

# PROSPECTOR<sup>®</sup>

TECHNICAL SPECIFICATION

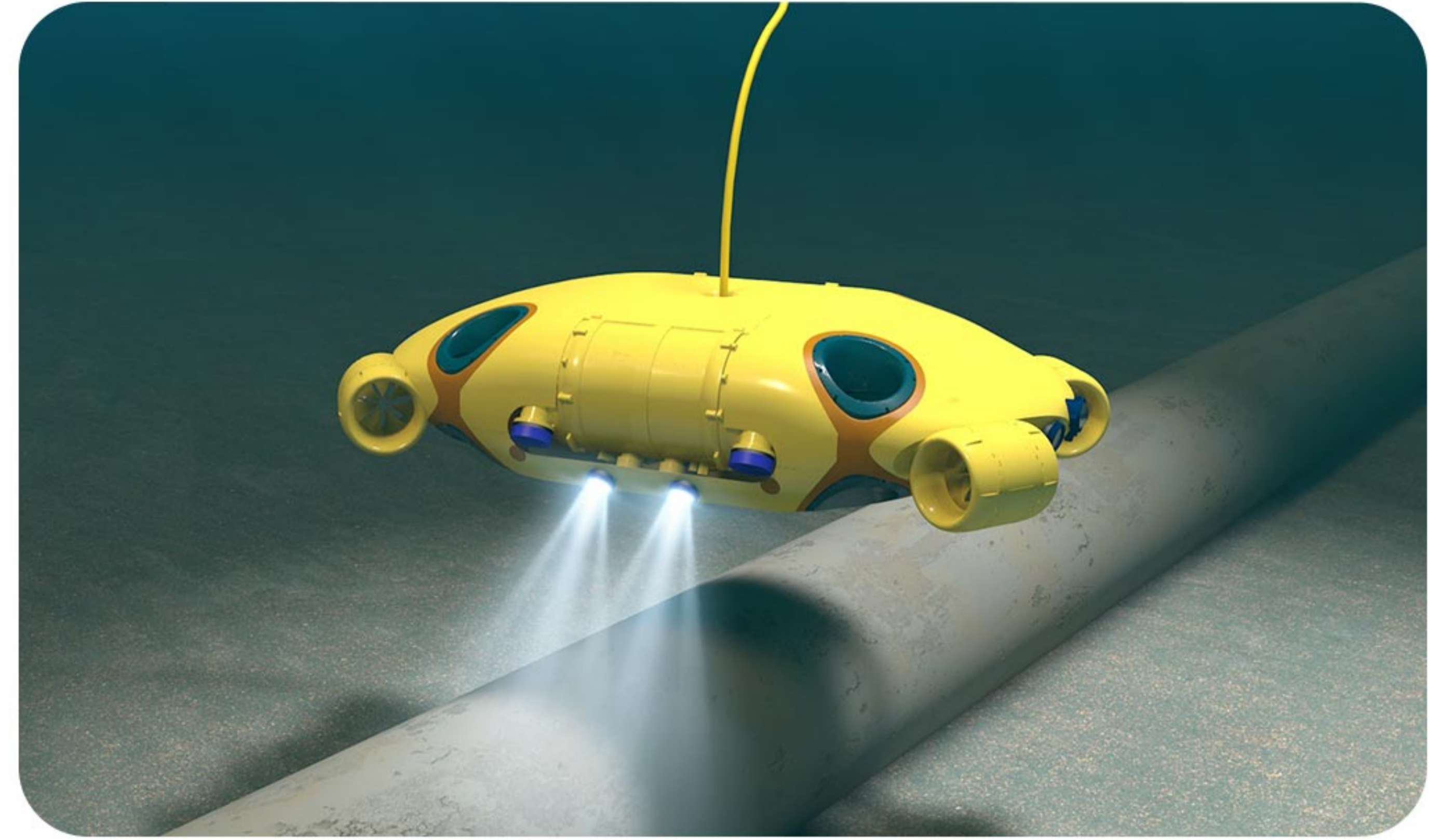


Part of the MCS Group  
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## OVERVIEW

Our in-house developed **ProSpector®** is powerful and flexible to perform a range of pipeline and cable inspection tasks underwater. Smaller in comparison to larger more traditional Inspection ROV's, yet with a better operational capability

It has the advantage of built-in MCS Photo Realistic 3D Cloud (PRC) technology for highly accurate subsea measurements.



