

**Vestas**<sup>®</sup>

**Wind.** It means the world to us.<sup>™</sup>



# Project Management in Changing Markets

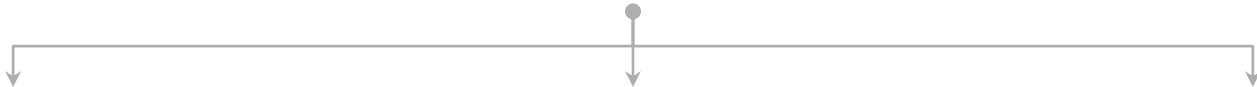
Klaus Steen Mortensen

President, Vestas Northern Europe

29 March 2017

- 1. Vestas in Brief**
- 2. Project Management in Construction & Installation**
- 3. Our Challenges**
- 4. Our Solutions**
- 5. Concluding Remarks**

# Three Business Areas



## Wind turbines

Wind turbines covering all wind classes across the world and reflecting our customers' need for clean, competitive and reliable energy.



## Services

A broad range of service offerings securing optimal performance of the wind turbines and the customers' return on investment.



## MHI Vestas Offshore Wind

Joint Venture between Mitsubishi Heavy Industries and Vestas to offer clean, competitive and reliable energy for the offshore market.



Superior cost-effective wind technologies, products and services.

# Vestas in Brief



**21.800**

people employed  
dedicated to wind



**+81 GW**

installed capacity in 75  
countries worldwide

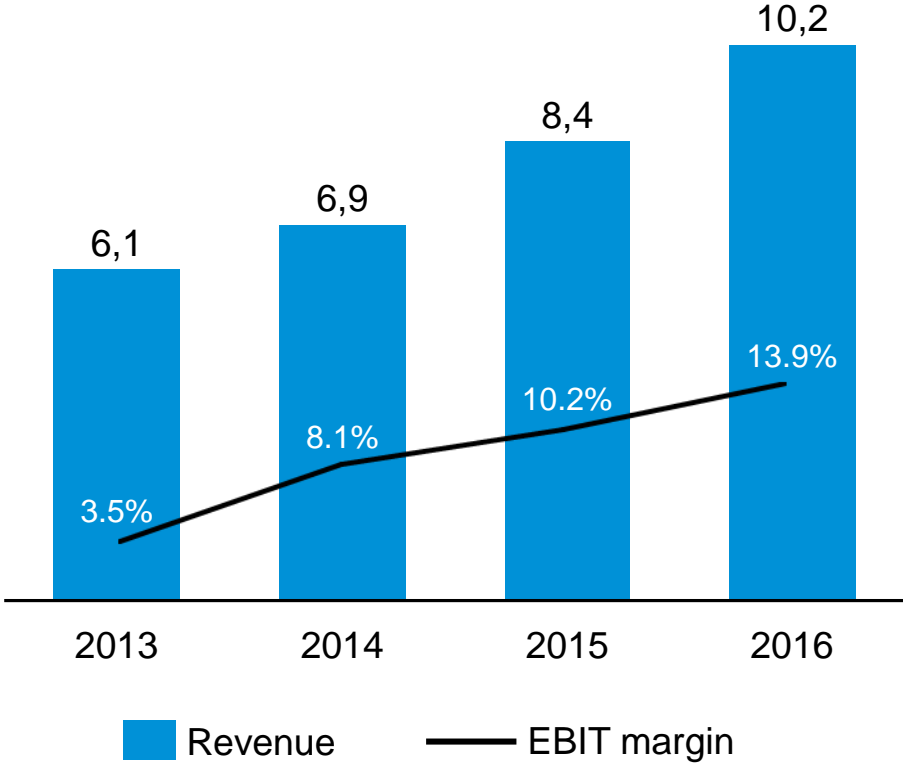


**+16%**

of total global  
installed capacity

# Profitable Growth

Revenue & EBIT margin  
EURbn and percent



- After the turn-around in 2012/2013, Vestas is today a financially strong and operationally effective organisation, delivering solid 2016 performance with strong revenue and earnings growth
- FY 2016 guidance met on all parameters with highest ever order intake (10.5 GW) across 33 countries on six continents

