



*Digitizing the ocean space*

Visit our stand F601 at Oi 2022 in London!

[Read more](#)



**Oi**oceanology  
international  
**2022**  
15-17 MARCH 2022  
LONDON, EXCEL

# Argeo company presentation

3 MARCH 2022  
TROND FIGENSCHOU CRANTZ, CEO



# Agenda

Introduction to Argeo

Market outlook

Argeo energy services

Argeo in the renewable sector

Technology

# ARGEО AT A GLANCE



42  
EMPLOYEES



3  
AUV CREWS



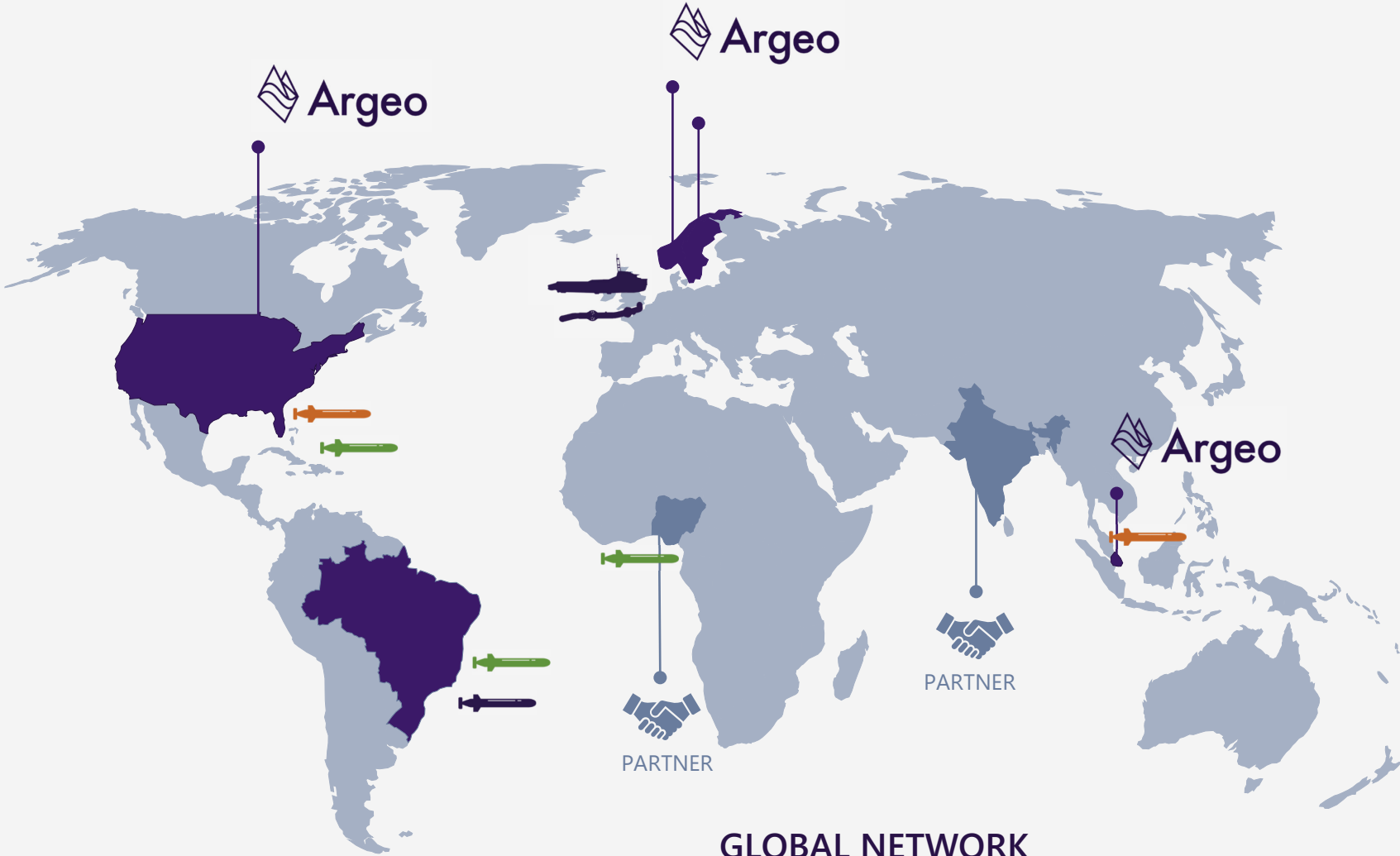
3 (6)  
AUV's



1 (2)  
USV's



1  
Eelume



2021  
2022  
2023

# ARGEO'S MISSION

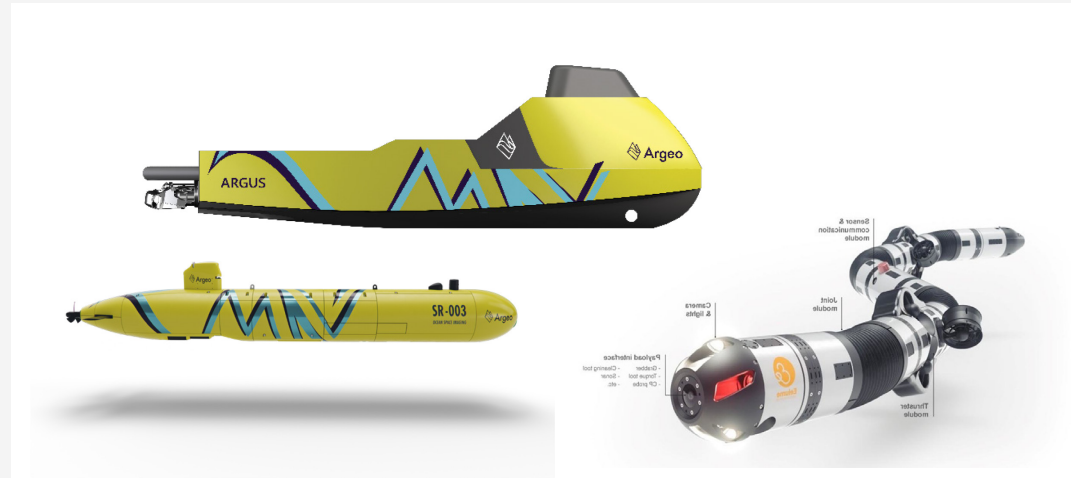
**Transforming** the ocean  
surveying and inspection industry

