

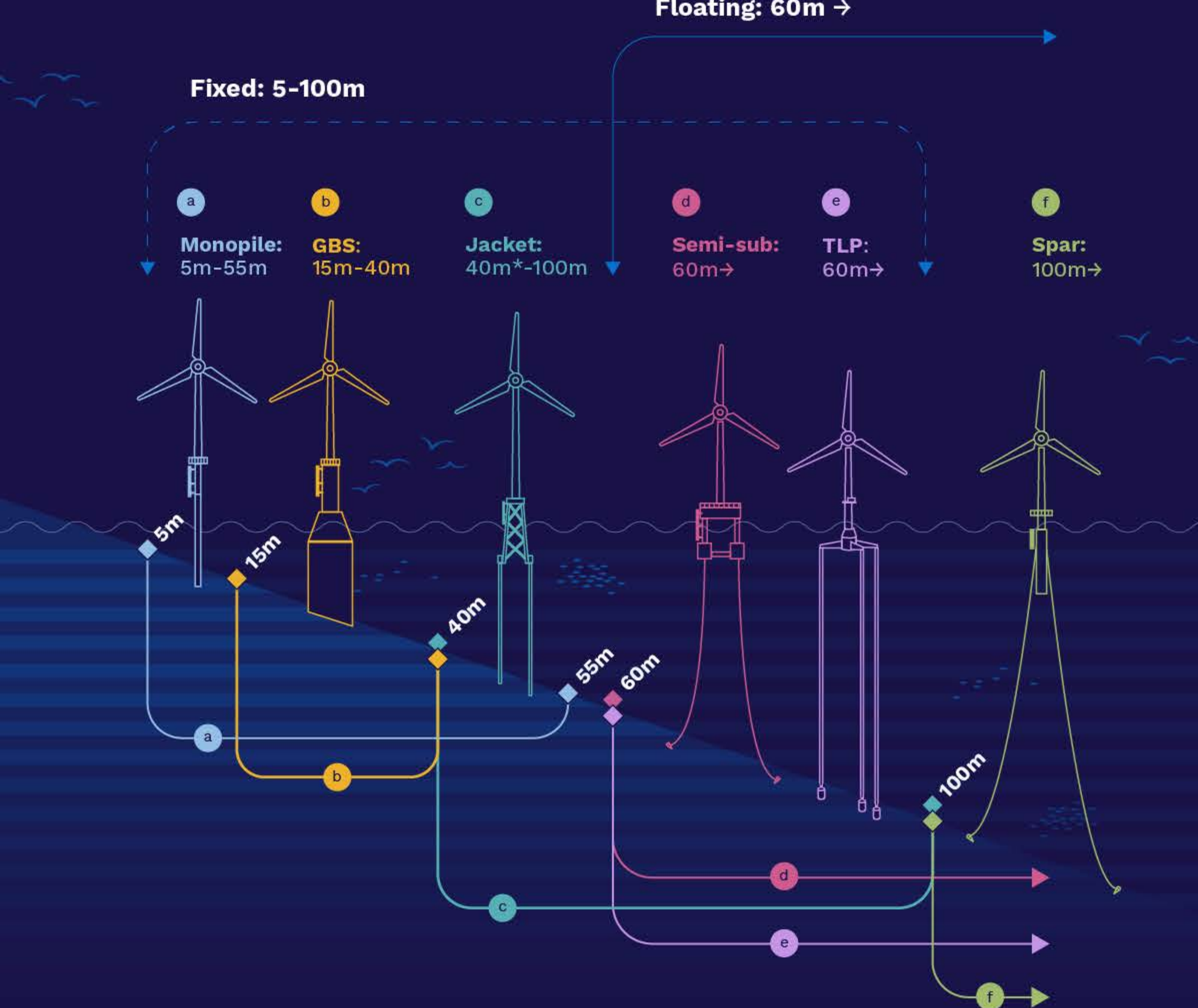


Offshore wind foundations now

In 2023, around 80% of offshore wind turbine foundations are monopiles. However, as the sites for offshore wind become ever deeper, this is likely to change.

