

## **7. Programmatic Developments**

### **7.1 Ocean Science**

23-25 January 2023

#### **7.1.1. SDG 14 Indicators**

#### **7.1.2. StOR**

#### **7.1.3. ILK Guidance**

#### **7.1.4. IPHAB**

**.... OL**

Henrik Enevoldsen a.i.

**IOC Officers Meeting 23-25 January 2023**

## 7.1.1 IOC custodianship on SDG 14 indicators:



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**Goal 14.** Conserve and sustainably use the oceans, seas and marine resources for sustainable development.



### **Custodian: 14.3:**

Minimize and address the impacts of ocean acidification, incl. through enhanced scientific cooperation at all levels.

### **Custodian: Target 14.a.1**

Increase scientific knowledge, develop research capacity and transfer marine technology, ....

### **Co-custodian /**

### **developer: Target**

**14.1.1(a)** By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.

# From SDG 14 to indicator 14.3



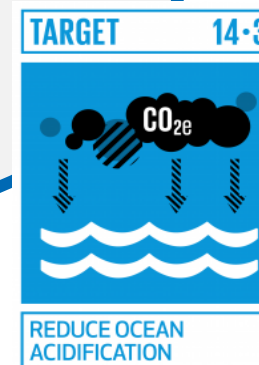
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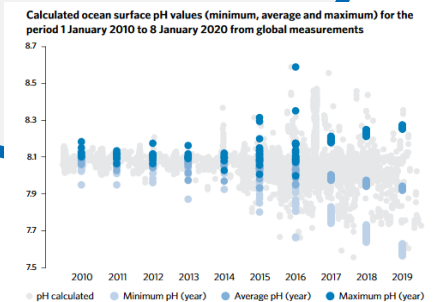
**Goal 14.** Conserve and sustainably use the oceans, seas and marine resources for sustainable development.



**Target 14.3** Minimize and address the impacts of ocean acidification, incl. through enhanced scientific cooperation at all levels.



**Indicator 14.3.1** Average marine acidity (pH) measured at agreed suite of representative sampling stations.



# Current 14.3.1 portal <http://oa.iode.org>



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Currently the portal fulfils basic functions related to the collection of data towards the SDG 14.3.1 Indicator. Users can:

1. upload data and metadata files in excel format directly to the portal;
2. fill in the metadata information online;
3. include several data sets per metadata file (e.g. for repeated measurements);
4. check data automatically to ensure the files were uploaded/prepared correctly;
5. verify the localization data on a map.
6. search for data sets submitted and download;
7. see available data sets on the map,
8. find more information on a dedicated FAQ webpage.

The image shows two screenshots of the SDG 14.3.1 data portal. The top screenshot shows the 'Welcome to the SDG 14.3.1 data portal' page with a world map and navigation links. The bottom screenshot shows the 'Edit submission' form with fields for investigator information and data submitter details.

SDG 14.3.1 data portal

Welcome to the SDG 14.3.1 data portal

Follow the instructions in the [manual](#) or [continue here](#) to access your datasets.

Home  
Datasets  
Manual

SDG 14.3.1 data portal

Back

Edit submission

Data and personal information

Accession no. of related datasets on the 14.3.1 data platform or any other database  URL of metadata set  URL of associated dataset  DOI of dataset if applicable

Investigator 1  
Investigator 1 name  Investigator 1 institution  Investigator 1 institution ID   
Investigator 1 address  Investigator 1 phone  Investigator 1 e-mail   
Investigator 1 researcher ID  Investigator 1 researcher ID type

Investigator 2  
Investigator 2 name  Investigator 2 institution  Investigator 2 institution ID   
Investigator 2 address  Investigator 2 phone  Investigator 2 e-mail   
Investigator 2 researcher ID  Investigator 2 researcher ID type

