



# SECOND HALF AND FULL YEAR 2020

Henrik Badin, CEO Vow ASA  
Oslo, 25 February 2021

**VOW**

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# ABOUT US

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- › Provider of world leading technologies to **eliminate pollution**, enhance **circular economy** and mitigate **climate change**
- › Offering **patented unique solutions** that turn waste and biomass into **CO2 neutral** energy, **decarbonised** energy, **low-carbon** fuels and **biocarbon**
- › Our **technology is ready**, it integrates easily into industrial processes and does not depend on large and complicated infrastructure to be effective
- › **Proven and scalable** delivery model, **record high backlog** of orders and **large installed base** for leading players in a wide range of industries, providing **recurring business**
- › **International footprint**, headquartered in Norway with subsidiaries in US, France and Poland

## Our brands

**VOW**

 **SCANSHIP**  
for cleaner oceans

  
E T I A  
ECOTECHNOLOGIES

 **Biogreen®**

 **ASCODERO**  
PRODUCTIQUE

The background is a deep blue underwater scene with light rays filtering down from the surface. A jellyfish with a glowing blue and purple bell and long, thin tentacles is positioned in the lower right. Two white L-shaped brackets frame the central text: one on the left and one on the right.

# **FINANCIAL AND OPERATIONAL HEADLINES**

**VOW**

# KEY TAKEAWAYS 2020

|   |                                 |
|---|---------------------------------|
| FY 2020<br>Revenues<br><b>NOK 460</b><br>million                            | <b>+21%<sup>1</sup></b>         |
| FY 2020<br>EBITDA<br><b>NOK 47</b><br>million                               | <b>10 %</b><br>EBITDA<br>margin |
| Backlog<br><b>NOK 952</b><br>million<br>+ <b>NOK 584</b><br>million options | <b>+4%<sup>1</sup></b>          |

Before non-recurring items of NOK 8 mill in Landbased

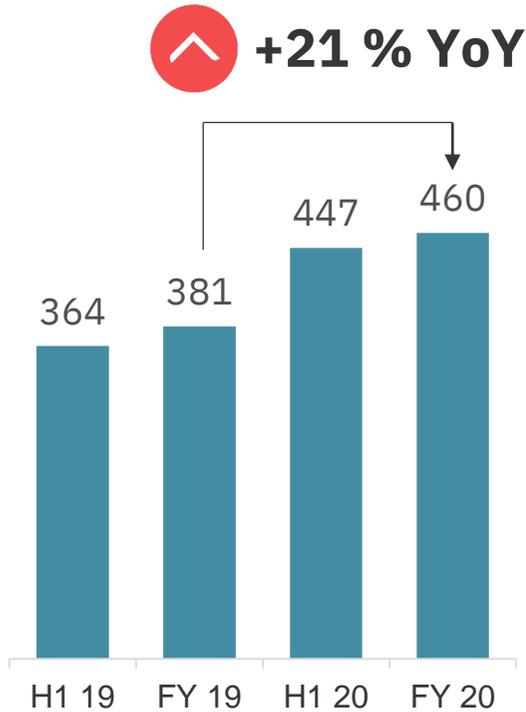
<sup>1</sup> y-o-y

## Fifth consecutive year of growth, record high performance within Cruise projects

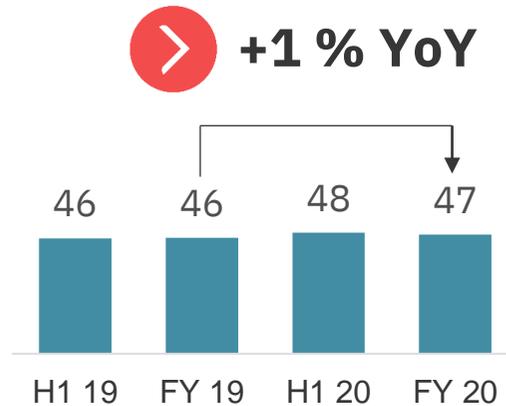
- Annual revenues up 21 percent year-over-year to NOK 460 million, and with EBITDA 47 million including group admin.
  - Continued high activity in cruise newbuilds. **Projects** delivered NOK 71 million in EBITDA in 2020, nearly doubled from 2019
  - **Aftersales** reduced as cruise ships are docked. Would in a normal year have added more than NOK 20 million in EBITDA
  - Gross margins in **Landbased** on par with Projects, segment EBITDA was negative as we build for growth
- **Order backlog** remains high, providing good visibility and revenues well into 2024/25
- For 2020 full year **profit before tax** was NOK 28 million, compared with NOK -7.3 million in 2019
- A year marked by continued **strong performance** in cruise projects and **transformative achievements** on land

