



# OCEAN INFINITY®



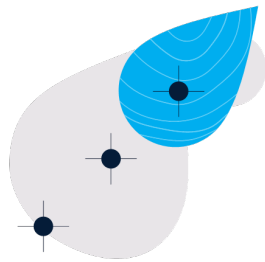




# OCEAN INFINITY®

## Our Services

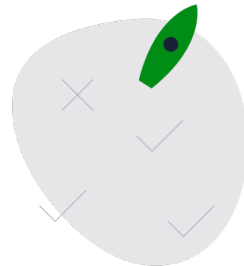
### MAP



Safely completing detailed and precise mapping and survey tasks.

The best data, acquired and presented to the highest standards.

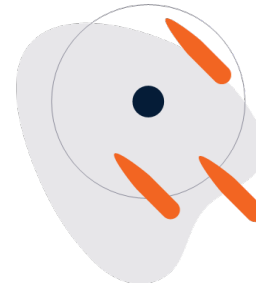
### INSPECT



Analysing seabed assets to provide accurate and detailed information.

The best way to inform decision making and planned maintenance.

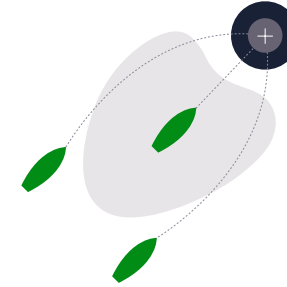
### LOCATE



World leaders in seabed search, salvage and subsea security.

The best chance of finding what you are looking for.

### SHUTTLE



Movement of goods with zero people required at sea.

The best way to sustainably provide global logistical support.

