

Sustainable Fishery by compact handling systems

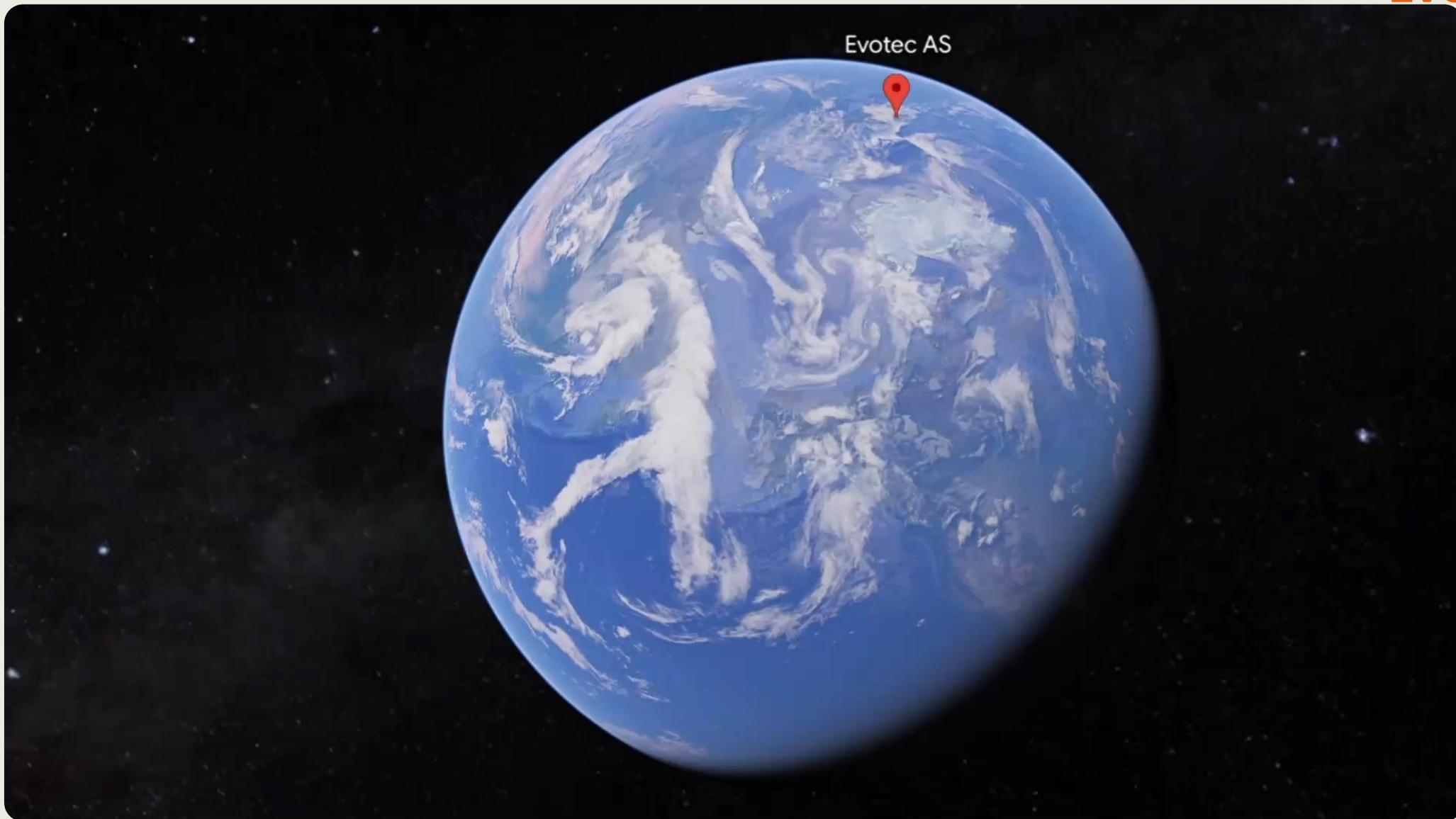
Torkjell Ringstad, VP Sales and
Marketing Evotec AS

The improver

...ENTEC
EVOTEC

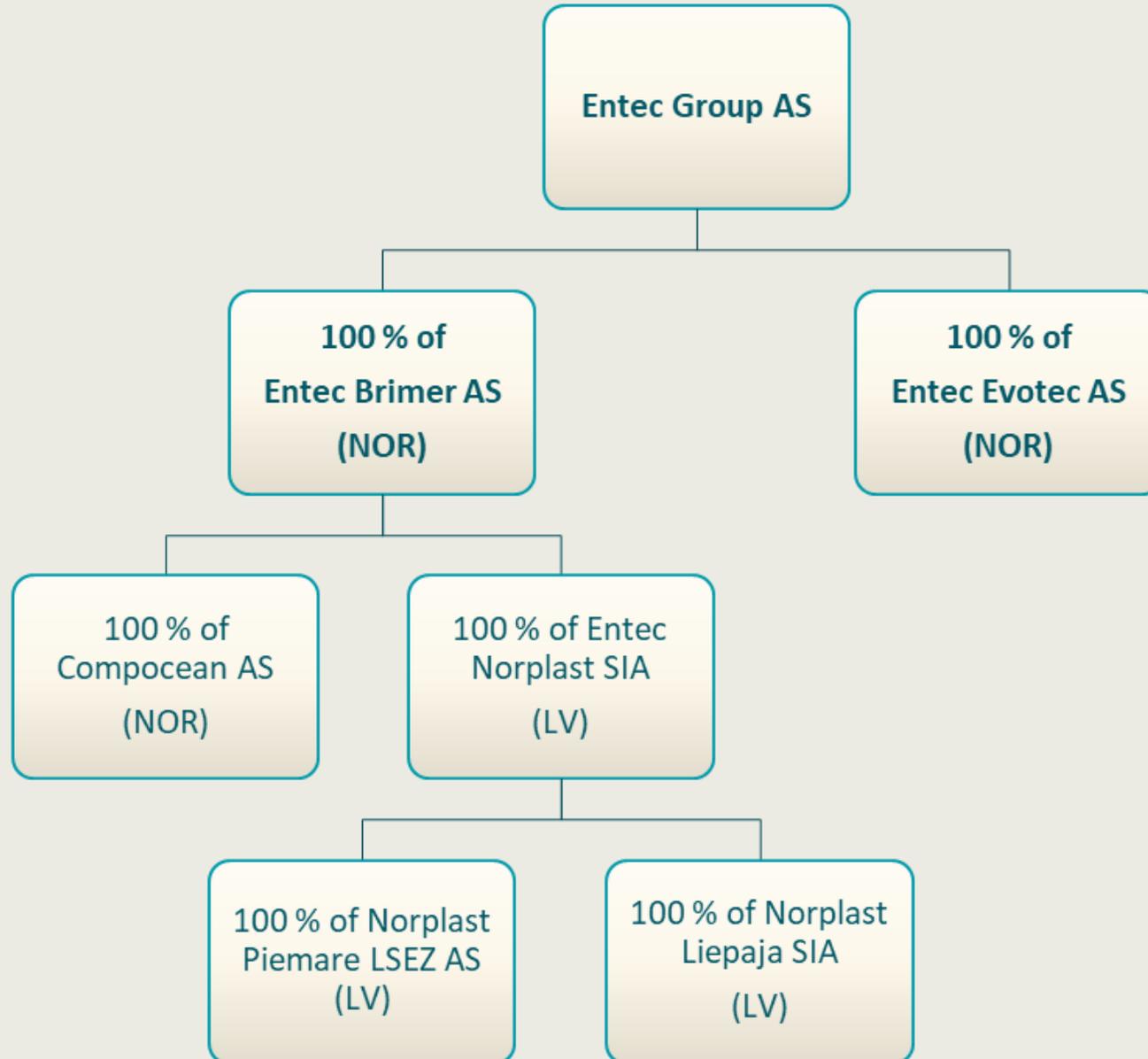
**Our aim is to design sustainable and efficient solutions
– for the environment**





ENTECC GROUP AS

EVOTEC



In 2018 the combined revenues were abt. 150 MNOK.

In 2023 the Group consolidated revenues were abt. 650 MNOK.

The business is today generated through the brands **BRIMER** and **EVOTEC**

Employees abt. 250 people in total.

...BRIMER

Brimer Company Presentation



- Clean water solutions
 - Protected for life

Brimer locations



Main Office Ulsteinvik



Production Kvamsøy



Production Saldus



Production Liepaja

- Landbased Fishfarming



...BRIMER





Other Products

Ocean Fish Farming, Enclosed Aquafarm

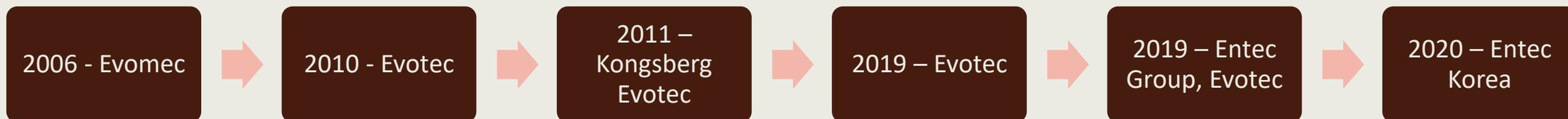
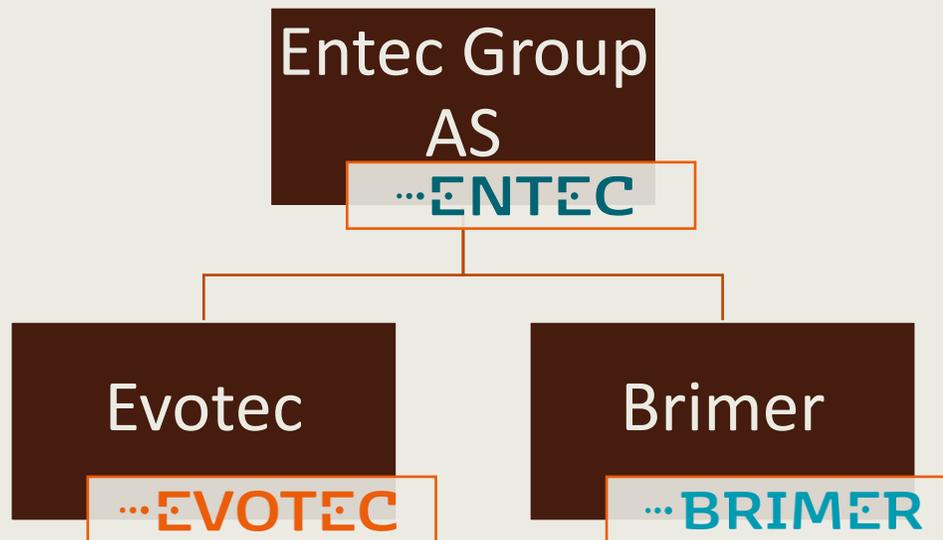


• Fish processing & Industry

Brimer tanks for different processing plants

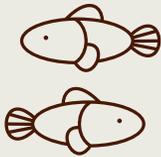


History of Evotec



Market areas

Bring on the storms. Bring on the depths. Bring on the unsolvable projects.



Wild catch

Durable and sustainable solutions



Offshore & Wind

Reliable performance, even in harsh weather



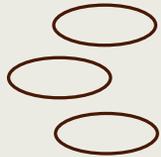
Research

Complete integrated packages



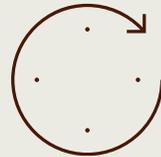
Seismic

Go deep, go safe, go explore



Aquaculture

Effective and electrifying

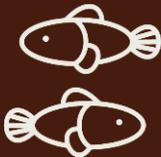


Aftersales & Service

Wherever and whenever you need it

Market areas

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Durable and sustainable solutions



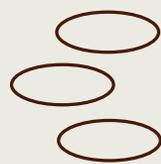
Offshore & Wind
Reliable performance, even in harsh weather



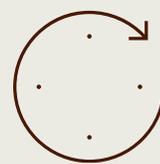
Research
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Seismic
Go deep, go safe, go explore



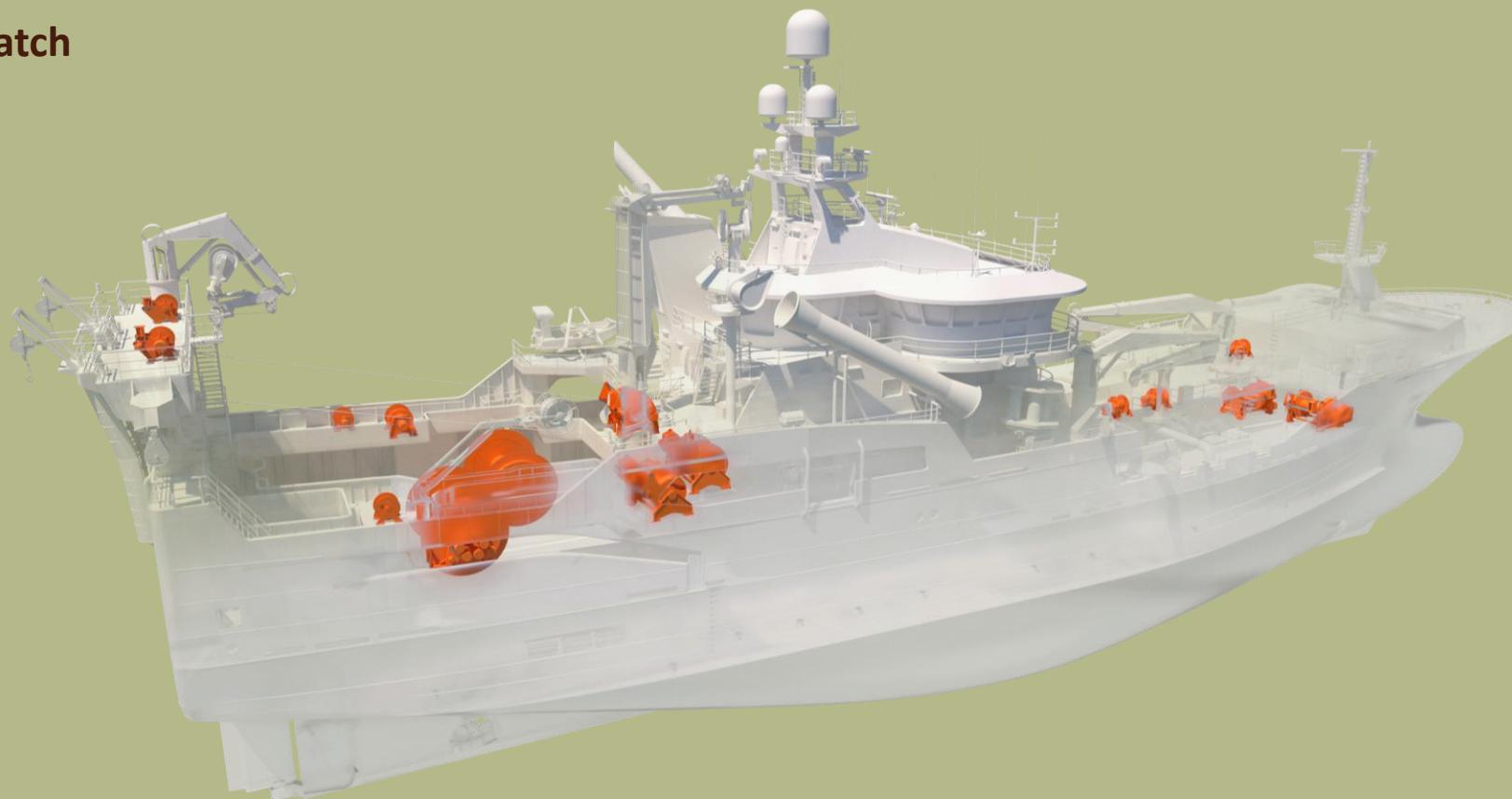
Aquaculture
Effective and electrifying



Aftersales & Service
Wherever and whenever you need it

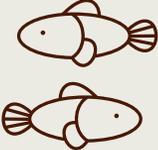
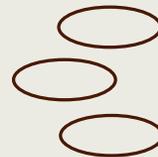
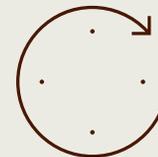
Market areas

