARCH FORUM

The Forum was moderated by Thulile Khanyile, a PhD student from South Africa

Opening Session:

The session was opened by high-level remarks from the co-hosts of the event, **Phil Mjwara**, Director-General, Department of Science and Innovation, South Africa, together with Jean-Eric Paquet, Director-General, Directorate-General of Research and Innovation, European Commission.

Phil Mjwara, Director-General, Department of Science and Innovation, South Africa.

DG Mjwara officially opened the Forum and welcomed all the participants, albeit virtually, and appreciated the spirit of the All-Atlantic Ocean Research community that adapted and opted to continue and focus on finding solutions to social challenges that are also aggravated by the pandemic. Given the multitude of global challenges that we face, international cooperation is imperative for science to advance. Science knows no borders. No country is strong or big enough to act on its own. We need to join forces – share our resources, experience and expertise. DG Mjwara indicated that this Forum provides an opportunity for informative discussions and successful cooperation going forward from along and across the Atlantic Ocean Community.

DG Mjwara thanked the representatives of all the countries involved and present at the Forum, from pole to pole. He mentioned that this year 2020 brought us the challenge of the COVID-19 pandemic and brought with it a number of global challenges, including those that are health, social and economic related. The



global community was forced to work together to find solutions together and learn from

each other. For the first time, it became evident that we are one people and we need each other to survive. Most importantly, science, technology and innovation has played a critical role in policy advice, research and implementation measures to address the pandemic.

DG Mjwara cited that it is against this background that he appreciates that the All-Atlantic Ocean collaborative research platform was initiated way earlier after the realisation of the need to jointly work together to come up with solutions to the challenges that affect everyone broadly. South Africa aims to derive from this meeting ways and actions in which this community can contribute to the socio-economic recovery with a special focus on the specific actions that would bring along positive impact on the Atlantic Ocean communities. South Africa will continue to ensure their current investments in science and innovation as they serve as an integral part of national growth and development objectives.

In 2019, South Africa revised the White Paper on Science, Technology and Innovation, which currently sets our long-term policy direction to ensure a growing role for science, technology and innovation in a more prosperous and inclusive society. A process is currently underway to wards the development of the Decadal plan that will assist in focusing efforts on using Science Technology and Innovation to help South Africa benefit from developments such as rapid technological advancement and geopolitical and demographic shifts, as well as responding to the threats associated with some of these global trends. The Department of Science and Innovation is contributing one of the two African intellectuals to the initial 19-member Executive Planning Group (EPG) team. This is a global expert group tasked to serve as an advisory body to the IOC governing bodies to support the development of the Implementation Plan of the Decade and the preparatory activities.

Jean-Eric Paquet, Director-General, Directorate-General of Research and Innovation, European Commission.



DG Paquet stressed that science has never progressed as fast than in 2020 during the Covid19 pandemic with the remarkable vaccine breakthroughs due to the sharing of data and collaborating.

DG Paquet outlined how the European Green Deal; Europe's growth and recovery strategy for better science and research integration, would provide the technological solutions to repair and drive the recovery and transition into a greener, more sustainable world in the coming months. DG Paquet emphasized how research plays a central role in this recovery and transition and reinforced how the Forum is the opportunity to identify where science and research needs to provide knowledge but also solutions (technology or experimentation) to drive these recoveries and transformations for the societies around the Atlantic Ocean.

DG Paquet mentioned the work carried out under the All-Atlantic Ocean Research Alliance in these last years, spear headed by John Bell and his team, has really paved the way for the Forum to come forward with these solutions and looks forward to the decisive steps that will be taken during the two days.

DG Paquet highlighted the Horizon Europe Missions, namely the Mission Starfish 2030, led by Mission Board Chair Pascal Lamy. The Mission Board have produced a blue print that shows how we can progress on cleaning our ocean, and more generally, our water systems connected to our ocean, and by doing so, restore the ecosystems and help communities living from and by the ocean to recover and become more resilient. The Mission aims to identify concrete objectives, targets and milestones on the way to recovery and clean up our ocean and water systems in Europe, but also with partners interested to do it alongside Europe. By connecting research, science, results with public policies with the engagement of communities together with commitments from industry for the benefit of our ocean societies, and to have a clean ocean by 2030 – would be a

headline ambition. This Horizon Europe ‘Moonshot Mission’, alongside the four other Missions, are connected to the climate agenda and will be very much about connecting research outcomes to the European Green Deal.

DG Paquet concluded by emphasizing his delight, and also on behalf of European Commissioner Mariya Gabriel, to note the launch of the All-Atlantic Ocean Youth Ambassadors, and the continuation of work with the Ambassadors who are major drivers of engaging communities, “so Ambassadors, this Forum is also your Forum!”

Keynote plenary:

The programme continued after the official opening by the co-hosts with a keynote address on the small-scale fisheries challenges in the blue economy.

Moenieba Isaacs, Acting Director, Institute for Poverty, Land and Agrarian Studies, University of Western Cape, South Africa highlighted the need for transdisciplinary approach and research looking at the social dimension of small-scale fisheries, arguing



for putting people and communities at the center. Moenieba mentioned that small-scale fisheries makeup 60% of African fisheries production, but are often not properly included in the blue economy or represented in governance structures. Moenieba argued for stronger blue

justice and convivial conservation approaches, lamenting that the social goals of the UN Agenda 2030 will not be fulfilled. As we are commemorating 401 years of the slave trade across the Atlantic, she asked whether it was not time to decolonize research, reminding the Forum to be mindful of new frontiers of exploitation, with displacement and removal of communities for development and conversation efforts.

Student Remarks:

The Forum was graced by **Joseph Duda**, a Grade 11 learner and SAEON Kid, Egagasini Node, Cape Town, South Africa. Joseph showcased his research on micro-plankton, demonstrating how he investigated the flow of micro-plankton from inshore to offshore areas in St Helena Bay. In his words "I feel so privileged to be part of this Forum at such a young age. This will make me grow as a young scientist!"



Session: Interface with Society for a Better Atlantic

This session dealt with how the science-societal interface can contribute to improving lives and communities around the Atlantic Ocean during this difficult period. Atlantic Ocean coastal communities in particular need to develop better relations with their environment; science needs to serve society, implying that science need not necessarily be purely for exploratory purposes but should inform policy and policy should also direct the science that needs to be prioritised.

