

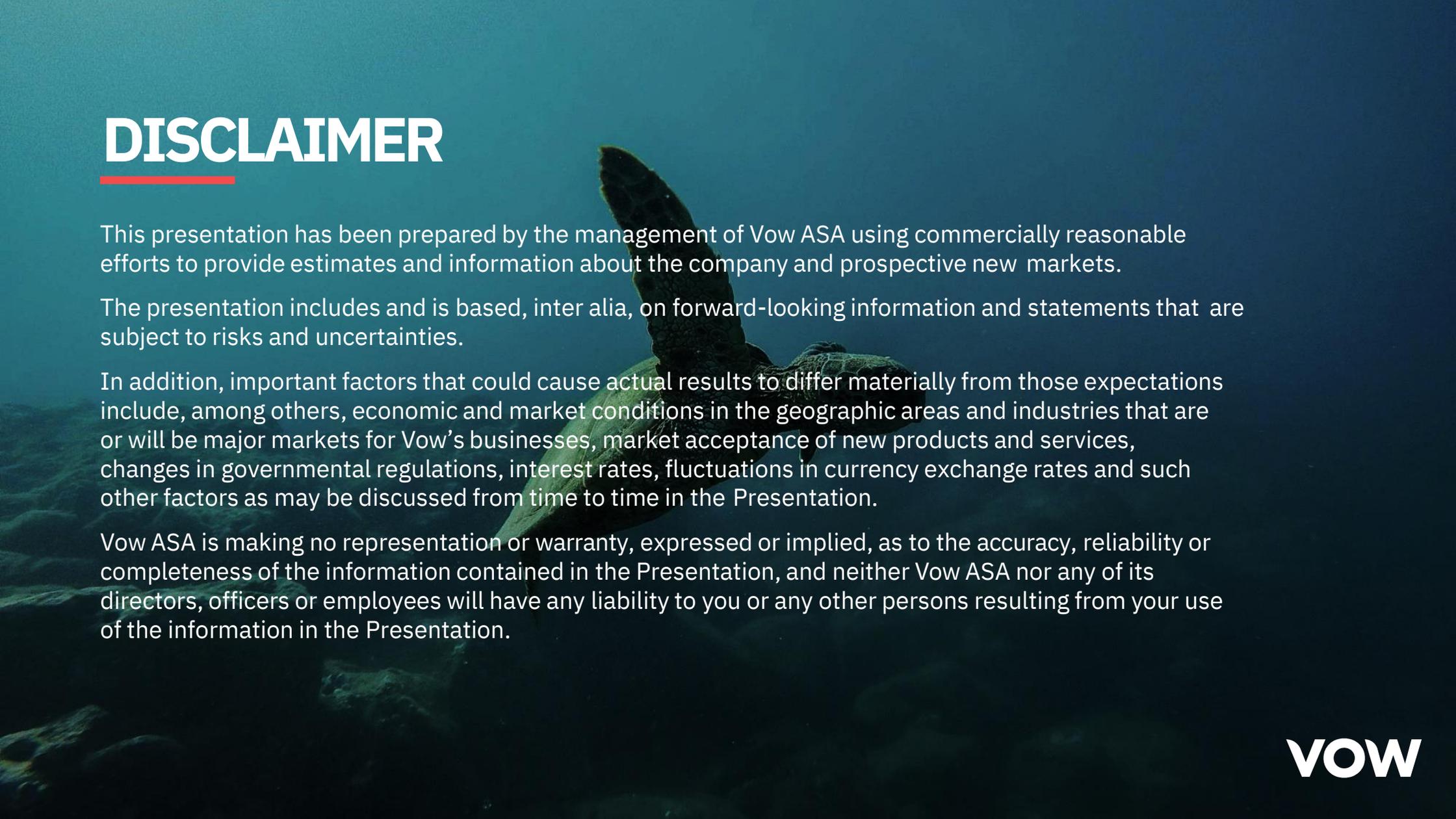


# 1<sup>ST</sup> HALF YEAR PRESENTATION

Henrik Badin, CEO Vow ASA  
Oslo, 26 August 2020

**VOW**

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# VOW AT A GLANCE

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- › World leading technology and solutions that bring an end to waste and stop pollution
- › Converting biomass and waste into valuable resources, renewables and clean energy
- › Customers in cruise and a wide range of land-based industries
- › Headquartered in Norway, with subsidiaries in US, France and Poland
- › Listed on the Oslo Stock Exchange under ticker VOW