# Vestas Northern Europe

- One of five Sales Business Units in Vestas Wind Systems responsible for Sales, Construction and Service
- Covering Ireland, UK, Denmark, Sweden, Norway, Finland, Poland and the Baltics

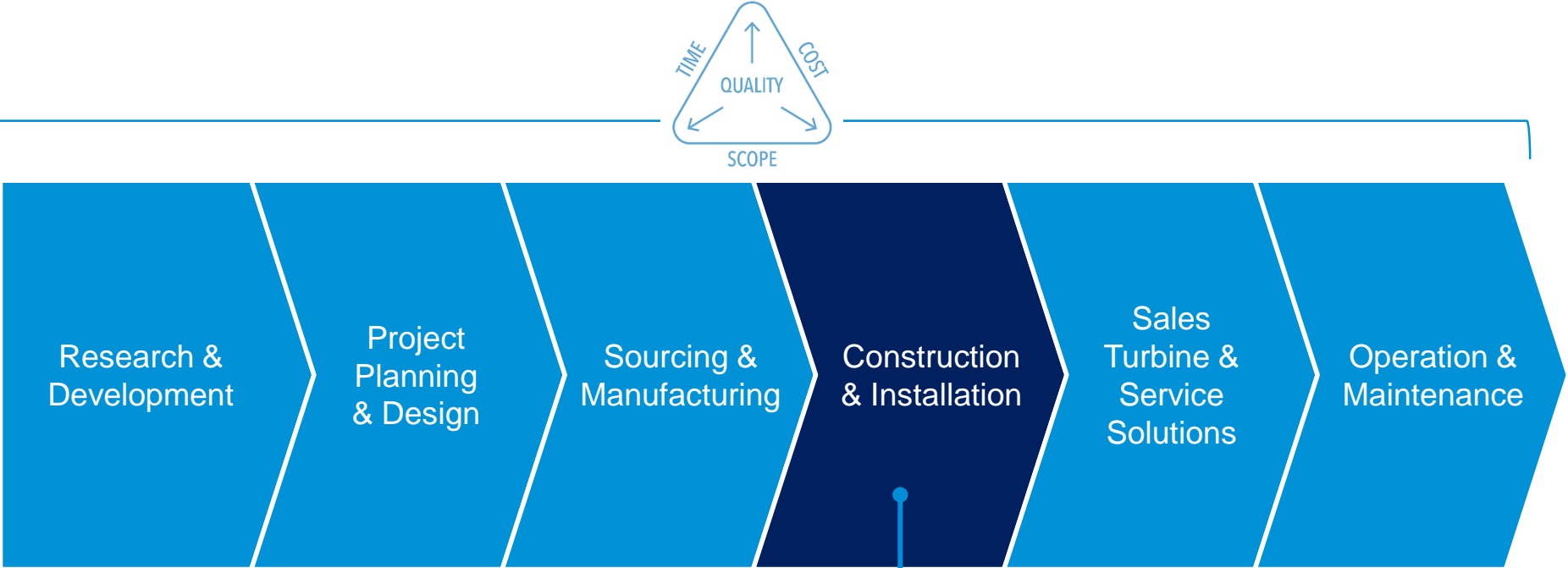




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# Project Management in the Entire Vestas Value Chain



Flawless project management and execution in the **construction and installation phase of wind turbines** is of key focus for us as it is our revenue generator

# The Vestas Construction Organisation in Perspective

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Industry rule of thumb is that around 30% of the revenues is coming from construction activities...

...meaning that Vestas is a 3 bnEUR construction company...

...or close to the top 10 over the largest construction companies in Europe

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*examples*

# Construction and Installation Site



Plenty of Complexity...



