

# Oceans and Society: Blue Planet

## An Integrating Task of GEO for Oceans

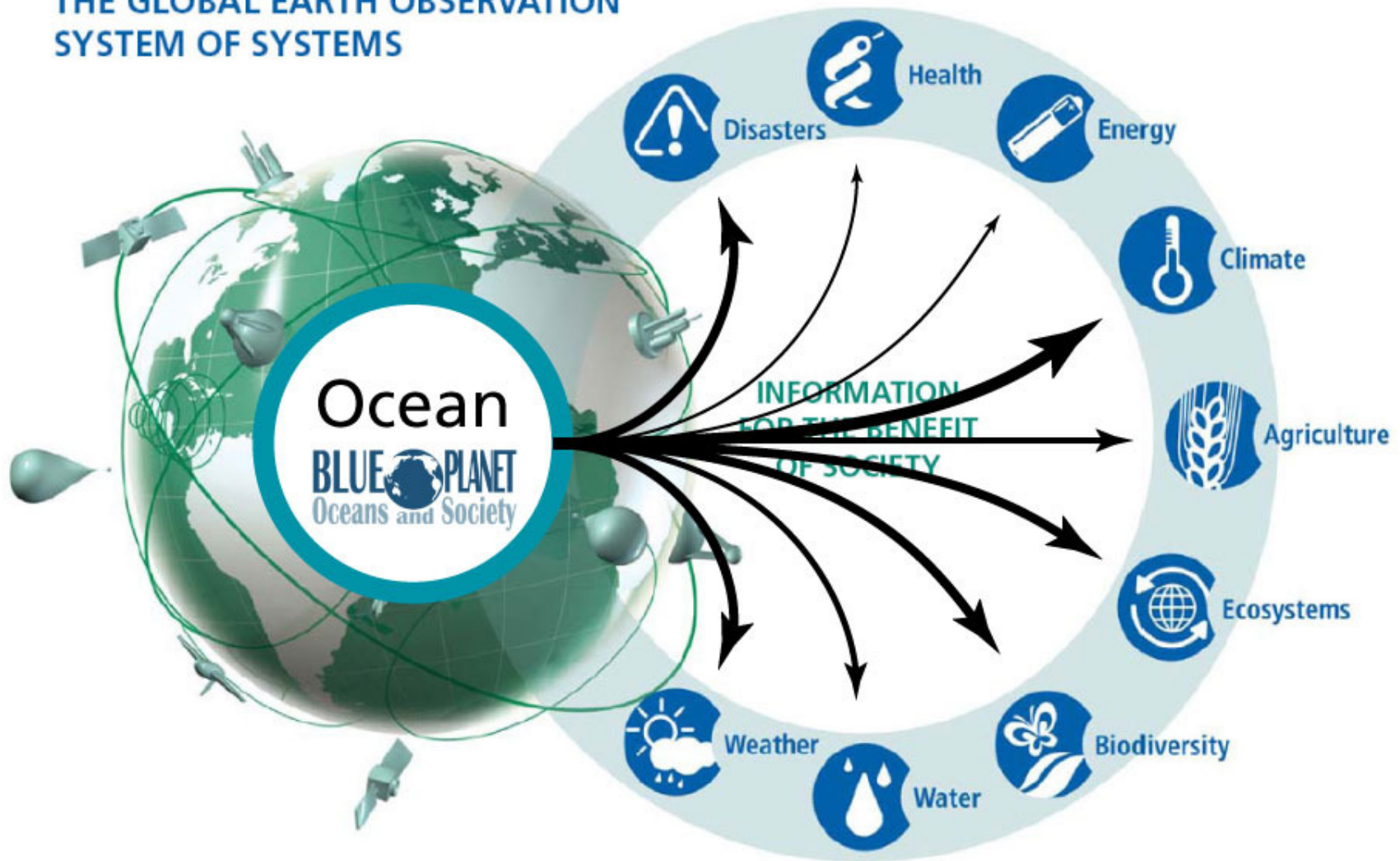
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Partnership for Observation of the Global Oceans (POGO)

[oceansandsociety.org](http://oceansandsociety.org)



