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Freedom™ Autonomous Vehicle Development Overview

Next-Generation Autonomous Vehicle

Dual Development Program

Hardware

Software

COMPASS™

Freedom™ Autonomous Vehicle

Hardware Concept

Long Range Autonomous Survey

Close Visual Inspection

Hovering

Intervention

COMPASS™

Software Concept

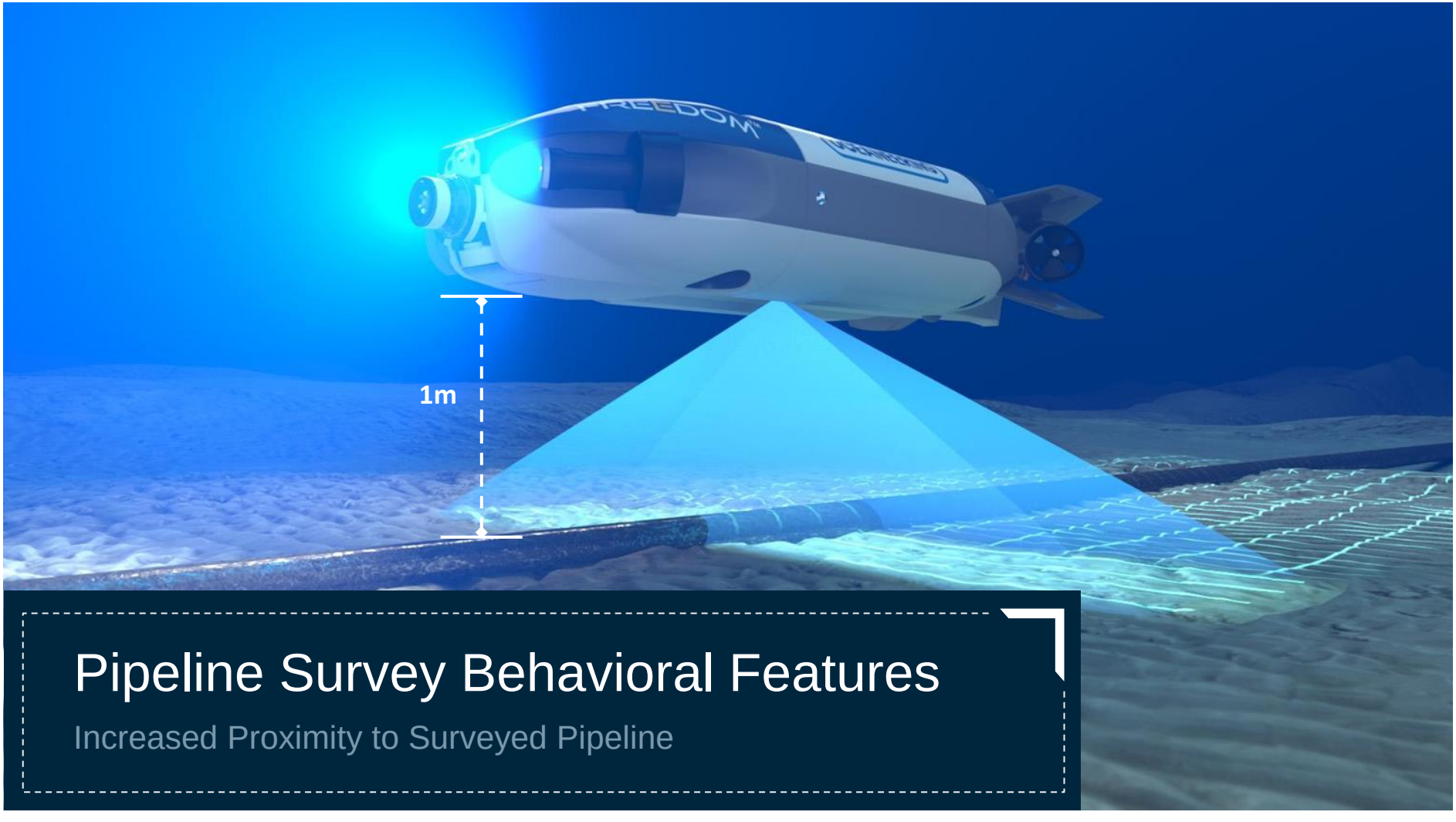
- Robust and Reliable Backbone for Robotics
- Industry Standard Communications
- Defined Integration Points
- Common Look and Feel for Human Machine Interfaces

