

VOYIS



Illuminate
the Unknown

ABOUT VOYIS

More than just hardware

Voyis makes underwater laser scanning and imaging products/payloads for applications mainly in Offshore Energy, Ocean Sciences, Defence, and Civil Infrastructure. These optical sensors improve certainty and clarity by providing **extremely high-resolution data**.

Designed with exploration in mind, we partner with our customers to bring them **versatile optical solutions** to expand their underwater capability and enhance understanding of remote, challenging environments.

VOYIS.COM





Our mission is to **push the limits**
of what's possible subsea and
Illuminate the Unknown.

PRODUCT LINE UP

Illuminate The Unknown

DISCOVERY Stereo Systems



Discovery Stereo is a family of subsea stereo vision systems designed for real-time perception and high-accuracy 3D inspection.

OBSERVER Imaging Systems



The Observer cameras deliver high-performance underwater imaging solutions for both wide-area survey mapping and intelligent real-time ROV vision.

INSIGHT

Underwater Laser Scanners



Powerful underwater laser scanners for capturing incredibly detailed 3D data that improve certainty and clarity.

BESPOKE

Solutions

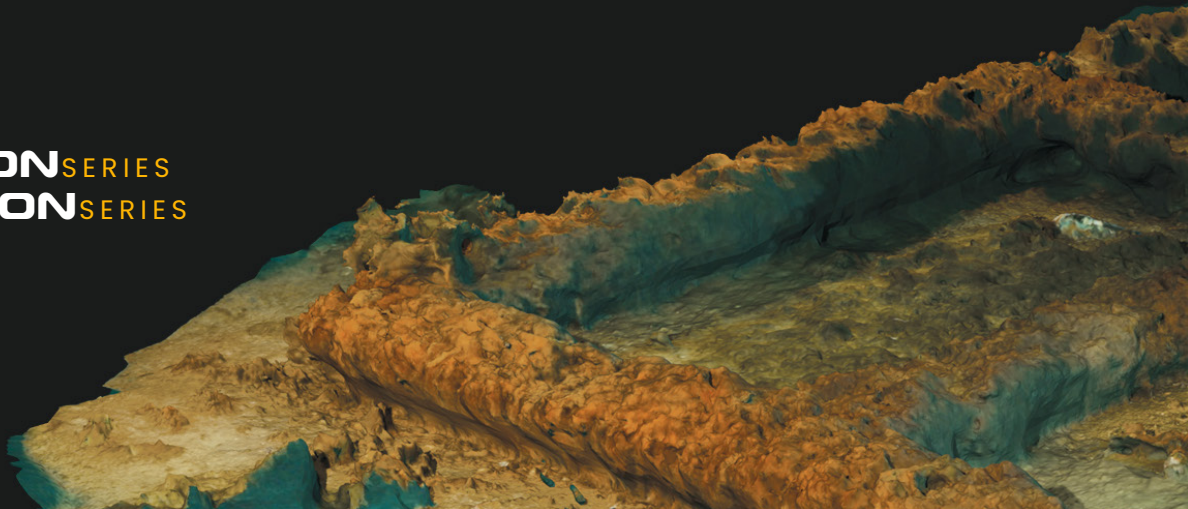


The Recon AUV Payloads and our custom ROV skids are complete solutions that expand your vehicle's capabilities with high-resolution scanning and imaging.



Discovery Stereo

INSPECTION SERIES
PERCEPTION SERIES





DISCOVERY STEREO

The Vision Authority: Optical Foundation for Subsea Vehicles, from Perception to Inspection

Voyis' Discovery Stereo Systems delivers unified optical capability for subsea vehicles, spanning real-time perception, 3D modelling, and certified inspection. The Discovery Stereo combines high-resolution stereo imaging, powerful Nova Mini lighting, and onboard edge processing to unlock optical capabilities from autonomous navigation to mission-critical inspections.

From live piloting and vehicle awareness to metrically accurate 3D models, Discovery Stereo enables vehicles to see, understand, and measure the underwater world reliably and in real time.





✓ Engineered for 3D Understanding

Sharp stereo imagery with integrated positioning data, delivered with Voyis' proprietary camera calibration and verified accuracy, enables reliable 3D reconstruction for inspection, measurement, and general visual inspection (GVI).

✓ Depth Perception for Autonomy and Control

Low-latency depth maps and video provide high-fidelity 3D awareness, enhancing navigation, enabling autonomy, improving maneuverability, and reducing collision risk during complex subsea operations.

✓ Designed for Seamless Vehicle Integrations

With synchronized ultra-bright Nova Mini LED and a single vehicle interface supported by pre-made client control software, the Discovery Stereo simplifies integration across subsea platforms. The system combines imaging, lighting, navigation support (INS), and low-latency video in a single, ready-to-deploy sensing solution.

✓ Real-time 3D Intelligence

Onboard image processing and real-time SLAM generate live 3D reconstructions, supporting in-mission data quality control and faster, more confident decision-making offshore.

PRODUCT LINEUP
Discovery Stereo

DISCOVERY STEREO
INSPECTION
SERIES



I300



I4000

A complete solution for certified accurate 3D modelling and real-time point clouds for wide area reconstruction, critical inspection, and metrology.

