



Floating Offshore Wind Turbines

Designing for commercial scale

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GustoMSC | NOV

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Pioneers don't tell stories, they write history





NOV at a glance

378

Locations
worldwide

27,005

Employees

64

Countries



Tri-Floater development


2002

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2013

2021

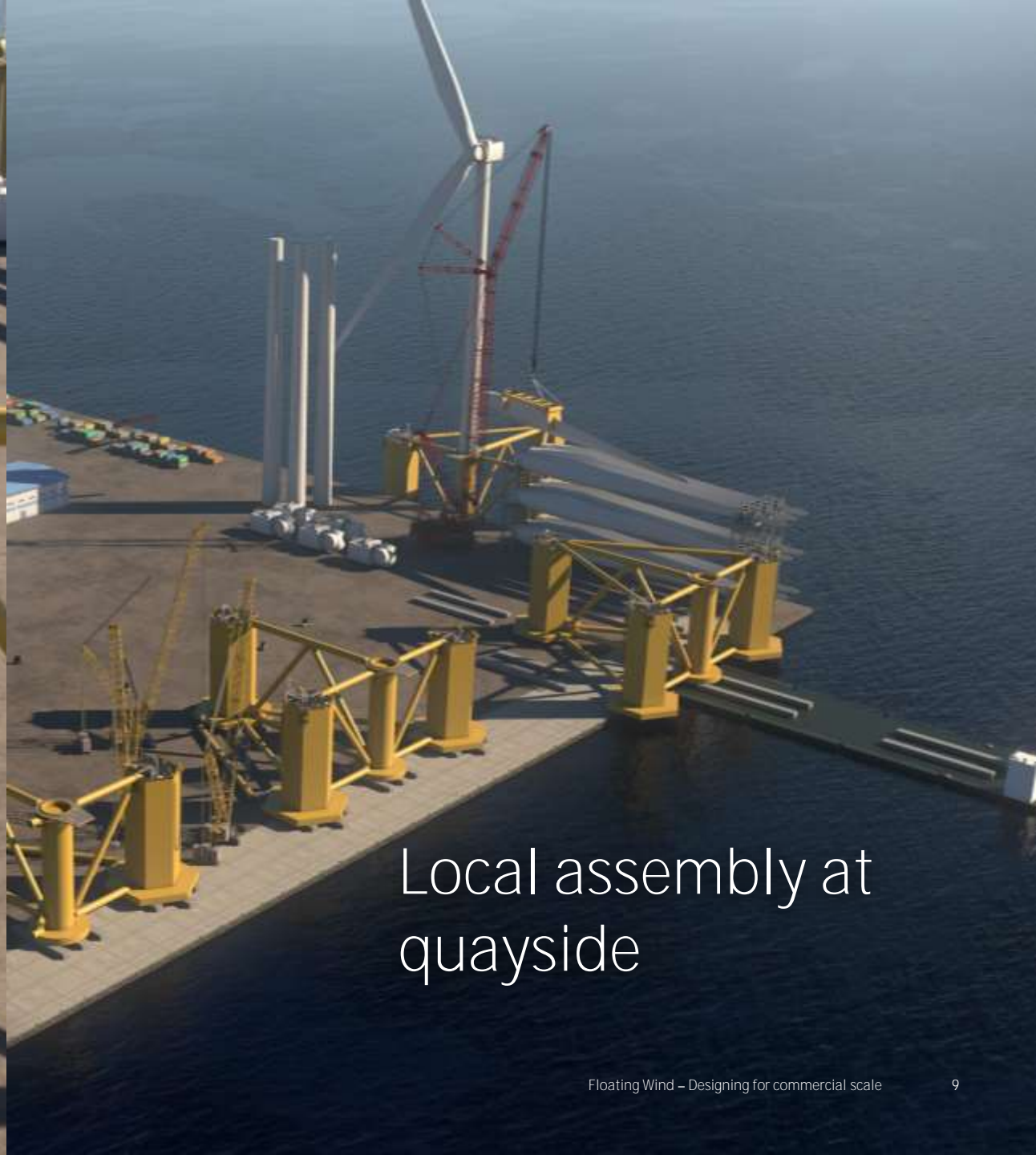
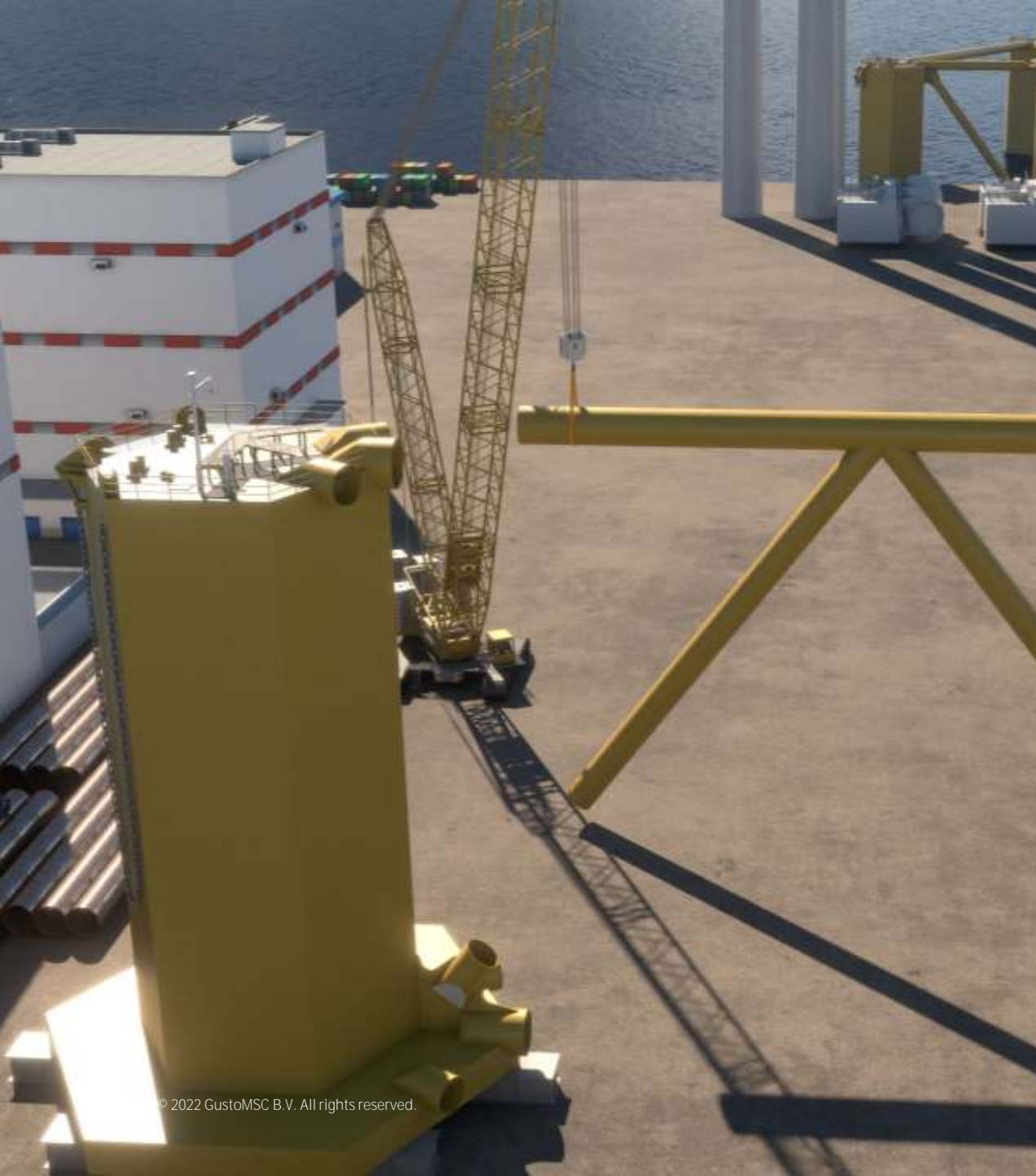
Floating Wind – Designing for commercial scale