Framework

Toolbox

Toolbox Modules

- Sensors
- Analytics
- Control
- Autonomy and More



Pipeline Survey Behavioral Features

Increased Proximity to Surveyed Pipeline

Freedom™ Autonomous Vehicle Pipeline Survey

Freespan Detection

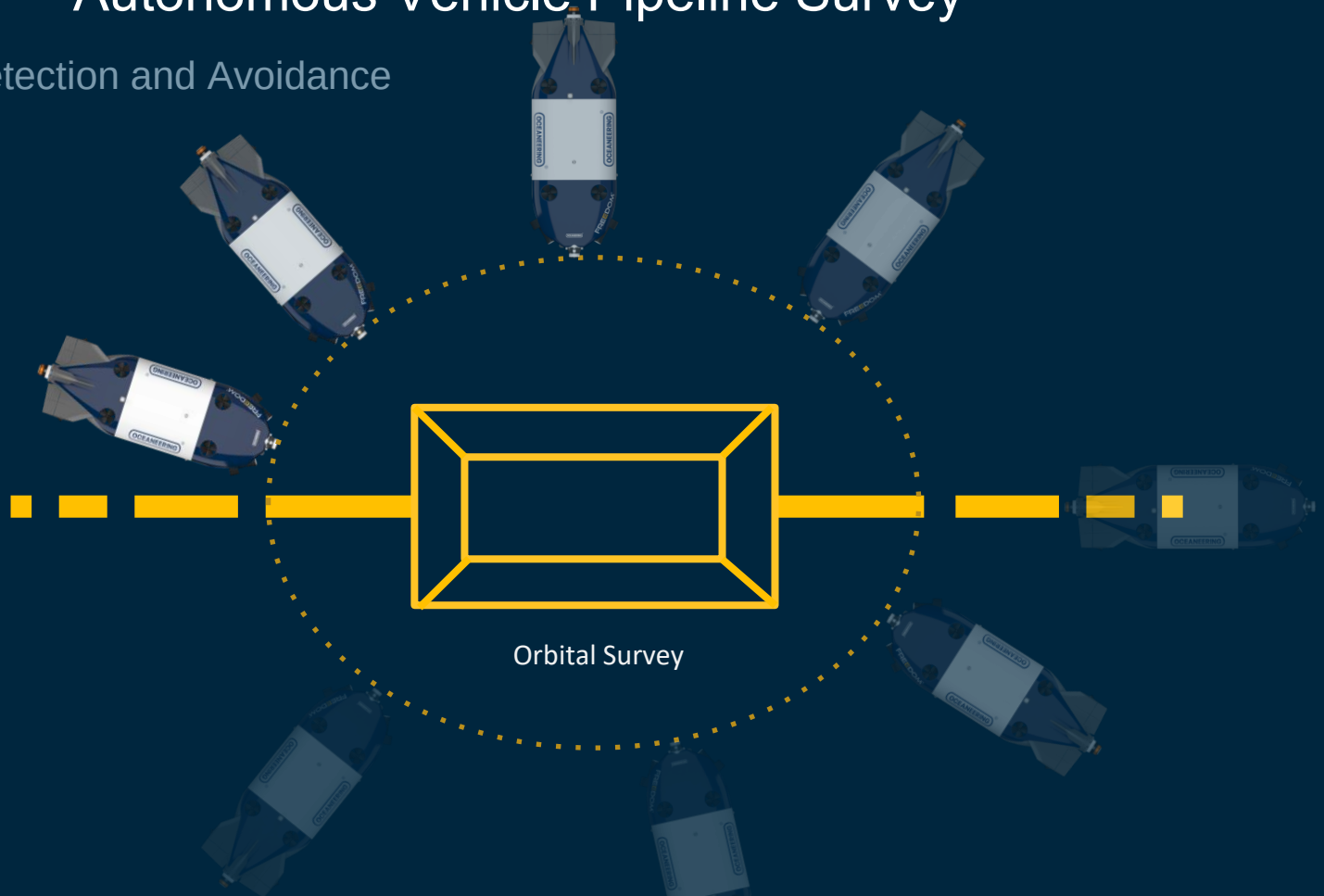
Freedom™ Autonomous Vehicle Pipeline Survey