Download the
datasheet



DISCOVERY STEREO
PERCEPTION
SERIES



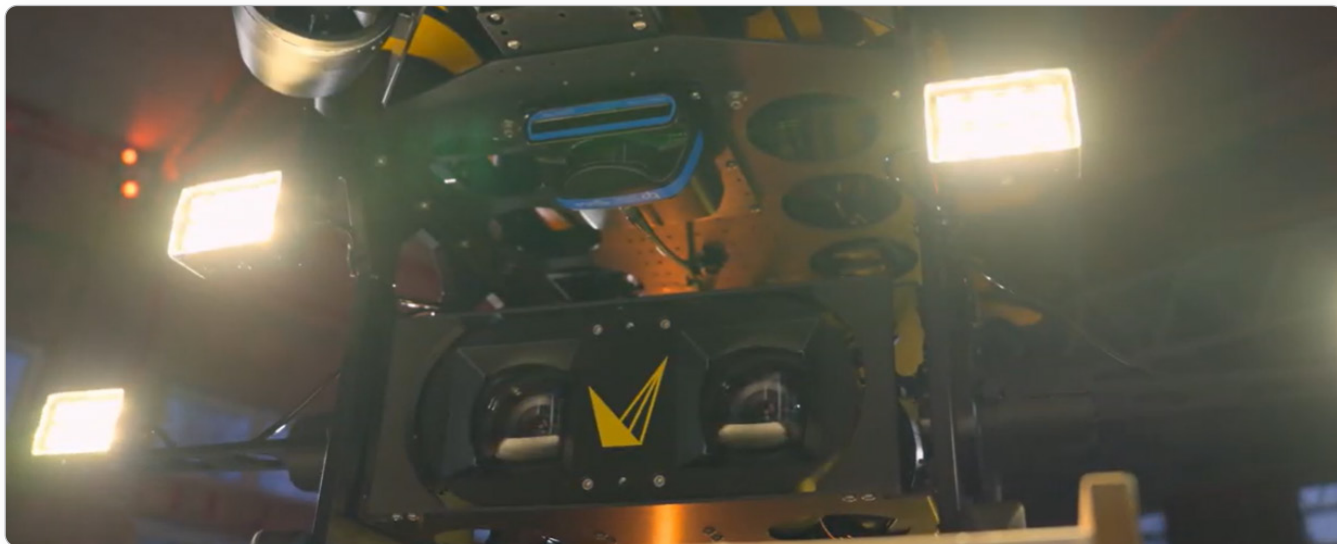
P300



P3000

The first subsea stereo camera engineered for enhancing piloting awareness and enabling autonomy with a super wide field-of-view and real-time 3D depth perception. Designed to be the eyes of every ROV.

DISCOVERY STEREO **INSPECTION** SERIES



The Voyis Discovery Inspection Series is the optical authority for all critical underwater inspection applications, delivering 3D models with certified and repeatable accuracy. Available in two models, I300 and I4000, these systems are engineered to provide unmatched confidence in diverse subsea environments. Built around high-resolution 4K sensors, real-time image enhancements, and Voyis' advanced Deep Vision Optics, the Inspection Series delivers exceptional inspection video, still images, and high-confidence 3D reconstruction deliverables.



DISCOVERY STEREO **PERCEPTION** SERIES

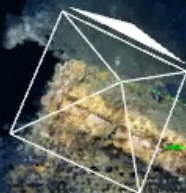


The Voyis Discovery Perception Series is engineered to be the eyes of subsea vehicles, replacing traditional single-camera systems with real-time stereo vision and 3D perception. Seamlessly integrated with subsea platforms, it delivers low-latency video, high-quality still imagery, and true-scale depth maps to enhance piloting awareness and support subsea autonomy. Wide-angle stereo imaging combined with onboard processing generates dense, real-time depth point clouds, providing reliable spatial understanding for complex subsea operations.





Discover more
about Voyis VSLAM
Powered by EIVA
NaviSuite



0.5 m

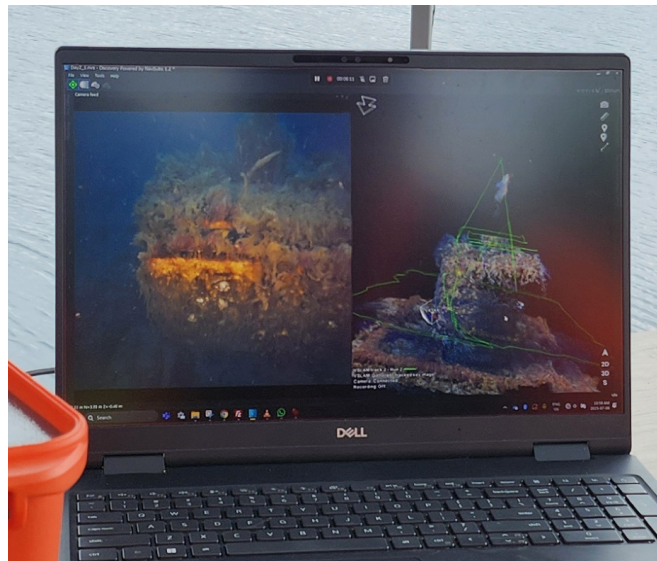
VSLAM track 22 - Run 19 
VSLAM: Tracking OK 
Camera: Connected
Recording: On

-1.83 m
2.77 m
-1.67 m

SOFTWARE INTEGRATIONS

Voyis VSLAM Powered by EIVA NaviSuite

Voyis VSLAM Powered by EIVA NaviSuite is a real-time visual acquisition and visualization tool for Voyis Discovery Stereo Cameras, giving ROV operators immediate feedback on survey data quality. Unlike traditional stereo systems that rely on post-processing, the VSLAM solution builds a 3D reconstruction live during acquisition, helping teams ensure they are meeting coverage and image quality goals.



✓ Complete Survey Data Quality Control

Real-time 3D voxel model highlights coverage gaps for targeted inspection.

✓ Augmented ROV Piloting

Clear spatial context and live textures provide improved situational awareness to ROV pilots.

✓ Enable Autonomy

Accurate vehicle localization enables subsea autonomy features like obstacle avoidance.

✓ Geo-located Mapping

With INS integration, every 3D point generated by the Voyis VSLAM solution is immediately tied to a known global reference frame.

The background of the entire image is a high-resolution, close-up photograph of a coral reef. The coral structures are complex and branching, with a color palette ranging from light beige to a darker, almost black, shadowed areas. The lighting creates strong highlights and deep shadows, emphasizing the three-dimensional texture of the coral.

VOYIS



Observer Imaging Systems

VISION^{SERIES}
SURVEY^{SERIES}



OBSERVER IMAGING

Capture Sharp, Evenly Illuminated Stills Images and Video

Our high-resolution Observer cameras paired with our Nova LED panels produce crisp, evenly illuminated stills images and videos at high vehicle speeds. Proprietary Deep Vision Optics coupled with on-board image enhancement and colour correction machine-learning produces true-colour images to accurately see your subject.



✓ **Clarity at High Speeds**

Our high-sensitivity sensors enable short exposures so you can achieve clarity even at high vehicle speeds.

✓ **Real-Time Image Processing**

Onboard image enhancement corrects water distortions and light illumination to deliver real-time actionable data.

✓ **Designed for Machine Vision**

High dynamic range image captures light and dark areas for effective tracking and mosaicing.

✓ **True Colour Images**

Automated machine-learning delivers colour correction that brings out true target colours.

✓ **Deep Vision Optics**

Purpose-built optics for optimized data underwater - high-quality hardware is the foundation for delivering high-quality results.

PRODUCT LINEUP
Observer Imaging

OBSERVER
SURVEY
SERIES



S6000MICRO



S6000PRO

A survey-grade imaging system for wide area mapping and localized inspection.
HDR imaging, long-range lighting, and industry leading optics.

Download the
datasheet



OBSERVER **VISION** SERIES



V300

Compact ROV piloting camera, with ultra wide field of view, designed for low latency vehicle piloting and machine vision.

