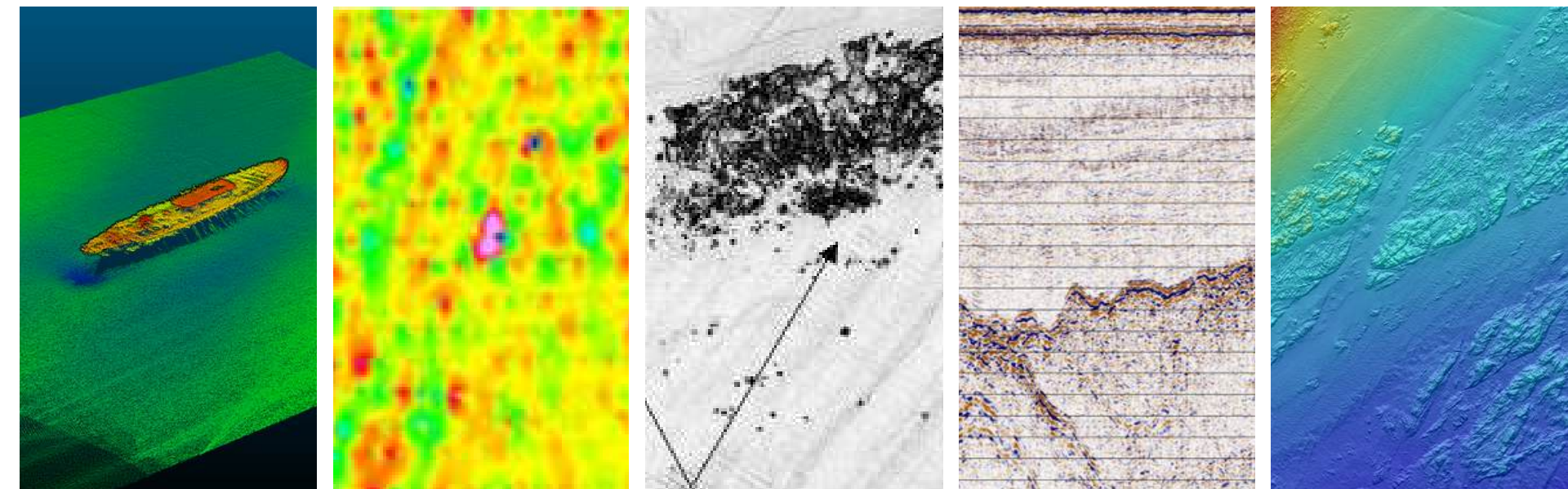


 SEP Hydrographic

Your Nearshore Survey Partner

Integrated Land and Marine
Survey Services



Seamless integration with your team

SEP Hydrographic specialises in Hydrographic and Geophysical Surveys within the nearshore and coastal environment. We work with clients from various industries, including Offshore Renewables, Ports and Harbours, Utilities, Oil and Gas, and Public Sector organisations.

Complete End-to-End Service

At SEP Hydrographic, we understand the value of providing a holistic service. We integrate seamlessly with your team and other companies within the SEP Group to offer a complete end-to-end service. This includes everything from data acquisition to data processing and analysis, all the way through to the delivery of the final products.

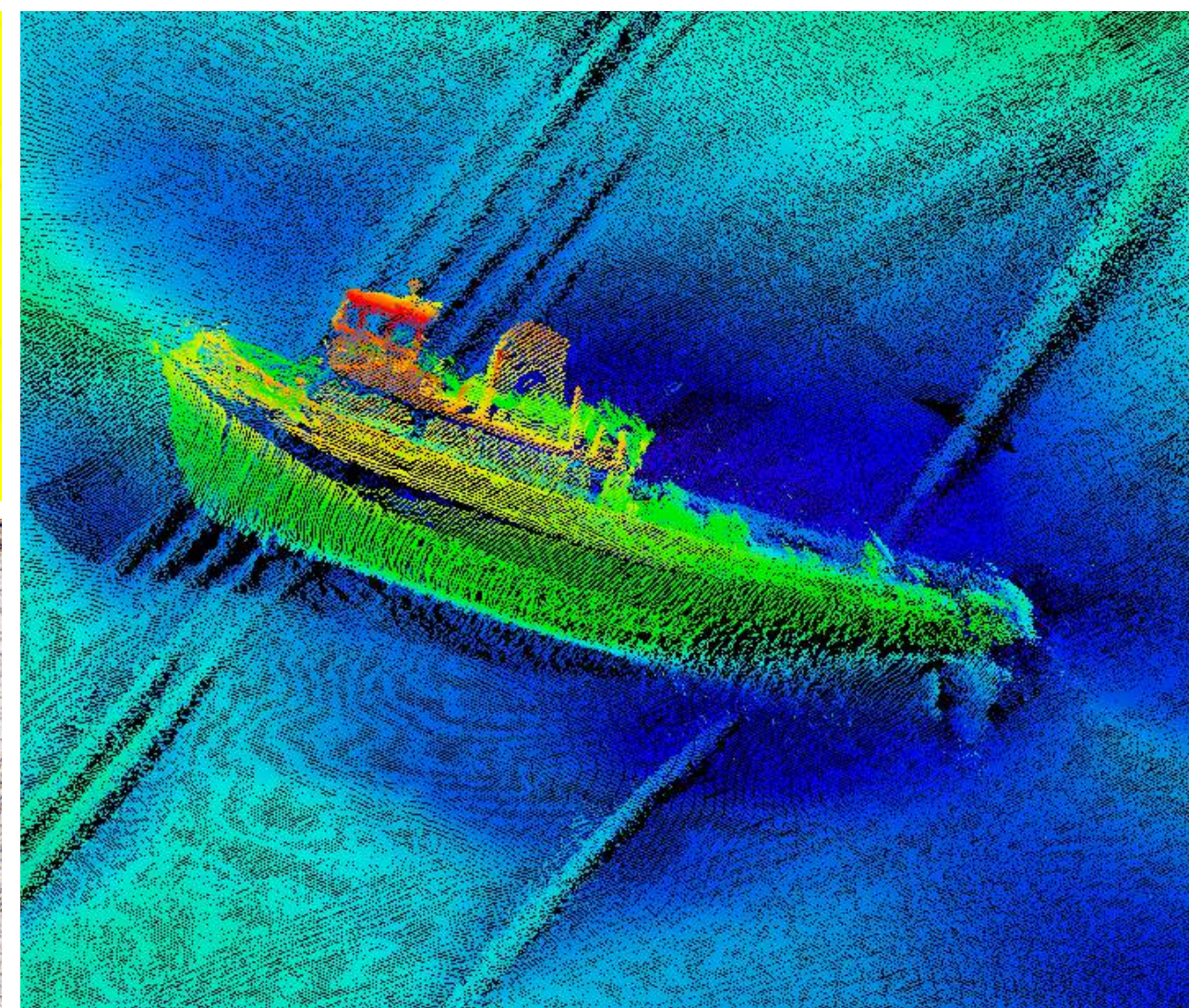
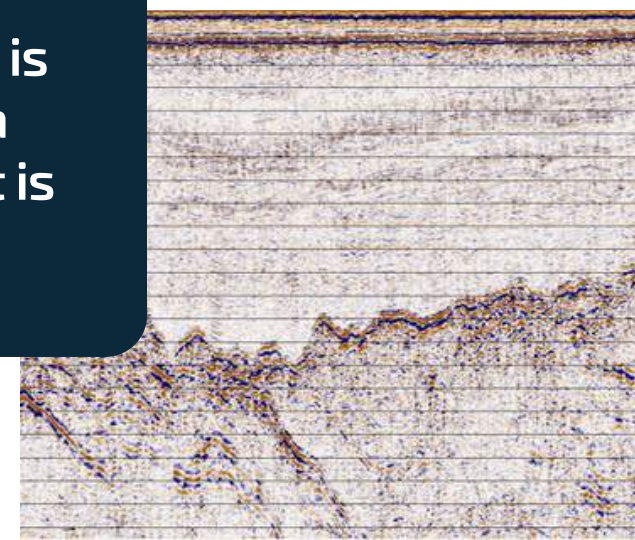
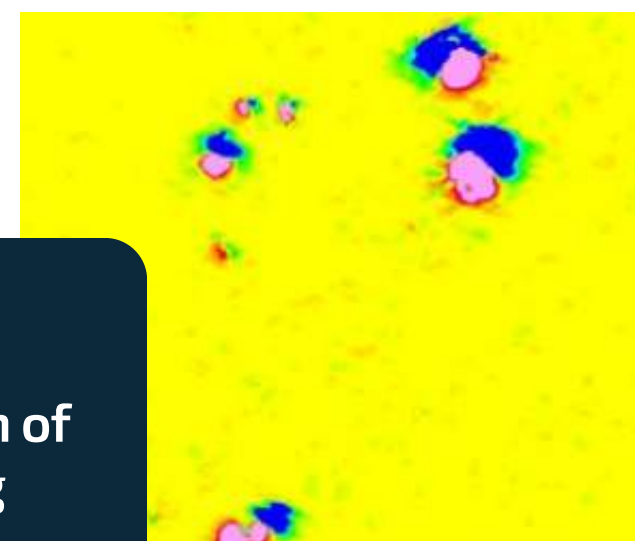
Our collaborative approach ensures a smooth transition between each stage, guaranteeing an efficient process with high-calibre results. Trust SEP Hydrographic to simplify your nearshore survey requirements, delivering comprehensive solutions tailored to your project's needs.

