United Nations Educational, Scientific and Cultural Organization

Intergovernmental Oceanographic Commission

Sustainable Development Goals

One Planet, One Ocean

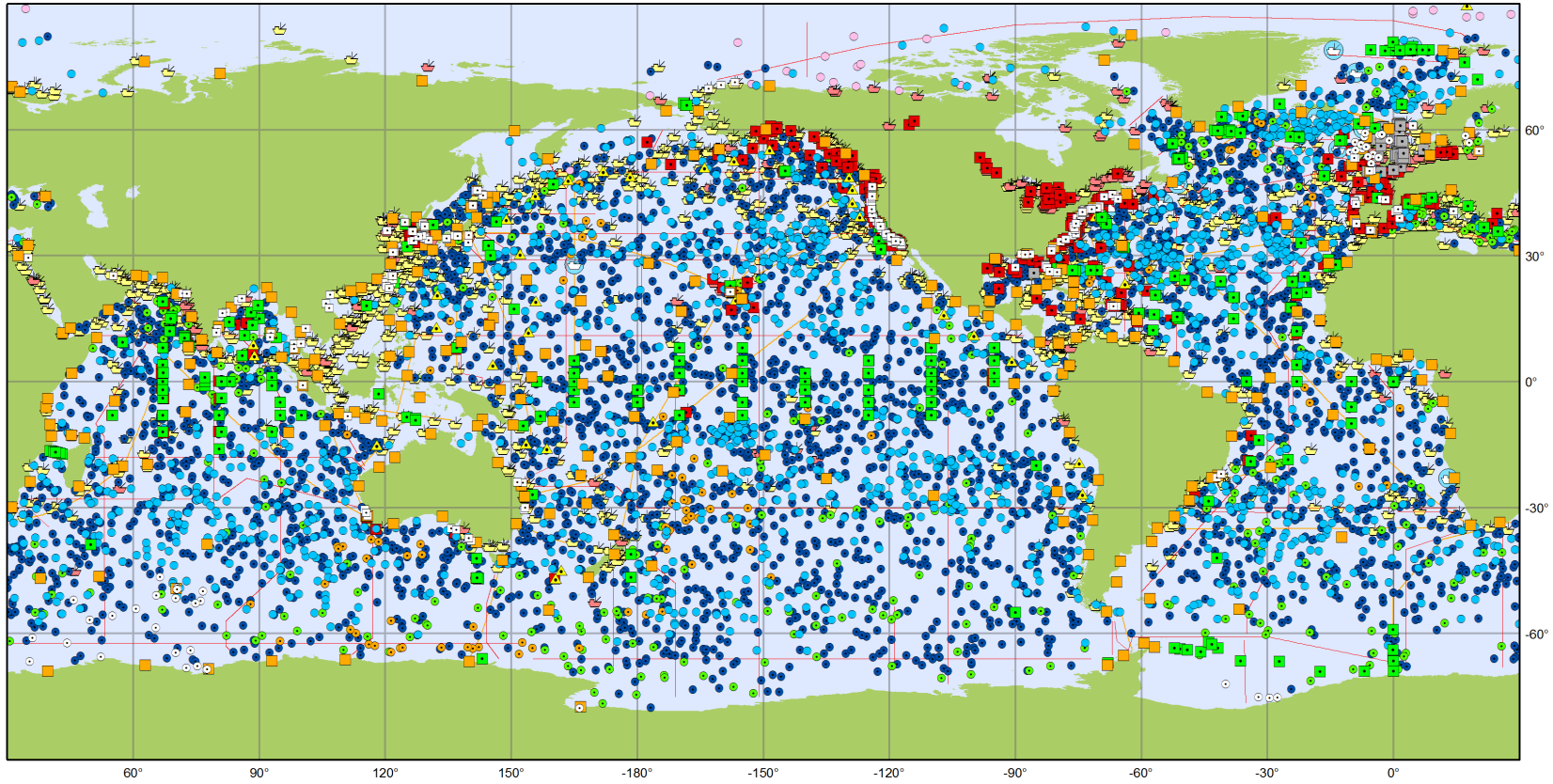
GCOS
Sponsor's remarks: IOC

A. Fischer, V. Ryabinin

IOC/UNESCO

GCOS SC-27, 28 October 2019

GOOS system contributing to GCOS



Main in situ Elements of the Global Ocean Observing System

September 2019

Profiling Floats (Argo)
- Core (3869)
- Deep (96)
- BioGeoChemical (367)

