



# Enabling a Paradigm Shift for the Offshore Wind Industry

*August 2017*



# Offshore wind is an energy resource with huge Potential, however, the limits of current technology are preventing global expansion

## Why Offshore Wind? Why now?

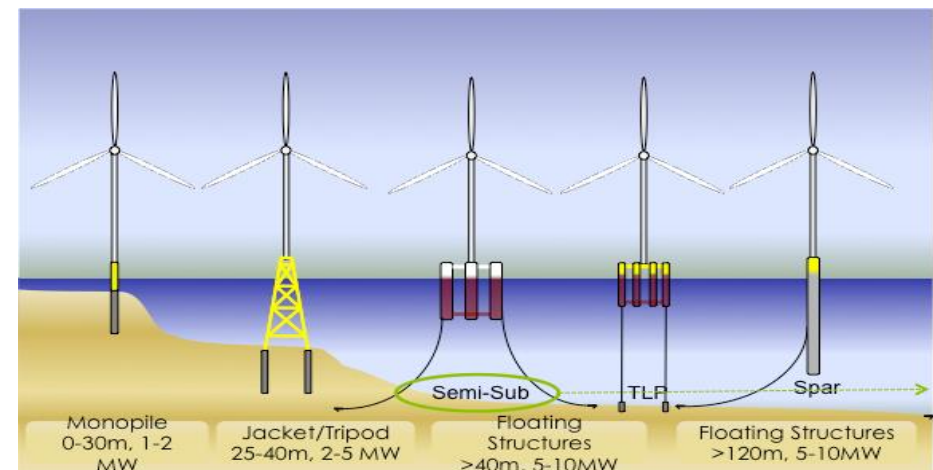
- Largest renewable resource close to major load centers
- High capacity factors (40%-55%)
- Far from shore – limited NIMBY impact
- Growth North Europe (€18.5 B annual capital investment in 2016)
- **Projected grow to >190 GW by 2030**



## What is the Challenge?

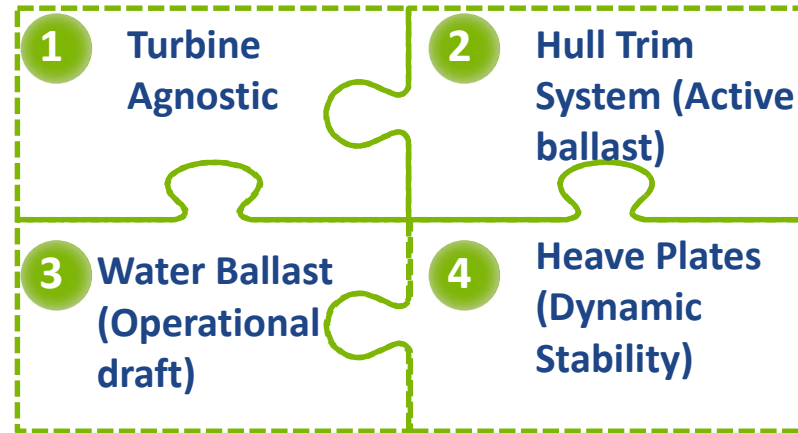
- 90% of offshore wind capacity deployed in the North/Baltic Sea, in shallow water
- Current “fixed-bottom” foundations only < 40m
- Costs/risks grow exponentially with water depth
- This limits expansion to large markets globally

## Substructure Technologies and water depth



# Our Market Solution – The WindFloat – built on proven concepts from O&G and adapted to high performing and low cost solution for wind