## Our Robots

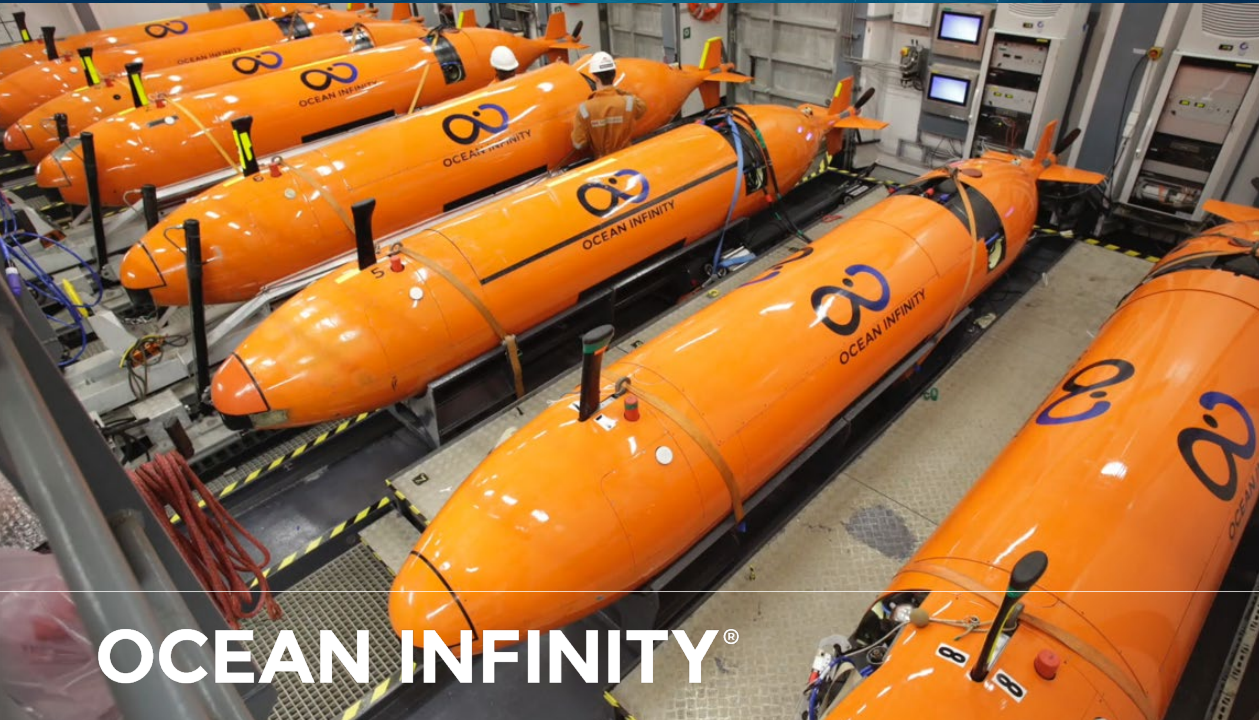
### ARMADA FLEET



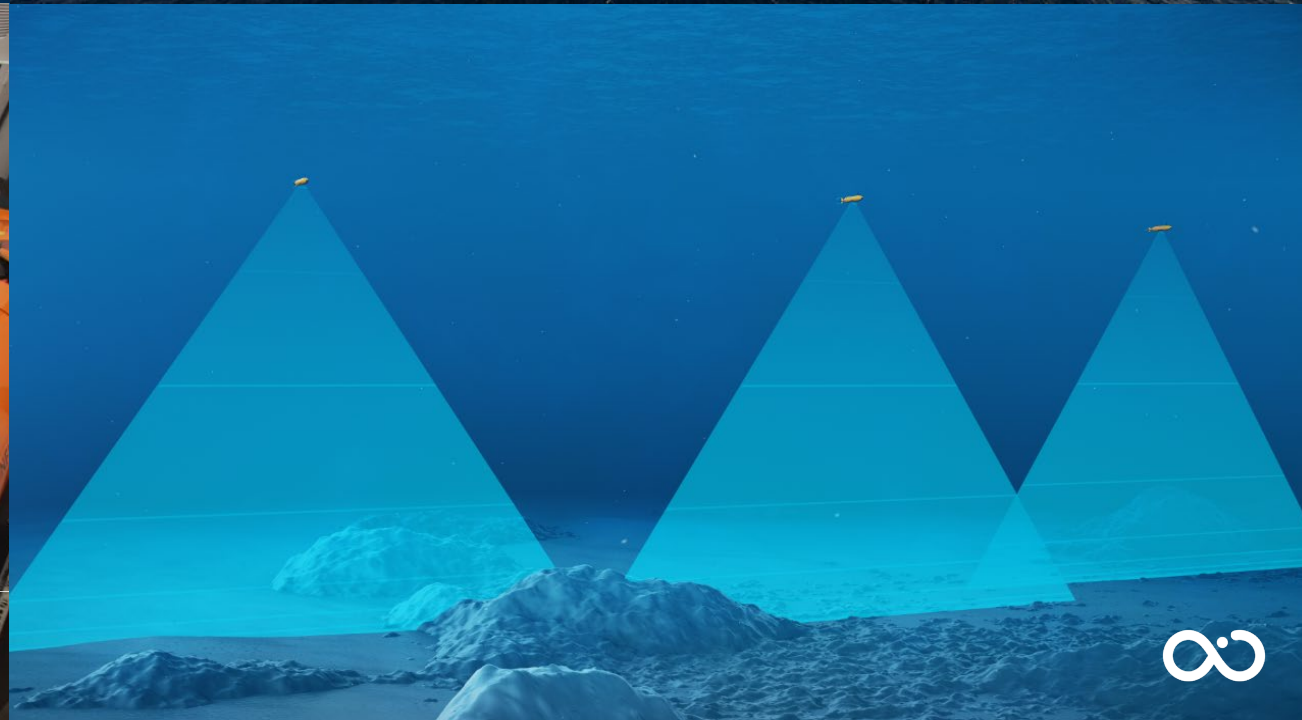
### INFINITY FLEET



AUTONOMOUS UNDERWATER VEHICLES  
INFINITY FLEET



OCEAN INFINITY®





## OVERVIEW

### ARMADA FLEET



A new venture for Ocean Infinity, launched in February 2020.



Operating the **worlds largest fleet of low-emission**, multi-role robotic ships.



An initial fleet of **21m, 36m & 78m vessels** that can be deployed worldwide.



Focussed on **significant reduction of emissions**, increased safety and secure and reliable **communications** leveraging **economies of scale**.