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

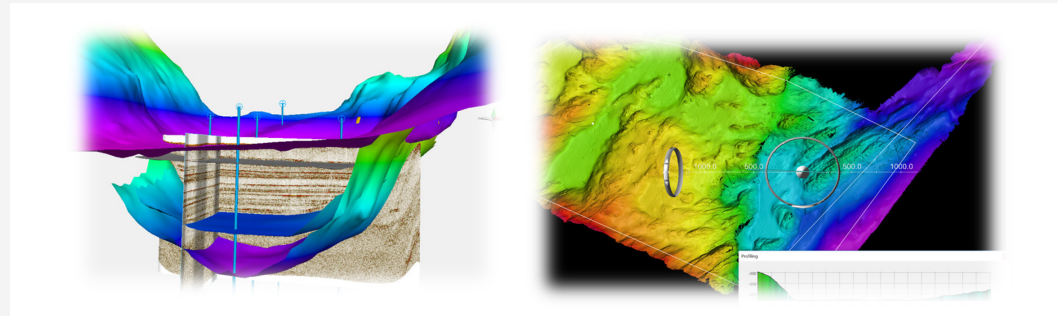
to significantly **increase**  
**efficiency and quality**

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

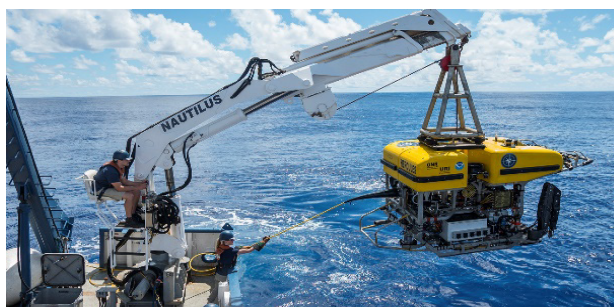
CO2-emission: High

Data Quality: Low

Productivity: Medium

