

# 32<sup>nd</sup> IOC Assembly

## Item 5

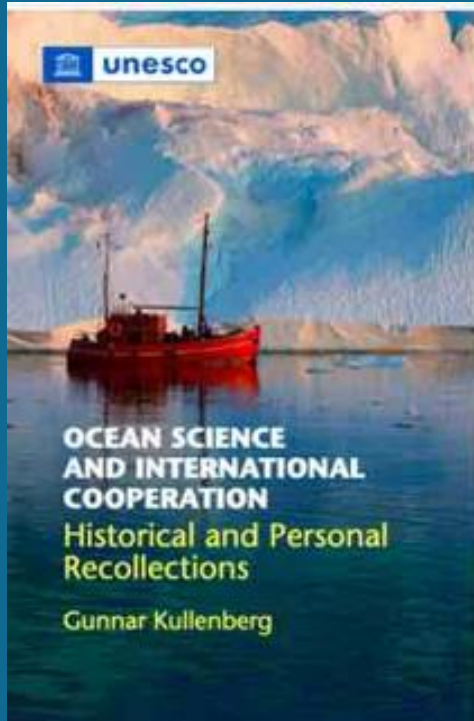
### **IOC AND THE FUTURE OF THE OCEAN: SUSTAINABLE DELIVERY AND EXPANSION OF IOC ACTIVITIES**

Working document:

IOC/A-32/5.Doc(1)

