Linked by Offshore Wind

Netherlands

WIND INDUSTRY HUB

CEE Energy Group

Partners in Offshore Wind

A study of Dutch–Polish industrial cooperation

November 2025

Title:
Partners in Offshore Wind – 2025 Edition
Published: November 2025

Published by:
LinkedbyOffshoreWind
The Wind Industry Hub
CEE Energy Group

Editors and authors:
LinkedbyOffshoreWind, The Wind Industry Hub, CEE Energy Group.

Resource & Insight Contributors:
The Netherlands Enterprise Agency (RVO) the Netherlands Embassy in Warsaw.

Publication type: Annual market report on local content and collaboration
in the offshore wind industry.

TABLE OF CONTENT

Introduction

This report 'Partners in Offshore Wind' looks at how Dutch and Polish companies work together in developing offshore wind. It highlights where cooperation is already taking place and points at how future partnerships can develop or grow stronger.

The Dutch side has a long-standing track record in offshore-wind development. The close cooperation between government, knowledge institutes, and industry has existed for many years, but it is in the past two decades that this partnership has really taken shape around offshore wind. Since then, the Netherlands has built a strong and coordinated ecosystem that sets international standards for planning, tendering, and innovation at sea. What began with the early Borssele and Hollandse Kust projects has grown into a mature 21-GW roadmap that connects technology, ecology, and system integration.

At the same time, this experience is taking new shape in Poland, where offshore wind is rapidly emerging as one of Europe's most promising new markets. International companies are expanding their cooperation with Polish players—from manufacturing, engineering, and logistics—and we see a clear shift in approach. The narrative is evolving from short-term contracts to long-term industrial partnerships. Both sides recognise that success depends on larger participation and shared standards, not just on single projects.

As companies on both sides aim to accelerate the growth of offshore wind in Poland, they may consider and implement the actions and considerations outlined at the end of this report. These recommendations are based on research conducted among the Dutch offshore-wind supply chain for this report and reflect direct feedback from Dutch industry partners. The insights presented here come from the companies themselves—from those active in project development, logistics, engineering, and operations—highlighting what they see as the key steps to make cooperation stronger and more effective.

The message from the industry is clear: simplify procedures, increase transparency, strengthen certification and competences alignment, and build lasting dialogue and trust between businesses.

This document represents the first joint study, initiated by the LinkedbyOffshoreWind cluster, in cooperation with Wind Industry Hub and CEE Energy Group. It serves as an informed starting point for the next stage of information sharing between Dutch and Polish partners. One year from now, we will revisit these findings and measure progress in the main areas for opportunities and cooperation. For now, we invite all readers—companies, clusters, and institutions—to cooperate actively on this shared agenda and turn opportunity into lasting partnership.

CHAPTER 1:

Offshore Wind in the Netherlands: From Vision to Reality

The Dutch offshore wind success story is closely linked to the country's lengthy history at sea. The Netherlands has been characterized by its expertise in offshore logistics, hydrodynamics, and maritime engineering for centuries. This extensive historical experience in dredging, shipbuilding (e.g., Damen, IHC), and heavy marine contracting (e.g., Van Oord, Boskalis) established the vital framework—the specialized ships, ports, and trained workforce—that made it possible for its offshore wind industry to subsequently industrialize quickly.

1.1 The Turning Point of 2013

The Dutch government took a bold step in 2013 that altered the country's energy policy forever. Government, industry, environmental organizations, trade unions, and industry organizations have united under the Energy Agreement for Sustainable Growth (Energieakkoord) to achieve a single objective: the expansion of renewable energy. Before the Agreement, the Netherlands had about 1,000 MW of operational or developed power.

The Agreement set up the long-term, stable policy framework needed for large-scale deployment. Within the framework of the model, the state assumed responsibility for spatial planning, site investigations, and grid connections, thereby relieving developers of the responsibility of early-stage risk. The Offshore Wind Energy Act (2015) and the first Offshore Wind Energy Roadmap[1] established clear rules for tendering and permitting. Looking at the market developments the Dutch Government presented on 16 September 2025 the Dutch Government presented the Offshore Wind Energy Action Plan. This includes measures to financially support the development of new wind farms. The plan also provides solutions to further stimulate demand for offshore wind energy.[2]

One stop shop approach

In 2015, the Dutch government implemented a highly structured, legislative framework for capacity expansion, which mandates a rise to 4,450 MW by 2023. This paradigm was groundbreaking in how it reduced risk by doing the following:

Government Pre-Investment: The state takes on the risk and cost of important preliminary work, including as detailed site characterization, environmental impact assesments, and, most importantly, TenneT's provision of standardized grid connections.

The 40% Cost Reduction Goal: Developers were given a tough requirement: they had to cut costs by 40% between 2015 and 2019. This led to forced industrialization, standardization, and competitiveness in the supply chain, which in turn led to the first-ever zero-subsidy bids in the Hollandse Kust Zuid tenders. This change made the Netherlands a leader in cost-effective offshore wind projects around the world.

[1] The Offshore Wind Energy Act (2015)
https://english.rvo.nl/sites/default/files/202510/Offshore_Wind_Energy_Roadmap-v30_october_2025-ENG.pdf

[2] https://english.rvo.nl/sites/default/files/2025-09/Offshore-Wind-Energy-Action-Plan-Letter-to-Parliament.pdf

This approach worked well. The first bids for the Borssele I–IV sites in 2016 and 2017 started a revolution in lowering costs. In just two years, prices dropped by more than 40%. The Dutch model demonstrated that private investment could be unlocked at scale through transparent procurement and coordinated planning.

