



OPTIMISING FOW CABLE INSTALLATIONS

IN A CONSTRAINED VESSEL MARKET

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TAILORED BACK-DECK CONSULTANCY, EQUIPMENT AND PERSONNEL PACKAGES.

THE FOW VESSEL CHALLENGE

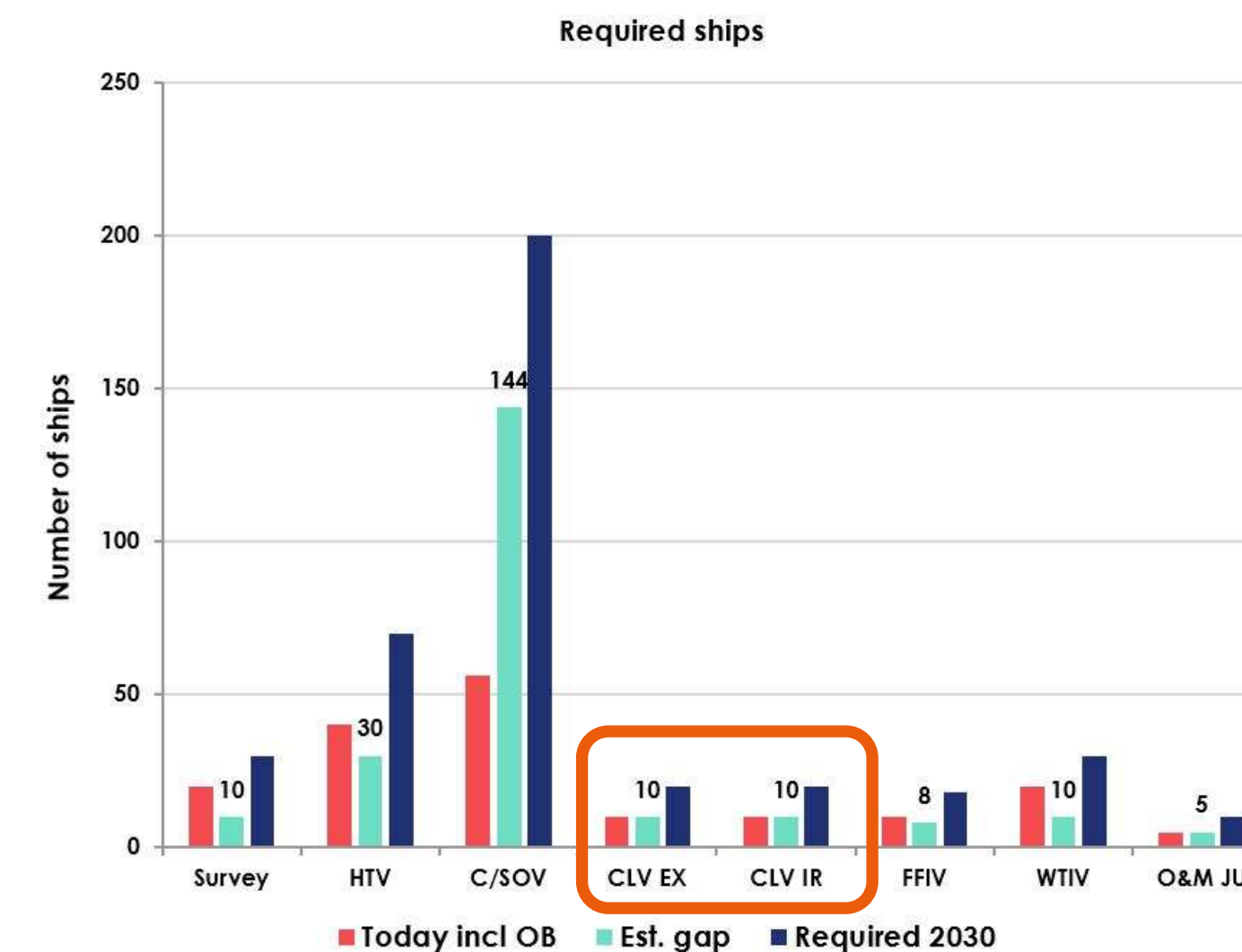
"The coming decade is likely to bring **unprecedented demand** for vessels to service Offshore wind projects.

"With continued dramatic growth of the installed base forecast, **every new wind farm project will require a whole new group of vessels** to look after it over the course of its lifetime. ..."