## OUR APPROACH

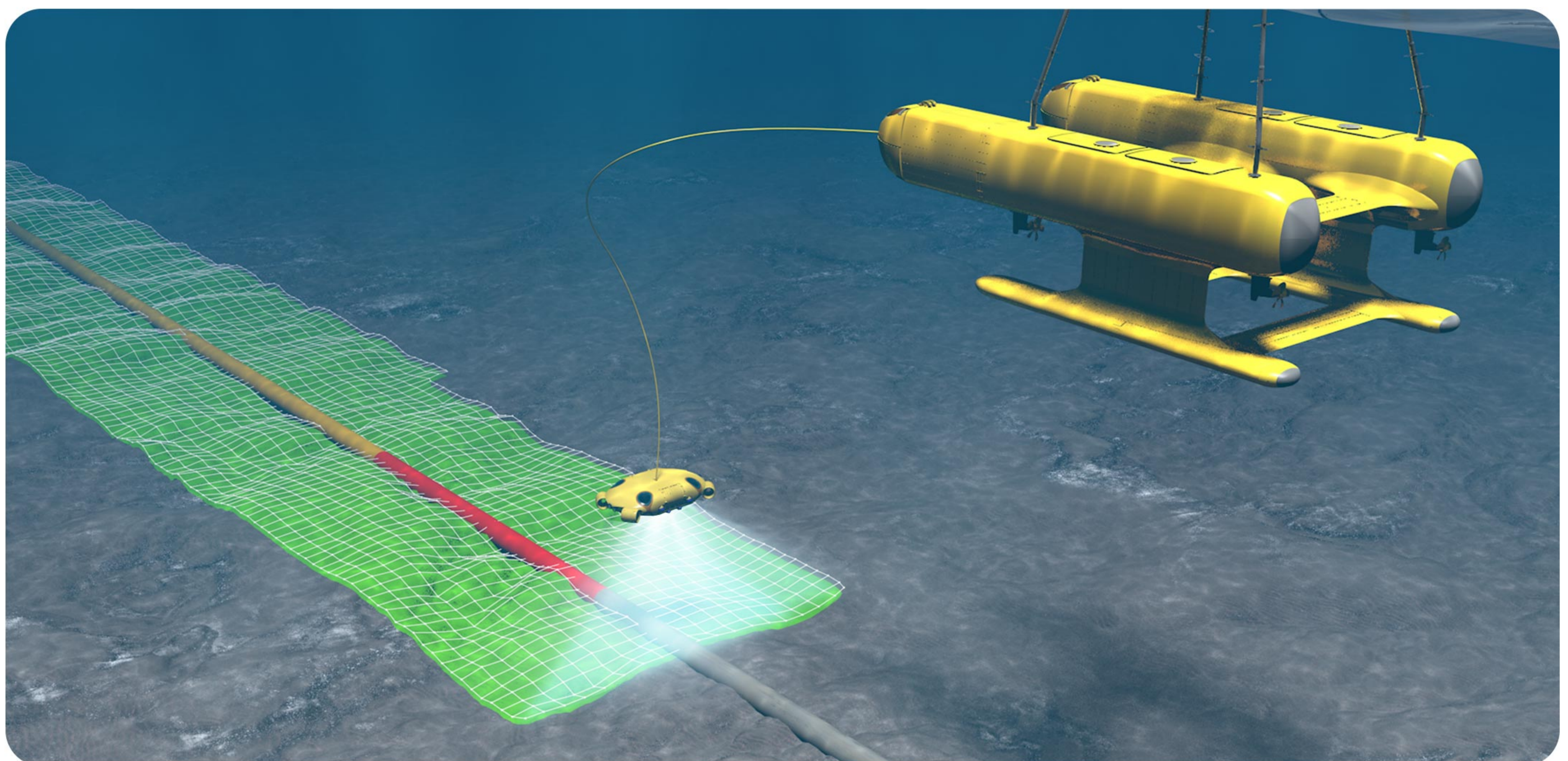
The ProSpector® ROV is tailor-designed to be integrated and deployed from MCS Ocean Aurora remote survey vessel (RSV). Additionally, it can also be operated conventionally on board a small vessel, platform, rig, or barge, offering a versatile solution for assessing the integrity of pipelines and cables as well as light intervention operations with 2x 5-function manipulators. The prospector can operate up to 300m water depth from our Ocean Aurora RSV and conventional crewed operations.