Obstacle Detection and Avoidance

Obstacle Detection and Avoidance

Freedom™ Autonomous Vehicle Pipeline Survey

Obstacle Detection and Avoidance



Freedom™ Development Status

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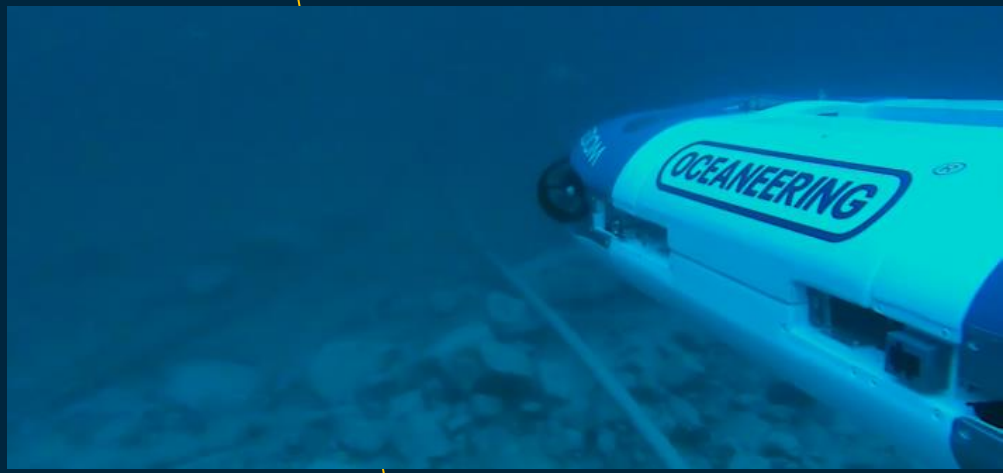
What’s Next

Pipeline Survey in the North Sea

Qualification to TRL6



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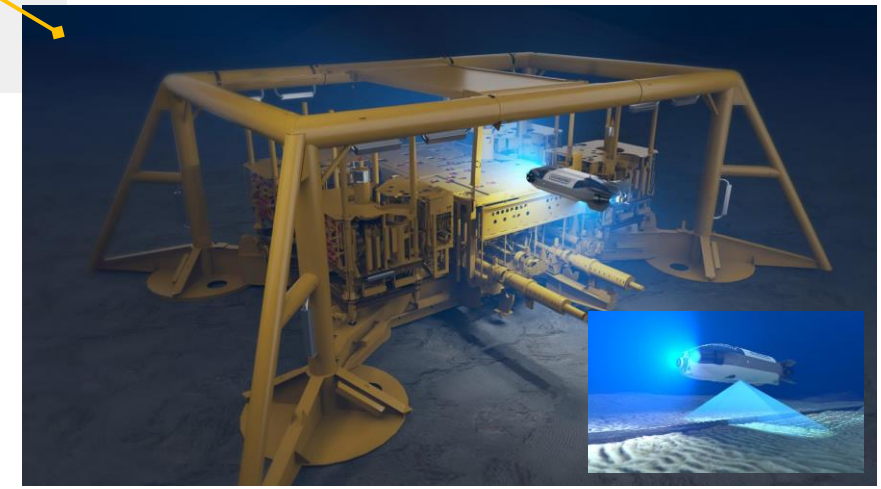

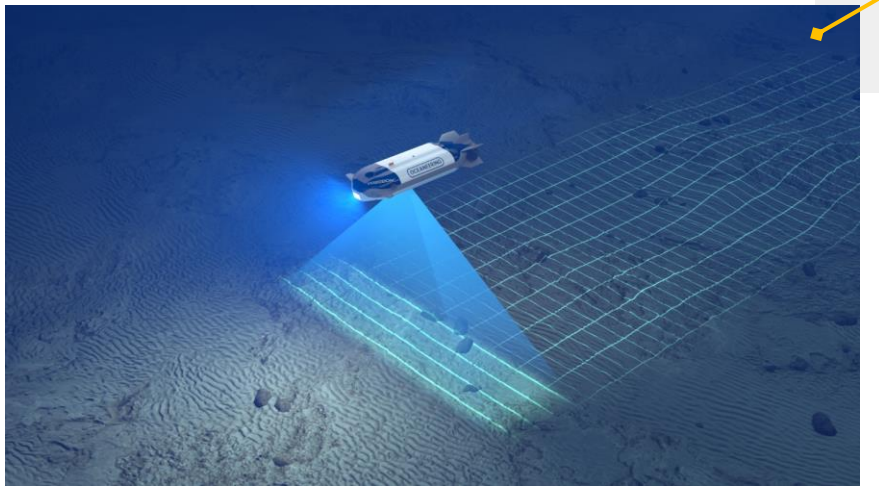

OCEANEERING®
CONNECTING
WHAT'S NEEDED
WITH
WHAT'S NEXT™