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INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION

(of UNESCO)

Twenty-eighth Session of the IOC Committee on International Oceanographic Data and Information Exchange (IODE-28)

12-14 March 2025

Reporting Summary of IODE NODCs and ADUs (Survey)

Summary

The online survey was opened on **6 August 2024** and closed on **8 October 2024**. A total of **59 valid responses** was received. This is a lower number than for 2021-2022 (which received 74 valid responses). Nearly all respondents have a record in OceanExpert.

Analysis of responses:

- **Have you entered your information in OceanExpert?** (http://www.oceanexpert.net) (Q3): 98.31% have entered information in OceanExpert (98.6% in previous survey)

- **In what type of data centre do you work (Q4):** There is no significant change between 2019 and 2024. 66% NODC, 32% ADU, 1.69% other data centre.

- **Does your country formally have a centralized (single centre) data management system or a distributed (multiple centres) data management system?)** (Q5): The percentage of "single centre" has remained stable at approx. 30% during the three reporting periods. The percentage that reported "distributed" was higher in 2020-2021 than for the 2 other reporting periods (between 56-59%).

- **Does your country and/or data centre have a documented data management strategy?** (Q6): There is no significant change between 2019 and 2024. 71% of respondents report "yes" and 24% "no".

- **Does your organization apply the "IOC Data Policy and Terms of Use" adopted as Decision A-32/4.4 (see https://iode.org/resources/ioc-data-policy-and-terms-of-use-2023/)** (Q7): The % that reports using the IOC data policy is increasing slowly over the 3 reporting periods, from 65.7% (2019-2020), 66.22% (2021-2022) to 67.8% (2023-2024).

- **Does your organization have its own data policy** (Q8): There is no significant change between 2019 and 2024. 76% of respondents report "yes", 22% report "no".

- **Does your organization have a documented Quality Management System (QMS)?** (Q9): There is no significant change between 2019 and 2024. 44% responded "yes", 46% "no".

- **Does your organization hold ISO 9001 certification?** (Q10): There is a slight increase in the number of NODCs/ADUs that have ISO certification, especially in 2021-2022 and 2023-2024.

- **If you are an NODC or ADU: do you plan to implement the IODE QMF accreditation process during the next inter-sessional period (2025-2026)?** (Q11): There is no significant change between 2019 and 2024.

- **What type and how many staff (FTE - Full Time Equivalent) were working at your data centre/data unit in 2023/2024 (averaged):[use integers. no decimals]** (Q12): We see a sharp decline in scientific staff (from average of 18 in 2019-2020, 16 in 2020-2021 to 9 in 2023-2024). For technical staff we saw an increase from 7 in 2019-2020 to 10 in 2020-2021 to 9 in 2023-2024.

- **How has this number changed year by year since 2021-2022 (previous inter-sessional period): (Q13):** Despite the results of Q12 nearly half of respondents reported an increase in staff

- **What was the approximate annual operational budget for your data centre/data unit (average for 2023 and 2024) (excluding staff cost) [converted into US Dollars]:** (Q14):

Most respondents report an annual operational budget for their data centre between $10,001 and $50,000 (23.21%). 14% report less than $1000, 18% between $1,001-$10,000, and 20% between $100,001-$500,000. We see a significant increase in data centres reporting a budget of $100,001-500,000 (from 12% in 2019-2020 to 20% in 2023-2024).

- **How has this number changed year by year since 2021-2022 (previous inter-sessional period):** (Q15): There is no significant change between 2019 and 2024. 46% responded that the number has remained the same, 32% increased, and 12.5% decreased.

- **In what IODE programme elements (Programme Component, Programme Activity) has your data centre/data unit participated in 2023 and/or 2024 (data management): (choose one per row)** (Q16): We see a rapid increase in participation in ODIS which continued the trend since 2019-2020. OBIS also shows an increase in recruitment with 6 but less significant than in the previous period (9 in 2021-2022). OTGA shows a steady increase participating data centres (5 recruits in 2023-2024, 5 recruits in 2022-2023 and 7 in 2019-2020). Participation in OceanExpert (through expert registration) has steadily increased from 89.5% to 95%. OBPS participation increased from 18 in 2019-2021 to 23 in 2023-2024, with between 3-6 new recruits per reporting period and no losses.
- Participation in WOD has increased to 94.44% (17 data centres). The low level of participation in AquaDocs (9), GOSUD (5+1), GTSPP (9+1), ICAN (1), IQuOD (5+1) and ODISCat (9+2-1) should be addressed with selecting priorities for the 2025-2026 work plan and budget.

- **For measurements from vessels (research, ships of opportunity,etc) for which data types do you manage data**: (Q18): The decrease in Physics reported for 2021-2022 has continued. Geology/geophysics has recovered (except for water sample stations). We now also see a decline in Chemistry (Profiles and Seabed sampling) and Biology (profiles and seabed sampling).

- **For measurements from fixed stations/platforms for which data types do you manage data:** (Q19): We see a sharp decline in Chemistry (3/4 platforms) and recovery in Physics and Marine Meteorology.

- **For measurements from moving platforms for which data types do you manage data:** (Q20): There is a dramatic decline in Geology Geophics as well as Physics. There is a substantial increase in Biology and improvement in Chemistry.

- **Did you handle (incoming) (tick one or more):** (Q22): There is no significant change with the previous reporting periods. 93% of the respondents deal with delayed-mode data and 51% with real-time data.

- **Did your data centre/data unit have links with, and/or manage data from major science programmes (e.g., CLIVAR, IMBER, Argo, Future Earth, SOLAS, etc) in 2023 and/or 2024?** (Q23): There is a significant increase in centres that have links with, and/or manage data from major science programmes (e.g., CLIVAR, IMBER, Argo, Future Earth, SOLAS, etc). 54% responded “yes”, 46% responded “no”.

- **Does your centre/data unit collect or manage GOOS Essential Ocean Variables (EOV)? Please tick all EOVs collected or managed during 2023-2024. Note that more info (including specifications) can be found on the web page** http://www.goosocean.org/eov (Q24): Of the 33 EOVs we see an increase (compared to 2021-2022) for 19 and a decline for 6. For 8 the coverage remained the same.

- **Does your centre/data unit maintain a data discovery portal for the data managed by your data centre/data unit in 2023 and/or 2024**? (Q25): There is no significant change between 2019 and 2024. 80% responded “yes”, 19% “no”.

- **If you answered yes to the previous question, then is the portal openly available online?** (Q26): We see a significant increase in the availability of data discovery portals since 2019-2020 and 2021-2022. 94% responded “yes”, 6% “no”.

- **Has your data centre/data unit joined ODIS or OIH as a partner sharing data or information in 2023 or 2024?** (Q28): This was a new question, so no data are available for previous years. The data show that only 40% of the NODCs and ADUs are currently connected to ODIS.

- **What spectrum of services (e.g. data and products) were started/continued/ended by your centre/data unit in 2023 and/or 2024?** (Q29): Many data centres started new services in 2023-2024 (QC-ed delayed-mode data sets, access to real=time data, maps, GIS layers, statistics, data atlases and numerical model outputs)

- **How were data made available (e.g. by request, on-line access, etc.) in 2023 and/or 2024? (you can tick multiple rows but only 1 per row)** (Q31): 47 of the data centres reported that they now provide data on-line and free of charge and 38 provide data offline upon request, also free of charge. Only 12 charge for their services and 2 do not provide data at all.

- **Indicate the average number of requests and services your centre/unit provides in a year:** (Q32): The majority of data centres reports less than 1000 request/year (online and offline) in 2023 (numbers for 2024 are incomplete but are showing similar numbers). These results are similar to 2019-2020 and 2021-2022.

- **Who are your users? (tick one or more)** (Q33): The majority of data users remain researchers. In 2023-2024 we see a 7% decline of “government policy/decision makers” compared to 2021-2022 but quite the 2023-2024 results are quite similar to 2019-2020. Other categories remained the same except the general public which increased to over 80% (up from 65% in 2019-2020 and 76% in 2021-2022).

- **What is the geographic origin of your users:** (Q34): The national user seems to have declined sharply from 92% in 2019-2020, 89% in 2021-2022 to 81% in 2023-2024. Regional users varied between 61% and 69%. The loss of national users was largely compensated by international users (64% in 2019-2020, 67% in 2021-2022 and 72% in 2022-2023).

- **Do you participate in a national distributed data network:** (Q35): There is no significant change between 2019 and 2024. 54% responds “yes”, 46% “no”.

- **Do you provide data through the following international data networks:** (Q36): There is a decline of sharing data through SeaDataNet: from 56% in 2019-2020, 53% in 2021-2022 to 48% in 2023-2024. While data sharing through ODP was quite limited to 15-16% the sharing through ODIS has risen quickly to 39% (2023-2024). Sharing through OBIS has remained high at 70%. Sharing through WOD has also remained stable at 41%. Sharing through WDS remains low at approx. 14%.

- **Did you provide data to World Data System (WDS) in 2023 and/or 2024 (you can select more than one or none):** (Q37): The majority (38%) provides its data to the WDC in Silver Spring, USA. Responses under “other” include: PSMSL (2), ICES (2), EMODNET (1).

- **Did you send data to global specialized data centres (that are not ICSU WDSs) such as GDACs in 2023-2024? (you can tick as many as relevant)** (Q38): Data are sent mostly to OBIS (62.5%, 25 centres), followed by Argo (35%, 14 centres). Under the 32.5% “other” were reported: Copernicus, SeaDataNet,EMODnet, Coriolis GDAC, OceanOps, Global drifter programme, EGO/OceanGliders, DTO BioFlow, ICES, GoShip, GBIF, NEARGOOS,

ODINWESTPAC, CMOC/China, GEBCO, FAO).

- **In how many IODE training courses did your data centre/data unit staff participate in 2023 and/or 2024** (Q39): In 2023-2024 22% reported participating in 1 IODE course (12% in 2021-2022); 13.5% participated in 2 courses (14.7% in 2021-2022) and 10% in 3 courses (3% in 2021-2022). But nearly half of the responding data centres participated in no IODE course.

- **Did the IODE training assist you in your work after you returned home?** (Q40): 90% of respondents that participated in IODE courses stated that the IODE training assisted them in their work after returning home (27% answered negative). In 2021-2022 only 77% answered positive and 23% negative.

- **In how many other training courses did your data centre/data unit staff participate in 2023 and/or 2024 organized by national or other organizers:** (Q41): The number of respondents reporting no course participation is 34% which is lower than the “no” reply for the previous question but still significant.

- **How many working days would you estimate the contribution of your data centre/data unit 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 2023-2024 (2023 and 2024 added together)?** (Q42): The number of respondents that reported no work time contribution to IODE has declined to 10% (19% in 2021-2022 and 14% in 2019-2021). The majority provides 1-5 days or 5-10 days over the course of 2 years.

- **Will your country be providing direct financial support to IODE in 2025-2026 through the IOC (confirmed)? (Q43):** None of the respondents provided a positive response to the question if their country will be providing direct financial support to IODE in 2025-2026 through the IOC (confirmed). This is similar to previous reports.

- **Would your country/data centre/data unit be able to provide a visiting expert/secondment to the IOC Project Office for IODE in 2025-2026 (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): The majority of respondents was unable to respond positively to the question if their country/data centre will be able to provide a visiting expert/secondment to the IOC Project Office for IODE in 2025-2026 (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. 17% responded that a visiting/expert or secondment of 3 months would be possible provided that IODE covers the expenses. This is slightly better than for previous surveys.

- **Is the host institution of your data centre/data unit involved in activities related to the Sustainable Development Goals?** (you will find more information on http://en.unesco.org/sdgs/ioc) (Q45): Approximately 70% answered that the host institution of their data centre is involved in activities related to the Sustainable Development Goals. This is similar to the previous surveys.

- **Is the host institution of your data centre/data unit planning activities for the UN decade of Ocean Science for Sustainable Development? (Q47):** There is a sharp decline in data centres planning activities in the Ocean Decade (from 78% in 2019-2020, to 68% in 2021-2022, to 63% in 2023-2024).

The full list of data centres indicating which responded and which did not is attached as Annex 1. An online and searchable version of this document will be made available through https://surveys.iode.org/

1.1 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: Your position (job title)
- Q3: Have you entered your information in OceanExpert? (http://www.oceanexpert.net)?
- Q4: In what type of data centre do you work?
- Q5: Does your country formally have a centralized (single centre) data management system or a distributed (multiple centres) data management system?
- Q6: Does your country and/or data centre have a documented data management strategy?
- Q7: Does your organization apply the "IOC Data Policy and Terms of Use" adopted as Decision A-32/4.4 (see https://iode.org/resources/ioc-data-policy-and-terms-of-use-2023/)
  [slightly modified from previous years]
- Q8: Does your data centre have its own data policy?
- Q9: Does your organization have a documented Quality Management System (QMS)?
- Q10: Does your organization hold ISO 9001 certification?
- Q11: If you are an NODC: do you plan to implement the IODE QMF accreditation process during the next inter-sessional period (2025-2026)?
- Q12: What type and how many staff (FTE - Full Time Equivalent) were working at your data centre in 2023/2024 (averaged)
- Q13: How has this number changed year by year since 2021-2022 (previous inter-sessional period)
- Q14: What was the approximate annual operational budget for your data centre (average for 2023 and 2024) (excluding staff cost) [converted into US Dollars]:
- Q15: How has this number changed year by year since 2021-2022 (previous inter-sessional period)
- Q16: In what IODE projects has your data centre participated in 2023 and/or 2024 (data management): (choose one per row)
- Q17: List any other (non-IODE) data or information activities/projects in which your centre is involved. PLEASE ADD THE URL IF AVAILABLE
- Q18: For measurements from vessels (research, ships of opportunity,etc) for which data types do you manage data
- Q19: For measurements from fixed stations/platforms for which data types do you manage data
- Q20: For measurements from moving platforms for which data types do you manage data
- Q21: Any other platforms, instruments, etc ?
- Q22: Did you handle (incoming) (delayed mode or real time)?
- 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 2023 and/or 2024?

- Q24: Does your centre collect or manage GOOS Essential Ocean Variables (EOV)? Please tick all EOVs collected or managed during 2023-2024. Note that more info (including specifications) can be found on the web page http://www.goosocean.org/eov
- Q25: Does your centre maintain a data discovery portal for the data managed by your data centre in 2023 and/or 2024?
- Q26: If you answered yes to the previous question, then is the database openly available online?
- Q27: What kind of quality control procedures (if any) are used in your institution? (add bibliographic references, if possible)?
- Q28: Has your data centre joined ODIS as partner sharing data or information in 2023 or 2024? [new question]
- Q29: What spectrum of services (e.g. data and products) were started/continued/ended by your centre in 2023 and/or 2024?
- Q30: List the most important products and services (up to 15) provided by your data centre in the period 2023-2024. These may be new (started in 2023/2024) or ongoing products/services. If they are online products/services then please also provide the URL.
- Q31: How were data made available (e.g. by request, on-line access, etc.) in 2023 and/or 2024? (you can tick multiple rows but only 1 per row)
- Q32: Indicate the average number of requests and services your centre provides in a year
- Q33: Who are your users?
- Q34: What is the geographic origin of your users?
- Q35: Do you participate in a national distributed data network?
- Q36: Do you provide data through the following international data networks?
- Q37: Did you provide data to World Data System (WDS) in 2023 and/or 2024?
- Q38: Did you send data to global specialized data centres (that are not ICSU WDSs) such as GDACs in 2023-2024?
- Q39: In how many IODE training courses did you participate in 2023 and/or 2024
- Q40: Did the IODE training assist you in your work after you returned home?
- Q41: In how many other training courses did you participate in 2023 and/or 2024 organized by national or other organizers?
- Q42: 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 2023-2024 (2023 and 2024 added together)?
- Q43: Will your country be providing direct financial support to IODE in 2025-2026 through the IOC (confirmed)?
- Q44: Would your country/data centre be able to provide a visiting expert/secondment to the IOC Project Office for IODE in 2025-2026 (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?
- Q45: 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: If you answered "yes" to the previous question then please provide details:

- Q47: Is the host institution of your data centre planning activities for the UN decade of Ocean Science for Sustainable Development? (you will find more information on http://en.unesco.org/sdgs/ioc)

- Q48: If you answered "yes "to the previous question then please provide details:

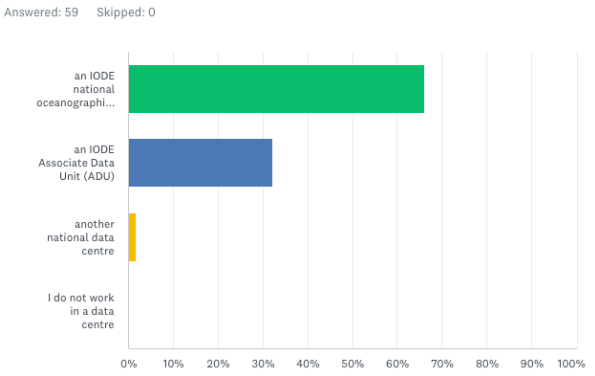
- Q49: Is the host institution of your data centre planning activities for the UN decade of Ocean Science for Sustainable Development?
  [new question]

1.2 SURVEY ANALYSIS

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

result: 98.31% have entered information in OceanExpert (98.6% in previous survey)

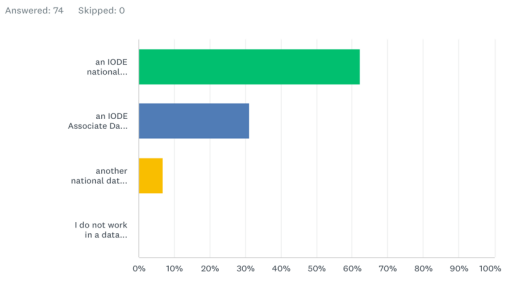
Q4: In what type of data centre do you work?