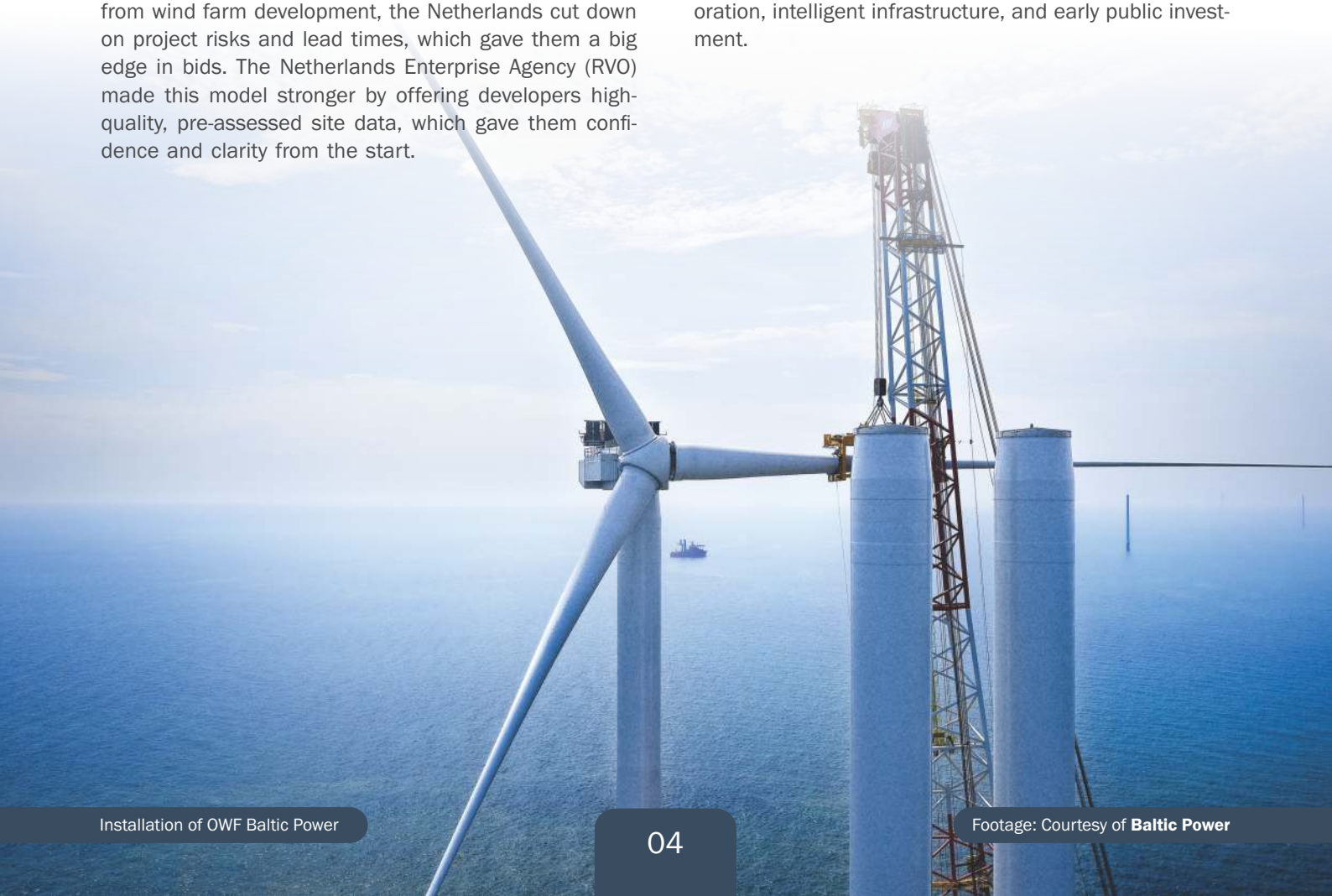
The Dutch market also experienced the growth of specialized service providers and the infrastructure that supports them. Eemshaven and other ports became important places for moving goods during both the construction and the Operations & Maintenance (O&M) phases. Key players, including Van Oord, Boskalis, and foundation specialists IQIP, HSM Offshore Energy, and Corrosion, capitalized on this stable environment to enhance their proficiency in intricate offshore logistics, noise mitigation technology (e.g., IQIP's systems), and protection solutions that prevent material degradation and extend asset life (as developed by Corrosion). These improvements made the Dutch marine sector even more well-known as a world-class offshore wind enabler. At the same time, specialized subsea service companies like Bluestream and N-Sea improved their sophisticated inspection and maintenance skills, making the Netherlands' integrated offshore supply chain even stronger.

1.2 Roadmap 2023: Keeping the Promise

The 2013 roadmap's implementation resulted to the successful building of wind energy areas like Borssele and Hollandse Kust Zuid (HKZ), all of which were finished on time or ahead of schedule. The Netherlands also held the world's first subsidy-free offshore wind tender for Hollandse Kust Zuid in 2018. This showed that mature technology could compete on the open market.

The standardized, publicly sponsored offshore infrastructure that TenneT built is a key part of the Dutch offshore wind success story. By keeping grid building separate from wind farm development, the Netherlands cut down on project risks and lead times, which gave them a big edge in bids. The Netherlands Enterprise Agency (RVO) made this model stronger by offering developers high-quality, pre-assessed site data, which gave them confidence and clarity from the start.

