PLATFORM SUPPLY CHAIN OVERVIEW

POET Northwest Offshore Wind Supply Chain Summit

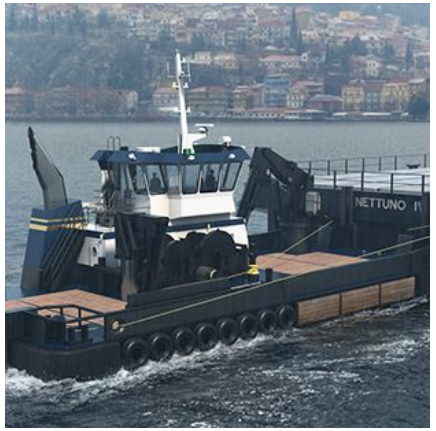
November 16, 2023

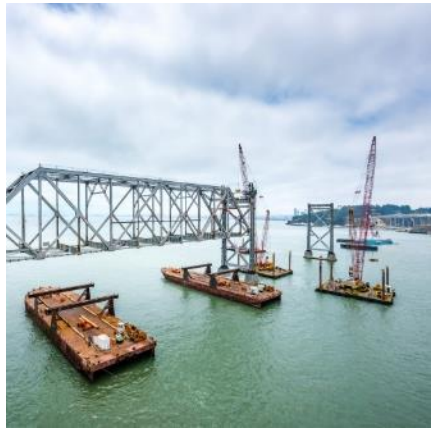
PELASTAR
A GLOSTEN COMPANY

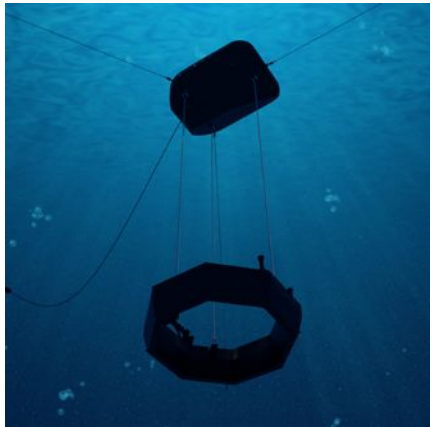
The TENSION LEG PLATFORM SOLUTION for FLOATING OFFSHORE WIND

DELIVERING UNIQUE SOLUTIONS.

The depth and breadth of our experience has resulted in a body of work we're proud to showcase. From standard builds to one-of-a-kind designs, our commitment to excellence shines through in everything we do.