ANSWER CHOICES	RESPONSES	
an IODE national oceanographic data centre (NODC)	66.10%	39
an IODE Associate Data Unit (ADU)	32.20%	19
another national data centre	1.69%	1
I do not work in a data centre	0.00%	0
TOTAL		59

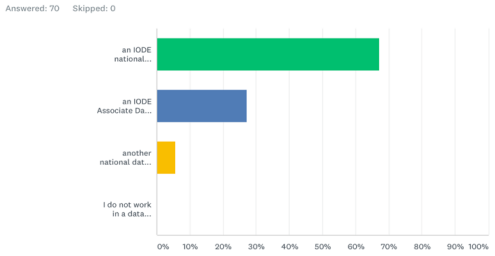
There is no significant change between 2019 and 2024.

Previous survey 2021-2022



ANSWER CHOICES	RESPONSES	
an IODE national oceanographic data centre (NODC)	62.16%	46
an IODE Associate Data Unit (ADU)	31.08%	23
another national data centre	6.76%	5
I do not work in a data centre	0.00%	0
TOTAL		74

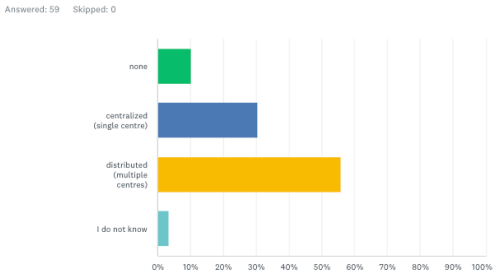
Previous survey 2019-2020:



ANSWER CHOICES	RESPONSES	
an IODE national oceanographic data centre (NODC)	67.14%	47
an IODE Associate Data Unit (ADU)	27.14%	19
another national data centre	5.71%	4
I do not work in a data centre	0.00%	0
TOTAL		70

It is noted that the number of ADUs has increased. See list of ADUs on https://iode.org/index.php?option=com_content&view=article&id=373&Itemid=100089.

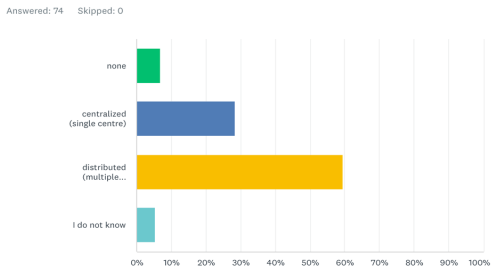
Q5: Does your country formally have a centralized (single centre) data management system or a distributed (multiple centres) data management system?



ANSWER CHOICES	RESPONSES	
none	10.17%	6
centralized (single centre)	30.51%	18
distributed (multiple centres)	55.93%	33
I do not know	3.39%	2
TOTAL		59

The percentage of “single centre” has remained stable at approx. 30% during the three reporting periods. The percentage that reported “distributed” was higher in 2020-2021 than for the 2 other reporting periods (between 56-59%).

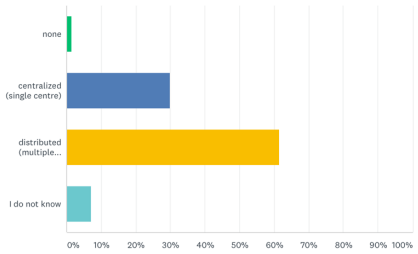
Previous survey 2021-2022



ANSWER CHOICES	RESPONSES	
none	6.76%	5
centralized (single centre)	28.38%	21
distributed (multiple centres)	59.46%	44
I do not know	5.41%	4
TOTAL		74

Previous survey 2019-2020

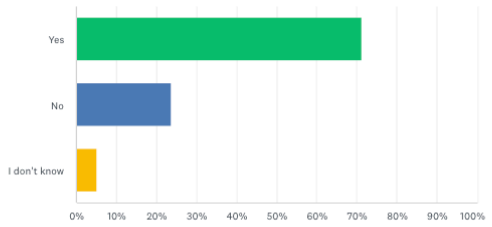
Answered: 70 Skipped: 0



ANSWER CHOICES	RESPONSES	
none	1.43%	1
centralized (single centre)	30.00%	21
distributed (multiple centres)	61.43%	43
I do not know	7.14%	5
TOTAL		70

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

Answered: 59 Skipped: 0

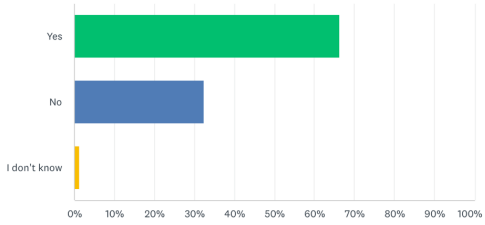


ANSWER CHOICES	RESPONSES	
Yes	71.19%	42
No	23.73%	14
I don't know	5.08%	3
TOTAL		59

There is no significant change between 2019 and 2024.

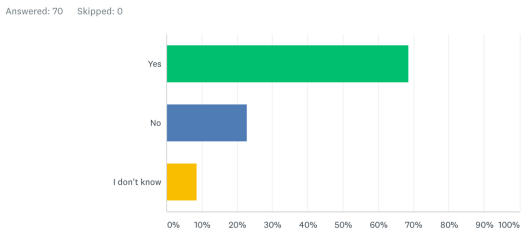
Previous survey 2021-2022

Answered: 74 Skipped: 0



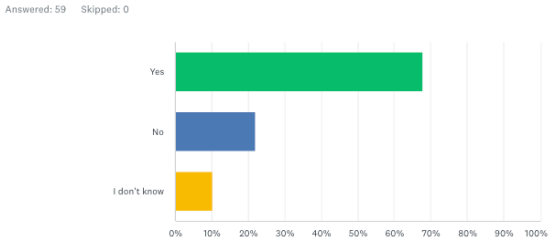
ANSWER CHOICES	RESPONSES	
Yes	66.22%	49
No	32.43%	24
I don't know	1.35%	1
TOTAL		74

Previous survey 2019-2020:



ANSWER CHOICES	RESPONSES	
Yes	68.57%	48
No	22.86%	16
I don't know	8.57%	6
TOTAL		70

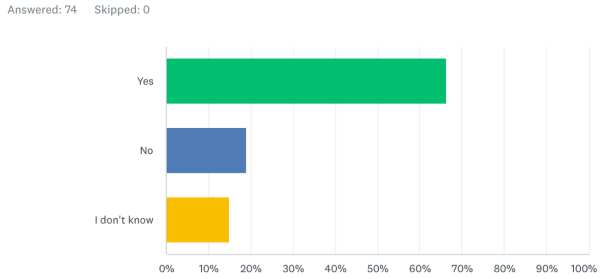
Q7: Does your organization apply the "IOC Data Policy and Terms of Use" adopted as Decision A-32/4.4 (see https://iode.org/resources/ioc-data-policy-and-terms-of-use-2023/)



ANSWER CHOICES	RESPONSES	
Yes	67.80%	40
No	22.03%	13
I don't know	10.17%	6
TOTAL		59

The % that reports using the IOC data policy is increasing slowly over the 3 reporting periods, from 65.7% (2019-2020), 66.22% (2021-2022) to 67.8% (2023-2024).

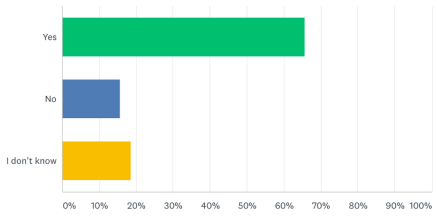
Previous survey 2021-2022



ANSWER CHOICES	RESPONSES	
Yes	66.22%	49
No	18.92%	14
I don't know	14.86%	11
TOTAL		74

Previous survey 2019-2020:

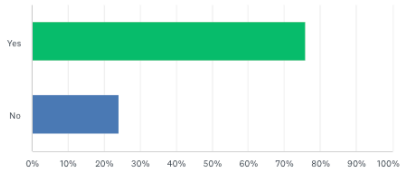
Answered: 70 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	65.71%	46
No	15.71%	11
I don't know	18.57%	13
TOTAL		70

Q8: Does your data centre have its own data policy

Answered: 58 Skipped: 1



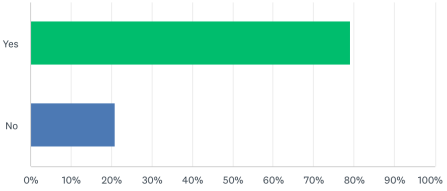
ANSWER CHOICES	RESPONSES	
Yes	75.86%	44
No	24.14%	14
TOTAL		58

There is no significant change between 2019 and 2024.

Previous survey 2021-2022

Does your organization have its own data policy

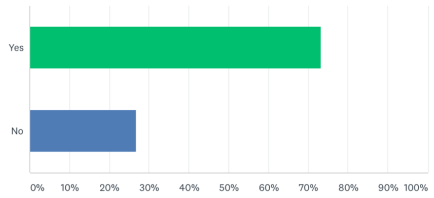
Answered: 72 Skipped: 2



ANSWER CHOICES	RESPONSES	
Yes	79.17%	57
No	20.83%	15
TOTAL		72

Previous survey 2019-2020:

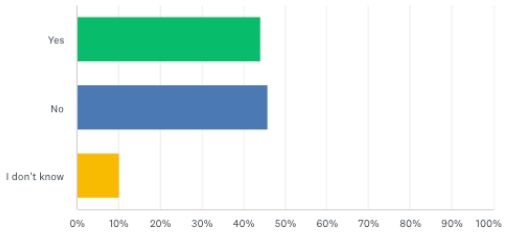
Answered: 67 Skipped: 3



ANSWER CHOICES	RESPONSES	
Yes	73.13%	49
No	26.87%	18
TOTAL		67

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

Answered: 59 Skipped: 0

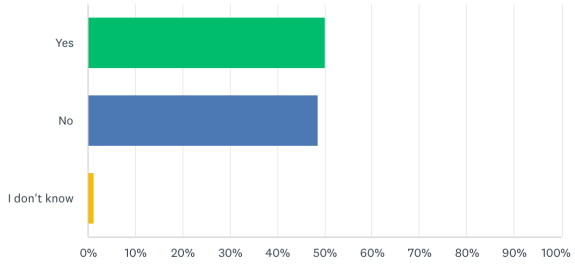


ANSWER CHOICES	RESPONSES	
Yes	44.07%	26
No	45.76%	27
I don't know	10.17%	6
TOTAL		59

There is no significant change between 2019 and 2024.

Previous survey 2021-2022

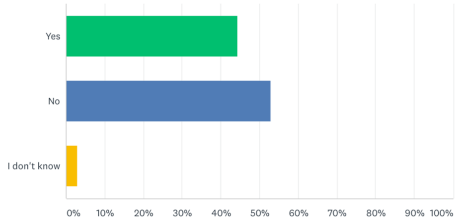
Answered: 74 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	50.00%	37
No	48.65%	36
I don't know	1.35%	1
TOTAL		74

Previous survey 2019-2020

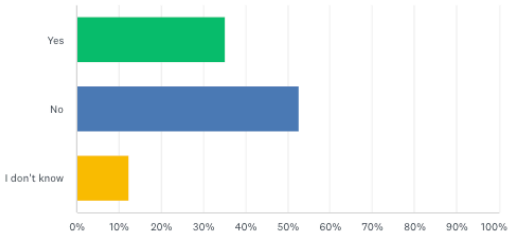
Answered: 70 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	44.29%	31
No	52.86%	37
I don't know	2.86%	2
TOTAL		70

Q10: Does your organization hold ISO 9001 certification?

Answered: 57 Skipped: 2

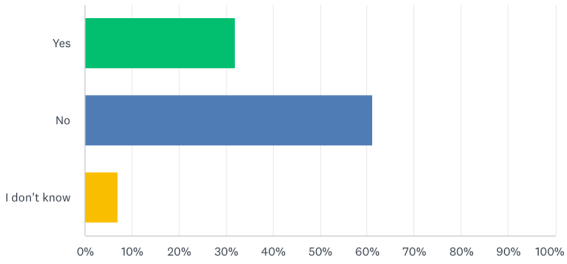


ANSWER CHOICES	RESPONSES	
Yes	35.09%	20
No	52.63%	30
I don't know	12.28%	7
TOTAL		57

There is a slight increase in the number of NODCs/ADUs that have ISO certification, especially in 2021-2022 and 2023-2024.

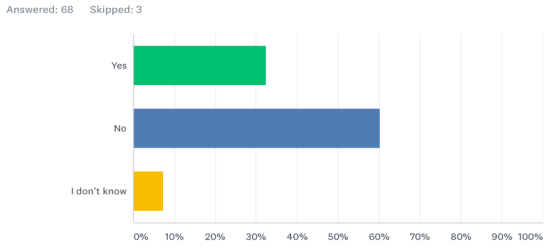
Previous survey 2021-2022

Answered: 72 Skipped: 2



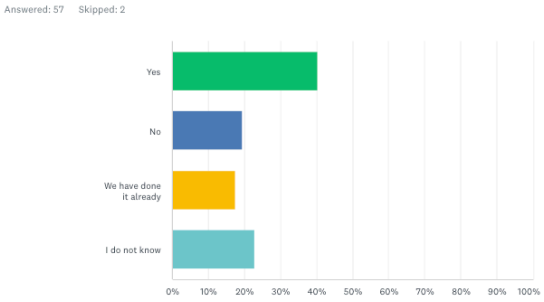
ANSWER CHOICES	RESPONSES	
Yes	31.94%	23
No	61.11%	44
I don't know	6.94%	5
TOTAL		72

Previous survey 2019-2020:



ANSWER CHOICES	RESPONSES	
Yes	32.35%	22
No	60.29%	41
I don't know	7.35%	5
TOTAL		68

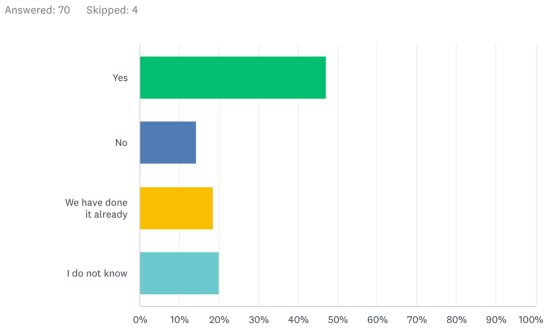
Q11: If you are an NODC or ADU: do you plan to implement the IODE QMF accreditation process during the next inter-sessional period (2025-2026)?



ANSWER CHOICES	RESPONSES	
Yes	40.35%	23
No	19.30%	11
We have done it already	17.54%	10
I do not know	22.81%	13
TOTAL		57

There is no significant change between 2019 and 2024.