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

## Dedicated ROV vessel



Day rate: High

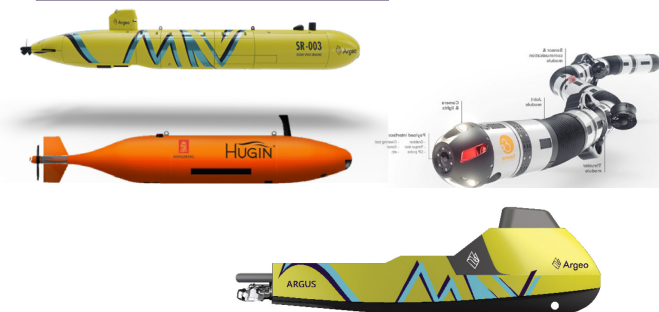
CO2-emission: High

Data Quality: Medium

Productivity: Low



## AUV/Robotics



Day rate: Low

CO2-emission: Low

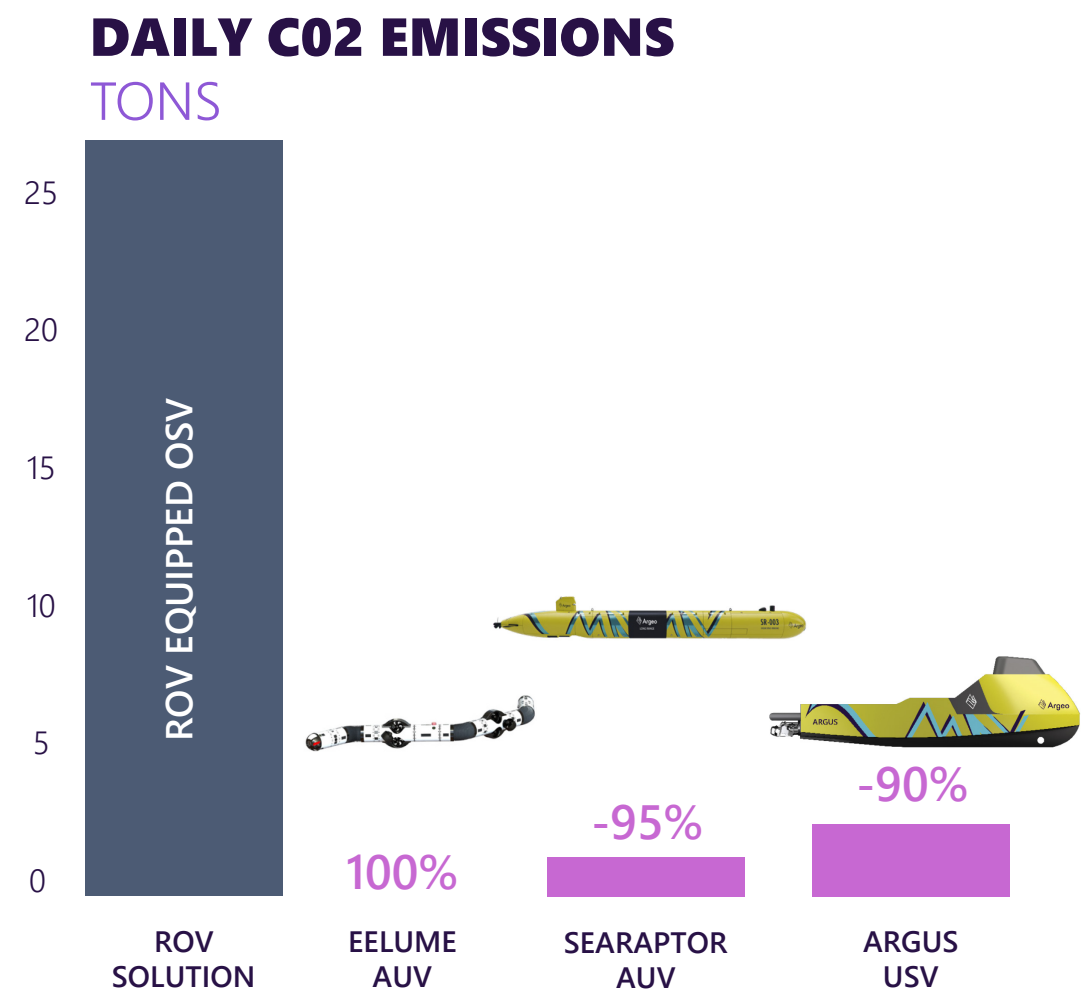
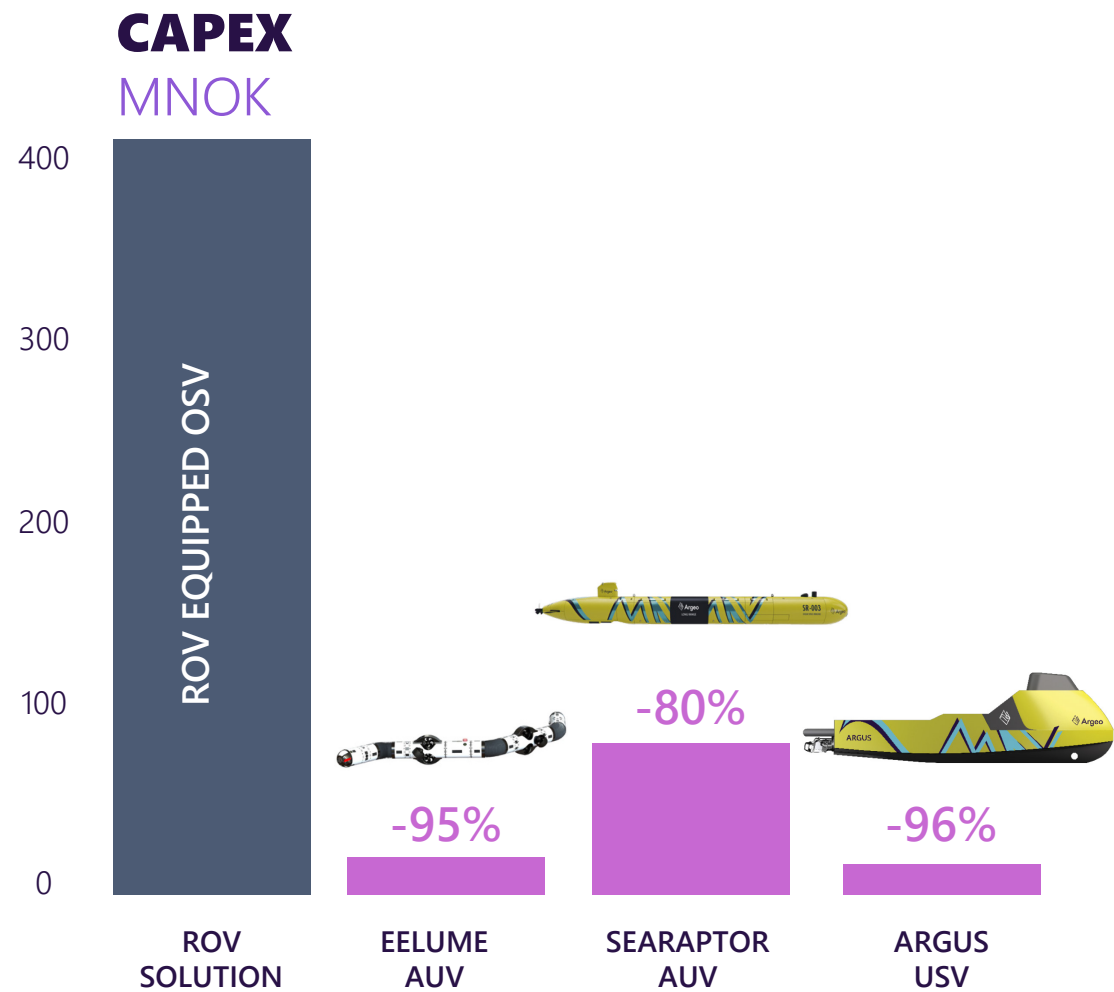
Data Quality: High

