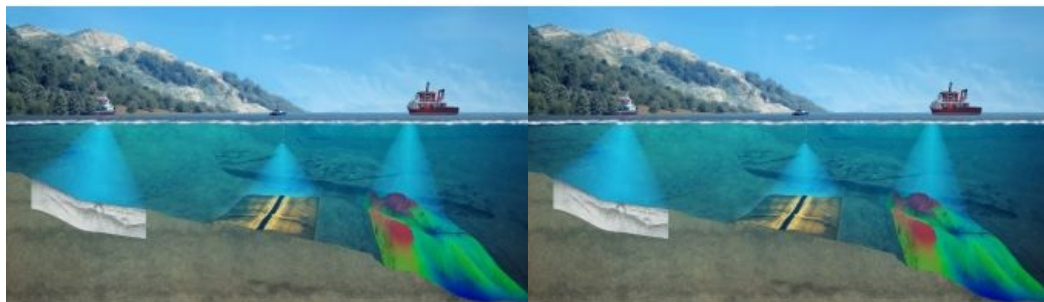


Discover the latest technology unveilings at Oi24



Oceanology International 2024 (Oi24) is set to captivate attendees with a showcase of pioneering companies and innovative technologies, all poised to command attention at London's ExCeL. From advanced autonomous vehicles and underwater drones to sophisticated sensors, the event promises a glimpse into the future of ocean exploration. Running from 12-14 March, Oi24 will

unveil nearly 100 new launches, offering industry giants an exclusive platform to present their latest advancements. As the global hub for ocean technology, engineering, and science, Oi24 stands as an unparalleled opportunity for the community to witness and engage with the forefront of maritime progress.

David Ince, Oceanology International portfolio director, said: "This year, as we gather at ExCeL in London, the ocean's pulse is beating stronger than ever. The challenges we all face – climate, resource, pollution and more – demand innovative solutions, and Oceanology International is where they are born. We believe that technology is the key to unlocking a brighter future for the ocean. We believe in the power of collaboration to break down barriers and accelerate progress. And we believe in the power of education and inspiration to empower future generations to become the ocean's guardians. So, whether you're a seasoned oceanographer, a tech entrepreneur, a policymaker, or simply someone who cares about the future of our planet, I invite you to join us at Oceanology International."

More than 450 exhibitors will fill the floor and the Royal Victoria Dock quayside over the three-day event to display pioneering technologies and equipment, with the following companies among those launching new solutions.

Sea water sensor and measuring system manufacturer **-4H-JENA** engineering will launch a unique combined underwater carbon dioxide and methane gas sensor called the CONTROS CombiSensor CO₂ / CH₄. The CombiSensor will optimize marine carbonate data acquisition for climate researchers and, while designed for deployment on long duration autonomous platforms, including gliders with very limited payload space and weight, it is also compatible with FerryBox installations on vessels and fixed measurement stations.

Anekconnect will be discussing new possibilities for AI to assist with design cables to connect any subsea instrument to multiplexers, power source and ROV-to-surface communication.

Developing sustainability-enabling technologies for the commercial fishing industry, **Ashored Innovations** is introducing a rugged, low-cost acoustic controlled platform for unmanned deployment and retrieval of underwater assets. It is accompanied with a gear tracking and monitoring software.

New exhibitor **Baywei Sonar**, offering high-quality sonar technology, will be highlighting its small size, lightweight, cost-effective shallow water multibeam echosounder for small boats, zodiacs, ASVs and USVs.

BIRNS, an AS 9100 certified global leader in the design and manufacturing of high-performance lighting and connector systems, will be introducing ground-breaking high amperage, RF, optical and 9+ gigabit per second ethernet connectivity technology at the show, along with more bespoke subsea solutions. Celebrating its 70th anniversary this year, the company announces the official launch of the BIRNS Meridian series, its new high amperage 6km/225 Amp-rated connector line, plus 6km-rated open face coax assemblies, 6km-rated type approved DNV penetrators, and innovative new hydrostatic testing facility capabilities.

Global leader in underwater imaging **Cathx Ocean** is introducing CLARITY, enabling ocean robots to operate as intelligent autonomous vehicles. For anyone operating in the subsea survey industry who requires fast, reliable data intelligence, the software solution combines sensor data, machine vision and machine-learning based automation to deliver information real-time to facilitate quick decision making.