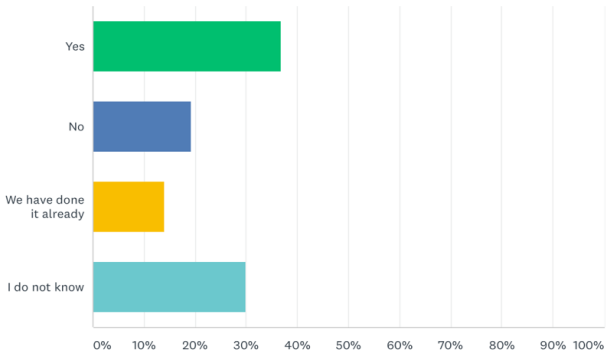
Previous survey 2021-2022



ANSWER CHOICES	RESPONSES	
Yes	47.14%	33
No	14.29%	10
We have done it already	18.57%	13
I do not know	20.00%	14
TOTAL		70

Previous survey 2019-2020

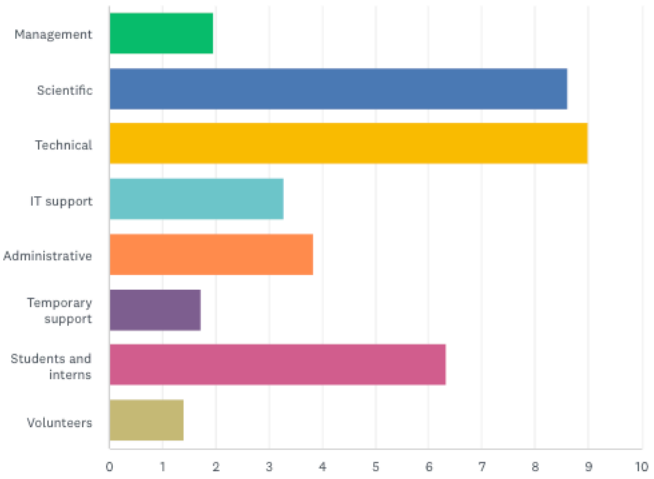
Answered: 57 Skipped: 14



ANSWER CHOICES	RESPONSES	
Yes	36.84%	21
No	19.30%	11
We have done it already	14.04%	8
I do not know	29.82%	17
TOTAL		57

Q12: What type and how many staff (FTE - Full Time Equivalent) were working at your data centre in 2023/2024 (averaged):[use integers. no decimals]

Answered: 54 Skipped: 5

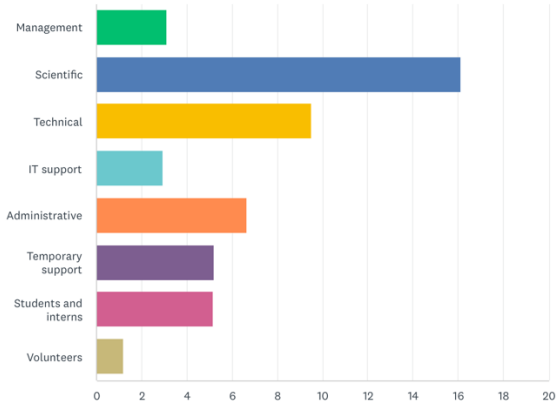


ANSWER CHOICES		AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
Management	Responses	2	94	48
Scientific	Responses	9	362	42
Technical	Responses	9	369	41
IT support	Responses	3	118	36
Administrative	Responses	4	92	24
Temporary support	Responses	2	43	25
Students and interns	Responses	6	190	30
Volunteers	Responses	1	21	15
Total Respondents: 54				

We see a sharp decline in scientific staff (from average of 18 in 2019-2020, 16 in 2020-2021 to 9 in 2023-2024). For technical staff we saw an increase from 7 in 2019-2020 to 10 in 2020-2021 to 9 in 2023-2024.

Previous survey 2021-2022

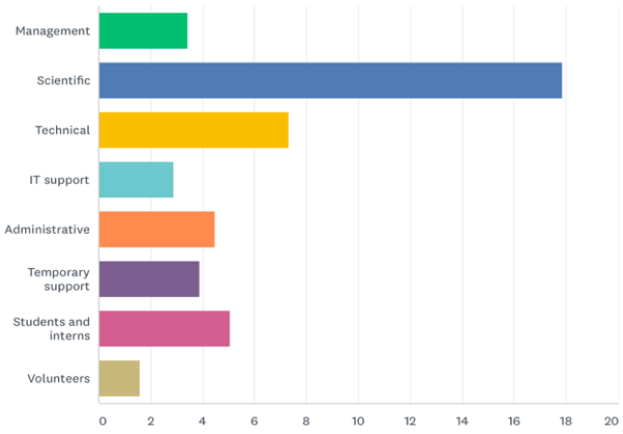
Answered: 68 Skipped: 6



ANSWER CHOICES		AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
Management	Responses	3	190	61
Scientific	Responses	16	936	58
Technical	Responses	10	513	54
IT support	Responses	3	139	47
Administrative	Responses	7	259	39
Temporary support	Responses	5	151	29
Students and interns	Responses	5	155	30
Volunteers	Responses	1	23	19
Total Respondents: 68				

Previous survey 2019-2020:

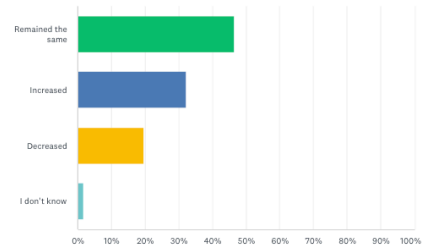
Answered: 63 Skipped: 8



ANSWER CHOICES		AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
Management	Responses	3	185	54
Scientific	Responses	18	928	52
Technical	Responses	7	389	53
IT support	Responses	3	124	43
Administrative	Responses	4	152	34
Temporary support	Responses	4	97	25
Students and interns	Responses	5	111	22
Volunteers	Responses	2	16	10
Total Respondents: 63				

Q13: How has this number changed year by year since 2021-2022 (previous inter-sessional period)

Answered: 56 Skipped: 3

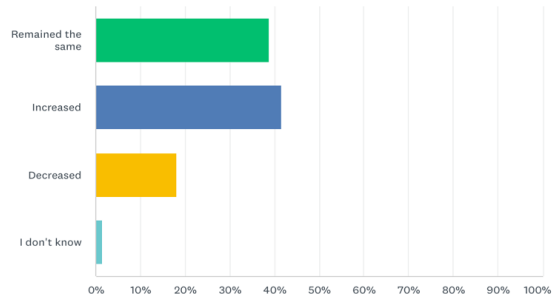


ANSWER CHOICES	RESPONSES	
Remained the same	46.43%	26
Increased	32.14%	18
Decreased	19.64%	11
I don't know	1.79%	1
TOTAL		56

Despite the results of Q12 nearly half of respondents reported an increase in staff.

Previous survey 2021-2022

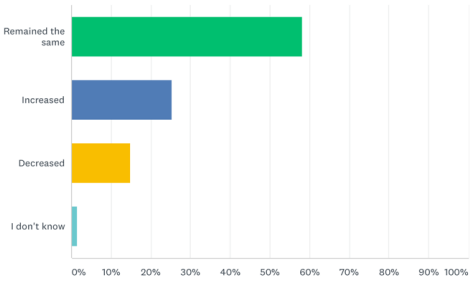
Answered: 72 Skipped: 2



ANSWER CHOICES	RESPONSES	
Remained the same	38.89%	28
Increased	41.67%	30
Decreased	18.06%	13
I don't know	1.39%	1
TOTAL		72

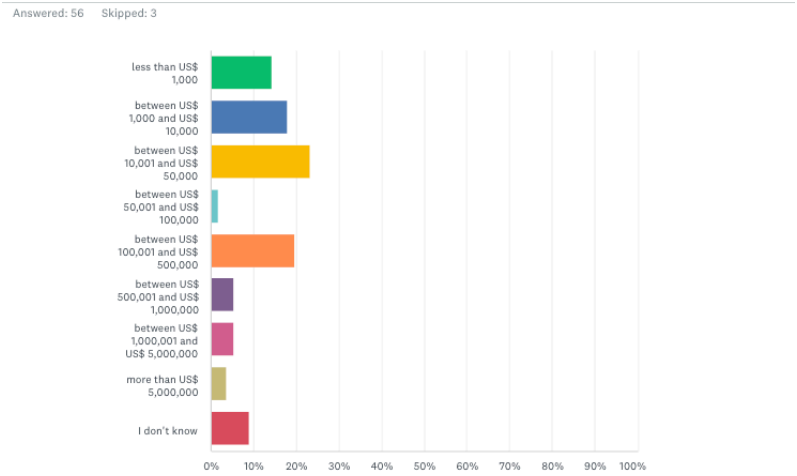
Previous survey 2019-2020:

Answered: 67 Skipped: 4



ANSWER CHOICES	RESPONSES	
Remained the same	58.21%	39
Increased	25.37%	17
Decreased	14.93%	10
I don't know	1.49%	1
TOTAL		67

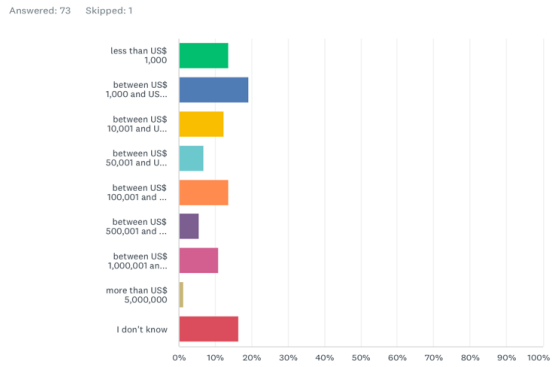
Q14: What was the approximate annual operational budget for your data centre (average for 2023 and 2024) (excluding staff cost) [converted into US Dollars]:



ANSWER CHOICES	RESPONSES	
less than US$ 1,000	14.29%	8
between US$ 1,000 and US$ 10,000	17.86%	10
between US$ 10,001 and US$ 50,000	23.21%	13
between US$ 50,001 and US$ 100,000	1.79%	1
between US$ 100,001 and US$ 500,000	19.64%	11
between US$ 500,001 and US$ 1,000,000	5.36%	3
between US$ 1,000,001 and US$ 5,000,000	5.36%	3
more than US$ 5,000,000	3.57%	2
I don't know	8.93%	5
TOTAL		56

Most respondents report an annual operational budget for their data centre between $10,001 and $50,000 (23.21%). 14% report less than $1000, 18% between $1,001-$10,000, and 20% between $100,001-$500,000. We see a significant increase in data centres reporting a budget of $100,001-500,000 (from 12% in 2019-2020 to 20% in 2023-2024).

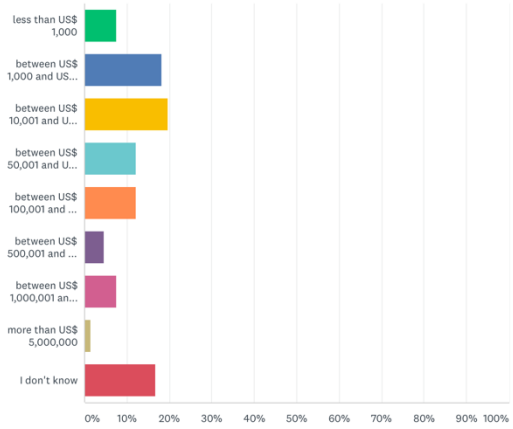
<u>Previous survey 2021-2022:</u>



ANSWER CHOICES	RESPONSES	
less than US$ 1,000	13.70%	10
between US$ 1,000 and US$ 10,000	19.18%	14
between US$ 10,001 and US$ 50,000	12.33%	9
between US$ 50,001 and US$ 100,000	6.85%	5
between US$ 100,001 and US$ 500,000	13.70%	10
between US$ 500,001 and US$ 1,000,000	5.48%	4
between US$ 1,000,001 and US$ 5,000,000	10.96%	8
more than US$ 5,000,000	1.37%	1
I don't know	16.44%	12
TOTAL		73

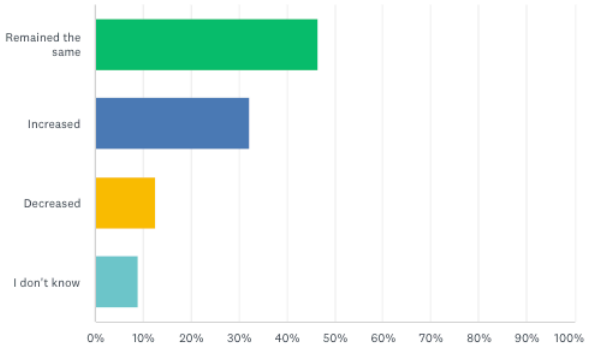
Previous survey 2019-2020

Answered: 66 Skipped: 4



ANSWER CHOICES	RESPONSES	
less than US$ 1,000	7.58%	5
between US$ 1,000 and US$ 10,000	18.18%	12
between US$ 10,001 and US$ 50,000	19.70%	13
between US$ 50,001 and US$ 100,000	12.12%	8
between US$ 100,001 and US$ 500,000	12.12%	8
between US$ 500,001 and US$ 1,000,000	4.55%	3
between US$ 1,000,001 and US$ 5,000,000	7.58%	5
more than US$ 5,000,000	1.52%	1
I don't know	16.67%	11
TOTAL		66

Q15: How has this number changed year by year since 2021-2022 (previous inter-sessional period):

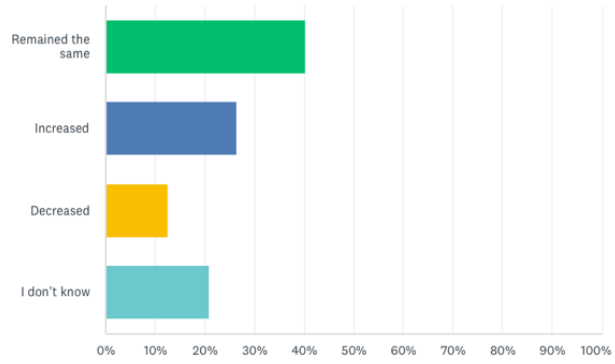


ANSWER CHOICES	RESPONSES	
Remained the same	46.43%	26
Increased	32.14%	18
Decreased	12.50%	7
I don't know	8.93%	5
TOTAL		56

There is no significant change between 2019 and 2024.

Previous survey 2021-2022:

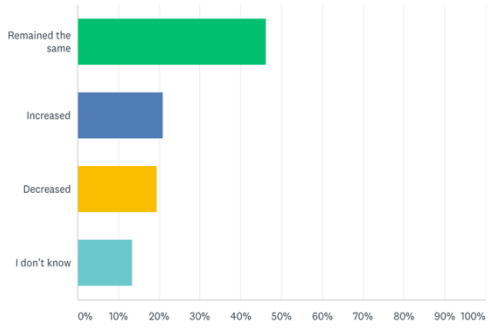
Answered: 72 Skipped: 2



ANSWER CHOICES	RESPONSES	
Remained the same	40.28%	29
Increased	26.39%	19
Decreased	12.50%	9
I don't know	20.83%	15
TOTAL		72

Previous survey 2019-2020

Answered: 67 Skipped: 3



ANSWER CHOICES	RESPONSES	
Remained the same	46.27%	31
Increased	20.90%	14
Decreased	19.40%	13
I don't know	13.43%	9
TOTAL		67

Q16: In what IODE programme elements (Programme Component, Programme Activity) has your data centre/data unit participated in 2023 and/or 2024 (data management): (choose one per row)

	STARTED IN 2023 OR 2024	CONTINUED IN 2023 OR 2024	STOPPED IN 2023 OR 2024	TOTAL RESPONDENTS	
Ocean Data and Information System (ODIS) or Ocean InfoHub (OIH)	48.15% 13	59.26% 16	3.70% 1	27	Substantial increase of 13 and 1 loss
Ocean Biodiversity System (OBIS)	19.35% 6	87.10% 27	6.45% 2	31	High level of continuation with 6 new recruits and 2 loss
OceanTeacher Global Academy (OTGA)	16.13% 5	90.32% 28	3.23% 1	31	High level of continuation with 5 new recruits and 1 loss
AquaDocs (former OceanDocs)	0.00% 0	100.00% 9	0.00% 0	9	All continued but no new recruits
GODAR	0.00% 0	100.00% 4	0.00% 0	4	All continued (low number) but no new recruits
GOSUD	20.00% 1	100.00% 5	0.00% 0	5	All continued (low number) and 1 new recruit
GTSPP	11.11% 1	100.00% 9	0.00% 0	9	All continued and 1 new recruit
ICAN	0.00% 0	100.00% 1	0.00% 0	1	All continued (only 1) but no new recruits
IQuOD	16.67% 1	83.33% 5	0.00% 0	6	All continued (low number) but no new recruits
OceanBestPractices (jointly with GOOS)	11.54% 3	88.46% 23	0.00% 0	26	High level of continuation and 3 new recruits
ODISCat (e.g. adding entries)	18.18% 2	81.82% 9	9.09% 1	11	High level of continuation 2 recruits and 1 loss
OceanExpert	10.00% 4	95.00% 38	5.00% 2	40	High level of continuation with 4 recruits and 2 loss
IODE QMF	31.25% 5	68.75% 11	0.00% 0	16	High level of continuation with 5 new recruits
World Ocean Database (WOD)	11.11% 2	94.44% 17	0.00% 0	18	High level of continuation with 2 new recruits

Comments (10)

We see a rapid increase in participation in ODIS which continued the trend since 2019-2020. OBIS also shows an increase in recruitment with 6 but less significant than in the previous period (9 in 2021-2022). OTGA shows a steady increase participating data centres (5 recruits in 2023-2024, 5 recruits in 2022-2023 and 7 in 2019-2020). Participation in OceanExpert (through expert registration) has steadily increased from 89.5% to 95%. OBPS participation increased from 18 in 2019-2021 to 23 in 2023-2024, with between 3-6 new recruits per reporting period and no losses. Participation in WOD has increased to 94.44% (17 data centres). The low level of participation in AquaDocs (9), GOSUD (5+1), GTSPP (9+1), ICAN (1), IQuOD (5+1) and ODISCat (9+2-1) should be addressed with selecting priorities for the 2025-2026 work plan and budget.

