

The Global Ocean Observing System
goosocean.org

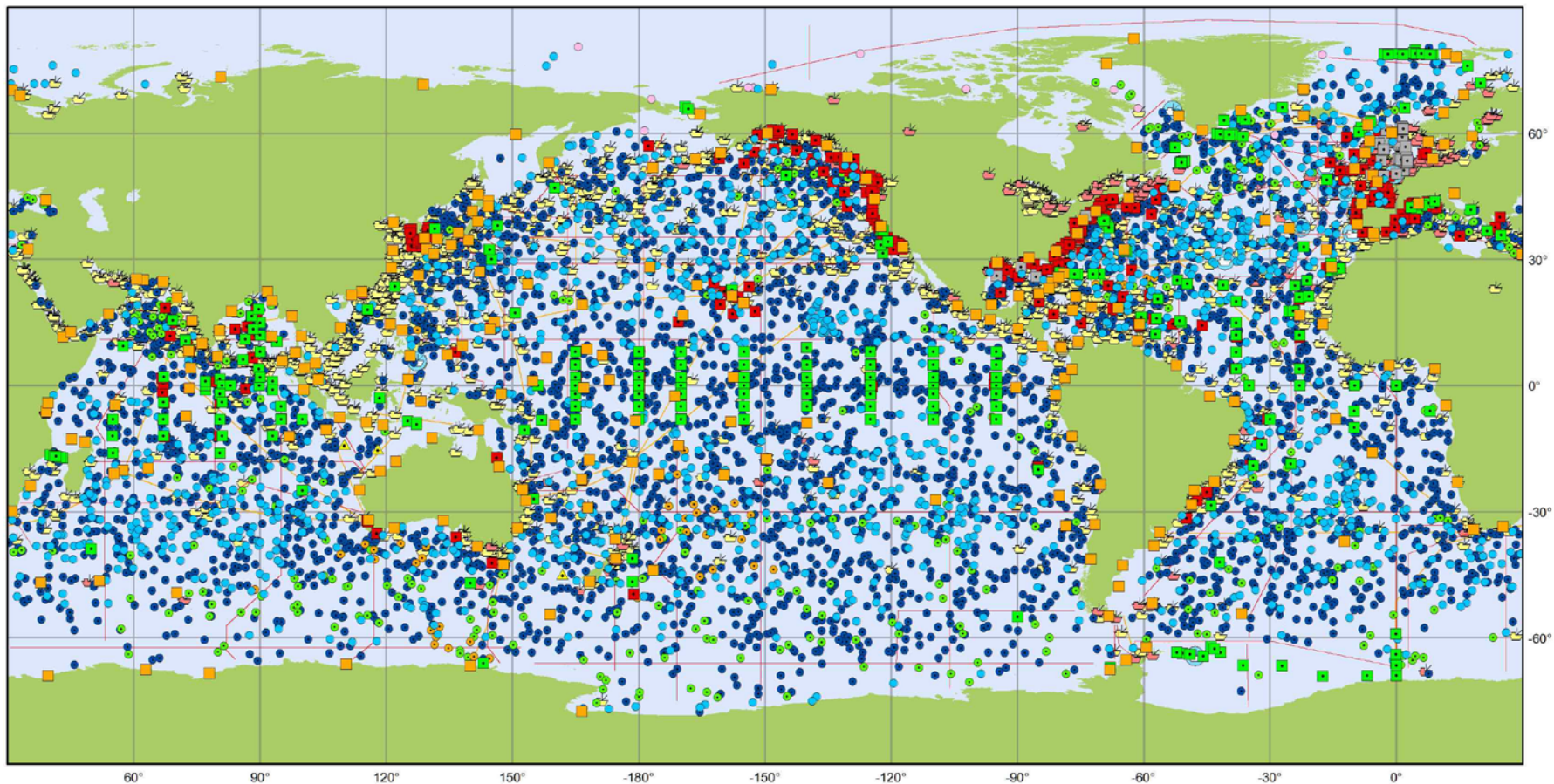
Global Ocean Observing System

2030 Strategy

John Gunn, Toste Tanhua, Albert Fischer, Glenn Nolan
GOOS Executive

Blue Planet Symposium, Toulouse; 4 July 2018





Main in situ Elements of the Global Ocean Observing System

February 2018

Profiling Floats (Argo)

