Challenges and Opportunities for International Ocean Science Organisations

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population – night lights

40% population within 100km from shore
A growing population...
increased demands on the ocean space:
food, transport, materials, energy, tourism
A growing population...
increased demands on the ocean space:
food, transport, materials, energy, tourism

And yet we only have ....
Development needs to respect planetary boundaries
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One Planet
One Ocean

What is the safe and just operating space for humanity?
Development needs to respect planetary boundaries

One Planet
One Ocean

What is the safe and just operating space for humanity?
What is the safe and just operating space for humanity?
Understanding Human **Pressures** on the Ocean System
Science Supporting a **Resilient** Ocean and Coastal Communities
Advancing Pathways to Sustainable Ocean Prosperity
Future Ocean supports – OCEAN DISCOVERY
Future Ocean supports – OCEAN UNDERSTANDING
Future Ocean supports – OCEAN ASSESSMENT
Future Ocean supports – OCEAN SOLUTIONS

Marine Protected Areas
Future Ocean supports – OCEAN PATHWAYS

SAFE AND JUST OPERATING SPACE

Sustainable Development Pathways (fisheries, transportation, coastal zones, spatial planning)

2030

FUTURE OCEAN

SUSTAINABILITY
Ocean Literacy – Ocean Atlas and World Ocean Review

• > 300.000 copies distributed
• 5 topical volumes produced
• German, English and other languages

> 150.000 copies distributed

Ocean-Atlas.org
UN Ocean Science Organizations

UN-OCEANS
An interagency collaboration mechanism on ocean and coastal issues within the UN system
Challenges for International Ocean Science Organizations

• Science Organizations serve the science community – thus they have a self referenced frame.

• They articulate global scientific agendas and they define success and rewards.

• Scientific excellence is increasingly measured by impact on the science, which translates often to # of expert publications and their citation rates (H-Index).

• **Scientific advice to society is ‘nice’, part of ‘good citizenship’, but something you do in your spare time ...**
Opportunities for International Ocean Science Organizations

- Critically reflect our contract with society
- Provide alternative ways to measure success. Impact metrics or reward systems
- Science advice to society needs to become an integral part of the science we promote
- Balance the ‘freedom’ of science with ‘responsible science’
- Promote System-Science in addition to deep expertise in a particular field.
UN Decade of Ocean Science for Sustainable Development (2021-2030)

Martin Visbeck
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What is the UN Decade of Ocean Science for Sustainable Development?
On 5 December 2017, the UN General Assembly proclaimed the Decade of Ocean Science for Sustainable Development (2021-2030).

Resolution A/72/L.18 calls upon the IOC to prepare an Implementation Plan for the Decade in consultation with:
- Member States;
- UN partners;
- Institutional partners;
- Other relevant stakeholders.

And to report to the UN Secretary-General about the implementation of the Decade.

Resolution A/72/L.18 also invites UN-Oceans to collaborate with IOC.
A Vision for the Decade

Develop scientific knowledge, build infrastructure, and foster partnerships for a sustainable and healthy ocean
Societal outcomes

A Clean Ocean
Sources of pollution are identified, quantified and reduced, and pollutants removed from the Ocean.

A healthy and resilient Ocean
Marine ecosystems are mapped and protected, multiple impacts, including climate change, are measured and reduced, and the provision of Ocean ecosystem services is maintained.

A predicted Ocean
Society has the capacity to understand current and future Ocean conditions, forecast their change and impact on human wellbeing and livelihoods.
The Decade will be mission-oriented

**A safe Ocean**
Human communities are protected from ocean hazards and the safety of operations at sea and on the coast is guaranteed.

**A Sustainable Productive Ocean**
The provision of food supply and alternative livelihoods are secured.

**A transparent and accessible Ocean**
All nations, stakeholders and citizens have access to ocean data and information, technologies, and are capable of making informed decisions.
A cooperation framework for ocean science

- Synthesise existing research defining trends, knowledge gaps, priorities for future research
- Mobilizing scientists on critical ocean priorities relevant to Agenda 2030
- New co-designed research strategies
- Fostering new joint research and cooperation within & across ocean basins
- Synthesising, assessing results, development of user-driven solutions
- Bridging science, policy and society: Science-policy dialogues, dissemination, access to data, information, communication
- Integration natural & social sciences
- Capacity development
- Funding/partnerships
- Stakeholders engagement
Preparatory Phase: 2018-2020
The Executive Planning Group (EPG) is an expert group composed of 16 to 20 members who will serve as an advisory body to the IOC governing bodies to support the development of the Implementation Plan as well as the preparatory activities of the Decade.
Preparing for the Decade: Next Steps
How can you help?

Contribute to the Planning Process

Host and organize events

Provide staff and/or financial support

Communicate about the Decade