Wild catch



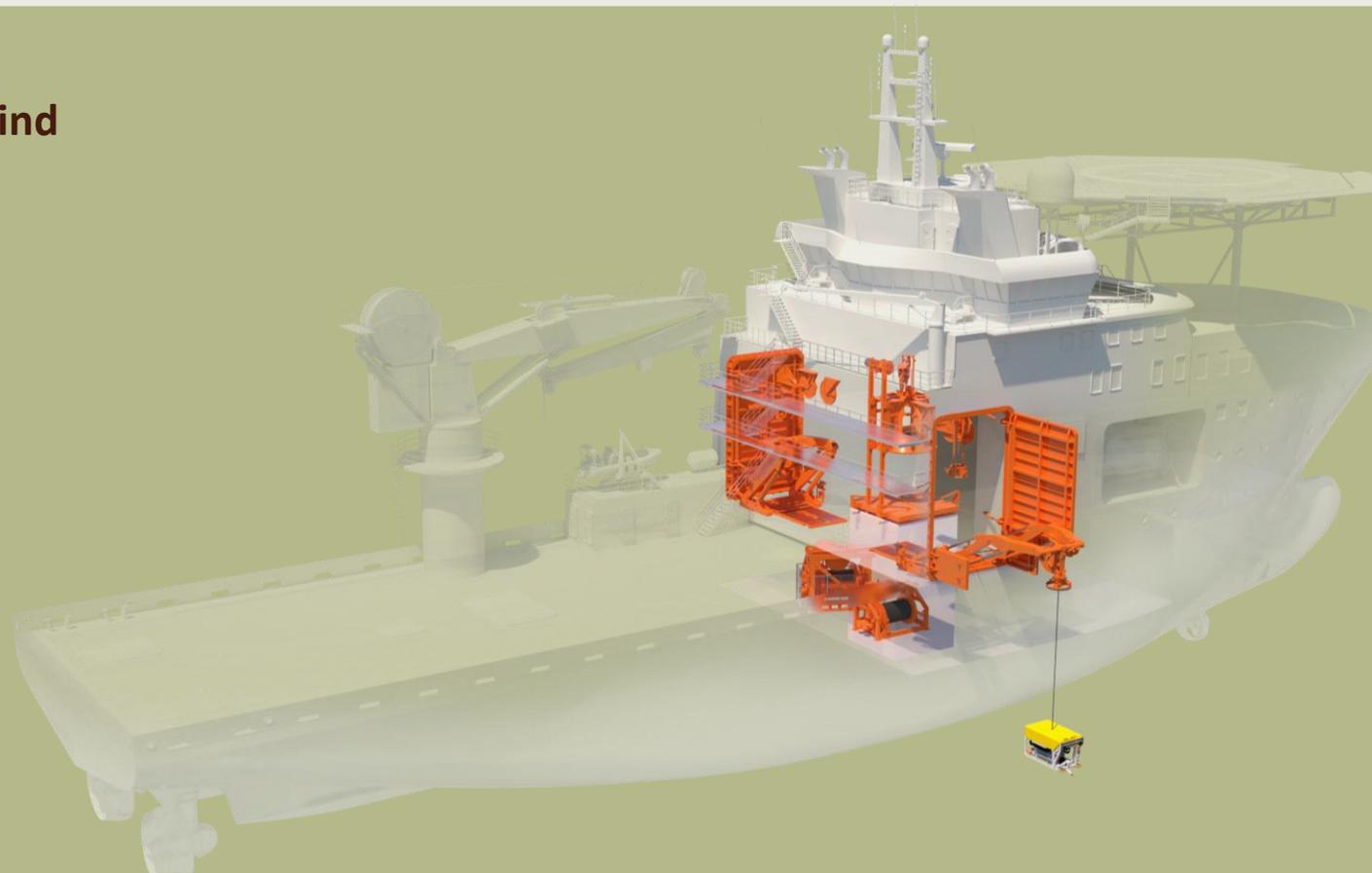
Market areas

Bring on the storms. Bring on the depths. Bring on the unsolvable projects.

 <p>Wild catch</p> <p>Durable and sustainable solutions</p>	 <p>Offshore & Wind</p> <p>Reliable performance, even in harsh weather</p>	 <p>Research</p> <p>Complete integrated packages</p>	 <p>Seismic</p> <p>Go deep, go safe, go explore</p>	 <p>Aquaculture</p> <p>Effective and electrifying</p>	 <p>Aftersales & Service</p> <p>Wherever and whenever you need it</p>
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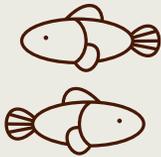
Market areas

Offshore & wind



Market areas

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Wild catch

Durable and sustainable solutions



Offshore & Wind

Reliable performance, even in harsh weather



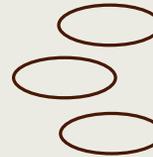
Research

Complete integrated packages



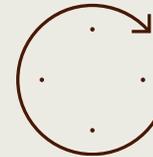
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Aquaculture

Effective and electrifying



Aftersales & Service

Wherever and whenever you need it

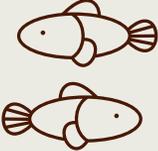
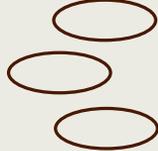
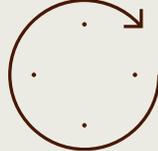
Market areas

Research



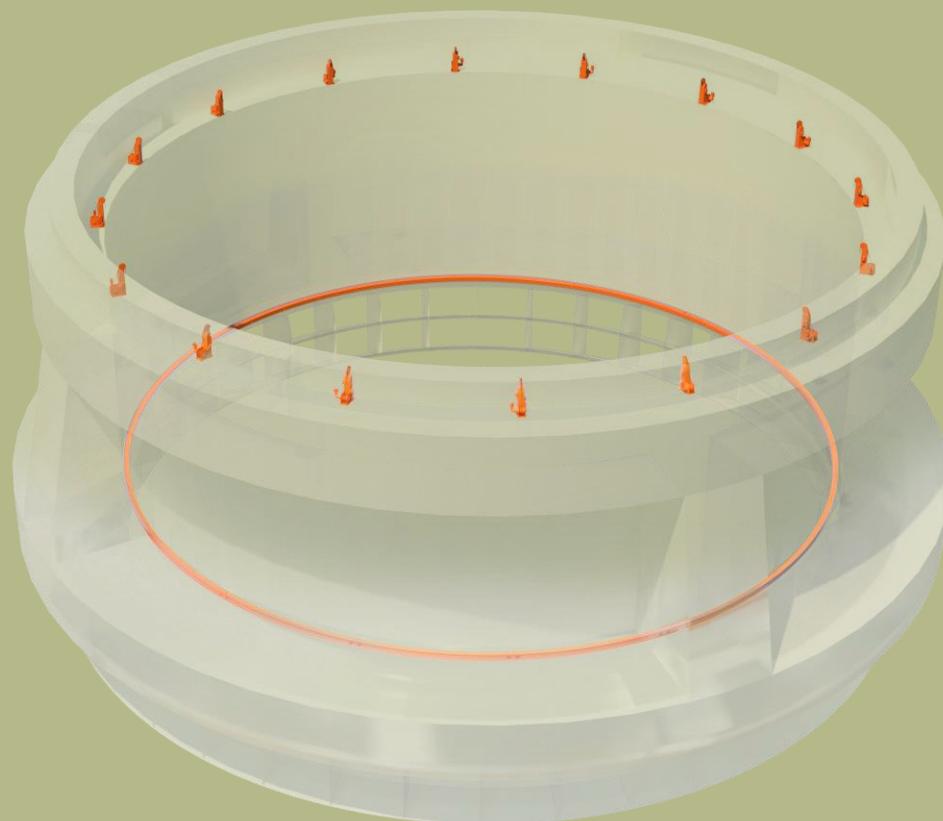
Market areas

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 <p>Wild catch</p> <p>Durable and sustainable solutions</p>	 <p>Offshore & Wind</p> <p>Reliable performance, even in harsh weather</p>	 <p>Research</p> <p>Complete integrated packages</p>	 <p>Seismic</p> <p>Go deep, go safe, go explore</p>	 <p>Aquaculture</p> <p>Effective and electrifying</p>	 <p>Aftersales & Service</p> <p>Wherever and whenever you need it</p>
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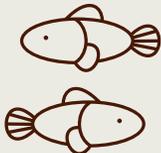
Market areas

Aquaculture



Market areas

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Wild catch

Durable and sustainable solutions



Offshore & Wind

Reliable performance, even in harsh weather



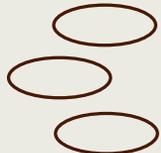
Research

Complete integrated packages



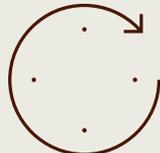
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Effective and electrifying

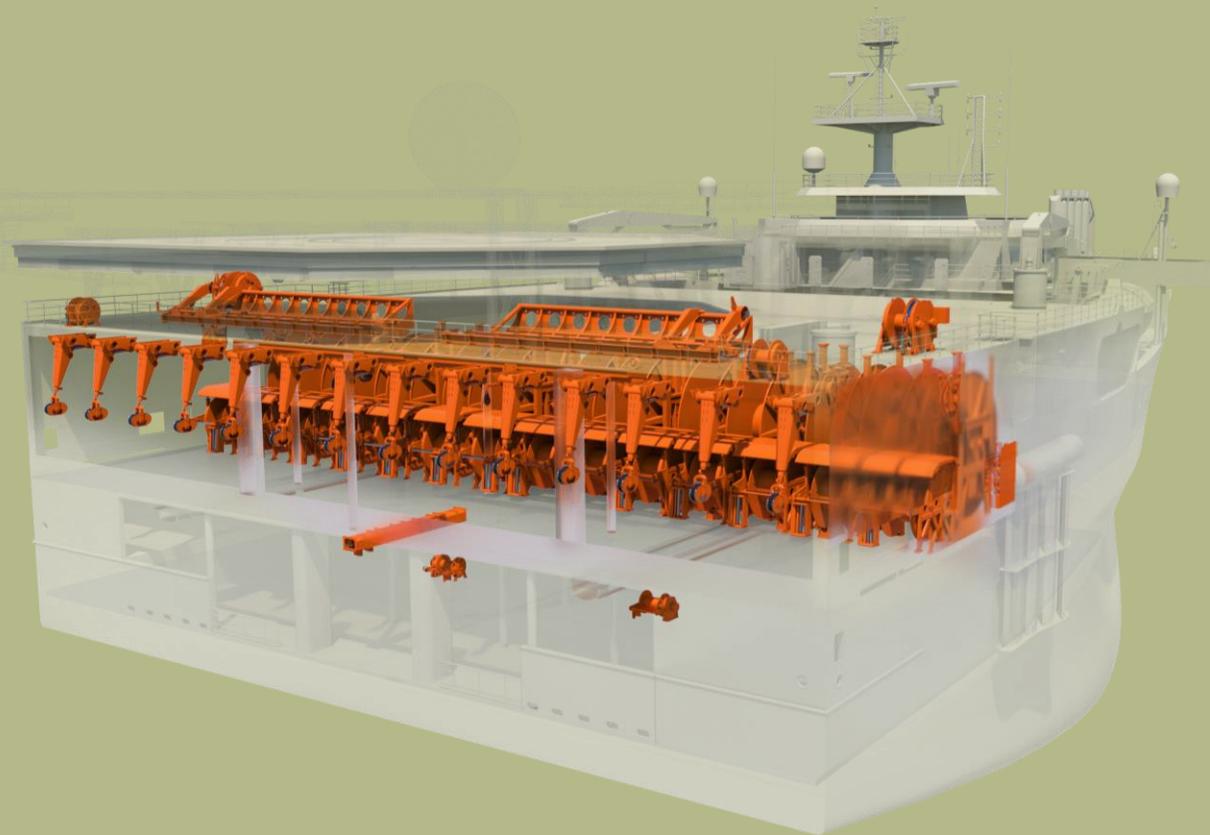


Aftersales & Service

Wherever and whenever you need it

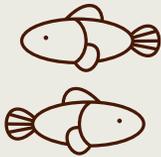
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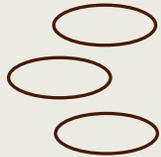
Research

Complete integrated packages



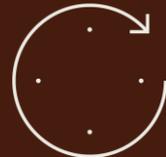
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Aftersales & Service