<u>Previous survey 2021-2022:</u>

	STARTED IN 2021 OR 2022	CONTINUED IN 2021 OR 2022	STOPPED IN 2021 OR 2022	TOTAL RESPONDENTS	
AquaDocs (former OceanDocs)	10.00% 1	80.00% 8	10.00% 1	10	High level of continuation with 1 new recruit and 1 loss
GODAR/WOD	7.14% 1	92.86% 13	0.00% 0	14	High level of continuation with 1 new recruit
GOSUD	12.50% 1	87.50% 7	0.00% 0	8	High level of continuation with 1 new recruit
GTSPP	8.33% 1	100.00% 12	0.00% 0	12	High level of continuation with 1 new recruit
ICAN	0.00% 0	100.00% 2	0.00% 0	2	All continued (low number) but no new recruits
IQuOD	0.00% 0	80.00% 4	20.00% 1	5	All continued (low number), no new recruits, 1 loss
Ocean Data Portal (ODP)	28.57% 4	78.57% 11	21.43% 3	14	All continued 4 new recruits, 3 loss
Ocean Biodiversity System (OBIS)	25.00% 9	86.11% 31	5.56% 2	36	High level of continuation with 9 new recruits
OceanBestPractices (jointly with GOOS)	16.00% 4	84.00% 21	0.00% 0	25	High level of continuation with 4 new recruits
Ocean InfoHub	38.46% 5	69.23% 9	7.69% 1	13	High level of continuation with 5 new recruits, 1 loss
Ocean Data and Information System (ODIS)	38.46% 10	73.08% 19	7.69% 2	26	High level of continuation with 10 new recruits,2 loss
OceanExpert	19.51% 8	90.24% 37	4.88% 2	41	High level of continuation with 8 new recruits, 2 loss
OceanTeacher Global Academy (including Alumni project)	22.73% 5	90.91% 20	4.55% 1	22	High level of continuation with 5 new recruits, 1 loss
PacMAN	0.00% 0	100.00% 2	0.00% 0	2	High level of continuation (low number)
IODE QMF	35.71% 5	71.43% 10	0.00% 0	14	High level of continuation with 5 new recruits

Previous survey 2019-2020:

	STARTED IN 2019 OR 2020	CONTINUED IN 2019 OR 2020	STOPPED IN 2019 OR 2020	TOTAL RESPONDENTS
JCOMM/IODE ETDMP	13.33% 2	93.33% 14	0.00% 0	15
GE-MIM	0.00% 0	100.00% 8	0.00% 0	8
OBIS	20.00% 6	80.00% 24	10.00% 3	30
GODAR	0.00% 0	80.00% 8	20.00% 2	10
WOD	14.29% 2	92.86% 13	7.14% 1	14
GTSPP	0.00% 0	87.50% 7	12.50% 1	8
GOSUD	0.00% 0	80.00% 4	20.00% 1	5
ICAN	40.00% 2	80.00% 4	0.00% 0	5
IQuOD	33.33% 2	66.67% 4	33.33% 2	6
OceanDataPortal	30.77% 4	69.23% 9	7.69% 1	13
OceanBestPractices	27.27% 6	81.82% 18	0.00% 0	22
OceanDocs	28.57% 4	92.86% 13	0.00% 0	14
OceanExpert	18.42% 7	89.47% 34	0.00% 0	38
OceanKnowledge Platform Pilot project	50.00% 2	0.00% 0	50.00% 2	4
OpenScienceDirectory	33.33% 1	66.67% 2	0.00% 0	3
OceanTeacher	23.33% 7	76.67% 23	6.67% 2	30
ODIS	41.67% 10	66.67% 16	0.00% 0	24
IODE QMF	33.33% 4	58.33% 7	16.67% 2	12

Q17: List the most important data activities/projects in which your centre is involved. PLEASE ADD THE URL IF AVAILABLE
(information available only in detailed reporting)

Q18: For measurements from vessels (research, ships of opportunity,etc) for which data types do you manage data:
2023-2024 vs 2021
(red=decline; green=increase; no color=change <2%)

	BIOLOGY	CHEMISTRY	GEOLOGY/GEOPHYSICS	MARINE METEOROLOGY	PHYSICS	TOTAL RESPONDENTS
Profiles (eg CTD)	55.32% 26	72.34% 34	21.28% 10	31.91% 15	80.85% 38	47
Water sample stations	84.44% 38	86.67% 39	13.33% 6	26.67% 12	57.78% 26	45
Underway measurements (eg thermosalinograph)	44.74% 17	55.26% 21	28.95% 11	44.74% 17	84.21% 32	38
Towed instruments (eg towed CTD, net trawl, camera,...)	86.11% 31	33.33% 12	25.00% 9	16.67% 6	61.11% 22	36
Seabed sampling (eg grabs, dredges, cores)	78.38% 29	54.05% 20	62.16% 23	10.81% 4	24.32% 9	37

The decrease in Physics reported for 2021-2022 has continued. Geology/geophysics has recovered (except for water sample stations). We now also see a decline in Chemistry (Profiles and Seabed sampling) and Biology (profiles and seabed sampling)
2021-2022 vs 2019-2020
(red=decline; green=increase; no color=change <2%)

	BIOLOGY	CHEMISTRY	GEOLOGY/GEOPHYSICS	MARINE METEOROLOGY	PHYSICS	TOTAL RESPONDENTS
Profiles (eg CTD)	68.33% 41	75.00% 45	16.67% 10	36.67% 22	83.33% 50	60
Water sample stations	86.21% 50	87.93% 51	18.97% 11	25.86% 15	70.69% 41	58
Underway measurements (eg thermosalinograph)	39.13% 18	52.17% 24	21.74% 10	32.61% 15	73.91% 34	46
Towed instruments (eg towed CTD, net trawl, camera,...)	82.93% 34	43.90% 18	19.51% 8	17.07% 7	63.41% 26	41
Seabed sampling (eg grabs, dredges, cores)	66.67% 32	64.58% 31	62.50% 30	14.58% 7	27.08% 13	48

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

	BIOLOGY	CHEMISTRY	GEOLOGY/GEOPHYSICS	MARINE METEOROLOGY	PHYSICS	TOTAL RESPONDENTS
Moored buoys (e.g. met. or wave buoy)	44.74% 17	50.00% 19	13.16% 5	68.42% 26	86.84% 33	38
Sub-surface moorings	42.86% 12	50.00% 14	17.86% 5	14.29% 4	85.71% 24	28
Structures/rigs (e.g. sea level stations)	15.15% 5	9.09% 3	15.15% 5	39.39% 13	87.88% 29	33
Beach/inter-tidal zone structures	57.89% 11	31.58% 6	31.58% 6	26.32% 5	47.37% 9	19

We see a sharp decline in Chemistry (3/4 platforms) and recovery in Physics and Marine Meteorology.

2021-2022 vs 2019-2020

(red=decline; green=increase; no color=change <2%)

	BIOLOGY	CHEMISTRY	GEOLOGY/GEOPHYSICS	MARINE METEOROLOGY	PHYSICS	TOTAL RESPONDENTS
Moored buoys (e.g. met. or wave buoy)	33.33% 14	54.76% 23	11.90% 5	61.90% 26	85.71% 36	42
Sub-surface moorings	44.12% 15	58.82% 20	20.59% 7	26.47% 9	79.41% 27	34
Structures/rigs (e.g. sea level stations)	26.32% 10	23.68% 9	13.16% 5	36.84% 14	76.32% 29	38
Beach/inter-tidal zone structures	59.38% 19	31.25% 10	28.13% 9	18.75% 6	53.13% 17	32

Q20: For measurements from <u>moving platforms</u> for which data types do you manage data:

	BIOLOGY	CHEMISTRY	GEOLOGY/GEOPHYSICS	MARINE METEOROLOGY	PHYSICS	TOTAL RESPONDENTS
Drifting buoys/floats	26.09% 6	26.09% 6	0.00% 0	39.13% 9	82.61% 19	23
Profiling Floats (e.g. Argo)	48.15% 13	59.26% 16	3.70% 1	18.52% 5	88.89% 24	27
Marine mammals/birds	72.73% 16	18.18% 4	0.00% 0	9.09% 2	40.91% 9	22
Autonomous submersible	66.67% 14	52.38% 11	33.33% 7	14.29% 3	80.95% 17	21

There is a dramatic decline in Geology Geophics as well as Physics. There is a substantial increase in Biology and improvement in Chemistry.

2021-2022 vs 2019-2020

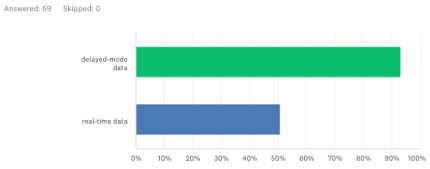
(red=decline; green=increase; no color=change <2%)

	BIOLOGY	CHEMISTRY	GEOLOGY/GEOPHYSICS	MARINE METEOROLOGY	PHYSICS	TOTAL RESPONDENTS
Drifting buoys/floats	38.46% 10	38.46% 10	3.85% 1	42.31% 11	84.62% 22	26
Profiling Floats (e.g. Argo)	42.86% 12	57.14% 16	3.57% 1	14.29% 4	96.43% 27	28
Marine mammals/birds	68.00% 17	12.00% 3	8.00% 2	16.00% 4	48.00% 12	25
Autonomous submersible	50.00% 9	55.56% 10	38.89% 7	11.11% 2	88.89% 16	18

Q21: Any other platforms, instruments, etc ?

(information available only in detailed reporting)

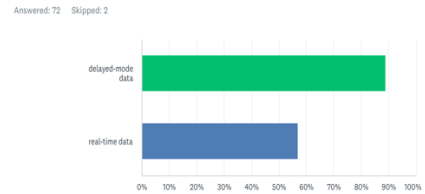
Q22: Did you handle (incoming) delayed-mode or real-time data:



ANSWER CHOICES	RESPONSES	
delayed-mode data	93.22%	55
real-time data	50.85%	30
Total Respondents: 59		

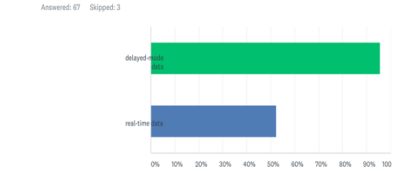
There is no significant change with the previous reporting periods.

<u>Previous survey 2021-2022:</u>



ANSWER CHOICES	RESPONSES	
delayed-mode data	88.89%	64
real-time data	56.94%	41
Total Respondents: 72		

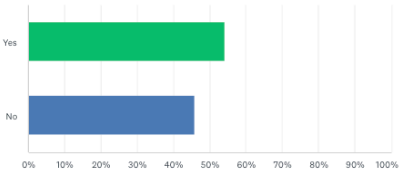
<u>Previous survey 2019-2020:</u>



ANSWER CHOICES	RESPONSES	
delayed-mode data	95.52%	64
real-time data	52.24%	35
Total Respondents: 67		

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 2023 and/or 2024?

Answered: 59 Skipped: 0



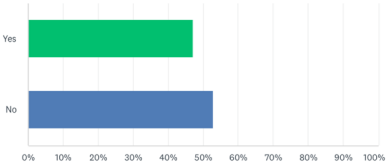
ANSWER CHOICES	RESPONSES	
Yes	54.24%	32
No	45.76%	27
TOTAL		59

Comments (30)

There is a significant increase in centres that have links with, and/or manage data from major science programmes (e.g., CLIVAR, IMBER, Argo, Future Earth, SOLAS, etc)

<u>Previous survey 2021-2022:</u>

Answered: 72 Skipped: 2

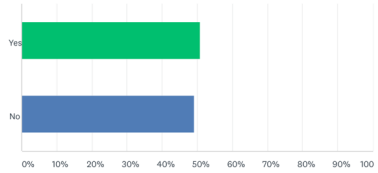


ANSWER CHOICES	RESPONSES	
Yes	47.22%	34
No	52.78%	38
TOTAL		72

Comments (33)

Previous survey:

Answered: 67 Skipped: 3



ANSWER CHOICES	RESPONSES	
Yes	50.75%	34
No	49.25%	33
TOTAL		67

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 2023-2024. Note that more info (including specifications) can be found on the web page http://www.goosocean.org/eov

It is noted that the EOVs have been reclassified. The type “biogeochemistry” has been removed and renamed to “biochemistry”. Under “physics” 2 new EOVs (ocean bottom pressure, marine debris) were added. Under Biology and Ecosystem the EOV “Harmful Algal (HAB) incidence” was removed. The total number of EOVs is now 33.
(red=decline; green=increase; no color=change <2%)

ANSWER CHOICES	RESPONSES	
PHYSICS: Sea state	55.81%	24
PHYSICS: Ocean surface stress	13.95%	6
PHYSICS: Sea Ice	16.28%	7
PHYSICS: Sea surface height	58.14%	25
PHYSICS: Sea surface temperature	76.74%	33
PHYSICS: Subsurface temperature	76.74%	33
PHYSICS: Surface currents	58.14%	25
PHYSICS: Subsurface currents	60.47%	26
PHYSICS: Sea surface salinity	83.72%	36
PHYSICS: Subsurface salinity	76.74%	33
PHYSICS: Ocean surface heat flux	23.26%	10
PHYSICS: Ocean bottom pressure	34.88%	15
BIOCHEMISTRY: Oxygen	81.40%	35
BIOCHEMISTRY: Nutrients	74.42%	32
BIOCHEMISTRY: Inorganic Carbon	46.51%	20
BIOCHEMISTRY: Transient tracers	16.28%	7
BIOCHEMISTRY: Particulate matter	39.53%	17
BIOCHEMISTRY: Nitrous oxide	25.58%	11
BIOCHEMISTRY: Stable carbon isotopes	23.26%	10
BIOCHEMISTRY: Dissolved organic carbon	46.51%	20
BIOCHEMISTRY: Ocean colour	37.21%	16
BIOCHEMISTRY: Marine debris	41.86%	18
BIOLOGY AND ECOSYSTEMS: Phytoplankton biomass and diversity	76.74%	33
BIOLOGY AND ECOSYSTEMS: Zooplankton biomass and diversity	67.44%	29
BIOLOGY AND ECOSYSTEMS: Fish abundance and distribution	60.47%	26
BIOLOGY AND ECOSYSTEMS: Marine turtles, birds, mammals abundance and distribution	51.16%	22
BIOLOGY AND ECOSYSTEMS: Hard coral cover and composition	39.53%	17
BIOLOGY AND ECOSYSTEMS: Seagrass cover and composition	44.19%	19
BIOLOGY AND ECOSYSTEMS: Macroalgal canopy cover and composition	37.21%	16
BIOLOGY AND ECOSYSTEMS: Mangrove cover and composition	27.91%	12
BIOLOGY AND ECOSYSTEMS: Microbe biomaa and diversity	32.56%	14
BIOLOGY AND ECOSYSTEMS: Invertebrate abundance and distribution	53.49%	23
BIOLOGY AND ECOSYSTEMS: Ocean sound	39.53%	17
Total Respondents: 43		

NEW

Of the 33 EOVs we see an increase (compared to 2021-2022) for 19 and a decline for 6. For 8 the coverage remained the same.