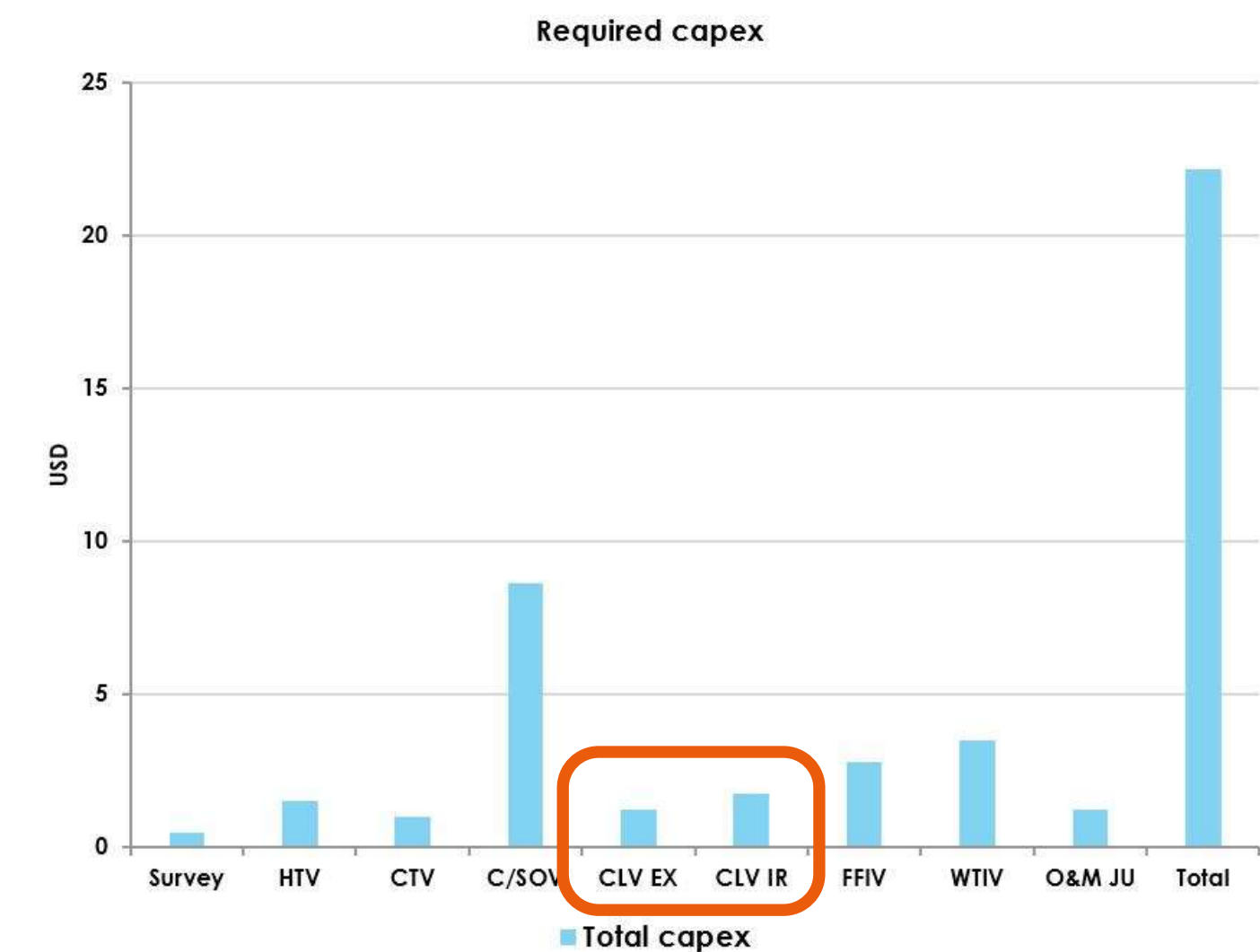
Source: Clarksons

Substantial need for newbuild in offshore wind if all targets are to be met

200 new ships



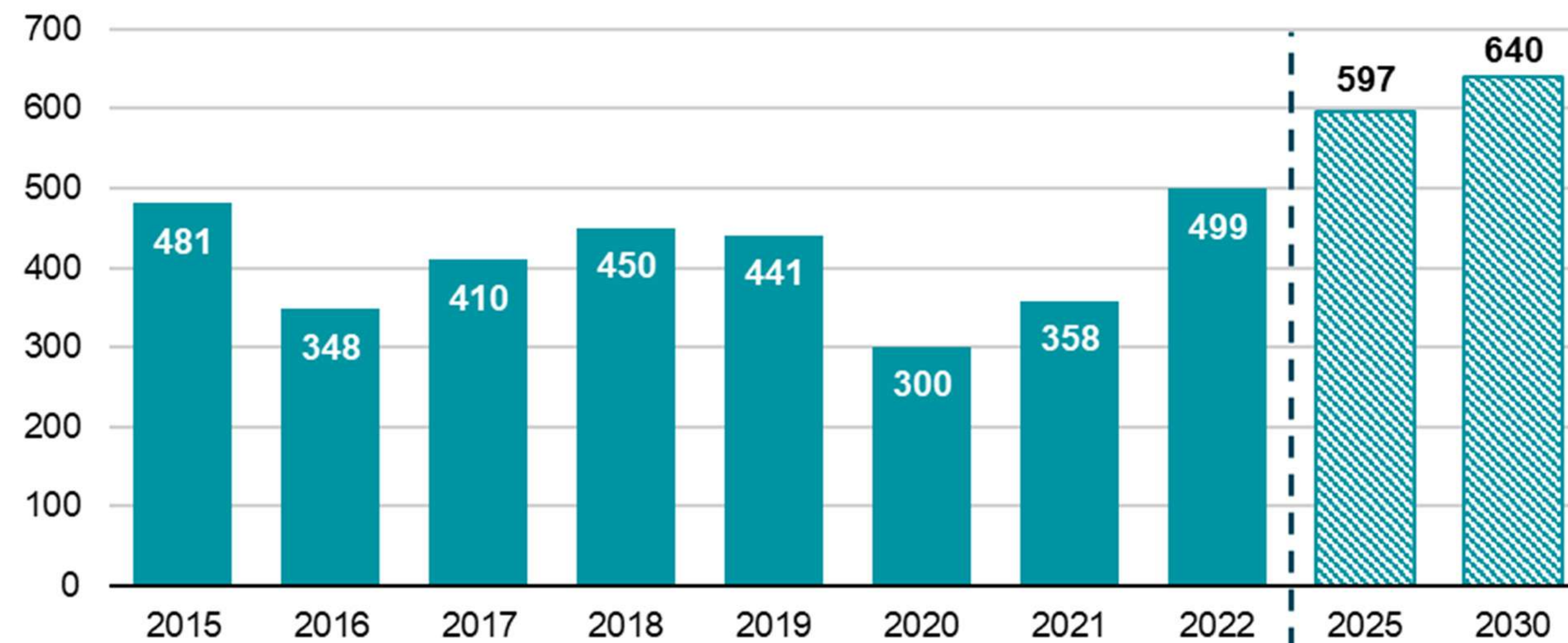
20 USD billion



THE FOW VESSEL CHALLENGE

Global Oil & Gas Upstream Capex

Billion USD (nominal)



Source: IEF, S&P Global Commodity Insights

