

SmartBay - Overview

SmartBay is Ireland's national marine test and demonstration facility for the development of innovative products and services for the global maritime sector.

This includes the trial and validation of novel marine sensors, prototype equipment and the collection and dissemination of marine data to national and international users of the facility.

Sectors and Industries

Marine ICT facilities and services are provided to the following sectors and industries:

- Ocean Energy
- Sub-sea Sensors and Equipment
- Shipping and Security
- Aquaculture
- Environmental
- Research and Development

SmartBay supports the testing and validation of novel sensors and equipment for its users. Facilities include surface platforms and a sub-sea cabled observatory for demonstrating and validating of new technologies and solutions. Users can access the SmartBay information and communication technology environment to validate innovative solutions for marine and related sectors.

A specialist team of marine operations and instrumentation technicians provides a range of supports to all users of the facility. This enables users of the facility to focus on data analysis, device validation and product development. Each project is guided from initial concept through to deployment and proof of concept validation.



Marine Support

Users of the facility are supported by an experienced technical team familiar with the unique problems that testing sensors and equipment in a marine environment presents. The team follows a systematic testing and integration process which includes:

1. Pre-deployment scope and planning.
2. Bench test equipment to prepare for deployment.
3. Field test equipment.
4. Post deployment assessment and analysis.

Marine ICT Support

A specialist data management team provides an open platform for the SmartBay user community. A secure and bespoke environment for any organisation conducting proprietary trials, testing data analytics or software development, is provided.

Support solutions have been developed which include:

- Real-time data capture (multiple sensors, multiple datasets)
- Data management (storage and parsing of raw data)
- Customised data presentation
- Data visualisation.



Facilities

The sub-sea cabled observatory at SmartBay includes:

- Fibre optic data and 400v power cable.
- High speed communications via 4 pairs of optical fibres and which will host a variety of sensors and equipment and which can be tested and demonstrated in near real-time.
- 10 expansion ports which will be dedicated to the test and demonstration of new and novel equipment.

SmartBay infrastructure includes:

- Mobilis DB8000 buoys
- Sensor hardware
- Communication systems
- Data acquisition systems
- Bespoke web portal
- Access to a range of vessels (Including Dive Support, Tugs and Multi-Purpose Research Vessels)

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