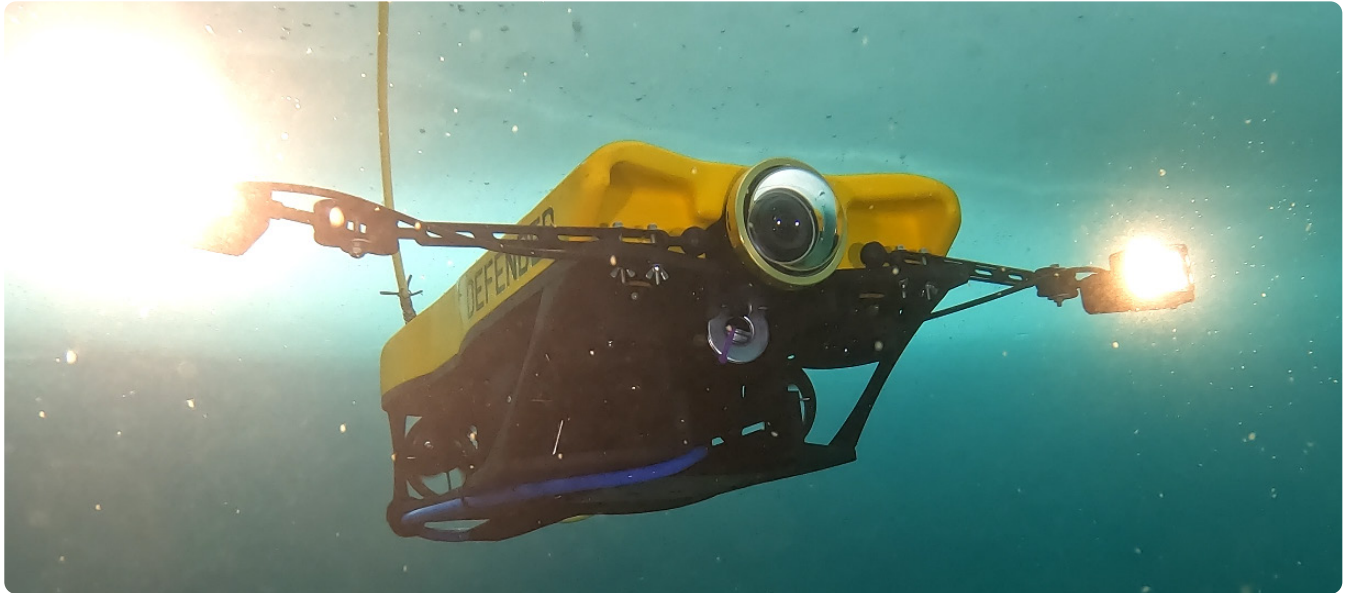
OBSERVER IMAGING **SURVEY** SERIES

The Observer Survey Series S6000 imaging systems are engineered to deliver high-quality optical data across a range of autonomous and high-speed subsea platforms, from compact vehicles to long-range AUV deployments. Designed for seamless integration, both the Micro and Pro configurations pair high-performance sensors with adaptable Nova LED panels to ensure consistent illumination and sharp imagery across varying vehicle sizes and mission profiles. With resolutions up to 12MP, the systems provide crisp, detailed imagery while maintaining the flexibility required to meet diverse project objectives.