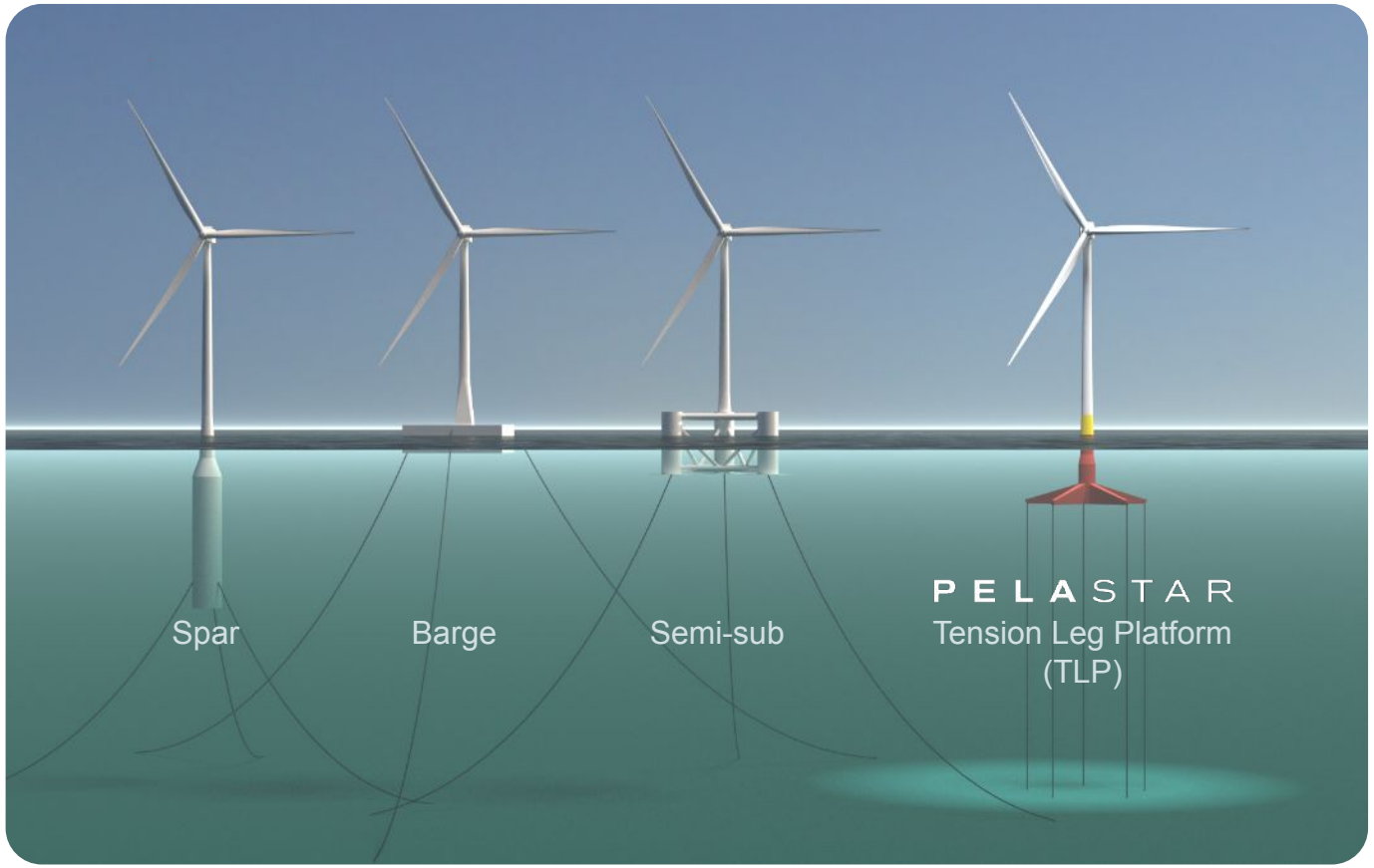