For full P&L, balance sheet and cash flow statement, please see Report for H2 2020

# FINANCIALS

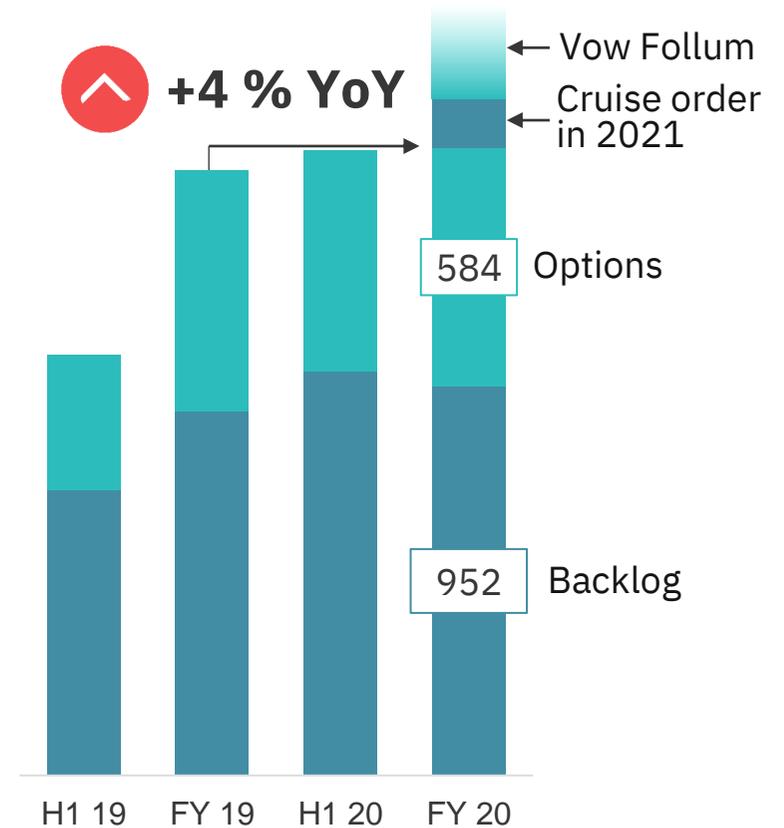


**LTM Revenues**  
(in NOK million)



**LTM EBITDA**  
(in NOK million)

Before non-recurring items in 2019 – NOK 19 million and in 2020 – NOK 8 million

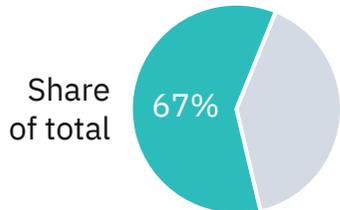


**Order backlog and options**  
(in NOK million)

# PROJECTS | CRUISE

- Revenues in 2020 increased by 31 % compared with 2019, driven by increased backlog and several system deliveries in the period
- EBITDA nearly doubled compared with 2019, strong performance resulted in record-high margin of 23 %
- Delivery model now being replicated in Landbased
- Order backlog secures revenues well into 2024/25

NOK **309** million  
revenues



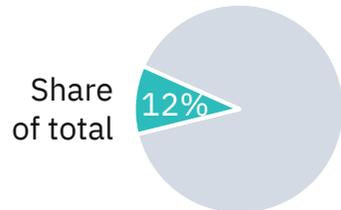
| NOK million       | 2H 19  | 2H 20        | 2019  | 2020         |
|-------------------|--------|--------------|-------|--------------|
| Revenues          | 114.1  | <b>149.1</b> | 236.0 | <b>309.2</b> |
| EBITDA            | 20.8   | <b>35.9</b>  | 37.0  | <b>70.8</b>  |
| EBITDA margin (%) | 18.2 % | <b>24.1</b>  | 15.7% | <b>22.9</b>  |
| Backlog           |        |              | 813   | <b>924</b>   |



# AFTERSALES | CRUISE

- Covid-19 slowdown in cruise operations continued to affect Aftersales in Q4
- Access to ships was restricted. Revenues and profit margin reduced, since most expenses are fixed
- Gradual rebound expected as cruise operators take their ships back to sea from summer season 2021

