

Client Presentation | Q1 2020



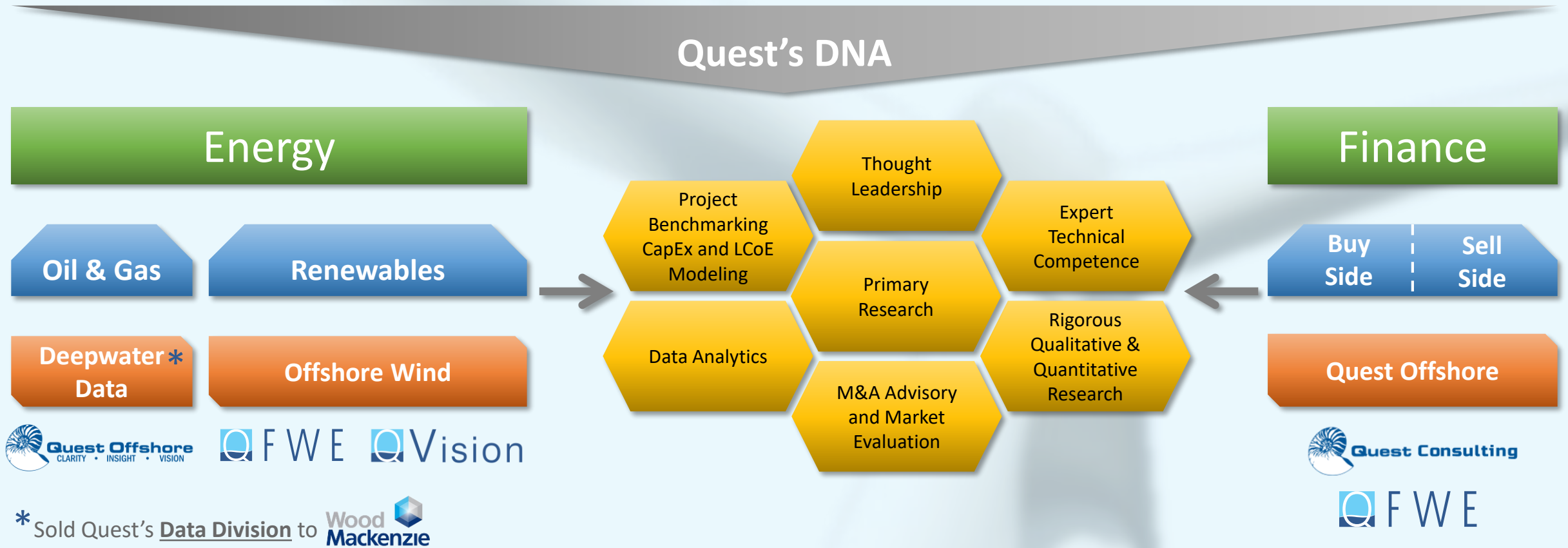
Quest Floating Wind Energy
a Quest Offshore Resources company



Our Industry Is Evolving to Encompass Sustainable Energy

Quest Offshore's Evolution – Decades of Empowering Our Clients with Clarity, Insight and Vision.

Twenty-years of expertise in predictive analytics, technical market analysis and the development of offshore floating projects provides us with the means and the network to offer critical insight on the Offshore Wind industry going forward.



Who We Are

About Us

Expert knowledge of the entire Energy Value Chain. Quest has decades of experience empowering our clients with Clarity, Insight and Vision.

Mission

We actively develop strategic relationships with management teams of prospective clients initiating with major power developers and leading designers to tier-one and tier-two global supply chain companies and across the financial sector.

Market Focus

Quest provides strategic advisory and consulting to end-clients within the Energy and Financial sectors.

Quest serves the entire global supply chain for offshore wind and possesses expert knowledge across multiple focused technical areas.

