Seabed Acquisition

Seabed Geosolutions provides better azimuth and offset diversity with multi-component (4-C) seismic technology positioned directly on the seabed in water depths ranging from 0 - 3000 meters. Delivering robust broadband seismic data to resolve ambiguity in your reservoir model and extract maximum value from your assets.
Delivering the Most Versatile Seabed Solutions
Seabed Geosolutions is the leading provider of innovative seabed geophysical solutions to the oil and gas industry with a strong focus on the exploration, development and production phases of oil and gas fields.

Through the use of pioneering seismic technology positioned directly on the seabed, we provide the critical insight required to make confident, informed decisions on field development and to resolve ambiguity in reservoirs.

We are the only contractor in our rapidly growing market to offer capabilities and experience ranging from 0 – 3000 meter water depths. Our array of seabed imaging technologies include Ocean Bottom Nodes (OBN) and Ocean Bottom Cables (OBC), and we continuously invest in our R&D efforts to ensure the best, most efficient technologies are available to our global client base.

Seabed Geosolutions delivers custom-designed seismic surveys utilizing the most versatile and efficient technology while providing high-quality multicomponent data. We can optimize the speed, efficiency, quality and safety of seabed acquisition.

Our History

In September 2012, Fugro (60%) and CGG (40%) entered into a seabed geophysics joint venture that united the ocean bottom node expertise of Fugro and the ocean bottom cable, node and transition zone experience and operations of CGG.

Seabed Geosolutions was formally established in February, 2013 with offices in Houston, Dubai, Massy, and Kuala Lumpur.
Resolving Operational and Geophysical Challenges
In water depths of 0 - 3000 meters

As a full service seabed geophysical provider, we help resolve both operational and geophysical challenges with comprehensive integrated technical solutions that leverage the talent and resources of our offshore acquisition teams.

Ocean bottom seismic (OBS) technologies are ideal for active oil and gas fields with dense infrastructure, high-traffic and obstructed areas, along with environmentally sensitive areas such as coral reefs and protected wetlands.

From survey planning and design, to supply and rapid installation of equipment, to acquisition, we work together with our clients to design programs tailor-made for the survey objectives using leading OBS technology.
MANTA™
The next evolution in seabed seismic technology

Manta, Seabed Geosolutions’ revolutionary seabed seismic technology, provides a single ocean bottom node solution for all water depths from 0 – 3000 meters. Manta overcomes challenging environments with complex geologies and delivers improved data clarity through versatility in survey design. The Manta system was designed to seamlessly deliver improved geophysical illumination with flexibility for dense source grid, full-azimuth and long offset surveys.

- Compact, autonomous node solution
- Single node technology for water depths from 0 – 3000 meters
- 4-C multicomponent recording
- Versatile survey designs for challenging environments
- Flexibility of deployment - traditional dense receiver configuration or by remotely operated vehicle (ROV)
- Transportable modular solution

Transition Zone & Shallow Water Acquisition

Utilizing the Sercel 428® and 408® WPSR and Sercel 408 ULS systems, we can accommodate mixed source, mixed receiver, and/or hybrid land-transition zone surveys. Seabed Geosolutions’ revolutionary new Manta autonomous node system is ideal for acquiring data in transition zone and shallow waters.

Intermediate to Deep Water Acquisition

Utilizing the Sercel SeaRay® ocean bottom cable system, we can conduct exploration 2D, high-density 3D or development 4D programs with digital broadband 4-C sensors. There are occasions where towed streamers, ocean bottom cables, or shallow water cabled systems will have restricted access for imaging the subsurface. In these circumstances, we offer several proprietary ocean bottom node systems including Trilobit™ and CASE Abyss™ ocean bottom nodes (OBN) technologies. Seabed Geosolutions’ revolutionary new Manta™ autonomous node system is also ideal for acquiring data in deep waters up to 3000 meters. Seabed Geosolutions nodes not only incorporate 4-C multicomponent broadband surveys, but their flexibility also makes them ideal for obstacle avoidance or imaging in environmentally sensitive locations. Prolonged recording endurance and versatility in deployment method make our node solutions a highly viable option for challenging environments, as well as for enhanced subsurface imaging.
Why Seabed Acquisition
Enhance, Resolve, Understand

From survey planning and design, to supply and rapid installation of equipment, to acquisition. With a seamless offering via preferred supplier, CGG, to offer processing, interpretation, reservoir analysis and characterization.

Enhance your seismic signal
With considerably less noise compared to towed streamer seismic, recording of broad bandwidth data and benefits of seabed multicomponent receivers, Seabed Geosolutions offers innovative solutions to your geophysical challenges.

Resolve ambiguity in your geological model
By acquiring high fold datasets through optimized survey designs, Seabed Geosolutions reduces the effect of water bottom multiples, gas clouds and surface obstructions while simultaneously improving your seismic signal on low and high ends of the frequency spectrum. Better signal-to-noise ratio equates to a more robust dataset for your processing flow and a more meaningful final 3D volume.

Understand your reservoir complexity
Better illumination beyond 3D subsurface anomalies such as salt domes, slumps and tight 4-way anticlines, as well as detection and correction of anisotropic effects, allows for valuable insights into your reservoir’s structural and stratigraphic complexity.

Seabed Geosolutions offers you the ability to generate and interpret a true converted wave image. This volume provides additional attributes for better reservoir characterization and allows for fracture density and orientation determination. This provides your production team with better resolved complexity and greater constraint of your reservoir model.
Seabed Geosolutions works with you to fully understand the requirements of your seismic program and to deliver the best possible subsurface image. Ultimately, we offer a truly integrated, custom designed program for the most complex subsurface imaging challenges.

QHSE

Safety Excellence: Where safety is a Corporate Value, not just a priority.

Seabed Geosolutions is committed to conducting business in a manner that is compatible with the communities in which we live and work, and that protects the health, safety and security of our employees, contractors, customers, and the public. These commitments are documented in our corporate Quality, Health, Safety & Security and Environmental policies.

These policies are put into practice through a disciplined management framework called the Operating Management System (OMS). The OMS is the cornerstone of our commitment to managing potential hazards and risks associated with our operations and achieving excellence in performance. This system establishes common, worldwide policies for addressing risks inherent in our business. It provides us with one systematic and controlled holistic approach for how we manage our business with respect to safety, risk management and operational integrity.

Our vision is for Seabed Geosolutions to be the QHSE leader within the global geophysical industry.
Global Expertise

Extensive experience and knowledge with more than 26,000 sq kms of 3D and 11,000 km of 2D seismic data acquired around the globe since 2005

Committed to Research & Development

As the leading provider of innovative seabed geophysical solutions, we are committed to the development and application of the most advanced seabed technologies available in our market.

Our Research and Development (R&D) team comprises some of the industry’s most talented and experienced geoscientists, engineers and programmers who are engaged with meeting our clients’ needs and providing them with some of the highest quality seabed seismic data available today.

The R&D team continues to be on the leading edge of safe and efficient seabed geophysical solutions.

In our fast moving industry, investing in people is vital to maintain our position as the global leader in seabed seismic acquisition. We are committed to continuously educating and developing our most important resource - our people.

Our teams represent decades of expertise brought by both Fugro and CGG personnel to the field and in our offices worldwide. By providing growth opportunities and industry leading training facilities, Seabed Geosolutions aims to ensure that all staff possess the knowledge, skills and experience to deliver the most current, advanced and technically robust solutions.