



Digitizing the ocean space

Argeo company presentation

3 MARCH 2022

TROND FIGENSCHOU CRANTZ, CEO

Visit our stand F601 at Oi 2022 in London!

[Read more](#)



Oceanology
international
2022

15-17 MARCH 2022
LONDON, EXCEL

Agenda

Introduction to Argeo

Market outlook

Argeo energy services

Argeo in the renewable sector

Technology

AR GEO AT A GLANCE



42
EMPLOYEES



3
AUV CREWS



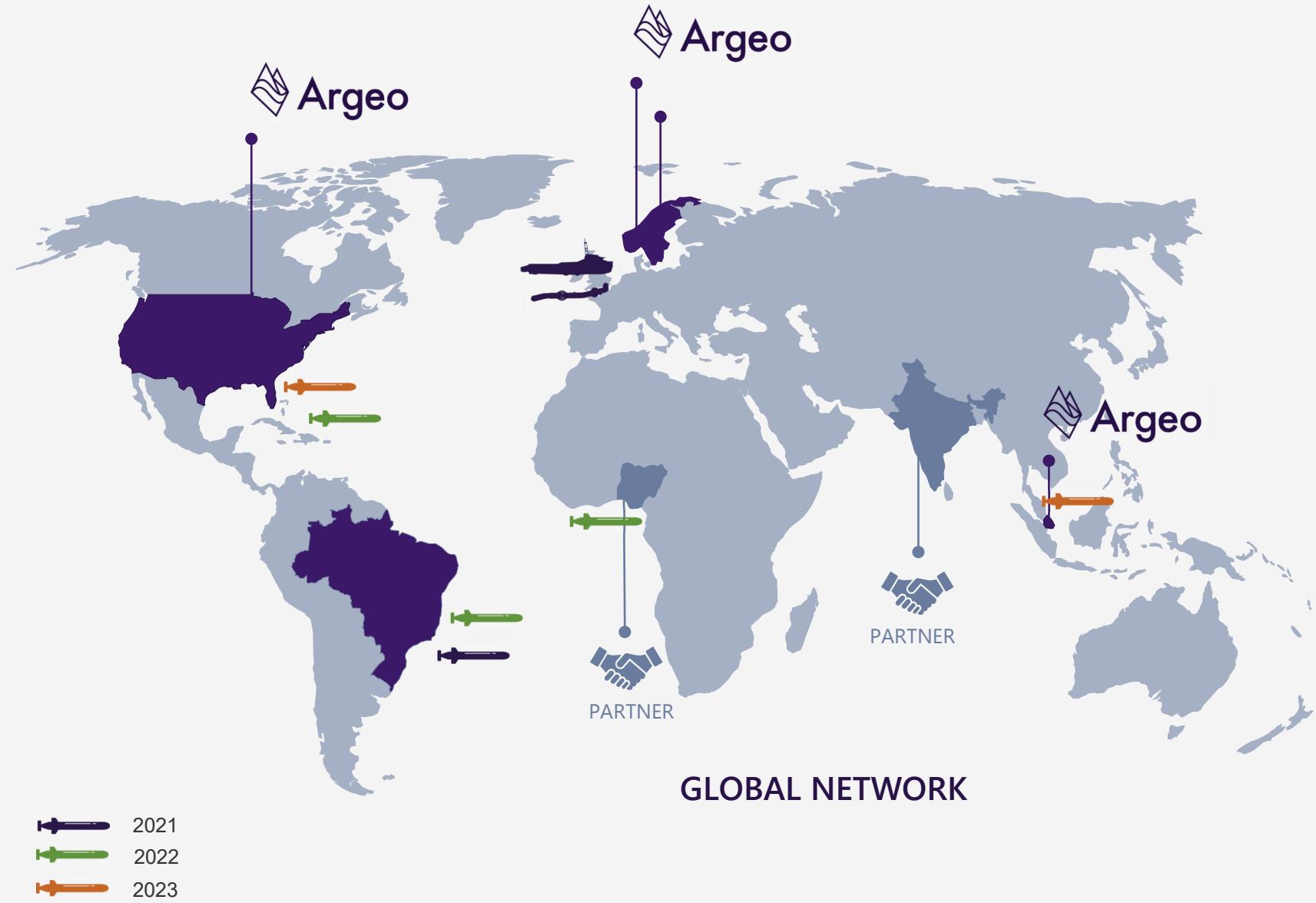
3 (6)
AUV's



1 (2)
USV's



1
Eelume



AR GEO'S MISSION

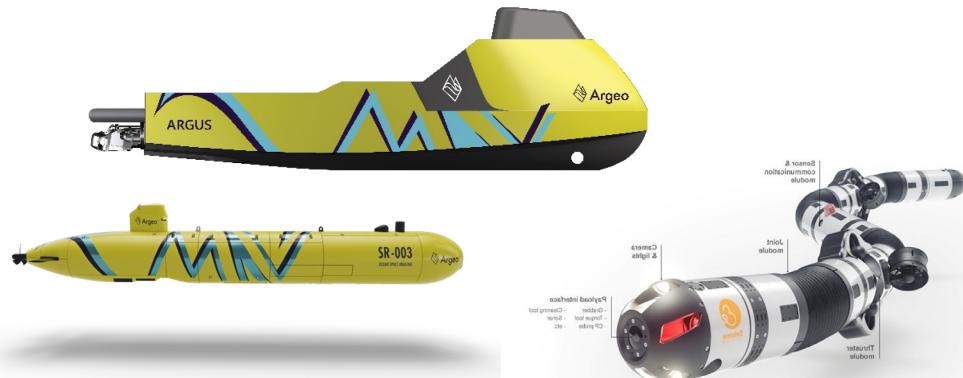
Transforming the ocean surveying and inspection industry

Utilising autonomous underwater and surface vehicles and unique sensor and imaging technology