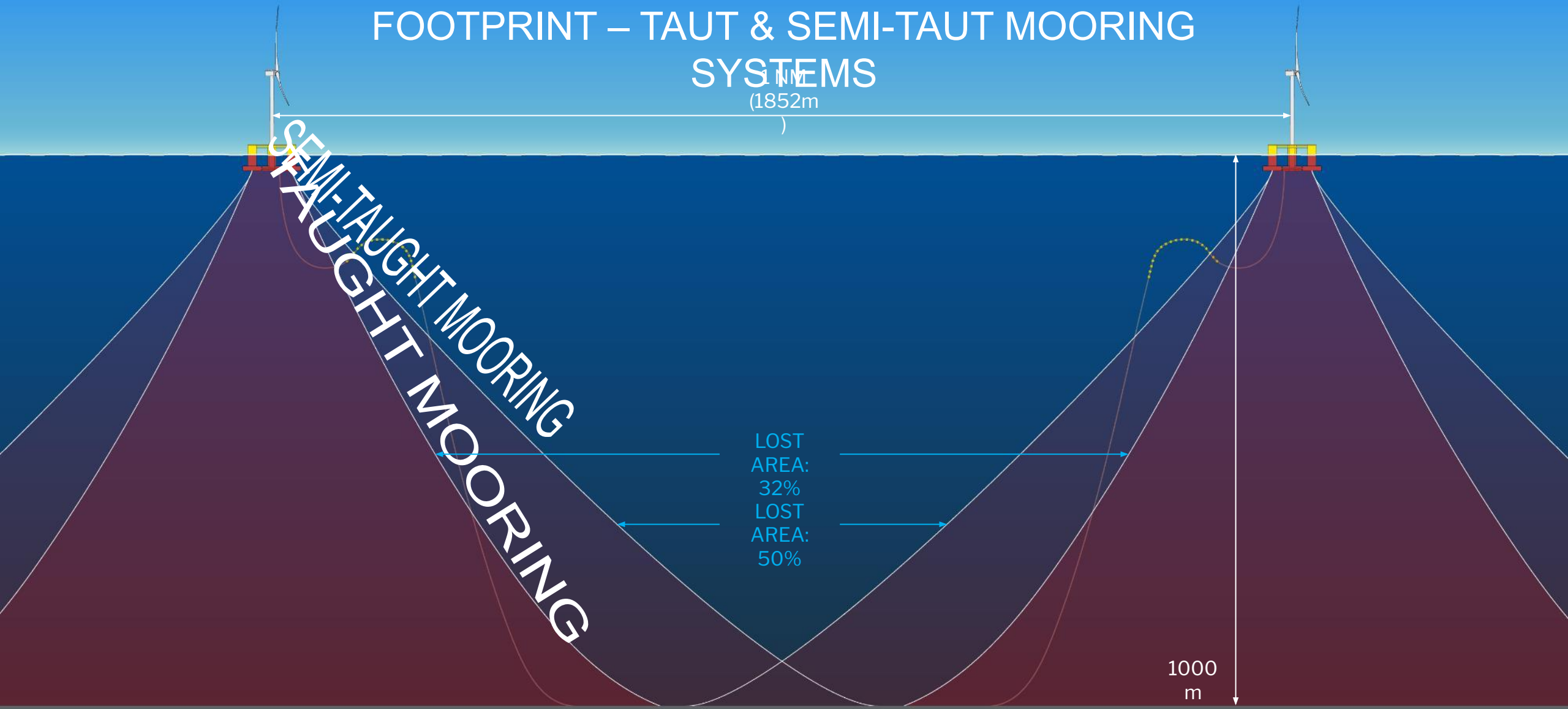
PLATFORM TOPOLOGIES.

