

An aerial photograph of a floating offshore wind farm. The wind turbines are white with three blades each, mounted on yellow floating platforms. They are arranged in a long, straight line across a dark blue sea. The sky is a mix of deep blue and orange, indicating sunset or sunrise. The overall scene is serene and industrial.

Sharing Experience For unleashing Floating offshore Wind in Japan



OFFSHORE

ENERGY. COMMITTED.

WEBINAR ADEME NEDO

JULY 7th

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Renewables Product Line Director
SBM Offshore

Energy Transition as Business Model

ENERGY TRANSITION COMPANY

REDUCE COSTS AND EMISSIONS
FROM O&G PRODUCTION

DEVELOP COMPETITIVE
RENEWABLE ENERGY SOLUTIONS

VALUE PLATFORMS

OCEAN INFRASTRUCTURE

GROWING THE CORE

NEW ENERGIES



CONTRACTUAL
BACKLOG



FLEET UPTIME
PERFORMANCE



EMISSIONS
REDUCTION

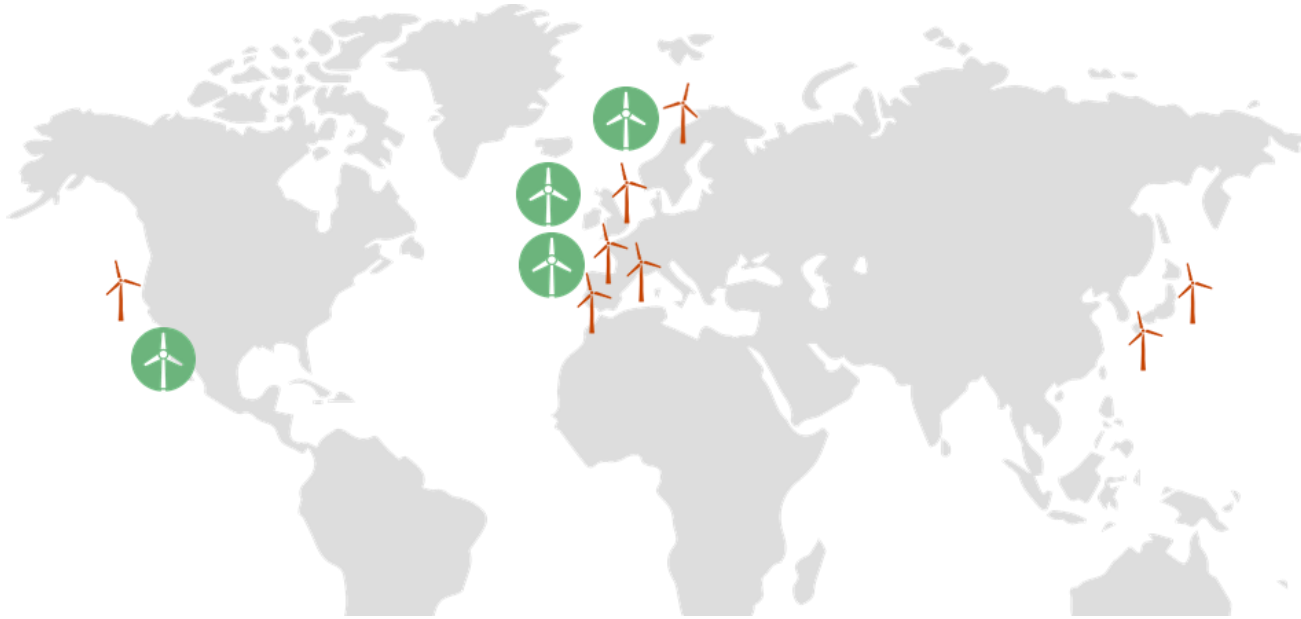


DIGITAL
SERVICES

S3™

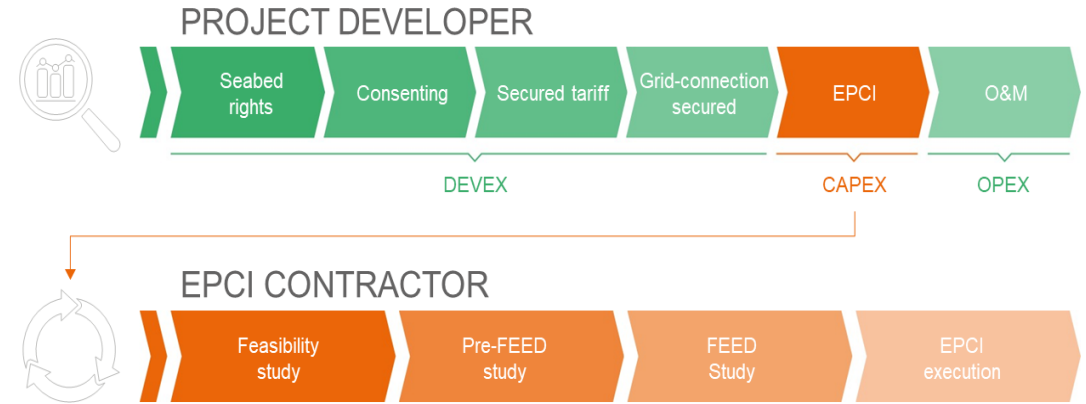


SBM Presence in Floating Offshore Wind



De-Risking Project with unique EPCI experience

- Accumulated experience from traditional value platform
- Building experience with Pilot projects
- Product Standardization, Global Supply Chain Qualification, Local Execution Plans Definition



Accelerating FOW market as Co-Developer

- Stimulating the market as co-developer
- Fast track Test and Demonstration projects
- Off-grid solutions for decarbonizing O&G asset

