

## OCEAN OBSERVATION STUDY: FULL QUESTION BANK

- The following is a complete set of the questions that respondents could potentially see in the survey. However, central to the new survey strategy will be the use of advanced logic that eliminates questions that would be irrelevant to different types of respondents. This strategy will minimize burden, and a large majority of respondents will not be required to respond to the full question set.
- Questions #2 (a respondent's organization type) and #3 (a respondent's type of ocean, coastal, or Great Lakes measurement, observation, or forecasting product or service) will be the principal questions used to tailor the survey experience. The customization will also include tailoring the term used for respondents' businesses (e.g., "your subsidiary," "your division," or "your company") throughout the survey. However, in this document, the neutral term "[business entity]" is used as a placeholder.

### \*\*\*\*\*START OF SURVEY QUESTIONS

1. What is the name and location of the business entity that you represent?
  - Company Name: \_\_\_\_\_
  - City: \_\_\_\_\_
  - State / Country (if outside U.S.): \_\_\_\_\_
  - Your position: \_\_\_\_\_
  - Your name: \_\_\_\_\_
2. A. What organization type best describes your business entity?
  - A one-employee business
  - A multi-employee business with one location
  - A multi-location, *U.S.-only* business without divisions or subsidiaries
  - A division of a larger *U.S.-only* company
  - A subsidiary of a larger *U.S.-only* company
  - A headquarters home office or satellite location of a *U.S.-only* company with separate divisions and/or subsidiaries
  - A multi-location, *multinational* business without divisions or subsidiaries
  - A division of a larger *multinational* company
  - A subsidiary of a larger *multinational* company
  - A headquarters home office or satellite location of a *multinational* company with separate divisions and/or subsidiaries

B. <ASKED ONLY OF (1) SUBSIDIARIES OR (2) DIVISIONS RESPONDENTS>  
What is the name and location of your business' headquarters? \_\_\_\_\_  
<ASKED ONLY OF (1) MULTI-LOCATION/NO DIVISIONS OR  
SUBSIDIARIES OR (2) HEADQUARTERS RESPONDENTS>  
If different from your operating location, what is the location of your company's home office?

<THE FOLLOWING QUESTION IS AN EXIT-AND-THANK-YOU POINT FOR RESPONDENTS WHO INDICATE THEY ARE NOT INVOLVED IN MEASUREMENT, OBSERVATION, OR FORECASTING>

3. Please select the answer choice(s) below that describe your [business entity] (select all that apply):
- We are a *provider* of physical or data infrastructure for ocean, coastal, or Great Lakes measurement, observation, or forecasting purposes (e.g., platforms, instruments, sensors, data communications, IT infrastructure, satellite or air-based marine or maritime observation systems, instruments for navigation and positioning, etc.)
  - We are an *intermediary* that uses ocean, coastal, or Great Lakes measurements, observations or forecasts to create a value-added data product/service offered for commercial sale (e.g., to power a weather or surf forecast service, evaluate marine or maritime environmental hazards, support fish locating, etc.)
  - We are an *end-user* that uses ocean, coastal, or Great Lakes measurements, observations or forecasts, but we do not use them to create a value-added data product/service for commercial sale (e.g., a fishing fleet operator, a charter boat service, etc.)
  - We do not provide ocean, coastal, or Great Lakes measurement, observation, or forecasting infrastructure, and we do not use ocean, coastal, or Great Lakes measurements, observations or forecasts in our business [exits survey]
4. How long has your [business entity] offered ocean, coastal, or Great Lakes measurement, observation or forecast infrastructure (i.e., *provider*), value-added data (i.e., *intermediary*), or final (i.e., end-use) products/services?
- Less than 1 year
  - 1 through 3 years
  - 3 through 5 years
  - More than 5 years
  - Unknown
5. A. How many discrete locations does your [business entity] have? (Note: multiple buildings on a single campus counts as one location.)
- 1
  - 2
  - 3
  - 4
  - 5
  - 6-9
  - 10 or more

<ASKED ONLY OF SUBSIDIARIES OR DIVISIONS FROM QUESTION #2>

B. How many discrete locations does your ultimate parent or holding company have? (Notes: Please include all division and subsidiary locations; multiple buildings on a single campus counts as one location.)