C-Kore Systems, a UK company specializing in the development of innovative testing tools, is introducing a Subsea OTDR (Optical Time Domain Reflectometer). Using knowledge gained from supporting customers with a range of automated testing tools, C-Kore has simplified the once difficult task of performing OTDR measurements on subsea equipment.

Dynautics will be exhibiting a range of control systems for uncrewed surface and subsea vehicles. The team will also be showcasing how their marine simulation tools support the complex design process of uncrewed vessels, with Dr Alison Little running a live demonstration on the stand. Dynautics will highlight its collaboration with Subsea Craft on the vessel control system for VICTA, the company's next-generation maritime payload delivery platform and 'the world's most advanced surface-submersible assault craft'. Dynautics has developed a customized control system for Subsea Craft based on its commercially proven SPECTRE autopilot technology.

Engineering company **EIVA** is running a series of presentations on its stand to introduce its latest solutions, with demos of its tools for automation and autonomy, and the chance to try its ROV inspection simulator. EIVA representatives will provide details on: navigation and positioning software NaviPac; NaviSuite Nordoa for efficient asset inspections; EIVAs robotics software solutions for guiding autonomous operations with USV, ROV and AUV; a containerized ROTV solution for flexible employment; all-in-one ROTV system ViperFish; Voyis' Discovery Stereo Camera with VSLAM Powered by EIVA NaviSuite.

Elwave introduces its sensor Octopulse which opens new capabilities in the naval defence, offshore energy and marine sciences applications through complex electrical impedance measurements thanks to its embedded and bio-inspired CEDAR technology (Controlled Electric Detection and Ranging).

EOMAP, a German company providing solutions based on earth observation, data science and IT, with a clear focus on water, is launching eoAPP Aqua – water quality monitoring within mouse clicks. EOMAP's new web application capitalizes on satellite imagery to deliver near-real-time water quality information, thus transforming the way industries and environmental managers respond to changing aquatic environments.

Fizoptika Malta will be showcasing its latest inertial products – the smallest fiber optic gyroscopes (FOGs), highly-precision FOGs, ultra-compact three-axis FOGs and miniature FOG-based inertial measurement units (FOG IMUs). The fiber optic gyro VG221 and fiber optic gyro VG1703SPE are small and lightweight sensors with super low power consumption. At the other end of the form-factor scale is the bigger fiber optic gyro VG035LND. Its triple-axis fiber optic gyroscopes offer low noise performance in ultra-compact and lightweight units with low power consumption of 2W. Additionally, Fizoptika Malta will be displaying a range of newly developed FOG-based inertial measurement units which combine the company smallest fiber optic gyroscopes and MEMS accelerometers.

Fraunhofer IPM will showcase laser scanning technology for the efficient inspection of underwater infrastructure (underwater laser scanning) and for surveying the seabed topography. The company presents the ULi, a Lidar system for underwater inspection, and its airborne bathymetric laser scanner, a multiwavelength Lidar for measuring seabed topography. This is complemented by 3D-AI, a software for the automated interpretation of 3D data.

Seeking to make a difference in the world of ocean technology by leveraging the combined knowledge and business acumen of a group of innovative companies, **General Oceans'** operating companies include Nortek (Norway), Trittech International Ltd (UK), Klein Marine Systems (USA), Reach Robotics (Australia), and Strategic Robotics Systems (USA). The General Oceans Academy, designed to nurture the leaders of tomorrow, will be launched at Oi24, with daily information sessions on the stand and a professional photographer to capture LinkedIn headshots. In addition, Nortek will run three information sessions each day covering their latest DVL, Aquadopp and AWAC technology.

General Oceanics, designer and manufacturer of oceanographic and environmental sampling and monitoring equipment, is showcasing the latest upgrade for its 8060 PCO2 Sea Surface CO₂ monitoring system. The company is also highlighting its new GOil Fish.

In addition to demonstrating its groundbreaking new AI solution which provides real-time quality controlled bathymetric data on board, hydroacoustic technology manufacturer and Oceanology International veteran **GeoAcoustics** will show its next generation Sub-Bottom Profiler on its stand. GeoPulse 2 introduces new deep-water capabilities for the de facto industry standard GeoPulse sub-bottom profiler range. As a significant upgrade to the field-proven GeoPulse and GeoPulse + systems, which are renowned for their reliability, ruggedness, ease of operation and flexibility, GeoPulse 2 offers new features including 10 x more output power, positioning it as an ideal new solution for surveys in much deeper water than before.