SBM Experience for Japan



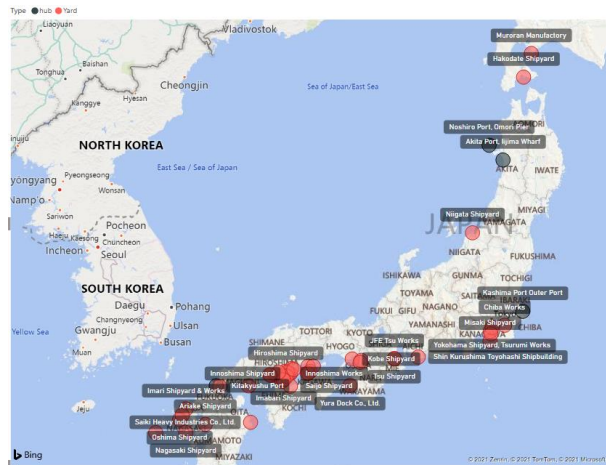
Proven grand Large

- First Floating Wind Tension Leg Platform
- First Demo Project in France

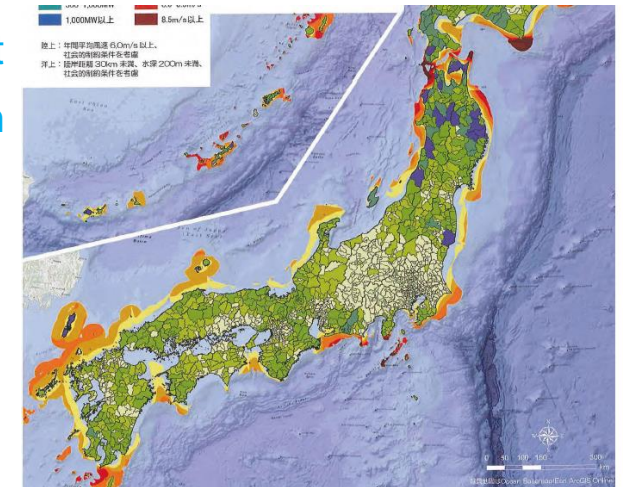


- Float4Wind program
- Open-Factory Execution Model

- Experience in FOW Project Development
- Full LCOE approach



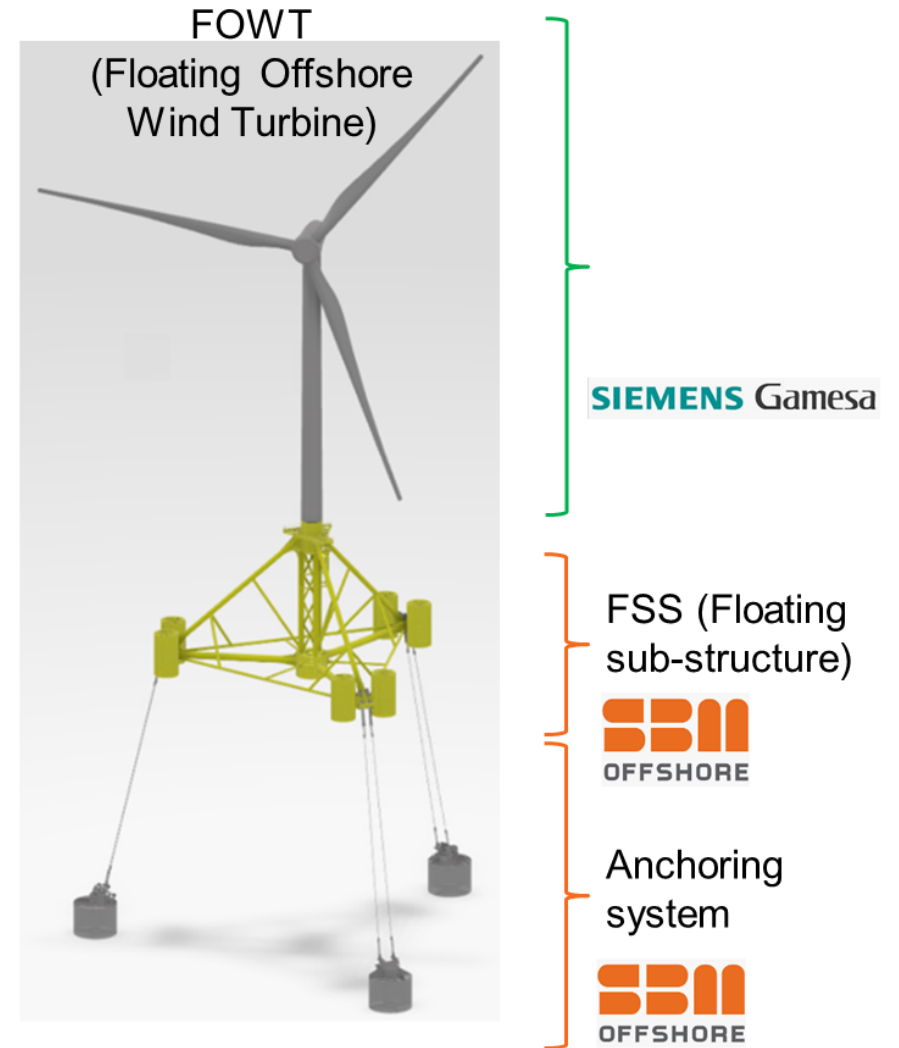
- Ports and Final Assembly Hubs Mapping
- Supply-Chain Development Roadmap



