

# **LETTER OF AGREEMENT**

## **between**

# **GOOS BioEco, OBIS and GEOBON MBON**

A globally coordinated and sustained ocean observing system is urgently needed to systematically assess the state of the ocean's biodiversity including biological resources and ecosystems. Assessing ocean biodiversity and how these will change under predicted future scenarios will provide the basis to more effectively conserve and sustainably use marine life both within and beyond areas of national jurisdiction (70% of earth's surface and 98% of Earth's habitable living space). A coordinated global ocean observing system would provide the information and knowledge needed to inform the progress towards the global 2030 targets of the UN Sustainable Development Goals (specifically SDG 14), the 2020 Biodiversity Aichi targets of the Convention on Biological Diversity (CBD), the second World Ocean Assessment, and provide guidance to the current negotiations for a new legally-binding instrument under UNCLOS on the conservation and sustainable use of marine biological diversity in areas beyond national jurisdiction.

The Biology and Ecosystems Panel of the Global Ocean Observing System (GOOS BioEco), the Ocean Biogeographic Information System (OBIS), and the Marine Biodiversity Observation Network (MBON) of the Group on Earth Observations Biodiversity Observation Network (GEOBON) share a common vision to build a sustained, coordinated, global ocean system of marine biological and ecosystem observations, by, among other things, enhancing existing observation scope and capacity; identifying essential ocean variables; collecting the observations deemed necessary and at appropriate spatial, taxonomic and temporal scales to best assess ocean living resources; implementing best practices and international standards; and enhancing global capacity to ensure continuity of global marine biological and ecosystem observations for the long term. Delivering the resulting information through an open access, integrated and quality controlled database will support management decisions and address relevant science and societal needs.

The purpose of this letter of agreement is to establish an ongoing collaboration between GOOS BioEco, OBIS and GEOBON MBON to build a unified and globally consistent observing system that will: strengthen the three initiatives; make use of the best available resources; share expertise; and ensure compatibility between outputs and advice from the three initiatives.

## 1. Parties:

The **Global Ocean Observing System (GOOS)** was established in 1991 under the auspices of the Intergovernmental Oceanographic Commission (IOC) of UNESCO. The **Biology and Ecosystems Panel (GOOS BioEco)**, established in 2015, aims to develop and coordinate efforts in the implementation of a sustained and targeted global ocean observing system driven by societal needs to include biological and ecological Essential Ocean Variables (EOVs) to answer relevant scientific and societal questions, and support critical policy, development, and management decisions on ocean and coastal resource sustainability and health.

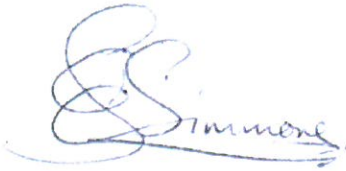
The **Ocean Biogeographic Information System** was initiated by the Census of Marine Life in 2000, and was adopted by the IOC-UNESCO Member states in 2009, as a project of the International Oceanographic Data and Information Exchange (IODE) programme. OBIS is the world's largest open access marine biogeographic database integrating over 47 million occurrence records of 117,000 marine species integrated from over 2,000 datasets provided by a global network of over 500 institutions. OBIS is leading the development of international data standards for marine biodiversity and ecosystem data. For instance, OBIS has recently developed a new schema to store all information on sampling events, species occurrences and related biological and environmental measurements in the DarwinCore Archive standard, which makes OBIS a suitable data sharing platform for managing biological and ecosystem data. OBIS provides state-of-the-art data access as well as visualisation and data analysis tools (e.g. OBIS R package).

The **Marine Biodiversity Observation Network of the Group on Earth Observations Biodiversity Observation Network (GEOBON MBON)** is a thematic BON that evolved from GEOBON's Working Group on "Marine Ecosystem Change" and is envisioned as the key biodiversity pillar of GEO and GEOBON for the marine realm. The MBON aims to help coordinate individual monitoring programs and existing networks focused on local, regional and thematic aspects of marine biology and biodiversity and facilitate the sharing of data, experiences, and protocols to understand species and the status and trends of ecosystems and their services.

2. Through this letter the parties agree to:

- Seek to work together to develop the Essential Biodiversity Variables (EBVs) under GEOBON as part of the process in developing a complete set of EOVs under GOOS
- Advance continuous, long-term, biological ocean observations in a coherent, globally consistent and coordinated way based on the biological and ecosystem Essential Ocean Variables (EOVs) identified by GOOS BioEco
- Recognize GEOBON MBON's role to assist development of national and regional MBONs while GOOS BioEco facilitates the development of requirements and coordinates global observations through platforms as well as regional observing systems linked to GOOS.
- Recognize the historical and ongoing, active role of OBIS, which operates through OBIS nodes that are part of the IODE network and which serves the needs of local, regional, and international users for harmonized biodiversity and biogeographic data.
- Recognize MBON's strong research focus, which can lead to the development and testing of new EOVs (eg. microbial, genetics) bringing the EOVs beyond the conceptual stage, while GOOS BioEco streamlines the process of moving EOVs from pilot to mature stages, i.e. improving global coverage of EOVS monitoring and delivering open-access data products to address societal requirements.
- Foster wider systematic data sharing, curation, and aggregation under guidance of OBIS in order to streamline the feeding of integrated and quality controlled datasets into models and forecasts.
- Support assessments and targets such as those established by the Intergovernmental Panel on Biodiversity and Ecosystem Services (IPBES), the Convention on Biological Diversity, the UN World Ocean Assessment, GEF Transboundary Water Assessment, and as appropriate liaise with GEO BluePlanet, GEO Wetlands, Future Earth and other national and international organizations and conventions.
- Facilitate regional support and consolidate already established linkages to other GEO (e.g. Blue Planet, GEO Wetlands, AmeriGEOSS) and IOC (e.g. GOOS Regional Alliances, Large Marine Ecosystems, the Deep Ocean Observing Strategy – DOOS, and OBIS nodes) groups as well as to GEF and similar programs.
- Build global capacity for data collection and data management by sharing best practices, manuals and guides.
- Improve communication amongst the parties and develop a joint communication strategy towards the various stakeholders (science, policy, the public).
- Develop a joint business plan and actively attract partners and support to ensure the necessary capacity can be reached.

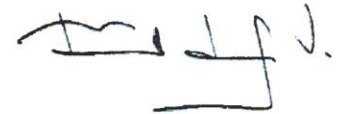
3. This letter is not legally binding and does not formalise any new name or structure or organisation that would require a third governance, reporting and oversight structure. It is solely intended to facilitate common goals through cooperative action. This letter does not preclude developing a new or replacement governance structure in the future.



Date: 14 Nov 2016  
Name: Samantha Simmons  
Position: Co-chair GOOS  
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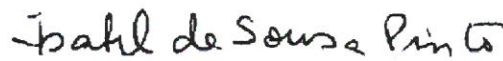
Date: 07 Nov 2016  
Name: Frank Muller-Karger  
Position: Co-chair MBON



Date: 02 Dec 2016  
Name: Eduardo Klein  
Position: Co-chair OBIS



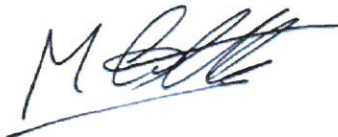
Date: 15 Nov 2016  
Name: Nicolas Bax  
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Date: 02 Dec 2016  
Name: Isabel Sousa Pinto  
Position: Co-chair MBON



Date: 04 Dec 2016  
Name: Sky Bristol  
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Date: 04 Dec 2016  
Name: Mark J. Costello  
Position: Co-chair MBON