**VOW**

Passionate about  
preventing pollution and  
giving waste value



**VOW**

# HEADLINES 1H 2020



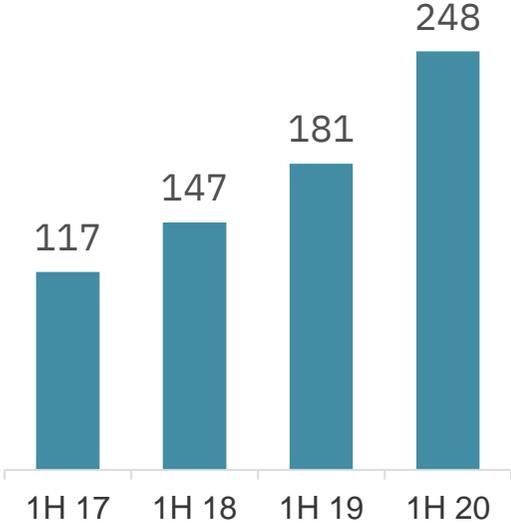
<sup>1</sup> y-o-y comparison first six months of 2020 versus same period 2019

## Revenues, EBITDA and backlog at record highs

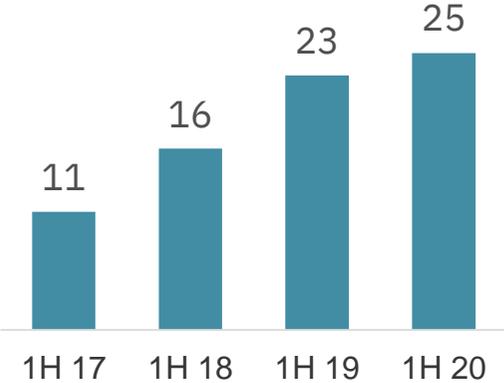
- Cruise segments drives overall earnings growth
  - Cruise segments combined deliver EBITDA of NOK 40 million, an increase of 42%<sup>1</sup>
  - Cruise **Projects** doubled EBITDA year-on-year, while **Aftersales** EBITDA was reduced by 47%<sup>1</sup> as measures to control spread of the covid-19 virus have restricted travel and access to ships
- Landbased reported gross margins on par with Cruise
  - Segment EBITDA was negative as we build organization for growth
- Result before tax NOK 34.8 million (2019: NOK 20 million), including a fair value adjustment amounting to NOK 18.2 million in 2020
- A series of new contracts for cruise ship and landbased applications bring order backlog to new record heights at end of August
  - Order intake cruise: NOK 285 million (award for supplies to 8 newbuilds)
  - Order intake landbased: NOK 60 million

For full P&L, balance sheet and cash flow statement, please see Report for the first half of 2020