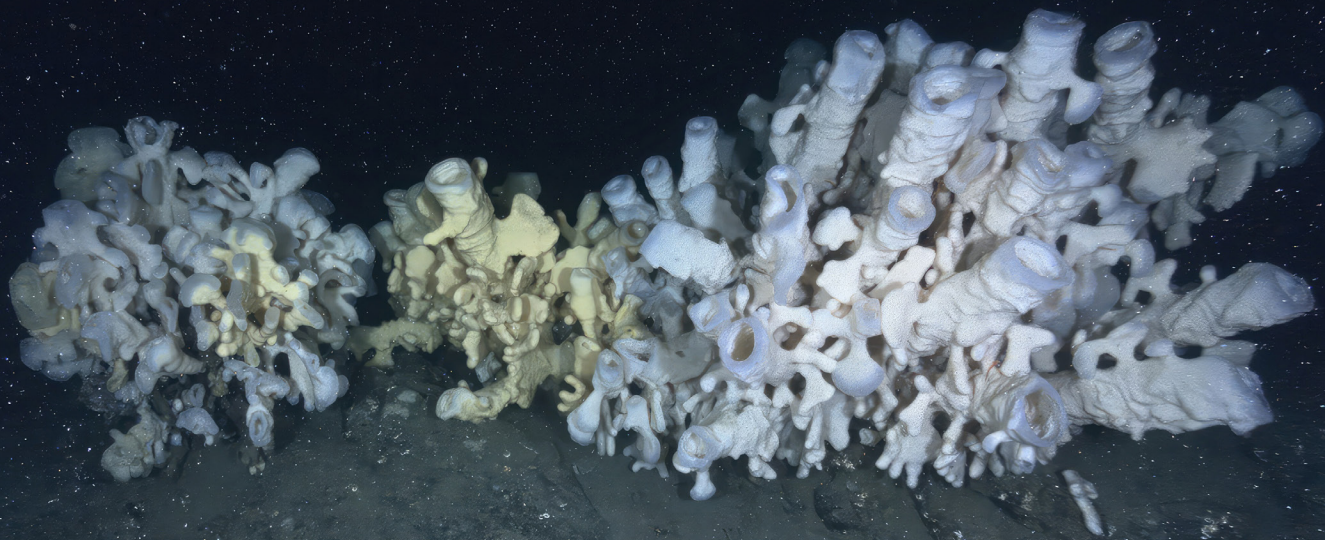




OBSERVER IMAGING **VISION**SERIES



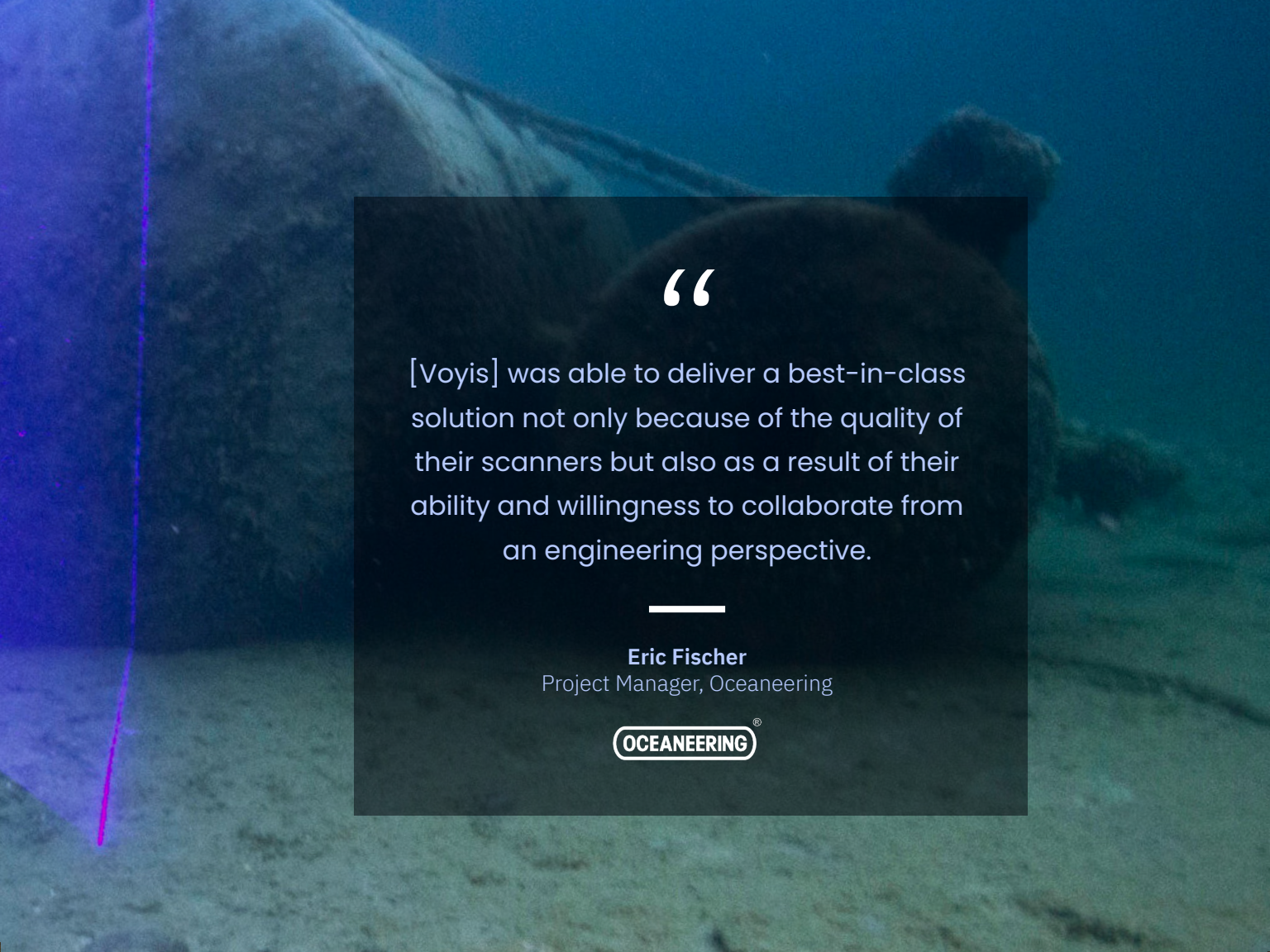
The Observer Vision Series is the first smart ROV piloting camera built for ultra-low latency control and enhanced situational awareness, with powerful edge computing for real-time image enhancement and onboard machine learning and AI functions. A high-sensitivity 4K sensor delivers sharp video with an ultra-wide field of view, giving pilots clear visibility for confident navigation in complex environments while simultaneously capturing crisp still images for machine vision applications.



VOYIS 

Insight Underwater Laser Scanners

INSIGHT SERIES



“

[Voyis] was able to deliver a best-in-class solution not only because of the quality of their scanners but also as a result of their ability and willingness to collaborate from an engineering perspective.