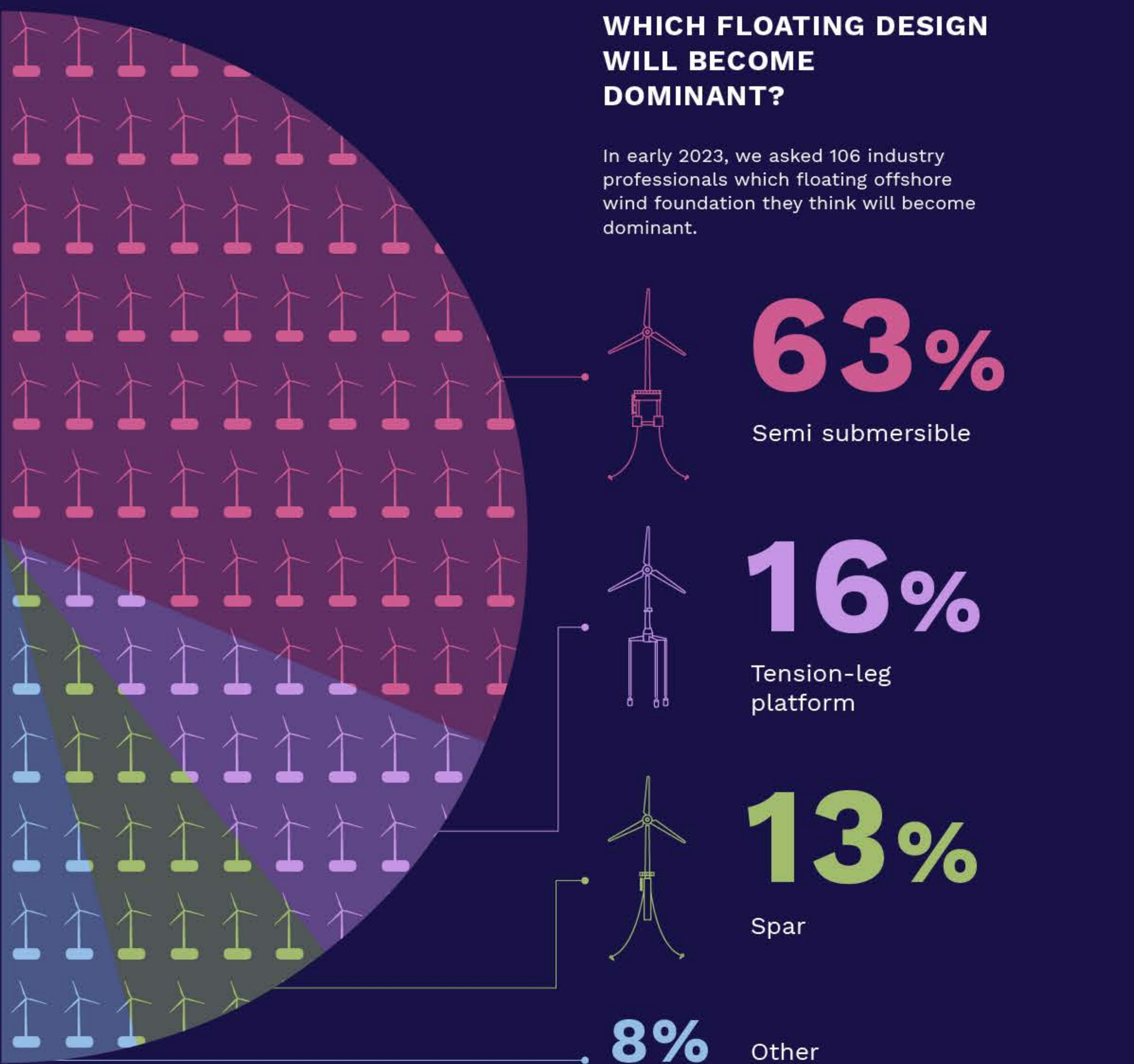
THE FRONTIER BETWEEN FIXED AND FLOATING FOUNDATIONS

When developing an offshore wind farm, selecting the foundation type is one of the most complex decisions a developer has to consider at a very early stage.



WHICH FLOATING DESIGN WILL BECOME DOMINANT?

In early 2023, we asked 106 industry professionals which floating offshore wind foundation they think will become dominant.



A HIGH-LEVEL COMPARISON BETWEEN THE THREE MOST POPULAR FLOATING WIND FOUNDATION TYPES

	SEMI-SUBMERSIBLE	TENSION-LEG PLATFORM	SPAR
STRUCTURE	Complex configuration and large structure	Smaller structure	Simpler configuration, tall and large size hull
STABILITY	Good stability	Good stability but susceptible to high-frequency dynamic loads	Good stability
WATER DEPTH	≥60m	≥60m	≥100m
MOORING	Simple mooring system	Complex tendon system	Simple mooring system
TRANSPORT & INSTALLATION	Tug-towing transport and low cost	Tug-towing transport and low cost	Tall hull makes T&I more challenging, may require HLV, high cost
TURBINE INSTALLATION	Turbine installed dockside	Turbine installed dockside	Turbine installed offshore

