Restricted distribution IOC/IODE-XXVI/3.2.1a

Oostende, 4 March 2021

English only

**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION**

(of UNESCO)

**Twenty-sixth Session of the IOC Committee on International Oceanographic Data and Information Exchange (IODE-XXVI)   
online, 20-23 April 2021**

**Reporting Summary of IODE   
NODCs and ADUs**

**IODE NATIONAL REPORTS 2019-2020 SURVEY: DATA MANAGEMENT (NODC AND ADU)**

## ONLINE SURVEY RESPONSE

The online survey was opened on **29 January 2021** and closed on **26 February 2021**.

A total of **70 valid responses** was received. Responses from “I do not work in a data centre” were removed from the survey.

There were 4 responses under “another national data centre”:

1. Estonia (Tallinn University of Technology) (IODE national coordinator for data management)
2. Finland (Finnish Meteorological Institute): hosted DNA until 2008 + IODE national coordinator for data management
3. Portugal (Instituto Hidrografico): former NODC + IODE national coordinator for data management
4. Trinidad and Tobago (Institute of Marine Affairs): IODE national coordinator for data management

Their responses have been included in the analysis.

The full list of data centres indicating which responded and which did not is attached as [Annex 1](#annex1).

An online and searchable version of this document will be made available through <http://surveys.iode.org>

## QUESTIONS

The survey included the following 47 questions (click on the links to jump to the reporting on each question):

* Q1: Please provide some information on yourself so we can contact you again. (confidential information, not included in this report)
* [Q2](#q2): Your position (job title)
* [Q3](#q3): Have you entered your information in OceanExpert? (<http://www.oceanexpert.net>)?
* [Q4](#q4): In what type of data centre do you work?
* [Q5](#q5): Does your country formally have a centralized (single centre) data management system or a distributed (multiple centres) data management system?
* [Q6](#q6): Does your country and/or data centre have a documented data management strategy?
* [Q7](#q7): Has your country applied (in 2019 and/or 2020) the IOC Oceanographic Data Exchange Policy adopted as Resolution IOC-XXII-6 in 2003? (see <http://www.iode.org/policy>)?
* [Q8](#q8): Does your data centre have its own data policy?
* [Q9](#q9): Does your organization have a documented Quality Management System (QMS)?
* [Q10](#q10): Does your organization hold ISO 9001 certification?
* [Q11](#q11): If you are an NODC: do you plan to implement the IODE QMF accreditation process during the next inter-sessional period (2021-2022)?
* [Q12](#q12): What type and how many staff (FTE - Full Time Equivalent) were working at your data centre in 2019/2020 (averaged)
* [Q13](#q13): How has this number changed year by year since 2017-2018 (previous inter-sessional period)
* [Q14](#q14): What is the annual operational budget for your data centre (excluding staff cost) [converted into US Dollars]
* [Q15](#q15): How has this number changed year by year since 2017-2018 (previous inter-sessional period)
* [Q16](#q16): Global IODE activities in which your data centre participated in 2019 and/or 2020 (data management)
* [Q17](#q17): List the most important data activities/projects in which your centre is involved.
* [Q18](#q18): For measurements from vessels (research, ships of opportunity,etc) for which data types do you manage data
* [Q19](#q19): For measurements from fixed stations/platforms for which data types do you manage data
* [Q20](#q20): For measurements from moving platforms for which data types do you manage data
* [Q21](#q21): Any other platforms, instruments, etc ?
* [Q22](#q22): Did you handle (incoming) (delayed mode or real time)?
* [Q23](#q23): Did your data centre have links with, and/or manage data from major science programmes (e.g., CLIVAR, IMBER, Argo, Future Earth, SOLAS, etc) in 2019 and/or 2020?
* [Q24](#q24): Do you manage GOOS Essential Ocean Variables (EOV)? Please tick one or more EOVs of which data are managed by your data centre during 2019-2020. Note that more info (including specifications) can be found on the web page <http://www.goosocean.org/eov>
* [Q25](#q25): Did you maintain a discovery metadatabase for the data received by your data centre in 2019 and/or 2020?
* [Q26](#q26): If you answered yes to the previous question, then is the database openly available online?
* [Q27](#q27): What kind of quality control procedures (if any) are used in your institution? (add bibliographic references, if possible)?
* [Q28](#q28): What spectrum of services (e.g. data and products) were started/continued/ended by your centre in 2019 and/or 2020?
* [Q29](#q29): List the most important products and services (up to 15) provided by your data centre in the period 2019-2020. These may be new (started in 2019/2020) or ongoing products/services. If they are online products/services then please also provide the URL.
* [Q30](#q30): How were data made available (e.g. by request, on-line access, etc.) in 2019 and/or 2020?
* [Q31](#q31): Indicate the average number of requests and services your centre provides in a year
* [Q32](#q32): Who are your users?
* [Q33](#q33): What is the geographic origin of your users?
* [Q34](#q34): Do you participate in a national distributed data network?
* [Q35](#q35): Do you provide data through the following international data networks?
* [Q36](#q36): Did you provide data to World Data System (WDS) in 2019 and/or 2020?
* [Q37](#q37): Did you send data to global specialized data centres (that are not ICSU WDSs) such as GDACs in 2019-2020?
* [Q38](#q38): In how many IODE training courses did you participate in 2019 and/or 2020
* [Q39](#q39): Did the IODE training assist you in your work after you returned home?
* [Q40](#q40): In how many other training courses did you participate in 2019 and/or 2020 organized by national or other organizers?
* [Q41](#q41): At how many working days would you estimate the contribution of your data centre to IODE through participation in IODE activities (e.g. participation in IODE meetings for which your data centre or country funded your trip) during the period 2019-2020 (2019 and 2020 added together)?
* [Q42](#q42): Will your country be providing direct financial support to IODE in 2021-2022 through the IOC (confirmed)?
* [Q43](#q43): Would your country/data centre be able to provide a visiting expert/secondment to the IOC Project Office for IODE in 2021-2022 (either working at the IODE project office in Belgium, or working from his/her usual place of work) for a period of 3-12 months?
* [Q44](#q44): Is the host institution of your data centre involved in activities related to the Sustainable Development Goals? (you will find more information on http://en.unesco.org/sdgs/ioc)
* [Q45](#q45): If you answered "yes" to the previous question then please provide details:
* [Q46](#q46): Is the host institution of your data centre planning activities for the UN decade of Ocean Science for Sustainable Development?
* [Q47](#q47): If you answered "yes "to the previous question then please provide details:

## Survey analysis

**Q2: Your position (job title):**

Graphical user interface, text

Description automatically generated

**Q3: Have you entered your information in OceanExpert? (**[**http://www.oceanexpert.net**](http://www.oceanexpert.net)**)**

result: 100% have entered information in OceanExpert

**Q4: In what type of data centre do you work?**

Chart

Description automatically generated

(individual responses for each respondent, see Annex 1)

**Q5: Does your country formally have a centralized (single centre) data management system or a distributed (multiple centres) data management system?**

Chart, bar chart

Description automatically generated

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Country:** | **Institution:** | **NODC** | **ADU** | **other** | **single** | **distributed** | **I do not know** |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  |  | distributed |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  | single |  |  |
| Australia | University of Tasmania | NODC |  |  |  | distributed |  |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  |  | distributed |  |
| Belgium | VLIZ | NODC |  |  | single |  |  |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  |  | distributed |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  |  | distributed |  |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  | single |  |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  | single |  |  |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  |  | distributed |  |
| Bulgaria | BGODC | NODC |  |  | single |  |  |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  |  |  | I do not know |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  | distributed |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  |  | distributed |  |
| China | NMDIS | NODC |  |  |  | distributed |  |
| Colombia | General Maritime Directorate | NODC |  |  | single |  |  |
| Colombia | INVEMAR |  | ADU |  |  | distributed |  |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  |  | distributed |  |
| Cyprus | ORION Research Institution |  | ADU |  |  | distributed |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  | single |  |  |
| Denmark | GBIF Secretariat |  | ADU |  |  | distributed |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  |  |  | I do not know |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  | distributed |  |
| Estonia | Tallinn University of Technology |  |  | other |  | distributed |  |
| Finland | Finnish Meteorological Institute |  |  | other |  | distributed |  |
| France | Ifremer | NODC |  |  |  | distributed |  |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  |  | distributed |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  |  | distributed |  |
| Greece | HCMR |  | ADU |  |  | distributed |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  | single |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  | distributed |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  |  | distributed |  |
| Iceland | CAFF |  | ADU |  |  |  | I do not know |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  | single |  |  |
| Indonesia | BPPT | NODC |  |  | single |  |  |
| Iran | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  |  | distributed |  |
| Ireland | Marine Institute | NODC |  |  | single |  |  |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  |  | distributed |  |
| Japan | Japan Oceanographic Data Center | NODC |  |  |  | distributed |  |
| Japan | JAMSTEC |  | ADU |  | single |  |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  | distributed |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  | single |  |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  |  | distributed |  |
| Mauritania | IMROP | NODC |  |  |  | distributed |  |
| Mexico | SEP Mexico | NODC |  |  |  | distributed |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  | single |  |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  |  | distributed |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  |  | distributed |  |
| Norway | Institute of Marine Research | NODC |  |  |  | distributed |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  | single |  |  |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  | single |  |  |
| Portugal | Instituto Hidrografico |  |  | other |  | distributed |  |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  | single |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  |  | distributed |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  |  | distributed |  |
| Slovenia | National Institute of Biology | NODC |  |  |  |  | I do not know |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  | single |  |  |
| Spain | SOCIB-ICTS |  | ADU |  |  | distributed |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  |  | distributed |  |
| Sweden | SMHI | NODC |  |  |  | distributed |  |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  |  | distributed |  |
| Togo | Université de Lomé | NODC |  |  |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other | single |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  | single |  |  |
| Ukraine | UkrSCES | NODC |  |  |  | distributed |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  |  |  | I do not know |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  |  | distributed |  |
| United Kingdom | Marine Biological Association |  | ADU |  |  | distributed |  |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  | distributed |  |
| United States | NOAA NCEI | NODC |  |  | single |  |  |

**Q6: Does your country and/or data centre have a documented data management strategy?**

Chart, bar chart

Description automatically generated

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Country:** | **Institution:** | **NODC** | **ADU** | **other** | **Yes** | **No** | **I don't know** |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  | Yes |  |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  |  | No |  |
| Australia | University of Tasmania | NODC |  |  |  |  | I don't know |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  | Yes |  |  |
| Belgium | VLIZ | NODC |  |  | Yes |  |  |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  | Yes |  |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  |  |  | I don't know |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  |  | No |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  | Yes |  |  |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  | Yes |  |  |
| Bulgaria | BGODC | NODC |  |  | Yes |  |  |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  | Yes |  |  |
| Canada | Department of Fisheries and Oceans | NODC |  |  | Yes |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  | Yes |  |  |
| China | NMDIS | NODC |  |  | Yes |  |  |
| Colombia | General Maritime Directorate | NODC |  |  |  | No |  |
| Colombia | INVEMAR |  | ADU |  | Yes |  |  |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  |  | No |  |
| Cyprus | ORION Research Institution |  | ADU |  | Yes |  |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  |  | No |  |
| Denmark | GBIF Secretariat |  | ADU |  | Yes |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  | Yes |  |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  | Yes |  |  |
| Estonia | Tallinn University of Technology |  |  | other | Yes |  |  |
| Finland | Finnish Meteorological Institute |  |  | other |  | No |  |
| France | Ifremer | NODC |  |  | Yes |  |  |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  | Yes |  |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  |  | No |  |
| Greece | HCMR |  | ADU |  |  | No |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  | Yes |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  | Yes |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  | Yes |  |  |
| Iceland | CAFF |  | ADU |  |  |  | I don't know |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  | Yes |  |  |
| Indonesia | BPPT | NODC |  |  | Yes |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  | Yes |  |  |
| Ireland | Marine Institute | NODC |  |  | Yes |  |  |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  |  | No |  |
| Japan | Japan Oceanographic Data Center | NODC |  |  |  | No |  |
| Japan | JAMSTEC |  | ADU |  |  |  | I don't know |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  | Yes |  |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  | Yes |  |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  | Yes |  |  |
| Mauritania | IMROP | NODC |  |  | Yes |  |  |
| Mexico | SEP Mexico | NODC |  |  | Yes |  |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  |  | No |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  | Yes |  |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  | Yes |  |  |
| Norway | Institute of Marine Research | NODC |  |  | Yes |  |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  |  | No |  |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  | Yes |  |  |
| Portugal | Instituto Hidrografico |  |  | other | Yes |  |  |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  | Yes |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  | Yes |  |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  | Yes |  |  |
| Slovenia | National Institute of Biology | NODC |  |  | Yes |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  | Yes |  |  |
| Spain | SOCIB-ICTS |  | ADU |  |  |  | I don't know |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  | Yes |  |  |
| Sweden | SMHI | NODC |  |  |  | No |  |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  |  | No |  |
| Togo | Université de Lomé | NODC |  |  |  | No |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other |  | No |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  | Yes |  |  |
| Ukraine | UkrSCES | NODC |  |  | Yes |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  | Yes |  |  |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  | Yes |  |  |
| United Kingdom | Marine Biological Association |  | ADU |  | Yes |  |  |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  | I don't know |
| United States | NOAA NCEI | NODC |  |  | Yes |  |  |

Comments (14 received, 13 relevant listed below):

1. Argentina (ADU): We do not have our own document, we are governed by the OBIS management data strategy.
2. Belgium (ADU): I don't know this at the country level. SCAR has a SCAR Data and Information Strategy (DIMS). <https://www.scar.org/antarctic-treaty/actm-papers/atcm-xxxiii-and-cep-xiii-2010/2867-atcm33-ip066/file/>
3. Benin (NODC): No qualified staff in the center to do it
4. Brazil (NODC): Partially. As an ISO 9001/2015 Certified Organization, we have most of our processes documented, but not a unique formal document such as a "Data Management Strategy". The same occurs in the Navy and National levels, where several Decrees and Regulatory Documents compound such a strategy.
5. Cote d’Ivoire (NODC): Cote d'Ivoire does not have a national data management strategy dedicated to ocean marine and information, but rather a national strategy for the development of statistics (SNDS - 2017-2021) which is backed by Law No. 2013-537 of July 30, 2013 on organization of the National Statistical System and Decree No. 2012-1159 of December 19, 2012 establishing a Department in charge of Planning and Statistics within the Ministries. This department is the focal point of the Ministry of Planning and Development. He is responsible for the production of sectoral statistics
6. Finland (other): Different institutions dealing with marine data have build a common portal www.itameri.fi that includes data downlaod possibilities, but as far as I know there is no common data policy except that the FAIR principle should be followed in each institution. However, the data systems at institutions are still on different levels.
7. Greece (ADU): Not yet. Our Data Centre and specific the Institute of Marine Biology, Biotechnology and Aquaculture is in the process of creating a Data Management Plan
8. Mozambique (NODC): We still have to compile our methods in a document
9. Peru (NODC): Currently, work is being done on the drafting of Official Regulations for the operation of the data and information management system.
10. Spain (ADU): We are working on it
11. Spain (NODC): Each institution has protocols. IEO has them partially documented.
12. Tanzania (NODC): The documented data management strategy have never been developed although it was anticipated
13. USA (ADU BCO-DMO): As I understand, since many distributed centers feed into the US NODC, there may be several data management strategies unique to each contributing center in addition to the strategy of the US NODC.

**Q7: Has your country applied (in 2019 and/or 2020) the IOC Oceanographic Data Exchange Policy adopted as Resolution IOC-XXII-6 in 2003? (see http://www.iode.org/policy)**

Chart, bar chart

Description automatically generated

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Country** | **Institution** | **NODC** | **ADU** | **Yes** | **No** | **I don’t know** |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  | Yes | No | I don’t know |
| Argentina | CCT CENPAT-CONICET |  | ADU | Yes |  |  |
| Australia | University of Tasmania | NODC |  |  |  | I don't know |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU | Yes |  |  |
| Belgium | VLIZ | NODC |  | Yes |  |  |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  | Yes |  |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  | No |  |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  | No |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  | Yes |  |  |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU | Yes |  |  |
| Bulgaria | BGODC | NODC |  | Yes |  |  |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  |  | I don't know |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  | I don't know |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  | Yes |  |  |
| China | NMDIS | NODC |  | Yes |  |  |
| Colombia | General Maritime Directorate | NODC |  | Yes |  |  |
| Colombia | INVEMAR |  | ADU | Yes |  |  |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  | Yes |  |  |
| Cyprus | ORION Research Institution |  | ADU | Yes |  |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  | No |  |
| Denmark | GBIF Secretariat |  | ADU |  |  | I don't know |
| Denmark | International Council for the Exploration of the Sea | | ADU |  | No |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  | I don't know |
| Estonia | Tallinn University of Technology |  |  | Yes |  |  |
| Finland | Finnish Meteorological Institute |  |  |  |  | I don't know |
| France | Ifremer | NODC |  | Yes |  |  |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU | Yes |  |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  | No |  |
| Greece | HCMR |  | ADU | Yes |  |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  | Yes |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  | Yes |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  | Yes |  |  |
| Iceland | CAFF |  | ADU |  |  | I don't know |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  | No |  |
| Indonesia | BPPT | NODC |  |  | No |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  | Yes |  |  |
| Ireland | Marine Institute | NODC |  | Yes |  |  |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  | Yes |  |  |
| Japan | Japan Oceanographic Data Center | NODC |  | Yes |  |  |
| Japan | JAMSTEC |  | ADU |  |  | I don't know |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  | Yes |  |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  | Yes |  |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  |  | I don't know |
| Mauritania | IMROP | NODC |  |  | No |  |
| Mexico | SEP Mexico | NODC |  | Yes |  |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  | Yes |  |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  | Yes |  |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  | Yes |  |  |
| Norway | Institute of Marine Research | NODC |  | Yes |  |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  | Yes |  |  |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  | I don't know |
| Portugal | Instituto Hidrografico |  |  | Yes |  |  |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  | Yes |  |  |
| Russian Federation | RIHMI-WDC | NODC |  | Yes |  |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  | Yes |  |  |
| Slovenia | National Institute of Biology | NODC |  | Yes |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  | Yes |  |  |
| Spain | SOCIB-ICTS |  | ADU |  | No |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  | No |  |
| Sweden | SMHI | NODC |  | Yes |  |  |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  | Yes |  |  |
| Togo | Université de Lomé | NODC |  |  |  | I don't know |
| Trinidad and Tobago | Institute of Marine Affairs |  |  |  | No |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  | Yes |  |  |
| Ukraine | UkrSCES | NODC |  | Yes |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  |  | I don't know |
| UNITED KINGDOM | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  | Yes |  |  |
| United Kingdom | Marine Biological Association |  | ADU | Yes |  |  |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  | I don't know |
| United States | NOAA NCEI | NODC |  | Yes |  |  |

Comments (10 received)

1. Belgium (ADU): for SCAR No
2. Benin (NODC): The center does not have this IOC data exchange policy
3. Canada (ADU): Please refer to the report from Canada’s NODC for answer.
4. Finland (other): Because of the diverse situation, I believe that some institutions more or less follow the IOC data policy, but propably not all data originators. Largest players (FMI, SYKE) use SeaDataNet donwload manager system and/or offer the data by other means to use like Argo data through EuroArgo.
5. Germany (NODC): BSH is currently working on its data policy and will take IOC data policy into accout
6. Indonesia (NODC): we are working on it
7. Malaysia (ADU): The decision should be made centrally by the government
8. Spain (ADU): We have open and free of charge access to our data but we are not currently submitting data to any IODE infrastructure such as OBIS or WOD
9. UNITED KINGDOM (ADU Cefas): This would need to be answered by our NODC - which is BODC, the British Oceanographic Data Centre
10. USA (ADU BCO-DMO): I would imagine that the US NODC (NCEI) has, but I do not know these details.

**Q8: Does your data centre have its own data policy**

**Chart, bar chart

Description automatically generated**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Country:** | **Institution:** | **NODC** | **ADU** | **other** | **Yes** | **No** |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  | Yes |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  |  | No |
| Australia | University of Tasmania | NODC |  |  | Yes |  |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  | Yes |  |
| Belgium | VLIZ | NODC |  |  | Yes |  |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  | Yes |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  |  | No |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  |  | No |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  | Yes |  |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  |  | No |
| Bulgaria | BGODC | NODC |  |  | Yes |  |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  | Yes |  |
| Canada | Department of Fisheries and Oceans | NODC |  |  | Yes |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  | Yes |  |
| China | NMDIS | NODC |  |  | Yes |  |
| Colombia | General Maritime Directorate | NODC |  |  | Yes |  |
| Colombia | INVEMAR |  | ADU |  | Yes |  |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  |  | No |
| Cyprus | ORION Research Institution |  | ADU |  | Yes |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  |  | No |
| Denmark | GBIF Secretariat |  | ADU |  | Yes |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  | Yes |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  |  |
| Estonia | Tallinn University of Technology |  |  | other | Yes |  |
| Finland | Finnish Meteorological Institute |  |  | other | Yes |  |
| France | Ifremer | NODC |  |  |  | No |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  | Yes |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  |  | No |
| Greece | HCMR |  | ADU |  | Yes |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  | Yes |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  |  | No |
| Iceland | CAFF |  | ADU |  | Yes |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  | Yes |  |
| Indonesia | BPPT | NODC |  |  | Yes |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  | Yes |  |
| Ireland | Marine Institute | NODC |  |  | Yes |  |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  | Yes |  |
| Japan | Japan Oceanographic Data Center | NODC |  |  |  | No |
| Japan | JAMSTEC |  | ADU |  | Yes |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  | Yes |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  | Yes |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  | Yes |  |
| Mauritania | IMROP | NODC |  |  | Yes |  |
| Mexico | SEP Mexico | NODC |  |  | Yes |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  |  | No |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  | Yes |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  | Yes |  |
| Norway | Institute of Marine Research | NODC |  |  |  | No |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  |  | No |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  | No |
| Portugal | Instituto Hidrografico |  |  | other | Yes |  |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  | Yes |  |
| Russian Federation | RIHMI-WDC | NODC |  |  |  | No |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  | Yes |  |
| Slovenia | National Institute of Biology | NODC |  |  |  | No |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  | Yes |  |
| Spain | SOCIB-ICTS |  | ADU |  | Yes |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  | Yes |  |
| Sweden | SMHI | NODC |  |  | Yes |  |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  |  | No |
| Togo | Université de Lomé | NODC |  |  |  | No |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other | Yes |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  | Yes |  |
| Ukraine | UkrSCES | NODC |  |  |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  | Yes |  |
| UNITED KINGDOM | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  | Yes |  |
| United Kingdom | Marine Biological Association |  | ADU |  | Yes |  |
| United States | BCO-DMO (at WHOI) |  | ADU |  | Yes |  |
| United States | NOAA NCEI | NODC |  |  | Yes |  |

Comments (33 received, 28 included below)

1. Australia (ADU CSIRO): <https://mnf.csiro.au/en/About/Policies/For-Chief-Scientists-and-Voyage-Applicants/Data-Management-Policy>
2. Australia (NODC): <https://imos.org.au/facilities/aodn/aodn-data-management/aodn-data-policy>
3. Belgium (NODC VLIZ): <http://www.vliz.be/en/data-policy>
4. Belgium (ADU): se the DIMS but we are also working on a new version. within the Antarctic treaty there are stipulation data including "Scientific observations and results from Antarctica shall be exchanged and made freely availableTanzania (NODC): We apply the IOC Data Exchange Policy
5. Benin (NODC): No qualified staff in the center to do it
6. Brazil (NODC): <https://www.marinha.mil.br/dhn/sites/www.marinha.mil.br.dhn/files/Port13-2018-DHN-Aprova-NAD-DHN.pdf> Canada (ADU OTN): <https://members.oceantrack.org/data/policies>
7. Chile (NODC): only for internal use China (NODC): NMDIS adheres to the standards and regulations of marine data collection, management, and service issued by MNR/China
8. Colombia (ADU INVEMAR): <https://siam.invemar.org.co/compromiso-uso>
9. Colombia (NODC): <https://cecoldo.dimar.mil.co/web/sites/default/files/co_remac4_parte5_titulo2_politica_datos_tecnico_cientificos_dimar2020.pdf>
10. Cyprus (ADU): the data are distributed via SeaDataNet,Emodnet chemistry and Emodnet ingestion portals
11. Denmark (ADU ICES): <http://ices.dk/data/guidelines-and-policy/Pages/ICES-data-policy.aspx>
12. Finland (other): <https://en.ilmatieteenlaitos.fi/open-data>
13. France (NODC): work in progress Georgia (ADU): The data policy follows the principles of SeaDataNet data policy.
14. Greece (ADU): We have a data sharing agreement available at <https://www.lifewatchgreece.eu/?q=lifewatch-greece-documents>
15. Iceland (ADU CAFF): <https://abds.is/index.php/data-policy>
16. Ireland (NODC): <https://www.marine.ie/Home/site-area/data-services/data-policy/data-policy>Mexico (NODC): cendo.ens.uabc.mx; it is in a reorganizing fase
17. Japan (ADU JAMSTEC): <http://www.godac.jamstec.go.jp/j-obis/e/data.html>
18. Norway (NODC): IMR data policy, <https://www.hi.no/resources/imr/Data-policy-IMR.pdf>
19. Portugal (other): <https://www.hidrografico.pt/op/31> . We have been working in an upgraded version align with international best practices.
20. Peru (NODC): Is in development
21. South Africa (NODC): <http://beta.data.ocean.gov.za/documents/data-policy>
22. Spain (ADU SOCIB): <https://www.socib.es/?seccion=dataCenter&facility=accessPolicy>
23. Spain (NODC): Some data are freeely available for non-profit/academical purposes. Other ones, freely available under agreement.
24. Sweden (NODC): <http://www.smhi.se/oceanografi/oce_info_data/shark_web/downloads/datapolicy_sv.pdf>
25. UNITED KINGDOM (NODC): Data Policy is at the NERC level: <https://nerc.ukri.org/research/sites/data/policy/> , but since NOC (which hosts BODC) became independent it is developing its own data policy.
26. UNITED KINGDOM (ADU MBA): Currently under revision to reflect CoreTrustSeal accreditation
27. UNITED KINGDOM (ADU CEFAS): <https://www.cefas.co.uk/media/wumgbpfr/cefas-data-management-policy.pdf>
28. USA (NODC): <https://www.nodc.noaa.gov/about/datapolicy.html>

**Q9: Does your organization have a documented Quality Management System (QMS)?**

Chart, bar chart

Description automatically generated

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Institution: | NODC | ADU | other | Yes | No | I don't know |
| ASEAN Centre for Biodiversity |  | ADU |  |  | No |  |
| BCO-DMO (at WHOI) |  | ADU |  |  | No |  |
| Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  | Yes |  |  |
| BGODC | NODC |  |  |  | No |  |
| BPPT | NODC |  |  | Yes |  |  |
| Brazilian Navy Hydrographic Center | NODC |  |  | Yes |  |  |
| British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  | Yes |  |  |
| CAFF |  | ADU |  |  |  | I don't know |
| CCT CENPAT-CONICET |  | ADU |  | Yes |  |  |
| Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  | Yes |  |  |
| Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  | No |  |
| Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  |  | No |  |
| CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  |  | No |  |
| CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  | Yes |  |  |
| Department of Environment, Forestry and Fisheries | NODC |  |  | Yes |  |  |
| Department of Fisheries and Oceans | NODC |  |  | Yes |  |  |
| Dirección de Hidrografía y Navegación | NODC |  |  | Yes |  |  |
| Federal Maritime and Hydrographic Agency | NODC |  |  | Yes |  |  |
| Finnish Meteorological Institute |  |  | other | Yes |  |  |
| GBIF Secretariat |  | ADU |  |  |  | I don't know |
| General Maritime Directorate | NODC |  |  | Yes |  |  |
| HCMR |  | ADU |  | Yes |  |  |
| Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  |  | No |  |
| Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  |  | No |  |
| Ifremer | NODC |  |  | Yes |  |  |
| IMROP | NODC |  |  | Yes |  |  |
| Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  |  | No |  |
| Ins. Esp. Oceanografia (IEO) | NODC |  |  |  | No |  |
| Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  |  | No |  |
| Institute of Marine Affairs |  |  | other |  | No |  |
| Institute of Marine Research | NODC |  |  | Yes |  |  |
| Institute of Oceanography and Environment, UMT | | ADU |  | Yes |  |  |
| Institute of oceanography and fisheries | NODC |  |  |  | No |  |
| Instituto Hidrografico |  |  | other | Yes |  |  |
| Instituto Nacional de Hidrografia e Navegação | NODC |  |  | Yes |  |  |
| International Council for the Exploration of the Sea | | ADU |  |  | No |  |
| INVEMAR |  | ADU |  |  | No |  |
| Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  | Yes |  |  |
| Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  |  | No |  |
| JAMSTEC |  | ADU |  |  | No |  |
| Japan Oceanographic Data Center | NODC |  |  | Yes |  |  |
| Kenya Marine and Fisheries Research Institute | NODC |  |  |  | No |  |
| Marine Biological Association |  | ADU |  |  | No |  |
| Marine Institute | NODC |  |  | Yes |  |  |
| Ministry of Environment/Water Resources | NODC |  |  |  | No |  |
| National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  | No |  |
| National Institute of Biology | NODC |  |  | Yes |  |  |
| National Institute of Oceanography and Applied Geophysics | NODC |  |  |  | No |  |
| National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  | No |  |
| National Institute of Water & Atmospheric Research | NODC |  |  |  | No |  |
| NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  |  | No |  |
| NMDIS | NODC |  |  | Yes |  |  |
| NOAA NCEI | NODC |  |  | Yes |  |  |
| Ocean Tracking Network, Dalhousie University | | ADU |  |  | No |  |
| Office of Navigation, Hydrography and Oceanography | NODC |  |  | Yes |  |  |
| ORION Research Institution |  | ADU |  | Yes |  |  |
| Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  | No |  |
| RIHMI-WDC | NODC |  |  |  | No |  |
| SCAR/Antarctic OBIS | | ADU |  |  | No |  |
| SEP Mexico | NODC |  |  |  | No |  |
| SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  |  | No |  |
| SMHI | NODC |  |  |  | No |  |
| SOCIB-ICTS |  | ADU |  |  | No |  |
| Tallinn University of Technology |  |  | other | Yes |  |  |
| UkrSCES | NODC |  |  |  | No |  |
| Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  |  | No |  |
| Université de Lomé | NODC |  |  |  | No |  |
| University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  | Yes |  |  |
| University of Tasmania | NODC |  |  |  | No |  |
| VLIZ | NODC |  |  | Yes |  |  |

Comments (25 received)

1. Argentina (ADU CENPAT): We are governed by the OBIS Quality management System.
2. Australia (ADU CSIRO): the routine data we acquire from our vessels (underway, ctd,a dcp, xbt, multibeam. hydrology) is processed using specific data quality controlled.procedures. Each datatype from a voyage has a published metadata record linking to the data quality and issues report.
3. Brazil (NODC): Brazilian Navy Hydrographic Center, which operates the Brazilian National Data Center (BNDO - Banco Nacional de Dados Oceanográficos), holds an ISO 9001 Certification since the year 2007. Initially only ht e Cartographyc Production was certified, but today all technical sectors are so. There´s a Quality Management System (with all comprobatory documents) at <https://sdq.chm.mb/laravelapp/sdq/public/admin/login> [restricted].
4. Cyprus (ADU): SeaDataNet QC and management Procedures
5. Estonia (other): Department has national accreditation for oceanographic measurements and has QMS
6. Finland (other): FMI has a unit for observations that takes care of the quality control of routine data and then we have Marine Research unit that takes care of the quality control of data that the unit collects. The QMS is under development for some oceanographic data types.
7. France (NODC): mandatory for the ISO 9001 certification
8. Germany (NODC): ISO 9001 certificate
9. Georgia (ADU): TSU is collaborating with S/R Firm "Gamma" Ltd, which has the documented QMS.
10. Greece (ADU): It is an internal guide used for Data Quality Management
11. Iran (Islamic Republic of) (Islamic Republic of) (NODC): The INCOD has achieved QMS accreditation in 2017.
12. Ireland (NODC): The Marine Institute's data management quality management framework is accredited by IODE, with scientific QMSs accredited by ISO and INAB.
13. Mozambique (NODC): The system consist of establish a relation within the data, the instruments and metodology used to collect the data. After this process we atrinute the quality flag to the data
14. Norway (NODC): Internal quality management system
15. Peru (NODC): It is ISO 9001-2015 certified
16. Portugal (Other):. The Portuguese Hydrographic Office has multiple Quality management processes (e.g. the Hydrographic data accomplish with S-44 and other International Hydrographic Organization guidelines). Since 2020 we have been developing an Marine Spatial Data Infrastructure and working for build up of a coherent Quality Management System.South Africa (NODC): Raw data and corresponding metadata are archived for long term preservation. Data providers complete metadata sheets for ocean physics and for biological data. An SOP for how to do this exists.
17. Slovenia (NODC): The majority of the data we provide to the community are quality checked prior to delivery. We are part of the EMODNET/SEADATANET community and use their quality check criteria.
18. South Africa (NODC): Raw data and corresponding metadata are archived for long term preservation. Data providers complete metadata sheets for ocean physics and for biological data. An SOP for how to do this exists.
19. Spain (ADU SOCIB): we are working on it
20. Spain (NODC): Not completed yet. We are in process
21. Tanzania (NODC): The University as a whole has documented Quality Assurance systems for conducting its academic activities. These are managed with a Quality Assurance Bureau.
22. UNITED KINGDOM (NODC): Quality Management Framework is based on the ISO 9001 methodology. At present an internal document. The BODC is accredited by IODE
23. UNITED KINGDOM (ADU CEFAS): <https://www.cefas.co.uk/media/0a5fvw4a/cpp008-policy-quality-policy-apr-20-signed.pdf>
24. USA (ADU BCO-DMO): We do have automated validation checks for all of our ISO metadata records contributing to each archive package.
25. USA (NODC): <https://nosc.noaa.gov/EDMC/PD.all.php>