NOK 54 million  
revenues



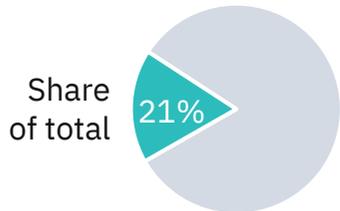
| NOK million       | 2H 19 | 2H 20       | 2019  | 2020        |
|-------------------|-------|-------------|-------|-------------|
| Revenues          | 65.9  | <b>13.6</b> | 125.7 | <b>53.3</b> |
| EBITDA            | 10.4  | <b>-5.0</b> | 22.5  | <b>-0.2</b> |
| EBITDA margin (%) | 15.7% | -           | 17.9% | -           |



# LANDBASED

- Growing demand for Vow technology already reflected in increasing revenues
- Gross margins like that in Projects. Significant spending on sales, R&D and fixed assets included in EBITDA
- Non-recurring costs related to standardisation and streamlining of landbased activities NOK 8 million
- Several milestone contracts awarded for valorisation of waste, biomass, and industry decarbonising

NOK **97** million  
revenues



| NOK million       | 2H 19 | 2H 20       | 2019  | 2020         |
|-------------------|-------|-------------|-------|--------------|
| Revenues          | 19.1  | <b>49.2</b> | 19.1  | <b>97.2</b>  |
| EBITDA            | -1.5  | <b>-3.1</b> | -1.5  | <b>-10.2</b> |
| EBITDA margin (%) | -7.8% | -           | -7.8% | -            |
| Backlog           |       |             | 78    | <b>28</b>    |

*Landbased activities acquired in 2019, in accounts from October that year. EBITDA before non-recurring items*



# RECENT DEAL FLOW

**11 February 2021**

Signed letter of intent with Betula Energy in Bamble to deliver equipment to biocarbon plant

Henrik Badin • 1st  
Chief Executive Officer at Vow ASA with Scanship and ETIA

We are excited to support Betula Energy with our technology to produce biocarbon for decarbonising the metallurgical industry. With two parallel runs in Norway, one in Bamble with Betula Energy and the other at Follum with Vow Industries, we are accelerating the roll out to meet high industry demand for climate neutral energy.

VOW ASA: Vow ASA and Betula Energy AS aim for biocarbon production in Bamble, Norway  
vowasa.com • 3 min read

**3 February 2021**

Awarded EUR 5.7 million cruise ship contract with major European shipbuilder

VOW Vow ASA  
2,687 followers

New contract for our Scanship subsidiary. The contract is for the delivery of two systems for advanced wastewater purification. Full steam ahead! Amazing work by the Scanship team.

Vow wins €5.7m cruise contract with major European shipbuilder  
seatrace-cruise.com • 1 min read

**2 February 2021**

Signed letter of intent with Elkem to deliver biocarbon from Follum plant

VOW Vow ASA  
2,687 followers

Delighted to announce that we have signed a Letter of Intent together with Elkem ASA to deliver biocarbon from our new Follum Plant with Vow Industries at the wheel. We are pleased to wish Elkem welcome as our partner at Follum!

VOW ASA: Signed Lol with Elkem to deliver biocarbon from Follum plant  
vowasa.com • 3 min read

**28 January 2021**

Vow and Arcelor Mittal join forces to build biogas plant in Luxembourg

VOW Vow ASA  
2,637 followers

New cooperation for a greener future! Only a few weeks after establishing VOW Industries, we are entering a new collaboration agreement and helping the world's leading steel producer, ArcelorMittal, in their journey towards carbon ne...see more

VOW ASA: Vow ASA and ArcelorMittal join forces to build biogas plant in Luxembourg  
vowasa.com • 4 min read

**30 October 2020**

Strategic partnership with Repsol on industry decarbonization

VOW Vow ASA  
2,754 followers

We are very proud to enter into a strategic partnership with Repsol through our subsidiary ETIA - Ecotechnologies. Together, we will explore multiple applications and solutions to produce clean and renewable energy for CO2 emissio...see more

Vow ASA: Vow ASA enters into strategic partnership with Repsol on industry decarbonization.  
vowasa.com • 2 min read

# STRATEGIC PARTNERSHIPS



- › A global multi-energy provider and one of the first energy companies to make a net-zero emissions commitment by 2050 and with intermediate goals for 2025, 2030+ and 2040.
- › Partnership to explore multiple applications such as solutions to produce CO2 neutral and decarbonised energy
- › ETIA technology and Vow's overall delivery model central elements.



