ASTRALite

Case Studies using the EDGE™ Topo-Bathy LiDAR

Early Development

2012-2014

Technology Invented

Founded

ASTRALite

2016-2017

US Patent Issued
(24 Claims)

Patented in 18
European Countries

2018

1st Scanning TopoBathy
LiDAR on sUAS

Proven Capability:
Coastal and Riverine
Campaigns

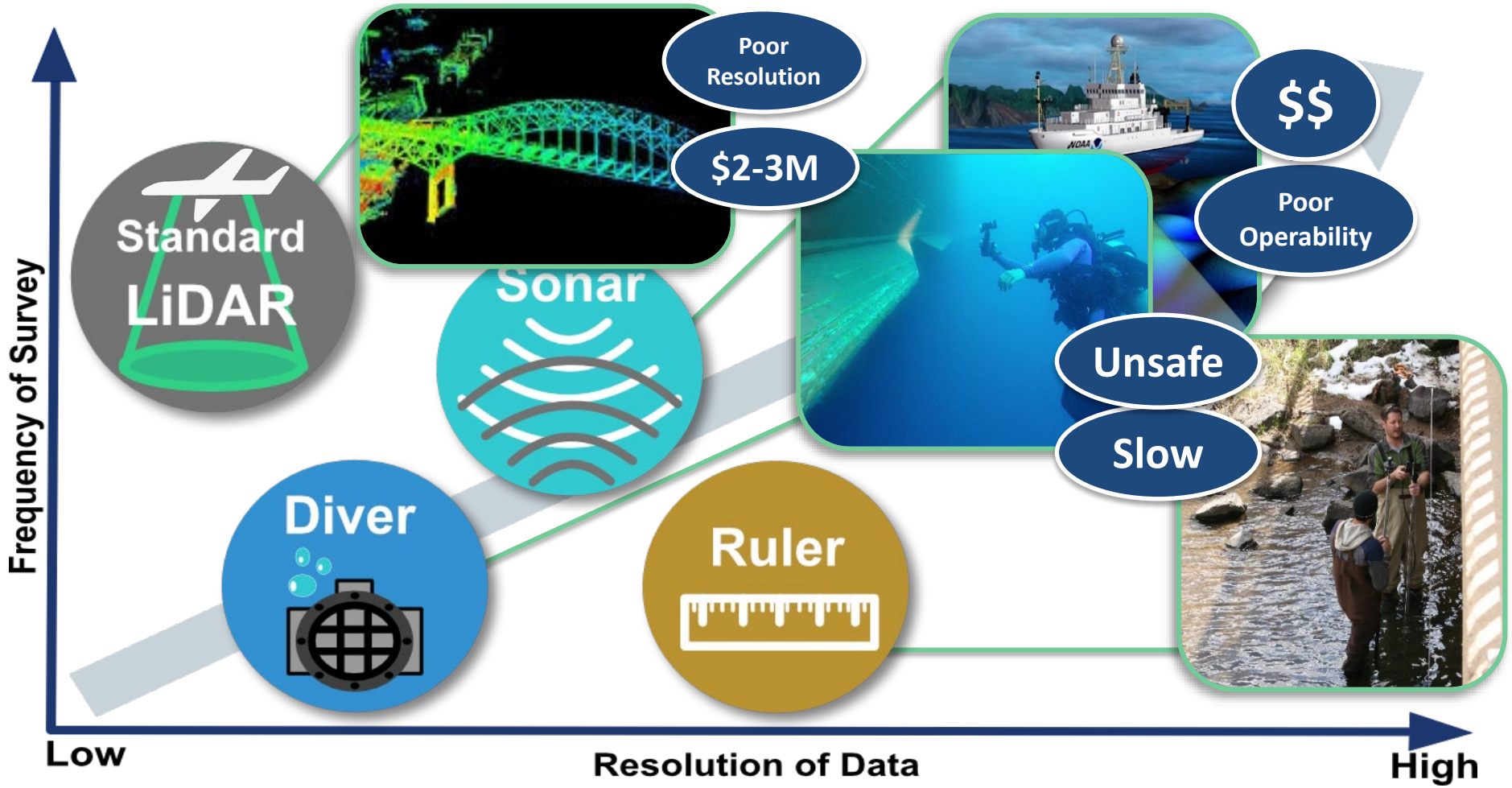
2019-2020

New Product Launch
@ ILMF 2019

ASTRALite EDGE™

Demonstrations
Unit Sales
Software

Other Technology



We fill in the "shallow water information gap"…
Safely at Lower Cost & Higher Resolution