Provence Grand Large



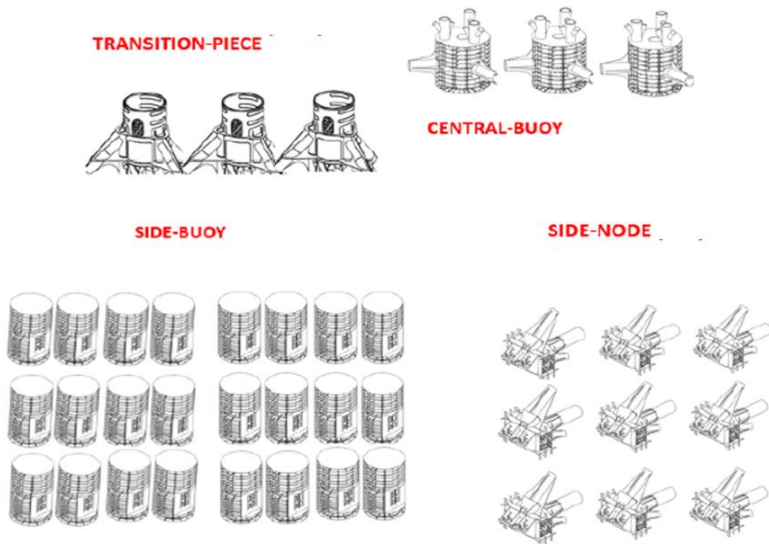
- Tensioned Leg Platform Technology
- 3 Floaters for 3 x 8.5MW WTG
- Components coming from various countries and finally assembled in Fos s/Mer



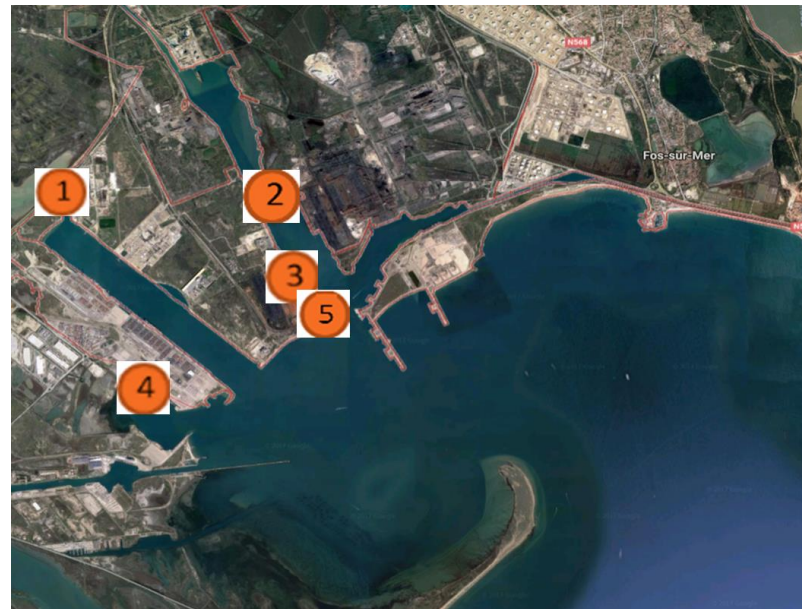
Source: SBM Offshore market intelligence