Previous survey 2021-2022 vs 2019-2020:

(red=decline; green=increase; no color=change <2%)

ANSWER CHOICES	RESPONSES	
PHYSICS: Sea state	53.57%	30
PHYSICS: Ocean surface stress	19.64%	11
PHYSICS: Sea Ice	16.07%	9
PHYSICS: Sea surface height	48.21%	27
PHYSICS: Sea surface temperature	91.07%	51
PHYSICS: Subsurface temperature	67.86%	38
PHYSICS: Surface currents	55.36%	31
PHYSICS: Subsurface currents	48.21%	27
PHYSICS: Sea surface salinity	80.36%	45
PHYSICS: Subsurface salinity	67.86%	38
PHYSICS: Ocean surface heat flux	21.43%	12
BIOGEOCHEMISTRY: Oxygen	71.43%	40
BIOGEOCHEMISTRY: Nutrients	76.79%	43
BIOGEOCHEMISTRY: Inorganic Carbon	50.00%	28
BIOGEOCHEMISTRY: Transient tracers	14.29%	8
BIOGEOCHEMISTRY: Particulate matter	48.21%	27
BIOGEOCHEMISTRY: Nitrous oxide	39.29%	22
BIOGEOCHEMISTRY: Stable carbon isotopes	17.86%	10
BIOGEOCHEMISTRY: Dissolved organic carbon	48.21%	27
BIOGEOCHEMISTRY: Ocean colour	32.14%	18
BIOLOGY AND ECOSYSTEMS: Phytoplankton biomass and diversity	67.86%	38
BIOLOGY AND ECOSYSTEMS: Harmful Algal Bloom (HAB) incidence	0.00%	0
BIOLOGY AND ECOSYSTEMS: Zooplankton biomass and diversity	64.29%	36
BIOLOGY AND ECOSYSTEMS: Fish abundance and distribution	53.57%	30
BIOLOGY AND ECOSYSTEMS: Marine turtles, birds, mammals abundance and distribution	39.29%	22
BIOLOGY AND ECOSYSTEMS: Hard coral cover and composition	21.43%	12
BIOLOGY AND ECOSYSTEMS: Seagrass cover	35.71%	20
BIOLOGY AND ECOSYSTEMS: Mangrove cover	25.00%	14
BIOLOGY AND ECOSYSTEMS: Macroalgal canopy cover	26.79%	15
BIOLOGY AND ECOSYSTEMS: Ocean sound	30.36%	17
BIOLOGY AND ECOSYSTEMS: Microbe biomass and diversity	21.43%	12
BIOLOGY AND ECOSYSTEMS: Benthic invertebrate abundance and distribution	55.36%	31
Total Respondents: 56		

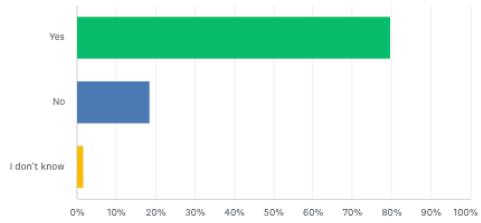
Previous survey 2019-2020:

ANSWER CHOICES	RESPONSES	
PHYSICS: Sea state	45.28%	24
PHYSICS: Ocean surface stress	15.09%	8
PHYSICS: Sea Ice	16.98%	9
PHYSICS: Sea surface height	58.49%	31
PHYSICS: Sea surface temperature	86.79%	46
PHYSICS: Subsurface temperature	71.70%	38
PHYSICS: Surface currents	62.26%	33
PHYSICS: Subsurface currents	50.94%	27
PHYSICS: Sea surface salinity	77.36%	41
PHYSICS: Subsurface salinity	67.92%	36
PHYSICS: Ocean surface heat flux	15.09%	8
BIOGEOCHEMISTRY: Oxygen	64.15%	34
BIOGEOCHEMISTRY: Nutrients	66.04%	35
BIOGEOCHEMISTRY: Inorganic Carbon	43.40%	23
BIOGEOCHEMISTRY: Transient tracers	11.32%	6
BIOGEOCHEMISTRY: Particulate matter	33.96%	18
BIOGEOCHEMISTRY: Nitrous oxide	32.08%	17
BIOGEOCHEMISTRY: Stable carbon isotopes	15.09%	8
BIOGEOCHEMISTRY: Dissolved organic carbon	32.08%	17
BIOGEOCHEMISTRY: Ocean colour	41.51%	22
BIOLOGY AND ECOSYSTEMS: Phytoplankton biomass and diversity	60.38%	32
BIOLOGY AND ECOSYSTEMS: Harmful Algal Bloom (HAB) incidence	0.00%	0
BIOLOGY AND ECOSYSTEMS: Zooplankton biomass and diversity	52.83%	28
BIOLOGY AND ECOSYSTEMS: Fish abundance and distribution	39.62%	21
BIOLOGY AND ECOSYSTEMS: Marine turtles, birds, mammals abundance and distribution	32.08%	17
BIOLOGY AND ECOSYSTEMS: Hard coral cover and composition	15.09%	8
BIOLOGY AND ECOSYSTEMS: Seagrass cover	24.53%	13
BIOLOGY AND ECOSYSTEMS: Mangrove cover	18.87%	10
BIOLOGY AND ECOSYSTEMS: Macroalgal canopy cover	13.21%	7
BIOLOGY AND ECOSYSTEMS: Ocean sound	22.64%	12
BIOLOGY AND ECOSYSTEMS: Microbe biomass and diversity	22.64%	12
BIOLOGY AND ECOSYSTEMS: Benthic invertebrate abundance and distribution	41.51%	22
Total Respondents: 53		

Q25: Does your centre maintain a data discovery portal for the data managed by your data centre in 2023 and/or 2024?

Does your centre/data unit maintain a data discovery portal for the data managed by your data centre/data unit in 2023 and/or 2024?

Answered: 59 Skipped: 0

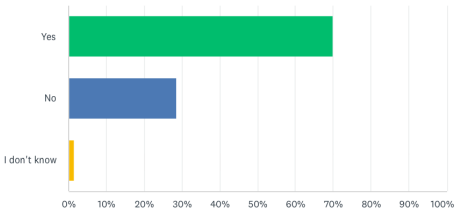


ANSWER CHOICES	RESPONSES	
Yes	79.66%	47
No	18.64%	11
I don't know	1.69%	1
TOTAL		59

There is no significant change between 2019 and 2024.

Previous survey 2021-2022

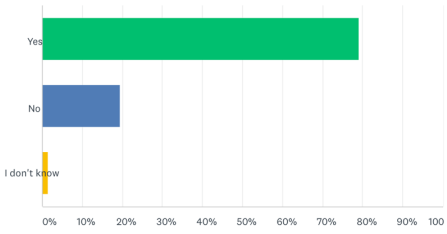
Answered: 70 Skipped: 4



ANSWER CHOICES	RESPONSES	
Yes	70.00%	49
No	28.57%	20
I don't know	1.43%	1
TOTAL		70

Previous survey 2019-2020:

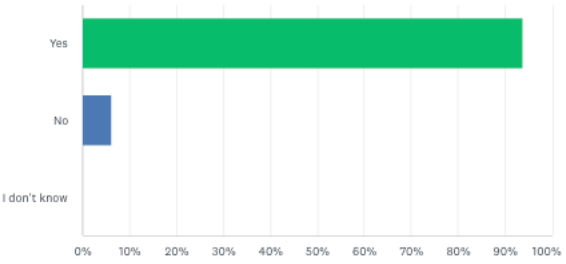
Answered: 67 Skipped: 3



ANSWER CHOICES	RESPONSES	
Yes	79.10%	53
No	19.40%	13
I don't know	1.49%	1
TOTAL		67

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

Answered: 49 Skipped: 10



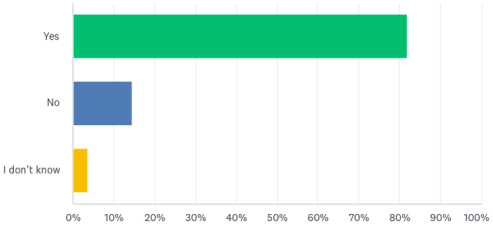
ANSWER CHOICES	RESPONSES	
Yes	93.88%	46
No	6.12%	3
I don't know	0.00%	0
TOTAL		49

Comments (41)

We see a significant increase in the availability of data discovery portals since 2019-2020 and 2021-2022.

<u>Previous survey 2021-2022:</u>

Answered: 55 Skipped: 19

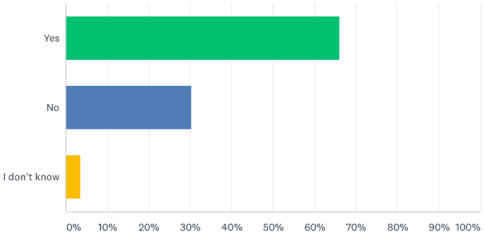


ANSWER CHOICES	RESPONSES	
Yes	81.82%	45
No	14.55%	8
I don't know	3.64%	2
TOTAL		55

Comments (43)

<u>Previous survey 2019-2020:</u>

Answered: 56 Skipped: 14



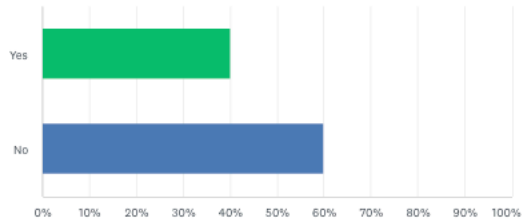
ANSWER CHOICES	RESPONSES	
Yes	66.07%	37
No	30.36%	17
I don't know	3.57%	2
TOTAL		56

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

(information available only in detailed reporting)

Q28: Has your data centre/data unit joined ODIS or OIH as a partner sharing data or information in 2023 or 2024?

Answered: 55 Skipped: 4



ANSWER CHOICES	RESPONSES	
Yes	40.00%	22
No	60.00%	33
TOTAL		55

This was a new question, so no data are available for previous years. The data show that only 40% of the NODCs and ADUs are currently connected to ODIS.

Q29: What spectrum of services (e.g. data and products) were started/continued/ended by your centre in 2021 and/or 2022? (choose one per row):
(red=decline; green=increase; no color=change <2%)

	STARTED IN 2023 OR 2024	CONTINUED IN 2023 AND 2024	STOPPED IN 2023 OR 2024	TOTAL
quality-controlled delayed-mode data sets	5.88% 3	94.12% 48	0.00% 0	51
access to real-time data	12.50% 4	87.50% 28	0.00% 0	32
maps	17.02% 8	82.98% 39	0.00% 0	47
GIS layers	18.60% 8	81.40% 35	0.00% 0	43
statistics	8.82% 3	91.18% 31	0.00% 0	34
data atlases	13.79% 4	82.76% 24	3.45% 1	29
numerical modelling outputs	9.68% 3	90.32% 28	0.00% 0	31

Many data centres started new services in 2023-2024 (QC-ed delayed-mode data sets, access to real=time data, maps, GIS layers, statistics, data atlases and numerical model outputs)

Previous survey 2021-2022:

	STARTED IN 2019 OR 2020	CONTINUED IN 2019 AND 2020	STOPPED IN 2019 OR 2020	TOTAL
quality-controlled delayed-mode data sets	7.27% 4	85.45% 47	7.27% 4	55
access to real-time data	2.78% 1	86.11% 31	11.11% 4	36
maps	3.92% 2	92.16% 47	3.92% 2	51
GIS layers	4.35% 2	93.48% 43	2.17% 1	46
statistics	13.64% 6	84.09% 37	2.27% 1	44
data atlases	2.78% 1	86.11% 31	11.11% 4	36
numerical modelling outputs	7.32% 3	85.37% 35	7.32% 3	41

Previous survey 2019-2020:

	STARTED IN 2019 OR 2020	CONTINUED IN 2019 AND 2020	STOPPED IN 2019 OR 2020	TOTAL
quality-controlled delayed-mode data sets	8.93% 5	89.29% 50	1.79% 1	56
access to real-time data	5.88% 2	91.18% 31	2.94% 1	34
maps	6.98% 3	88.37% 38	4.65% 2	43
GIS layers	13.64% 6	81.82% 36	4.55% 2	44
statistics	10.00% 4	90.00% 36	0.00% 0	40
data atlases	11.54% 3	80.77% 21	7.69% 2	26
numerical modelling outputs	9.38% 3	90.63% 29	0.00% 0	32

Q30: List the most important products and services (up to 15) provided by your data centre/data unit in the period 2023-2024. These may be new (started in 2023/2024) or ongoing products/services. If they are online products/services then please also provide the URL.

(information available only in detailed reporting)

Q31: How were data made available (e.g. by request, on-line access, etc.) in 2023 and/or 2024? (you can tick multiple rows but only 1 per row)

	STARTED IN 2023 OR 2024	CONTINUED IN 2023 AND 2024	STOPPED IN 2023 OR 2024	TOTAL
online without charge	8.51% 4	91.49% 43	0.00% 0	47
online with charge	16.67% 1	83.33% 5	0.00% 0	6
offline upon request without charge	5.26% 2	94.74% 36	0.00% 0	38
offline upon request with charge	0.00% 0	100.00% 6	0.00% 0	6
not at all	50.00% 2	25.00% 1	25.00% 1	4

Comments (12)

47 of the data centres reported that they now provide data on-line and free of charge and 38 provide data offline upon request, also free of charge. Only 12 charge for their services and 2 do not provide data at all.

Previous survey 2021-2022:

	STARTED IN 2018 OR 2020	CONTINUED IN 2019 AND 2020	STOPPED IN 2019 OR 2020	TOTAL
online without charge	10.20% 5	83.67% 41	6.12% 3	49
online with charge	0.00% 0	66.67% 4	33.33% 2	6
offline upon request without charge	8.70% 4	89.13% 41	2.17% 1	46
offline upon request with charge	0.00% 0	85.71% 12	14.29% 2	14
not at all	16.67% 1	33.33% 2	50.00% 3	6

Previous survey 2019-2020:

	STARTED IN 2018 OR 2020	CONTINUED IN 2019 AND 2020	STOPPED IN 2019 OR 2020	TOTAL
online without charge	9.62% 5	90.38% 47	0.00% 0	52
online with charge	0.00% 0	100.00% 7	0.00% 0	7
offline upon request without charge	6.00% 3	94.00% 47	0.00% 0	50
offline upon request with charge	0.00% 0	100.00% 17	0.00% 0	17
not at all	75.00% 3	25.00% 1	0.00% 0	4

Comments (8)

Q32: Indicate the average number of requests and services your centre provides in a year

2023

	LESS THAN 1000	BETWEEN 1001 AND 10,000	BETWEEN 10,001 AND 50,000	BETWEEN 50,000 AND 100,000	BETWEEN 100,000 AND 500,000	OVER 500,000	TOTAL
Number of requests per year (online and offline combined)	61.36% 27	18.18% 8	4.55% 2	0.00% 0	2.27% 1	13.64% 6	44
For online requests: number of visits to the online data service/portal per year	21.21% 7	45.45% 15	15.15% 5	0.00% 0	3.03% 1	15.15% 5	33

2024

	LESS THAN 1000	BETWEEN 1001 AND 10,000	BETWEEN 10,001 AND 50,000	BETWEEN 50,000 AND 100,000	BETWEEN 100,000 AND 500,000	OVER 500,000	TOTAL
Number of requests per year (online and offline combined)	57.14% 24	19.05% 8	7.14% 3	0.00% 0	2.38% 1	14.29% 6	42
For online requests: number of visits to the online data service/portal per year	18.75% 6	37.50% 12	25.00% 8	0.00% 0	3.13% 1	15.63% 5	32

The majority of data centres reports less than 1000 request/year (online and offline) in 2023 (numbers for 2024 are incomplete but are showing similar numbers). These results are similar to 2019-2020 and 2021-2022.

Previous survey 2021-2022

2021	LESS THAN 1000	BETWEEN 1001 AND 10,000	BETWEEN 10,001 AND 50,000	BETWEEN 50,000 AND 100,000	BETWEEN 100,000 AND 500,000	OVER 500,000	TOTAL
Number of requests per year (online and offline combined)	59.18% 29	16.33% 8	2.04% 1	2.04% 1	4.08% 2	16.33% 8	49
For online requests: number of visits to the online data service/portal per year	22.22% 8	30.56% 11	5.56% 2	11.11% 4	8.33% 3	22.22% 8	36

2022	LESS THAN 1000	BETWEEN 1001 AND 10,000	BETWEEN 10,001 AND 50,000	BETWEEN 50,000 AND 100,000	BETWEEN 100,000 AND 500,000	OVER 500,000	TOTAL
Number of requests per year (online and offline combined)	58.70% 27	17.39% 8	2.17% 1	2.17% 1	6.52% 3	13.04% 6	46
For online requests: number of visits to the online data service/portal per year	22.22% 8	33.33% 12	8.33% 3	8.33% 3	11.11% 4	16.67% 6	36

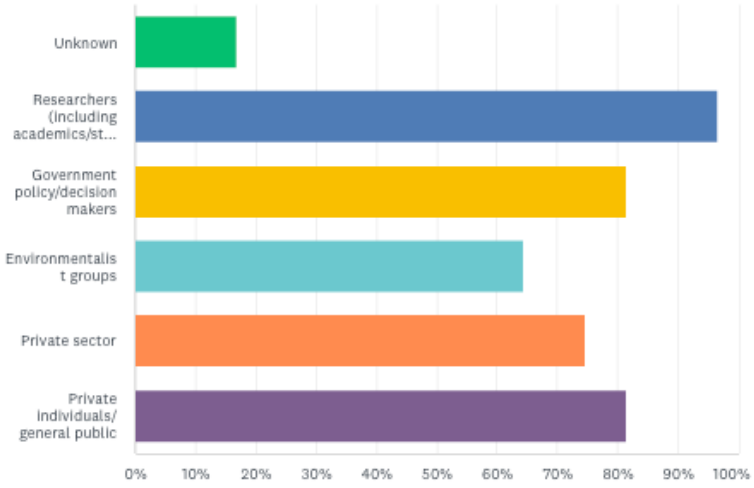
Previous survey 2019-2020:

2019	LESS THAN 1000	BETWEEN 1001 AND 10,000	BETWEEN 10,001 AND 50,000	BETWEEN 50,000 AND 100,000	BETWEEN 100,000 AND 500,000	OVER 500,000	TOTAL
Number of requests per year (online and offline combined)	63.64% 28	15.91% 7	9.09% 4	2.27% 1	6.82% 3	2.27% 1	44
For online requests: number of visits to the online data service/portal per year	36.36% 12	30.30% 10	12.12% 4	6.06% 2	9.09% 3	6.06% 2	33

2020	LESS THAN 1000	BETWEEN 1001 AND 10,000	BETWEEN 10,001 AND 50,000	BETWEEN 50,000 AND 100,000	BETWEEN 100,000 AND 500,000	OVER 500,000	TOTAL
Number of requests per year (online and offline combined)	65.91% 29	15.91% 7	6.82% 3	2.27% 1	4.55% 2	4.55% 2	44
For online requests: number of visits to the online data service/portal per year	36.36% 12	33.33% 11	9.09% 3	3.03% 1	12.12% 4	6.06% 2	33

Q33: Who are your users? (tick one or more)

Answered: 59 Skipped: 0

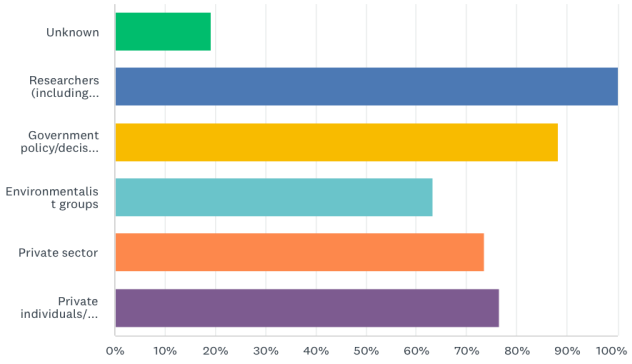


ANSWER CHOICES	RESPONSES	
Unknown	16.95%	10
Researchers (including academics/students)	96.61%	57
Government policy/decision makers	81.36%	48
Environmentalist groups	64.41%	38
Private sector	74.58%	44
Private individuals/ general public	81.36%	48
Total Respondents: 59		

The majority of data users remain researchers. In 2023-2024 we see a 7% decline of “government policy/decision makers” compared to 2021-2022 but quite the 2023-2024 results are quite similar to 2019-2020. Other categories remained the same except the general public which increased to over 80% (up from 65% in 2019-2020 and 76% in 2021-2022).