The key questions from the session were: *How to strike a balance between preserving ocean health and increasing ocean productivity? Who benefits from the blue economy? How to make sure that blue economy is inclusive and everyone can participate and benefit from it?*

Kerry Sink, Marine Programme Manager, South African National Biodiversity Institute presented the need for transdisciplinary research and a systems approach to integrate research networks in order to build the knowledge ecosystem but also to include and recognise the needs of the various communities around the Atlantic Ocean. The one Ocean Hub in South Africa has developed a collaborative challenge-driven research methodology which responds to development needs at multiple scales. Kerry emphasized that scientists need to change their relationships with Atlantic communities and other scientists, from different disciplines and learn how to better co-design, conduct, publish and share relevant research for development.

François Galgani, Institut français de recherche pour l'exploitation de la mer, France, emphasized the need for Citizen Science and wider Ocean literacy efforts, education, capacity building, and blue skills. François gave an example of a meaningful use of citizen science and collaboration between different levels of governance, academia, large NGOs, global platforms and international organisations. One example is the initiative on Global monitoring on marine litter from the Institut français de recherche pour l'exploitation de la mer. The project produced interactive maps of litter in the sea to show how litter is travelling in the Ocean from one place to another. However, a solution to the marine litter

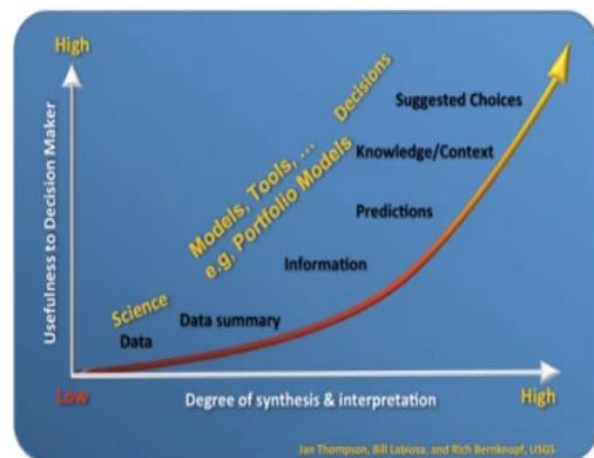
problem cannot be developed without involving citizens, through science and education programmes.



Alexander Turra, Oceanographic Institute of the University of São Paulo, Brazil, and a UNESCO Chair, presented a beautiful painting inspiring participants to think about the ocean in new ways. Alexander encouraged the participants to foster a closer relationship between science and society. Alexander emphasized the importance of keeping the ocean healthy and posed questions such as *who benefits from the ocean?*

Kendra MacDonald, CEO, Ocean Supercluster, Canada presented the value of leveraging data collection, and especially of how to use data in a meaningful way, put it into context, communicate it to decision-makers and policy-makers. The Ocean Supercluster in Canada is raising awareness on the importance of data for driving cross-sectoral collaboration and accelerating innovation and has developed a wide range of digital service to leverage technology and data collection for an inclusive ocean economy and developing sustainable products (e.g. non-toxic protection for vessels).

Monica Grasso, Chief Economist, National Oceanic and Atmospheric Administration, United States of America presented their efforts in the last three years to define and measure the ocean economy, and measure its impact towards the US economy. Monica mentioned that the difficult thing in this exercise was finding a definition of the ocean economy,



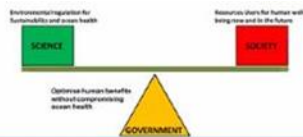
identifying things that take place in marine environments and collection the right data and using it purposefully for policy-making. This graphic explains how people think and gives insight into how data should be presented. There is a need to put data in context and give the decision-makers options and alternatives.

Juan Emilio Sala, Institute of Marine Organisms Biology, CENPAT, National Council of Scientific and Technical Research, Argentina, highlighted the need for a change of paradigm in the way science is conducted from objective observer to engaged scientist, and from observation to action. The Pampa Azul initiative – a science-policy ‘boundary institution’ from Argentina - showed an example of weaving technological innovation with an inclusive approach to research, co-creating knowledge and public policies by intervening various scientific disciplines and other types of knowledge (traditional, local, indigenous, etc.). Talking about changing paradigms, Juan Emilio Sala introduced the concept of ‘post-normal science’ – an approach for problematic situations where stakes are high and science is uncertain. ‘The need to face the end of the Cartesian dream.’

Michael B. Jones, TMA BlueTech, United States of America, highlighted the importance of collaboration, enabling conversations, and creating partnerships between academia, industry, government, civil society, enabled by digital technologies; example Cluster business services from the US, BlueTech Cluster Alliance, an initiative promoting sustainable growth of the knowledge-based ocean and water industries, through regional, national and international cooperation.

Dymphna Keogh, Chair of the EU Atlantic Strategy Committee, Ireland highlighted the four pillars of the EU Atlantic Action Plan that focuses on collaborative issues, international cooperation, and project recognition through awards encouragement. Dymphna emphasized the importance of involving all the Atlantic stakeholders in research, development, and innovation projects.

Hilkka Ndjaula, Acting Registrar, University of Namibia, Namibia, stressed the need to take into account the interdependence of the wider ocean system, and to strike the right balance between international and local frameworks, keeping in mind that countries are at different levels of economic and technological development. Hilkka presented a framework with benefits from the ocean system – ecosystem services, science/environmental and social-economic benefits. All these sectors are mutually dependant and they need to be mutually balanced for the wider system to function well.



Humans derive numerous “market” and “non-market” benefits from ocean systems

Ecosystem Services

Provisioning
Regulatory
Cultural
Biodiversity

Science/Environmental

Ecosystem Functions
Ocean integrity
Climate Regulation
Carbon Sink
Hydrological Cycle

Social

Food/Fisheries Aesthetic
Tourism Bequest
Energy Mining
Bioprospecting Transport
Spiritual Sport

Governance – A process of informed decision-making that enables trade-offs between competing resource users so as to balance environmental protection with beneficial use in such a way as to mitigate conflict, enhance equity, ensure sustainability and allow accountability.



Session: Remarks by All-Atlantic Partners

Yonah Seleti, Acting Deputy Director-General: Research Development and Support, Department of Science and Innovation, South Africa, emphasized the firm intent to go



beyond policy statements, underlining that the Alliance was bearing fruit three years after the signing of the Belém Statement. Yonah stressed the importance of linking activities in the North and South Atlantic,

reminding that there is only one Ocean, which knows no borders. Yonah announced that South Africa was preparing a compendium of Atlantic research activities which will enable the identification of partners. Yonah stressed the need for innovation for inclusive social development, including also indigenous knowledge thus moving to a poly-epistemological setting. Research and innovation will be expected to contribute to societal goals such as the green economy, digital agenda, 4th industrial revolution and the post-COVID recovery.