ASTRALite

EDGE™

First scanning topo-bathymetric LiDAR on a small format UAV

ASTRALiTe EDGE™

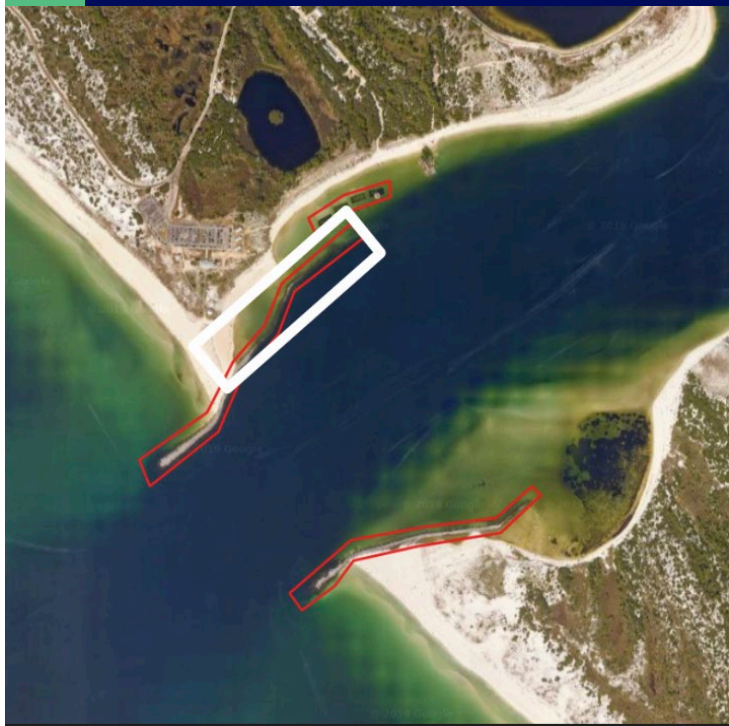
Advantages:

- **Flexibility & quick access** to previously unsurveyable locations using a UAV
- **2-in-1 Topo-Bathy system** – reducing the need for two sensors
- **Near real-time data visualization** of the point cloud (vs. lengthy post-processing of large data sets)
- **“High Definition” (HD) / high density point cloud** “*painting the scene*”: 100x higher point density than traditional airborne bathy systems, at 10x lower price.