Previous survey 2021-2022

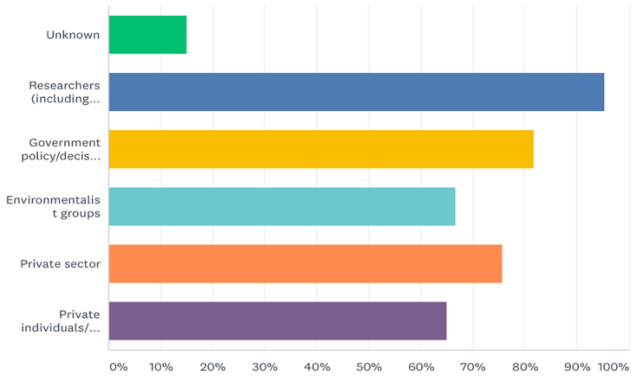
Answered: 68 Skipped: 6



ANSWER CHOICES	RESPONSES	
Unknown	19.12%	13
Researchers (including academics/students)	100.00%	68
Government policy/decision makers	88.24%	60
Environmentalist groups	63.24%	43
Private sector	73.53%	50
Private individuals/ general public	76.47%	52
Total Respondents: 68		

Previous survey 2019-2020:

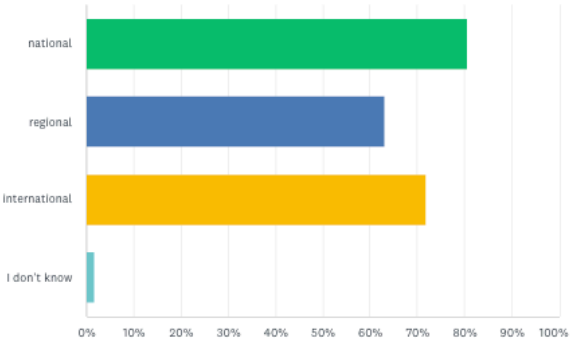
Answered: 66 Skipped: 4



ANSWER CHOICES	RESPONSES	
Unknown	15.15%	10
Researchers (including academics/students)	95.45%	63
Government policy/decision makers	81.82%	54
Environmentalist groups	66.67%	44
Private sector	75.76%	50
Private individuals/ general public	65.15%	43
Total Respondents: 66		

Q34: What is the geographic origin of your users

Answered: 57 Skipped: 2

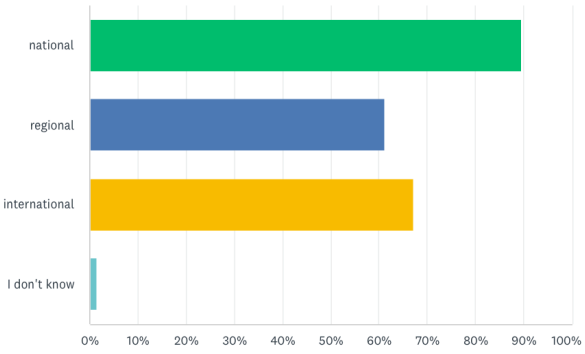


ANSWER CHOICES	RESPONSES	
national	80.70%	46
regional	63.16%	36
international	71.93%	41
I don't know	1.75%	1
Total Respondents: 57		

The national user seems to have declined sharply from 92% in 2019-2020, 89% in 2021-2022 to 81% in 2023-2024. Regional users varied between 61% and 69%. The loss of national users was largely compensated by international users (64% in 2019-2020, 67% in 2021-2022 and 72% in 2022-2023).

Previous survey 2021-2022

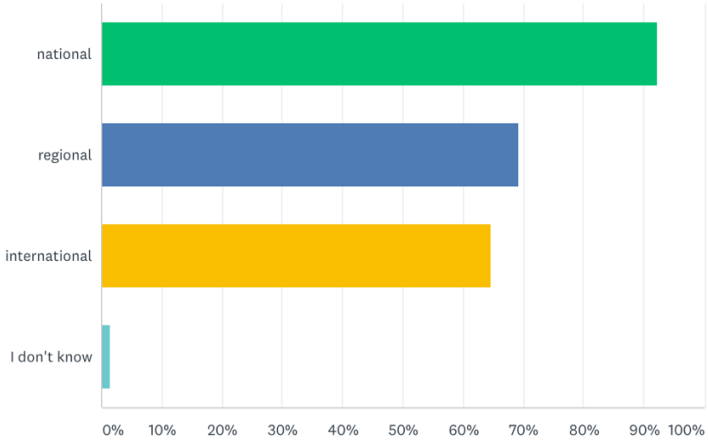
Answered: 67 Skipped: 7



ANSWER CHOICES	RESPONSES	
national	89.55%	60
regional	61.19%	41
international	67.16%	45
I don't know	1.49%	1
Total Respondents: 67		

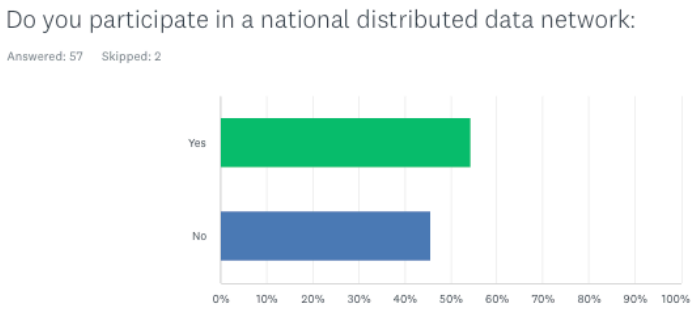
Previous survey 2019-2020:

Answered: 65 Skipped: 5



ANSWER CHOICES	RESPONSES	
national	92.31%	60
regional	69.23%	45
international	64.62%	42
I don't know	1.54%	1
Total Respondents: 65		

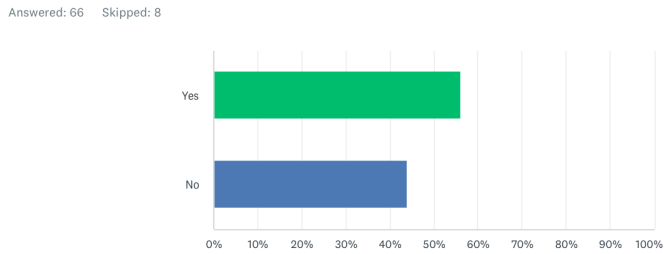
Q35: Do you participate in a national distributed data network



ANSWER CHOICES	RESPONSES	
Yes	54.39%	31
No	45.61%	26
TOTAL		57

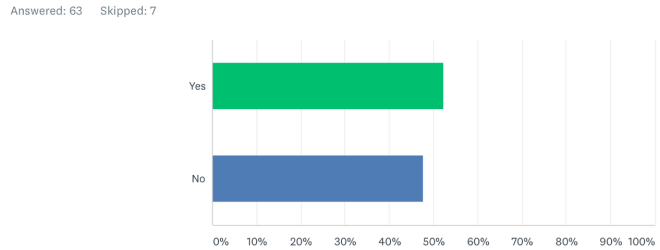
There is no significant change between 2019 and 2024.

Previous survey 2021-2022



ANSWER CHOICES	RESPONSES	
Yes	56.06%	37
No	43.94%	29
TOTAL		66

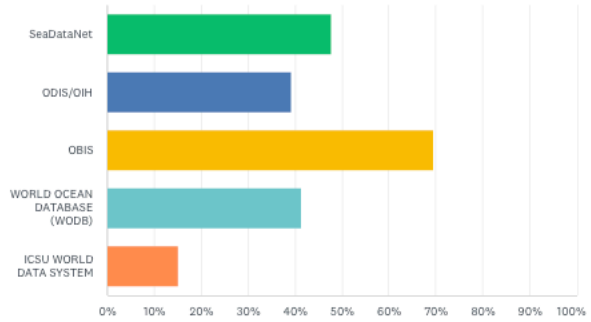
Previous survey 2019-2020:



ANSWER CHOICES	RESPONSES	
Yes	52.38%	33
No	47.62%	30
TOTAL		63

Q36: Do you provide data through the following international data networks

Answered: 46 Skipped: 13

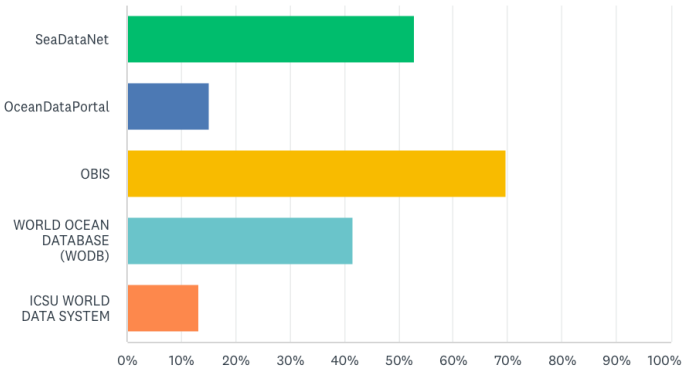


ANSWER CHOICES	RESPONSES	
SeaDataNet	47.83%	22
ODIS/OIH	39.13%	18
OBIS	69.57%	32
WORLD OCEAN DATABASE (WODB)	41.30%	19
ICSU WORLD DATA SYSTEM	15.22%	7
Total Respondents: 46		

There is a decline of sharing data through SeaDataNet: from 56% in 2019-2020, 53% in 2021-2022 to 48% in 2023-2024. While data sharing through ODP was quite limited to 15-16% the sharing through ODIS has risen quickly to 39% (2023-2024). Sharing through OBIS has remained high at 70%. Sharing through WOD has also remained stable at 41%. Sharing through WDS remains low at approx. 14%.

Previous survey 2021-2022

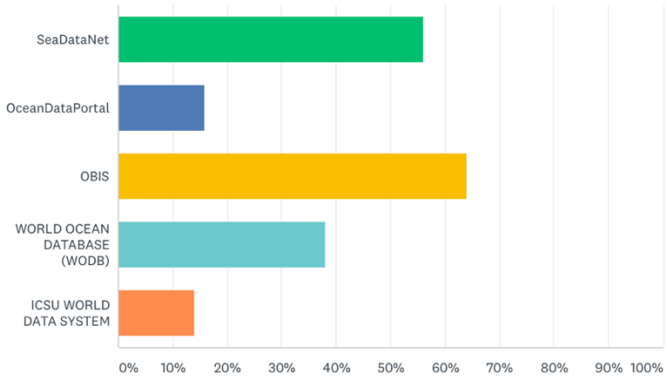
Answered: 53 Skipped: 21



ANSWER CHOICES	RESPONSES	
SeaDataNet	52.83%	28
OceanDataPortal	15.09%	8
OBIS	69.81%	37
WORLD OCEAN DATABASE (WODB)	41.51%	22
ICSU WORLD DATA SYSTEM	13.21%	7
Total Respondents: 53		

Previous survey 2019-2020:

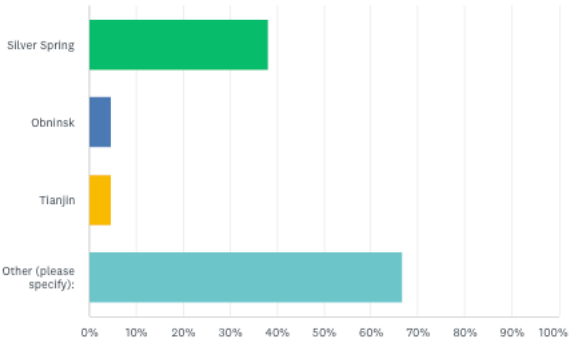
Answered: 50 Skipped: 20



ANSWER CHOICES	RESPONSES	
SeaDataNet	56.00%	28
OceanDataPortal	16.00%	8
OBIS	64.00%	32
WORLD OCEAN DATABASE (WODB)	38.00%	19
ICSU WORLD DATA SYSTEM	14.00%	7
Total Respondents: 50		

Q37: Did you provide data to World Data System (WDS) in 2023 and/or 2024 (you can select more than one or none)

Answered: 21 Skipped: 38

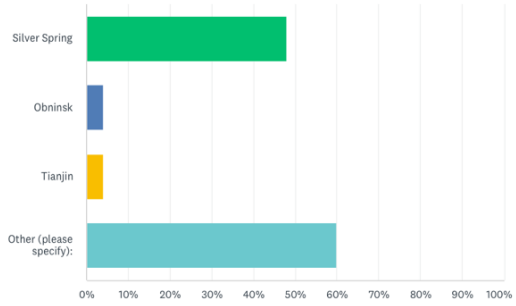


ANSWER CHOICES		RESPONSES	
Silver Spring		38.10%	8
Obninsk		4.76%	1
Tianjin		4.76%	1
Other (please specify):	Responses	66.67%	14
Total Respondents: 21			

The majority provides its data to the WDC in Silver Spring, USA. Responses under “other” include: PSMSL (2), ICES (2), EMODNET (1).

Previous survey 2021-2022

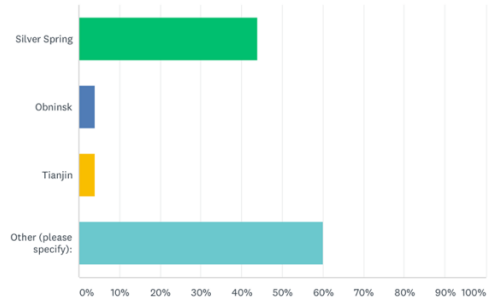
Answered: 25 Skipped: 49



ANSWER CHOICES		RESPONSES	
Silver Spring		48.00%	12
Obninsk		4.00%	1
Tianjin		4.00%	1
Other (please specify):	Responses	60.00%	15
Total Respondents: 25			

Previous survey 2019-2020:

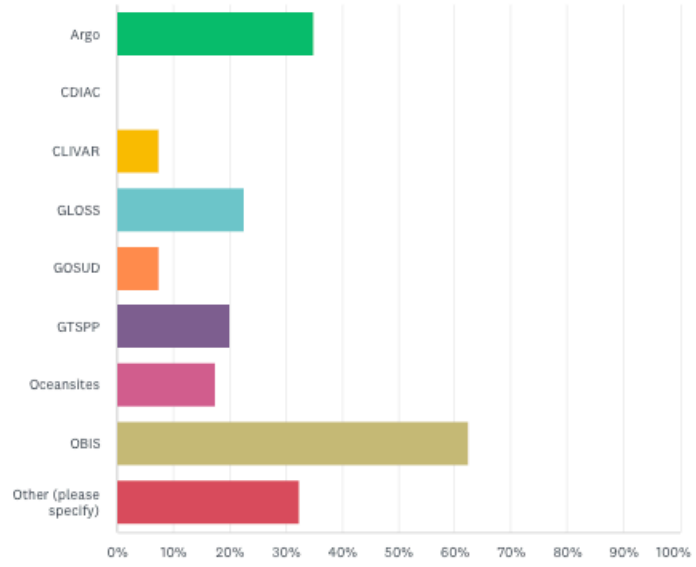
Answered: 25 Skipped: 45



ANSWER CHOICES		RESPONSES	
Silver Spring		44.00%	11
Obninsk		4.00%	1
Tianjin		4.00%	1
Other (please specify):	Responses	60.00%	15
Total Respondents: 25			

Q38: Did you send data to global specialized data centres (that are not ICSU WDSs) such as GDACs in 2023-2024? (you can tick as many as relevant)

Answered: 40 Skipped: 19

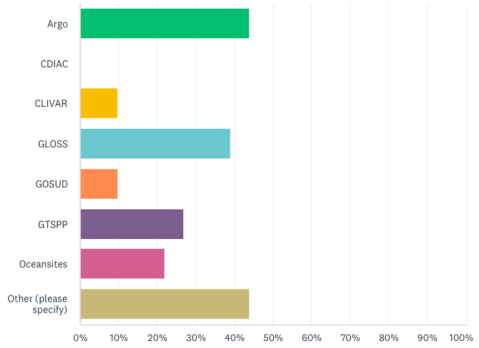


ANSWER CHOICES		RESPONSES	
Argo		35.00%	14
CDIAC		0.00%	0
CLIVAR		7.50%	3
GLOSS		22.50%	9
GOSUD		7.50%	3
GTSPP		20.00%	8
Oceansites		17.50%	7
OBIS		62.50%	25
Other (please specify)	Responses	32.50%	13
Total Respondents: 40			

Data are sent mostly to OBIS (62.5%, 25 centres), followed by Argo (35%, 14 centres).
Under the 32.5 “other” were reported: Copernicus, SeaDataNet,EMODnet, Coriolis GDAC, OceanOps, Global drifter programme, EGO/OceanGliders, DTO BioFlow, ICES, GoShip, GBIF, NEARGOOS, ODINWESTPAC, CMOC/China, GEBCO, FAO).