## FEATURES AND CAPABILITIES

- Optimised hydrodynamic shell.
- Withstands up to 5 knots current.
- Payload Up To 40 Kg.
- Umbilical fiber optic.
- Embedded PRC system.
- 6 D.O.F Maneuverability.
- Hub-less thrusters.
- 360° camera view.
- Auto depth control.
- Auto heading control.
- Pitch hold and Roll hold controls.
- Position hold control.
- Embedded Cathodic Protection System.

## BENEFITS

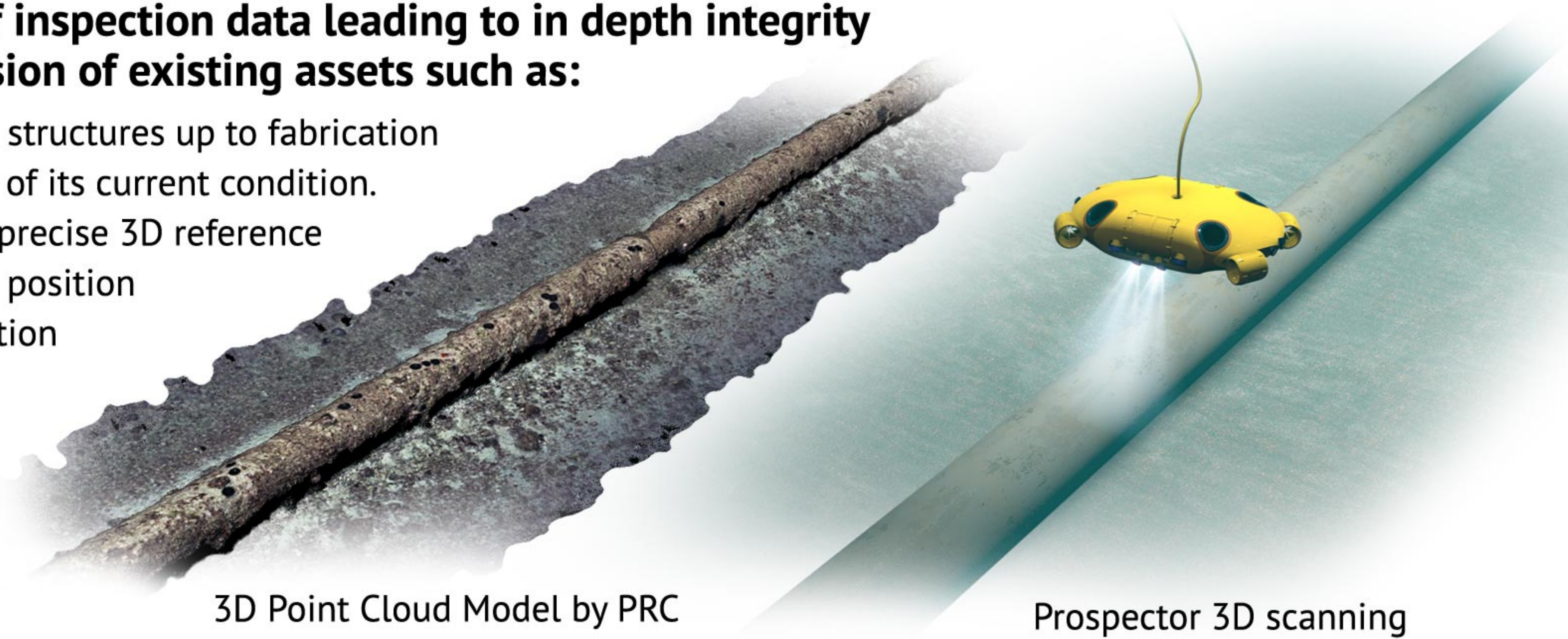
- Reduce carbon footprint by eliminating or reducing the need for offshore ROV vessels.
- High levels of accuracy and 3D PRC technology gathers precise information for planning, construction, and maintenance.
- Reduce costs by performing from a platform or smaller vessel with reduced personnel.