**Q10: Does your organization hold ISO 9001 certification?**

Chart, bar chart

Description automatically generated

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Country: | Institution: | NODC | ADU | other | Yes | No | I don't know |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  |  | No |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  |  | No |  |
| Australia | University of Tasmania | NODC |  |  |  | No |  |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  |  | No |  |
| Belgium | VLIZ | NODC |  |  |  | No |  |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  |  | No |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  |  | No |  |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  |  | No |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  | Yes |  |  |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  |  | No |  |
| Bulgaria | BGODC | NODC |  |  |  | No |  |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  |  | No |  |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  | Yes |  |  |
| China | NMDIS | NODC |  |  | Yes |  |  |
| Colombia | General Maritime Directorate | NODC |  |  | Yes |  |  |
| Colombia | INVEMAR |  | ADU |  | Yes |  |  |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  |  | No |  |
| Cyprus | ORION Research Institution |  | ADU |  |  | No |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  |  | No |  |
| Denmark | GBIF Secretariat |  | ADU |  |  |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  |  | No |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  |  | I don't know |
| Estonia | Tallinn University of Technology |  |  | other |  | No |  |
| Finland | Finnish Meteorological Institute |  |  | other | Yes |  |  |
| France | Ifremer | NODC |  |  | Yes |  |  |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  |  |  |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  | Yes |  |  |
| Greece | HCMR |  | ADU |  |  |  | I don't know |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  | Yes |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  | No |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  |  | No |  |
| Iceland | CAFF |  | ADU |  |  | No |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  |  | No |  |
| Indonesia | BPPT | NODC |  |  |  | No |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  | Yes |  |  |
| Ireland | Marine Institute | NODC |  |  | Yes |  |  |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  |  | No |  |
| Japan | Japan Oceanographic Data Center | NODC |  |  | Yes |  |  |
| Japan | JAMSTEC |  | ADU |  |  | No |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  | No |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  | Yes |  |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  | Yes |  |  |
| Mauritania | IMROP | NODC |  |  |  | No |  |
| Mexico | SEP Mexico | NODC |  |  |  |  | I don't know |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  |  | No |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  |  | No |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  |  | No |  |
| Norway | Institute of Marine Research | NODC |  |  |  | No |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  | Yes |  |  |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  | No |  |
| Portugal | Instituto Hidrografico |  |  | other | Yes |  |  |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  | No |  |
| Russian Federation | RIHMI-WDC | NODC |  |  |  | No |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  |  |  | I don't know |
| Slovenia | National Institute of Biology | NODC |  |  | Yes |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  | Yes |  |  |
| Spain | SOCIB-ICTS |  | ADU |  |  | No |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  |  | No |  |
| Sweden | SMHI | NODC |  |  | Yes |  |  |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  |  |  | I don't know |
| Togo | Université de Lomé | NODC |  |  |  | No |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other |  | No |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  | Yes |  |  |
| Ukraine | UkrSCES | NODC |  |  |  | No |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  | Yes |  |  |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  |  | No |  |
| United Kingdom | Marine Biological Association |  | ADU |  |  | No |  |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  | No |  |
| United States | NOAA NCEI | NODC |  |  |  | No |  |

**Q11: If you are an NODC: do you plan to implement the IODE QMF accreditation process during the next inter-sessional period (2021-2022)?**

Chart, bar chart

Description automatically generated

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Country:** | **Institution:** | **NODC** | **ADU** | **other** | **Yes** | **No** | **We have done it already** | **I do not know** |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  |  |  |  | I do not know |
| Argentina | CCT CENPAT-CONICET |  | ADU |  |  |  |  |  |
| Australia | University of Tasmania | NODC |  |  |  |  |  | I do not know |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  |  |  |  | I do not know |
| Belgium | VLIZ | NODC |  |  |  |  | done |  |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  |  |  | done |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  |  |  |  |  |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  |  | No |  |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  | Yes |  |  |  |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  |  | No |  |  |
| Bulgaria | BGODC | NODC |  |  |  |  |  | I do not know |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  | Yes |  |  |  |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  |  | No |  |  |
| China | NMDIS | NODC |  |  |  |  | done |  |
| Colombia | General Maritime Directorate | NODC |  |  | Yes |  |  |  |
| Colombia | INVEMAR |  | ADU |  |  |  |  |  |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  |  | No |  |  |
| Cyprus | ORION Research Institution |  | ADU |  | Yes |  |  |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  | Yes |  |  |  |
| Denmark | GBIF Secretariat |  | ADU |  |  |  |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  |  |  |  | I do not know |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  |  |  |  |
| Estonia | Tallinn University of Technology |  |  | other |  | No |  |  |
| Finland | Finnish Meteorological Institute |  |  | other |  |  |  |  |
| France | Ifremer | NODC |  |  |  |  | done |  |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  |  |  |  | I do not know |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  | Yes |  |  |  |
| Greece | HCMR |  | ADU |  |  |  |  |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  | Yes |  |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  | Yes |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  |  | No |  |  |
| Iceland | CAFF |  | ADU |  |  |  |  |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  |  |  |  | I do not know |
| Indonesia | BPPT | NODC |  |  | Yes |  |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  |  |  | done |  |
| Ireland | Marine Institute | NODC |  |  |  |  | done |  |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  | Yes |  |  |  |
| Japan | Japan Oceanographic Data Center | NODC |  |  |  |  | done |  |
| Japan | JAMSTEC |  | ADU |  |  | No |  |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  | Yes |  |  |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  | Yes |  |  |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  |  |  |  |  |
| Mauritania | IMROP | NODC |  |  |  |  |  | I do not know |
| Mexico | SEP Mexico | NODC |  |  |  |  |  | I do not know |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  | Yes |  |  |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  |  |  |  | I do not know |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  |  | No |  |  |
| Norway | Institute of Marine Research | NODC |  |  | Yes |  |  |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  |  | No |  |  |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |  | I do not know |
| Portugal | Instituto Hidrografico |  |  | other |  |  |  |  |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  |  |  | I do not know |
| Russian Federation | RIHMI-WDC | NODC |  |  | Yes |  |  |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  | Yes |  |  |  |
| Slovenia | National Institute of Biology | NODC |  |  |  | No |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  |  |  |  | I do not know |
| Spain | SOCIB-ICTS |  | ADU |  |  |  |  | I do not know |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  | Yes |  |  |  |
| Sweden | SMHI | NODC |  |  | Yes |  |  |  |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  | Yes |  |  |  |
| Togo | Université de Lomé | NODC |  |  |  | No |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other |  |  |  | I do not know |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  | Yes |  |  |  |
| Ukraine | UkrSCES | NODC |  |  | Yes |  |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  |  |  |  |  |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  |  |  | done |  |
| United Kingdom | Marine Biological Association |  | ADU |  |  |  |  |  |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |  |  |
| United States | NOAA NCEI | NODC |  |  |  |  |  | I do not know |

**Q12: What type and how many staff (FTE - Full Time Equivalent) were working at your data centre in 2019/2020 (averaged):[use integers. no decimals]**

Chart

Description automatically generated

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Country: | Institution: | NODC | ADU | other | Management | Scientific | Technical | IT support | Administrative | Temporary support | Students and interns | Volunteers | total |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  | 1 |  | 2 | 1 |  |  |  |  | **4** |
| Argentina | CCT CENPAT-CONICET |  | ADU |  | 1 | 1 | 1 |  |  |  |  |  | **3** |
| Australia | University of Tasmania | NODC |  |  | 4 | 7 |  | 9 | 1 |  |  |  | **21** |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  | 1 |  | 6 |  |  |  |  |  | **7** |
| Belgium | VLIZ | NODC |  |  | 4 | 21 | 12 | 2 |  |  |  |  | **39** |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  | 1 | 5 |  | 1 | 1 |  |  |  | **8** |
| Belgium | SCAR/Antarctic OBIS | | ADU |  | 1 | 1 |  | 1 |  |  |  |  | **3** |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  |  | 3 | 2 |  | 3 | 2 | 7 |  | **17** |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  | 2 | 3 | 9 | 2 | 2 | 1 | 1 | 0 | **20** |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  | 1 | 2 | 1 | 1 | 0 | 0 | 2 | 2 | **9** |
| Bulgaria | BGODC | NODC |  |  | 1 | 2 | 1 | 1 |  |  |  |  | **5** |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  | 3 | 1 | 7 |  | 1 |  | 1 |  | **13** |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  |  |  |  |  |  |  |  | **0** |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  |  | 3 |  | 1 |  |  |  |  | **4** |
| China | NMDIS | NODC |  |  | 35 | 220 | 37 | 20 | 5 | 3 | 2 |  | **322** |
| Colombia | General Maritime Directorate | NODC |  |  |  | 1 |  | 1 | 1 |  | 2 |  | **5** |
| Colombia | INVEMAR |  | ADU |  | 16 | 303 | 52 | 5 | 31 | 0 | 28 | 0 | **435** |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  | 11 | 30 | 30 | 7 | 26 | 41 | 20 |  | **165** |
| Cyprus | ORION Research Institution |  | ADU |  |  | 2 |  | 1 | 1 | 2 |  |  | **6** |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  | 4 | 10 | 3 | 3 | 2 | 2 | 10 | 10 | **44** |
| Denmark | GBIF Secretariat |  | ADU |  | 5 | 1 | 8 | 3 | 4 |  |  |  | **21** |
| Denmark | International Council for the Exploration of the Sea | | ADU |  | 1 | 5 | 7 |  | 1 | 1 | 1 |  | **16** |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  | 1 | 4 | 1 |  |  |  |  | **6** |
| Estonia | Tallinn University of Technology |  |  | X | 1 | 1 | 1 | 1 |  |  |  |  | **4** |
| Finland | Finnish Meteorological Institute |  |  | X |  | 1 | 1 |  |  |  |  |  | **2** |
| France | Ifremer | NODC |  |  | 5 | 20 | 13 | 10 | 2 | 10 | 2 |  | **62** |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  | 1 | 1 |  | 1 | 1 |  | 3 |  | **7** |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  |  | 1 | 3 | 2 |  | 3 |  |  | **9** |
| Greece | HCMR |  | ADU |  | 1 | 2 | 1 | 1 |  |  |  |  | **5** |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  | 1 | 3 |  | 2 |  |  |  |  | **6** |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  | 2 | 3 | 2 |  | 1 |  |  |  | **8** |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  | 1 | 1 | 1 | 2 |  | 2 |  |  | **7** |
| Iceland | CAFF |  | ADU |  | 1 |  | 1 |  |  |  |  |  | **2** |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  | 1 | 5 | 2 | 2 |  | 6 | 2 |  | **18** |
| Indonesia | BPPT | NODC |  |  | 3 | 3 | 2 | 2 | 1 |  |  |  | **11** |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  | 1 |  | 2 |  |  |  |  |  | **3** |
| Ireland | Marine Institute | NODC |  |  | 4 |  | 16 | 5 | 1 |  |  |  | **26** |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  | 1 | 3 | 2 | 2 |  | 1 |  |  | **9** |
| Japan | Japan Oceanographic Data Center | NODC |  |  | 1 |  | 5 |  | 1 | 1 |  |  | **8** |
| Japan | JAMSTEC |  | ADU |  | 1 |  | 1 |  |  | 1 |  |  | **3** |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  | 6 |  |  |  |  |  |  | **6** |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  | 2 | 2 | 2 | 1 | 1 |  | 4 | 2 | **14** |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  | 2 | 4 | 2 | 1 | 1 | 0 | 4 | 0 | **14** |
| Mauritania | IMROP | NODC |  |  | 3 | 10 | 10 |  | 3 |  |  |  | **26** |
| Mexico | SEP Mexico | NODC |  |  |  | 1 | 1 |  |  |  |  |  | **2** |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  | 1 | 2 | 1 | 1 | 1 |  |  |  | **6** |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  |  |  |  |  |  |  |  |  | **0** |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  | 1 | 2 | 2 | 1 | 1 |  |  |  | **7** |
| Norway | Institute of Marine Research | NODC |  |  | 1 |  | 18 |  |  |  |  | 1 | **20** |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  | 1 | 1 | 1 | 1 |  | 1 |  |  | **5** |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  | 1 | 2 | 3 | 2 | 1 | 2 |  |  | **11** |
| Portugal | Instituto Hidrografico |  |  | X | 16 | 75 | 40 | 5 | 38 |  | 10 |  | **184** |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  |  |  |  |  |  |  |  | **0** |
| Russian Federation | RIHMI-WDC | NODC |  |  | 8 | 3 | 2 | 3 | 1 |  | 2 |  | **19** |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  | 1 | 2 | 1 |  |  |  |  |  | **4** |
| Slovenia | National Institute of Biology | NODC |  |  | 1 | 1 |  | 1 |  |  |  |  | **3** |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  | 2 | 2 | 5 | 3 | 3 | 0 | 0 | 0 | **15** |
| Spain | SOCIB-ICTS |  | ADU |  | 1 | 2 | 6 | 2 | 1 |  |  |  | **12** |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  | 1 |  | 1 |  |  | 1 | 1 |  | **4** |
| Sweden | SMHI | NODC |  |  | 1 | 14 | 2 | 0 | 1 | 1 | 0 | 0 | **19** |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  | 3 | 23 | 6 | 2 | 4 | 2 | 3 | 1 | **44** |
| Togo | Université de Lomé | NODC |  |  |  |  |  |  |  |  |  |  | **0** |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | X | 10 | 18 | 20 | 5 | 6 |  |  |  | **59** |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  |  |  |  |  |  |  |  |  | **0** |
| Ukraine | UkrSCES | NODC |  |  | 4 | 62 | 10 | 6 | 4 | 12 | 6 |  | **104** |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  |  |  |  |  |  |  |  |  | **0** |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  | 5 | 30 | 10 |  |  |  |  |  | **45** |
| United Kingdom | Marine Biological Association |  | ADU |  | 1 |  | 4 |  |  |  |  |  | **5** |
| United States | BCO-DMO (at WHOI) |  | ADU |  | 2 |  | 7 |  |  | 2 |  |  | **11** |
| United States | NOAA NCEI | NODC |  |  |  |  |  |  |  |  |  |  | **0** |

**Q13: How has this number changed year by year since 2017-2018 (previous inter-sessional period)**

**Chart

Description automatically generated**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Institution:** | **NODC** | **ADU** | **other** | **Same** | **Increased** | **Decreased** | **I don't know** |
| ASEAN Centre for Biodiversity |  | ADU |  | same |  |  |  |
| BCO-DMO (at WHOI) |  | ADU |  |  | Increased |  |  |
| Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  | same |  |  |  |
| BGODC | NODC |  |  |  | Increased |  |  |
| BPPT | NODC |  |  |  |  |  |  |
| Brazilian Navy Hydrographic Center | NODC |  |  | same |  |  |  |
| British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  | same |  |  |  |
| CAFF |  | ADU |  | same |  |  |  |
| CCT CENPAT-CONICET |  | ADU |  | same |  |  |  |
| Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  |  | Increased |  |  |
| Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  | Increased |  |  |
| Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  |  |  | Decreased |  |
| CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  | same |  |  |  |
| CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  | same |  |  |  |
| Department of Environment, Forestry and Fisheries | NODC |  |  | same |  |  |  |
| Department of Fisheries and Oceans | NODC |  |  |  |  |  |  |
| Dirección de Hidrografía y Navegación | NODC |  |  | same |  |  |  |
| Federal Maritime and Hydrographic Agency | NODC |  |  | same |  |  |  |
| Finnish Meteorological Institute |  |  | x | same |  |  |  |
| GBIF Secretariat |  | ADU |  |  | Increased |  |  |
| General Maritime Directorate | NODC |  |  | same |  |  |  |
| HCMR |  | ADU |  | same |  |  |  |
| Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  |  |  | Decreased |  |
| Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  | same |  |  |  |
| Ifremer | NODC |  |  |  | Increased |  |  |
| IMROP | NODC |  |  |  |  | Decreased |  |
| Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  | same |  |  |  |
| Ins. Esp. Oceanografia (IEO) | NODC |  |  |  |  | Decreased |  |
| Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  | same |  |  |  |
| Institute of Marine Affairs |  |  | x |  |  | Decreased |  |
| Institute of Marine Research | NODC |  |  | same |  |  |  |
| Institute of Oceanography and Environment, UMT | | ADU |  | same |  |  |  |
| Institute of oceanography and fisheries | NODC |  |  | same |  |  |  |
| Instituto Hidrografico |  |  | x |  |  | Decreased |  |
| Instituto Nacional de Hidrografia e Navegação | NODC |  |  | same |  |  |  |
| International Council for the Exploration of the Sea | | ADU |  |  | Increased |  |  |
| INVEMAR |  | ADU |  | same |  |  |  |
| Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  | same |  |  |  |
| Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  |  | Increased |  |  |
| JAMSTEC |  | ADU |  |  |  | Decreased |  |
| Japan Oceanographic Data Center | NODC |  |  |  |  | Decreased |  |
| Kenya Marine and Fisheries Research Institute | NODC |  |  | same |  |  |  |
| Marine Biological Association |  | ADU |  | same |  |  |  |
| Marine Institute | NODC |  |  |  | Increased |  |  |
| Ministry of Environment/Water Resources | NODC |  |  |  |  | Decreased |  |
| National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  |  |  |  |
| National Institute of Biology | NODC |  |  | same |  |  |  |
| National Institute of Oceanography and Applied Geophysics | NODC |  |  |  | Increased |  |  |
| National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  | Increased |  |  |
| National Institute of Water & Atmospheric Research | NODC |  |  |  | Increased |  |  |
| NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  | same |  |  |  |
| NMDIS | NODC |  |  | same |  |  |  |
| NOAA NCEI | NODC |  |  | same |  |  |  |
| Ocean Tracking Network, Dalhousie University | | ADU |  |  | Increased |  |  |
| Office of Navigation, Hydrography and Oceanography | NODC |  |  | same |  |  |  |
| ORION Research Institution |  | ADU |  | same |  |  |  |
| Republican State-owned Enterprise “KazHydromet” | NODC |  |  | same |  |  |  |
| RIHMI-WDC | NODC |  |  |  |  | Decreased |  |
| SCAR/Antarctic OBIS | | ADU |  | same |  |  |  |
| SEP Mexico | NODC |  |  |  | Increased |  |  |
| SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  | same |  |  |  |
| SMHI | NODC |  |  | same |  |  |  |
| SOCIB-ICTS |  | ADU |  | same |  |  |  |
| Tallinn University of Technology |  |  | x | same |  |  |  |
| UkrSCES | NODC |  |  | same |  |  |  |
| Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  |  | Increased |  |  |
| Université de Lomé | NODC |  |  |  |  |  | I don't know |
| University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  | same |  |  |  |
| University of Tasmania | NODC |  |  |  | Increased |  |  |
| VLIZ | NODC |  |  |  | Increased |  |  |

**Q14: What is the annual operational budget for your data centre (excluding staff cost) [converted into US Dollars]:**

**Chart

Description automatically generated**

**Q15: How has this number changed year by year since 2017-2018 (previous inter-sessional period):**

**Chart, bar chart

Description automatically generated**

**Q16: Global IODE activities in which your data centre participated in 2019 and/or 2020 (data management): (choose one per row**)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Country: | Institution: | NODC | ADU | other | JCOMM/IODE ETDMP - Started in 2019 or 2020 | JCOMM/IODE ETDMP - Continued in 2019 or 2020 | JCOMM/IODE ETDMP - Stopped in 2019 or 2020 | GE-MIM - Started in 2019 or 2020 | GE-MIM - Continued in 2019 or 2020 | GE-MIM - Stopped in 2019 or 2020 | OBIS - Started in 2019 or 2020 | OBIS - Continued in 2019 or 2020 | OBIS - Stopped in 2019 or 2020 | GODAR - Started in 2019 or 2020 | GODAR - Continued in 2019 or 2020 | GODAR - Stopped in 2019 or 2020 | WOD - Started in 2019 or 2020 | WOD - Continued in 2019 or 2020 | WOD - Stopped in 2019 or 2020 | GTSPP - Started in 2019 or 2020 | GTSPP - Continued in 2019 or 2020 | GTSPP - Stopped in 2019 or 2020 | GOSUD - Started in 2019 or 2020 | GOSUD - Continued in 2019 or 2020 | GOSUD - Stopped in 2019 or 2020 | ICAN - Started in 2019 or 2020 | ICAN - Continued in 2019 or 2020 | ICAN - Stopped in 2019 or 2020 |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Australia | University of Tasmania | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  |  |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Belgium | VLIZ | NODC |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  |  | x |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  |  |  |  |  | x |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bulgaria | BGODC | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| China | NMDIS | NODC |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |
| Colombia | General Maritime Directorate | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Colombia | INVEMAR |  | ADU |  |  |  |  |  | x |  |  | x |  |  |  | x |  |  |  |  |  |  |  |  |  |  | x |  |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cyprus | ORION Research Institution |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Denmark | GBIF Secretariat |  | ADU |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  |  |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Estonia | Tallinn University of Technology |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Finland | Finnish Meteorological Institute |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| France | Ifremer | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  |  |  |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |  |  |  |  |  |  |  |  |  |
| Greece | HCMR |  | ADU |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Iceland | CAFF |  | ADU |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  | x | x |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Indonesia | BPPT | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ireland | Marine Institute | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Japan | Japan Oceanographic Data Center | NODC |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |
| Japan | JAMSTEC |  | ADU |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  |  |  |  |  |  |  | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mauritania | IMROP | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mexico | SEP Mexico | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |  |  |  |
| Norway | Institute of Marine Research | NODC |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  |  | x |  |  | x |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  | x |  |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |  |  |  |  | x | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Portugal | Instituto Hidrografico |  |  | x |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Slovenia | National Institute of Biology | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spain | SOCIB-ICTS |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Sweden | SMHI | NODC |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |  |  |  |  |  |  |  |  |  |
| Togo | Université de Lomé | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ukraine | UkrSCES | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |
| United Kingdom | Marine Biological Association |  | ADU |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| United States | NOAA NCEI | NODC |  |  |  | x |  |  |  |  |  |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Country: | Institution: | NODC | ADU | other | IQuOD - Started in 2019 or 2020 | IQuOD - Continued in 2019 or 2020 | IQuOD - Stopped in 2019 or 2020 | OceanDataPortal - Started in 2019 or 2020 | OceanDataPortal - Continued in 2019 or 2020 | OceanDataPortal - Stopped in 2019 or 2020 | OceanBestPractices - Started in 2019 or 2020 | OceanBestPractices - Continued in 2019 or 2020 | OceanBestPractices - Stopped in 2019 or 2020 | OceanDocs - Started in 2019 or 2020 | OceanDocs - Continued in 2019 or 2020 | OceanDocs - Stopped in 2019 or 2020 | OceanExpert - Started in 2019 or 2020 | OceanExpert - Continued in 2019 or 2020 | OceanExpert - Stopped in 2019 or 2020 | OceanKnowledge Platform PIlot project - Started in 2019 or 2020 | OceanKnowledge Platform PIlot project - Continued in 2019 or 2020 | OceanKnowledge Platform PIlot project - Stopped in 2019 or 2020 | OpenScienceDirectory - Started in 2019 or 2020 | OpenScienceDirectory - Continued in 2019 or 2020 | OpenScienceDirectory - Stopped in 2019 or 2020 | OceanTeacher - Started in 2019 or 2020 | OceanTeacher - Continued in 2019 or 2020 | OceanTeacher - Stopped in 2019 or 2020 |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |
| Australia | University of Tasmania | NODC |  |  | x |  | x |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Belgium | VLIZ | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  |  |  |  |  |  |  | x |  |  |  |  |  |  | x |  |  |  |  |  |  |  | x |  |  |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  | x |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bulgaria | BGODC | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| China | NMDIS | NODC |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |
| Colombia | General Maritime Directorate | NODC |  |  |  |  |  |  |  |  | x | x |  | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Colombia | INVEMAR |  | ADU |  |  |  |  |  | x |  | x |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  | x |  |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |
| Cyprus | ORION Research Institution |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  |  |  |  | x |  |  |  | x |  |  | x |  |  | x |  |  |  |  |  | x |  |  | x |  |
| Denmark | GBIF Secretariat |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |  |
| Estonia | Tallinn University of Technology |  |  | other |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Finland | Finnish Meteorological Institute |  |  | other |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| France | Ifremer | NODC |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  | x |  |  | x |  |  |  | x |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Greece | HCMR |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |
| Iceland | CAFF |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  | x | x |  |  |  |  |  |  |  |  |  |  | x | x |  |  |  |  |  |  |  | x | x |  |
| Indonesia | BPPT | NODC |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  | x |  |
| Ireland | Marine Institute | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Japan | Japan Oceanographic Data Center | NODC |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Japan | JAMSTEC |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  |  |  |  | x | x |  |  |  |  | x | x |  | x | x |  | x |  |  |  |  |  | x | x |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  | x |  |  |  | x |  |  |
| Mauritania | IMROP | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |
| Mexico | SEP Mexico | NODC |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Norway | Institute of Marine Research | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  |  |  | x |  |  | x |  | x |  |  | x |  |  | x |  |  |  | x |  | x |  |  | x |  |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Portugal | Instituto Hidrografico |  |  | other |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  |  |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |
| Slovenia | National Institute of Biology | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  |  |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |  |  |  |  | x |  |
| Spain | SOCIB-ICTS |  | ADU |  |  |  |  |  |  |  | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |
| Sweden | SMHI | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  |  |  |  |  |  |  |  |  |  | x | x |  | x | x |  |  |  |  |  |  |  |  |  |  |
| Togo | Université de Lomé | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  |  |  |  |  | x |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  | x |  |
| Ukraine | UkrSCES | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  |  |  |  |  | x |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |
| United Kingdom | Marine Biological Association |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| United States | NOAA NCEI | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Country: | Institution: | NODC | ADU | other | ODIS - Started in 2019 or 2020 | ODIS - Continued in 2019 or 2020 | ODIS - Stopped in 2019 or 2020 | IODE QMF - Started in 2019 or 2020 | IODE QMF - Continued in 2019 or 2020 | IODE QMF - Stopped in 2019 or 2020 | Comments: | OceanBestPractices - Continued in 2019 or 2020 | OceanBestPractices - Stopped in 2019 or 2020 | OceanDocs - Started in 2019 or 2020 | OceanDocs - Continued in 2019 or 2020 | OceanDocs - Stopped in 2019 or 2020 | OceanExpert - Started in 2019 or 2020 | OceanExpert - Continued in 2019 or 2020 | OceanExpert - Stopped in 2019 or 2020 | OceanKnowledge Platform PIlot project - Started in 2019 or 2020 | OceanKnowledge Platform PIlot project - Continued in 2019 or 2020 | OceanKnowledge Platform PIlot project - Stopped in 2019 or 2020 | OpenScienceDirectory - Started in 2019 or 2020 | OpenScienceDirectory - Continued in 2019 or 2020 | OpenScienceDirectory - Stopped in 2019 or 2020 | OceanTeacher - Started in 2019 or 2020 | OceanTeacher - Continued in 2019 or 2020 | OceanTeacher - Stopped in 2019 or 2020 |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |
| Australia | University of Tasmania | NODC |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  |  | x |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Belgium | VLIZ | NODC |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  | x |  |  |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  |  | x |  |  |  |  |  |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  | x |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  |  |  |  |  |  | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bulgaria | BGODC | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  |  |  |  |  |  |  | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| China | NMDIS | NODC |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |
| Colombia | General Maritime Directorate | NODC |  |  | x | x |  |  |  |  |  | x |  | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Colombia | INVEMAR |  | ADU |  | x |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  | x |  |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |
| Cyprus | ORION Research Institution |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  |  | x |  |  |  |  | x | x |  |  | x |  |  | x |  |  |  |  |  | x |  |  | x |  |
| Denmark | GBIF Secretariat |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  | x |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |  |
| Estonia | Tallinn University of Technology |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Finland | Finnish Meteorological Institute |  |  | X |  | x |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| France | Ifremer | NODC |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  |  | x |  |  |  |  |  |  |  |  |  |  |  | x |  | x |  |  | x |  |  |  | x |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Greece | HCMR |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  | x |  |  |  |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |
| Iceland | CAFF |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |  |  |  |  |  |  | x | x |  |
| Indonesia | BPPT | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  |  |  |  |  |  |  | x |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  | x |  |
| Ireland | Marine Institute | NODC |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  | x |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Japan | Japan Oceanographic Data Center | NODC |  |  |  |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Japan | JAMSTEC |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  |  |  |  |  |  |  |  |  |  | x | x |  | x | x |  | x |  |  |  |  |  | x | x |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  | x |  |  | x |  |  |  |  |  |  |  |  |  | x |  |  |  | x |  |  |  | x |  |  |
| Mauritania | IMROP | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |
| Mexico | SEP Mexico | NODC |  |  | x | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  | x |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  |  | x |  |  |  |  |  |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Norway | Institute of Marine Research | NODC |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  |  | x |  |  |  | x | x | x |  |  | x |  |  | x |  |  |  | x |  | x |  |  | x |  |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Portugal | Instituto Hidrografico |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |
| Slovenia | National Institute of Biology | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  |  |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |  |  |  |  | x |  |
| Spain | SOCIB-ICTS |  | ADU |  |  |  |  | x | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |
| Sweden | SMHI | NODC |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  |  |  |  |  |  |  |  |  |  | x | x |  | x | x |  |  |  |  |  |  |  |  |  |  |
| Togo | Université de Lomé | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  | x |  |
| Ukraine | UkrSCES | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  |  |  |  |  | x |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |
| United Kingdom | Marine Biological Association |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| United States | NOAA NCEI | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Country: | Institution: | NODC | ADU | other | ODIS - Started in 2019 or 2020 | ODIS - Continued in 2019 or 2020 | ODIS - Stopped in 2019 or 2020 | IODE QMF - Started in 2019 or 2020 | IODE QMF - Continued in 2019 or 2020 | IODE QMF - Stopped in 2019 or 2020 |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  |  |  |  |  |  |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  |  |  |  |  |  |  |
| Australia | University of Tasmania | NODC |  |  |  | x |  |  |  |  |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  |  | x |  |  |  |  |
| Belgium | VLIZ | NODC |  |  |  | x |  |  | x |  |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  |  |  |  |  |  |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  |  |  |  |  |  |  |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  |  | x |  |  |  |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  |  |  |  |  |  | x |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  |  |  |  |  |  |  |
| Bulgaria | BGODC | NODC |  |  |  |  |  |  |  |  |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  |  |  |  |  |  |  |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  | x |  |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  |  |  |  |  |  |  |
| China | NMDIS | NODC |  |  |  | x |  |  | x |  |
| Colombia | General Maritime Directorate | NODC |  |  | x | x |  |  |  |  |
| Colombia | INVEMAR |  | ADU |  | x |  |  |  |  |  |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  |  |  |  |  |  |  |
| Cyprus | ORION Research Institution |  | ADU |  |  |  |  |  |  |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  |  | x |  |  |  |  |
| Denmark | GBIF Secretariat |  | ADU |  |  |  |  |  |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  | x |  |  |  |  |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  |  |  |  |  |  |
| Estonia | Tallinn University of Technology |  |  | other |  |  |  |  |  |  |
| Finland | Finnish Meteorological Institute |  |  | other |  | x |  |  |  |  |
| France | Ifremer | NODC |  |  |  |  |  |  |  |  |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  |  | x |  |  |  |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  |  |  |  |  |  |  |
| Greece | HCMR |  | ADU |  |  |  |  |  |  |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  | x |  |  |  |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  |  |  |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  |  |  |  |  |  |  |
| Iceland | CAFF |  | ADU |  |  |  |  |  |  |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  |  |  |  |  |  |  |
| Indonesia | BPPT | NODC |  |  |  |  |  |  |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  |  |  |  |  |  |  |
| Ireland | Marine Institute | NODC |  |  |  | x |  |  | x |  |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  | x |  |  |  |  |  |
| Japan | Japan Oceanographic Data Center | NODC |  |  |  |  |  |  | x |  |
| Japan | JAMSTEC |  | ADU |  |  |  |  |  |  |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  |  |  |  |  |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  |  |  |  |  |  |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  | x |  |  | x |  |  |
| Mauritania | IMROP | NODC |  |  |  |  |  |  |  |  |
| Mexico | SEP Mexico | NODC |  |  | x | x |  |  |  |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  |  |  |  | x |  |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  | x |  |  |  |  |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  |  | x |  |  |  |  |
| Norway | Institute of Marine Research | NODC |  |  |  |  |  | x |  |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  |  | x |  |  |  | x |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |  |  |  |  |
| Portugal | Instituto Hidrografico |  |  | other |  |  |  |  |  |  |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  |  |  |  |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  |  | x |  |  |  |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  |  |  |  |  |  |  |
| Slovenia | National Institute of Biology | NODC |  |  |  |  |  |  |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  |  |  |  |  | x |  |
| Spain | SOCIB-ICTS |  | ADU |  |  |  |  | x | x |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  |  |  |  |  |  |  |
| Sweden | SMHI | NODC |  |  | x |  |  |  |  |  |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  |  |  |  |  |  |  |
| Togo | Université de Lomé | NODC |  |  |  |  |  |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other |  |  |  |  |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  |  |  |  |  |  |  |
| Ukraine | UkrSCES | NODC |  |  | x |  |  |  |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  |  |  |  |  |  |  |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  |  |  |  |  | x |  |
| United Kingdom | Marine Biological Association |  | ADU |  |  |  |  |  |  |  |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |  |  |  |  |
| United States | NOAA NCEI | NODC |  |  |  | x |  |  |  |  |

Summary Table (**Global IODE activities in which your data centre participated in 2019 and/or 2020 (data management))**