Data Buoys (DBCP)
- Surface Drifters (1491)
- Offshore Platforms (92)
- Ice Buoys (23)
- Moored Buoys (358)
- Tsunameters (35)

Timeseries (OceanSITES)
- Interdisciplinary Moorings (345)

Repeated Hydrography (GO-SHIP)
- Research Vessel Lines (63)

Sea Level (GLOSS)
- Tide Gauges (290)

Ship based Measurements (SOT)
- Automated Weather Stations (265)
- Manned Weather Stations (1386)
- Radiosondes (13)
- eXpendable BathyThermographs (34)

Other Networks
- HF Radars (270)
- Animal Borne Sensors (53)

Generated by www.jcommops.org, 09/10/2019

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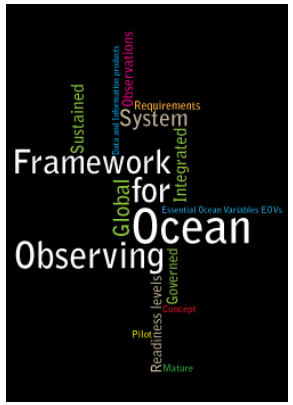
GOOS structure 2019



Sponsors: IOC/UNESCO, WMO, UN Envi, ICS

GOOS Steering Committee

Requirements & Evaluation

- GCOS-GOOS-WCRP Physics & Climate (OOPC)
- GOOS Biogeo-chemical Panel (IOCCP)
- GOOS Biology & Eco-systems Panel

Observations

- JCOMM Observations Coordination Group
- JCOMMOPS
- Observing networks
- GOOS Regional Alliances
- National systems

