Global Underwater Hub News

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Subsea Expo Special Edition

Welcome to the latest issue of GUH News.

With the stroke of midnight that heralded 2026, the first quarter of the 21st century drew to a close. For the underwater industry it was a 25-year period that was different to the one that preceded it, while the one that follows will demonstrate further change. What will remain constant is the spirit of innovation.

There is no doubt that oil and gas remained the dominant market for the subsea sector over that time. Operations on the UKCS reached maturity and decommissioning started to become the focus. Diversification into new markets was evident, while new markets themselves were established, such as offshore wind.

The coming quarter of a century will have one thing firmly at its end – the UK's commitment to reaching net-zero by 2050. Another certainty is that the underwater industry will have a significant part to play in achieving that and it stands ready to do it.

That impending 2050 horizon will feature in discussions at Subsea Expo in February, which takes the theme of 'The Next Wave'. With the UK Government's 2030 clean power targets also fast approaching, it means there should be plenty of opportunity for the UK supply chain.

A key finding in our 2025 Business Survey, and one which serves to raise concern over whether enough renewable projects will come on stream quickly enough, is that 81% respondents said that projects were not moving fast enough. Alongside this, another resounding point in the survey results, and echoed in discussions we have had with members, is the need for certainty.

These points will form part of the debate at Subsea Expo as we examine where future projects and innovations across the offshore energy sector are coming from. We will also highlight how innovation below the waves is driving forward career and growth opportunities that can power the blue economy.

The tail end of 2025 concluded a busy programme of events for Global Underwater Hub, with conferences and workshops focused on subsea cables, umbilicals, unexploded ordnance, underwater robotics and marine energy – demand saw many of these events sell out. A similarly fulsome programme for 2026 is being planned. Dates for conferences on the Celtic Sea, Marine Energy, Moorings and Anchors, Underwater Robotics and Subsea Cable Insurance are already confirmed.

We look forward to welcoming you to Subsea Expo and all our events over the coming months.

Neil Gordon
Chief Executive, Global Underwater Hub

Latest Members: Alpha Marine Services Ltd | Complete Talent Services | EBB-FLOW Energy Ltd | Encomara Ltd | Highland Design Engineering Ltd t/a 4c Engineering | Indeximate Ltd | North Sea Systems Enterprises | Scarab4 | Tadek Ltd | Tool Tec Ltd | University of York - Institute for Safe Autonomy

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FOLLOW US:

GWEC wins landmark defence supply contract with Briggs Marine

Griffin-Woodhouse, a West Midlands based company with a manufacturing heritage of more than 230, has secured a long-term contract as Key Supplier/Subcontractor to Briggs Marine, to supply chain and accessories to the Ministry of Defence (MoD) in UK, Gibraltar, Cyprus, Ascension and Falkland Islands.

The contract, which is the single largest in GWEC's history, has been awarded by Briggs Marine Contractors, a Scottish based company which itself recently secured the MoD's contract for the Supply and Maintenance of Authority Moorings, Markers and Targets. GWEC will provide equipment to Briggs for both maintenance and replacement programmes on a range of critical mooring infrastructure used by Submarines, Ammunition berths, Warships and Royal Fleet Auxiliary (RFA), amongst others.

GWEC was previously a long-term supplier of mooring equipment to Royal Maritime Auxiliary Service (RMAS), before being contracted by Serco Marine under the Future Provision and Continued Provision of Marine Services contracts (FPMS & CPMS) respectively and will therefore bring its knowledge and experience to bear against this new Agreement with Briggs.

David Timmington, Managing Director of GWEC said: "The relationship between our company and the Ministry of Defence can be traced back decades, and we are thrilled to have been selected by Briggs to continue this incredibly important work. This contract represents an important part of the continued growth of GWEC, alongside other key markets including our established work within the oil & gas sector and future opportunities regards floating offshore wind.

> "The importance of securing the British fleet around the world cannot be underestimated and we believe our continued close working relationship with Briggs will help deliver the extraordinarily high standards demanded by the 'next generation' contract."

Iain Ross, Director of Port and Marine Services at Briggs said: "Continuing to work with GWEC, with whom we have extensive experience under both FPMS & CPMS contracts, will be invaluable in ensuring Briggs Marine delivers this critical programme of works to the Ministry of Defence.

"We look forward to drawing on GWEC's exacting standards and technical expertise to help maintain the high level of service expected by the MOD throughout the duration of the contract."

TSC Subsea's ART GUIDE™ system achieves 84 hours of continuous subsea operation

In a recent offshore inspection campaign led by TSC Subsea, the company's ART GUIDE system achieved over 84 hours of uninterrupted operation in a single deployment during a grout integrity verification project in the North Sea.

The campaign spanned several days and generated more than 500 high-resolution scans of grouted connections on jacket platforms and pile sleeves. These are critical components that support structural stability in offshore structures. The system's ability to perform continuously for over 84 hours with zero downtime, incidents, or data loss highlights its capability in real offshore conditions.

Developed by TSC Subsea, the ART GUIDE system is a non-destructive inspection tool that uses Acoustic Resonance Technology (ART) to scan through the pile sleeve and detect subsurface anomalies in the bond between grout and steel. These may include cracks, voids or areas of debonding, conditions often undetectable using conventional inspection methods.

> "Running continuously for more than 84 hours offshore is a strong indicator of the system's robustness," said Jonathan Bancroft of TSC Subsea. "It allows us to deliver reliable, high-quality inspection data while limiting unplanned downtime, which is critical in offshore campaigns."

Concerns about grout integrity have grown, in part, due to earlier design recommendations for pile-sleeve connections in jacket structures, which may have underestimated long-term performance risks. This is now paired with a greater capability to inspect these areas more thoroughly. Using the ART GUIDE system, TSC Subsea can access the base of the grouted connection, where failures are more likely to occur, rather than relying solely on visual inspection of the void between the pile and the sleeve, which has traditionally been performed using ROV-mounted cameras.

"We're seeing grout integrity inspections being incorporated into life extension programmes for ageing infrastructure, as well as growing interest from operators planning decommissioning projects," Jonathan added. "Understanding the internal condition of grouted connections is key to making informed decisions during both phases."

The system's performance in this campaign shows how advanced NDT technologies can support safe, efficient and regulation-compliant asset management. It also shows promise beyond oil and gas, particularly for offshore wind, where grouted joint integrity is equally critical.

With no alternative offering the same combination of reliability, scan quality and subsea endurance, TSC Subsea's ART GUIDE system is proving to be a valuable solution for today's complex offshore inspection challenges.

SUBSEA EXPO

To Explore The Next Wave

The future of the underwater industry will be sharply in focus at Subsea Expo as the two-day event explores the theme 'The Next Wave'.

Organised by

Global Underwater Hub

Sponsored by

Boskalis

Taking place at P&J Live in Aberdeen on Wednesday, 04 and Thursday, 05 February, Subsea Expo is one of the world's leading events dedicated to the subsea sector and wider underwater industry, drawing exhibitors and visitors from around the world. This global appeal reflects the international regard in which the UK's underwater industry is held.

2 Days

15+ Conference sessions

Worldwide Appeal

FREE to attend

Free-to-attend, the established annual exhibition and conference will once again showcase the technology, innovation and talent that abounds in the UK's £9.4 billion underwater industry.

The 2026 event has received the backing of Boskalis Subsea Services, which has been named as the official event partner. A leading specialist provider of tailored, packaged subsea solutions, Boskalis Subsea Services has over 20 years' experience providing integrated services to the offshore energy industry.

Boskalis Subsea Services joins a number of other companies which are supporting the event. C-Kore Systems, Deepsea Technologies, Genesis and Viper Innovations are all sponsoring individual categories at the Subsea Expo Awards, while Energy Voice has lined up as the lanyard sponsor, ACUA Ocean as a conference session sponsor and Loganair as transport partner. Local destination management organisation VisitAberdeenshire has also lent its backing to the event.

Business focussed exhibition

Regarded as an event where business is done, Subsea Expo draws companies from across the underwater industry, with confirmed exhibitors including Boskalis Subsea Services, Concept Cables, Digital Edge Subsea, KOSO Kent Introl, Northern Diver, Seafast Maritime, STATS Group, Tracerco, Viewport3 and Yoke.

Among the exhibits on display will be RockSalt Subsea's 10-metre-long fast rescue daughter craft 'Falcon 1' and an ROV stealth skid from Inverurie-based remote intervention tooling and subsea engineering specialist Tool Tec.

Customer engagement sessions

For 2026, exhibitors can benefit from participating in new customer engagement sessions – dedicated 10-minute one-to-one meetings with key decision makers from across the underwater industry. Operators, contractors and developers already signed up include Boskalis Subsea Services, BP, CNOOC, CNR International, Dana Petroleum, DOF Subsea, EnQuest, Flotation Energy, Fugro, Harbour Energy, Ithaca Energy, Orsted, Serica Energy, Subsea7, TechnipFMC, TotalEnergies, Well-Safe Solutions and Wood.

Global Underwater Hub's Chief Executive, Neil Gordon with Subsea Expo Award winners from 2025

Exploring the next wave

As the subsea industry stands on the brink of transformation, powered by the global energy transition, diversification, digitalisation and a renewed focus on sustainability, the theme for the two-day industry showcase in 2026 is The Next Wave. This will explore where the next projects and innovations are coming from in offshore wind, oil and gas, defence and beyond, highlighting how innovation beneath the waves is driving careers and growth across the blue economy.

A busy conference programme will once again focus on some of today's key talking points. Alongside an opening breakfast plenary session, the conference programme will cover oil and gas, offshore wind, decommissioning and defence. These are reflective of the sectors that the underwater supply chain is set to centre its attentions on in the coming years, something borne out in Global Underwater Hub's 2025 Business Survey.

Also forming part of conference proceedings will be a series of spotlight sessions, delivered in the open theatre in the exhibition hall. These short, 12-minute presentations allow the speakers to share knowledge, technologies, alternative approaches, research findings and project summaries on a range of topics. For 2026, these will cover advanced manufacturing, the circular economy, data and digitalisation, diving, late-life management, subsea power, underwater robotics and where innovation in the subsea industry may come from in the next decade.

Subsea Expo Awards 2026 guest speaker, comedian and TV personality Cally Beaton

Networking opportunities

In bringing together attendees from a wide range of sectors and international locations, Subsea Expo's two-day run – with its exhibition and conference sessions – offers an excellent opportunity for industry to convene and learn, share knowledge and network with existing colleagues and build new connections.

Providing an additional networking opportunity on the Tuesday evening, on the eve of Subsea Expo, is the event's official drinks reception. Held in the centre of Aberdeen, at the stunning Union Kirk, the free to attend evening will allow exhibitors, sponsors and attendees the chance to network in relaxed surroundings before the show officially opens on the Wednesday morning.

A highlight of Subsea Expo is the Subsea Expo Awards, which will be presented at a black-tie dinner on the Wednesday evening. Around 400 guests are expected to attend and celebrate the achievements of companies and individuals leading the way in the industry.

Nine accolades will be presented on the night, including awards for Rising Star and Outstanding Contribution which celebrate the achievements of individuals at opposite ends of their careers. In a departure from recent tradition, the evening will be hosted by comedian and TV personality Cally Beaton, well known for appearances at the Edinburgh Festival Fringe and on programmes including Live at the Apollo, QI and Richard Osman's House of Games.