- 1

- 2
- 3
- 4
- 5
- 6-9
- 10 or more

<ASKED ONLY OF MULTINATIONAL COMPANIES FROM QUESTION #2>

6. How many of your [business entity's] discrete locations are in the U.S.?

- 1
- 2
- 3
- 4
- 5
- 6-9
- 10 or more

7. How many employees are currently at your [business entity]?

- 1-4
- 5-10
- 11-20
- 21-30
- 31-50
- 51-100
- 101-250
- 251-500
- 501-1000
- 1001-2000
- More than 2000
- Unknown

<ASKED ONLY OF MULTINATIONAL COMPANIES FROM QUESTION #2>

8. How many employees in your [business entity] are located within the U.S.?

- 1-4
- 5-10
- 11-20
- 21-30
- 31-50
- 51-100
- 101-250
- 251-500
- 501-1000
- 1000-2000
- More than 2000
- Unknown

9. In the next 12 months, do you anticipate employment at your [business entity]?...

- Increasing
- Staying the same
- Decreasing
- Not yet known

10. A. What were your [business entity's] gross revenues for the past year?

- \$1-\$200,000
- \$200,001-\$500,000
- \$500,001-\$1,000,000
- \$1,000,001-\$5,000,000
- \$5,000,001-\$20,000,000
- \$20,000,001-\$100,000,000
- \$100,000,001-\$500,000,000
- \$500,000,001 or more
- Unknown

<ASKED ONLY OF MULTINATIONAL COMPANIES FROM QUESTION #2>

B. What percentage of this revenue is grossed by your U.S. locations (if known)?\_\_\_\_\_

<ASKED ONLY OF SUBSIDIARIES OR DIVISIONS FROM QUESTION #2>

11. A. What were your ultimate parent or holding company's gross revenues for the past year?

- \$1-\$200,000
- \$201,000-\$500,000
- \$501,000-\$1,000,000
- \$1,000,001-\$5,000,000
- \$5,000,001-\$20,000,000
- \$20,000,001-\$100,000,000
- \$100,000,001-\$500,000,000
- \$500,000,001 or more
- Unknown

<ASKED ONLY OF MULTINATIONAL SUBSIDIARIES OR DIVISIONS FROM QUESTION #2>

B. What percentage of this revenue is grossed by the U.S. locations of your parent or holding company (if known)?\_\_\_\_\_

12. In the next 12 months, do you anticipate your [business entity's] total ocean, coastal, or Great Lakes observation-, measurement- or forecasting-related revenue:

- Increasing
- Staying the same
- Decreasing
- Not yet known

13. What share of your [business entity's] revenue is from marine- or maritime-related products/services?

\_\_\_\_\_ %

14. A. What is the *estimated* share of your [business entity's] marine- or maritime-related revenue that is from providing ocean, coastal, or Great Lakes observation, measurement or forecasting products/services?

\_\_\_\_\_ %

<ASKED ONLY OF COMPANIES THAT SELECTED MULTIPLE MEASUREMENT, OBSERVATION, AND FORECASTING TYPES IN QUESTION #3; OPTIONS CHOSEN WILL BE LIMITED TO THE TYPES SELECTED IN QUESTION #3>

- B. What is your *best estimate* of how this revenue splits among your [business entity's] provider, intermediary, and end-use products/services?

Provider: \_\_\_\_\_ %

Intermediary: \_\_\_\_\_ %

End-User: \_\_\_\_\_ %

This split cannot be estimated:

15. What is your *best estimate* of how your [business entity's] total ocean, coastal, or Great Lakes observation-, measurement- or forecasting-related revenue is split among customer types?

Private individuals or households in the U.S: \_\_\_\_\_ %

Private companies, research institutions, universities, etc. in the U.S.: \_\_\_\_\_ %

U.S. Federal Government: \_\_\_\_\_ %

State and local governments in the U.S.: \_\_\_\_\_ %

Foreign customers of any type: \_\_\_\_\_ %

<THIS QUESTION WILL ONLY BE ASKED OF RESPONDENTS WHO SELECT MULTIPLE TYPES OF MEASUREMENT, OBSERVATION, OR FORECASTING ACTIVITY IN QUESTION #3; ONLY CORRESPONDING TYPES IN QUESTION #3 WILL BE SHOWN>

16. A. What is your *best estimate* of how your [business entity's] total ocean, coastal, or Great Lakes observation-, measurement- or forecasting-related *provider* products/services revenue is split among customer types?