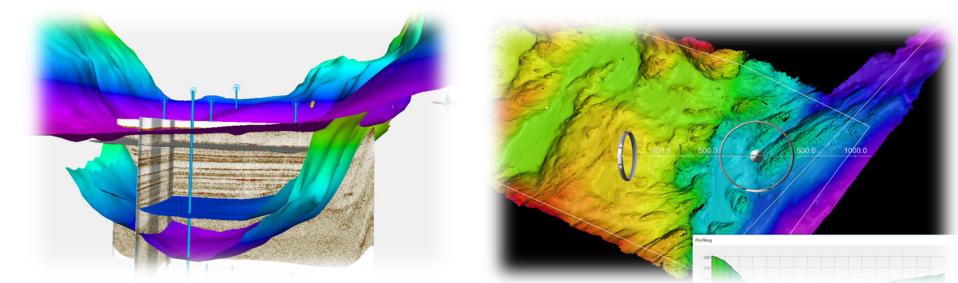
to significantly **increase efficiency and quality**

And to substantially **reduce the industry CO2 footprint**

HIGH CAPABILITY ROBOTICS SOLUTIONS



UNIQUE IMAGING AND MODELLING TECHNOLOGY



"FASTER, BETTER, GREENER AND AT A LOWER COST"

Transforming the ocean surveying and inspection industry

WITH A MAGNITUDE OF DIFFERENCE

Dedicated survey vessel



Day rate: High

CO2-emission: High

Data Quality: Low

Productivity: Medium

Dedicated ROV vessel



Day rate: High

CO2-emission: High

Data Quality: Medium

Productivity: Low

Traditional players delivering high-cost and time-consuming services,
applying large vessels and expensive equipment



AUV/Robotics



Day rate: Low

CO2-emission: Low

Data Quality: High

Productivity: High

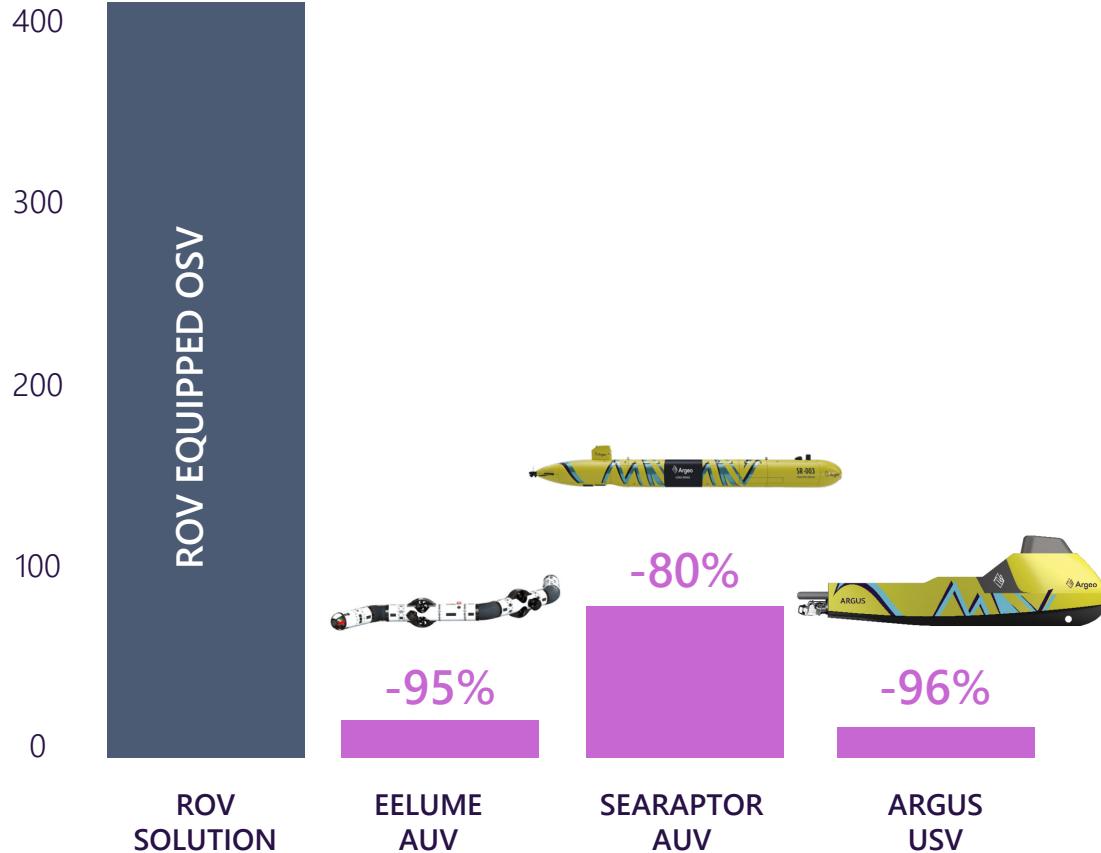
✓ The most efficient data acquisition robots in the world

