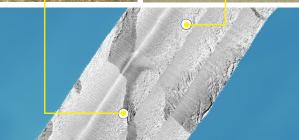
Services for Offshore Wind

- Sediment Profile and Plan View Imaging
- **Environmental Baseline Surveys**
- Siting Suitability Consulting
- **Export Cable Route Optimization**
- Fish and Fisheries Impact Surveys
- Benthic Habitat Assessments
- Construction Impacts Monitoring
- Data Visualization and Reporting
- Community Stakeholder Outreach
- Construction and Operation Plan Support

Ground-Truthing







INSPIRE's ground-truthing techniques are uniquely cost-effective, time-efficient, and easy to manage. SPI imagery (top-down plan view and sediment profile imaging) is faster to collect and provides more information per deployment than a conventional grab sample.

SPI Allows You To:

- > Characterize ecological conditions and seafloor habitats before and after installation of turbine foundations, anchor points, transmission cables, and cable landing locations.
- > Provide rapid ground-truth assessments of multibeam echosounder imaging.
- > Accurately assess the rate and progress of recovery of affected seafloor habitats.
- Reduce project costs by optimizing in-field sampling.
- > Produce results that are easily understandable by a nonscientific audience.
- > Quickly collect data as required by BOEM and the EU to provide habitat classification.

Providing Expertise Across the World



Representative Clients Include:

- Deepwater Wind
- Ørsted U.S.
- Shell
- ExxonMobil
- > British Petroleum
- Petrobras

- Oceaneering
- > Alpine Ocean
- > lacobs
- Stantec
- > VHB
- NYSERDA

> Fugro



Offshore Wind Services

Rapid Seafloor Reconnaissance Benthic Assessments Fish and Fisheries Assessments Stakeholder Engagement







How does Sediment Profile Imaging (SPI) Support Offshore Wind?

Developed by INSPIRE scientists four decades ago, SPI is an optical coring device that works like an upside-down periscope, taking cross-sectional images of the upper 20 cm of the seafloor.

The SPI system combines a downward-looking plan view camera with a profile camera to produce data that are used to analyze and interpret physical and biological parameters on the seafloor. SPI is a proven alternative to traditional benthic sampling methods, providing data to support geological and geophysical (G&G) ground-truthing and benthic assessments.





INSPIRE Projects Supporting Offshore Wind



Benthic Habitat Assessment
G&G Ground-Truthing
Visualization
Demersal Fish Trawls
Fisheries Expert Consultation
Lobster Surveys
Agency Consultations
Community Stakeholder Outreach



Benthic Habitat Assessment
G&G Ground-Truthing
Visualization
Fisheries Expert Consultation
Agency Consultations
Community Stakeholder Outreach
Cod Spawning Survey
COP Review



Benthic Habitat Assessment G&G Ground-Truthing Visualization Fisheries Expert Consultation Socioeconomic Fisheries Essential Fish Habitat Assessments COP Review



Benthic Habitat Assessment G&G Ground-Truthing Visualization Fisheries Expert Consultation Socioeconomic Fisheries COP Review



Benthic Habitat Assessment G&G Ground-Truthing Visualization



Benthic Habitat Assessment G&G Ground-Truthing Visualization



Benthic Habitat Assessment
G&G Ground-Truthing
Visualization
Agency Consultations
Community Stakeholder Outreach

Stakeholder Engagement

A picture is worth a thousand words, and the SPI camera's lens into seafloor ecology tells a singularly compelling story to developers, stakeholders, and permitting agencies alike. INSPIRE also produces innovative interactive visualizations that combine high-resolution bathymetric, backscatter, and benthic habitat data in the context of regional seafloor topography. INSPIRE scientists use these visualizations to support developers in agency consultations with groups like BOEM, NOAA Fisheries, USACE, local tribes, fishermen, and State and Federal representatives.

Forward Scouting

Locating optimal cable routes typically requires an expensive and time-consuming, full-scale G&G survey. INSPIRE has developed a "forward scouting" approach that integrates SPI data with high-frequency mapping technologies for reconnaissance data that can quickly eliminate unsuitable locations from siting consideration. These surveys are also conducted on smaller, less-costly vessels. This forward scouting approach provides more flexibility and enhanced coverage at a lower overall cost.

Collaborative Fish Surveys

INSPIRE conducted fish and lobster surveys at America's first offshore wind farm. Engaging local fishermen in the design and data collection led to broad acceptance of the results. These results are the most extensive dataset available for comparing fish use of the site before and after construction of offshore wind farms. We continue to incorporate stakeholder input into fish and fisheries studies to more effectively represent these communities and provide defensible results.

www.INSPIREenvironmental.com