Provence Grand Large – EPCI Contractor learnings

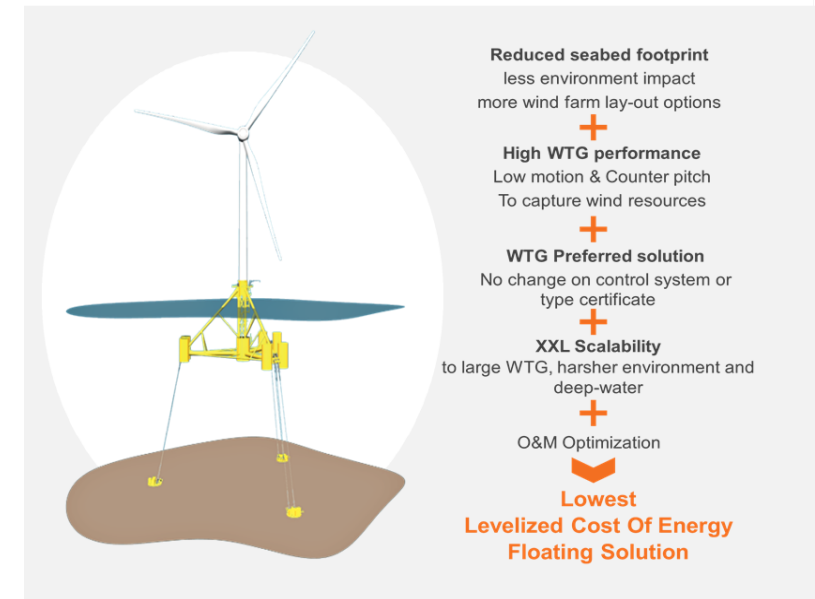
Pre-serial production management



Co-activity on Existing Ports Infrastructures



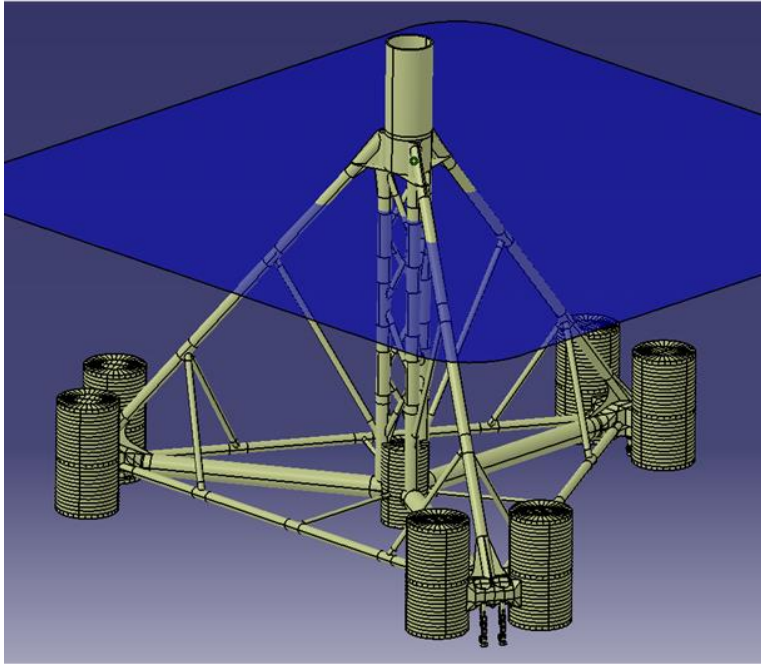
Environmental and Industry Friendly



Source: SBM Offshore market intelligence

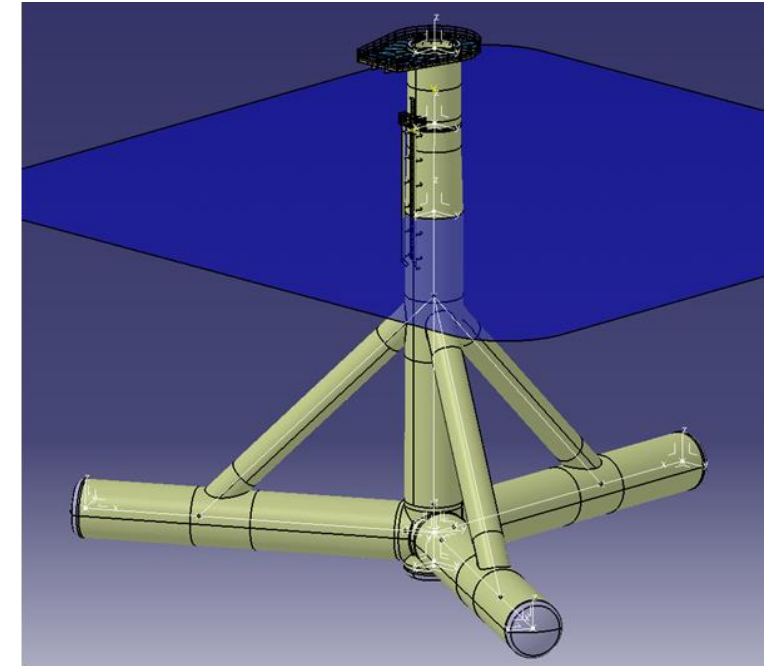
■ Tension Leg Platform benefits enhanced by Float4Wind™