## Key Features:

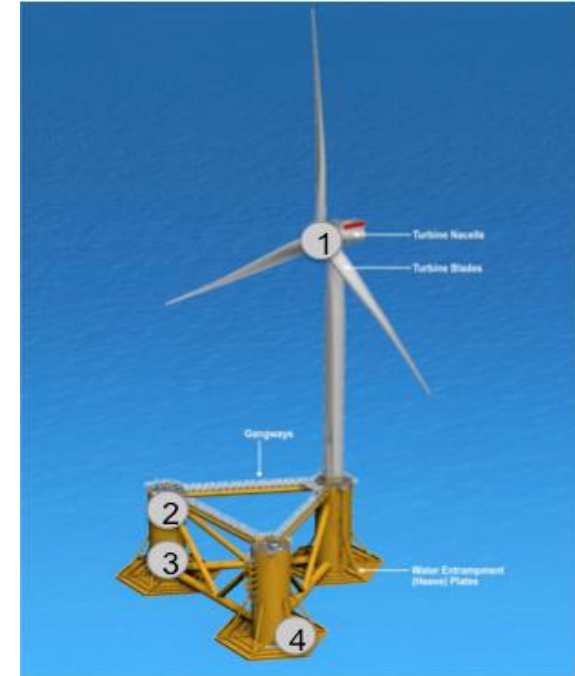


### Cost

- ✓ Less Env. & Geotech
- ✓ Water Depth Independent
- ✓ Serial Production
- ✓ Onshore Commissioning

### Risk

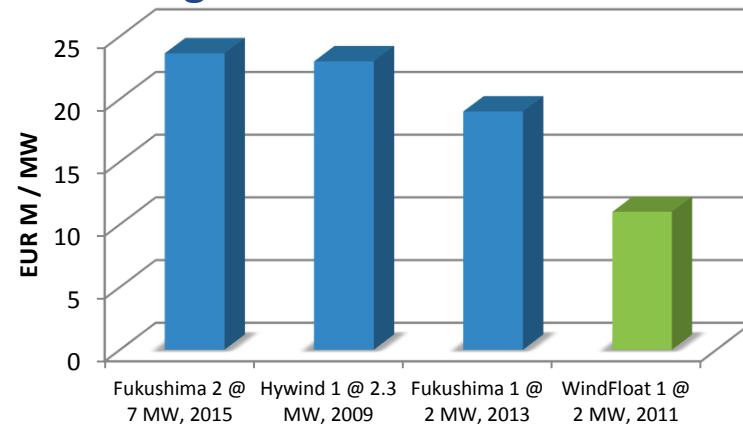
- ✓ Low cost existing vessels
- ✓ Limited offshore work
- ✓ Lower weather risk
- ✓ Onshore Major Maintenance



# Our Vision: Be the leader in deep water wind technology thereby opening access to new sources of clean renewable energy globally

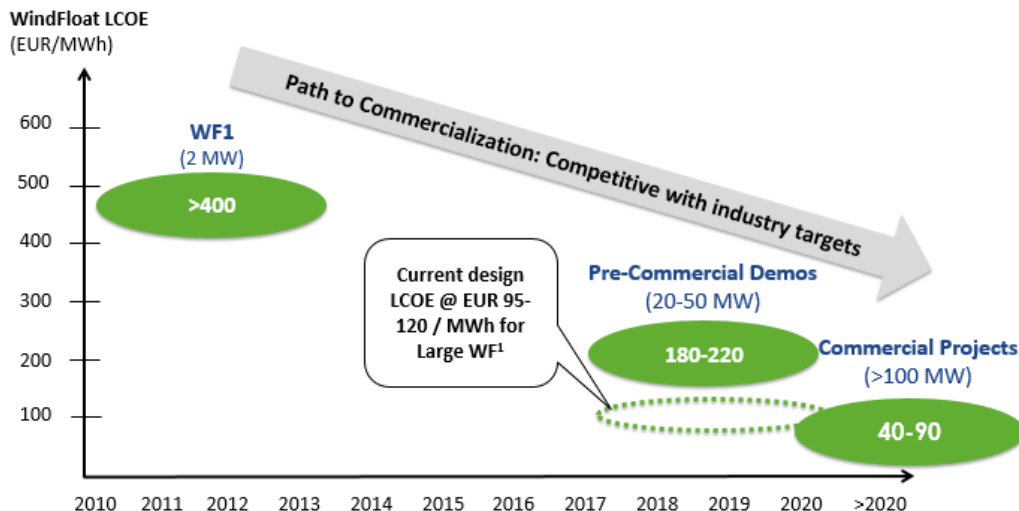
- Globally Patented, Proven Floating Technology
- 5y full-scale (2 MW) prototype operation
  - 17 GWh of generation
- Strong global IP Portfolio
- High barriers to entry