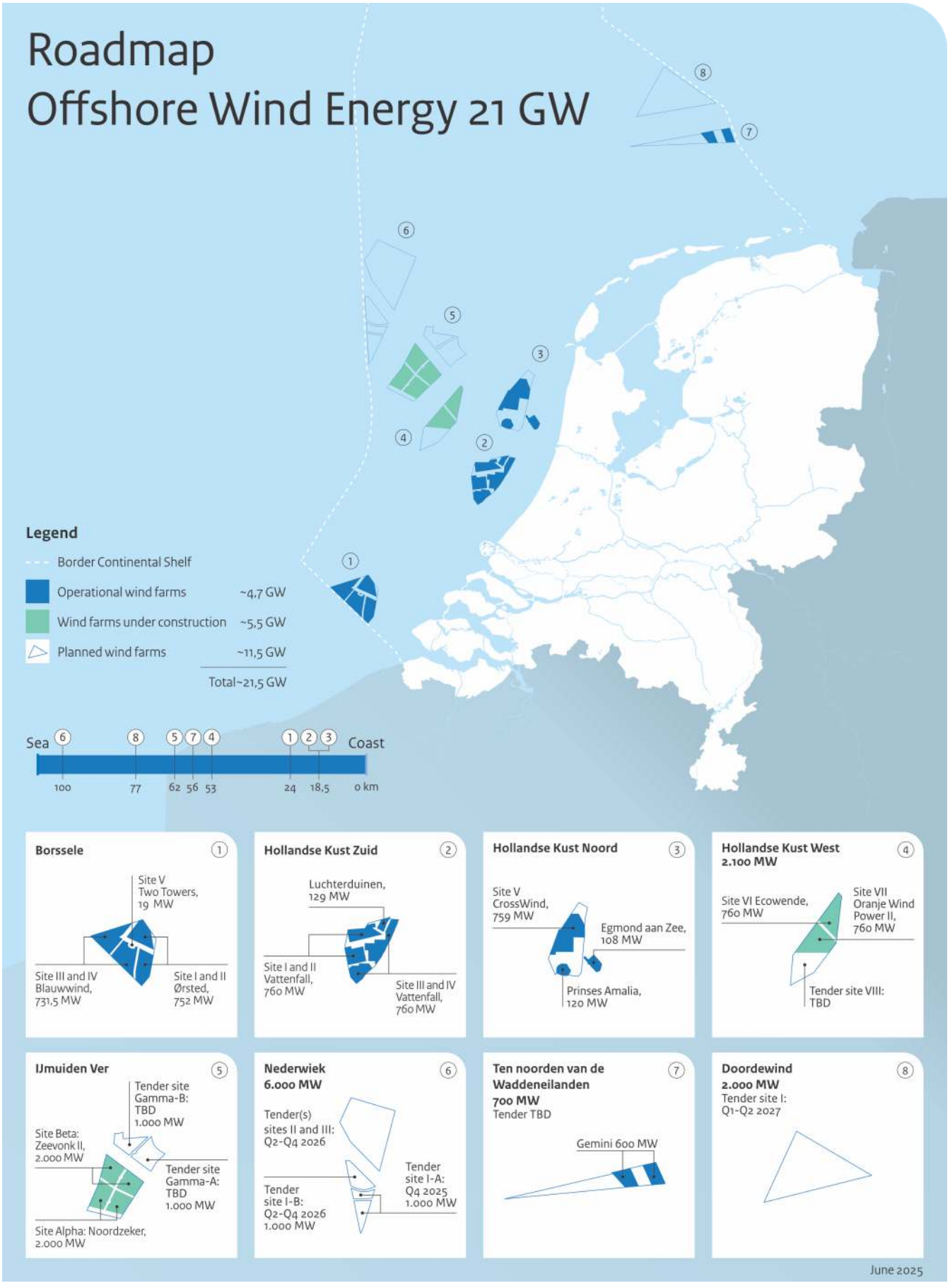
Dutch companies built an integrated supply chain around this foundation that promotes efficiency and innovation. For example, SeaZip Offshore Service added more crew-transfer ships to its fleet for reliable offshore logistics; OutSmart created advanced digital monitoring and O&M management platforms; Broekman Logistics built specialized wind-component terminals; and Clarksons helped with project brokerage and vessel chartering. Collectively, these companies are illustrative of how the Netherlands has become a global benchmark in the development of offshore wind energy through the combination of collaboration, intelligent infrastructure, and early public investment.



Installation of OWF Baltic Power

Footage: Courtesy of **Baltic Power**

WIND OP ZEE MAP



Investment in infrastructure and the workforce

The expansion needs a lot of money to be spent on strengthening the onshore infrastructure, building new port facilities, and getting specialized ships and qualified workers. Focused Human Capital efforts, such those run by DOB-Academy and ROC Friese Poort, help keep this demand going. You can read more about them in the full collaboration matrix in this study. Also, specialized recruitment and staffing companies like iPS Powerful People, RelyOn, and TOS is very important for satisfying the needs of the workforce.

The Dutch government's Offshore Wind Roadmap 2030–2032 establishes a target of approximately 21 GW by 2032, which would satisfy more than 75% of the country's current electricity demand and solidify its status as a clean-energy exporter in northwest Europe, building on its previous success. This next phase is driven by new development zones including Hollandse Kust West, IJmuiden Ver, Doordewind, and Ten Noorden van de Waddeneilanden. These areas will focus on system integration, hydrogen, and nature-inclusive innovation.

Recent tenders are giving more points for improvements in grid stability, biodiversity, and circular building(more information on non-price criteria in the Netherlands in the chapter: NON-PRICE FACTORS THE MOTIVATION FOR MORE VALUE). Com-panies in the Dutch value chain are all adapting at the same time. For example, Flux Partners helps groups come up with non-price bid strategies that maximize social and environmental value; Ventolines oversees complicated projects from approval to start-up; Damen Shipyards ships out to other countries as hybrid service-operation vessels; ECHT Regie in Transitie helps developers with energy-transition strategies and ESG reporting; and FØN Energy Services grows into markets that combine installation and maintenance.

National ports are also getting bigger to keep ahead. For example, Eemshaven and Vlissingen are adding heavy-lift quays, while Rotterdam is building hydrogen import and conversion hubs that connect offshore generating directly to industry. These changes highlight how the Dutch offshore wind industry is still combining technology, sustainability, and teamwork in its newest projects.

1.3 The Dutch Response to Current Market Realities

A new phase of complexity has emerged in the global offshore-wind market. Europe's project economics have been hampered by rising interest rates, inflation, and problems in the supply chain. Several governments have put off or changed their tenders to take these new facts into account. Nevertheless, the Netherlands has opted for stability through innovation. The government doesn't back down from its plans; instead, it keeps regular contract dates and encourages consortia to compete on quality, integration, and resilience, not just price.