✓ Acquisition speed > 3.5x ROV

Significantly lower cost and footprint using Argeo AUVs & USV

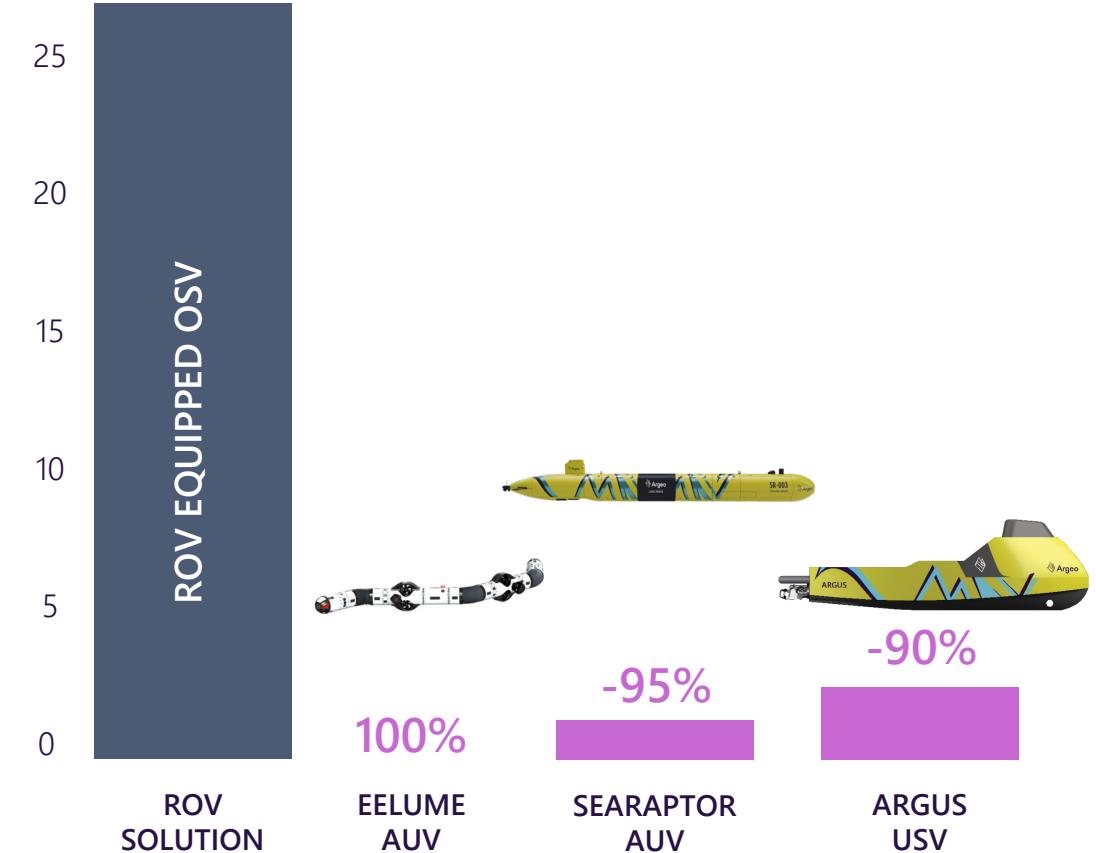
CAPEX

MNOK



DAILY CO2 EMISSIONS

TONS



Robotics and digital solutions for the ocean space

ENGINEERING & CONSTRUCTION

- Data acquisition, imaging and underground modelling for large infrastructure projects.
- High accuracy imaging reducing project risk and construction costs



O&G SURVEY INSPECTION

- Offshore field design, location of platform and subsea infrastructure
- Investigation of routes for pipelines
- Detection of damage and erosion on existing installations



OFFSHORE WIND

- Wind farm design of foundations, substations etc.
- Investigation of routes for power cable
- Inspection of existing infrastructure



DEEP SEA MINERALS

- Exploration for Deep-Sea Minerals (DSM)
- Wide use of sensors and in-house technology for mineral deposits characterization, a system under development by Argeo Robotics



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Introduction to Argeo

- ▶ **Market outlook**

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Tender value by Geomarkets

Business and commercial expansion exceeding expectations

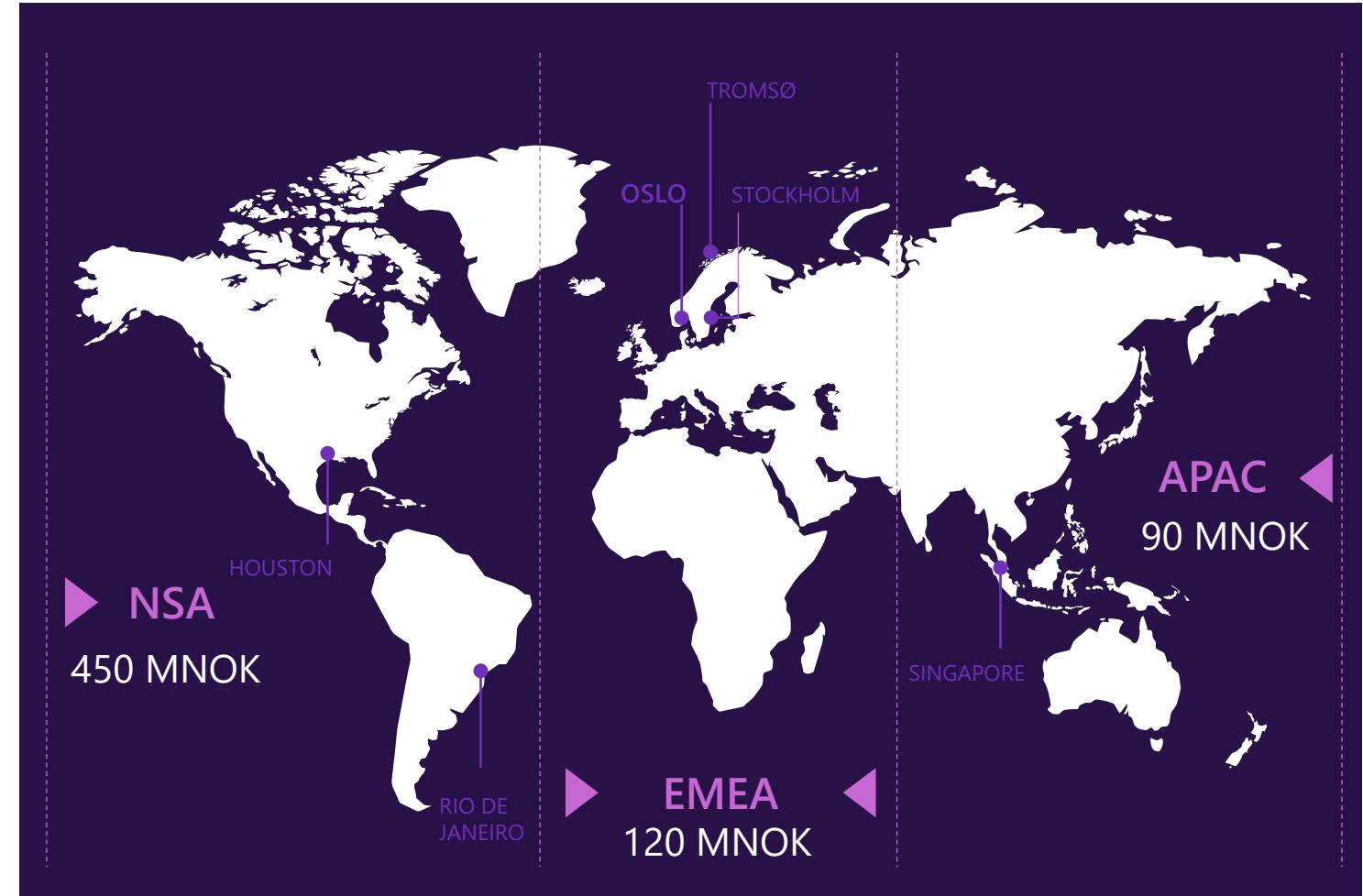
- Offices in Houston and Rio to drive business development and operations in NSA geomarket
- Hugin 1000 system moved to Brazil to commence operations on reported contract

