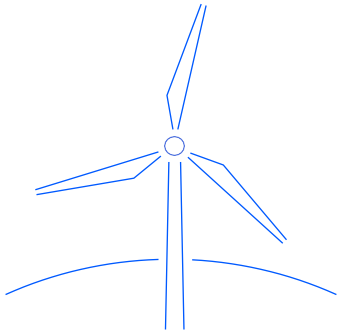

Vestas
Wind. It means the world to us.™
Sustainability in everything we do
Lisa Ekstrand - Vice President & Head of Sustainability, Vestas

CO_2e avoided through our fleet of wind turbines



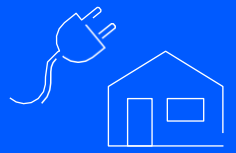
2,130

million tonnes CO_2e avoided from 1981 - 2023

The turbines produced & shipped in 2023 are expected to avoid **396 million tonnes of CO_2e** over their lifetime, equivalent to:

88 million

passenger vehicles driven for one year



77 million

homes' electricity use for one year

1.91 million

km^2 forest's carbon sequestering in one year

Our sustainability strategy

Sustainability in everything we do

Carbon neutrality

Carbon neutral company by 2030 – without using carbon offsets

Reduce CO_2e emissions in the supply chain by 45% per MWh generated by 2030

Zero-waste

Producing zero-waste wind turbines by 2040

Social responsibility

Safest, most inclusive and socially-responsible company in the energy industry

Leading the transition

Towards a world powered by renewable energy

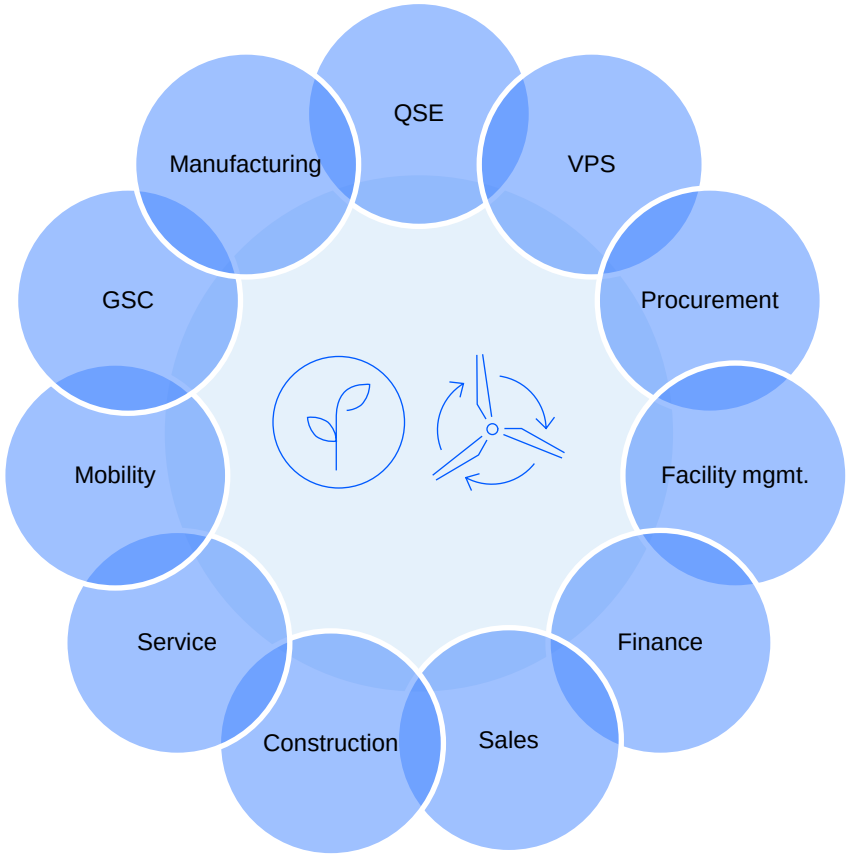
A complex global challenge spanning across a large organisation