Summary of differences in design features/performance benefits + primary differences in supply chain needs as transition to PelaStar intro on next slide.



Concrete
Barge
Splash247.com
Steel
Semi-sub
Splash247.com

FOOTPRINT – TAUT & SEMI-TAUT MOORING SYSTEMS



Mooring geometry from:
NREL, "Assessment of Offshore Wind Energy Leasing Areas for Humboldt and Morro Bay Wind Energy Areas, California," Technical Report NREL/TP-5000-82341, April 2022.

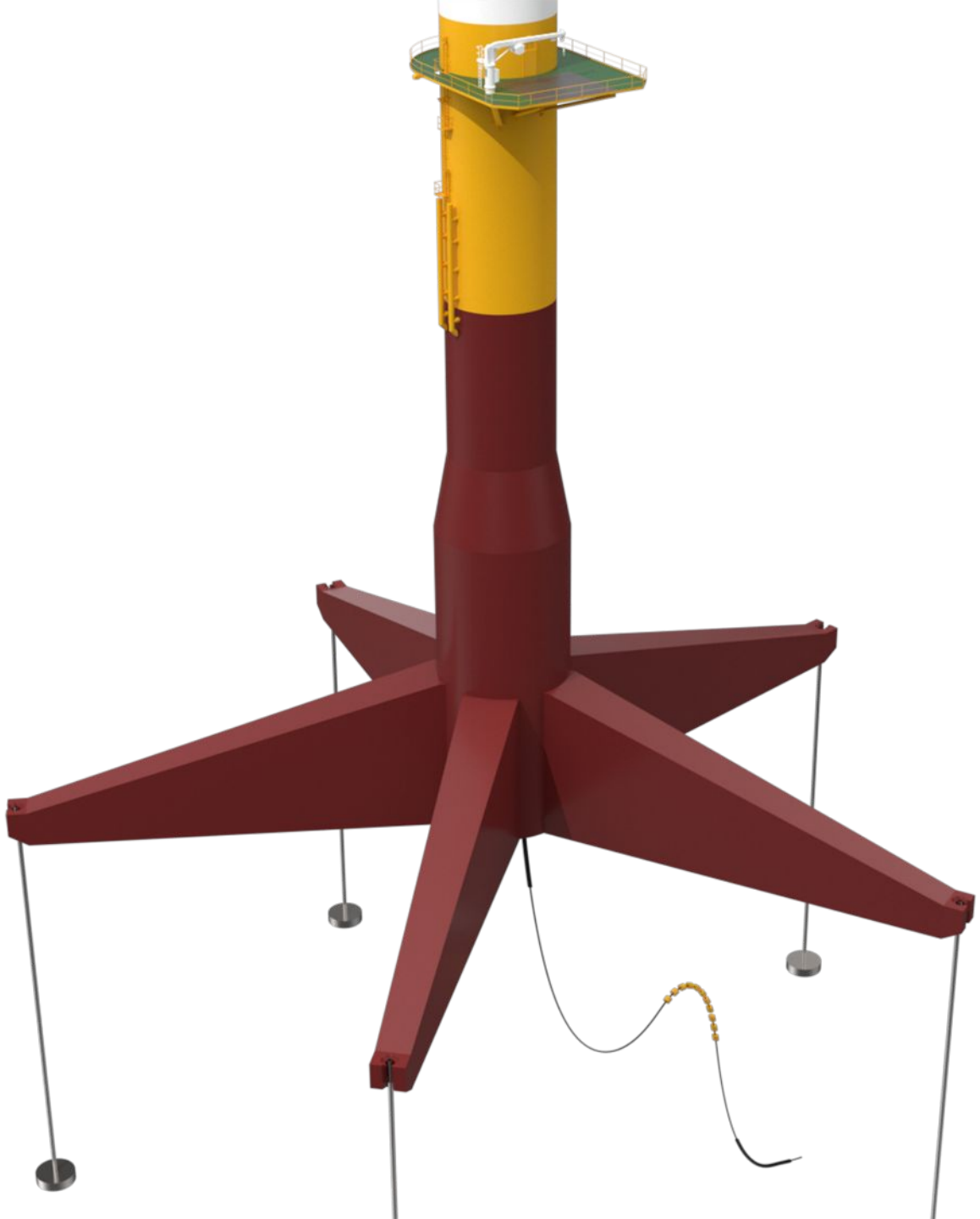
FOOTPRINT- PELASTAR TLP

PELASTAR.

The TLP to unlock floating offshore wind energy.

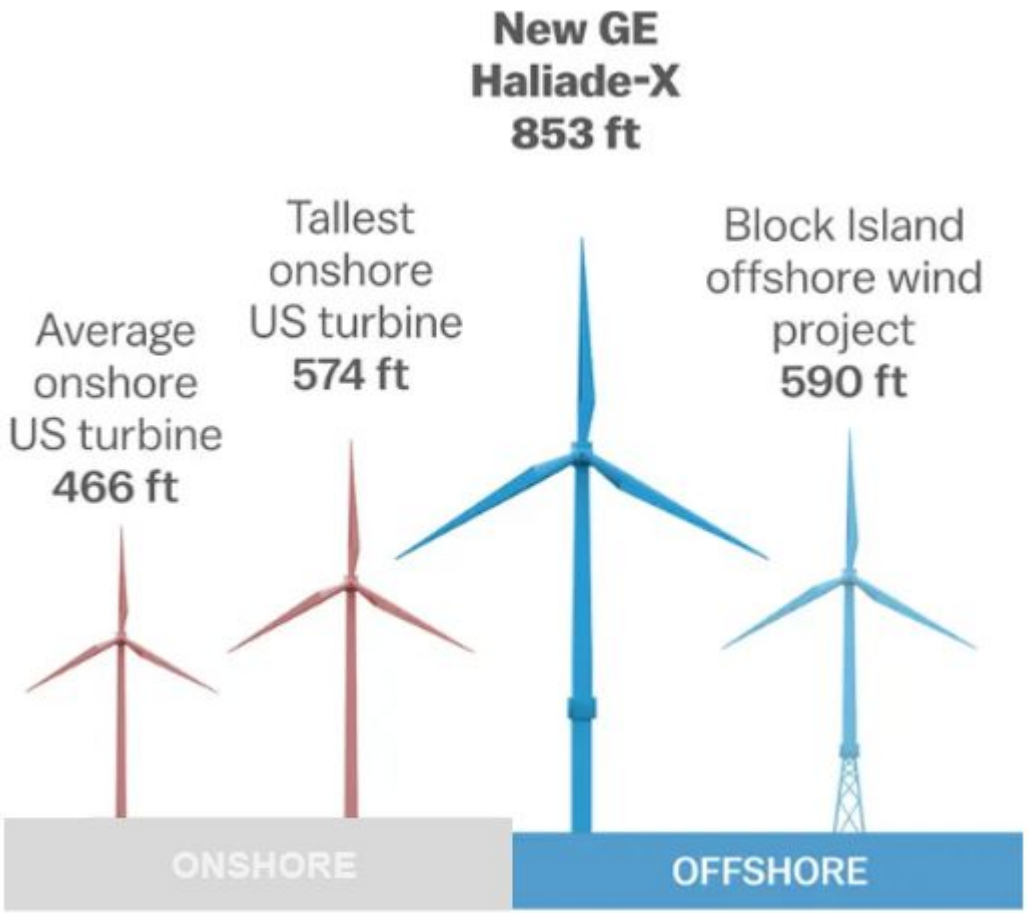
Benefits:

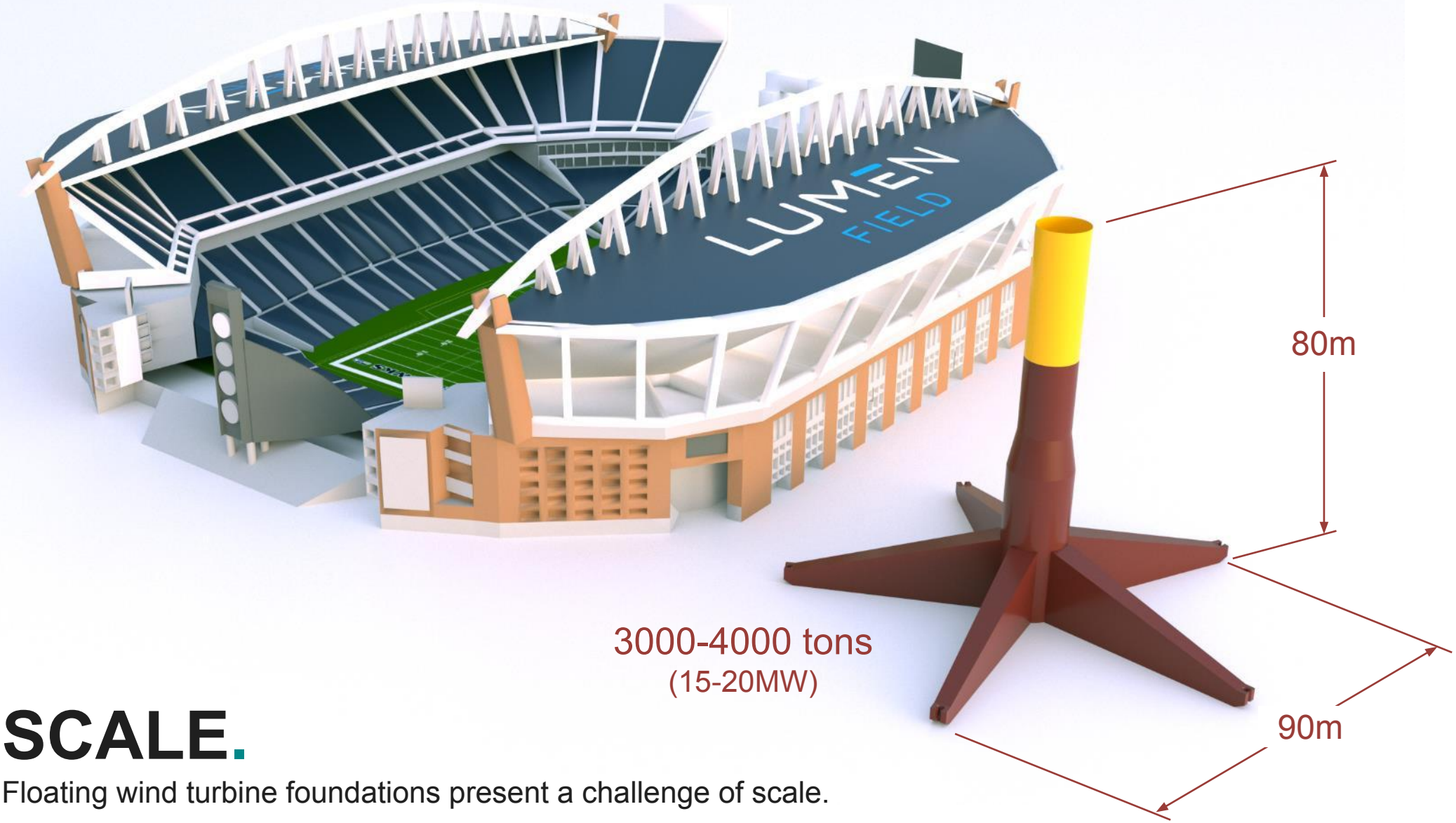
- Low hull mass (Cost)
- Low motions (Turbine Performance)
- Accessibility & workability (OPEX)
- Redundant tendons & anchor (Reliability)
- Compact footprint (Environmental)



SCALE.