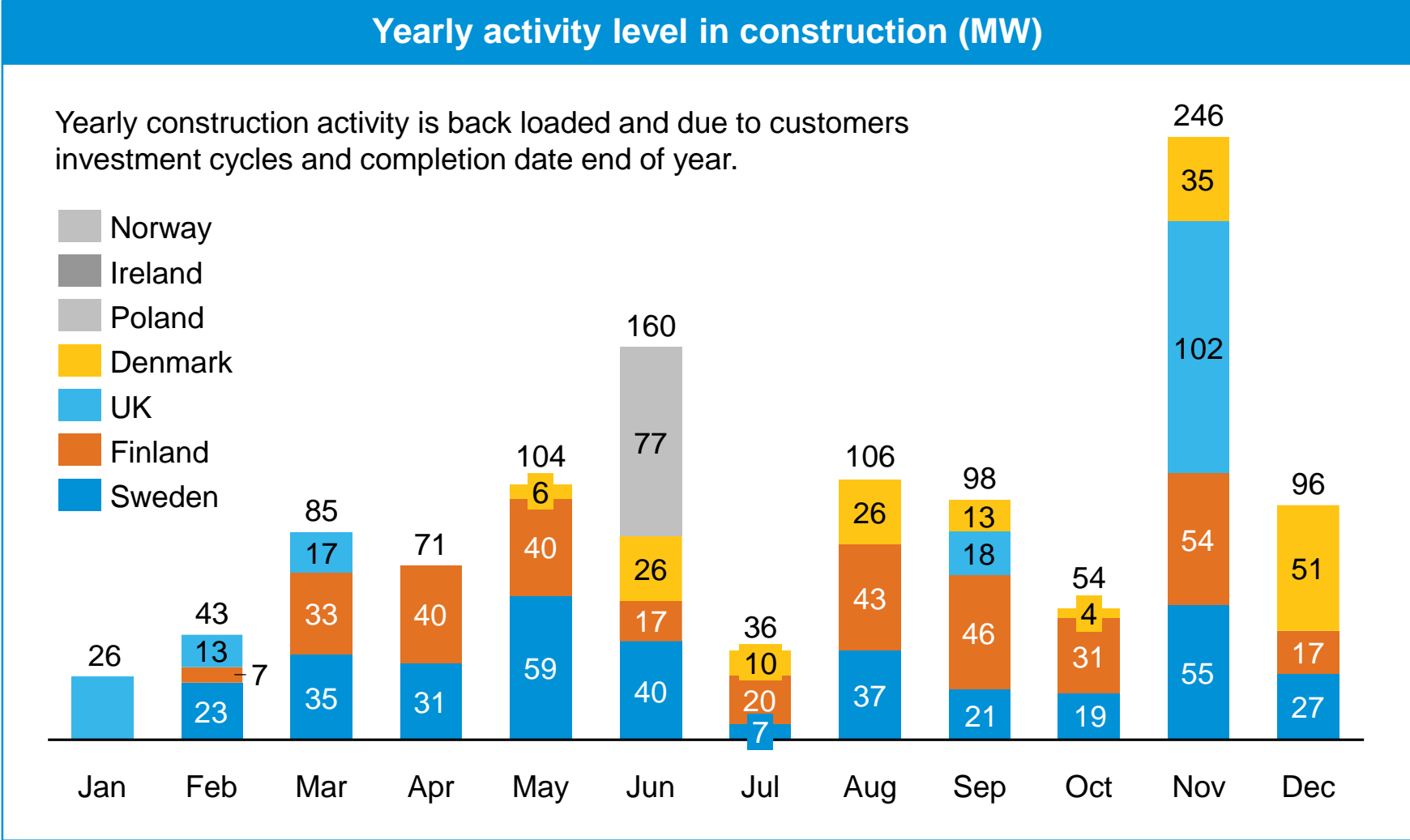
...Project Management is Key



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# Our Challenge:

## Project Management in a Back Loaded Market



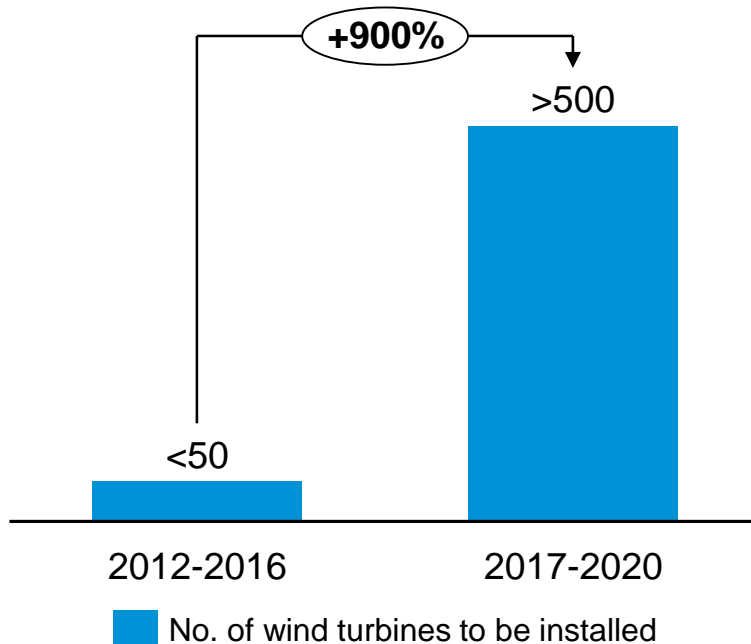
# Our Challenge:

## Project Management in Changing Markets

Two examples...

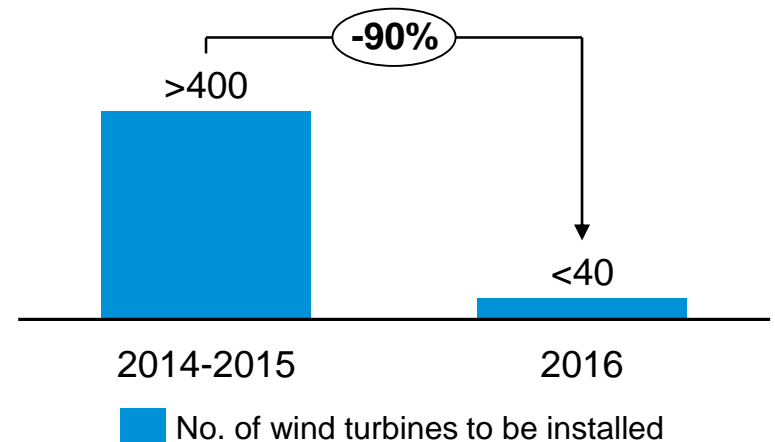
### Norway

Due to one large order (1GW) and positive market expectations, we are now looking at installations of a more than 500 turbines vs. only 50 in the past years.



### Poland

From more than 400 turbines installed in the past years to less than <10 due to new policy introduced from a less wind positive government.



# Our Challenge: The Success Criteria

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Our project management in construction is key to make sure that our installation is delivering 6 key objectives

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# Our Solution:

## Managing Scalability and Flexibility

Planning and  
Preparation



The Vestas Way on Site sets out planning and preparation as the most time consuming phase in our construction process

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Sub-Supplier usage  
and Partnership



High degree of use of pre-qualified and regional/global sub-suppliers where partnership is of the essence

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Scalable Matrix  
Organisation



Scalable pool of mobile installation crews and utilising the full potential of Vestas' operating model and matrix organisation

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# Planning & Preparation:

70% of time spent on planning and preparation

**Vestas**® Way on Site

12 Month

Safety HSE Plan

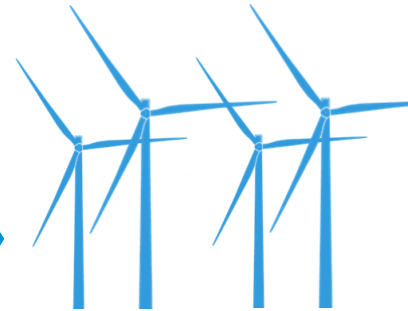
Quality Plan

Planning /  
Preparation

Delivery

Installation

Commissioning

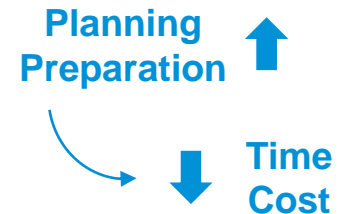


70%

30%

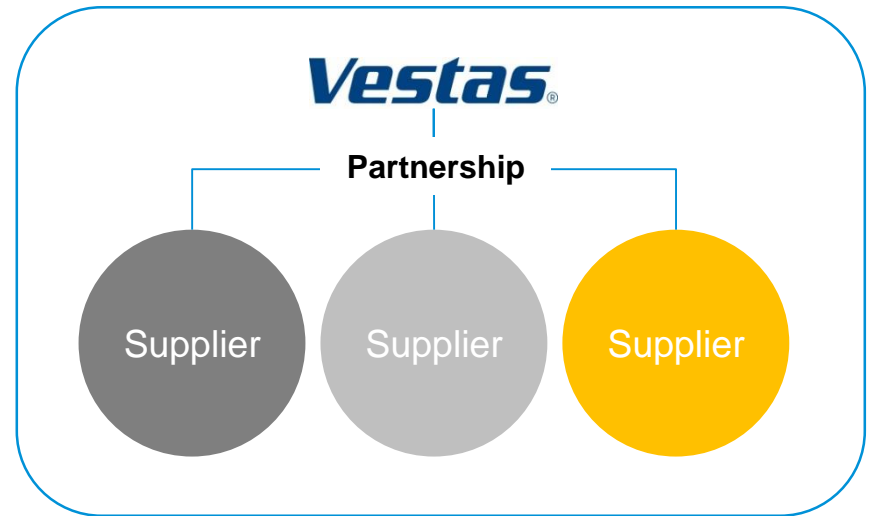
We spend 70% of time in the construction of a wind turbine project on the **planning and preparation phase** to make sure we spend as little time on site as possible

Time spend on site and the actual installation of the turbine is costly so **limiting time on site** is key to limiting overall cost