CURRENT TLP WIND FLOATER

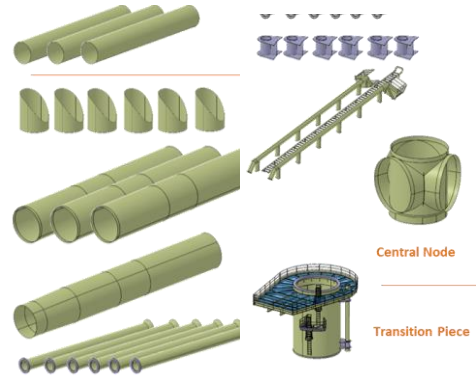


- Simplification of the design
- Cheaper procurement, available supply chain
- Standard product
- Faster assembly time
- Stability ensured with temporary buoyancy
- Unmanned operation during installation

FLOAT4WIND™



Open Factory Model for Flexible Sourcing and Fast Assembly time



ENGINEERING

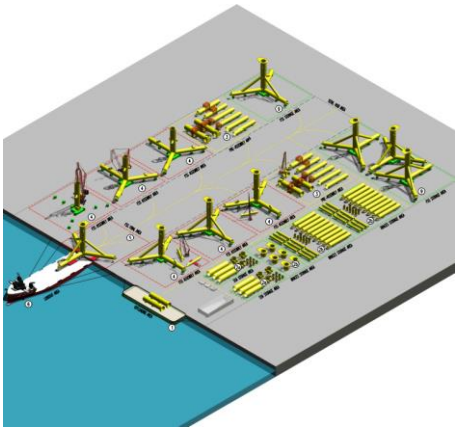
- Modular Design
- Local infrastructure input

PROCUREMENT

- Economies of scale
- Production Capacity Analysis
- Local Content fulfilment

FINAL ASSEMBLY HUB AND WTG INTEGRATION HUB

- Service provider management for cranes, tools and man-power
- Conventional hub



LAUNCHING AND BERTHING

- Temporary Buoyancy
- Innovative solutions

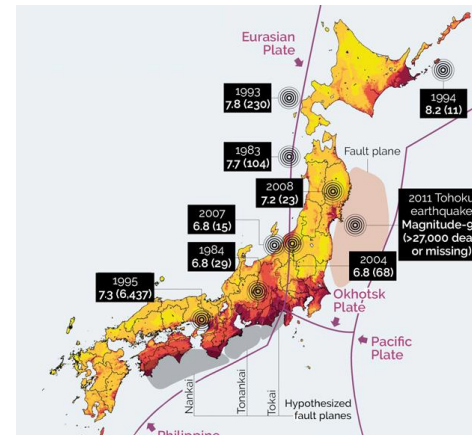
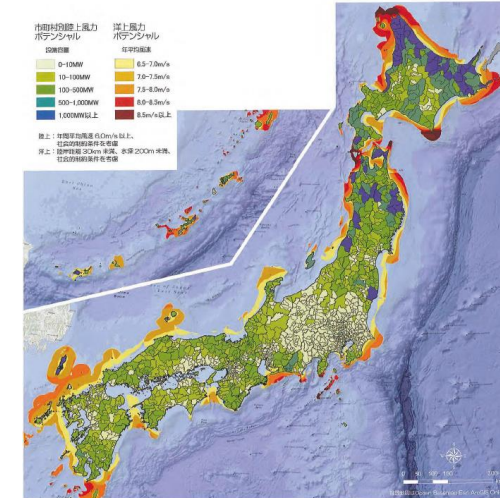
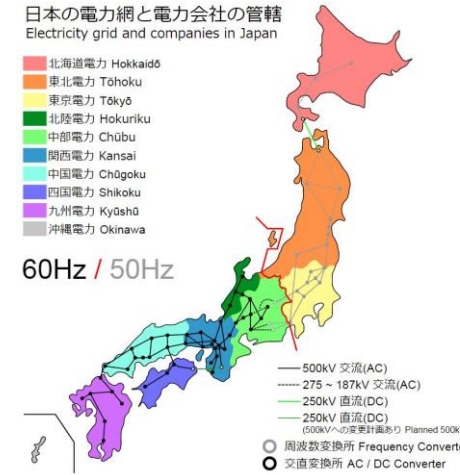
TOWING AND INSTALLATION