**Dr Vladimir Ryabinin**

*28 June 2023*



Restricted Distribution

**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION**  
(of UNESCO)



**Twenty-Third Session of the Assembly**  
Paris, 21–30 June 2005

**FINANCING AND OWNERSHIP OF IOC'S PROGRAMMES**

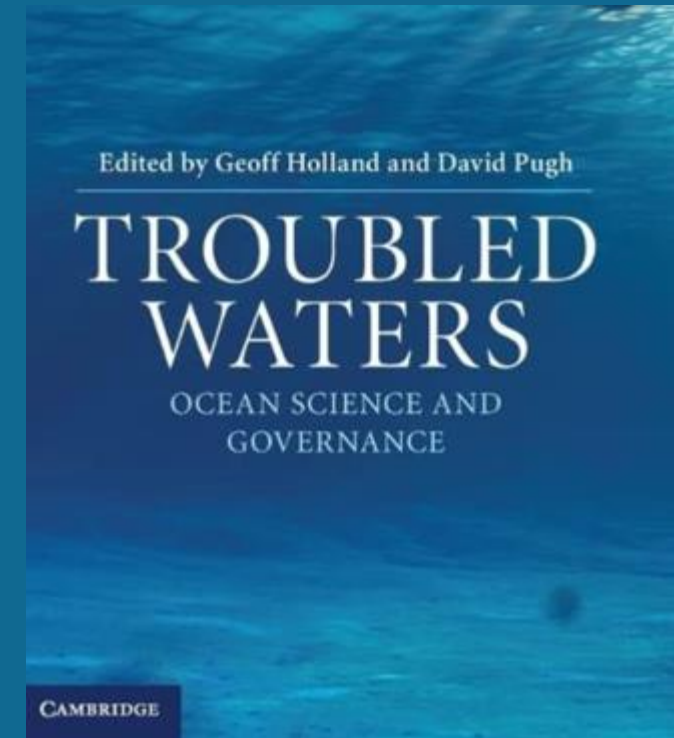
**“WE HAVE A PROBLEM”**

**Future of the Ocean  
and the role of IOC in it**



**The Future of IOC toward next 10  
years and its implication for  
Member States**

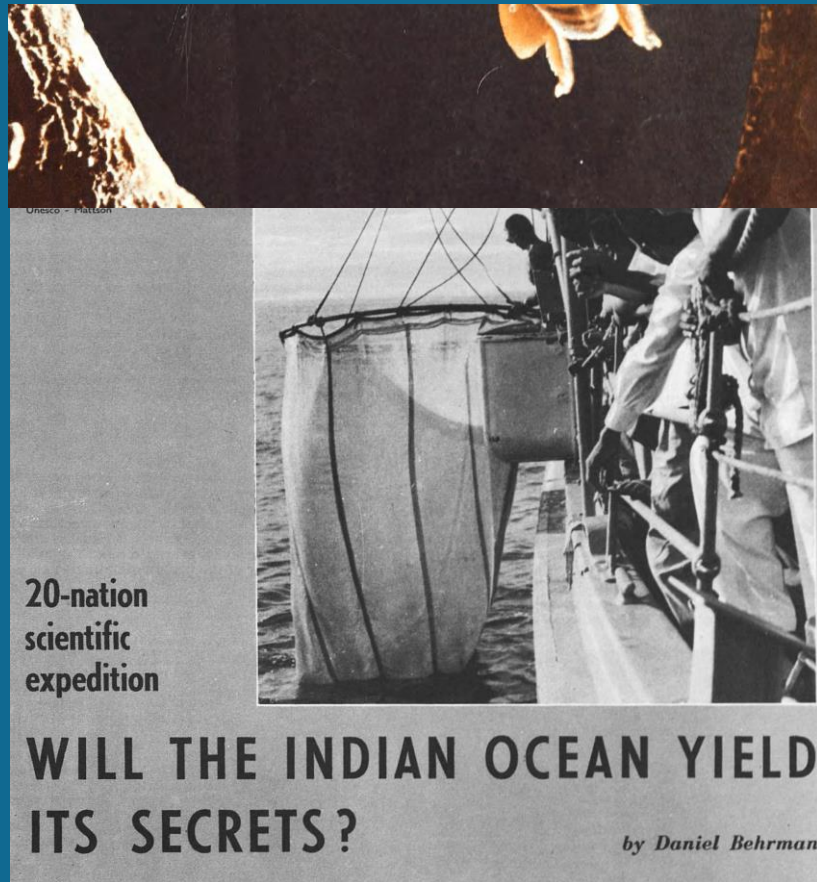
Varna, Bulgaria  
19<sup>th</sup> March 2012



1960s

# IOC Evolving Agenda

Now



Intergovernmental UN platform for dialogue and cooperation in ocean science



Intergovernmental UN Platform to enable ocean science for addressing **existential** issues

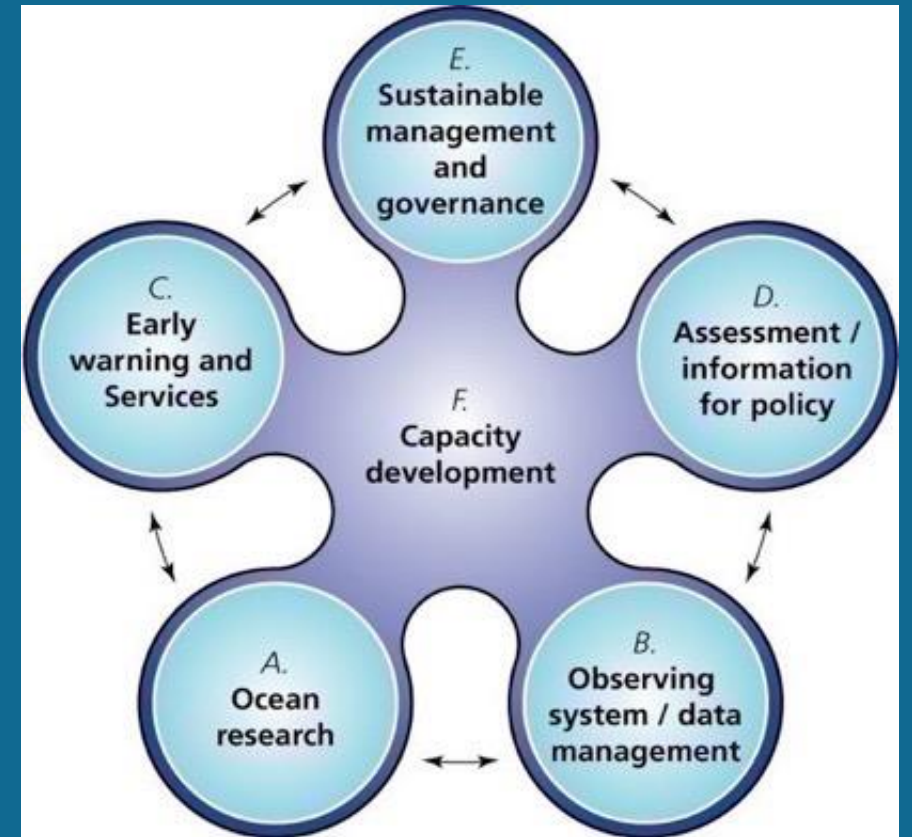
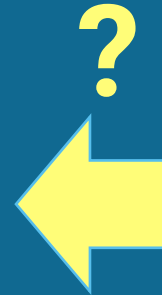
# IOC MTS: High-Level Objectives and Functions