A floating wind turbine is shown in the middle of a stormy sea. The sky is dark and cloudy, with rain falling. The sea is dark and turbulent, with white foam from the waves. The turbine has three white blades and a yellow base. The text "Structural design to withstand combined wind and wave loading" is overlaid on the left side of the image.

Structural design to withstand
combined wind and wave loading

Manufacturing & industrialization using existing supply chain





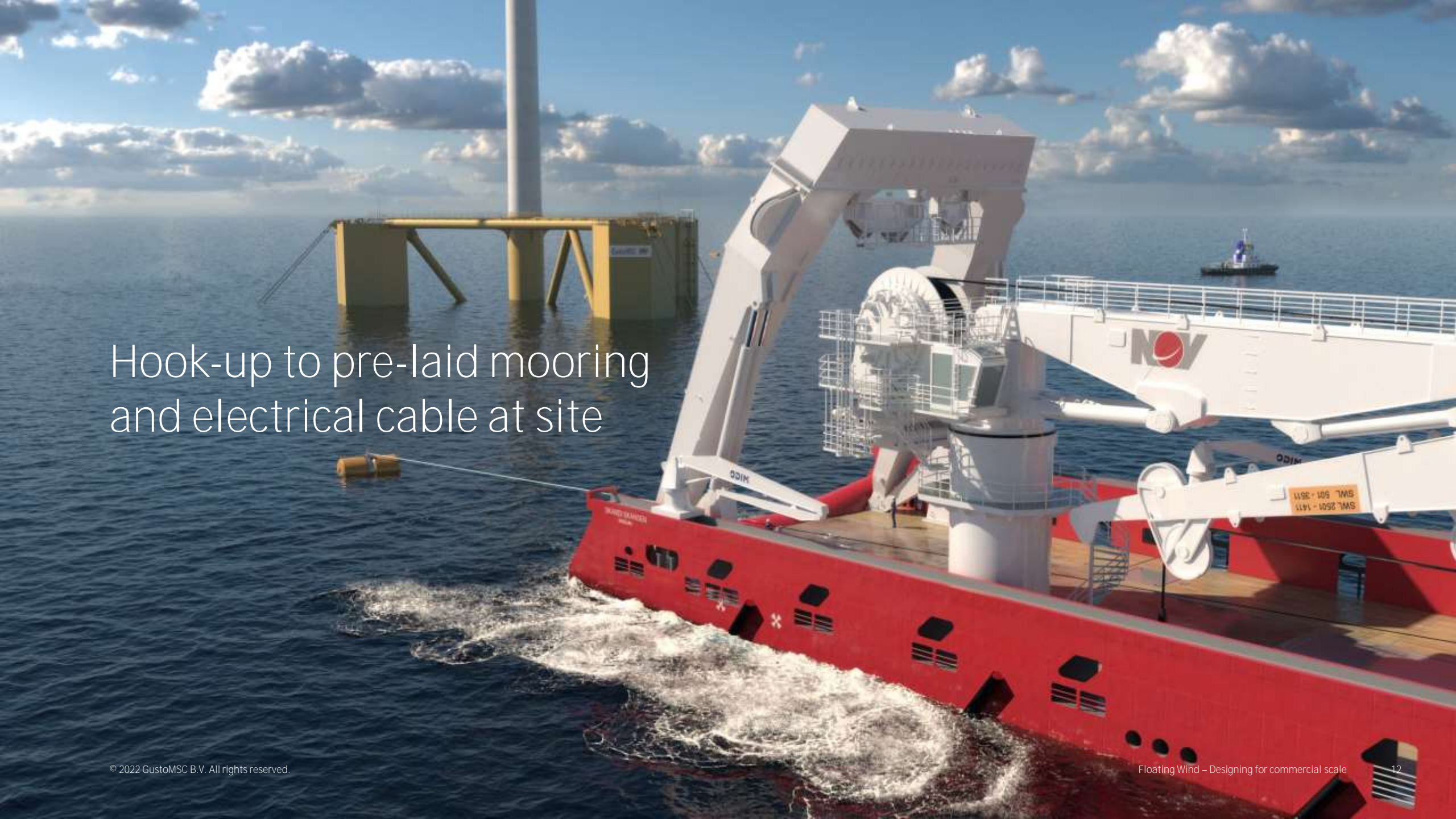
Local assembly at
quayside



Shallow draft in port allows for
local wind turbine integration

10 m

Minimal crane reach for
turbine installation



Hook-up to pre-laid mooring
and electrical cable at site

A 3D rendering of a floating wind turbine mooring system. The central structure is a dark, multi-legged platform floating on a blue sea. A thick, dark chain runs from the platform down towards the bottom left. A thinner, dark cable runs from the platform, loops around, and then extends towards the top right. This cable is covered by a series of yellow, cylindrical floats. The background is a clear blue sky with some light clouds.