Data & Information

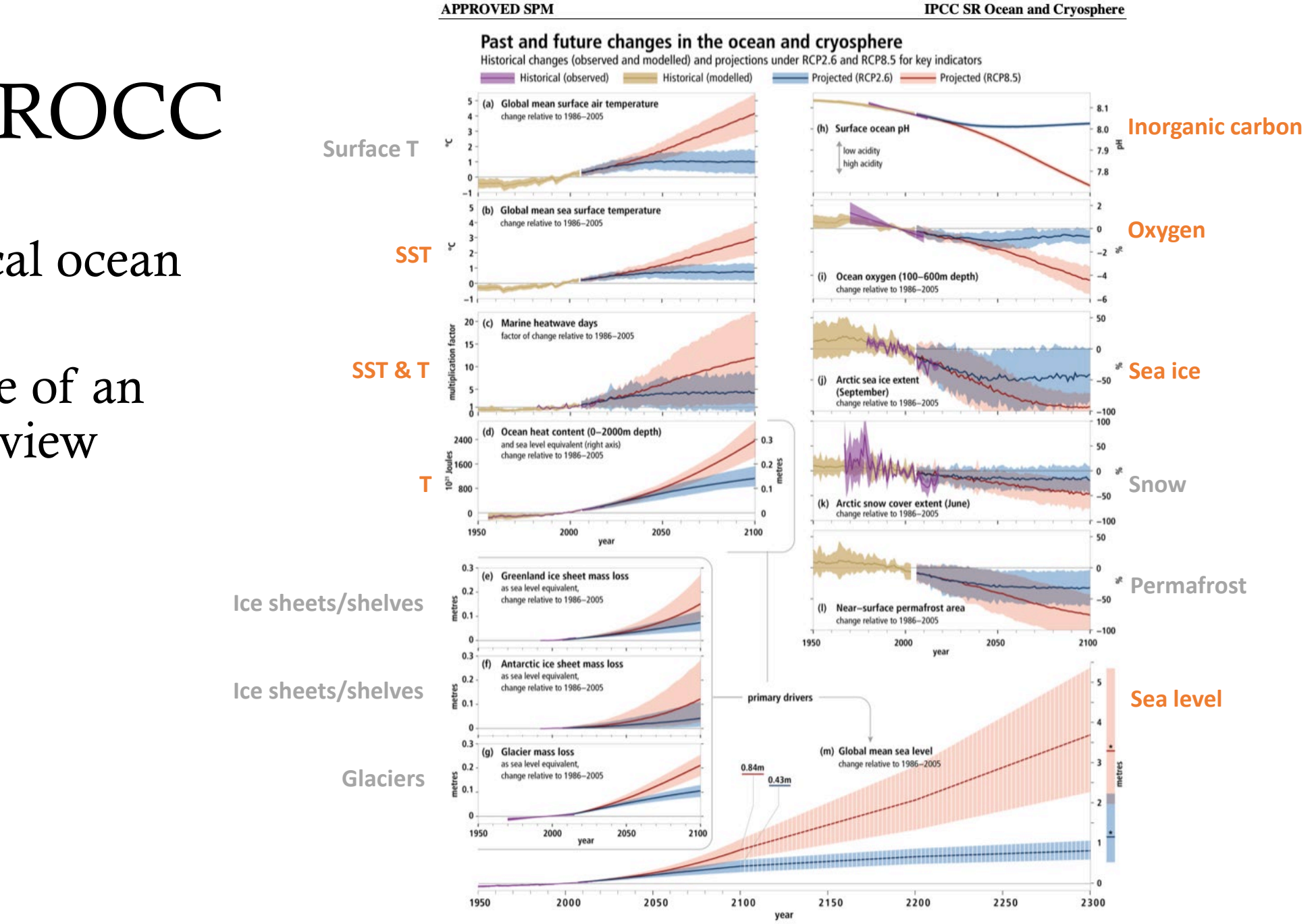
- links to IODE, WMO Information System

Projects

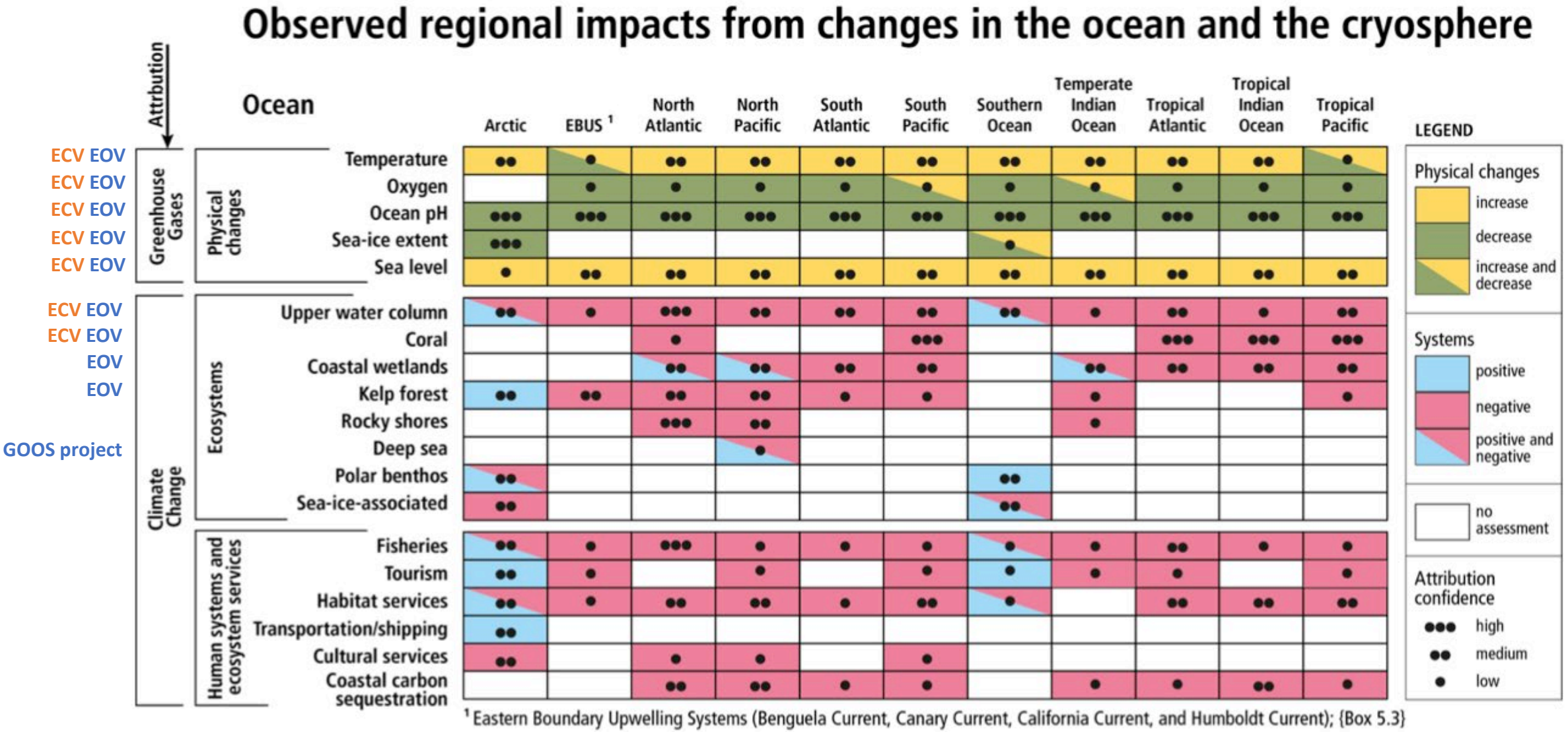
- TPOS 2020
- DOOS
- AtlantOS