- Core (3858)
- Deep (50)
- BioGeoChemical (305)

Data Buoys (DBCP)

- Surface Drifters (1401)
- Offshore Platforms (96)
- Ice Buoys (14)
- Moored Buoys (374)
- ▲ Tsunamieters (3)

Timeseries (OceanSITES)

- Interdisciplinary Moorings (340)
- Research Vessel Lines (61)

Sea Level (GLOSS)

- Tide Gauges (252)

Ship based Measurements (SOT)

- Automated Weather Stations (258)
- Manned Weather Stations (1754)
- Radiosondes (13)
- eXpendable BathyThermographs (37)



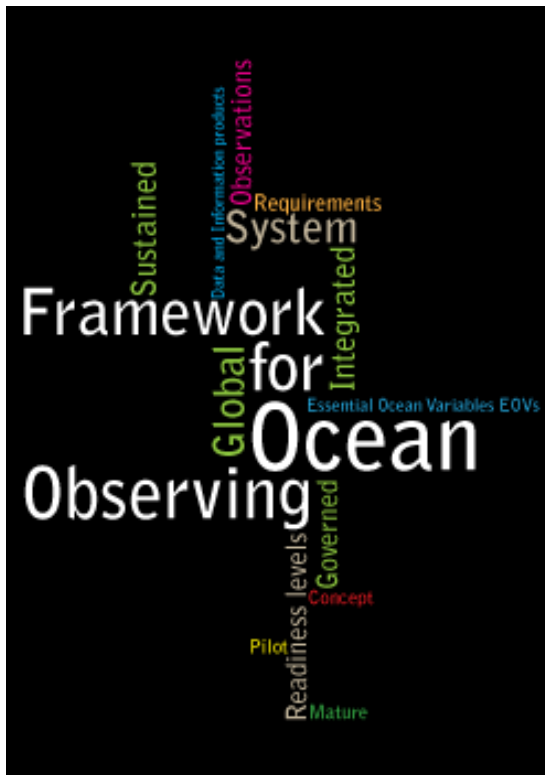
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THE GLOBAL OCEAN OBSERVING SYSTEM, GOOS, REGIONAL ALLIANCES



Why a new GOOS Strategy?

2012



- Blueprint for OOS design
- Essential Ocean Variables
- Extension of GOOS to include **Biogeochemistry and Biology**
- Streamlined Governance

OOPC - GOOS Physics and Climate Panel

- **Essential Ocean Variables:** in GCOs, WMO, UNFCCC & Copernicus
- **Assessment focus:** Ocean Heat and Freshwater Storage Review – workshop 2018 – publish 2019 – boundary currents underway
- **Partnership:** GCOS, WCRP, JCOMM, OceanPredict engagement, Ocean Positioning Paper WMO

IOCCP - GOOS Biogeochemistry Panel

- **Essential Ocean Variables:** specification sheets complete
- **End-to-end focus:** Oxygen, Nitrous Oxide, Dissolved Organic Carbon, development of a new, global, time-series products, UN SDG, methodology for indicator 14.3.1
- **Partnership:** GOA-ON (IOC Ocean Science)
- **Future EOV - “Ocean Pollution”**



GOOS Ocean Biology / Ecology Panel

- **Essential Ocean Variables:** specification sheets, technical workshops, networks for 8 EOVs, GCOS ECVs
- **Cross GOOS coordination:** strategic mapping, phenomena, best practices, GOOS regional alliances
- **Partnership:** MBON & OBIS (IOC/IODE), POGO, IMBER
- **Future EOV - “Ocean Sound”**