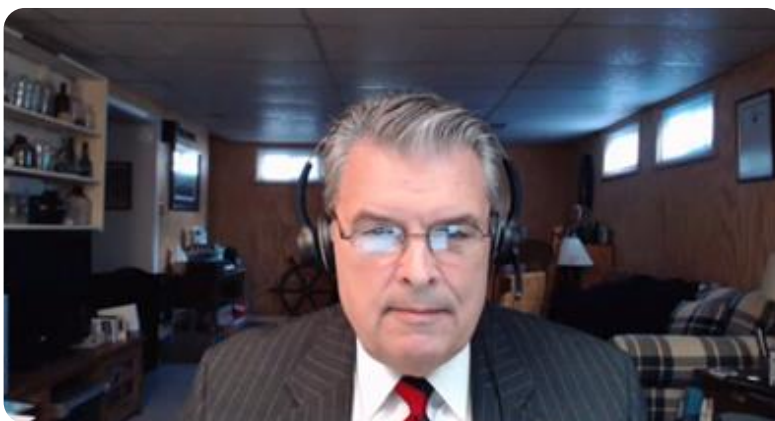
Maria Zaira Turchi, Director of Institutional Cooperation - National Council for Scientific



and Technological Development/CNPq, Brazil, stressed that Atlantic ecosystems were suffering from unsustainable exploitation, pollution and climate change. Maria Zaira called for a paradigm shift towards more systemic, holistic, egalitarian and socially conscious

approaches to

deliver solutions based on best available science. Maria Zaira underlined that there was no space for isolated solutions to tackle the challenges facing the ocean, climate change or the global pandemic and called for strengthened international cooperation from the Arctic to Antarctica. Maria Zaira concluded that “together we can do more and work better”.



Craig McLean, Assistant Administrator for Oceanic and Atmospheric Research, National Oceanic and Atmospheric Administration, United States of America, recalled the post-war

period where the global community opted for building in optimism rather than bury itself in desolation. Craig outlined that as we are choking our atmosphere and polluting our waters, the need to work together is more evident than ever. The United States prides

itself in the development of post-war technology applications, for example ARGO is working together with partners on initiatives such as PIRATA, CLIVAR. Craig emphasized that they already have a tremendous amount knowledge, but that the science community is not effective in conveying this knowledge. Craig stressed that the UN Decade would be a magnificent opportunity for the All-Atlantic group to develop and co-design joint actions.

Arran McPherson, Assistant Deputy Minister, Fisheries and Oceans, Canada, underlined that COVID has reinforced the value of science and of international cooperation. Protecting ocean resources is a priority of Canada, with the best possible science the



necessary foundation for a sustainable ocean economy and for effective ocean stewardship. Arran reminded that Prime Minister Trudeau is a member of the high-level Ocean Panel which published its final report this week. Arran recalled Canada's commitment to the Seabed 2030 initiative and praised the Galway Statement cooperation and All-Atlantic Ocean Research Alliance as valuable vehicles to advance and deepen collective efforts for the ocean.

Karina Pombo, National Director for the Promotion of Science Policy, in charge of Scientific International Cooperation at the Ministry of Science, Technology and Innovation, Argentina,



presented the revamped Pampa Azul programme. A cross-cutting, inter-departmental initiative that was relaunched with a strengthened budget envelope this year. Karina underlined the many international research efforts of Argentina, such as the participating in the SAMOC project and the scientific campaign with Chile to assess impacts of climate change.

John Bell, Director Healthy Planet, Directorate-General for Research and Innovation, European Commission, presented the European Green Deal ambition of moving to a climate-neutral continent. John mentioned that there was a package of measures to support a cleaner, greener, and fairer Europe. John also emphasized the importance of involving everyone and not leaving anyone behind in the Green Deal. In



Bell's words "It is about the communities and the people who rely on it. Science must light our pathway to a new enlightenment in ocean research and collaboration. A new era of blue enlightenment to face the challenges facing our common ocean".

Session: All-Atlantic Projects

This session gave an overview of selected Horizon 2020 funded projects supporting the All-Atlantic Ocean Research Alliance. These projects aim at understanding and sustainably managing the Atlantic Ocean as a whole, through a large-scale basin effort involving both the northern and the southern parts of this ocean and its interlinks with the adjacent areas. Scientists, stakeholders, data, knowledge, expertise, capacities and resources, through synergistic cooperation among the bordering countries, come together to understand and sustainably manage the Atlantic Ocean. The activities of these projects contribute to upscale cooperation along and across the Atlantic Ocean.

TRIATLAS - Noel Keenlyside and Regina Rodrigues highlighted opportunities to mitigate the changes in the south and tropical Atlantic marine ecosystem and its societal impacts. They presented the first-ever numerical prediction system for climate-marine ecosystems. Digital earth capability to provide a unique tool to build understanding, confidence, and ability to predict future changes in the marine ecosystems.

TRIATLAS
www.triatlas.eu

All-Atlantic Ocean Research Forum
POLARIS TO POLE
1 - 4 December 2020 #AllAtlantic

Ambitions:

- To develop the understanding and the capacity (*observational, modelling, and human*) to best predict changes in the south and tropical Atlantic marine ecosystem and its societal impacts.
- To build a climate and marine ecosystem research community across the Atlantic.

38 partners from 13 countries (Africa, Brazil, EU)

Partners: Brazil, Senegal, Cabo Verde, Spain, Ireland, South Africa, Namibia, Angola, Ivory Coast, Benin, France, Portugal, Germany, United Kingdom, Norway, Canada, USA

TRIATLAS receives funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 827578

iAtlantic - Murray Roberts & AJ Smit highlighted that it is vital to involve marine

2017

Papers published

Citations received

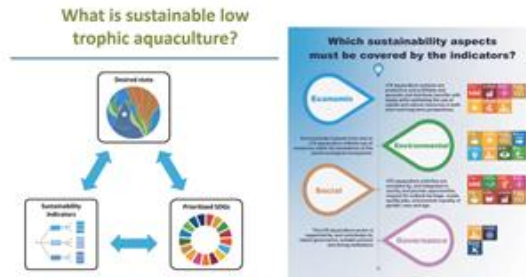
iAtlantic 2019-23

- 46 iAtlantic Fellows, and growing
- 10 Follow the Fellows webinars so far, all archived online
- Detailed capacity building programme developed
- See <https://www.iatlantic.eu/> for details

scientists from countries bordering the north and south Atlantic Ocean, sustainably manage the Atlantic Ocean resources in an era of unprecedented global change. The project determines the resilience of deep-sea animals – and their habitats

– to threats such as temperature rise, pollution and human activities.