## Leading in Cost and Performance for floating technologies

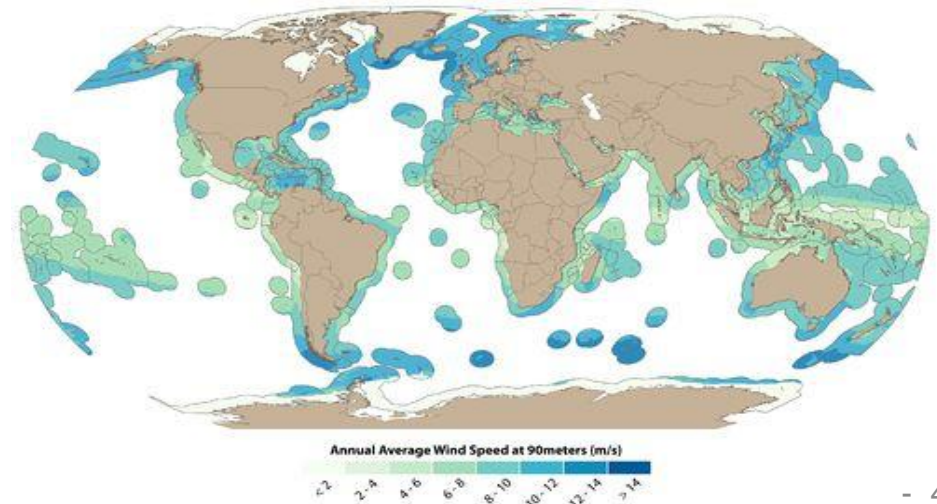


Source: Principle Power and Bloomberg New Energy Finance, December 2015

## LCOE below fixed-bottom industry goal of EUR 50-100/MWh by early 2020s

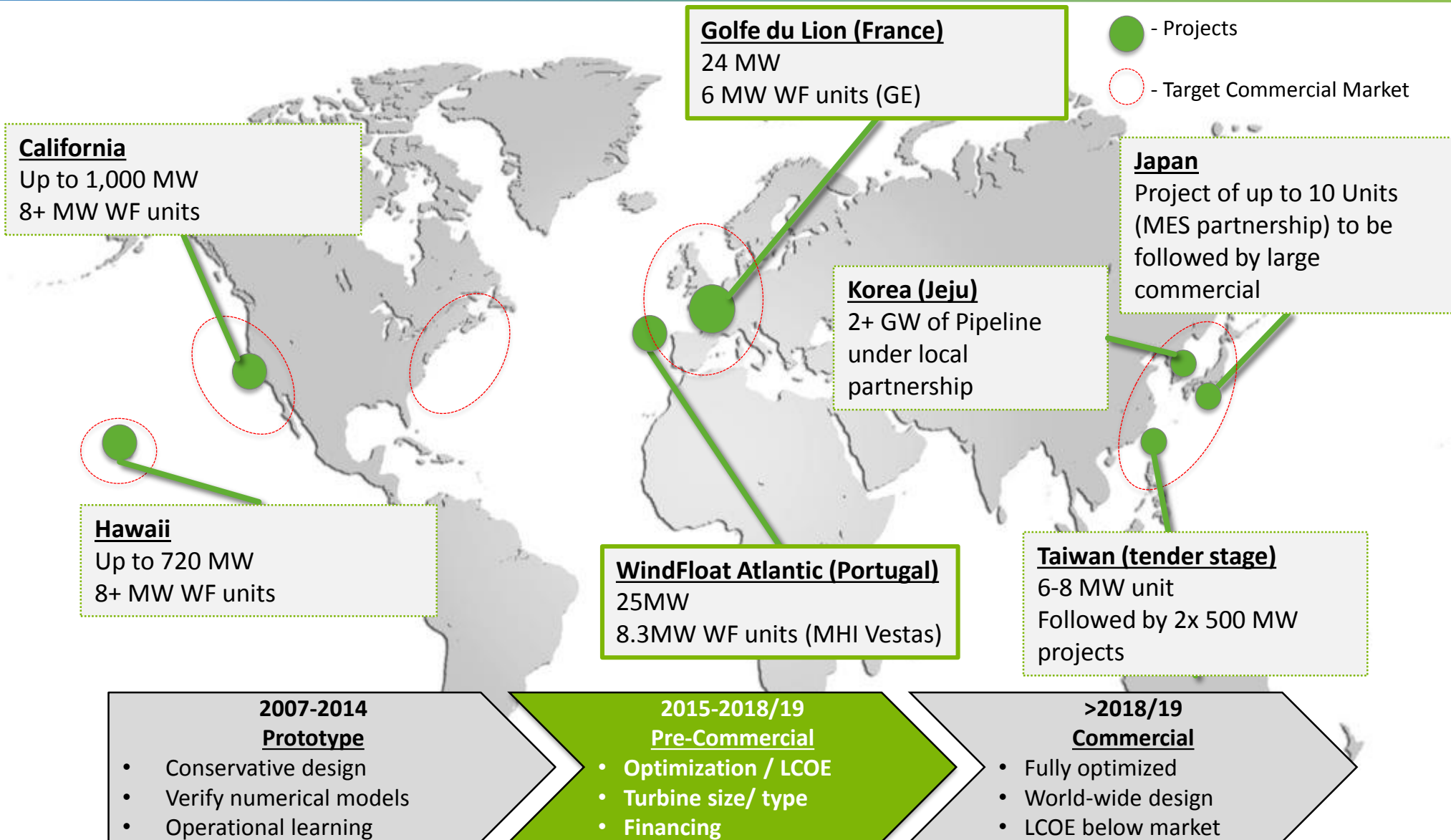