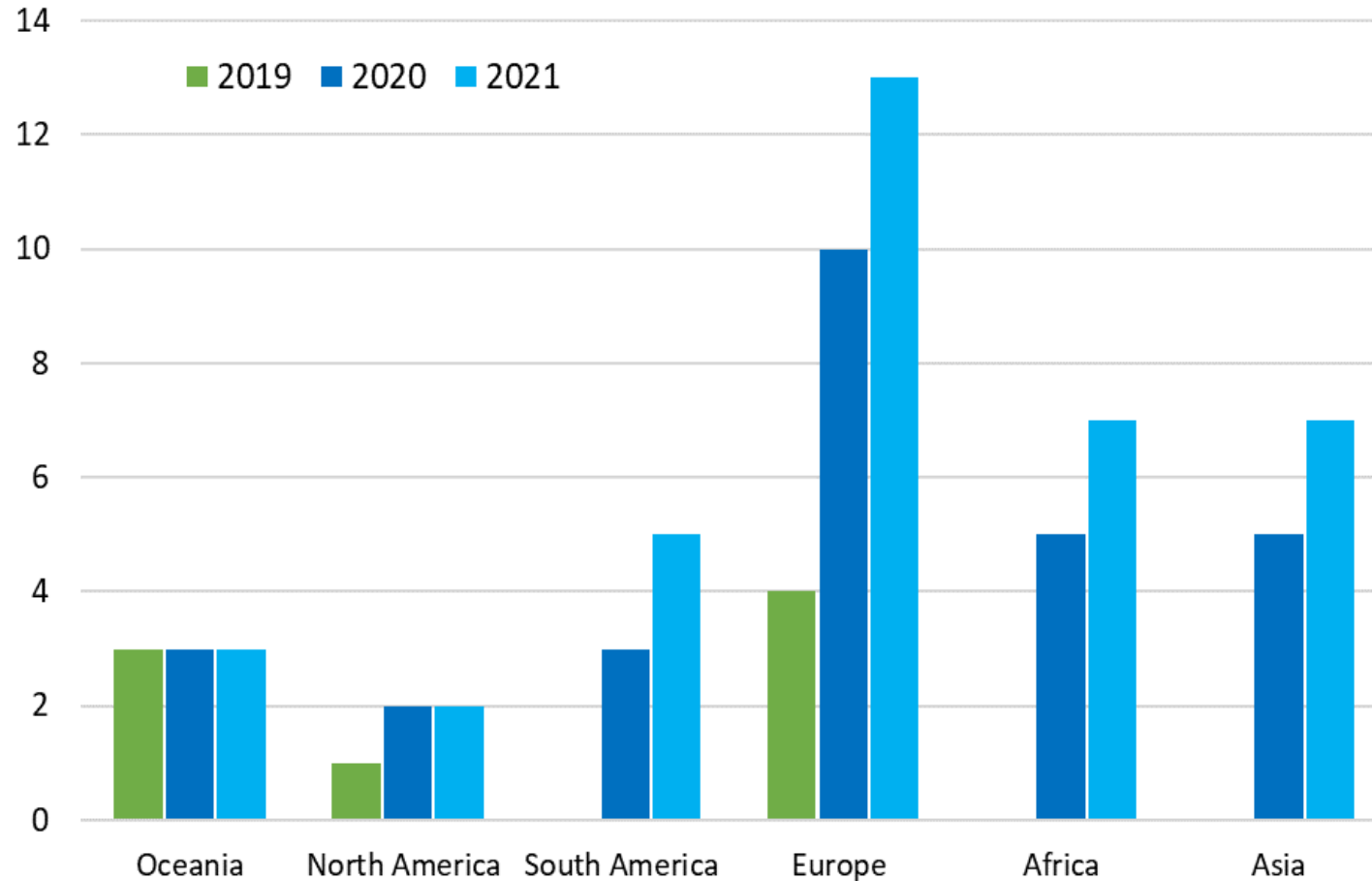
Investigator 3  
Investigator 3 name  Investigator 3 institution  Investigator 3 institution ID   
Investigator 3 address  Investigator 3 phone  Investigator 3 e-mail   
Investigator 3 researcher ID  Investigator 3 researcher ID type

Data submitter  
Data submitter name  Data submitter institution  Data submitter institution ID

# SDG 14.3.1 reporting – GOOD news



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**2019** – 8 countries submitted data and information

**2020** – 28 countries submitted data and information

**2021** – 37 countries submitted data and information



- i. **Set up a federated data integration/ingestion system using DAP (preferably ERDDAP\*) services for data relevant to the SDG 14.3.1 Indicator.** The main outcome would be to establish ways to harvest data and metadata from different NODCs, and international data bases to obtain information relevant for the 14.3.1 SDG indicator involving relevant NODCs, NOAA, SOCAT, EMODNET, GLODAP among others, to **agree on the metadata and data** as well as with IODE's Ocean Data and Information System (ODIS) and IODE Ocean InfoHub
- ii. **Develop visualization tools embedded in the federated system**, according to the SDG 14.3.1 methodology, to include maps showing the origin of the datasets received, organised by data quality; maps depicting trends for long-term datasets (>5 years).
- iii. **Improve the ingestion of relevant data provided by individual scientists, research organizations, as well as other data centres and data platforms to the SDG 14.3.1 Data Portal**, and ensure interoperability of relevant data; The 14.3.1 data portal will **be part of the federated system; however, to ensure the compatibility and that it in turn feeds into the other relevant databases some further work is required**, such as enabling the uploading of different formats in addition to the excel.
- iv. Member States were invited to contribute to the **2022 data collection CL 2911 in October 2022**, data are currently being analyzed. Submission in February 2023.