Eric Fischer

Project Manager, Oceaneering

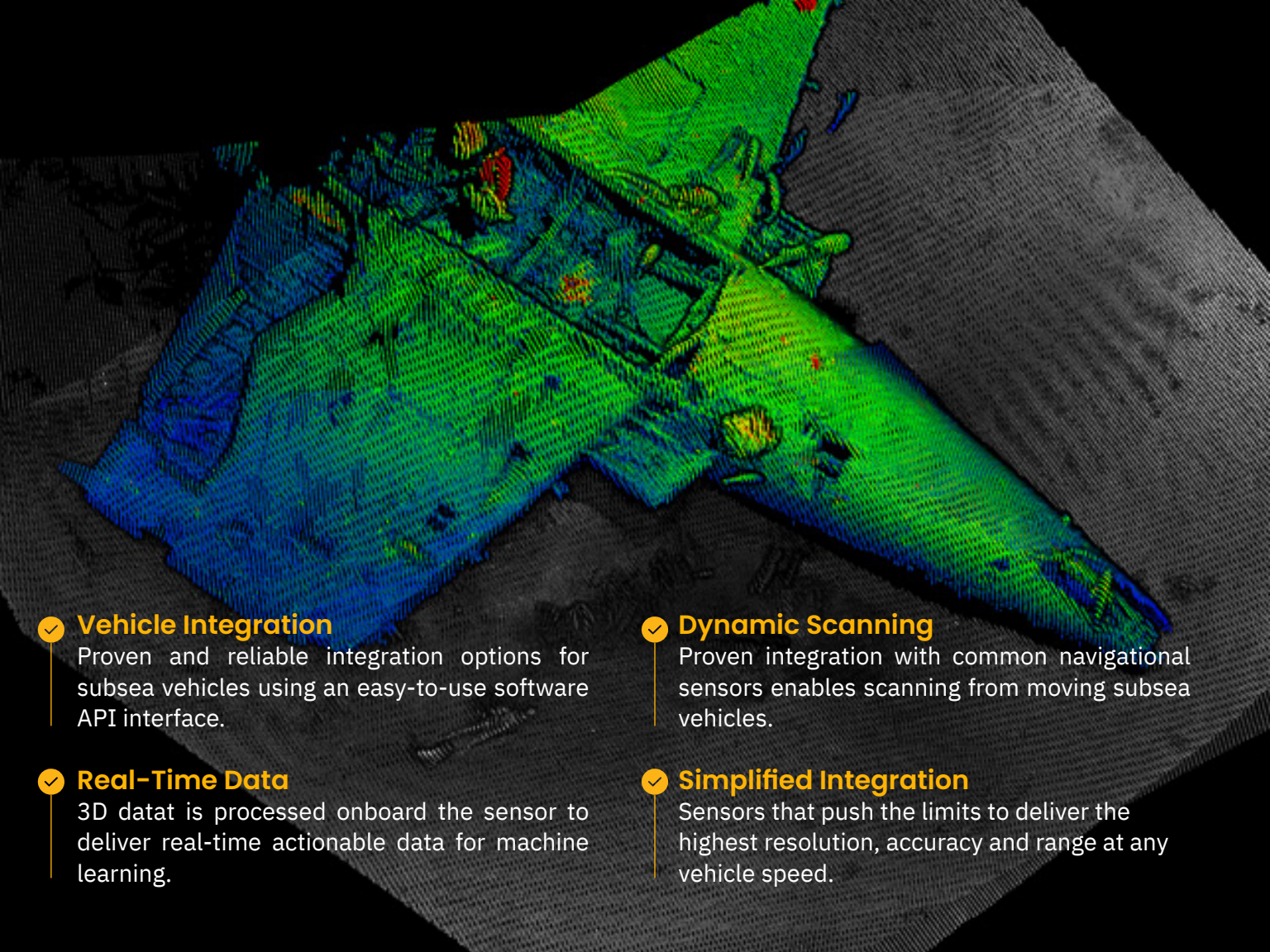


INSIGHT UNDERWATER
LASER SCANNERS

Capture Incredibly Detailed 3D Data

Voyis' Insight Underwater Laser Scanners capture 3D data with submillimeter accuracy to help you see the depths, just like we see the surface. Assets in remote subsea environments can be modelled from a dynamic subsea vehicle or static installation, with all data processed in real-time so that results are immediately available for review.





Vehicle Integration

Proven and reliable integration options for subsea vehicles using an easy-to-use software API interface.



Real-Time Data

3D data is processed onboard the sensor to deliver real-time actionable data for machine learning.



Dynamic Scanning

Proven integration with common navigational sensors enables scanning from moving subsea vehicles.



Simplified Integration

Sensors that push the limits to deliver the highest resolution, accuracy and range at any vehicle speed.

PRODUCT LINEUP

Insight Underwater Lasers Scanners



INSIGHTNANO



INSIGHTNANOXR

Compact size for 3D modelling small spaces & short to mid-range targets.
Simplified static scanning with embedded actuator.

Download the
datasheet



INSIGHTMICRO

A dynamic laser scanner, with integrated stills camera, made for integration into small vehicles.



INSIGHTPRO

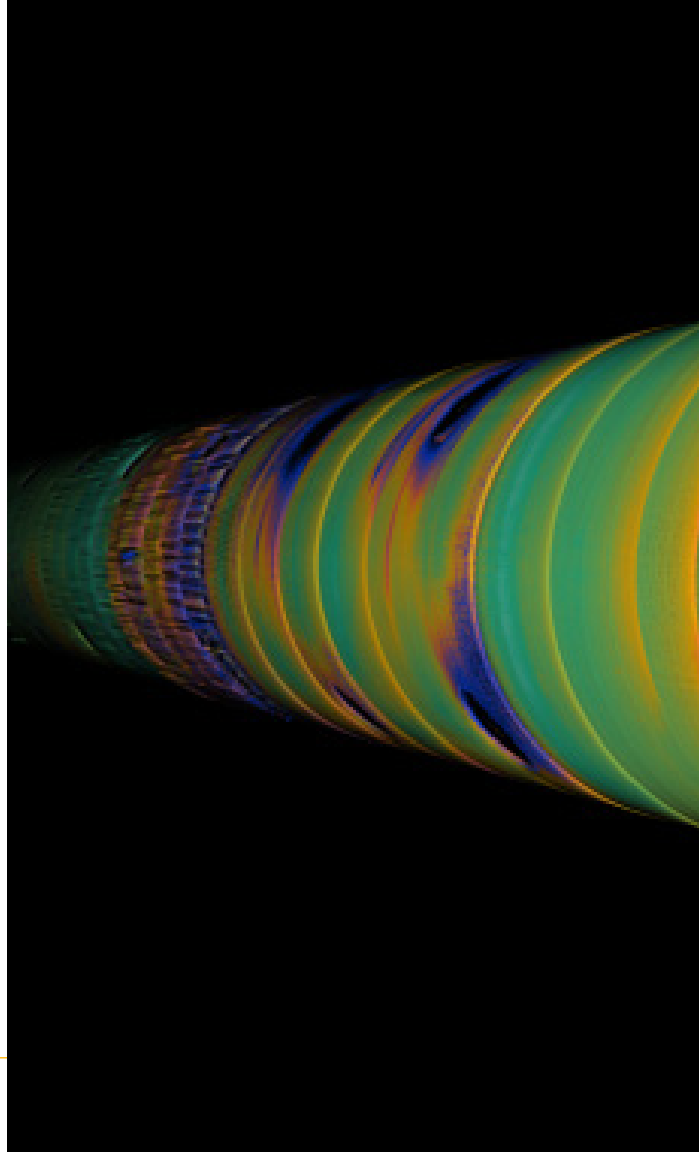
Our longest-range scanner providing the highest quality data possible from larger vehicles.