## Key part of the solution to transform offshore wind in a Global Industry!



# Technology Demo Completed, Now Proving Economic Viability

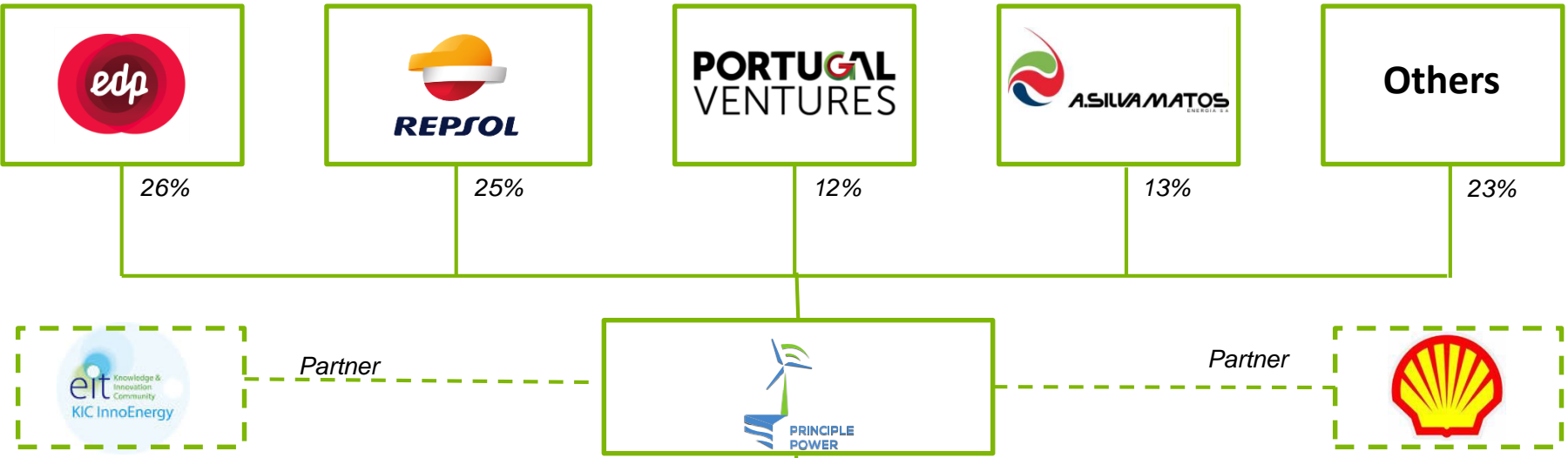
## → Develop Projects In Key Global Markets to promote Adoption



# Strong institutional backing and experienced management team which intend to bring the company to full commercial stage globally



