

Ocean Observing & the Blue Economy

Ocean observations, measurements and forecasts are an essential prerequisite for a safe, efficient and sustainable **Blue Economy**—the economic contribution of use of oceans and coasts to the prosperity of the nation.



The Blue Economy totals in excess of \$1.5 trillion and employs more than 35 million people. A recent study by the Organization for Economic Cooperation and Development (*The Ocean Economy in 2030*) projects this doubling to more than \$3.0 trillion by 2030.

Supporting this growth, at the same time as ensuring the sustainability of the ocean's vital natural assets, is driving an ever greater dependence on ocean observations, measurements and forecasts, as well as the continued development of the Blue Technologies necessary to support this increased economic activity.

The U.S. Integrated Ocean Observing System, IOOS, is a national capability, with a mission to meet the ocean data and information needs of the growing **Blue Economy** and to foster the **Blue Technology** businesses that enable it to do so.

- IOOS supports the development and testing of new ocean sensors, instruments and platforms, and works with US companies and trade bodies to evaluate and foster valuable domestic and global export markets for these high-end Blue Technologies.
- IOOS works in partnership with a growing **value-added service industry** which utilizes IOOS data and information to enable information products which meet the strategic and operational information needs of Blue Economy business sectors such as offshore oil and gas, marine renewable energy, ports and shipping, fisheries, aquaculture and tourism.
- IOOS data and information contributes to improved weather and climate prediction providing benefits to the **wider economy**. These benefits are set to rise as new capabilities which make more effective use of ocean data in weather and climate prediction move into operational use.

How Do IOOS Data & Services Benefit the Blue Economy and the Economy as a Whole?

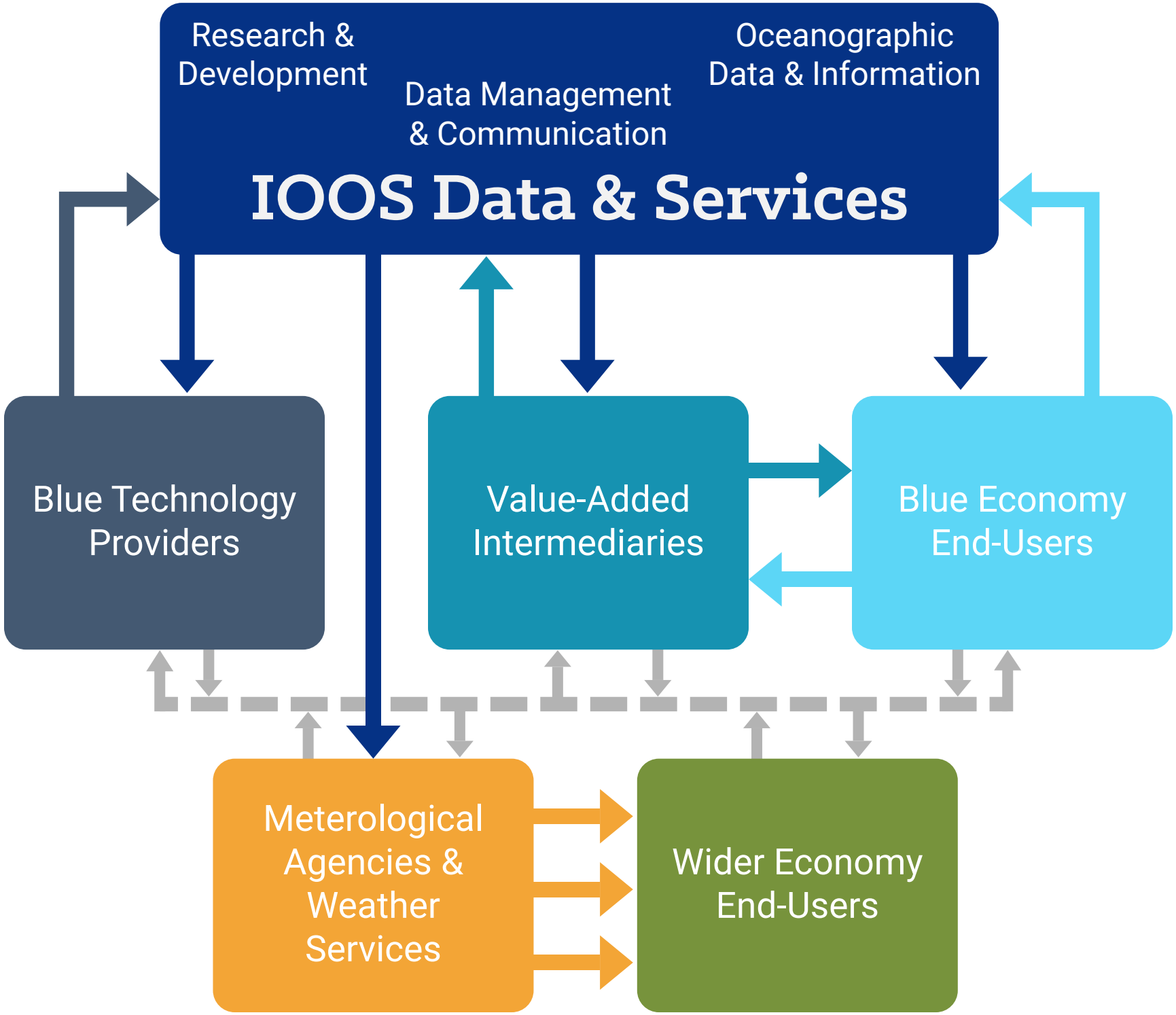
U.S. IOOS supports Blue Technology Providers

- Supports research & development underpinning new products
- Provides testing and evaluation of sensors/instruments/platforms
- Develops standards
- Provides technology demonstrations
- Catalyzes markets
- Provides market evaluations

U.S. IOOS supports End-Users in the Wider Economy

Effective use of ocean observations and information improves weather and climate prediction, and accurate forecasts have benefits that extend far outside the blue economy, including:

- Energy companies
- Retailing
- Logistics
- Health
- Aviation
- ...and more



U.S. IOOS supports Value-Added Intermediaries

- Provision of data and information streams underpinning information services delivered to end-user businesses operating in the marine environment
- Development of new visualization and modeling tools making possible new services
- Works in partnership with value added intermediaries to create new services tailored to specific end-user needs

U.S. IOOS supports End-Users in the Blue Economy

Sustained core data and information streams critical to safe and effective operations and environmental protection supporting:

- Ports and shipping
- Offshore oil and gas
- Fishing and aquaculture
- Tourism and recreation
- ...and more

What is U.S. IOOS?

The U.S. Integrated Ocean Observing System, IOOS, was formally initiated by the Integrated Coastal and Ocean Observation System Act of 2009. It is a coordinated effort of 17 federal agencies, 13 non-federal Regional and Functional Associations, as well as advisory and action bodies. It is also the U.S. contribution to the Global Ocean Observing System (GOOS).



IOOS functions in three key ways:

- IOOS supports the collection and dissemination of high-quality, interoperable oceanographic data, information, and models to support maritime commerce and safety, resource management, and weather forecasting;
- IOOS gathers, communicates, and disseminates these data, information, and models, as well as driving the development of observing community standards, to maximize the benefits to industry and society;
- IOOS advances development and research to maintain and improve observing infrastructure and information sharing and promotes partnerships and investments that accelerate the development of new technologies.

Visit us on the web to see what IOOS data and services have to offer you.

ioos.noaa.gov



IOOS
Integrated Ocean
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