## *Mission:*

*to bring together governments and science community in achieving 'the Ocean We Need for the Future We Want'*

- **Healthy ocean and sustained ocean ecosystem services;**
- **Effective warning systems and preparedness for tsunamis and other ocean-related hazards;**
- **Resilience to climate change and contribution to its mitigation;**
- **Scientifically-founded services for the sustainable ocean economy; and**
- **Foresight on emerging ocean science issues.**



*The science we need  
for the ocean we want*

**Issues**

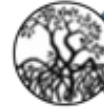
**Solutions  
(infrastructure)**

**Enabling  
environment**

## OCEAN DECADE CHALLENGES



**Pollutants**



**Ecosystems**



**Food from the Ocean**



**Ocean economy**



**Ocean-climate nexus**



**Ocean-related risks**



**Ocean observing system**



**Ocean digital representation**



**Capacity development**



**Behaviour change**

- **Clean**
- **Healthy and resilient**
- **Productive**
- **Safe**
- **Predicted**
- **Accessible**
- **Inspiring and engaging**

# Relevant UN Frameworks set objectives



Kunming-Montreal GBF

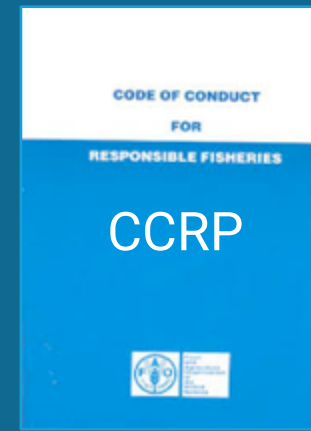
Ocean-Climate Dialogue



Sendai Framework for Disaster Risk Reduction

2015 - 2030

+ ILBI on Plastic Pollution 2024



# How the System is organized



## Convention 1

Goals

Secretariat

National PoC

Commitments

Assessment 1

## Convention 2

Goals

Secretariat

National PoC

Commitments

Assessment 2

## Convention 3

Goals

Secretariat

National PoC

Commitments

Assessment 3

## Protocol A

Goals

Secretariat

National PoC

Commitments

Assessment A

## Protocol B

Goals

Secretariat

National PoC

Commitments

Assessment B

...

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...

# How the System is organized



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National PoC

Commitments

Assessment 3

Ocean is most often “2<sup>nd</sup> priority” in many conventions

## Protocol A

Goals

Secretariat

National PoC

Commitments

Assessment A

## Protocol B

Goals

Secretariat

National PoC

Commitments

Assessment B

...

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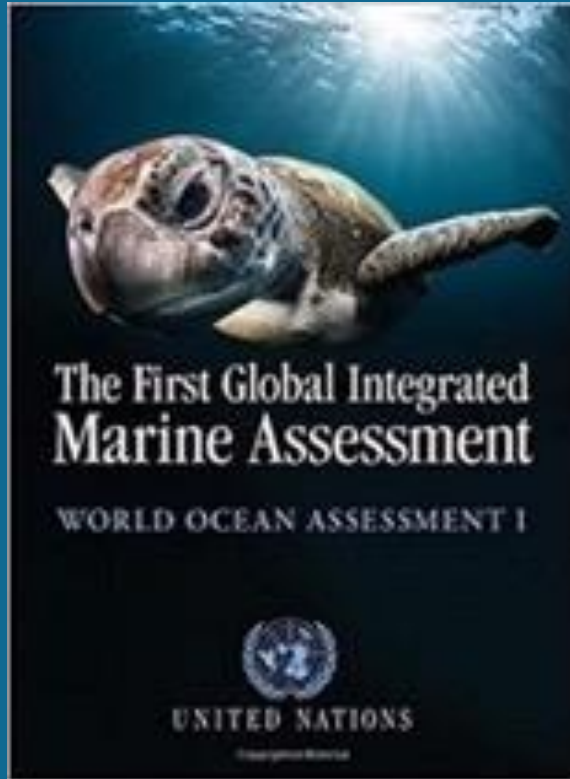
...