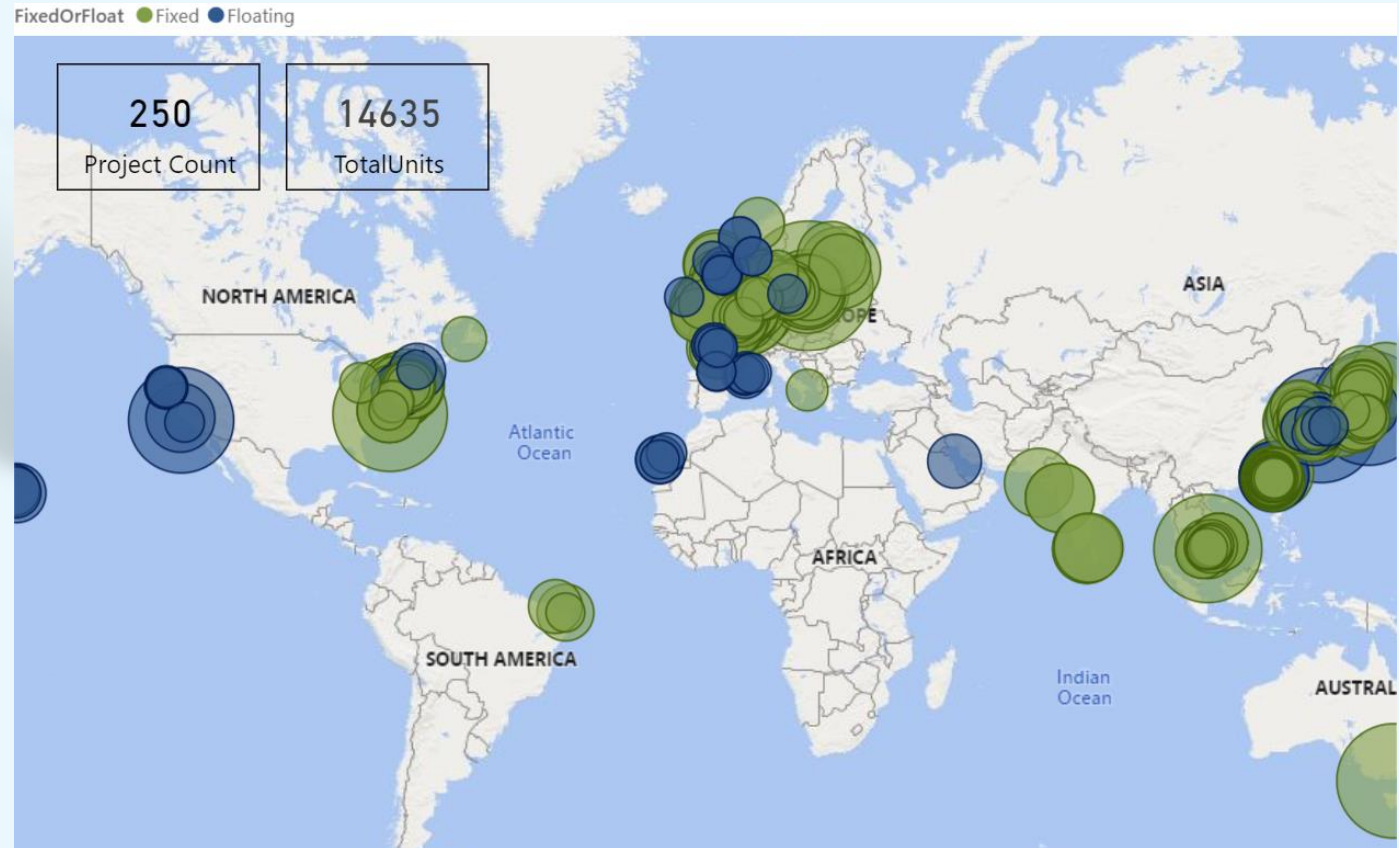
Products and Subscription Services

Quest Offshore Wind Turbine Index - QOWTI analyzes key economics indicators and provides an overview of supply chain opportunities by segment plus benchmarking of key metrics and CapEx trends

Q Vision - Robust Suite of Data Analytics and Market Analysis

Project Data - the Offshore Turbine Locator details sales opportunities, timelines and key project specifics in Excel

Consulting - Supporting clients with strategic data-driven decisions. Primary research, project benchmarking, CapEx & LCoE modeling and supply chain analysis



About Q Vision

Q Vision provides instant access to real-time data for the world's Fixed and Floating wind energy projects. Driven from Q FWE's proprietary database, these *Microsoft Power BI* tools allow for dynamic analysis of relationships across Markets and Technologies, and an enhanced understanding of project Economics. Q FWE's **Predictive Analytics** and **Market Expertise** enable clients to see the consequence of change led from this rapidly accelerating market. Q FWE's **Subscription Products** provide timely and actionable strategic market information.

What We Do

Q FWE's predictive analytics enable our customer's ability to drive strategic, data driven decisions.

Q FWE's service offering includes Q Vision, Q FWEconomics Calculator, Q FWE Consulting and Q FWE's Data Subscriptions Service.



Q FWE's market expertise and strategic insight provides clarity for client's critical decision points.

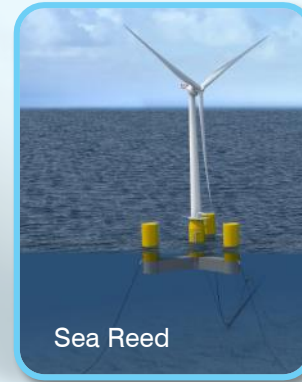
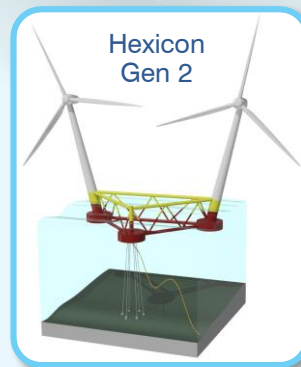
Q FWE's proprietary 'Deep Data' and dynamic client user-interface Q Vision are powerful tools to analyze future market conditions and actively monitor the global supply chain for Floating wind energy.

Offshore Wind Developers/Owners

Sampling of Active Players



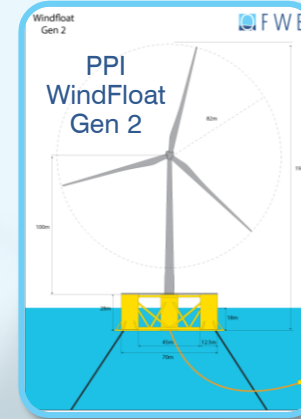
Key Supply Chain Participants



Stiesdal



Entrance of Leading Players from Oil & Gas Sector



Quest Offshore Wind Turbine Index - January 2020



Offshore Wind Turbine Index January 2020

GLOBAL	Total No. Projects	Total No. Turbines			Total MW			CapEx		
	total	projects	this month	last month	change	this month	last month	change	this month	last month
GLOBAL	total	total	total	total	total MW	total MW	total MW	total \$mil	total \$mil	total \$mil
Global Total	250	14,635	12,424	2,211	128,941	110,384	18,556	\$406,217	\$342,029	\$64,189
Global Fixed	188	11,994	10,289	1,705	105,853	92,367	13,486	\$325,549	\$276,798	\$48,751
Global Floating	62	2,641	2,135	506	23,088	18,018	5,070	\$80,669	\$65,231	\$15,438

Quest Offshore Wind Turbine Index (QOWTI) analyzes key Economic Indicators and provides an overview of Supply Chain opportunities by segment.

27 Data Attributes 2,430 Total Values 4 Regions 24 Countries

QOWTI spots important **Leading Indicators** such as average rotor diameter, average distance to shore, average MW per unit, and benchmarking of key metrics.

What are my supply chain opportunities?

- 14,635 turbines to be selected
- 8.8 million meters of mooring cable to be awarded
- 1,328 floaters without a firm design type selected
- 8,081 anchor types to design & manufacture
- 23,917 km array cables
- 7,787 km export cables

Economic Indicators								Leading Industry Indicators				Supply Chain Indicators			
CapEx/unit	CapEx/MW	substructure CapEx	turbine CapEx	mooring CapEx	installation CapEx	cabling CapEx	other CapEx	rotor diameter	MW/unit	distance to shore	water depth	project size (units)	mooring line length	anchors	array km
avg \$mil	avg \$mil	total \$mil	total \$mil	total \$mil	total \$mil	total \$mil	total \$mil	avg m	avg	avg km	avg m	avg	total m	total	total km
\$27.8	\$3.3	\$93,522	\$175,635	\$10,507	\$31,106	\$56,510	\$38,936	172.4	8.7	37.7	102.7	57.6	6,620,140	8,081	19,548
\$27.1	\$3.3	\$76,255	\$142,556	-	\$28,919	\$46,389	\$31,430	176.2	8.9	37.1	30.1	65.7	-	-	15,180
\$30.5	\$3.7	\$17,267	\$33,079	\$10,507	\$2,187	\$10,121	\$7,507	157.5	8.1	40.4	458.8	35.9	6,620,140	8,081	4,369