Reducing CO2e and waste requires involvement of the entire Vestas' organisation

Becoming carbon neutral in own operations by 2030
– without using carbon offsets

Reducing CO_2e emissions in the supply chain by 45% per MWh generated, by 2030

Producing zero-waste wind turbines by 2040

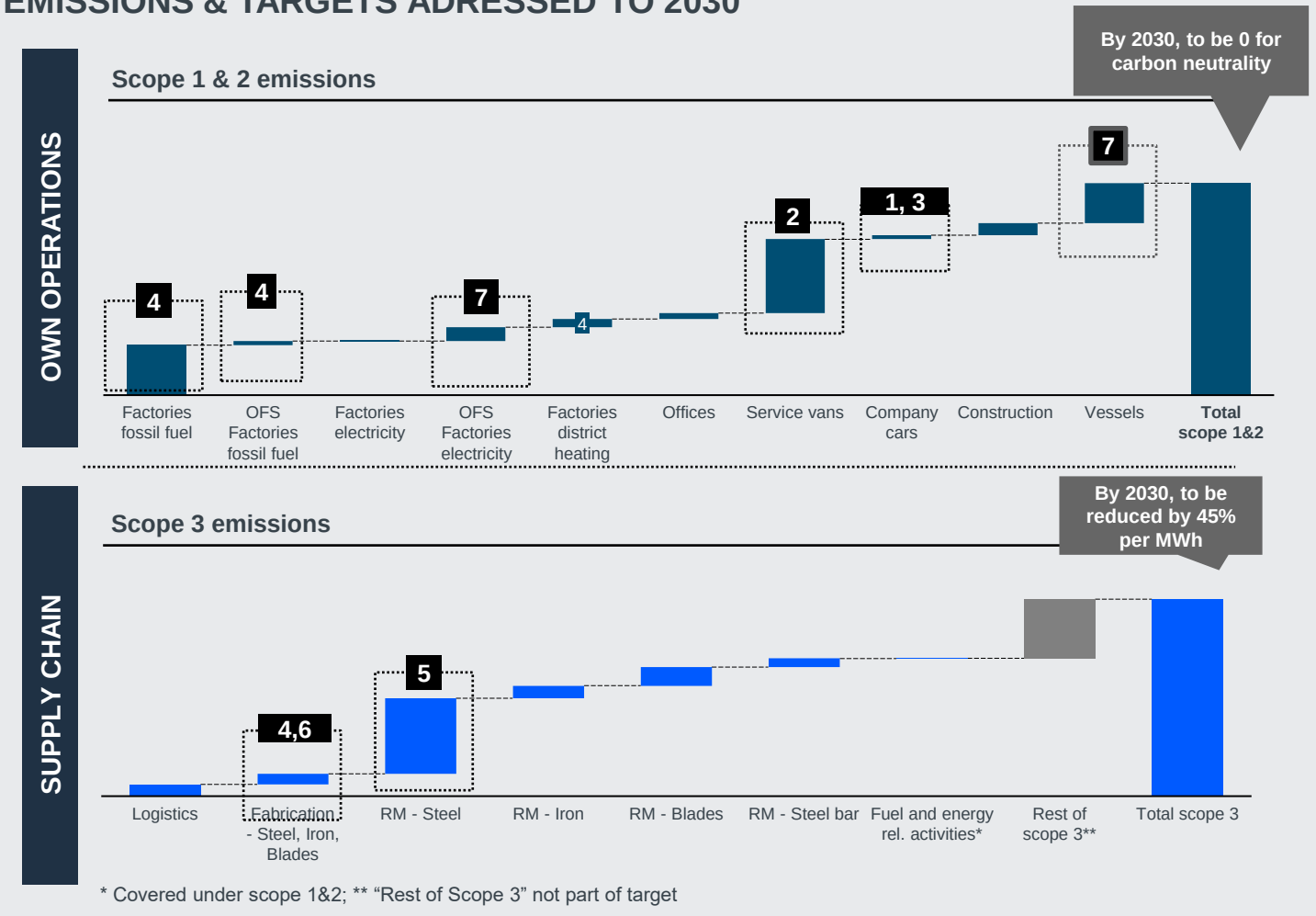


The need for focus: Vestas' priority projects for sustainability

Based on **impact** and **strategic importance to business**

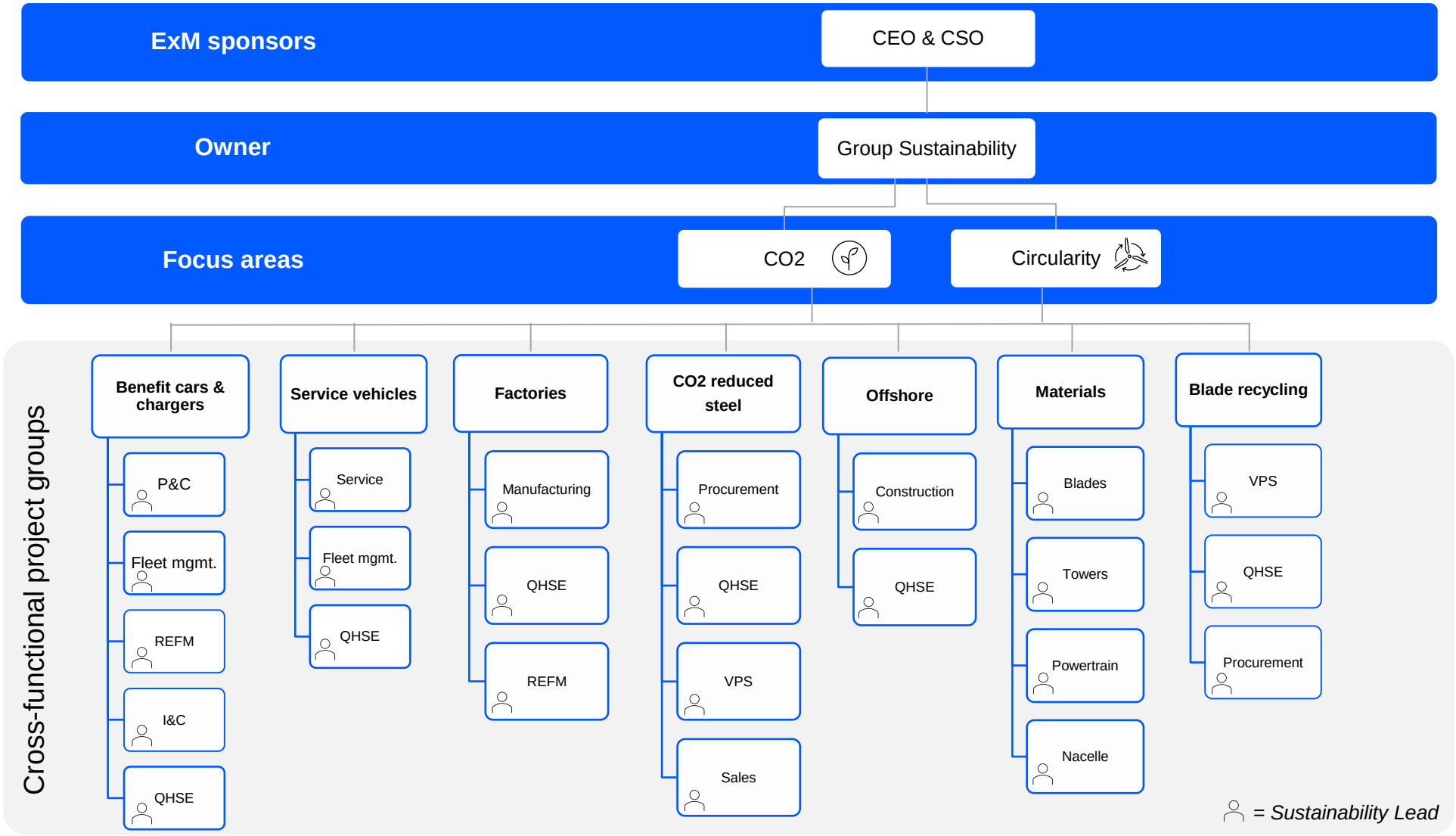
2020-2024 PROJECTS	
1	**BENEFIT CARS 2020-2025** *Transition of benefit car fleet to EVs*
2	**SERVICE VEHICLES 2020-2025** *Transition of service vehicle fleet to EV or renewable fuelled*
3	**CHARGERS** *One global partner to provide charging infrastructure*
4	**REDUCE CO2 FROM MANUFACTURING** *Reduce CO2 emissions from heating factories*
5	**CO2 REDUCED STEEL / MATERIALS** *Collaboration with steel suppliers & customers to reduce CO2 emissions in steel*
6	**BLADE RECYCLING & WASTE REDUCTION** *Collaborations with customers & other partners to develop new recycling technologies for blades, reducing manufacturing waste*
7	**OFFSHORE** *Vessels*