AquaVitae - Philip James explained what is sustainable low trophic aquaculture and which sustainability aspects must be covered by the indicators. He highlighted the intensive monoculture aquaculture and paradigm shift of macroalgae, IMTA, Echinoderm, Shellfish, and Finfish value chain. He emphasized the importance of future policymakers in the aquaculture field.



ASTRAL - Elisa Ravagnan & Tomás Chalde highlighted how their work contributes to the objectives of the Belém and Galway Statements in terms of science, policy, and community partnerships. Their project aims to develop new sustainable value chains for integrated aquaculture.



Mission Atlantic - Patrizio Mariani highlighted how the project is focusing on

Integrated Marine Ecosystem Assessment

- Integrate knowledge for a systemic approach to the management of Atlantic Ocean ecosystems
- MISSION ATLANTIC develops and systematically applies Integrated Ecosystem Assessments (IEAs).
- IEAs enable identification of ecosystem components most at risk from natural hazards and the consequences of human activities.

The project employs all available information on those sources, the pressures they impose, and the ecosystem components are affected, to identify the most important risk factors influencing sustainable development.

transformative changes, making new methods referencing from the previous year's methods. Patrizio emphasized that it was the project's priority to focus on issues that one single state cannot solve alone and deliver on challenges that matter in the daily lives of people. This can be

done through integrating knowledge for a systematic approach to the management of Atlantic Ocean ecosystems and ecological ocean models application.

AtlantECO - Daniele Iudicone & Kelly

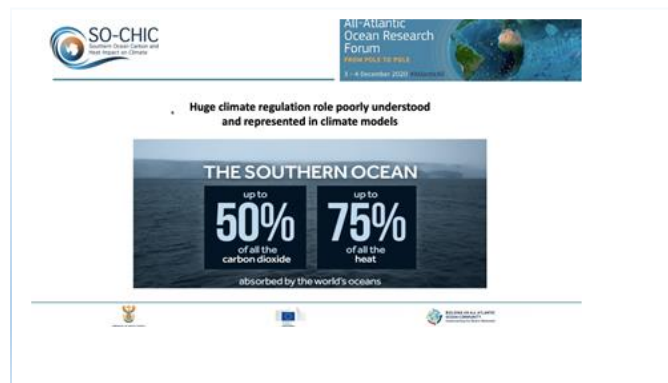
Goodwin presented how their project aims

at exploring the DNA of the Atlantic Ocean through microbiomes investigation. They mentioned that microbiomes are the foundation of food webs and critical biogeochemical cycles. They highlighted

that a novel holistic framework to manage ecosystem health and services is of importance to addressing cross-cutting marine microbiome challenges. It is vital to engage with science, industry, policy, and citizens to build and share capacity.



SO-CHIC - Jean-Baptiste Sallée & Sarah Nicholson



do care about carbon heat of the sun nation when they are interested in climate. That is because the sun ocean and particular the carbon and heat of the sun nation are a huge climate regulator that are still poorly understood and represented in climate models. The project aims at unlocking

understanding of some of the key Southern Ocean processes and their impact on climate.

EU-PolarNet - Nicole Biebow explained the importance of the poles for the Atlantic Ocean, the effects of changing the Atlantic marijuana overturning circulation, and the effects it would have on the land surrounding the Atlantic Ocean on the poles and also on the ocean itself.



A number of videos were shown throughout the Forum including a video on *Brand South Africa* - promoting the nation, a video on the All-Atlantic projects and cooperation. Day one came to a close with the announcement encouraging participants to attend the *1st International Symposium Human Health and the Ocean in a Changing World*.



OPENING - DAY TWO OF THE ALL-ATLANTIC OCEAN RESEARCH FORUM

Day two of the Forum focused on the impact of the Atlantic Ocean on seeking solutions for Atlantic communities and citizens.

Karim Hilmi, Intergovernmental Oceanographic Commission Vice-Chair for Group V, and Head of Oceanography Department, National Institute of Halieutic Research, Casablanca Regional Centre gave a keynote address to open day two of the Forum. Karim's keynote address focused on the preparation steps for the UN Decade of Ocean Science for Sustainable Development, with a particular focus on Africa and the Southern Atlantic Ocean.

Describe the 'ocean we want' at the end of the Decade.

1. A **clean ocean** where sources of pollution are identified, reduced or removed.
2. A **healthy and resilient ocean** where marine ecosystems are understood and managed.
3. A **productive ocean** supporting sustainable food supply and a sustainable ocean economy.
4. A **predicted ocean** where society understands and can respond to changing ocean conditions.
5. A **safe ocean** where life and livelihoods are protected from ocean-related hazards.
6. An **accessible ocean** with open and equitable access to data, information, and technology and innovation.
7. An **inspiring and engaging ocean** where society understands and values the ocean in relation to human wellbeing and sustainable development.

Karim first described the milestones for the development of the implementation plan of the Decade, now with the UN General Assembly. Karim then recalled the regional vision for Africa, focusing on innovative models to mobilize resources, the capacity to develop and transfer marine technologies, and communications and ocean literacy. Karim recalled that each region has its own characteristics, set of outcomes and recommendations and mentioned the main components of the IOC Africa work programme 2019-2021. The keynote address finished his intervention by recalling the next steps and milestones for the Ocean Decade worldwide, and for Africa.

Session: All-Atlantic Ocean Youth Ambassadors

Jan-Stefan Fritz, AANCHOR Partner, Germany launched the new cohort of the All-Atlantic Ocean Youth Ambassadors (AAOYA), where 24 Youth Ambassadors from 16 countries connected to the Atlantic Ocean were recruited. Jan-Stefan also outlined the AAOYA next steps for the year 2021 All-Atlantic Ocean Youth Ambassadors.



Jan-Stefan recognized the achievements of the 2019 AAOYA and thanked the outgoing Youth Ambassadors for the great work they have completed. This included a short presentation given by Bianca Prohaska, an All-Atlantic Ocean Youth Ambassador from the 2019/20 cohort at the Paris Peace Forum 2020, where she emphasized the need to reignite the relationship between the individual and the ocean. Forum participants were very impressed by the new Youth Ambassadors with such amazing young talent, and were left feeling confident that the sustainability of the Ocean is in good hands.