ArcelorMittal

- › Memorandum of understanding to build biogas production plant to reduce CO2 emissions from metallurgical processes.
- › Cooperation on engineering, business modelling and financing of a dedicated biogas plant, with the aim to have the plant operational in 2022.
- › Plant will be based on Vow's patented 'Biogreen' pyrolysis technology. Biogas will replace use of fossil natural gas in the metallurgical plant.
- › By-products such as biocoke and biochar will add further economics to the concept



- › Joining forces, competence and technology solutions to produce biocarbon at Vow Industries' planned plant in Norway
- › Sustainable feedstock comprised of forestry wood mass, wood waste and other wood materials
- › Elkem aims to secure long-term access to low-cost, high-quality renewable biocarbon to replace fossil reduction material, and further improve its competitive position for the sustainable future

An aerial photograph of a modern industrial facility. The main building is a large, multi-story structure with a grey facade and a prominent glass-fronted entrance. A yellow truck is parked in the paved area in front of the building. To the left, there's a smaller, single-story building with a large window. A tall, thin chimney stack is visible on the far left. The facility is situated on a riverbank, with a dark river in the foreground. In the background, there are green, rolling hills under a clear blue sky. The text 'STRATEGY AND OUTLOOK' is overlaid in large, white, bold letters in the center of the image. Below it, the text 'Introducing Vow Industries and Vow Green Metals' is written in a smaller, white font. The Vow logo is visible on the building's facade.

# STRATEGY AND OUTLOOK

Introducing Vow Industries  
and Vow Green Metals

# TRENDS AND FORCEFUL DRIVERS

## CIRCULAR ECONOMY

Across industries, growing realisation that waste is value, an asset which must be monetised. **Waste no more!**



## DECARBONISING INDUSTRIES

Strong demand from heat intensive industries for solutions that can replace fossil coal and fossil energy



## POLICIES

National and international law makers and governments are pushing for new legislation and regulation, i.e. EU Green Deal

## ECONOMICAL

Cost of capital, EU taxonomy, carbon tax and rising consumer concerns drives business towards sustainable solutions

## TECHNOLOGY

Engineers, entrepreneurs and industrialists are bringing down the cost of technology in new solutions

# THE INCUBATOR: VOW INDUSTRIES

Valorising waste | Decarbonising industry

## Intake (examples)

Organic waste  
and biomass

Plastics and  
polymers



## Business idea

An inhouse incubator for development of  
companies based on Vow's technology

## Offtake (examples)

Biocarbon (biocoke, biochar,  
biocoal)

Carbon products (graphite,  
graphene and recycled carbon  
black)

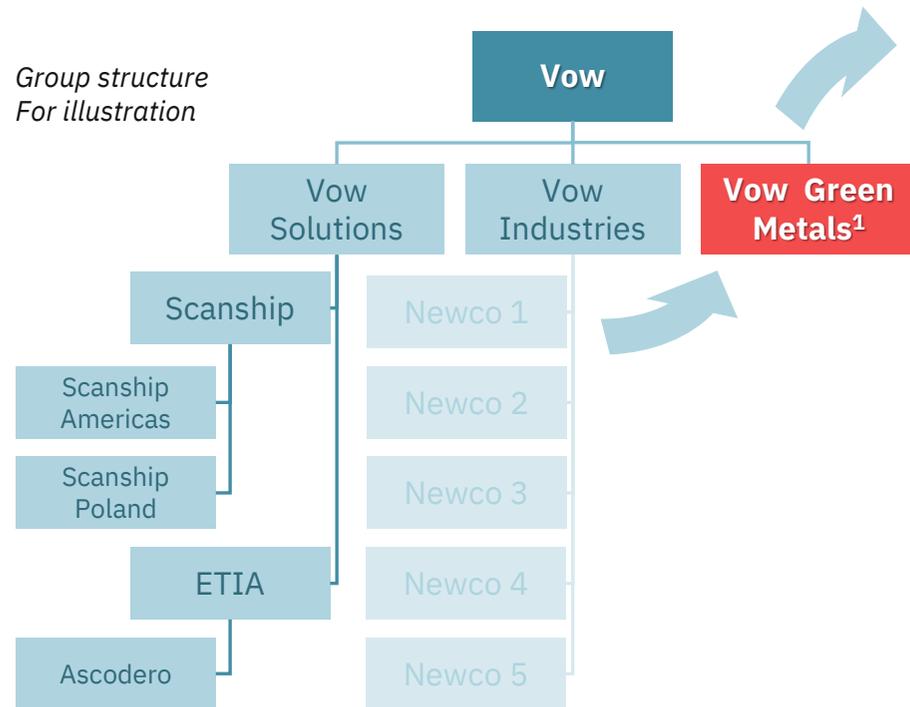
CO2 neutral gas and hydrogen  
(decarbonised energy)

