



SBM OFFSHORE **RENEWABLE ENERGY**

Wind Energy Day Kepler Cheuvreux
Paris, October 1st 2019

Laurent Verdier
Renewable Product Line Director



SBM Offshore introduction

MARKET OUTLOOK

SBM Offshore floating wind concept



FPSO



Turret & Mooring
Systems



FPU



Floating Gas Solutions



Swivels &
Manufactured Parts



Operations



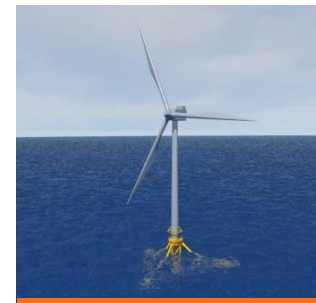
Offshore Contracting
(Installation)



Terminals &
Aftersales (Imodco)



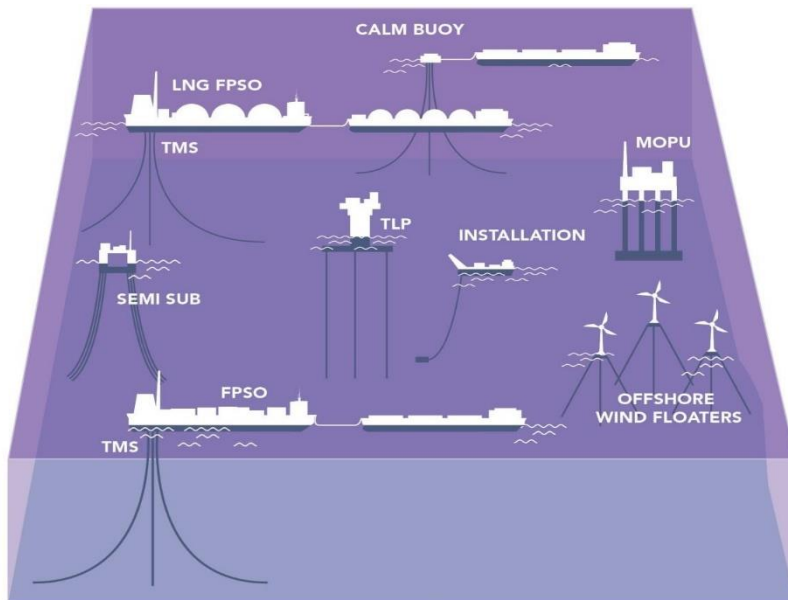
Fleet Support &
Brownfield Services



Renewable Energy

SBM Offshore

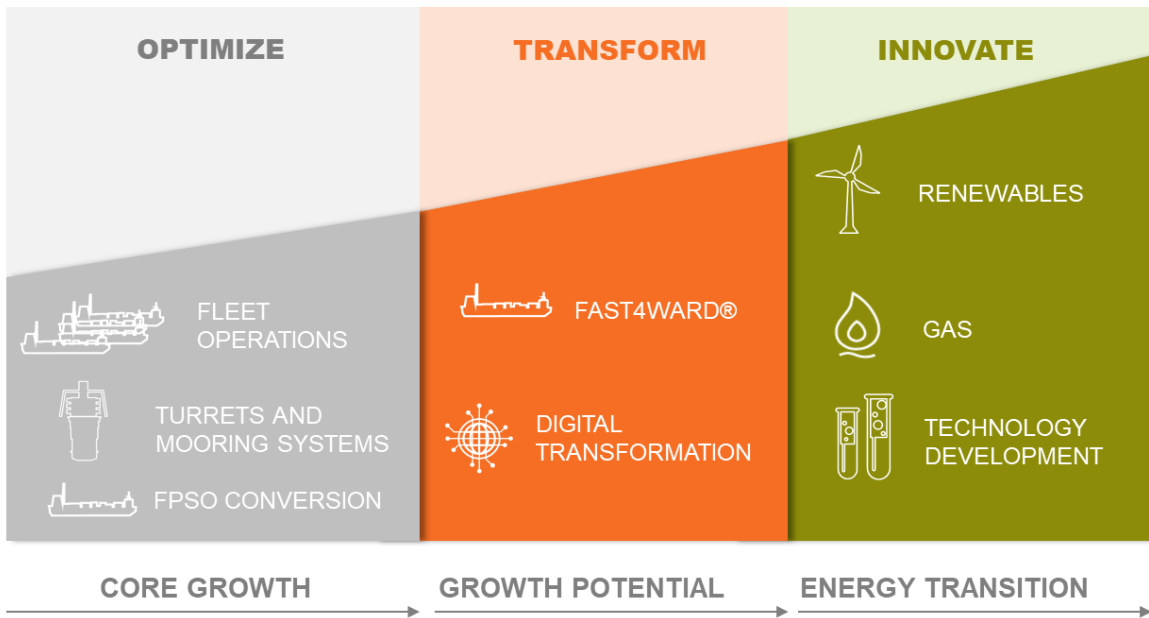
Global tier-1 contractor for floating production