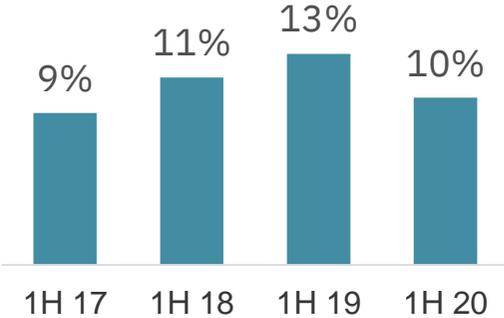
# STRONG REVENUE GROWTH



**Revenues**  
(in NOK million)



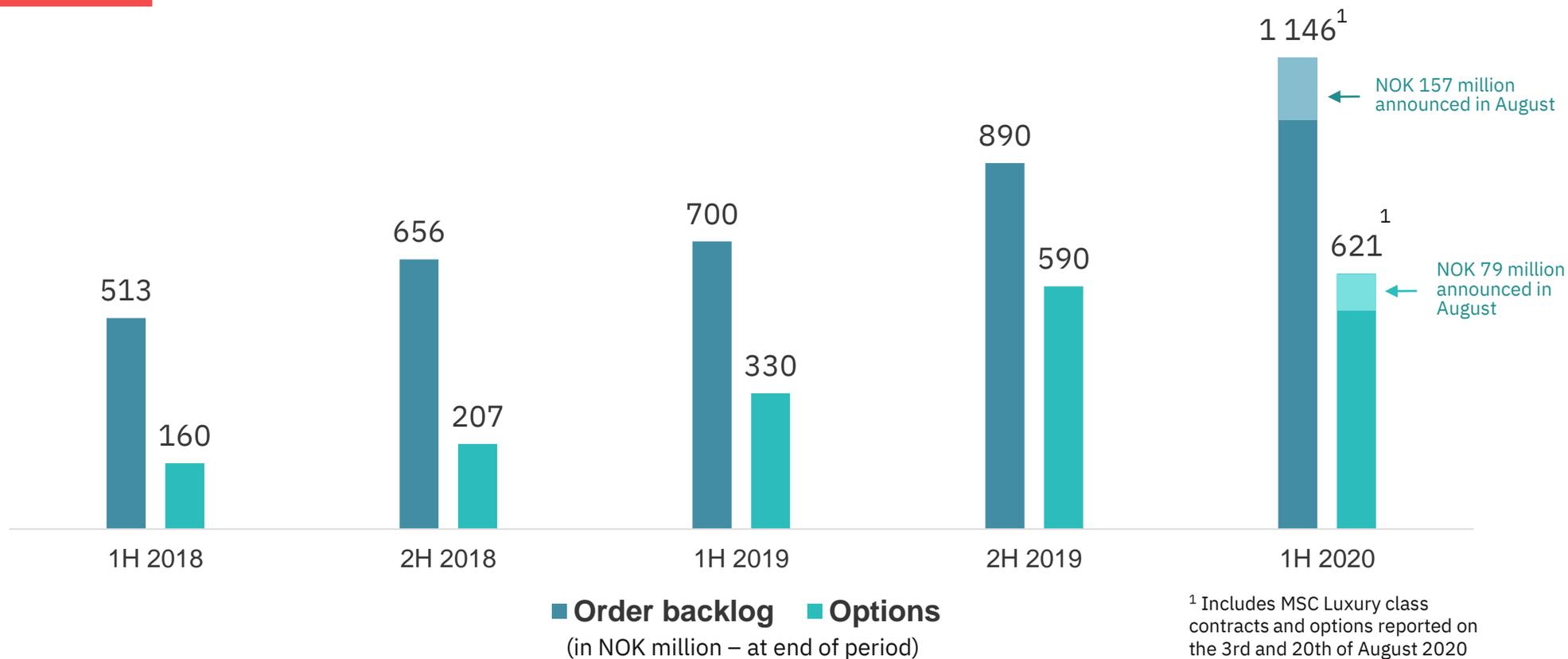
**EBITDA**  
(in NOK million)  
before non-recurring items



**EBITDA margin**  
(in %)

# RECORD HIGH ORDER BACKLOG

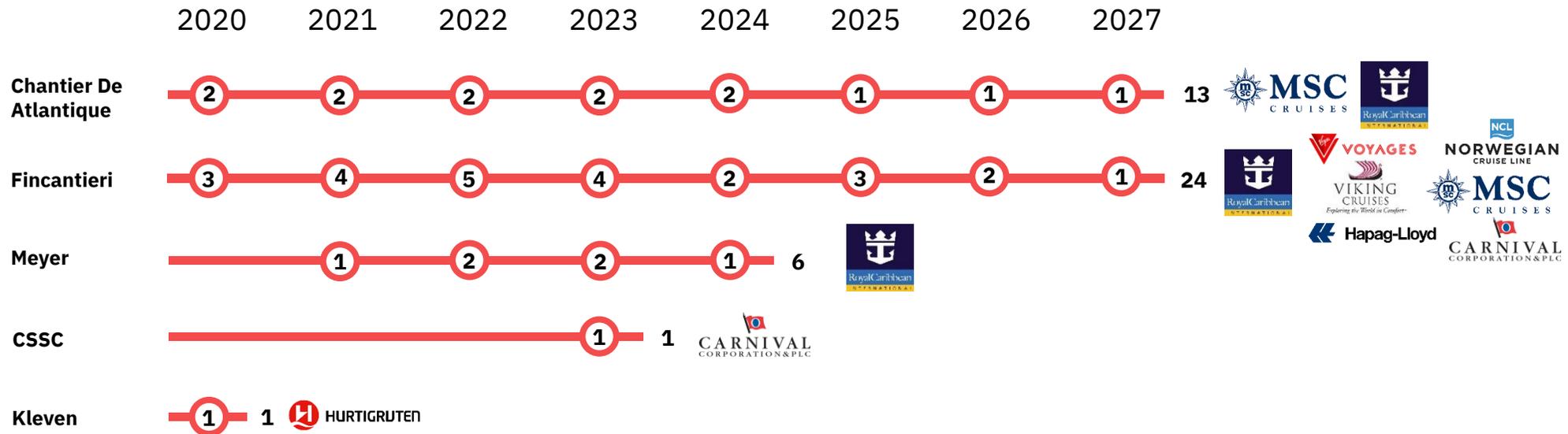
 **63 %**  
y-o-y



# BACKLOG FOR THE LONGER TERM

Foundation for continued growth in the cruise market (8 newbuild supply awards YTD)