EMISSIONS & TARGETS ADRESSED TO 2030



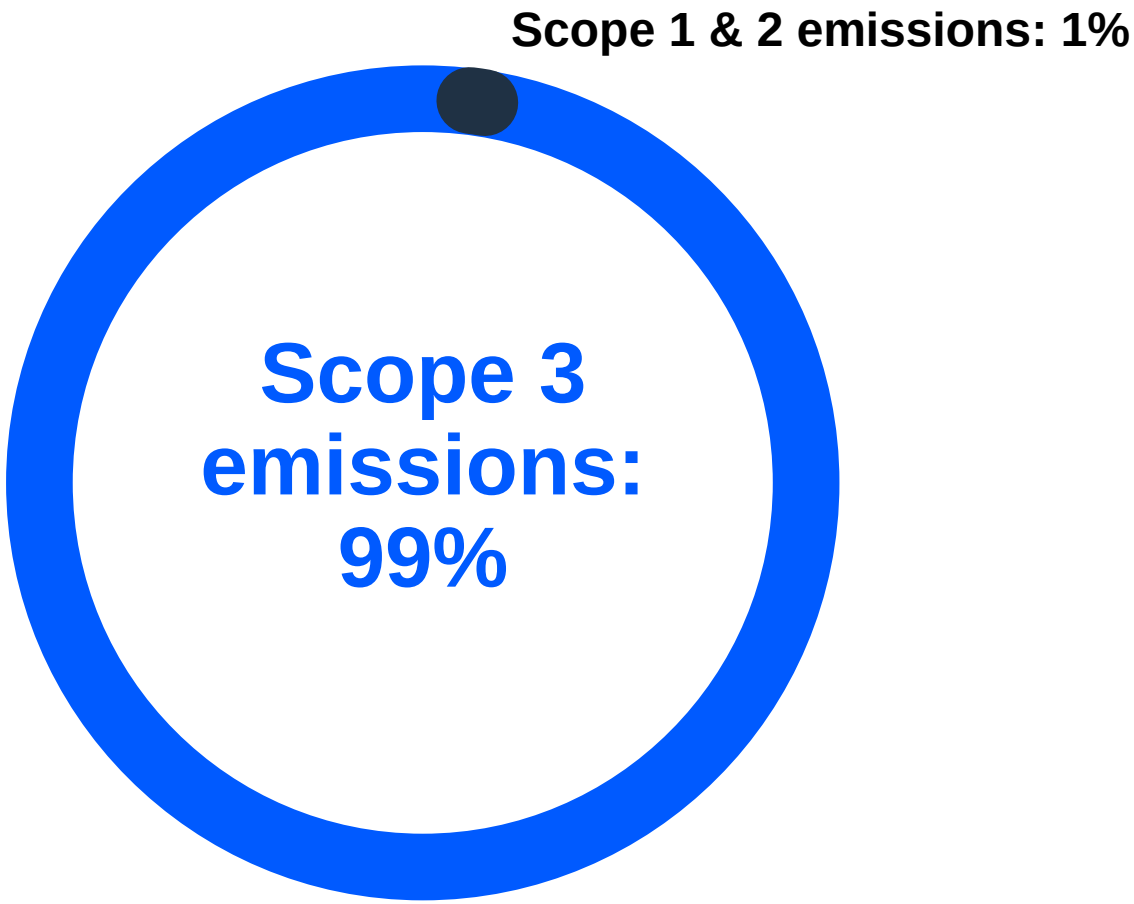
* Covered under scope 1&2; ** "Rest of Scope 3" not part of target