Patient, sick with multiple diseases, is treated by several specialized doctors who do not speak to each other

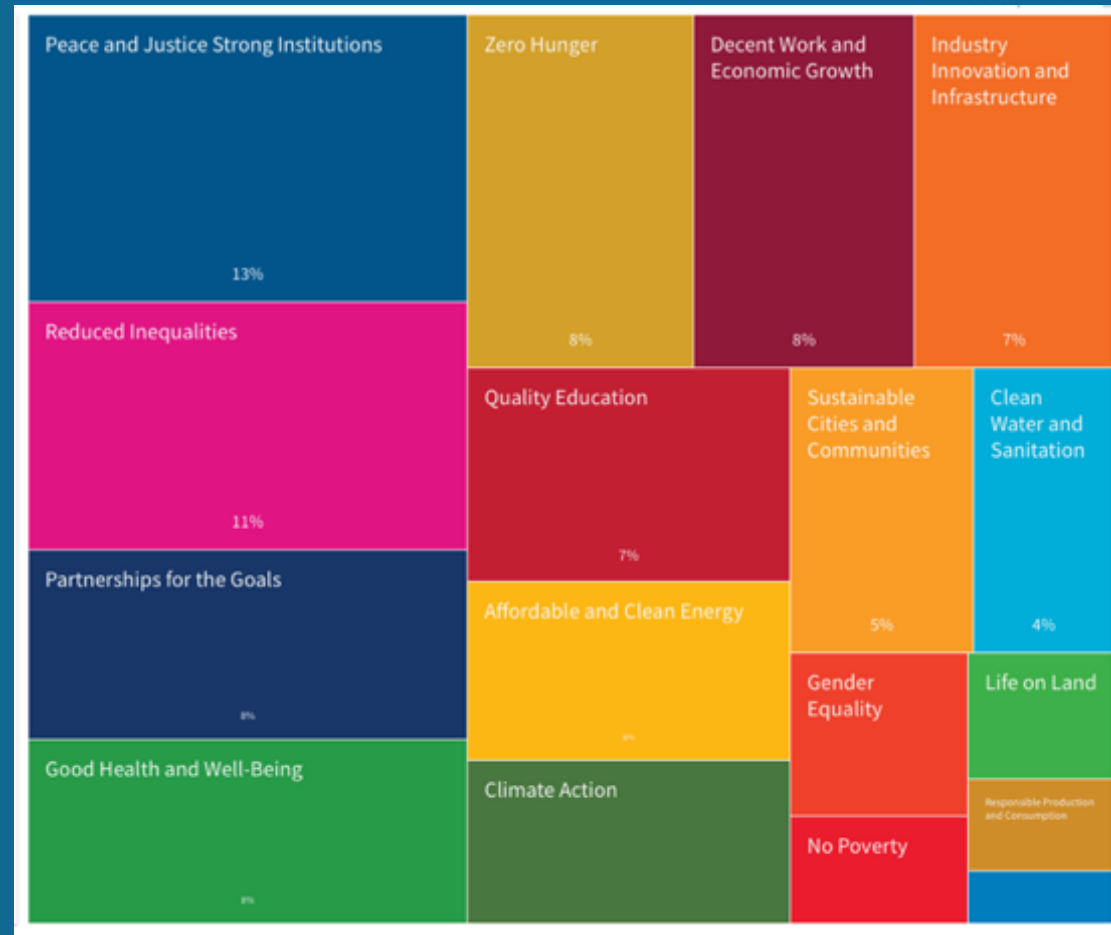


2016

# SDG14 of the 2030 Agenda

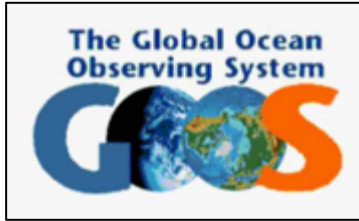


**Humankind is running out of time to start managing the ocean sustainably**



REQUIREMENTS

Theme      Societal Benefit      Scientific Issue, process      EOVS      Network