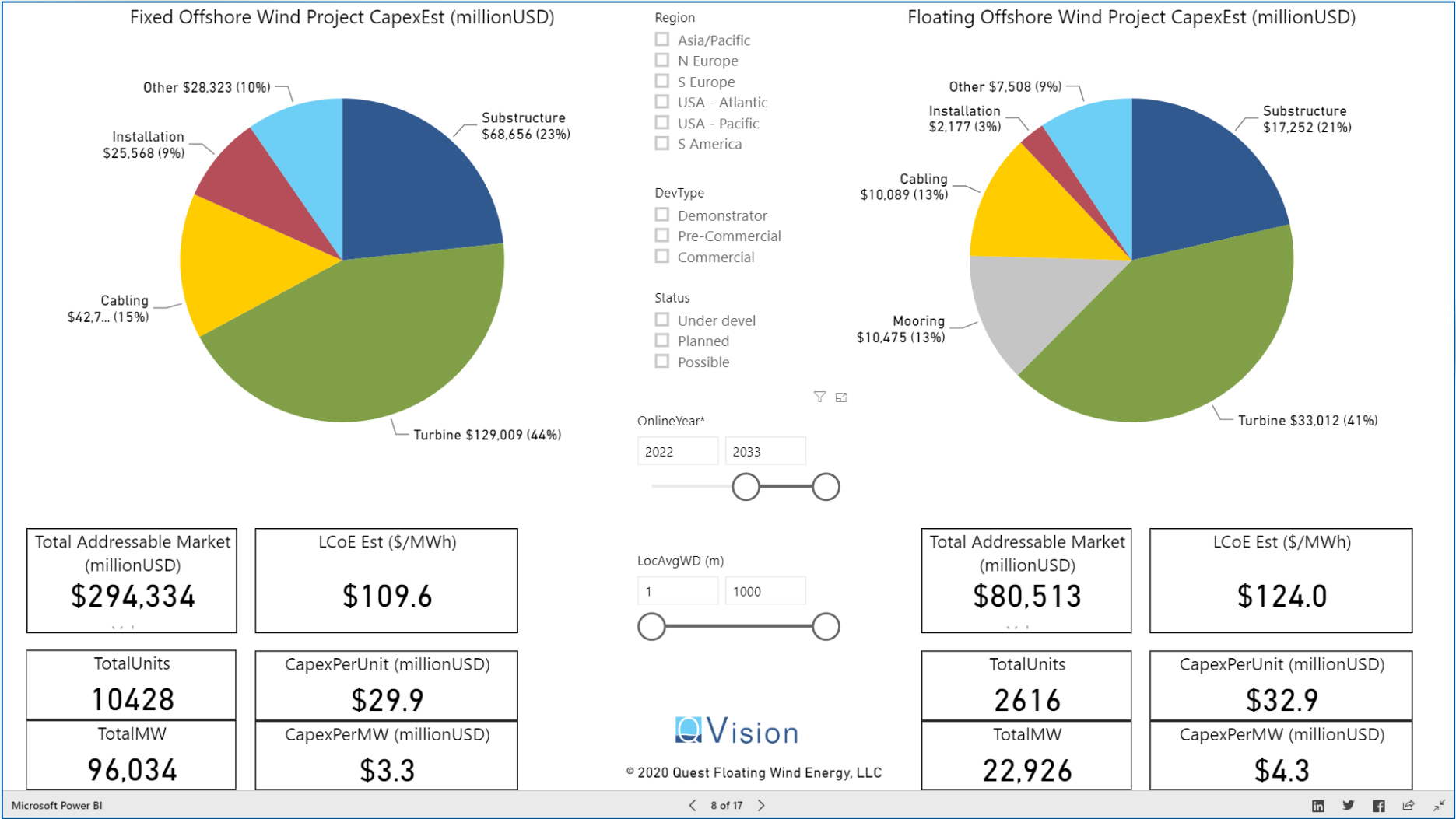
Source: Q FWE (QOWTI)



What are my opportunities?

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Fixed and Floating by Segment



OnlineYear*

2022

2033

LocAvgWD (m)

1

1000

QVision

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Total Addressable Market (millionUSD)

\$294,334

LCoE Est (\$/MWh)

\$109.6

TotalUnits

10428

CapexPerUnit (millionUSD)

\$29.9

TotalMW

96,034

CapexPerMW (millionUSD)

\$3.3

Total Addressable Market (millionUSD)

\$80,513

LCoE Est (\$/MWh)

\$124.0

TotalUnits

2616

CapexPerUnit (millionUSD)

\$32.9

TotalMW

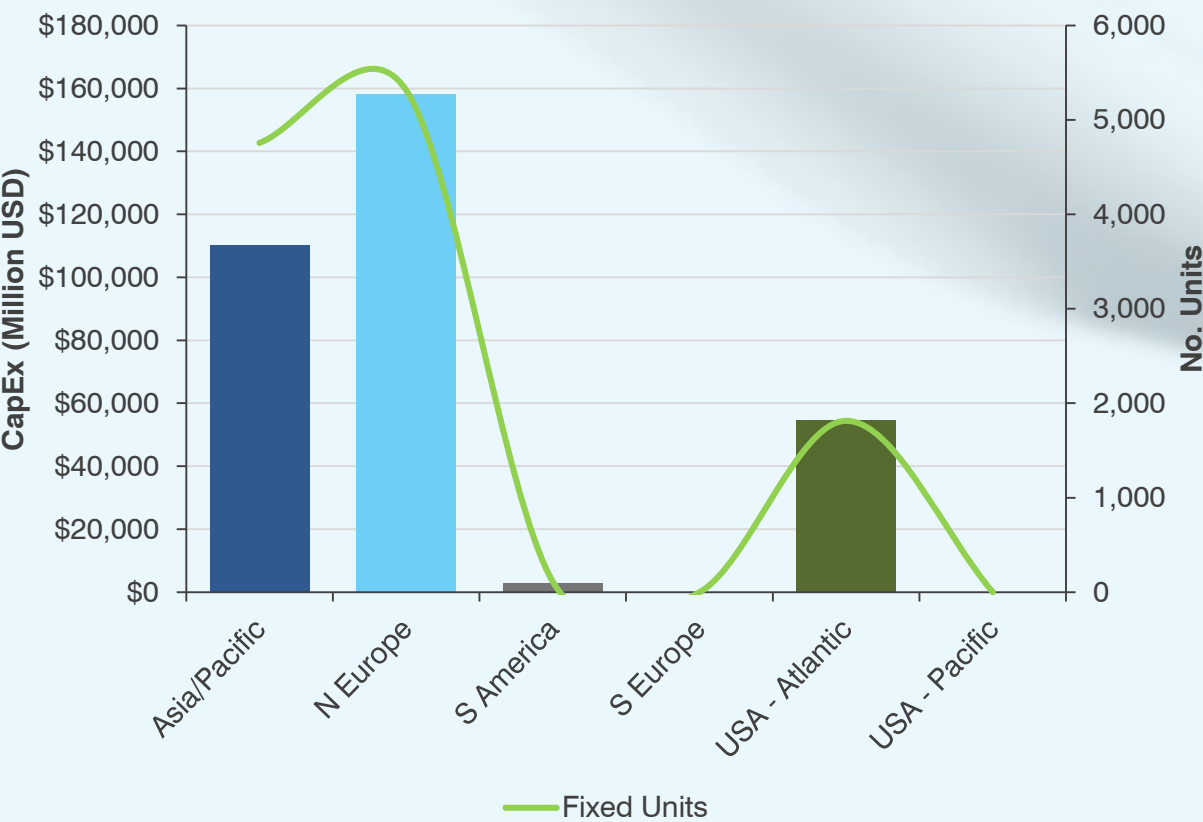
22,926

CapexPerMW (millionUSD)