Some important parts of the policy are:

- Continued state-funded site assessments and studies of the environment.
- The consistent application of non-price criteria in tenders.
- Early planning with TenneT to make sure the grid is ready.
- Invest-NL and export-credit support help make new funding tools easier to use.
- **Invest International** – supports Dutch companies and partner governments abroad with international financing solutions.
- **Atradius** – provides export credit insurance and guarantees on behalf of the Dutch State, helping to reduce financial risks and facilitate international trade and project investments.

Even though the industry has had some challenges lately, the Dutch offshore wind sector continues to work as a coordinated ecosystem. This is because of clear governmental policy, a strong industrial basis, and a culture of working together that keeps innovation going even when markets get tight. The Dutch government started an Offshore Wind Energy Action Plan to stop things from becoming stuck because of rising costs and inflation.

The Plan:

Short-Term Stability: The Dutch government has set up a temporary subsidy pool of €1 billion for 2 GW in offshore wind tenders in 2026 and changed the rules for auctions to limit liability and delay tenders, which made it less risky for developers.

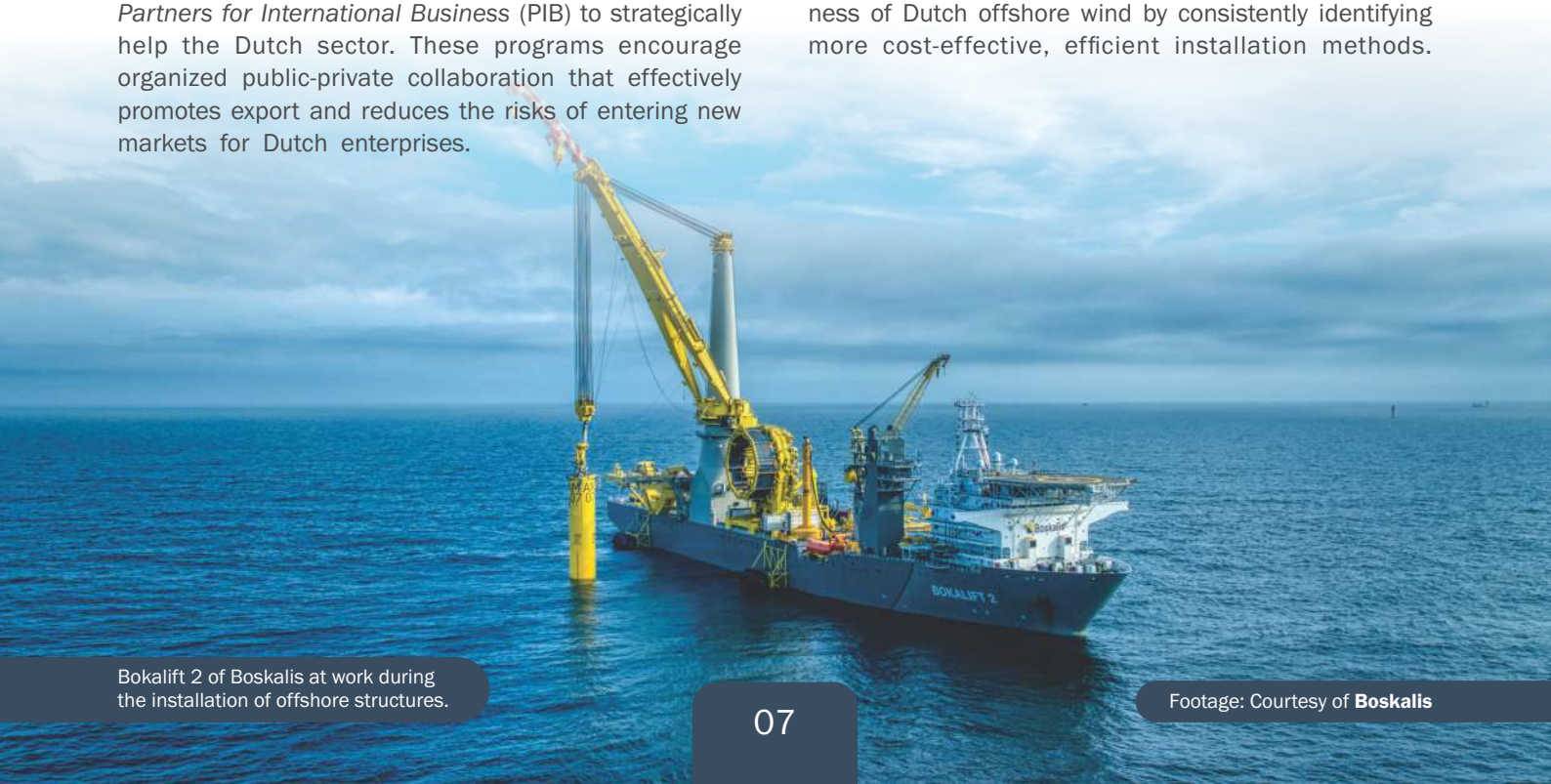
Long-Term Change: The Dutch government are working on a law to replace the previous "negative bidding" paradigm with Contracts for Difference (CfDs), which will guarantee project revenue starting in 2027. Measures to expedite electricity demand are also incorporated into the strategy to ensure the long-term viability of the business.

The lack of bids for the Nederwiek I-A tender demonstrated that zero-subsidy tender models are no longer viable under current market and cost conditions. Rising costs and tighter financial markets have made projects less attractive without revenue certainty. As a result, the Dutch government's planned shift toward CfD-based support is seen as a necessary correction. While this may slow near-term capacity rollout, it will create a more sustainable framework for developers and financiers, ensuring offshore wind expansion remains on track toward 2030 and beyond.