Wherever and whenever you need it

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After-sales & service

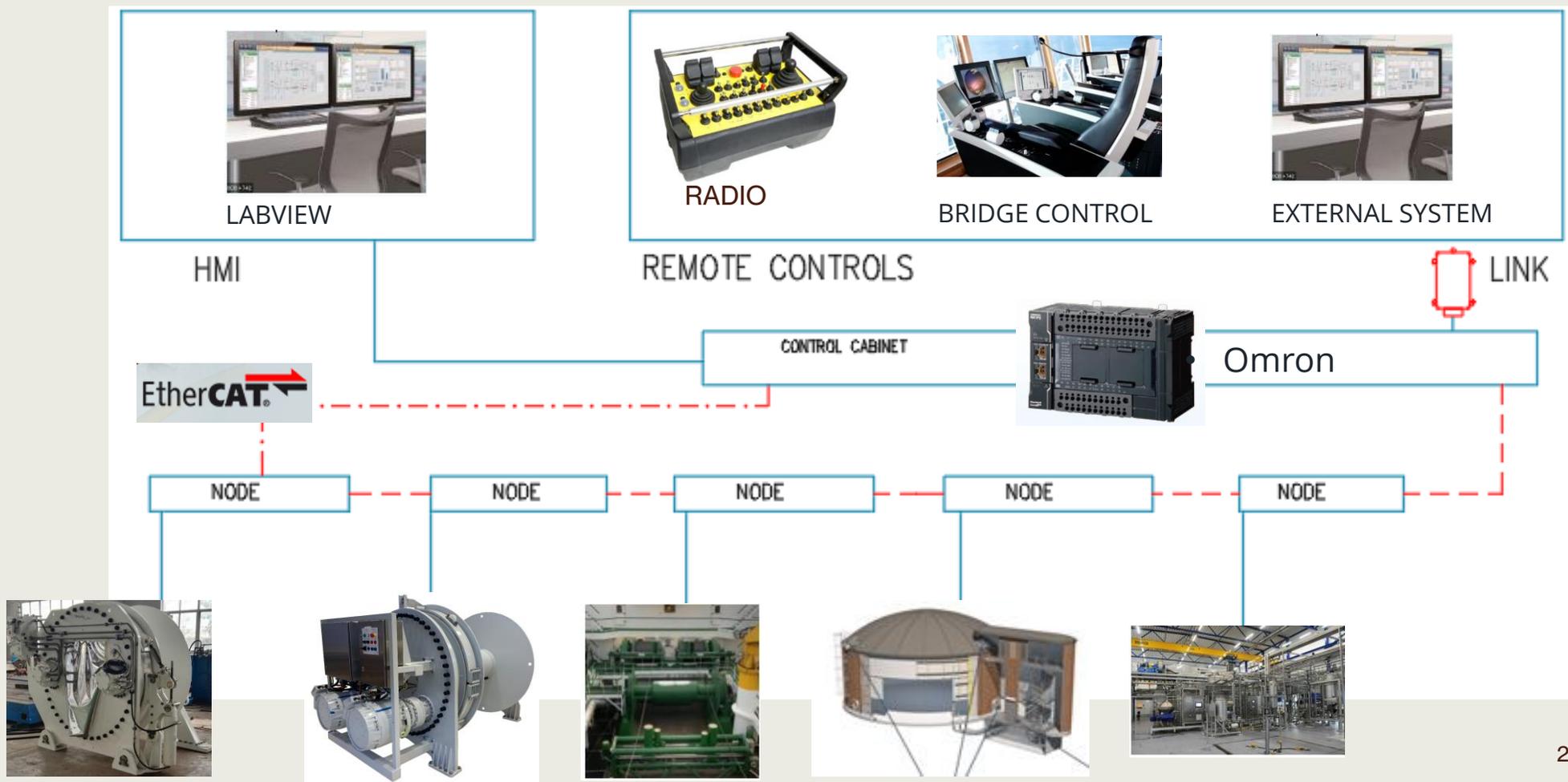
Service, tension spooling, spare parts, technical support, Evotec training, upgrade and rebuild

We are fully aware of the importance of a continuous operation. To minimize your downtime, our skilled engineers, equipped with extensive knowledge and technical expertise, provide timely support to customers in diverse market segment.

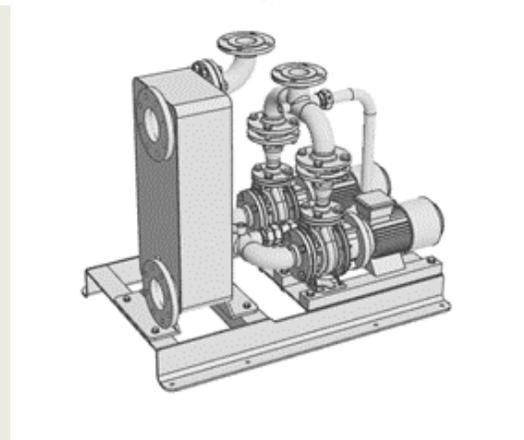
Our highly qualified and dedicated service team is ready 24/7 to assist you on short notice. When you contact us, you will immediately get in contact with someone who can help, and most likely the person you speak to is the one that either designed, assembled, or commissioned your product.



Control system design



Compact Motor and Drive systems



Unique Automation and Control systems

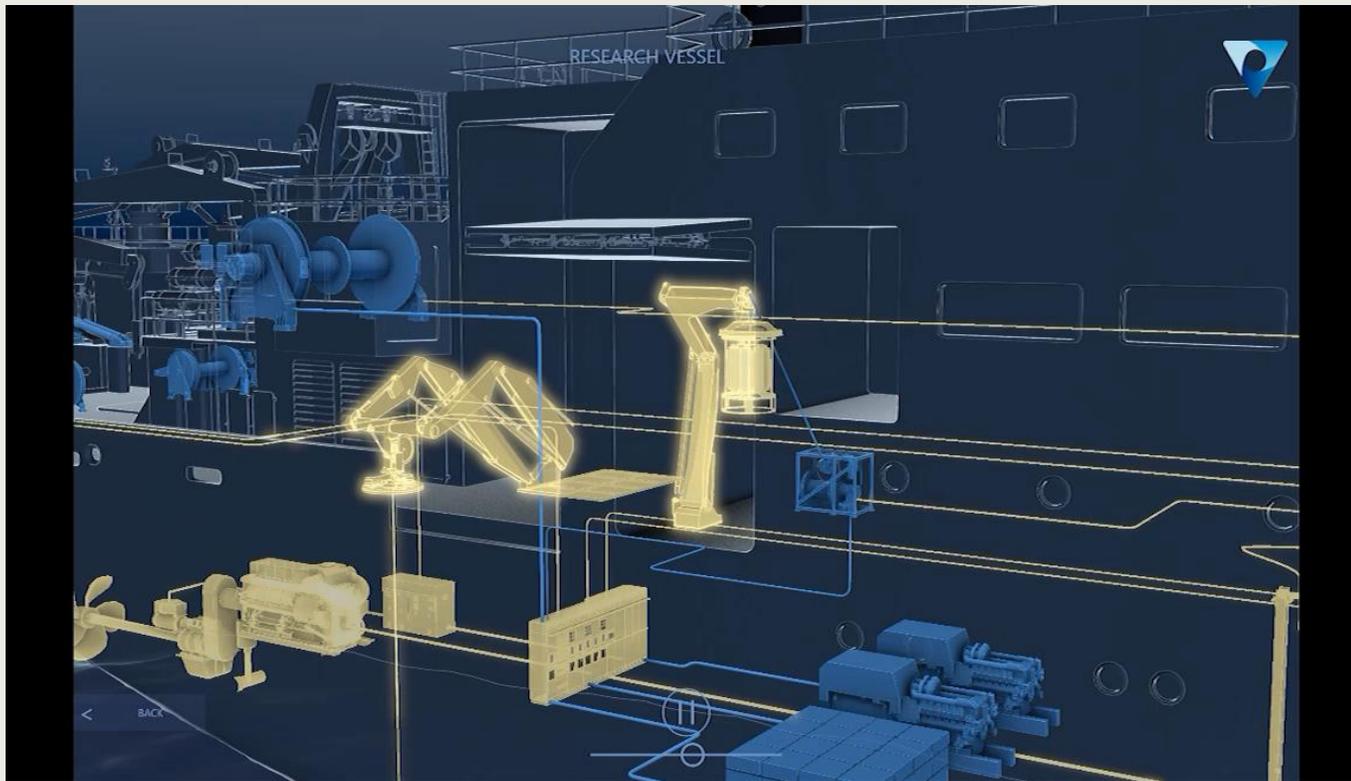
The screenshot displays the EVOTEC control interface with the following sections:

- System Status:**
 - Power Line 1 Status:
 - Power Line 2 Status:
 - HPU Pressure (bar):
- Select Winch From Here:**
 - Select
 - Deselect
 - Winch Currently selected by: None
- Umbilical Winch:**
 - Drum Spooling Winch Mode
 - Power Off
 - Power Off
 - No Selection
 - ACTIVE HEAVE COMPENSATION
 - AHC Not Ready
 - Stop
- Auto Depth:**
 - Ramp Time (Sec): 10.0
 - Safety Length (m): 1000.0
 - Speed [m/min]: 0.0
 - Position to Reach [m]: 0.0
 - Auto Depth Not Ready
 - Stop
- Command Transfer:**
 - Enable Take Command
 - Enable Give Command
- 3D Model and Telemetry:**
 - Wired In/Out: Power Off
 - TILL ABZ/wd: Power Off
 - Power Off
 - Docking Rotation: Power Off
 - Line Legs: Power Off
 - Main Legs: Power Off
 - Wire Tension [Te]: 0,0
 - Meter Out [m]: 0,0
 - Speed [m/min]: 0,0

At the bottom, there is a navigation menu with tabs for Main Page, AHC, Settings, Elevator, Motors, and System. Below the menu is an alarm log table:

STATE	TYPE	TIME STAMP RAISED	TEXT	TIME STAMP ACKNOWLEDGED	Fb/No	Obj/No	All/No

Unique handling system - Intro Concept

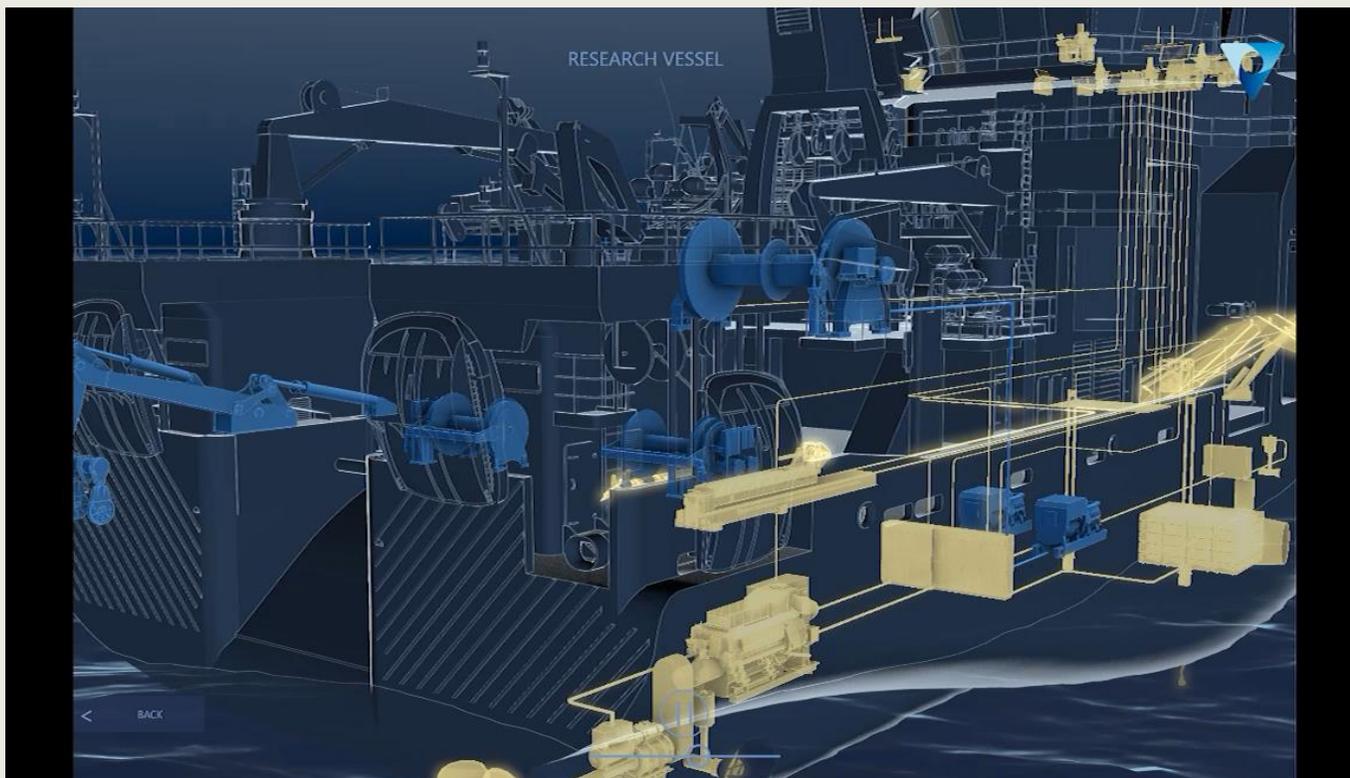


INTEGRATED HANDLING SOLUTIONS

Regeneration of power

Evotec has for the last 15 years been regenerating electric power from the winches
 Vessel will save both capex and opex by regenerating energy from winches/handling systems in deployment mode; Regenerated power equals = Input power – losses(electrical and mechanical)

Unique handling system - Intro Concept



INTEGRATED HANDLING SOLUTIONS

New Launch And Recovery Systems for AUV(LARS for AUV)