- MESCAT

IPCC SROCC

- Key physical ocean ECVs
- Importance of an integrated view

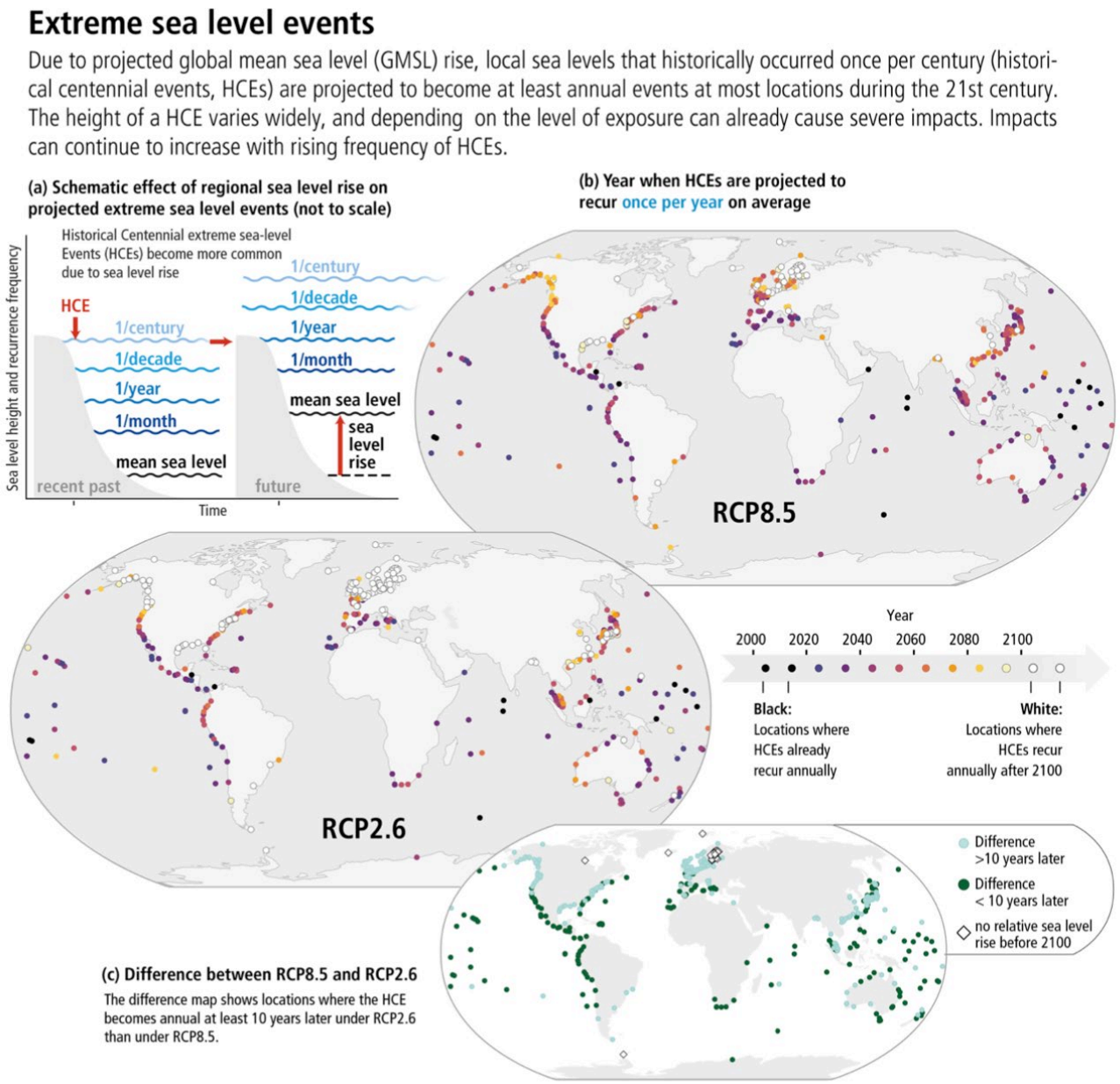


Are we addressing impacts?



Are we addressing impacts?