REGISTER NOW!

Advance registration for Subsea Expo is recommended and can be completed at **www.subseaexpo.com**, where further information on the event can be found.

SUBSEA EXPO AWARDS

Subsea Expo Awards finalists

The annual Subsea Expo Awards shine a spotlight on companies and individuals leading the way in the subsea sector and wider underwater industry. The shortlisted finalists for the 2026 awards are:

Company of the Year – Small

Sponsored by Deepsea Technologies

Elementz

Harlyn Solutions

HPR ROV

Company of the Year – Medium

Fibron BX

Global Maritime Consultancy

MacArtney UK

Company of the Year – Large

Geoxyz

SMD Limited

Cross Sector Innovation

Astrimar

HPR ROV

Quintham

Viper Innovations

Global Development

Sponsored by C-Kore Systems

Fibron BX

Sentinel Subsea

Viper Innovations

Rising Star

Sponsored by Genesis

Lee Salisbury, Wood & EIYPN

Neha Bahukhandi, Elementz

Silvia Hands, Astrimar

Tim Whitmore, Viper Innovations

Technology Development

Sponsored by Viper Innovations

C-Kore Systems

Dublin Offshore

Sentinel Subsea

Workforce Development

The National Energy Skills Accelerator

North East Scotland College

South Hampshire College Group

Subsea Expo Awards from 2025

RS Aqua and Nortek form strategic partnership to expand distribution

Visit RS Aqua on **STAND 125** at SUBSEA EXPO

RS Aqua has announced a strategic partnership with Nortek, under which Nortek will support RS Aqua and distribute the WaveRadar Rex2 through its global sales and distribution network.

As part of this collaboration, Nortek will support the wider deployment of WaveRadar Rex2, RS Aqua's latest offshore wave measurement solution. Designed for demanding offshore environments, the system offers a measurement range from 3 to 80 metres and combines high accuracy with compact, lightweight design and extremely low power consumption. WaveRadar Rex2 integrates WaveView Connect and WaveConfigurator software, providing real-time data display and processing while meeting multiple offshore hazardous area certification requirements.

RS Aqua originally launched the Rex wave radar in 1999, where it became a mainstay of port wave monitoring. The WaveRadar Rex2, introduced in 2020, represents a significant evolution of that technology and is now widely used internationally. Compared with the original Rex, the Rex2 is half the size and weight, consumes 10x less power and delivers a 25% increase in measurement range while maintaining accuracy. Its higher-frequency sampling unit enables measurements of up to 80 metres with accuracy in the range of 3–6 mm, and its low power requirements allow installation in locations without access to grid electricity.

The system is supported by RS Aqua's WaveView Connect software, which provides real-time processing of raw wave data from one or more sensors to generate deterministic, spectral and tidal sea state parameters. With remote connectivity capabilities, the software is designed to meet the needs of both end users and system integrators. WaveConfigurator, a custom-built configuration tool available exclusively for the Rex2, complements the WaveView Connect suite and supports flexible system setup and optimisation.

RS Aqua WaveRadar Rex2

UK-built Smart Shore Power System earns innovation honours for iconsys

Automation, power and control systems specialist iconsys has been named runner up in the innovation category at the recent Make UK Awards 2025 (Midlands & East).

The recognition highlights iconsys' pioneering work developing the iConvert™ Microgrid: Smart Shore Power System, the first UK built solution of its kind. The project was developed and delivered in collaboration with Cemex and Warwick Manufacturing Group (WMG), with funding from the UK Department of Transport's Clean Maritime Demonstration Competition (CMDC) to support UK industry to deliver net zero in the maritime sector.

Deployed at Cemex's Shoreham Wharf, the iConvert™ system enables vessels to connect to clean onshore power while alongside, eliminating the need to run diesel generators for auxiliary power. By switching from shipboard diesel to low carbon electricity, the system significantly reduces CO_2 emissions at berth, improving local air quality for port workers and surrounding communities while cutting noise and vibration on the quay.

iConvert™ goes beyond a conventional shore power connection. The microgrid architecture allows multiple renewable energy inputs, such as solar PV and wind energy to be utilised or stored in battery energy storage, to be integrated behind a single energy management system. This enables the user to optimise when and how energy is sourced, stored and used across the site, flattening demand profiles, reducing exposure to peak grid tariffs and providing greater resilience in the event of grid disturbance.

For ports and terminals, this combination of shore power and microgrid control delivers strategic benefits. These include: decarbonisation at berth by enabling vessels to plug into clean power rather than running auxiliary diesel engines; improved air quality and reduced noise in and around the port estate; enhanced energy resilience through the ability to maintain critical operations using on site generation and storage during grid constraints or outages; optimised electricity costs through peak shaving; load shifting; and intelligent use of stored energy when wholesale prices are high.

Although initially engineered for the maritime sector, the modular and scalable iConvert™ Microgrid has wide application across UK manufacturing and other energy intensive industries. Its technology agnostic design allows a range of energy assets to be integrated into a single, coordinated control environment. This offers operators in sectors such as cement, aggregates, metals, glass, food and drink and general manufacturing a practical route to improve overall site energy efficiency and asset utilisation, reduce carbon intensity per tonne of product manufactured, integrate renewable generation, storage and flexible loads into existing plants without wholesale redesign, and build a more resilient, future ready electrical infrastructure that can support growth and new processes.

"This achievement reflects the creativity, teamwork and technical excellence within Team iconsys, and the power of collaboration with our project partners Cemex and WMG," said Nick Darrall, Managing Director at iconsys.

> "To be recognised in such a competitive category is something we are extremely proud of. It showcases what is possible when industry and academia come together to deliver solutions that make a measurable difference on the quayside and across wider industrial environments."

Maersk Supply Service deploys largest MDL spread to date

Maritime Developments Ltd (MDL) has supported Maersk Supply Service in a dynamic riser assembly installation offshore in Brazil. The operation at Mero field, in the pre-salt Santos basin, has enabled connection to a PRM (Permanent Reservoir Monitoring) sensor grid on a deepwater field.

MDL had developed a bespoke solution for simultaneous handling of the dynamic cable riser, DUTA (Data Unit Transfer Assembly), pigtails and backbone cables - all deployed from 9.2m reels.

The MDL spread, mobilised in Peterhead, Scotland onboard the Skandi Involver, featured a Wheeled Horizontal Lay System (WHLS), Generation 2 Reel Drive System (RDS) and four tensioners ranging from 12Te up to 110Te line pull capacity. It was complemented by several hydraulic winches from recently-launched MDL Winches & Lifting Solutions, ranging between 5-30Te.

The back-deck arrangement of the tensioners and custom deflectors - engineered by Maersk Supply Service and MDL in-house, to ensure optimised handling to minimise stress on the multiple products - enabled the simultaneous installation of the pigtail lines; while the large-capacity tensioner combined with the WHLS frictionless wheel mechanism, facilitated low-friction deployment of the dynamic riser assembly and connected pigtails, reducing drag and ensuring optimal product integrity during installation.

Euan Crichton, Senior Project Manager at MDL said: “This project is a prime example of how MDL Integrated Project Services - combining our engineering know-how, in-house equipment and experienced offshore personnel - deliver a safe solution, even for complex scopes like this one.

“Having been commissioned to undertake the initial feasibility study to assess the installation of this product, we were able to carry forward technical insight and risk considerations directly into the solution.

“This first-of-a-kind operation was extremely challenging due to the requirement to handle and install five individual cables simultaneously, in water depths up to 2500m. The challenge was made only greater by the lines being pre-terminated in a single DUTA at one end and connected to the same reel at the opposite end.”

Yuri Martins, MDL Brazil Country Manager said: “The project, alongside our ever-growing track record in country, highlights the relevance of MDL’s solutions and creative thinking for deep-water challenges in Brazil - combining proven specialist technology with project-specific engineering to facilitate safe, efficient execution in a complex environment.

“It also demonstrates MDL’s global expertise in managing complex flex-lay scopes, as seen in Brazil where we are expanding our presence through local representation while leveraging our UK headquarters full capabilities to ensure close, continuous client communication.”

Port of Blyth awarded £275,000 from The Crown Estate to expand Battleship Wharf terminal and strengthen UK offshore wind supply chain

Port of Blyth has announced that it has been awarded £275,000 in match funding from The Crown Estate as part of the second round of their £50m Supply Chain Accelerator fund, a programme designed to provide early-stage development funding for offshore wind supply chain projects.

This funding will enable the initial design work for infilling and land reclamation of three hectares at the Port’s Battleship Wharf terminal, along with capital dredging of the river. These works will enhance port capacity, operational efficiency, and accessibility, further supporting the expansion of the UK’s offshore renewables sector. The initial design phase of the project is expected to be completed in 2026.

Martin Lawlor OBE, Chief Executive of the Port of Blyth, said: “This funding marks an exciting milestone for Blyth and the UK’s offshore wind sector, during a year when we celebrate 25 years in offshore wind. By reclaiming land at Battleship Wharf and deepening the river channel, we are unlocking new opportunities for offshore renewable energy, enabling unrestricted access for larger offshore vessels, and creating a dedicated facility for cable storage, marshalling, manufacturing and long-term O&M support.

These developments will further strengthen Blyth’s reputation as a leading offshore energy hub and strengthen the UK’s clean energy supply chain as the industry continues to grow.”

North East Mayor Kim McGuinness welcomed the funding and said: “This is great news for the offshore sector in the region, and I am delighted that the Port of Blyth has been successful. We’re working to make the North East the home of the green energy revolution and projects like this are a huge part of this.

“We know this sector has huge potential for growth and we’re aiming to deliver 25,000 new green jobs across the North East by 2035. I’m pleased that the Crown Estate recognise our vision as we continue to deliver our Local Growth Plan and more opportunities for local people.”

The project reflects Port of Blyth’s ongoing commitment to delivering modern, sustainable port infrastructure that supports the renewable energy sector, drives local economic growth, and helps the UK meet its net zero targets. By enabling greater operational capability at Battleship Wharf, Blyth is set to play an increasingly central role in the UK’s offshore wind supply chain.

FEATURE ARTICLE

An electric future:
SMD's new era of subsea vehicles

> "There's no doubt that the future is electric. We're already moving toward the electrification of trenchers and other subsea vehicles"

By Mark Collins, Innovation Director, SMD

Over the last six years, SMD has been developing the most significant architectural shift in its history: a range of all-electric ROVs.

This culminated in the launch of the SMD Quantum EV and SMD Atom EV, two fully electric work-class ROVs that signal a new era for subsea operations globally.

We sat down with Mark Collins, Innovation Director at SMD, to discuss the technology behind SMD's electric vehicles and the performance gains being realised offshore.

It's not just a new vehicle, it's a whole new architecture

Discussing the vehicle development process, Mark explains that the ambition was always transformative rather than incremental.

"We began our all-electric journey with a focus on work class ROVs. These powerful machines are the workhorse of the ocean – and capable of construction, survey, maintenance, and salvage operations.

"And we started with two models - SMD Quantum EV and SMD Atom EV - both of which deliver three key benefits to clients: improved efficiency, reduced operational costs, and greater levels of performance.