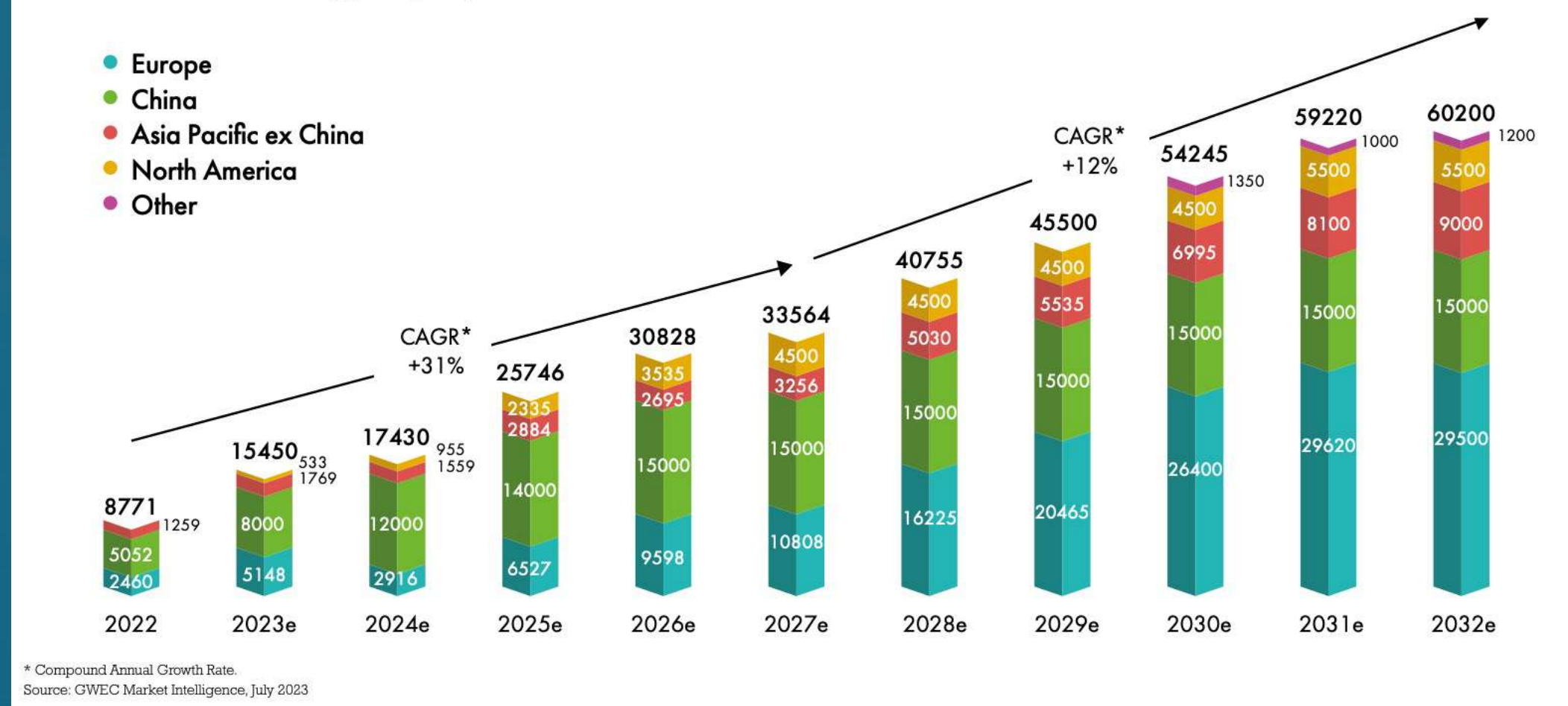
“It is also worth noting at this point that **the recent resurgence of Oil & Gas is drawing vessels away from Offshore wind projects**: vessel owners who decided to utilise their tonnage in Wind following the Oil & Gas price crash in 2014 are now once again using these vessels for their original purpose.”