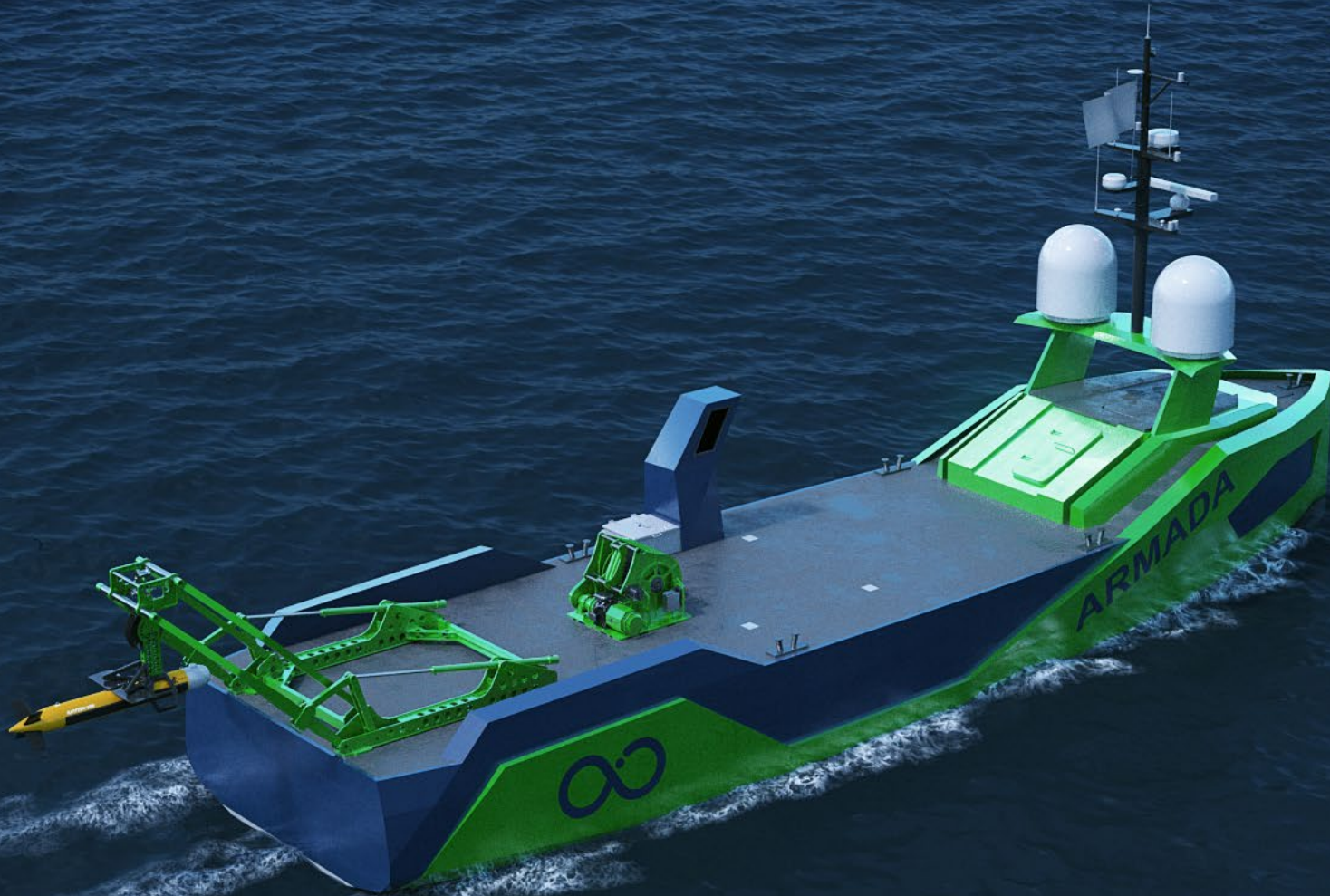
**Revolutionary fleet technology** capable of shallow and deep-water survey, as well as **ROV, AUV and UAV payloads**.



The first vessels will be **fully operational in Q1 2021**.



ROBOTIC SHIPS  
ARMADA FLEET





ROBOTIC SHIPS  
ARMADA FLEET







**ROBOTIC SHIPS**  
**ARMADA FLEET**



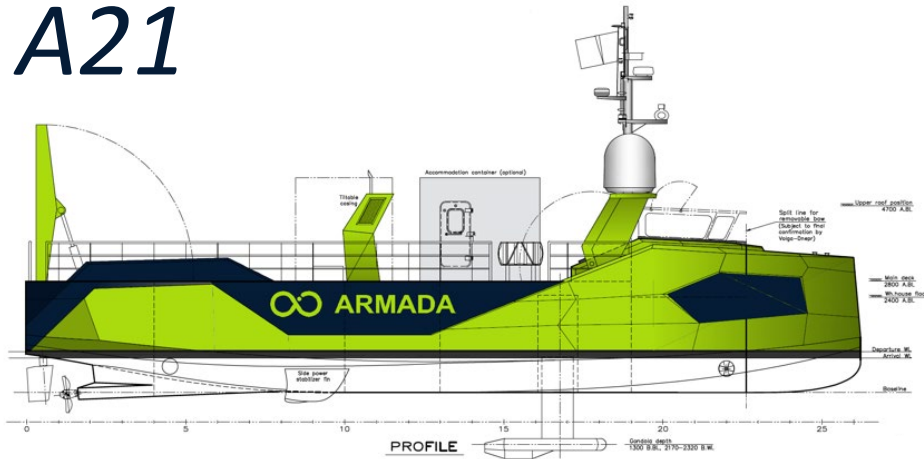
**OCEAN INFINITY®**



# VESSELS

## ARMADA FLEET

### A21



<b>LOA</b>	21m
<b>Sensor depth</b>	3m
<b>Propulsion type</b>	DP0, Diesel electric hybrid
<b>Max speed</b>	11 knots
<b>Range</b>	3000 nm
<b>Regulatory regime</b>	DNV Classed (hull) DNV UMS MCA Workboat code

### A36



<b>LOA</b>	36m
<b>Sensor depth</b>	3.6m
<b>Propulsion type</b>	DP2, Diesel electric hybrid
<b>Max speed</b>	12 knots
<b>Range</b>	5200 nm
<b>Regulatory regime</b>	Classed (IMO, MARPOL) DNV UMS Code