Creating a cross-functional structure that makes it “small” and manageable



Scope 3 emissions require extra focus

99% of Vestas carbon footprint originates from scope 3 emissions



Supplier expectations

Reducing CO_2e emissions in the supply chain by 45% per MWh generated by 2030 compared to 2019

Producing zero-waste wind turbines by 2040

September 2021
100% electricity consumption from renewable energy sources latest by 2030

January 2022
Setting scope 1 and 2 emission reduction targets by 2030 without using offsets

October 2022
Set targets for own operations' waste reduction by 2030, without pushing to Tier 1 suppliers

December 2021
Start measuring and reporting on production of waste

November 2021
Calculating and reporting CO_2e emissions for products delivered to Vestas

March 2022
50% reduction in waste from products delivered to Vestas by 2030

October 2024
Calculate and set targets for Tier 1 suppliers' waste reduction

A sustainable **& commercial** approach to reduce scope 3 emissions

Requires strong collaboration across product development, procurement and sales teams

Material/Component CO2 reduction targets

CTO	COO	CSO
Module sustainability leads, Sustainability engineers	Procurement leads	Sales managers
Design with low carbon materials	Collaborate with low carbon suppliers	Green options in sales configurator
Reduce material consumption	Secure low carbon material volumes	Monitor customer demand for green options
Improve turbine performance & lifetime	Assess price premium	Assess customer willingness to pay
Technology development	Assess quality implications	Sales strategy for green options at premium

Sustainability business cases

Creation and sales of green product offerings

Effective Scope 3 emission reductions

Commercial-facing products under development

Blade recycling

Currently, downcycling of legacy blades (primarily in the US and EU)

Industrialisation of a fully circular recycling process underway

Low-emission steel

Scrap-based EAF steel available now

Near-zero emissions steel from green hydrogen under development

Sustainable service fleet

All new service vehicles to be electric or renewably powered by 2025

Pilots of renewably-powered crew transfer vessels (methanol & hydrogen)