Source: Clarksons

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THE FOW VESSEL CHALLENGE

New offshore wind installations, global (MW)

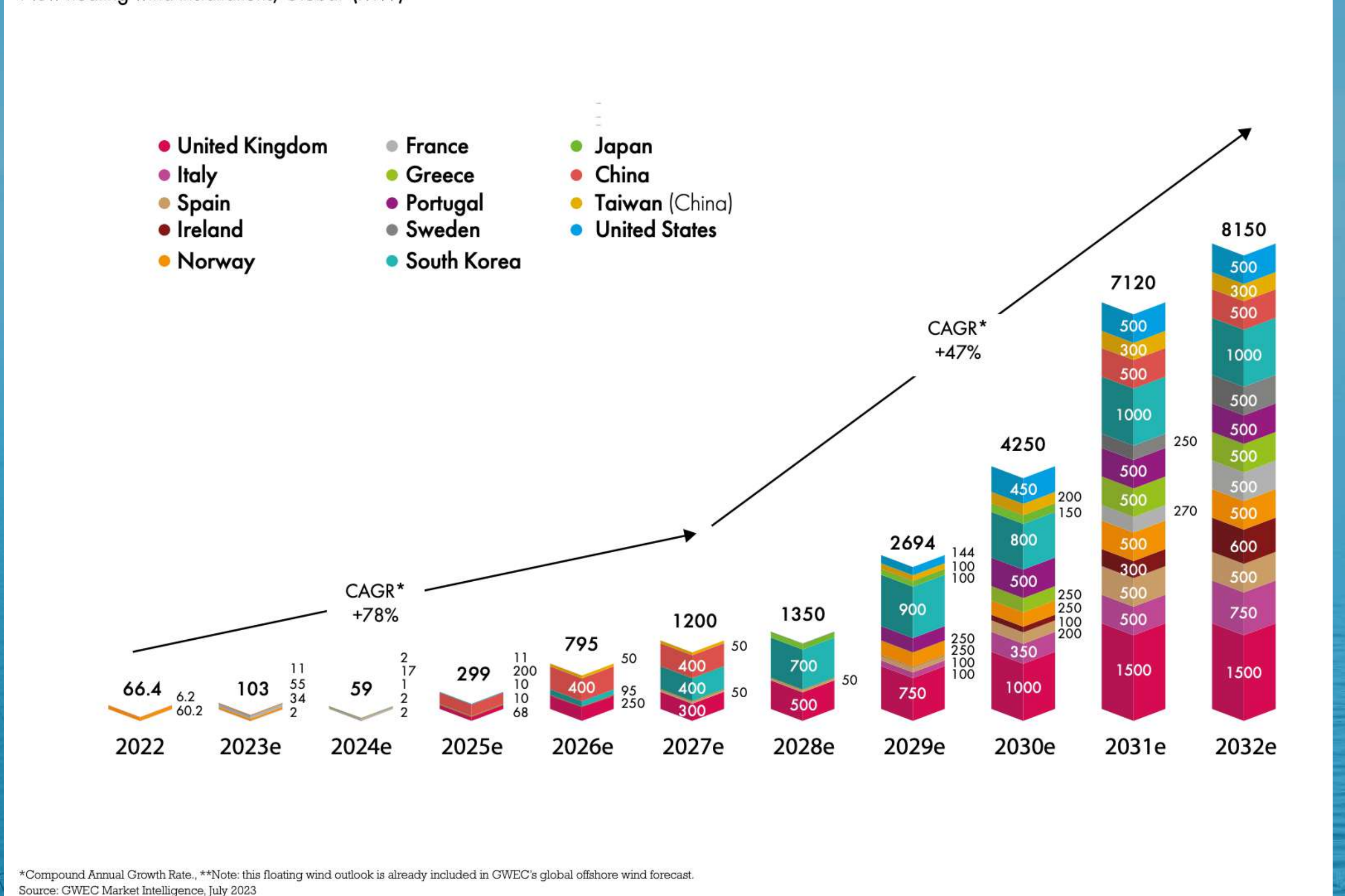


"Demand is swiftly overtaking construction capacity, and a **bottleneck for vessel availability** is forecasted for **as early as 2024**..."

"To add to this issue, the available cable installation fleet is being diluted by the new opportunities opening up globally."