What we're about

Our team brings a wealth of knowledge in conducting hydrographic and geophysical surveys and is committed to providing a professional service that is second to none.

Adaptable to Various Project Sizes

Whether you are looking to carry out a small-scale bathymetric survey or a large-scale geophysical project, we can help. Our versatile team is adept at tailoring our services to the specifics of your project, ensuring optimal results regardless of scale.

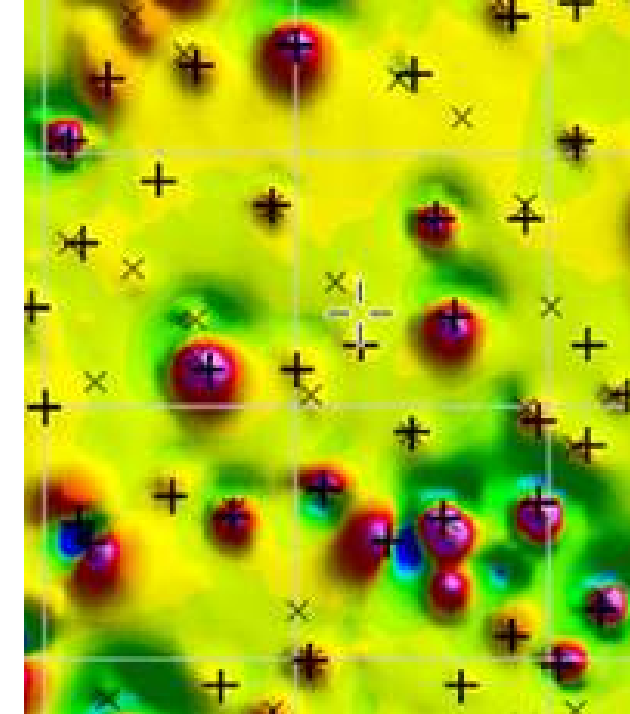


Providing a complete land & marine survey solution

Established in 2020, SEP Hydrographic was founded to meet the growing demand for a combined land and marine survey solution.

As a part of the SEP group, we have successfully completed thousands of projects, contributing to some of the UK's most recognisable landmarks. We continuously diversify our services and adapt to the evolving needs of our clients, solidifying our place as leaders in the field.

Our leadership team, with over 50 years of experience, has provided various marine survey services to international oil, gas, renewable energy, and utility companies, showcasing our expertise and versatility.



Our new NORBIT Subsea Winghead i80s MBES



Equipped with the latest generation of survey and positioning equipment, and backed by our highly skilled personnel, we deliver in-depth data sets swiftly and cost-effectively. Our state-of-the-art equipment ensures that we provide comprehensive, accurate, reliable, and above all, safe survey results.

Our expertise

- Multibeam Bathymetry
- Side Scan Sonar
- Sub Bottom Profiler
- Magnetometer
- ROV Inspection
- Data Processing and Interpretation
- GIS and Mapping Services

Core Business Areas

We work with a variety of clients across the offshore renewables, subsea cables, ports and harbours and oil & gas industries.

Focused on the nearshore and intertidal zone, we deliver seamless integrated land and marine survey services. From single-vessel surveys to complex multidisciplinary surveys, our team is committed to providing a professional service that meets the needs of our clients.

Who we work with

Our clients include some of the most prominent and diversified companies on a global scale.

Offshore Renewables



Subsea Cables



Ports & Harbours



Oil & Gas



Combining experience & technology

Our state-of-the-art technology and experienced team allow us to complete projects quickly and efficiently - no matter how challenging.

