UN Decade: Promoting inclusive Partnerships with and beyond the UN

IODE XXV -Science Conference

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UN Decade of Ocean Science for Sustainable Development (2021-2030)

Flagship Projects

- Mapping, digital atlas
- Observing system
- Eco-system knowledge
- Data and Information

Science breakthroughs

- Multi-Hazard Warning Systems
- Ocean in Earth System Science
- CD, Education, Ocean Literacy

Societal Applications

- Coastal zone management
- Marine Spatial Planning/Blue economy
- Aquaculture/Fishery management
- Disaster Risk Reduction (Re-)insurance
- Adaptation Mitigation Climate services
- Governance: Policies Peace Security

Regional dimension

Solutions, value

Implementation

Resources
A cooperation framework for ocean science

- Mobilizing scientists on critical ocean priorities relevant to Agenda 2030
- Synthesise existing research defining trends, knowledge gaps, priorities for future research
- New co-designed research strategies
- Bridging science, policy and society
  Science-policy dialogues, dissemination, access to data, information, communication
- Synthesising, assessing results, development of user-driven solutions
- Fostering new joint research and cooperation within & across ocean basins

DATA AND INFORMATION IS AT THE CORE
R & D Priority Areas

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Mapping, digital atlas

Ecosystem knowledge

Multi-hazard warning systems

Observing systems

Models for Ocean prediction

CD, TT, Ocean Literacy

Data & information

Outcome: A transparent and accessible Ocean
**Information and Data Portal**

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- **Open access**
- Supporting advances across **Scientific** discipline
- Integrating **Social science and human** dimension
- Information for **SD** applications (e.g. blue economy, ocean health)

- **Private sector** should be a beneficiary and contributor
- Integrate **new technologies** and **Big data** applications
- Ensure **equitable access and benefits to developing nations**
- Promotes standards and interoperability of **data and information products**

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**Impact**
- Relevant to help solve science questions and address societal needs
- Contribute to improve management of marine resources

**Feasibility**
- Scientifically credible
- Technically practical, cost effective and within human capabilities
- **Enduring**

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**Legacy?**
Data for what?

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**INPUT**
- **Drivers**
  - Societal needs and international obligations

**PROCESS**
- **Pressures**
  - Human impact on marine biodiversity and ecosystem health
- **State**
  - Existing observing initiatives measuring the state of the marine environment
- **Impact**
  - Priority impacts that need monitoring

**OUTPUT**
- **Response**
  - Monitoring information used by society to respond to impacts

**Drivers**
- Climate change
- Consumption
- Trade Patterns
- Transport / Energy

**Pressures**
- Ocean Acidification
- Pollution
- Coastal developments
- Tourism
- Fisheries
- Marine Habitat/Biodiversity
- Human Vulnerability
- Carbon storage
- Economic benefits

**Response**
- Policy measures
- Regulations
- International Agreement
- Markets
- Technical solutions
- R&D Investment

**Monitoring**
- Local
- Global
Integrated management = Integrated data?

- Better integration and sharing
- Better traceability
- Interoperability of spatial data sets and services
- Multi-stakeholder focus (science, policy, citizens, Business)
- Network services (discovery across fields, view, download)
  - Made available through geo-portals
- Data and Service sharing (policy)
- Customised by stakeholders
- Local, national, regional, global scale
Diversity of data sources and formats

We need go from here ....
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Agenda 2030: Can the SDGs and the Decade create partnership on Data?
Who holds the data?

- Governmental agencies
- Private sector
- Academia
- Research infrastructure
- International organisations (eg. UN bodies)
How data science and analytics can contribute to sustainable development

1. **NO POVERTY**
   Spending patterns on mobile phone services can provide proxy indicators of income levels

2. **ZERO HUNGER**
   Crowdsourcing or tracking of food prices listed online can help monitor food security in near real-time

3. **GOOD HEALTH AND WELL-BEING**
   Mapping the movement of mobile phone users can help predict the spread of infectious diseases

4. **QUALITY EDUCATION**
   Citizen reporting can reveal reasons for student drop-out rates

5. **GENDER EQUALITY**
   Analysis of financial transactions can reveal the spending patterns and different impacts of economic shocks on men and women

6. **CLEAN WATER AND SANITATION**
   Sensors connected to water pumps can track access to clean water

7. **AFFORDABLE AND CLEAN ENERGY**
   Smart metering allows utility companies to increase or restrict the flow of electricity, gas or water to reduce waste and ensure adequate supply at peak periods

8. **DECENT WORK AND ECONOMIC GROWTH**
   Patterns in global postal traffic can provide indicators such as economic growth, remittances, trade and GDP

9. **INDUSTRY, INNOVATION AND INFRASTRUCTURE**
   Data from GPS devices can be used for traffic control and to improve public transport

10. **REDUCED INEQUALITY**
    Speech-to-text analytics on local radio content can reveal discrimination concerns and support policy response

11. **LIFE BELOW WATER**
    Maritime vessel tracking data can reveal illegal, unregulated and unreported fishing activities

12. **LIFE ON LAND**
    Social media monitoring can support disaster management with real-time information on victim location, effects and strength of forest fires or haze

13. **PEACE, JUSTICE AND STRONG INSTITUTIONS**
    Sentiment analysis of social media can reveal public opinion on effective governance, public service delivery or human rights

14. **PARTNERSHIPS FOR THE GOALS**
    Partnerships to enable the combining of statistics, mobile and internet data can provide a better and real-time understanding of today’s hyper-connected world
WHO DO WE NEED TO ENGAGE?