# Sub-Supplier Usage and Partnership: Building Flexibility through Outsourcing

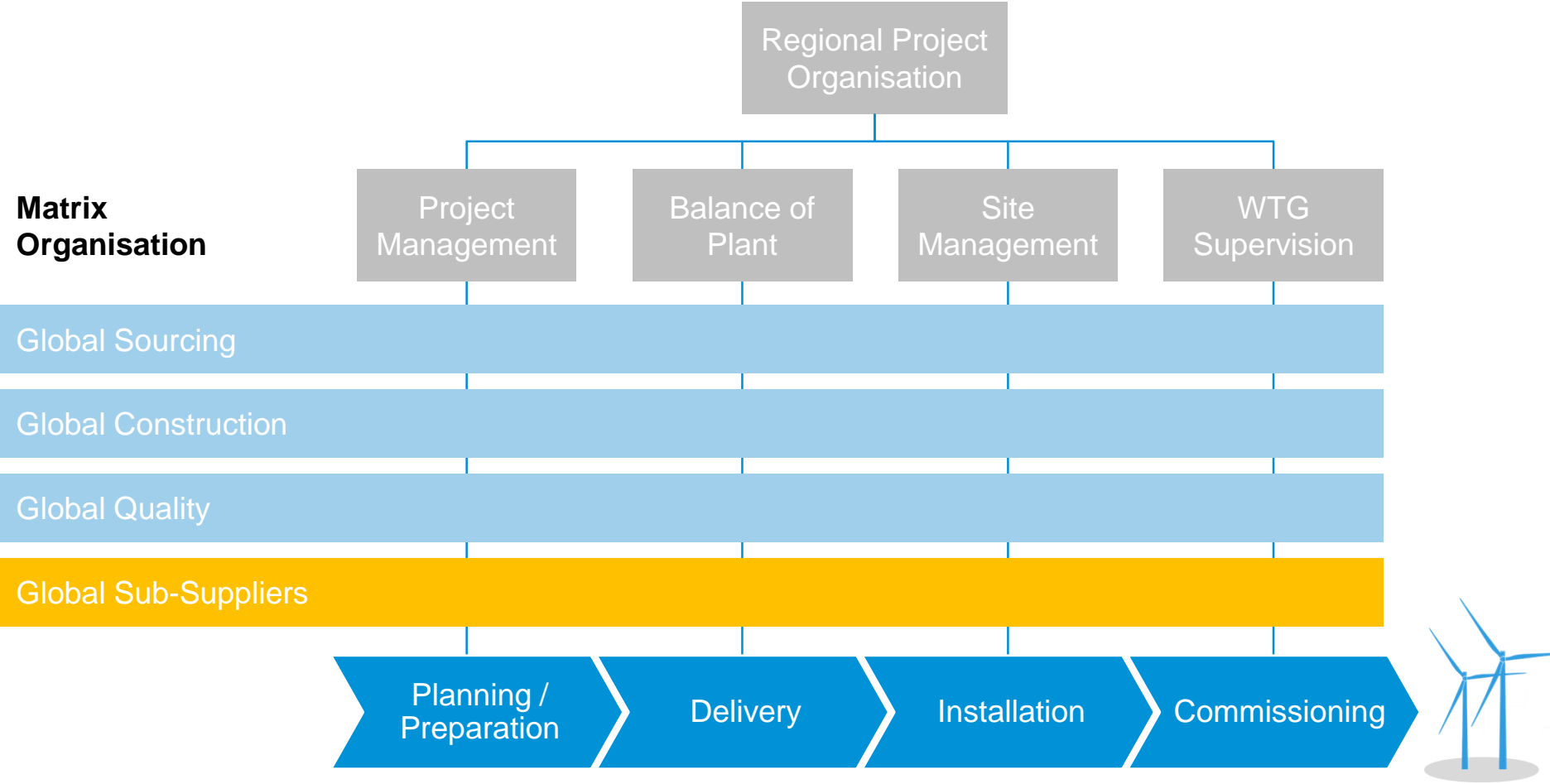
- The current market conditions and fierce competition within the wind industry increases the need for Vestas to rely more on suppliers to deliver outstanding quality, innovation and flexibility.
- Vestas uses its geographic reach to generate economies of scale on new projects and to ensure its manufacturing, transportation, and sourcing costs are continuously optimised.



*Vestas is forming close partnerships with large suppliers and involve these in the development of products and processes, as the suppliers often possess many years of knowledge and experience that can be utilised to the benefit of both parties.*