Our leadership team

Our senior management team, boasting over 45 years of surveying experience, has an impressive track record of managing a variety of intertidal, nearshore, and offshore marine operations.

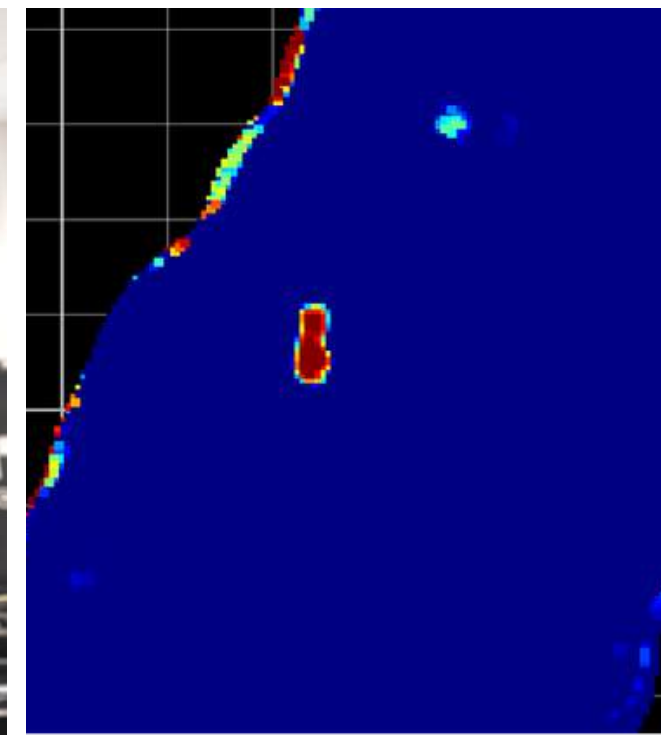
Our personnel's experience spans a broad spectrum: from nearshore, small-scale pipeline and cable landing surveys to multi-vessel, multi-disciplined offshore campaigns amassing thousands of line kilometres of survey data.

At SEP Hydrographic, we understand the crucial need for seamless integration between offshore, nearshore, and land campaigns. We recognise that the quality and compatibility of datasets from these different environments are fundamental to the successful execution and outcomes of your projects.

Our team is adept at harmonising these distinct datasets, ensuring a coherent and comprehensive overview of your operations. As a result, we can provide accurate, reliable, and integrated data sets that allow for better decision-making and more efficient project management.

Experience within SEP Hydrographic covers both pre and post survey and inspection of:

- Offshore Wind Farms
- Subsea Cables
- Oil & Gas Assets
- Ports & Harbours
- Coastal Monitoring
- Utilities
- Bridges & Structures
- Dams
- Inland Waterways



Geophysical Surveys

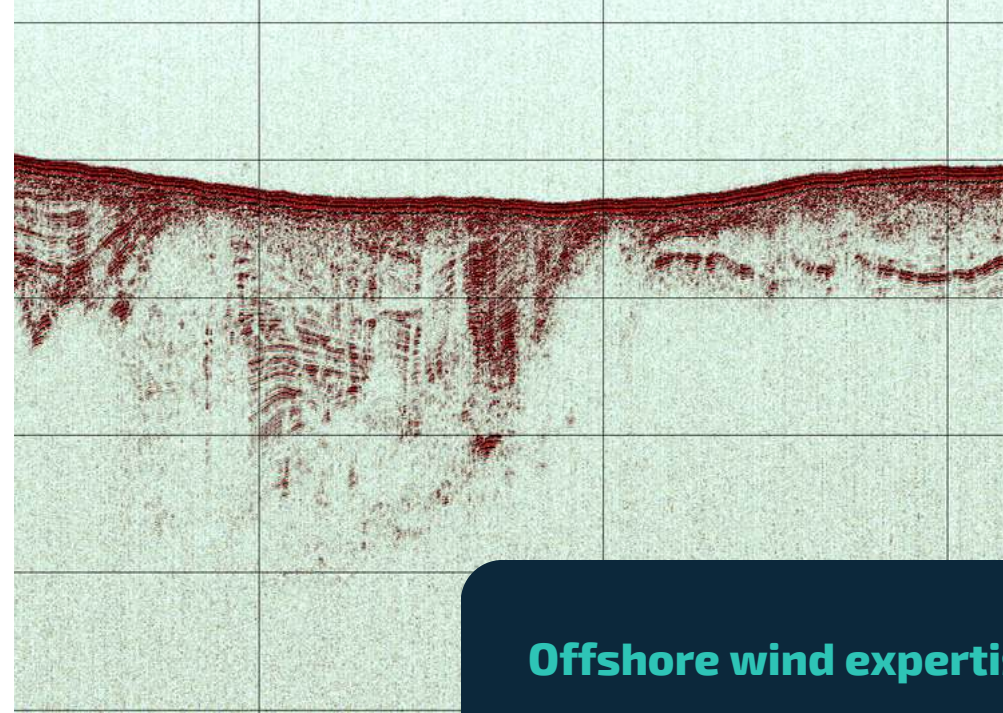
Acquisition of quality geophysical survey data can be a challenge. Our team have worked on various complex projects across the UK and northern Europe covering a range of techniques both land and marine-based.

Our geophysical survey services include a range of land and marine techniques, combining sensors where feasible to create efficiencies in data acquisition. We pride ourselves on our ability to work closely with clients to understand their specific project requirements and deliver tailored solutions.

We are constantly exploring new technologies and techniques to enhance our data acquisition capabilities. This includes the use of autonomous surface and underwater vehicles, as well as advanced data processing techniques for increased accuracy and efficiency. With a focus on the latest innovations from leading suppliers, our range of services includes:

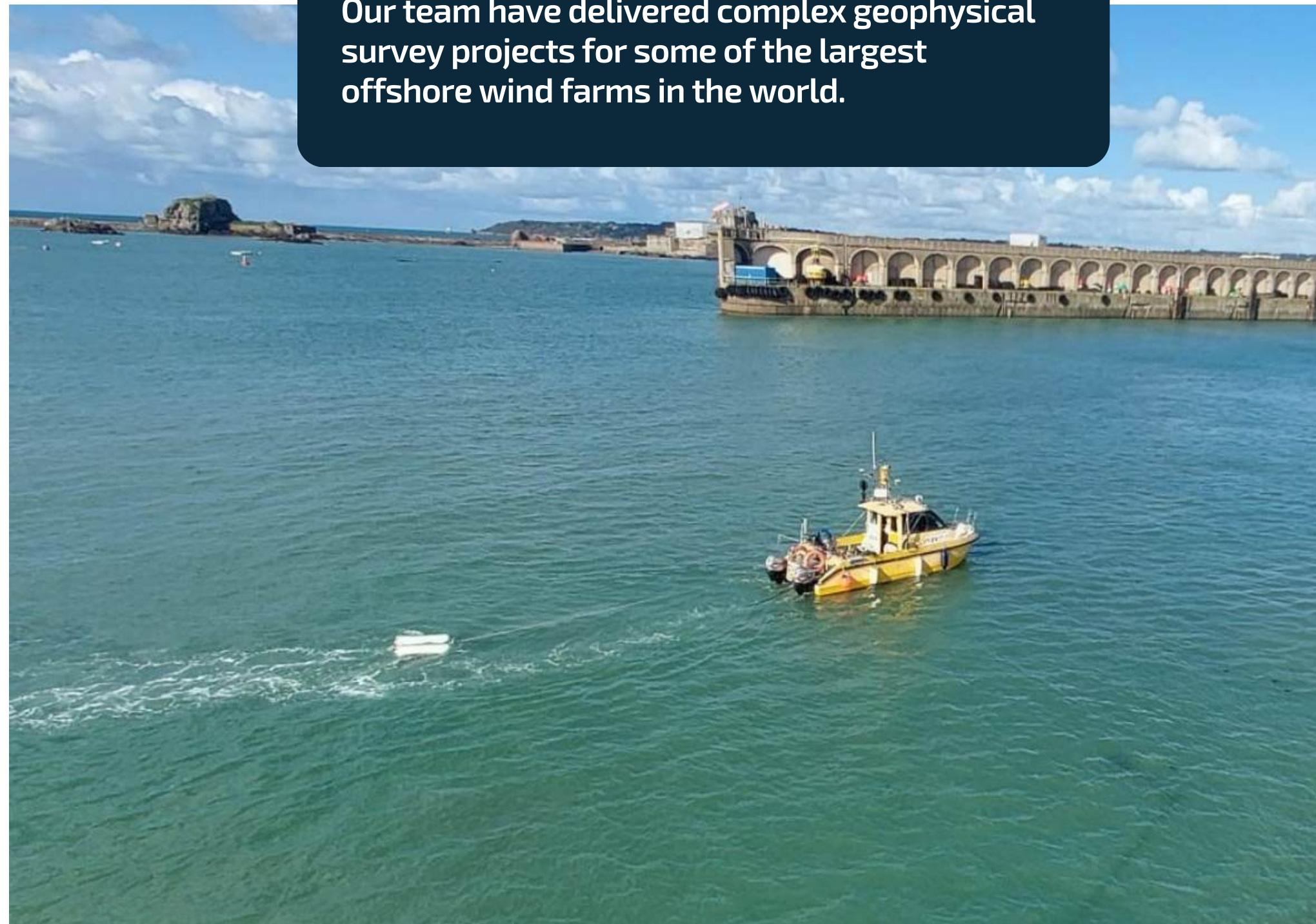
- Cable and pipeline route surveys
- Offshore wind farm site surveys
- Pre-engineering surveys
- Geohazard surveys
- UXO surveys

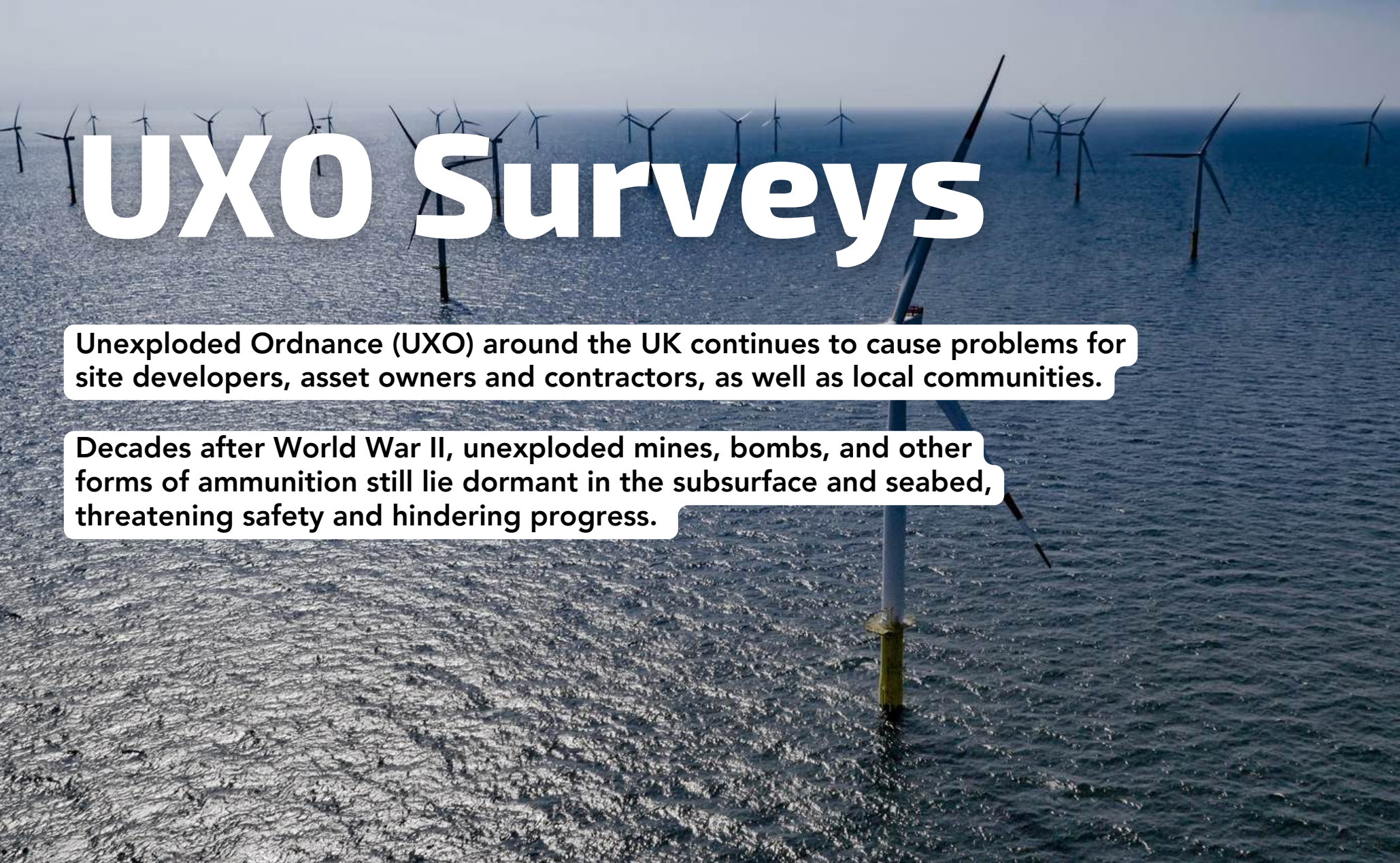
From our inshore vessel Pulsar, we can mobilise a range of sensors simultaneously, chartering in larger vessels for more complex requirement.