Previous survey 2021-2022:

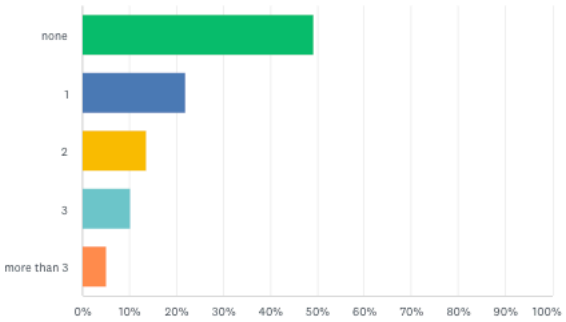
Answered: 41 Skipped: 33



ANSWER CHOICES		RESPONSES	
Argo		43.90%	18
CDIAC		0.00%	0
CLIVAR		9.76%	4
GLOSS		39.02%	16
GOSUD		9.76%	4
GTSPP		26.83%	11
Oceansites		21.95%	9
Other (please specify)	Responses	43.90%	18
Total Respondents: 41			

Q39: In how many IODE training courses did you participate in 2023 and/or 2024

Answered: 59 Skipped: 0

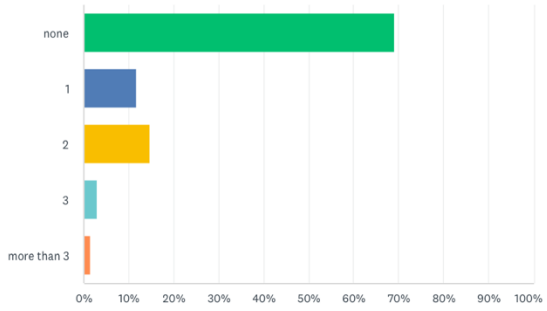


ANSWER CHOICES	RESPONSES	
none	49.15%	29
1	22.03%	13
2	13.56%	8
3	10.17%	6
more than 3	5.08%	3
TOTAL		59

In 2023-2024 22% reported participating in 1 IODE course (12% in 2021-2022); 13.5% participated in 2 courses (14.7% in 2021-2022) and 10% in 3 courses (3% in 2021-2022). But nearly half of the responding data centres participated in no IODE course.

Previous survey 2021-2022

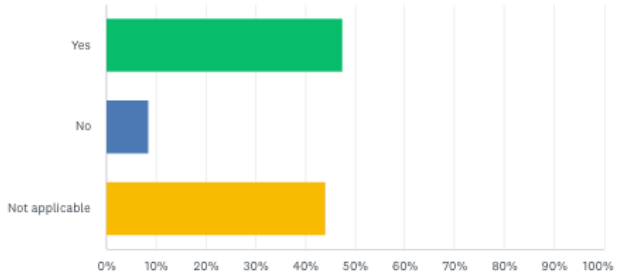
Answered: 68 Skipped: 6



ANSWER CHOICES	RESPONSES	
none	69.12%	47
1	11.76%	8
2	14.71%	10
3	2.94%	2
more than 3	1.47%	1
TOTAL		68

Q40: Did the IODE training assist you in your work after you returned home?

Answered: 59 Skipped: 0



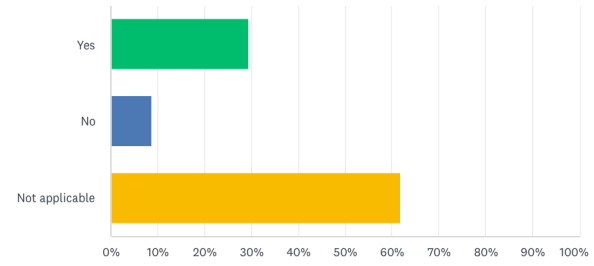
ANSWER CHOICES	RESPONSES	
Yes	47.46%	28
No	8.47%	5
Not applicable	44.07%	26
TOTAL		59

Comments (7)

90% of respondents that participated in IODE courses stated that the IODE training assisted them in their work after returning home (27% answered negative). In 2021-2022 only 77% answered positive and 23% negative.

Previous survey 2021-2022:

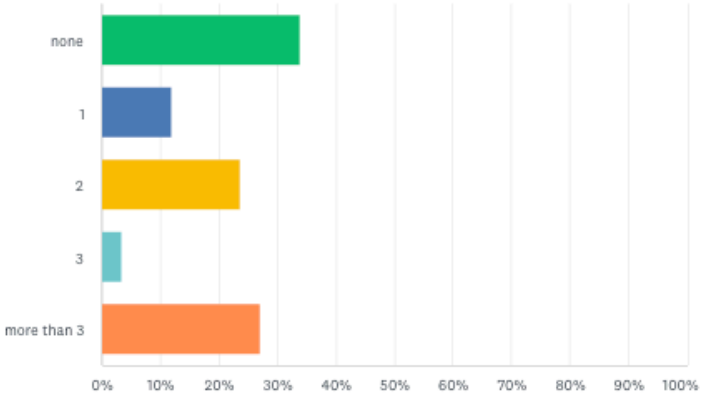
Answered: 68 Skipped: 6



ANSWER CHOICES	RESPONSES	
Yes	29.41%	20
No	8.82%	6
Not applicable	61.76%	42
TOTAL		68

Q41: In how many other training courses did you participate in 2023 and/or 2024 organized by national or other organizers

Answered: 59 Skipped: 0

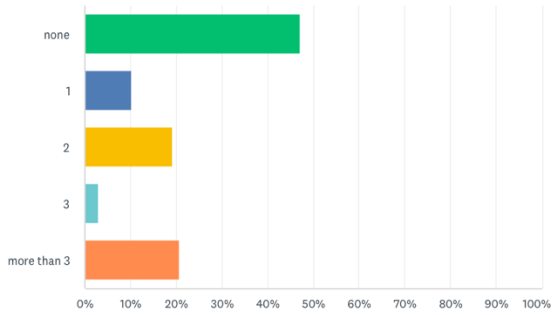


ANSWER CHOICES	RESPONSES	
none	33.90%	20
1	11.86%	7
2	23.73%	14
3	3.39%	2
more than 3	27.12%	16
TOTAL		59

The number of respondents reporting no course participation is 34% which is lower than the “no” reply for the previous question but still significant.

Previous survey 2021-2022

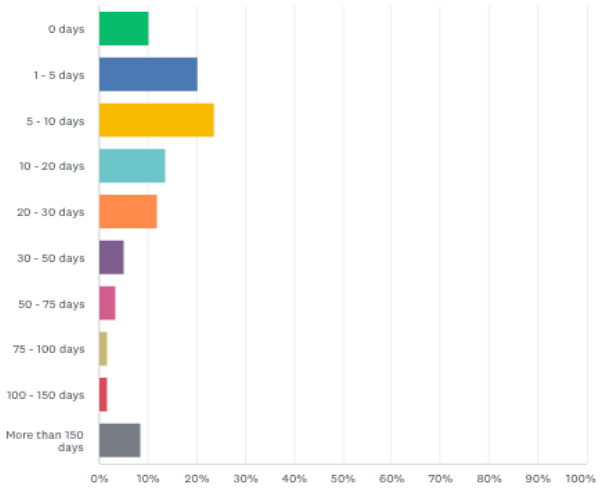
Answered: 68 Skipped: 6



ANSWER CHOICES	RESPONSES	
none	47.06%	32
1	10.29%	7
2	19.12%	13
3	2.94%	2
more than 3	20.59%	14
TOTAL		68

Q42: 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 2023-2024 (2023 and 2024 added together)?

Answered: 59 Skipped: 0

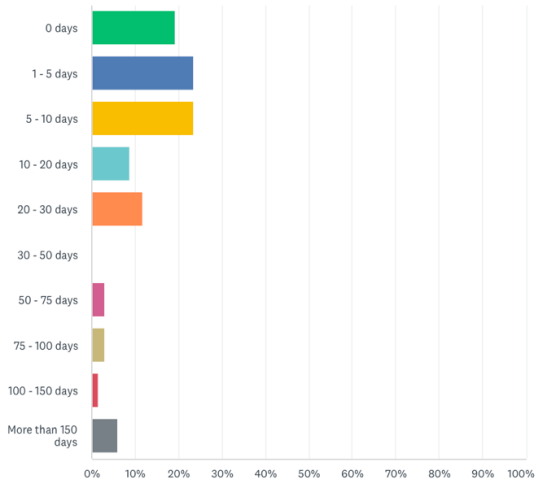


ANSWER CHOICES	RESPONSES	
0 days	10.17%	6
1 - 5 days	20.34%	12
5 - 10 days	23.73%	14
10 - 20 days	13.56%	8
20 - 30 days	11.86%	7
30 - 50 days	5.08%	3
50 - 75 days	3.39%	2
75 - 100 days	1.69%	1
100 - 150 days	1.69%	1
More than 150 days	8.47%	5
TOTAL		59

The number of respondents that reported no work time contribution to IODE has declined to 10% (19% in 2021-2022 and 14% in 2019-2021). The majority provides 1-5 days or 5-10 days over the course of 2 years.

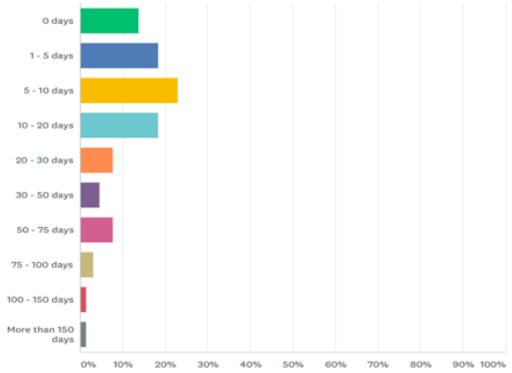
Previous survey 2021-2022:

Answered: 68 Skipped: 6



ANSWER CHOICES	RESPONSES	
0 days	19.12%	13
1 - 5 days	23.53%	16
5 - 10 days	23.53%	16
10 - 20 days	8.82%	6
20 - 30 days	11.76%	8
30 - 50 days	0.00%	0
50 - 75 days	2.94%	2
75 - 100 days	2.94%	2
100 - 150 days	1.47%	1
More than 150 days	5.88%	4
TOTAL		68

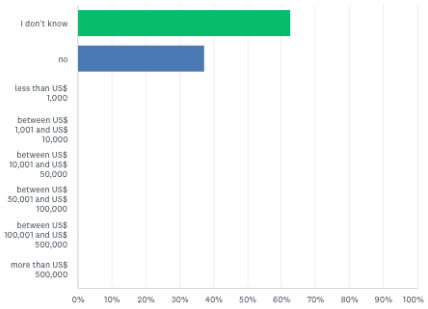
Previous survey 2019-2020:



ANSWER CHOICES	RESPONSES	
0 days	13.85%	9
1 - 5 days	18.46%	12
5 - 10 days	23.08%	15
10 - 20 days	18.46%	12
20 - 30 days	7.69%	5
30 - 50 days	4.62%	3
50 - 75 days	7.69%	5
75 - 100 days	3.08%	2
100 - 150 days	1.54%	1
More than 150 days	1.54%	1
TOTAL		65

Q43: Will your country be providing direct financial support to IODE in 2025-2026 through the IOC (confirmed)?

Answered: 59 Skipped: 0

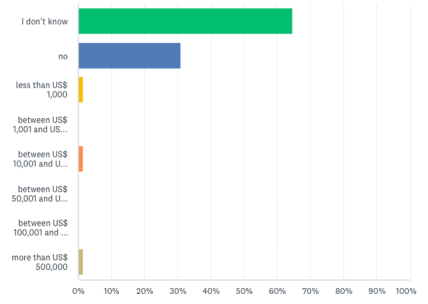


ANSWER CHOICES	RESPONSES	
I don't know	62.71%	37
no	37.29%	22
less than US$ 1,000	0.00%	0
between US$ 1,001 and US$ 10,000	0.00%	0
between US$ 10,001 and US$ 50,000	0.00%	0
between US$ 50,001 and US$ 100,000	0.00%	0
between US$ 100,001 and US$ 500,000	0.00%	0
more than US$ 500,000	0.00%	0
TOTAL		59

None of the respondents provided a positive response to the question if their country will be providing direct financial support to IODE in 2025-2026 through the IOC (confirmed). This is similar to previous reports.

Previous survey 2021-2022

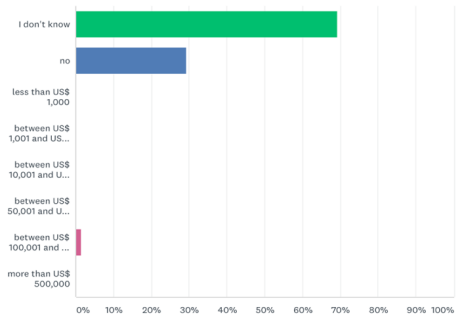
Answered: 68 Skipped: 6



ANSWER CHOICES	RESPONSES	
I don't know	64.71%	44
no	30.88%	21
less than US$ 1,000	1.47%	1
between US$ 1,001 and US$ 10,000	0.00%	0
between US$ 10,001 and US$ 50,000	1.47%	1
between US$ 50,001 and US$ 100,000	0.00%	0
between US$ 100,001 and US$ 500,000	0.00%	0
more than US$ 500,000	1.47%	1
TOTAL		68

Previous survey 2019-2020:

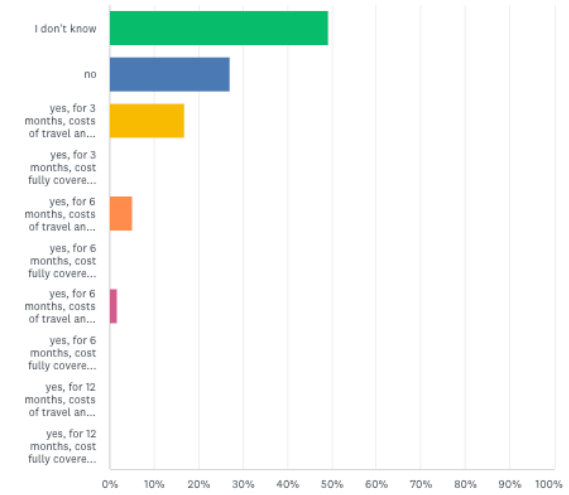
Answered: 65 Skipped: 5



ANSWER CHOICES	RESPONSES	
I don't know	69.23%	45
no	29.23%	19
less than US$ 1,000	0.00%	0
between US$ 1,001 and US$ 10,000	0.00%	0
between US$ 10,001 and US$ 50,000	0.00%	0
between US$ 50,001 and US$ 100,000	0.00%	0
between US$ 100,001 and US$ 500,000	1.54%	1
more than US$ 500,000	0.00%	0
TOTAL		65

Q44: Would your country/data centre be able to provide a visiting expert/secondment to the IOC Project Office for IODE in 2025-2026 (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?

Answered: 59 Skipped: 0

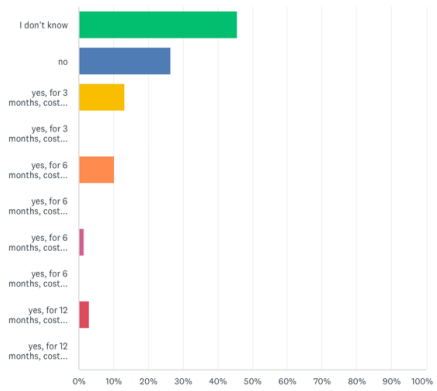


ANSWER CHOICES	RESPONSES	
I don't know	49.15%	29
no	27.12%	16
yes, for 3 months, costs of travel and local expenses to be covered by IODE	16.95%	10
yes, for 3 months, cost fully covered by your country	0.00%	0
yes, for 6 months, costs of travel and local expenses to be covered by IODE	5.08%	3
yes, for 6 months, cost fully covered by your country	0.00%	0
yes, for 6 months, costs of travel and local expenses to be covered by IODE	1.69%	1
yes, for 6 months, cost fully covered by your country	0.00%	0
yes, for 12 months, costs of travel and local expenses to be covered by IODE	0.00%	0
yes, for 12 months, cost fully covered by your country	0.00%	0
TOTAL		59

The majority of respondents was unable to respond positively to the question if their country/data centre will be able to provide a visiting expert/secondment to the IOC Project Office for IODE in 2025-2026 (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. 17% responded that a visiting/expert or secondment of 3 months would be possible provided that IODE covers the expenses. This is slightly better than for previous surveys.