Session: Atlantic Ocean Collaborative Research Infrastructures

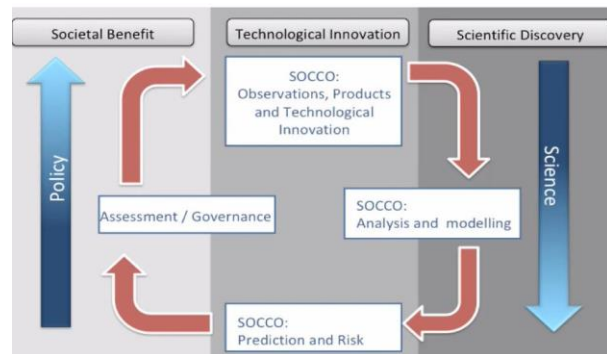
This session focused on innovative ways of sharing infrastructure and data to advance the commonly shared goals of unlocking the Atlantic Ocean secrets and sustainably manage the Atlantic Ocean as a whole. The use of autonomous technology coupled with remote sensing is proving to be vital at this stage. Data sharing principles need to be elucidated and the importance of common data collection standards were discussed. Presenters focused on the key question of how best to share information, data and infrastructure in the All Atlantic Ocean.

A clear common outcome of all presentations was that data and information should ultimately benefit users and society. The main challenge comes from the lack of knowledge of the public on how they can benefit from the ocean and from data and information coming from the ocean. Instruments like ocean literacy and the Digital Twin of the Ocean are critical enablers to create more connection between the research community and the general public and to enhance the use of data. However, for this to happen, data must be made equitable and sharable.

Martin Visbeck, GEOMAR, Germany, presented the AtlantOS Program, which aims to improve international collaboration in the design, implementation and benefits sharing of the ocean observing. Beyond facilitating access and data sharing, AtlantOS embraces a more radical approach through the Digital Twin of the Ocean, which, by making data explorable and interoperable, not only allows to explore the ocean and understand its dynamics and evolution, but also provides knowledge to empower citizens and decision-makers.

Sandy Thomalla, Senior Researcher, Council for Scientific and Industrial Research, South Africa, presented the

Southern Ocean Carbon & Climate Observatory (SOCCO) infrastructure, a multidisciplinary approach to address the role of the Southern Ocean in global climate through a wide range of technologically advanced facilities. SOCCO was



developed in response to the numerous challenges related to observing the Southern Ocean, highlighting the need for autonomous, remote sensed and modelling techniques to address temporal and spatial gaps. SOCCO research benefits society by advancing models, long-term observations and data products on the interaction between the ocean and CO₂, heat and the biological carbon pump.

José Henrique Muelbert, Professor, Institute of Oceanography, Federal University of Rio Grande, Brazil, made a thought-provoking intervention reflecting on the two meanings of the word 'to share' and the two models derived from this. On the one hand, sharing can mean that one person or organization lends a part of something to someone (the 'My' model). On the other hand, sharing can also mean that several people or organizations come together to acquire a shared possession (the 'Our' model). While there are pitfalls to both models, the 'Our' model leads to genuine collaboration and the generation of truly shared products and should be favored by the All-Atlantic Research community. It is particularly important for organizations and countries with limited resources and can contribute to the decolonization of research.

Geneviève Béchard Director-General for the Canadian Hydrographic Service, Canada discussed the need to develop standards for better data sharing. Pulling from her experience of developing such standards with the International Hydrographic Organization, she explained how the standardization of data is instrumental in facilitating

access and data sharing, across countries and across disciplines. Geneviève also showed how data standardization combined with the development of simple but robust instruments can allow citizens and local communities, including indigenous communities, to collect data and make use of it for their own needs.

David Legler, Director, NOAA Global Ocean Monitoring and Observing Program, United States of America showed how international observing programmes and shared infrastructures, as well as large projects, have revolutionized our capacities and ability to serve different scientific communities and users. David mentioned the need to promote good practices in data sharing and to incentivize researchers to share data by providing it to organizations, such as the World Meteorological Organization, that will use it to improve their products and services. These, in turn, will benefit society at large. While the willingness to share data has considerably increased these past decades, sharing platforms are still critically needed.

Paula Etala, Manager of Research, Development and Capacity Building at National Weather Service, Argentina talked about the Pampa Azul initiative which aims to increase the contribution of the research community in the southwestern corner of the Atlantic to the All-Atlantic observation network. It does so by providing a systematic approach for an integrated coastal and offshore observing system, through a tiered implementation plan taking into account limitations in the budget and actual capacities. An important challenge encountered by the research community is the lack of in-house experience in the long-term management of ocean infrastructure and of well-trained technicians.

Session: Launch of AANChOR's Joint Actions in support of the All-Atlantic Ocean Research Alliance

The AANChOR Coordination and Support Action, amongst its other activities, were tasked to initiate All-Atlantic Joint Actions to support the long-term implementation of the Belém Statement, with structuring effects on the All-Atlantic Community.

Yonah Seleti, Acting Deputy Director-General: Research Development and Support, Department of Science and Innovation, South Africa presented the All-Atlantic Community Strategic Vision for the Joint Actions and announced the official launch of the Joint Actions. Yonah explained that the work they are doing is about meeting societal needs, it is not just about science by itself. Yonah was excited to see Namibia is part of it, and he would like to see all countries becoming members of the All-Atlantic Ocean Research Alliance. Yonah concluded by saying that all of the presentations so far have emphasized the importance of sharing information with the aim to connect, cooperate and then act.

Sofia Cordeiro, AANChOR coordinator explained the process of the Joint Actions, and presented the All-Atlantic Ocean Research Alliance Multi-Stakeholder Platforms which aim to connect each other, cooperate jointly, and act together in the implementation of Joint Activities. AANChOR has managed to launch five dedicated multi-stakeholder platforms with more than 70 experts from 18 countries along and across the Atlantic. The Joint Actions will need to address the 20 Key Performance Indicators, 10 Strategic Objectives, and 10 Operational Objectives that were developed to reach the ambition of the Belém Statement. Sofia mentioned that there are more than 1,000 initiatives that can collaborate in the All-Atlantic Joint Actions. In her conclusion, Sofia mentioned that participants would receive a thank you message for their participation at the end of the Forum and within that message; there will be a survey for collaboration to anyone interested in contributing to the Joint Actions. This will strengthen marine research and

innovation cooperation in the Atlantic. The Joint Actions will only be impactful if we work together and align the activities in each of our institutions.

Presentations of each of the Joint Actions

All-Atlantic Ocean Capacity Development and Training Platform:

Werner Ekau, Leibniz Zentrum für Marine Tropenforschung (ZMT), Germany explained the All-Atlantic Joint Action Organizational Structure and the overall goals of the WP3 Joint Action, All-Atlantic Ocean Capacity Development and Training Platform. Werner highlighted the need for Trans-Atlantic collaboration in marine and coastal environment capacity development. Werner emphasized better coordination of synergies among training activities in Ocean science training programmes around the Atlantic.