Offshore wind expertise

Our team have delivered complex geophysical survey projects for some of the largest offshore wind farms in the world.





UXO Surveys

Unexploded Ordnance (UXO) around the UK continues to cause problems for site developers, asset owners and contractors, as well as local communities.

Decades after World War II, unexploded mines, bombs, and other forms of ammunition still lie dormant in the subsurface and seabed, threatening safety and hindering progress.

UXO surveys are inherently complex. They involve the intricate process of identifying and mapping the precise location of potentially dangerous artefacts, often hidden deep within the subsurface or seabed.

At SEP Hydrographic, we address these challenges head-on, armed with innovative UXO survey techniques and advanced technology that aid in overcoming technical difficulties while reducing data acquisition costs.

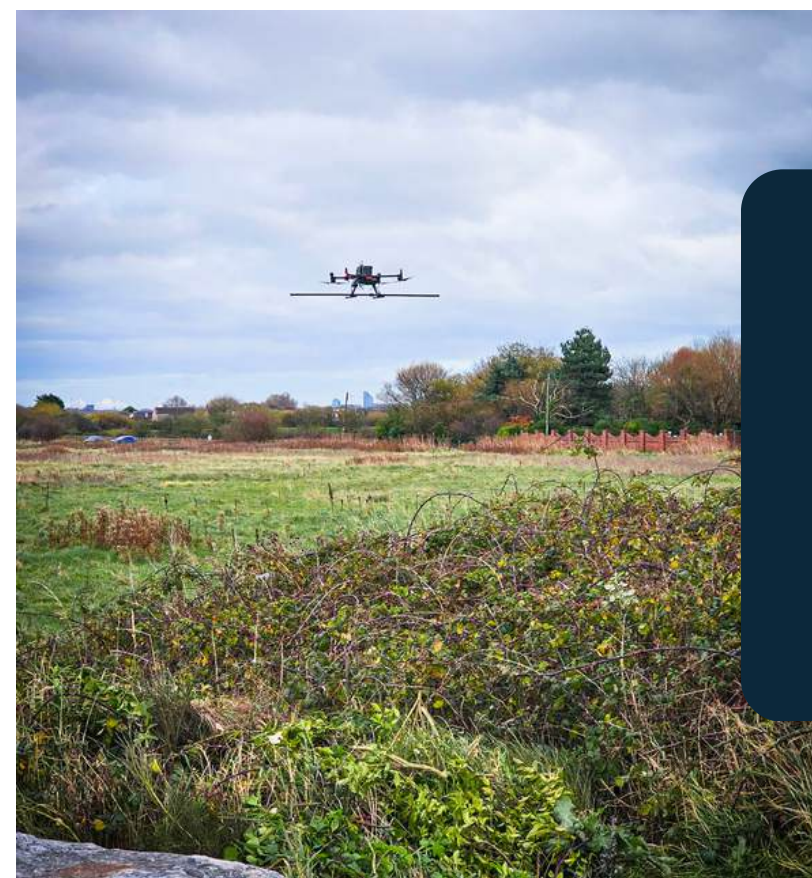
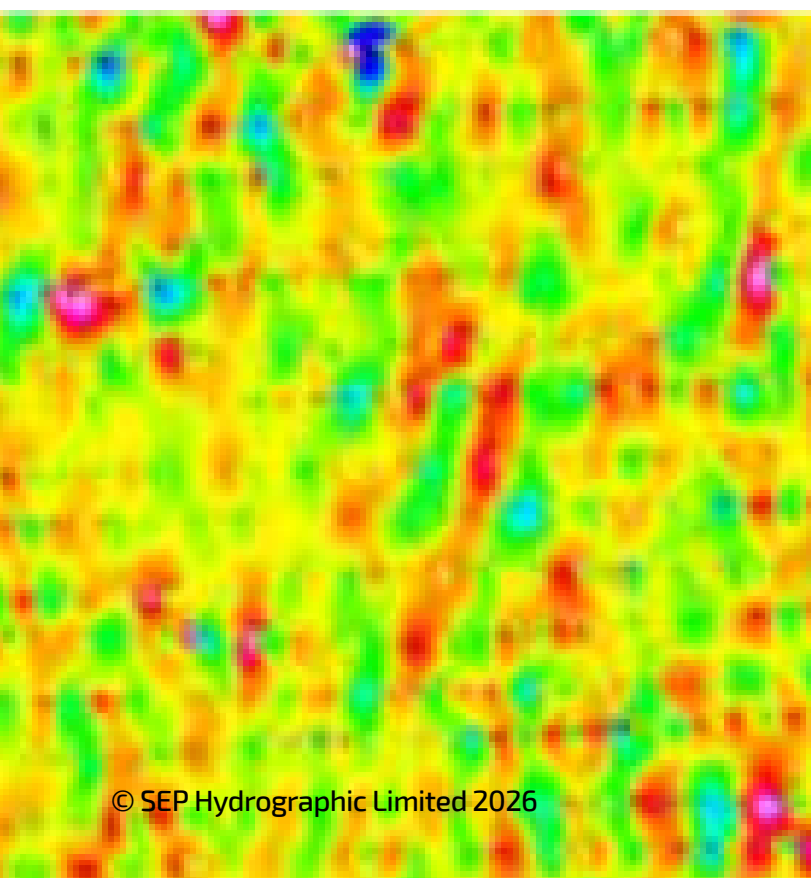
We maintain a strong collaborative relationship with specialist UXO consultants, and are well-versed in industry standard requirements.

UXO Survey Equipment

Typically we use fixed frame Transverse Gradiometers (TVGs) to measure magnetic field variations across the seabed, allowing us to identify ferromagnetic objects such as UXO.

We also have experience working with Kraken's Sub Bottom Imager (SBI) system to provide high-resolution, 3D imaging of the sub-seabed, capable of detecting UXO with smaller magnetic signatures, buried deeper in the seabed.