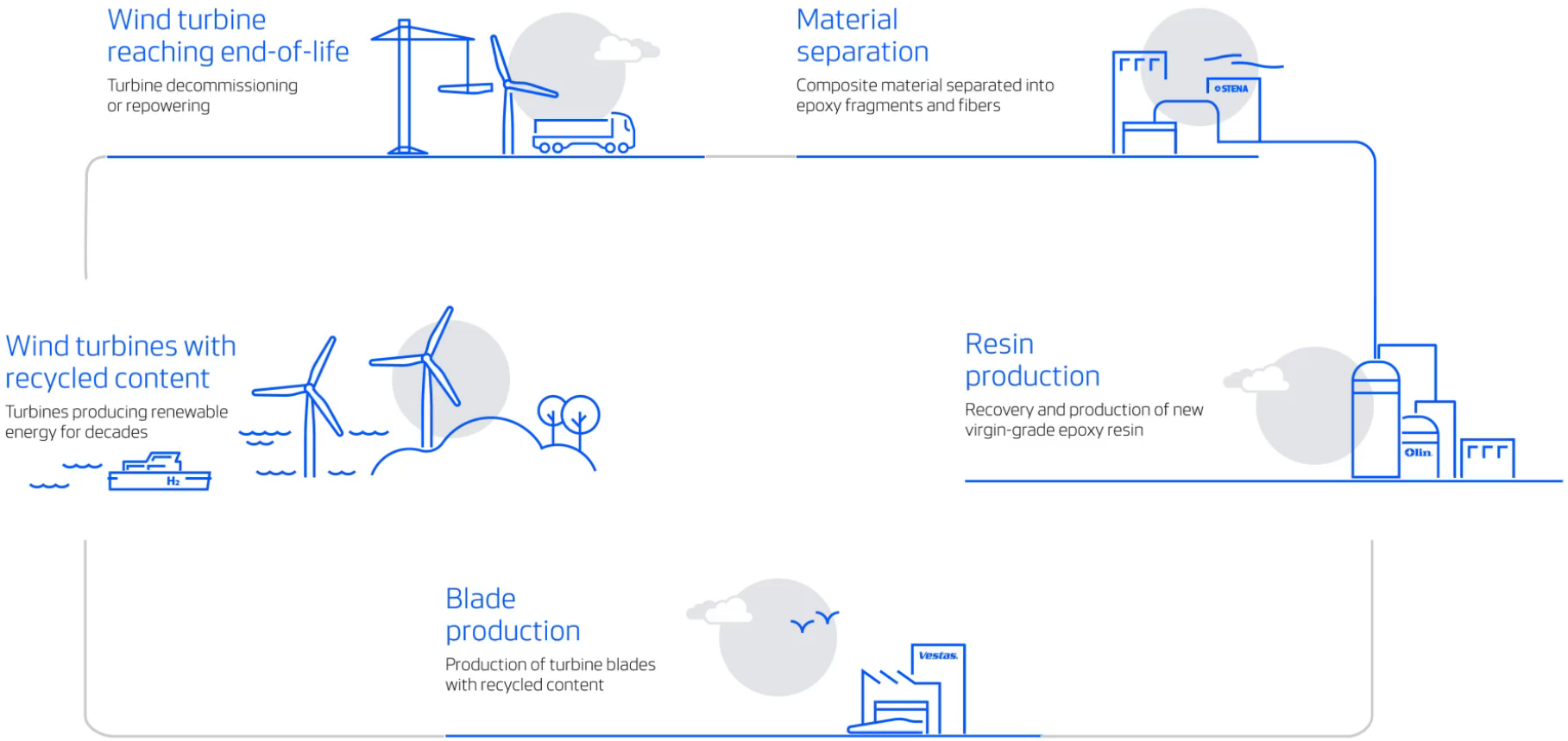
Wooden towers

First wooden tower demonstrator installed in Sweden (HH: 105 m)