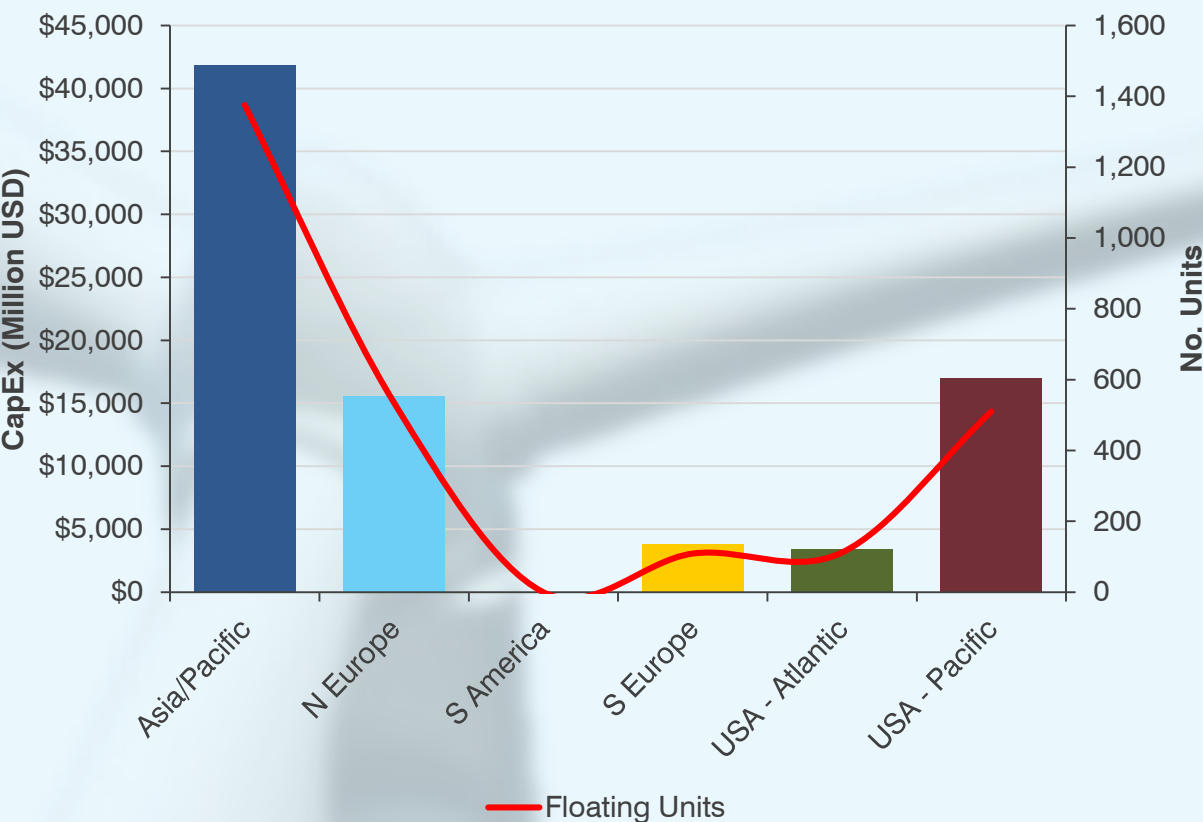
\$4.3

Source: Q FWE Power BI

Fixed

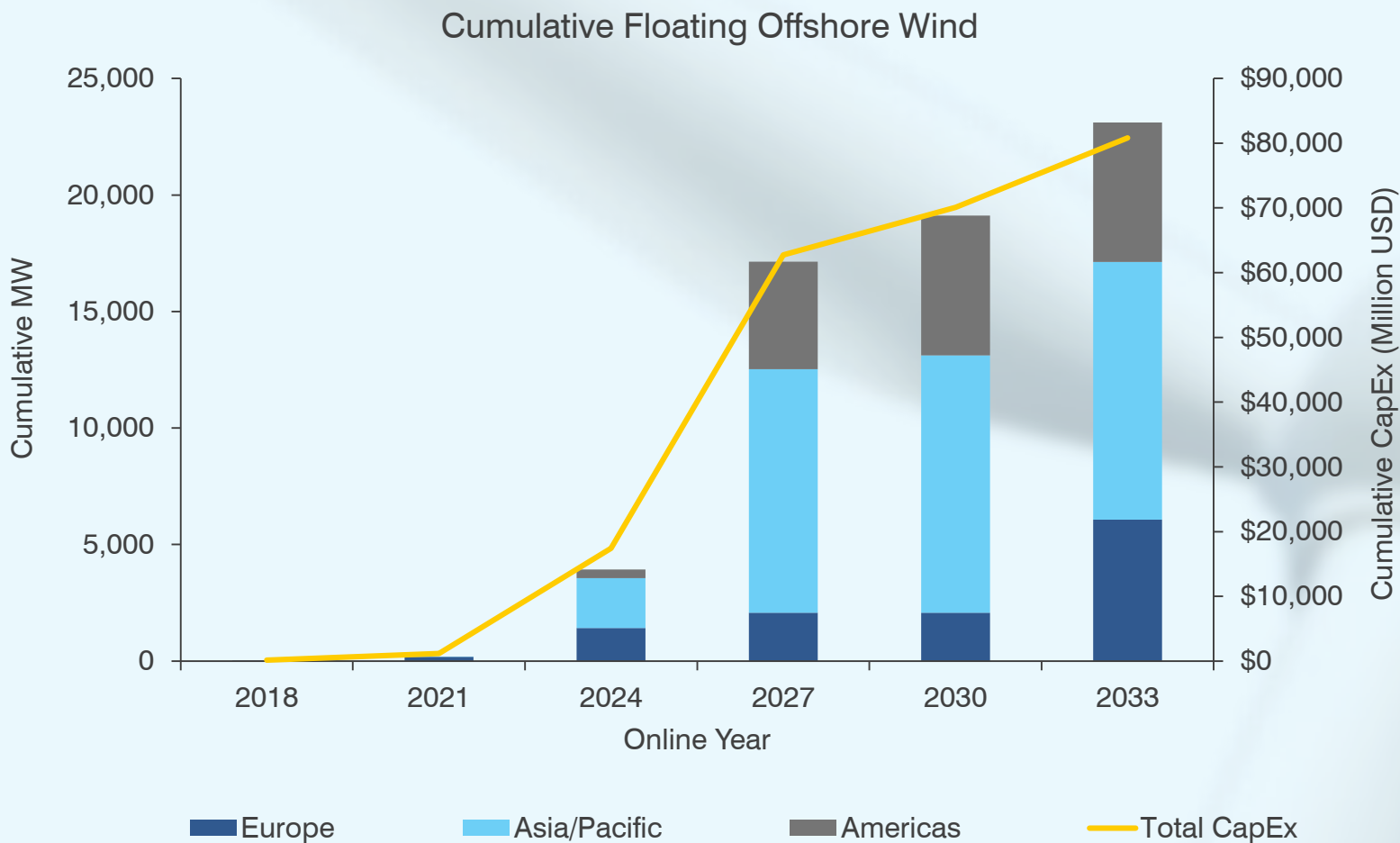


Floating



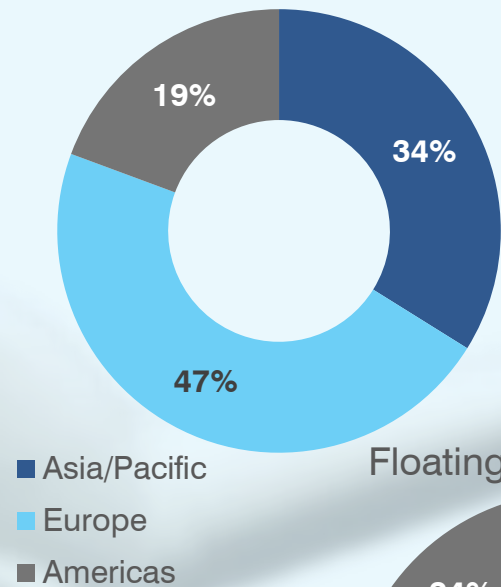
Source: Q FWE Power BI

Cumulative Floating Offshore Wind

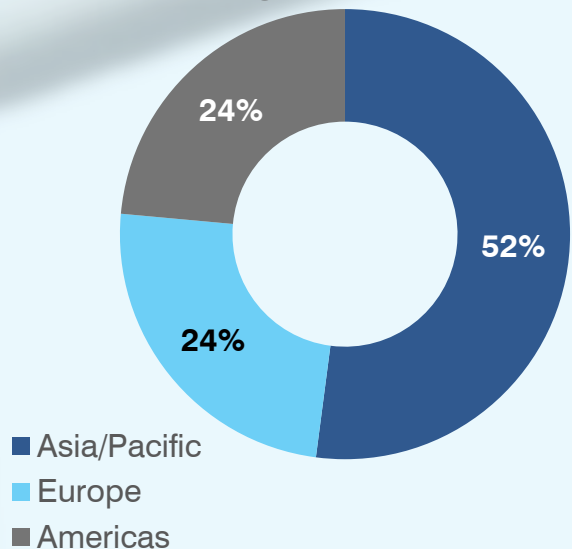


Data Source: Q Vision

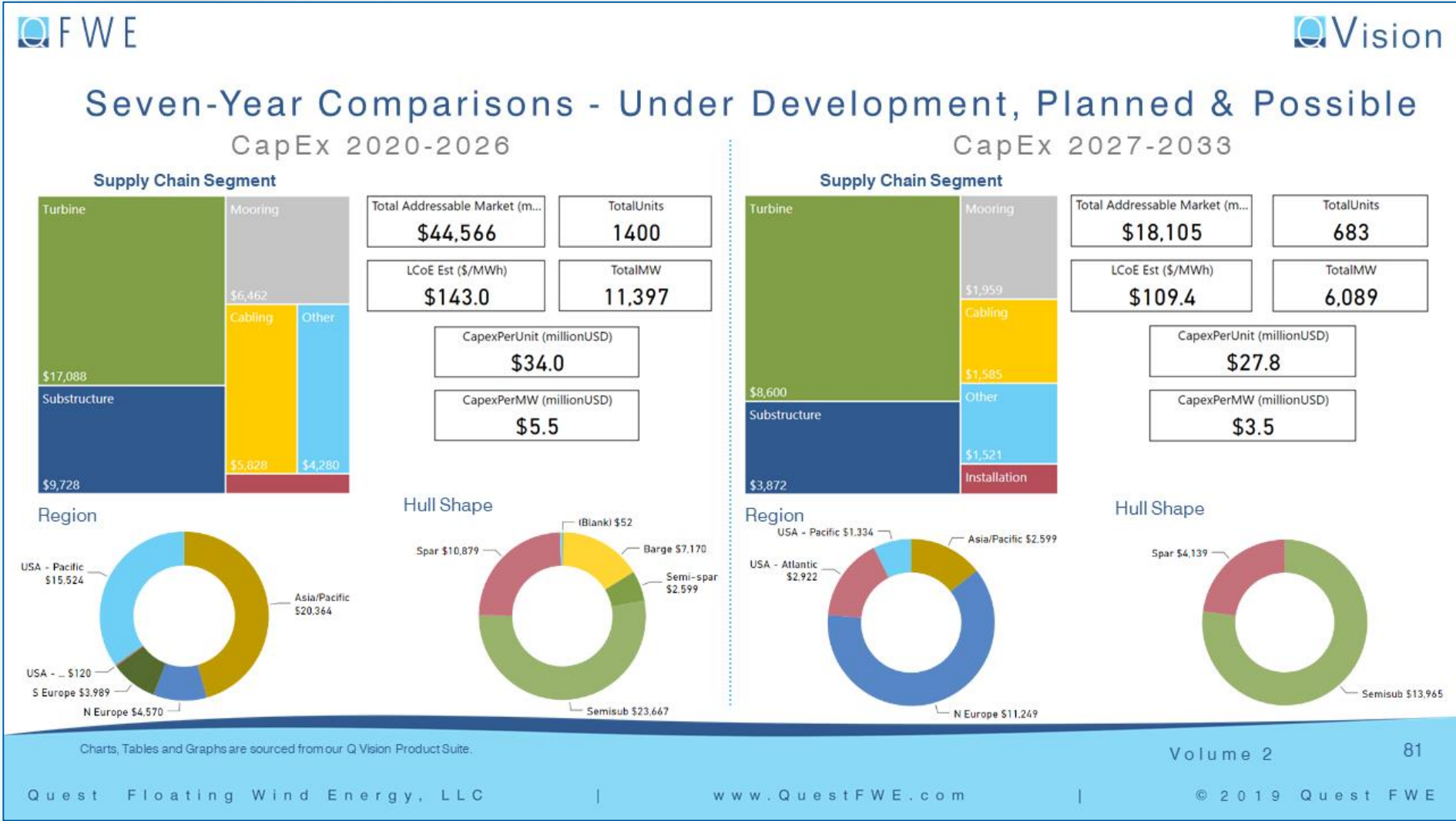
Floating No. Projects - 62



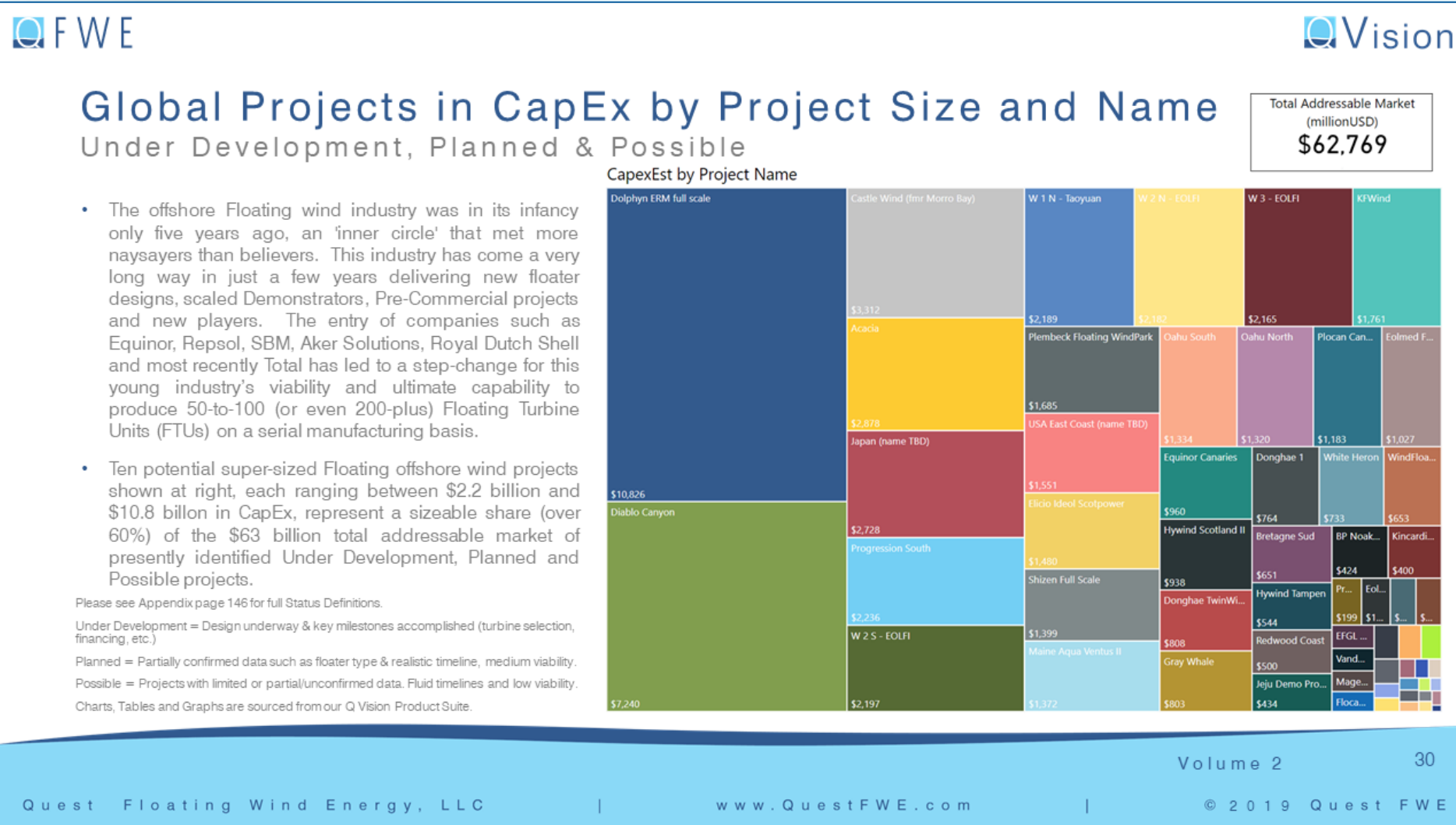
Floating No. Units - 2,641



Forecast 2020-2033



By Region 2020-2033