SEP Hydrographic takes pride in our ability to provide reliable and cost-effective solutions for UXO surveying. Our experienced team of professionals is dedicated to delivering high-quality data and ensuring the safety of all involved parties.



UXO Survey Innovation

For land and intertidal UXO surveying, we have been investing in the development of our Unmanned Aerial Vehicle (UAV) based magnetometer solutions. This novel approach allows us to conduct surveys in challenging or dangerous environments, with minimal risk to personnel.

Asset Integrity Surveys

Backed by the latest in advanced survey technology, we combine multibeam bathymetry, 3D Scanning Sonar, Laser scan and photogrammetry data to provide a detailed picture of subsurface assets, both above and below the waterline.

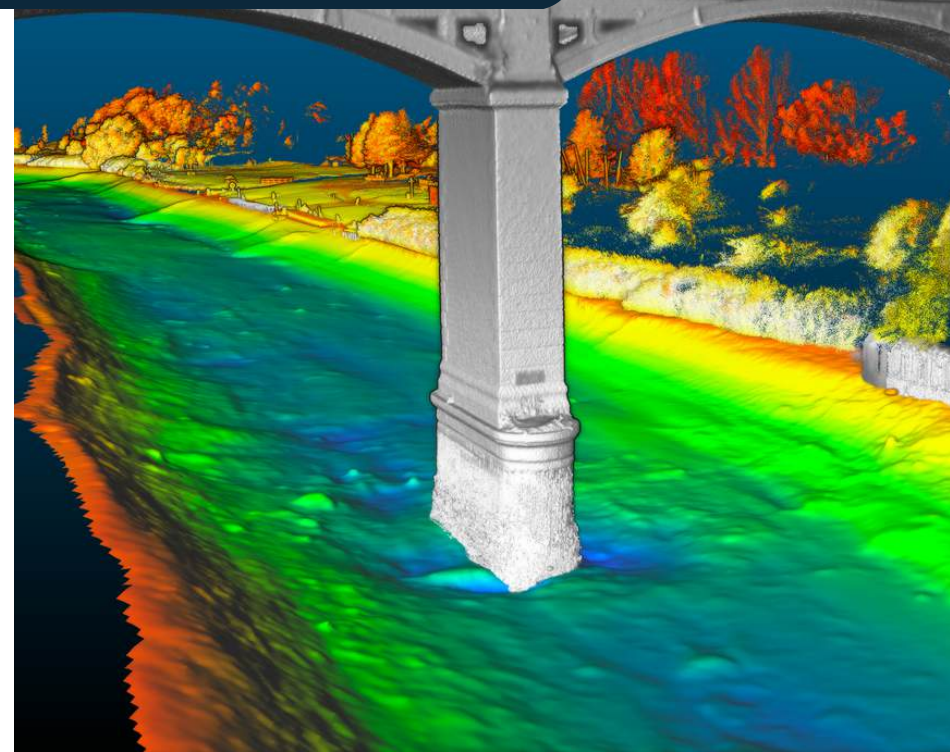
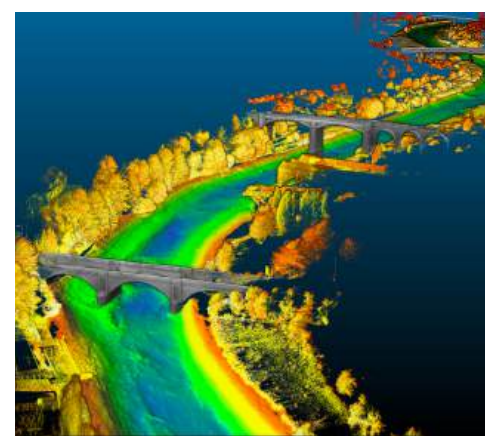
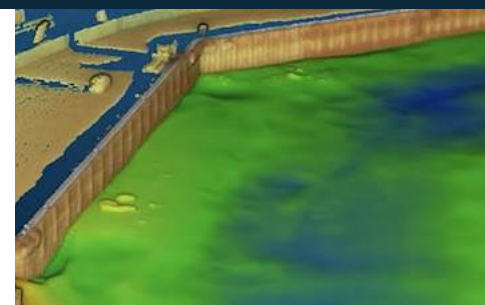
Most terrestrial point cloud data datasets are derived from LiDAR scans, acquired from aerial or land-based sensors. However, when considering subsea assets, visible light techniques such as LiDAR are generally unsuitable for use in shallow water environments, due to rapid optical attenuation and turbidity through the water column.

By merging marine and terrestrial survey techniques, we can produce high-resolution imagery of underwater structures, offering a cost-effective substitute for traditional methods such as diving or ROV inspection.

The result is an incredibly dense BIM-compatible dataset in comparison to traditional hydrographic surveys, which can then be brought into our accessible online viewer for further interrogation.

Supporting asset integrity management

We provide a 3D perspective of assets that may have previously been inaccessible for efficient and accurate measurement techniques.





Survey Vessels: Pulsar

Pulsar is a shallow drafted Cheetah Marine catamaran launched in 2006, and fully refitted during 2018 and acquired by SEP Hydrographic in May 2020

The vessel is powered by twin Mercury 60HP 4-stroke outboard engines which generate a cruising speed in excess of 18 knots. The shallow draft and twin hull design make the vessel extremely manoeuvrable even at slow survey speeds as well as a stable survey platform, ideal for shallow water surveys.

The survey equipment and personnel are housed within the forward cabin area of the vessel, providing a comfortable working environment. With a purpose-built trailer, the vessel is road-transportable, which enables a responsive and straightforward mobilisation.

The vessel can be equipped with additional geophysical survey sensors which can be tailored to project requirements. Our advanced survey equipment is installed using custom-built over-the-side mounts, providing repeatability.

Depending upon the survey site, deployment and recovery can be facilitated either using a suitable local slipway or vessel hoist or crane. This responsiveness is particularly useful when dealing with an emergency survey, for example, following damage.