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





# 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



## OFFSHORE WIND

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



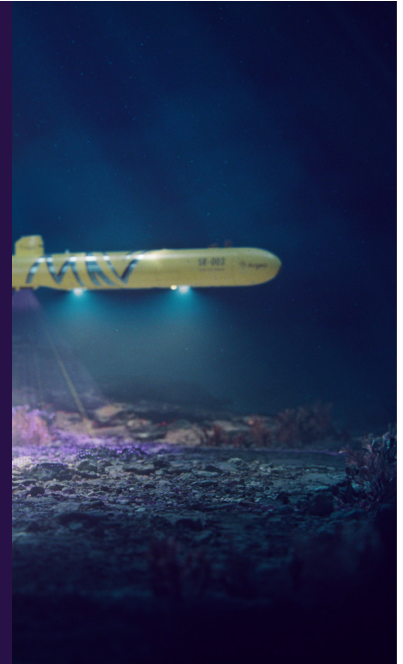
## O&G SURVEY INSPECTION

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



## 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



# Agenda

Introduction to Argeo

► **Market outlook**

Argeo Energy services

Argeo in the renewable sector

Technology



# Tender value by Geomarkets

## Business and commercial expansion exceeding expectations

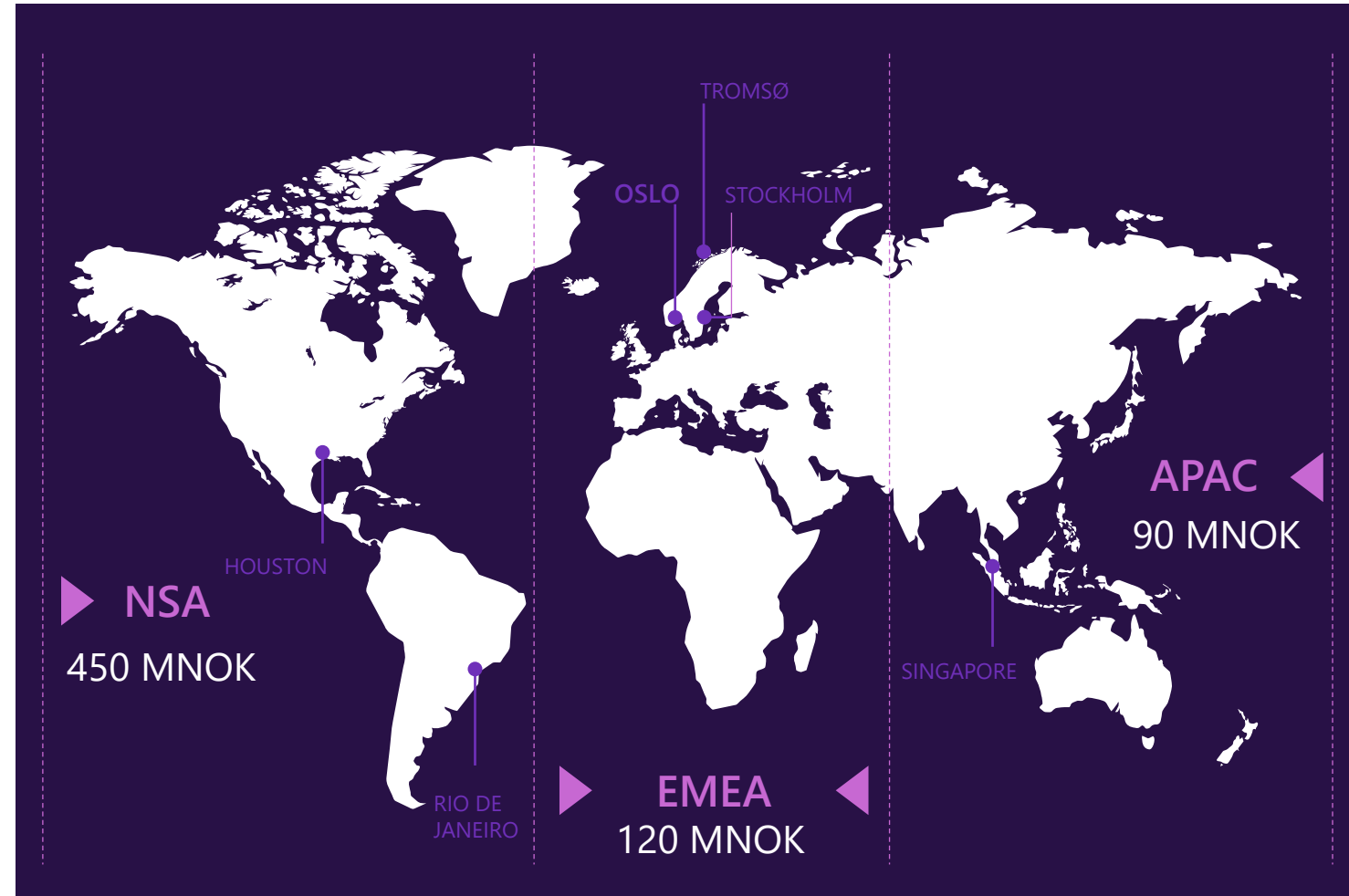
- Offices in Houston and Rio to drive business development and operations in NSA geomarket
- Hugin 1000 system moved to Brazil to commence operations on reported contract

## 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?

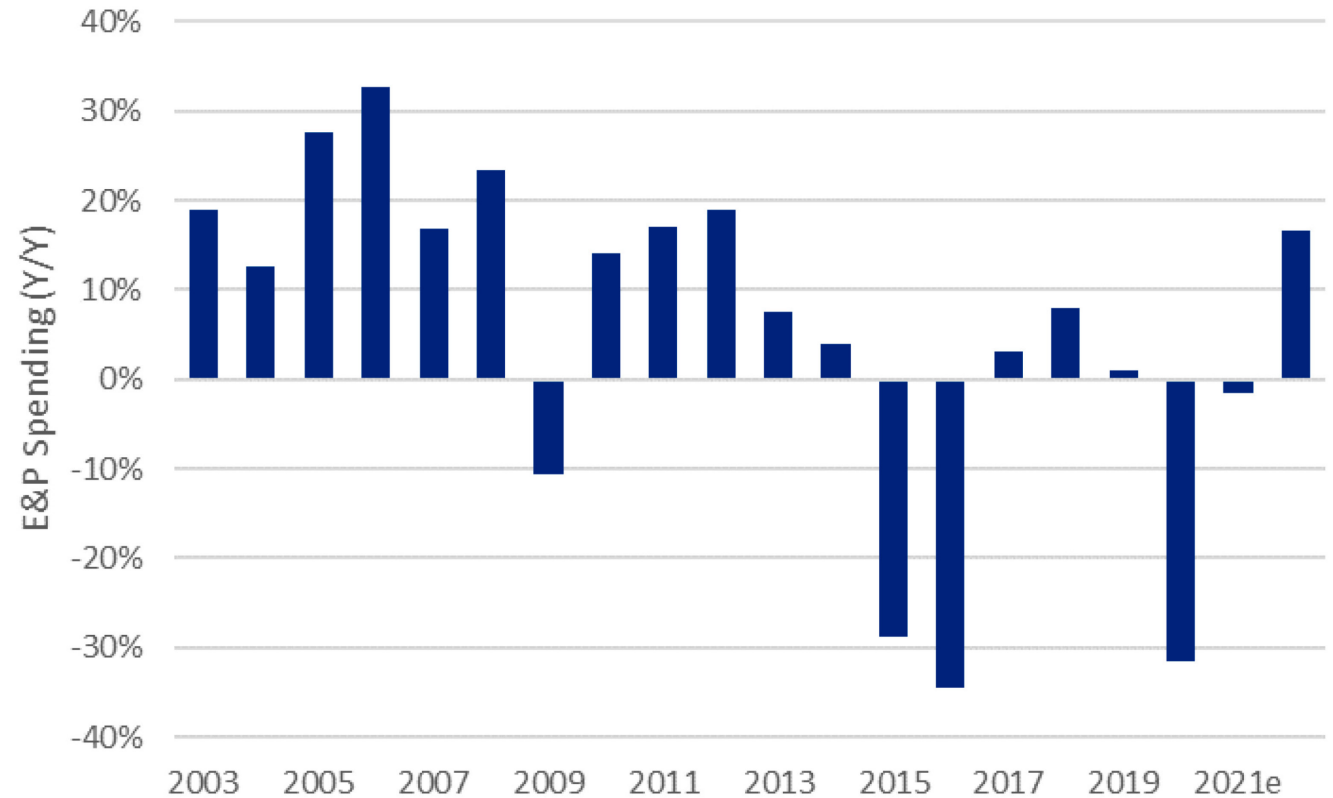
- Reduced transit time increases utilization
- Closer to our customers in key areas
- Build backlog/Multi-Client extending ongoing project
- Faster mobilization reduces cost for our customers
- Retain crew and equipment in identified regions