# Scalable Matrix Organisation:

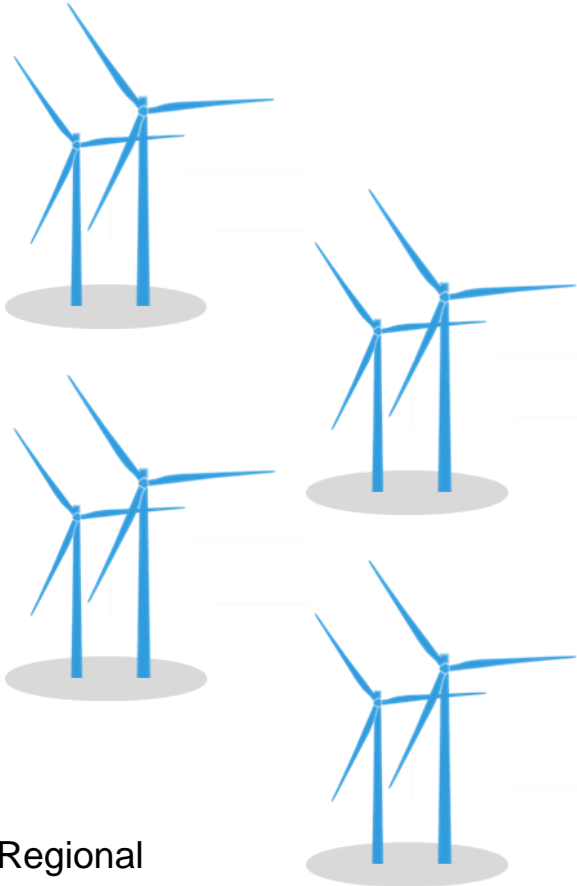
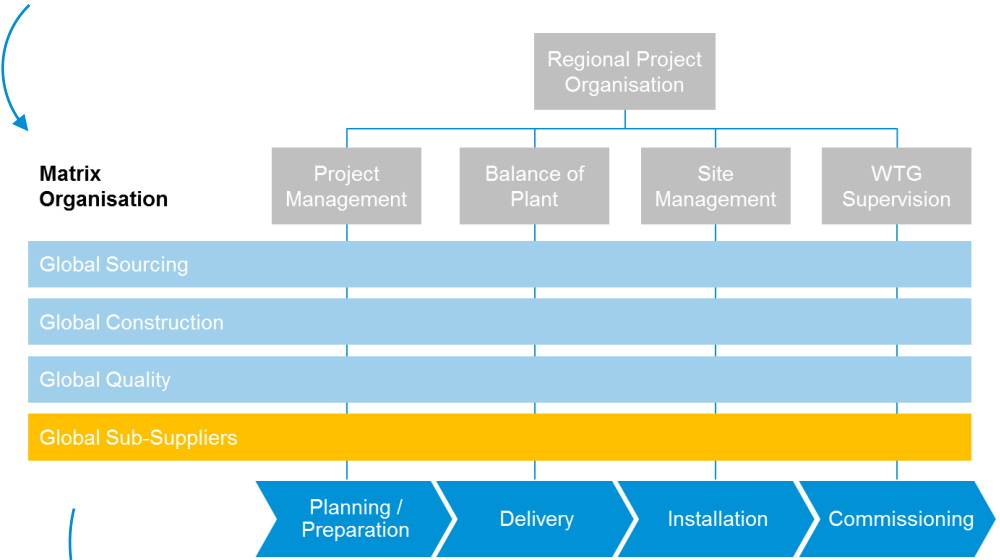
## Utilising a Scalable Matrix Organisation



# Scalable Matrix Organisation: Complex, yet Strong and Scalable



Scale up, scale down depending on market activity level



Depending on market activity, we can have as many Regional Project Teams as we need, as long as we maintain a strong and scalable supporting matrix organisation

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# In Summary...

- 1** Flawless project management and execution in the construction and installation phase of wind turbines is of key focus for us as it is our revenue generator
- 2** Our markets are back loaded in activity level and constantly changing, but regardless, we have to be on time, on quality, on budget, and done safely in order to increase customer satisfaction
- 3** Our solution is to be scalable and flexible in our construction through extensive preparation, sub-supplier partnerships and utilising a complex yet strong and scalable matrix organisation



The Vestas logo is displayed in the top left corner of the image. It consists of the word "Vestas" in a bold, italicized, sans-serif font, followed by a registered trademark symbol (®). The background of the top half of the image is a photograph of a cloudy sky with a bright sun or moon partially obscured by the clouds. On the right side, a portion of a white wind turbine nacelle is visible, showing its metallic structure and bolts.

**Wind.** It means the world to us.™

Thank you for your attention

**Q&A**

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