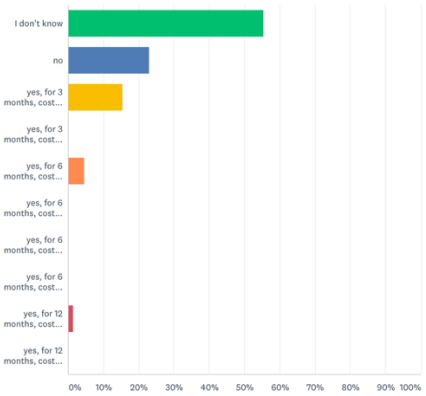
Previous survey 2021-2022:

Answered: 68 Skipped: 6



ANSWER CHOICES	RESPONSES	
I don't know	45.59%	31
no	26.47%	18
yes, for 3 months, costs of travel and local expenses to be covered by IODE	13.24%	9
yes, for 3 months, cost fully covered by your country	0.00%	0
yes, for 6 months, costs of travel and local expenses to be covered by IODE	10.29%	7
yes, for 6 months, cost fully covered by your country	0.00%	0
yes, for 6 months, costs of travel and local expenses to be covered by IODE	1.47%	1
yes, for 6 months, cost fully covered by your country	0.00%	0
yes, for 12 months, costs of travel and local expenses to be covered by IODE	2.94%	2
yes, for 12 months, cost fully covered by your country	0.00%	0
TOTAL		68

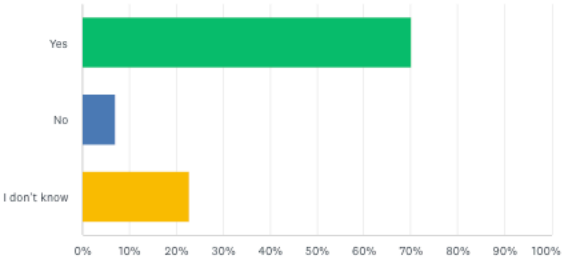
Previous survey 2019-2020:



ANSWER CHOICES	RESPONSES	
I don't know	55.38%	36
no	23.08%	15
yes, for 3 months, costs of travel and local expenses to be covered by IODE	15.38%	10
yes, for 3 months, cost fully covered by your country	0.00%	0
yes, for 6 months, costs of travel and local expenses to be covered by IODE	4.62%	3
yes, for 6 months, cost fully covered by your country	0.00%	0
yes, for 6 months, costs of travel and local expenses to be covered by IODE	0.00%	0
yes, for 6 months, cost fully covered by your country	0.00%	0
yes, for 12 months, costs of travel and local expenses to be covered by IODE	1.54%	1
yes, for 12 months, cost fully covered by your country	0.00%	0
TOTAL		65

Q45: 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)

Answered: 57 Skipped: 2

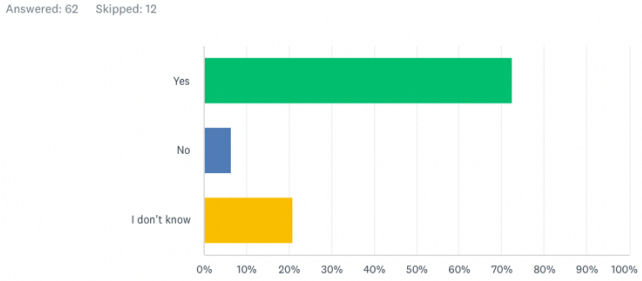


ANSWER CHOICES	RESPONSES	
Yes	70.18%	40
No	7.02%	4
I don't know	22.81%	13
TOTAL		57

Approximately 70% answered that the host institution of their data centre is involved in activities related to the Sustainable Development Goals. This is similar to the previous surveys.

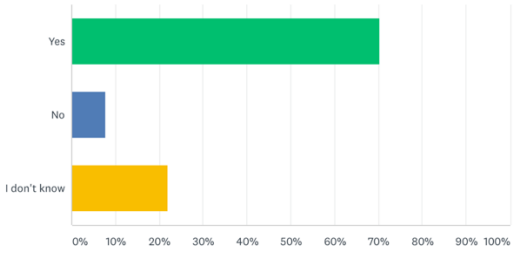
Previous survey 2021-2022:

Answered: 62 Skipped: 12



ANSWER CHOICES	RESPONSES	
Yes	72.58%	45
No	6.45%	4
I don't know	20.97%	13
TOTAL		62

Previous survey 2019-2020:



ANSWER CHOICES	RESPONSES	
Yes	70.31%	45
No	7.81%	5
I don't know	21.88%	14
TOTAL		64

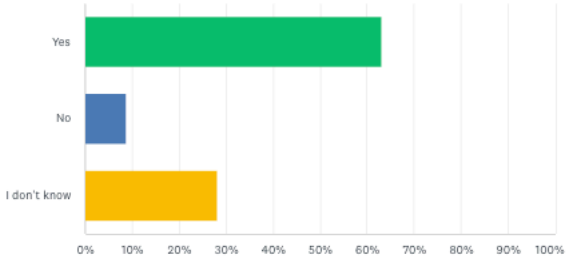
We see a slight increase

Q46: If you answered "yes" to the previous question then please provide details

(information available only in detailed reporting)

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

Answered: 57 Skipped: 2

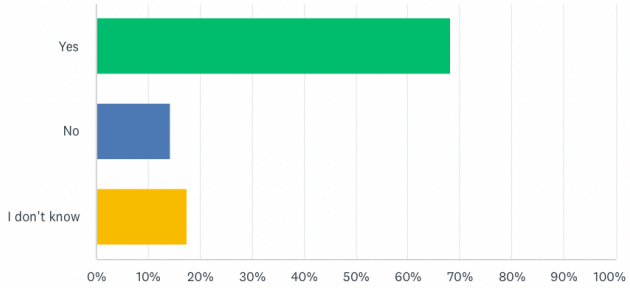


ANSWER CHOICES	RESPONSES	
Yes	63.16%	36
No	8.77%	5
I don't know	28.07%	16
TOTAL		57

There is a sharp decline in data centres planning activities in the Ocean Decade (from 78% in 2019-2020, to 68% in 2021-2022, to 63% in 2023-2024).

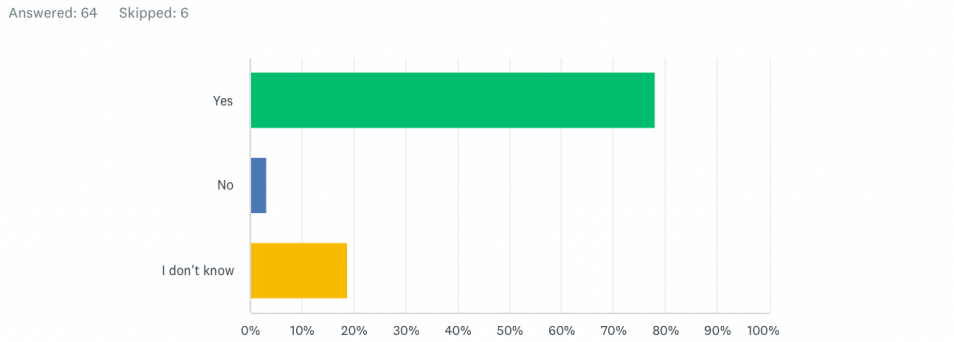
<u>Previous survey 2021-2022</u>

Answered: 63 Skipped: 11



ANSWER CHOICES	RESPONSES	
Yes	68.25%	43
No	14.29%	9
I don't know	17.46%	11
TOTAL		63

Previous survey 2019-2020:



ANSWER CHOICES	RESPONSES	
Yes	78.13%	50
No	3.13%	2
I don't know	18.75%	12
TOTAL		64

Q48: If you answered "yes "to the previous question then please provide details

(information available only in detailed reporting)

[end of document]

ANNEX 1: List of IODE NODCs and ADUs indicating if they responded to the 2023-2024 survey

NODC

Email Address	First Name	Middle Name	Last Name	Country (nationality)	response
asscardilli@hidro.gov.ar	Alvaro	Santiago	Scardilli	Argentina	1
mark.rehbein@utas.edu.au	Mark		Rehbein	Australia	1
rlagring@naturalsciences.be	Ruth		Lagring	Belgium	1
lennert.tyberghein@vliz.be	Lennert		Tyberghein	Belgium	1
gdegbe@yahoo.fr	Cossi Georges Epiphane		DEGBE	Benin	
vladimircostamaluf@gmail.com	VLADIMIR	COSTA	MALUF	Brazil	1
marinova@io-bas.bg	Veselka	Marinova	Marinova	Bulgaria	1
sylondocarlo@yahoo.fr	Sylvie	Carole	Ondo Ntyam	Cameroon	
erin.turnbull@dfo-mpo.gc.ca	Erin		Turnbull	Canada	
cendhoc@shoa.cl	Teresa	Carolina	Calvete	Chile	1
shisuixiang@hotmail.com	Suixiang		SHI	China	1
rubyviortiz@gmail.com	Ruby	Viviana	Ortiz Mart√≠nez	Colombia	1
a.abdoulkaim@gmail.com	Ahmed		Abdoulkarim	Comoros	
nguessan.k.benjamin@gmail.com	Benjamin	Kouadio	N'GUESSAN	Cote d'Ivoire	1
damir.ivankovic@izor.hr	Damir		Ivankovic	Croatia	
hayesdan@cyprus-subsea.com	Daniel		Hayes	Cyprus	
jmbope2lap@gmail.com	Bope	Jean Marie	Bope Lapwong	Democratic Republic of the Congo	
mr.m_nassar@yahoo.com	Mohamed	A.	Nassar	Egypt	1
valerie.harscoat@ifremer.fr	Valerie		Harscoat	France	1
susanne.tamm@bsh.de	Susanne		Tamm	Germany	1
eunicomgh@yahoo.com	Eunice	Nuerkie	Ofoli-Anum	Ghana	
sissy@hnodc.hcmr.gr	Athanasia	(Sissy)	Iona	Greece	1
bkandey@yahoo.fr	Kand√®		Bangoura	Guinea	
uday@incois.gov.in	Tata		VS Udaya Bhaskar	India	1
hammam.riza@brin.go.id	Hammam		RIZA	Indonesia	
inioas.office@gmail.com	Mortaza		Tavakoli	Iran (Islamic Republic of)	1
eoin.ogrady@marine.ie	Eoin		O'Grady	Ireland	1
isaacgert@gmail.com	Isaac		Gertman	Israel	
agiorgetti@inogs.it	Alessandra		Giorgetti	Italy	1
jodc_director@jodc.go.jp	Tatsuo		Komori	Japan	1
eltai_a@meteo.kz	Aizat		Eltai	Kazakhstan	1
honganda@kmfri.go.ke	Harrison	Ochieng	ONGANDA	Kenya	1
ainaledon294@gmail.com	Aina Le Don		NOMENISOA	Madagascar	1
bambayeh@yahoo.fr	Bambaye		Ould Hamady	Mauritania	
hrunghen@govmu.org	Hemanaden		Runghen	Mauritius	1

jmartin@uabc.edu.mx	Jose	Martin	Hernandez Ayon	Mexico	1
clousamaueua@gmail.com	Clousa	Sarmento	Maueua	Mozambique	1
Taco.de.Bruin@nioz.nl	Taco	F.	De Bruin	Netherlands (Kingdom of the)	
no contact				Nigeria	
Helge.Sagen@imr.no	Helge		Sagen	Norway	1
uzairlodhi.gop@gmail.com	Uzair		Lodhi	Pakistan	1
yolandairene28@gmail.com	Yolanda	Irene	L√≥pez	Panama	1
giacomomorote@gmail.com	Giacomo	Antonio	Morote Somontes	Peru	
geraldes.dias@hidrografico.pt	Telmo		Dias	Portugal	1
tanya.silveira@ipma.pt	Tanya	Mendes	Silveira	Portugal	1
leejoonsoo@gmail.com	Joon-Soo		Lee	Republic of Korea	0
lbuga@alpha.rmri.ro	Luminita		Buga	Romania	1
belov@meteo.ru	Sergey		Belov	Russian Federation	1
fayebayzal100@yahoo.fr	Saliou		Faye	Senegal	
branko.cermelj@nib.si	Branko		Cermelj	Slovenia	1
elena.tel@ieo.csic.es	Elena		Tel	Spain	1
Lotta.Fyrberg@smhi.se	Katarina Lotta	Elisabeth	Fyrberg	Sweden	1
adjoussi@gmail.com	Pessi√®zoum	Dieudonn√©	ADJOUSSI	Togo	
Belhassen.malika@instm.rnrt.tn	Malika		Bel Hassen-Abid	Tunisia	
eraykalem789@gmail.com	Eray		KALEM	Turkiye	1
vkomorin@gmail.com	Viktor		Komorin	Ukraine	
mahe@noc.ac.uk	Mark		Hebden	United Kingdom of Great Britain and Northern Ireland	1
desiderius.masalu@udsm.ac.tz	Desiderius	C. P.	MASALU	United Republic of Tanzania	1
Hernan.Garcia@noaa.gov	Hernan	Eduardo	Garcia	United States of America	1

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ADU 59

66.1016949

Email Address	**First Name**	**Middle Name**	**Last Name**	**Country (nationality)**	
zarate@cenpat-conicet.gob.ar	Marcos	Daniel	Z√°rate	Argentina	
katherine.tattersall@csiro.au	Katherine		Tattersall	Australia	1
rroach@coastal.gov.bb	Ramon	Nigel	Roach	Barbados	
avandeputte@naturalsciences.be	Anton	Pieter	Van de Putte	Belgium	1
jonpye@gmail.com	Jonathan	Derek	Pye	Canada	
martha.vides@invemar.org.co	Martha	Patricia	Vides Casado	Colombia	
jefatura.labsis@invemar.org.co	Jhonny	Humberto	Garces Ortega	Colombia	
mmachuca@cpps-int.org	Monica		Machuca	Ecuador	
nickgc_2000@yahoo.com	Nikita		Gaibor	Ecuador	
n.bailly@q-quatics.org	Nicolas		Bailly	France	

wocean@consultant.com	Kakhaber		Bilashvili	Georgia	1
dmavraki@hcmr.gr	Dimitra		Mavraki	Greece	1
kari@caff.is	K√°ri	Fannar	L√°russon	Iceland	
saravanane@cmlre.gov.in	Narayanane		Saravanane	India	
udhi001@brin.go.id	Udhi	Eko	Hernawan	Indonesia	
hanieh.saeedi@gmail.com	Hanieh		Saeedi	Germany	1
alhello@ymail.com	Abdulzahra	Abdulrasool	Alhello	Iraq	
scarter@isa.org.jm	Sheldon	Heron	Carter	Jamaica	
hosonot@jamstec.go.jp	Takashi		Hosono	Japan	1
aidy@umt.edu.my	Aidy		M Muslim	Malaysia	
javier.duron@inegi.org.mx	Javier		Dur√≥n-D√≠az	Mexico	1
cbelloran@aseanbiodiversity.org	Christian	B	Elloran	Philippines	1
lgenio@isa.org.jm	Luciana		Genio	Portugal	
shbaek@mabik.re.kr	SangHo		Baek	Republic of Korea	1
Tshikana.deff@gmail.com	Tshikana	Phillip	Rasehlomi	South Africa	1
michael.fleischman@kelp.blue	Michael	James	Fleischman	South Africa	
jfernandez@socib.es	Juan Gabriel		Fern√°ndez	Spain	1
o.neprokin@gmail.com	Oleksandr	Oleksandr	Neprokin	Ukraine	
igor.polikarpov@gmail.com	Igor		Polikarpov	Ukraine	
neilh@ices.dk	Neil		Holdsworth	Denmark	1
dble@mba.ac.uk	Dan		Lear	United Kingdom of Great Britain and Northern Ireland	1
John.Nicholls@tcd.ie	John	Heaton	Nicholls	United Kingdom of Great Britain and Northern Ireland	1
cfpo@bodc.ac.uk	Clare	F	Postlethwaite	United Kingdom of Great Britain and Northern Ireland	1
data.manager@cefas.co.uk	Laura		Hanley	United Kingdom of Great Britain and Northern Ireland	1
arodrigues@gbif.org	Andrew		Rodrigues	United Kingdom of Great Britain and Northern Ireland	
efujioka@duke.edu	Ei		Fujioka	United States of America	1
dkinkade@whoi.edu	Danie		Kinkade	United States of America	
albenson@usgs.gov	Abby		Benson	United States of America	1
hbartjr@tulane.edu	Henry	Leonard	Bart	United States of America	
eklein@usb.ve	Eduardo		Klein	Venezuela (Bolivarian Republic of)	1

19

41

46.3414634

TOTAL RESPONSES 58

Total expected	100
Total response rate	58.0

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