## THE GLOBAL EARTH OBSERVATION SYSTEM OF SYSTEMS



# Ocean Monitoring and Prediction

- **There is no Ocean SBA....**
- **but strategic targets for GEOSS Implementation call for GEO to:**
- Improve the utilization of Earth observations and expanded application capabilities to advance sustainable agriculture, **aquaculture, fisheries...** (*Agriculture SBA*)
- Establish ... a worldwide biodiversity observation network to collect, manage, share and analyze observations of ... the world's **biodiversity**, and enable decision-making in support of the conservation and improved management of **natural resources**. (*Biodiversity SBA*)
- Establish ... a wide-ranging monitoring capability for all ecosystems and the human impacts on them, to improve the assessment, protection and sustainable management of terrestrial, **coastal and marine resources** ... (*Ecosystem SBA*)
- Produce comprehensive sets of data and information products to support ... efficient management of the **world's water resources**, based on coordinated, sustained observations of the water cycle on multiple scales. (*Water SBA*)

## ***Task SB-01 MISSION***

The Oceans and Society: Blue Planet Task of GEO seeks, through the mobilisation of expert knowledge,

- to raise public awareness of the role of the oceans in the Earth system, of their impacts (good and bad) on humankind, and of the societal benefits of ocean observations;
- to coordinate the various marine initiatives within GEO and develop synergies between them; and
- to advocate and advance the establishment and maintenance of a global observing network for the oceans.

# Oceans and Society: Blue Planet

Adopted as overarching ocean Task of GEO (2012)

Kick-off Symposium held in Brazil, November 2012



## Six Components to the Task

C1: Sustained Ocean Observations

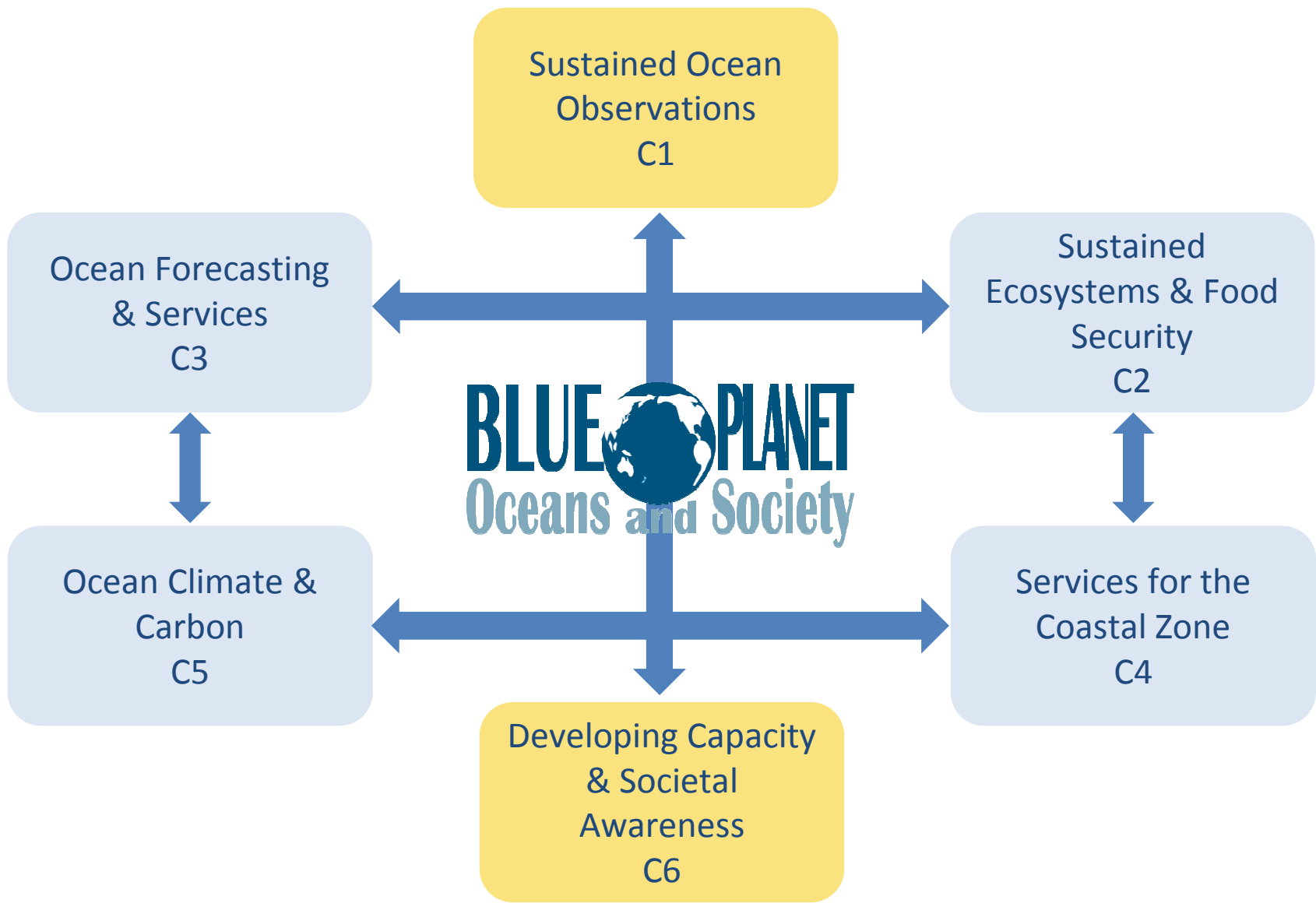
C2: Sustained Ecosystems & Food Security