# BUILD PROGRESS

## ARMADA FLEET





# PAYLOADS

## ARMADA FLEET

All Armada fleet vessels will have standard fit equipment, predominantly housed in a retractable subsea gondola:

- GNSS
- INS (with integrated ADCP/DVL)
- SBES
- Underway CTD
- USBL
- Dual-head shallow-water MBES
- SBP

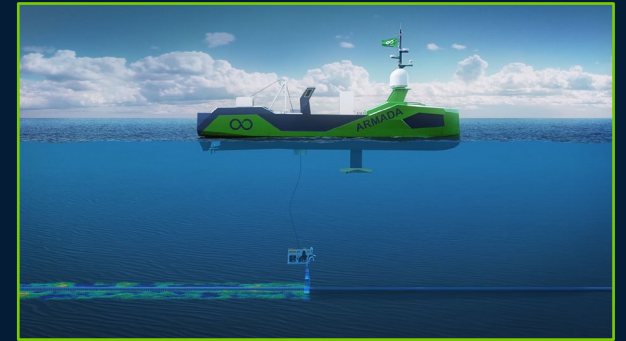
### FUTURE PAYLOADS

Additional payloads under development include:

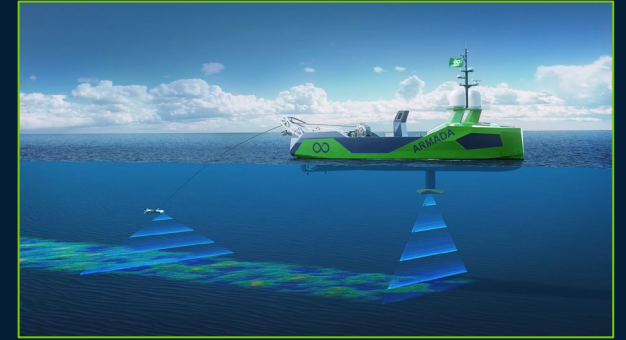
- AUV deployment
- UAV capability
- 2D & 3D seismic spreads
- Oceanographic data acquisition
- Metocean studies
- Geotechnical capability

Initial modular payloads:

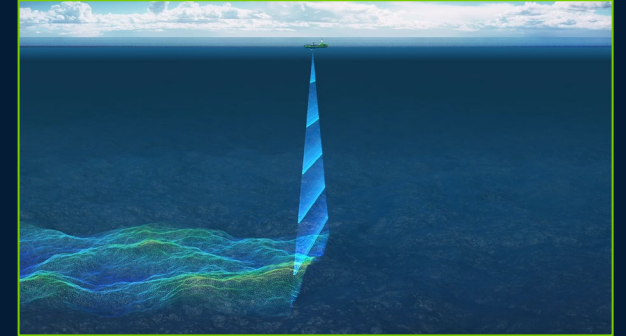
+ ROV



+ Hydrography & geophysics



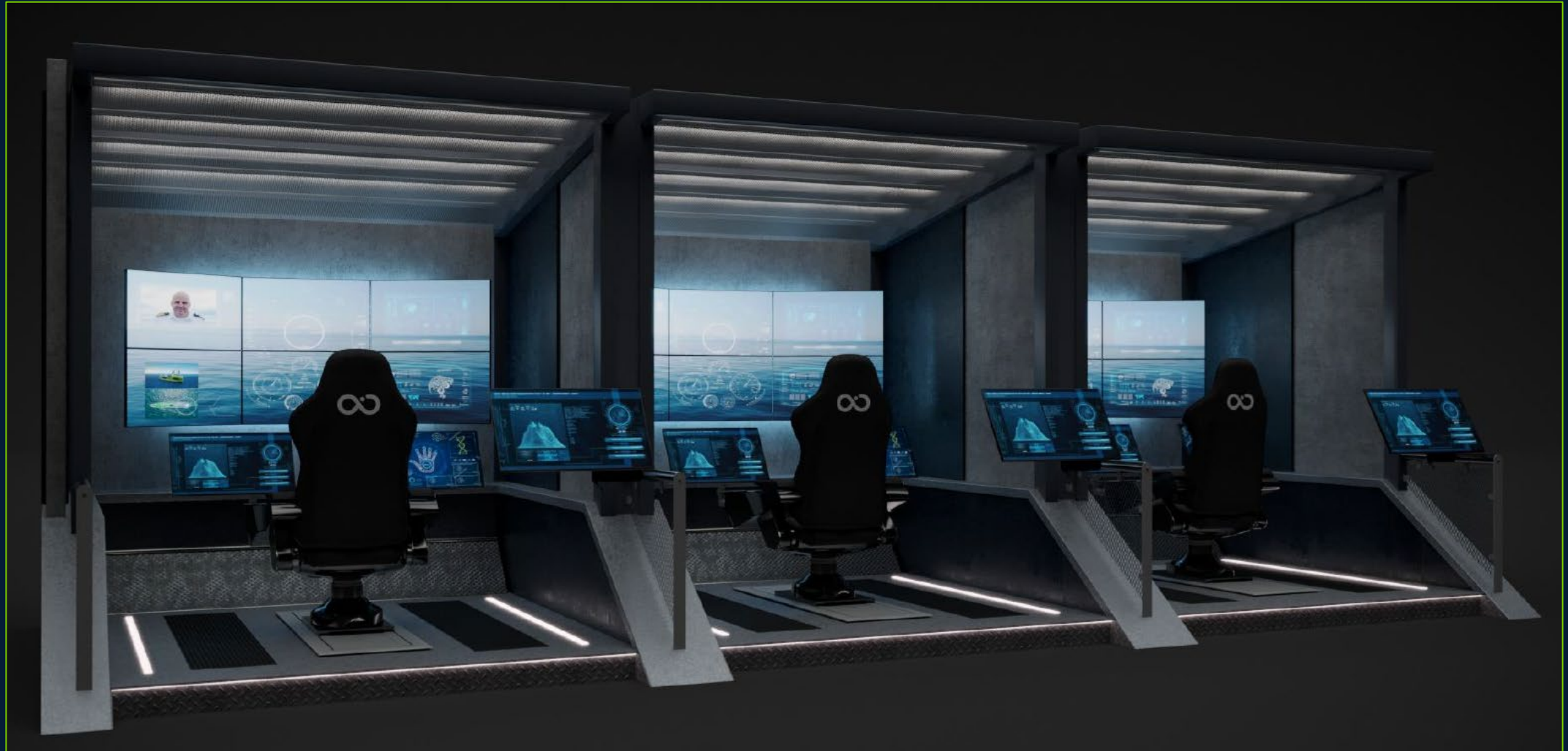
+ Deepwater MBES







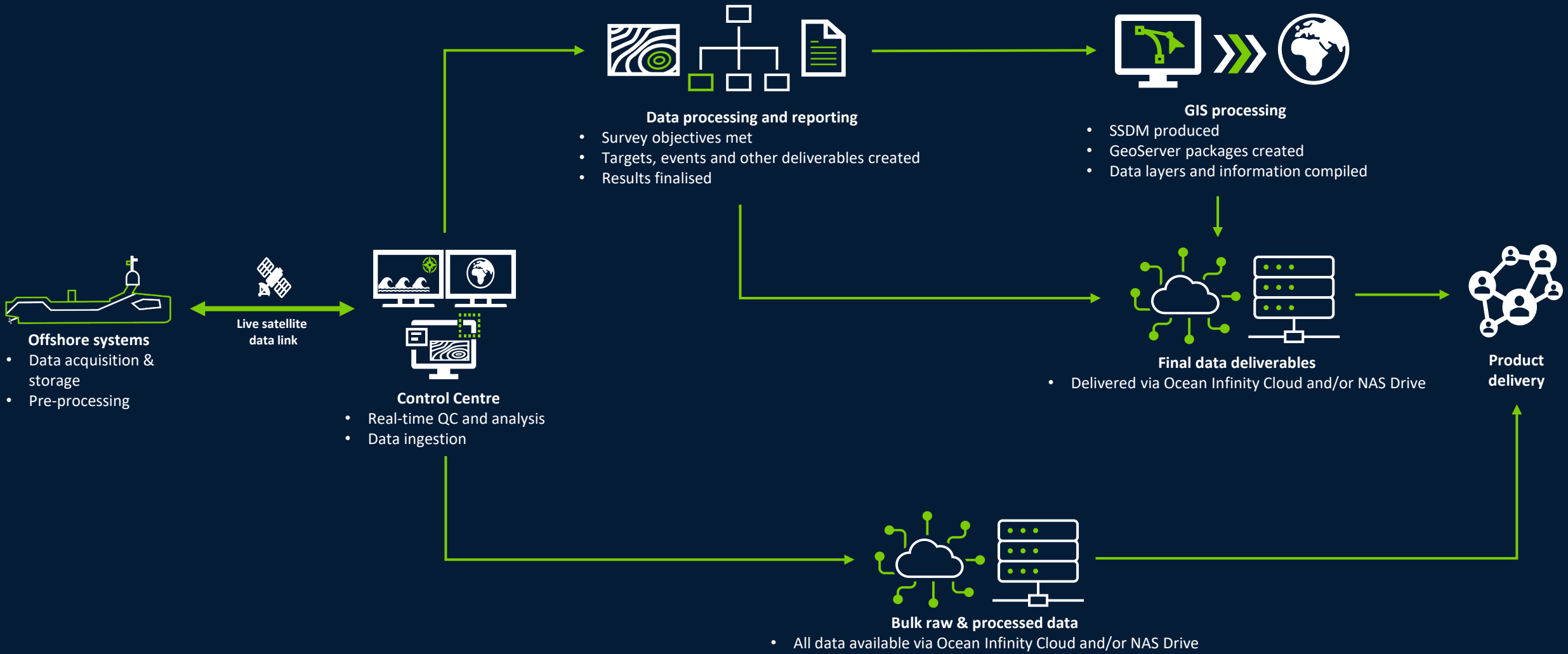
# REMOTE OPERATIONS CENTRE ARMADA FLEET





# DATA MANAGEMENT

## ARMADA FLEET





# DATA MANAGEMENT

## ARMADA FLEET

Armada - Sensor QC Window EIVA Helmsman

SENSOR AVAILABILITY

+ Add

Date: 28/08/2020 Runline 8

SURVEY STATUS WINDOW

Settings Show all Filter Filter Filter Filter

Date	Time	State	From	Notification
28/08/2020	10:16	✗	Deepwater MBES	Deepwater MBES not receiving data.