# 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.

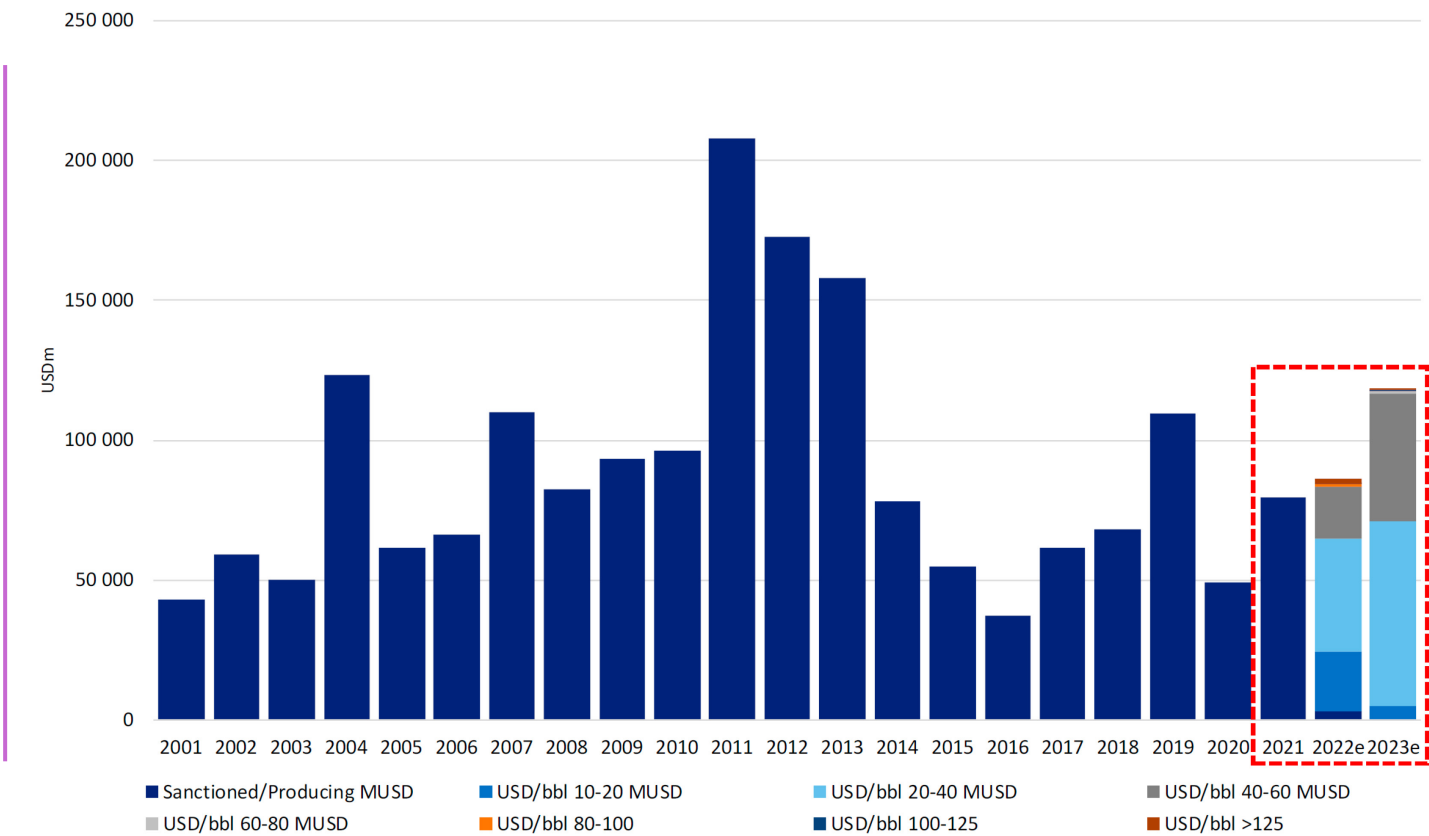


Ref: SB1 Markets, Oil Service Market Report 2022



# Global offshore capex sanctioning expected to increase

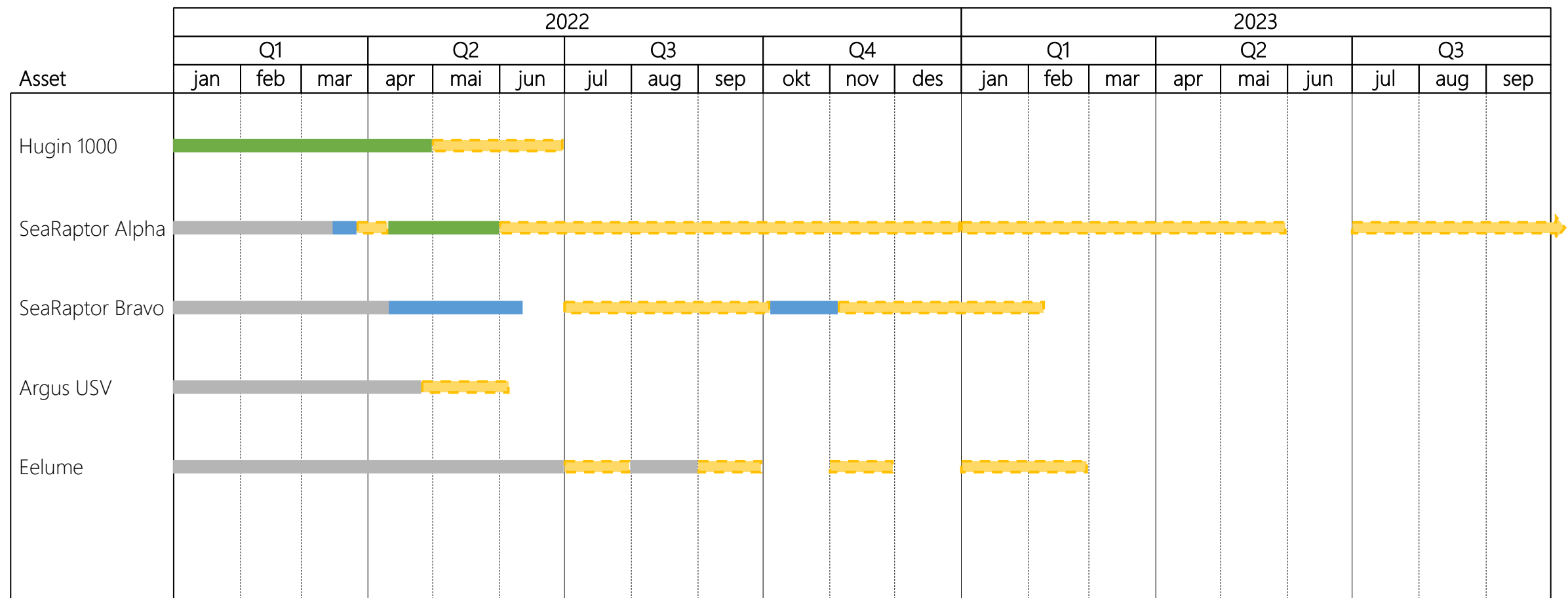
With global offshore sanctioning up 8% in 2022 and a further increase to 37% in 2023, Argeo is perfectly positioned to capitalize on this strong growth to support our fleet expansion going forward



Ref: SB1 Markets, Oil Service Market Report 2022

# Expanding tenders and backlog

## ARGEO CURRENT FLEET SCHEDULE



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



# Agenda

Introduction to Argeo

