Take home messages from OceanObs'19 and GOOS 2030

Dina Eparkhina, October 2019

Take home messages from OceanObs'19

OCEANOBS99

300 attendees

43 White Papers

Climate

OceanObs'09

620 attendees

99 Community White Papers

Climate

Operational services

Ocean health

OCEAN OBS'19

1500 attendees

128 Community White Papers

2480 contributing authors

Ocean solutions

EuroGOOS
European Global Ocean Observing System

Dina Eparkhina, October 2019

Take home messages from OceanObs'19

- **Codesign of the observing system**, end-to-end, with stakeholders and users

  - **Co-design and end-to-end projects, sustaining the obs, partnerships**: Regional systems, economics, with industry, with modelling communities, indigenous / traditional knowledge holders
  - **Communication** with the public, stakeholders, policymakers

- **Core system integration**: Democratization of data, best practice, integration of biological and ecological observations, and a growing emphasis on the coast

  - **Coastal observations:** into the obs system, measure across boundary currents, value to local stakeholders (climate, economy), increase capacity, recognize regional differences
  - **Biological observations:** into the obs system, bio EOVs, new biology-focused networks, new obs technologies, biological and ecological obs to operational reality
  - **Data:** resourced management, visualisation, FAIR, metadata, standards, timeliness
  - **Best practices*:*** 'endorsed' best practices, share studies of successful stakeholder interaction and of economic valuation of observations

Take home messages from OceanObs'19

- **Innovation in technology and governance**, Ocean Decade is a vehicle for transformation

  - ❖ **High-tech innovation** in sensors, platforms, data management and visualization; extend "exquisite and rare" observations, develop "ubiquitous and simple" platforms and sensors
  - ❖ **New social/human impact EOVs:** link physics, biogeochemistry, biology to societal/human impact

OceanObs'19 Conference Statement

We, the participants of the decadal OceanObs'19 Conference, hear the call from maritime stakeholders, operational resource management agencies, and researchers from private and public organizations about the importance of more complete and sustained observations in the ocean globally. Information about the ocean is needed to advance the understanding of the ocean system, strengthen security and safety at sea, mitigate the risk of disasters including those related to a changing climate, reduce pollution and harmful debris, and inform efforts to conserve life in the sea for the benefit of future generations. It is required to design and support policy options that sustain ocean-related human benefits.

In solidarity, we, the global ocean observing community and users of this information, invite all governments, international organizations, industries, scientists, engineers, stewards of ocean resources, members of civil society, Indigenous societies, youth and all of us who live, work and rely on the ocean to engage in a collective effort to evolve ocean observing to generate the data and information we need for the ocean we want. And specifically, to:

- Engage observers, data integrators, information providers, and users from the scientific, public, private, and policy sectors in the continuous process of planning, implementation and review of an integrated and effective ocean observing system;
- Focus the ocean observing system on addressing critical human needs, scientific understanding of the ocean and the linkages to the climate system, real time ocean information services, and promotion of policies that sustain a healthy, biologically diverse, and resilient ocean ecosystem;
- Harness the creativity of the academic research and engineering communities, and work in partnership with the private and public sectors to evolve sensors and platforms, better integrate observations, revolutionize information products about the ocean, and increase efficiency and reduce costs at each step of the ocean observing value chain;
- Advance the frontiers of ocean observing capabilities from the coast to the deep ocean, all aspects of the marine biome, disease vectors, pollutants, and exchanges of energy, chemicals and biology at the boundaries between the ocean and air, seafloor, land, ice, freshwater, and human populated areas;
- Improve the uptake of ocean data in models for understanding and forecasting of the Earth system;
- Ensure that all elements of the observing system are interoperable and that data are managed wisely, guided by open data policies and that data are shared in a timely manner;
- Use best practices, standards, formats, vocabularies, and the highest ethics in the collection and use of ocean data;
- Involve the public through citizen-engaged observations, information products, outreach, and formal education programs;
- Evolve ocean observing governance to learn and share, coordinate, identify priorities, increase diversity, promote partnerships, and resolve conflicts, through a process of continuing assessment to improve observing; and
- Promote investments in ocean observing and information delivery and sustain support.

Governments, organizations, industries, scientists, engineers, stewards, civil society, indigenous societies, youth… to **engage in a collective effort to evolve ocean observing**

- Engage in planning, implementation and review
- Address critical needs
- Partnership between private and public sectors
- From the coast to the deep ocean, all aspects
- Data uptake in models, interoperable, shared, data policies
- Best practices, standards, formats, vocabularies, and ethics
- Involve the public
- Evolve ocean observing governance
- Promote investments

EuroGOOS
European Global Ocean Observing System

Dina Eparkhina, October 2019

GOOS 2030

Vision
A truly global ocean observing system that delivers the essential information needed for our sustainable development, safety, wellbeing and prosperity

Mission
To lead the ocean observing community and create the partnerships to grow an integrated, responsive and sustained observing system

GOOS 2030

- Partnerships for delivery
- Advocacy and communication
- Implementation and best practices
- FAIR data
- Capacity development
- Human impacts

- 'Global unified' approach - observations and data for global impact
- 'Global approaches to local action' - best practice, local capacity, users

→ GOOS Implementation Roadmap and OceanObs'19 Living Action Plan

→ GOOS Governance (Polycentric + Collective Impact)

- Engage through polycentric governance
- For collective impact: common agenda, mutually reinforcing activities, continuous communication, and backbone support (collective impact model)
- Working group to develop a revised GOOS governance system

Take home messages from OceanObs'19 and GOOS 2030

EuroGOOS 2030

- Which areas fit into identified priorities?
- Which are new?
- Supports, resources?