1.4 The Netherlands Cooperation Matrix

The Netherlands has been successful in offshore wind because the public and commercial sectors work together successfully and the government is strongly committed to innovation and exports. The Netherlands Enterprise Agency (RVO) regularly helps people keep this promise by giving them particular tools. RVO uses programs like *the Partners for International Business* (PIB) to strategically help the Dutch sector. These programs encourage organized public-private collaboration that effectively promotes export and reduces the risks of entering new markets for Dutch enterprises.

The Dutch way brings the government, businesses, and research organizations (like GROW and TU Delft) together to work toward one clear R&D goal. This makes big investments in new technology and innovation less risky right away. The Netherlands was able to reduce project costs and contribute to the global competitiveness of Dutch offshore wind by consistently identifying more cost-effective, efficient installation methods.



Bokalift 2 of Boskalis at work during the installation of offshore structures.

Footage: Courtesy of **Boskalis**

Category	Organisation(s)	Role/Focus	Type of Collaboration
Policy & Funding	Ministry of EZK, RVO, TKI Wind op Zee, Rijkswaterstaat	Policy design, subsidy schemes, environmental regulation	National public sector
R&D	GROW, Topsector Energie	Knowledge transfer between academia, industry and goverment	Public-private consortia
Academia	TU Delft, MARIN, Deltares, TNO, Hanzehogeschoo l, NHL Stenden	Research, testing, field labs	Research-industry collaboration
Industry & Developers	Shell, Vattenfall, Eneco, RWE, Ørsted, Van Oord, Boskalis, TenneT	Offshore wind construction, system integration, grid solutions	Industrial cooperation
Cross-sector & Clusters	NedZero, NMT-IRO, LinkedbyOffshoreWind	Internationalisation, supply-chain development	Cluster partnerships
Human Capital & Training	DOB-Academy, ROC Friese Poort, Offshore Wind Academy, Techport	Workforce upskilling, MBO/HBO Programs	Education-industry interface

1.5 Organizations in the Offshore Wind Industry

The cooperation framework of numerous industry groups focuses on both worldwide exports and the growth of the sector in the US. Each group works closely with its specific areas of expertise.

NedZero, the successor to the Netherlands Wind Energy Association (NWEA), represent a broad spectrum of the industry—including developers, manufacturers, and investors—and work to achieve the country's climate targets while also actively engaging in policy development. They have their own Partners for International Business (PIB) program, which focuses on the Spanish and Portuguese markets.

The industry associations— The Association of Dutch Suppliers in the Offshore Energy Industry NMT-IRO, and HHWE (Holland Home of Wind Energy)—are currently undergoing a merger to create a single, entity representing the entire maritime and offshore energy supply chain. This consolidation optimizes efficiency, improves global visibility, and fortifies the collective lobbying power.

Complementing these organizations is the **LinkedbyOffshoreWind** (LBOW) cluster which is the exclusive partner for the Dutch industry on the markets in Poland the Baltics States and Finland. It has its operational team located in the target countries and the three different clusters consist of 25 clustermembers. LBOW is facilitating knowledge and technology transfer by organising trade missions and sharing market knowledge in close cooperation with the local Netherlands embassies.

1.6 Non-price Factors - The Motivation For More Value

The first wave of Dutch offshore-wind tenders (2008–2016) was based on the SDE+ feed-in subsidy, Sustainable Energy Production Incentive Scheme (SDE+) a measure that funded the gap between production costs and market price with a fixed subsidy per MWh) and one winning metric: the lowest cost. Although that method produced outstanding cost management, it also revealed a flaw in its structure. Pure price competition made everything more efficient, but there wasn't much room for new ideas in ecology or system integration.

The Ministry of Economic Affairs and Climate Policy realized by 2017 that the next step was to reward value, not only cost. So, the Netherlands came up with comparative assessment tenders that look at both price and quality.

These non-price criteria (NPC) became a new way for the government to protect environment, speed up technological learning, and preserve public support as offshore wind activities grew.

The Offshore Wind Energy Act (2015) and the Ministerial Orders that have been issued for each site serve as the bedrock. Developers submit a comprehensive plan that is assessed by an independent expert committee that is appointed by RVO, rather than a straightforward auction. The assessment considers both qualitative and technical factors.

While maintaining complete transparency and legal certainty, this comparative-assessment model enables the Netherlands to identify the most advantageous undertaking, rather than the least expensive.

It also stimulates long-term planning: developers plan wind farms to last for 30 years, making sure they are available, recyclable, and can work with other sea users.

How It Works in Practice

Hollandse Kust West VI (Ecowende, Shell, and Eneco) was the first tender in the world to be granted mostly for environmental reasons. The plan that won included layouts that were safe for birds, big ecological corridors, artificial reefs, and low-noise piling technology from IQIP.

The IJmuiden Ver Alpha and Beta tenders added two more topics to the model: ecological and system integration. Proposals for hydrogen generation, offshore-solar coupling, and data-sharing for grid optimization were used to judge the projects.

1.7 Market Context and Present Obstacles

The global market entered a period of high interest rates, currency volatility, and cost inflation by 2024-2025. Several European auctions had to be put on hold or re-bid.

In that environment, there were those who questioned the viability of the Dutch insistence on non-price criteria. So far, the answer is yes, but with some realism.

The Netherlands continues to prioritize qualitative competition while simultaneously adjusting scoring weights and schedules to maintain bankability. Tender themes are published early by authorities to allow bidders to develop credible proposals, and they provide extended preparation periods. Invest-NL and export-credit guarantees are examples of financial assistance tools that help projects with greater capital costs but nonetheless provide environmental and system value.