## Shareholding




## Key Management

**João Metelo**  
Chief Executive Officer




- Previously, CFO of EDP Renewables North America
- Earlier positions include Director of Strategic & Financial Planning at Horizon Wind Energy and M&A/Corporate Development Manager at EDP Group

**Dominique Roddier**  
Chief Technology Officer



- Previously, ExxonMobil Senior Research Engineer at Upstream Research Group
- PhD in Naval Architecture from UC Berkeley, MS in Ocean Engineering

**Christian Cermelli**  
Chief Naval Architect



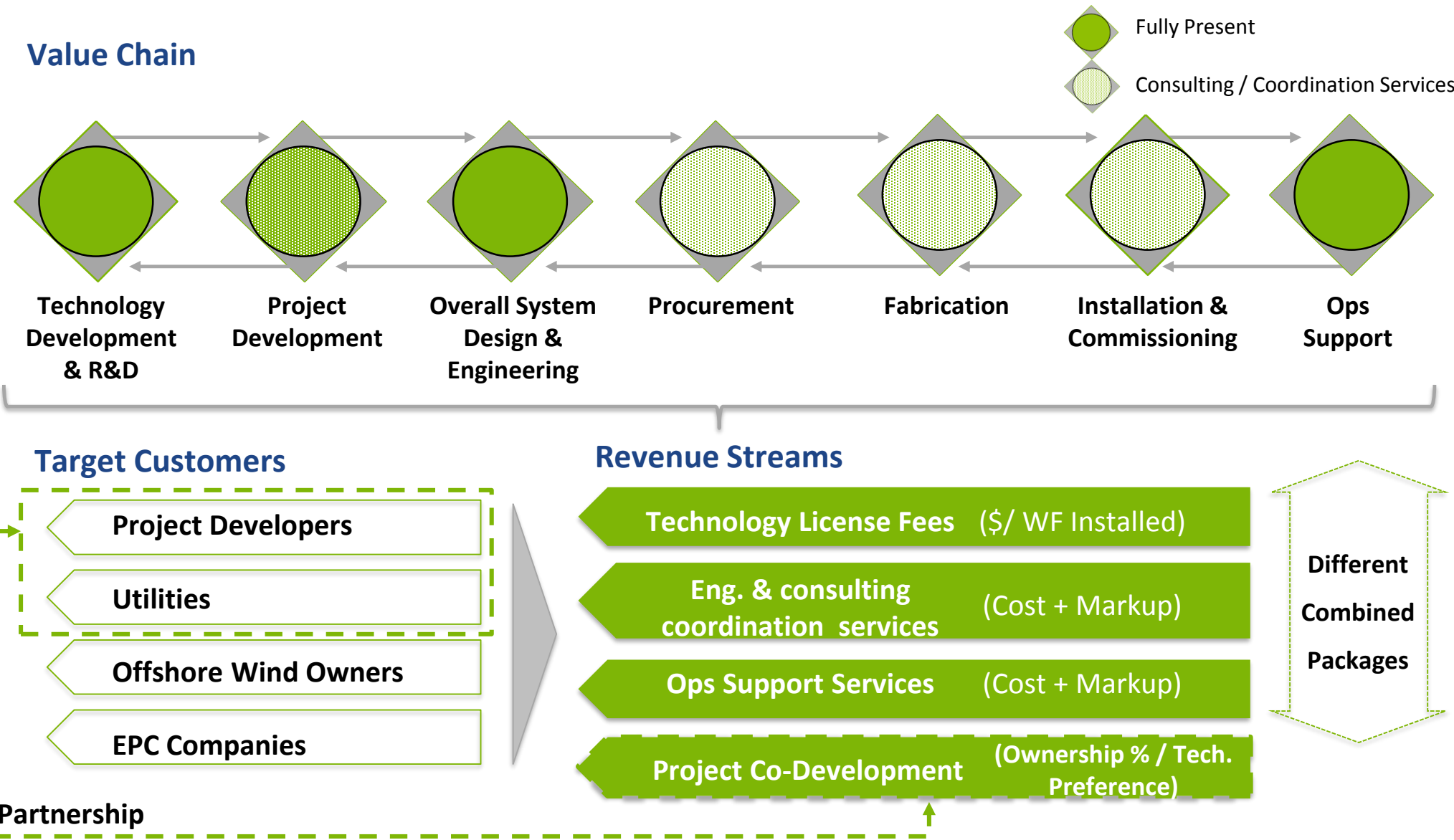
- Previously, Senior Research Engineer in the Floating Systems Group at Shell International EP
- PhD in Naval Architecture, UC Berkeley; Registered PE, Texas