Turbine sizes continue to increase, creating evolving challenges for the supply chain.



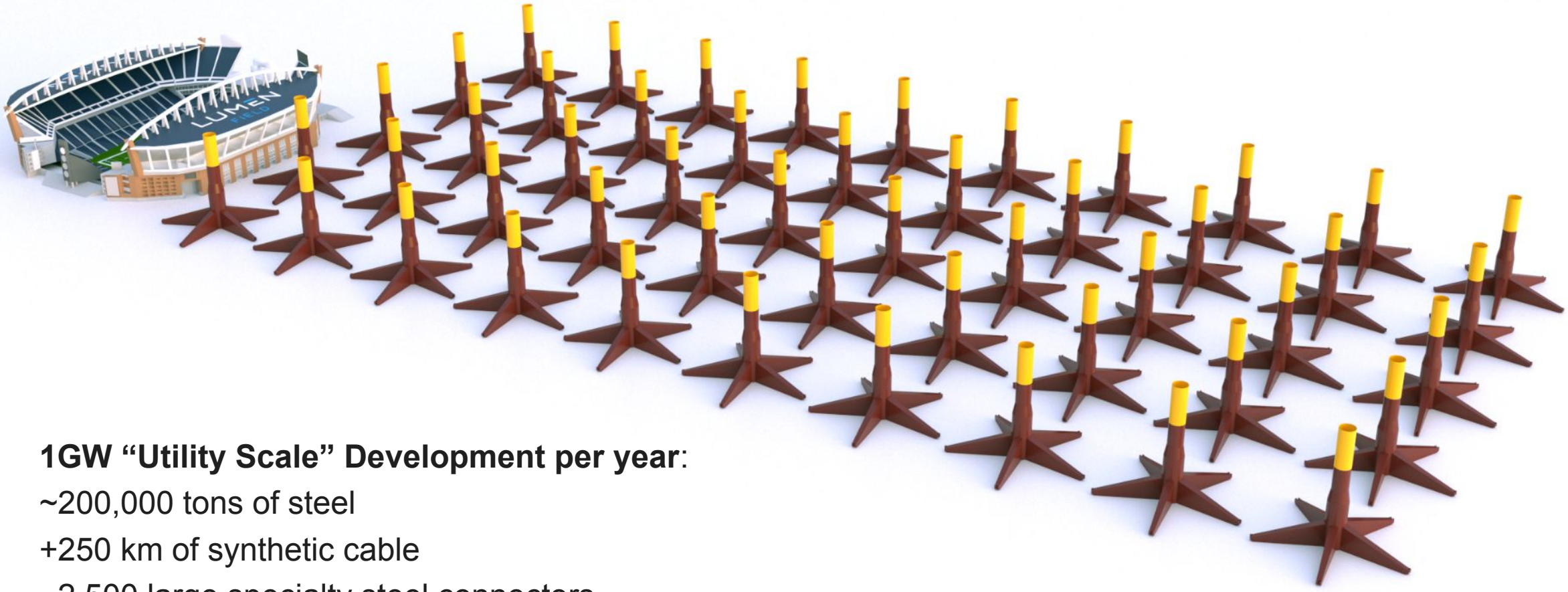


SCALE.

Floating wind turbine foundations present a challenge of scale.

SCALE.

Floating wind development ambitions are creating a once-in-a-generation industrial opportunity.