High level of commercial activity with several large tenders started

- Strong growth in larger tenders for AUV services in the NSA geomarket, some projects exceeding 12 month
- Good progress on both Eelume UID projects and market response to our Argus USV

WHY?

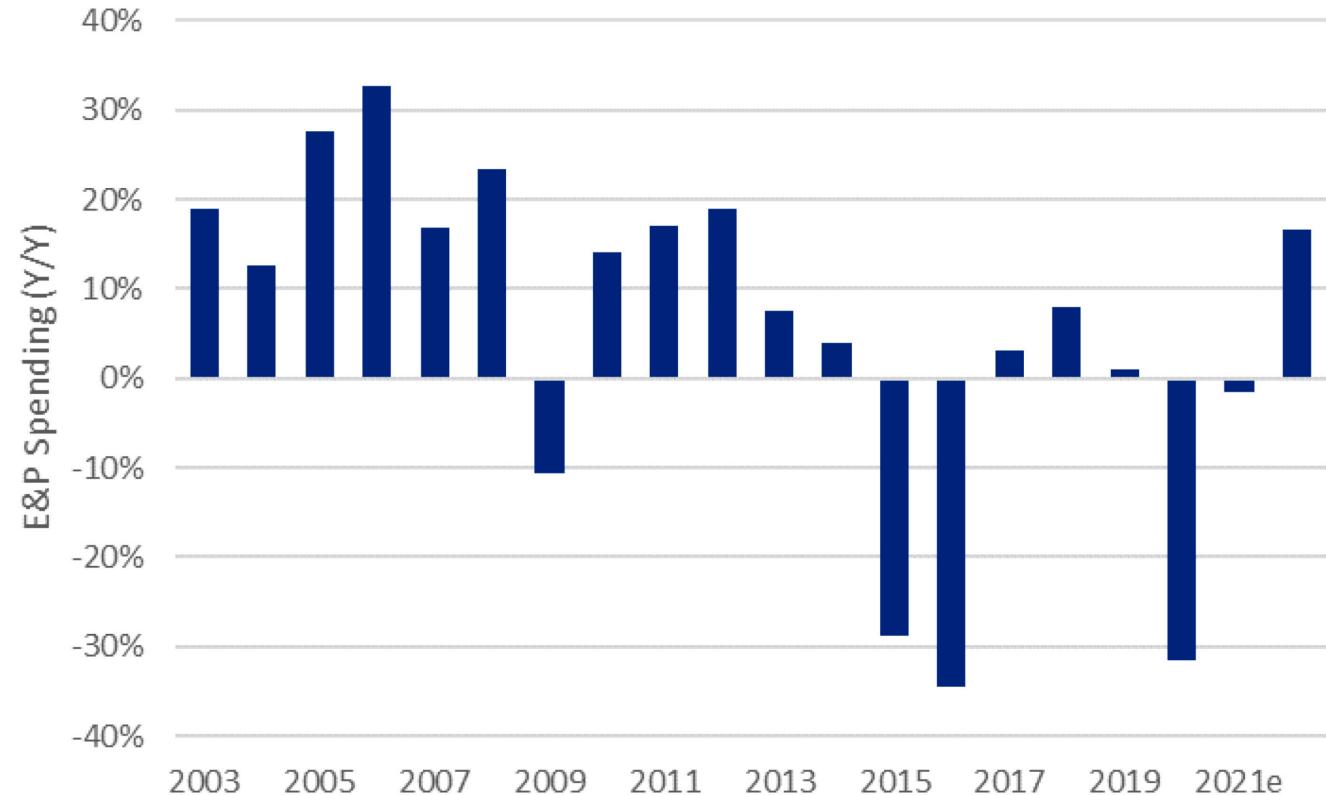
- Reduced transit time increases utilization
- Closer to our customers in key areas
- Build backlog/Multi-Client extending ongoing project
- Faster mobilization reduces cost for our customers
- Retain crew and equipment in identified regions



E&P spending expected to increase significantly

Argeo's growth and expansion into new geomarkets fuelled by expected growth in E&P spending of 17% in 2022.