Context: **SDGs Agenda 2030**



THE GLOBAL GOALS
For Sustainable Development

14 LIFE
BELOW WATER



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



United Nations
Educational, Scientific and
Cultural Organization



Intergovernmental
Oceanographic
Commission



**Sustainable
Development
Goals**

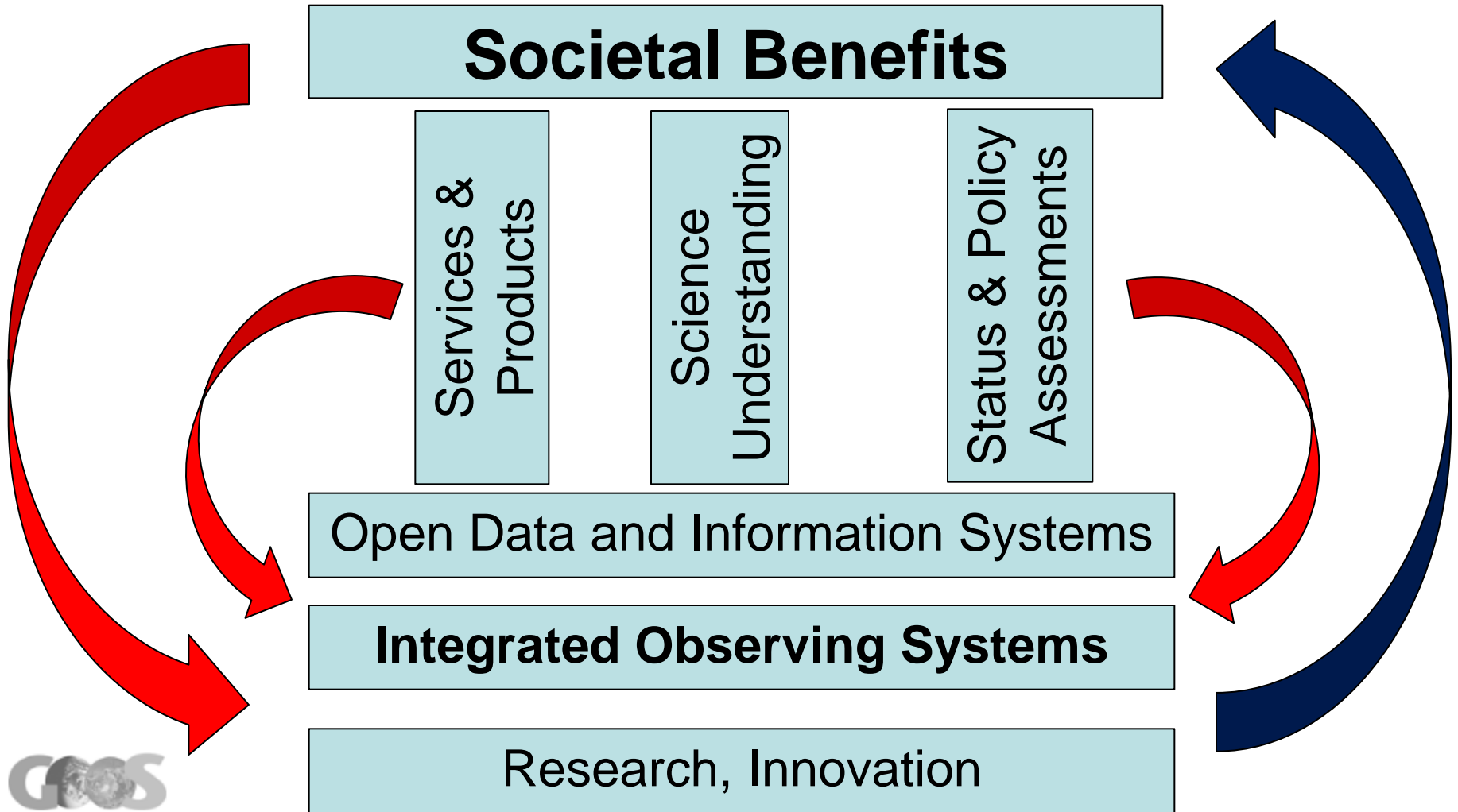


New GOOS **Strategy**

Vision

A truly global ocean observing system, delivering the information essential for sustainable development, safety, wellbeing and prosperity

The ocean observation **value chain**



New GOOS Strategy

A diver in a black wetsuit and scuba gear is swimming over a coral reef in clear blue water. The diver is positioned in the upper center of the frame, facing downwards. The coral reef is visible in the lower half of the image, and the water is a deep, clear blue.