**Table

Description automatically generated**

**Q17: List the most important data activities/projects in which your centre is involved. PLEASE ADD THE URL IF AVAILABLE**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Country:** | **Institution:** | **NODC** | **ADU** | **other** | **Most important data activities/projects in which your centre is involved** |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  | - |
| Argentina | CCT CENPAT-CONICET |  | ADU |  | - <https://www.pampazul.gob.ar/areas-prioritarias/golfo-san-jorge/>   - Linked Open Biodiversity Data (LOBD): A semantic application for integrating biodiversity information <https://doi.org/10.3897/biss.4.58975> |
| Australia | University of Tasmania | NODC |  |  | Hosting and publishing all data collected by the IMOS program (<https://imos.org.au/>).  Develop a federated network of online resources for marine data (<https://portal.aodn.org.au/> ) |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  | Managing and tracking data and publications of the CSIRO Marine National Facility research vessel RV Investigator (see <https://www.mnf.csiro.au> ) |
| Belgium | VLIZ | NODC |  |  | The most important data systems : <http://www.vliz.be/en/datasystems> An overview of the projects : <http://www.vliz.be/en/data-projects> |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  | - EMODNET Chemistry (www.emodnet-chemistry.eu) - EMODNET Data Ingestion Portal ([www.emodnet-ingestion.eu](http://www.emodnet-ingestion.eu) )  - H2020 SeaDataCloud   - H2020 SeaDataNet (<https://www.seadatanet.org> )  - H2020 Eurofleets + (<https://www.eurofleets.eu/> )   - H2020 ENVRI-FAIR (<https://envri.eu/home-envri-fair/> )  - Management of federal monitoring data (ia. OSPAR, MSFD, WFD, Nitrates) (<http://www.bmdc.be/NODC/search_data.xhtml>)  - ODANEXT (Belgian project to establish and efficient data flow between the new R/V Belgica and our data centre) (<https://www.belspo.be/belspo/brain2-be> ) |
| Belgium | SCAR/Antarctic OBIS | | ADU |  | we are an OBIS node and part of the EU life watch Ifrastructure. data publication and development of data integration tools and platforms |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  | - Analyzes of data on coastal hydrodynamic and morphodynamic processes  - Fishing data  - Physico-chemical data of marine and coastal waters  - Hydrological exchanges between coastal and marine waters  - Marine weather forecast |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  | MSDI (<https://iho.int/en/msdiwg> );  OceanInfoHUB (<https://oceaninfohub.org> /);  SeaBed 2030 (<https://seabed2030.org/> ); and  Maritime Spacial Planning (<http://msp.ioc-unesco.org/> ). |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  | - OBIS - capacity development, data management, outreach.  - The Ocean Decade planning in Brazil  - support on the data working groups (WG 3 A predictable ocean; WG 6 A transparent and accessible ocean).  - The MBON Pole to pole of the Americas project  - The Long-Term Ecological Research Program network in Brazil  - capacity development for some of the LTER marine sites. |
| Bulgaria | BGODC | NODC |  |  | SeaDataCloud EMODnet |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  | R- evised/updated (plone 5) OTN Data Portal <https://members.oceantrack.org/> including single page All Public Data <https://members.oceantrack.org/data/discovery/bypublic.htm> , and Mystery Tag Lookup: <https://members.oceantrack.org/@@mystery_tag> , and recently added FAQs <https://members.oceantrack.org/faq> .  OTN Public Data Access Points: GEOSERVER <https://members.oceantrack.org/geoserver/web/> ; ERDDAP <https://members.oceantrack.org/erddap/index.html> OTN’s OBIS IPT: <https://members.oceantrack.org//ipt/> and OBIS data distribution <https://obis.org/node/68f83ea7-69a7-44fd-be77-3c3afd6f3cf8> (currently 36 projects over 22,000 animal tagging records).  OTNDC has led many biodiversity workshops during this period, including but not limited to (Dalhousie) SURGE and Ocean Tracking Network (OTN) Discover Coding series (11 1 hour sessions each of the Fall 2019 & Winter 2020 semesters). Split into four-week topics that built upon each other each week, the workshops followed the Software Carpentry lessons, covering the topics GitHub, Python and R. And Biodiversity Data Management for SLGO (included OBIS training) as well as assisting other’s in related workshops, e.g. GLATOS, ACENET. OTN's previous workshop material can be viewed on the OTN YouTube and the OTN Github. To arrange a workshop/walkthrough of the tools in use by OTN partners please contact OTNDC@DAL.CA Beginning 2020 OTNDC began hosting (most) weekly Study Halls…Join OTN for our weekly study hall, where we explore data analysis tools and methods, and help you find solutions to any problems you may be having. Past events have brought together participants from Europe, South Africa, Australia, Brazil, and North America and have featured walk-throughs for packages such as GLATOS, VTrack, and Actel. It’s free to join, but space is limited—email otndc@dal.ca to save your spot! Continued US IOOS ATN Telemetry Data Node(s) development including Florida/FACT/SECOORA, GLATOS, and providing assistance to ACT for using/joining MATOS/MARACOOS. Continued International Telemetry Data Nodes development including Brazil, South Africa, Ecuador, Belgium (ETN), Migramir. Continued participation in development of international data exchange standard for telemetry data in collaboration with Europe, Australia, USA, South Africa and including TDWD Interest and Working Groups. Combination private/public source workspace: <https://github.com/ocean-tracking-network> Including development of OTN’s Nodebook, using ipython utility notebooks (private git repository) used in performing data QC and loading into postresql/gis database. OTN’s Open-Source data analysis environment Hosting GLATOS R Analysis Tools, open source on gitlab: A Git repository containing an R package with a complementary suite of telemetry data analysis tools being primarily developed at the Great Lakes Animal Telemetry Observation System. Resonate – Python Analysis Tools: A Git repository containing a Python package with OTN's growing suite of telemetry data analysis tools. This package is meant to mirror the tools available in the GLATOS - R analysis package. |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  | 1.- PSMSL : Sea level data delivery.  2.- GEBCO: bathymetric data delivery.  3.- CPPS : CENDHOC participates in the Data management working group of the oceanographics cruises developed under CPPS.  4.- IDE-Chile : bathymetric metadata delivery. |
| China | NMDIS | NODC |  |  | China Argo Data Center, URL: <http://www.argo.gov.cn/>  China NEAR-GOOS Delayed Mode Database, URL: <http://near-goos.coi.gov.cn/> , WMO-IOC Centre for Marine-meteorological and Oceanographic Climate Data (CMOC) China node, URL: <http://www.cmoc-china.cn>  IODE/ODINWESTPAC, URL: <http://www.odinwestpac.org.cn/> |
| Colombia | General Maritime Directorate | NODC |  |  | Project "Platform of geographic oceanographic and marine meteorology data" 2020-2021. Funded by the General Maritime Directorate (DIMAR). Will allow search and download colombian open data for academic and scientific purposes. |
| Colombia | INVEMAR |  | ADU |  | We have a lot of projects in marine and coastal topics on the Caribbean and Pacific coasts of Colombia, as well as, at the Regional Level.  INVEMAR is in charge of the Marine Environmental Information System of Colombia (SIAM initials in Spanish = Sistema de Información Ambiental Marina de Colombia) <https://siam.invemar.org.co/>  Some examples:  1. biodiversity information: <https://siam.invemar.org.co/sibm>  2. Marine Spatial Planning Pilots in 5 coastal areas in Colombia (2 the Caribbean Sea and 3 Pacific ocean)  3. Climares - Portal Marine and Coastal Climate Change <http://climares.invemar.org.co/>  4. Caribbean Marine Atlas CMA <https://www.caribbeanmarineatlas.net/>  5. Fisheries and statistics certified <https://siam.invemar.org.co/recursos-marinos> 6. Statistics & indices related to mangrove and their Restauration. <https://storymaps.arcgis.com/stories/128c2a7258d74383a47617b313079829>  7. Marine water quality national monitoring programme "REDCAM” and -Strengthen the national statistical operations system for monitoring environmental quality, ecosystem health, and use of marine and coastal resources URL: <https://icam-invemar.opendata.arcgis.com/>  8. Report of indicator 14.3.1. of the SDGs, in two stations located in the department of Magdalena, Bahía de Chengue & Bahía de Santa Marta.  9. Strengthening Capacities in Marine and Coastal Environments Using Nuclear and Isotopic Techniques RLA7025 project  10.Strengthening National Capacities for Detecting Marine Biotoxins during Harmful Algal Blooms COL004 project  11. Tropical Sea Observatory (Triton) <http://triton.invemar.org.co/> Among others |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  | These are some of the projects :  GREPPAO : [www.greppao.com](http://www.greppao.com)  TRIATLAS : <https://triatlas.w.uib.no/>  EAF Nansen project |
| Cyprus | ORION Research Institution |  | ADU |  | SeaDataCloud EMODNET chemistry EMODNET Ingestion |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  |  |
| Denmark | GBIF Secretariat |  | ADU |  | [www.gbif.org](http://www.gbif.org) <https://docs.gbif-uat.org/publishing-dna-derived-data/1.0/en/> |
| Denmark | International Council for the Exploration of the Sea | | ADU |  | 1. applying for coretrustseal accreditation  2. establishing Quality Assessment Framework  3. Reforming data policy and user licencing  4. Data governance activities |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  |
| Estonia | Tallinn University of Technology |  |  | other | SeaDataNet (<https://www.seadatanet.org/> ),  EMODnet Physics (<https://portal.emodnet-physics.eu/> ),  EMODnet Chemistry (<https://www.emodnet-chemistry.eu/> ),  CMEMS (<https://marine.copernicus.eu/> ),  ICES/HELCOM database (<https://ocean.ices.dk/helcom/> ) |
| Finland | Finnish Meteorological Institute |  |  | other | ICES ([www.ices.dk](http://www.ices.dk) ) SeaDataCloud ([www.seadatanet.org](http://www.seadatanet.org) ) EMODnet Chemistry and Data Ingestion (<https://www.emodnet-chemistry.eu> /) EuroArgo ([www.euro-argo.eu](http://www.euro-argo.eu) ) CMEMS (<https://marine.copernicus.eu/> ) HELCOM ([www.helcom.fi](http://www.helcom.fi) ) National Baltic Sea Portal ([www.marinefinland.fi](http://www.marinefinland.fi) ) |
| France | Ifremer | NODC |  |  | SeaDataNet/SeaDataCloud (<https://www.seadatanet.org> ) CMEMS - INSTAC (<https://marine.copernicus.eu/> ) EMODnet (Ingestion, physics, chemistry, bathymetry, seabead habitats) (<https://emodnet.eu/en> ) EMOD-PACE (<https://www.emodnet.eu/en/emod-pace> ) ARGO (<https://www.euro-argo.eu> /) CATDS/Cersat (cersat.ifremer.fr ) |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  | The TSU and accordingly data centre, as an structural unit of the University is involved in EU and UNDP funded projects: SeaDataNet, EMODnet Chemistry Lot 4, Emodnet Data Ingestion, EMBLAS Plus, Black Sea Connect, RedMarLitter BSB552. |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  | CMEMS <https://marine.copernicus.eu> / SeaDataCloud <https://www.seadatanet.org/> DIG ICES <https://www.ices.dk/community/groups/Pages/DIG.aspx> DAM <https://www.allianz-meeresforschung.de> / |
| Greece | HCMR |  | ADU |  | EMODNET Biology <https://www.emodnet-biology.eu/> , ENVRI FAIR <https://envri.eu/home-envri-fair> /, EMBRC <https://www.embrc.eu/> , Assemble Plus <https://www.assembleplus.eu/> |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  | Recently the main activities include participation in more pan-EU projects as SDC, EMODNET,DGMare, DG Env., more EU regional projects and National monitoring of the Adriatic Sea |
| Iceland | CAFF |  | ADU |  | Monitoring: The Circumpolar Biodiversity Monitoring Programme (CBMP): <https://caff.is/monitoring> |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  | Argo, DBCP, OceanSites, SIBER, IIOE-2 |
| Indonesia | BPPT | NODC |  |  | developing and improving portal (<https://nodc.id> ) nodc governance |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  | The INCOD has added data from INIOAS projects, cruises, costal monitoring and climate change activities to own database. The mentioned data are available through the INCOD portal at: <http://incod.inio.ac.ir> |
| Ireland | Marine Institute | NODC |  |  | The Data Management Quality Management Framework has been a significant step forward in the maturity of data processes within our organisation. Additional internal work on data analytical services has been very beneficial with Jupyter hub now in use. External connectivity is being enhanced via a number of API services, and data is being contributed to the new national MSP programme. Data acquisition and sharing services for climate and renewable ocean energy will be a focus for 2021. |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  | SeaDataNet <https://www.seadatanet.org/> EMODnet Chemistry <https://www.emodnet-chemistry.eu/> EMOD-PACE <https://emodnet.eu/en/emod-pace> ENVRI-FAIR <https://envri.eu/home-envri-fair> / |
| Japan | Japan Oceanographic Data Center | NODC |  |  | WESTPAC NEAR-GOOS GEOTRACE |
| Japan | JAMSTEC |  | ADU |  | <https://www.godac.jamstec.go.jp/bismal/e/dataset> |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  | Developing and hosting the regional Ocean Data Portal - <http://portal.odp.odinafrica.co.ke/portal/portal/odp-theme/data/nodcs> Developing and hosting the SWIOFC regional fisheries data portal - <http://www.swiofp.org/geonetwork/srv/eng/catalog.search#/home> |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  |  |
| Mauritania | IMROP | NODC |  |  | Collecting data seasonal in deferent parameters (sst; salinity; oxygen; ...) and biological. |
| Mexico | SEP Mexico | NODC |  |  |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  | SeaDataNet Various EMODnet lots OSPAR GBIF |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  | New Zealand Ocean Data Portal (<https://nzodn.nz> ) Australian Ocean Data Network (<https://portal.aodn.org.au/> ) New Zealand Ocean Acidification Observing Network (NZOA-ON) (<https://marinedata.niwa.co.nz/nzoa-on/> ) OBIS (<https://obis.org> ) SDG 14.3.1 (<https://oa.iode.org/> ) South Pacific tsunami detection buoy system PacMAN |
| Norway | Institute of Marine Research | NODC |  |  | The Nansen Legacy, <https://arvenetternansen.com/> National research infrastructure NMDC, <https://nmdc.no/> ICES, DIG, <http://ices.dk/community/groups/Pages/DIG.aspx> CMEMS, Insitu TAC Arctic, <http://www.marineinsitu.eu/dashboard/> |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  | Daily Weather Monitoring on the Peruvian Coast: <https://www.dhn.mil.pe/secciones/departamentos/oceanografia/apps/meteorologicas/#> Daily Monitoring of the Tide in the Peruvian Coast <http://www.naylamp.dhn.mil.pe/dhn/est_mareograficas/index.php> |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  | Biodiversity Data Management in Protected Areas |
| Portugal | Instituto Hidrografico |  |  | other | Emodnet bathymetry, physics and chemistry <https://emodnet.eu/> Contribution to the European Directories, CSR, EDIOS, CDIs - <https://www.seadatanet.org/> Contribution in NRT to the GTS network <https://www.eumetsat.int/global-telecommunication-system-gts> Contribution to the Eurogoos TG and HFR network <https://eurogoos.eu/> |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  | SeaDataNet (<https://www.seadatanet.org/> ) EMODNet Chemistry (<https://www.emodnet-chemistry.eu/> ) EMODnet Biology (<https://www.emodnet-biology.eu/> ) EMODNet Bathymetry (<https://www.emodnet-bathymetry.eu/> ) EMODNet Data Ingestion (<https://www.emodnet-ingestion.eu/> ) |
| Russian Federation | RIHMI-WDC | NODC |  |  | International : ODP/ODIS <http://www.oceandataportal.org/> SeaDataNet <https://www.seadatanet.org/> EMODNett <https://emodnet.eu/en> National : Unified system of information on World Ocean (ESIMO), <http://esimo.ru/portal/> |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  | -PREFACE; -AWA; -COCES,I,II; -JEAI; |
| Slovenia | National Institute of Biology | NODC |  |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  | IOC UN Decade of Ocean Science for Sustainable Development Goals IODE XXVI Group 4: IODE contribution to the UN Decade of Ocean Science for Sustainable Development Goals (SDG) Ocean Acidification data for the S.D.G 14.3.1 OBIS SG GBIF |
| Spain | SOCIB-ICTS |  | ADU |  | JERICO-RI, EMODnet Physics, CMEMS insitu TAC, ODIP2. Other SOCIB activities: https://apps.socib.es/ <https://www.socib.es/?seccion=modelling&facility=forecast> <https://www.socib.es/?seccion=modelling&facility=rissagaforecast> <https://www.socib.es/?seccion=modelling&facility=sapo> <https://www.socib.es/?seccion=siasDivision&facility=iczm> <https://www.socib.es/?seccion=siasDivision&facility=environmental_sensitivity_homepag> e <https://www.socib.es/?seccion=siasDivision&facility=oceanographic-turtle> s <https://thredds.socib.es/thredds/catalog.html> |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  | Seadatacloud -> www.seadatanet.org EMODNET (diferent lots) IEO tidegauge network IEO research vessels countinuous data aquisition |
| Sweden | SMHI | NODC |  |  | SeaDataNet (AISBL) EMODnet; Ingestion, Physics, Chemistry and Biology Jerico Next ICOS ICOS -->SOCAT? Copernicus Bonus Integral |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  | Mainly assisting local organizations, government departments, students and other entities in Tanzania who need public data and those archived at the NODC for their work. |
| Togo | Université de Lomé | NODC |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  |  |
| Ukraine | UkrSCES | NODC |  |  | SeaDataCloud: <https://www.seadatanet.org/About-us/SeaDataCloud> Emodnet: <https://emodnet.eu/en> EMBLAS: <http://emblasproject.org/> |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  | 'Open Science Data' initiatives ICES - huge variety of data activities/projects EModNET EU-exit Transition All Cefas Science Projects (approx. 400 current), see: <https://www.cefas.co.uk/about-us/resources-and-media/capability-statements/> |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  | Argo (<http://www.ukargo.net/> ); International GEOTRACES Data Assembly Centre (<http://www.bodc.ac.uk/geotraces/> ); GEBCO ([www.gebco.net](http://www.gebco.net) ) and Seabed2030 (<https://seabed2030.gebco.net/> ); NERC Vocabulary Server (<https://www.bodc.ac.uk/resources/vocabularies/> and <http://vocab.nerc.ac.uk/> ); Oceanids (data management for autonomous vehicles (<https://noc.ac.uk/projects/oceanids> ); SeaDataNet/SeaDataCloud ([www.seadatanet.org](http://www.seadatanet.org) ); Data management for UK Marine Research Centres (<http://www.bodc.ac.uk/partners/introduction/> ); MEDIN ([www.medin.org.uk](http://www.medin.org.uk) ); |
| United Kingdom | Marine Biological Association |  | ADU |  | Internationally: EMODnet & OBIS Nationally (UK): MEDIN Primary activities are long-term archiving and (meta)data standardisation/management |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |
| United States | NOAA NCEI | NODC |  |  | <https://www.ncei.noaa.gov/> NOAA's National Centers for Environmental Information (NCEI) hosts and provides public access to one of the most significant archives for environmental data on Earth. We provide over 37 petabytes of comprehensive atmospheric, coastal, oceanic, and geophysical data. |

**Q18: For measurements from vessels (research, ships of opportunity,etc) for which data types do you manage data:**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Country: | Institution: | NODC | ADU | other | Profiles (eg CTD) - Biology | Profiles (eg CTD) - Chemistry | Profiles (eg CTD) - Geology/Geophysics | Profiles (eg CTD) - Marine meteorology | Profiles (eg CTD) - Physics | Water sample stations - Biology | Water sample stations - Chemistry | Water sample stations - Geology/Geophysics | Water sample stations - Marine meteorology | Water sample stations - Physics | Underway measurements (eg thermosalinograph) - Biology | Underway measurements (eg thermosalinograph) - Chemistry | Underway measurements (eg thermosalinograph) - Geology/Geophysics | Underway measurements (eg thermosalinograph) - Marine meteorology | Underway measurements (eg thermosalinograph) - Physics | Towed instruments (eg towed CTD, net trawl, camera,...) - Biology | Towed instruments (eg towed CTD, net trawl, camera,...) - Chemistry | Towed instruments (eg towed CTD, net trawl, camera,...) - Geology/Geophysics | Towed instruments (eg towed CTD, net trawl, camera,...) - Marine meteorology | Towed instruments (eg towed CTD, net trawl, camera,...) - Physics | Seabed sampling (eg grabs, dredges, cores) - Biology | Seabed sampling (eg grabs, dredges, cores) - Chemistry | Seabed sampling (eg grabs, dredges, cores) - Geology/Geophysics | Seabed sampling (eg grabs, dredges, cores) - Marine meteorology | Seabed sampling (eg grabs, dredges, cores) - Physics |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  |  |  |  |  | x |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  | x | x |  |  |  |  |  |  |  |  |  |
| Australia | University of Tasmania | NODC |  |  | x | x |  |  | x | x | x |  | x | x | x | x |  | x | x | x |  |  |  |  |  |  |  |  |  |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  | x | x |  |  | x | x | x |  |  |  |  |  |  |  | x | x | x |  |  | x | x |  | x |  |  |
| Belgium | VLIZ | NODC |  |  | x | x | x |  | x | x | x | x |  | x | x | x | x |  | x | x | x | x |  | x | x | x | x |  | x |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  |  | x | x |  | x | x | x |  |  | x |  |  | x | x | x | x | x | x |  | x | x | x | x |  | x |
| Belgium | SCAR/Antarctic OBIS | | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  | x |  |  |  |  |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  | x | x |  | x | x |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  |  | x |  |  | x |  | x |  |  | x |  | x |  |  | x |  |  | x |  | x |  | x | x |  |  |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  | x |  |  |  | x | x | x | x |  | x |  |  |  |  |  | x |  |  |  |  | x | x | x |  | x |
| Bulgaria | BGODC | NODC |  |  | x | x |  |  | x | x | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Canada | Department of Fisheries and Oceans | NODC |  |  | x | x |  | x | x | x | x |  | x | x | x | x |  | x | x | x | x |  | x | x | x | x |  | x | x |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  |  |  |  |  | x |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| China | NMDIS | NODC |  |  | x | x |  |  | x | x | x |  | x | x |  |  |  | x | x |  |  |  |  | x |  |  | x |  | x |
| Colombia | General Maritime Directorate | NODC |  |  |  | x |  |  | x | x | x |  |  |  |  |  |  |  | x | x |  |  |  |  |  |  | x |  |  |
| Colombia | INVEMAR |  | ADU |  | x |  | x |  |  | x | x |  |  | x |  |  |  |  |  | x |  | x |  |  |  | x | x |  |  |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  | x | x |  | x | x | x | x |  | x | x |  |  |  | x | x | x |  |  |  |  | x |  |  |  |  |
| Cyprus | ORION Research Institution |  | ADU |  |  | x |  |  | x |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  |  | x |  |  |  | x |  |  | x | x |  |  |  |  |  |  |  |  |  |  | x | x |  |  | x |
| Denmark | GBIF Secretariat |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  | x | x |  |  | x |  | x |  |  | x | x |  |  |  | x | x |  |  |  | x | x | x |  |  |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  | x | x | x | x | x | x | x | x | x | x |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Estonia | Tallinn University of Technology |  |  | X | x | x |  |  | x | x | x |  |  | x | x | x |  |  | x | x | x |  |  | x | x | x | x |  |  |
| Finland | Finnish Meteorological Institute |  |  | X | x | x |  |  | x | x | x |  |  | x |  |  |  |  | x |  |  |  |  |  | x | x | x |  |  |
| France | Ifremer | NODC |  |  | x | x |  |  | x | x | x |  |  | x |  | x |  |  | x | x | x |  |  |  |  |  | x |  |  |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  |  |  |  |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  |  | x |  |  | x |  | x |  |  | x |  | x |  |  | x |  |  |  |  |  |  | x |  |  | x |
| Greece | HCMR |  | ADU |  | x |  |  |  |  | x |  |  |  |  | x |  |  |  |  | x |  |  |  |  | x |  |  |  |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  |  | x |  |  | x | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  | x | x |  | x | x | x | x |  | x | x |  |  |  |  |  | x |  |  |  |  | x | x |  |  |  |
| Iceland | CAFF |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  | x | x |  |  | x | x | x |  |  | x |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Indonesia | BPPT | NODC |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  |  | x | x |  | x | x | x |  |  | x |  |  | x | x |  | x |  |  |  | x | x | x | x |  |  |
| Ireland | Marine Institute | NODC |  |  |  |  | x |  | x |  | x |  |  |  | x |  | x |  | x | x |  |  |  | x |  |  | x |  |  |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  | x | x |  |  | x | x | x |  |  | x |  | x |  |  | x | x | x |  |  |  | x | x | x |  |  |
| Japan | Japan Oceanographic Data Center | NODC |  |  | x | x | x | x | x | x | x | x | x | x |  | x |  | x | x |  |  |  |  |  |  |  |  |  |  |
| Japan | JAMSTEC |  | ADU |  | x |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  |  |  |  |  |  | x |  | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  | x | x |  |  |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  | x | x | x |  | x | x | x |  |  | x |  |  |  |  |  | x |  |  |  | x | x | x | x |  |  |
| Mauritania | IMROP | NODC |  |  |  | x |  |  | x |  |  |  | x | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Mexico | SEP Mexico | NODC |  |  |  |  |  |  | x |  | x |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  | x |  | x |  | x | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  | x | x |  |  | x | x | x |  |  | x |  |  |  | x | x | x |  |  |  |  | x | x | x |  |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  | x | x | x | x | x | x | x | x |  |  |  | x |  | x | x | x | x | x |  | x | x | x | x |  |  |
| Norway | Institute of Marine Research | NODC |  |  |  | x |  |  | x | x | x |  |  | x |  | x |  |  | x |  |  |  |  |  | x | x |  |  | x |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  |  | x | x | x | x |  | x | x | x | x |  | x |  |  | x |  | x |  | x | x |  |  | x |  |  |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Portugal | Instituto Hidrografico |  |  | X |  |  |  |  | x |  | x | x |  | x |  |  |  |  |  |  |  |  |  |  |  | x | x |  |  |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  |  |  | x | x | x | x | x |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  |  | x |  | x | x |  | x |  |  | x |  |  |  |  |  |  | x |  | x | x |  | x |  | x | x |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  |  | x | x | x | x | x | x | x | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Slovenia | National Institute of Biology | NODC |  |  |  | x |  |  | x | x | x | x |  | x |  |  |  |  |  |  |  |  |  |  | x | x | x |  | x |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |  |  | x | x | x |
| Spain | SOCIB-ICTS |  | ADU |  |  | x |  | x | x | x | x |  |  | x |  | x |  | x | x |  |  |  |  |  |  |  |  |  |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  | x | x |  |  | x |  | x |  |  | x |  |  |  |  | x |  |  |  |  | x | x |  |  |  |  |
| Sweden | SMHI | NODC |  |  | x |  |  |  | x | x | x |  | x | x | x |  |  |  | x |  |  |  |  | x |  |  |  |  |  |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Togo | Université de Lomé | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| Ukraine | UkrSCES | NODC |  |  |  |  |  |  |  | x | x | x | x | x |  |  |  |  |  |  |  |  |  |  | x | x | x |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  | x | x |  |  | x | x | x |  |  | x | x | x | x | x | x | x | x |  |  | x | x | x | x |  |  |
| United Kingdom | Marine Biological Association |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  | x |  |  |  |  |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| United States | NOAA NCEI | NODC |  |  | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |

**Summary Table (For measurements from vessels (research, ships of opportunity,etc) for which data types do you manage data)**

**Table

Description automatically generated**

**Q19: For measurements from fixed stations/platforms for which data types do you manage data:**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Country: | Institution: | NODC | ADU | other | Moored buoys (e.g. met. or wave buoy) - Biology | Moored buoys (e.g. met. or wave buoy) - Chemistry | Moored buoys (e.g. met. or wave buoy) - Geology/Geophysics | Moored buoys (e.g. met. or wave buoy) - Marine meteorology | Moored buoys (e.g. met. or wave buoy) - Physics | Sub-surface moorings - Biology | Sub-surface moorings - Chemistry | Sub-surface moorings - Geology/Geophysics | Sub-surface moorings - Marine meteorology | Sub-surface moorings - Physics | Structures/rigs (e.g. sea level stations) - Biology | Structures/rigs (e.g. sea level stations) - Chemistry | Structures/rigs (e.g. sea level stations) - Geology/Geophysics | Structures/rigs (e.g. sea level stations) - Marine meteorology | Structures/rigs (e.g. sea level stations) - Physics | Beach/inter-tidal zone structures - Biology | Beach/inter-tidal zone structures - Chemistry | Beach/inter-tidal zone structures - Geology/Geophysics | Beach/inter-tidal zone structures - Marine meteorology | Beach/inter-tidal zone structures - Physics |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |
| Argentina | CCT CENPAT-CONICET |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Australia | University of Tasmania | NODC |  |  | x | x |  | x | x | x | x |  |  | x |  |  |  |  | x |  |  |  |  |  |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Belgium | VLIZ | NODC |  |  | x | x |  |  | x | x |  |  |  |  |  |  |  |  | x |  |  |  |  |  |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  |  |  |  | x | x |  |  |  |  |  |  |  |  | x | x |  |  |  |  | x |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  |  |  |  | x | x |  |  |  |  | x |  |  |  |  | x |  |  |  |  |  |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x | x | x | x |
| Bulgaria | BGODC | NODC |  |  | x | x |  | x | x |  |  |  |  |  |  |  |  | x | x |  |  |  |  |  |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  | x |  |  |  | x | x | x |  |  | x | x |  |  |  | x |  |  |  |  |  |
| Canada | Department of Fisheries and Oceans | NODC |  |  | x | x |  | x | x | x | x |  | x | x | x | x |  | x | x | x | x |  | x | x |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  |  |  |  |  | x |  |  |  |  | x |  |  |  |  | x |  |  |  |  |  |
| China | NMDIS | NODC |  |  |  |  |  | x | x |  |  |  |  | x |  |  |  | x | x |  |  |  |  | x |
| Colombia | General Maritime Directorate | NODC |  |  |  |  |  | x | x |  |  |  |  |  |  |  |  |  | x |  |  |  | x |  |
| Colombia | INVEMAR |  | ADU |  |  |  |  | x |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cyprus | ORION Research Institution |  | ADU |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  | x |  |  |  |  |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  |  |  |  | x | x |  | x |  |  | x |  |  |  | x | x |  |  | x |  | x |
| Denmark | GBIF Secretariat |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  | x |
| Estonia | Tallinn University of Technology |  |  | X |  |  |  | x | x | x | x |  |  | x |  |  |  | x | x |  |  |  |  |  |
| Finland | Finnish Meteorological Institute |  |  | X |  |  |  |  | x |  |  |  |  | x |  |  |  |  | x |  |  |  |  |  |
| France | Ifremer | NODC |  |  |  | x |  | x | x |  | x |  |  | x |  | x |  |  | x | x |  |  |  | x |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  |  | x |  | x | x |  | x |  |  | x |  |  |  |  | x |  |  |  |  |  |
| Greece | HCMR |  | ADU |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  | x |  |  |  |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  | x | x |  | x | x | x | x |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  | x | x |  | x | x |  |  |  |  |  |  |  |  | x | x |  |  |  |  |  |
| Iceland | CAFF |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  | x | x |  | x | x |  |  |  |  | x |  |  | x |  |  |  |  |  |  |  |
| Indonesia | BPPT | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  | x |  |  | x |
| Ireland | Marine Institute | NODC |  |  | x |  |  | x | x |  |  |  |  | x |  |  |  |  | x |  |  |  |  |  |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  | x | x |  | x | x | x | x |  |  | x |  |  |  | x | x |  |  |  |  |  |
| Japan | Japan Oceanographic Data Center | NODC |  |  |  | x |  | x | x |  | x |  | x | x |  |  |  | x | x |  |  |  |  |  |
| Japan | JAMSTEC |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  | x | x |  |  |  |  |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  | x |  |  |  |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  |  |  |  |  | x |  |  |  |  | x |  |  |  |  | x |  |  | x |  |  |
| Mauritania | IMROP | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |
| Mexico | SEP Mexico | NODC |  |  |  |  |  |  | x |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  |  |  |  |  | x | x |  |  |  | x |  |  |  |  |  |  |  |  |  | x |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  |  |  |  | x | x |  | x |  |  | x |  |  |  |  | x | x | x |  |  | x |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  | x | x |  | x | x | x | x | x |  | x |  |  |  |  | x |  |  |  |  |  |
| Norway | Institute of Marine Research | NODC |  |  |  |  |  |  | x |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  |  |  |  |  | x |  | x |  |  | x |  |  |  | x | x |  |  |  |  | x |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Portugal | Instituto Hidrografico |  |  | X |  |  |  | x | x |  |  | x |  | x |  |  |  |  | x |  |  | x |  | x |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  | x | x |  |  |  |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  |  |  |  | x | x |  |  |  |  |  |  |  |  | x | x |  |  |  |  |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  | x |  | x | x | x | x | x | x | x | x |  |  |  |  |  |  |  |  |  |  |
| Slovenia | National Institute of Biology | NODC |  |  | x | x |  | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  | x | x |  | x | x | x | x |  | x | x | x | x |  | x | x | x | x | x | x | x |
| Spain | SOCIB-ICTS |  | ADU |  |  | x |  | x | x |  |  |  |  | x |  |  |  |  | x |  |  |  |  |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  |  | x |  |  | x |  |  |  |  | x |  |  |  |  | x | x |  |  |  | x |
| Sweden | SMHI | NODC |  |  | x |  |  | x | x | x |  |  |  | x |  |  |  | x | x |  |  |  |  |  |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Togo | Université de Lomé | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  |  |  |  | x | x |  |  |  | x | x |  |  |  | x | x |  |  |  | x | x |
| Ukraine | UkrSCES | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  | x | x |  | x | x | x | x | x |  | x |  |  |  |  | x |  |  |  |  | x |
| United Kingdom | Marine Biological Association |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| United States | NOAA NCEI | NODC |  |  | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |

**Summary Table (For measurements from fixed stations/platforms for which data types do you manage data)**

**Graphical user interface, application, table

Description automatically generated**

**Q20: For measurements from moving platforms for which data types do you manage data:**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Country: | Institution: | NODC | ADU | other | Drifting buoys/floats - Biology | Drifting buoys/floats - Chemistry | Drifting buoys/floats - Geology/Geophysics | Drifting buoys/floats - Marine meteorology | Drifting buoys/floats - Physics | Profiling Floats (e.g. Argo) - Biology | Profiling Floats (e.g. Argo) - Chemistry | Profiling Floats (e.g. Argo) - Geology/Geophysics | Profiling Floats (e.g. Argo) - Marine meteorology | Profiling Floats (e.g. Argo) - Physics | Marine mammals/birds - Biology | Marine mammals/birds - Chemistry | Marine mammals/birds - Geology/Geophysics | Marine mammals/birds - Marine meteorology | Marine mammals/birds - Physics | Autonomous submersible - Biology | Autonomous submersible - Chemistry | Autonomous submersible - Geology/Geophysics | Autonomous submersible - Marine meteorology | Autonomous submersible - Physics |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  | x |  |  |  |  |  |
| Australia | University of Tasmania | NODC |  |  | x | x |  |  | x | x | x |  |  | x | x |  |  |  | x |  |  |  |  | x |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Belgium | VLIZ | NODC |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  | x |  |  |  | x |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  |  | x | x |  | x |  | x | x |  | x | x | x |  |  |  |  |  |  |  |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  | x |  |  |  |  |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  |  |  |  | x | x |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bulgaria | BGODC | NODC |  |  |  |  |  |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  | x | x |  | x | x |  |  |  |  |  | x | x |  |  | x | x | x |  | x | x |
| Canada | Department of Fisheries and Oceans | NODC |  |  | x | x |  | x | x | x | x |  | x | x |  |  |  |  |  | x | x |  | x | x |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| China | NMDIS | NODC |  |  |  |  |  |  | x | x | x |  |  | x |  |  |  |  |  |  |  |  |  | x |
| Colombia | General Maritime Directorate | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Colombia | INVEMAR |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cyprus | ORION Research Institution |  | ADU |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  |  |  |  | x | x | x | x |  |  |  | x |  |  |  |  | x | x | x |  | x |
| Denmark | GBIF Secretariat |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  |  |  |  |  | x | x | x | x | x |  |  |  |  |  |  |  |  |  |  |
| Estonia | Tallinn University of Technology |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |  | x |
| Finland | Finnish Meteorological Institute |  |  | X |  |  |  |  | x |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |
| France | Ifremer | NODC |  |  |  |  |  |  | x | x | x |  |  | x |  |  |  |  | x | x |  | x |  | x |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Greece | HCMR |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Iceland | CAFF |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  |  |  |  | x | x | x | x |  | x | x |  |  |  |  |  | x | x |  | x | x |
| Indonesia | BPPT | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ireland | Marine Institute | NODC |  |  |  |  |  |  |  |  |  |  |  | x | x |  |  |  |  |  |  |  |  | x |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  | x | x |  |  | x | x | x |  |  | x |  |  |  |  |  | x | x |  |  | x |
| Japan | Japan Oceanographic Data Center | NODC |  |  |  | x |  | x | x |  | x |  | x | x |  |  |  |  |  |  |  |  |  |  |
| Japan | JAMSTEC |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Mauritania | IMROP | NODC |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Mexico | SEP Mexico | NODC |  |  |  |  |  |  | x |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  |  | x |  |  | x |  | x |  |  | x | x |  |  |  | x |  |  | x |  |  |
| Norway | Institute of Marine Research | NODC |  |  |  | x |  |  | x |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  |  |  |  |  | x |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Portugal | Instituto Hidrografico |  |  | X |  |  |  |  | x |  |  |  |  | x |  |  |  |  |  |  |  |  |  | x |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  |  |  |  | x | x |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  |  | x | x | x | x |  | x | x | x | x |  |  |  |  |  |  | x | x | x | x |
| Slovenia | National Institute of Biology | NODC |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  |  |  |  | x | x |  |  |  | x | x | x | x | x | x | x | x | x | x | x | x |
| Spain | SOCIB-ICTS |  | ADU |  |  |  |  |  | x |  |  |  |  | x |  |  |  |  | x |  | x |  |  | x |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sweden | SMHI | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Togo | Université de Lomé | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  |  |  |  |  |  | x | x | x |  | x |  |  |  |  |  |  |  |  |  |  |
| Ukraine | UkrSCES | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  |  |  |  |  | x | x | x |  |  | x |  |  |  |  | x | x | x | x |  | x |
| United Kingdom | Marine Biological Association |  | ADU |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| United States | NOAA NCEI | NODC |  |  | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |

**Summary table (For measurements from moving platforms for which data types do you manage data)**

**Graphical user interface, application, table

Description automatically generated**

**Q21: Any other platforms, instruments, etc ?**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Country:** | **Institution:** | **NODC** | **ADU** | **other** | **Open-Ended Response** |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  |  |
| Australia | University of Tasmania | NODC |  |  |  |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  |  |
| Belgium | VLIZ | NODC |  |  |  |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  | any type of Antarctic and Southern ocean biological data that fits into OBIS |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  |  |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  |  |
| Bulgaria | BGODC | NODC |  |  | wave bouys |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  | Hydrophones, Ocean Sonics |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  |  |
| China | NMDIS | NODC |  |  |  |
| Colombia | General Maritime Directorate | NODC |  |  |  |
| Colombia | INVEMAR |  | ADU |  | UVA, The data managed by the Information System for the Management of Mangroves in Colombia (SIGMA) come mainly from the application in the territory of the National Mangrove Monitoring Protocol (structure, composition, dynamics, physicochemical parameters). The "REDCAM" water quality data used to calculate the "ICAM" marine and coastal water quality index are collected in field sampling stations (in situ) and laboratory tests are carried out, the results of which are stored in the SIAM system database |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  |  |
| Cyprus | ORION Research Institution |  | ADU |  |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  |  |
| Denmark | GBIF Secretariat |  | ADU |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  |
| Estonia | Tallinn University of Technology |  |  | other |  |
| Finland | Finnish Meteorological Institute |  |  | other |  |
| France | Ifremer | NODC |  |  |  |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  |  |
| Greece | HCMR |  | ADU |  |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  |  |
| Iceland | CAFF |  | ADU |  |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  | Ship mounted AWS, Wave Rider Buoys. |
| Indonesia | BPPT | NODC |  |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  |  |
| Ireland | Marine Institute | NODC |  |  |  |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  | Radar station |
| Japan | Japan Oceanographic Data Center | NODC |  |  | Wave Glider, Lighthouse |
| Japan | JAMSTEC |  | ADU |  |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  |  |
| Mauritania | IMROP | NODC |  |  |  |
| Mexico | SEP Mexico | NODC |  |  |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  |  |
| Norway | Institute of Marine Research | NODC |  |  |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  | NONE |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |
| Portugal | Instituto Hidrografico |  |  | other | HF Radars |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  | no |
| Slovenia | National Institute of Biology | NODC |  |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  |  |
| Spain | SOCIB-ICTS |  | ADU |  |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  |  |
| Sweden | SMHI | NODC |  |  |  |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  | Most of the data is collected by using small boat from intertidal zone or near coastal waters |
| Togo | Université de Lomé | NODC |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  |  |
| Ukraine | UkrSCES | NODC |  |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  | huge variety - aerial including remotely piloted aircraft, underwater acoustic, commercial vessel |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  |  |
| United Kingdom | Marine Biological Association |  | ADU |  | Continuous Plankton Recorder, Citizen Science Species recording |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |
| United States | NOAA NCEI | NODC |  |  |  |

**Q22: Did you handle (incoming) delayed-mode or real-time data:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Country:** | **Institution:** | **NODC** | **ADU** | **other** | **delayed-mode data** | **real-time data** |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  | delayed-mode data |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  | delayed-mode data |  |
| Australia | University of Tasmania | NODC |  |  | delayed-mode data | real-time data |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  | delayed-mode data | real-time data |
| Belgium | VLIZ | NODC |  |  | delayed-mode data | real-time data |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  | delayed-mode data |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  | delayed-mode data |  |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  | delayed-mode data |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  | delayed-mode data | real-time data |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  | delayed-mode data |  |
| Bulgaria | BGODC | NODC |  |  | delayed-mode data | real-time data |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  | delayed-mode data | real-time data |
| Canada | Department of Fisheries and Oceans | NODC |  |  | delayed-mode data | real-time data |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  | delayed-mode data |  |
| China | NMDIS | NODC |  |  | delayed-mode data | real-time data |
| Colombia | General Maritime Directorate | NODC |  |  | delayed-mode data |  |
| Colombia | INVEMAR |  | ADU |  | delayed-mode data | real-time data |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  | delayed-mode data |  |
| Cyprus | ORION Research Institution |  | ADU |  | delayed-mode data | real-time data |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  |  | real-time data |
| Denmark | GBIF Secretariat |  | ADU |  | delayed-mode data |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  | delayed-mode data |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  | delayed-mode data |  |
| Estonia | Tallinn University of Technology |  |  | other | delayed-mode data | real-time data |
| Finland | Finnish Meteorological Institute |  |  | other | delayed-mode data | real-time data |
| France | Ifremer | NODC |  |  | delayed-mode data | real-time data |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  | delayed-mode data | real-time data |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  | delayed-mode data | real-time data |
| Greece | HCMR |  | ADU |  | delayed-mode data |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  | delayed-mode data |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  | delayed-mode data |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  | delayed-mode data | real-time data |
| Iceland | CAFF |  | ADU |  | delayed-mode data |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  | delayed-mode data | real-time data |
| Indonesia | BPPT | NODC |  |  | delayed-mode data |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  | delayed-mode data |  |
| Ireland | Marine Institute | NODC |  |  | delayed-mode data | real-time data |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  | delayed-mode data | real-time data |
| Japan | Japan Oceanographic Data Center | NODC |  |  | delayed-mode data |  |
| Japan | JAMSTEC |  | ADU |  | delayed-mode data |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  | real-time data |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  | delayed-mode data |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  | delayed-mode data |  |
| Mauritania | IMROP | NODC |  |  | delayed-mode data |  |
| Mexico | SEP Mexico | NODC |  |  | delayed-mode data |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  | delayed-mode data |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  | delayed-mode data | real-time data |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  | delayed-mode data | real-time data |
| Norway | Institute of Marine Research | NODC |  |  | delayed-mode data | real-time data |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  |  | real-time data |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |
| Portugal | Instituto Hidrografico |  |  | other | delayed-mode data | real-time data |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  | delayed-mode data |  |
| Russian Federation | RIHMI-WDC | NODC |  |  | delayed-mode data | real-time data |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  | delayed-mode data | real-time data |
| Slovenia | National Institute of Biology | NODC |  |  | delayed-mode data | real-time data |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  | delayed-mode data | real-time data |
| Spain | SOCIB-ICTS |  | ADU |  | delayed-mode data | real-time data |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  | delayed-mode data |  |
| Sweden | SMHI | NODC |  |  | delayed-mode data | real-time data |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  | delayed-mode data |  |
| Togo | Université de Lomé | NODC |  |  | delayed-mode data |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  | delayed-mode data |  |
| Ukraine | UkrSCES | NODC |  |  | delayed-mode data | real-time data |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  | delayed-mode data | real-time data |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  | delayed-mode data | real-time data |
| United Kingdom | Marine Biological Association |  | ADU |  | delayed-mode data |  |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |
| United States | NOAA NCEI | NODC |  |  | delayed-mode data |  |

**Summary table (Did you handle (incoming) delayed-mode or real-time data)**

**Chart, bar chart

Description automatically generated**

**Q23: Did your data centre have links with, and/or manage data from major science programmes (e.g., CLIVAR, IMBER, Argo, Future Earth, SOLAS, etc) in 2019 and/or 2020?**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Country:** | **Institution:** | **NODC** | **ADU** | **other** | **Yes?** | **If yes please specify:** |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  |  |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  |  |  |
| Australia | University of Tasmania | NODC |  |  |  |  |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  | x |  |
| Belgium | VLIZ | NODC |  |  | x | OBIS |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  |  |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  |  |  |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  |  |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  | x | GOOS - Global Ocean Observing System. |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  |  |  |
| Bulgaria | BGODC | NODC |  |  | x | ARGO |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  | x | Argo |
| Canada | Department of Fisheries and Oceans | NODC |  |  | x | Argo |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  | x | Argo programmes |
| China | NMDIS | NODC |  |  | x | GOOS，Argo， DBCP， GTSPP， GLOSS， ODP， PICES |
| Colombia | General Maritime Directorate | NODC |  |  | x | We have link with El Niño-Southern Oscillation (ENSO) program |
| Colombia | INVEMAR |  | ADU |  |  |  |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  | x | Argo |
| Cyprus | ORION Research Institution |  | ADU |  | x | Copernicus marine |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  | x | Magic in, vaisala (from Nortek) |
| Denmark | GBIF Secretariat |  | ADU |  |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  |  |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  |  |
| Estonia | Tallinn University of Technology |  |  | other | x | SeaDataNet, Coriolis (glider data) |
| Finland | Finnish Meteorological Institute |  |  | other | x | Argo |
| France | Ifremer | NODC |  |  | x | ARGO |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  |  |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  |  |  |
| Greece | HCMR |  | ADU |  | x | Assemble Plus, EMODNet Biology, EMBRC |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  |  |  |
| Iceland | CAFF |  | ADU |  | x | A range of Circumpolar monitoring and assessment programmes e.g. https://caff.is/monitoring |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  | x | INCOIS is National Argo Data Assembly Center (DAC) and Argo Regional Centre (ARC) for India and Indian Ocean respectively. |
| Indonesia | BPPT | NODC |  |  |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  |  | OBIS project |
| Ireland | Marine Institute | NODC |  |  | x | The Institute connects in with a wide range of international programmes |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  |  |  |
| Japan | Japan Oceanographic Data Center | NODC |  |  | x | GEOTRACE |
| Japan | JAMSTEC |  | ADU |  |  |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  | x | Argo data for use in customer requests |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  |  |  |
| Mauritania | IMROP | NODC |  |  |  |  |
| Mexico | SEP Mexico | NODC |  |  |  |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  | x | Argo |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  | x | GEOTRACES |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  | x | ARGO |
| Norway | Institute of Marine Research | NODC |  |  | x | CMEMS |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  |  |  |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |
| Portugal | Instituto Hidrografico |  |  | other | x | Argo, GLOSS |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  | x |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  | x | CLIVAR and Argo |
| Slovenia | National Institute of Biology | NODC |  |  |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  | x | Argo - through the JCOMM DBCP |
| Spain | SOCIB-ICTS |  | ADU |  | x | Argo |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  | x | ARGO thorough ARGO-Spain (IEO-Canary islands centre) and SeaDataCloud EU project. |
| Sweden | SMHI | NODC |  |  |  |  |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  |  |  |
| Togo | Université de Lomé | NODC |  |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  |  |  |
| Ukraine | UkrSCES | NODC |  |  |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  | x | Assume so but central team does not have sight of so requires confirmation |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  | x | Argo, GEOTRACES, GLOSS, GEBCO, OceanSites, GO-SHIP... |
| United Kingdom | Marine Biological Association |  | ADU |  |  |  |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |
| United States | NOAA NCEI | NODC |  |  | x | argo, clivar |

**Summary table (Did your data centre have links with, and/or manage data from major science programmes (e.g., CLIVAR, IMBER, Argo, Future Earth, SOLAS, etc) in 2019 and/or 2020)**

**Chart, bar chart

Description automatically generated**

**Q24: Do you manage GOOS Essential Ocean Variables (EOV)? Please tick one or more EOVs of which data are managed by your data centre during 2019-2020. Note that more info (including specifications) can be found on the web page <http://www.goosocean.org/eov>**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Country: | Institution: | NODC | ADU | other | PHYSICS: Sea state | PHYSICS: Ocean surface stress | PHYSICS: Sea Ice | PHYSICS: Sea surface height | PHYSICS: Sea surface temperature | PHYSICS: Subsurface temperature | PHYSICS: Surface currents | PHYSICS: Subsurface currents | PHYSICS: Sea surface salinity | PHYSICS: Subsurface salinity | PHYSICS: Ocean surface heat flux | BIOGEOCHEMISTRY: Oxygen | BIOGEOCHEMISTRY: Nutrients | BIOGEOCHEMISTRY: Inorganic Carbon | BIOGEOCHEMISTRY: Transient tracers | BIOGEOCHEMISTRY: Particulate matter | BIOGEOCHEMISTRY: Nitrous oxide | BIOGEOCHEMISTRY: Stable carbon isotopes | BIOGEOCHEMISTRY: Dissolved organic carbon | BIOGEOCHEMISTRY: Ocean colour | BIOLOGY AND ECOSYSTEMS: Phytoplankton biomass and diversity | BIOLOGY AND ECOSYSTEMS: Harmful Algal Bloom (HAB) incidence | BIOLOGY AND ECOSYSTEMS: Zooplankton biomass and diversity | BIOLOGY AND ECOSYSTEMS: Fish abundance and distribution | BIOLOGY AND ECOSYSTEMS: Marine turtles, birds, mammals abundance and distribution | BIOLOGY AND ECOSYSTEMS: Hard coral cover and composition | BIOLOGY AND ECOSYSTEMS: Seagrass cover | BIOLOGY AND ECOSYSTEMS: Mangrove cover | BIOLOGY AND ECOSYSTEMS: Macroalgal canopy cover | BIOLOGY AND ECOSYSTEMS: Ocean sound | BIOLOGY AND ECOSYSTEMS: Microbe biomass and diversity | BIOLOGY AND ECOSYSTEMS: Benthic invertebrate abundance and distribution |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  |  |  |  |  | x | x |  |  | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |
| Australia | University of Tasmania | NODC |  |  | x |  |  | x | x | x | x | x | x | x |  | x | x | x |  | x | x |  | x | x | x |  | x | x | x |  |  |  |  |  | x | x |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  |  |  |  |  | x | x |  | x | x | x |  |  | x |  |  |  |  |  |  |  | x |  | x | x | x | x | x | x | x |  | x | x |
| Belgium | VLIZ | NODC |  |  |  |  |  | x | x | x |  |  |  |  |  | x | x | x |  |  | x |  | x | x | x |  | x | x | x |  |  |  |  | x | x | x |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  |  |  |  |  | x | x |  |  | x | x |  | x | x | x |  | x |  |  | x | x | x |  |  | x | x |  |  |  |  |  |  | x |
| Belgium | SCAR/Antarctic OBIS | | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  | x | x |  |  |  |  |  |  | x | x |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  | x |  |  | x | x |  | x |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |  |  |  |  |  |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  | x |  | x | x | x | x | x | x | x | x |  | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  |  |  |  |  | x | x |  |  | x |  |  | x | x | x |  |  |  | x |  |  | x |  | x | x |  | x |  | x | x |  | x | x |
| Bulgaria | BGODC | NODC |  |  | x |  |  | x | x | x |  |  | x | x |  | x | x |  |  |  |  |  |  | x | x |  | x | x |  |  | x |  |  | x |  |  |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  | x |  |  | x | x | x | x | x | x | x |  |  |  |  |  |  |  |  |  |  | x |  |  | x | x |  |  |  |  | x |  |  |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  |  |  |  | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| China | NMDIS | NODC |  |  | x |  | x | x | x | x | x |  | x | x |  | x | x |  |  |  |  |  |  | x | x |  | x |  |  |  | x | x |  | x |  |  |
| Colombia | General Maritime Directorate | NODC |  |  |  |  |  | x | x | x | x | x | x | x |  | x | x |  |  | x |  |  |  |  | x |  | x |  |  |  |  |  |  |  | x | x |
| Colombia | INVEMAR |  | ADU |  |  |  |  |  | x |  | x |  | x |  |  | x | x | x |  | x |  |  |  | x | x |  | x | x | x | x | x | x |  |  |  | x |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cyprus | ORION Research Institution |  | ADU |  | x | x |  | x | x | x | x | x | x | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  |  |  |  |  | x |  | x |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  |  |  |
| Denmark | GBIF Secretariat |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Estonia | Tallinn University of Technology |  |  | X | x |  |  | x | x | x | x | x | x | x |  | x | x |  |  | x |  |  |  | x | x |  |  |  |  |  |  |  |  |  | x | x |
| Finland | Finnish Meteorological Institute |  |  | X |  |  | x | x | x | x | x | x | x | x |  | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| France | Ifremer | NODC |  |  | x |  |  | x | x | x | x | x | x | x |  | x | x | x |  | x | x | x | x | x | x |  | x | x |  |  |  |  |  |  | x | x |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  |  |  |  |  |  |  | x |  |  |  |  | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Greece | HCMR |  | ADU |  |  |  |  |  | x | x |  |  | x | x |  |  |  |  |  |  |  |  |  |  | x |  | x | x |  |  |  |  |  |  |  | x |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  |  |  |  |  | x | x |  |  | x | x |  | x | x | x |  | x |  |  | x |  | x |  | x |  |  |  |  |  |  | x |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  | x |  |  | x | x | x | x | x | x | x | x | x | x | x |  | x |  |  | x | x | x |  | x | x |  |  | x |  |  | x |  | x |
| Iceland | CAFF |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  | x | x |  |  |  |  |  |  |  | x |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  | x |  |  |  | x | x | x | x | x | x |  | x |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |
| Indonesia | BPPT | NODC |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ireland | Marine Institute | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  | x |  |  | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |  | x |  |  |  |  |  |  |  |  |  |
| Japan | Japan Oceanographic Data Center | NODC |  |  |  |  |  | x | x | x | x | x | x | x |  | x | x | x |  |  | x |  | x | x |  |  |  |  |  |  |  |  |  |  |  |  |
| Japan | JAMSTEC |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  | x | x |  |  | x |  | x |  |  | x |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  | x |  | x | x | x |  |  |  | x |  |  | x | x | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  |  |  |  |  | x |  | x |  |  |  |  |  | x | x |  |  |  |  |  | x | x |  | x |  |  | x | x | x |  |  |  |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mauritania | IMROP | NODC |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mexico | SEP Mexico | NODC |  |  |  | x |  | x | x | x | x | x | x | x |  |  | x |  |  |  | x |  |  |  |  |  |  |  |  |  | x | x |  |  |  |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  |  |  |  |  | x | x |  | x | x | x |  | x | x | x |  | x | x |  | x | x | x |  | x |  |  |  |  |  |  |  |  |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  | x |  |  | x | x | x | x | x | x | x | x | x | x |  |  |  |  | x | x | x |  |  |  | x | x |  |  |  | x | x | x | x |
| Norway | Institute of Marine Research | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  | x | x |  | x | x | x | x | x | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Portugal | Instituto Hidrografico |  |  | X | x |  |  | x | x | x | x | x | x | x |  | x | x | x | x | x | x |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  |  |  |  | x | x |  |  | x | x |  | x | x |  |  | x |  |  |  |  | x |  | x |  |  |  |  |  |  |  |  | x |
| Russian Federation | RIHMI-WDC | NODC |  |  | x |  | x | x | x | x | x | x | x | x |  | x | x | x |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  |  | x |  | x | x | x | x | x | x | x | x | x |  |  |  |  |  |  |  | x | x |  | x | x | x |  |  |  |  |  |  |  |
| Slovenia | National Institute of Biology | NODC |  |  | x |  |  |  | x | x | x | x | x | x | x | x | x | x |  | x | x |  | x |  | x |  | x |  |  | x | x |  |  |  |  | x |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |  | x | x | x |  |  |  |  | x |  | x |
| Spain | SOCIB-ICTS |  | ADU |  | x |  |  | x | x | x | x | x | x | x |  | x | x | x |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  |  |  |  | x | x | x |  |  | x | x |  | x | x |  |  |  | x |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sweden | SMHI | NODC |  |  | x |  | x | x | x | x | x | x | x | x |  | x | x | x |  | x | x |  |  |  | x |  | x |  | x |  |  |  |  | x |  |  |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Togo | Université de Lomé | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ukraine | UkrSCES | NODC |  |  | x | x |  |  | x | x | x | x | x | x |  | x | x | x |  |  |  |  |  | x | x |  | x |  | x |  | x |  |  |  |  | x |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |  | x | x | x | x | x | x | x | x | x | x |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  |  |  |  | x | x | x | x | x | x | x |  | x | x | x | x | x | x | x | x | x | x |  | x |  |  |  |  |  |  | x |  |  |
| United Kingdom | Marine Biological Association |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  | x | x | x | x | x |  | x |  | x | x |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| United States | NOAA NCEI | NODC |  |  | x | x | x | x | x | x | x |  | x | x |  | x | x | x | x | x | x | x | x | x | x |  | x | x | x | x | x | x | x | x | x | x |

**Summary table (Do you manage GOOS Essential Ocean Variables (EOV))**

Table

Description automatically generated

**Q25: Did you maintain a discovery metadatabase for the data received by your data centre in 2019 and/or 2020**:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Country:** | **Institution:** | **NODC** | **ADU** | **other** | **Yes** | **No** | **I don't know** | **If you answered No or I don't know then please provide details:** |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  | Yes |  |  |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  | Yes |  |  |  |
| Australia | University of Tasmania | NODC |  |  | Yes |  |  |  |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  | Yes |  |  |  |
| Belgium | VLIZ | NODC |  |  | Yes |  |  |  |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  | Yes |  |  |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  | Yes |  |  | as part of the Darwincore used by OBIS and the Amtnarctic Master Directory |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  | Yes |  |  |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  |  | No |  | It is under implementation (MSDI). |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  | Yes |  |  |  |
| Bulgaria | BGODC | NODC |  |  | Yes |  |  | SeaDataNet |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  | Yes |  |  |  |
| Canada | Department of Fisheries and Oceans | NODC |  |  | Yes |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  | Yes |  |  |  |
| China | NMDIS | NODC |  |  | Yes |  |  |  |
| Colombia | General Maritime Directorate | NODC |  |  | Yes |  |  | <https://cecoldo.dimar.mil.co/geonetwork> |
| Colombia | INVEMAR |  | ADU |  | Yes |  |  |  |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  | Yes |  |  | But some of the metadata have to be obtained from the data source |
| Cyprus | ORION Research Institution |  | ADU |  | Yes |  |  |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  | Yes |  |  |  |
| Denmark | GBIF Secretariat |  | ADU |  | Yes |  |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  | Yes |  |  |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  | Yes |  |  |  |
| Estonia | Tallinn University of Technology |  |  | other | Yes |  |  |  |
| Finland | Finnish Meteorological Institute |  |  | other |  | No |  | We have discovery metadatabase for some oceanographic parameters |
| France | Ifremer | NODC |  |  | Yes |  |  |  |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  | Yes |  |  |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  |  | No |  | currently constructing a metadatabase for the whole agency |
| Greece | HCMR |  | ADU |  | Yes |  |  |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  | Yes |  |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  | No |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  |  | No |  |  |
| Iceland | CAFF |  | ADU |  | Yes |  |  |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  | Yes |  |  |  |
| Indonesia | BPPT | NODC |  |  | Yes |  |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  | Yes |  |  |  |
| Ireland | Marine Institute | NODC |  |  | Yes |  |  |  |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  | Yes |  |  |  |
| Japan | Japan Oceanographic Data Center | NODC |  |  | Yes |  |  |  |
| Japan | JAMSTEC |  | ADU |  | Yes |  |  |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  | No |  |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  | Yes |  |  |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  | Yes |  |  |  |
| Mauritania | IMROP | NODC |  |  | Yes |  |  |  |
| Mexico | SEP Mexico | NODC |  |  |  | No |  | The Centre is in a reorganizing fase. We are looking for funding for new storage units |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  |  | No |  | The data received were with metadata. We were not aware of the importance of a discovery metadatabase |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  | Yes |  |  |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  | Yes |  |  |  |
| Norway | Institute of Marine Research | NODC |  |  |  | No |  | CSR |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  |  | No |  | No data was collected during those years. |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |  |  |
| Portugal | Instituto Hidrografico |  |  | other | Yes |  |  |  |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  | Yes |  |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  | Yes |  |  |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  |  | No |  | In 2019, we experienced a technical problem with the data base machine. |
| Slovenia | National Institute of Biology | NODC |  |  |  | No |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  | Yes |  |  |  |
| Spain | SOCIB-ICTS |  | ADU |  | Yes |  |  |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  | Yes |  |  |  |
| Sweden | SMHI | NODC |  |  | Yes |  |  |  |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  |  | No |  | Most of the data collected are for thesis or dissertations or individual research. People are still not ready to surrender them till they publish out their results.. |
| Togo | Université de Lomé | NODC |  |  |  |  | I don't know | Our center don't work |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other |  |  |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  | Yes |  |  |  |
| Ukraine | UkrSCES | NODC |  |  | Yes |  |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  | Yes |  |  | if question refers to data we collect. Review of the handling of 3rd party data is in progress - be useful to share best practice approaches with others. |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  | Yes |  |  |  |
| United Kingdom | Marine Biological Association |  | ADU |  | Yes |  |  |  |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |  |  |
| United States | NOAA NCEI | NODC |  |  | Yes |  |  |  |

**Summary table** ( **Did you maintain a discovery metadatabase for the data received by your data centre in 2019 and/or 2020)**

Chart, bar chart

Description automatically generated

**Q26: If you answered yes to the previous question, then is the database openly available online**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Country:** | **Institution:** | **NODC** | **ADU** | **other** | **Yes** | **I don't know** | **Provide URL:** |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  |  |  |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  | Yes |  | <https://obis.org/node/464a96d8-c17e-4bbb-b6b8-778e1fb687c4> |
| Australia | University of Tasmania | NODC |  |  | Yes |  | <https://catalogue.aodn.org.au/geonetwork/srv/eng/main.home> |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  | Yes |  | <https://marlin.csiro.au> |
| Belgium | VLIZ | NODC |  |  | Yes |  | <http://www.vliz.be/en/integrated-marine-information-system> |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  | Yes |  |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  | Yes |  | [www.obis.org](http://www.obis.org) |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  | Yes |  | <http://www.nodc-benin.org> |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  |  |  |  |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  |  |  |  |
| Bulgaria | BGODC | NODC |  |  | Yes |  | SeaDataCloud |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  | Yes |  | <https://members.oceantrack.org/> , <https://members.oceantrack.org/> , <https://members.oceantrack.org/erddap/index.html> , <https://members.oceantrack.org/data/discovery/bypublic.htm> |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  | Yes |  | <http://bit.ly/UCRiSo> |
| China | NMDIS | NODC |  |  | Yes |  | http:// [www.mds.nmdis.org.cn](http://www.mds.nmdis.org.cn) ; <http://www.cmoc-china.cn> |
| Colombia | General Maritime Directorate | NODC |  |  |  |  | It is planned to have this database openly online available in February 2022. Historical and recent data will be loaded progressively: starting in 2021 and ending in 2024. |
| Colombia | INVEMAR |  | ADU |  | Yes |  | <https://siam.invemar.org.co> |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  |  |  |  |
| Cyprus | ORION Research Institution |  | ADU |  | Yes |  | via SeaDataNet and EMODNET chemistry portals |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  |  |  |  |
| Denmark | GBIF Secretariat |  | ADU |  | Yes |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  | Yes |  | <http://gis.ices.dk/geonetwork/srv/eng/catalog.search#/home> |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  |  |  |
| Estonia | Tallinn University of Technology |  |  | other | Yes |  | via SeaDataNet and EMODnet portals |
| Finland | Finnish Meteorological Institute |  |  | other |  |  |  |
| France | Ifremer | NODC |  |  | Yes |  | <http://en.data.ifremer.fr/pdmi/portalssearch/main> |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  | Yes |  | <http://oceandna.ge/> |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  |  |  |  |
| Greece | HCMR |  | ADU |  | Yes |  | <http://ipt.medobis.eu/> |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  | Yes |  | <https://hnodc.hcmr.gr/services/> |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  | Yes |  | Only partly metadatabase: <http://faust.izor.hr/roscop/pocetna> |
| Iceland | CAFF |  | ADU |  | Yes |  | <http://geo.abds.is/geonetwork/srv/eng/catalog.search#/home> |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  |  |  |  |
| Indonesia | BPPT | NODC |  |  | Yes |  | nodc.id |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  | Yes |  | <http://incod.inio.ac.ir> |
| Ireland | Marine Institute | NODC |  |  | Yes |  | <https://data.marine.ie/> |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  | Yes |  | <https://nodc.inogs.it/> |
| Japan | Japan Oceanographic Data Center | NODC |  |  |  |  |  |
| Japan | JAMSTEC |  | ADU |  | Yes |  | <http://www.godac.jamstec.go.jp/ipt/?request_locale=ja> |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  |  |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  |  |  |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  |  |  |  |
| Mauritania | IMROP | NODC |  |  |  |  |  |
| Mexico | SEP Mexico | NODC |  |  |  |  |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  |  |  |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  |  |  |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  | Yes |  | <http://dc.niwa.co.nz> |
| Norway | Institute of Marine Research | NODC |  |  |  |  |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  |  | I don't know | |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |  |
| Portugal | Instituto Hidrografico |  |  | other |  |  | [https://www.hidrografico.pt/#](https://www.hidrografico.pt/) |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  | Yes |  | <https://www.seadatanet.org/Metadata> |
| Russian Federation | RIHMI-WDC | NODC |  |  | Yes |  | <http://esimo.ru/portal/> |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  |  |  |  |
| Slovenia | National Institute of Biology | NODC |  |  |  |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  |  |  | Currently on a beta-phase - <http://beta.data.ocean.gov.za/> |
| Spain | SOCIB-ICTS |  | ADU |  |  |  |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  | Yes |  | Please filtering by IEO at www.seadatanet.org. Also <http://datos.ieo.es> under development. |
| Sweden | SMHI | NODC |  |  | Yes |  | <https://www.smhi.se/omsmhi/policys/datapolicy/mer-och-mer-oppna-data-1.8138> |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  |  |  |  |
| Togo | Université de Lomé | NODC |  |  |  | I don't know | |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other |  |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  |  |  |  |
| Ukraine | UkrSCES | NODC |  |  | Yes |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  | Yes |  | <http://data.cefas.co.uk> |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  | Yes |  | NERC level: <http://data-search.nerc.ac.uk/> ; UK level - MEDIN <http://portal.medin.org.uk/portal/start.php> |
| United Kingdom | Marine Biological Association |  | ADU |  | Yes |  | <https://portal.medin.org.uk/portal/start.php> |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |  |
| United States | NOAA NCEI | NODC |  |  | Yes |  | <https://www.ncei.noaa.gov/access> |