Showcasing its complete range of robotics that deliver the Robotics-as-a-Service, **Greensea IQ** is hosting an in-stand reception and networking event on Wednesday. Providing advanced robotic solutions for science, energy, maritime, and defense, with expertise in navigation, control systems, and autonomy, Greensea IQ will display the entire Bayonet AUGVs line-up, alongside its EverClean robots.

Innova is a leading supplier of services, equipment and solutions to the international underwater industry. New at Oi24, the company will introduce the Micro Matrix™, its smallest Multiplexer so far, ideal for smaller ROVs.

MacArtney Underwater Technology, offering global support in underwater technology solutions for offshore, renewables, science, and defence, launches the Hybrid connector, a compact addition to its renowned TrustLink™ Metal Shell series. Meeting customer demands, the Hybrid seamlessly delivers power, data, and communication in one, providing remarkable flexibility, featuring two optical passes that enable the combination of single-mode and multi-mode fiber optics, along with four electrical contacts.

MetOcean Telematics will showcase its cutting-edge product, the STREAM+. The revolutionary Iridium transceiver package provides affordable, two-way connectivity anywhere on the planet, with capability to offer seamless data access through various file management services, ensuring flexibility in data transmission. Designed with a focus on reducing size, weight, and power consumption, STREAM+ is the ultimate solution for field applications, catering to diverse industries including uncrewed marine vehicles, oceanographic research, environmental monitoring and underwater exploration.

Alongside its custom-made subsea solutions, **MSA-Service** introduces the Multiped, a data hub for all sensor and operational data in one overview together, system-wide, historical and real-time, with capability for the addition of visual data (camera). With benefits including optimized operational effectiveness and streamlined reporting process, the Multiped system is onboard Van Oord's offshore installation vessel Aeolus.

NOVACAVI will introduce new products in its bespoke range of synthetic armoured cables for subsea and harsh environments. Conceived as a lightweight alternative to high performance electro-mechanical cables in steel armour configuration, its synthetic armour cable solutions are part of the Aquancable® range, cables for underwater technologies.

Introducing its new electric vehicle seaglidars solution at Oi24, **REGENT** is pioneering the future of sustainable coastal transportation. This new category of high-speed electric wing-in-ground effect vehicles float, hydrofoil, and fly exclusively over the water to drastically reduce the time and cost of moving people and goods between coastal cities. The company's next major milestone will be to achieve crewed flight with its full-scale prototype.

Lidar system manufacturer **RIEGL** has a broad portfolio of topo-bathymetric laser scanners and systems for applications in coastal and

shallow water mapping or river surveying. The Austrian company will be unveiling the new RIEGL VQ-860-G High Performance Topo-Bathymetric Airborne Laser Scanner at Oi24 – offering enhanced depth penetration in surveying inland waters and near shore waters. There will also be more information available on the VQ-840-GE, RIEGL's lightweight and compact topo-bathymetric airborne laser scanner, with a low weight and compact and robust design which facilitate integration into UAVs.

Offering a range of water quality monitoring solutions, first-time exhibitor **RS Hydro** is using the Oi platform to showcase its specialist expertise to tackle technological challenges across the water, environmental, and industrial sectors, and its pioneering work in the use of fluorimeters to measure organic matter. The company will discuss how its water quality sondes, telemetry systems and data buoys from Eureka, Proteus Instruments, Wildeye and NexSens can help with marine and coastal monitoring needs.

Industry leaders in integrated earth modelling, geo-data management and collaboration software **Seequent** will be discussing ground modelling, UXO detection and new developments, including solutions with Leapfrog Energy and Oasis montaj, enabling users to increase accuracy in the detection and analysis of buried UXO and incorporate the results into an integrated ground model.

SubC Imaging, a global leader in subsea imaging solutions, is set to provide an exclusive preview of its ground-breaking Rayfin Single Channel Inspection System (Rayfin SCI). Rayfin SCI is a single-channel live inspection system that seamlessly combines software and hardware for efficient and organized inspections and surveys. One of its key features is the integration of real-time topside media and data transfer. Unlike traditional systems, Rayfin SCI eliminates the need for time-consuming downloads, allowing immediate access to crucial data. Booth visitors will have the opportunity to experience first-hand the revolutionary features of this state-of-the-art solution, set to be available later this spring.