"Operating in depths as great as 6000m, these vehicles are particularly suited to high-current applications, where we have been able to deliver true stability in currents up to three knots. This expands our clients' operating window and reduces instances of weather-related downtime, offering a clear operational advantage."

Future-focused flight control

SMD's electric vehicles enable a new level of pilot assistance and automation, Mark explains, thanks to advanced flight control processors.

"Electric propulsion responds instantly, meaning we have been able to build sophisticated flight behaviours that ease the workload of ROV pilots.

"A leading example is intuitive set-point control. Simply put, this means pilots tell the ROV what to do rather than how to do it, and the vehicle automatically maintains heading, altitude, and position. The system also supports extreme pitch and roll angles, granting access to confined spaces.

"These vehicles can take command from pilots today, but also from AI and autonomous vessel systems in the future. We've been very intentional about ensuring this range is ready for the next generation of operations and can support our clients' aspirations for advanced autonomy. Users can integrate their own software and algorithms into the vehicle, offering a completely bespoke solution."

DC power sits at the heart of this range

A central technical choice in SMD's EV innovation was the adoption of a DC-based power system over traditional AC, says Mark.

"DC gives us a lighter, smaller, more efficient vehicle. We don't need a large transformer, making the entire vehicle more compact and agile.

"However, the benefits extend well beyond size reduction. AC systems are known to cause increased umbilical wear due to their high-frequency and voltage spikes, ultimately reducing the lifespan of the system.

"With DC power, voltage spikes are avoided, and reliability is significantly improved. Each vehicle subsystem connects to a low-voltage DC bus, with individual components self-contained. So, if one channel encounters an issue, the system can automatically switch to another to maintain operational continuity."

This is just the beginning

SMD's electric vehicles are already being adopted across Europe, the Middle East and Asia-Pacific, and Mark believes this is only the beginning.

"There's no doubt that the future is electric. We're already moving toward the electrification of trenchers and other subsea vehicles, and the architecture we've built for the EV programme will carry through to many of our future vehicles.

> "Our electric architecture represents more than a technological evolution; it signals a shift toward smarter, more efficient, and more capable subsea systems, built for a future where precision and autonomy will drive the next generation of offshore performance"

Sureflex JIP: Driving integrity management forward and celebrating 30 years of industry collaboration

At this year's Subsea Expo, Wood is sharing the latest updates from the Sureflex Joint Industry Project (JIP), a collaborative initiative shaping the future of flexible pipe integrity management. Led by Wood, the project brings together input from over 50 member and non-member organisations, including operators, suppliers, regulators, certifiers, 3rd party contractors / consultants, and inspection / monitoring vendors, to tackle a key industry challenge: ensuring safe, reliable performance of flexible pipe systems.

With a history dating back to the mid-1990s, Sureflex celebrates its 30th anniversary and has evolved through multiple phases, delivering industry guidance, good practice frameworks, and data-driven insights. The latest phase, running through 2026, focuses on gathering and sharing desensitised datasets, developing integrity management guidance and good practice, and addressing emerging threats. With a population database covering ~21,000 km of pipe and ~23,000 pipe sections, the JIP offers unparalleled visibility into operational trends, failure mechanisms, and design evolution.

Key findings highlight a general reduction in overall incident rates, yet an increase in riser rupture events linked to fatigue and corrosion mechanisms in recent years. The project also underscores the importance of proactive risk-based integrity programs, leveraging advanced inspection, monitoring, and repair technologies. Vendor workshops share up-to-date industry practices and support users in choosing practical threat-mitigation solutions.

Looking ahead, Sureflex is preparing for its next five-year phase (2027–2031), aiming to deepen industry collaboration to assure safe operations for ageing and future assets. With free access to its comprehensive 2023 report (www.woodplc.com/sureflex-report-dec2023-flexiblepipeintegrity) and ongoing contributions and sharing through various events and publications, Sureflex continues to set the benchmark for knowledge-sharing and operational excellence relating to flexible pipe systems. A summary of the latest data and updates will be presented at Subsea Expo 2026's conference. For the full schedule, visit www.subseaexpo.com

As flexible pipe applications become more complex, initiatives like Sureflex turn lessons learned into practical guidance, helping the industry uncover hidden risks and make informed decisions that protect assets and people.

JFD Global awarded contract to provide deep saturation diving and submarine rescue capability to Polish Navy

James Fisher (JFD Global), a global provider of specialist marine and defence solutions enabling mission success at sea, has secured a contract with PGZ Stocznia Wojenna. The agreement will see JFD Global integrate a combined, hyperbaric and saturation diving system into the Polish Navy's new salvage and rescue vessel, Ratownik.

Scheduled to be completed in late 2029, Ratownik will become one of the largest ships in the Polish Navy's fleet, playing a pivotal role in the protection of critical underwater infrastructure (CUI) in the Baltic Sea, and responding to disabled submarines in both territorial and international waters.

This award follows a study completed by JFD Global in 2019 to undertake pre-engineering of the vessel and assess the feasibility of integrating such a complex technical solution.

During the design and construction phase of Ratownik, JFD Global will utilise its combined submarine rescue and saturation diving expertise and know-how to enable seamless integration with the vessel's systems. This will ensure rapid deployment in the event of an incident.

JFD Global will integrate the NATO Submarine Rescue System (NSRS) onto Ratownik, a system which it has managed since 2015, providing a 24/7 global submarine rescue service. This in-service support contract includes the maintenance and operation of the system to ensure it is in a rescue-ready state on behalf of the French, Norwegian and Royal Navies. JFD Global ensures the system is kept mission-ready and can be mobilised at speed to reach a disabled submarine anywhere in the world.

Rob Hales, Head of Defence at James Fisher, said: "We are proud to support PGZ Stocznia Wojenna (PGZ Naval Shipyard) and the Polish Navy to deliver this world-class capability. Combining the shipyard's shipbuilding experience with our submarine rescue and saturation diving expertise will deliver an exceptional capability for Poland, as it invests into its future submarine fleet and the protection of critical underwater infrastructure."

Marcin Ryngwelski, President of PGZ Stocznia Wojenna said: "Ratownik will provide the Polish Navy with advanced submarine rescue and saturation diving capabilities essential for operations in the Baltic Sea. The vessel will serve as a strategic asset for both submarine rescue operations and the protection of critical underwater infrastructure.

"As Poland's primary naval shipbuilder, PGZ Stocznia Wojenna is committed to delivering this advanced capability for the Polish Navy. Our collaboration with JFD Global brings together our shipbuilding experience with their expertise in complex hyperbaric systems, ensuring NATO-standard interoperability and operational readiness."

Above: JFD Global PGZ Stocznia Wojenna signing event.
Below: Ratownik vessel

Breaking Barriers: Leveraging oil & gas engineering expertise for offshore wind

By Doug Hall, Survey Manager, CONSUB

It is imperative that offshore wind scales quickly and efficiently to meet global energy demand and carbon reduction targets.

However, the industry currently faces a challenge that is difficult to ignore: a widening shortage of engineering capability. Paradoxically, highly capable SMEs with many decades of offshore O&G expertise are routinely excluded from tenders. This is because offshore wind farm developers' pre-qualification processes often will only accept experience from direct and recent offshore wind projects and exclude entirely relevant offshore O&G experience.

Image of an umbilical reel

This barrier persists despite the offshore wind industry's own warnings about critical skills gaps[1,2], and during a period of significant job losses of experienced O&G personnel across the UK North Sea. If wind farm developers were more pragmatic in their approach, highly specialised O&G engineering SMEs could deploy transferable expertise immediately and help progress the energy transition.

The overlap in capability between offshore O&G and wind is far greater than current procurement practices acknowledge. Some examples include:

- Marine survey planning methodology, data acquisition techniques, and data interpretation are identical across sectors.
- Power cable route engineering approaches are comparable to O&G in bathymetric analysis, seabed interaction, and burial design, all of which are defined by codes from the likes of DNV, ABS, and IMCA, etc.
- Construction project management activities, from vessel selection and mobilisation to DP operations, ROV integration, and offshore handling, follow the same principles regardless of whether the end asset is a platform jacket or turbine monopile, umbilical or power cable.
- Crossing designs and crossing agreements are approached in the same manner regardless of the type of asset crossing or to be crossed.
- Even the wind industry's strong emphasis on Health and Safety practices and environmental standards are themselves an evolution of the robust systems established in Oil & Gas.

By restricting tenders to companies with offshore wind track records, developers unintentionally create bottlenecks. This causes higher project costs due to a restricted supplier base, schedule delays due to oversubscribed incumbents, and missed opportunities to engage SMEs with specialist knowledge. Additionally, this results in a loss of highly trained engineers who could otherwise contribute to offshore wind's rapid expansion.

To address this gap, the industry needs to recognise equivalent offshore O&G experience within PQQs and ITTs, adopt capability-based assessments, and create pilot work packages that build 'offshore wind' track record. Additionally, cross-sector accreditation recognising transferable skills and targeted bridging courses would increase integration.

Offshore wind cannot meet its growth ambitions without expanding its engineering capacity. SMEs, including CONSUB, are ready to deliver immediate value by applying proven offshore O&G expertise to wind projects. The time has come to break down barriers.

1. www.renewableuk.com/media/jvsdey0k/ruk-owic-offshore-wind-skills-report_2025.pdf
2. www.windeurope.org/news/wanted-more-than-200000-wind-workers-but-where-to-find-them/

Prevco sets up new flexible lathe in Arizona

In response to increased demand, Prevco has made a substantial investment to set up a robust and flexible lathe at its facilities in Arizona. This lathe excels at managing intricate tasks, especially for long workpieces with large diameters, and it offers various functions like live tooling, milling and drilling.

This enhancement will allow Prevco to deliver projects more quickly and at lower costs for its customers, enabling better oversight of tasks internally. Prevco anticipates that the lathe will be functional and available for use in early 2026.

Northumberland poised for next phase of offshore wind growth with Port of Blyth investment

Northumberland's offshore wind industry enters 2026 with strong momentum, following a landmark year of innovation, investment and celebration across the region's rapidly expanding clean-energy cluster.

Last year marked a significant milestone for the sector as the Port of Blyth celebrated 25 years of involvement in offshore wind. The port's pioneering role dates back to the installation of the UK's first offshore turbines off the Northumberland coast in 2000, an achievement that has since anchored the region as a national hub for renewable energy development. With an Investment Zone site at Port of Blyth, opportunities await those looking to be part of the vibrant energy supply chain cluster in Northumberland, Energy Central.

Innovation capacity was further strengthened last year with the opening of ORE Catapult's new Technology Development Centre (TDC) in Blyth. This multi-million-pound facility expanded the organisation's testing and validation capabilities, enabling more advanced drivetrain, electrical system and component testing for next-generation offshore wind technology.

Skills development also took a major step forward with the launch of the Energy Central Learning Hub, a dedicated education and training centre designed to prepare local talent for careers in offshore renewables, advanced engineering and clean-energy operations. The hub has quickly become a focal point for regional workforce growth, linking schools, businesses and industry partners in a coordinated effort to meet the sector's rising demand for skilled workers.