**Summary table** (**If you answered yes to the previous question, then is the database openly available online)**

Chart, bar chart

Description automatically generated

**Q27: What kind of quality control procedures (if any) are used in your institution? (add bibliographic references, if possible):**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Country:** | **Institution:** | **NODC** | **ADU** | **other** | **Open-Ended Response** |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  | We used the quality control that OBIS requires to upload data to the portal. |
| Australia | University of Tasmania | NODC |  |  | Data workflows: https://imos.org.au/data/data/workflows QA/QC: <https://imos.org.au/data/quality-assurance-and-quality-control> |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  | Each routine datatype (ctd, xbt, adcp, underway, hydrology, multibeam) from the vessel has a specific data processing and quality control procedures |
| Belgium | VLIZ | NODC |  |  | Full data entry and scientific description. |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  | Visual inspection and use of R (range check, duplicate check) |
| Belgium | SCAR/Antarctic OBIS | | ADU |  | no formal description available |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  | GTSPP (Global Temperature-Salinity Profile Program); NDBC Handbook of Automated Data Quality Control Checks and Procedures; and QARTOD (Quality Assurance of Real Time Ocean Data) |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  |  |
| Bulgaria | BGODC | NODC |  |  |  |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  | iphython notebooks checks/updates/load database for project metadata (spatial, temperal, taxon names/lengths/weights, duplicates (tags and receiver deployments) by project and whole database; vendor specifications comparisons. Tools for user include logic speed checks on detections output (mihoff/white). |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  | We make a general review through the comparatives graphics with respect historical values, using tools such as Matlab, Ocean Data View, Grapher, Surfer etc. We use some recommendations of the USA's NODC. |
| China | NMDIS | NODC |  |  | CNODC has developed a series of quality control software and systems (real time and delayed mode) to realize the operational running of standardization, processing, QC, calibration, duplication check of marine data. Marine Meteorological and Oceanographic Data Quality Control Manual (Version 1.0), The Specification for Ocean Observation—Part 6: Data Processing and Quality Control (national standard being formulated), The Specification for Marine Condition Data Processing and Quality Control—Part 1: Marine Hydrology (trade standard being formulated) are used for data processing and quality control in the CNODC. Currently, only their Chinese versions are available. The meaning of quality flag is documented in Marine Observations Quality Flag List. |
| Colombia | General Maritime Directorate | NODC |  |  | In 2020 we worked on three methodological guides for Colombian data obtained from CTD, ADCP and automatic meteorological stations. We plan to publish these guides in June 2021. |
| Colombia | INVEMAR |  | ADU |  | ISO 19139 ISO 19111 ISO 19157 |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  |  |
| Cyprus | ORION Research Institution |  | ADU |  | SeaDataNet, ODV QC |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  | examination by a scientific committee and validation by a national scientific committee |
| Denmark | GBIF Secretariat |  | ADU |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  | <https://ices.dk/data/tools/Pages/data-validation.aspx> <https://ices.dk/data/tools/Pages/quality-control.aspx> |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  |
| Estonia | Tallinn University of Technology |  |  | other | As stated in internal rules |
| Finland | Finnish Meteorological Institute |  |  | other | Automatic and manual quality control is applied to most important real-time parameters and delayed mode data is manually quality controlled. |
| France | Ifremer | NODC |  |  | IODE recommendations, ARGO QC manual, SeaDataNet QC manual, CMEMS QC manual |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  | <https://archimer.ifremer.fr/doc/00251/36230/> <https://archimer.ifremer.fr/doc/00645/75704/> <https://archimer.ifremer.fr/doc/00355/46607/> |
| Greece | HCMR |  | ADU |  | LifeWatch & EMODnet Biology QC tool https://rshiny.lifewatch.be/BioCheck/, Mavraki D (2014) Marine Data Quality Control Manual. EMODNet2 Technical document, 10 p., Mavraki D, Fanini L, Tsompanou M, Gerovasileiou V, Nikolopoulou S, Chatzinikolaou E, Plaitis W, Faulwetter S (2016) <https://bdj.pensoft.net/articles.php?id=11054> , Faulwetter S, Pafilis E, Fanini L, Bailly N, Agosti D, Arvanitidis C, Boicenco L, Capatano T, Claus S, Dekeyzer S, Georgiev T, Legaki A, Mavraki D, Oulas A, Papastefanou G, Penev L, Sautter G, Schigel D, Senderov V, Teaca A, Tsompanou M (2016) EMODnet Workshop on mechanisms and guidelines to mobilise historical data into biogeographic databases. Research Ideas and Outcomes 2: e9774. <https://doi.org/10.3897/rio.2.e9774> |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  | HNODC performs quality checks on data and metadata for vertical profiles and time series of physical, chemical, biological data according to: 1) UNESCO/IOC/IODE and MAST, 1993, Manual and Guides 26, 2) Data Type guidelines - ICES Working Group of Marine Data Management 3) SeaDataNet guidelines 4) NOAA/NCEI (former NODC) guidelines 5) “Medar-Medatlas protocol: Exchange format and quality checks for observed profiles”, 2000 |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  | SeaDataCloud and EMODNET procedures |
| Iceland | CAFF |  | ADU |  | All data is subject to peer review and approval process prior to publication |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  | As per the international standard following the standard published literature and reference manuals. |
| Indonesia | BPPT | NODC |  |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  | Scientific QC based on IODE best practices is performed by relevant researchers and data providers at data retrieval time. Software tools was designed and developed based on GTSPP algorithms by INCOD. Automatic QC is performed by using this tools as well as visualization facilities in the INCOD. |
| Ireland | Marine Institute | NODC |  |  | Data QC is carried out on a thematic basis Data management QMF <https://doi.org/10.1007/s12145-019-00432-w> |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  | SeaDataNet <https://www.seadatanet.org/Standards/Data-Quality-Control> |
| Japan | Japan Oceanographic Data Center | NODC |  |  | Guide for Data Quality Control of Ocean CO2-related Data published by JODC in 2004. |
| Japan | JAMSTEC |  | ADU |  |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  | QMS |
| Mauritania | IMROP | NODC |  |  |  |
| Mexico | SEP Mexico | NODC |  |  | None by the moment. |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  |  |
| Norway | Institute of Marine Research | NODC |  |  | Internal procedures. Project procedures |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  | At the moment we carry out a primary quality control, only to review the data with limits of variability. |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |
| Portugal | Instituto Hidrografico |  |  | other | Regarding hydrography data, quality control includes data evaluation and correction (if needed) after the data is processed and before it is filed in a database. It is done in a semi-automatic way. Automation comes from the software used in data processing. Ref: "S-44 for Hydrographic Data" Regarding chemical data, quality control can be split in two different components: analitycal and data evaluation. The analitycal quality control is performed according to the requirements of the ISO 17025 standard and associated guidelines (e.g., Nordtest Report TR569, EURACHEM/CITAC Guide QAC2016); data evaluation (post analitycal) relies on the technicians expertise (assisted by applications like Ocean Data View) to check for odd values and classify the data. Refs: ISO. 2017. ISO 17025:2017 - General requirements for the competence of testing and calibration laboratories; B. Magnusson, H. Hovind, M. Krysell, U. Lund and I. Mäkinen, Handbook - Inter Quality control, Nordtest Report TR 569 (ed. 5) 2018; V. Barwick (Ed), Eurachem/CITAC Guide: Guide to Quality in Analytical Chemistry: An Aid to Accreditation (3rd ed. 2016). ISBN 978-0-948926-32-7. Related to oceanographic data, we follow internal procedures that reflects the international guidelines. Refs: EuroGOOS DATA-MEQ working group - Recommendations for in-situ data Near Real Time Quality Control. DOI 10.13155/36230; ICES Data Type Guidelines; Lorenzo Corgnati (ISMAR-CNR), Carlo Mantovani (ISMAR-CNR), Antonio Novellino (ETT), Anna Rubio (AZTI), Julien Mader (AZTI) - Recommendation Report 2 on improved common procedures for HFR QC analysis. Jerico-Next Deliverable for Data Management; Manual of quality control procedures for validation of oceanographic data. IOC Manuals and Guides 26. |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  | GTSPP QC Manual Chemistry data QC Manual |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  | neant |
| Slovenia | National Institute of Biology | NODC |  |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  | Data quality control is undertaken and overseen by Ocean Physics Group (Specialist Scientists) in accordance with international ocean data guidelines and instrument's manufacture's recommendations (e.g. CODAS, Seabird etc). |
| Spain | SOCIB-ICTS |  | ADU |  | DATA-MEQ EuroGOOS RT-QC DMQC for glider data: https://www.frontiersin.org/articles/10.3389/fmars.2020.00398/full |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  |  |
| Sweden | SMHI | NODC |  |  | - ISO/IEC 17025 Quality Manual (only in Swedish, can be supplied on demand, Alfresco #173135).  - ISO 9001 – SMHI Management System (only in Swedish, can be supplied on demand)  - IOC Manuals an d Guide s No 67 “IODE Qu ality Manageme nt Framework for National Oceanographic Data Centres” (Reed G., rev 2019)  - IOC Manuals and Guides No 49 “Manual on International Oceanographic Data and Information Exchange”  - IOC Manuals and guides No. 05: Guide for Establishing a National Oceanographic Data Centre  - IODE Handbook (revised edition 1994)  - WMO No. 306  - Manual on Codes  - HELCOM COMBINE manual <http://www.helcom.fi/helcom-at-work/publications/manuals-and-guidelines>  - OSPAR JAMP guidelines <https://www.ospar.org/work-areas/cross-cutting-issues/jamp>  - JERICO Best Practice Documents (riktlinjer) <https://www.oceanbestpractices.net/handle/11329/362>  - ICES Guidelines and Policy <https://www.ices.dk/data/guidelines-and-policy/Pages/default.aspx>  - COPRERNICUS INFORMATION DOKUMENT (CMEMS) <http://cmems-resources.cls.fr/documents/QUID/CMEMS-INS-QUID-013-030-036.pdf>  - COPERNICUS PRODUCT USER MANUAL (CMEMS) <http://cmems-resources.cls.fr/documents/PUM/CMEMS-INS-PUM-013.pdf>  - COPERNICUS UALITY INFORMATION DOCUMENT (CMEMS) <http://cmems-resources.cls.fr/documents/QUID/CMEMS-INS-QUID-013-038.pdf>  - IOOS QUARTOD Sea Level Manual <https://www.ioos.noaa.gov/wp-content/uploads/2016/04/qartod_water_level_manual.pdf> -  IOOS QUARTOD Manual for Real time QC of In-situ Temperature and Salinity <https://ioos.noaa.gov/ioos-in-action/temperature-salinity/>  - IOOS QURTROD Manual for QC of In-situ Surface Wave Data <https://ioos.noaa.gov/ioos-in-action/temperature-salinity/>  - IOOS QURTROD Manual for QC of In-situ Current Observations <https://www.ioos.noaa.gov/wp-content/uploads/2016/04/qartod_currents_manual.pdf>  - <https://odv.awi.de/> (ODV software)  - JERICO – FerryBox Best Practices <http://www.jerico-ri.eu/download/filebase/jerico_fp7/deliverables/D3.1%20Ferrybox%20best%20practices%20v1.7.pdf>  - CTD SeaBird data processing \\winfs-proj\data\proj\Havgem\Mhansson\CTD-projektet nytt dataformat (internal link and in Swedish) |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  | We used field specific quality control procedures . |
| Togo | Université de Lomé | NODC |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  |  |
| Ukraine | UkrSCES | NODC |  |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  | Keen to review this with others. Procedures and systems in-house assist compliance with: MEDIN Metadata standard, INSPIRE, UK GEMINI, DarWinCore, NMBAQC, BEQUALM, SeaDataNet, MEDIN Data Guidelines, ICES, OSPAR, National and Defra Strategy, expectations, best practice e.g. JERICO, numerous UK legislation legislation |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  | QC procedures are documented but not online yet. Generally in line with SeaDataNet (www.seadatanet.org), EuroGOOS (http://eurogoos.eu/data-management-exchange-quality-working-group-data-meq/) and IOC/IODE procedures. Also use documented QC from observing programmes, e.g. Argo (<http://www.argodatamgt.org/Documentation> ), GLOSS (IOC Manuals and Guides No. 83: Volume I), OceanSites (<http://www.oceansites.org/documents/index.html>) and AtlantOS (<https://www.atlantos-h2020.eu/structure/wp7/task-7-1/> ) |
| United Kingdom | Marine Biological Association |  | ADU |  | All data ingested and transformed are subject to internal QC processes. The documentation is being updated as part of our CoreTrustSeal accreditation and will be online later this year. |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |
| United States | NOAA NCEI | NODC |  |  | Many references depending on data type. One example is the in situ oceanographic data maintained in the World Ocean Database (<https://www.ncei.noaa.gov/products/world-ocean-database> ) WOD18 Boyer, T.P., O.K. Baranova, C. Coleman, H.E. Garcia, A. Grodsky, R.A. Locarnini, A.V. Mishonov, C.R. Paver, J.R. Reagan, D. Seidov, I.V. Smolyar, K. Weathers, M.M. Zweng,(2018): World Ocean Database 2018. A.V. Mishonov, Technical Ed., NOAA Atlas NESDIS 87. WOD13 Boyer, T.P., J.I. Antonov, O.K. Baranova, C. Coleman, H.E. Garcia, A. Grodsky, D.R. Johnson, R.A. Locarnini, A.V. Mishonov, T.D. O'Brien, C.R. Paver, J.R. Reagan, D. Seidov, I.V. Smolyar, and M.M. Zweng, 2013: World Ocean Database 2013., S. Levitus, Ed., A. Mishonov, Technical Ed.; NOAA Atlas NESDIS 72, 209 pp., doi:10.7289/V5NZ85MT. WOD09 Boyer, T.P., J.I. Antonov , O.K. Baranova, H.E. Garcia, D.R. Johnson, R.A. Locarnini, A.V. Mishonov, T. D. O’Brien, D. Seidov, I.V. Smolyar, M.M. Zweng, 2009. World Ocean Database 2009 S. Levitus, Ed., NOAA Atlas NESDIS 66, 216 pp. https://repository.library.noaa.gov/view/noaa/1195 WOD05 Boyer, T.P., J.I. Antonov, H.E. Garcia, D.R. Johnson, R.A. Locarnini, A.V. Mishonov, M T. Pitcher, O.K. Baranova, I.V. Smolyar, 2006. World Ocean Database 2005. S. Levitus, Ed., NOAA Atlas NESDIS 60, 190 pp., <https://repository.library.noaa.gov/view/noaa/1131> |

**Q28: What spectrum of services (e.g. data and products) were started/continued/ended by your centre in 2019 and/or 2020? (choose one per row)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Country: | Institution: | NODC | ADU | other | quality-controlled delayed-mode data sets - Started in 2019 or 2020 | quality-controlled delayed-mode data sets - Continued in 2019 and 2020 | quality-controlled delayed-mode data sets - Stopped in 2019 or 2020 | access to real-time data - Started in 2019 or 2020 | access to real-time data - Continued in 2019 and 2020 | access to real-time data - Stopped in 2019 or 2020 | maps - Started in 2019 or 2020 | maps - Continued in 2019 and 2020 | maps - Stopped in 2019 or 2020 | GIS layers - Started in 2019 or 2020 | GIS layers - Continued in 2019 and 2020 | GIS layers - Stopped in 2019 or 2020 | statistics - Started in 2019 or 2020 | statistics - Continued in 2019 and 2020 | statistics - Stopped in 2019 or 2020 | data atlases - Started in 2019 or 2020 | data atlases - Continued in 2019 and 2020 | data atlases - Stopped in 2019 or 2020 | numerical modelling outputs - Started in 2019 or 2020 | numerical modelling outputs - Continued in 2019 and 2020 | numerical modelling outputs - Stopped in 2019 or 2020 | Other (please specify) |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | linked data service -> http://linkeddata.cenpat-conicet.gob.ar/snorql/ |
| Australia | University of Tasmania | NODC |  |  |  | x |  |  | x |  |  |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |  |  |  |  |
| Belgium | VLIZ | NODC |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |  |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  |  | x |  |  |  |  |  |  |  |  | x |  |  |  |  | x |  |  |  |  |  |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  |  | x |  |  |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  | Tidal information (station identification, forecast, tidal-current (astronomical only) forecast). |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |  | x |  |  |  |
| Bulgaria | BGODC | NODC |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |  |  |  | Tools: GLATOS - R Analysis Tools. A Git repository containing an R package with a complementary suite of telemetry data analysis tools being primarily developed at the Great Lakes Animal Telemetry Observation System. Resonate - Python Analysis Tools. A Git repository containing a Python package with OTN's growing suite of telemetry data analysis tools. This package is meant to mirror the tools available in the GLATOS - R analysis package. Training: OTN's previous workshop material can be viewed on the OTN YouTube and the OTN Github. To arrange a workshop/walkthrough of the tools in use by OTN partners please contact OTNDC@DAL.CA |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  |  | x |  |  |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |
| China | NMDIS | NODC |  |  |  | x |  |  | x |  |  | x |  | x |  |  |  | x |  |  | x |  |  | x |  |  |
| Colombia | General Maritime Directorate | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Colombia | INVEMAR |  | ADU |  |  | x |  |  |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |  |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  | x |  |  |
| Cyprus | ORION Research Institution |  | ADU |  |  | x |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  | x |  |  |  | x |  |  | x |  | x |  |  | x |  |  | x |  |  | x |  |  |  |
| Denmark | GBIF Secretariat |  | ADU |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  | x |  |  |  |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  |  | x |  |  |  |  |  | x |  |  | x |  |  | x |  |  |  |  |  | x |  |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  |  |  |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |
| Estonia | Tallinn University of Technology |  |  | other |  | x |  |  | x |  |  |  |  | x |  |  |  |  |  |  |  |  |  | x |  |  |
| Finland | Finnish Meteorological Institute |  |  | other |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| France | Ifremer | NODC |  |  |  | x |  |  | x |  |  | x |  |  | x |  | x |  |  |  |  |  |  | x |  |  |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  |  |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  | x |  |  |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |
| Greece | HCMR |  | ADU |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  |  |  |  | x |  |  |  | Données pour l'Atlas de MOLOA et ORLOA |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |  | x |  |  |
| Iceland | CAFF |  | ADU |  |  |  |  |  |  |  |  | x |  |  | x |  |  | x |  |  |  |  |  |  |  |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  |
| Indonesia | BPPT | NODC |  |  |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  | x |  |  |
| Ireland | Marine Institute | NODC |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  |  | x |  |  | x |  |  | x |  | x |  |  |  | x |  |  | x |  |  | x |  |  |
| Japan | Japan Oceanographic Data Center | NODC |  |  |  | x |  |  |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |  |
| Japan | JAMSTEC |  | ADU |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  |  | x |  |  |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  | x |  |  |  |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  | x |  |  |
| Mauritania | IMROP | NODC |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |  |
| Mexico | SEP Mexico | NODC |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  |  | x |  |  |  | x |  | x |  |  | x |  |  | x |  |  |  | x |  | x |  |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  |  | x |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  |  | x |  |  |  |  |  | x |  |  | x |  |  | x |  |  |  |  |  | x |  |  |
| Norway | Institute of Marine Research | NODC |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |  |  |  |  | x |  |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  |  |  | x |  | x |  |  |  | x |  |  | x |  | x |  | x |  |  |  | x |  | None |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Portugal | Instituto Hidrografico |  |  | other |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |  | x |  |  |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Slovenia | National Institute of Biology | NODC |  |  |  | x |  |  | x |  |  |  |  |  | x |  |  | x |  |  |  |  |  | x |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |  | x |  |  |
| Spain | SOCIB-ICTS |  | ADU |  |  | x |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  |  | x |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |
| Sweden | SMHI | NODC |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |  | x |  |  |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  | x |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |
| Togo | Université de Lomé | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  |
| Ukraine | UkrSCES | NODC |  |  |  | x |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  |  | x |  |  | x |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |
| United Kingdom | Marine Biological Association |  | ADU |  |  | x |  |  |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |  |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| United States | NOAA NCEI | NODC |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  | x |  |  |  |  | climatologies and time series |

**Summary Table** (**What spectrum of services (e.g. data and products) were started/continued/ended by your centre in 2019 and/or 2020)**

**Table

Description automatically generated**

**Q29: List the most important products and services (up to 15) provided by your data centre in the period 2019-2020. These may be new (started in 2019/2020) or ongoing products/services. If they are online products/services then please also provide the URL**.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Country:** | **Institution:** | **NODC** | **ADU** | **other** | **Products and Services** |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  | Provision of physical-chemical data to state and educational institutions |
| Argentina | CCT CENPAT-CONICET |  | ADU |  | Linked data portal -> <http://linkeddata.cenpat-conicet.gob.ar/>  SPARQL endpoint-> <http://linkeddata.cenpat-conicet.gob.ar/snorql/>  Data Portal -> <https://cesimar.shinyapps.io/DiveAnalysisDashboard/> |
| Australia | University of Tasmania | NODC |  |  | <https://portal.aodn.org.au/>  <https://catalogue.aodn.org.au/geonetwork/srv/eng/main.home>  <http://imos-data.s3-website-ap-southeast-2.amazonaws.com/>  <http://geoserver-123.aodn.org.au/geoserver/web/>  <https://animaltracking.aodn.org.au/>  <http://oceancurrent.imos.org.au/>  <https://www.imosoceanreport.org.au/>  https://auv.aodn.org.au/auv/ |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  | Marine taxanomic catalogue <https://www.marine.csiro.au/data/caab/>  Geoserver mapping service <https://www.cmar.csiro.au/geoserver/>  IPT harvest point for ALA, OBIS and GBIF <http://www.marine.csiro.au/ipt/>  Metadata catalogue <https://marlin.csiro.au/>  Data Trawler <https://www.marine.csiro.au/data/trawler/>  Application development including web services  Video and image annotion services Database support Support for ship operations (from on-shore or at-sea) Omgoing archive of data and documents Data recovery and cataloguing |
| Belgium | VLIZ | NODC |  |  | <http://www.vliz.be/imis>  <https://mda.vliz.be/>  <http://www.marinespecies.org/>  <https://www.marineregions.org/>  <https://www.lifewatch.be/>  <http://www.ioc-sealevelmonitoring.org/>  <https://www.emodnet-biology.eu/>  https://www.emodnet.eu/en/portals |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  | Maintain oceanographic dataportal (IDOD) for data (monitoring and research) held at BMDC (<http://www.bmdc.be/NODC/search_data.xhtml>)  Metadata portal of datasets held at RBINS (metadata.naturalsciences.be)  INSPIRE compliant view and download services made available by the SCAR/Antarctic OBIS (RBINS)  Handling monitoring data for OSPAR and annual reporting to ICES DOME (dome.ices.dk)  Handling monitoring data for MSFD, WFD and Nitrates Directives and support reporting to Eionet Portal (www.eionet.europa.eu) and EEA (www.eea.europe.eu) Development of event logging software Data publication at international level, ia. GBIF and OBIS Implement Data Management Plan for BRAIN-be 2.0 (https://www.belspo.be/belspo/brain2-be/call\_en.stm) proposals at RBINS level  Defining a Data management plan template using DMPonline for funded cruises |
| Belgium | SCAR/Antarctic OBIS | | ADU |  | POLA3R (YEAR) Polar 'Omics Links to Antarctic, Arctic and Alpine Research. Antarctic Biodiversity Portal. Scientific Committee for Antarctic Research. [www.biodiversity.aq/pola3r](http://www.biodiversity.aq/pola3r)  <https://data.biodiversity.aq>  <https://www.biodiversity.aq/tools/scar-southern-ocean-diet-and-energetics-database/> |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  | Monitoring of coastal erosion in Benin  Sea state forecast Provision of oceanographic and fishing data Cetacean monitoring Bathymetric study of coastal seabed and continental water bodies |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  | tidal forecast measured tidal data tidal station information meteorological data continental shelf bathymetric data continental shelf seismic data oceanographic data (S, T, P) raster nautical charts (current and old ones) geodesic information hydrographic survey´s documentation |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  | Data training course (OBIS and biodiversity data management) Data training course (environmental data management)  Data training course (remote sensing databases and products) Data management (associated with OBIS and LTER programs) Started in 2018 or 2020 |
| Bulgaria | BGODC | NODC |  |  | Sea level - bgodc.io-bas.bg  Sea Waves - bgodc.io-bas.bg |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  | OTNDC has led many biodiversity workshops during this period, including but not limited to (Dalhousie) SURGE and Ocean Tracking Network (OTN) Discover Coding series (11 1 hour sessions each of the Fall 2019 & Winter 2020 semesters). Split into four-week topics that built upon each other each week, the workshops followed the Software Carpentry lessons, covering the topics GitHub, Python and R. And Biodiversity Data Management for SLGO (included OBIS training) as well as assisting other’s in related workshops, e.g. GLATOS, ACENET. OTN's previous workshop material can be viewed on the OTN YouTube and the OTN Github. To arrange a workshop/walkthrough of the tools in use by OTN partners please contact OTNDC@DAL.CA Beginning 2020 OTNDC began hosting (most) weekly Study Halls…Join OTN for our weekly study hall, where we explore data analysis tools and methods, and help you find solutions to any problems you may be having. Past events have brought together participants from Europe, South Africa, Australia, Brazil, and North America and have featured walk-throughs for packages such as GLATOS, VTrack, and Actel. It’s free to join, but space is limited—email otndc@dal.ca to save your spot! Development of OTN’s Nodebook, using ipython utility notebooks (private git repository) used in performing data QC and loading into postresql/gis database. Hosting GLATOS R Analysis Tools, open source on gitlab: A Git repository containing an R package with a complementary suite of telemetry data analysis tools being primarily developed at the Great Lakes Animal Telemetry Observation System. Resonate – Python Analysis Tools: A Git repository containing a Python package with OTN's growing suite of telemetry data analysis tools. This package is meant to mirror the tools available in the GLATOS - R analysis package.  OTN’s OBIS IPT: https://members.oceantrack.org//ipt/ and OBIS data distribution <https://obis.org/node/68f83ea7-69a7-44fd-be77-3c3afd6f3cf8> (currently 36 projects over 22,000 animal tagging records). Revised/updated (plone 5) OTN Data Portal <https://members.oceantrack.org/>  single page All Public Data <https://members.oceantrack.org/data/discovery/bypublic.htm> , and Mystery Tag Lookup: <https://members.oceantrack.org/@@mystery_tag> , and  recently added FAQs <https://members.oceantrack.org/faq> . OTN’s GEOSERVER <https://members.oceantrack.org/geoserver/web/>   OTN’s ERDDAP <https://members.oceantrack.org/erddap/index.html> |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  | Metadata Catalog (http://bit.ly/UCRiSo) Interactive Data Reports associates with Cruise CIMAR |
| China | NMDIS | NODC |  |  | Chinese oceanographic stations observations <http://mds.nmdis.org.cn/pages/dataViewDetail.html?dataSetId=4>  Chinese ship observation data，<http://mds.nmdis.org.cn/pages/dataViewDetail.html?dataSetId=17>  Wave and wind observations, <http://mds.nmdis.org.cn/pages/dataViewDetail.html?dataSetId=6>  Ocean Reanalysis datasets, <http://mds.nmdis.org.cn/pages/dataView.html?type=2&id=a5da2a0528904471b3a326c3cc85997d>  Statistical analysis of temperature and salinity over Northwest Pacific，<http://mds.nmdis.org.cn/pages/dataView.html?type=2&id=a5da2a0528904471b3a326c3cc85997d>  Chinese undersea feature names，<http://www.ccufn.org.cn/web/placename/data.view>  Tide and tidal current forecast, <http://tide-21century.nmdis.org.cn/> |
| Colombia | General Maritime Directorate | NODC |  |  | Data Catalog <https://cecoldo.dimar.mil.co/geonetwork>  Oceanographic and meteorological monitoring <https://arcg.is/HmTf4>  Digital Repository <https://cecoldodigital.dimar.mil.co/> |
| Colombia | INVEMAR |  | ADU |  | Sistema de información sobre biodiversidad marina - <https://siam.invemar.org.co/sibm>  Red de vigilancia de la Calidad de las aguas marinas - <https://siam.invemar.org.co/redcam-consulta-datos>  Calculations, statistics and indices related to mangrove forest structure, physicochemical variables and mangrove restoration process. Time series of the Ciénaga Grande de Santa Marta - CGSM using an ArcGIS StoryMaps. And Consultation of the Biological Integrity Indicator for Mangroves - IBIm. URL: <http://buritaca.invemar.org.co/SigmaGeoVisor/>  Report of indicator 14.3.1. of the SDGs in two stations Metadata of indicator according to <https://oa.iode.org>  Implementation of good statistical practices for the marine and coastal water quality index "ICAM". Development of the Web Tool for ICAM reporting and visualization. <https://icam-invemar.opendata.arcgis.com/> and <https://experience.arcgis.com/experience/dbbec24c96054e199a25b8709dc7099a/>  Implementation of phytoplankton data module is ongoing. Update the HAEDAT platform with the events registered in 2019 and 2020. <http://haedat.iode.org/eventSearch.php?searchtext[countryID]=62>  Sistema de Soporte al Monitoreo de las Áreas Coralinas. (Datos Monitoreo Áreas Coralinas) - SIMAC - https:// siam.invemar.org.co/redcam-consulta-datos  Sistema de Soporte al Monitoreo de las Áreas Coralinas. (Datos Monitoreo Áreas Coralinas) - SIMAC - https:// siam.invemar.org.co/sismac  Observatorio de los mares tropicales de las Americas, Triton - <http://triton.invemar.org.co/>  Indicador de la Calidad de las Aguas Marinas - ICAM - <https://siam.invemar.org.co/redcam-icam>  Portal temático de tiburones, rayas y quimeras - <https://siam.invemar.org.co/tiburones-rayas-quimeras>  Atlas de áreas coralinas de Colombia - <https://areas-coralinas-de-colombia-invemar.hub.arcgis.com/>  Portal temático de tortugas marinas - <https://siam.invemar.org.co/tortugas>  Catalogo Centro de Documentación (Libros y Revistas) - <http://centrodocumentacion.invemar.org.co/>  Sistema de soporte de decisiones del Subsistema de áreas protegídas de Colombia - <https://gis.invemar.org.co/ssdsamp> |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  |  |
| Cyprus | ORION Research Institution |  | ADU |  | <http://cycofos.orioncyprus.org/> |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  |  |
| Denmark | GBIF Secretariat |  | ADU |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  |
| Estonia | Tallinn University of Technology |  |  | other | Sealevel information system (<http://on-line.msi.ttu.ee/meretase/?en>)  Contribution to CMEMS products (see at <https://marine.copernicus.eu/>)  Contribution to BOOS products (see at <http://www.boos.org/>) |
| Finland | Finnish Meteorological Institute |  |  | other | ice service, <https://en.ilmatieteenlaitos.fi/ice-conditions>  sea level data and forecasts <https://en.ilmatieteenlaitos.fi/sea-level>  surface wave data, <https://en.ilmatieteenlaitos.fi/wave-height>  surface wave forecasts, <https://en.ilmatieteenlaitos.fi/wave-forecast>  Marine weather and sea, <https://en.ilmatieteenlaitos.fi/marine-weather-and-baltic-sea>  Seaquide, <https://meriopas.ymparisto.fi/meriopas/menu/weather/59.88416,24.04243/7>  Baltic Sea Now, <https://meriopas.ymparisto.fi/meriopas/menu/weather/>  Finnish Open Marine Data, <https://marinefinland.fi/en-US/Data_services>  FMI Download observations, <https://en.ilmatieteenlaitos.fi/download-observations>  The Finnish Meteorological Institute's open data, <https://en.ilmatieteenlaitos.fi/open-data> |
| France | Ifremer | NODC |  |  | <https://www.euro-argo.eu/>  <https://cdi.seadatanet.org/search>  <https://campagnes.flotteoceanographique.fr/>  <https://sextant.ifremer.fr/>  <https://www.seanoe.org/>  <https://csr.seadatanet.org/>  <https://www.seanoe.org/data/00351/46219/>  <https://www.seadatanet.org/Products#/search?from=1&to=30> |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  | The data sets of marine litter for the Black Sea Waste Map. Modelling of waste distribution in the Georgian Black Sea. Submitted Marine litter to EMODnet Chemistry ( using EMODnet template) |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  | Harmonized and controlled NRT data of the Northwest Shelf Region, <ftp://nrt.cmems-du.eu/> (credentials needed) Reprocessed NRT data, <ftp://my.cmems-du.eu/Core/> (credentials needed) Provision of European CSRs <https://csr.seadatanet.org/>   Started in 2018 or 2020 |
| Greece | HCMR |  | ADU |  | Data Services <https://www.lifewatchgreece.eu/?q=content/data-services>  Visualization Services <https://www.lifewatchgreece.eu/?q=content/visualization-services>  Micro CT Services <https://www.lifewatchgreece.eu/?q=content/microct-services>  Statistical R <https://www.lifewatchgreece.eu/?q=content/statistical-r> |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  | <https://monitoring.seadatanet.org/>  <http://mapserver.ath.hcmr.gr/pagin/v27/index_new.php>  <https://hnodc.hcmr.gr/edmed/> |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  | <http://faust.izor.hr/autodatapub/postaje>  <http://baltazar.izor.hr/plazepub/kakvoca>  <http://baltazar.izor.hr/azopub/bindex>  <http://jadran.izor.hr/hazadr/>  <http://jadran.izor.hr/barograf/>  <http://jadran.izor.hr/geo/rp.html>    Started in 2018 or 2020 |
| Iceland | CAFF |  | ADU |  |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  | Argo value added products Ocean State Foreasting based on OGCM data Potential Fishery Zone advisories Tsunami warning  Multi Hazard Vulnerability maps Harmful Algal Bloom Strom surge and inundation maps marine Meteorological atlas |
| Indonesia | BPPT | NODC |  |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  | Caspian Expert website: <http://caspianexpert.inio.ac.ir>  Database of Scientific Resources of Iranian Waters: <http://marinedocs.inio.ac.ir>  Geo point plotter tools: <http://incod.inio.ac.ir/Products/Geo-Point-Plotter>  Data statistical information: <http://incod.inio.ac.ir/Products/Statistical-Information>  add new data records to the INCOD portal: <http://incod.inio.ac.ir/Data-Access/Search-Result>  add new metadata records to the INCOD portal: <http://incod.inio.ac.ir/Data-Access/Search-Result>  add new CSR records to the INCOD portal: <http://incod.inio.ac.ir/Cruises>  Automatic QC tools Automation software tool for entering new datasets into the INCOD database Software tool for automatic conversion of XML files to PDF Software tool to convert the date to the INCOD standard format Software tool to transfer the NetCDF file format to the SQL |
| Ireland | Marine Institute | NODC |  |  | Fisheries stock assessment <https://shiny.marine.ie/stockbook/>  Aquaculture Food Safety http://webapps.marine.ie/HABs/  Oceanographic Services <https://www.marine.ie/Home/site-area/data-services/data-services>  MSFD / WFD reporting and assessments  Ireland's Marine Atlas <https://atlas.marine.ie>  Digital Services Platform <https://digitalocean.ie/> |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  | <https://nodc.inogs.it/data/access>  <https://nodc.inogs.it/cocoon/data/csr-search>  <https://nodc.inogs.it/metadata/edmerplist>  <https://nodc.inogs.it/metadata/edmedlist>  <https://nodc.inogs.it/metadata/doi>  <https://nodc.inogs.it/data/products> |
| Japan | Japan Oceanographic Data Center | NODC |  |  | JODC Data Online Service System, <https://www.jodc.go.jp/jodcweb/JDOSS/index.html>  NEAR-GOOS Regional Delayed Mode Database, <https://near-goos1.jodc.go.jp/> |
| Japan | JAMSTEC |  | ADU |  |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  | <https://kazhydromet.kz/en/kaspiyskoe-more/ezhenedelnyy-obzor-sostoyaniya-poverhnosti-kaspiyskogo-morya> |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  | Metadata compilation Supply of ocean hydrographic data Submission of sea level data Compilation of the Marine Ecosystem Diagnostic Analysis for Kenya GIS maps Processing & Submission of data for Kenya Natural Resources Atlas Creation and hosting of Ocean Data Portal Creation and hosting of the regional fisheries portal |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  | Modelling |
| Mauritania | IMROP | NODC |  |  | Rapport scientise |
| Mexico | SEP Mexico | NODC |  |  |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  |  |
| Norway | Institute of Marine Research | NODC |  |  | NMDC AEN CMEMS NORArgo Nordatanet IMR monitoring program  <https://www.hi.no/en/hi/forskning/research-data-1> |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  | Daily Weather Monitoring on the Peruvian Coast: <https://www.dhn.mil.pe/secciones/departamentos/oceanografia/apps/meteorologicas/#>  Daily Monitoring of the Tide in the Peruvian Coast <http://www.naylamp.dhn.mil.pe/dhn/est_mareograficas/index.php>  Control Nivel Río Rímac Base Naval Callao <http://www.naylamp.dhn.mil.pe/dhn/basnaca/grafico.php?est=rio_rimac&bd=2>  Línea de alta marea <https://www.dhn.mil.pe/Archivos/Oceanografia/otros/lam.pdf>  Tabla de Mareas <https://www.dhn.mil.pe/mareas>  Modelo de ola WWATCH III Global <http://www.naylamp.dhn.mil.pe/dhn2/secciones/Pronosticos/pronosticosolas/Global_Olas.php>  Modelo de ola WWATCH III Peru <http://www.naylamp.dhn.mil.pe/dhn2/secciones/Pronosticos/pronosticosolas/Peru_Olas.php>  Modelo de olas WWATCH III Bahia del Callao y MIraflores <http://www.naylamp.dhn.mil.pe/dhn2/secciones/Pronosticos/costeroprocallao.php>  Modelo de olas WWATCH III Bahia de Chimbote <http://www.naylamp.dhn.mil.pe/dhn2/secciones/Pronosticos/costeroprochimbote.php>  Modelo de olas WWATCH III Bahia de Ilo <http://www.naylamp.dhn.mil.pe/dhn2/secciones/Pronosticos/costeroproilo.php> |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |
| Portugal | Instituto Hidrografico |  |  | other | <https://www.hidrografico.pt/tabelamares>  <http://anavnet.hidrografico.pt/>  <https://www.hidrografico.pt/prev.atlantico>  <https://www.hidrografico.pt/prev.navrecreio>  <https://www.hidrografico.pt/prev.portos>  <https://www.hidrografico.pt/vn.douro>  <https://geomar.hidrografico.pt/>  htp://webgeogis.hidrografico.pt/seamap2030 |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  | Current weather conditions on seas: <http://esimo.ru/portal/auth/portal/esimo-user/services/matrix>  Storm messages on seas: <http://esimo.ru/portal/auth/portal/esimo-user/services/rssstorms>  Сalculation of tides: <http://esimo.ru/portal/auth/portal/esimo-user/services/tides>  Climate of seas: http://esimo.ru/portal/auth/portal/esimo-user/services/climate  Climate atlases of seas:http://www.esimo.ru/atlas/  Data access (more 1500 resources): <http://esimo.ru/portal/portal/esimo-user/data> |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  | SST Salinite vent chlorophylle captures effet de pêche  indice d'upwelling  zone potentielle de pêche  marée biomasse  O2 état de l'upwelling côtier  niveau du stocks de poissons exploités indice de pollution rapports techniques |
| Slovenia | National Institute of Biology | NODC |  |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  | Numerical modelling outputs  Sea state products Marine spatial planning GIS layers Marine top predators observation app Harmful Algal Blooms Water quality  Coastal flood hazard Marine Domain Awareness |
| Spain | SOCIB-ICTS |  | ADU |  | <http://followtheglider.socib.es/>  <http://seaboard.socib.es/>  <http://api.socib.es/beta/>  <http://apps.socib.es/data-catalog/>  <http://www.lamardeciencia.es/es>  <https://www.tandfonline.com/doi/full/10.1080/1755876X.2020.1785097>  <http://instac.socib.es/dashboard/>  <http://repository.socib.es/repository/entry/show?entryid=0f2ecac1-df43-43a3-a044-7e826e7167f5>  <http://www.ibisar.es/> |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  |  |
| Sweden | SMHI | NODC |  |  | <https://www.smhi.se/publikationer/publikationer/expeditionsrapporter-fran-utsjoovervakningen>  <https://www.smhi.se/publikationer/publikationer/syresituationen-i-ostersjon>  <https://www.smhi.se/publikationer/publikationer/algrapporter>  <https://www.smhi.se/vader/observationer/algsituationen>  <https://www.smhi.se/vader/observationer/algsituationen>  <https://www.smhi.se/data/oceanografi/ladda-ner-oceanografiska-observationer#param=seatemperature,stations=all>  <https://www.smhi.se/data/oceanografi/datavardskap-oceanografi-och-marinbiologi/ladda-ner-data-1.135101>  <https://www.smhi.se/data/oceanografi/havsvattenstand>  <https://www.smhi.se/data/oceanografi/havsstrommar>  <https://www.smhi.se/data/oceanografi/havsvagor>  <https://www.smhi.se/data/oceanografi/havstemperatur> |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  |  |
| Togo | Université de Lomé | NODC |  |  | Started in 2018 or 2020 |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  |  |
| Ukraine | UkrSCES | NODC |  |  | http://blackseadb.org/login.php  Started in 2018 or 2020 |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  | Cefas external 'Open' data portal: <http://data.cefas.co.uk>  WaveNet Cefas’ strategic wave monitoring network for the United Kingdom: <http://www.cefas.co.uk/data-and-publications/wavenet/>  MOAT Marine Online Assessment Tool: <https://moat.cefas.co.uk>  CefMAT: Cefas Marine Assessment Tool: <https://www.cefmat.org>  Commercial Fisheries Management services on behalf of the UK Marine Management Organisation Shellfish Classification and Microbiological monitoring : <https://www.cefas.co.uk/data-and-publications/shellfish-classification-and-microbiological-monitoring/>  Cefas SMartBuoy Monitoring: <https://www.cefas.co.uk/data-and-publications/smartbuoys/>  Registery of Aquatic Pathology : <https://www.cefas.co.uk/data-and-publications/registry-of-aquatic-pathology/>  The Offshore Chemical Notification Scheme (OCNS): <https://www.cefas.co.uk/data-and-publications/ocns/>  Cefas Data DOIs service: https://www.cefas.co.uk/data-and-publications/dois/  ALPHA proof of concept - Cefas Open Science Portal <https://openscience.cefas.co.uk>  DAPSTOM (integrated database and portal for fish stomach records) |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  | NERC Vocabulary server (used by SeaDataNet/SeaDataCloud, GeoSeas, SeaVox and others): <http://www.bodc.ac.uk/products/web_services/vocab/>  GEBCO web-site, including digital atlas and gridded data set: [www.gebco.net](http://www.gebco.net)  GEBCO’s Seabed2030: <https://seabed2030.gebco.net/>  GEOTRACES International Data Assembly Centre: <http://www.bodc.ac.uk/geotraces/>  International GEOTRACES Intermediate Data Product (IDP2017) <https://www.bodc.ac.uk/geotraces/data/idp2017/>  Online data selection (all data, thematic, project based) <https://www.bodc.ac.uk/data/bodc_database/>  Published data library: <https://www.bodc.ac.uk/data/published_data_library/>  UK tide gauge network data: <https://www.bodc.ac.uk/data/online_delivery/ntslf/>  UK Argo web-site: <http://www.ukargo.net/>  40 year hindcast simulation of currents, potential temperature, salinity and sea surface height for the northwest European continental shelf available through the numerical model data portal: <https://www.bodc.ac.uk/data/online_delivery/numerical_model_data/request/>  UK cruise inventory: <https://www.bodc.ac.uk/data/information_and_inventories/cruise_inventory/>  Host for UK Marine Environmental Data and Information Network (MEDIN): [www.medin.org.uk](http://www.medin.org.uk)  Oceanids (data management for autonomous vehicles (<https://noc.ac.uk/projects/oceanids>)  Sea level data rescue (<https://www.zooniverse.org/projects/psmsl/uk-tides>)  Global Sea Level Observing System (GLOSS) website ([www.gloss-sealevel.org](http://www.gloss-sealevel.org)) |
| United Kingdom | Marine Biological Association |  | ADU |  | species distribution https://www.dassh.ac.uk/data/search-data OGC Web services: <https://www.dassh.ac.uk/geoserver/web/>  IPT Instance: <https://www.dassh.ac.uk/ipt/> |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |
| United States | NOAA NCEI | NODC |  |  | Boyer, T.P., O.K. Baranova, C. Coleman, H.E. Garcia, A. Grodsky, R.A. Locarnini, A.V. Mishonov, C.R. Paver, J.R. Reagan, D. Seidov, I.V. Smolyar, K. Weathers, M.M. Zweng,(2018): World Ocean Database 2018. A.V. Mishonov, Technical Ed., NOAA Atlas NESDIS 87. <https://www.ncei.noaa.gov/sites/default/files/2020-04/wod_intro_0.pdf>  Global Ocean Heat and Salt Content. <https://www.ncei.noaa.gov/access/global-ocean-heat-content/> |