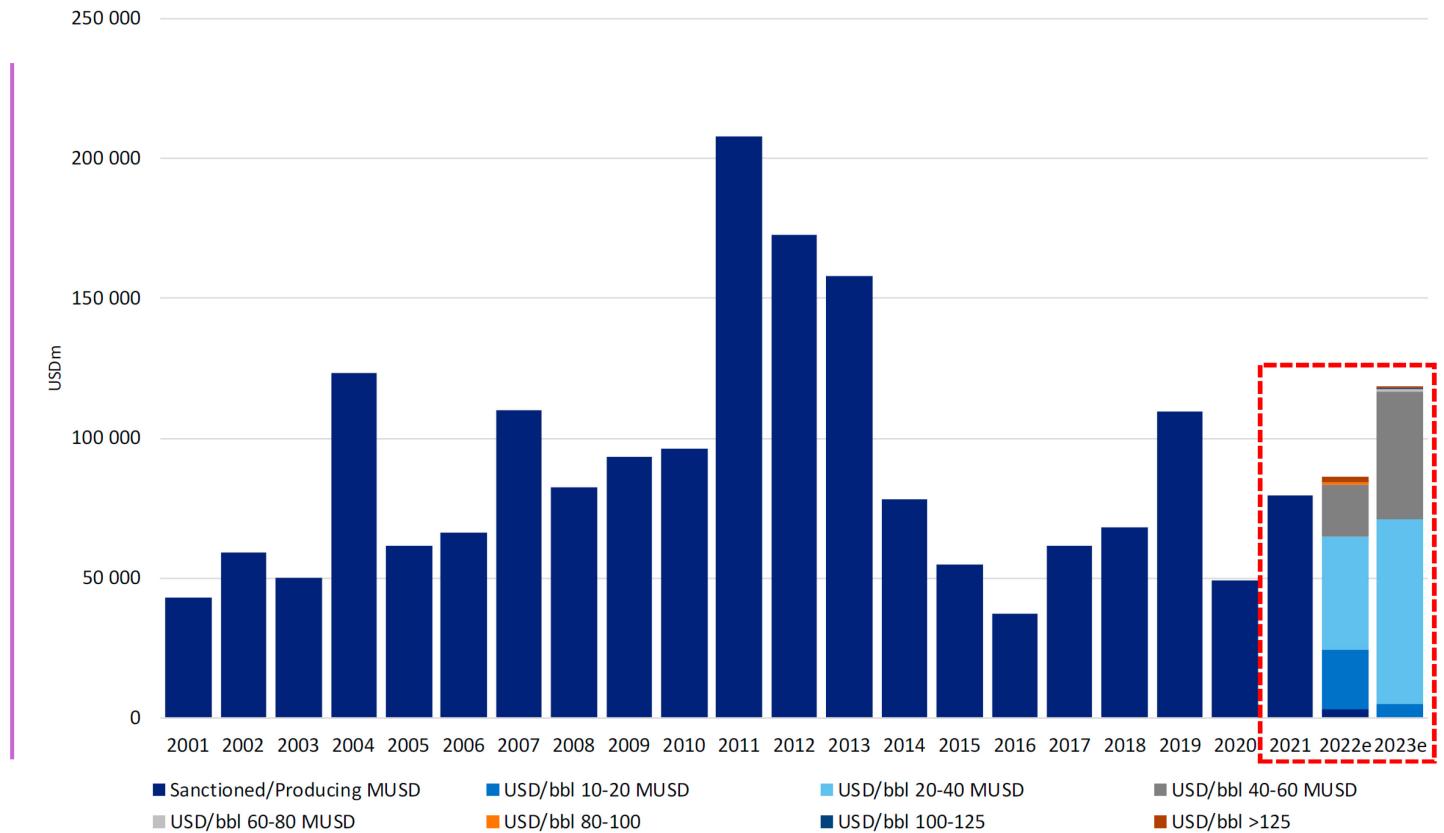
Positioning key assets strategically to capitalize on stronger subsea activities supports faster mobilisation and cost-effective operations.



Ref: SB1 Markets, Oil Service Market Report 2022

Global offshore capex sanctioning expected to increase

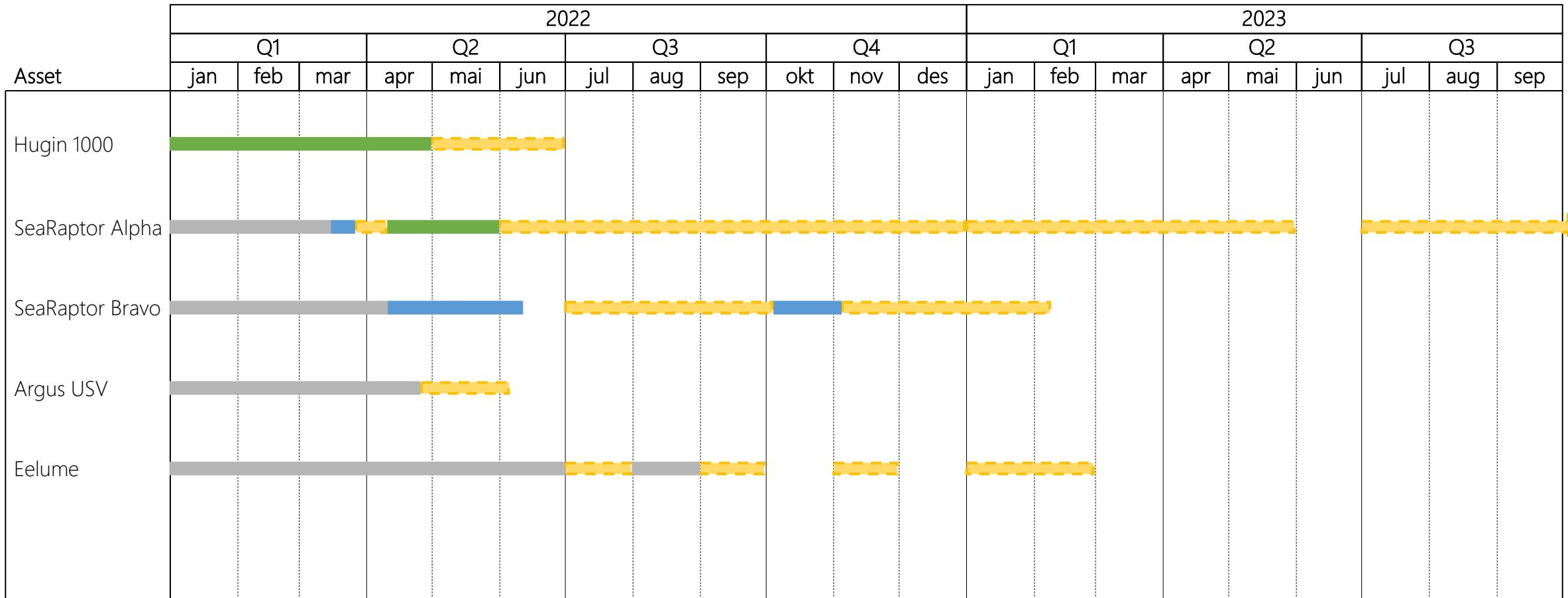
With global offshore sanctioning up 8% in 2022 and a further increase to 37% in 2023, Argeo is perfectly positioned to capitalize on this strong growth to support our fleet expansion going forward