Shipsyard contractual partner

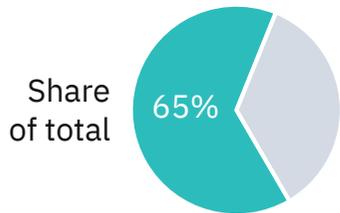


Number of vessel deliveries with Scanship systems inside. A total of **45** newbuilds and **143** Scanship systems.

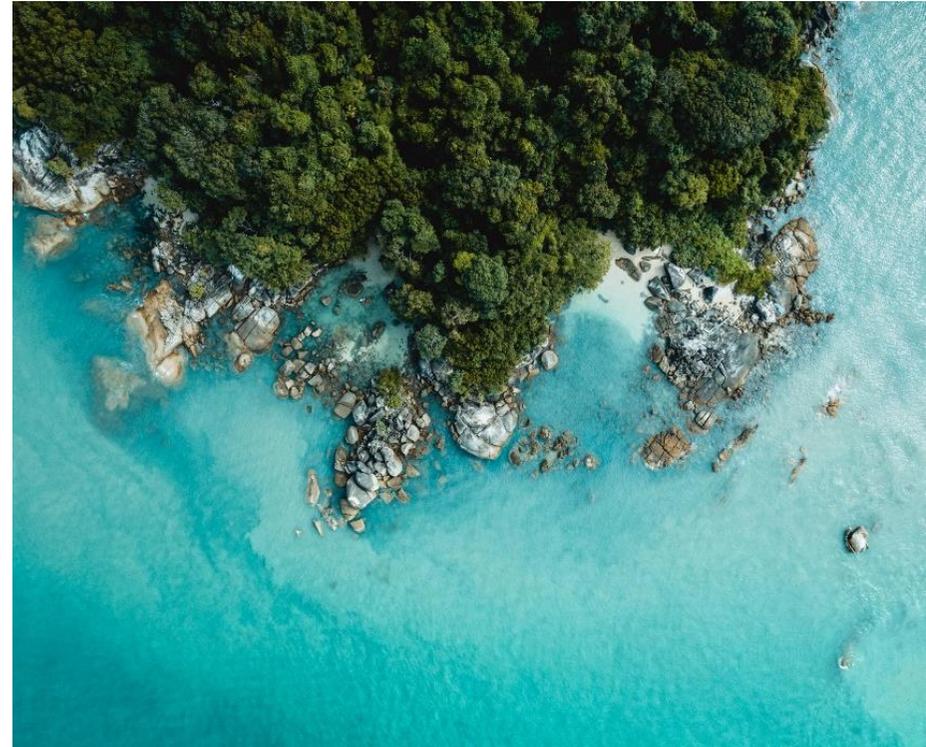
# PROJECTS | CRUISE

- Revenues increased by 31 % year-on-year, driven by increased backlog and several system deliveries in the period
- Strong operational performance reflected in record-high EBITDA margin of 22 %, and increase of 98% year-on-year
- Order backlog secures revenues well into 2024/25

NOK **160** million  
revenues



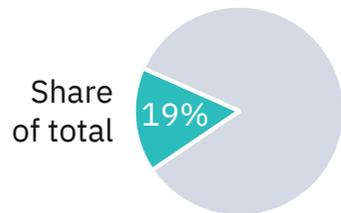
NOK million	1H 2020	1H 2019	2019
Revenues	160.1	121.7	236.0
EBITDA	35.0	17.7	37.0
EBITDA margin (%)	21.8%	14.5%	15.7%
Backlog	933	700	813



# AFTERSALES | CRUISE

- As previously communicated, aftersales segment has been affected by pandemic, as cruise voyages were cancelled to reduce spread of the Covid-19 virus
- Sales were reduced as access to ships was restricted. EBITDA margin is somewhat reduced, since most expenses are fixed
- Estimated negative EBITDA  $\approx$  NOK 10 million impact from Covid-19 in the period