**Q30: How were data made available (e.g. by request, on-line access, etc.) in 2019 and/or 2020? (you can tick multiple rows but only 1 per row)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Country: | Institution: | NODC | ADU | other | online without charge - Started in 2018 or 2020 | online without charge - Continued in 2019 and 2020 | online without charge - Stopped in 2019 or 2020 | online with charge - Started in 2018 or 2020 | online with charge - Continued in 2019 and 2020 | online with charge - Stopped in 2019 or 2020 | offline upon request without charge - Started in 2018 or 2020 | offline upon request without charge - Continued in 2019 and 2020 | offline upon request without charge - Stopped in 2019 or 2020 | offline upon request with charge - Started in 2018 or 2020 | offline upon request with charge - Continued in 2019 and 2020 | offline upon request with charge - Stopped in 2019 or 2020 | not at all - Started in 2018 or 2020 | not at all - Continued in 2019 and 2020 | not at all - Stopped in 2019 or 2020 | Comment: |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Australia | University of Tasmania | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Belgium | VLIZ | NODC |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  | x |  |  |  |  |  |  | x |  |  |  |  |  |  |  | Some data is not online, it needs to be requested by email. |
| Bulgaria | BGODC | NODC |  |  |  | x |  |  |  |  |  |  |  |  | x |  |  |  |  |  |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  | Offline requests for currently embargoed data require approval from the project leaders/principle investigators. |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| China | NMDIS | NODC |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |  |
| Colombia | General Maritime Directorate | NODC |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  |  |  |  |
| Colombia | INVEMAR |  | ADU |  |  | x |  |  | x |  | x |  |  |  | x |  |  |  |  |  |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  |  |  |  |
| Cyprus | ORION Research Institution |  | ADU |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Denmark | GBIF Secretariat |  | ADU |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  | The data available only for official using |
| Estonia | Tallinn University of Technology |  |  | other |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Finland | Finnish Meteorological Institute |  |  | other |  | x |  |  |  |  |  |  |  |  | x |  |  |  |  |  |
| France | Ifremer | NODC |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |  |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Greece | HCMR |  | ADU |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  | - Données bathymétriques du plateau continental du shelf guinéen pour l'étude de vulnérabilité au CC - Etude sur la dynamique côtière des eaux de Kamsar en vue de l'implantation d'un Port en eau profonde pour LNG - Etude pour l'implantation en zone côtière d'une aire de stockage pour le transfert de l'APT de Conakry dans un site proche de Conakry - Etude Environnementale en vue de la construction du Pont se la Soumba à Dubréka -Demande de données bathymétrique, marégraphique et écosystème marin des environs de Kaloum pour la construction d'une aire de Marine pour l'Hôtel de l'Indépendance, |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  | Some data are available and some not (restricted) |
| Iceland | CAFF |  | ADU |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |  |
| Indonesia | BPPT | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ireland | Marine Institute | NODC |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Japan | Japan Oceanographic Data Center | NODC |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Japan | JAMSTEC |  | ADU |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  |  | x |  |  | x |  |  | x |  |  | x |  |  | x |  |  |
| Mauritania | IMROP | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |
| Mexico | SEP Mexico | NODC |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  | Via SeaDatanet, EMODnet, etc. |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Norway | Institute of Marine Research | NODC |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  |  | x |  |  |  |  |  | x |  |  | x |  |  |  |  | None |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Portugal | Instituto Hidrografico |  |  | other |  | x |  |  |  |  |  | x |  |  | x |  |  |  |  |  |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  |  | x |  |  |  |  |  |  |  |  | x |  |  |  |  |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Slovenia | National Institute of Biology | NODC |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Spain | SOCIB-ICTS |  | ADU |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Sweden | SMHI | NODC |  |  |  | x |  |  |  |  |  | x |  |  | x |  |  |  |  |  |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Togo | Université de Lomé | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  |  |  |  |
| Ukraine | UkrSCES | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  | Cefas are an Executive Agency of UK Government, via Defra and therefore remake data available freely by default unless cause to retain e.g. for compliance with other regulations e.g. GDPR |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| United Kingdom | Marine Biological Association |  | ADU |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| United States | NOAA NCEI | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Summary Table (How were data made available)**

**Table

Description automatically generated**

**Q31: Indicate the average number of requests and services your centre provides in a year**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Country: | Institution: | NODC | ADU | other | Number of requests per year (online and offline combined) - 2019 - less than 1000 | Number of requests per year (online and offline combined) - 2019 - between 1001 and 10,000 | Number of requests per year (online and offline combined) - 2019 - between 10,001 and 50,000 | Number of requests per year (online and offline combined) - 2019 - between 50,000 and 100,000 | Number of requests per year (online and offline combined) - 2019 - between 100,000 and 500,000 | Number of requests per year (online and offline combined) - 2019 - over 500,000 | Number of requests per year (online and offline combined) - 2020 - less than 1000 | Number of requests per year (online and offline combined) - 2020 - between 1001 and 10,000 | Number of requests per year (online and offline combined) - 2020 - between 10,001 and 50,000 | Number of requests per year (online and offline combined) - 2020 - between 50,000 and 100,000 | Number of requests per year (online and offline combined) - 2020 - between 100,000 and 500,000 | Number of requests per year (online and offline combined) - 2020 - over 500,000 | For online requests: number of visits to the online data service/portal per year - 2019 - less than 1000 | For online requests: number of visits to the online data service/portal per year - 2019 - between 1001 and 10,000 | For online requests: number of visits to the online data service/portal per year - 2019 - between 10,001 and 50,000 | For online requests: number of visits to the online data service/portal per year - 2019 - between 50,000 and 100,000 | For online requests: number of visits to the online data service/portal per year - 2019 - between 100,000 and 500,000 | For online requests: number of visits to the online data service/portal per year - 2019 - over 500,000 | For online requests: number of visits to the online data service/portal per year - 2020 - less than 1000 | For online requests: number of visits to the online data service/portal per year - 2020 - between 1001 and 10,000 | For online requests: number of visits to the online data service/portal per year - 2020 - between 10,001 and 50,000 | For online requests: number of visits to the online data service/portal per year - 2020 - between 50,000 and 100,000 | For online requests: number of visits to the online data service/portal per year - 2020 - between 100,000 and 500,000 | For online requests: number of visits to the online data service/portal per year - 2020 - over 500,000 |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Australia | University of Tasmania | NODC |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |
| Belgium | VLIZ | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  | x |  |  |  |  |  | x |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bulgaria | BGODC | NODC |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |
| China | NMDIS | NODC |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  | x |  |  |  |  |  |  | x |  |
| Colombia | General Maritime Directorate | NODC |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Colombia | INVEMAR |  | ADU |  | x |  |  |  |  |  | x |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cyprus | ORION Research Institution |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  |  | x |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Denmark | GBIF Secretariat |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Estonia | Tallinn University of Technology |  |  | other |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Finland | Finnish Meteorological Institute |  |  | other |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| France | Ifremer | NODC |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Greece | HCMR |  | ADU |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  |  |  | x |  |  |  |  | x |  |  |  |  |  |  | x |  |  |  |  | x |  |  |  |  |
| Iceland | CAFF |  | ADU |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |
| Indonesia | BPPT | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ireland | Marine Institute | NODC |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |
| Japan | Japan Oceanographic Data Center | NODC |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |  |  |  |  | x |
| Japan | JAMSTEC |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  | x |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |
| Mauritania | IMROP | NODC |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |
| Mexico | SEP Mexico | NODC |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |
| Norway | Institute of Marine Research | NODC |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Portugal | Instituto Hidrografico |  |  | other |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |
| Slovenia | National Institute of Biology | NODC |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spain | SOCIB-ICTS |  | ADU |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sweden | SMHI | NODC |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Togo | Université de Lomé | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ukraine | UkrSCES | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  | x |  |  |  |  |  | x |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  |  |  |  |  | x |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |
| United Kingdom | Marine Biological Association |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| United States | NOAA NCEI | NODC |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |  |  |  |  | x |  |

**Summary Table (Indicate the average number of requests and services your centre provides in a year)**

**Table, calendar

Description automatically generated**

**Q32: Who are your users? (tick one or more)**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Country: | Institution: | NODC | ADU | other | Unknown | Researchers (including academics/students) | Government policy/decision makers | Environmentalist groups | Private sector | Private individuals/ general public | Other (please specify) |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  |  | x | x |  |  |  |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  |  | x | x | x |  |  |  |
| Australia | University of Tasmania | NODC |  |  |  | x | x |  | x | x |  |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  |  | x | x |  | x |  |  |
| Belgium | VLIZ | NODC |  |  |  | x | x | x | x | x |  |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  |  | x | x | x | x | x |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  |  | x |  | x |  |  |  |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  |  | x | x | x | x | x |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  | x | x | x | x | x | x |  |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  |  | x | x |  | x |  |  |
| Bulgaria | BGODC | NODC |  |  | x |  |  |  |  |  |  |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  |  | x | x | x | x | x | x |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  |  |  |  |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  |  | x | x | x |  | x |  |
| China | NMDIS | NODC |  |  |  | x | x | x | x | x |  |
| Colombia | General Maritime Directorate | NODC |  |  |  | x | x |  | x | x |  |
| Colombia | INVEMAR |  | ADU |  |  | x | x | x | x | x |  |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  |  | x |  |  | x |  |  |
| Cyprus | ORION Research Institution |  | ADU |  | x | x | x | x | x | x |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  |  | x | x | x | x |  |  |
| Denmark | GBIF Secretariat |  | ADU |  |  | x | x | x | x | x |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  |  | x | x | x | x |  |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  | x | x |  |  |  |  |
| Estonia | Tallinn University of Technology |  |  | X |  | x | x |  | x |  |  |
| Finland | Finnish Meteorological Institute |  |  | X |  | x |  | x | x | x |  |
| France | Ifremer | NODC |  |  |  | x | x | x | x | x |  |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  |  | x |  |  | x |  | x |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  |  | x | x | x | x | x |  |
| Greece | HCMR |  | ADU |  |  | x |  | x |  |  |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  | x | x | x | x | x | x |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  | x | x | x | x |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  | x | x | x | x | x | x |  |
| Iceland | CAFF |  | ADU |  |  | x | x | x |  |  |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  | x | x | x |  | x | x |  |
| Indonesia | BPPT | NODC |  |  |  | x | x |  |  |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  |  | x | x | x | x | x |  |
| Ireland | Marine Institute | NODC |  |  |  | x | x | x | x | x |  |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  |  | x | x |  | x |  |  |
| Japan | Japan Oceanographic Data Center | NODC |  |  |  | x | x | x | x | x |  |
| Japan | JAMSTEC |  | ADU |  | x | x | x |  | x | x |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  |  | x | x | x | x |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  |  | x | x | x | x | x |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  |  | x | x | x | x | x |  |
| Mauritania | IMROP | NODC |  |  |  | x |  |  |  |  |  |
| Mexico | SEP Mexico | NODC |  |  |  | x | x |  |  |  |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  |  | x | x | x |  |  |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  |  | x | x | x | x | x |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  |  | x | x | x | x | x |  |
| Norway | Institute of Marine Research | NODC |  |  | x | x | x | x | x | x |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  |  | x | x | x | x | x |  |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |  |  |  |  |  |
| Portugal | Instituto Hidrografico |  |  | X |  | x |  |  | x | x |  |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  | x |  | x | x | x |  |
| Russian Federation | RIHMI-WDC | NODC |  |  |  | x | x | x | x |  |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  |  | x | x | x | x | x |  |
| Slovenia | National Institute of Biology | NODC |  |  |  | x | x |  |  | x |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  |  | x | x | x | x | x |  |
| Spain | SOCIB-ICTS |  | ADU |  |  | x | x |  | x | x |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  |  | x | x |  |  | x |  |
| Sweden | SMHI | NODC |  |  | x | x |  |  | x | x |  |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  |  | x | x | x | x | x |  |
| Togo | Université de Lomé | NODC |  |  | x |  |  |  |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | X |  |  |  |  |  |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  |  | x | x | x | x | x |  |
| Ukraine | UkrSCES | NODC |  |  |  | x |  | x |  |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  |  | x | x | x | x | x | x |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  |  | x | x | x | x | x |  |
| United Kingdom | Marine Biological Association |  | ADU |  |  | x | x | x | x | x |  |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |  |  |  |  |  |
| United States | NOAA NCEI | NODC |  |  |  | x | x | x | x | x |  |

**Summary Table (Who are your users)**

**Chart

Description automatically generated**

**Q33: What is the geographic origin of your users**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Country: | Institution: | NODC | ADU | other | national | regional | international | I don't know |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  | x |  |  |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  |  |  |  | x |
| Australia | University of Tasmania | NODC |  |  | x | x | x |  |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  | x |  | x |  |
| Belgium | VLIZ | NODC |  |  | x | x | x |  |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  | x | x | x |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  |  | x |  |  |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  | x | x | x |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  | x | x | x |  |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  | x | x | x |  |
| Bulgaria | BGODC | NODC |  |  | x | x | x |  |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  | x | x | x |  |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  | x |  | x |  |
| China | NMDIS | NODC |  |  | x | x | x |  |
| Colombia | General Maritime Directorate | NODC |  |  | x |  | x |  |
| Colombia | INVEMAR |  | ADU |  | x | x | x |  |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  | x |  |  |  |
| Cyprus | ORION Research Institution |  | ADU |  |  | x | x |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  | x | x |  |  |
| Denmark | GBIF Secretariat |  | ADU |  | x | x | x |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  | x | x | x |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  | x |  |  |  |
| Estonia | Tallinn University of Technology |  |  | other | x | x | x |  |
| Finland | Finnish Meteorological Institute |  |  | other | x | x | x |  |
| France | Ifremer | NODC |  |  | x | x | x |  |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  | x | x | x |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  |  | x | x |  |
| Greece | HCMR |  | ADU |  | x | x | x |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  | x | x |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  | x | x |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  | x | x | x |  |
| Iceland | CAFF |  | ADU |  | x | x |  |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  | x | x | x |  |
| Indonesia | BPPT | NODC |  |  | x |  |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  | x |  |  |  |
| Ireland | Marine Institute | NODC |  |  | x | x | x |  |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  | x |  |  |  |
| Japan | Japan Oceanographic Data Center | NODC |  |  | x | x | x |  |
| Japan | JAMSTEC |  | ADU |  | x |  | x |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  | x |  |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  | x | x | x |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  | x | x |  |  |
| Mauritania | IMROP | NODC |  |  | x | x |  |  |
| Mexico | SEP Mexico | NODC |  |  | x |  |  |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  | x |  |  |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  | x | x | x |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  | x |  |  |  |
| Norway | Institute of Marine Research | NODC |  |  | x | x | x |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  | x | x |  |  |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |  |  |
| Portugal | Instituto Hidrografico |  |  | other | x |  | x |  |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  | x | x |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  | x |  | x |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  | x |  |  |  |
| Slovenia | National Institute of Biology | NODC |  |  | x |  |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  | x | x | x |  |
| Spain | SOCIB-ICTS |  | ADU |  | x | x | x |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  | x |  | x |  |
| Sweden | SMHI | NODC |  |  | x | x | x |  |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  | x | x |  |  |
| Togo | Université de Lomé | NODC |  |  |  |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other |  |  |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  | x | x | x |  |
| Ukraine | UkrSCES | NODC |  |  | x | x | x |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  | x | x | x |  |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  | x | x | x |  |
| United Kingdom | Marine Biological Association |  | ADU |  | x |  | x |  |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |  |  |
| United States | NOAA NCEI | NODC |  |  | x | x | x |  |

**Summary Table (What is the geographic origin of your users)**

**Chart, bar chart

Description automatically generated**

**Q34: Do you participate in a national distributed data network**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Country:** | **Institution:** | **NODC** | **ADU** | **other** | **Yes or No** | **If yes then specify** |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  | Yes | The Naval Hydrography Service participates in the National Sea data System. |
| Argentina | CCT CENPAT-CONICET |  | ADU |  |  |  |
| Australia | University of Tasmania | NODC |  |  | Yes | Australian Ocean Data Network |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  | Yes | Australian Ocean Data Network |
| Belgium | VLIZ | NODC |  |  |  |  |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  |  |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  |  |  |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  | Yes |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  | Yes | INDE (Infraestrutura Nacional de Dados Espaciais - National Infrastructure of Spatial Data) , at <https://inde.gov.br/> , more specifically <https://geoservicos.inde.gov.br/geoserver/DHN/ows> |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  |  |  |
| Bulgaria | BGODC | NODC |  |  |  |  |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  | Yes | OTN is a national/international DDN. Also working on collaborations with national/international data networks US IOOS ATN (USA), USA (ACT, FACT, GLFC, iTAG, GLATOS), ETN/VLIZ (EU), IMOS (Australia), MEOPAR (Canada), CIOOS (Canada), DFO Canada, COVE (Atlantic Canada), EMODNet (EU), Canada’s Ocean Cluster, GOOS, OBIS, ATAP (South Africa), MIGRAMAR(Central/South Americas) |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  | Yes | 1.- Spatial Data Infrastructure (IDE-Chile). 2.- Statistics National Institute (INE-Chile) |
| China | NMDIS | NODC |  |  | Yes |  |
| Colombia | General Maritime Directorate | NODC |  |  |  |  |
| Colombia | INVEMAR |  | ADU |  | Yes |  |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  |  |  |
| Cyprus | ORION Research Institution |  | ADU |  |  |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  | Yes | IODE. we are receiving some data from IODE network |
| Denmark | GBIF Secretariat |  | ADU |  |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  |  |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  |  |
| Estonia | Tallinn University of Technology |  |  | other |  |  |
| Finland | Finnish Meteorological Institute |  |  | other | Yes | Marine Finland. |
| France | Ifremer | NODC |  |  | Yes | ODATIS |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  |  |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  | Yes | <https://www.mdi-de.org/mapapps/resources/apps/mdide_mainapp/index.html?lang=en&stateId=727f43bd-dc1c-4024-bf43-bddc1c302441> |
| Greece | HCMR |  | ADU |  | Yes | LifeWatchGreece RI |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  | Yes | Agency HV, which is responsible for EU WFD and Ministry of environment |
| Iceland | CAFF |  | ADU |  |  |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  |  |  |
| Indonesia | BPPT | NODC |  |  |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  |  |  |
| Ireland | Marine Institute | NODC |  |  | Yes | The Irish Spatial Data Exchange and Open Data WG |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  | Yes | Italian Oceanographic Commission |
| Japan | Japan Oceanographic Data Center | NODC |  |  |  |  |
| Japan | JAMSTEC |  | ADU |  |  |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  | Yes |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  |  |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  |  |  |
| Mauritania | IMROP | NODC |  |  | Yes |  |
| Mexico | SEP Mexico | NODC |  |  |  |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  |  |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  | Yes | Distributed NODC |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  | Yes | NZ Ocean Data Network |
| Norway | Institute of Marine Research | NODC |  |  | Yes | NMDC, Nordatanet, NorArgo |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  |  |  |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |
| Portugal | Instituto Hidrografico |  |  | other | Yes | GTS network |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  | Yes | ESIMO is based on ocan distributed data network. |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  | Yes | from university |
| Slovenia | National Institute of Biology | NODC |  |  |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  | Yes | AfrOBIS and SABIF |
| Spain | SOCIB-ICTS |  | ADU |  | Yes |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  |  | There are not an unique portal for national distributed data network |
| Sweden | SMHI | NODC |  |  | Yes | The Swedish network of datahosts |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  | Yes | Tanzania adopted the distributed data network system as the model to follow. |
| Togo | Université de Lomé | NODC |  |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  |  |  |
| Ukraine | UkrSCES | NODC |  |  | Yes |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  | Yes | MEDIN - Marine Environmental Data and Information Network: https://www.medin.org.uk, data.gov.uk, and Defra data:https://environment.data.gov.uk |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  | Yes | Marine Environmental Data and Information Network (MEDIN) www.medin.org.uk |
| United Kingdom | Marine Biological Association |  | ADU |  | Yes | UK Marine Environmental Data and Information Network (MEDIN) |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |
| United States | NOAA NCEI | NODC |  |  |  |  |

**Summary Table (Do you participate in a national distributed data network)**

**Chart, bar chart

Description automatically generated**

**Q35: Do you provide data through the following international data networks**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Country:** | **Institution:** | **NODC** | **ADU** | **other** | **SeaDataNet** | **Ocean DataPortal** | **OBIS** | **WORLD OCEAN DATABASE (WODB)** | **ICSU WORLD DATA SYSTEM** | **Other(s) (please specify)** |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  |  |  |  |  |  |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  |  |  | OBIS |  |  |  |
| Australia | University of Tasmania | NODC |  |  |  |  | OBIS |  |  |  |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  | SeaDataNet |  | OBIS |  |  | GBIF and ALA |
| Belgium | VLIZ | NODC |  |  | SeaDataNet |  | OBIS |  | WDS |  |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  | SeaDataNet |  | OBIS |  |  |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  |  |  | OBIS |  |  |  |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  |  |  |  |  |  |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  |  |  |  | WODB |  |  |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  |  |  | OBIS |  |  |  |
| Bulgaria | BGODC | NODC |  |  | SeaDataNet |  | OBIS |  |  |  |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  | SeaDataNet |  | OBIS | WODB |  | Indirect contribution (WODB). Our data is uploaded on the GTS by our NODC, and from there it is harvested by GTSPP, and it is harvested from GTSPP by WODB. |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  |  |  |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  |  |  |  |  |  | 1.- Permanent Service for Mean Sea Level (PSML). 2.- General Bathymetric Chart of the Oceans (GEBCO). 3.- University of Hawaii. |
| China | NMDIS | NODC |  |  |  | OceanDataPortal |  |  | WDS |  |
| Colombia | General Maritime Directorate | NODC |  |  |  |  |  |  |  | We have plans to provide data through OBIS between 2021 and 2022. |
| Colombia | INVEMAR |  | ADU |  |  | OceanDataPortal | OBIS |  |  |  |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  |  |  |  |  |  |  |
| Cyprus | ORION Research Institution |  | ADU |  | SeaDataNet |  |  |  |  | EMODNET chemistry and EMODNET Ingestion |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  |  |  |  |  |  | no because we are not online |
| Denmark | GBIF Secretariat |  | ADU |  |  |  | OBIS |  |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  | SeaDataNet |  |  | WODB |  | EMODNet Physics; EMODnet Chemistry; EMODnet Biology |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  |  |  |  |  |  |
| Estonia | Tallinn University of Technology |  |  | other | SeaDataNet |  |  |  |  |  |
| Finland | Finnish Meteorological Institute |  |  | other | SeaDataNet |  |  |  |  |  |
| France | Ifremer | NODC |  |  | SeaDataNet |  | OBIS | WODB |  | Copernicus-CMEMS, ARGO, CATDS-Cersat |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  | SeaDataNet |  |  |  |  |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  | SeaDataNet |  |  | WODB |  |  |
| Greece | HCMR |  | ADU |  |  |  | OBIS |  |  |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  | SeaDataNet |  |  | WODB |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  |  |  |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  | SeaDataNet |  | OBIS |  |  |  |
| Iceland | CAFF |  | ADU |  |  |  | OBIS |  |  |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  |  |  |  | WODB |  |  |
| Indonesia | BPPT | NODC |  |  |  |  |  |  |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  |  |  | OBIS |  |  |  |
| Ireland | Marine Institute | NODC |  |  | SeaDataNet |  |  |  |  | EMODNET, ICES |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  | SeaDataNet |  | OBIS | WODB |  |  |
| Japan | Japan Oceanographic Data Center | NODC |  |  |  |  | OBIS | WODB |  |  |
| Japan | JAMSTEC |  | ADU |  |  |  | OBIS |  |  |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  |  |  |  |  |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  | SeaDataNet | OceanDataPortal | OBIS | WODB | WDS |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  |  |  | OBIS |  |  |  |
| Mauritania | IMROP | NODC |  |  |  | OceanDataPortal |  | WODB |  |  |
| Mexico | SEP Mexico | NODC |  |  |  |  |  |  |  | The center provide products from national and international databases. |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  |  |  |  |  |  |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  | SeaDataNet |  |  | WODB |  | EMODnet GBIF |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  |  |  | OBIS | WODB |  |  |
| Norway | Institute of Marine Research | NODC |  |  | SeaDataNet |  | OBIS | WODB | WDS |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  |  |  |  |  |  | None |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |  |  |  |  |
| Portugal | Instituto Hidrografico |  |  | other | SeaDataNet |  |  |  |  | IBIRoos/EuroGoos/EMODnet/GLOSS |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  | SeaDataNet |  | OBIS | WODB |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  | SeaDataNet | OceanDataPortal |  |  |  |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  |  |  | OBIS | WODB | WDS |  |
| Slovenia | National Institute of Biology | NODC |  |  | SeaDataNet |  | OBIS |  |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  |  | OceanDataPortal | OBIS |  |  |  |
| Spain | SOCIB-ICTS |  | ADU |  |  |  |  |  |  | EMODnet, CMEMS |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  | SeaDataNet |  |  |  |  |  |
| Sweden | SMHI | NODC |  |  | SeaDataNet |  | OBIS | WODB |  | Via ICES to WOD |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  |  |  |  |  |  |  |
| Togo | Université de Lomé | NODC |  |  |  |  |  |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other |  |  |  |  |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  | SeaDataNet | OceanDataPortal |  |  |  |  |
| Ukraine | UkrSCES | NODC |  |  | SeaDataNet |  | OBIS |  |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  |  |  | OBIS |  |  | OBIS via the UK Node at https://www.dassh.ac.uk (another IODE-ADU), and SeaDataNet presumably via our BODC British Oceanographic Data Centre (NODC) - would like to work with BODC for the other potential options albeit with a federated approach |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  | SeaDataNet | OceanDataPortal | OBIS | WODB | WDS | ICES Data Centre; Global Sea Level Observing System (GLOSS); EMODnet portals; |
| United Kingdom | Marine Biological Association |  | ADU |  |  |  | OBIS |  |  | EMODnet Biology |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |  |  |  |  |
| United States | NOAA NCEI | NODC |  |  |  |  |  | WODB | WDS |  |