- Fully engaged with WCRP grand challenge on *regional sea level change and coastal impacts?*

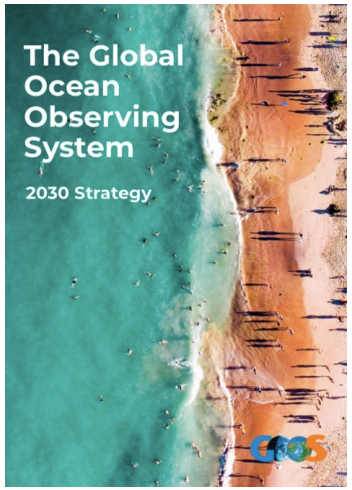


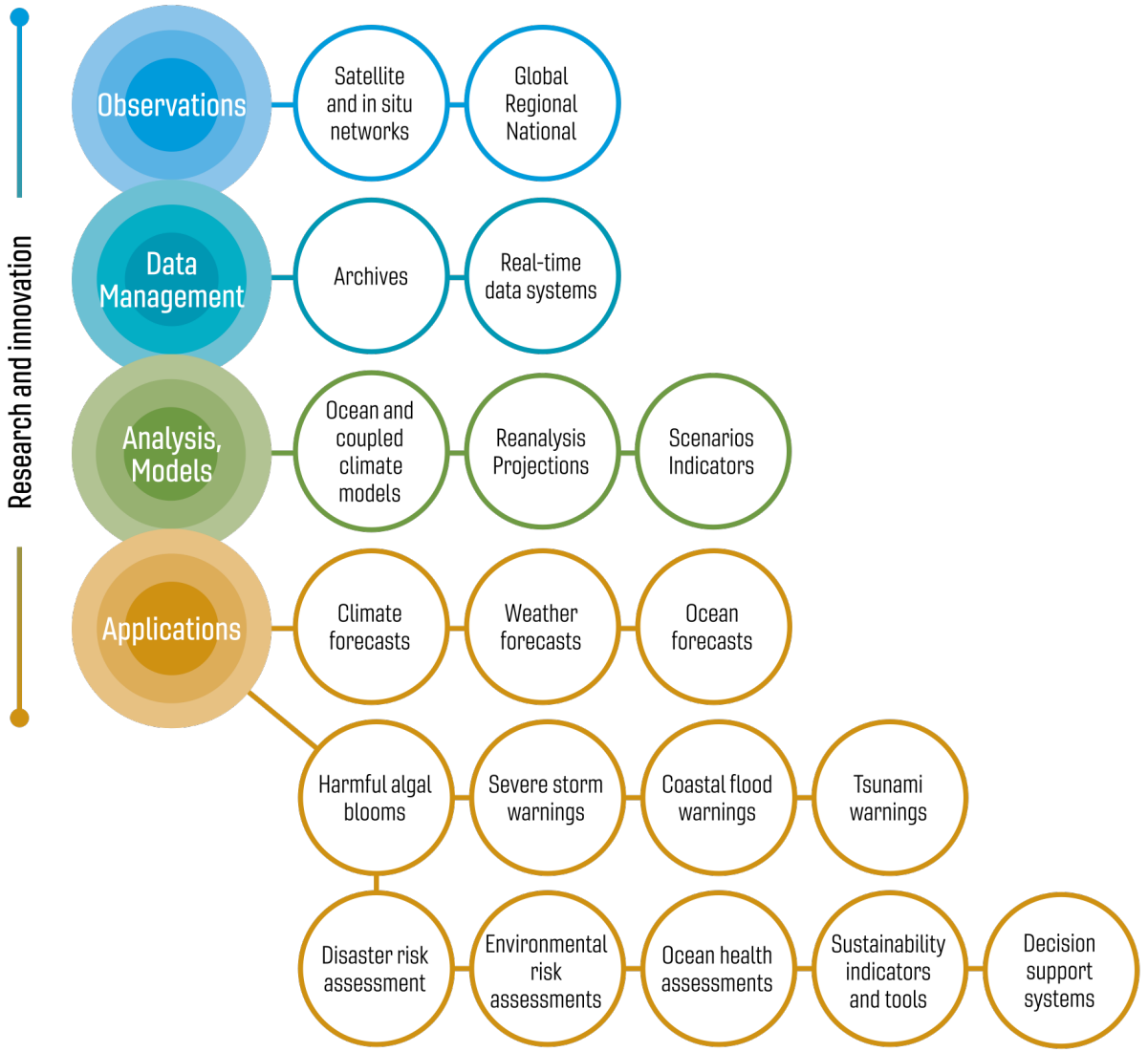
GOOS 2030 Strategic Objectives

Key areas of partnership with GCOS

Value chain

Climate observations to application and users

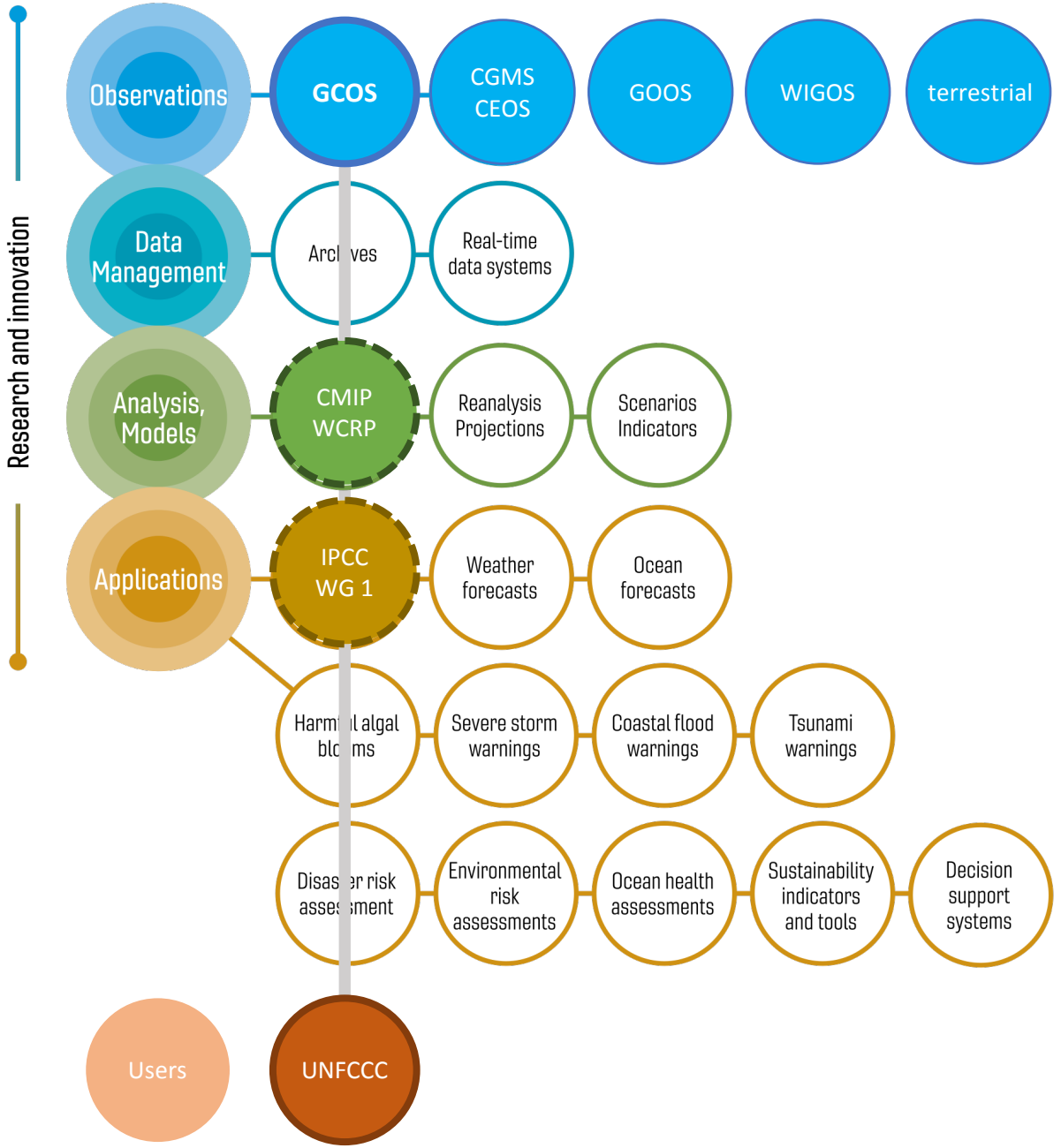




Value chain

Climate observations to application and users

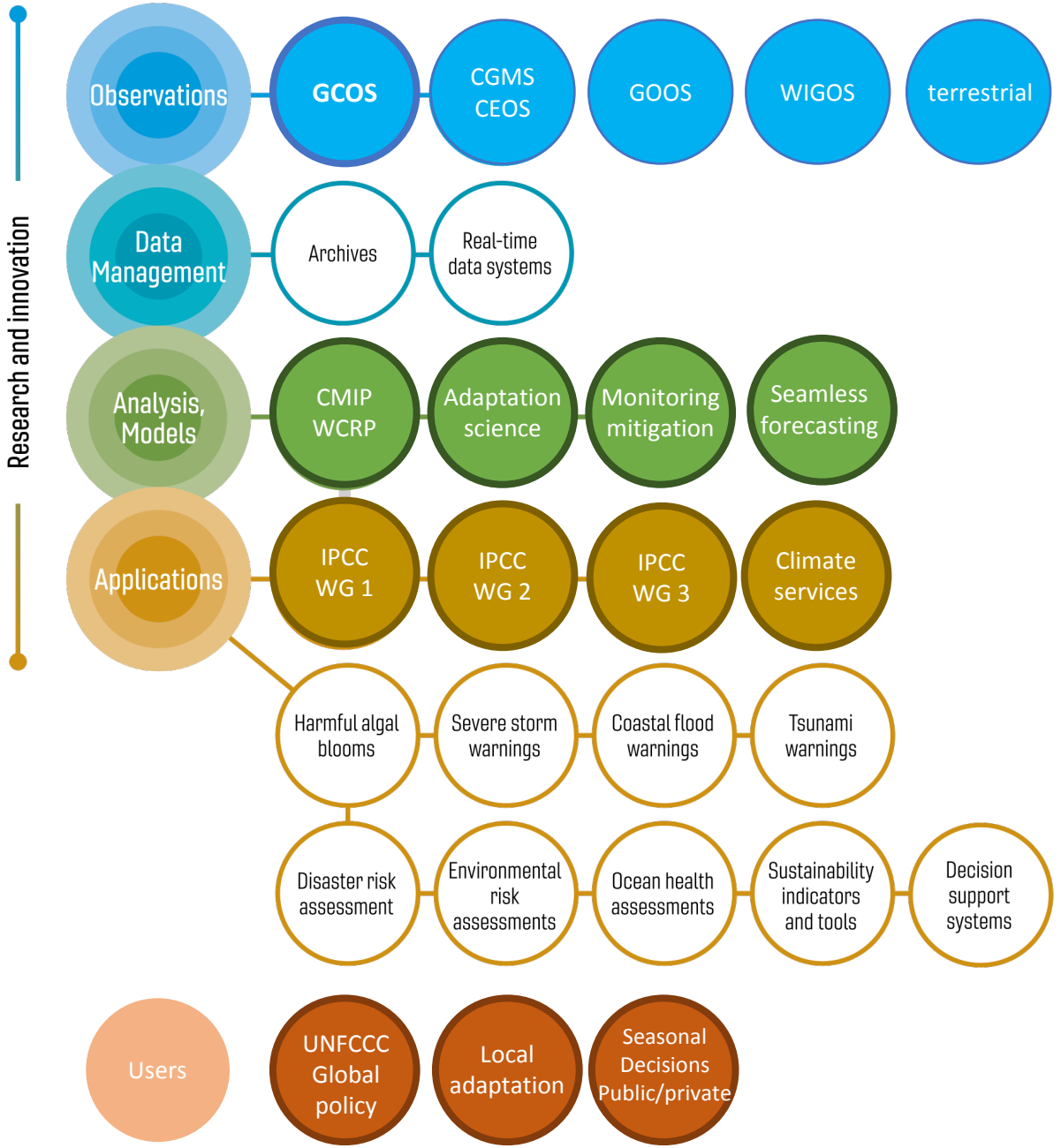
GCOS today