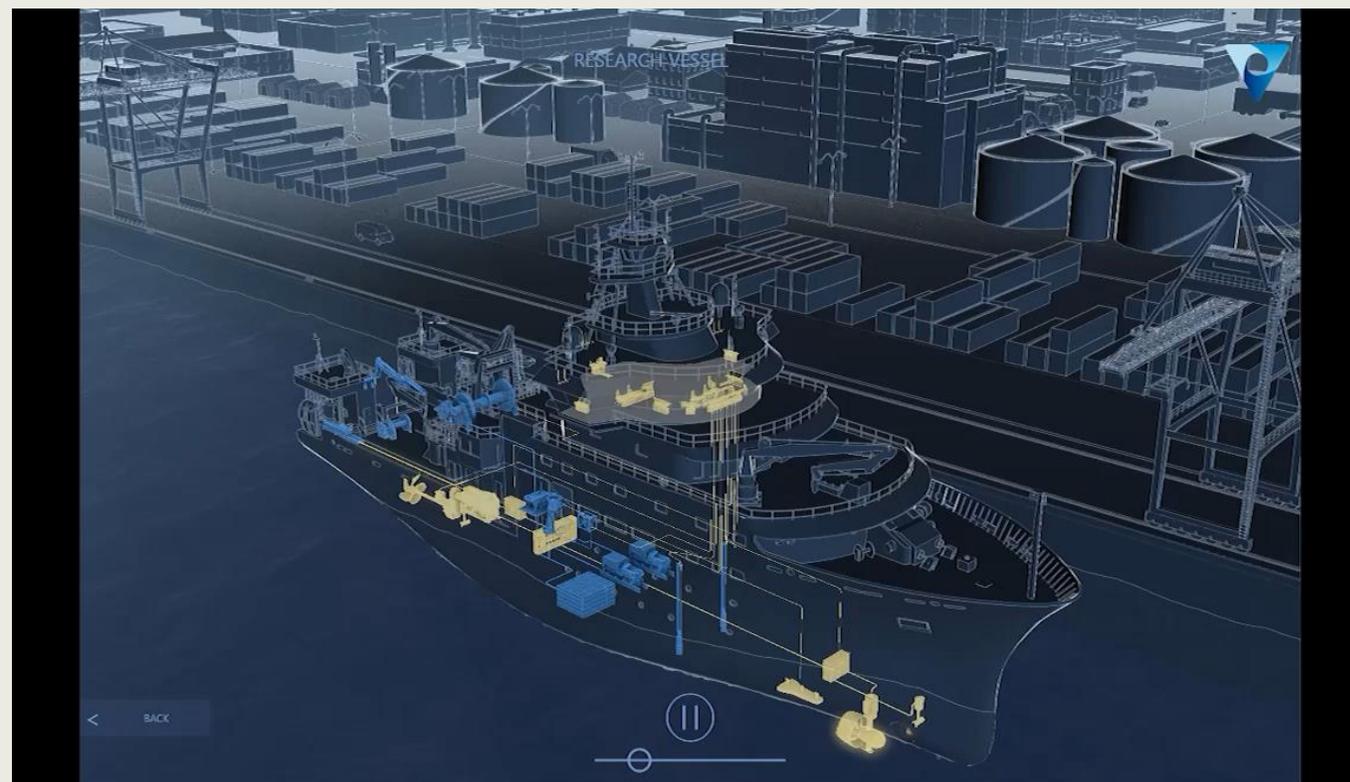
Better performance and Better Operational Weather window

Unique handling system - Intro Concept

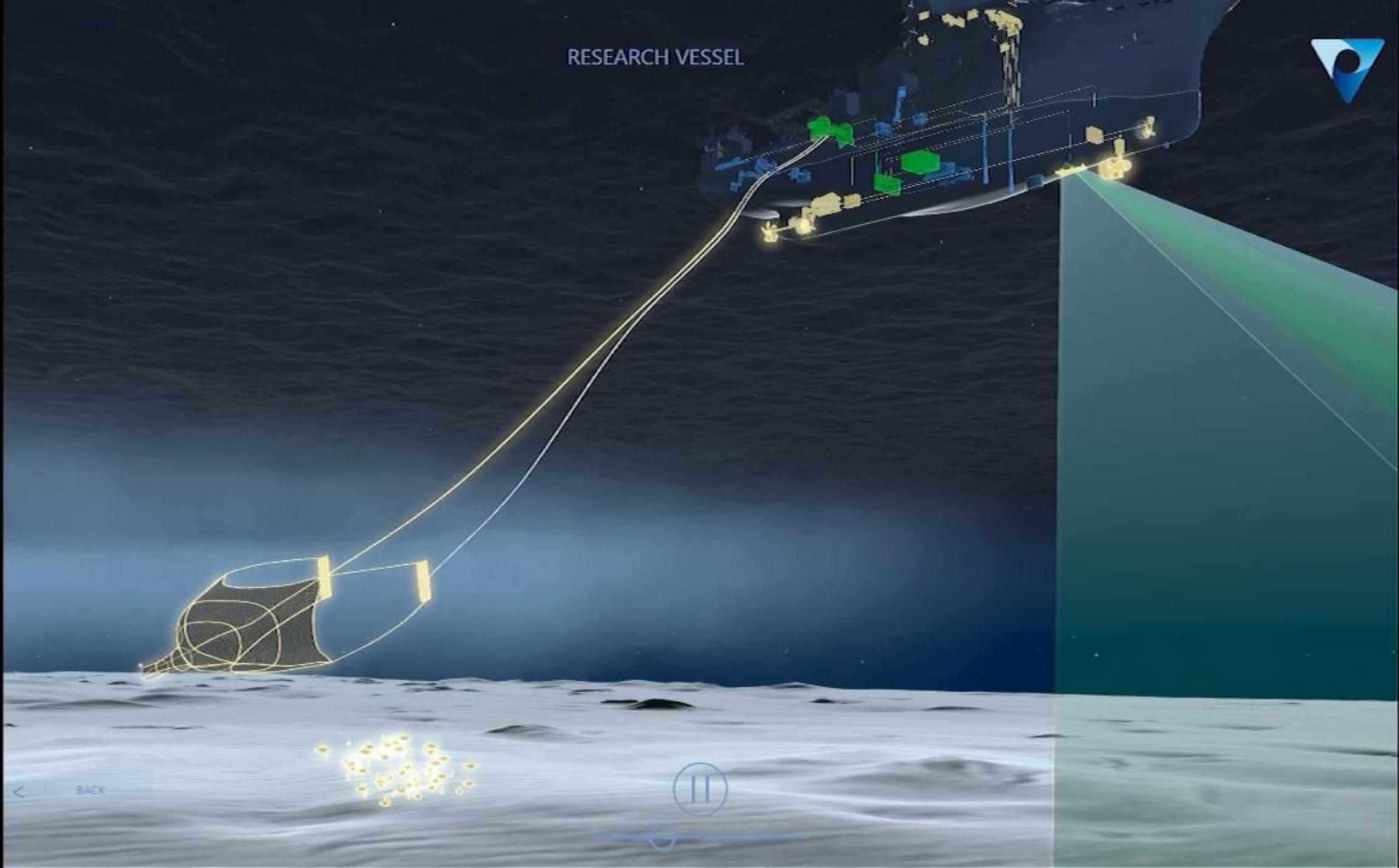
INTEGRATED HANDLING SOLUTIONS

Integration between search, evaluate and catch Sonar systems and handling systems all controlled on the bridge through EVOTEC's Automation Control System

INCREASED PRODUCTIVITY & EFFICIENCY



RESEARCH VESSEL



< BACK



- ## EWDS= Evotec Winch Drive Solution

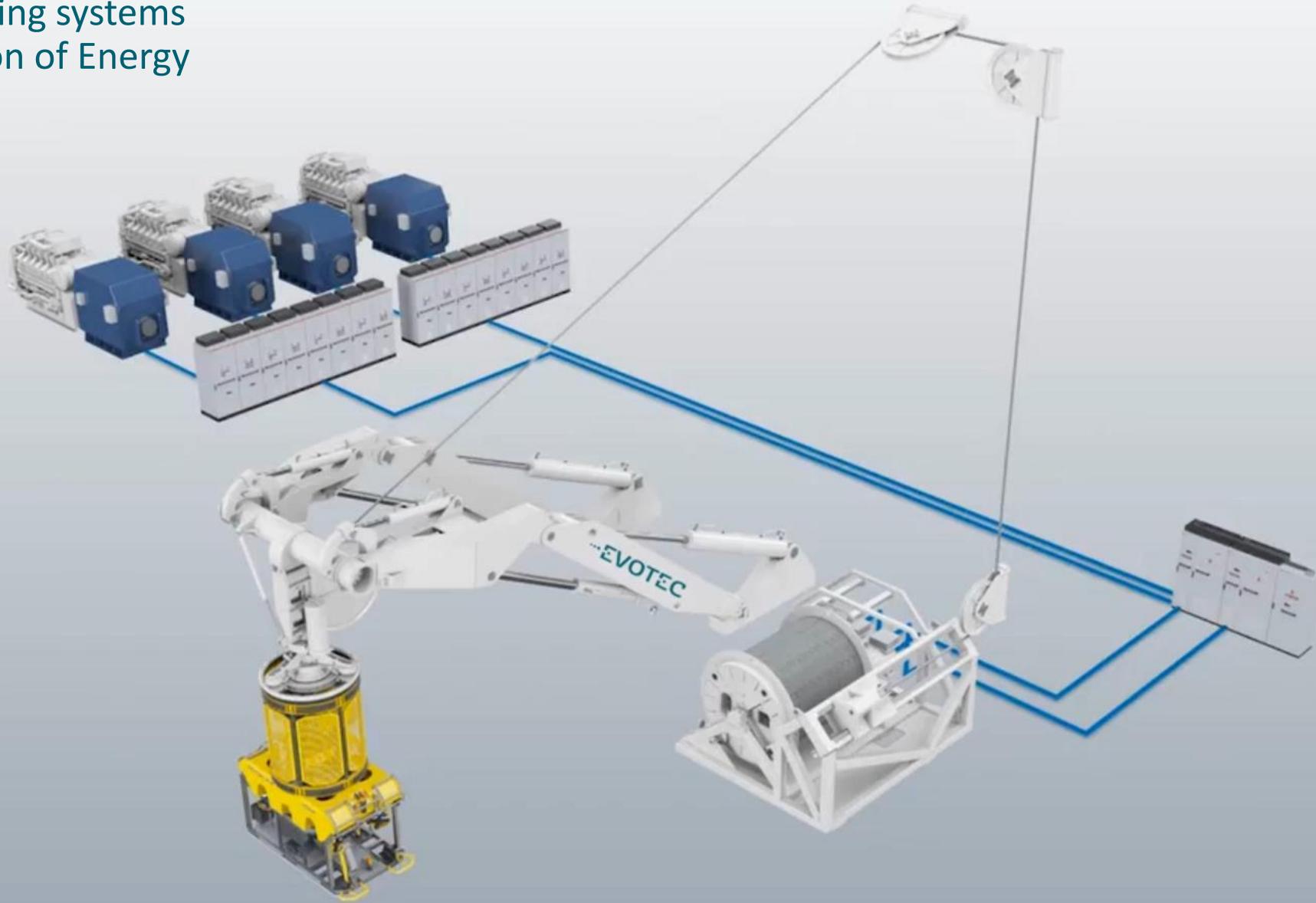
Control and automation systems

Reliable, robust, although simple and user friendly!

Evotec has “the markets quickest and most responsive system”!



Unique handling systems – Regeneration of Energy



Motor (Evotec SRPM)



Designed to work in harsh operating environments IP67

Compact (50%) and reduced weight (70%)

Modular design

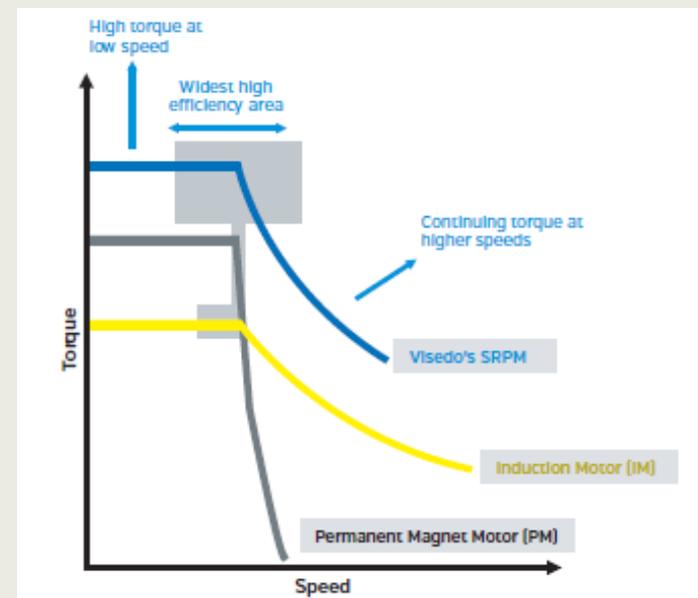
Maximum torque from stand still

The most efficient engine on the market

Improved performance through accurate control and fast response

Low inertia - dynamic winches

Water penetration in motors is the most frequent issues in electrical solutions - Evotec has the densest motor on the market



Compact motor/drive system

Variable Frequency Drives
300 kW, 15 kg

High mechanical vibration (10G) and shock (50G) tolerance

Less space for handling equipment in VFD-room

Reduced installation cost





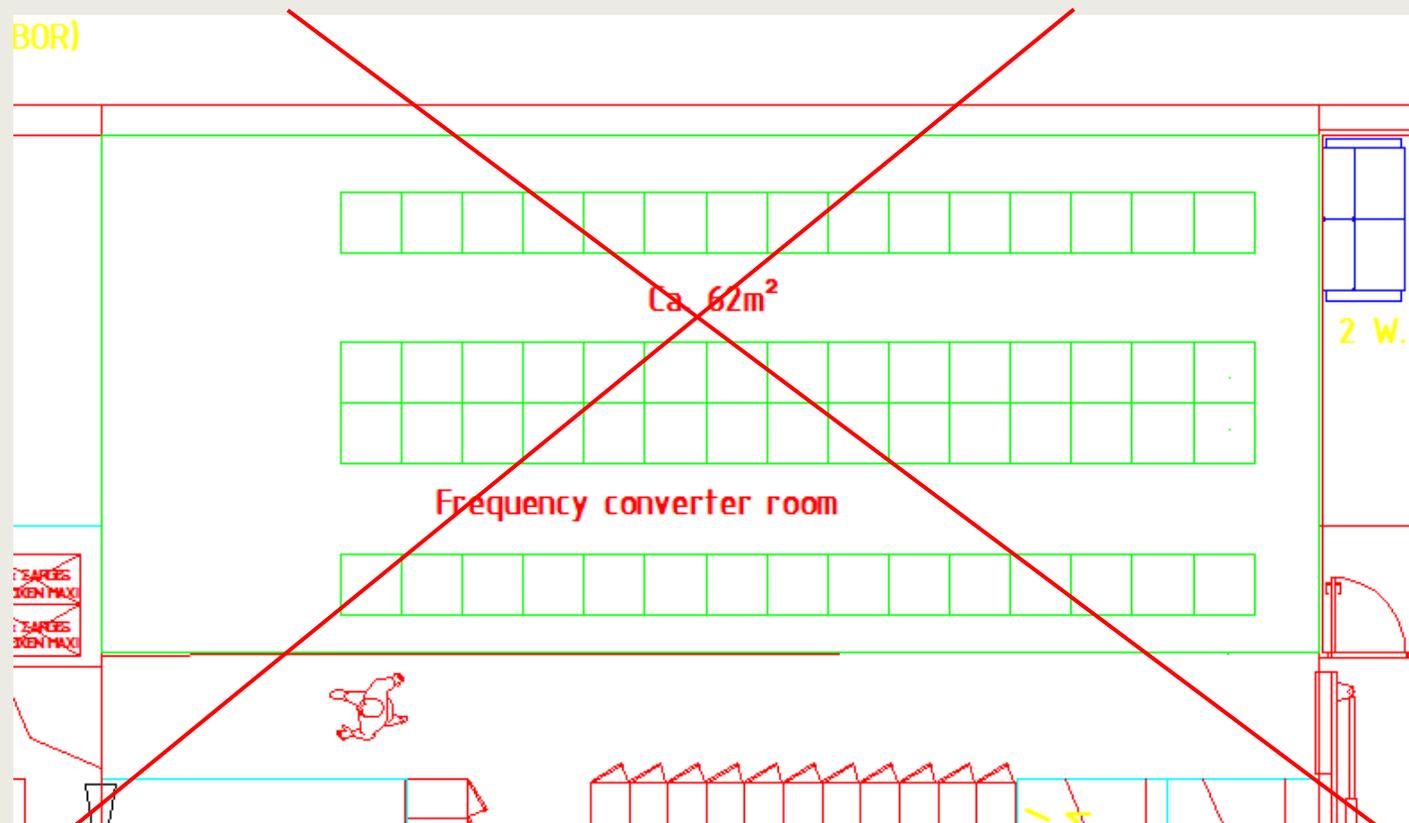
50 converters – on 3 euro pallets!