NOK 40 million  
revenues



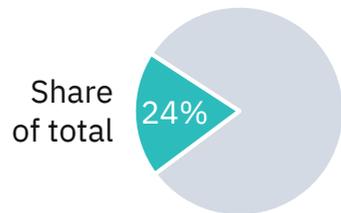
NOK million	1H 2020	1H 2019	2019
Revenues	39.7	59.6	125.7
EBITDA	4.8	10.3	22.5
EBITDA margin (%)	12.1%	17.2%	17.9%



# LANDBASED

- Growing demand for ETIA technology already reflected in increasing revenues
- Building organization and adding commercial, engineering and R&D capacity to respond to new opportunities and requests
- Several milestone contracts awarded for valorization of plastic waste and biomass, waste-sorting robotics and sterilization of medical herbs

NOK 48 million  
revenues



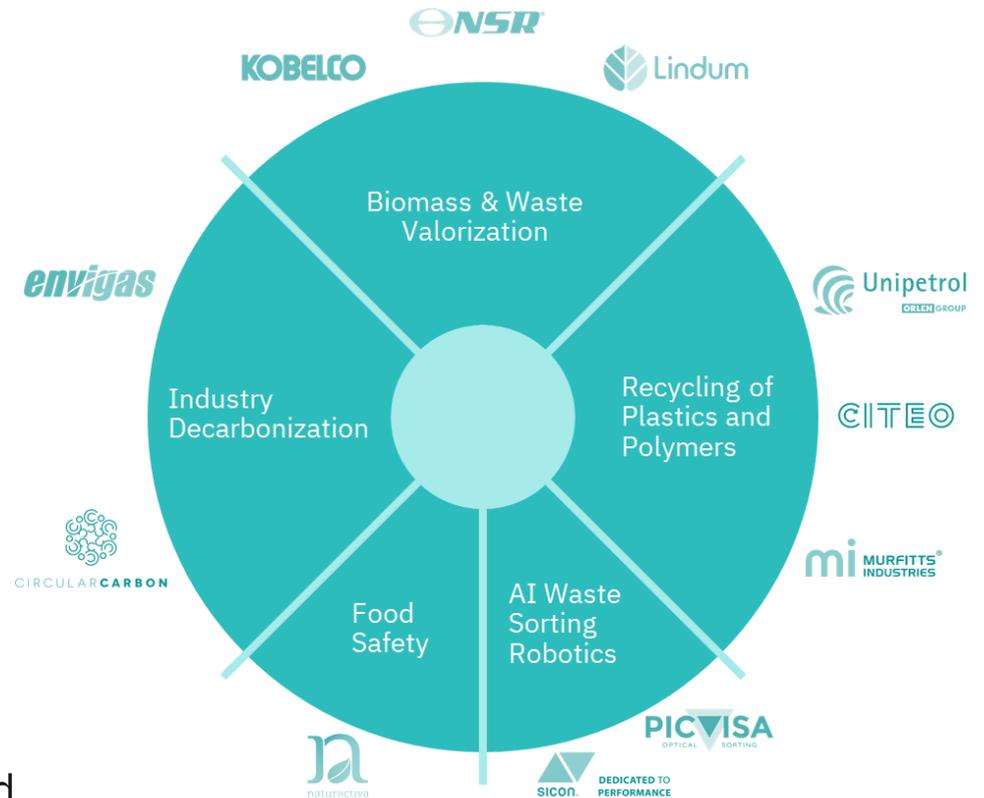
NOK million	1H 2020	1H 2019	2019
Revenues	48.0	-	19.1
EBITDA	-7.1	-	-1.5
EBITDA margin (%)	-14.8%	-	-7.8%
Backlog	56.3	-	77.9

*Landbased activities acquired in 2019, in accounts from October. No comparable numbers for 1H 2019 available*



# MATURING MARKETS

- › Society is increasingly concerned about the environmental footprint, CO2 emissions and reuse of materials
- › Leading industry players are responding by exploring every opportunity to de-carbonize their value chains and recover valuable resources
- › These trends are driving demand for Vow's technologies and solutions for land-based application
- › Tendering activity is high for studies, pilot plants and industry-scale projects in a wide range of industry verticals
- › Vow is aggressively pursuing opportunities and building capacity to respond to these demands