Developers are also adapting: Van Oord and Boskalis are investing in next-generation installation vessels that comply with new noise and emission regulations. Damen Shipyards makes hybrid SOVs to save fuel. TKF makes cable systems that can be recycled, and HSM Offshore Energy breaks down substations into smaller parts so they may be built and taken down faster. RelyOn teaches thousands of new technicians to make sure safety standards are met. These expenditures directly contribute to non-price categories including sustainability, innovation, and workforce development.

1.8 Why the Model is Important

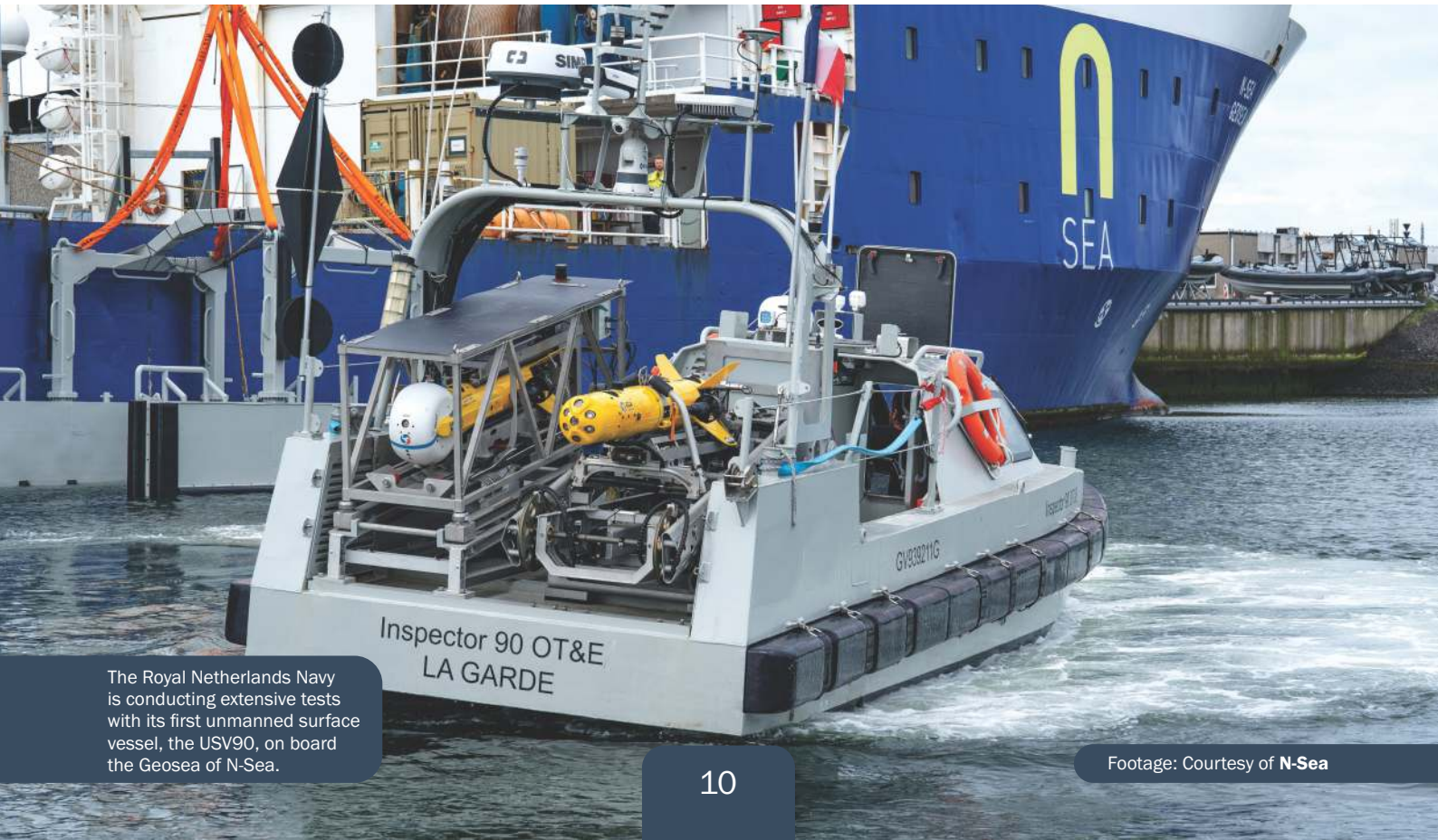
Non-price factors do more than just rank bids; they also affect how businesses act. They ensure that R&D and supplier investments have a market outlet by creating predictable demand for ecological design, circular materials, and digital integration. They send a clear signal to foreign investors and partners that the Netherlands prioritizes quality and continuity over short-term price gains. The Dutch approach with emphasis on quality, continuity and value innovation, is becoming a benchmark on a global scale. Denmark, Belgium, Japan, and Australia have looked at the NPC framework while formulating their own quality tenders. The model demonstrates that sustainability does not necessarily equate to subsidy-free.

A Look Ahead

The qualitative appraisal of future Dutch tenders will be further refined around three pillars:

- System value refers to the extent to which a project enhances the stability, flexibility, and cross-border exchange of the grid, such as adding floating solar and offshore hydrogen solutions.
- Environmental integration—restoring biodiversity, setting noise limitations, and using circular supply chains, all of which have been proven by WOZEP and GROW data.
- Societal benefit: training people for jobs, creating jobs in the area, and working with fisheries and coastal communities.

The government's objective is to maintain the Netherlands' position as a leader in "smart" tendering, which incentivizes innovation and resilience over speculation. When new tenders come up for Doordewind and the northern zones, qualitative scoring will make sure that only strong, future-proof designs are chosen again. That means investors must worry less about hidden dangers and assets that are built to last. For Dutch businesses like IQIP, Corrosion, Ventolines, Pondera, OutSmart, and Flux Partners, it means a stable place where quality work continues to pay off.



The Royal Netherlands Navy is conducting extensive tests with its first unmanned surface vessel, the USV90, on board the Geosea of N-Sea.