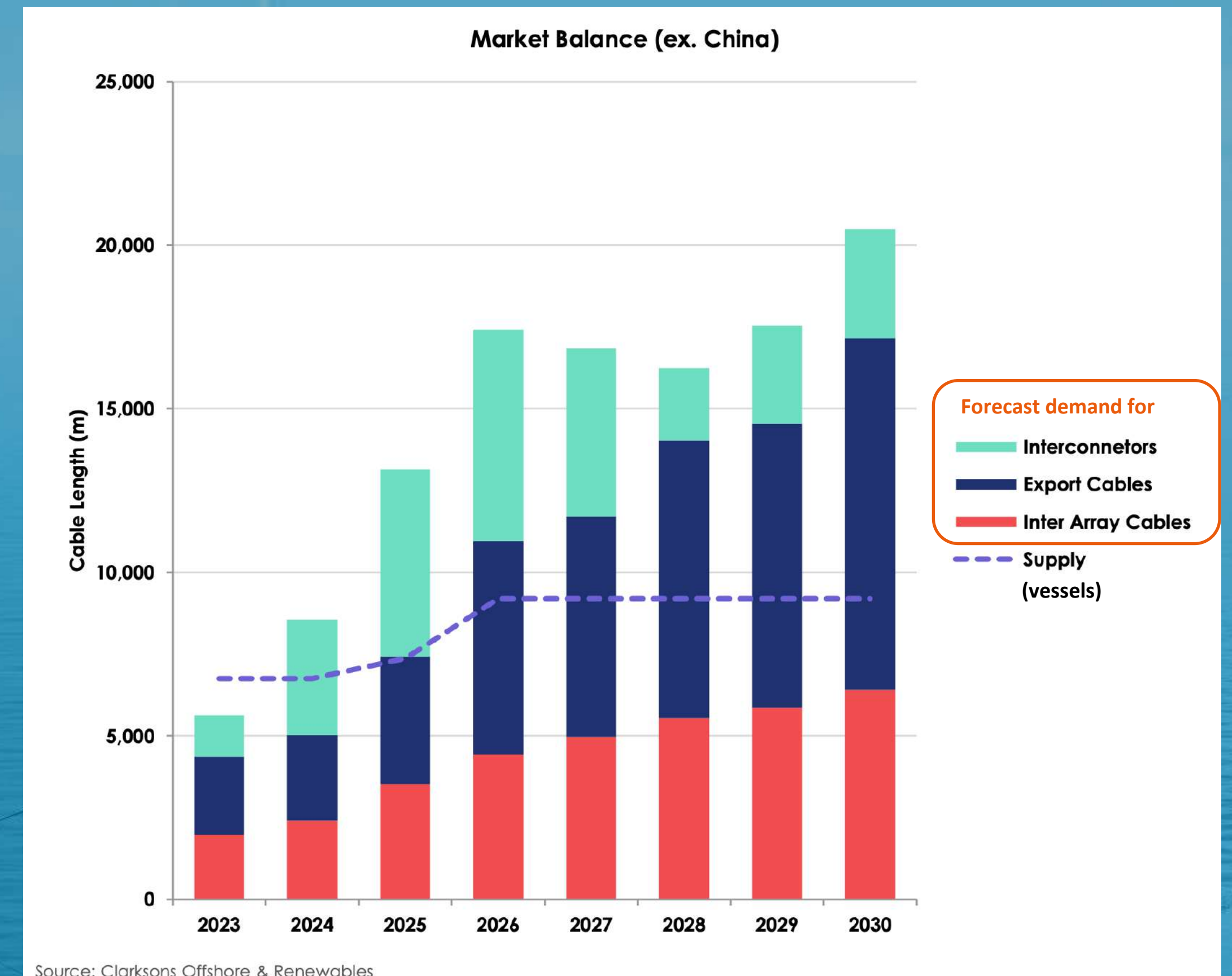
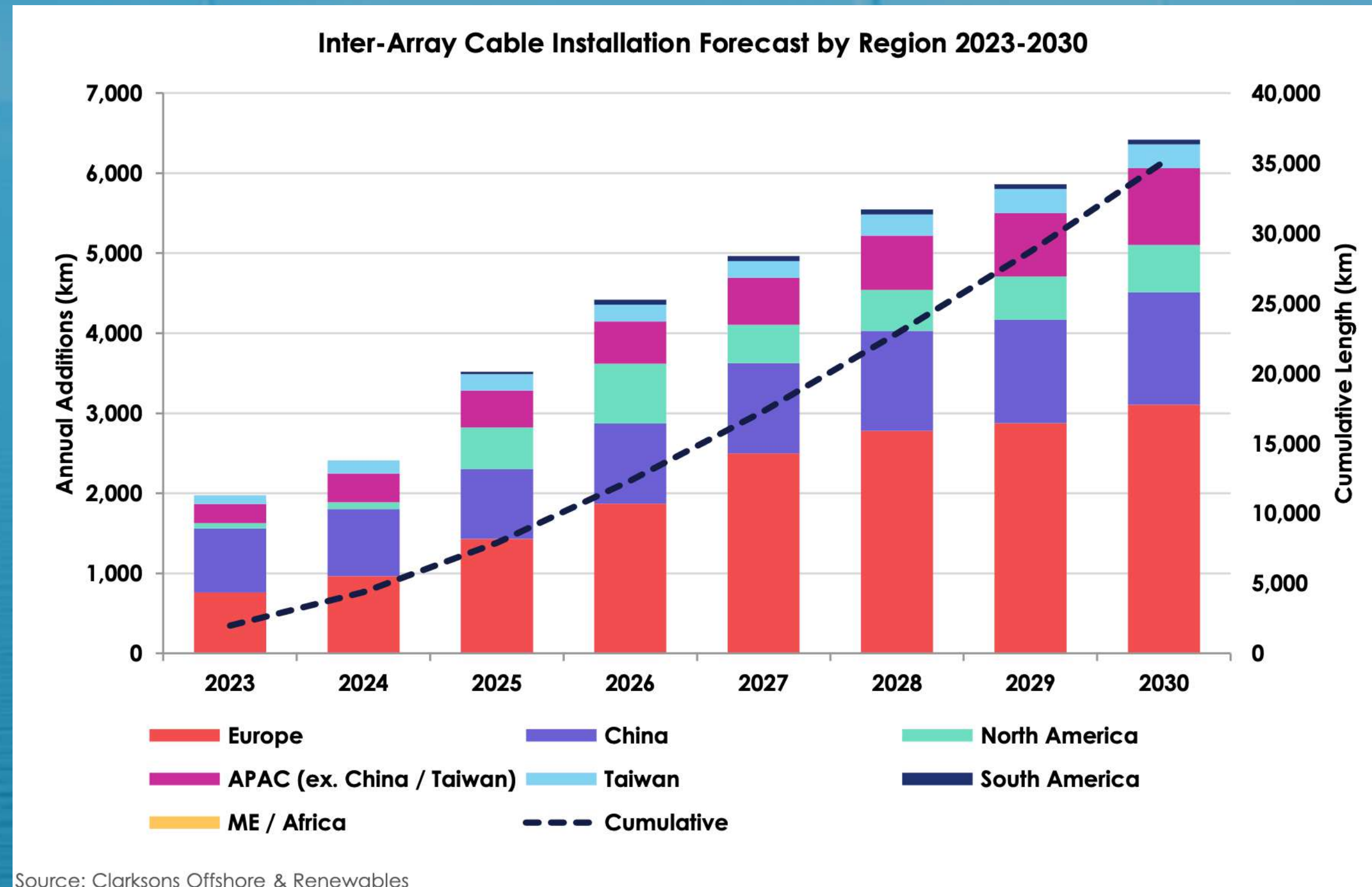
Source: Clarksons