BETTER PERFORMANCE, DELIVERED FASTER

TLP Tension-Leg Platform
Semi-Sub Semi Submersible Platform
CALM Buoy Catenary Anchor Leg Mooring Buoy
MOPU Mobile Offshore Production Unit

FPSO Floating Production Storage and Offloading vessel
LNG FPSO Liquefied Natural Gas FPSO
TMS Turret Mooring System

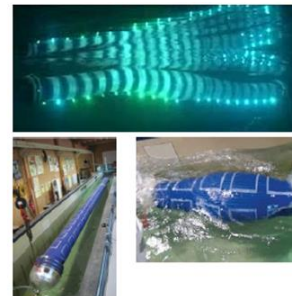


Renewables

Floating Wind

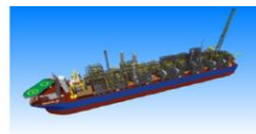


Wave Energy



Gas

Newbuild FLNG



LPG Producer



Gas Turret





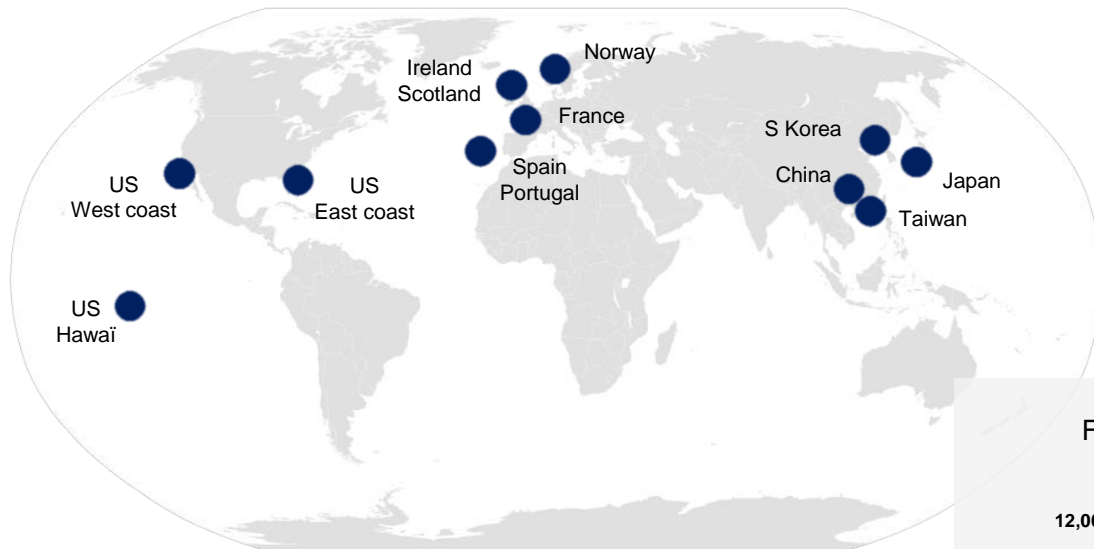
SBM Offshore introduction

MARKET OUTLOOK

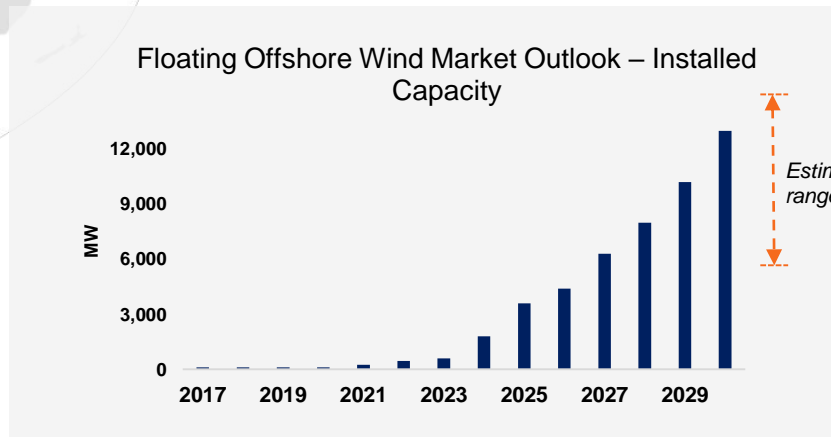