Footage: Courtesy of **N-Sea**

CHAPTER 2:

Mastering the Offshore Wind Value Chain: The Netherlands' Competitive Advantage

2.1 Design, Development and Feasibility

The Feasibility, Design & Development phase establishes the groundwork, transitioning from the selection of a conceptual zone to a final, constructible plan. The process typically entails the following: site characterization (wind resource, metocean, and geotechnical surveys), environmental impact assessments (EIA), conceptual design of foundations and electrical systems, and the acquisition of the final permit.

The 'one-stop-shop' model that is distinctively Dutch is characterized by the government's assumption of risk and responsibility for the initial steps, which include comprehensive site investigation, complete permitting, and grid connection design, through RVO and TenneT. This mitigates the project's risks, enabling developers to concentrate solely on cost optimization and innovative design.

The Dutch are exceptional in this field as a result of their extensive geotechnical and maritime expertise. Research institutes such as TNO and Deltares have developed world-class capabilities in geotechnical data modelling, advanced foundation design, and wake effect analysis because of centuries of land reclamation and harbor engineering. This comprehensive preparation significantly reduces the Levelized Cost of Energy (LCoE), establishing a framework for the efficient global deployment.

Development Plans in Poland: Dutch Feasibility and Design Companies

Pondera Consult works in Poland through its owner Royal Haskoning DHV. They develop and manage offshore wind projects from feasibility and permitting to construction and operation. The company employs around 100 people in Poland and cooperates with about five local suppliers. It provides services such as feasibility studies, permitting, environmental assessments and design. Over the past five years, the company has increased its use of local resources and plans to continue growing its presence by hiring more staff and working with Polish consultants and service providers.

IV Offshore & Energy provides engineering, design, and project management for offshore wind substations and infrastructure. They cooperate with four Polish suppliers and have about 50 employees in the country. In the last two years, it has engaged with around ten Polish partners for engineering and secondary steel work. The company estimates future investments in Poland at about EUR 10 million, depending on upcoming projects. It focuses on detailed engineering, installation and commissioning support and sees Poland as a location for expanding technical cooperation.

GustoMSC, part of NOV, designs offshore wind installation vessels, jack-ups, and equipment for safe and efficient operations. The company does not have direct operations in Poland but relies on NOV's existing facilities in the region. It has contact with around ten Polish suppliers and subcontractors. At present there is no direct local production, but the company considers opportunities for cooperation in design and fabrication.

Bureau Veritas offers certification, inspection, and risk management services for offshore wind and marine projects. Bureau Veritas operates in Poland with a large local base of about 400 employees. The company provides certification and marine warranty services and works with more than 100 local suppliers and subcontractors. Its level of activity has remained stable, with growth linked to increasing offshore wind work in Poland. It plans to continue expanding in areas where demand for certification and quality control is rising.

N-Sea is an integrated subsea service provider, delivering IMR&I (Inspection, Maintenance, Repair & Installation) solutions to the offshore energy industry. With strong capabilities in survey, UXO identification & disposal, and route-surveys, N-Sea plays a critical role in early project development. Through its cooperation with Polish scientific institutes, universities, and technical schools, N-Sea supports technology transfer, professional training, and knowledge sharing — strengthening the local skill base needed for feasibility studies and design phases of offshore wind farms. N-Sea's organizational ambition is to be the "go-to" total subsea solutions provider, underpinned by innovation, strategic partnerships, and long-term client relationships.

2.2 Turbine and Foundation

The structural foundation for the complete wind farm is established during the foundation phase. Dutch expertise dominates the foundation, despite the absence of a domestic turbine manufacturer in the Netherlands. The final stages involve the installation of the turbine components. This requires accurate installation of monopiles or jackets deep into the seafloor, completed by the Transition Piece (TP) that connects the foundation to the turbine tower.

Innovation and Global Expertise at the Dutch Foundation

Due to centuries of hydraulic engineering, the Dutch have a very good understanding of soil mechanics and marine constructions. The development of foundation solutions is primarily driven by this expertise, which is characterized by its ability to reduce cost, time, and environmental impact. This impact can be seen by two significant innovations:

1. Optimized XXL Monopiles and Suction Buckets: Dutch engineers have pioneered the use of suction bucket jackets and designed XXL monopiles for deeper waters, pushing the limits of scale. Instead of employing noisy hammering, suction buckets are installed by generating a vacuum. This method drastically reduces the damaging acoustic impact on marine mammals, a significant environmental bottleneck for permitting, and eliminates the necessity for heavy, time-consuming piling equipment, potentially saving several days of costly vessel time per foundation. Additionally, the method is nearly silent.

2. Advanced Noise Mitigation: This includes sophisticated instruments and methods, including noise-dampening pile-driving techniques (e.g., hydro-hammers and double bubble curtains). Projects can ensure faster, uninterrupted installation campaigns by effectively mitigating noise, which prevents costly construction stops or time restrictions.

Development plans in Poland: Turbines and Foundations

Dutch Drilling Consultants provides offshore geotechnical investigations, soil sampling, and foundation analysis for wind farm development. DDC has no local content or operations in Poland. They report no Polish suppliers, employees, or deliveries from Poland, and have held only one discussion with a potential partner. No investment plans are indicated.

SIF manufactures large steel monopiles and transition pieces for offshore wind foundations. The company has no direct operations in Poland but is indirectly involved through international partners active in Polish projects. It cooperates with Smulders Projects and uses Polish subcontractors such as Spomasz for steel components. The company has no local employees and reports a stable level of local content. SIF is currently examining options for a stronger Polish presence through cooperation with subcontractors and service providers.

Corrosion, provides corrosion protection solutions for offshore structures, including coatings, cathodic systems, and inspections. Corrosion maintains a modest but active presence in Poland. It works with Co-Made in Gdańsk, has three local suppliers, and employs eight people. Its Polish team provides communication and technical support services. The company's focus is on continuing cooperation through local consultants and agencies rather than building new infrastructure.