New floating wind installations, Global (MW)**



Source: GWEC Global Offshore Wind Report 2023

THE FOW VESSEL CHALLENGE



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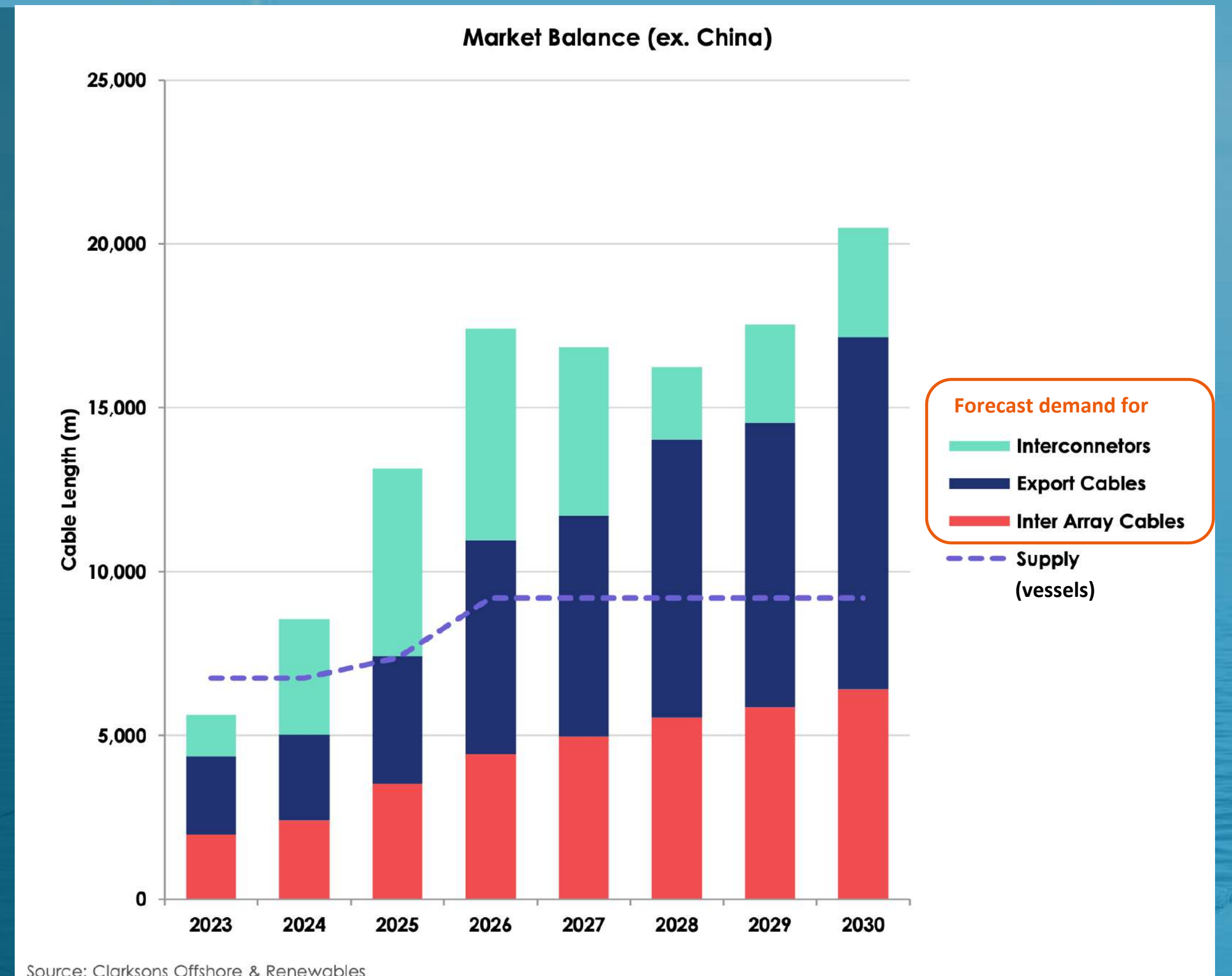
THE FOW VESSEL CHALLENGE