- Seperate climate controlled room for Frequency converters

LARGE FREQUENCY CONVERTER ROOM



Frequency converter room

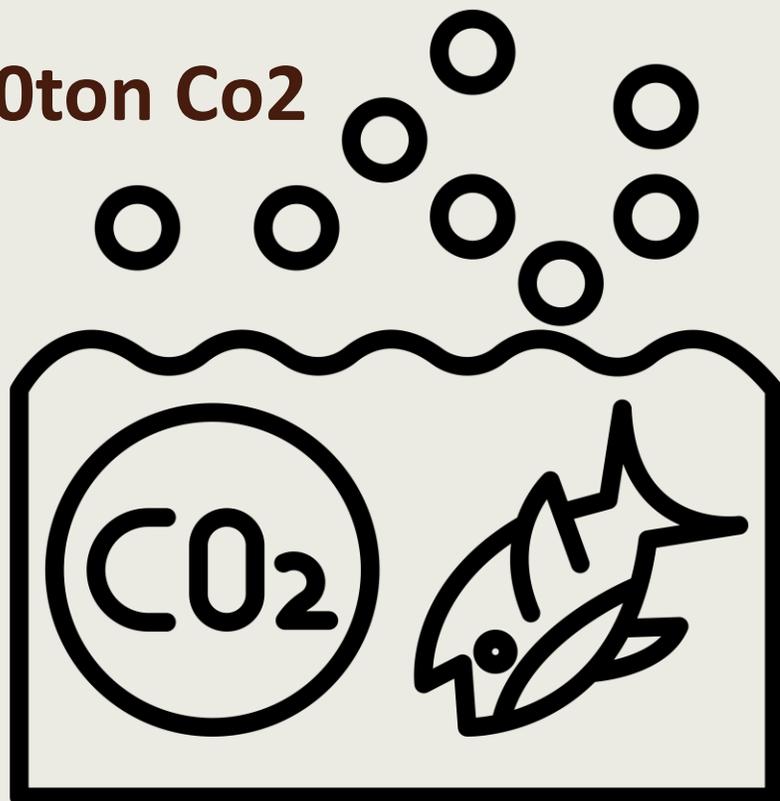


Possibilities?



Reduced weight and carbon footprint

-30ton Co2



Trawl winch 1	350kW	Units	Power (kW)	H (mm)	W (mm)	D (mm)	Weight, kg	Tot Weight	Units	Power (kW)	H (mm)	W (mm)	D (mm)	Weight	Tot Weight
	VFD	4	150	475	244	109	15	60	1	355	2145	1230	636	1180	1180
	Motor	1	350	360	512	450	950	950	3	132				1103	3309
Trawl winch 2	350kW														
	VFD	4	150	475	244	109	15	60	1	355	2145	1230	636	1180	1180
	Motor	1	350	360	512	450	950	950	3	132				1103	3309
Net winch 1	280kW														
	VFD	2	150	475	244	109	15	30	1	315	2145	1230	636	1180	1180
	Motor	2	150	360	512	450	185	370	2	160				1400	2800
Net winch 2	280kW														
	VFD	2	150	475	244	109	15	30	1	315	2145	1230	636	1180	1180
	Motor	2	150	360	512	450	185	370	2	160				1400	2800
Life Line/ Cod Line 1	280kW														
	VFD	2	150	475	244	109	15	30	1	315	2145	1230	636	1180	1180
	Motor	2	150	360	512	450	185	370	2	160				1400	2800
Life Line/ Cod Line 2	280kW														
	VFD	2	150	475	244	109	15	30	1	315	2145	1230	636	1180	1180
	Motor	2	150	360	512	450	185	370	2	160				1400	2800
Visedo AFE	250KW	4	1000	475	244	109	15	60	NA	NA	NA	NA	NA	NA	NA
Total Weight								3620							24898

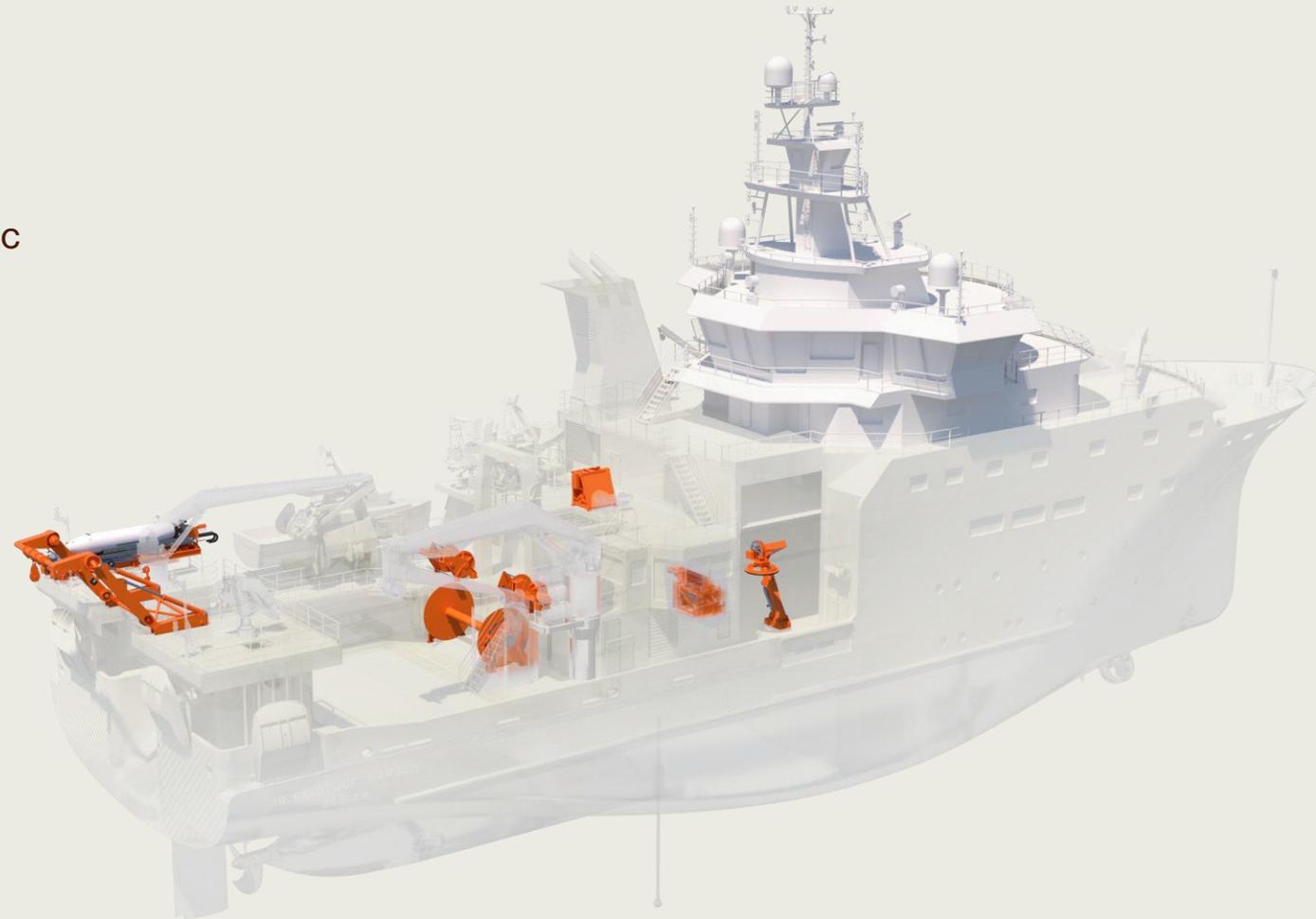
Research

Arctic research vessel, fishery research vessel and scientific research vessel

Research vessels are defined by Evotec as a platform for collecting important data`s about the conditions in our seven seas.

Therefore, it is crucial for the Operators to select the best handling systems available in the market, ensuring an efficient and safe operation!

We save both Capex and Opex, by selecting Evotec Handling systems

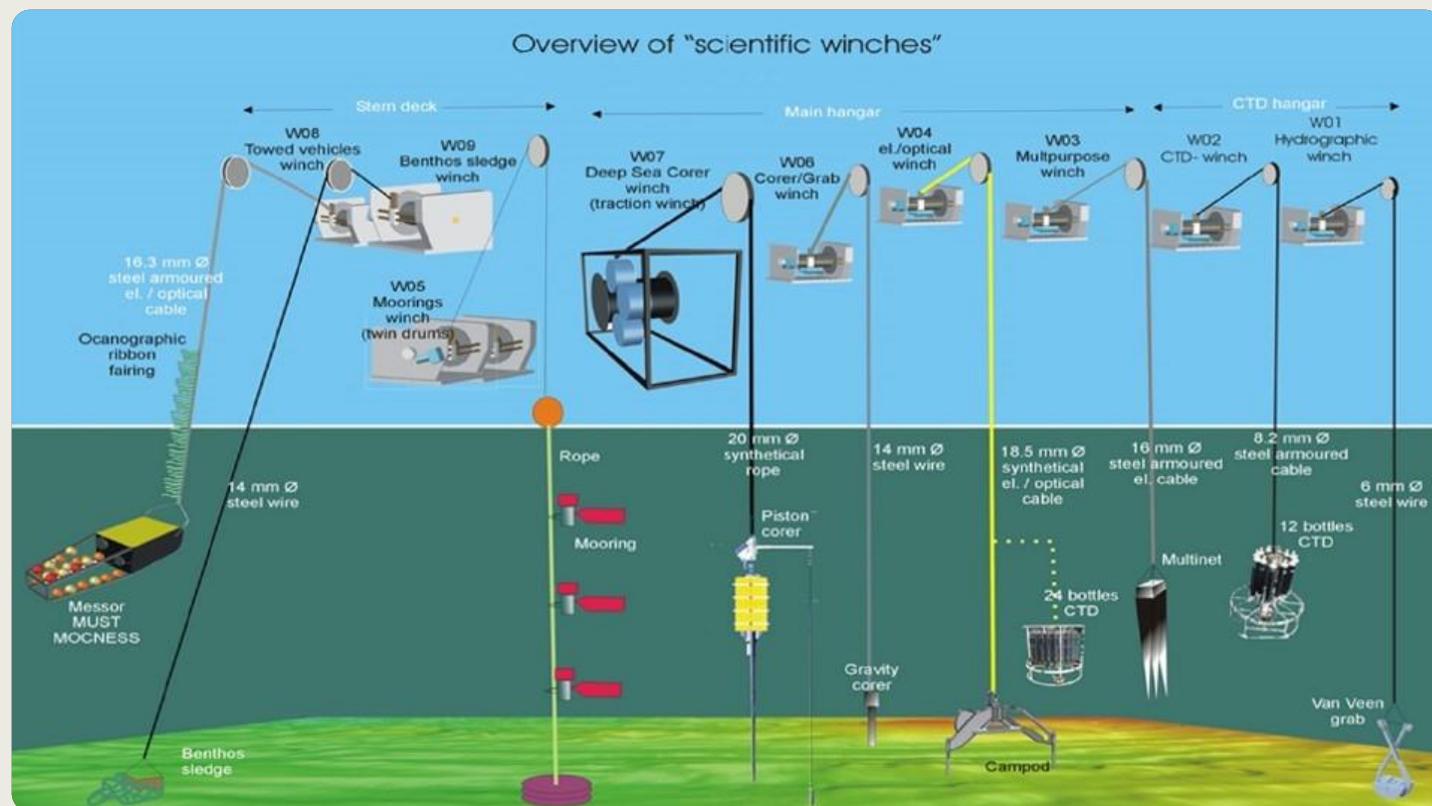


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Research

A-FRAME

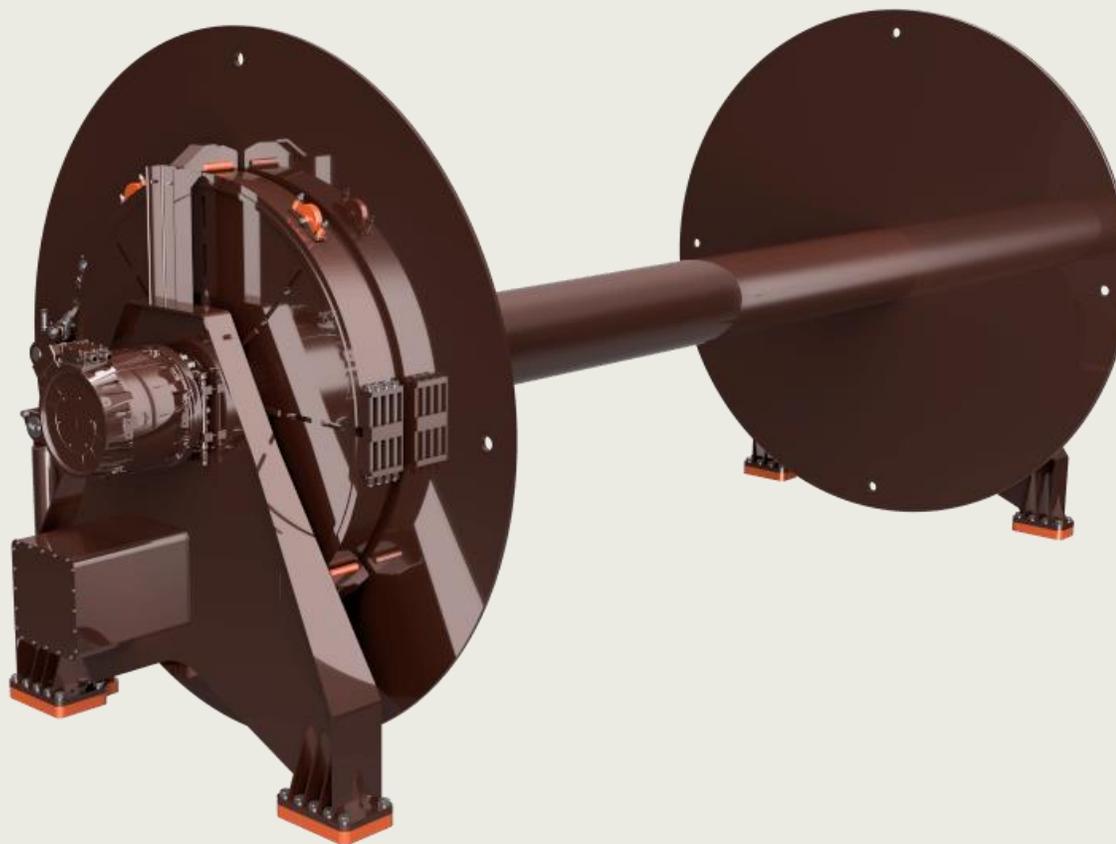
- Long out / in - reach
- LED flood lights
- Pivot possibilities