Private individuals or households in the U.S: \_\_\_\_\_ %

Private companies, research institutions, universities, etc. in the U.S.: \_\_\_\_\_ %

U.S. Federal Government: \_\_\_\_\_ %

State and local governments in the U.S.: \_\_\_\_\_ %

Foreign customers of any type: \_\_\_\_\_ %

B. What is your *best estimate* of how your [business entity's] total ocean, coastal, or Great Lakes observation-, measurement- or forecasting-related *intermediary* products/services revenue is split among customer types?

Private individuals or households in the U.S: \_\_\_\_\_ %  
Private companies, research institutions, universities, etc. in the U.S.: \_\_\_\_\_ %  
U.S. Federal Government: \_\_\_\_\_ %  
State and local governments in the U.S.: \_\_\_\_\_ %  
Foreign customers of any type: \_\_\_\_\_ %

C. What is your *best estimate* of how your [business entity's] total ocean, coastal, or Great Lakes observation-, measurement- or forecasting-related *end-user* products/services revenue is split among customer types?

Private individuals or households in the U.S: \_\_\_\_\_ %  
Private companies, research institutions, universities, etc. in the U.S.: \_\_\_\_\_ %  
U.S. Federal Government: \_\_\_\_\_ %  
State and local governments in the U.S.: \_\_\_\_\_ %  
Foreign customers of any type: \_\_\_\_\_ %

<THIS QUESTION WILL BE ASKED ONLY OF RESPONDENTS WHO REPORTED FOREIGN SALES IN QUESTION #15>

17. From which of these markets does your [business entity's] U.S. locations receive significant (i.e., at least 5%) shares of ocean, coastal, or Great Lakes observation-, measurement- or forecasting-related revenue? (Select all that apply):

- U.S. and its overseas territories
- Canada
- Greenland
- Mexico/Central America
- Non-U.S. Caribbean
- South America
- Continental Europe
- UK/Ireland
- East Europe/Russia
- Other European/Mediterranean
- Japan
- South Korea
- China/Hong Kong
- Taiwan
- India
- Southeast Asia
- Australia/New Zealand
- Middle East
- Other Non-U.S. Asia/Pacific
- Africa
- Other Indian Ocean Nations
- Arctic/Antarctica

18. Which of the following are important customer areas for your [business entity's] ocean, coastal, or Great Lakes observation-, measurement- or forecasting-related revenues? (select all that apply):
- Academic research
  - Government research
  - Defense
  - Marine or maritime security
  - Coastal protection
  - Hydrographic surveys
  - Construction surveys
  - Engineering
  - Environmental monitoring
  - Water and water quality
  - Weather and ocean forecasting
  - Climate modeling and prediction
  - Biotechnology
  - Wind energy
  - Wave and tidal energy
  - Renewable energy, except wind and wave energy
  - Oil and gas industries
  - Fishing industry
  - Aquaculture
  - Ports and harbors
  - Cargo shipping
  - Cruise ships and passenger ships
- Other: \_\_\_\_\_

<THIS QUESTION WILL BE ASKED ONLY OF RESPONDENTS WHO SELECTED "PROVIDER" AS A MEASUREMENT, OBSERVATION, OR FORECASTING CHOICE IN QUESTION #3>

19. What kind of ocean, coastal, or Great Lakes observation-, measurement- or forecasting-related infrastructure does your [business entity] sell? (select all that apply):
- Hydrographic survey sensors/instruments/systems
  - Shallow geophysical survey sensors/instruments/systems
  - Geotechnical sensors/instruments/systems for measurement/sampling
  - Physical oceanographic sensors/instruments/systems (including cameras)
  - Chemical oceanographic sensors/instruments/systems
  - Biological oceanographic sensors/instruments/systems
  - Navigation and positioning sensors/instruments/systems
  - Platforms such as towed systems, or remote or autonomous underwater vehicles
  - Data communications and Information Technology infrastructure or software platforms/systems
  - Other \_\_\_\_\_

<THIS QUESTION WILL BE ASKED ONLY OF RESPONDENTS WHO SELECTED "INTERMEDIARY" AS A MEASUREMENT, OBSERVATION, OR FORECASTING CHOICE IN QUESTION #3>

20. If your [business entity] utilizes “IN SITU” data (i.e., data from observations or measurements conducted within or upon a marine environment) from coastal, or Great Lakes observation, measurement, or forecasting to generate value-added data in your products/services, what kind of IN SITU data do you use? (select all that apply):
- Bathymetric data
  - Geophysical data
  - Geotechnical data
  - Physical oceanographic data
  - Chemical oceanographic data
  - Biological oceanographic data
  - Other \_\_\_\_\_
  - We do not utilize *IN SITU* data