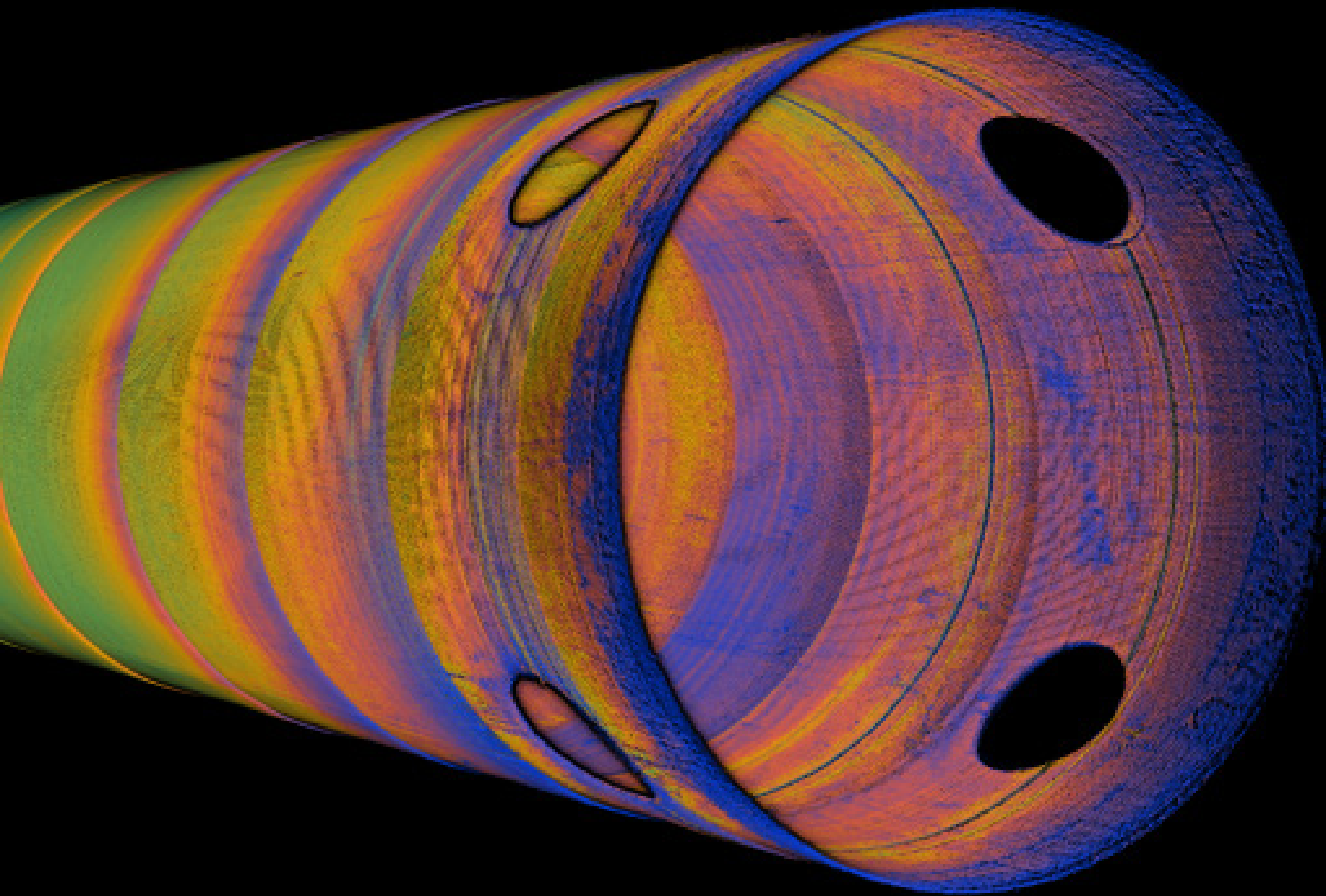
UNDERWATER LASER SCANNERS **INSIGHT**NANO

The Insight Nano is a compact laser scanner designed for straightforward 3D modelling. The integrated actuator and simple user interface enable non-intrusive qualitative inspection without any external aiding sensors.

The system is capable of integration with a variety of deployment vehicles, including small ROVs and pipe crawlers, to deliver high resolution data in confined spaces like pipes, tunnels, and flume tanks.

This new generation Nano is available with time synchronization, dynamic scanning, and highspeed scanning options.