"When accumulating the existing fleets' capacity and taking certain assumptions across the installation fleet, there is an (approximate) potential of around 6,800 km of cable installation per year.

"Adding the two new CLVs [being manufactured] to the assessment increases this number to approximately 7,500 km of cable installation per year.

"As mentioned previously, **2024 will mark the point that the market demand officially outweighs supply.**"

Source: Clarksons



VESSEL AGNOSTIC



Offshore Support
Vessel



Dive Support
Vessel



Multipurpose
Vessel



Pipelay Crane
Vessel



Heavy Lift
Vessel



Derrick Barge

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VESSEL CONVERSIONS



**CONTROL OVER
SCHEDULE + BUDGET**



**USE LOCAL
TONNAGE**



**OPTIMISED HANDLING
+ OPERATION**



**MINIMISED
RISKS**

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VESSEL CONVERSIONS

Reel Drive Systems
3 Generations

Overboarding Chutes
2.7m - 5.5m

Tensioners
6Te - 150Te

Adjustable Deck Deflectors

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VESSEL CONVERSIONS

**Pipelay vessel converted to install
25mm fibre optic cable offshore Mexico**

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VESSEL CONVERSIONS

**Offshore Support Vessel converted to install
144-166mm power cables offshore China**

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VESSEL CONVERSIONS



Survey vessel converted to install
126mm umbilical offshore Holland

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VESSEL CONVERSIONS

Heavy Lift Vessel converted to install polyester mooring rope in the Med, offshore Brazil and in GoM

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TAILORED SOLUTIONS

An aerial view of a ship's deck, likely a cable-laying vessel. The deck is covered with large orange cable reels, some with yellow cable. White metal racks for mooring lines are arranged in rows. Yellow mooring lines are visible running across the deck. The ship's hull is dark red, and the water is dark blue with white foam from the ship's wake.

From packaging up our flexlay fleet to delivering fully bespoke spreads for your cable / mooring lines installation - all to ensure **optimal installation.**

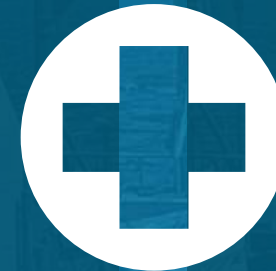
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PROTECTING THE CABLE

Subsea cables make up just 10% of the initial cost of building an offshore wind farm, but account for **75-80% of insurance claims** by the offshore wind industry.

The cost implications of even a single cable failure can be enormous too, taking an average of two months to repair and **often exceeding the £10 million mark in costs and lost power generation.**

The average downtime is 38 days (inter-array cables) and 62 days (export cables) from the recorded failures – **that's millions of £s lost in revenue.**



Source: ORE Catapult - ELECTRODE

Causes of cable failure

- **46% installation**
- 31% manufacturing defects
- 15% faults in cable design
- 8% external damage (caused by e.g., the sea environment)

Most cable failures are down to things that are under our control (and thus fixable): flaws and damage arising during installation, handling by transportation companies and manufacture.

Source: ORE Catapult

PROTECTING THE CABLE WITH MDL



MARKET-LEADING TECHNOLOGY FOR OPTIMAL HANDLING

MODERN EQUIPMENT FEATURING AUTOMATION + SOPHISTICATED SOFTWARE



FAILSAFE SYSTEMS + INTEGRATION

SPREAD PROTECTING THE CABLE THROUGHOUT THE INSTALLATION



PROVEN IN HARSH OFFSHORE CONDITIONS GLOBALLY

STRICT MDL MAINTENANCE PROCEDURE FOR EXTRA PEACE OF MIND



DNV-APPROVED FOR VESSELS OF OPPORTUNITY

SAFE TO DEPLOY ON LOCALLY-AVAILABLE TONNAGE

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QUAYSIDE SUPPORT



QUAYSIDE EXPERTISE



PROJECT MANAGEMENT EXPERTISE IN PORT OPS

(INCL. SERVICES, SCHEDULES, PROCEDURES, CERTIFICATIONS)