Research

Net drum

- Compact design
- High performance



Research

LARS for CTD

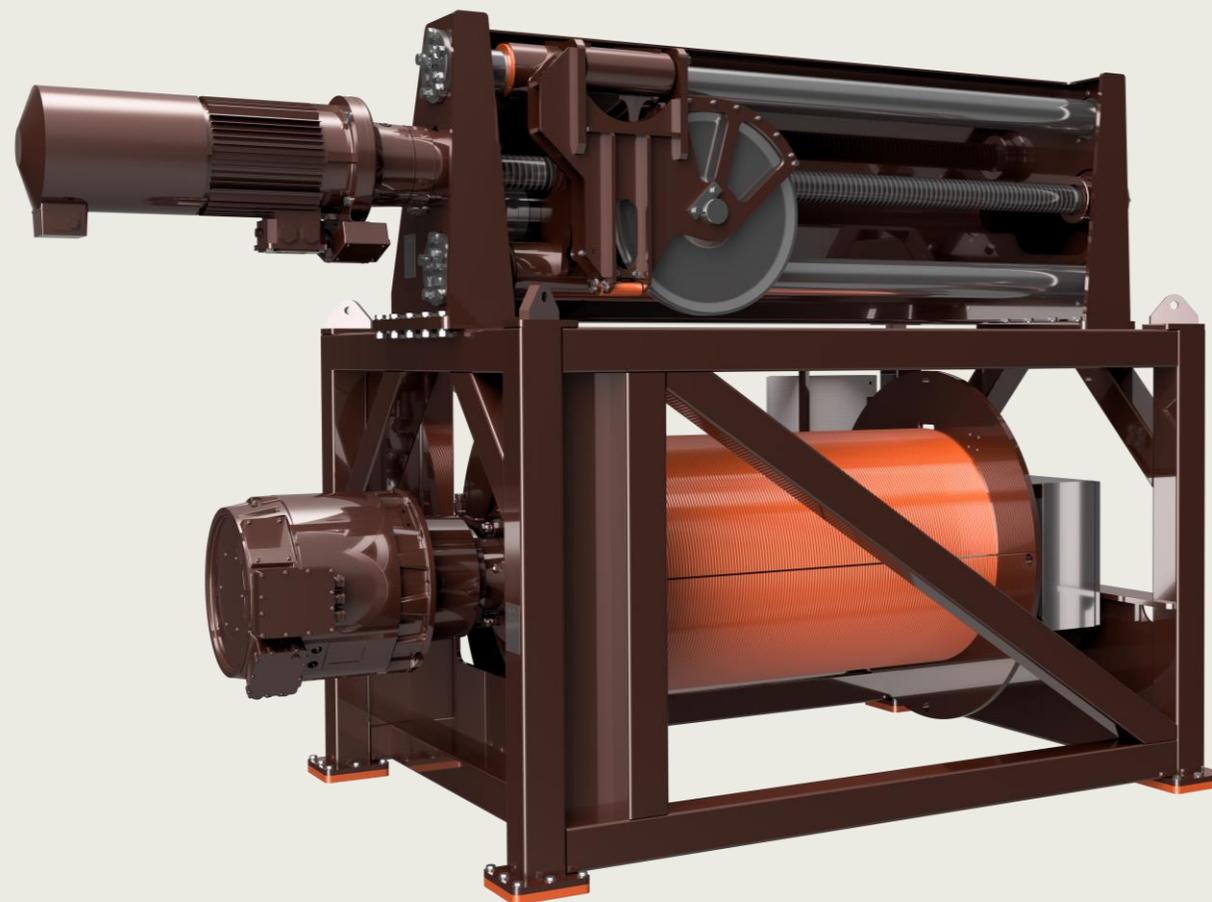
- Compact design
- Active Heave Compensated
- Remote and local control



Research

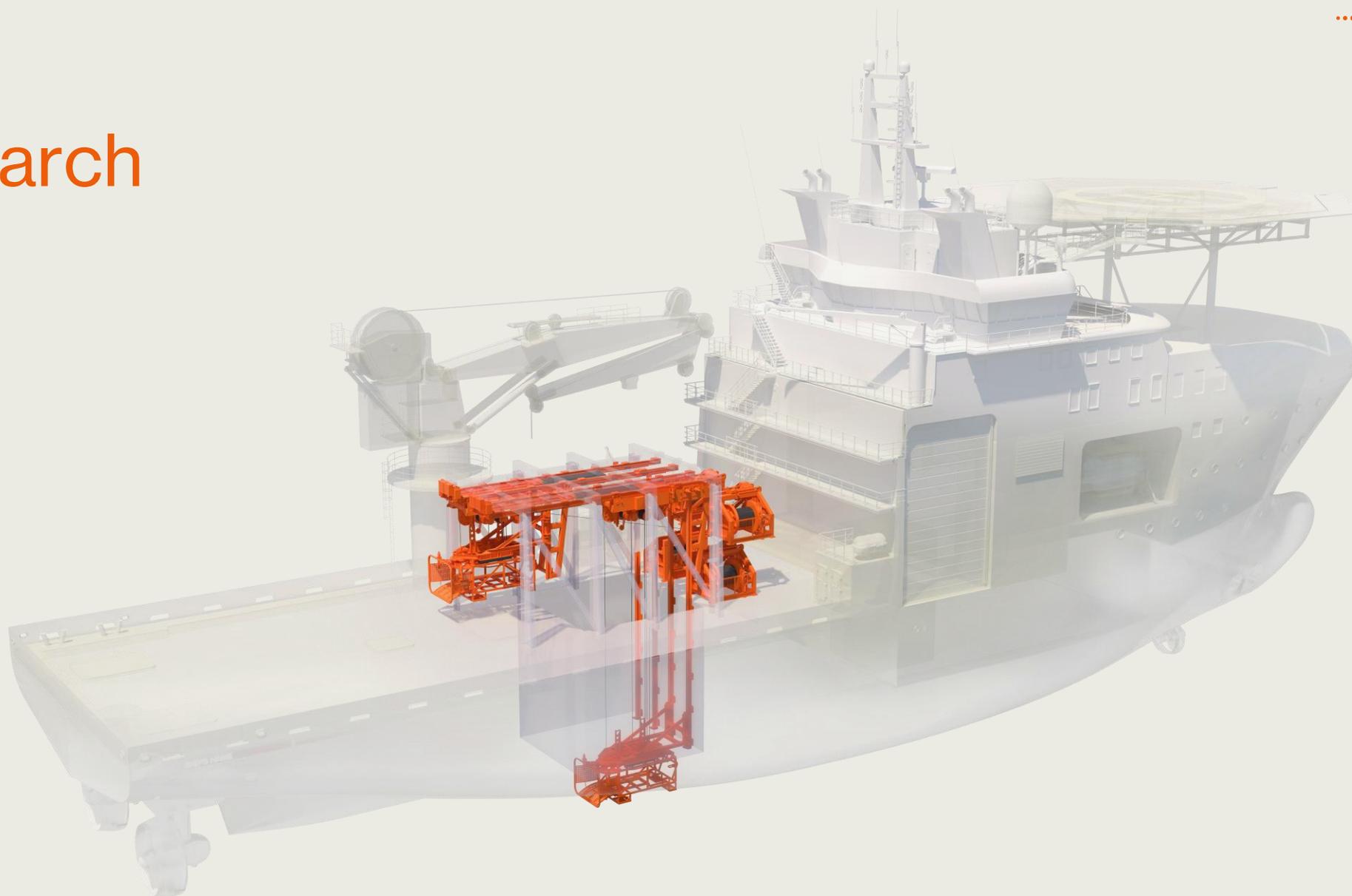
CTD winch

- Compact design
- Active Heave Compensated
- Remote and local control



Research

PXGEO



Research

LARS for AUV

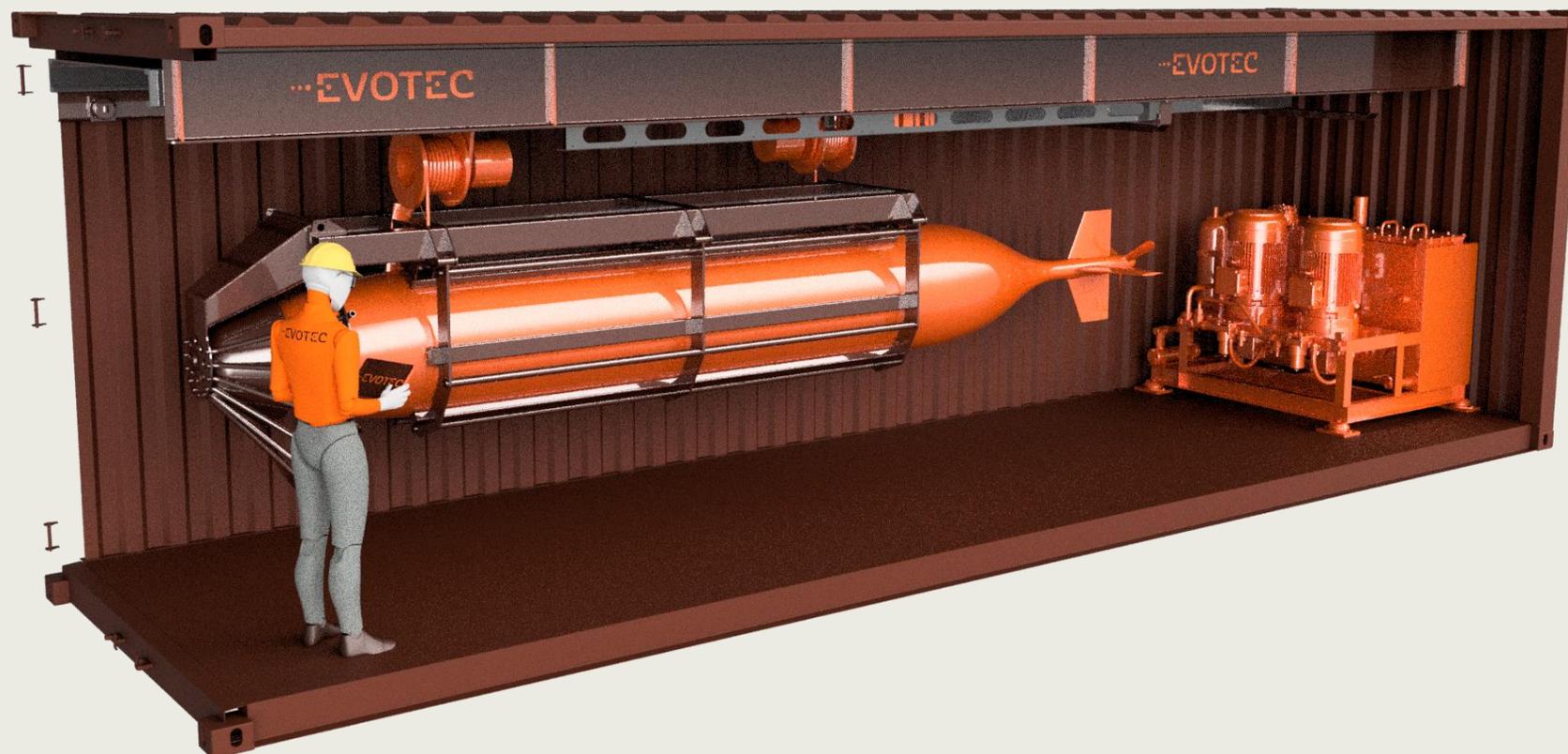
- Safe and gentle handling
- Higher operational performance
- Vertical retrieval



Research

AUV LARS

- Safe storage inside
- Parked on container floor / cradle for maintenance
- 20 feet High-cube container



AUV LARS

- 50 meters deployment depth
- Two lifting points
- Active heave compensation
- Double telescopic platform for sufficient reach
- Compact solution – minimal height loss