- Weather Dynamic planning
- Spread Optimization

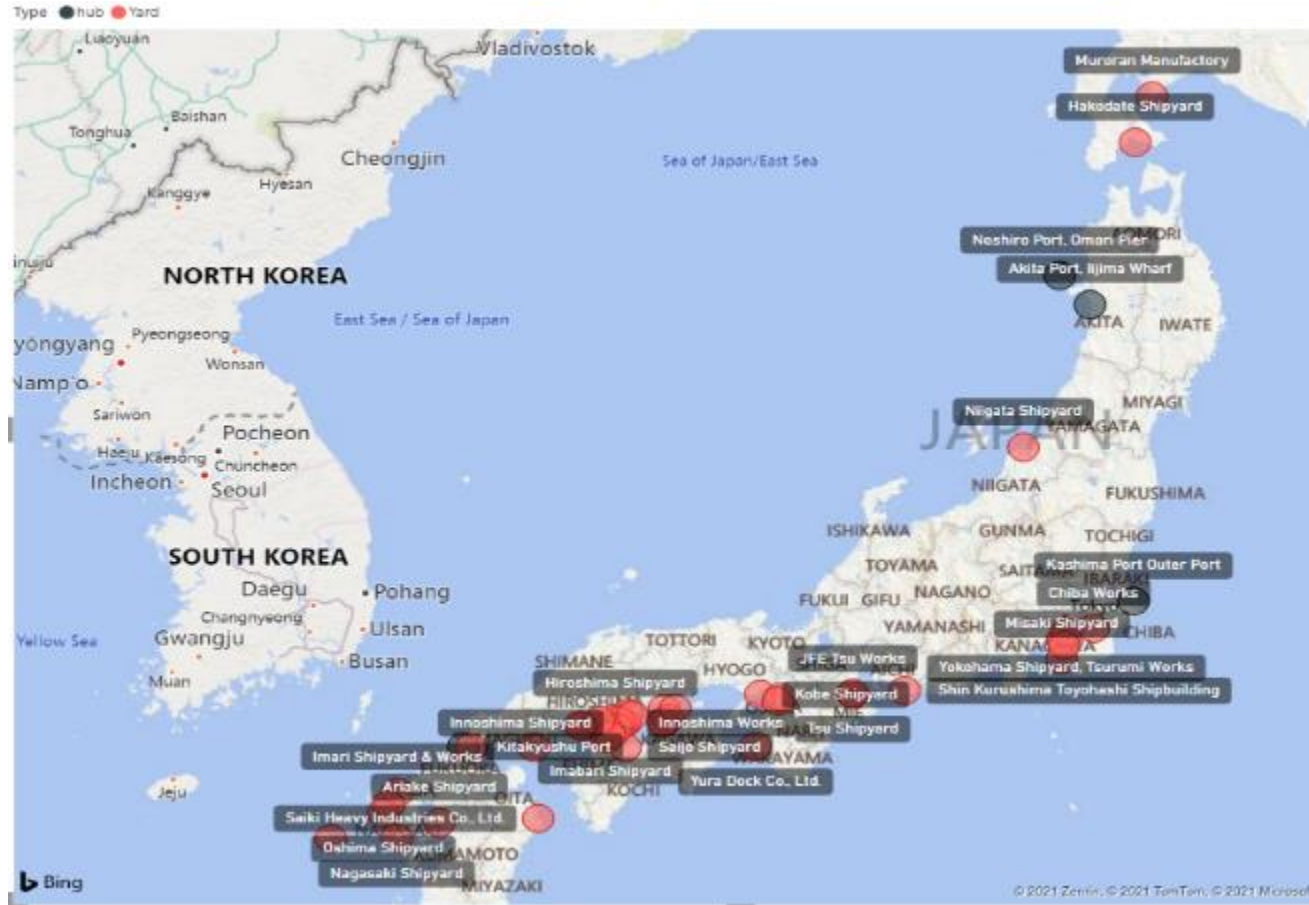


Challenges for Japan Wind Market emergence

- Public acceptance and especially fishery industry requires the adequate solution
- Extreme weather shall be considered in the design of floating foundations
- Soil liquefaction due to earthquakes require extended geo-technical studies, deeper piles and site-specific designs
- Wind rich areas currently have low electricity demand (less developed grid access). Current infrastructure lacks capacity for transmission of renewable energy.