C3: Ocean Forecasting & Services

C4: Services for the Coastal Zone

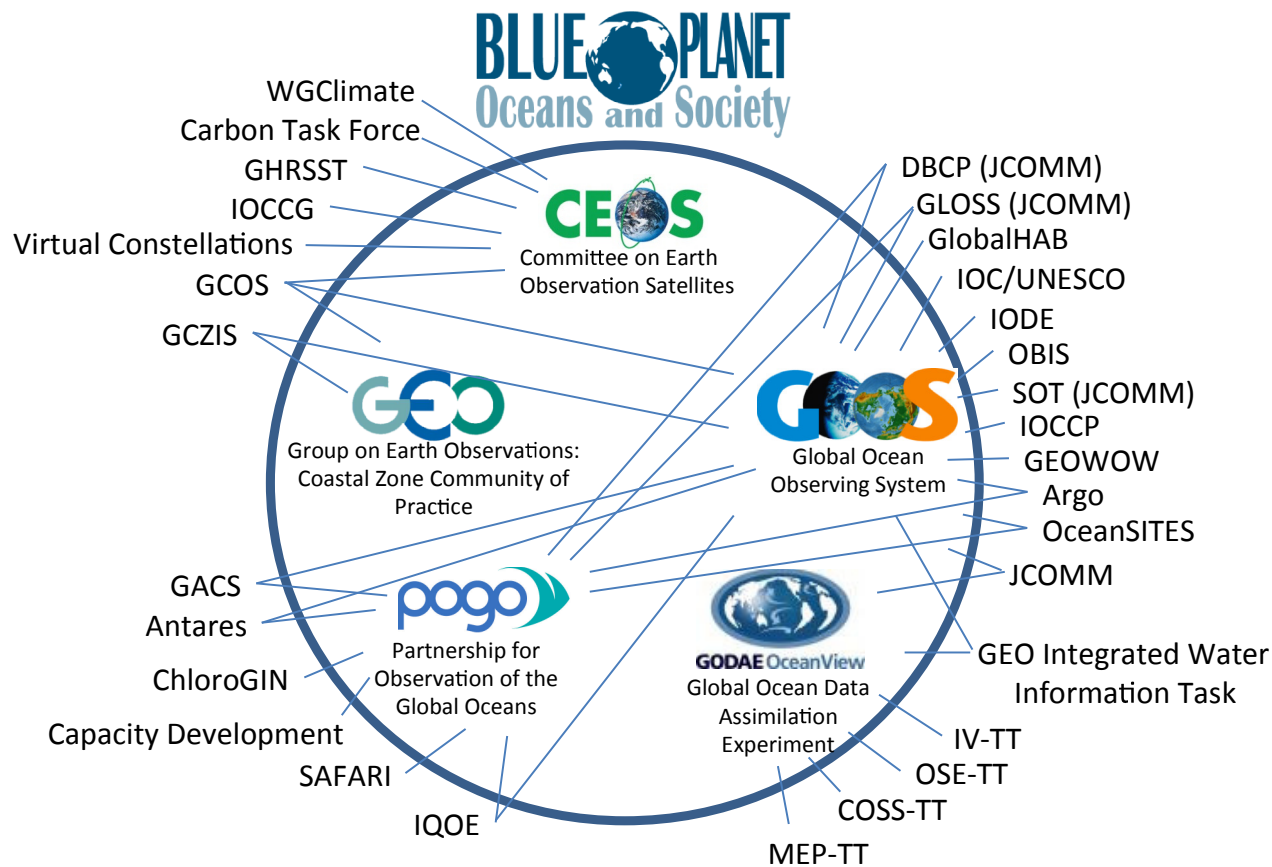
C5: Ocean Climate & Carbon

C6: Developing Capacity & Social Awareness





# The Blue Planet's Partners: a diverse and highly influential