SBM Offshore floating wind concept

Floating Offshore Wind markets developing

Priority and potential markets



● Potential floating wind market



Source: Equinor, Recharge News, Roland Berger

Floating Wind development Plan

CONCEPT CERTIFICATION



2016- 2018

DEMO PROJECT(S)



2018 - 2022

1st FLOATING WIND FARM(S)



2022 - 2025

COMMERCIAL PIPELINE



> 2025

Technology development and demonstration

Industrialisation and calibration to LCOE



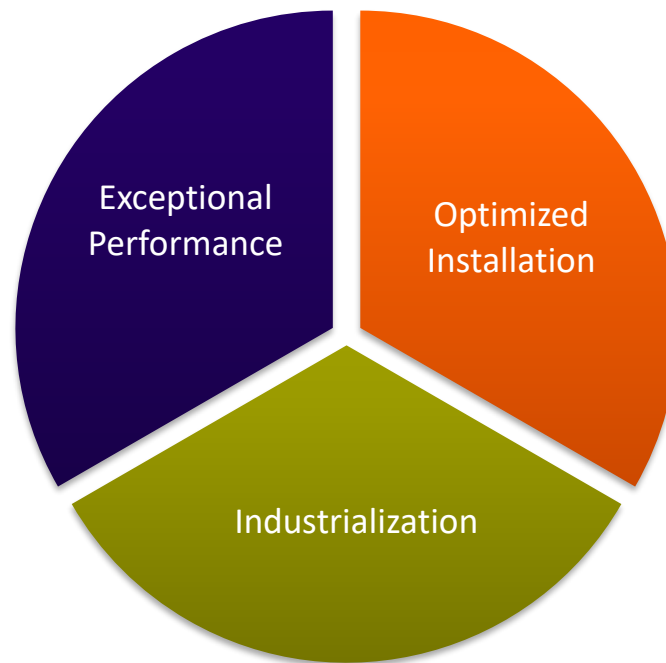
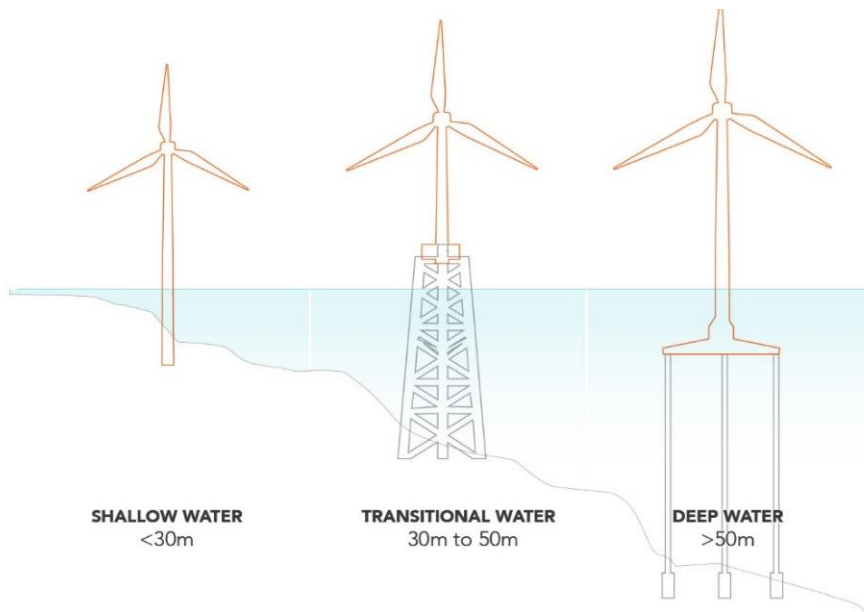
SBM Offshore introduction