28/08/2020	10:15	⚠	Gondola MBES	Gondola MBES collecting invalid data.
28/08/2020	9:11	✓	QC	QC Parameters met. WPXXX created.
28/08/2020	8:53	✓	SVP	Collecting valid data.
28/08/2020	8:48	✗	QC	QC Parameters not met. WPXXX created.
28/08/2020	8:46	⚠	SVP	SVP collecting invalid data.
28/08/2020	8:25	ℹ	USV	USV Sensors logging.
28/08/2020	8:24	ℹ	USV	VL move to Waypoint 1 completed. Moving to Waypoint 2.

Armada - Data QC Window EIVA Helmsman

DATA SNIPPETS

Settings + Add

DATA ACQUISITION MANAGER

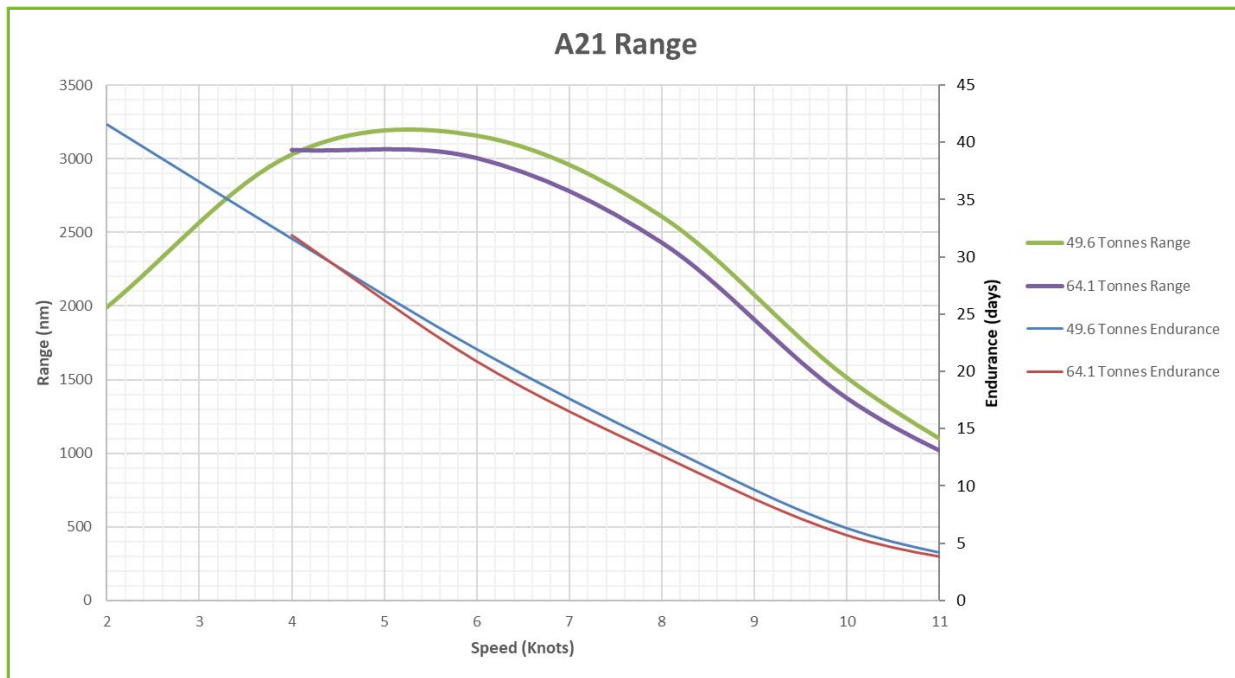
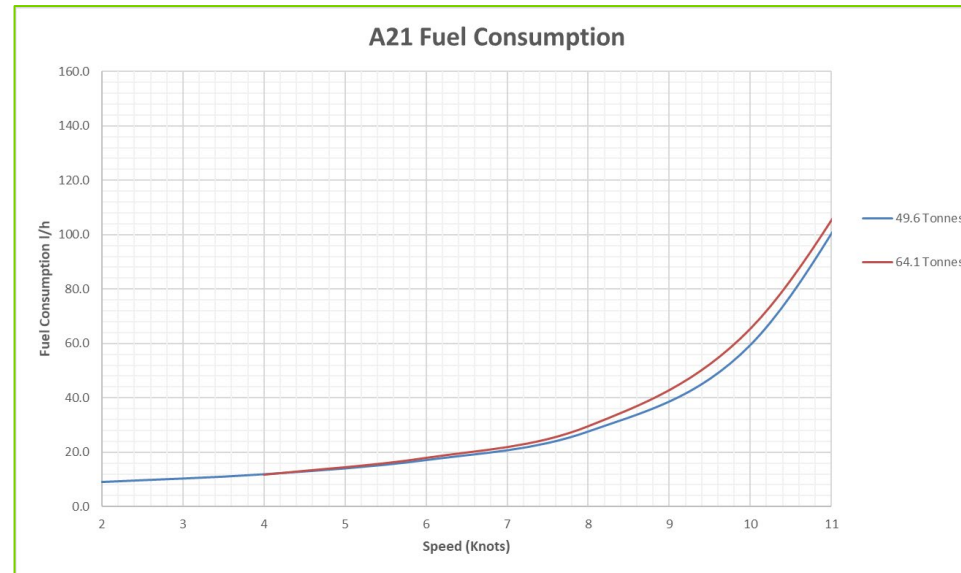
Settings