**Ralph Sahrman**  
General Counsel



- Experienced trial lawyer and International Corporate Counsel
- JD U of BC, Bar 1982

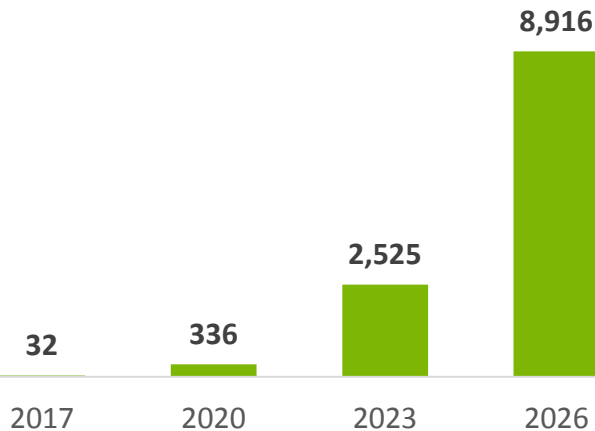
# Business Model based on 3 main drivers: 1) Focus on Core Competences; 2) Executable in Near Term; 3) Minimize Capital Needs



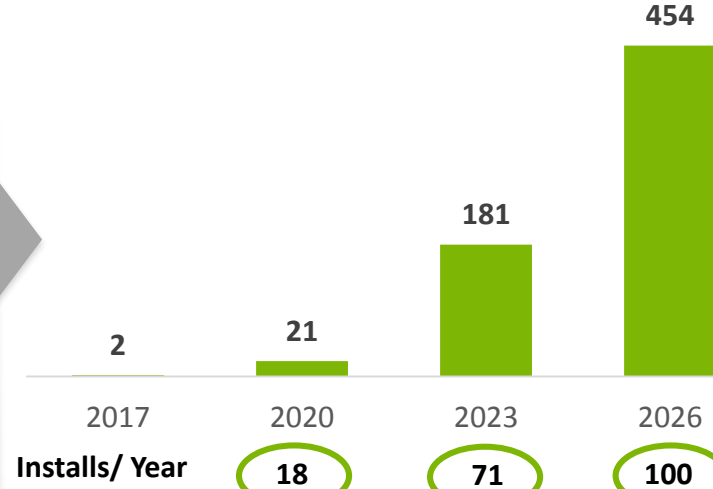
# Floating is expected to reach 11 GW by 2026 ; PPI to install 60-80 WF/ year; Revenues \$100M by '26 with EBITDA over \$50M



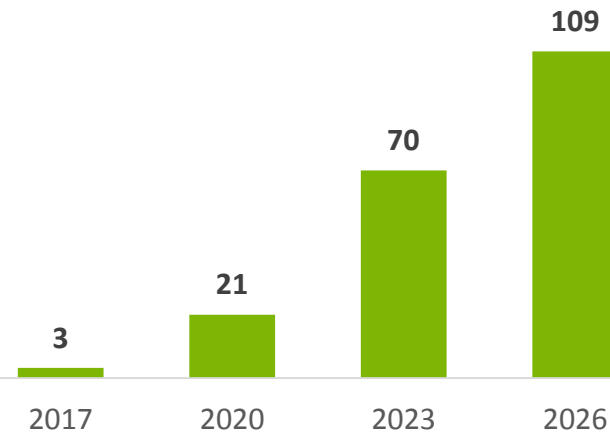
Cumulative Floating (MW)