Framework for Ocean Observing

Essential Ocean Variables EOVS

Sustained System

Requirements

Integrated

Readiness levels

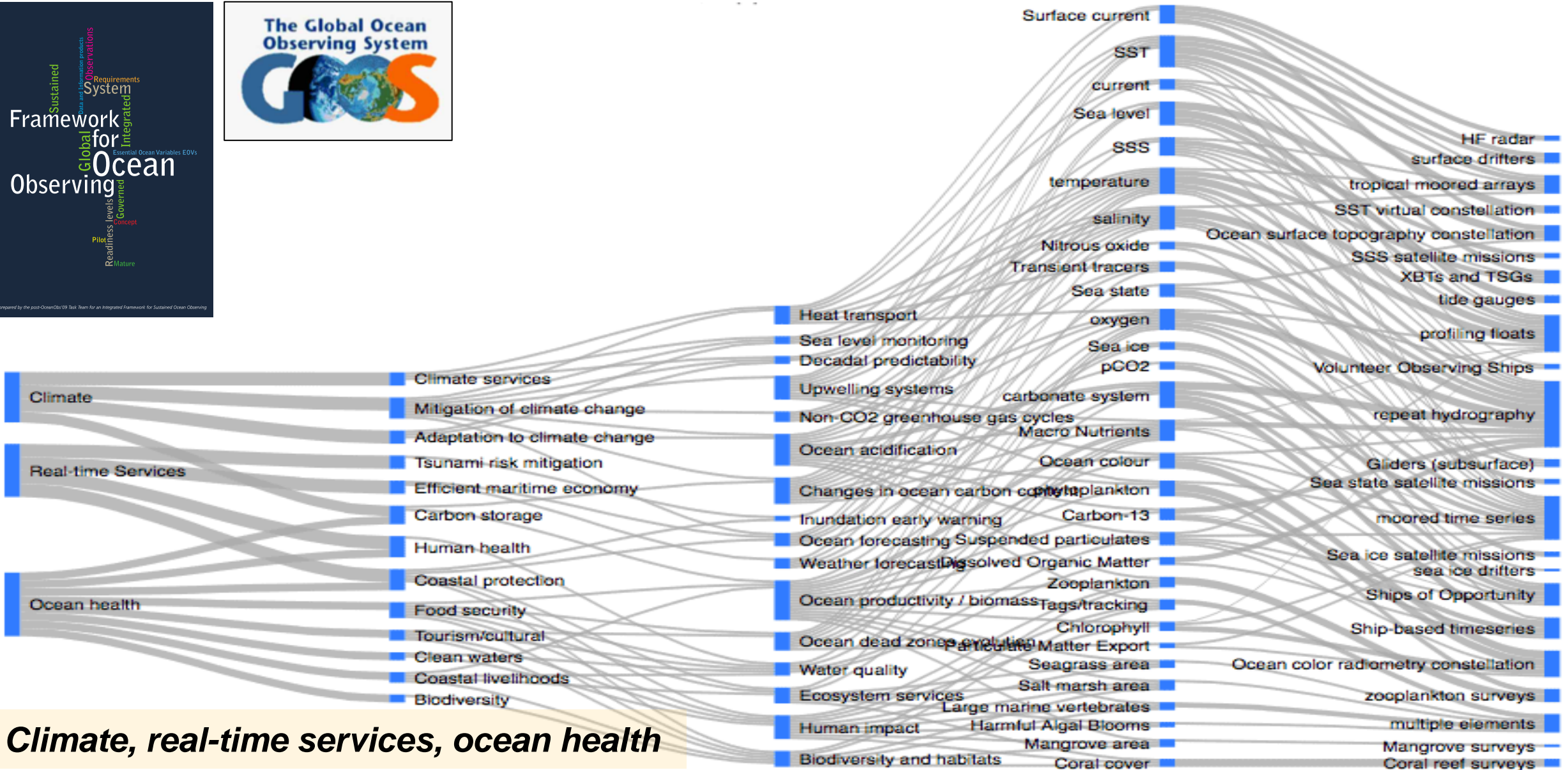
Pilot

Mature

Government

Concept

Prepared by the post-OceanObs09 Task Team for an Integrated Framework for Sustained Ocean Observing