community

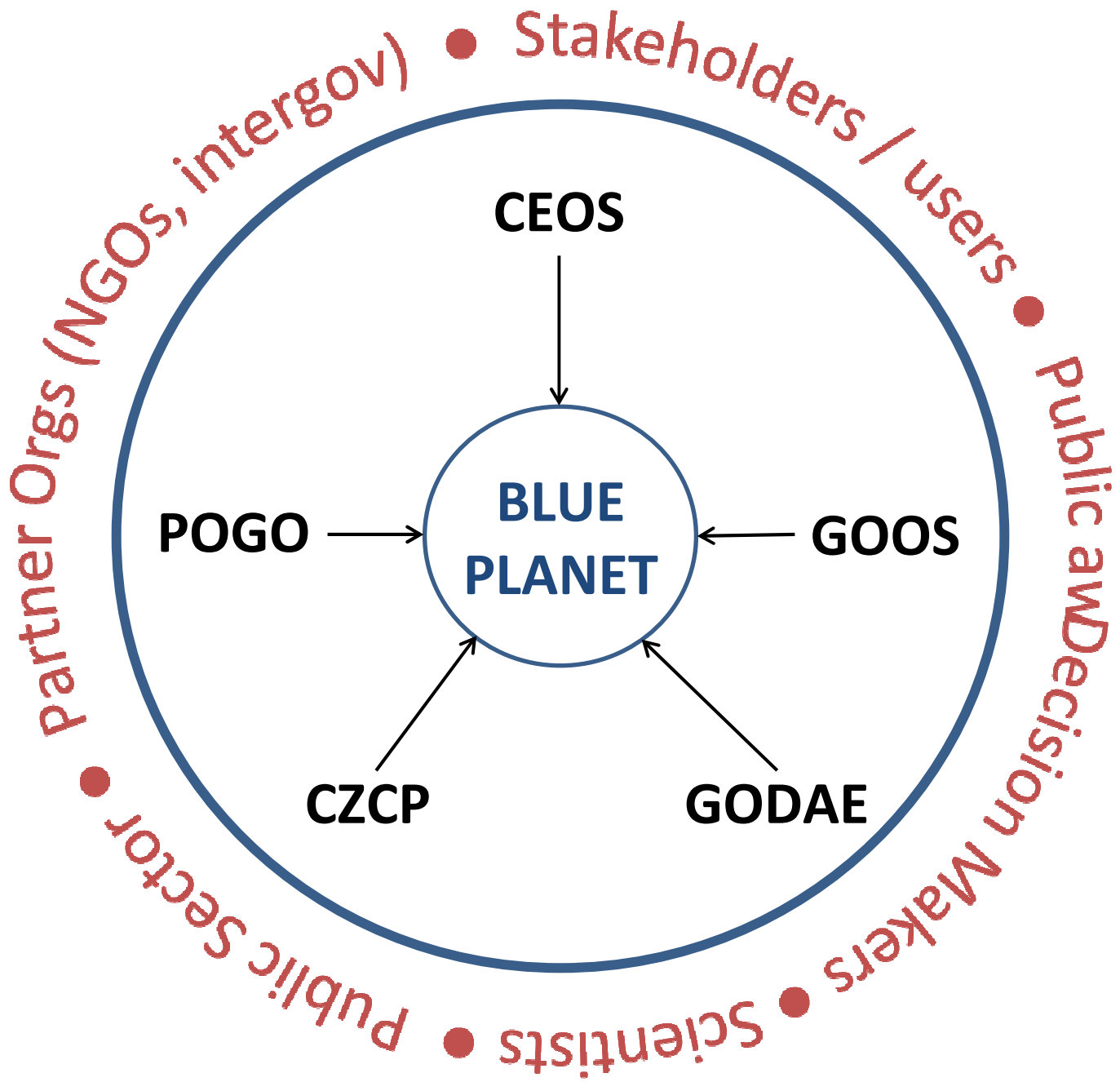


The central core represents satellite capability (CEOS), in situ capability (POGO), operational modelling and prediction capability (GODAE OceanView) and coordination at UN level (GOOS)

