

Offshore Renewable Energy Development

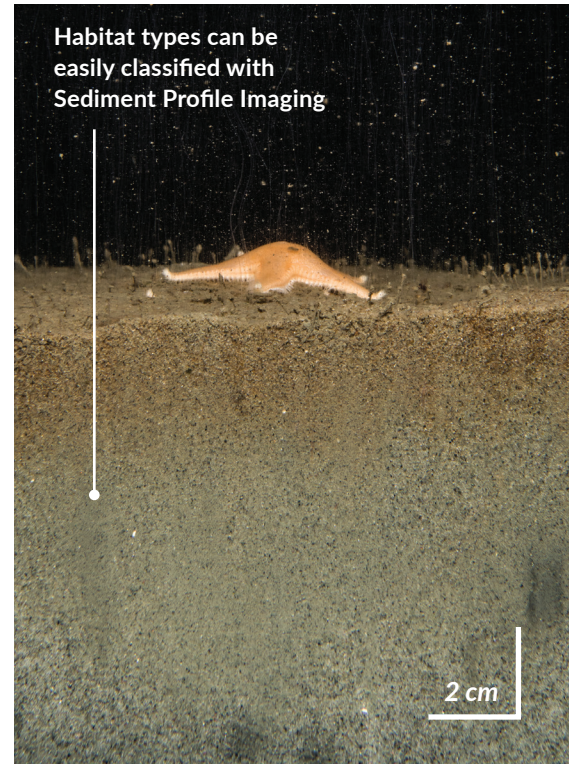
Rapid Seafloor Reconnaissance and Assessment Through Innovative Optical Coring Technology



INSPIRE's pioneering and unique approach for siting offshore wind farms and transmission cables uses in-depth imaging and analysis of the seafloor for efficient planning and construction. INSPIRE's experienced staff and uniquely advanced technological capabilities deliver high-quality assessments of the seafloor and surrounding environment.

In a single survey we collect high-resolution photographs using our **Sediment Profile Imaging (SPI)** and Plan View camera system and integrate the images with innovative seafloor mapping techniques to assess physical and biological parameters. We interpret seafloor images in real-time, facilitating adaptive sampling and on-the-fly survey adjustments. INSPIRE scientists invented SPI technology and offer the most experienced interpretation and integration of seafloor information available.

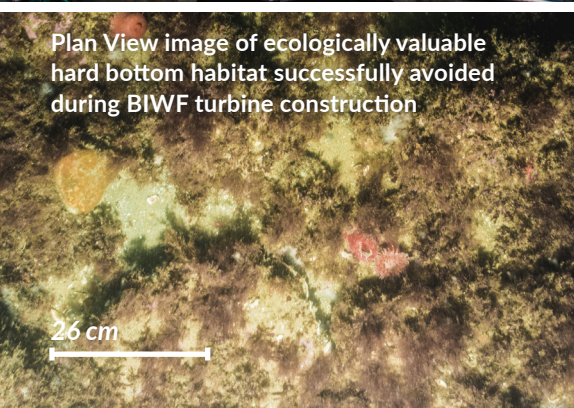
INSPIRE combines its patented SPI technology with underwater video and multibeam surveys to inform cable placement, support permit requirements, and document environmental effects related to the construction and operation of the first **offshore wind farms** in the United States. Forward scouting with lower-cost survey vessels can optimize cable routes even during periods of marine mammal activity. This approach can improve strategic and environmentally-sensitive installations of new offshore wind infrastructure in the US and around the world.



Habitat types can be easily classified with Sediment Profile Imaging



Sediment Profile and Plan View Camera



Plan View image of ecologically valuable hard bottom habitat successfully avoided during BIWF turbine construction



Block Island Wind Farm

INSPIRE Environmental

513 Broadway, Suite 314, Newport, RI, 02840

+1 401.849.9236

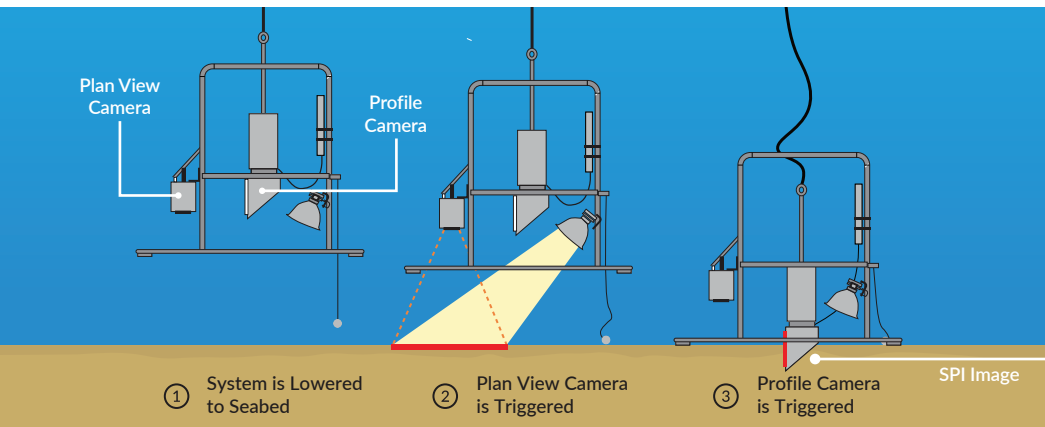
drew@INSPIREenvironmental.com

Download this document and more at:

www.INSPIREenvironmental.com

What Is Sediment Profile Imaging (SPI)?