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
SSS	91%	9%	0%												
MBES	96%	4%	0%												
SBP	92%	8%	0%												
LF (100Hz) Near Object Detection (m)	✓	✓	✓	✓	✓	✓	✓	✓	⊙	⊙	⊙	⊙	⊙	⊙	⊙
LF (100Hz) Far Object Detection (m)	✓	✓	✓	✓	✓	✓	✓	✓	⊙	⊙	⊙	⊙	⊙	⊙	⊙
HF (500Hz) Near Object Detection (m)	✓	✓	✓	✓	✓	✓	✓	✓	⊙	⊙	⊙	⊙	⊙	⊙	⊙
HF (500Hz) Far Object Detection (m)	✓	✓	✓	✓	✓	✓	✓	✓	⊙	⊙	⊙	⊙	⊙	⊙	⊙
Coverage	✓	✓	✓	⚠	✓	✓	✓	✓	⊙	⊙	⊙	⊙	⊙	⊙	⊙
Average Altitude	✓	✓	✓	✓	✓	✓	✓	✓	⊙	⊙	⊙	⊙	⊙	⊙	⊙
Min/Max Altitude	✓	✓	✓	✓	✓	✓	✓	✓	⊙	⊙	⊙	⊙	⊙	⊙	⊙
Calculated Layback	✓	⚠	✓	✓	✓	✓	✓	✓	⊙	⊙	⊙	⊙	⊙	⊙	⊙
Towfish Heading	✓	✓	✓	✓	✓	✓	✓	✓	⊙	⊙	⊙	⊙	⊙	⊙	⊙
Towfish Pitch	✓	✓	✓	✓	✓	✓	✓	✓	⊙	⊙	⊙	⊙	⊙	⊙	⊙
Towfish Roll	✓	✓	✓	✓	✓	✓	✓	⚠	⊙	⊙	⊙	⊙	⊙	⊙	⊙
Configuration and Events Log	✓	✓	✓	✓	✓	✓	✓	✓	⊙	⊙	⊙	⊙	⊙	⊙	⊙