Market outlook

► **Argeo Energy services**

Argeo in the renewable sector

Technology

ARGEOS 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

ARGEO ENERGY SERVICES

# 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



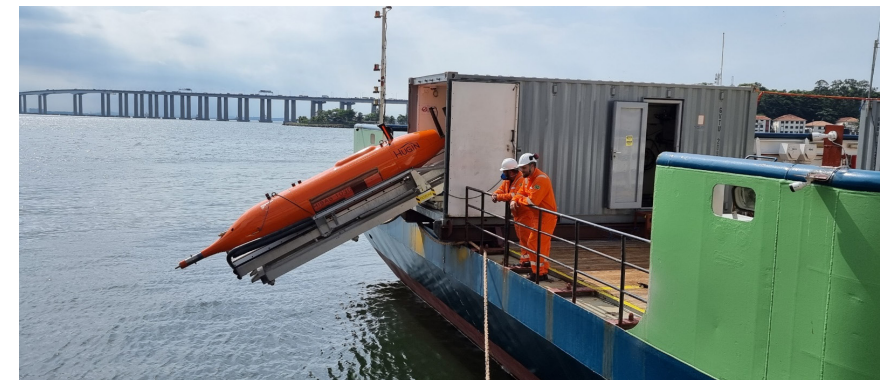
Argeo crew installing Hugin subsea communication system



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



ARGEON ENERGY SERVICES

# SEARAPTOR VEHICLE STATUS “Alpha”

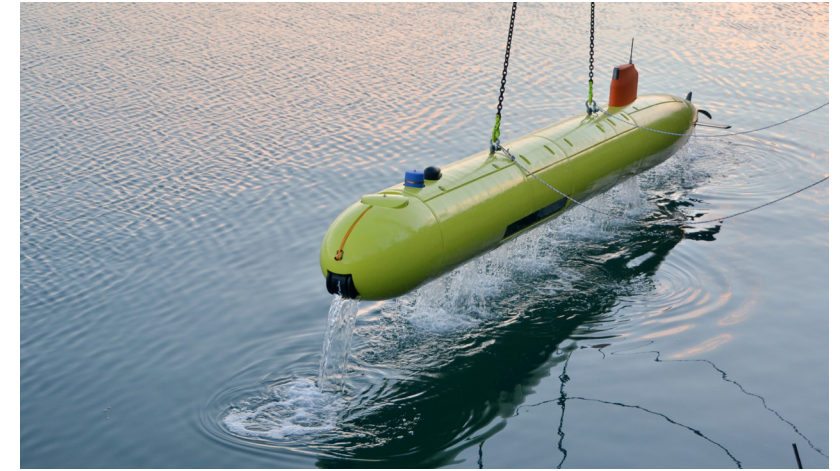
## ONGOING COMMERCIALISATION

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

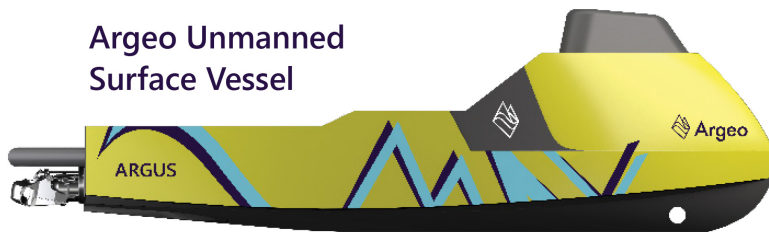


PROJECT "DARK KNIGHT"

