

SESSION ID: PL1112B

MODULAR PRODUCT ARCHITECTURE- RE-THINKING DESIGN METHODOLOGY

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May 16, 2023

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SHOW VIDEO

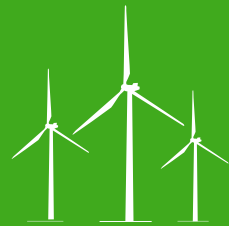
- <https://app.frame.io/review35e3-0916-2402d-a0c22b4f25c4/24f1569b-f518-4deb-97ab-341611b43c64>

VESTAS IS THE ENERGY INDUSTRY'S GLOBAL PARTNER ON SUSTAINABLE ENERGY SOLUTIONS



+29,000 people

We employ more than 29,000 people worldwide and have 40 years of experience with wind energy



+54,000 combined turbines

We have a total of 54,942 combined turbines under service, or more than 137 GW



+83,000 turbines

That is more than 157 GW of installed wind power capacity in 88 countries worldwide spanning five continents

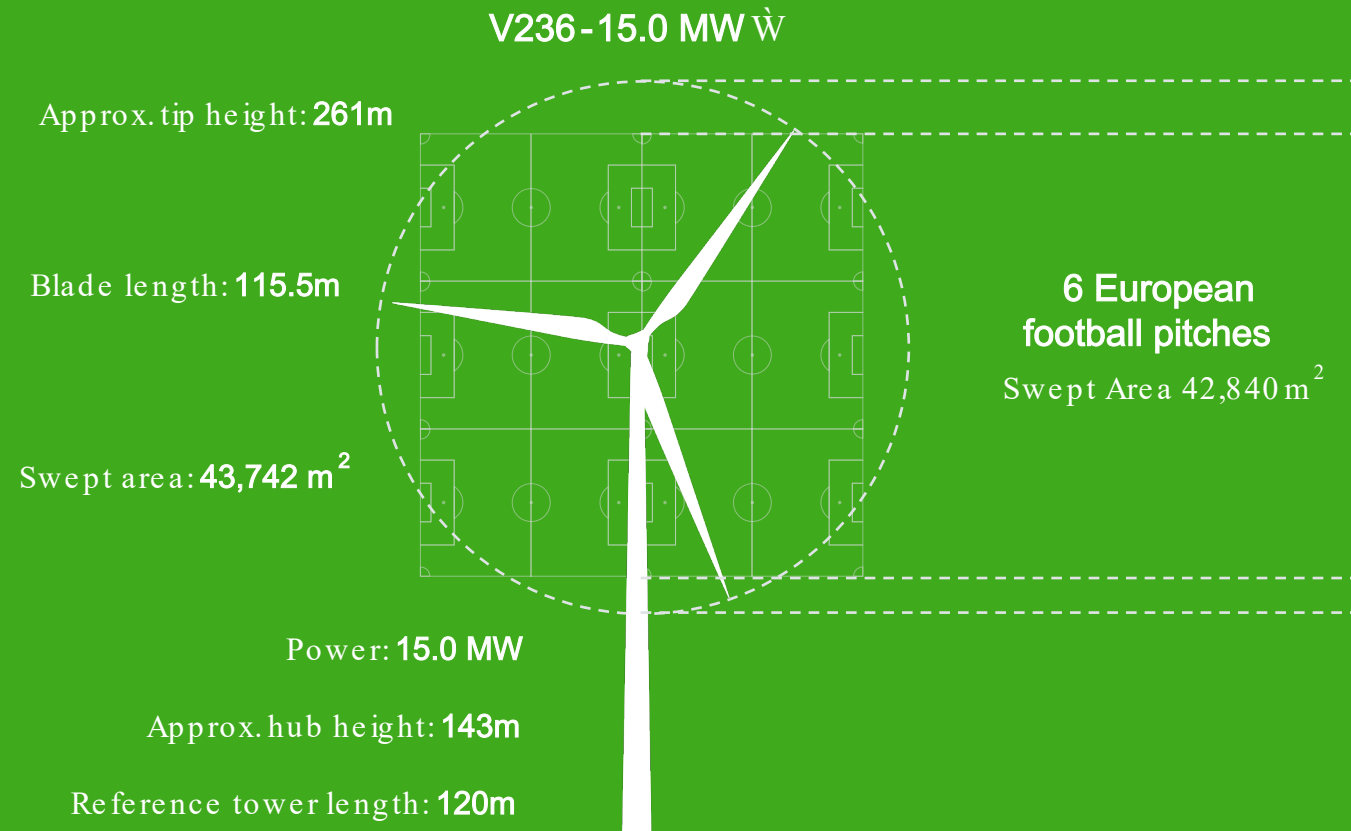


€15.6 billion

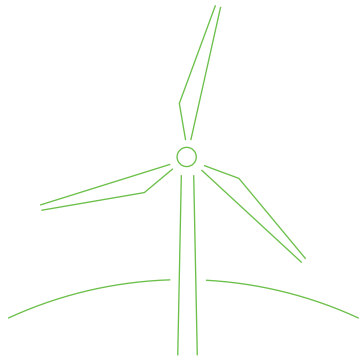
Vestas' revenue for the full year 2021 was EUR 15.6bn