With these foundations in place, this year is set to bring a new wave of expansion across the Northumberland energy cluster. Construction is expected to begin this year on the Energy Central Institute (ECI), the second phase of the Energy Central campus. The ECI will deliver higher-level technical training, specialist research programmes and industry-aligned innovation facilities, helping to cement Blyth as a centre for offshore wind research and higher education.

Meanwhile, the highly anticipated JDR Cables manufacturing facility near Blyth is scheduled to open this year. The plant will produce high-voltage subsea cables for offshore wind farms, significantly strengthening the UK supply chain and creating hundreds of skilled jobs in Northumberland.

In parallel, ORE Catapult is preparing to commission its new high-voltage cable testing rig, a state-of-the-art asset that will accelerate reliability testing and certification for subsea power cables. The facility is expected to play a major role in reducing delays and failures in offshore wind infrastructure nationwide.

As 2026 gets underway, Northumberland stands positioned at the forefront of the UK's offshore wind industry driven by new facilities, expanding skills pipelines, and long-term investment that continues to shape the region's clean-energy future.

Viewport3 increase service flexibility and technical value

There is growing recognition across the subsea sector that inspection data is being asked to deliver more value than ever before. A single inspection visit to a subsea work-site is increasingly expected to enable dimensional analysis, anomaly detection and 3D modelling on top of the basic requirement of capturing the subject matter in question.

Viewport3's response to this challenge has been a shift away from rigid, equipment-led 3D inspection methods toward a more flexible approach which puts the intended end-use of the data at its core. In other words, mobilising the equipment needed rather than making do with a 'one-size-fits-all' equipment load-out.

In instances where a 3D record of a hair-line crack is required, there is no option but to deploy the very best in underwater imaging capabilities. Where the requirement is more of an 'overview' level of 3D data however, many offshore inspectors are unaware that the flight camera which is already attached to the ROV is perfectly capable of being used to collect an elementary but perfectly usable level of 3D data.

This flexibility translates well in the offshore environment, particularly in emergency or unplanned situations where time and access to the ideal equipment may not be possible.

This approach is increasingly being applied by subsea service providers such as Aberdeenshire-based Viewport3, which works with operators, survey contractors and inspection teams to help them collect technically valuable 3D data from underwater sites and support the capture activities remotely or from onboard the vessel, and covering both diver and ROV requirements.

By focusing on the intended use of the 3D data, the work can be planned in the most efficient way possible and best, ensuring that expensive equipment load-outs are only deployed when absolutely necessary.

"3D photogrammetry is based on images, and every available ROV has an onboard camera - in many instances, we've managed to help ROV teams collect 3D data using only the equipment they already have at-hand - in some cases even post-processing old 'legacy' ROV video data to answer elementary but nonetheless important questions,"

said Chris Harvey, Technical Director at Viewport3.

As subsea assets age and the value and fidelity required of subsea inspections continues to increase, the need for flexibility in inspection strategies also increases. Requirement-led inspection planning, supported by flexible capture techniques and unequivocal reporting offers one pathway to unlocking greater value from subsea inspection data while maintaining the operational efficiency that the modern North Sea demands.

VP3 diver kit

GUH Market Intelligence:

Moorings and Anchors - Making Floating Possible

As projects across multiple sectors move from near-shore to deeper waters, the industry's gaze naturally shifts from fixed foundations to floating structures.

Across floating offshore wind (FOW), floating production (FPSO & FPU), wave energy and emerging ocean industries, one truth holds steady: mooring and anchoring systems are the quiet infrastructure that makes floating possible. Mooring systems deliver station keeping, safety and reliability, absorbing and distributing the dynamic loads that arise from waves, wind, currents, and the motions of the floating structures themselves.

Mooring and anchor systems are a central pillar of Global Underwater Hub Strategic Programmes. Over the last two years we have convened the ecosystem - developers, designers, manufacturers, installers, operators and regulators - with the goal of sharing best practice, accelerate innovation, and scale capability across the UK and beyond.

Why moorings & anchors matter - every day, in every sector

When a structure floats, its moorings and anchors become the primary interface with the ocean. They must be both responsive and resistant, delivering security and compliance while managing complex, coupled behaviours across hydrodynamic, mechanical, geotechnical, materials and environmental domains.

- For floating offshore wind, moorings maintain array spacing, safeguard power export reliability, and protect assets through environmental and operational extremes - from prolonged storms to emergency shutdowns.
- For floating production, station keeping under high loads, cyclic fatigue management, and integrity of top-tension risers and subsea systems are mission-critical.
- For other floating applications such as wave energy or aquaculture, reliable mooring performance under variable or extreme metocean conditions is often the determinant of commercial viability.

Thinking bigger

The UK supply chain brings decades of mooring experience across multiple sectors and geologies. That expertise is invaluable and yet the step-change to GW-scale floating energy requires more than just capacity increases and "as before, but more" thinking.

- Component sizes grow dramatically: traditional chain diameters jump from 76 mm to 220 mm; synthetic ropes increase roughly threefold; anchors at least double in weight.
- Volumes surge: a single 1 GW floating wind farm can require upwards of 2,000 items of each mooring/anchor component - chains, ropes, anchors, buoyancy modules, connectors and more.
- Logistics tighten: only the largest anchor handling vessels are capable of deploying these systems; port infrastructure, laydown areas, manufacturing throughput and quality assurance must scale in tandem.

These realities are not barriers, they are design constraints and opportunities. Success here demands detailed planning, sector-wide coordination, and innovation across materials, digital engineering, vessel capabilities, inspection, and O&M strategies.

A holistic, system-based approach

A core element of GUH strategic programmes is the concept of holistic design which promotes treating the floating structure, mooring spread, anchors, connectors, seabed interaction, installation equipment, and operational envelope as an integrated ecosystem.

These interdependencies matter as line tensions, vertical or horizontal loading, connection methodologies, fatigue protection and redundancy all have multiple implications and dependencies on individual components and those aligned in the system.

Focusing on a component in isolation can impact integration with the wider system and mooring systems in particular rely on the integration of multiple components. A system-level approach prevents singular focus that inadvertently compromises system integrity.

True excellence in moorings and anchors is multidisciplinary:

- Naval architecture optimises platform motions, stability and coupled responses.
- Mechanical & structural engineering delivers fatigue resilience, connector reliability, and robust installation handling.
- Geotechnical teams bring anchor embedment modelling, soil-structure interaction insights, and scour mitigation.
- Materials specialists ensure corrosion resistance, polymer performance and compatibility with harsh marine environments.
- Robust project management ensures optimum installation sequencing and through-life operations and maintenance planning.

The UK's cross-sector heritage from oil & gas to renewables and maritime, means our supply chain is well placed to scale, standardise and export best practice globally. With careful coordination, we can turn mooring and anchoring into a UK centre of excellence.

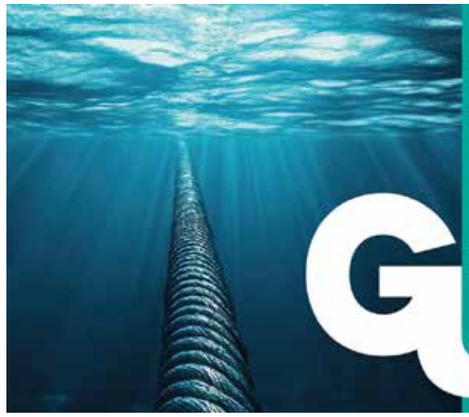
Convening the ecosystem: GUH's moorings & anchors programme

Beginning in 2024, GUH has hosted successful conferences, taking a leading role in focusing exclusively on the mooring and anchoring community across end-user operators and developers, and the varied supply chain providing experience and innovation to tackle the increasing complexity of offshore floating production.

Having sold-out in 2025, our moorings conference will return to Edinburgh on 19th March 2026 once again bringing together operators, developers, EPCs, naval architects, geotechnical engineers, mooring designers, manufacturers, installers, vessel operators, ports, logistics providers, inspection/O&M specialists, academics and policymakers.

Our conference will once again span from the seabed to the water-line, learning from real-world deployments across floating wind and floating production and shaping standards, scale capability, and accelerate UK supply chain excellence.

Visit Global Underwater Hub on **STAND 29** at SUBSEA EXPO



Strengthened enforcement and evolving immigration rules are reshaping offshore workforce compliance

By Kelly Hardman, Fragomen LLP

The UK Border Force is increasing compliance activity in UK Territorial Waters (UKTW), requesting crew lists and proof of work authorisation. Offshore surveillance and inspection are rising as part of a wider push to tighten immigration compliance in an area long characterised by complexity and ambiguity. Operators should review workforce practices now to ensure all activities within UKTW meet current requirements.

Understanding the Challenge

The central issue is work authorisation. Anyone working in UKTW must hold the correct immigration status, which can be difficult to assess when personnel rotate between offshore, onshore and international roles. Removing "wholly or largely" from seafarer guidance in 2024 expanded who falls under UK immigration control. Many operators were caught off guard, particularly where vessel-based or short-term roles had been assumed to fall outside UK oversight.

The July 2025 Impact

Since 22 July 2025, several essential roles, including chefs and cooks, are no longer eligible for Skilled Worker sponsorship. Some positions have been reclassified or placed on the Temporary Shortage List (TSL), limiting sponsorship eligibility. Even where roles remain eligible, higher salary thresholds and English language requirements mean many crew cannot be sponsored.

Some short-term activities may fall under paragraph PA7 of the Visitor Rules, but eligibility depends on contractual arrangements between the UK and overseas entities. Relying on visitor permissions is complex and carries compliance risk. These developments are reshaping offshore labour supply and affecting workforce planning, cost control and project continuity.

Practical Steps to Take Now

1. Audit your workforce: Identify crew, contractors and project personnel working in UKTW and confirm their immigration position.
2. Review sponsor compliance: Ensure licence management, reporting systems and HR processes reflect the April 2024 and July 2025 rule changes.
3. Engage your supply chain: Confirm agencies and subcontractors understand and comply with UK work authorisation requirements.
4. Plan for settlement changes: The proposed increase of the Indefinite Leave to Remain (ILR) qualifying period from five to ten years may affect retention.
5. Share feedback with Global Underwater Hub and Fragomen: Sector insight helps shape proportionate, industry-appropriate policy solutions.

The heightened compliance focus in UKTW marks a decisive shift towards greater transparency and enforcement. Operators who act now will be better positioned for coming challenges. Growing calls for a short-term offshore work concession show the need for a pragmatic, lawful route for short-duration or intermittent offshore activity that supports operational flexibility while maintaining immigration control integrity.

CTM wins best large TMC award at Business Travel Awards Europe

Corporate Travel Management (CTM) has won the 'Business travel partner of the year - large TMC' category at this year's Business Travel Awards Europe.

Widely considered 'The Oscars' of the European corporate travel industry and celebrating its 30th anniversary this year, the awards took place last night at the prestigious Grosvenor House in central London in front of an audience of over 1,000 industry leaders.

The 'Travel partner of the year - best large TMC' award is presented to the travel management company that best demonstrated leadership, partnership, and development throughout the last year.

The judges said: "CTM stood out for its speed, agility, and customer-first mindset in delivering tailored innovations and measurable results. Their case study demonstrated impressive cost savings, improved compliance, and traveller satisfaction through automation, sustainability initiatives, and cultural alignment. By combining robust technology with consistent communication and strong account management, CTM showcased the power of a true strategic partnership."