- Give evidence base, prioritization advice and voice to civil society interests
- Alignment and leverage of investment in high impact of global ocean research
- Actively help policy makers (at all levels) finding solutions to ocean sustainability challenges
- Access to tools and information required to find solutions to ocean sustainability and secure investments in the blue economy
- Formulates priorities, advances and aligns the agenda for global ocean science and increased uptake
- Access to new information leading to increased awareness and ocean literacy, triggering behavioral changes

Ocean Science Decade Engagement

- Ocean science & Technology
- Civil society NGOs
- Donors & Foundations
- Business and industry
- Ocean policy & sustainable development
- Public

WHO DO WE NEED TO ENGAGE?
### Getting started: Mapping Stakeholders

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<thead>
<tr>
<th>Stakeholder category/group</th>
<th>Potential sub-groups/examples</th>
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</table>
| 1  Ocean science and technology | National research institutes  
National research agencies and government departments  
Regional research organisations/agencies/initiatives  
International organisations, networks, associations, academies |
| 2  Ocean policy & sustainable development | Governments  
Regional organisations e.g. RFMOs, RSOs  
Global intergovernmental organisations: Sectoral (e.g. ISA, IMO, FAO, IWC, IUCN)  
Convening organisers e.g. G7, WEF, |
| 3  Business and industry | SMEs – new technology development for research to management  
Industry – existing ocean industry (shipping, fishing, oil & gas, minerals)  
technology firms (e.g. Google) and new (blue-tech, clean tech)  
Business networks |
| 4  Civil society & NGOs | Community groups  
Environmental NGOs e.g. Pew, CI,  
Scientific NGOs  
Technology providers e.g. Global Fishing Watch  
Artistic, media (Science, Nature), communicators  
Sport/expeditions e.g. yachting |
| 5  Donors and foundations | Science funding and expeditions  
Conservation organisations |
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**Why engage?**

**Stakeholder motivations and contributions: thought-starters**

**MOTIVATION?**
- advancing knowledge
- new collaborations
- contributing to identification of research priorities
- translate research into policy-relevant outputs
- economic growth/commercial opportunities
- social wellbeing
- environmental sustainability
- corporate social responsibility
- public awareness and exposure
- …

**CONTRIBUTION?**
- people
- expertise
- technology development
- research infrastructure
- project funding
- ideas
- champions/communication
- …

1) Ocean science and technology
2) Ocean policy and sustainable development
3) Business and industry
4) Civil society & NGOs
5) Donor & foundations
HOW TO PREPARE THE DECADE: PREPARATORY PHASE (2018-2020) GOVERNANCE

- IOC SECRETARIAT
  - UN OCEANS
  - UN AGENCY

- REPORTS TO UNGA

- REGIONAL WORKSHOPS
  - (Regional stakeholders)

- PLANNING GROUP
  - Expert advisory body
  - (Scientific Experts and Ocean users)

- STAKEHOLDER FORUM
  - Consultative body, coordinating stakeholders contribution at institutional level (Global Stakeholders)

- IOC GOVERNING BODIES
  - (IOC MEMBER STATES)

- PARTNERSHIP PLATFORM EVENT

- SCIENCE COMMUNITY
- POLICY-MAKERS PRACTITIONERS
- BUSINESSES AND INDUSTRIES
- CIVIL SOCIETY
- DONORS
Timeline

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UNGA Resolution proclaiming Decade

Interim Planning Group established

Planning Group ToRs approved by IOC-EC 51 (July)

Interim report to IOC Assembly 30

Endorsement of plan by IOC EC-52

UNGA consideration of Implementation plan

2018

2019

2020

2021

Global Meeting# 1 + Stakeholder Forum (Q1)

Regional Workshops

Partnership Platform Event (?)

Global Meeting# 2 + Stakeholder Forum (Q1)

1st Meeting EPG (Nov)

2nd Meeting EPG (Nov)

Preparatory Phase

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<th>UNGA 72</th>
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Official start of Decade
GLOBAL & REGIONAL CONSULTATIONS CONCEPTUAL FRAMEWORK

GLOBAL PLANNING MEETING 1

- Multistakeholder participation
- Assess the status of Ocean research vs Decade objectives
- Further develop R&D Priority Areas and needs in response to Societal Outcomes
- Address cross-cutting issues (CD, Financing, Ocean Literacy)

1st GPM
13-15 May 2019
Copenhagen

REGIONAL WORKSHOPS

- Multistakeholder participation
- Communicate the purpose & expected results to all stakeholders
- Engage & consult the OC and workshop possible themes

- Regional Workshop 1
- Regional Workshop 2
- Regional Workshop 3
- Regional Workshop 4
- Regional Workshop 5
- Regional Workshop 6

GLOBAL PLANNING MEETING 2

- Multistakeholder participation
- Consolidate inputs from various consultations
- Structure Implementation plan & governance
- Formalise partnerships
- Address cross-cutting issues

Provide guidance in the organisation and structure of these meetings.
Preparatory Phase: Building partnerships with regional stakeholders

But also RFMOs, UNEP Regional Seas Conventions, UN Regional Commissions, etc....
What will it take to be successful?

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Societal benefit

Scientific discovery

Governing Acting

Observing Mapping

Understanding Processing

Assessing Informing

Predicting Modeling

Pressures

Resilience

Prosperity

Policy

Science
THANK YOU

MERCI

GRACIAS

Спасибо

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谢谢