Ref: SB1 Markets, Oil Service Market Report 2022

Expanding tenders and backlog

ARGEON CURRENT FLEET SCHEDULE



Rescheduling of assets may occur dependent of project commencement and vehicle availability

= Newbuild

= Contract

= Tender (~252 MNOK)

= MC (reported quarterly)

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AR GEO'S TOOLS ARE:

High-capability AUV's with complimentary abilities



SeaRaptor AUV

- Depth rated to 6,000m
- Up to 50 hours battery capacity
- Light and very scalable
- Autonomous
- Low CO2 footprint



Eelume AUV

- Modular & ultra flexible
- Resident
- Operate in tight spaces



Hugin AUV

- Depth rated from 1,000 -> m
- From 20 to 40 hours battery capacity



Argeo Argus USV

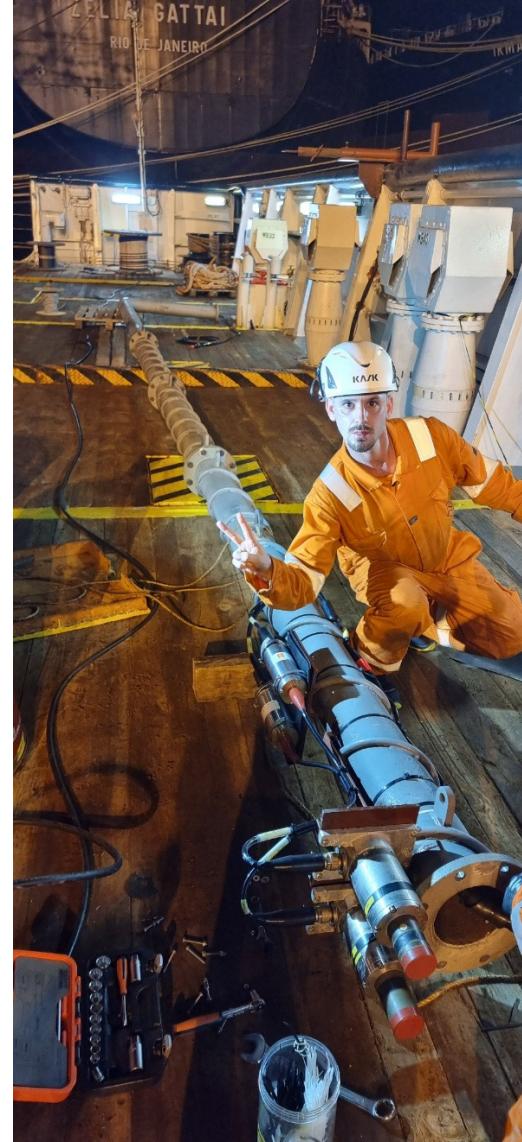
- Long endurance – up to 30 days
- Transportable by 40-foot flat rack container
- Hybrid propulsion system
- Real time supervision and data QC

HUGIN project in Brazil

ONGOING OPERATIONS

Our Hugin 1000 crew is currently operating in Brazil on a pipeline route survey for the Cabiunas landfall gas pipeline from FPSO (BM-C-33 field) to shore, construction project.

This is a 200m wide survey corridor of approximately 120 km. Project estimated project completion in April



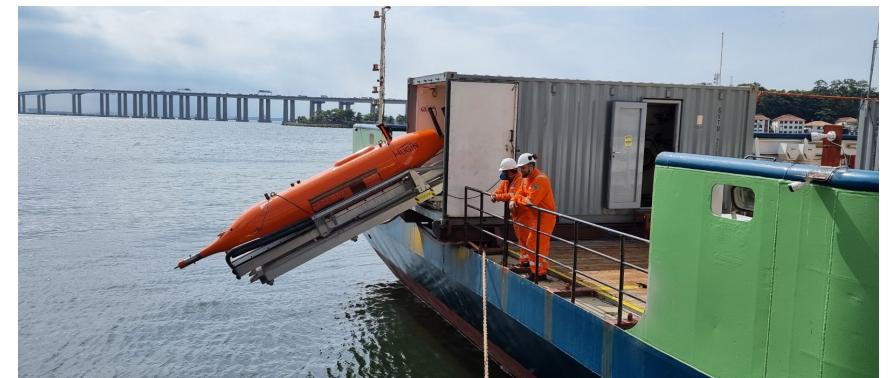
Argeo crew installing Hugin subsea communication system



M/V Larissa used for the AUV route survey in Brazil



HUGIN Operational container on M/V Larissa backdeck



Hugin system "Stinger" LARS container fixed at the stern of M/V Larissa

SEARAPTOR VEHICLE STATUS "Alpha"

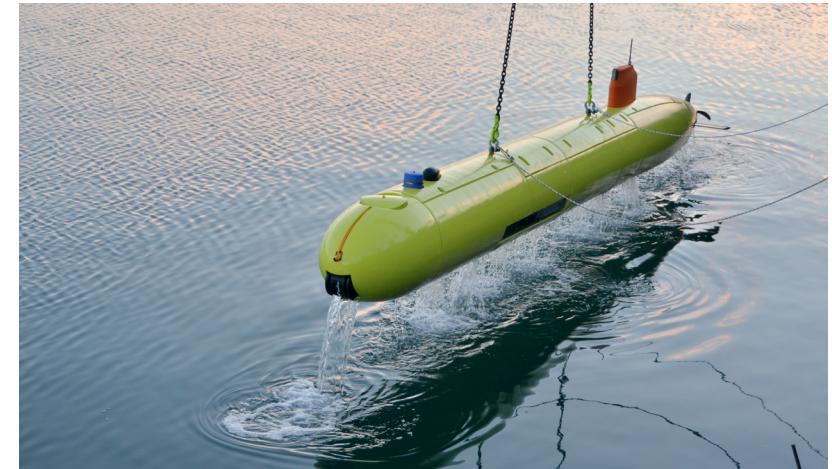
ONGOING COMMERCIALISATION

SeaRaptor "Alpha" completed testing and is now prepared for mobilization on its first commercial deep-water project in Norway.