Q Vision - Robust Analytics and Market Analysis

Q Vision is our proprietary **Business Analytics** tool delivering real-time data and analysis giving you a competitive advantage to win **Fixed** and **Floating** Offshore Wind Energy projects. This *Microsoft Power BI* tool allows for dynamic analysis of relationships across markets and technologies; robust benchmarking as well as an enhanced understanding of project economics including LCoE. Our **Subscription Products** provide timely and actionable, strategic market information. **The Q Vision database subscription includes an Excel data download containing**

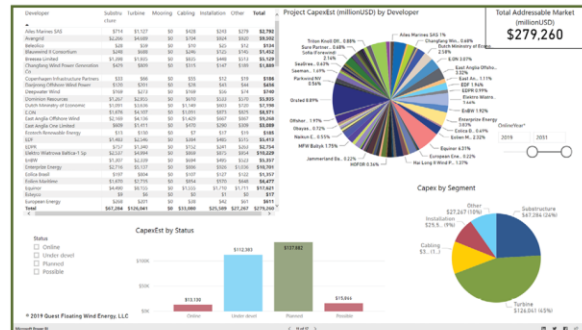
CapEx / LCoE

Analyze the Total Addressable Market in CapEx by segment including LCoE across projects.

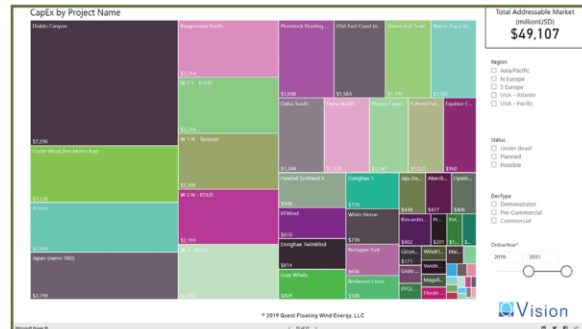


Project Economics

Fixed



Floating



LCoE



An example of Quest's *LCoE Modeling* capabilities are illustrated in this scatter plot chart for 160 Fixed and 43 Floating Wind Projects.