# ARGEO 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

# Agenda

Introduction to Argeo

Market outlook

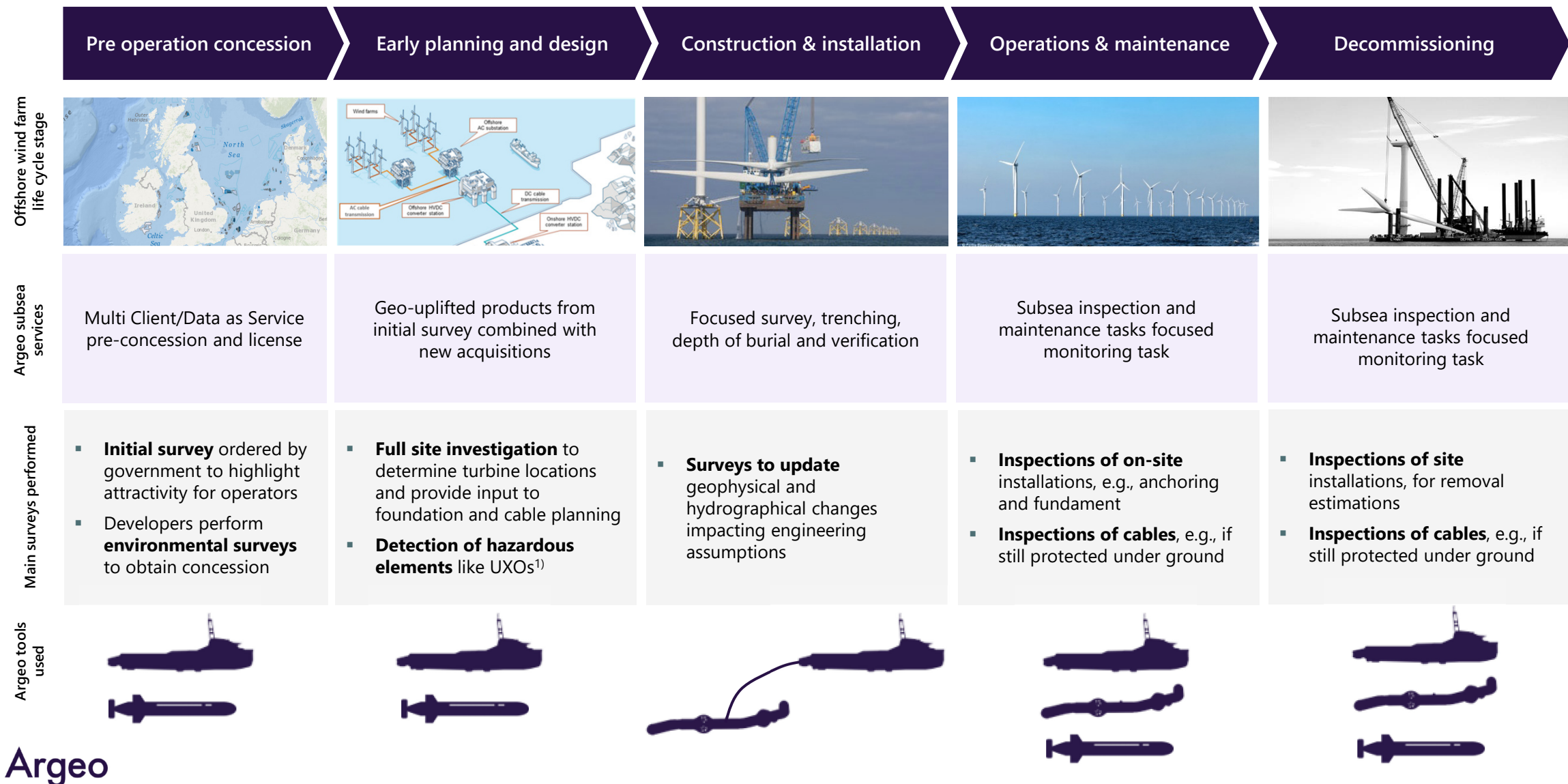
Argeo Energy services

► **Argeo in the renewable sector**

Technology



# Offshore wind value chain overview and description



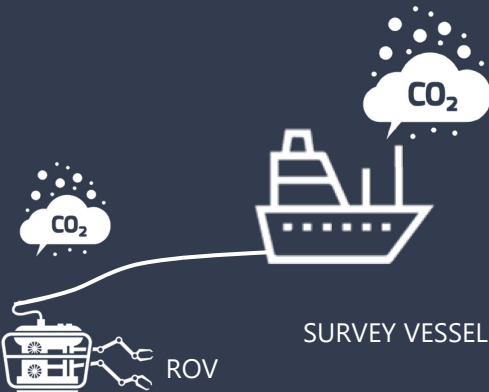
ENABLING RENEWABLES:

# Accelerating offshore wind development



## CHALLENGES WITH OFFSHORE WIND TODAY

1. Long time from plan to build
2. High development cost
3. Low confidence in bidding and planning phase



## DATA AS A SERVICE

Reduce planning time  
with 1-2 years

## Earlier data access

- Increase confidence and reduce risk from application to construction
- Reduce time needed for optimizing development solution