A Joint Marine Biotechnology Knowledge Transfer Initiative for the Atlantic:

Fabiano Thompson, Federal University of Rio de Janeiro and Biotecmar, Brazil presented the mission and objectives from of the All-Atlantic Biotechnology Knowledge Transfer Initiative. Their mission is to place Brazil closer to the leadership in research, technology, and bio-economy within 10 years. Fabiano emphasized the issue of working together through collaboration across government, academia, and private sectors. Their role is to network among countries, promote technology transfer, and capacity building among stakeholders and partners particularly engaging junior's entrepreneurs.

Towards an All-Atlantic Aquaculture Platform - Driving innovation and knowledge transfer:

Alexandra Neyts, European Aquaculture Technology & Innovation Platform (EATiP) presented the widespread and close collaboration for long-term aquaculture strategy and evolution of the process, mentioning that aquaculture does contribute to the blue bio-economy. Alexandra then highlighted the EURASTIP experience and the adopted working methodology on how to approach platform development in their work package. Alexandra concluded her presentation by outlining the work package proposed actions for the preparation of multi-stakeholder aquaculture platform and outcomes.

All-Atlantic Data Enterprise 2030:

Olga Sato, University of São Paulo, Brazil, presented their mission of creating a data-driven mentality in scientific research to implement the Belém Statement. Olga highlighted that the Joint Action on All-Atlantic Data Enterprise 2030 aim is to create a unique transatlantic platform for standardized natural, social, humanistic, and scientific data. They are the center for information and data sharing. Olga mentioned that they have open sciences that shares data for blue economy, food/health, risk assessment, extreme events, and decision-makers.

All-Atlantic Blue Schools Network:

Ronaldo Christofolletti, Federal University of São Paulo, Brazil, emphasized that there is a need to look beyond science. Ronaldo presented the WP6 Joint Action on All-Atlantic Blue Schools Network and their goal to integrate all countries in the Atlantic by the Ocean. The All-Atlantic Blue School Network aims to bring together science with educators, teachers, children, and community through Ocean literacy. He concluded by the words from John Lennon, *Imagine...*

All-Atlantic Research Infrastructure Network:

José Luiz Moutinho, Atlantic International Research Centre (AIR Centre) presented the AA-Marinet objectives that intend to cooperate on marine research and innovation to increase operational efficiencies. José explained that the long-term objective is to encourage and establish an effective process for sharing research infrastructure. **Moacyr Araujo** highlighted the AA-Marinet activities that aim to have a single web portal that will unlock the potential for articulation of the observation activities and to facilitate thematic areas networking.

Session: The Atlantic Ocean – A space for Cooperation

Moderator: Sigi Gruber, Head of Healthy Oceans and Seas Unit, Directorate-General for Research and Innovation, European Commission

This segment focused on highlights of the various initiatives within the broader Atlantic Ocean. Specifically, how these initiatives see themselves in alignment with the actions of the All-Atlantic Ocean Research Alliance as well as possible synergies with going forward. This session also provided a platform for the development of synergies with the Atlantic communities.

Perspectives from other Ocean/Atlantic initiatives

Vidar Helgesen, High-Level Panel for a Sustainable Ocean Economy outlined its five pillars for a Sustainable Ocean Economy: Wealth, Finance, Health, Knowledge and Equity. The High-Panel has 74 priority actions, but only one headline commitment from political leaders. 'We urge all Heads of State to join us – Give it 100%.' (100% commitment for the Ocean). Vidar defined the High- Level Panel for a Sustainable Ocean Economy (Ocean Panel) as a unique initiative by 14 world leaders who are building momentum for a sustainable ocean economy in which effective protection, sustainable production and equitable prosperity go hand in hand. Vidar highlighted that the Ocean Panel aims to facilitate a better, more resilient future for people and the planet, via:

- Knowledge and Science, peer-reviewed research papers that analyse the latest ocean science and knowledge and identify opportunities for action;
- Policy, with a politically endorsed transformative set of recommendations to advance a sustainable ocean economy; and
- Action, with multi-stakeholders' action groups driving change in key ocean sectors.

Vidar highlighted that the Ocean Panel launched the new ocean action agenda in December 2020. It is built upon knowledge and science, transformative recommendations and action. It was the culmination of a historic two-year effort to chart the course towards a sustainable ocean economy. It was also the beginning of a call to action for national waters of all oceans and coastal states to be sustainably managed by 2030. The Transformations sets out a headline commitment to 100% sustainable ocean

management in national waters and a set of bold, yet pragmatic, priority actions to transform how the world can protect and use the ocean and ultimately sustainably manage humanity's impacts on it. Vidar highlighted some top findings from the report:

- The ocean could supply over 6 times more food than it does today;
- The ocean could deliver 21% of emissions reductions needed to limit temperature rise to 1.5 degrees C; and
- Unabated climate change could cause coral reef tourism revenue losses of over 90%, while some West African countries are forecast to see fish stocks decline by 85%.

Vladimir Ryabinin Executive Secretary- IOC, Assistant Director General (UNESCO), presented UNESCO's perspective on global ocean governance, involving global common standards in ocean observation, coupled with local action. Vladimir highlighted the need to develop regional alliances for Science and Ocean management plans based on science and data, and also mention ten challenges of the UN Decade of Ocean Science: Pollutants, Ecosystems, Food from the Ocean, Ocean economy, Ocean-climate nexus, ocean -related risks, ocean observing system; ocean digital representation, capacity development and behaviour change. Vladimir emphasized that the big challenge of the UN Decade of Ocean Science is to generate engagement around it, through dedicated programmes and projects.

Thandiwe Gxaba, Benguela Current Commission (BCC), presented the Commission, a multi-sectoral inter-governmental, initiative of Angola, Namibia and South Africa. It promotes a coordinated approach to the long-term conservation, protection, rehabilitation and sustainable use of the Benguela Current Large Marine Ecosystem (BCLME). The BCC is based on the large marine ecosystem (LME) approach to ocean governance. It is focused on the management of shared fish stocks; environmental monitoring; biodiversity and ecosystem health; the mitigation of pollution; and minimizing the impacts of marine mining and oil and gas production. Sound environmental governance and training and capacity building are at the forefront of its agenda.