CTM was also a finalist, alongside client Universal Music Group, for the 'European travel team of the year' award.

Michael Healy, CEO EMEA, CTM, said: "We have consistently invested in our people and technology to enhance the value we deliver to our customers in an ever-evolving travel industry.

> "Our mission has always been to be the best, not the biggest, travel management leader in every region we operate in; developing the most innovative technology to improve customer experience, bring positive market change, and deliver ROI every single time."

Breaking limits in offshore operations

Offshore operations are expanding in both scale and technical sophistication, pushing the industry into a new era defined by higher operational risk, stricter environmental expectations, and increasing pressure to deliver complex projects with efficiency. Simultaneously, a wave of transformative technologies, advanced underwater robotics, large-scale subsea power infrastructure, autonomous inspection and intervention systems, is reshaping how work is carried out beneath and above the ocean surface. In this evolving landscape, high-fidelity simulation and digital twin technology are emerging as critical tools that unify and support developments across the entire offshore lifecycle.

OSC's simulation ecosystem exemplifies this shift. Our modern simulation platforms incorporate real physics, site-specific metocean conditions, and detailed engineering models to create virtual environments that mirror offshore reality. By enabling teams to rehearse complex operations long before mobilisation, operators can test new procedures, validate seabed preparation methods, analyse installation strategies for subsea power systems, refine logistics planning, and prepare personnel for demanding offshore conditions. This ability to explore multiple scenarios in a controlled environment significantly reduces uncertainty, strengthens decision-making, and helps avoid costly operational delays.

Simulation is also reshaping late-life field management. By enabling continuous modelling and scenario analysis, operators can optimise maintenance strategies, extend asset life, and reduce unnecessary offshore exposure, contributing to safer and more sustainable operations. Long-term simulation support for subsea compression systems offers a compelling example of how virtual rehearsal continues to deliver value well beyond installation, improving reliability, informing interventions, and enabling remote collaboration between engineering, operational, and project teams.

As digitalisation and automation accelerate across the offshore sector, simulation is becoming an essential piece of industry infrastructure. It allows organisations to plan with precision, train with realism, and operate with confidence in some of the world's most demanding environments. Far from being a supplementary tool, continuous simulation is now a strategic capability, one that has the potential to transform safety, sustainability, and operational performance across the next generation of offshore operations. So, what do you say? Are you ready to improve reality?

Any questions or inquiries can be directed to Ellinora Klara Ludwig, Marketing and Communication Coordinator at OSC, at **ekl@osc.no**

MEET THE MEMBERS

Each issue, GUH News hears from GUH member companies working in the underwater sectors, highlighting their role within the industry.

Jamie Horner
Marketing Officer
Haryln Solutions Ltd

What does your business do and where is it based?
Main office located in Blyth UK, secondary Office in Rotterdam. We supply offshore logistics and engineering support solutions for a global clientele. Services range from mobilisations, cable transport & storage, marine contracting, engineering consultancy and a few other specialist areas.

What are the biggest challenges facing your business and what support could help overcome them?
Some challenges we've gathered from our commercial and operations teams have been, not early enough engagement on projects in the front end, splitting scopes and micromanagement, customs and Brexit causing complications, challenges with MWS in specific cases. Support could be industry standards on a more mental side and planning.

How does your company contribute to environmental sustainability?
Recently Harlyn has pivoted the vehicle fleet, starting to bring in a number of hybrid cars while phasing out older vehicles. We use an active reporting tool on all our sites for environmental reporting maintaining cleanliness standards even on busy work sites. And Harlyn is a big supporter of the offshore wind sector working with developers to put together more sustainable methods of energy.

Can you share a story that exemplifies the spirit or ethos of your company?
'You make Incredible. We move Incredible' I think a combination of all our projects, no matter the size, weight, complexity, or length of project, Harlyn has always remained to be able to service our clients with the best solutions. A best example would be in December of 2023, a large team of engineers and project staff stayed up in Nigg away from family in unwavering weather conditions to complete a vital scope of work for our clients.

Dr. Chris Minto
Director / Founder
Indeximate Ltd

What does your business do and where is it based?
Indeximate's mission is very clear - "preventing failure of subsea power cables". We have other longer-term ambitions but it all stems from this one mission. We are a data science led organisation offering cloud-based cable health / risk intelligence.

How did it all begin?
After working for 15 years in fibre optic sensing and a lifetime in acoustics, we had a great handle on what makes cables unhealthy; a recognition that fibre sensing had the answers on what the cable experiences, the nature of it's environment and more - but more importantly to get this out a huge paradigm shift was needed from "detecting events" to "measuring condition" and that required some novel IP. We all left our jobs to go create it, armed with the knowledge and skills to make it happen.

What are the biggest challenges facing your business and what support could help overcome them?
We are at the tail end of startup years, often running on fumes, struggling with bandwidth - we've gone through our first recruitment phase to get us up to a head count of 12 and now we're starting to backfill to increase our reach. The next phase is "crossing the chasm" - showing we can deliver in a scalable manner. Our key challenges are growing the organisation to keep pace, doing more overseas, and proving our technology works, that we can deliver it and we can keep our customers and expand our footprint. We joined GUH to seek help in some of these areas.

Where do you see opportunities for your business in the coming years?
We are so lucky - we set up the company at a time when we had the knowledge, when the awareness of the criticality of cable health was growing and with the market poised to quadruple over the next decade and triple in the 2030s. Right time, right place, right solution. The UK is world leader! We've got such an advantage in the UK: 15 years' experience of O&M, a desire to digitalise and bring efficiency and an industrial target of reducing failures by 80% - what we do has a direct effect on LCOE. The opportunity is there to deliver a significant change and then export the learnings around the world.

Rami Elmegirab
Sales Manager
Krona Subsea Ltd

What does your business do and where is it based?
Krona Subsea's expert engineers design and deliver next-level subsea electronics that drive exploration, safety and efficiency. Our products include pinless power and data connectors, resident AUV infrastructure and integrated smart subsea systems. We are headquartered in Aberdeen serving local companies as well as the globe through strategic partners and technology collaborations.

Where do you see opportunities for your business in the coming years?
Major opportunities lie in resident AUV systems, offshore wind, aquaculture, and long-duration subsea monitoring. As autonomy increases across the sector, demand for reliable, low-maintenance connectors and smart subsea infrastructure will only continue to grow. As one of the sole developers of pinless connectors, we aim to acquire a large percentage of the market.

How does your company contribute to environmental sustainability?
Our technology enables long-life, low-maintenance subsea systems that reduce vessel call-outs, fuel consumption, and operational carbon intensity. By supporting autonomous monitoring and resident AUV operations, we help offshore industries transition to lower-impact practices.

What have been the biggest achievements for your business in the past 12 months?
One of our biggest achievements recently was the successful integration of our Maelstrom connector into major subsea and renewable projects. Other milestones include establishing key international partnerships, and the acceleration of our product roadmap and future plans following the company rebrand.

How do you foster creativity and innovation in your team?
Innovation really is at the centre of what we do so to achieve this we work in short, focused development cycles, encourage open problem-solving, and involve the whole team in concept discussions early on. Everyone understands the client's problem, which drives practical, high-impact innovative solutions.

Greg Wilkinson
Account Executive Automation & Mobility
Xsens

What does your business do and where is it based?
Xsens develops high-performance inertial motion sensors used in robotics, autonomous systems, and underwater vehicles. We're headquartered in the Netherlands, with a strong presence in the UK and a global customer base.

How did it all begin?
Xsens started in 2000 as a university spin-off, aiming to make motion tracking more accessible. Over the years, we've grown into a leading provider of MEMS-based inertial sensing solutions.

What are the biggest challenges facing your business and what support could help overcome them?
Our biggest challenge is reaching engineers and developers working on autonomous underwater systems, who could greatly benefit from our motion sensors. Being more present in the underwater ecosystem (through platforms like the GUH) is key to establishing those connections.

Where do you see opportunities for your business in the coming years?
There's growing demand for compact and reliable IMUs in underwater drones, ROVs, and inspection systems. We also see opportunities in marine surface applications, and in robotics & automation in general.

How do you foster creativity and innovation in your team?
By focusing on customers' needs and then giving teams the space and resources to experiment. We're always looking for smarter and better ways to solve motion sensing challenges.

Can you share a story that exemplifies the spirit or ethos of your company?
It's hard to pick just one. Our daily focus is always on working closely with customers to ensure they get reliable motion data and a solution that performs in the real world, even in challenging environments.

Gemini 1200id: Tritech's new benchmark for mission-critical sonar operations

Visit Tritech on **STAND 96** at SUBSEA EXPO

Last year, Tritech announced the launch of the Gemini 1200id, the latest addition to its multibeam sonar range designed for work-class ROVs and other demanding subsea operations. Built on the proven Gemini 720is platform, the new system delivers enhanced performance, reliability, and image clarity for missions where precision is critical.

Responding to customer demand for deeper and clearer imaging, the Gemini 1200id introduces dual-frequency operation, combining the 720 kHz mode of the 720is with a new 1.2 MHz acoustic frequency. This innovation improves angular resolution from 1° to 0.6° and range resolution from 4 mm to 2.4 mm, producing higher-definition imagery and greater target detail.

To support the higher frequency, Tritech has redesigned the sonar's analogue front-end electronics, maintaining its in-house developed, fully differential receiver channels. This custom solution, using discrete low-noise and variable-gain amplifiers, enables the 1200id to achieve twice the dynamic range of comparable systems. By optimising for long-range sonar through the use of discrete electronic circuits rather than integrated ultrasound-based solutions, Tritech ensures superior performance in deep-sea environments.

The Gemini 1200id also incorporates advanced noise suppression. Enhanced filtering minimises self-generated electrical noise, while attenuation of waterborne noise reduces interference from nearby subsea equipment such as ROV thrusters. Together, these innovations deliver improved signal-to-noise ratio (SNR) and remarkably crisp sonar imagery with bright acoustic returns against a background clear of noise.

An integrated 1 MHz flight-time sensor measures the local speed of sound to ensure accurate target positioning and scale. The sonar maintains the 4,000-metre depth rating of the Gemini 720is and supports all auxiliary features for seamless system upgrades.

Operators can control the Gemini 1200id via Tritech's Genesis software or through SDKs for third-party integration. Bandwidth management options, such as adjustable ping rate, resolution, and compression, allow for efficient operation alongside other networked equipment.

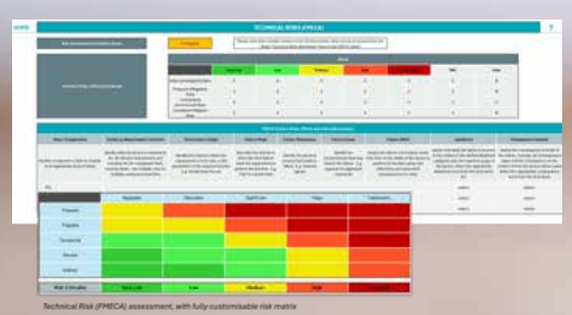
Every Gemini 1200id undergoes comprehensive factory acceptance testing, including pressure and environmental verification, to guarantee reliability under extreme conditions. Offered with an optional three-year extended warranty, the Gemini 1200id reinforces Tritech's commitment to delivering dependable, high-performance sonar solutions for mission-critical underwater operations.