\* ERDAP is a platform to distribute data to users

# From SDG 14 to indicator 14.a.1



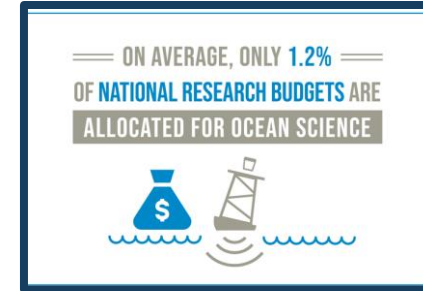
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**SDG 14** Conserve and sustainably use the oceans, seas and marine resources for sustainable development

**Target 14.a** Increase scientific knowledge, develop research capacity and transfer marine technology, ....



**Indicator 14.a.1**

Proportion of total research budget allocated to research in the field of marine technology

# GOSR2020 Investments

There are large differences in countries' investment in ocean research.

On average, only 1.7% of national research budgets are allocated for ocean science, with percentages ranging from around 0.03% to 11.8%. This is a small proportion compared to the modestly estimated US\$1.5 trillion contribution of the ocean to the global economy in 2010.

SDG indicator 14.a.1 last reporting in 2020

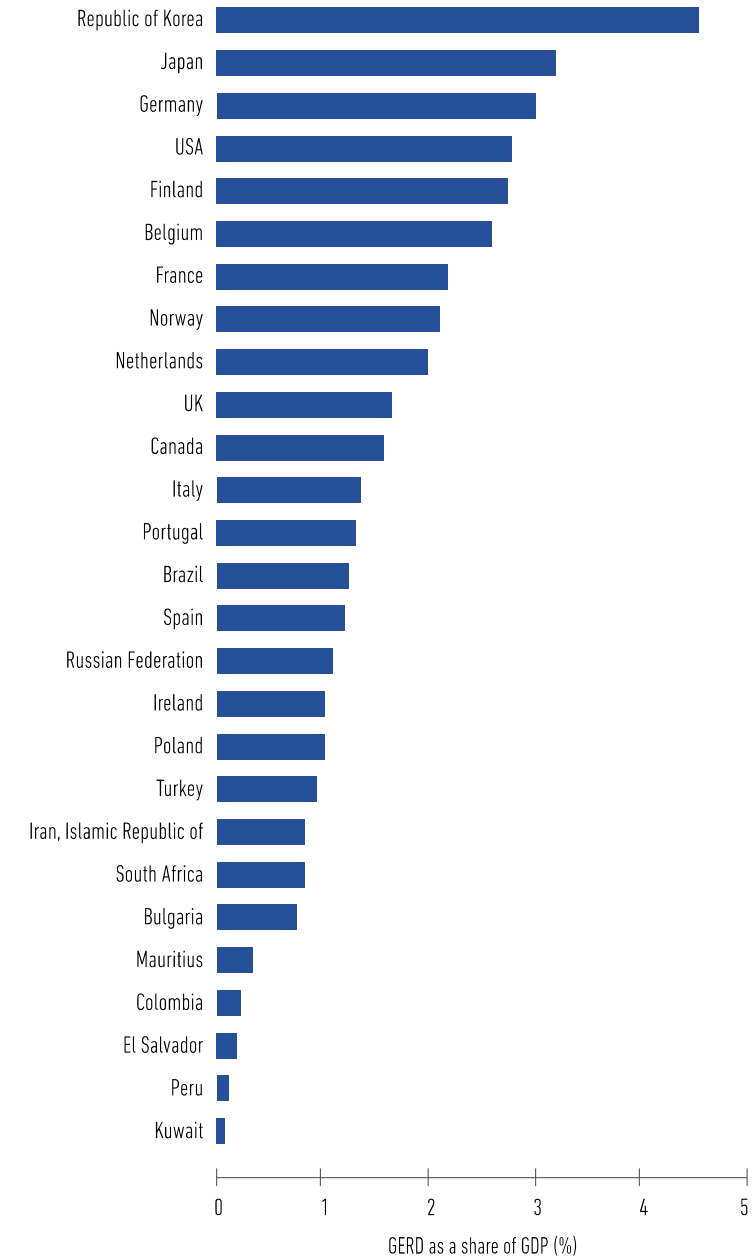