Ocean Aurora RSV and ProSpector® ROV conduct a comprehensive survey to determine the depth of burial in pipeline inspections

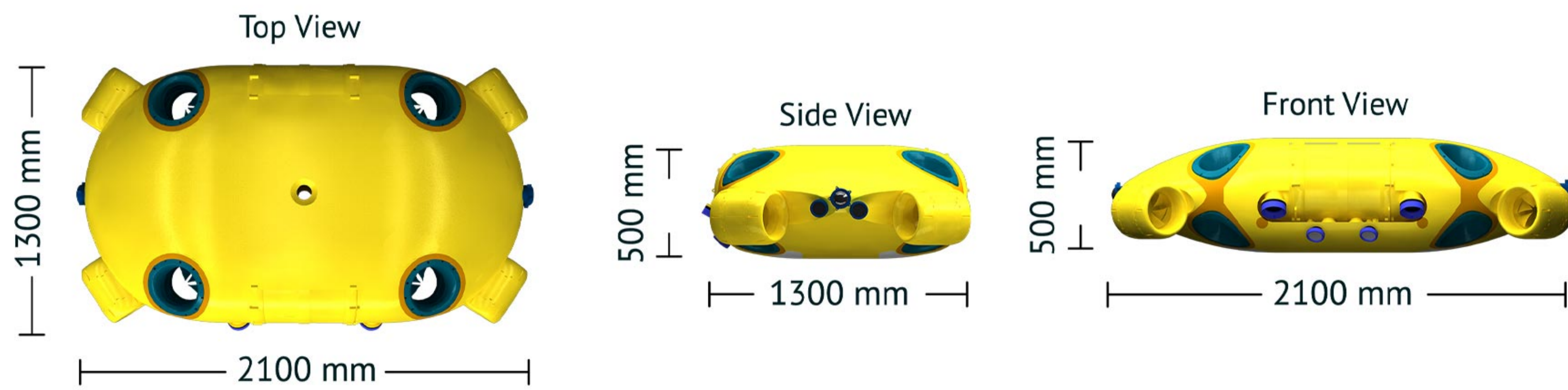
**ProSpector® provides a level of inspection data leading to in depth integrity assessment and lifetime extension of existing assets such as:**

Producing design drawings for subsea structures up to fabrication accuracy and creating as-built models of its current condition. It uses a platform approach to gather precise 3D reference for dimensions and features including position and orientation for all future construction and maintenance.



3D Point Cloud Model by PRC

Prospector 3D scanning



Vehicle dimensions

Length	2100 mm
Height	500 mm
Width	1300 mm
Launch Weight	450 kg
Payload	40 kg

Depth

Depth	300 msw
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Power

Propulsion	70 KW
Forward Speed	5 knots
Lateral Speed	4 knots
Power Source	Three phase - 380 VAC
Maneuverability	6 D.O. F

Thrusters

<ul style="list-style-type: none"> <li>4 Horizontal vectored RIM thrusters</li> <li>4 Vertical RIM thrusters</li> </ul>	
Forward Thrust	200 kgf
Lateral Thrust	280 kgf
Vertical Thrust	160 kgf

Sensors and Tooling

- 2x 5-Function Manipulator
- Cathodic Protection Probe
- Ultrasonic Thickness Reading (UT)
- Flooded member detection
- Super Seaking Bathymetric / DFP
- 3D Blue View sonar
- 2D Imaging Sonar
- Brush Cleaning Tool
- Pipe Tracker

Camera

Camera 1	1x colored FHD PAN/Tilt/Zoom camera
Camera 2	360° fixed array of cameras
Camera 3	4x HD Cameras (Extendable)
3D Image Scan <i>Precise Subsea Measurements</i>	- 2x Embedded Cameras MCS (PRC) - MCS Computer Vision
Lights	- 8x Distributed LED light system

Auto Function

- Auto heading, auto depth, pitch hold and roll hold
- Position hold control
- High accuracy depth sensor 0.05% FS
- Advanced AHRS providing Heading, Pitch & Roll
- Advanced INS with magnetic disturbance rejection
- Compact DVL with 1% accuracy

Redundant

- 2x Fiber Optic Cables for redundancy
- Spare serial communication channels
- Spare Ethernet communication channels

Conventional Operations

- ProSpector On-Deck Station
- Tether Management System

Latching Mechanism Up to 1500Kg capacity



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