

**THE ATLANTIC REGIONAL ASSOCIATION OF THE  
CANADIAN INTEGRATED OCEAN OBSERVING SYSTEM**

# **PARTNERSHIP PROFILE:**

## **SmartAtlantic**

SmartAtlantic, Atlantic Canada's largest and longest-standing ocean observation system, provides timely and valuable meteorological and oceanographic data from across the region in support of safety, operational efficiency, and situational awareness. Originally conceived as SmartBay by the Marine Institute's Centre for Applied Ocean Technology (CTec), the system began as three metocean buoys strategically situated in Placentia Bay, NL to support improved forecasting of weather and sea state conditions. Today, the SmartAtlantic platform provides open access to information from across Atlantic Canada, contributing to operational decisions for marine shipping, aquaculture, offshore oil and gas operations and environmental modelling and forecasting, ultimately providing better information for better decisions.

### **ENGAGING WITH MARINE INDUSTRIES**

SmartAtlantic's success is due in large part to continuous end-user engagement with marine industries to develop a clear understanding of data and information requirements for a customized approach using internationally recognized processes and standards.

### **SMARTATLANTIC PARTNERSHIPS**

Partnerships with the Centre for Ocean Ventures and Entrepreneurship (COVE), the Canadian Marine Pilots Association and Ocean Networks Canada (ONC) have expanded SmartAtlantic's infrastructure and geographic coverage, creating a cooperative Atlantic Canadian ocean observing system that provides data from coast to coast to coast.

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Buoy Deployment

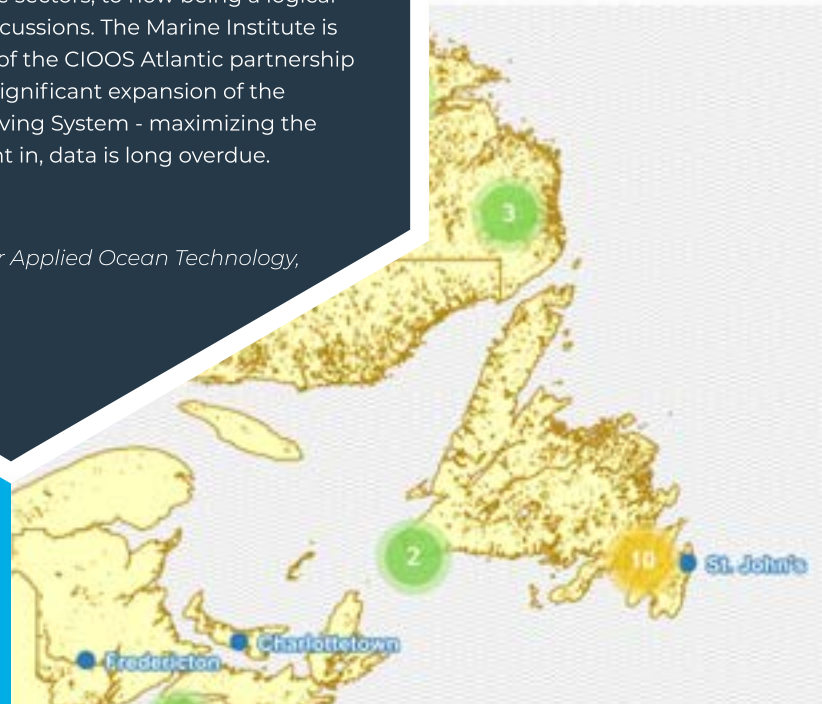
As a CIOOS Atlantic partner, the Marine Institute is committed to leveraging the technical knowledge and expertise of SmartAtlantic to advance the open data movement and data-driven collaborations to support research and operational decisions. The ultimate goal of SmartAtlantic is better decisions by mariners to improve safety, efficiency of operations and sustainability of the ocean environment.

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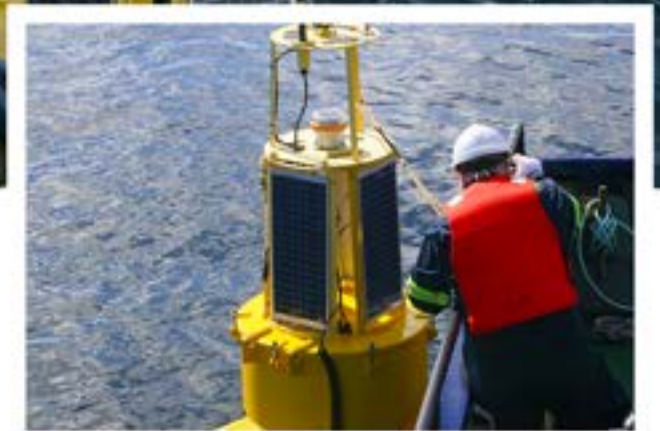
The high-profile presence of CIOOS and the balanced, standardized approach it takes to the management and sourcing of ocean data has had a positive influence on the willingness of organizations to share data. In the limited time that CIOOS has been operational, the idea of making data available to others has gone from being practically unheard of in some sectors, to now being a logical part of data management discussions. The Marine Institute is extremely pleased to be a part of the CIOOS Atlantic partnership that has contributed to significant expansion of the SmartAtlantic Ocean Observing System - maximizing the value of, and investment in, data is long overdue.

- **Bill Carter**,  
Director, Centre for Applied Ocean Technology,  
Marine Institute

SmartAtlantic information is used routinely in support of a wide range of marine operations. It is a primary information source for Atlantic Pilotage Authority pilots to ensure safe and efficient tanker transit in and out of bays. Buoy data is also used to enhance custom regional and site-specific forecasts, generated by industry partner Wood PLC.



CIOOS Atlantic staff assisted SmartAtlantic in meeting the challenge of gathering and submitting metadata for their data collection by using the CIOOS metadata profile.



## **SMARTATLANTIC INTEGRATES WITH CIOOS ATLANTIC**

Interoperability is key to effective and efficient data sharing. Integrating tools like ERDDAP into SmartAtlantic's architecture allows data to be collected and compiled from multiple platforms and 'served up' to users based on their individual requirements. By developing a system focused on easily accessible data and interoperability with other systems, SmartAtlantic data is effortlessly and continuously integrated into CIOOS Atlantic's data catalogue, extending the long-term value of this information. SmartAtlantic's infrastructure, paired with resources being developed by CIOOS, create a streamlined data integration process based on solid data management practices and a positive user experience.