Thandiwe's presentation focused on potential opportunities for collaboration with the BCC in the following areas:

- Ecosystem Monitoring & Research and highlighting the contribution of this work towards the UN Decade of Science Societal Outcomes and the restoration of the health of the Atlantic Ocean. Specific areas of focus are Pollution, Environmental Monitoring and Top Predators;
- Data and Information Management - contribution of this programme to the development of the State of the Ecosystem Report and Regional Integrated Information Systems;
- The Training and Capacity Development for capacity enhancement; and
- Specifically, collaboration with the All-Atlantic Ocean Research Alliance on regional and international exposure for the Benguela Youth Ambassadors. The Benguela Youth Ambassadors just started, being inspired by the All-Atlantic Ocean Youth Ambassador Programme scheme. Could the two schemes be twinned in the future?

Abdoulaye Diagana, Abidjan Convention emphasised democratizing science, involving and talking to and about communities. On the one hand, it will be a question of getting out of the head-to-head meetings between experts talking to each other in small groups, and on the other hand of breaking this image of scientific research-oriented solely towards the preservation of the environment and not taking sufficient account of the communities and their daily concerns. Abdoulaye highlighted the importance of considering all stakeholders when assuring the management of the common environment.

Miguel Belló Mora, Atlantic International Research (AIR) Centre mentioned that global problems call for international cooperation. The AIR Centre is an international collaborative framework to address global challenges and local priorities in the Atlantic Ocean. Its aim is to promote an integrative approach to space, climate, ocean and energy in the Atlantic, supported by emerging technological innovations and advances in data science, and through South-North and North-South cooperation, and research infrastructure:

- The Earth Observation (EO) Laboratory has been established and fully operational since September 2019 and comprises a team of highly qualified and multidisciplinary staff in the fields of interest of the AIR Centre;
- The AIR Centre hosts the Secretariat of the Marine Biodiversity Observation Network (MBON), an organization with more than 100 countries to monitor ocean biodiversity;
- In cooperation with Spain, has a very long baseline Interferometry radio telescope incorporated to the Global Observing System (VGOS).

Miguel highlighted research projects that were supported by the AIR Centre which is also engaged in space technologies: “Atlantic Pole to Pole Observation System of Systems” (APPOSS). The use of data and artificial intelligence can generate solutions to problems such as coastal erosion, biodiversity loss, etc. Miguel emphasized that a multi-disciplinary approach is needed to solve complex problems (oceanography will not solve problems on its own). The research efforts should help solve problems (climate change-related) but also create high-skills jobs for our Atlantic economies.

Peter Heffernan, Mission Board Member, Horizon Europe Mission Healthy Oceans, Seas, Coastal and Inland Waters Presented the Mission Starfish 2030: Restore our Ocean and Waters by 2030, highlighting the role of knowledge and the need to eliminate the emotional gap of people towards the ocean. He recommended that the All-Atlantic Ocean Research Forum participants connect to the Mission and create partnerships, work together for the same goal: a healthy ocean. The Mission has five overarching objectives for 2030: (i) Filling the knowledge and emotional gap (ii) regenerating marine and freshwater ecosystems (iii) zero pollution (iv) decarbonising our ocean, and waters (v) revamping governance. These five objectives are mutually supportive and taken together, Mission Starfish 2030 will enable the restoration of the water cycle as a whole.

Discussants:

Juliet Hermes, Egagasini Node Manager, National Research Foundation - the South African Environmental Observation Network highlighted the importance of Diversity, Inclusion and Equity in the context of the All Atlantic Work; also values and qualities like trust and humility, understanding local contexts and regional conditions. Juliet emphasized on the need to inspire the youth, to grow the All-Atlantic cooperation and continue to grow cooperation in the Atlantic with the spirit of *Ubuntu* 'I am because we are.' Juliet quoted Desmond Tutu "Far too often people think of themselves as just individuals, separated from one another, whereas you are connected and what you do affects the whole world. When you do well, it spreads out; it is for the whole of humanity."

Toste Tanhua, GEOMAR, Germany, highlighted that sustained ocean observing require, and thrives from, cooperation between nations around the Atlantic, and includes the observers, the scientists and all the people living by the Atlantic. Ocean observing is big science, need for monitoring our policies, early warning on floods, developing the blue economy; it thrives through cooperation with partners and nations across the Atlantic. Toste mentioned that an example of projects carrying this vision: Global Ocean Observing System (GOOS), EuroSea, AtlantOS. GOOS is a sustained collaborative system of ocean observations, encompassing in-situ networks, satellite systems, governments, UN agencies and individual scientists.

Toste explained that EuroSea is a European Union Innovation Action funded through the European Union's Research and Innovation Framework Programme Horizon 2020 under a call supporting the G7 Future of Seas and Oceans Flagship Initiative. EuroSea brings together key European actors of ocean observing and forecasting with users of oceanographic products and services. The EuroSea innovation demonstrators are focused on operational services, ocean health, and climate.

The vision of AtlantOS (All Atlantic Ocean Observing System), which has advanced from an EU Horizon 2020 funded project to an international community-based program, aims to support the implementation of an integrated basin- scale observing system that serves societal needs by providing ocean information to inform hazard reduction and safety services, weather predictions, biological resource use, species conservation, tourism

opportunities, and more. The AtlantOS Program spans both the North and South Atlantic Basin, and has contributed to achieving the aims of the Galway Statement, and contributed to building the All-Atlantic Ocean Research Community to enhance collaboration to better understand the Atlantic Ocean and sustainably manage and use its resources.

Olga Sato, Professor, Physical Oceanography Faculty, University of São Paulo, Brazil emphasized that international collaborations are essential to understand problems involving large-scale and long-term variability in the ocean. Also for mobilising funding and pooling resources. Olga highlighted that in the era of fast communication capabilities and high technology, sharing responsibilities, experiences, expertise and costs should be promoted to improve ocean monitoring.

Ellen Kenchington, Fisheries and Oceans Canada, Canada, highlighted the need to transform current financial structures to better support multi-national, large-scale, basin-wide efforts using the Horizon 2020 framework as a model? How different would the research and networks look if paralleled in SA/Brazil/Canada/US? Ellen emphasized that there is a need to build capacity not only through involvement in Western-led projects (the colonial message sent in the keynote yesterday) but create science based on indigenous knowledge and self-determined research.

We need to think how we engage indigenous peoples; mentioned the colonial influences, as in the keynote of the previous day; heard the UN Climate Change dialogues that the Inuit people in Canada want to be involved in these research networks but also want to share their indigenous knowledge and undertake self-determined research based on that knowledge. That applies to many of the Forum participants and the UN Decade of Ocean Science could be used for that purpose, to make that happen. We need to hear from more voices and undertake research from new angles, particularly from those most affected by changes in our oceans and marine life.