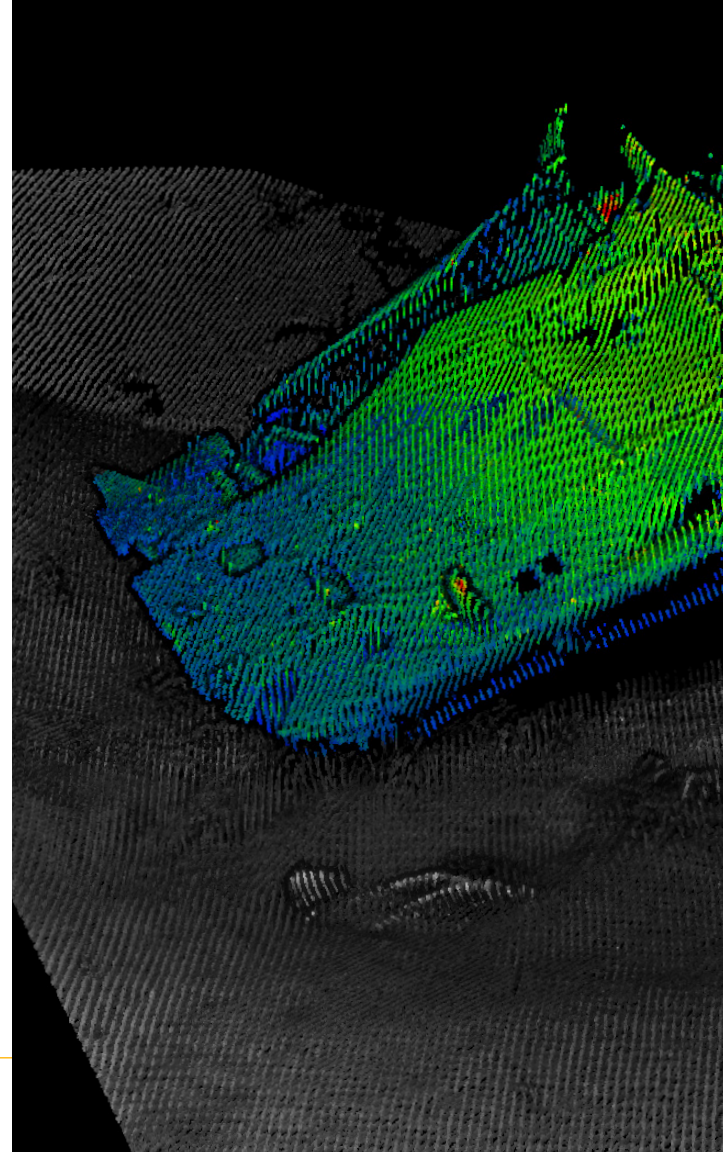


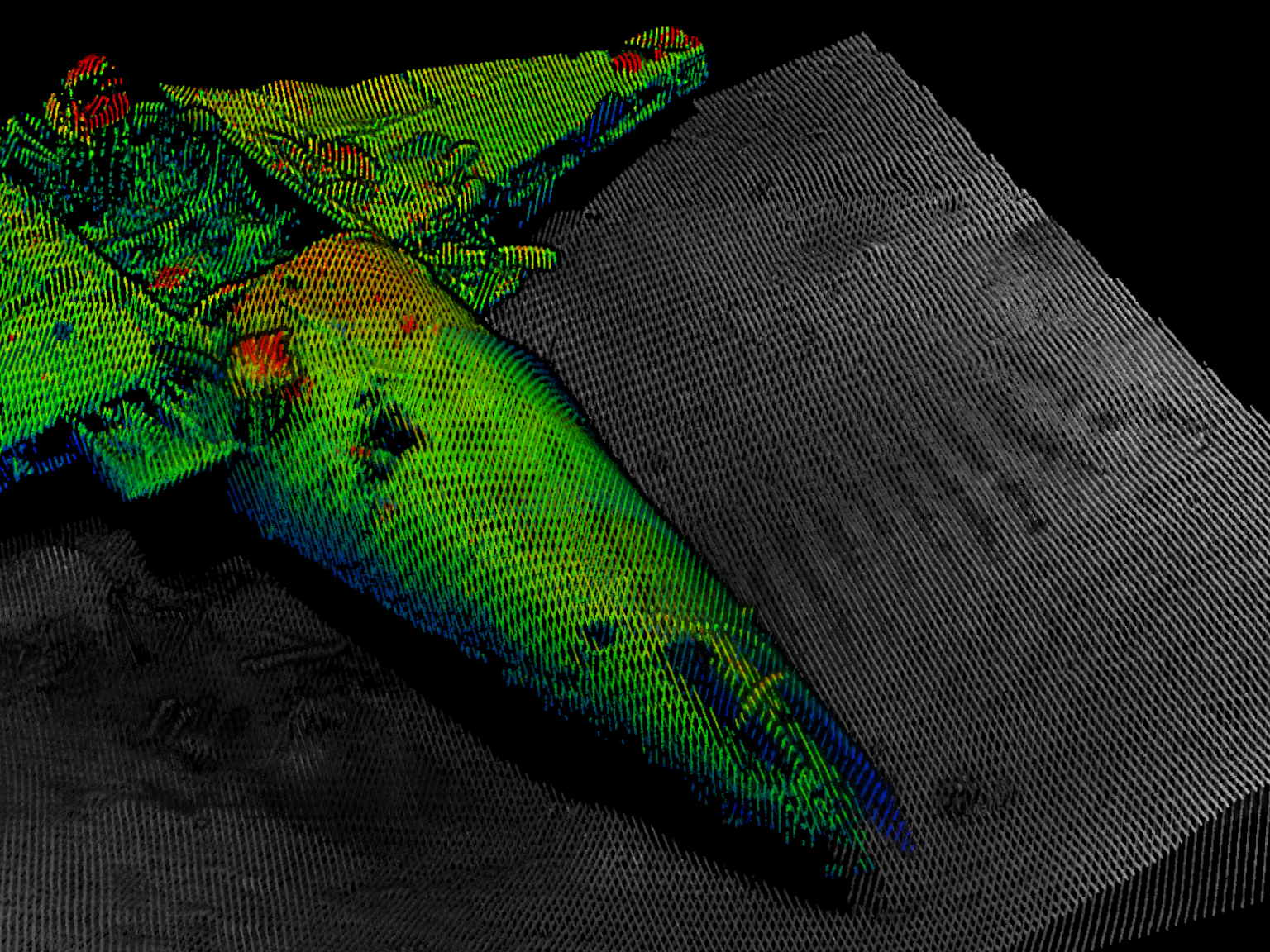


UNDERWATER LASER SCANNERS **INSIGHT**MICRO

The Insight Micro enables small vehicle platforms to perform high accuracy inspection tasks with tightly integrated laser and stills data. The package provides long range data collection (7m) in a compact and low power draw package.

The system has been integrated with AUVs like the REMUS 600, and ROVs like the Saab Falcon, utilizing its software API and time synchronization to enable rapid adoption onto existing vehicle assets. Laser and Image data is processed and enhanced in real-time onboard the system to deliver actionable data for machine learning applications.