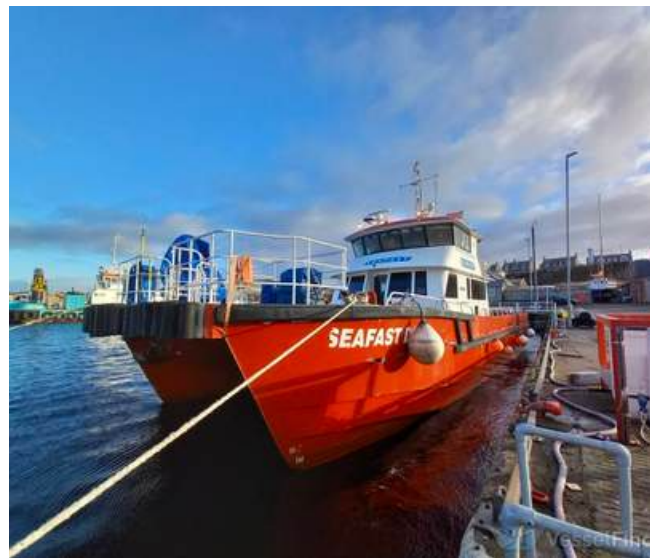


Specifications

Launched	2006 - Refitted 2018	Operating Code	MCA Cat 3 - 20 miles from safe haven
Length (LOA)	7.2m		
Beam	2.7m	Life Saving	Complete lifejacket set, 4-man SOLAS B life raft, deck harnesses, MCA workboat watertight flare pack.
Draft	0.3m		
Cruising Speed	18 knots		

Advanced survey sensors

Pulsar is mobilised with a suite of high-specification equipment to carry out asset inspection surveys, including a high-resolution scanning sonar, marine laser scanner and multibeam echosounder systems.



Specifications

Launched	2015
Length (LOA)	23m
Beam	7.36m
Draft	1.2m
Cruising Speed	25 knots

Operating Code

Life Saving

MCA Cat 1 - 150 miles from safe haven

Engines

x2 MAN, V12-1400

Crane

HIAB arm crane PK6500m

Survey Vessels: Seafast Don

Owned and operated by Seafast, the Seafast Don is a 23-metre catamaran providing a stable, flexible platform for geophysical survey campaigns.

With a hydraulic A-Frame in progress, the vessel will be capable of accommodating a full geophysical spread including Multibeam Echosounder, Side Scan Sonar, Sub Bottom Profiler and Magnetometer TVG.

Amenities for passenger comfort include 12 suspension seats with armrests, headrests, lap belts, and a sound level of 55 dB in the suspended wheelhouse.

The vessel features a well-equipped galley and mess room, a wet room and toilet, and lockers for personal belongings.

A typical survey spread includes:

- Applanix POS MV Oceanmaster
- NORBIT i80s
- NORBIT i77h
- Edgetech 4125
- Innomar SES2000 Compact
- Boomer Sub Bottom profiler
- Sonardyne Mini-Ranger 2
- G882 Magnetometer (or TVG)

Performance & Comfort

With state-of-the-art survey equipment, a comfortable cabin, and an impressive amenity list, the Seafast Don excels in delivering performance while ensuring a pleasant working environment.



Survey Vessels: Ros Áine

Owned and operated by ICCB, the Ros Áine is a 12-meter shallow-draft vessel designed for versatility and speed.

Powered by twin OXE diesel 200HP outboard engines, the vessel boasts the ability to cruise over 18 knots, delivering impressive performance and efficiency. The Ros Áine is compliant with P5 coding and holds an MCA cat 2 license, allowing it to operate in Irish waters with reliability and safety.

Designed with a capacity to carry up to 12 passengers and 2 crew members, along with the ability to transport 3.7 tons of cargo, the Ros Áine is equipped to handle a multitude of commercial operations.

- A typical survey spread includes:
- Applanix POS MV Oceanmaster
 - NORBIT i80s
 - NORBIT i77h
 - Edgetech 4125
 - Innomar SES2000 Compact
 - Boomer Sub Bottom profiler
 - Sonardyne Mini-Ranger 2
 - G882 Magnetometer (or TVG)

Versatile Platform for Survey Operations

A versatile, highly-efficient shallow-draft vessel, the Ros Áine is ideally suited nearshore survey operations.

Specifications

Launched	2021	Operating Code	Irish Department of Marine P5 MCA Cat 2
Length (LOA)	12m	Life Saving	16 man hydrostatic release life raft, EPIRB, 15 lifejackets, 3x VHF Radios, First Aid Box, Fire Extinguishers , Flares and Life Rings
Beam	4m		
Draft	0.8m		
Cruising Speed	18 knots		



Survey Vessels: Elysse

Owned and operated by Felicia Marine Services, the MV Elysse is an 11m workboat built in 2019.

The vessel is certified under MCA Cat 2, offering high-speed transit speeds of up to 24 knots with an economical fuel consumption rate of 60 litres per hour at cruising speed.

The vessel is equipped with a 10 KVA Beta Marine Generator, a 3000w inverter, an 800mm x 800mm Moon Pool with a frame and pole for transducer mounting, and a fully depth-adjustable hydraulic A-frame.

MV Elysse features essential amenities such as hot and cold water, a toilet, a small galley, and two survey desks with seating, with a comfortable climate thanks to the Eberspacher accommodation heating system.

A typical survey spread includes:

- Applanix POS MV Oceanmaster
- NORBIT i80s
- NORBIT i77h
- Edgetech 4125
- Innomar SES2000 Compact
- Boomer Sub Bottom profiler
- Sonardyne Mini-Ranger 2
- G882 Magnetometer (or TVG)

Compact yet Capable Survey Vessel

Elysse offers a flexible, practical platform suited to a range of nearshore survey requirements.

Specifications

Launched	2019	Operating Code	MCA Cat 2 - 60 miles from safe haven
Length (LOA)	11.02m	Life Saving	16 man hydrostatic release life raft, EPIRB, 15 lifejackets, 3x VHF Radios, First Aid Box, Fire Extinguishers , Flares and Life Rings
Beam	4.20m		
Draft	0.95m		
Cruising Speed	20 Knots		

Part of the SEP Group

The SEP Group proudly offers clients a complete end-to-end survey solution, encompassing every aspect of the process from data acquisition and processing to final deliverables.

Our business

Established in 1986, our founding core principle is to provide a simple and effective surveying solution. Our principles have not changed but our business certainly has.

Our extensive network of seasoned professionals handles each part of the surveying process, establishing us as one of the most comprehensive service providers in the UK.

We are a reliable and trusted partner to our clients, who rely on us to deliver superior service and quality data products. We constantly evolve our services, personnel, and knowledge to keep pace with this fast-paced industry, ensuring that we are always able to provide the most advanced technical solutions available.

We focus on improvements and adapt to new developments, allowing us to expand our service portfolio and cater to the full range of surveys available.



Our end-to-end survey capability means that we can provide full turnkey services, from the initial project design and site surveys to final reports. Our experienced team has the knowledge and expertise to provide you with all the available options.



SEP Hydrographic Limited was established in 2020 to meet the growing demand for a complete land and marine survey solution. Our leadership team benefits from more than 50 years of experience providing various marine survey services using the latest technology.