Low-carbon fuels

CO2 removal certificates

# SPINNING OFF VOW GREEN METALS<sup>1</sup>

... and distributing to shareholders



<sup>1</sup> Concept name

## Contemplating launch of Vow Green Metals as new and separate entity

- Plans to **spin off Vow Green Metals** and distribute shares to current Vow shareholders
- Aims for **separate listing** before summer 2021
- Vow Green Metals will **build, own and operate plants** and deliver high-value biocarbon and CO<sub>2</sub> neutral gas for metal industries
- Deliveries to **Vow Green Metals** will represent additional order backlog and **NOK 200-250 million** in revenue for **Vow** in 2021/22
- **Vow Industries will** remain in current structure, as an incubator for other potential spin-offs in the future

# VOW GREEN METALS

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## The Follum plant



- › **Business idea** | Build, own and operate full scale plant based on Vow's process technology
- › **Production** | Biocarbon to replace fossil coke as a reducing agent in the metallurgical industry in Norway, as well as providing CO2 neutral gas for district heating and low-carbon fuels
- › **Setup** | Base for development of fully standardized and replicable facilities
- › **Financing** | Through Enova grants, debt and equity

# ACCELERATING GREEN TRANSITION



*Forest owners association providing biomass*



*Demolition wood, waste wood*

*Low-carbon fuel and raw materials for the petrochemical industry*

*Biocarbon for the metallurgical industry*



*Municipal energy company, using CO2 neutral gas for district heating*

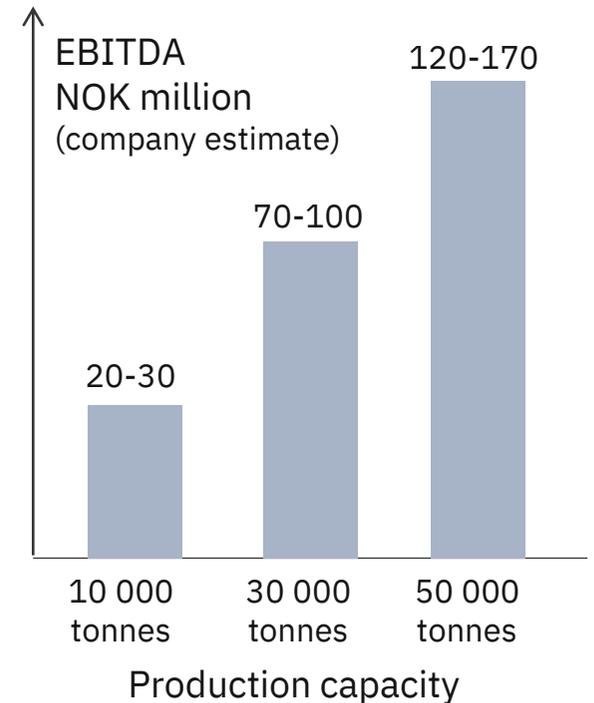


# INDUSTRIAL RATIONALE



- › Large, international **industrial groups** are undergoing a significant restructuring in order to achieve their **goals of CO2 neutrality**
- › **Demand for biocarbon** is expected to increase significantly in the next few years, driven partly by increasing CO2 taxation and corporate net zero strategies
- › **Pipeline includes expansion** in the Nordics as well as larger production facilities to meet industry needs
  - Norwegian market 400.000 tonnes (40% of 1 mill tonnes total fossil market by 2030)
  - Nordic market 1.8-2 mill tonnes (40% of 4.5-5 mill tonnes total fossil market by 2030)
- › Several possible locations. Access to feedstock, infrastructure and proximity to client will be key