AUV LARS

FRAME



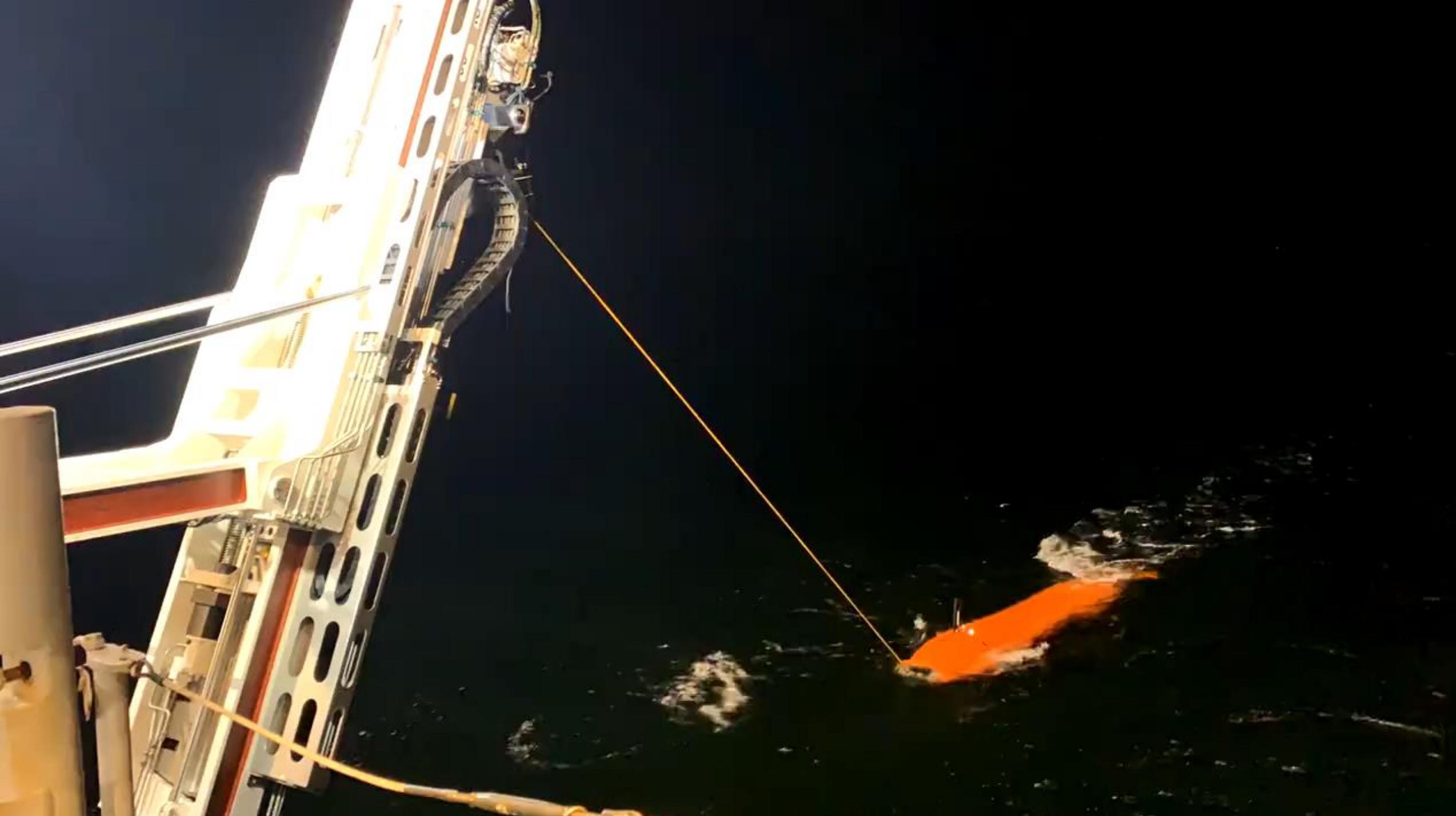


HUGIN

evotec

SWL 22 kN

evotec
MARINE HANDLING TECHNOLOGY



Research

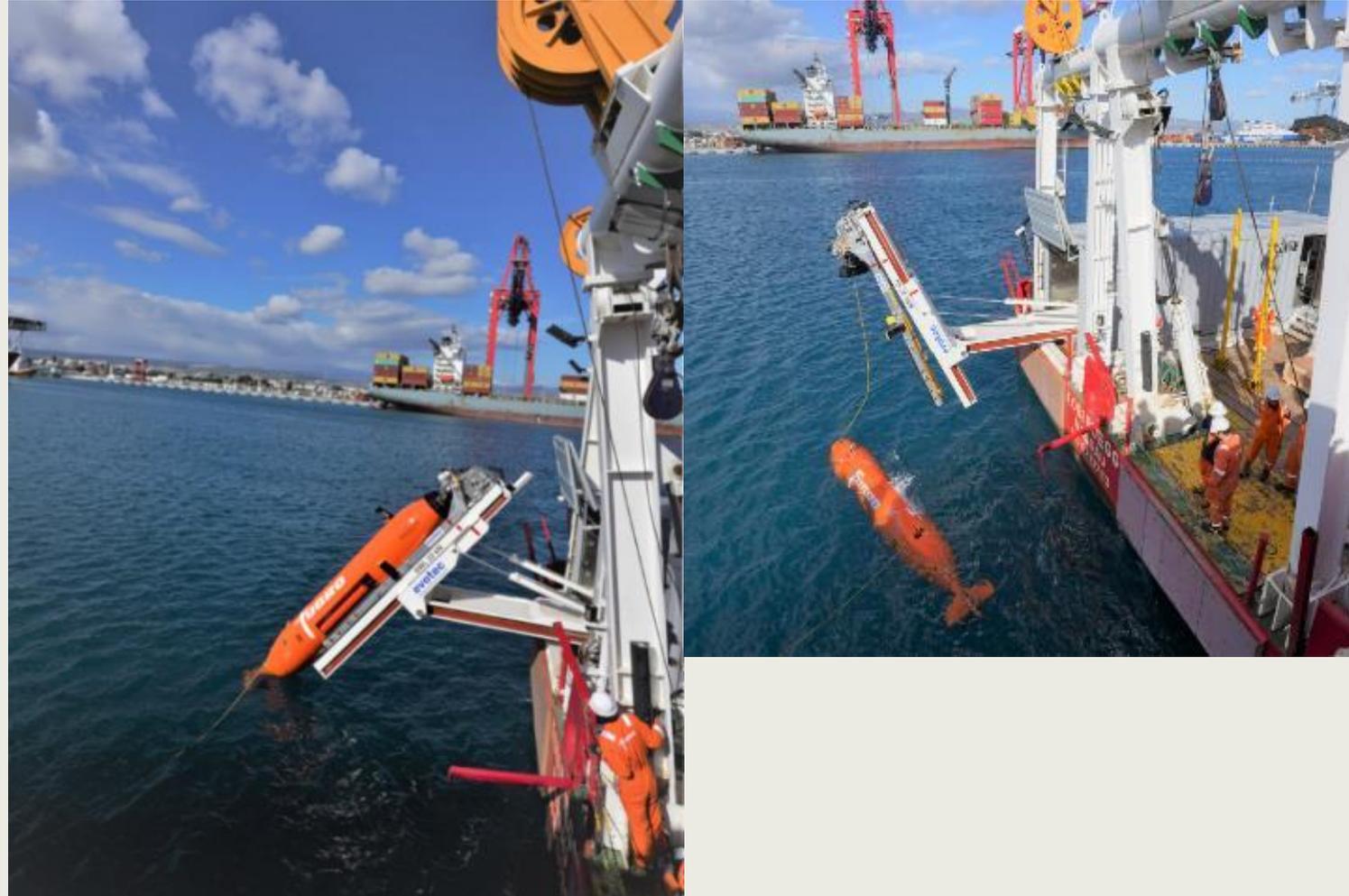
Now also being used for finding a lost vessel

(Montevideo Maru) with prisoners from 2nd world war, found 81 years after it was sunk by a torpedo from an American submarine, and almost 1100 war prisoners onboard, among those where 33 Norwegians!



Research

- Evotec`s LARS addressed the problem with high vessel freeboard.
- Flexibility of deployment is achieved through adjustments in Trolley beam, Telescopic beam and/or Support frame.
- Recovering in rougher weather is safer because of the clearance between the vehicle and the frame.
- Vessel heaving has been our concern on rough weather and that is rectified with the Evotec LARS.



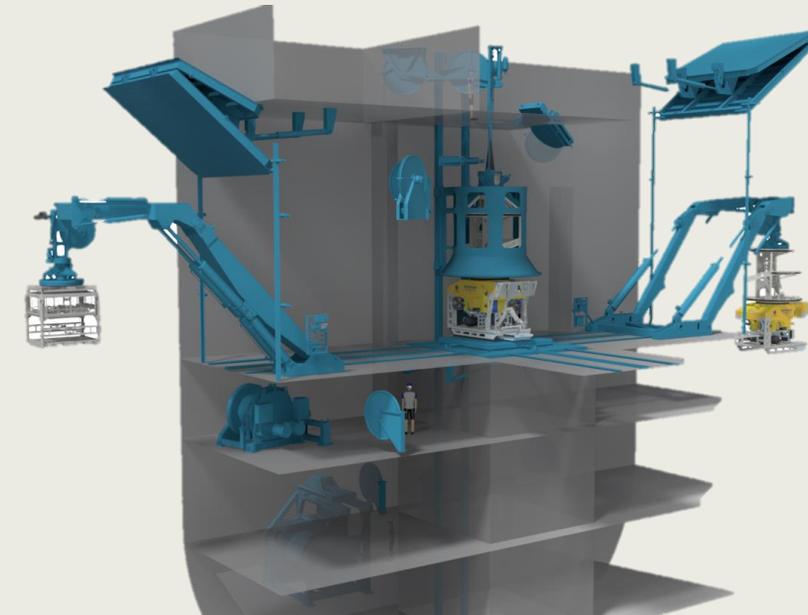
Offshore & wind

Your first choice for Specialized and Customized products along with the markets best “Active Heave Compensation Systems”.



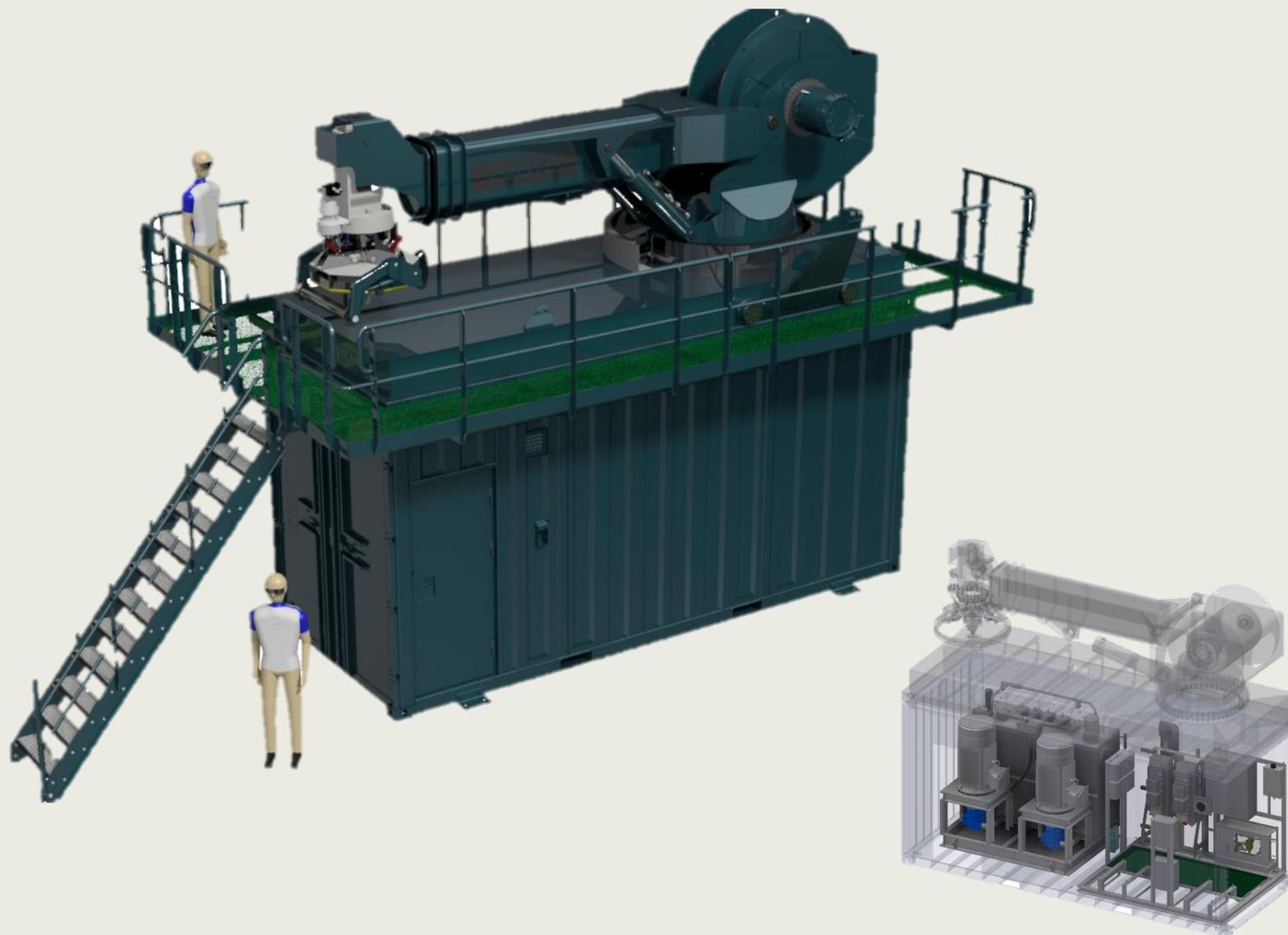
Complete handling systems

- LARS systems for WROV and OBSROV
- Moonpool cursor system
- Side doors - Integrated
- Hatches – Integrated
- Sheave arrangement
- Motor and Drive Solutions
- Automation and Control Systems
 - AHC
 - Anti- snatch TM
 - On-shore Remote Control
 - Regeneration