Finishing the projects in Norway the "Alpha" will mobilize directly to its first ultra deep-water project in the Atlantic in Q2, expected to be completed late May and scheduled for more proprietary work after this.



Flight shipping crates allows for fast mobilization around the world



SeaRaptor 6000 after test diving at the factory in Iceland in December



SeaRaptor 6000 surface transiting to shore after completing dive/mission

PROJECT "DARK KNIGHT"

AR GEO USV "ARGUS"

FINALIZING CONTRUCTION AND TESTING

- 10x3 meter Autonomous Surface Vessel equipped for over-the-horizon unmanned operations
- Multi-purpose vessel, both a survey machine and a service platform for the Eelume robot



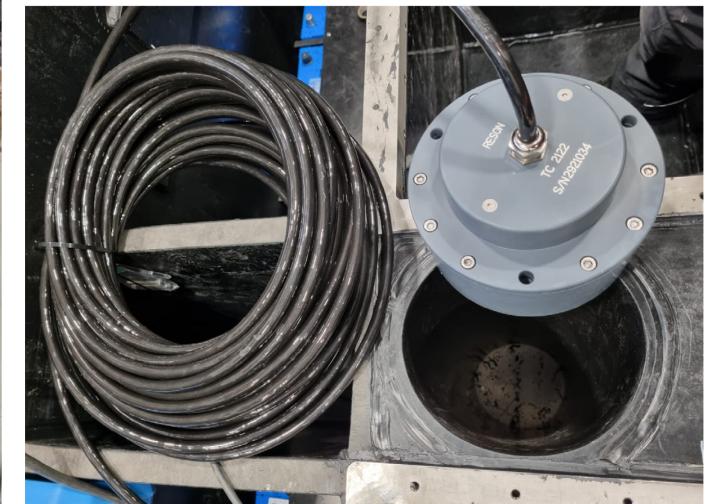
ARGUS final design and branding



First USV with X-Bow design



The ARGUS being fitted with surveillance and sensor system in Trondheim



Survey sensor going in to re-toolable moonpools

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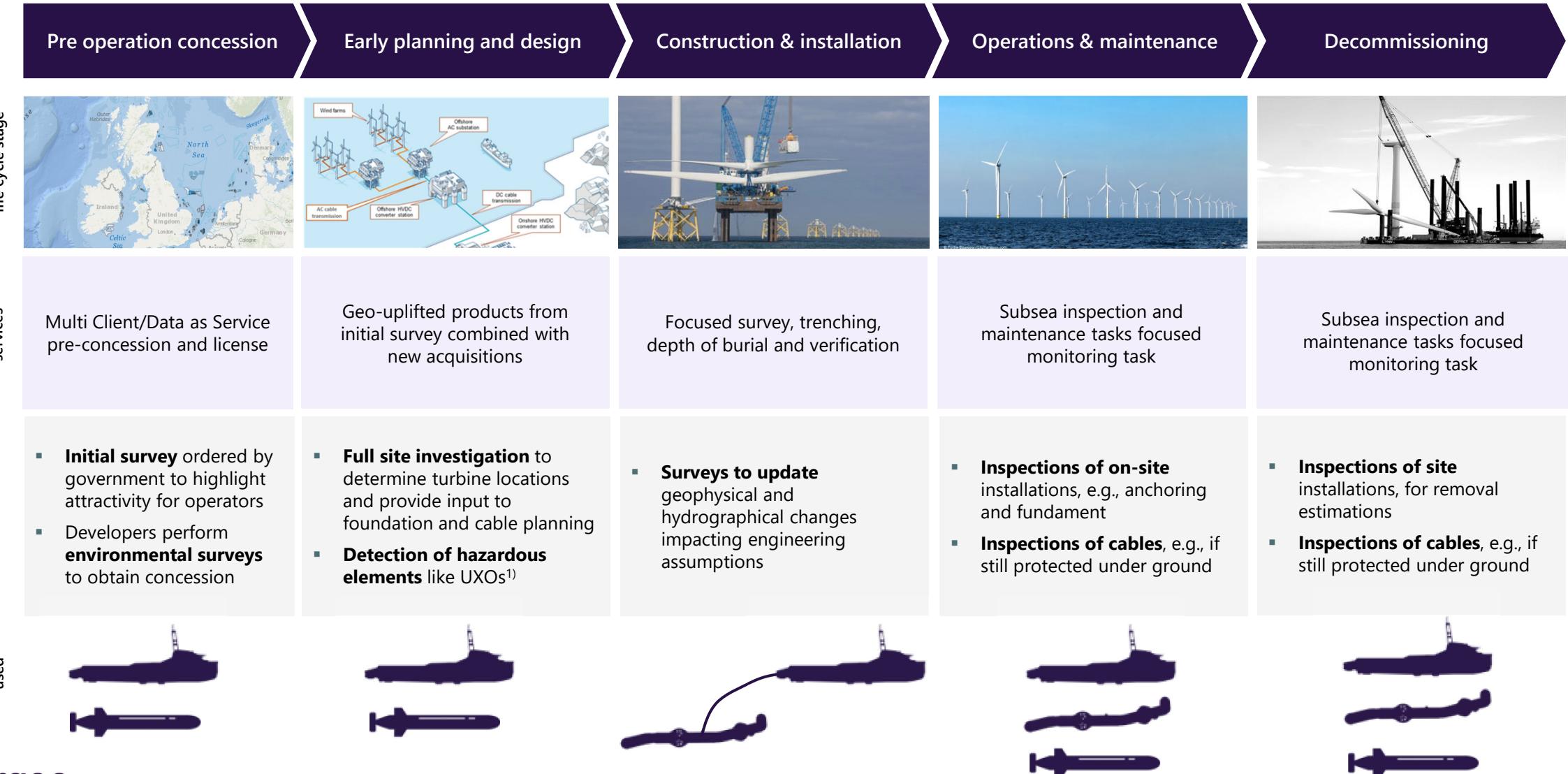
Market outlook