## Cover the whole wind farm

Increase collaboration

Large survey replaces numerous small ones

Less resources spent by authorities and developers

## >30% cost reduction to client

Increase efficiency

Economies of scale

## Lower CO2 footprint

## Higher data quality

# Agenda

Introduction to Argeo

Outlook

Argeo Energy services

Argeo in the renewable sector

► **Technology**

# Argeo Robotic Technology Portfolio

## ARGEO LISTEN

- Cathodic Protection tool
- Inspection
- Self potential

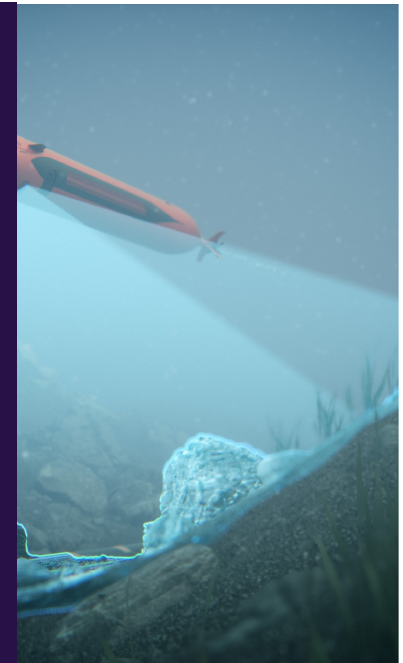
Q2 - 2022



## 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

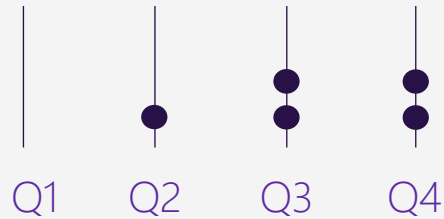




# Argeo's first shore-to-shore capable AUV

## 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

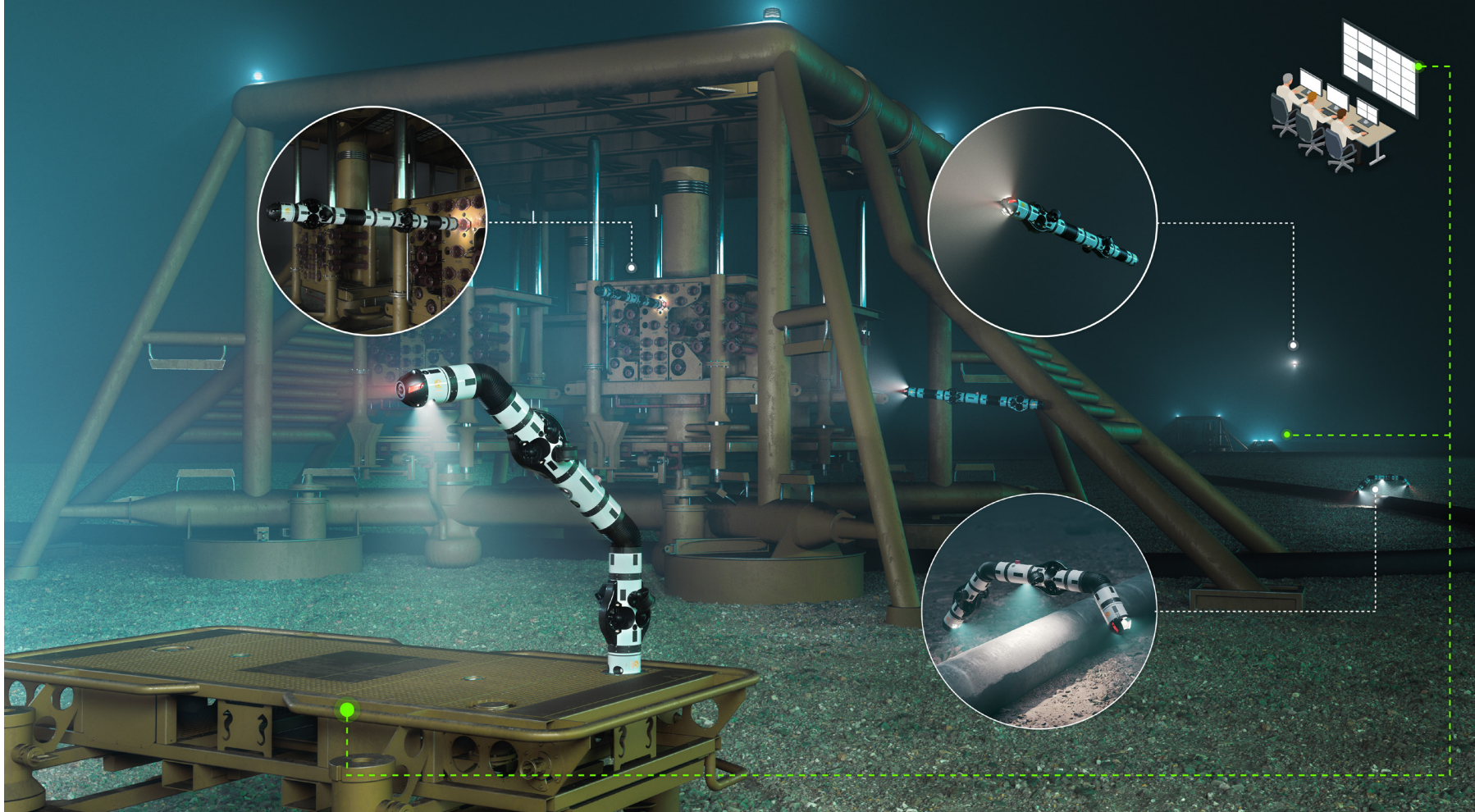
ARGEO  
DISCOVER

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.



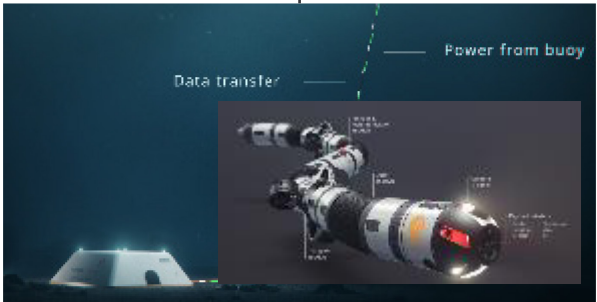
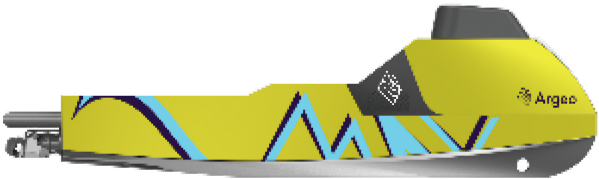
# Mission Controlled Operation for USV & Eelume

Argeo Mission Control Centre

IP/VSAT/4G/5G/Iridium and MBR link

Supervised operations

Both client base (on-prem) and containerized operation centres will be made available, supported by Argeo's global Mission Control Centre



**Global Mission Control:** Supporting client on-prem or containerised Supervised operations providing 100% mission support and backup

# 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**