**Summary Table (Do you provide data through the following international data networks)**

**Chart, bar chart

Description automatically generated**

**Q36: Did you provide data to World Data System (WDS) in 2019 and/or 2020 (you can select more than one or none)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Country:** | **Institution:** | **NODC** | **ADU** | **other** | **Silver Spring** | **Obninsk** | **Tianjin** | **Other (please specify):** |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  |  |  |  |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  |  |  |  |  |
| Australia | University of Tasmania | NODC |  |  |  |  |  |  |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  |  |  |  |  |
| Belgium | VLIZ | NODC |  |  |  |  |  | VLIZ is part of WDS |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  |  |  |  |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  |  |  |  |  |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  |  |  |  |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  |  |  |  | No. Last one was in 2007. |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  |  |  |  |  |
| Bulgaria | BGODC | NODC |  |  |  | Obninsk |  |  |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  | Silver Spring |  |  | Indirect contribution (WODB). Our data is uploaded on the GTS by our NODC, and from there it is harvested by GTSPP, and it is harvested from GTSPP by WODB. |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  |  |  |  |  |
| China | NMDIS | NODC |  |  |  |  | Tianjin |  |
| Colombia | General Maritime Directorate | NODC |  |  |  |  |  |  |
| Colombia | INVEMAR |  | ADU |  |  |  |  |  |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  |  |  |  |  |
| Cyprus | ORION Research Institution |  | ADU |  |  |  |  | SEADATANET, EMODNET |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  |  |  |  |  |
| Denmark | GBIF Secretariat |  | ADU |  |  |  |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  | Silver Spring |  |  |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  |  |  |  |
| Estonia | Tallinn University of Technology |  |  | other |  |  |  |  |
| Finland | Finnish Meteorological Institute |  |  | other |  |  |  |  |
| France | Ifremer | NODC |  |  |  |  |  |  |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  |  |  |  |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  |  |  |  |  |
| Greece | HCMR |  | ADU |  |  |  |  |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  |  |  |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  |  |  |  | International data exchange goes through SDC and EMODNET network |
| Iceland | CAFF |  | ADU |  |  |  |  |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  | Silver Spring |  |  |  |
| Indonesia | BPPT | NODC |  |  |  |  |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  |  |  |  |  |
| Ireland | Marine Institute | NODC |  |  |  |  |  |  |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  |  |  |  | No directly but through SeaDataNet and EMODnet |
| Japan | Japan Oceanographic Data Center | NODC |  |  | Silver Spring |  |  |  |
| Japan | JAMSTEC |  | ADU |  |  |  |  |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  |  |  |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  |  |  |  | None |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  |  |  |  |  |
| Mauritania | IMROP | NODC |  |  |  |  |  |  |
| Mexico | SEP Mexico | NODC |  |  |  |  |  | No |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  |  |  |  |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  |  |  |  |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  | Silver Spring |  |  |  |
| Norway | Institute of Marine Research | NODC |  |  | Silver Spring |  |  |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  |  |  |  | None |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |  |  |
| Portugal | Instituto Hidrografico |  |  | other |  |  |  | EMODnet |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  |  |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  | Silver Spring |  |  |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  | Silver Spring |  |  |  |
| Slovenia | National Institute of Biology | NODC |  |  |  |  |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  |  |  |  | Our data was shared via OBIS |
| Spain | SOCIB-ICTS |  | ADU |  |  |  |  |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  |  |  |  |  |
| Sweden | SMHI | NODC |  |  | Silver Spring |  |  | Via ICES |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  |  |  |  | No, we did not. |
| Togo | Université de Lomé | NODC |  |  |  |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other |  |  |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  |  |  |  |  |
| Ukraine | UkrSCES | NODC |  |  |  |  |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  |  |  |  | Not to my knowledge - please advise if Cefas data received as a review would be required |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  | Silver Spring |  |  | Permanent Service for Mean Sea Level (PSMSL) |
| United Kingdom | Marine Biological Association |  | ADU |  |  |  |  |  |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |  |  |
| United States | NOAA NCEI | NODC |  |  | Silver Spring |  |  |  |

**Summary Table (Did you provide data to World Data System (WDS) in 2019 and/or 2020)**

**Chart

Description automatically generated**

**Q37: Did you send data to global specialized data centres (that are not ICSU WDSs) such as GDACs in 2019-2020? (you can tick as many as relevant)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Country:** | **Institution:** | **NODC** | **ADU** | **other** | **Argo** | **CDIAC** | **CLIVAR** | **GLOSS** | **GOSUD** | **GTSPP** | **Oceansites** | **Other (please specify)** |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  |  |  |  |  |  |  |  |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  |  |  |  |  |  |  |  |  |
| Australia | University of Tasmania | NODC |  |  | Argo |  |  |  |  |  | Oceansites |  |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  |  |  |  |  |  |  |  | Other groups within CSIRO manage data to argo etc |
| Belgium | VLIZ | NODC |  |  |  |  |  | GLOSS |  |  |  |  |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  |  |  |  |  |  |  |  |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  |  |  |  |  |  |  |  |  |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  |  |  |  |  |  |  |  |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  |  |  |  |  |  |  |  | No. |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  |  |  |  |  |  |  |  |  |
| Bulgaria | BGODC | NODC |  |  | Argo |  |  |  |  |  |  |  |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  |  |  |  |  |  | GTSPP |  | Our data is uploaded on the GTS by our NODC, and from there it is harvested by GTSPP. |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  |  |  |  |  |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  |  |  |  | GLOSS |  |  |  |  |
| China | NMDIS | NODC |  |  | Argo |  |  | GLOSS |  |  |  |  |
| Colombia | General Maritime Directorate | NODC |  |  |  |  |  | GLOSS |  |  |  |  |
| Colombia | INVEMAR |  | ADU |  |  |  |  |  |  |  |  |  |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  |  |  |  |  |  |  |  |  |
| Cyprus | ORION Research Institution |  | ADU |  |  |  |  |  |  |  |  |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  |  |  |  |  |  |  |  |  |
| Denmark | GBIF Secretariat |  | ADU |  |  |  |  |  |  |  |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  |  |  |  |  |  |  |  |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  |  |  |  |  |  |  |  |
| Estonia | Tallinn University of Technology |  |  | other |  |  |  |  | GOSUD |  |  | Coriolis (glider data) |
| Finland | Finnish Meteorological Institute |  |  | other | Argo |  |  |  |  |  |  |  |
| France | Ifremer | NODC |  |  | Argo |  |  |  | GOSUD | GTSPP | Oceansites |  |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  |  |  |  |  |  |  |  |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  |  |  |  |  |  |  |  |  |
| Greece | HCMR |  | ADU |  |  |  |  |  |  |  |  |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  |  |  |  |  |  |  |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  |  |  |  |  |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  |  |  |  |  |  |  |  |  |
| Iceland | CAFF |  | ADU |  |  |  |  |  |  |  |  |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  | Argo |  |  |  |  | GTSPP | Oceansites |  |
| Indonesia | BPPT | NODC |  |  |  |  |  |  |  |  |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  |  |  |  |  |  |  |  | OBIS |
| Ireland | Marine Institute | NODC |  |  | Argo |  |  | GLOSS |  |  |  |  |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  | Argo |  |  |  |  |  |  |  |
| Japan | Japan Oceanographic Data Center | NODC |  |  |  |  |  |  |  |  |  |  |
| Japan | JAMSTEC |  | ADU |  |  |  |  |  |  |  |  |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  |  |  |  |  |  |  |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  |  |  |  | GLOSS |  |  |  |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  |  |  |  |  |  |  |  |  |
| Mauritania | IMROP | NODC |  |  |  |  |  |  |  |  |  |  |
| Mexico | SEP Mexico | NODC |  |  |  |  |  |  |  |  |  | No |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  |  |  |  |  |  |  |  |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  |  |  |  |  |  |  |  | GEOTRACES |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  | Argo | CDIAC |  |  |  | GTSPP |  |  |
| Norway | Institute of Marine Research | NODC |  |  | Argo |  |  |  |  |  |  |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  |  |  |  | GLOSS |  |  |  |  |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |  |  |  |  |  |  |
| Portugal | Instituto Hidrografico |  |  | other |  |  |  | GLOSS |  |  |  |  |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  |  |  |  |  |  |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  |  |  |  | GLOSS |  |  |  |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  | Argo |  | CLIVAR |  |  |  |  |  |
| Slovenia | National Institute of Biology | NODC |  |  |  |  |  |  |  |  |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  | Argo |  | CLIVAR |  |  |  | Oceansites | Most of our data is archived in our NODC and we provide a link from which other institutions can harvest this data |
| Spain | SOCIB-ICTS |  | ADU |  | Argo |  |  |  |  |  |  |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  | Argo |  |  | GLOSS |  |  | Oceansites |  |
| Sweden | SMHI | NODC |  |  |  |  |  | GLOSS |  |  |  | We would like to contribute to GTSPP and GOSUD, and I have sent emails to the contact persons asking for guidance, but in vain! |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  |  |  |  | GLOSS |  |  |  |  |
| Togo | Université de Lomé | NODC |  |  |  |  |  |  |  |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other |  |  |  |  |  |  |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  |  |  |  |  |  |  |  |  |
| Ukraine | UkrSCES | NODC |  |  |  |  |  |  |  |  |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  |  |  |  |  |  |  |  | Not to my knowledge - please advise if Cefas data received as a review would be required |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  | Argo |  |  | GLOSS |  | GTSPP | Oceansites |  |
| United Kingdom | Marine Biological Association |  | ADU |  |  |  |  |  |  |  |  |  |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |  |  |  |  |  |  |
| United States | NOAA NCEI | NODC |  |  |  |  |  |  |  |  |  |  |

**Summary Table (Did you send data to global specialized data centres (that are not ICSU WDSs) such as GDACs in 2019-2020)**

**Chart

Description automatically generated**

**Q38: In how many IODE training courses did you participate in 2019 and/or 2020**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Country:** | **Institution:** | **NODC** | **ADU** | **other** | **none** | **1** | **2** | **3** | **more than 3** |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  | x |  |  |  |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  | x |  |  |  |  |
| Australia | University of Tasmania | NODC |  |  | x |  |  |  |  |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  | x |  |  |  |  |
| Belgium | VLIZ | NODC |  |  |  |  |  |  | x |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  |  | x |  |  |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  | x |  |  |  |  |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  |  | x |  |  |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  |  | x |  |  |  |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  |  |  | x |  |  |
| Bulgaria | BGODC | NODC |  |  | x |  |  |  |  |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  |  | x |  |  |  |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  |  |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  | x |  |  |  |  |
| China | NMDIS | NODC |  |  |  |  | x |  |  |
| Colombia | General Maritime Directorate | NODC |  |  | x |  |  |  |  |
| Colombia | INVEMAR |  | ADU |  |  |  |  |  | x |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  | x |  |  |  |  |
| Cyprus | ORION Research Institution |  | ADU |  | x |  |  |  |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  | x |  |  |  |  |
| Denmark | GBIF Secretariat |  | ADU |  | x |  |  |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  | x |  |  |  |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  | x |  |  |  |  |
| Estonia | Tallinn University of Technology |  |  | other | x |  |  |  |  |
| Finland | Finnish Meteorological Institute |  |  | other | x |  |  |  |  |
| France | Ifremer | NODC |  |  | x |  |  |  |  |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  | x |  |  |  |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  | x |  |  |  |  |
| Greece | HCMR |  | ADU |  |  | x |  |  |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  | x |  |  |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  |  |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  | x |  |  |  |  |
| Iceland | CAFF |  | ADU |  | x |  |  |  |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  |  | x |  |  |  |
| Indonesia | BPPT | NODC |  |  | x |  |  |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  | x |  |  |  |  |
| Ireland | Marine Institute | NODC |  |  |  |  | x |  |  |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  |  | x |  |  |  |
| Japan | Japan Oceanographic Data Center | NODC |  |  | x |  |  |  |  |
| Japan | JAMSTEC |  | ADU |  | x |  |  |  |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  | x |  |  |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  | x |  |  |  |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  |  |  | x |  |  |
| Mauritania | IMROP | NODC |  |  | x |  |  |  |  |
| Mexico | SEP Mexico | NODC |  |  | x |  |  |  |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  |  |  | x |  |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  |  | x |  |  |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  | x |  |  |  |  |
| Norway | Institute of Marine Research | NODC |  |  | x |  |  |  |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  | x |  |  |  |  |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |  |  |  |
| Portugal | Instituto Hidrografico |  |  | other |  |  |  |  | x |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  |  | x |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  | x |  |  |  |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  |  | x |  |  |  |
| Slovenia | National Institute of Biology | NODC |  |  |  |  |  |  | x |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  |  | x |  |  |  |
| Spain | SOCIB-ICTS |  | ADU |  |  | x |  |  |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  |  |  | x |  |  |
| Sweden | SMHI | NODC |  |  | x |  |  |  |  |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  | x |  |  |  |  |
| Togo | Université de Lomé | NODC |  |  | x |  |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other |  |  |  |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  | x |  |  |  |  |
| Ukraine | UkrSCES | NODC |  |  |  | x |  |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  | x |  |  |  |  |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  | x |  |  |  |  |
| United Kingdom | Marine Biological Association |  | ADU |  | x |  |  |  |  |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |  |  |  |
| United States | NOAA NCEI | NODC |  |  | x |  |  |  |  |

**Summary Table (In how many IODE training courses did you participate in 2019 and/or 2020)**

**Chart, bar chart

Description automatically generated**

Note: for privacy reasons for this question only the summary is made available

**Q39: Did the IODE training assist you in your work after you returned home?**

**Chart, waterfall chart

Description automatically generated**

Note: for privacy reasons for this question only the summary is made available

**Q40: In how many other training courses did you participate in 2019 and/or 2020 organized by national or other organizers**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Country:** | **Institution:** | **NODC** | **ADU** | **other** | **none** | **1** | **2** | **3** | **more than 3** | **Details** |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  | x |  |  |  |  |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  |  | x |  |  |  | Georreferenciacnión de registros biológicos: teoría y práctica, URL: <https://formacion.snn.mincyt.gob.ar/course/15/about> |
| Australia | University of Tasmania | NODC |  |  |  |  | x |  |  | Training provided by the Australian Research Data Commons (ARDC) |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  | x |  |  |  |  |  |
| Belgium | VLIZ | NODC |  |  |  |  |  |  | x |  |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  |  | x |  |  |  | Training organized by ICES on DOME |
| Belgium | SCAR/Antarctic OBIS | | ADU |  |  |  |  |  | x |  |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  |  |  |  |  | x |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  |  | x |  |  |  | 2019 - Marine Spacial Planning - IOC: Cmdr Vladimir Costa Maluf, and Lt Arthur Souza. |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  |  |  |  |  | x |  |
| Bulgaria | BGODC | NODC |  |  |  |  | x |  |  | SeaDataNet |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  |  |  |  |  | x |  |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  |  |  |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  |  | x |  |  |  | Using Darwin core templates |
| China | NMDIS | NODC |  |  |  |  |  |  | x |  |
| Colombia | General Maritime Directorate | NODC |  |  | x |  |  |  |  |  |
| Colombia | INVEMAR |  | ADU |  |  |  |  |  | x | In 2020 under Pandemic Covid-19, INVEMAR virtualize 5 courses as a Regional Training Center of OTGA in the Spanish Language |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  | x |  |  |  |  | Many activities was delayed because of corona virus |
| Cyprus | ORION Research Institution |  | ADU |  |  |  | x |  |  | EMODNET ingestion and SeaDataCloud trainings |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  | x |  |  |  |  |  |
| Denmark | GBIF Secretariat |  | ADU |  |  |  |  | x |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  |  | x |  |  |  |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  | x |  |  |  |  |  |
| Estonia | Tallinn University of Technology |  |  | other | x |  |  |  |  |  |
| Finland | Finnish Meteorological Institute |  |  | other |  | x |  |  |  | SeaDataCloud Technical training. |
| France | Ifremer | NODC |  |  | x |  |  |  |  |  |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  | x |  |  |  |  |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  |  |  | x |  |  | SeaDataNet |
| Greece | HCMR |  | ADU |  |  |  |  | x |  | Assemble plus FAIR workshop, 12-14 June, Ostende, Belgium (2019) LifeWatch & ENVRIplus International Summer School-Data FAIRness for Environmental & Earth Science Infrastructures, 1-5 July, 2019, Lecce, Italy Three-day webinar programme, which introduces the main topics of the winter school (the use of FAIR data in ENVRI Community, and for Environmental and Earth sciences research) with theoretical presentations, exercises and discussion, September 2020 |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  |  | x |  |  |  | Diva Workshop (within SeaDataNet-EMODnet Chemistry Projects), 27-30 January 2020 (https://gher-ulg.github.io/Diva-Workshops/2020 |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  |  |  |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  | x |  |  |  |  |  |
| Iceland | CAFF |  | ADU |  | x |  |  |  |  |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  |  |  |  |  | x |  |
| Indonesia | BPPT | NODC |  |  |  | x |  |  |  | digital transformation |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  |  |  |  |  | x | 1- Training Workshop on Introducing the Iranian National Center for Ocean Data services (National) (June 2019, Tehran, Iran) as trainer 2- Training Workshop on Oceanographic Data Management (Jan 2020, Tehran, Iran, IFSRI) as trainer 3- Data Mining and its applications (10 Feb 2020, Tehran, Iran) 4- The importance of dimensional reduction methods in data mining 5- Workshop on remote sensing of marine and coastal waters physical parameters 6- Knowledge management |
| Ireland | Marine Institute | NODC |  |  |  |  |  |  | x |  |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  | x |  |  |  |  |  |
| Japan | Japan Oceanographic Data Center | NODC |  |  | x |  |  |  |  |  |
| Japan | JAMSTEC |  | ADU |  | x |  |  |  |  |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  |  |  |  | x |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  |  | x |  |  |  | Programming in Python, Marine Spatial Planning data management system |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  |  | x |  |  |  |  |
| Mauritania | IMROP | NODC |  |  | x |  |  |  |  |  |
| Mexico | SEP Mexico | NODC |  |  | x |  |  |  |  | I was in the process of retirement from my University. |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  |  | x |  |  |  | Coastal Zone management in a changing world. IHE Delft and Eduardo Mondlane University. Online course |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  | x |  |  |  |  |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  | x |  |  |  |  |  |
| Norway | Institute of Marine Research | NODC |  |  | x |  |  |  |  |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  |  |  | x |  |  | MSPglobal Initiative: Marine Spatial Planning and Blue Economy |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |  |  |  |  |
| Portugal | Instituto Hidrografico |  |  | other |  |  |  |  | x | DGT (PT), Copernicus, Emodnet, IOC |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  | x |  |  |  |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  |  | x |  |  |  | ESIMO Training Course |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  |  | x |  |  |  |  |
| Slovenia | National Institute of Biology | NODC |  |  | x |  |  |  |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  |  |  | x |  |  |  |
| Spain | SOCIB-ICTS |  | ADU |  |  |  |  |  | x |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  |  | x |  |  |  |  |
| Sweden | SMHI | NODC |  |  | x |  |  |  |  |  |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  | x |  |  |  |  |  |
| Togo | Université de Lomé | NODC |  |  | x |  |  |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other |  |  |  |  |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  | x |  |  |  |  |  |
| Ukraine | UkrSCES | NODC |  |  |  | x |  |  |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  | x |  |  |  |  |  |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  |  | x |  |  |  | SeaDataCloud |
| United Kingdom | Marine Biological Association |  | ADU |  |  | x |  |  |  | EMODnet Biology/OBIS training |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |  |  |  |  |
| United States | NOAA NCEI | NODC |  |  |  | x |  |  |  | <https://classroom.oceanteacher.org/course/view.php?id=614> |

**Summary Table (In how many other training courses did you participate in 2019 and/or 2020 organized by national or other organizers)**

**Chart

Description automatically generated**

**Q41: At how many working days would you estimate the contribution of your data centre to IODE through participation in IODE activities (e.g. participation in IODE meetings for which your data centre or country funded your trip) during the period 2019-2020 (2019 and 2020 added together)?**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Country:** | **Institution:** | **NODC** | **ADU** | **other** | **0 days** | **1 - 5 days** | **5 - 10 days** | **10 - 20 days** | **20 - 30 days** | **30 - 50 days** | **50 - 75 days** | **75 - 100 days** | **100 - 150 days** | **More than 150 days** | **Other (please specify)** |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  |  |  |  | x |  |  |  |  |  |  |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  |  | x |  |  |  |  |  |  |  |  | During Pandemic I participated in meetings of three days each. |
| Australia | University of Tasmania | NODC |  |  |  |  |  | x |  |  |  |  |  |  |  |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  |  |  | x |  |  |  |  |  |  |  |  |
| Belgium | VLIZ | NODC |  |  |  |  |  |  | x |  |  |  |  |  | Difficult to answer. Does this include contributions to OBIS? |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  |  |  |  | x |  |  |  |  |  |  |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  |  |  |  |  |  |  | x |  |  |  |  |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  |  |  |  |  | x |  |  |  |  |  |  |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  |  |  |  |  |  |  | x |  |  |  |  |
| Bulgaria | BGODC | NODC |  |  |  |  |  | x |  |  |  |  |  |  |  |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  |  |  |  |  |  |  | x |  |  |  |  |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |
| China | NMDIS | NODC |  |  |  |  |  |  |  | x |  |  |  |  |  |
| Colombia | General Maritime Directorate | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Colombia | INVEMAR |  | ADU |  |  |  |  |  |  |  |  |  |  | x | Includes also the OTGA activities as a RTC |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  |  |  |  |  | x |  |  |  |  |  |  |
| Cyprus | ORION Research Institution |  | ADU |  | x |  |  |  |  |  |  |  |  |  |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  |  |  |  |  |  |  | x |  |  |  |  |
| Denmark | GBIF Secretariat |  | ADU |  | x |  |  |  |  |  |  |  |  |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  |  |  | x |  |  |  |  |  |  |  |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Estonia | Tallinn University of Technology |  |  | X |  |  | x |  |  |  |  |  |  |  |  |
| Finland | Finnish Meteorological Institute |  |  | X |  |  | x |  |  |  |  |  |  |  | Including participation to IODE-XXV. |
| France | Ifremer | NODC |  |  |  |  |  | x |  |  |  |  |  |  |  |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  | x |  |  |  |  |  |  |  |  |  |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Greece | HCMR |  | ADU |  |  |  |  | x |  |  |  |  |  |  |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Iceland | CAFF |  | ADU |  |  | x |  |  |  |  |  |  |  |  |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  |  |  |  | x |  |  |  |  |  |  |  |
| Indonesia | BPPT | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  |  |  | x |  |  |  |  |  |  |  | IOC committee on IODE-IIV session - 2019 - Tokyo - Japan OTGA training course on Remote Sensing of Coral Reefs - 2019 - Tehran - Iran |
| Ireland | Marine Institute | NODC |  |  |  |  |  |  | x |  |  |  |  |  | QMF implementation training course for Ocean Teacher and input on ODIS |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Japan | Japan Oceanographic Data Center | NODC |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Japan | JAMSTEC |  | ADU |  |  |  |  | x |  |  |  |  |  |  |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  |  |  |  |  |  |  | x |  |  |  |  |
| Mauritania | IMROP | NODC |  |  |  |  |  |  |  |  |  | x |  |  |  |
| Mexico | SEP Mexico | NODC |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  |  |  |  |  |  | x |  |  |  |  |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  |  |  |  |  |  |  |  |  | x |  |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  |  |  |  |  | x |  |  |  |  |  |  |
| Norway | Institute of Marine Research | NODC |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |
| Portugal | Instituto Hidrografico |  |  | X |  |  |  | x |  |  |  |  |  |  |  |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  |  |  | x |  |  |  |  |  |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  |  |  |  |  |  |  |  | x |  |  |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Slovenia | National Institute of Biology | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Spain | SOCIB-ICTS |  | ADU |  | x |  |  |  |  |  |  |  |  |  |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  |  |  |  | x |  |  |  |  |  |  |  |
| Sweden | SMHI | NODC |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  |  |  | x |  |  |  |  |  |  |  | This question is very subjective |
| Togo | Université de Lomé | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | X |  |  |  |  |  |  |  |  |  |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Ukraine | UkrSCES | NODC |  |  |  |  | x |  |  |  |  |  |  |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  |  | x |  |  |  |  |  |  |  |  | Profile within my organisation on the value needs raising |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  |  |  |  | x |  |  |  |  |  |  |  |
| United Kingdom | Marine Biological Association |  | ADU |  |  | x |  |  |  |  |  |  |  |  |  |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |
| United States | NOAA NCEI | NODC |  |  |  |  |  |  |  | x |  |  |  |  |  |

**Summary Table (At how many working days would you estimate the contribution of your data centre to IODE through participation in IODE activities (e.g. participation in IODE meetings for which your data centre or country funded your trip) during the period 2019-2020 (2019 and 2020 added together)?)**

**A picture containing chart

Description automatically generated**

**Q42: Will your country be providing direct financial support to IODE in 2021-2022 through the IOC (confirmed)?**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Country: | Institution: | NODC | ADU | other | I don't know | no | less than US$ 1,000 | between US$ 1,001 and US$ 10,000 | between US$ 10,001 and US$ 50,000 | between US$ 50,001 and US$ 100,000 | between US$ 100,001 and US$ 500,000 | more than US$ 500,000 | Comment: |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  |  | x |  |  |  |  |  |  |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  | x |  |  |  |  |  |  |  |  |
| Australia | University of Tasmania | NODC |  |  | x |  |  |  |  |  |  |  |  |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  | x |  |  |  |  |  |  |  |  |
| Belgium | VLIZ | NODC |  |  |  |  |  |  |  |  | x |  | The IODE project office in Ostend + several FUST projects. |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  |  | x |  |  |  |  |  |  | This answer corresponds to the policy of the Belgian federal government (to which we belong). It doesn’t take into account the support provided by the regional Government of Flanders. |
| Belgium | SCAR/Antarctic OBIS | | ADU |  | x |  |  |  |  |  |  |  |  |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  | x |  |  |  |  |  |  |  |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  |  | x |  |  |  |  |  |  |  |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  | x |  |  |  |  |  |  |  |  |
| Bulgaria | BGODC | NODC |  |  |  | x |  |  |  |  |  |  |  |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  | x |  |  |  |  |  |  |  | Please refer to the report from Canada’s NODC for answer. |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  |  |  |  |  |  |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  |  | x |  |  |  |  |  |  |  |
| China | NMDIS | NODC |  |  | x |  |  |  |  |  |  |  |  |
| Colombia | General Maritime Directorate | NODC |  |  | x |  |  |  |  |  |  |  |  |
| Colombia | INVEMAR |  | ADU |  | x |  |  |  |  |  |  |  | INVEMAR support some activities (RTC-OTGA, OBIS, CMA, ICAN, OIH, etc.) with their staff participation, and some cash and in-kind resources from scientific research projects |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  | x |  |  |  |  |  |  |  |  |
| Cyprus | ORION Research Institution |  | ADU |  | x |  |  |  |  |  |  |  |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  | x |  |  |  |  |  |  |  |  |
| Denmark | GBIF Secretariat |  | ADU |  |  | x |  |  |  |  |  |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  |  | x |  |  |  |  |  |  |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  | x |  |  |  |  |  |  |  |  |
| Estonia | Tallinn University of Technology |  |  | other | x |  |  |  |  |  |  |  |  |
| Finland | Finnish Meteorological Institute |  |  | other | x |  |  |  |  |  |  |  |  |
| France | Ifremer | NODC |  |  |  | x |  |  |  |  |  |  |  |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  | x |  |  |  |  |  |  |  |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  | x |  |  |  |  |  |  |  |  |
| Greece | HCMR |  | ADU |  | x |  |  |  |  |  |  |  |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  |  | x |  |  |  |  |  |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  |  |  |  |  |  |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  |  | x |  |  |  |  |  |  |  |
| Iceland | CAFF |  | ADU |  | x |  |  |  |  |  |  |  |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  | x |  |  |  |  |  |  |  |  |
| Indonesia | BPPT | NODC |  |  | x |  |  |  |  |  |  |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  |  | x |  |  |  |  |  |  |  |
| Ireland | Marine Institute | NODC |  |  | x |  |  |  |  |  |  |  |  |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  | x |  |  |  |  |  |  |  |  |
| Japan | Japan Oceanographic Data Center | NODC |  |  | x |  |  |  |  |  |  |  |  |
| Japan | JAMSTEC |  | ADU |  | x |  |  |  |  |  |  |  |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  | x |  |  |  |  |  |  |  |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  | x |  |  |  |  |  |  |  |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  | x |  |  |  |  |  |  |  |  |
| Mauritania | IMROP | NODC |  |  | x |  |  |  |  |  |  |  |  |
| Mexico | SEP Mexico | NODC |  |  | x |  |  |  |  |  |  |  |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  | x |  |  |  |  |  |  |  |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  |  | x |  |  |  |  |  |  |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  |  | x |  |  |  |  |  |  |  |
| Norway | Institute of Marine Research | NODC |  |  | x |  |  |  |  |  |  |  |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  | x |  |  |  |  |  |  |  |  |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |  |  |  |  |  |  |  |
| Portugal | Instituto Hidrografico |  |  | other | x |  |  |  |  |  |  |  |  |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  | x |  |  |  |  |  |  |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  | x |  |  |  |  |  |  |  |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  | x |  |  |  |  |  |  |  |  |
| Slovenia | National Institute of Biology | NODC |  |  | x |  |  |  |  |  |  |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  | x |  |  |  |  |  |  |  |  |
| Spain | SOCIB-ICTS |  | ADU |  | x |  |  |  |  |  |  |  |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  | x |  |  |  |  |  |  |  |  |
| Sweden | SMHI | NODC |  |  |  | x |  |  |  |  |  |  |  |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  | x |  |  |  |  |  |  |  |  |
| Togo | Université de Lomé | NODC |  |  |  | x |  |  |  |  |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other |  |  |  |  |  |  |  |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  |  | x |  |  |  |  |  |  |  |
| Ukraine | UkrSCES | NODC |  |  |  | x |  |  |  |  |  |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  | x |  |  |  |  |  |  |  | Not Cefas and i am unaware of any funding from Defra via MEDIN or otherwise. |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  |  | x |  |  |  |  |  |  |  |
| United Kingdom | Marine Biological Association |  | ADU |  | x |  |  |  |  |  |  |  |  |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |  |  |  |  |  |  |  |
| United States | NOAA NCEI | NODC |  |  |  | x |  |  |  |  |  |  |  |

**Summary Table (Will your country be providing direct financial support to IODE in 2021-2022 through the IOC (confirmed)?)**

**A picture containing table

Description automatically generated**

**Q43: Would your country/data centre be able to provide a visiting expert/secondment to the IOC Project Office for IODE in 2021-2022 (either working at the IODE project office in Belgium, or working from his/her usual place of work) for a period of 3-12 months?**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Country: | Institution: | NODC | ADU | other | I don't know | **no** | yes, for 3 months, costs of travel and local expenses to be covered by IODE | yes, for 3 months, cost fully covered by your country | yes, for 6 months, costs of travel and local expenses to be covered by IODE | yes, for 6 months, cost fully covered by your country | yes, for 6 months, costs of travel and local expenses to be covered by IODE | yes, for 6 months, cost fully covered by your country | yes, for 12 months, costs of travel and local expenses to be covered by IODE | yes, for 12 months, cost fully covered by your country | Comment: |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  |  |  |  |  | x |  |  |  |  |  | To be involved in data management and ODIS activities |
| Australia | University of Tasmania | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  | x |  |  |  |  |  |  |  |  |  |  |
| Belgium | VLIZ | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Belgium | SCAR/Antarctic OBIS | | ADU |  | x |  |  |  |  |  |  |  |  |  | I am currently the OBIS vco-Chair |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  | x |  |  |  |  |  |  |  |  |  | At this moment, no. However it can change in the future. Not necessarily people from our Data Center, but we can survey people from other brazilian institutions concerned. |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  |  |  |  |  | x |  |  |  |  |  |  |
| Bulgaria | BGODC | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  | x |  |  |  |  |  |  |  |  |  | Would have to discuss and decide on a case-by-case basis. Answer specific to data centre/ADU only, not country as a whole. |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |
| China | NMDIS | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Colombia | General Maritime Directorate | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Colombia | INVEMAR |  | ADU |  |  |  | x |  |  |  |  |  |  |  |  |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Cyprus | ORION Research Institution |  | ADU |  | x |  |  |  |  |  |  |  |  |  |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Denmark | GBIF Secretariat |  | ADU |  | x |  |  |  |  |  |  |  |  |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  | x |  |  |  |  |  |  |  |  |  |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Estonia | Tallinn University of Technology |  |  | other |  | x |  |  |  |  |  |  |  |  |  |
| Finland | Finnish Meteorological Institute |  |  | other | x |  |  |  |  |  |  |  |  |  | Unfortunately I expect that we do not have enough personal resources to send anybody to IODE preject office for 3 months or longer period. |
| France | Ifremer | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  | x |  |  |  |  |  |  |  |  |  |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Greece | HCMR |  | ADU |  |  |  | x |  |  |  |  |  |  |  |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Iceland | CAFF |  | ADU |  |  | x |  |  |  |  |  |  |  |  |  |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Indonesia | BPPT | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Ireland | Marine Institute | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Japan | Japan Oceanographic Data Center | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Japan | JAMSTEC |  | ADU |  | x |  |  |  |  |  |  |  |  |  |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  | x |  |  |  |  |  |  |  |  |  |  |
| Mauritania | IMROP | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Mexico | SEP Mexico | NODC |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Norway | Institute of Marine Research | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  |  |  |  |  | x |  |  |  |  |  |  |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |
| Portugal | Instituto Hidrografico |  |  | other |  |  | x |  |  |  |  |  |  |  |  |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Slovenia | National Institute of Biology | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  | x |  |  |  |  |  |  |  |  |  | Our Director Mr. Ashley Johnson is our national focal point for the IOC |
| Spain | SOCIB-ICTS |  | ADU |  | x |  |  |  |  |  |  |  |  |  |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  | x |  |  |  |  |  |  |  |  |  | IEO is in proccess to integrate in CSIC, a national research structure. It is not clear, at this moment, about the different implications these changes could affect the NODC activities. |
| Sweden | SMHI | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Togo | Université de Lomé | NODC |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other |  |  |  |  |  |  |  |  |  |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Ukraine | UkrSCES | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  | x |  |  |  |  |  |  |  |  |  | Be interested to find out more on such opportunities for future |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  | x |  |  |  |  |  |  |  |  |  | It may be possible - requires further investigation. |
| United Kingdom | Marine Biological Association |  | ADU |  |  | x |  |  |  |  |  |  |  |  |  |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |  |  |  |  |  |  |  |  |  |
| United States | NOAA NCEI | NODC |  |  | x |  |  |  |  |  |  |  |  |  |  |