<THIS QUESTION WILL BE ASKED ONLY OF RESPONDENTS WHO SELECTED “INTERMEDIARY” AS A MEASUREMENT, OBSERVATION, OR FORECASTING CHOICE IN QUESTION #3>

21. If your [business entity] utilizes “REMOTELY SENSED” data (i.e., data from sources outside a marine environment) from ocean, coastal, or Great Lakes observation, measurement, or forecasting to generate your value-added data products/services, what kind of REMOTELY SENSED data do you use? (select all that apply):
- Aircraft observations
  - Satellite observations
  - Shore observations
  - Other \_\_\_\_\_
  - We do not utilize *REMOTELY SENSED* data

<THIS QUESTION IS AN EXIT-AND-THANK-YOU POINT FOR RESPONDENTS WHO INDICATE THEY ARE UNAWARE OF IOOS>

22. Is your [business entity] aware of the Integrated Ocean Observing System (IOOS) and, if so, does your [business entity] contribute to IOOS infrastructure or utilize IOOS-coordinated data, including to create value-added products/services? (Select all that apply):
- We are unaware of IOOS
  - We are aware of IOOS
  - We are an IOOS *provider*; we contribute to IOOS infrastructure
  - We are an IOOS *intermediary*; we create value-added products/services from IOOS-coordinated data
  - We are an IOOS *end-user*; we use IOOS-coordinated data
23. Which of the following do you consider issues or barriers to working with IOOS that impact your [business entity]? (select all that apply):
- Limited access to IOOS data streams
  - Structure of IOOS data streams limits usability
  - Lack of documentation on IOOS data streams
  - IOOS data does not adequately cover the geography needed
  - Difficulties or limitations with adapting new technology into IOOS



- Limited knowledge about future investment and development plans for the IOOS system
- Hard to find employees who can work with the IOOS infrastructure
- Hard to find employees who can work with the IOOS data
- State or local regulations or restrictions
- Other: \_\_\_\_\_
- None of the above
- Unknown

<THE CHOICES IN THIS QUESTION WILL BE TAILORED TO THE MEASUREMENT, OBSERVATION, AND FORECASTING TYPES SELECTED IN QUESTION #3>

24. In the future, does your [business entity] plan to (select all that apply):

IOOS Infrastructure plans

- Deploy new infrastructure products/services for IOOS
- Expand the capabilities of our infrastructure products/services for IOOS
- Make no changes to our infrastructure products/services for IOOS
- Reduce our infrastructure products/services for IOOS
- Eliminate our infrastructure products/services for IOOS

IOOS Intermediary plans

- Create new value-added products/services that utilize IOOS-coordinated data
- Expand the capabilities of our value-added products/services that utilize IOOS-coordinated data
- Make no changes to our value-added products/services that utilize IOOS-coordinated data
- Reduce our value-added products/services that utilize IOOS-coordinated data
- Eliminate our value-added products/services that utilize IOOS-coordinated data

IOOS End-User plans

- Develop new end-use IOOS-coordinated data products/services
- Expand the capabilities of our end-use IOOS-coordinated data products/services
- Make no changes to our end-use IOOS-coordinated data products/services
- Reduce our end-use IOOS-coordinated data products/services
- Eliminate our end-use IOOS-coordinated data products/services

25. Which of the following improvements by IOOS would help your [business entity]? (select all that apply):

- Better information and data stream standardization
- More openness to opportunities for new innovations
- Greater focus on the interests of small or new enterprises
- Greater focus on the interests of large or established enterprises
- Other: (please describe) \_\_\_\_\_
- None of the above

26. Do you feel your [business entity's] current or future workforce could benefit from specific training for working with IOOS data or providing IOOS infrastructure?

- Yes, option open-ended

- No
- Uncertain

27. Are there changes to IOOS that would make it easier for your [business entity] to provide infrastructure or related services or products to the IOOS system?

- Yes, option open-ended
- No
- Uncertain

28. Are there changes to IOOS that would make it easier to for your [business entity] to utilize IOOS data in value-added products?

- Yes, option open-ended
- No
- Uncertain

29. If known or available, what is your [business entity's] D-U-N-S number?\_\_\_\_\_

30. Can you recommend other recipients for this survey? These could be other parts (such as other subsidiaries, divisions, or a headquarters) of your company, or could be other qualified companies.

- Yes
- No

If yes, please list below (name of company and contact, if available):

31. Are there any additional comments, concerns, or recommendations that you would wish IOOS to know? \_\_\_\_\_