Mission

To lead the ocean observing community in growing an integrated, responsive and sustained global observing system

Observing system **delivery targets**

Climate

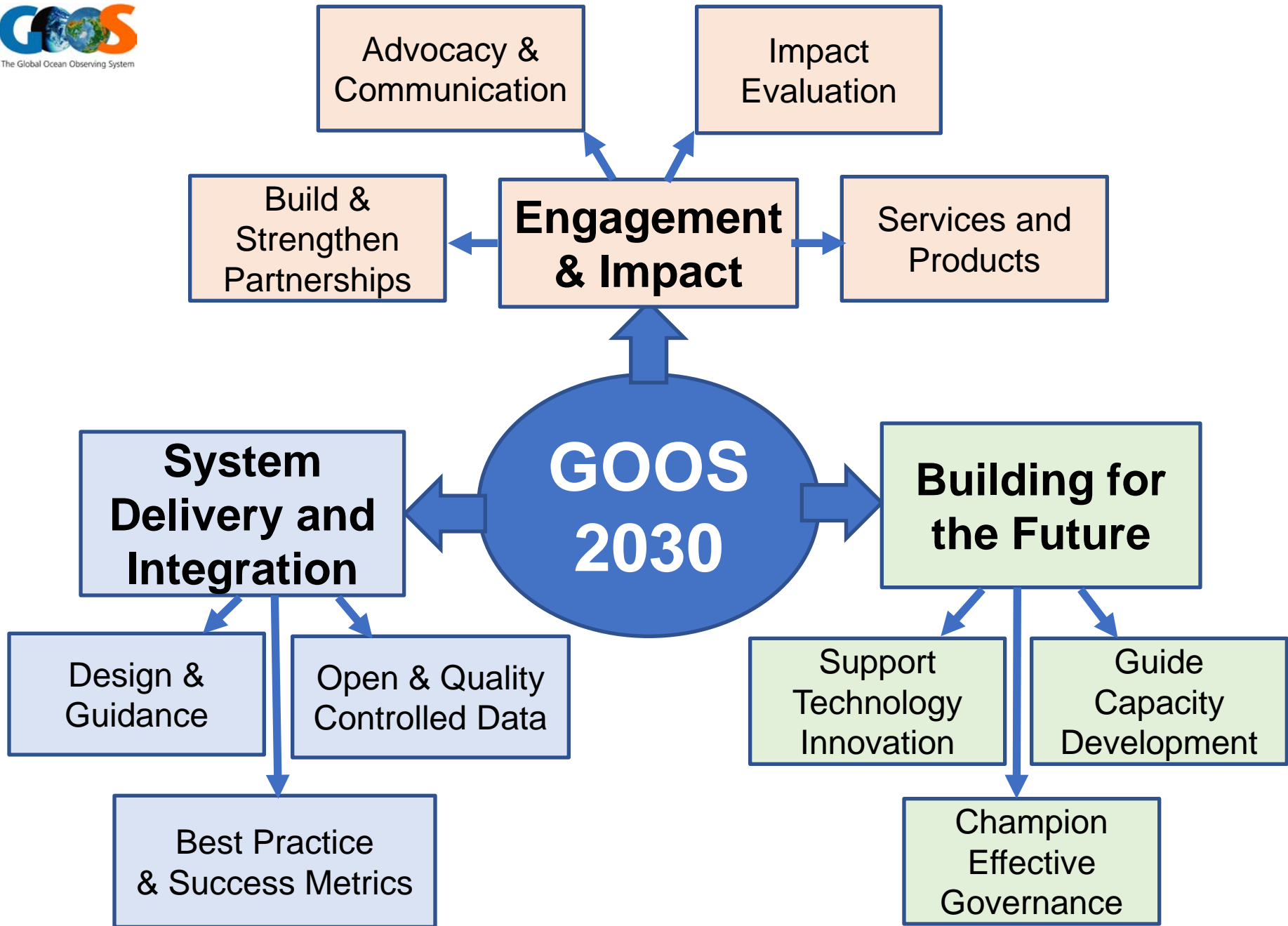


**Marine
Ecosystem Health**

**Operational
Services**

GOOS principles

- Design driven by end-user needs
 - Sustained observations
- Global standards and best practices
 - Regular evaluation
 - Open data
- Capacity development





To stay informed
www.goosocean.org/join