This Power BI scatter plot chart and regression analysis demonstrate modeled LCoE values allowing comparisons between projects already built and those planned in the future.

Also shown are the relationships between select pre-commercial and commercial projects.

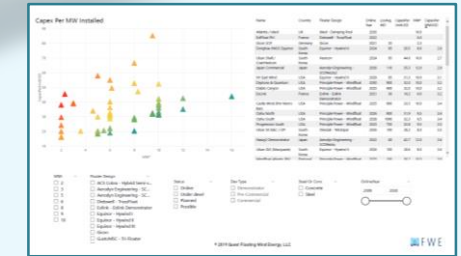
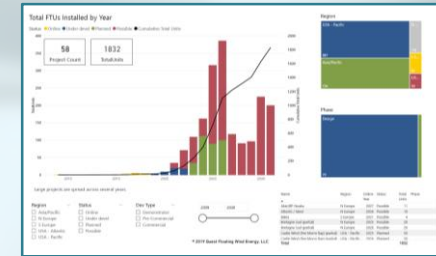
Promotional Price!

\$4,995

yearly subscription

Please call
+1 (832) 862-3390 for
subscription
licensing
options
















Offshore Turbine Locator



Q FWE Consulting Advisory

Supporting Clients with Strategic Data-Driven Decisions

Representative Projects

 <p>M&A Advisory and Due Diligence Support on the Acquisition by</p>  <p>PLATTE RIVER EQUITY</p>  <p>DAVIDSON Investment Bank</p>	 <p>M&A Advisory and Due Diligence Support on the Acquisition by</p>  <p>intertek</p>  <p>BLACKARCH PARTNERS Investment Bank</p>	 <p>M&A Advisory and Due Diligence Support to</p> <p>J.F. Lehman & Company during their Exclusive Rights period</p>  <p>SIMMONS & COMPANY INTERNATIONAL Investment Bank</p>	 <p>Sumitomo Corporation</p> <p>Industrial Conglomerate</p> <p>M&A Advisory Target identification and scoping study of specialty Brazilian machine shops in support of their steel tubulars business.</p> <p>Composites Study - Technology Applications Strategy</p>
 <p>RANGER OFFSHORE Marine and Subsea Construction and Support Services</p> <p>International Oilfield Services Company</p> <p>Due diligence to support Refinancing for the Acquisition of DSV's from Technip</p>	  <p>Super Majors</p> <p>Business Advisory for Procurement Strategy Benchmarking Analysis across SURF and Development of Marine Construction Costing Model</p>	 <p>LLoG exploration</p> <p>Independent Oil & Gas Operator</p> <p>Supported</p>  <p>Blackstone</p> <p>in a Benchmarking and Costing exercise in their phased funding of Beacon Offshore Energy</p>	 <p>ExxonMobil</p> <p>Energy lives here™</p> <p>Super Major</p> <p>Benchmarking study and market review on the adaption rate of new subsea technology applications amongst their peers.</p>

Client Directed Inquiries

Supply Chain Analysis

Primary Research

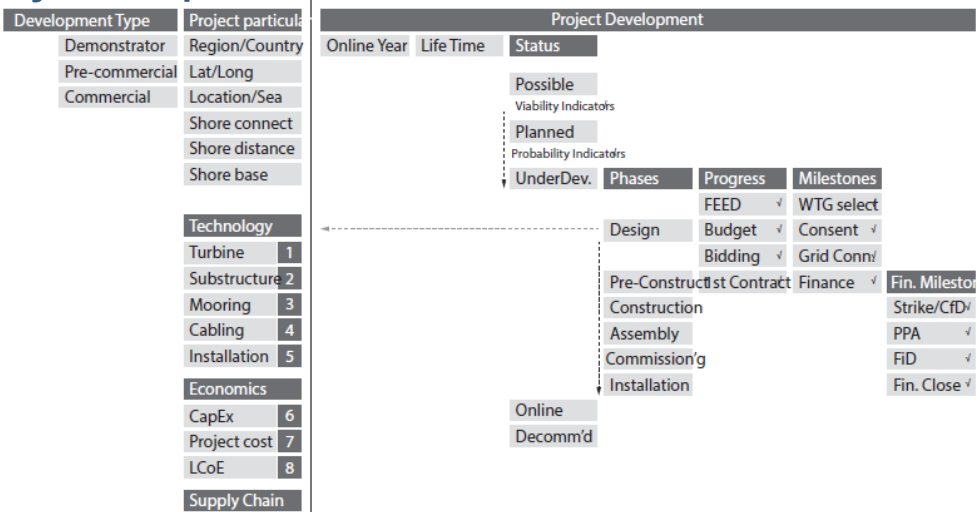
M&A Advisory

Q FWE delivers highly focused market intelligence tools, products and services to the entirety of the Renewables Supply Chain related to Offshore (Fixed and Floating) wind.

