

Europe Can Deliver

Offshore Foundations Are Crucial to Europe's Energy Sovereignty

European offshore wind foundation manufacturers have already invested in delivering Europe's ambitions. To utilize these capacities, the challenge is no longer industrial capability but creating the market conditions that allow this capability to be maintained and fully utilised.

The Offshore Wind Foundations Alliance (OWFA) urges European policymakers, developers, and operators to jointly build the conditions needed to secure Europe's clean energy targets, while ensuring a level playing field across its supply chain.

No resilient offshore wind industry without a healthy foundation sector

Clean tech manufacturing is crucial to Europe's energy future. Energy sovereignty depends not only on Europe's ability to deploy renewable energy, but also on having a resilient industrial base capable of delivering it.

Europe starts from a position of strength. It has built a world-leading offshore wind ecosystem, with the skills, know-how and industrial capacity to both manufacture and deploy best-in-class offshore wind facilities in Europe. As highlighted in the [Draghi report](#) on European competitiveness, maintaining resilient clean-tech supply chains and reducing strategic dependencies will be increasingly important to Europe's competitiveness and energy security.¹

Offshore wind foundations are an essential part of this ecosystem. They are steel structures that anchor offshore wind turbines to the seabed and are required for every offshore wind farm. Resilience cannot be achieved by looking at clean technologies in isolation.

A competitive and resilient offshore wind sector depends on the structural integrity of its entire supply chain. Without foundations, offshore wind turbines cannot be installed, regardless of how many turbines are available. Foundations are the industrial groundwork upon which Europe's energy security rests.

Europe has the capabilities and has invested to scale

European offshore wind manufacturers already possess the industrial foundation capacity to meet and exceed the national deployment targets.

Europe's offshore foundation industry has invested significantly to prepare for the expected growth of offshore wind. Foundations are capital-intensive industrial products: manufacturing requires specialised heavy equipment, deep-water access, large production and storage areas, skilled workers and long investment lead times. As a result, new production capacity cannot be created quickly when demand

¹ The Draghi report: A competitiveness strategy for Europe, published 9 September 2024, pp. 46–47.

suddenly increases. European manufacturers therefore need to invest well to ensure state-of-the-art production facilities.

The sector has responded to growing demand and to meet the EU Green Deal ambitions.² OWFA members have invested 1.5bn EUR across Europe to expand and modernise existing facilities, increase capacity and prepare for the larger and more demanding foundations required by the next generation of offshore wind projects. These investments represent a long-term commitment to European offshore wind to support a highly specialised European industrial workforce and manufacturing base.

Now, the key challenge to fully utilize these investments and capabilities is a lack of visibility over future projects and the unlevel playing field.

Maximising facility utilization is essential to maintaining cost competitiveness. Predictable high-volume production schedules enable more efficient manufacturing, support skilled jobs and reduce production costs – directly lowering foundations costs. Conversely, a 'stop-start' auction and permitting cycle inflates unit costs, strains supply chains, and heightens execution risk for developers and grid operators alike.

11,000+ monopiles, jackets and transition pieces produced by OWFA members

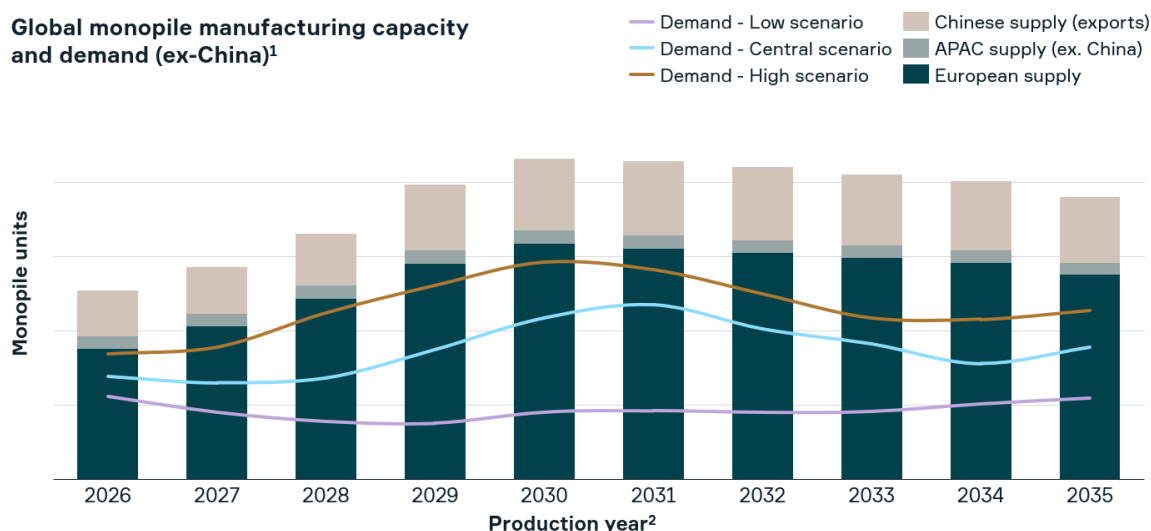
1.5bn EUR invested into the European economy in the past three years

10,000 highly specialised workers across Netherlands, Germany, Spain, Denmark and Belgium

These past and current investments have contributed to a strong monopile supply base. Aegir Insights' Q2 2026 analysis finds that announced monopile manufacturing capacity serving markets outside China exceeds forecast demand in every scenario through 2035. The analysis indicates that the immediate market risk lies in supplier utilisation rather than developers' access to monopiles. European manufacturing capacity has consistently represented the largest share of this supply base, averaging around 70% of announced capacity across the 2026–2035 forecast period.