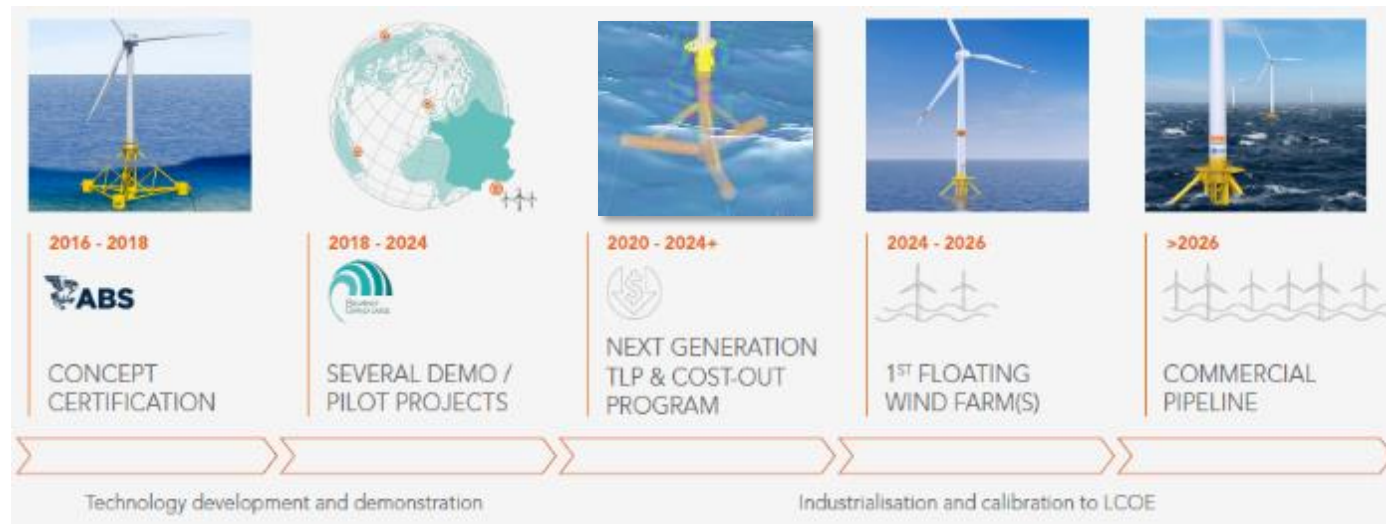


Japan Industrial landscape is favorable to floating offshore wind

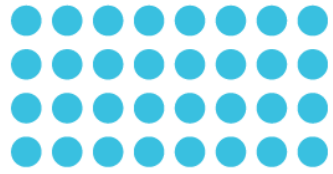


- 4 ports selected by Authorities for Offshore Wind. Configuration being developed to offer assembly one floater / week
- Supply Chain development to meet Offshore Wind Project requires clarification of project timeline, convergence on Floating technology suitable for Japan.
- Funding program of Floating Wind Demo project will cohabit with Competitive Auction process for BFOW Commercial in order to ensure local development of Floating specific product innovation.

SBM Floating Wind Development Roadmap



- It is key to understand the challenges to address them with the right solution for Energy transition, and SBM will share its experience to make it happen
- Contractor Development roadmap of product and execution model to serve all regions at the same time to accelerate experience sharing
- Ministry Development Program to welcome suitable technologies, while encouraging local manufacturing and development of industry serving Energy transition



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