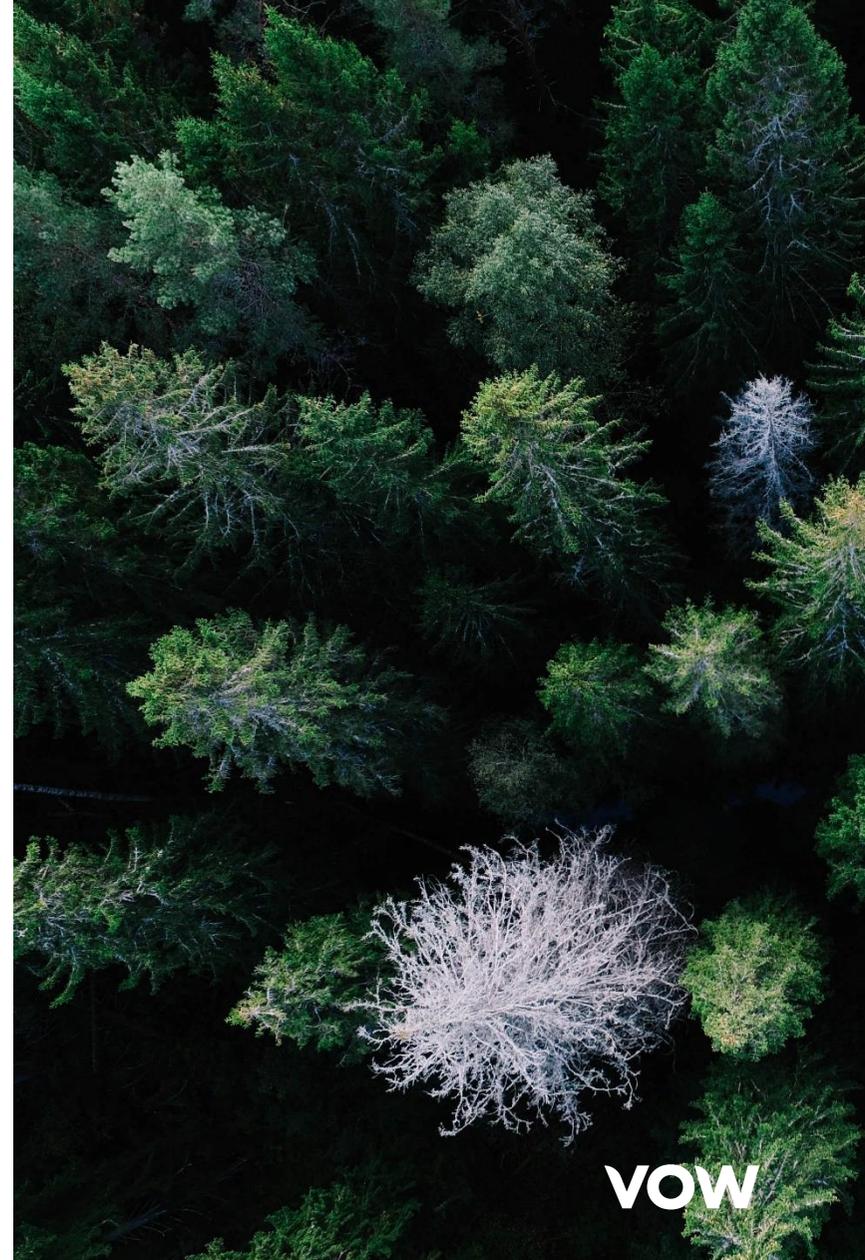
## Scalable and profitable



# CONCLUDING REMARKS

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- › 2020 – a year marked by continued **strong performance** in cruise projects and **transformative achievements** on land
- › **Global trends**, regulatory and financial drivers create **strong interest and demand** for our technology and patented unique solutions
- › Vow provides industry with the means to turn waste and biomass into **CO2 neutral** energy, **decarbonised** energy, **low-carbon** fuels and **biocarbon**
- › With the **launch of Vow Green Metals**, we are expanding our business, developing, owning and operating plants, **stand alone** or **together with partners**, gearing up to offer ‘**decarbonisation as a service**’
- › Spinning off **Vow Green Metals** with **separate listing** before summer 2021 to **accelerate growth** and **increase shareholder values**



An aerial photograph of a dense forest, likely a coniferous forest, with a dirt road winding through it. The trees are mostly green, but there are several dead, white trees scattered throughout. The text is overlaid on the center of the image.

# THANK YOU FOR YOUR ATTENTION

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**VOW**