Astrimar launches new release of RAPAT® for Excel 365

Visit Astrimar on **STAND 27** at SUBSEA EXPO

Astrimar has announced the release of RAPAT® for Excel 365, a redeveloped version of the company's in-house technology qualification software; an intuitive, user-friendly tool designed to support innovators through their technology development and qualification journey.

RAPAT® provides guidance through all technology qualification steps, including requirements definition, risks, Technology Readiness Levels, and market appraisals. Developed as an add-in for Microsoft Excel 365, it offers seamless integration with the native cloud-compatible and collaborative features of Excel, in a fresh and dynamic experience within a SharePoint environment.



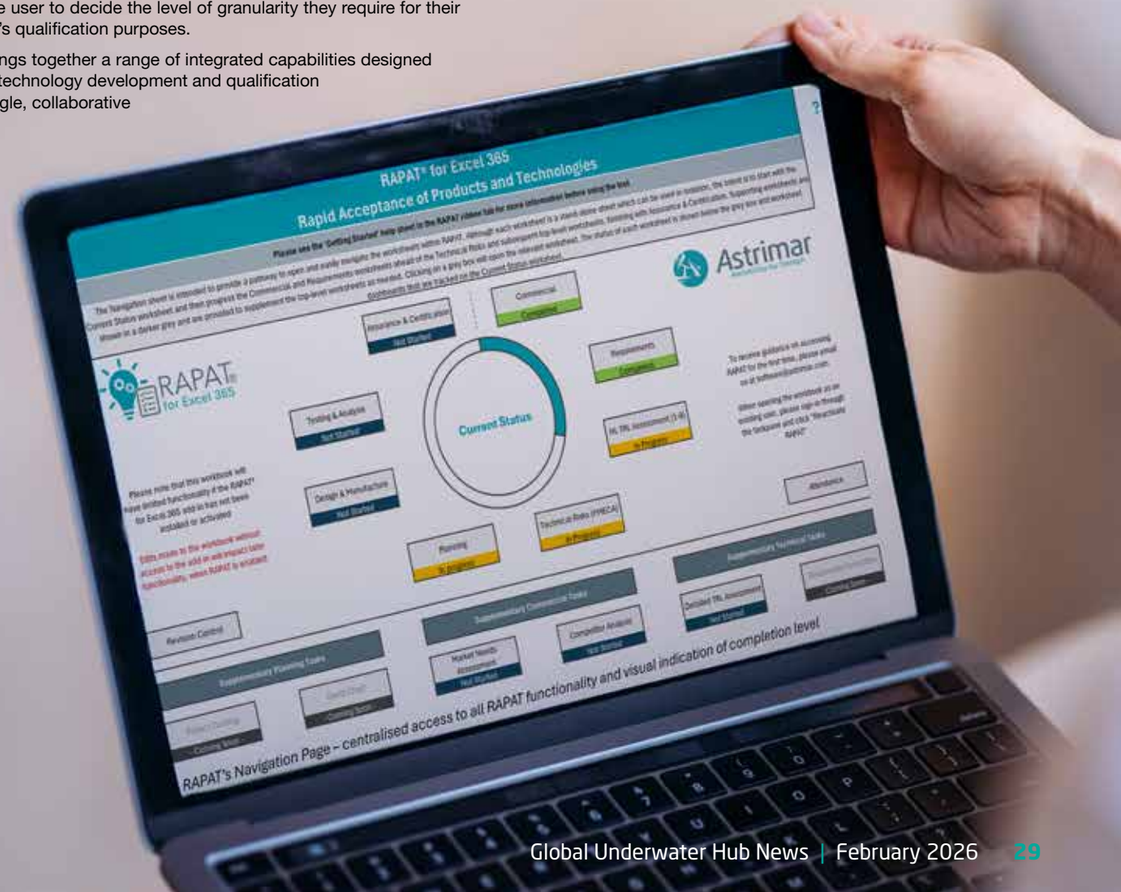
Technical Risk (FMECA) assessment, with fully customisable risk matrix

Astrimar has designed the tool to be equally applicable to technologies in the earliest stages of development as well as more mature technologies being adapted or enhanced for new markets or increased capability. It offers structure without constraints, and guidance without prescription, allowing the user to decide the level of granularity they require for their technology's qualification purposes.

RAPAT® brings together a range of integrated capabilities designed to support technology development and qualification within a single, collaborative environment. The tool enables users to undertake structured technical and business risk assessments, from high-level system reviews to more detailed FMECA-style analysis, supported by configurable risk matrices tailored to the scope of each technology. It also provides built-in Technology Readiness Level assessment, allowing users to quantify current maturity using recognised TRL scales and clearly identify the evidence required to progress to higher levels. In addition, RAPAT® supports comprehensive requirements identification across hardware, software, user roles and full lifecycle considerations, while offering integrated project management functionality, including budget definition and Gantt-based schedule tracking. Delivered as a cloud-based platform, the system supports real-time, collaborative working across teams.

Astrimar is also launching more bespoke functionality and guidance, at client request, to increase the capability of RAPAT® in the context of specific technology fields or industries. Currently, work is being done to support innovation in the net-zero energy sector, with a particular focus on green hydrogen generation.

RAPAT® empowers technology developers with a breadth of knowledge and understanding of their technology. On completion of a RAPAT® workbook, users will have collated a robust body of evidence to provide confidence in the reliability, safety, and readiness of their product for adoption.



Smarter Subsea advances ROVAR Subsea Heavy-Lift Technology

Smarter Subsea is proud to announce the latest achievements and forthcoming milestones in its ROVAR (Remote Operated Vehicle for Asset Recovery) technology deployment programme.

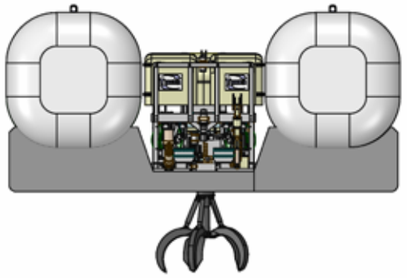
ROVAR is Smarter Subsea's globally patented, multi-functional, remotely-operated, variable buoyancy solution for deploying, recovering, and positioning heavy subsea and seabed infrastructure across all marine sectors.

Smarter Subsea won opportunities to take part in ORE Catapult Launch Academy's inaugural Scottish cohort, and the Offshore Wind Growth Partnership's WEST Programme. These programmes provided invaluable support and helped identify a multitude of additional opportunities and applications for ROVAR within the offshore wind sector.

The limited availability and high cost of marine construction vessels are causing both a critical bottleneck extending well into the 2030s, and a significant cost and time impact on capital projects, operations and maintenance. ROVAR, designed to be deployed from smaller vessels of opportunity, provides scalable, repeatable, low-cost, low emissions, heavy-lift solutions from 1 to the 1,000s of tonnes as a crane and forklift subsea, extending the operational weather window, and with full operational capability in deepwater environments.

Smarter Subsea's ROVAR technology currently stands at Technology Readiness Level 6 (TRL6) with an accelerated programme for 2026 encompassing wet trials of the company's proven, 5 tonne lift, PROTO-ROVAR, and evolution of the ROVAR technologies to commercial deployment and a clear pathway to TRL9. PROTO-ROVAR, incorporating standard ROV tooling, will then serve the dual functions of demonstrator as well as undertaking early commercial projects.

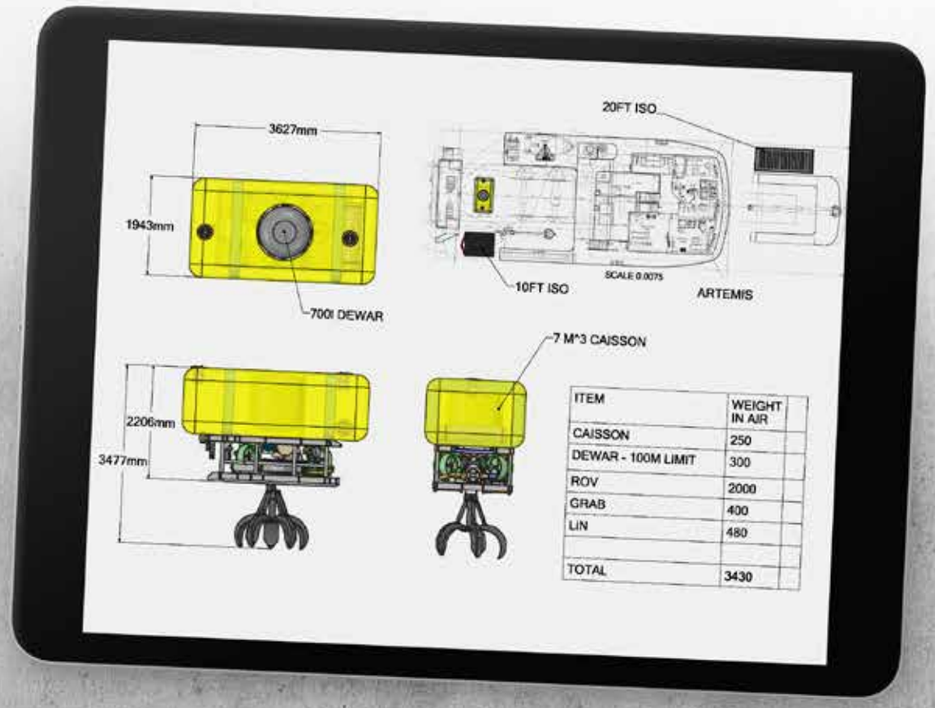
During 2027, the 20 tonne lift ROVAR-GENESIS multi-use variant, utilising an industry standard ROV platform and tooling, will be delivered for market growth sales.



Smarter Subsea's technology development path in 2028 will see delivery of its type-approved, ROVAR-MC (Modular Crane) variant as a precursor to substantial market scale-up.

While initial ROVAR variants are designed to operate robotically from surface to subsea via conventional umbilical, subsequent versions are planned to operate autonomously using internal AI-based control systems.

Smarter Subsea has successfully engaged the active support and collaboration of industry-leading partner companies at the forefront of various marine sectors for the deployment of ROVAR technologies on a range of disruptive projects as the company enters an exciting new era.



FEPLA advances: First geotechnical tests validate offshore solution

Intermoor, Acteon's Moorings and Anchors business line, has completed the first phase of model testing for its Flexibly Embedded Plate Anchor (FEPLA) at the University of Dundee Geotechnical Engineering Facility.

The FEPLA represents a next generation anchoring solution for complex offshore energy projects. Building on established plate anchor technology, it features an innovative embedment system designed to perform reliably across a broad spectrum of soil conditions - including sand, clay, and mixed layers.

The initial tests focused on vibro-hammer embedment and pullout capacity in sand, using a 1/60 scale model in 1g environment. These tests validated the apparatus ahead of planned centrifuge trials and provided valuable insights into the behavior of a closed-ended follower, analogous to a closed-ended pile.