SEP Geophysical delivers a range of geophysical services to meet the growing demand for integrated, multi-technique data sets that are supported by sophisticated interpretation and associated post-processing.



SEP Inspection delivers a range of inspection services across multiple sectors. We use advanced technologies such as thermal imaging and drones to provide accurate results quickly and cost-effectively.

Land & UAV Surveys

Aerial surveying using UAVs offers rapid data acquisition and provides an efficient, safe solution to areas that are inaccessible using other techniques.

Combining photogrammetry techniques with UAV LiDAR can give enhanced results across a range of applications from surveying a bridge deck to wind turbine inspections, drones make it easy to cover large or difficult-to-access areas in minutes.

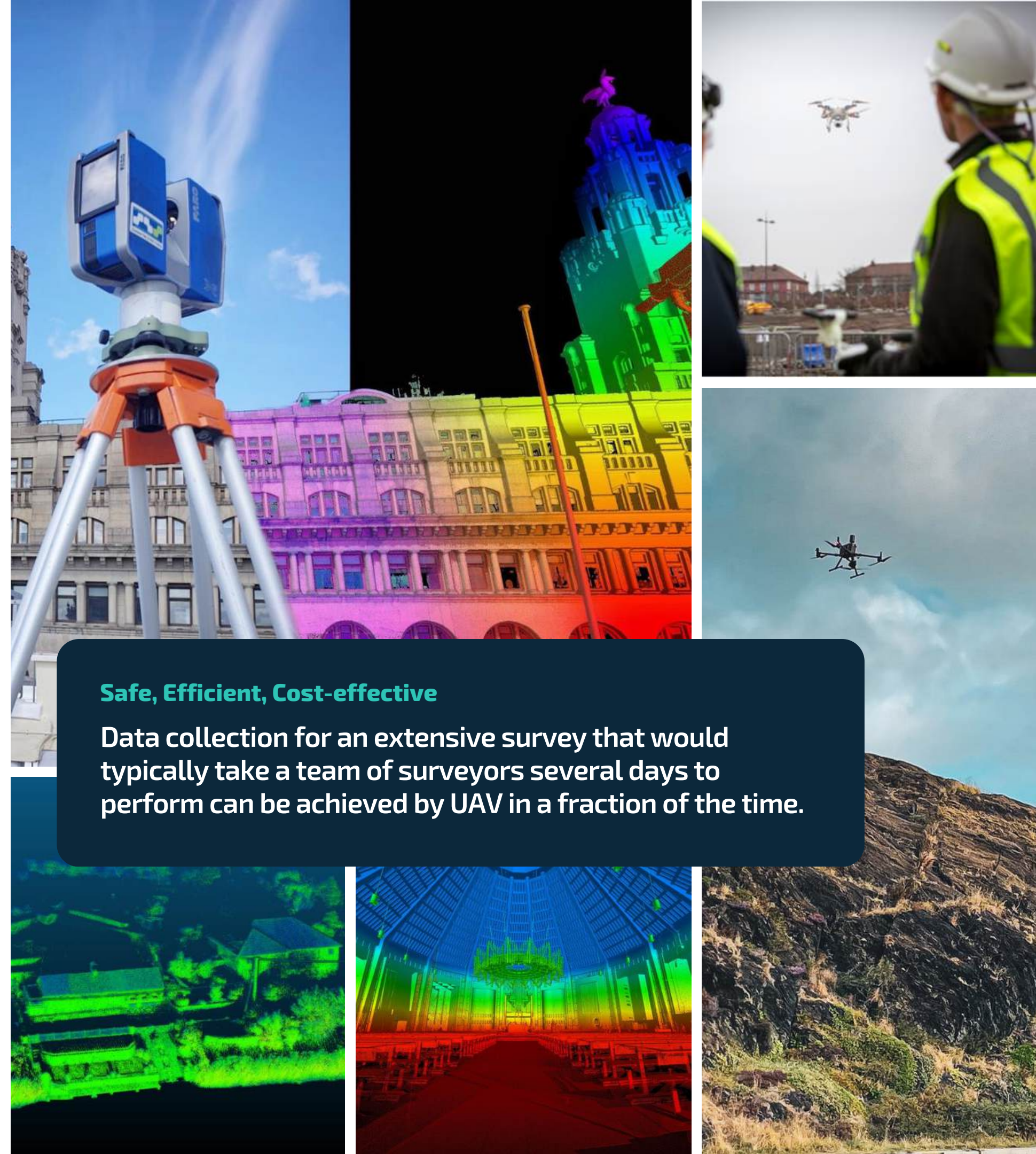
UAV survey data are acquired, processed and presented differently depending upon the project. Gathered data can be supplied in deliverable formats such as orthophoto, DTM, DSM, pointcloud, Revit surface and AutoCAD.

With the right skill set and software, UAV drone surveys can acquire high-resolution data with sub-centimetre accuracy.

Results can be faster and more cost-effective for Clients where repeat surveys are needed to monitor environmental conditions or provide situational analysis on an ongoing basis.

The SEP group of companies offer market-leading land survey services, including:

- Topographic Surveys
- Laser Scanning
- CAD/BIM/Revit
- Underground Utility Surveys
- Measured Building Surveys
- Monitoring Surveys
- UAV (drone) inspections
- Thermal imaging inspections
- Visual RGB inspections
- Building condition surveys
- Solar PV farm inspections
- Wind Turbine Inspections



Safe, Efficient, Cost-effective

Data collection for an extensive survey that would typically take a team of surveyors several days to perform can be achieved by UAV in a fraction of the time.

Land Geophysics

Using various geophysical techniques, we deliver turn-key terrestrial geophysical surveys for a wide variety of applications.

Our highly skilled and experienced geophysicists offer a wide range of geophysical services including the design, acquisition, processing and interpretation of data to deliver high-quality results that meet your specific application.

Our team has a broad range of skills that are vital in delivering high-quality geophysical surveys.

We work with a wide range of clients from various industries including renewable energy, mining, oil and gas, archaeology, environmental, engineering and construction.

Our geophysical services cover a wide range of applications, including:

- Voiding, sinkholes, subsidence, karst and solution features
- Mine shafts, Adits or other mine workings
- Disused quarries /Borrow pits
- Rockhead profiling/engineering properties
- Faults and Fractures
- Underground storage tanks (UST's)
- Unexploded Ordnance (UXOs)
- Archaeology

Understanding the subsurface

Geophysics is a fast and comprehensive surveying option in order to develop a better understanding of the subsurface.





Get in Touch

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