Core group links to a wide variety of ocean interests

Scope of Blue Planet covers in situ and satellite observations of physical, chemical and biological properties as well as analysis and modelling networks

Capacity development an important aspect of the agenda





# Kick-Off Symposium

- Immediately preceding the GEO Plenary, 2012
- November 22 and 23, 2012
- Ihlabela (Sao Paulo State) Brazil
- Sessions on the major components
- Looking for synergies between elements
- Resolutions: Write a book and Prepare a White Paper
- Steering Committee Meeting July 2014

## ***Task SB-01***

### ***Recent Progress and Key Outputs for 2013***

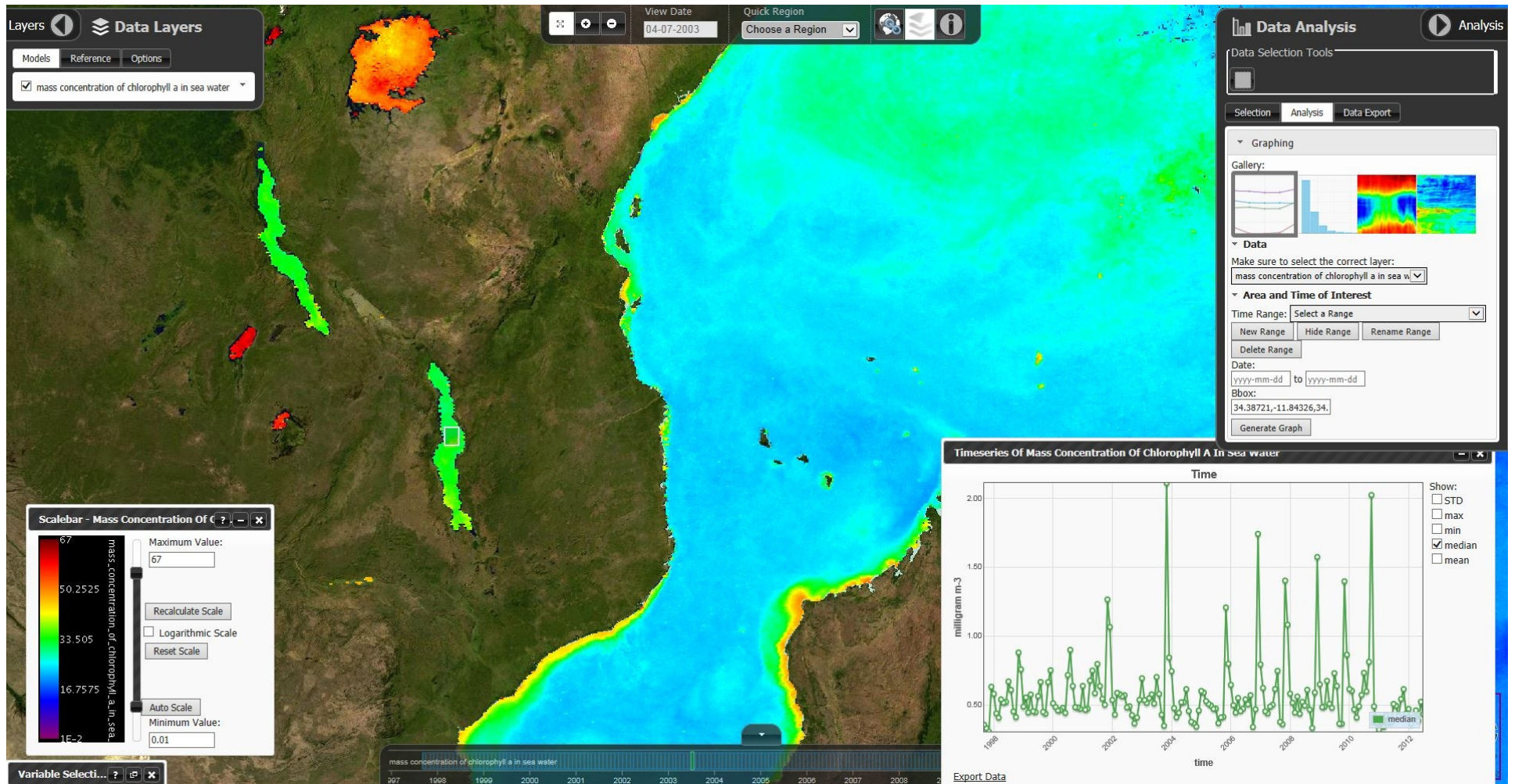
- Requests from other programmes to participate in Blue Planet (eg Ocean Acidification Network; CZCP)
- Significant clients (eg the UN World Ocean Assessment)
- Book contract; Book now ready to go to press
- White Paper for Task now ready for circulation
- Second Blue Planet Symposium, Australia 2014 or 2015
- Engagement with EC in relation to intergovernmental collaboration with Canada and USA (The Atlantic – A Shared Resource)
- Multiple endorsements of Blue Planet by national delegations at GEO Plenary and Ministerial Summit in Geneva, January 2014