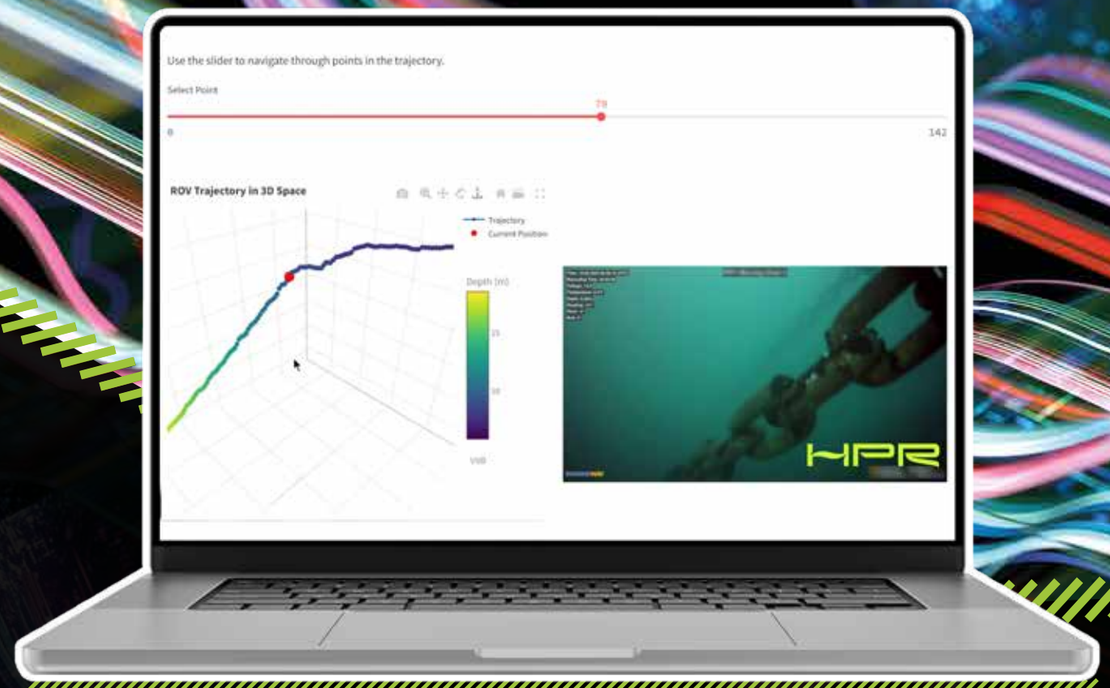
Specific learnings from these tests include:

- Consistent embedment depths achieved using vibro-hammer and closed-ended follower.
- Performance of various follower tip shapes documented.
- Anchor tilt during penetration remained within design tolerances.
- Effective plate anchor keying observed in sand.
- Ultimate pullout capacity aligned with empirical predictions.

The results added new insights into the vibro-embedment of closed-ended piles, a topic with limited prior study. The FEPLA test programme continues to refine analytical simulations and optimise anchor design and installation tools.

FEATURE ARTICLE

HPR ROV:
Why small ocean robotics are now the big story in moorings



By Jan Stander, Managing Director, HPR ROV

In subsea operations, progress rarely arrives with fanfare. It comes through incremental steps: refinements in design, smarter use of data, and tools that make once-impossible tasks feel routine.

Nowhere is that more evident than in moorings and anchoring - a part of the industry that, for years, has been seen as stable, solved, and largely mature. But spend any time offshore today, and a different picture emerges.

These systems are under more strain than ever, operating in deeper water, attached to ageing assets, and expected to perform flawlessly in conditions that would have shut down fields a decade ago. And the quiet revolution underpinning that performance is robotics.

From an ROV standpoint, mooring systems are becoming more robust and more predictable, but also more demanding.

Operators want real-time tension data, better fatigue tracking, and more accurate life-of-field insight. And they want it without sending divers into hostile environments or risking heavy work-class vehicles in tight, high-energy locations.

That is why smaller, more agile robotic platforms are rapidly moving from supporting role to frontline tool of choice. They are changing the economics of inspection, reducing operational risk, and unlocking access to the parts of a mooring system where issues most often begin.

The splash zone and the fairlead region remain the two areas that cause the most concern for operators - and with good reason. These are dynamic, constrained environments where the combination of vessel motion, wave interaction, and structural complexity can test even the most seasoned offshore teams.

For larger systems, they are often simply too tight or too energetic to enter safely. But for compact ROVs and hybrid observation-class vehicles, these are environments in which they excel.

Smaller systems can hold stable station close to a hull or turret structure, even in aerated, turbulent water. They can carry modern payloads - high-resolution cameras and measurement sensors - all with a level of finesse that larger machines struggle to match in the splash zone.

As assets age and fatigue becomes more of an operational concern, that finesse matters. The industry is no longer satisfied with partial datasets. They need complete, repeatable, and trusted inspection records.

What our teams see offshore today is a blend of familiar mechanical challenges and newer lifecycle realities. Fatigue remains the enduring threat: accumulated wear in chain, wire, and synthetic elements at the fairlead, touch-down, or connector points.

Assets designed for 25 years are suddenly asked to operate for 35. Environmental loading is rising as installations shift into harsher waters. And operators are under pressure to extract more certainty from their integrity programmes at a time when vessel and intervention costs are rising.

Robotics cannot eliminate those pressures, but they can fundamentally change how they are managed. At HPR, we support clients across the North Sea not only with planned integrity work, but with rapid response operations: confirming moorings are still attached after storms, diagnosing chain locker failures, and carrying out visual inspections where every hour matters.

Our stereo camera system, now approved as an alternative to mechanical callipers, has become an invaluable tool for chain measurement, removing the need for heavier, riskier interventions while still delivering high-quality, actionable data.

Looking ahead, floating offshore wind will reshape the market more than any other emerging sector. Tensioned moorings, new anchoring configurations, and the sheer scale of future wind arrays will create unprecedented demand for inspection, monitoring, and intervention.

Decommissioning, too, will play a role - from supporting accommodation barges to assisting with the safe removal of ageing infrastructure - but floating wind is where demand will grow exponentially. If the subsea industry wants to support this buildout, robotics will be central to it.

The biggest misconception in the market today is that small robotic systems are limited to light observation. That assumption is now outdated. The most critical areas of a mooring system - the splash zone, the fairlead, tight geometries around the hull - are precisely where smaller systems outperform.

The technology has moved on: higher endurance, better stability algorithms, improved data capture, and easier deployment systems mean these vehicles can now reliably inspect the areas that previously drove the highest cost and highest risk.

My advice to asset owners is simple: inspect more, inspect earlier, and prioritise the areas where failures begin rather than where they end. Frequent inspection of the splash zone and fairlead is one of the most cost-effective strategies available. With the tools now in the market, there is no longer any operational justification for leaving critical data gaps in a mooring system.

The future of moorings and anchors will not be defined by dramatic new hardware. It will be defined by better visibility.

Robotics is delivering that visibility today - quietly, consistently, and with a level of precision the industry has never previously had. And as the sector moves deeper, older, and more renewable, that capability will become indispensable.

Jan Stander is Managing Director at High Performance Robotics (HPR), which delivers compact robotic systems for underwater inspection and light intervention.

Fibron Cable accelerates net zero drive with major solar investment and ISO 14001 certification

Fibron Cable has taken a significant step towards its 2030 net zero target with the installation of 1,428 solar panels on the roof of its manufacturing facility, part of a wider programme aimed at reducing the environmental impact of its operations and offering customers more sustainably produced umbilicals and cables.

The new 714kWp solar system is expected to save 118,093kg of carbon emissions each year and deliver an annual yield of around 617,610kWh. Over its 25-year lifespan, it is forecast to save more than 2.8 million kg of carbon. Approximately 68% of the energy generated will be used on site, with the remainder exported to the national grid, and the company anticipates annual energy cost savings of around £100,000, giving the project a payback period of less than four years.

> "This is an important step towards our goal of net zero operations by 2030. We are giving our customers access to the most sustainably produced products, whilst still maintaining our lower-cost approach and not compromising on quality or lead-times."

Fibron has also introduced new waste-separation and recycling processes, increasing the volume of material sent to recycling by 129%. The company has also switched to a renewable-only electricity tariff, ensuring that all purchased power comes from green sources. Its entire fleet of company cars has now transitioned to electric vehicles, supported by employee incentives to adopt low- or zero-emission models through a partnership with Octopus Electric Vehicles. Six EV charging points have been installed at the company's head office so that staff can charge vehicles at work using renewable electricity.

Further changes include the replacement of the firm's forklifts with electric models, a move that reduces onsite emissions and improves air quality around the yard. Together with the solar investment, these measures represent the company's largest co-ordinated push towards lower-carbon operations to date.

As a result of this work, Fibron Cable has achieved ISO 14001 certification, the internationally recognised standard for environmental management systems. The company says the discipline required to maintain ISO 14001, combined with the commitment of its leadership team, will ensure that progress towards climate-neutral operations by 2030 remains central to the organisation.

Fibron PV panels

Acteon's Gavia AUV achieves record-breaking deepwater performance

UTEC, Acteon's Geo-services business line, has marked a major milestone in autonomous underwater robotics with its deepwater trials of the Gavia Autonomous Underwater Vehicle (AUV), which successfully reached a record depth of 4,000m - the deepest deployment to date. The results underscore the growing capability of modular AUV technology to deliver high-resolution data in environments previously accessible only by more complex and costly deepwater survey platforms.

The deepwater campaign validated the Gavia AUV's upgraded pressure housing, improved navigation stack, and enhanced battery configuration. Operating at extreme depths, the AUV maintained stable communications, precise flight control, and high-quality data acquisition across the full mission profile. These trials demonstrate the robustness of the platform for projects in ultra-deepwater basins, frontier energy developments, and challenging subsea infrastructure surveys.

The AUV's modular design continues to be one of its strongest advantages. Operators can efficiently reconfigure sensors and payloads such as side-scan sonar, sub-bottom profilers, or environmental monitoring instruments without requiring multiple AUV classes or bespoke engineering. This flexibility significantly reduces mobilisation time and enables cost-effective, project-specific survey solutions.

For clients seeking high-quality geophysical and environmental data in complex offshore settings, the Gavia's new depth rating expands the operational envelope of autonomous systems while delivering speed, safety, and repeatability. As offshore sectors push into deeper waters from traditional energy to emerging aquaculture and mineral exploration, Acteon's achievement highlights a broader industry trend: the rapid evolution of autonomous robotics as a cornerstone of modern subsea operations.

EODEX: Can innovation enhance operational excellence whilst ensuring cheaper faster safer seabed solutions?

By Stuart Black, Group Managing Director, EODEX

As offshore project costs surge, developers are under increased pressure to protect margins whilst delivering projects on time and in budget.

Many projects are based on Contracts for Difference (CfD), which can be affected by multiple external factors, rendering projects more costly than expected. This leads to project delays, and in some cases, the withdrawal of developers/operators from the sector.

The industry is now under pressure to deliver more for less. With minimal room for compromise. Operators require a smarter engagement with the supply chain. Closer collaboration and innovation are key.

EODEX was established in Aberdeen in 2018 and has seen firsthand the challenges shaping offshore energy projects. EODEX is best known for its pioneering use of environmentally friendly low-order deflagration technology which safely neutralises unexploded ordnance (UXO) without the associated damaging impacts to the marine environment.