Electrical inter-array cable
entry below turbine tower



Low acceleration
levels at nacelle

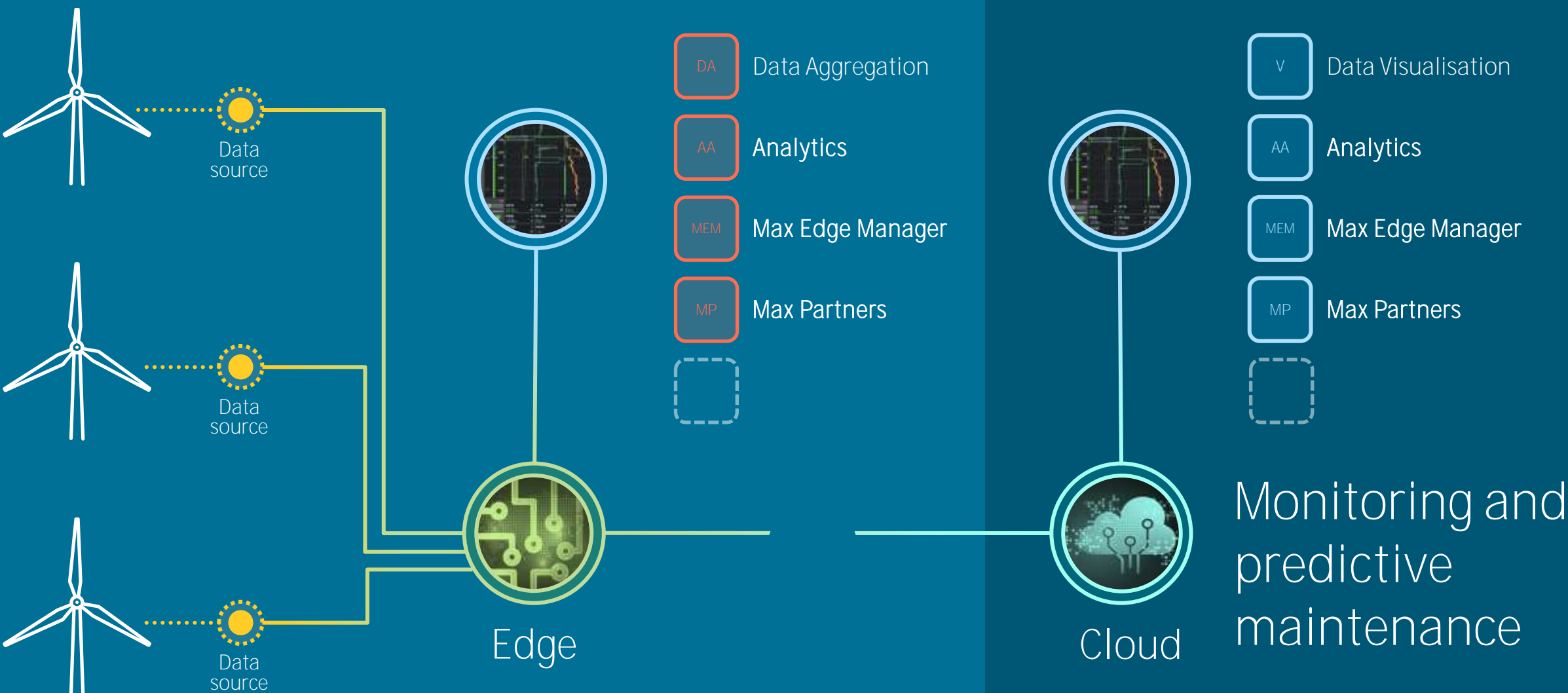


Continued power production
in harsh environments



No winches or ballast pumps,
low maintenance

Max™ Digital Ecosystem



Moving to commercial scale poses specific design requirements:

- manufacturing by the existing supply chain
- efficiency installation
- operational performance
- low maintenance

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