OPTIMAL POWER GENERATION FROM THE INDUSTRY'S LARGEST SWEEPED AREA

V236-15.0 MW \dot{W} with a swept area larger than 6 European football pitches



CO₂E AVOIDED THROUGH OUR FLEET OF WIND TURBINES



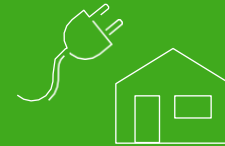
1,699

million tonnes CO₂e
avoided from 1981 - 2021

The turbines produced & shipped in 2021 are expected to avoid **532 million tonnes of CO₂e** over their life time, equivalent to:



125 million
passenger vehicles
driven for one year



97 million
homes' electricity
use for one year



2.64 million
km² forest's carbon
sequestering in one year

PRODUCT CONFIGURATION & SUSTAINABILITY



- Vestas aspires not only to provide great products but also to be a leader in creating a sustainable future
- Vestas aims to integrate modularization and configuration methods to develop the most suitable product for a specific site
- This benefits not only the customer but also the environment



Maximizing energy production while minimizing material consumption - a win-win for both power and planet!"

THE INDUSTRIAL CHALLENGE



If we are to scale renewables we must

- Transform from a technology race to race for industrialization
- Optimization for the value chain
- Maximize reuse and thus volume in the value chain

SMART PLATFORMS



- Previously Vestas has utilized our own proprietary automation to produce 2D and 3D models
- Despite being very effective, it lacked the integration with our Windchill configuration system
- By combining Smart Platforms with our proprietary automation, we can get the best of both worlds
- Through modularization, Configuration and Dynamic Position in Smart Platforms we can optimize product while still reusing existing building blocks

PARTS LINK– CLASSIFICATION & ATTRIBUTES



- By utilizing PartsLink we can maximize reuse through classification and assignment of attributes
- This allows us to easily integrate existing building blocks into a product configurator
- The functional and geometrical attributes allows us to create the logic for which building blocks to use in a specific configuration

OVERALL STRATEGY




- Configure to order– optimizing for both performance and material consumption
- Reduce part count through reuse of existing building blocks
- Increase quality
- Decrease manufacturing, development and material costs

DIGITAL THREAD – E-BOM, M-BOM & S-BOM




- Through Windchill we are creating both E-BoM, M-BoM & S-BoM
- This allows digitalization of the complete value chain
- It also allows for optimization and configuration of both product and value chain

CONCLUSION

 At Vestas we are committed to **sustainability** and **innovation**

 By leveraging the power of PLM, we are optimizing our products and value chain to benefit both our **customers** and the **planet**

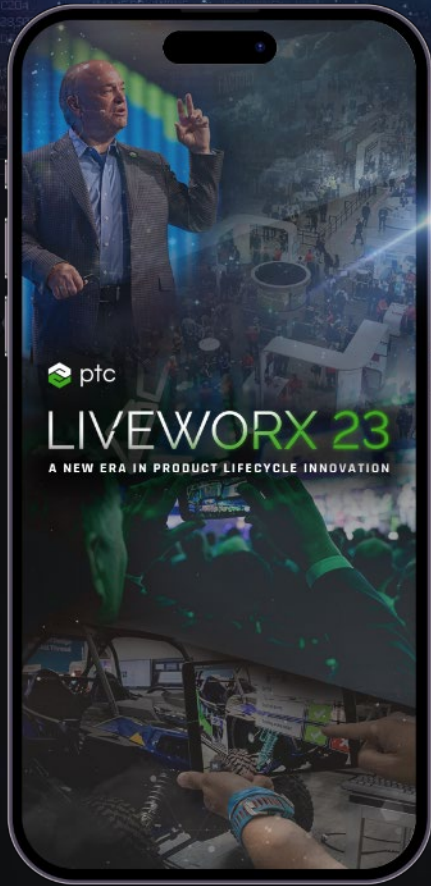
 We are proving that competitive and sustainable products are **not mutually exclusive**, and we are proud to lead the way towards a more sustainable future



QUESTIONS?

Thank you! You can find me at:





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PROVIDE SESSION FEEDBACK



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