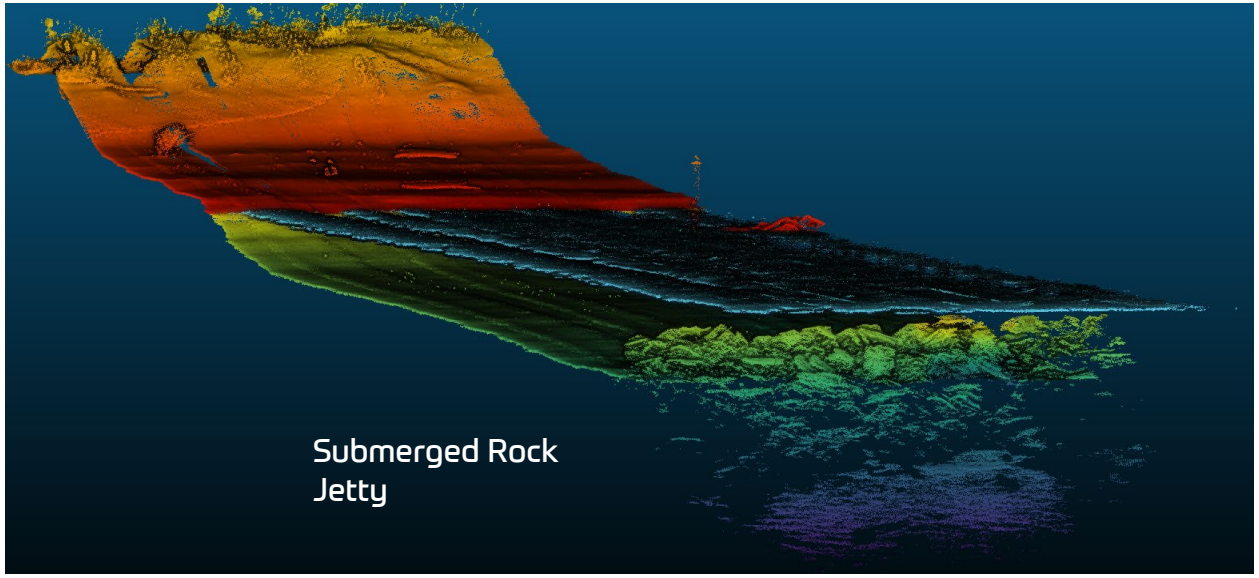
Panama City, Florida

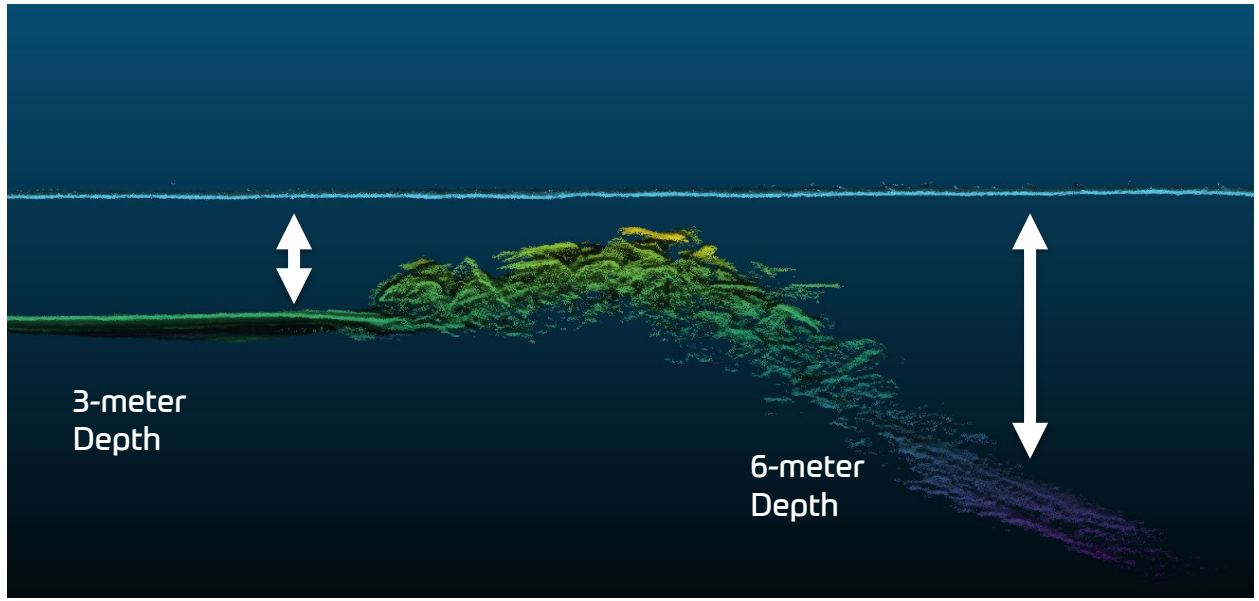
Panama City Inlet

Overview of Panama City Intlet, Jettys outlined in red boxes

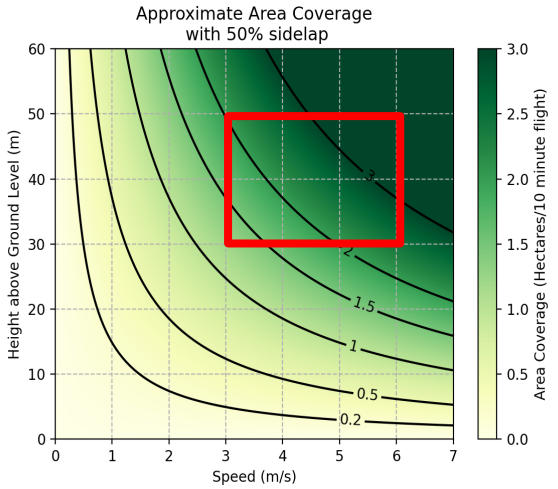