JUST-IN-TIME LOGISTICS FOR TRANSPoolING PRODUCT FROM PRODUCTION TO QUAY TO VESSEL



COMPLETE PACKAGES FOR SPOOL BASE UPGRADES

(IMPROVING PRODUCTION + LOAD OUT WITH INTEGRATED TECHNOLOGY)

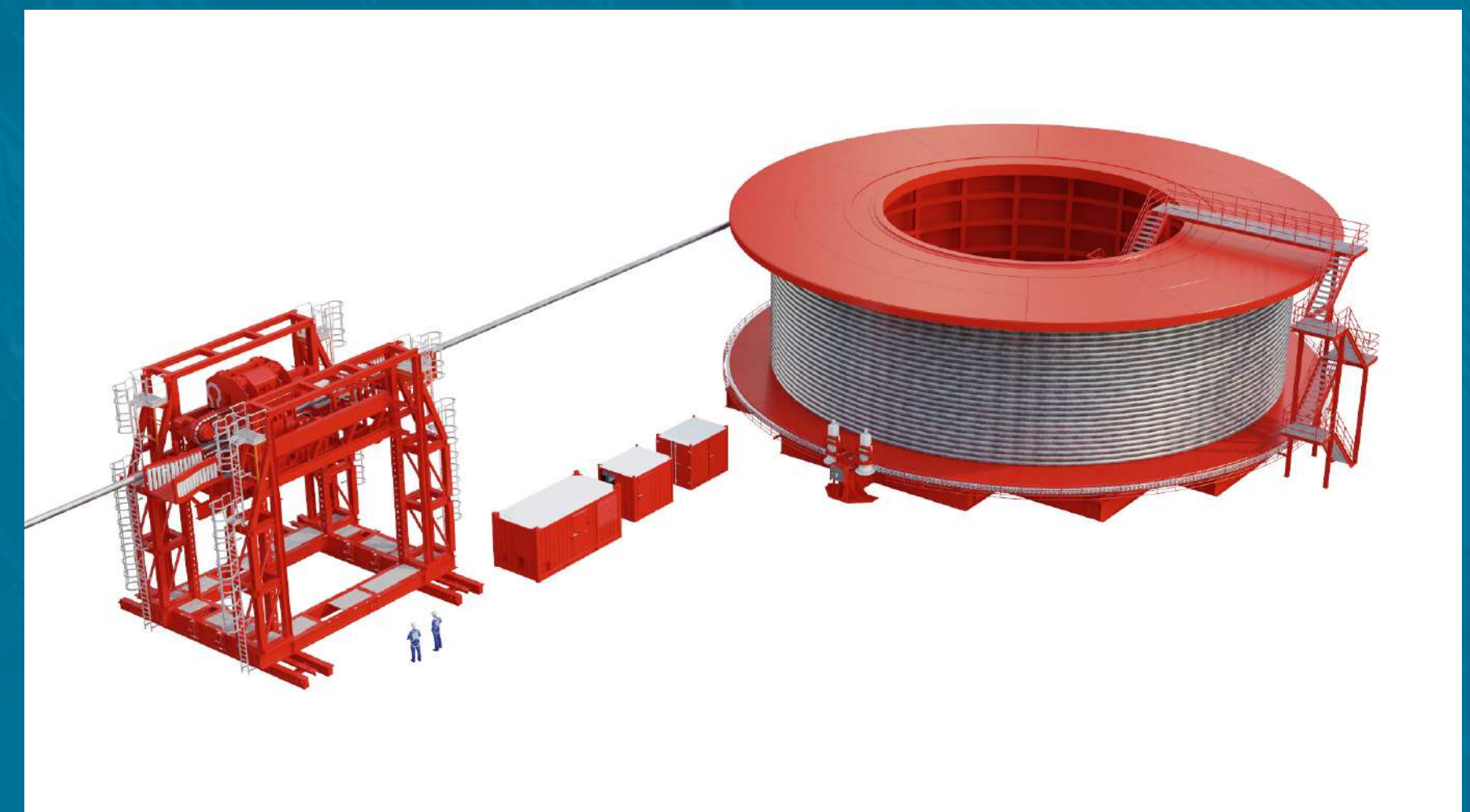


TAILORED STORAGE SOLUTIONS WITH PRESERVATION PLANS

(FROM CAROUSELS FOR LONG LENGTHS TO HIGHLY-PORTABLE REELS)

TAILORED SOLUTIONS

From packaging up our rental fleet to delivering fully bespoke spreads for your cable / mooring line facility - all to ensure **optimal handling under tension** and **most efficient storage**.



TAILORED BACK-DECK CONSULTANCY, EQUIPMENT AND PERSONNEL PACKAGES.

MDL: KEY TECHNICAL PARTNER TO DE-RISK + ENABLE INSTALLATION SOW



**SAFETY - YOUR CABLE /
MOORINGS PROTECTED**



**GREATER FLEXIBILITY ON
EXECUTION SCHEDULE**



**MINIMISING IDLE TIME
+ OPTIMISING DELIVERY**



**MAXIMISING EXISTING
SUPPLY CHAIN +
EXPERTISE**

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TO DE-RISK YOUR FOW PROJECTS **GET IN TOUCH**

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