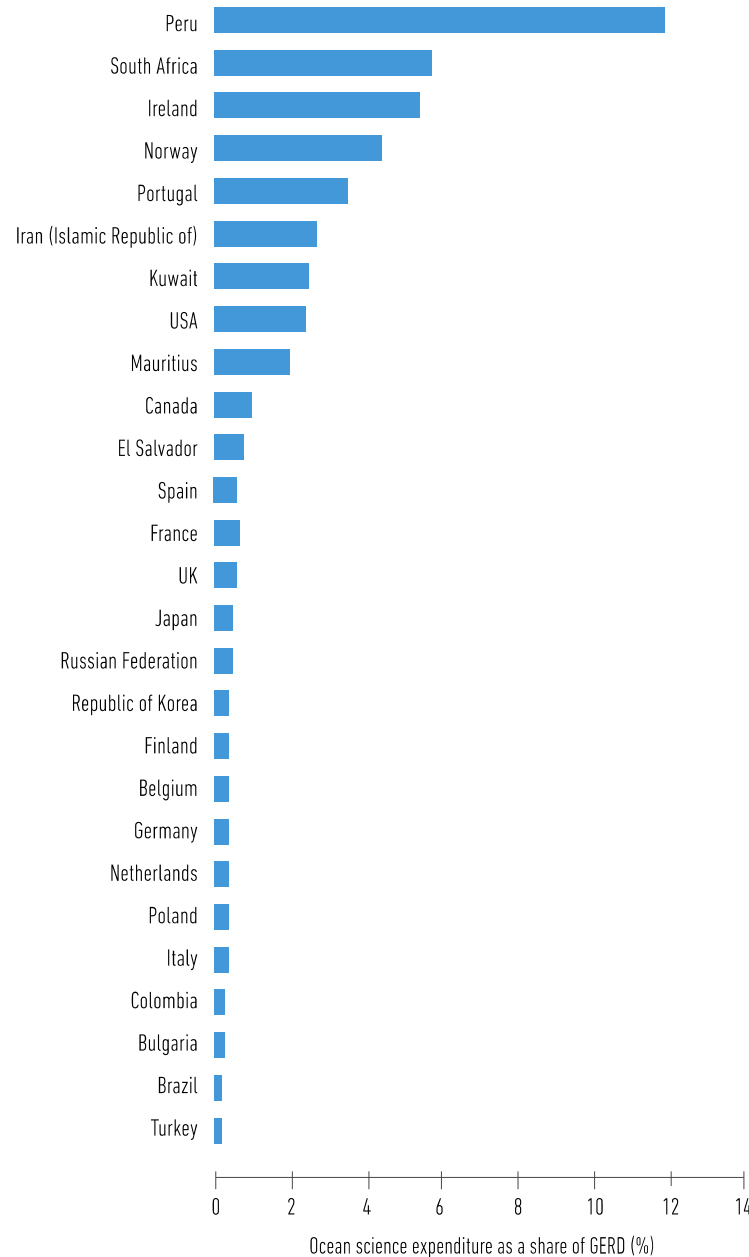


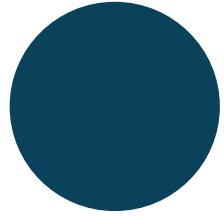
Figure ES.19. Estimates of ocean science funding as a share of GERD and GERD as a share of GDP in 2017.

Sources: Data adapted from GOSR2020 questionnaire and UNESCO Institute for Statistics database. Note that ocean science funding is not identified as such in GERD data and can be found in natural sciences and other categories.

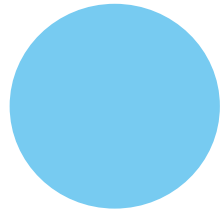


# GOSR ROADMAP

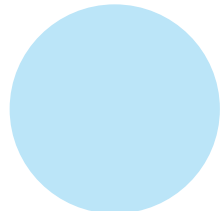
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**Next full GOSR publication in 2024/2025, preparation to start in 2023**



**Intermediate report currently prepared for next SDG data collection cycle (deadline 1 March 2023): GOSR tracker**



**Short 28 question survey focusing on human and technical resources as well as SDG 14.a.1 and ocean science investment more general together with CD survey send in January 2023**