Part of Teledyne Technologies Incorporated, **Teledyne Marine** is the market leader in imaging, instruments, interconnect, seismic and vehicle technologies. At Oi24, the company will hold a stand cocktail party to launch the new Slocum Sentinel Glider, an ultra-long endurance uncrewed vehicle which allows for persistent ocean monitoring on the scale of years. Boasting a 4-liter buoyancy engine, a 13-inch diameter, dual thrusters for burst speeds of up to 3.5 knots, and a 4000 Wh energy capacity, the Slocum Sentinel has the size and energy to address the widest range of oceanographic missions.

Tethys Robotics introduces an autonomous underwater vehicle that has been specially developed for use in challenging and dangerous environments like turbid channels and rivers. Equipped with acoustic sensors and cameras, the robot can search large areas underwater completely autonomously and quickly localize objects or people.

Geotechnical and offshore survey project specialist **TDI-Brooks** will be promoting the addition of a newly-acquired DP2 vessel, R/V NAUTILUS, to its fleet. The vessel can offer a variety of offshore assistance with subsea services, construction aid, exploration, production, ROV and diving support, and scientific marine research and survey mapping, along with military support. The company has also purchased a Manta-200 Cone Penetration Testing (CPT) system, suitable for almost any project in shallow water up to 150 meters for determining offshore seabed soil conditions.

Sayri Arteaga, the CEO and lead robotics engineer of **uWare Robotics**, a leading startup in dual-use autonomous underwater robotics and AI systems for environmental monitoring, infrastructure inspection and assets management, will present the core concepts of the highly-mobile, cost-effective, untethered AUV, the uOne. By using an integrated approach, the uOne streamlines monitoring and provides unparalleled depth in marine ecosystem analysis, which is crucial for effective management and conservation. Furthermore, the system will allow for the digital twinning of infrastructure assets.

Venterra Group company Partrac is announcing the release of OCEAN.DAT, a metocean and seabed atlas and database for the Celtic Sea flow region. Available to all potential FLOW (floating offshore windfarms) developers and marine contractors interested in The Crown Estate's upcoming Celtic Sea floating wind tender round, it is a comprehensive, integrated GIS and database product comprising over 100 parameter map layers and over 500 metocean hindcast timeseries datasets across the Celtic Sea Region.

Voyis, the first company to widely provide underwater laser scanners for underwater surveys and inspection, is introducing the Discovery Stereo camera for shallow depths. A remarkable feature of the 300m rated Discovery Stereo camera is its neutrally buoyant design that is achieved without compromising on the proven system accuracy. At the Voyis booth, an interactive screen will be available for users to play with 3D models captured using Voyis technology, including lasers and cameras.

Creating revolutionary sensors with autonomy at the core of its technology, **Water Linked** will showcase its latest ground-breaking products, including the world's smallest high-performance Doppler Velocity Log (DVL A50) and a compact, low-power Acoustic Modem (Modem M16). They build on its existing products, the Modem M64, renowned for dependable underwater data transfer, and the Short Baseline (SBL) Underwater GPS G2 system, delivering reliable real-time underwater positioning. Out of 1,300 applicants, NATO has hand-picked Water Linked to be part of its accelerator programme DIANA (Defence Innovation Accelerator for the North Atlantic).

YellowScan, a global leader and designer of the next generation of manned and unmanned Lidar solutions, is announcing the release of its new bathymetric system, the YellowScan Navigator, a ground-breaking bathymetric Lidar system dedicated to coastal and river mapping from drone. Fulfilling the crucial need of surveyors to map underwater topography, in rivers, ponds and coastal areas, it can be flown up to 100m above the water and features a laser scanner developed in-house and is fine-tuned to map waterbeds within a depth range of 0-3 meters, reaching a depth of 18 meters in perfectly clear water conditions.

Visitors to this year's Oi24 will also have the opportunity to view the latest marine technology in action at the Dockside Demonstrations feature, set on the quayside of the historic Royal Victoria Dock at London's ExCeL.

See a full list of companies with exclusive launches at Oi24 [here](#) or view the list of exhibitors launching new products and solutions [here](#). Official Launch Partner **Geo-matching** is featuring a [dedicated Oi24 page](#) on its website.



Reflecting the diversity on offer at Oi24, hydroacoustic technology manufacturer GeoAcoustics is among the key companies launching new solutions with its bathymetric sonar, sidescan sonar and sub-bottom profilers. (Image courtesy: GeoAcoustics)