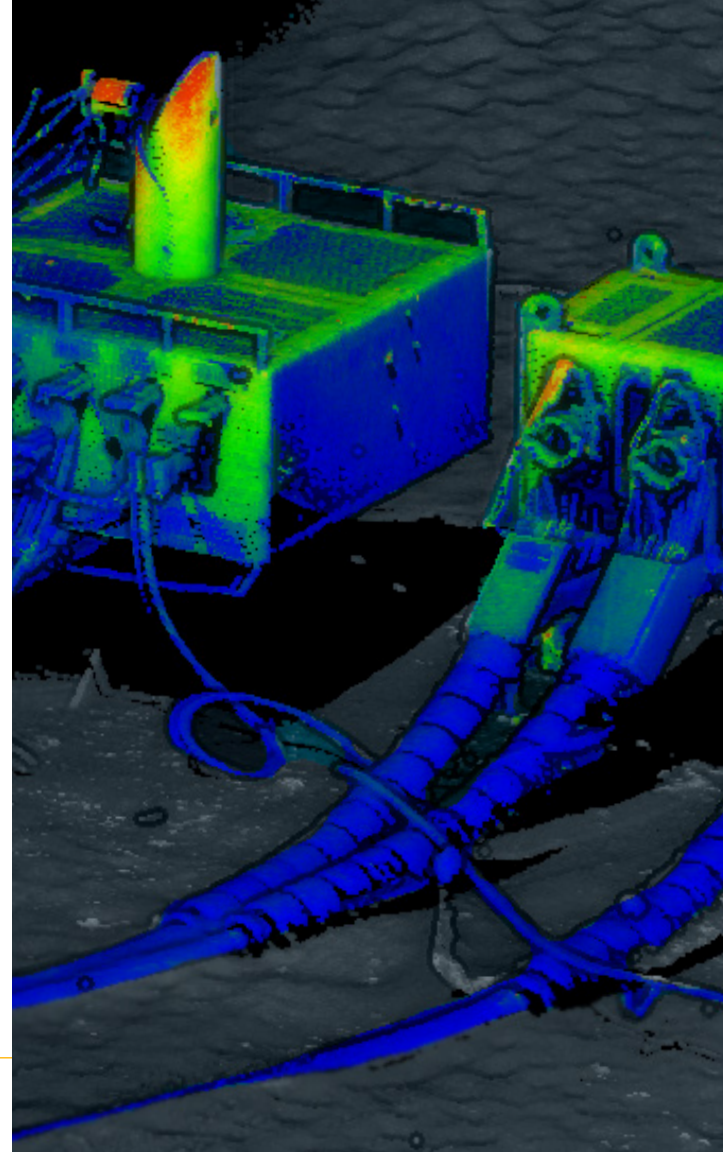


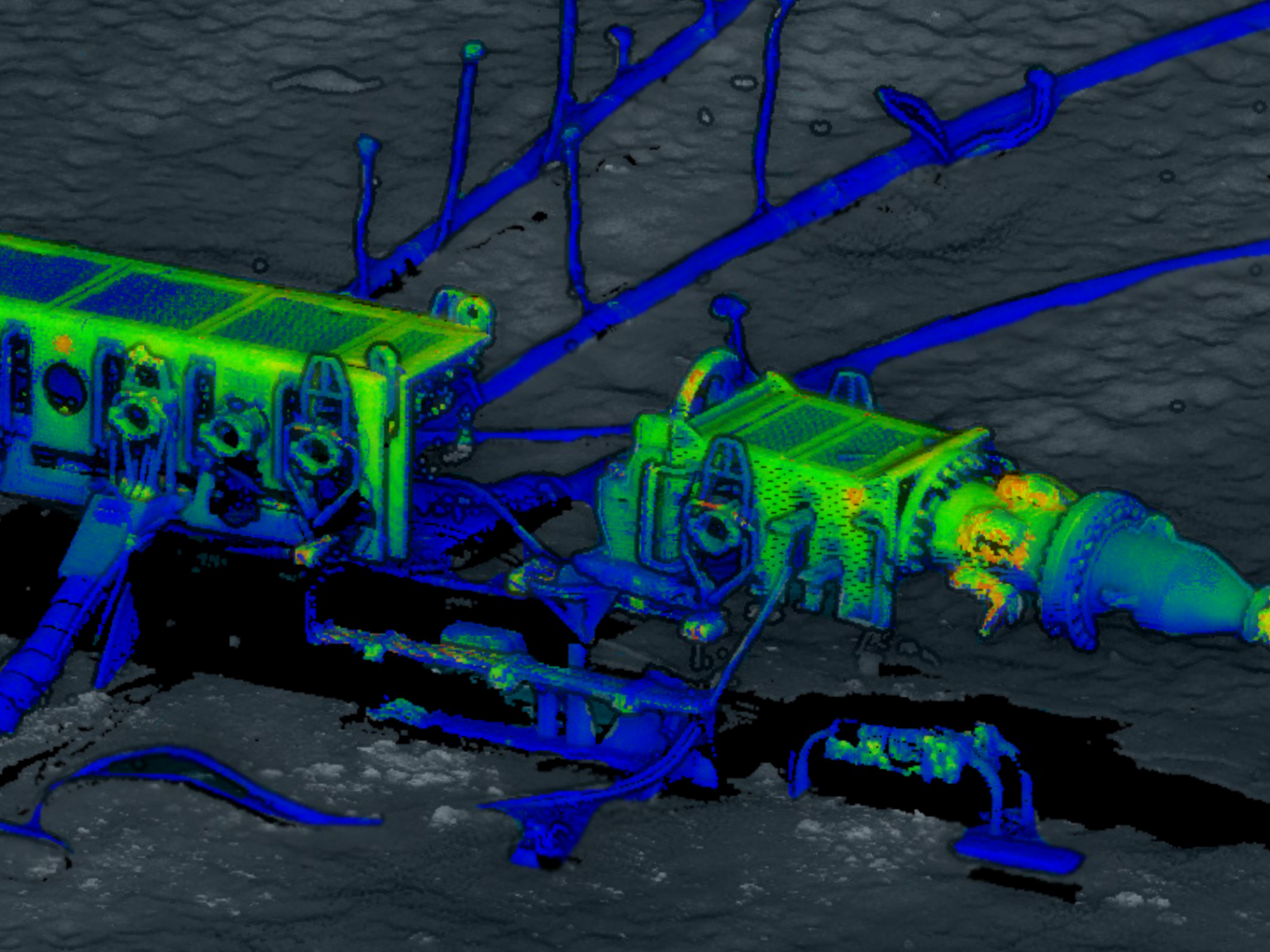


UNDERWATER LASER SCANNERS **INSIGHT** PRO

The Insight Pro is a long range laser scanner designed for wide area 3D modelling from dynamic and static platforms. The proven design has been deployed since 2013, scanning over 10,000km of subsea pipeline, seabed, and subsea structures.

The Insight Pro has been integrated with countless AUVs and ROVs, simplifying integration with software API that enables autonomous control, and off-the-shelf support of standard vehicle navigation systems. The data is processed in real-time onboard the system to enable machine learning applications like defect detection and pipeline following.







VOYIS



Deep Vision Optics

A new era in
underwater imaging

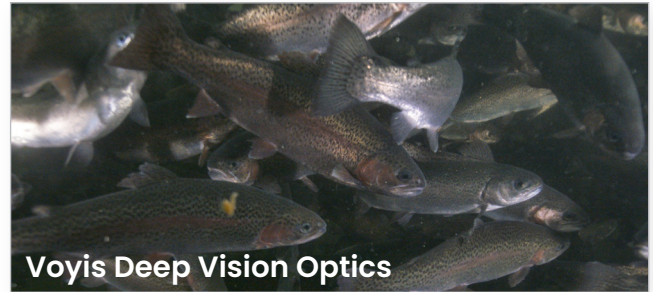


A NEW ERA IN UNDERWATER IMAGING

Deep Vision Optics



Standard ROV Camera



Voyis Deep Vision Optics

- ✓ Maximizes the full camera field of view, ensuring complete situational awareness for ROVs and broader area identification in AUV surveys.
- ✓ Enhanced image sharpness improves feature and target detection, optimizing machine learning performance.
- ✓ Optimized depth of field, captures both close-up and distant features in sharp focus, enabling comprehensive and detailed underwater inspections.
- ✓ Superior corner sharpness strengthens feature tracking reliability for photogrammetry and SLAM applications.
- ✓ Overall image clarity and increased depth of field enhance feature detection—both in quantity and quality—boosting photogrammetry accuracy and reducing processing time with minimal manual intervention.

Discover more
about **Deep**
Vision Optics



Included with every
Discovery Stereo
Inspection Series and
Observer Survey Series



VOYIS

Services

Don't be
left in the dark



WORLD CLASS SUPPORT

Services

✓ Voyis Academy

Equip your team to deploy, maintain, and extract maximum value from your Voyis products with expert training.

Voyis Academy empowers users to confidently master your Voyis System, from seamless integration and smooth operation to advanced data processing. Designed to turn technical knowledge into real-world expertise, this hands-on training ensures you get the most out of your system, delivering high-performance results in every underwater inspection and 3D modelling mission.

✓ Voyis Protect

Keep your Voyis Products performing like new with precision diagnostics, certified recalibration, and trusted care.

Your Voyis System is engineered for reliable underwater performance, but harsh environments and frequent use demand regular upkeep. Voyis Protect provides proactive servicing, including updated accuracy verification, a new certificate of conformance, image quality checks, and the latest software updates, ensuring your camera continues to deliver high-performance measurements and imagery.

✓ Voyis Support

Turn your Voyis operations into trusted 3D results with professional guidance.

The Voyis Support Program is designed to help users execute successful underwater visual surveys and photogrammetry projects, from survey planning through final 3D deliverables. Support options include survey planning and consultation, onsite operational support, and data processing and reporting, serving both asset owners and survey companies deploying Voyis hardware and seeking expert guidance.





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