In 2025, first 150-meter wooden towers

Partnerships across the value chain key for success

Here solving the wind industry's biggest **circularity challenge**



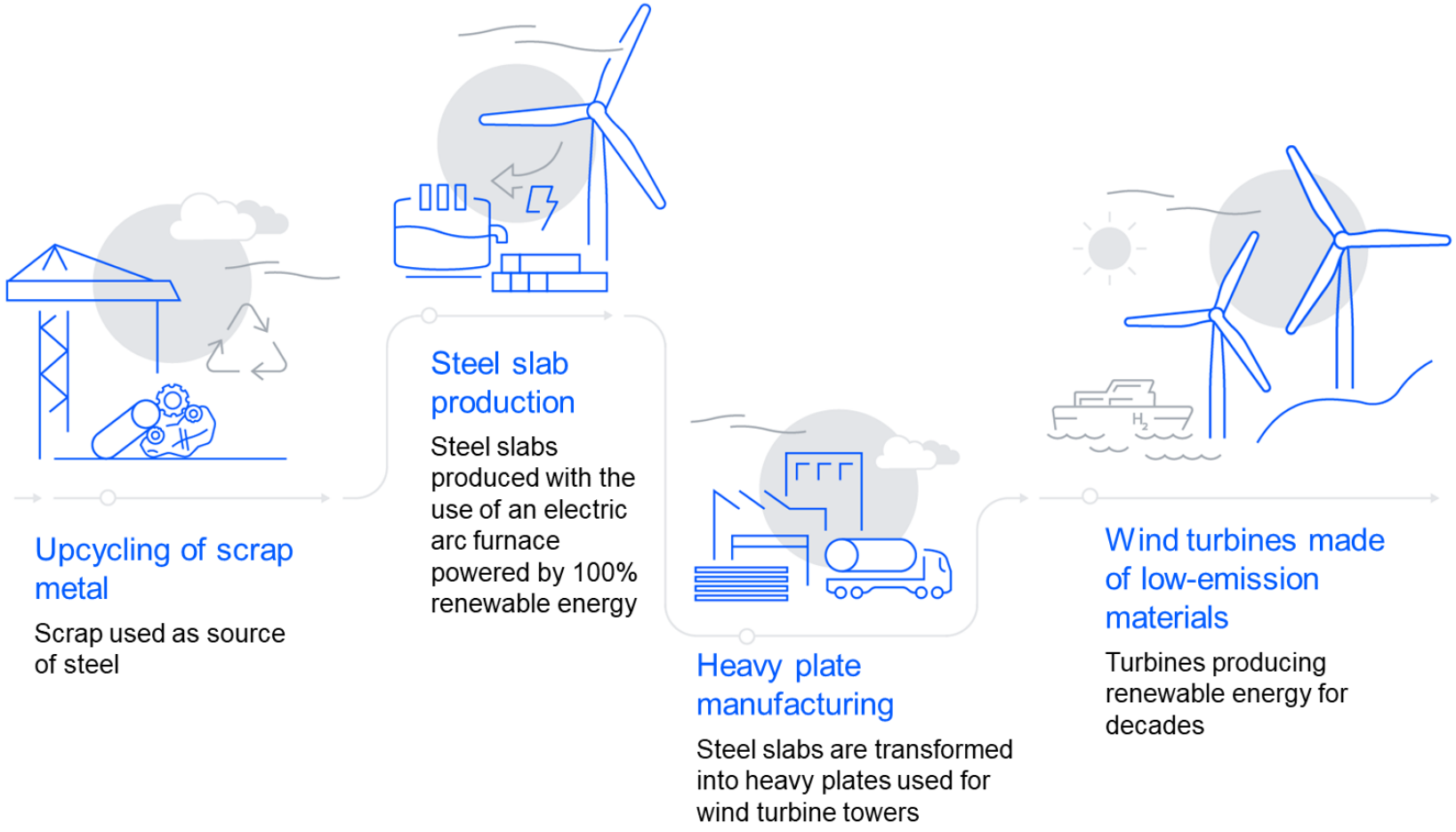
Classification: Confidential

Partnership across the value chain key for success

Decarbonising the steel production process to reduce the CO_2e footprint of Vestas wind turbines

The steel is scrap-based and produced in an electric arc furnace using only renewable energy. This promotes circularity and results in an emission reduction of 66% for heavy plates compared to conventional steel heavy plates.

Low-emission steel is currently preferred for complete onshore towers and the top two sections of offshore towers.



Still a lot to do: areas requiring additional focus

Supply chain impacts

1. Decarbonising raw materials, especially:

Aluminum

Copper

Iron

Cement

Composites

2. Full supply chain transparency, especially:

Environmental impacts from mining

Human rights impacts from mining

Risk of forced labour from component suppliers

Project specific impacts

1. Construction – reducing waste and emissions, and building community support during construction or repowering

2. Biodiversity – mitigating impacts to nature through careful siting and technology improvements

3. Transport – renewably-powered transport throughout the turbine lifecycle, including manufacturing, construction, and service phases

ESG reporting requirements: an opportunity to future-proof your company

Compliance or value adding?

- **Don’t panic over data**, rather focus on where you have products and capabilities that can support your customers and societies to become more sustainable. This will strengthen your competitiveness.

- While you create your strategy **focus on opportunities** but also **your risks and where you have your impacts**. This will make you understand what is most material to you – and future-proof your company.

- **Break it down to targets and concrete initiatives**. Set up a **clear governance** that involves the organization, also your sales department.

- **Don’t wait and don’t aim for perfect the first time**.

THANK YOU!

VESTAS ESG RATINGS

The Voice for Clean Capitalism Corporate Knights

Vestas ranked as the world's most sustainable energy company

CDP DISCLOSURE INSIGHT ACTION

Climate score A -

Dow Jones Sustainability Indexes

Score 68 World Index

MSCI

Score AAA

SUSTAINALYTICS

Low risk 19,5

ISS ESG

Rating B+