# PERFORMANCE MODELLING



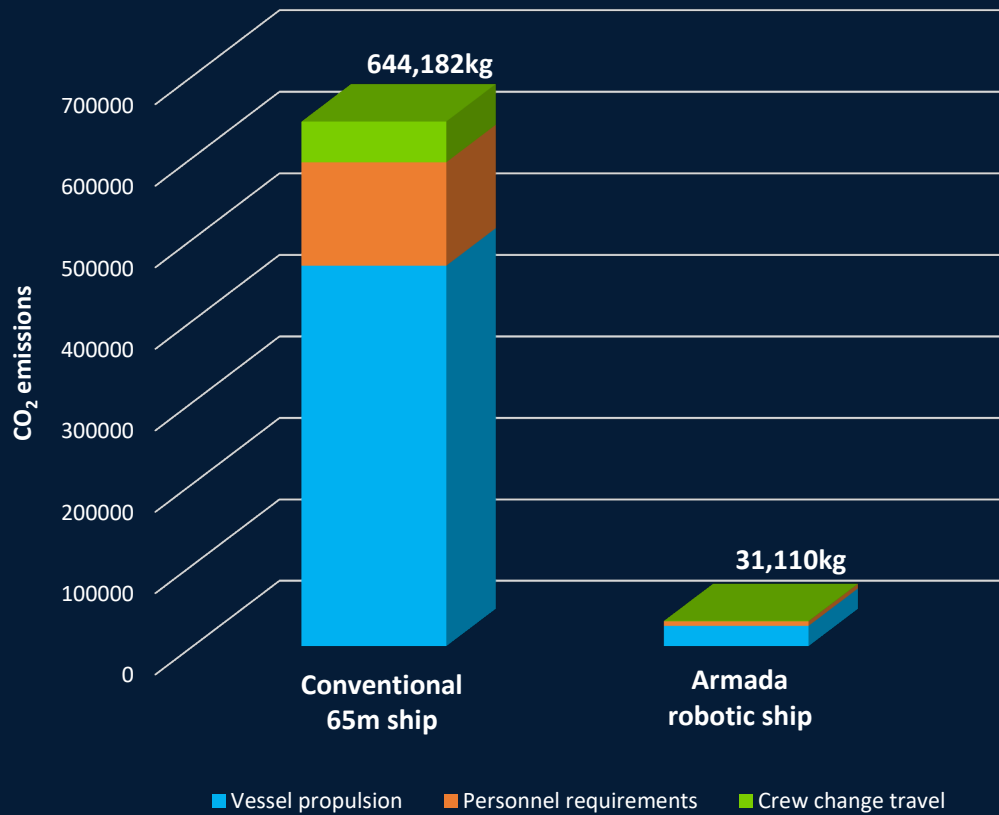


# SUSTAINABILITY & NET-ZERO OPERATIONS

## ARMADA FLEET



### Typical 21 day offshore campaign



Smaller and newer vessels with no superstructure enable significant reductions in fuel burn



90% emissions saving over a conventional vessel performing a similar offshore campaign



In addition to offering significant emissions reductions, Ocean Infinity take place in an active reforestation scheme enabling true carbon neutrality

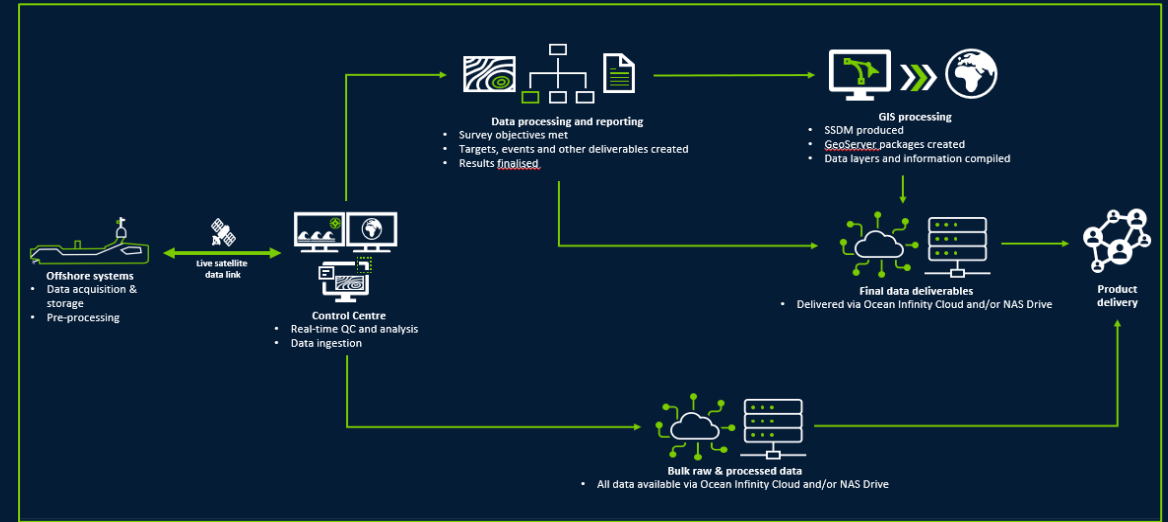


# CHALLENGES

## ARMADA FLEET



### Communications & data handling



### Regulatory environment & acceptance





SUMMARY  
ARMADA FLEET



**HYDRO**

Large scale mapping



**RENEW**

Offshore renewables



**LOGISTICS**

Equipment transport, cargo delivery



**O&G**

Construction support, IRM and decomm.



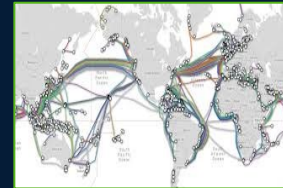
**SEISMIC**

Remote source, streamer tow, data harvesting



**CABLE**

Data and power cable survey and IRM



**ENVIRO**

Metocean, environmental baseline and monitoring



**SPECIAL PROJECTS**

Defence, search and salvage



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