Jonathan White, Consortium for Ocean Leadership, United States of America emphasized that there is a need to identify and collectively advance concrete actions that can be taken by all or many Atlantic nations now/soon without the addition of significant, unidentified resources, e.g.:

- Multilateral collaboration around planning and crewing of at-sea research opportunities from multiple sectors (governmental, philanthropic, industrial)
- International, virtual scholastic competitions in ocean sciences – “quiz bowl” format or other.
- The advancement of an Atlantic Ocean observing “Collective Impact Organization” as identified in OceanObs19 and in harmony with the APPOSS initiative of the Air Centre.

Sigi Gruber concluded the session by announcing that she will be retiring at the end of



2020. Sigi thanked everyone whom she worked with, and in particular John Bell, her Director and all partners. Sigi concluded the session by stating that she "hopes to continue to be part of this journey in a personal capacity". Her extraordinary efforts for ocean science and international cooperation will be missed

Session: The Atlantic Impact – A Better Life for all Citizens

In this session representatives from the All-Atlantic partners commented on the final key actions for impact.

John Bell, Director Healthy Planet, Directorate-General for Research and Innovation, European Commission believed that the All-Atlantic Youth will drive positive change. Despite the pandemic, our Ambassadors have been involved in over 130 events and have reached over 20,000 people. John emphasized that the role of science has changed. Science has to give courage and it must give hope to people. John highlighted that we need transformation, to move from 2020 subject to 2030 citizen in order to implement the UN Decade of Ocean Science. John emphasized that collaboration and working together must be a priority for all of us so to apply scientific strength.

Maria Zaira Turchi, Director of Institutional Cooperation - National Council for Scientific and Technological Development/ CNPq, Brazil highlighted that the All-Atlantic Ocean Research Alliance is a very good example of the need to work together to tackle a set of global challenges. Maria Zaira highlighted the challenges of the Joint Actions proposed

under the AANCHOR project. Maria Zaira emphasized the issue of collaboration and ensuring that all stakeholders have relevant data, and highlighted that this collaborative work is strategic work to involve the community and younger generations.

Craig McLean, Assistant Administrator for Oceanic and Atmospheric Research, National Oceanic and Atmospheric Administration, United States of America highlighted opportunities in relation to governance, sustainability and the future. Craig summarized what he has learned in the past two days of the Forum and mentioned that there were opportunities to understand what was happening in some of the components of the All-Atlantic. Craig emphasized on mapping a combined vision of the All-Atlantic Research Ocean.

Arran McPherson, Assistant Deputy Minister, Fisheries and Oceans Canada hoped that the last two days of the Forum have encouraged the existing collaborations in the

Atlantic Ocean to continue and increase ocean community knowledge while inspiring technology and informing policy makers. Arran highlighted the importance of strengthening the science through processes and partnership. A key theme reflected on was the strengthening of the science society interface, and it is would be important for all to broaden our ocean community to be successful and would encourage participation in the Ocean Decade activities.

Gilbert Siko, Director, Marine and Polar Research, Department of Science and Innovation, South Africa

highlighted that the All-Atlantic initiatives have emphasized the importance of collaboration and sharing. Gilbert highlighted the key message of the importance of involving the society when focusing on societal benefits.



The global ocean science report outlined a clear picture of the research world, and showed that while much research has been conducted, it is not yet benefiting the society. Society looks to science for the solutions, and the All-Atlantic research projects must provide processed data as solution to the society. Science should provide a solution to policy issues.

Carla Matias Dos Santos, Portuguese Permanent Representation to the European



Union gave an overview of the upcoming Portuguese Presidency of the Council of the European Union from 1 January 2021. Carla summarized the five keywords of the presidential ministry namely: resilient, socio, green, digital and global. Carla announced and invited all the participants to attend the All-Atlantic R&I for a Sustainable

Ocean: Ministerial High-level & Stakeholders Conference, taking place in Ponta Delgada, Azores on 3-4 June 2021. The Conference aims at bringing the existing dialogue and cooperation undertaken under the All-Atlantic Ocean Research Alliance to a new level. .

Closing Remarks by the Co-hosts

Cristina Russo, Director International Cooperation, Directorate-General for Research and Innovation, European Commission highlighted that the All-Atlantic Ocean Research



Alliance is a very good example of the need to work together to tackle a set of global challenges. Cristina announced that the European Commission will sign a bilateral Administrative Arrangement on Marine Research and Innovation Cooperation with Morocco which will enable them to work together

under the umbrella of the All-Atlantic Ocean Research Alliance.

Daan du Toit, Deputy Director-General, International Cooperation and Resources, Department of Science and Innovation, South Africa highlighted that it is clear that



there is a need to invest in people. The DDG indicated that the Atlantic is important and is part of who we are, it is also an economic resource and importantly it forms part of our natural resource which needs our protection. One of the reasons for the DSI to host this event, is that it reinforces the strategic partnership with the

European Commission, in which the area of marine research cooperation is a flagship theme. The Atlantic Ocean is very important – yes, it is an economic resource and also

forms part of our immense heritage -it's part of who we are. Another key rationale for this event is to enhance international cooperation in science. Science knows no borders – we have discussed data sharing, next generation of researchers – the young ambassador program as key areas in the discussions of this All-Atlantic Ocean Research Forum.

This event has underlined an objective that is dear to the South African Government – which is the use of the soft power of science to bolster global solidarity. We share the same challenges and therefore need to work together. Solidarity and partnership have been reflected in this gathering which has reinforced our international friendship. Finally, DDG du Toit thanked Sigi for her commitment to the process, as well as the partners of the Atlantic in the success of this event, together with the European Commission. South Africa strongly commits to this partnership, within the UN Decade as well as under Horizon Europe and activities under the EU Presidency of Portugal.

John Bell, Director Healthy Planet, Directorate-General for Research and Innovation, European Commission thanked his colleagues, partners and all the teams involved in organizing the Forum. John emphasized that the All-Atlantic was becoming a community, a place of researchers, innovators, young scientist and policy-makers who will write the next chapter in our common history.

Yonah Seleti, Acting Deputy Director-General, Research Development and Support, Department of Science and Innovation, South Africa emphasized on the meaning of *Ubuntu* that the nature have the same rights to exist as people. It is about sharing. Yonah thanked all the participants and noted that these two days of the Forum have been about solidarity and respect.

The Atlantic partner's expressed their gratitude to Sigi Gruber for her hard work and dedication in building our All-Atlantic community. It was highlighted by John Bell that Sigi is an example of how to serve, when to listen, and when to lead. Eimear Manning, one of the All-Atlantic Ocean Youth Ambassadors gave a "sincere and heartfelt thanks. Providing professional platforms for us as young scientists and researchers. You won't be forgotten. The Atlantic Ocean Community salutes you Sigi".