**Climate, real-time services, ocean health**



**What is the role of ocean observations in addressing climate change?**

**Little!**



**What is the role of ocean observations in addressing climate change?**

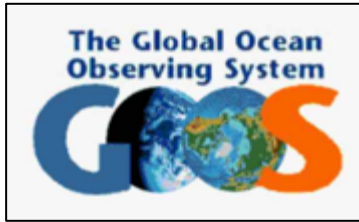
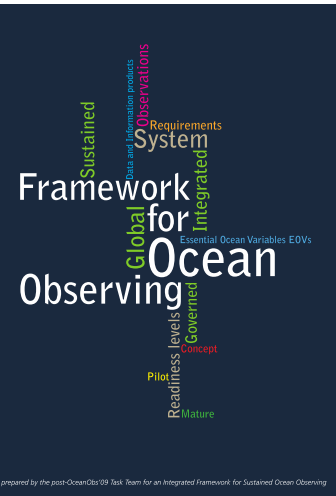
**Little!**

**What is the role of knowledge products based on ocean observations in addressing climate change?**

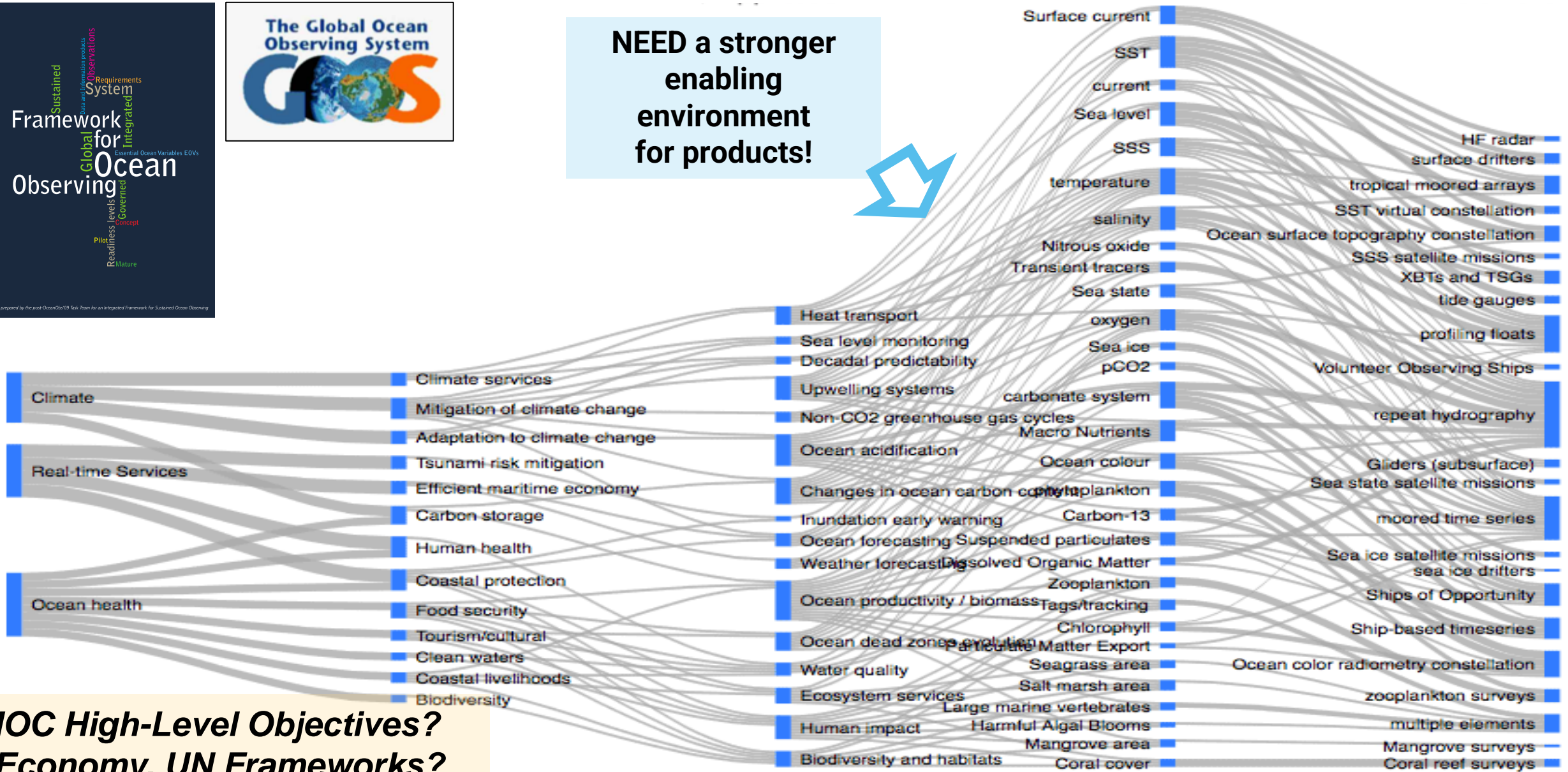
**Fundamental!**

REQUIREMENTS

Theme      Societal Benefit      Scientific Issue, process      EOV      Network



NEED a stronger enabling environment for products!



IOC High-Level Objectives? Economy, UN Frameworks?

Is there an approach to create enabling environment for ocean knowledge products generation that would facilitate their efficient use?  
Yes!

***“Sustainable Ocean Planning”***



**climate-smart, ecosystem-focussed, ethical & equitable ocean management on the basis of science-supported planning for a sustainable blue economy**

**But: much still needs to be constructed!**

# Key Ocean Management Domains



Coastal zone management and adaptation



*Marine Spatial Planning,*  
sustainable ocean economy



BBNJ, MPAs, reserves, LMEs, heritage sites, UCH



Management of fisheries and aquaculture



Adaptation to and mitigation of climate change, NDCs



Development of national R&D strategies & ocean policies



Real-time oceanographic, weather/climate services



Regional and national capacity development



Early warning Systems, Sendai

# IOS Evaluation of IOC strategic positioning

**Sustainable delivery and expansion of IOC activities :  
estimate of required budget, including human resource needs**

*(Document distributed by IOC Circular Letter No. 2912)*