# Outlook

- Blue Planet now has widespread credibility and recognition in political arena as well as in the scientific community (EC requested that its side event in Geneva be hosted jointly by EC and Blue Planet): reflects well on POGO
- Internationally-recognised standards for data and metadata should be applied: GEO has already developed such a structure and its Blue Planet Task could provide a suitable umbrella for TransAtlantic Observing Strategy, lending intergovernmental and scientific credibility, as well as ready-made architecture and infrastructure conforming to internationally-agreed standards
- Horizon 2020 call of the EC is central to this initiative (December 2013): Blue Growth Agenda roughly 100M Euros in funding
- We note however, that the Atlantic Ocean can be understood only in context of entire global ocean, such that Earth Observation infrastructure for Atlantic should therefore be developed with the global ocean in mind
- POGO leadership in GEO over last several years can now be seen as timely and constructive, resulting in opportunities for POGO members.
- Earth Science without Borders for the Benefit of Society

# Collaborations with IGWCO

## Globalakes, GLaSS, earth2HObserve, ChloroGIN Lakes







[oceansandsociety.org](http://oceansandsociety.org)

## Components of the Blue Planet (1)

### **C1: Sustained ocean observations**

- GOOS
- Argo
- HF Radar
- OceanSITES
- GEOWOW
- CEOS Virtual Constellations

## Components of the Blue Planet (2)

### **C2: Sustained ecosystems and food security**

- ChloroGIN
- Antares
- SAFARI
- GEOHAB
- GACS
- IQO
- Mangrove monitoring
- Coral reef monitoring (GCRMN, I-CREOS)
- Estuary monitoring (Our Global Estuary)



## Components of the Blue Planet (3)

### **C3: Ocean forecasting and services**

- GODAE OceanView MEP-TT
- GODAE OceanView COSS-TT
- GODAE OceanView OSE-TT
- GODAE OceanView IV-TT

## Components of the Blue Planet (4)

### **C4: Services for the coastal zone**

- Coastal Zone Community of Practice
- Panel for Integrated Coastal Observations
- Global Coastal Zone Information System