EODEX has firmly established its position and rapidly expanded its seabed service offering. From delivering for Ocean Winds on Moray West OWF, advancing UK CCS projects in UK waters, enabled major US OWF developments, developing innovative decommissioning technology, or supporting oil and gas projects throughout Europe, EODEX has been a trusted partner across all markets.

The need for reliable, trusted and innovative subsea services has never been greater. EODEX continuously looks to enhance its technical and operational capability through the adoption of innovative solutions. Getting the balance right can often bring challenges. However, identifying the right solutions and technology at the right time can have a profound positive impact on project budgets and protect schedules.

When EODEX delivers its 'one-stop-shop' solution, it ensures successful site preparation by combining cutting-edge vessel and survey techniques with innovative, strategic delivery models. This allows EODEX to detect, identify, avoid and remove objects buried on and below the seabed before subsea construction activities commence.

EODEX's preferred asset light model (it does not own ROVs or vessels) along with its pro-active culture, enables projects to be completed with fewer vessel days, fewer costs and within schedule - a delivery model it knows well and one clients are beginning to appreciate more.

Through its smart application of technology, operational excellence, and strategic delivery models, EODEX remains fully committed to assisting developers and operators safeguard budgets and protect critical timelines at a time when industry pressures have never been greater.

ORCA announces Light Trace: A new approach to diver panel visibility and safety in low-light conditions

ORCA has announced the Light Trace, an illuminated instrumentation system developed to modernise traditional diving and control panels. The system is designed to improve safety and situational awareness across both air and saturation operations.

Light Trace signals a notable change in how the industry views diver-panel design. For decades, panels have relied on mechanical gauges, passive indicators and the ambient lighting available in offshore and subsea environments. By incorporating intelligent, colour-coded illumination that delivers real-time visual feedback on pressure, flow and other key parameters, Light Trace™ offers a new method for interpreting critical information.

A browser-based configuration interface enables operators to view live data, calibrate sensors and adjust lighting from any laptop, tablet or mobile device. This move away from proprietary software and specialised hardware introduces a more accessible and flexible approach to system setup and maintenance, lowering barriers for both new and existing installations.

The system's customisable colours and panel layouts also represent a shift toward operational standardisation and visibility-driven design. Organisations can tailor displays to their own safety protocols or vessel requirements, allowing for faster identification of system status and helping reduce the risk of unnoticed faults, an area of increasing focus across the diving industry.

Light Trace is suitable for both retrofit and new-build applications, offering operators a practical upgrade path without the need for complete panel replacement. Its adaptability to custom enclosures or direct integration into existing panels supports a transition from legacy analogue systems to modern, illumination-based interfaces.

"Light Trace has already shown how much clearer and more intuitive a dive panel can be," said Robbie Eost, Electrical Engineer at ORCA.

> "By turning critical information into visible patterns and colours, operators can assess system status far more quickly, even in difficult lighting or high-pressure situations. It's a practical step forward that improves both usability and overall safety without requiring a complete redesign of existing panels."

Kraken's KATFISH and USV-LARS system integrated on TKMS Atlas UK's ARCIMS 11-metre USV

Kraken Robotics and TKMS ATLAS UK demonstrate KATFISH USV Launch and Recovery System on an in-service UK Royal Navy ARCIMS USV

Kraken Robotics Inc. has announced the successful demonstration of its KATFISH Unmanned Surface Vessel Launch and Recovery System (USV-LARS) from TKMS ATLAS UK's (ATLAS UK) 11-metre ARCIMS USV. The systems offer a comprehensive autonomous survey package for maritime security missions including mine countermeasure operations and critical underwater infrastructure inspection. Together, ARCIMS and KATFISH USV-LARS provide the industry's first air-deployable, 300-metre depth rated autonomous towed SAS survey system.

"With the surge in unmanned systems for defence, naval forces need the best technology available to protect national security," said Greg Reid, President and CEO of Kraken Robotics. "With its ability to safely and autonomously launch and recover KATFISH from USVs, our USV-LARS allows small naval platforms to collect KATFISH's high resolution synthetic aperture sonar (SAS) data, significantly increasing their capabilities and acting as force multipliers."

The LARS footprint was designed to fit ATLAS UK's ARCIMS common deck interface, enabling rapid re-role and seamless integration with the platform. Testing was successfully conducted up to sea state three, validating system robustness and operational readiness.

This joint integration marks a major step forward in delivering agile, modular, and cost-effective mine countermeasure capabilities for modern naval operations. By combining ARCIMS' proven USV with Kraken's cutting-edge towed synthetic aperture sonar and recovery system, navies can deploy advanced technologies faster and more efficiently, strengthening maritime security in increasingly complex environments.

The system was demonstrated off the coast of Portland, UK in November for NATO navies. Attendees witnessed the ARCIMS USV autonomously navigate and plan missions with the KATFISH towed system collecting high resolution SAS and bathymetric surveys in very shallow water. Data was live streamed via satellite communications to the command centre on shore, enabling real-time classification of contacts by operators.

Wesley Galliver, Head of Surface Ship Systems Division, TKMS ATLAS UK said:

> "This achievement demonstrates what can be accomplished when innovation and collaboration come together. Integrating ARCIMS with KATFISH and LARS in such a compressed timeframe sets a new benchmark for delivering operational capability to our customers. I am delighted with the results and proud of what the combined teams achieved."

Kraken's KATFISH collects high resolution synthetic aperture sonar data at up to a 200-metre range per side at a depth of 300 metres, with real-time data streamed at 3 cm x 3 cm resolution. Kraken's KATFISH USV-LARS was designed specifically for small vessels, with an all-titanium construction for low magnetic signature and low weight.

KATFISH and USV-LARS were rapidly mobilised on the ARCIMS, with integration, testing and the demonstration happening over a period of just two weeks. Together, ARCIMS and KATFISH USV-LARS provide the industry's first air-deployable, 300-metre depth rated autonomous towed SAS survey system.

CSignum demonstrates potential for transmitting data on Royal IHC's next-gen submerged 4 Track Crawler

Royal IHC proved the potential for transmitting data while underwater in challenging shallow water environments when it included CSignum's patented EM-2Q wireless modem to its next generation 4 Track Crawler.

Royal IHC is a leading supplier of maritime innovation in the dredging, offshore, mining and defence industries. CSignum is the leader in wireless communication solutions for submerged environments.

The new crawler is part of an ongoing development effort to ensure seabed security and protect subsea infrastructure such as data cables and energy pipelines from underwater sabotage, unmapped mines, and unauthorised activity.

"We are always looking for opportunities to demonstrate how our wireless technology can bring a new dimension to organisations and industries operating assets underwater," said Graeme Boyce, CSignum's Chief Operations Officer.

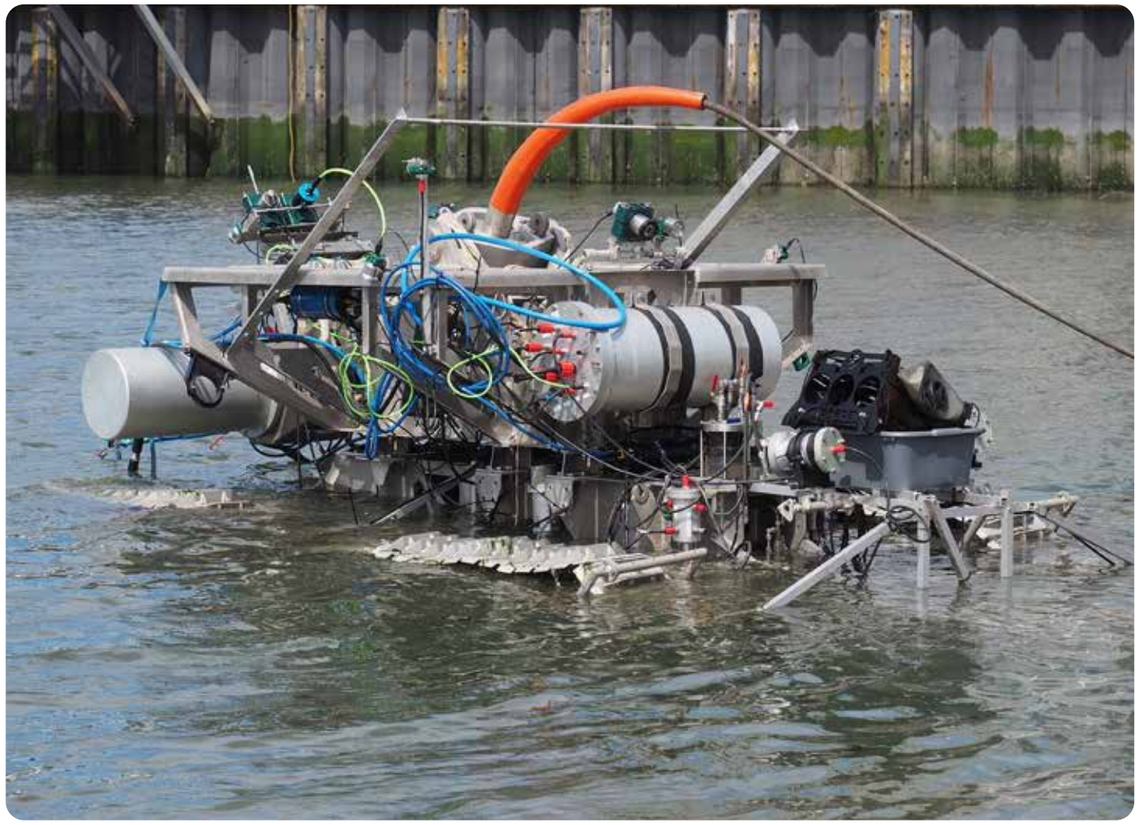
"Connectivity across boundaries can be a transformative component, bringing greater benefits by enabling reliable communication and data sharing in real time from below the surface.

"So, when we were invited to be part of the seabed crawler demonstration, we were keen to take part. After a short assessment, we fitted our system to the chassis and within moments the crawler began making its way towards water, before finally submerging. After 24 hours and within seconds of sending a signal to the EM-2Q, the buoyancy bag appeared in the water, showing how easily the EM-2Q can be retrieved."

The demonstration showed CSignum's solution sending data from the crawler overnight, taking readings from the seabed to shore. A key factor was to ensure the EM-2Q could function amid high noise from power and electrical sources and this was shown not to hamper communications.

Hubert van Strien, Royal IHC Business Developer, said seabed security will play a critical role in future defence and infrastructure strategies: "CSignum's wireless solution delivered the essential element of connectivity to our new 4 Track Crawler, bringing the potential for gathering countless insights in the service of seabed security. The event has generated significant interest across the European defence community and highlighted the importance of cross-sector innovation.

"We see the collaboration and partnership as key to ensuring safe, secure assets and operations underwater."



Seaeye SR20

Empowering eco-responsibility

Electric workclass vehicle

Thrusters each deliver 580 kgf

Saab water testing 2024

The Seaeye SR20 is a full-sized IMCA Class III B electric ROV system with performance exceeding that of a 200HP hydraulic vehicle.

Designed for long term persistence at sea in conventional, resident, or USV deployed configurations with over the horizon control for reduced emissions, increased safety and reduced operational costs.

Electrification is the key to delivering maximum capabilities across applications that include survey, construction, drill support, IMR and decommissioning.

Learn more at www.saabseaeye.com