Market Outlook

**SBM OFFSHORE
FLOATING WIND CONCEPT**

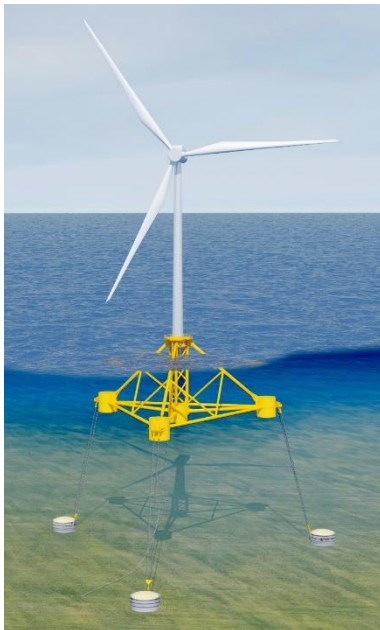
SBM Offshore wind floater concept

Principles and benefits

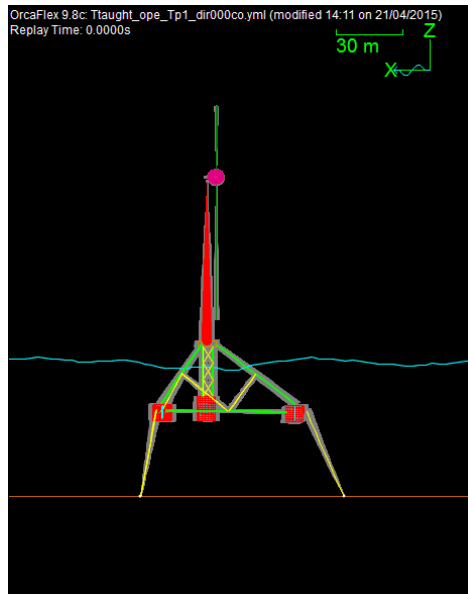


SBM Offshore wind floater

Performance



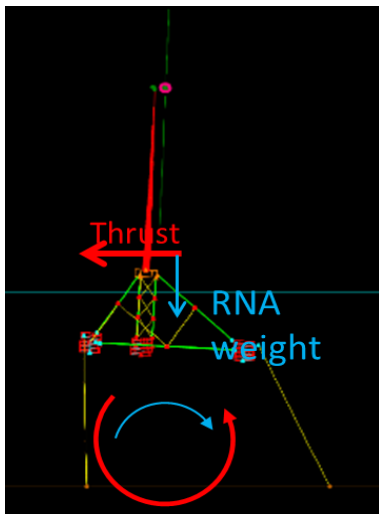
Limited seabed footprint



Low acceleration / motion at nacelle

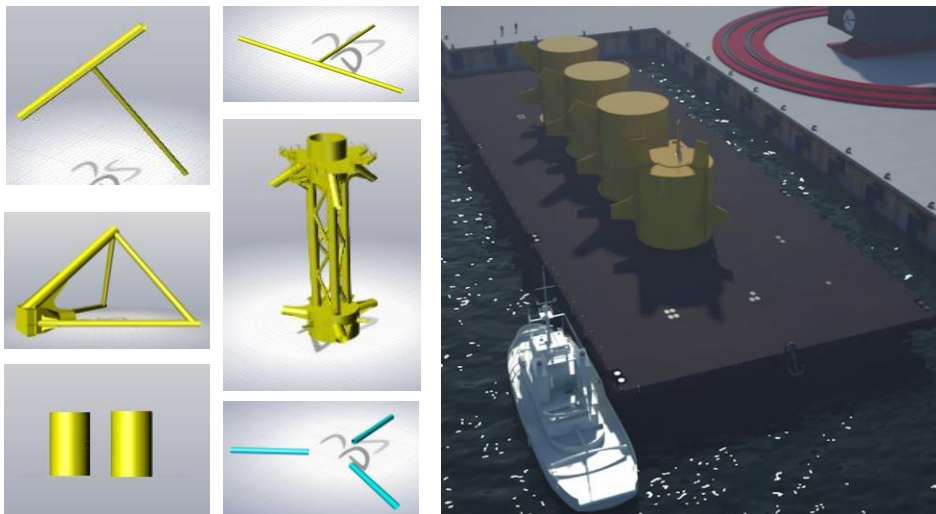
No active ballast

WTG interface



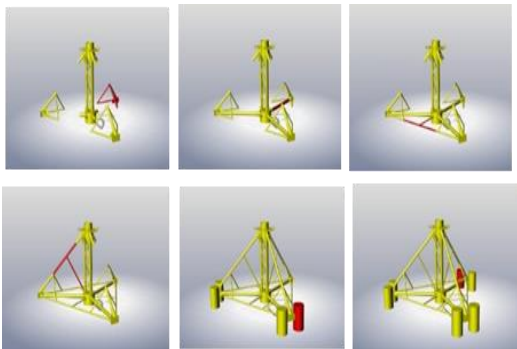
**Reduction of tower
base moment**

Fabrication and Delivery



Modularity for supply chain based execution

Assembly



Assembly with **standard yard means**

WTG integration