1GW “Utility Scale” Development per year:

~200,000 tons of steel

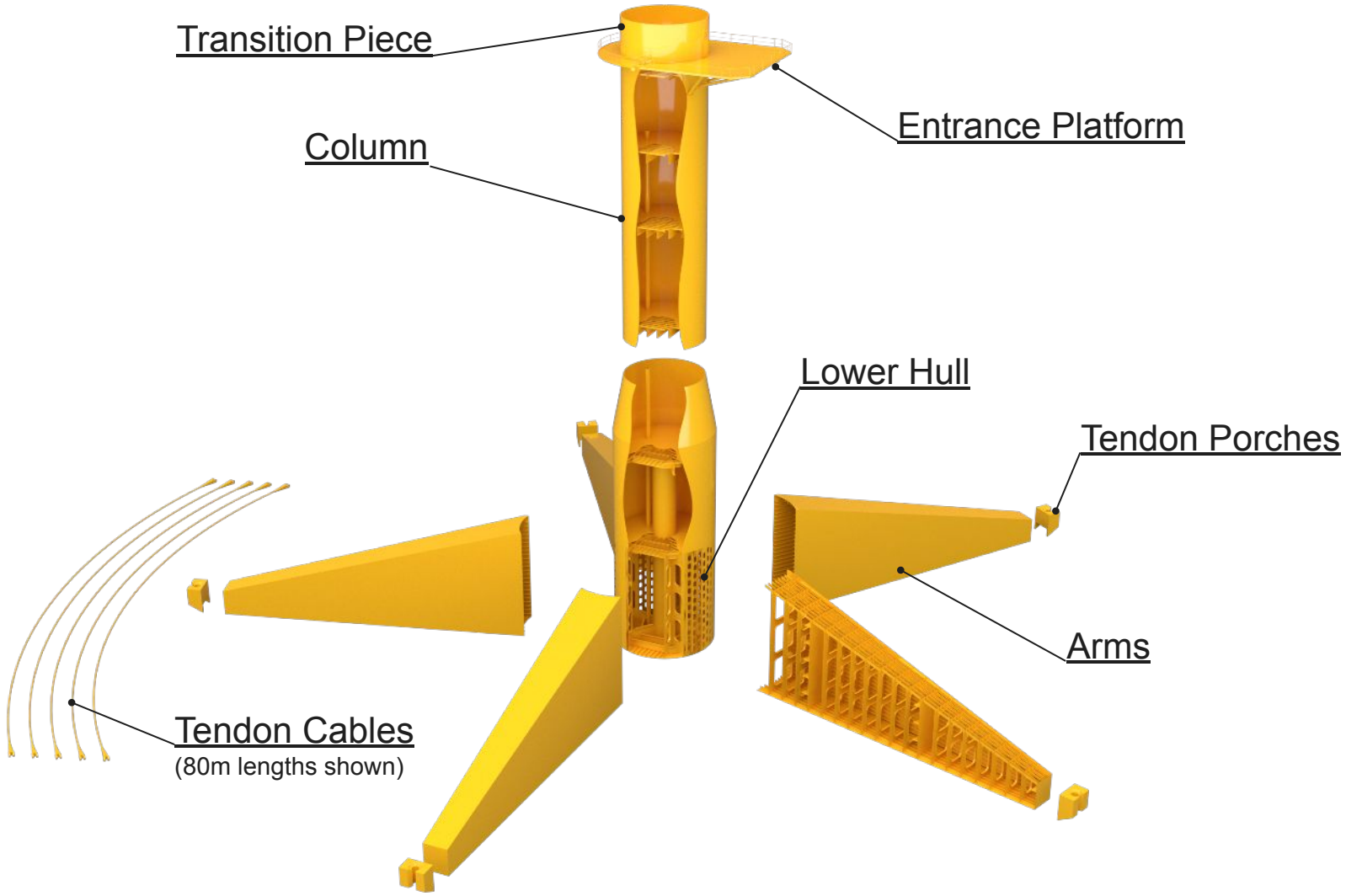
+250 km of synthetic cable

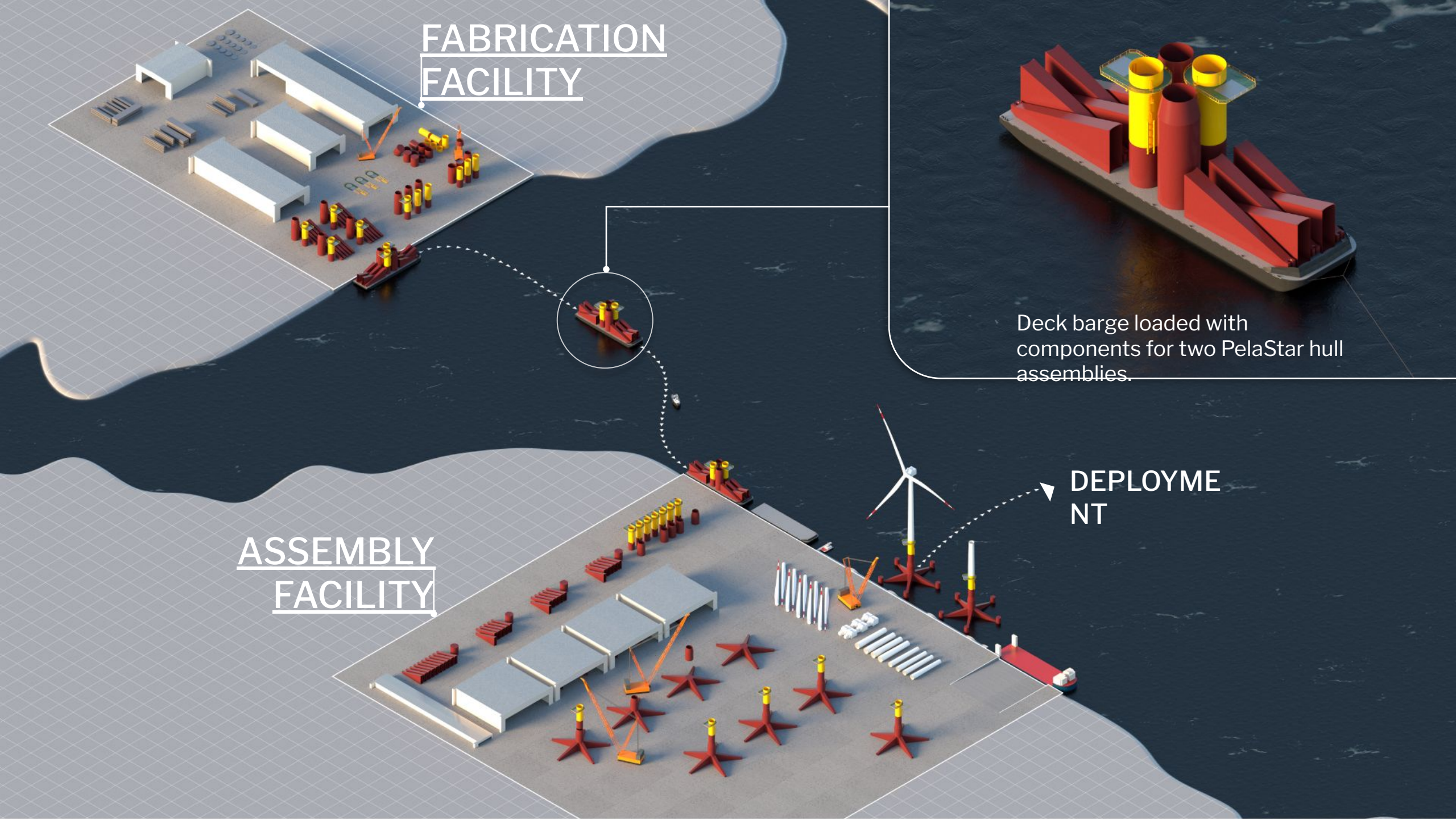
~2,500 large specialty steel connectors

INDUSTRIALIZATION STRATEGY.

Modular fabrication to enable:

- Design optimization, per component.
- Regional flexibility for investments.
- Pragmatic scale-up options.




FABRICATION FACILITY
ASSEMBLY FACILITY
DEPLOYME NT
Deck barge loaded with components for two PelaStar hull assemblies.

SUPPLY CHAIN SCALE UP.

California’s lease auctions initiated the US floating wind market, here on the West Coast.

Where, when and how those projects will be built & deployed is the next challenge.

FLOWIN Prize

We are building a partner ecosystem that starts here in the Puget Sound. Space, equipment and people will be needed:

PelaStar:

- Tendon cable manufacture
- Tendon connector manufacture
- Hull modules
- Vessels – transport, marshalling, deployment

Additional Supply Chain demands:

- Anchors
- Towers
- Blades
- Safety & Monitoring Equipment

EVERETT FLOATING STRUCTURES

FOSS OFFSHORE WIND

FIBREMax World's *strongest* cable...

CMC

Dyneema®

TRC

THANK YOU

PELASTAR

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