## Components of the Blue Planet (5)

### **C5: Ocean climate and carbon**

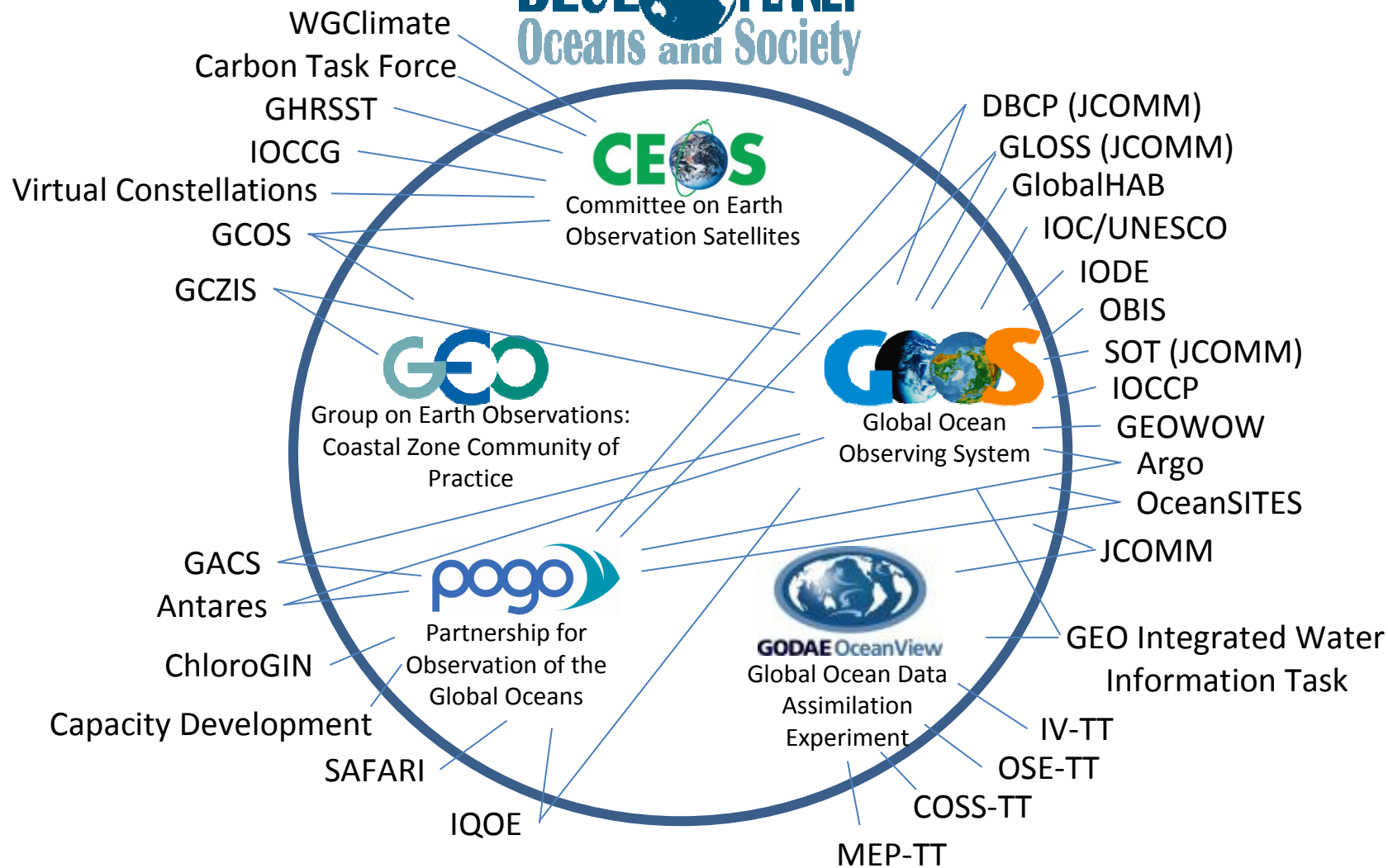
- GCOS Essential Climate Variables
- IOCCP
- Ocean acidification
- CEOS Carbon Strategy

## Components of the Blue Planet (6)

### **C6: Developing capacity and societal awareness**

- Fellowship programmes
- Visiting professorship programmes
- Centres of excellence
- Summer & winter schools
- Shipboard training
- Data management training
- Distance learning
- Outreach activities

# BLUE PLANET Oceans and Society



## SB-01 Oceans and Society: Blue Planet

- Provide sustained ocean observations and information to underpin the development, and assess the efficacy, of global-change adaptation measures (such as those related to vulnerability and impacts of sea-level rise).
- Improve the global coverage and data accuracy of coastal and open-ocean observing systems (remote-sensing and in-situ).
- Coordinate and promote the gathering, processing, and analysis of ocean observations.
- Establish a global ocean information system by making observations and information, generated on a routine basis, available through the GEOSS Common Infrastructure.
- Develop a global operational ocean forecasting network. Provide advanced training in ocean observations, especially for developing countries.
- Raise awareness of biodiversity issues in the ocean.

## ***Synergies with other Tasks***

### ***Opportunities for collaboration***

- Water SBA (Globalakes, ChloroGIN Lakes, EH20)
- ID-01
- ID-02 Capacity Building
- IN-01 C1, C2 Systems
- IN-03 GEOWOW
- IN-04 GEONETCast
- IN-05 GEOSS Interoperability