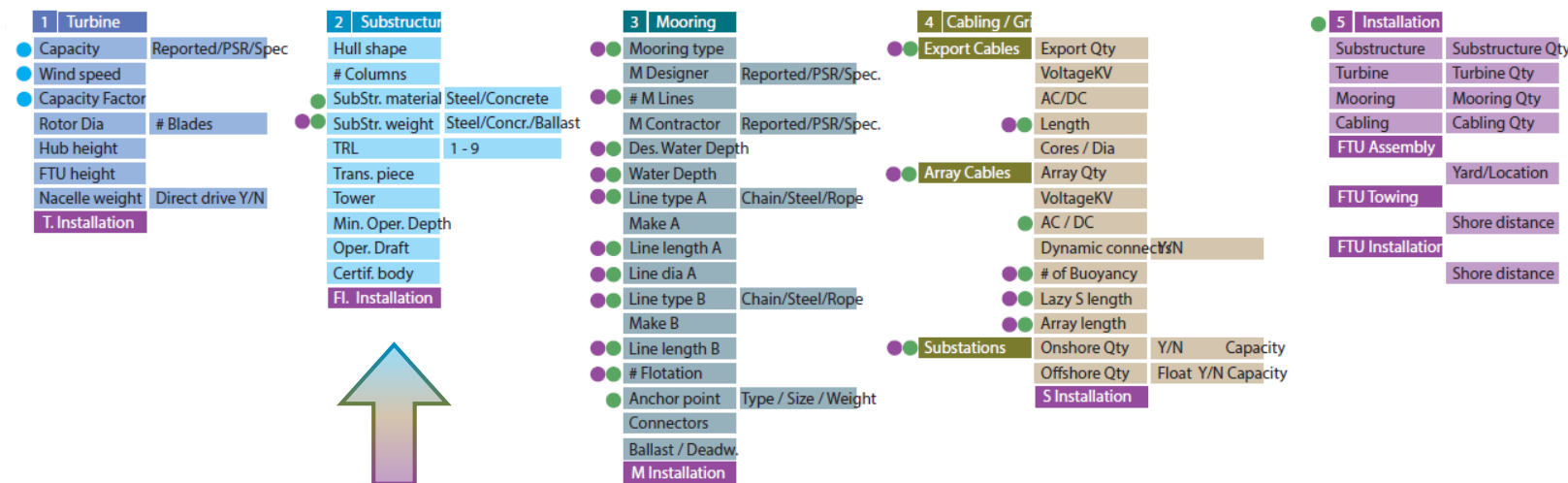
- Project benchmarking, CapEx & LCoE modeling
- Expert and technical market analysis utilizing a bottoms-up / top-down approach
- Rigorous quantitative and qualitative research
- M&A advisory and market evaluation
- Actively develop and assist clients in sourcing niche financing alternatives
- Market reviews, sizing and demand modeling
- First source referencing (Market/Client/Customer)

Our Proprietary CapEx/LCoE Model Building Blocks

High-Level Project Details



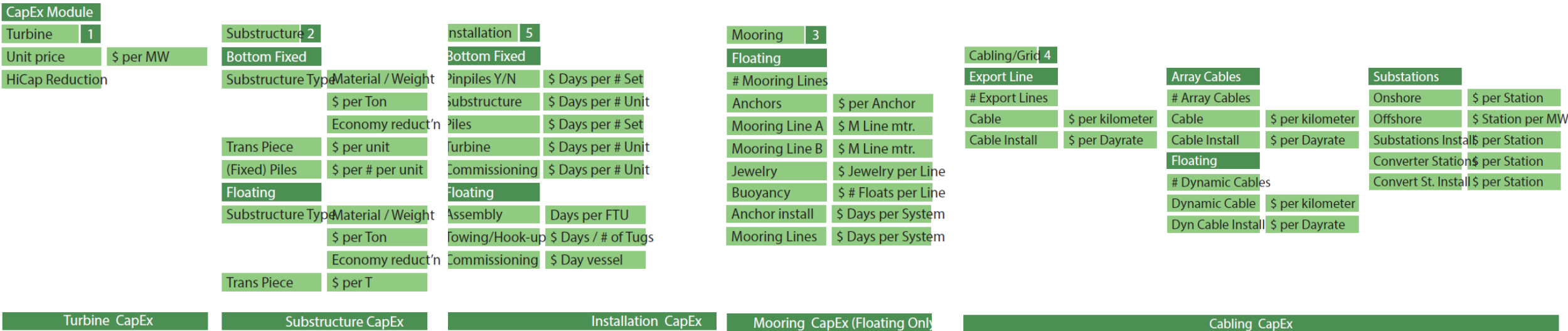
Supply Chain Segment Analysis



● Critical path overrun
● Influences Installation
● Type select, opens dataset
● Influences economics
PSR = Preferred Supplier Relationship

Our Proprietary CapEx/LCoE Model Building Blocks (Continued)

Cost Model Metrics and Key Inputs



● Critical path overrun
● Influences Installation
● Type select, opens dataset
● Influences economics

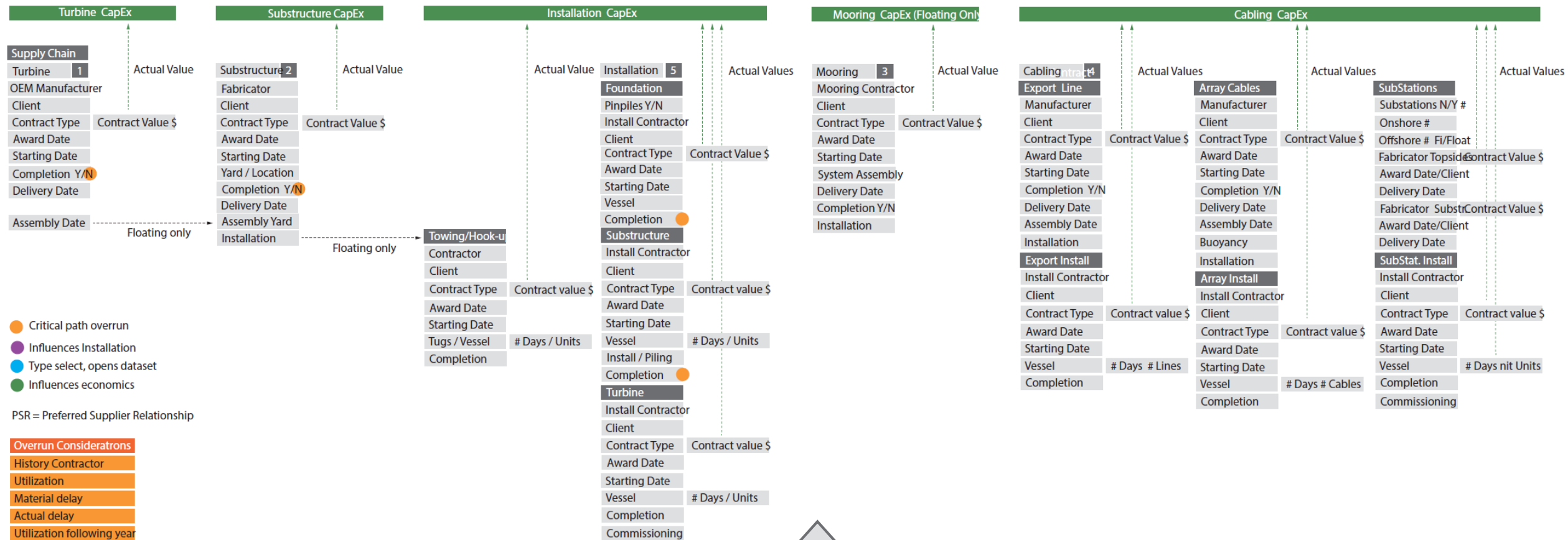
PSR = Preferred Supplier Relationship



Source: Q FWE Power BI

Our Proprietary CapEx/LCoE Model Building Blocks (Continued)

Supply Chain Segmentation



Source: Q FWE Power BI

Contact Us

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