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**Conclusions:**

**workforce: 60 -> 90,  
budget: 30M\$ -> 50M\$**

**Expect soon:**

**Increase in regular  
programme budget**



# What is missing in the pot? Or, what has not been developed enough?

*(list is not inclusive and not in any order)*

- **Use of climate predictions and projections for ocean management**
- Framework to adapt to sea-level rise
- **Research on ocean chemical pollution -> multiple stressors**
- Return on investments in ocean research/observations -> *ocean economics*
- **Valuation of ecosystems and benefits of ocean life-supporting services**
- Ocean reanalysis
- **ODIS: enabling environment for knowledge products!**
- Mainstreaming reanalysis with use of remote sensed data
- **Biogeochemistry - ecological observations and models**
- Ocean science – policy interface
- ...

# IOC can help saving the Ocean!

- Capitalize on Ocean Decade, its processes and Conference 2024
- Build on ideas in the Action Plan from IOS Evaluation
- Costa Rica and France, 2024 and UNOC 2025
- A pan-UN plan of working in the ocean?
- Need for an in-depth co-design of the future IOC services (reverse engineering?) – a complex task

Peter Thomson  
(SDG14 Plan?)

Dec. A-32/5

## IOC and the Future of the Ocean: Sustainable Delivery and Expansion of IOC Activities

A consultation on how IOC could optimally facilitate science-based sustainable ocean planning, ocean science support to implementation of UN environmental conventions and frameworks, and development of a sustainable ocean economy;

IOC Executive Secretary to prepare and initiate the consultation involving appropriate stakeholders and present a progress update to the IOC Executive Council in 2024