Shallow draft for WTG installation

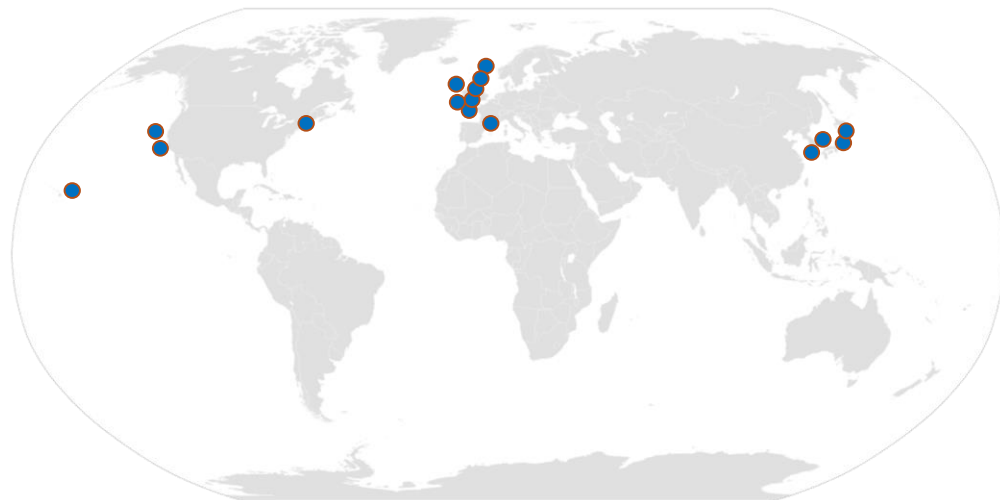
Towing and Offshore installation



Wet tow with conventional means
Use of **conventional anchors**

SBM Offshore wind floater

Large range of applications



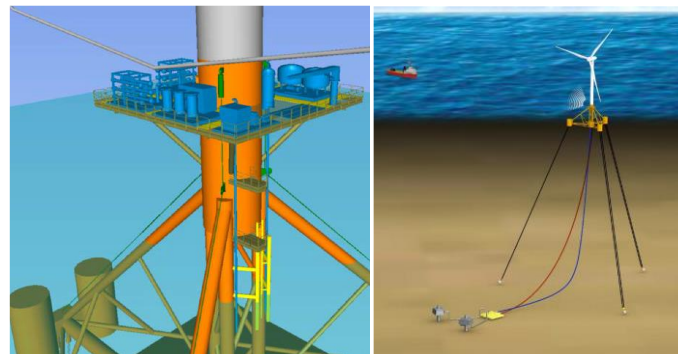
● Case study

Case studies ongoing representative of targeted markets

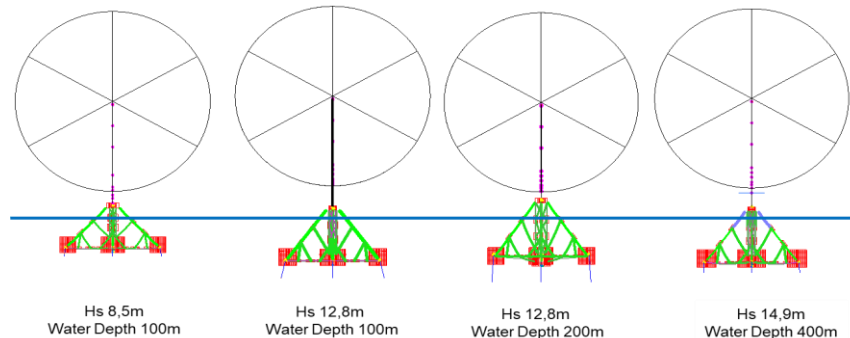
- selected between 100m and **1000m**,
- from 6MW to **15MW** WTGs,

Source: SBM Offshore

Application for O&G



Design / water depth & Hs



The oceans will provide the world with safe, sustainable and affordable energy for generations to come.



ENERGY. COMMITTED.