² During January 2026 North Sea Summit in Hamburg, nine North Seas governments [committed](#) to build up to 100 GW of cross-border offshore wind capacity in the North Seas region and confirmed the wider goal of 300 GW of offshore wind by 2050. They also endorsed a plan to install 15 GW of offshore wind annually from 2031 to 2040. This adds to EU Member States [ambition](#) to reach 88 GW of offshore renewable generation capacity by 2030, rising to around 360 GW by 2050.

Global monopile manufacturing capacity and demand (ex-China)¹



Sources: Supplier announcements, Aegir Insights analysis

Notes: 1) All demand and supply scenarios in the visuals above are based on a flat turbine rating of 15 MW. 2) Monopiles produced in year t are assumed to reach COD in year t+2, reflecting typical manufacturing, logistics, installation, and commissioning timelines for offshore wind projects.

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Europe's position is facing increasing pressure

Europe's ability to continue manufacturing the foundations for its own offshore wind ambitions cannot be taken for granted. The sector is facing increasing pressure from two directions: too few projects that are ready to move ahead and attract investment and an uneven global playing field.

The challenge is not a lack of ambition by national governments. Europe has set significant offshore wind targets, and manufacturers have invested in anticipation of this growth.³ Yet the number of projects reaching final investment and construction stages has not developed at the same pace. Delays, changing project timelines and stop-start deployment leave European facilities under utilised today, even as manufacturers are expected to continue investing for tomorrow's ambitions.

Simultaneously, European producers face mounting competition from non-EU state-backed suppliers operating under vastly different environmental, social, and financial frameworks. Until 2020, practically no non-European foundations were installed in European offshore developments. Since 2023, new manufacturers from third countries have entered the European market at a concerning rate. Their principal competitive advantage appears to be cost-based rather than technological: they can source or import steel at significantly lower prices because it is produced under regulatory conditions that do not impose equivalent EU carbon, environmental, labour and traceability requirements. This advantage may be further reinforced by state support and preferential financing, creating an uneven playing field and creating new dependencies.

While short-term procurement cost savings may appear attractive, Europe must also consider the long-term consequences. Once manufacturing capacity, specialist skills and industrial know-how are lost, rebuilding them is costly and slow. Recent geopolitical developments have demonstrated the risks of

³ See previous note.

excessive strategic dependencies. Offshore wind should take those lessons and do not become dependent on another crucial clean tech sector.

Europe has the capabilities. Now the conditions are needed to preserve these.

Strengthening a resilient, sustainable and cost-competitive European offshore foundation supply chain will require coordinated action by European institutions, national governments, wind farm developers and industry players. The following outcomes should be pursued jointly:

- **Establish a continuous and predictable offshore-wind delivery pipeline.** The EU national governments must align auction, permitting, and grid-delivery schedules into unified, multi-year deployment calendars. Standardized processes and predictable volumes will give manufacturers the confidence to invest, retain skilled workers and lower costs.
- **Guarantee a level global playing field and enforce trade safeguards:** Foundations are crucial for Europe's energy sovereignty, and European manufacturers must be able to compete on equal terms. Procurement and policy frameworks must address market distortions caused by foreign state subsidies and unequal environmental and social standards. Monopiles and heavy foundation components should be explicitly aligned with robust anti-circumvention mechanisms adopted at the EU level to safeguard fair competition, **including granting access to the EU steel measures.**
- **Mandate resilience and sustainability criteria in procurement:** Price should remain important, but procurement decisions should also recognise supply security, sustainability and long-term economic value. Sourcing decisions made today define the industrial ecosystem of tomorrow. Procurement frameworks and national auctions must move beyond purely price-driven awards by incorporating mandatory non-price criteria under the Net-Zero Industry Act (NZIA) and the Industrial Accelerator Act (IAA)– including European supply security, lifecycle carbon reduction, high social standards, and long-term value creation.

Europe has the ambition, capabilities and industrial base to manufacture offshore wind foundations at scale. The choice now is whether we create the conditions that allow this ecosystem to remain competitive, unlock further costs reductions and deliver offshore wind at scale.

Europe can deliver. Let's build the regulatory and policy conditions together to ensure Europe continues to lead.

ANNEX

About the Offshore Wind Foundations Alliance

[OWFA](#) is a coalition of seven European companies producing offshore wind foundations: CS Wind Offshore, EEW Special Pipe Constructions GmbH, Sif Netherlands BV, Smulders Projects, Haizea Wind Group, Windar Renovables and Steelwind Nordenham GmbH. OWFA members have produced more than 11,000 monopiles, jackets and transition pieces and are a critical part of the European offshore wind sector.

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Meet the Offshore Wind Foundations Alliance (OWFA) at foundation sector WindEnergy Hamburg on Wednesday 23 September 2026 at 16:00 CET at the Sif booth B4.EG.105.

References

1. **Global Wind Energy Council (GWEC)**, [Global Offshore Wind Report 2026](#), published 9 June 2026, particularly the Europe chapter provided by WindEurope, pp. 62–63.
2. **Wind Made in Europe Alliance**, Wind Made in Europe: A tailored wind approach for European competitiveness, working draft received August 2026. (shared on request)