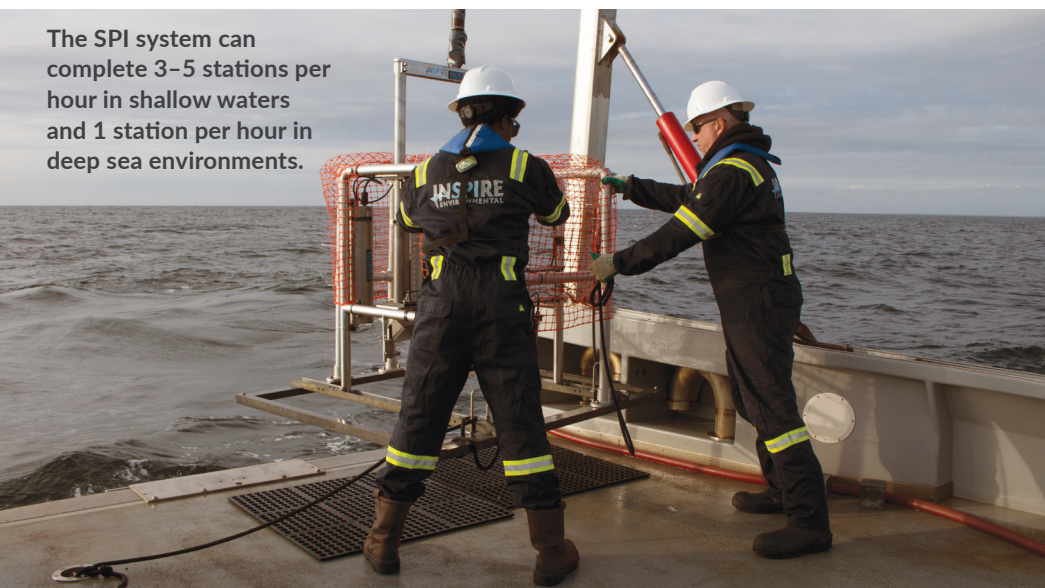
Developed by INSPIRE scientists four decades ago, SPI is an optical coring device that works like an upside-down periscope, taking cross-sectional images of the upper 20 cm of the seafloor. Our system combines a plan view and a profile camera to produce data that our scientists use to analyze and interpret physical, chemical, and biological parameters in oceans, lakes, and rivers. SPI is a proven alternative to traditional benthic sampling methods.



Sediment Profile Imaging/Analysis Allows You To:

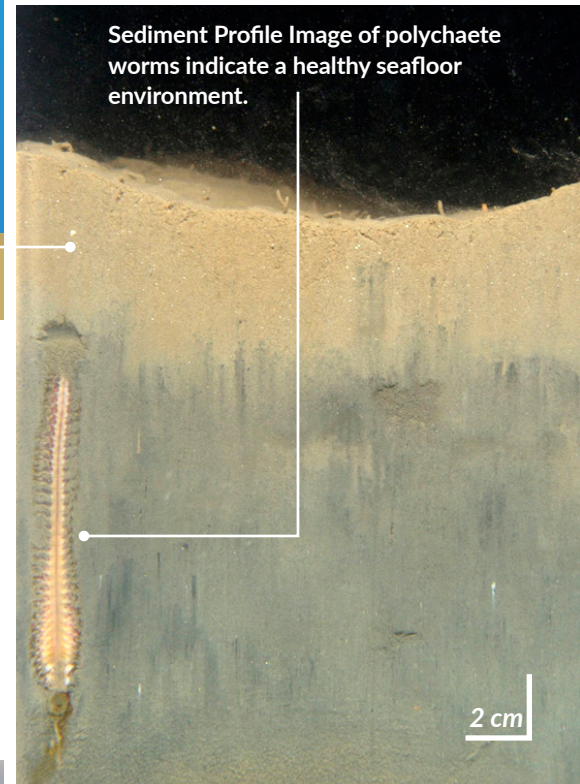
- › Characterize ecological conditions and seafloor habitats before and after installation of turbine foundations, anchor points, transmission cables, and cable landing points.
- › Provide rapid ground-truth assessments of multibeam echosounder imaging.
- › Accurately assess the rate and progress of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

The SPI system can complete 3-5 stations per hour in shallow waters and 1 station per hour in deep sea environments.



Services for Offshore Renewable Energy

- › 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



Our Clients Include:

- › Deepwater Wind
- › NYSERDA
- › Ørsted
- › Fugro
- › Oceaneering
- › US EPA
- › British Petroleum
- › Shell
- › Esso
- › Petrobras
- › Chevron-Texaco
- › PEMEX
- › Imperial Oil Ltd.

INSPIRE Environmental

513 Broadway, Suite 314, Newport, RI, 02840

+1 401.849.9236

drew@INSPIREenvironmental.com

Download this document and more at:

www.INSPIREenvironmental.com