**Summary Table (Would your country/data centre be able to provide a visiting expert/secondment to the IOC Project Office for IODE in 2021-2022 (either working at the IODE project office in Belgium, or working from his/her usual place of work) for a period of 3-12 months)**

**Chart

Description automatically generated**

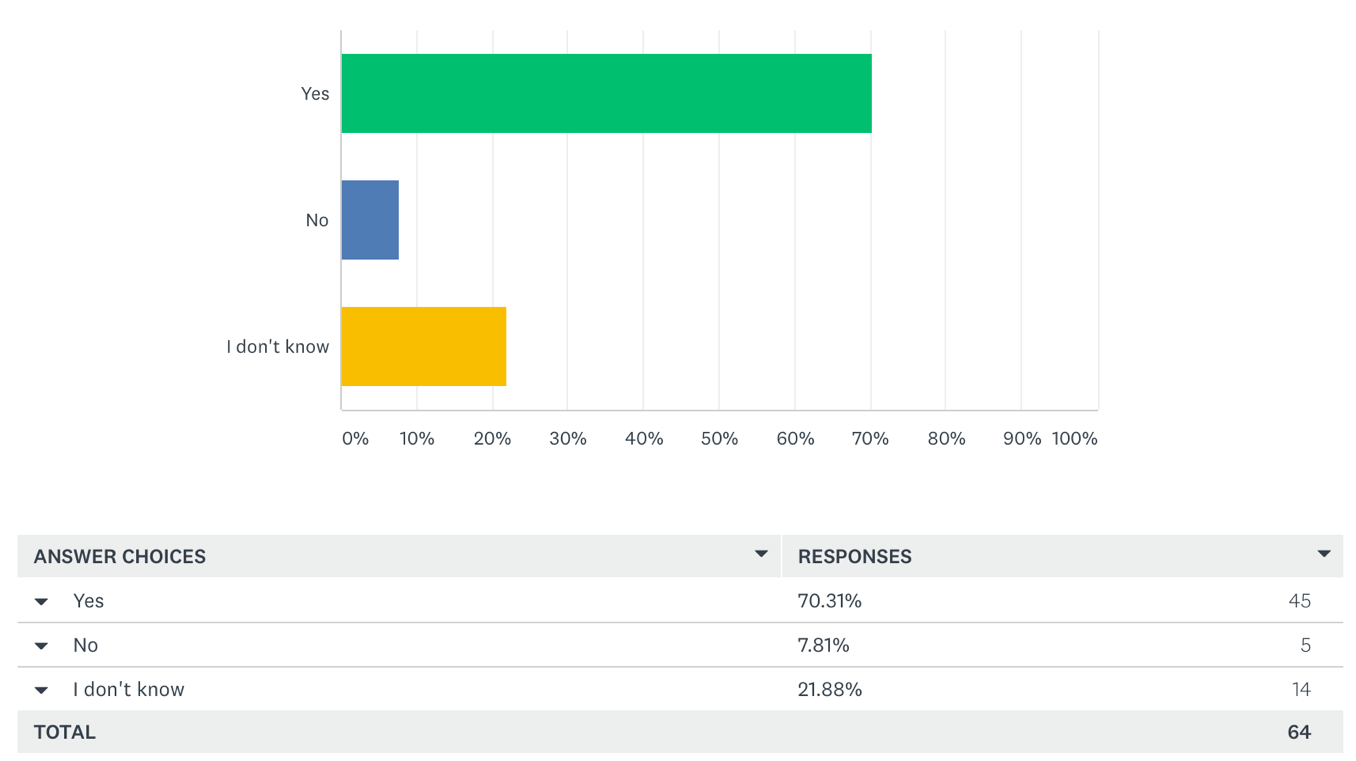
**Q44: Is the host institution of your data centre involved in activities related to the Sustainable Development Goals? (you will find more information on <http://en.unesco.org/sdgs/ioc>)**

**and**

**Q45: If you answered "yes" to the previous question then please provide details**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Country: | Institution: | NODC | ADU | other | Yes | No | I don't know | Details |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  | Yes |  |  | The mission of the Naval Hydrography Service is related to ODS 14 |
| Argentina | CCT CENPAT-CONICET |  | ADU |  |  |  | I don't know |  |
| Australia | University of Tasmania | NODC |  |  | Yes |  |  | Australian response to SDG activities is being coordinated by a working group of the Australian National Marine Science Community |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  | Yes |  |  |  |
| Belgium | VLIZ | NODC |  |  | Yes |  |  | Several international projects and research infrastructures. |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  | Yes |  |  | Data submission to the SDG 14.3.1 data portal |
| Belgium | SCAR/Antarctic OBIS | | ADU |  |  |  | I don't know |  |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  |  |  | I don't know |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  | Yes |  |  | Brazil is deeply involved in activities related to the UN Decade of Ocean Science. It was the first country to formally organize a National Committee for the Decade. It was acknowledged at the IOC EC 53, just finished. My host institution helped to organize the South Atlantic Regional Workshop for the Decade in 2019. Further it avises the Navy Representative in the National Committee in issues concerned to societal Outcome 6: An accessible ocean and other. |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  | Yes |  |  |  |
| Bulgaria | BGODC | NODC |  |  | Yes |  |  | Providing ocean state data for marine industry |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  | Yes |  |  |  |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  | Yes |  |  | Through the Environment Ministry of Chile |
| China | NMDIS | NODC |  |  |  | No |  |  |
| Colombia | General Maritime Directorate | NODC |  |  | Yes |  |  | in construction for Colombia <https://www.ods.gov.co> |
| Colombia | INVEMAR |  | ADU |  | Yes |  |  | Report of SDG indicators. INVEMAR ensures compliance with ODS target 14.1, which seeks to "By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution". And target 14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  | Yes |  |  |  |
| Cyprus | ORION Research Institution |  | ADU |  |  |  | I don't know |  |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  | Yes |  |  | CCPM is fighting against the marine pollution and environmental protection of ecosystems |
| Denmark | GBIF Secretariat |  | ADU |  | Yes |  |  |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  | Yes |  |  |  |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  |  |  | I don't know |  |
| Estonia | Tallinn University of Technology |  |  | other | Yes |  |  | Activities via HELCOM |
| Finland | Finnish Meteorological Institute |  |  | other | Yes |  |  | EuroArgo |
| France | Ifremer | NODC |  |  | Yes |  |  | Not able to provide details |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  | Yes |  |  |  |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  | Yes |  |  | Coordination of German response to the Global Ocean Science Report, Coordinate Financial Support of the IOC activities related to SDG 14.3.1 |
| Greece | HCMR |  | ADU |  | Yes |  |  | <https://ejournals.epublishing.ekt.gr/index.php/hcmr-med-mar-sc/article/view/23400/0> |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  |  |  | I don't know |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  |  | No |  |  |
| Iceland | CAFF |  | ADU |  | Yes |  |  | Regional reporting on SDGs for the Arctic |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  | Yes |  |  | Water quality measurement along the coastal areas using mooring and identifying hot spots. |
| Indonesia | BPPT | NODC |  |  |  |  | I don't know |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  | Yes |  |  | We regularly monitor the south Caspian Sea, north Persian Gulf and north Gulf of Oman and transfer main finding to the Department of Environment (DOE) of Iran for their planning and decisions. |
| Ireland | Marine Institute | NODC |  |  | Yes |  |  | Providing support for Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  | Yes |  |  | Through research studies |
| Japan | Japan Oceanographic Data Center | NODC |  |  |  | No |  |  |
| Japan | JAMSTEC |  | ADU |  | Yes |  |  | <http://www.jamstec.go.jp/sdgs/e/> |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  |  | I don't know |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  | Yes |  |  | Monitoring and assessment of ocean acidification and various pollutants |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  | Yes |  |  |  |
| Mauritania | IMROP | NODC |  |  |  |  | I don't know |  |
| Mexico | SEP Mexico | NODC |  |  | Yes |  |  | we were working assisting academic institutions on SDG14 |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  | Yes |  |  | By providing marine literacy on 2 important dates: World ocean day; World Hydrographic day |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  |  |  | I don't know |  |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  | Yes |  |  | SDG 14.3.1 |
| Norway | Institute of Marine Research | NODC |  |  | Yes |  |  |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  | Yes |  |  | It participates jointly with the Permanent Commission of the South Pacific |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |  |  |
| Portugal | Instituto Hidrografico |  |  | other | Yes |  |  | Participation at national level meetings |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  |  |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  | Yes |  |  |  |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  | Yes |  |  | Our center is the national institution which is in charge of oceanographic and marine biological research. It provides scientific and technical knowledge for contribute to the implementation of state projects / programs for the sustainable development of the fisheries and aquaculture sector. |
| Slovenia | National Institute of Biology | NODC |  |  |  |  | I don't know |  |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  | Yes |  |  | IODE XXVI Group 4: IODE contribution to the UN Decade of Ocean Science for Sustainable Development |
| Spain | SOCIB-ICTS |  | ADU |  | Yes |  |  |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  |  |  | I don't know |  |
| Sweden | SMHI | NODC |  |  | Yes |  |  | SMHI, together with about forty other authorities, has signed a letter of intent to work individually and collaboratively to contribute to the implementation of Agenda 2030 and to achieve the global goals for sustainable development. Climat, Eutrophication, acidification - reporting for SDG 14.3.1. Bilateral development projects. Coastal modelling. |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  | Yes |  |  | As an Institute of Marine Sciences most of our research are now directed towards achieving SDG 14. |
| Togo | Université de Lomé | NODC |  |  |  | No |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other |  |  |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  | Yes |  |  |  |
| Ukraine | UkrSCES | NODC |  |  |  | No |  |  |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  |  |  | I don't know |  |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  | Yes |  |  | Details not currently available |
| United Kingdom | Marine Biological Association |  | ADU |  | Yes |  |  | Through engagement and education |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |  |  |
| United States | NOAA NCEI | NODC |  |  |  |  | I don't know |  |

**Summary Table (Is the host institution of your data centre involved in activities related to the Sustainable Development Goals? (you will find more information on <http://en.unesco.org/sdgs/ioc>))**

****

**Q46: Is the host institution of your data centre planning activities for the UN decade of Ocean Science for Sustainable Development?**

**and**

**Q47: If you answered "yes "to the previous question then please provide details**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Country:** | **Institution:** | **NODC** | **ADU** | **other** | **Yes** | **No** | **I don't know** | **Open-Ended Response** |
| Argentina | SERVICIO DE HIDROGRAFÍA NAVAL | NODC |  |  | Yes |  |  |  |
| Argentina | CCT CENPAT-CONICET |  | ADU |  | Yes |  |  | I cooperate in projects and implement OBIS activities locally |
| Australia | University of Tasmania | NODC |  |  | Yes |  |  | The IMOS program is still planning the activities in relation of the UN Decade of ocean Science. More information will be available on the IMOS website in the next couple of months. |
| Australia | CSIRO National Collections and Marine Infrstructure (NCMI) Data Centre | | ADU |  |  |  | I don't know |  |
| Belgium | VLIZ | NODC |  |  | Yes |  |  | Several international projects and research infrastructures. |
| Belgium | Belgian Marine Data Centre, Royal Belgian Institute of Natural Sciences | NODC |  |  | Yes |  |  | Presumably “Yes”. Our positioning is currently under discussion. |
| Belgium | SCAR/Antarctic OBIS | | ADU |  | Yes |  |  | for the Antarctic region SCAR has submitted a proposal for a programme in which i am involved. Belspo is also funding a large event dedicated to the ocean decade |
| Bénin | Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB) | NODC |  |  |  | No |  |  |
| Brazil | Brazilian Navy Hydrographic Center | NODC |  |  | Yes |  |  | It will actively participate in activities to be promoted by the National Committee in most of the outcomes, more specifically 1, 4, 5 and 6. |
| Brazil | Universidade Federal do Espírito Santo, Benthic Ecology Group, The Long-term Ecological Research Program Coastal Habitats of Espírito Santo (PELD HCES) | | ADU |  | Yes |  |  | We joined two programs related with Marine Life and we are part of the organization of the national planning workshops |
| Bulgaria | BGODC | NODC |  |  | Yes |  |  | Still planning |
| Canada | Ocean Tracking Network, Dalhousie University | | ADU |  | Yes |  |  | Currently discussing with other Canadian participants and institutions what OTN’s role could be in UN Decade of Ocean Science. Work in progress and expected to evolve over the course of the Decade. We are also participants in two projects that have been submitted to the Decade for endorsement in the first round of considerations for endorsements. At this time, Dalhousie University has not indicated that it is preparing anything as an institution for the Decade. Lots of faculty and students will participate in Decade activities. The OFI is circling around this, doing something with regards to carbon budgeting and EDI. But that is as a project of Dal, not something the Dal Admin has come forward with. |
| Canada | Department of Fisheries and Oceans | NODC |  |  |  |  |  |  |
| Chile | Hydrographic and Oceanographic Service of the Chilean Navy | NODC |  |  | Yes |  |  | mainly the development of meetings through the National Oceanographic Committee coordination |
| China | NMDIS | NODC |  |  | Yes |  |  | NMID will actively participate in the activities to be organized by MNR/China in responding to UN decade. |
| Colombia | General Maritime Directorate | NODC |  |  | Yes |  |  | We are involved in the National Oceanic Data and Information Coordination Committee. Its 2021-2025 work plan includes activities for the UN decade of Ocean Science for Sustainable Development |
| Colombia | INVEMAR |  | ADU |  | Yes |  |  | We are planning contribution to different challenges and we are part of different proposal for call for action closed on January. Director Invemar is part of the EPG. Also we have one person involved in the Advisor Communication Committee of the Decade, and one person involved in the GOSR. |
| Côte d’Ivoire | CENTRE DE RECHERCHES OCEANOLOGIQUES | NODC |  |  | Yes |  |  |  |
| Cyprus | ORION Research Institution |  | ADU |  | Yes |  |  | participation in "The Science We Need for the Mediterranean Sea We Want, SciNMeet” |
| D R Congo | Ministry of Environment/Water Resources | NODC |  |  | Yes |  |  | The regional coastal vulnerability, west african GOOS program implementation and other IOC Africa activities |
| Denmark | GBIF Secretariat |  | ADU |  |  |  | I don't know |  |
| Denmark | International Council for the Exploration of the Sea | | ADU |  | Yes |  |  | teaming up on a number of international initiatives to enhance efforts towards UNDOS |
| Egypt | National Institute of Oceanography and Fisheries (NIOF) | NODC |  |  | Yes |  |  |  |
| Estonia | Tallinn University of Technology |  |  | other | Yes |  |  | Via EuroGOOS activities |
| Finland | Finnish Meteorological Institute |  |  | other | Yes |  |  | The planning of specific participation is ongoing. |
| France | Ifremer | NODC |  |  | Yes |  |  | Not able to provide details |
| Georgia | Iv.Javakhishvili Tbilisi State University (TSU) | | ADU |  | Yes |  |  | TSU will organize number of activities dedicated to the United Nations Decade of Ocean Science for Sustainable Development (2021-2030). |
| Germany | Federal Maritime and Hydrographic Agency | NODC |  |  | Yes |  |  | BSH is involved in the German Ocean Decade Committee and supports the overall coordination of Decade Activities in Germany |
| Greece | HCMR |  | ADU |  |  |  | I don't know |  |
| Greece | Hellenic Centre for Marine research/ Hellenic National Oceanographic Data Centre (HCMR/HNODC) | NODC |  |  |  |  | I don't know |  |
| Guinée | Centre de Recherche Scientifique de Conakry Rogbanè (CERESCOR) | NODC |  |  |  |  |  |  |
| Hrvatska (Croatia) | Institute of oceanography and fisheries | NODC |  |  |  | No |  | Take parts in events in national and regional levels |
| Iceland | CAFF |  | ADU |  | Yes |  |  | Under planning |
| India | Indian National Center for Ocean Information Services, MoES, Govt. of India | NODC |  |  | Yes |  |  | Planning to set up UN Decadal Coordination Centre (DCC) at INCOIS. |
| Indonesia | BPPT | NODC |  |  |  |  | I don't know |  |
| Iran (Islamic Republic of) | Iranian National Institute for Oceanography and Atmospheric Sciences (INIOAS) | NODC |  |  | Yes |  |  | We proposed a program entitled "the West Asia Blue Waters" to the governing board at Education and Research Center on Oceanography for West Asia. After approval we will submit to the IOC/UNESCO. In this program we defined five projects for UN decade. Part of the program currently are performing by INIOAS institute. |
| Ireland | Marine Institute | NODC |  |  |  |  | I don't know | Possible events tbc |
| Italy | National Institute of Oceanography and Applied Geophysics | NODC |  |  | Yes |  |  | Scientific activities and promotion |
| Japan | Japan Oceanographic Data Center | NODC |  |  |  |  | I don't know |  |
| Japan | JAMSTEC |  | ADU |  | Yes |  |  |  |
| Kazakhstan | Republican State-owned Enterprise “KazHydromet” | NODC |  |  |  |  | I don't know |  |
| Kenya | Kenya Marine and Fisheries Research Institute | NODC |  |  | Yes |  |  | Participation in capacity development through OTGA regional training center |
| Malaysia | Institute of Oceanography and Environment, UMT | | ADU |  | Yes |  |  | Training activities |
| Mauritania | IMROP | NODC |  |  |  |  | I don't know |  |
| Mexico | SEP Mexico | NODC |  |  | Yes |  |  | Mexico is planning to integrate its National Committe for the Ocean Decade |
| Mozambique | Instituto Nacional de Hidrografia e Navegação | NODC |  |  |  |  | I don't know |  |
| Netherlands | NIOZ Royal Netherlands Institute for Sea Research | NODC |  |  | Yes |  |  | Participation in Decade Actions |
| New Zealand | National Institute of Water & Atmospheric Research | NODC |  |  | Yes |  |  | Seabed mapping |
| Norway | Institute of Marine Research | NODC |  |  | Yes |  |  |  |
| Perú | Dirección de Hidrografía y Navegación | NODC |  |  | Yes |  |  | As head of Peru in oceanography activities |
| Philippines | ASEAN Centre for Biodiversity |  | ADU |  |  |  |  |  |
| Portugal | Instituto Hidrografico |  |  | other | Yes |  |  | OTGA and several Working Groups and by develop projects under the UN Call for activities. |
| Romania | National Institute for Marine Research and Development "Grigore Antipa" | NODC |  |  |  |  |  |  |
| Russian Federation | RIHMI-WDC | NODC |  |  | Yes |  |  | Supporting ODP/ODIS |
| Sénégal | Centre de Recherches Océanographiques de Dakar-Thiaroye | NODC |  |  | Yes |  |  | We participated in the various reflection meetings and the identification of priority activities of member countries for the decade of the UN. |
| Slovenia | National Institute of Biology | NODC |  |  | Yes |  |  | These activities are yet to be aproved by the national IOC comitee. |
| South Africa | Department of Environment, Forestry and Fisheries | NODC |  |  | Yes |  |  | Ocean acidification data collection and submission in response to SDG 14.3.1. Our scientific advisor is part of a steering committee for a proposal submitted to UN Ocean Decade called DITTO (Digitial Twins of the Ocean). |
| Spain | SOCIB-ICTS |  | ADU |  | Yes |  |  |  |
| Spain | Ins. Esp. Oceanografia (IEO) | NODC |  |  |  |  | I don't know |  |
| Sweden | SMHI | NODC |  |  | Yes |  |  | SMHI, Formas, the Swedish Maritime Administration and Sida have been commissioned by the government to assist in the planning of Swedish participation in the UN decade by providing proposals for Swedish contributions. The final report proposes four focus areas for Swedish work during the decade: · Ecosystem-based management, · Innovation and digitalisation, Data and modeling and · Sea awareness. |
| Tanzania (United Republic of) | University of Dar es Salaam, Institute of Marine Sciences | NODC |  |  | Yes |  |  | The Institute is looking forward to partnering with other players in the region to put up regional Action(s) for the UN Decade. |
| Togo | Université de Lomé | NODC |  |  | Yes |  |  |  |
| Trinidad and Tobago | Institute of Marine Affairs |  |  | other |  |  |  |  |
| Turkey | Office of Navigation, Hydrography and Oceanography | NODC |  |  | Yes |  |  |  |
| Ukraine | UkrSCES | NODC |  |  | Yes |  |  | monitoring set of “ocean” indicators |
| United Kingdom | Cefas - Centre for Environment, Fisheries and Aquaculture Science | | ADU |  |  |  | I don't know |  |
| United Kingdom | British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC) | NODC |  |  | Yes |  |  | Working Group formed to coordinate all NOC activities that contribute to or are otherwise connected to the UN Decade of Ocean Science and coordinate with UK National Decade Committee |
| United Kingdom | Marine Biological Association |  | ADU |  | Yes |  |  | Support via OBIS activities and within proposed decadal programmes |
| United States | BCO-DMO (at WHOI) |  | ADU |  |  |  |  |  |
| United States | NOAA NCEI | NODC |  |  | Yes |  |  |  |

**ANNEX 1: List of IODE NODCs and ADUs   
indicating if they responded to the 2019-2020 survey**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MS with data centre** | **Country** | **Member State of IOC since (year)** | **Type/ Date of creation of national data centre** | **Survey  response** |
| 1 | Argentina | 1961 | NODC, 1974 | YES (NODC)  Fabricio Idoeta (for Ariel Troisi) |
| ADU, 2014  CCT CENPAT-CONICET | YES (ADU)  Mirtha Lewis |
| 2 | Australia | 1961 | NODC, 1964 | YES (NODC)  Sebastien Mancini |
| ADU, OBIS node, 2014 CSIRO | YES (ADU)  Dave Watts |
| 3  SIDS | Barbados | 1982 | ADU, 2014 | NO |
| 4 | Belgium | 1961 | Accredited NODC  NODC, 2000 (Accredited by IODE-XXIII) | YES (NODC)  Ruth Lagring |
| Belgium  (Flanders) | 1961 | Accredited NODC  NODC, 2000 | YES (NODC)  Hernandez Francisco |
| 5  AFR | Benin | 1986 | NODC, 31/10/2002 | YES  DEGBE Cossi Georges Epiphane |
| 6 | Brazil | 1961 | NODC, 1971 | YES (NODC)  Vladimir Costa Maluf vladimir@marinha.mil.br |
|  |  |  | ADU (OBIS Brazil) | YES (ADU)  Ana Carolina Mazzuco ac.mazzuco@me.com |
| 7 | Bulgaria | 1969 | NODC, 1985 | YES (NODC)  Atanas Palazov palazov@io-bas.bg |
| 8  AFR | Cameroon | 1973 | NODC, 28/2/2001 | NO |
| 9 | Canada | 1961 | NODC, 1963 | YES (NODC)  DI WAN |
| ADU, 2015 | YES (ADU)  Lenore Bajona |
| 10 | Chile | 1961 | NODC, 1968 | YES (NODC)  Carolina Calvete |
| 11 | China | 1961 | Accredited NODC  NODC, 1979  (and WDC Oceanography) (Accredited by IODE-XXIII) | YES ( accredited NODC)  Yu Ting |
| 12 | Colombia | 1969 | NODC, 2003  (changed 7/2018) | YES (NODC)  Ruby Viviana Ortiz Martinez |
| ADU, 2015  INVEMAR | YES (ADU)  INVEMAR Paula Cristina Sierra-Correa |
| ADU, 2015  [Fundacion Universidad de Bogota Jorge Tadeo Lozano](https://www.oceanexpert.net/institution/18213) | NO |
| ADU, 2015  [Parques Nacionales Naturales de Colombia](https://www.oceanexpert.net/institution/18356) | NO |
| 13  AFR  SIDS | Comoros | 2000 | NODC, 2001 | NO |
|  | Congo (Democratic Republic of) | 2010 | - | YES (NODC) : ???  Jean Manteke Kabay |
| 14  AFR | Cote d'Ivoire | 1961 | NODC,?? | YES (NODC)  N’Guessan Kouadio |
| 15 | Croatia | 1992 | NODC, 23/4/2013 DNA, 1996 | YES (NODC) Vlado Dadić |
| 16 | Cyprus | 1977 | NODC, 1997 | YES (NODC)  George Zodiatis |
| 17 | Denmark | 1961 | NODC, 1997 | NO |
| ADU, 2014  GBIF | OK  Dmitry Schigel |
| ADU, 2014  ICES | YES (ADU)  Neil Holdsworth |
| 18 | Ecuador | 1961 | NODC, 1975 | NO |
| ADU, 2017  CPPS | NO |
| ADU, 2018  INP | NO |
|  | Egypt | 1971 | (NODC was established in 1971 but now inactive) | YES (NODC)  Maged M.A. Husssein |
|  | Estonia | 1992 | - | YES (ANOTHER DATA CENTRE)  Urmas Lips |
|  | Finland | 1961 | DNA, 1960 (no longer active) | YES (ANOTHER DATA CENTRE)  Pekka Alenius |
| 19 | France | 1961 | Accredited NODC (2017)  NODC, 1971(accredited by IODE-XXIV) | YES (NODC)  Fichaut Michèle |
| 20 | Georgia |  | ADU, 2014 | YES (ADU)  Kakha Bilashvili |
| 21 | Germany | 1961 | NODC, 1967 | YES (NODC)  Susanne Tamm |
| 22  AFR | Ghana | 1961 | NODC, 2001 | NO |
| 23 | Greece | 1964 | NODC, 1986 | YES (NODC)  Athanasia (Sissy) Iona |
|  | ADU, 1986  [Institute of Marine Biology, Biotechnology and Aquaculture - Hellenic Centre for Marine Research](https://www.oceanexpert.net/institution/10324)**(OBIS Mediterranean node)** | YES (ADU)  Dimitra Mavraki |
| 24  AFR | Guinea | 1982 | NODC, 1990 | YES (NODC)  BANGOURA Kandè |
| 25 | Iceland | 1964 | - |  |
| ADU, 2015  [Conservation of Arctic Flora and Fauna (CAFF)](https://www.oceanexpert.net/institution/17768) | YES (ADU)  Tom Barry |
| 26 | India | 1961 | NODC  1964-2004: NIO 2004-...: INCOIS | YES (NODC)  TVS Udaya Bhaskar |
| 27 | Indonesia |  | NODC, 2014 | YES (NODC)  Raden Muhammad Taufik Yuniantoro |
| ADU, 2018  LIPI | No |
| 28 | Iran (Islamic Republic of) | 1975 | Accredited NODC (2017)  NODC, 1995 (accredited by IODE-XXIV) | YES (NODC)  Farnaz Ghiasi |
| 29 | Iraq | 1971 | ADU, 2015 | NO |
| 30 | Ireland | 1978 | Accredited NODC  NODC, 1993 | YES (NODC)  Eoin O'Grady |
| 31 | Israel | 1961 | NODC, 2001 | NO |
| 32 | Italy | 1961 | NODC, 27/6/2002 | YES (NODC)  Alessandra GIORGETTI |
| 33 | Japan | 1961 | Accredited NODC (2018)  NODC, 1/4/1965  (accredited by IODE-officers 21/10/2108) | YES (NODC)  YABUKI, Tetsuichiro |
| ADU, 2015  JAMSTEC | YES (ADU)  Takashi Hosono |
| 34 | Kazakhstan | 2005 | NODC, 7/2006 | YES (NODC)  NATALYA IVKINA |
| 35  AFR | Kenya | 1973 | NODC, 1996 | YES (NODC)  Harrison Ong'anda |
|  | Korea, (Democratic People's republic of) | 1978 | (NODC 1987 but now inactive) | - |
| 36 | Korea  (Republic of) | 1961 | Accredited NODC (2017)  NODC, 1974 (accredited by IODE Officers, 23/8/2017) | NO |
| 37  AFR | Madagascar | 1967 | NODC, 26/4/2000 | NO |
| 38 | Malaysia | 1965 | DNA, 1994  NODC, 24/7/2010 | NO |
| 2014 | Accredited ADU (2018)  ADU, 20/6/2014  (accredited by IODE Officers, 2/1/2018) | YES (ADU)  Aidy M Muslim |
| 39 | Mauritania | 1961 | NODC, 16/10/2000 | OK  Bambaye |
| 40  AFR SIDS | Mauritius | 1971 | NODC, 7/7/2000 | NO |
| 41 | Mexico | 1961 | NODC, 30/6/2011 | YES (NODC)  Carlos Torres |
| 42 | Mozambique | 1981 | NODC, 7/7/2000 | YES (NODC)  Clousa Maueua |
| 43 | Netherlands | 1961 | NODC, 17/09/1997 | YES (NODC)  Taco de Bruin |
|  | New Zealand | 1962 | - | YES (NODC) ??  Kevin Mackay |
| 44  AFR | Nigeria | 1973 | NODC, 1990 | No |
| 45 | Norway | 1961 | NODC, 1972 | YES (NODC)  Helge Sagen |
| 46 | Peru | 1967 | NODC, 1984 | YES (NODC)  Raúl Vásquez Gianella |
| 47 | Philippines | 1964 | ADU, 1984  ASEAN | YES (ADU)  Christian Elloran |
| ADU, 2018  FISCH OBIS q-quatics | No |
| 48 | Portugal | 1971 | (NODC, 1986 - no longer operational) | YES (OTHER DATA CENTRE)  Sara Almeida |
| ADU, 2015  **Oceans Past Initiative, Portuguese Center for Global History** | No |
| 49 | Romania | 1961 | NODC, ??? DNA, 1970 | YES (NODC)  Luminita Buga |
| 50 | Russian Federation | 1961 | NODC, 1964 | YES (NODC)  Nikolai Mikhailov |
| 51  AFR | Senegal | 1969 | NODC, 28/10/2002 | YES (NODC)  Saliou FAYE |
| 52  AFR SIDS | Seychelles | 1979 | NODC, 1997 | No |
| 53 | Slovenia | 1994 | NODC, 3/2/2004 | YES (NODC)  Čermelj Branko |
| 54  AFR | South Africa | 1969 | NODC, 1977, changed host 2020 | YES (NODC)  Tshikana Rasehlomi |
| 55 | Spain | 1961 | NODC, 1968 | YES (NODC)  Elena Tel |
|  | ADU, 2018  **SOCIB-**[Balearic Islands Coastal Observing and Forecasting System](https://www.oceanexpert.net/institution/18067) | OK  Juan Gabriel Fernandez |
|  | Sri Lanka | 1977 | (NODC established in 1996, no longer operational) | No |
| 56 | Sweden | 1965 | DNA established in 1971  NODC established 2017 | YES (NODC)  Katarina Lotta Fyrberg |
| 57  AFR | Tanzania (United Republic of) | 1969 | NODC, 2002  DNA, 1996 | YES (NODC)  Prof. Desiderius CP MASALU |
| 58  AFR | Togo | 1975 | NODC, 28/3/2001 | YES (NODC)  Adjoussi Pessièzoum |
|  | Trinidad and Tobago | 1969 | - | YES (ANOTHER DATA CENTRE)  Paul Nelson |
| 59  AFR | Tunisia | 1961 | NODC, 09/03/2001 | No |
| 60 | Turkey | 1962 | NODC, 1993 | YES (NODC)  Murat Elge |
| 61 | Ukraine | 1962 | NODC (2019)  (after ADU, 2014) | YES (NODC)  Viktor Komorin  (note there was double entry by Neprokin which was deleted) |
| 62 | United Kingdom (of Great Britain and Northern Ireland) | 1961 | Accredited NODC (2017)  NODC, 1969  (accredited by IODE Officers, 23/8/2017) | YES (NODC)  Dr Lesley Rickards |
| ADU, 2016  SCAR/Antarctic OBIS | Yes  Anton Van de Putte (Belgium) |
| ADU, 2018  MBA (obis-uk) | YES (ADU)  Dan Lear |
| ADU, 2020  CEFAS | YES (ADU)  Laura Hanley |
| 63 | United States (of America) | 1961 | NODC, 1961 | YES (NODC)  Hernan Garcia |
| ADU, 2013  BCO-DMO | YES (ADU)  Danielle Kinkade |
| ADU, 2016  OBIS-USA | No |
| ADU, 2017  OBIS-SEAMAP | No |
| ADU, OBIS, 2018  FISH OBIS | NO |
|  | Uruguay | 1961 | (NODC established in 1986 (inactive) | No |
| 64 | Venezuela (Bolivarian Republic of) | 1964 | (NODC established in 1985 (inactive)) | No |
| ADU, 2014  [Institute of Technology and Marine Sciences (INTECMAR) Universidad Simón Bolívar](https://www.oceanexpert.net/institution/17831)**(Caribbean OBIS)** | No |

[END OF DOCUMENT]