C-LARS

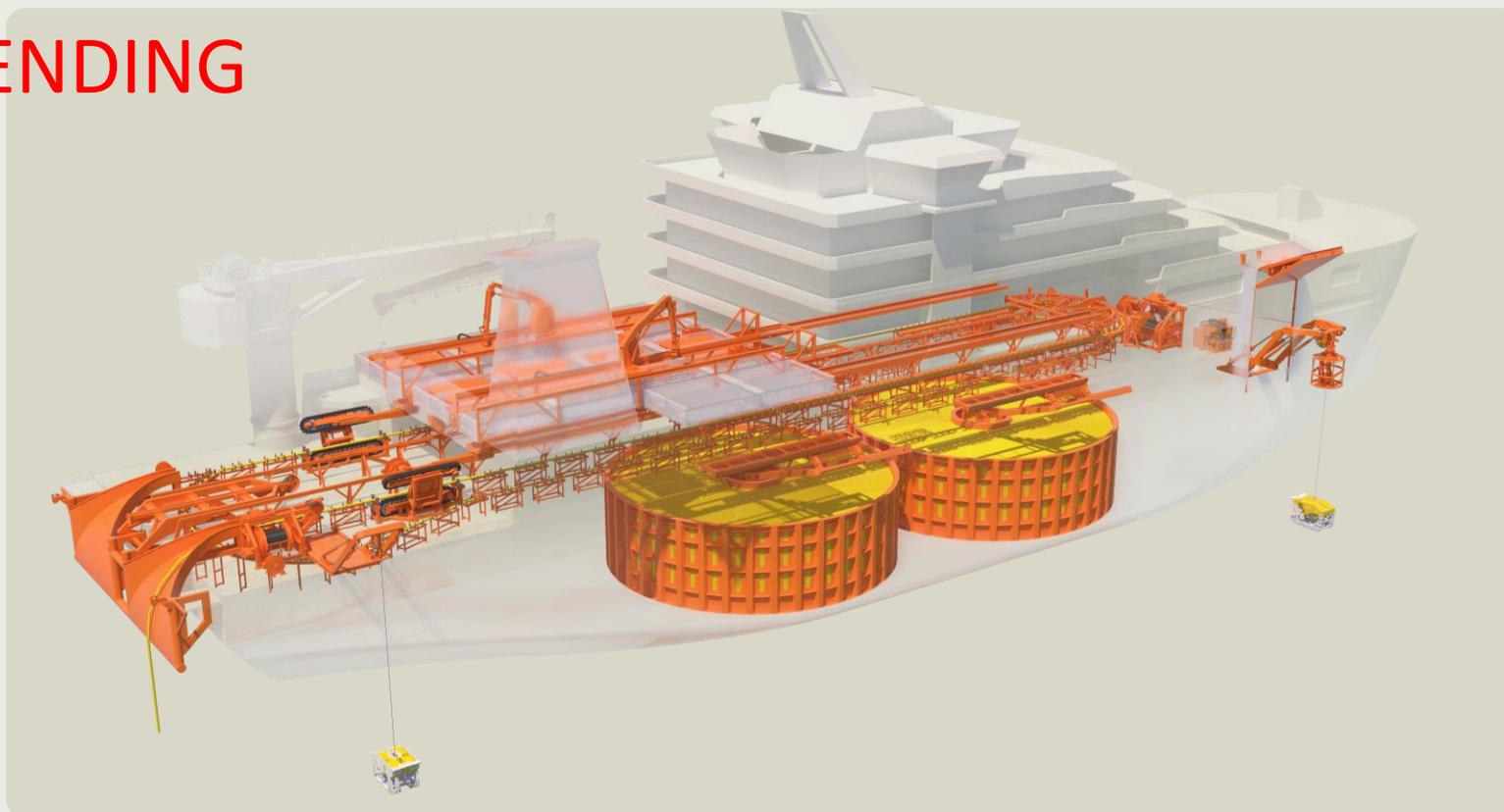
- Mobile C-LARS for PSV/AHTS
- LARS systems for
 - WROV
 - OBSROV
 - Node box
- Main data:
 - 3000m \varnothing 19
 - SWL 7 ton
 - 2 m/s
 - Rotation free wire/umbilical
 - Container locking
- Automation and Control Systems
 - AHC 1.8m/s²
 - Anti- snatch TM
 - On-shore Remote Control
 - Regeneration



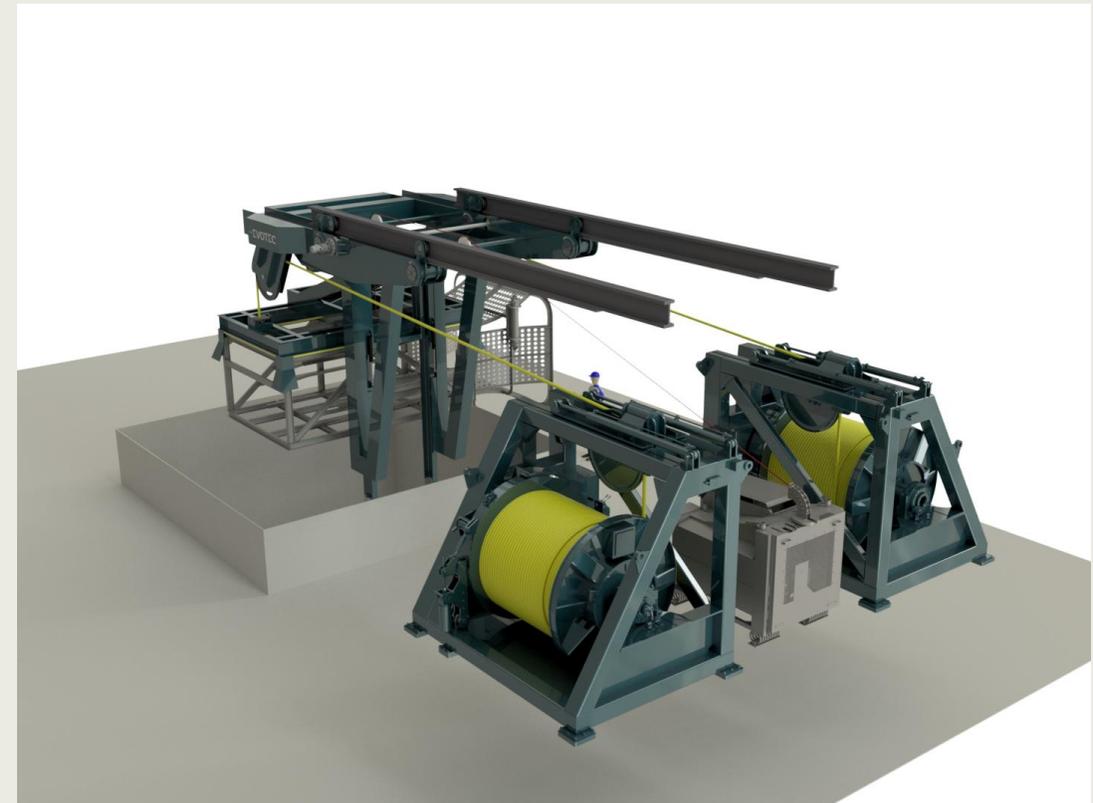
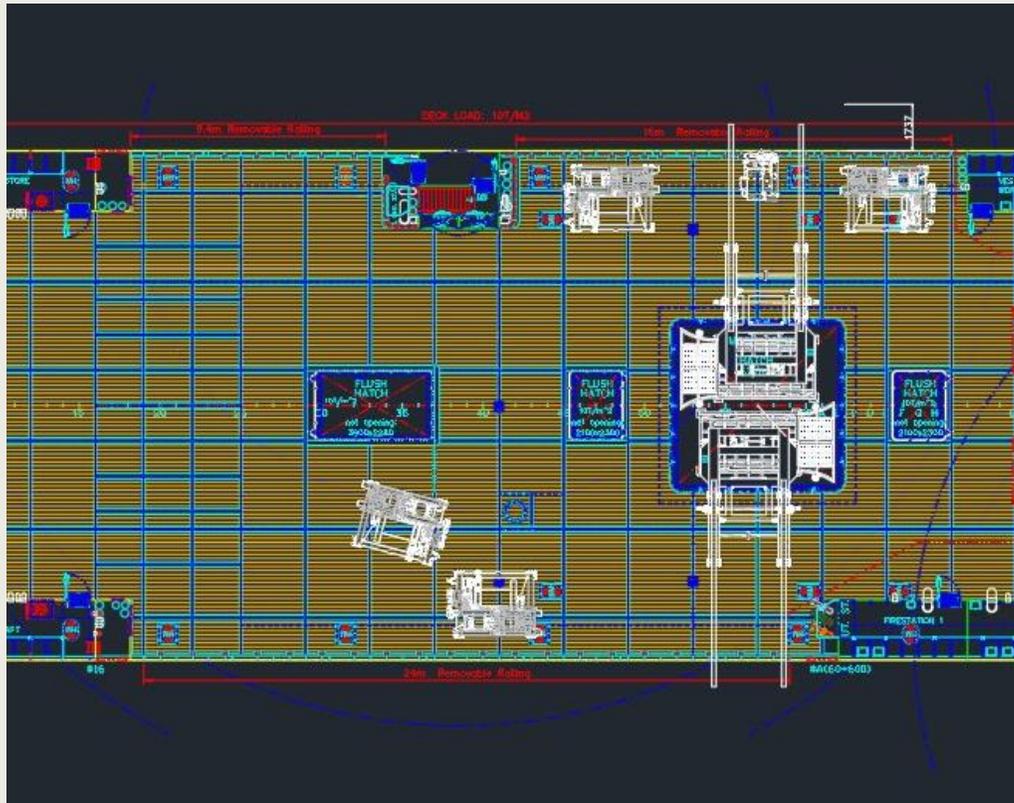
INTER-ARRAY CLV

FULLY INTEGRATED CABLE-LAY HANDLING SYSTEM

PATENT PENDING



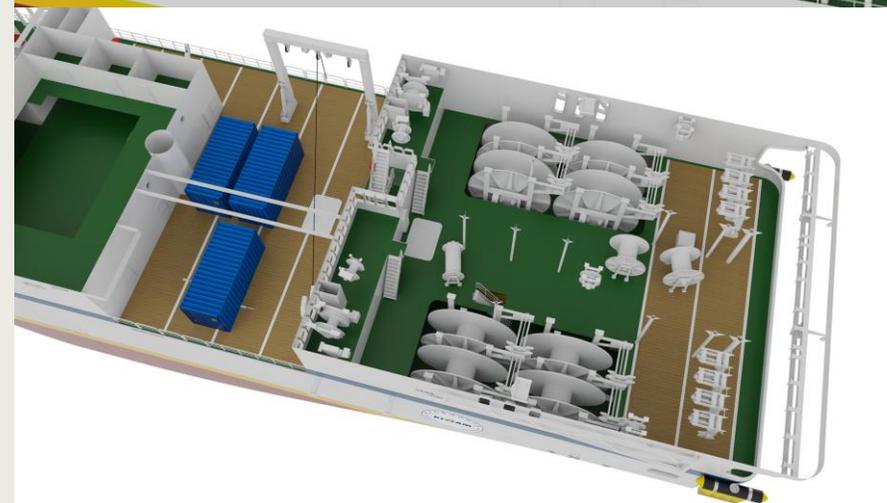
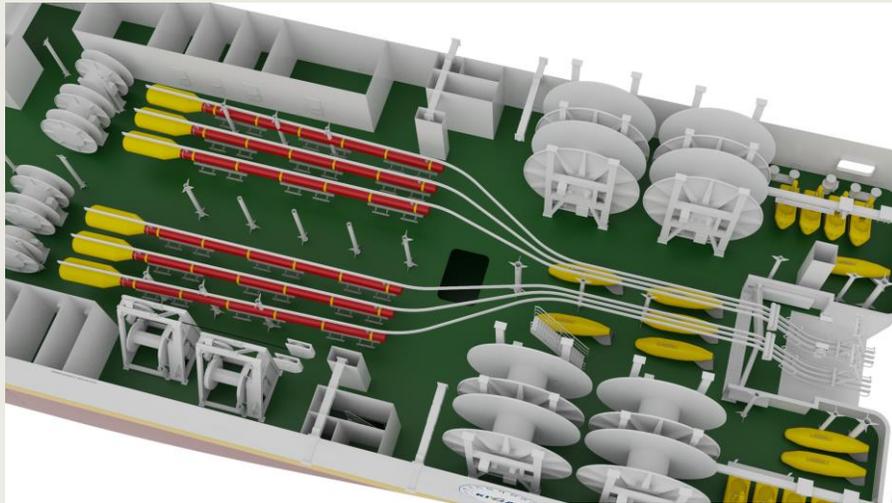
Award of new contract -MantaRay



KIGAM New 3d & research vessel - HHI



KIGAM New 3d & research vessel - HHI



Wild catch

We are dedicated to relentless improvement, and we strive to optimize sustainable solutions by integrating user insights. Our Electric Winch Drive products endure extreme conditions and have become industry benchmarks for ruggedness. With a proven track record of over 15 years in off-highway and marine applications, they showcase exceptional quality and durability.





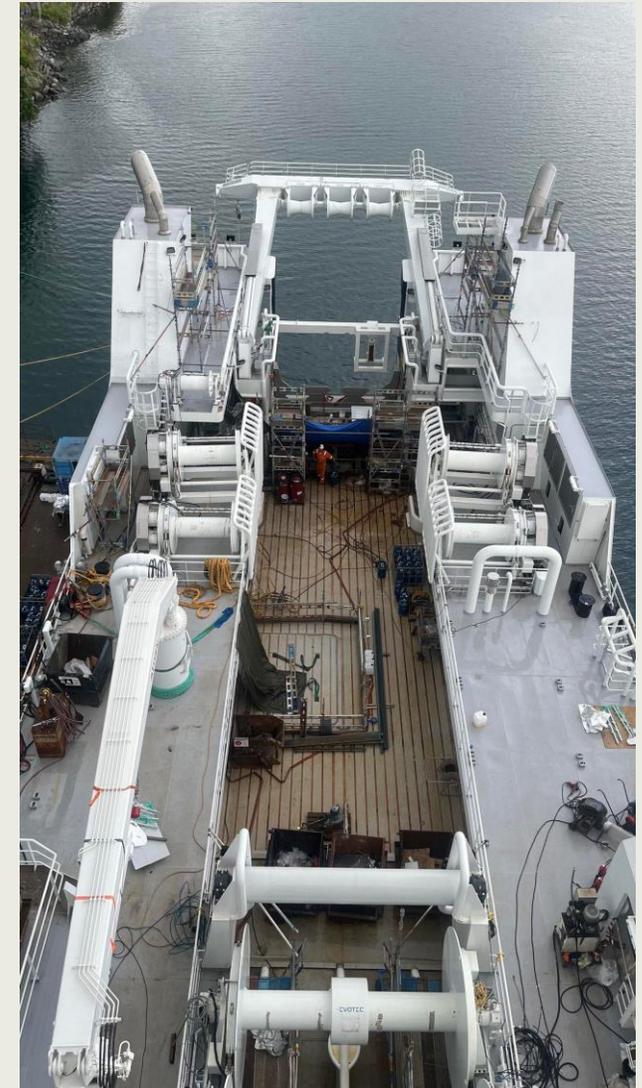
Bluewild





...EVOTEC

Status – BlueWild-soon SAT





The background of the image is a close-up, high-angle shot of white, frothy water foam. The foam consists of numerous small, irregular bubbles and larger, more defined cells, creating a complex, organic texture. The color is a bright, clean white, with some subtle variations in tone due to the lighting and the way the foam catches the light. The overall effect is one of movement and natural energy.

**WE WILL ALWAYS
CREATE MOVEMENT
IN STAGNANT WATER**