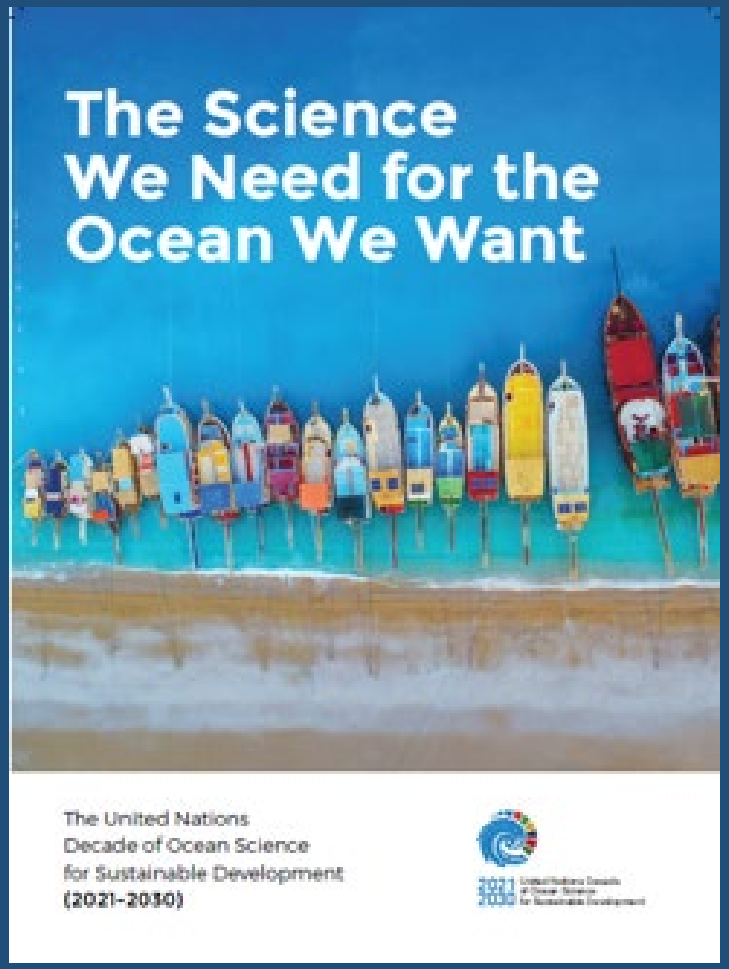
Value chain

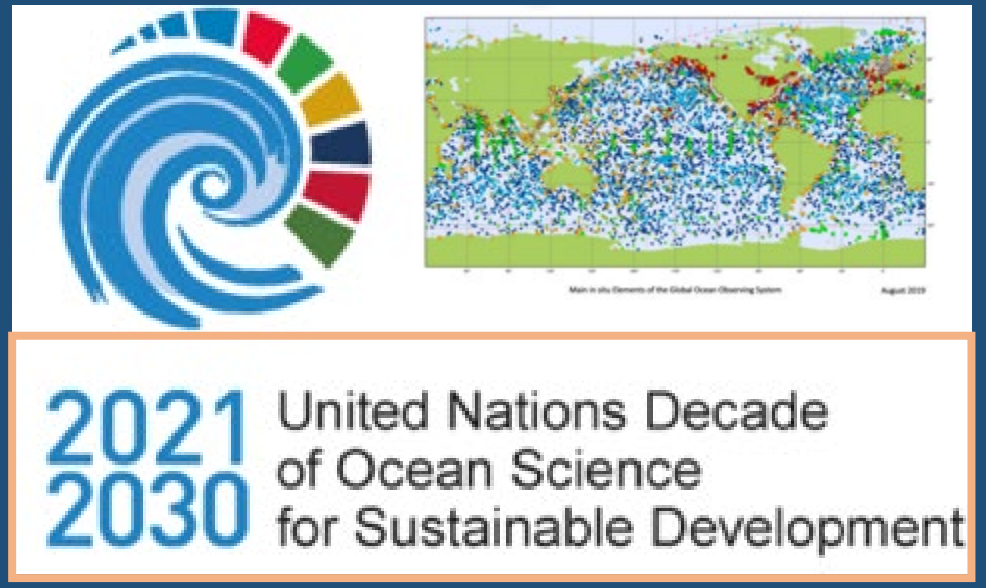
Climate observations to application and users

The GCOS that
IOC would like to see



UN Decade of Ocean Science for Sustainable Development 2021-2030





Plans of Co-Sponsors regarding GCOS

- **Seeking clarity from WMO** – IOC, GOOS, and GCOS have worked closely together
- Change can **capitalize on opportunities**
- **GCOS partnership requires co-design of change** with stakeholders
  - *Observing systems*: CEOS, CGMS, GOOS, WIGOS, GEO?
  - *Scientific*: WCRP, others including Provia, FutureEarth
  - *Assessment*: IPCC WG 1, 2, and 3; IPBES and others looking at climate impact
  - *Applications*: forecast systems and climate services
  - *Sponsors*: WMO, IOC, UNEP, ISC

Plans of Co-Sponsors regarding GCOS

- **Change process**
  - Look for opportunities to improve & Identify what key things to keep
    - What outputs and on what frequency?
    - What feedback? What advocacy? for the component observing systems
    - What new areas of work?
  - Example: change in Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM)
    - Joint WMO-IOC Consultative Group created in 2018, made recommendations that were acted on by WMO Congress and IOC Assembly in 2019, transition into 2020
    - Widely viewed as a positive process, strengthening partnership on areas of value to stakeholders
  - What is that process for GCOS?

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