Argeo Energy services

► **Argeo in the renewable sector**

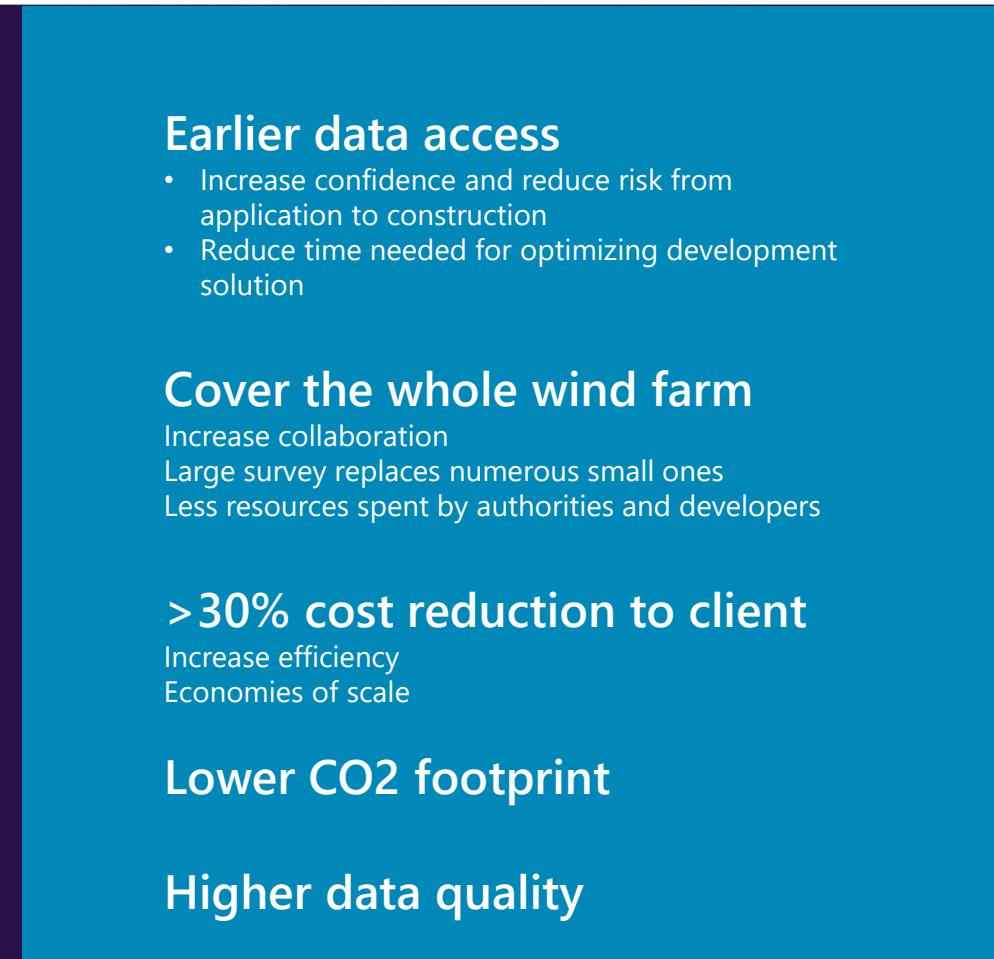
Technology

Offshore wind value chain overview and description



ENABLING RENEWABLES:

Accelerating offshore wind development



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► **Technology**

Argeo Robotic Technology Portfolio

ARGEO LISTEN

- Cathodic Protection tool
- Inspection
- Self potential

Q2 - 2022



ARGEO WHISPER

- Un Exploded Ordonnance
- Pipeline
- Cable verification
- Object tracking

Q3 - 2022



ARGEO DISCOVER

- Large CSEM SOURCE
- Exceptional for Deep Sea Mineral exploration
- LONG RANGE MODULE

Q1- 2023



ARGEO DIGITAL OCEAN SPACE

- Argeo Enlight
- Argeo Introspection
- Argeo Foresight

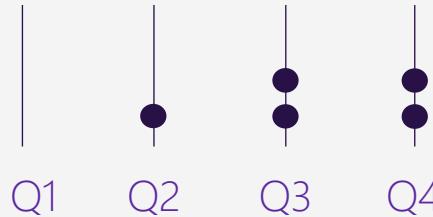
Q2-Q4- 2022



Argeo's first shore-to-shore capable AUV

IP PATENT APPLICATIONS SUBMITTED

Argeo applied for a total of 5 IP patents in 2021



NEW

ARGEO LONG RANGE MODULE



Key features

- Up to 240 hours (about 1 and a half weeks) endurance (2022)
- Depth rated to 6,000m
- Wide range of available sensor integrations
- Argeo WHISPER & DISCOVER included

ARGEO
DISCOVER

ARGEO
WHISPER

READY FOR TESTING Q4

ENABLING SAFER & GREENER INSPECTION AND INTERVENTION

Eelume subsea inspection and maintenance



Fully resident or USV remotely operated robotic system for Inspection, Maintenance and Repair (IMR) work for O&G and Offshore Wind.

The Eelume system operated by Argeo will have the LISTEN sensor technology integrated from 2022. One resident Eelume can service 80 SQKM of an Offshore Wind park.

Mission Controlled Operation for USV & Eelume



Argeo “Digital Ocean Space” - Optimizing Value from Ocean Data

SUBSEA ASSET DIGITALIZATION, VISUALIZATION AND ANALYSIS ENABLED

ARGEO ENLIGHT

The main tool for data processing and visualization of data in addition to our Multi-Client data shopping window

ARGEO INTROSPECTION

3D visualization and mapping of subsea inspection data fully interpreted
Georeferenced in space and time

ARGEO FORESIGHT

Prediction of subsea movements and remaining lifetime of assets based upon trends in data measured over time

Rationale

- 1** Attractive market opportunity
- 2** Strong industry and technological competence
- 3** Ability to meet high demand through fleet expansion
- 4** Sustainable business model
- 5** Solid customers in all verticals

► **Thank you**