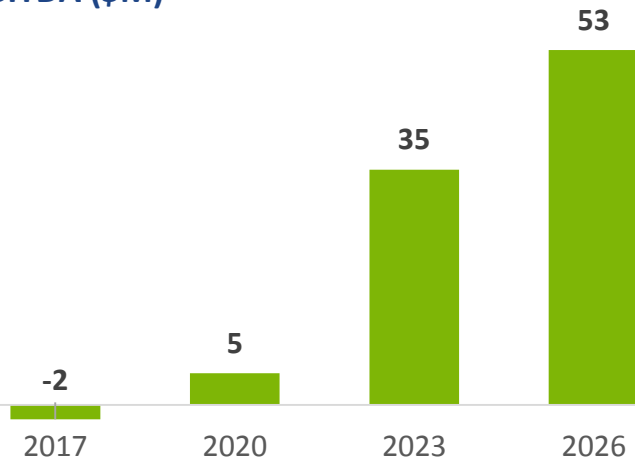
Cumulative WindFloat Capacity (MW)



Revenues (\$M)



EBITDA (\$M)



## Funding

- **Raised to Date: \$40M**  
Most recent raise is €4 million from KIC InnoEnergy
- **Target Fundraising:**  
Up to \$12 million
- **Rationale:**  
Seek additional anchor investor to join current shareholder base and drive commercialization of technology ('18-20)
- **Company Participation:**  
Board Seat(s)  
Quarterly Business Updates  
Technology Advisory Committee

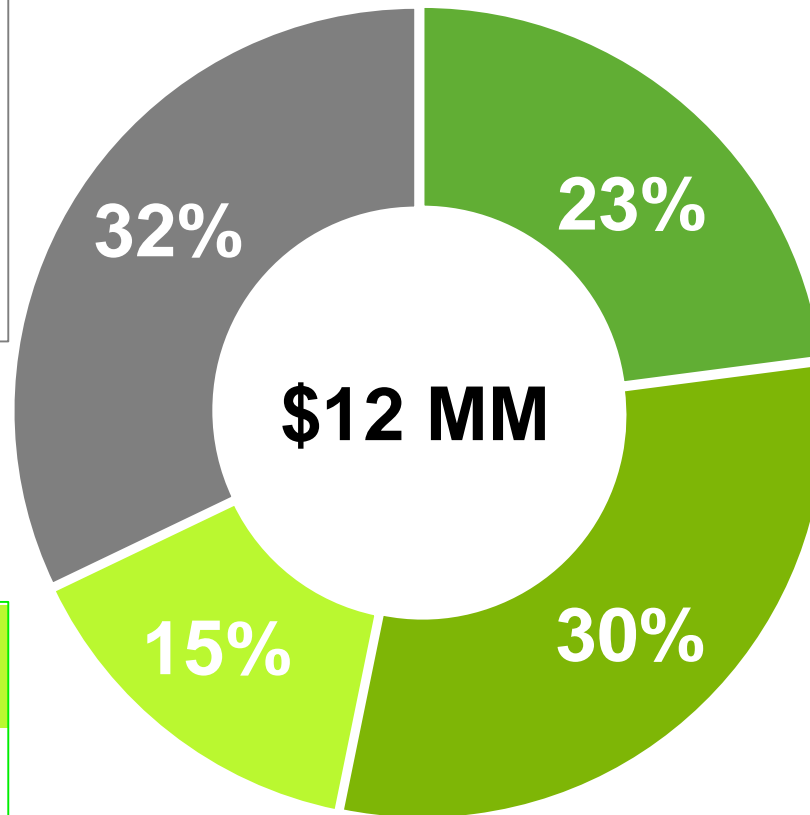
# How the funding will be used

## Accelerating Projects and Securing Pipeline

- Participate more actively in development of promising early-stage projects to secure pipeline
- Accelerate development through contribution of “PPI know how” and limited resources
- Capture value through negotiating minority equity stakes in projects

## Technical R&D and IP Protection

- Very important to continue to improve and protect technology
- Focus on executing WindFloat Technology Roadmap and preparing for commercial-scale deployments (ex. fabrication)



## Commercialization and Competitiveness

- Activities to establish WindFloat financability in different markets, enabling investment decisions
- Technology/process optimization to minimize LCOE and enhance PPI's competitive advantage

## Business Development

- Critical to establish presence in key markets globally
- Support customers as they integrate WindFloats into project design (tech., economics, policy)
- Respond to Foundation RFIs



[www.principlepowerinc.com](http://www.principlepowerinc.com)