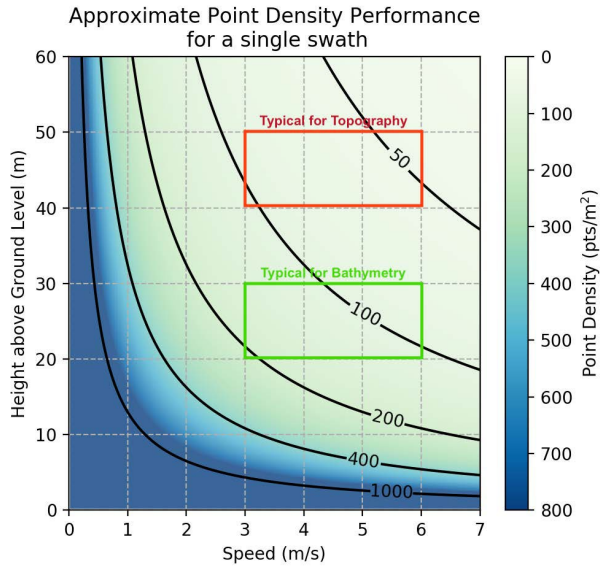
Infrastructure Inspection

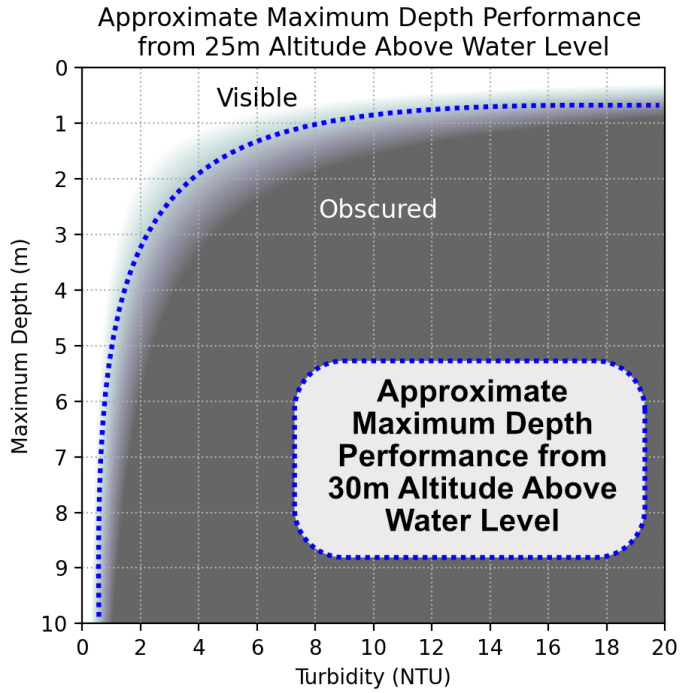




EDGE Specifications





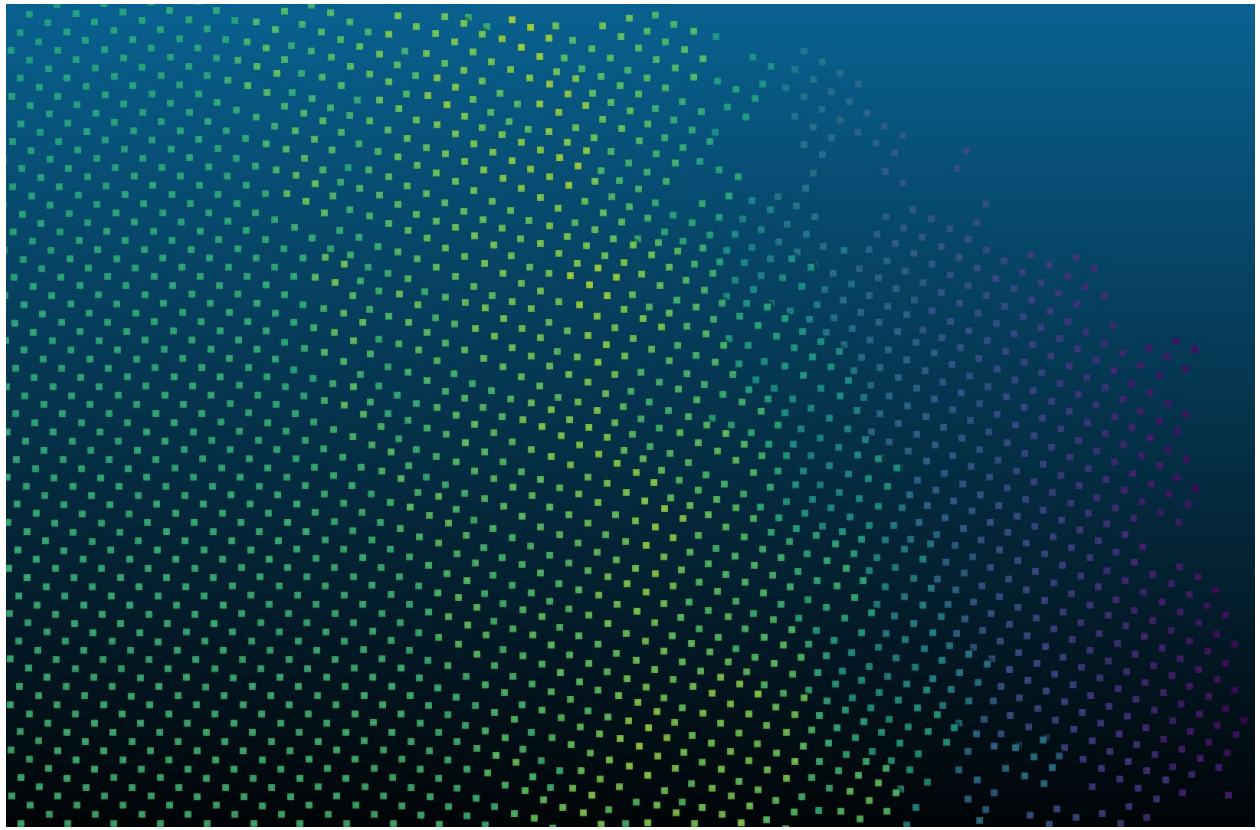


LiDAR Performance

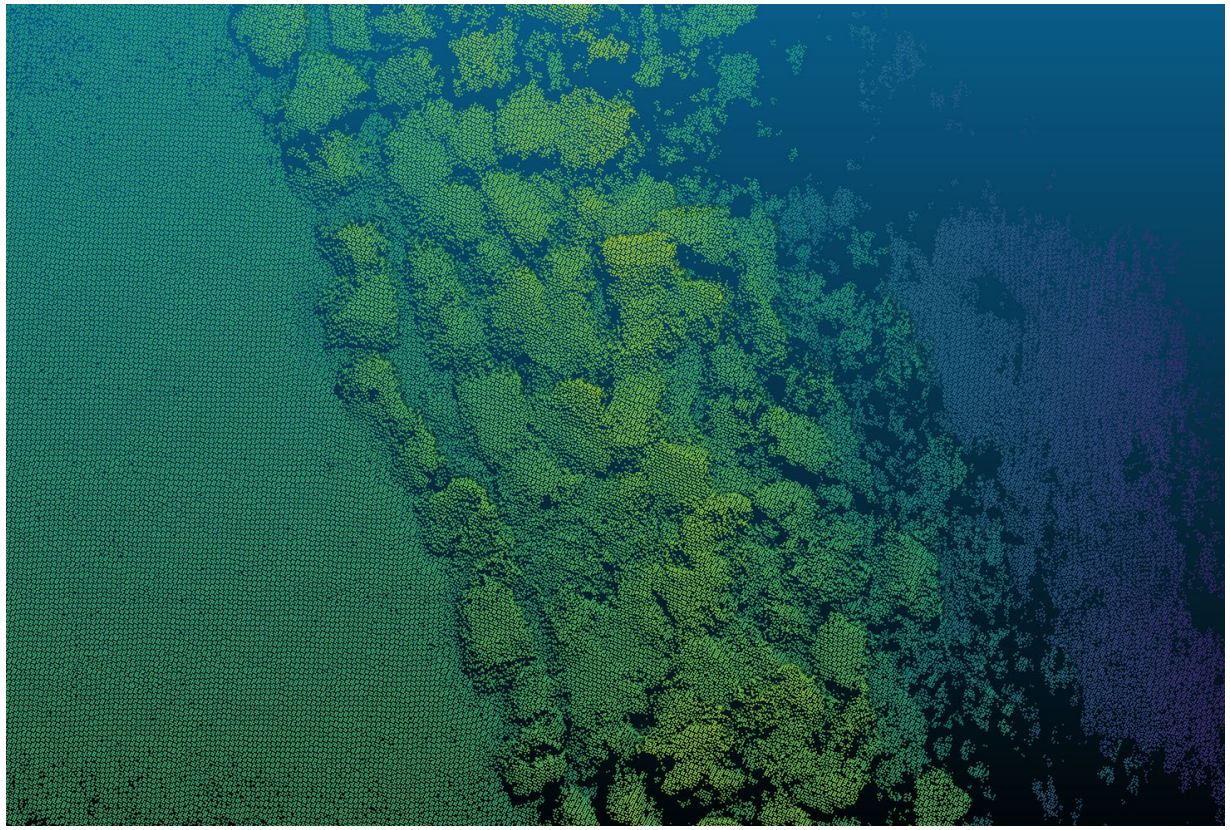
Weight	5 kg
Accuracy	5-10 cm
Laser Wavelength	532 nm
Flight Altitude	30m – 50m
Depth Penetration	1.5-2 Secchi Depth
Pulse Repetition Rate	20-40 kHz (design option)
Laser Beam Footprint	3 cm at 10 m (design option)