# LANDBASED APPLICATION MILESTONES P1

Industry vertical	Recent achievements and ongoing projects
Biomass & Waste Valorization	<ul style="list-style-type: none"><li>➤ Awarded SEK 20.8 million contract with NSR (Nordvästra Skånes Renhållnings AB) to produce biochar from green waste. Renewable energy produced from the plant will provide hot water at the facility.</li><li>➤ Installation and commissioning of first full scale MAP Micro Assisted Pyrolysis plant at Lindum in Drammen for the Vow Project.</li><li>➤ Ongoing production of the first Cruise industry MAP system to be installed on two mega sized cruise ships.</li></ul>
Recycling of plastic & polymers	<ul style="list-style-type: none"><li>➤ Contract award for Biogreen test plant to Unipetrol to convert plastic waste into liquid fuel.</li><li>➤ Entered 3-year R&amp;D project with CITEO in France to demonstrate high temperature conversion of plastic waste into hydrogen and pyro carbon (sequestered carbon to be use as electrodes in battery).</li><li>➤ Innovation Norway awarded grants and loans to Scanship AS to further commercialize the application of its patented pyrolysis technology for chemical recycling of plastic waste.</li><li>➤ Pilot plant for end of life tires in UK (Murfitts Industries) is advancing towards the best configuration (commissioning expected in October, as a milestone to roll out the technology in wider scale).</li></ul>
Food Safety	<ul style="list-style-type: none"><li>➤ Euro 0.7 million contract award with Naturactiva in the medical herbs market for the delivery of Safesteril to sterilize medical herbs. With growing health awareness and worldwide medical plants market expansion, the volume for medical herbs corresponds to an addressable market potential of around 300 to 400 Safesteril machines</li></ul>

# LANDBASED APPLICATION MILESTONES P2

Industry vertical	Recent achievements and ongoing projects
Industry Decarbonization	<ul style="list-style-type: none"><li>➤ Delivered first in kind Biogreen pyrolysis plant to process 15K tons/year forestry waste into biocoke to replace fossil-based coke and coal in metallurgical industry. The plant will be commissioned in 2H2020. To meet industry targets of 40-50% reduction of CO2 emissions in the Nordic region by 2030, the industry would need 2 – 2.5 million tons of renewable biocoke to replace fossil coke).</li><li>➤ Ongoing production of a Biogreen systems for renewable energy and biochar on a Euro 3.4 million contract with Swiss 80 billion USD revenue company, to be installed and commissioned 2H2020 on one of their 38 production facilities worldwide.</li><li>➤ Euro 2.286 million contract with Circular Carbon to convert approx. 8K tons per year cocoa shells into renewable energy and biochar. There may be up to 700K tons per year coca shells available for similar type of valorization in the world-wide chocolate industry.</li><li>➤ Successful commissioning of Biogreen pyrolysis plant delivered to Kobelco in Japan to convert sewage sludge into bio coal as a renewable alternative for fossil coal used for power generation. Valorization of sewage sludge represents emerging markets world-wide to prevent undesired accumulation of pollutants in food chains still being able to reuse nutrients</li></ul>
Artificial Intelligence (AI) Waste Sorting Robotics	<ul style="list-style-type: none"><li>➤ Euro 230K contract with one of the largest recycling companies for ferrous and non-ferrous metals in Europe to sort out copper parts in ferrous waste streams.</li><li>➤ Entered into strategic partnership agreement with Picvisa to jointly develop robotics solutions for waste sorting for landbased and marine applications.</li><li>➤ MOU with SICON for sales distribution worldwide for IA powered robotic metal sorting in metal and scrap processing. There is a potential market of 1000 systems.</li></ul>

# CLOSING REMARKS AND CURRENT AGENDA

- › Strongest ever performance in cruise as the industry adjusts to the pandemic
  - Performance driven by organisational improvements, improved systems and strengthened engineering, procurement and project management capabilities
- › All-time high order backlog
  - Growth in both cruise *and* landbased industries
- › Streamlining ETIA for further growth in land-based industries
  - Applying proven Vow's delivery model, establishing a common technology platform and co-ordinating development teams to ensure optimal commissioning of systems
- › Building organisation in Europe and the US in response to increased demand
  - Negotiations are ongoing for feasibility studies, pilot plants and full-scale process plants for several world-leading clients
- › Working closely with customers to increase value-add
  - Improving efficiency of existing systems, increasing capacity and broaden offering of life-cycle services



# THANK YOU FOR YOUR ATTENTION

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**VOW**