Unprecedented Detail – Riprap at Panama City Inlet

4 points per square meter
(traditional airborne bathy lidar)

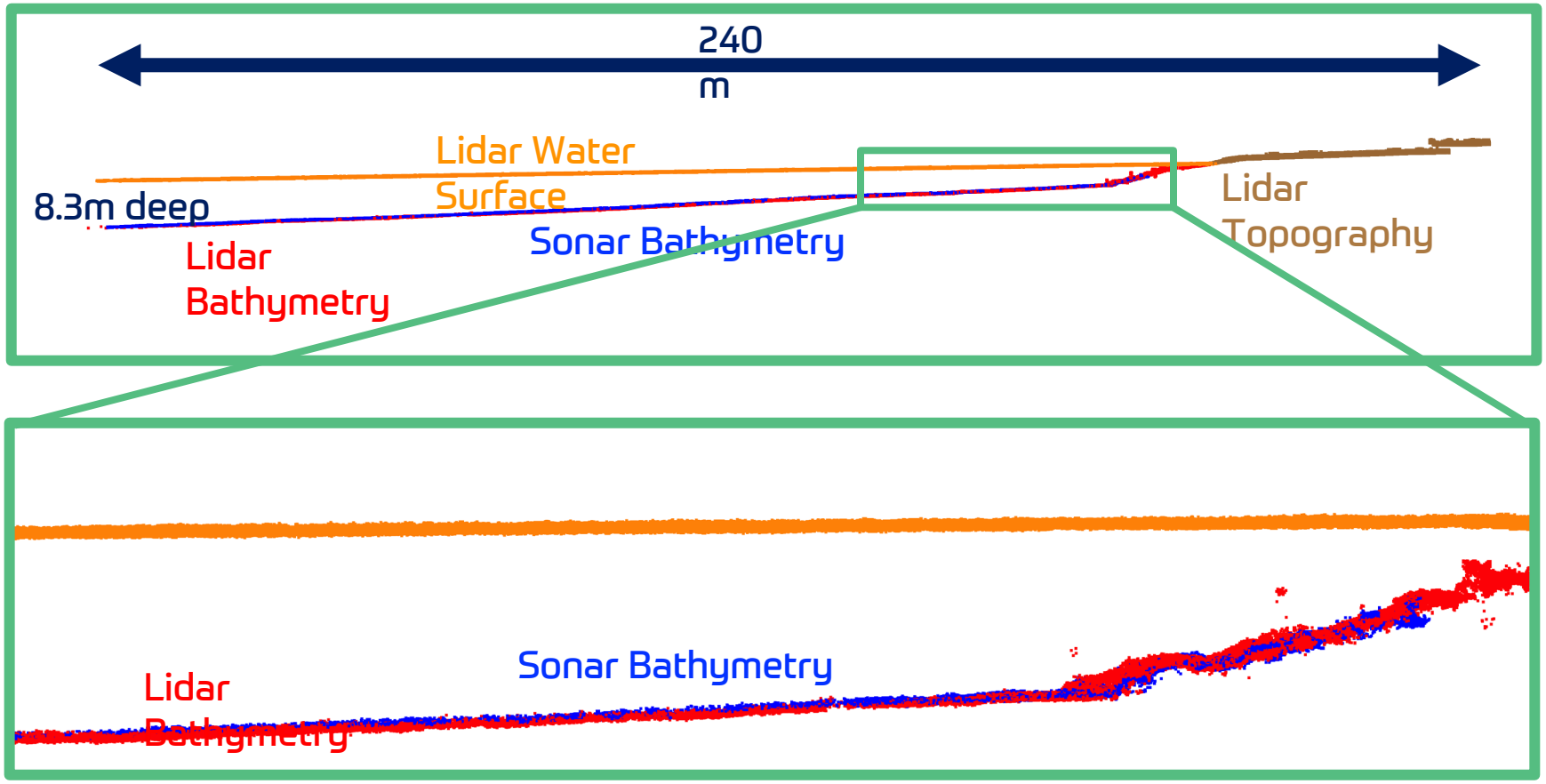


EDGE LiDAR 300 points per square meter



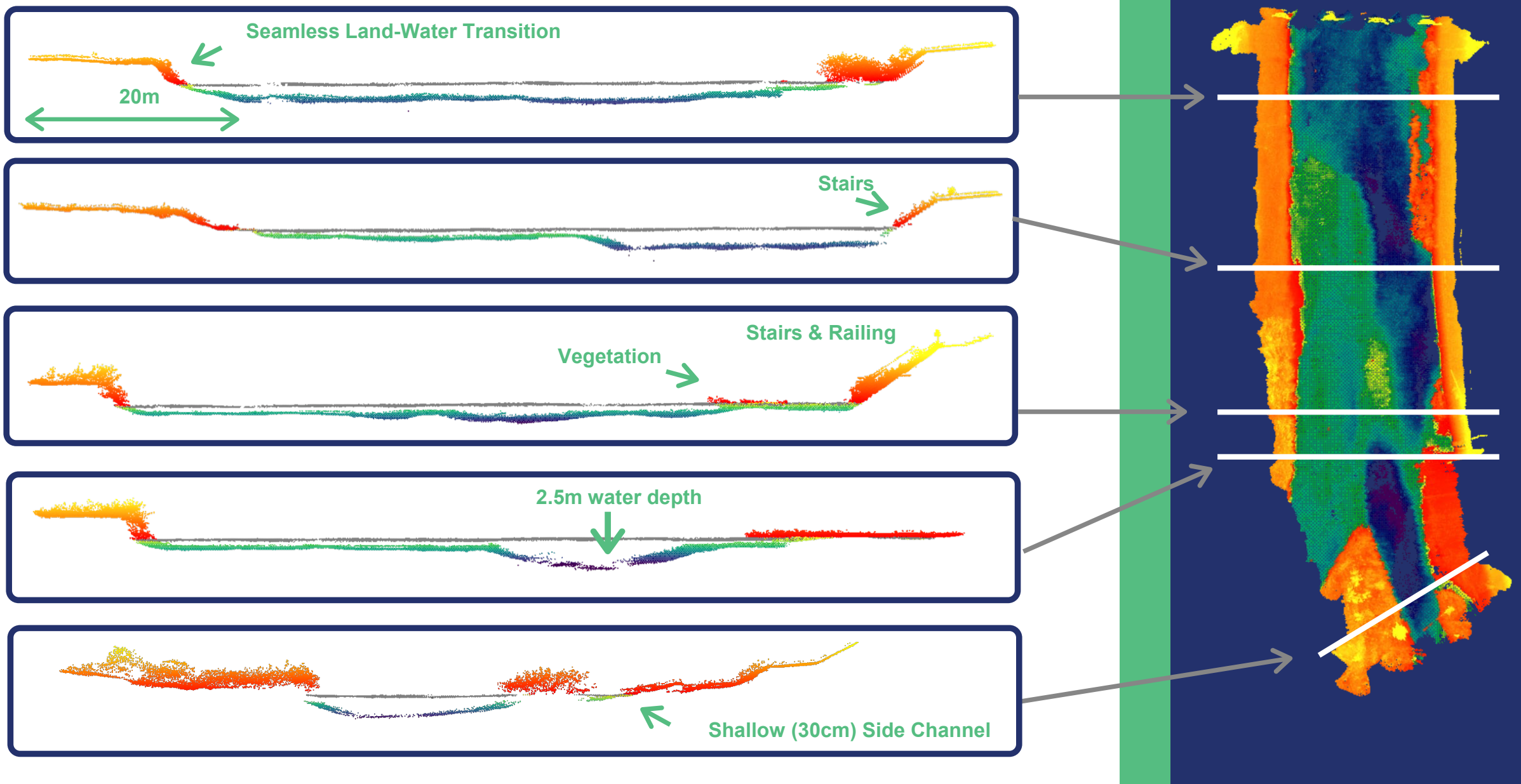
Infrastructure Inspection Engineers require resolution of several inches

Sonar Comparison



River Engineering

River Transects - Japan



ASTRALite finalist for *Outstanding Commercial Innovation Award*

LIDAR LEADER AWARDS

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Questions?

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