2.3 Cables and Substations

The Cables and Substations phase is the wind farm's main artery. Its job is to safely connect the power that is produced to the onshore transmission grid. Two distinct cable systems are installed during the process: inter-array cables connect individual turbines to the Offshore Substation (OSS), and export cables travel from the OSS to the onshore grid connection point. The OSS is a massive electrical platform that increases voltage. To safeguard against environmental and shipping damage, these cables are buried deep within the subsurface by specialized cable-laying vessels, which employ jet trenchers or plows. The electrical connection and commissioning of the offshore and onshore substations is the ultimate step.

What is distinctively Dutch is the development of a systematic, centralized grid connection strategy that has been shaped by experience from the North Sea. The Dutch stand out in this regard because of their dedication to the integration of industrial capability with Transmission System Operator (TSO) strategy. Following the installation of the current 4.5 GW of capacity, the TSO, TenneT, was the first to implement standardized platforms, which are fixed, homogeneous electrical designs. These platforms consist of 700 MW AC and 2 GW HVDC.

What makes TenneT's standardized offshore infrastructure stand out is that, instead of constructing a custom solution, they handle the design, procurement, and installation. This gives developers a stable connection point. This dedication to standardization across numerous projects significantly reduces non-recurring engineering expenses, expedites project timelines, and enables Dutch fabricators to capitalize on the serial production efficiencies of the modular components. This cost-reduction strategy that expedites the global energy transition is fundamentally a systematic approach, supported by a comprehensive understanding of High Voltage Direct Current (HVDC) for long-distance export.

Development Plans in Poland: Cables and Substations

HAPAM, Dutch company based in Łódź, produces high-voltage disconnectors and switchgear used in substations and grid connections for offshore wind substations. The company has a strong local footprint, working with around 50 Polish partners and suppliers and employing about 110 people. Its local content has grown by roughly 10 percent in recent years. Future investment depends on new contracts in Poland, but HAPAM's production in Łódź already plays a direct role in delivering reliable electrical components for Poland's developing offshore-wind grid infrastructure.

TKF (Twentsche Kabelfabriek), part of the Dutch TKH Group, operates a 10,000 m² fibre-optic cable plant in Rawicz, Poland, opened in 2023 and employing over 75 people. The site strengthens TKF's Central European supply base. While focused on telecom cables, TKF also supplies power and inter-array cables for offshore wind, produced in the Netherlands for North and Baltic Sea projects.

N-Sea operates a versatile fleet (including 14 specialized vessels) and advanced subsea equipment such as ROVs, enabling efficient and safe execution of cable work in chalenging offshore environments. They focus on subsea cable instalation, burial, inspection, and repair, making N-Sea a key player in the infrastructure phase of offshore wind development.The company is investing significantly in the Polish cable market, building or chartering Cable-Laying Vessels (CLVs) and other subsea assets. Their current investment in such assets already exceeds €100 milion, with plans to expand further. This reflects N-Sea's strong commitment to becoming a major provider of subsea cable solutions in the Baltic region.

2.4 Port Logistics and Transport and Installation

The Transport and Installation (T&I) and Port Logistics phase is the intricate supply chain activity that is responsible for transporting huge components from the factory floor to the specific location where they will be installed offshore. Optimized port logistics uses the base port as a tower, nacelle, and blade marshalling and pre-assembly centre. As part of the T&I process, specialized jack-up vessels are used for heavy-lift operations. These vessels are used to transport components to the offshore site and build foundations and turbine structures in a sequential and precise manner. The crew must carefully monitor and adhere to weather windows and tidal limits during this process.

Dutch Global Cooperation and Expertise

The knowledge and expertise of the Dutch industry can be traced back to a tradition of hydraulic and maritime engineering that spans several centuries. This has created a sector of world-leading T&I contractors and vessel owners.

The Dutch are effective internationally because they strictly follow a global cooperation model, knowing that working together is the only scalable way to deliver massive offshore energy projects. Dutch companies collaborate with foreign developers, local supply chains, and specialized contractors worldwide to distribute technical risk, share site-specific knowledge, and aggregate resources. Their fleet is continually deployed across international waterways, and it is widely acknowledged as being the most advanced fleet in the world. That fleet is specialized and scalable. One of the important advantages of this deployment is that it allows them to directly transfer their technologically advanced and risk-minimized T&I solutions to every area in which they are operating.

Development Plans in Poland: Transport, Installation and Port Logistics

Damen Shipyards design and build offshore wind vessels, crew transfer ships, and service operation vessels. The company has been active in Poland since 1996, when it acquired the Gdynia shipyard, building tugs and service vessels for international markets. In 2013, it expanded with Damen Engineering Gdańsk, focusing on design and technical support. The company works with numerous Polish suppliers and service providers and is gradually extending its activities toward offshore wind projects, depending on future market developments and demand.

Broekman Logistics, provides logistics, warehousing, and transport solutions for offshore wind components and supply chains. The company operates through four Polish locations in Gdynia, Sosnowiec, Swarzędz, and Stargard, employing 37 people. The company provides logistics and storage services for Tier 2 and Tier 3 clients in the offshore wind supply chain. Broekman is already integrated in the Polish market and continues to support port logistics and component handling. Investment figures are not specified.

Wind Subsea Cables installs, maintains, and repairs submarine power cables for offshore wind farms and grid connections. Wind has not yet started active operations in Poland. The company's local content remains minimal, with future engagement depending on identifying appropriate facilities for cable storage or manufacturing.

Van Oord delivers full offshore wind EPC services, including foundation installation, cable laying, and dredging. Van Oord is currently executing transport and installation (T&I) activities for offshore wind projects in Poland. The company works with around five Polish suppliers and has engaged ten potential partners over the past two years. Its Polish content mainly involves using local tugboats, crew transfer vessels (CTVs) and agents. Poland is one of the target markets for Van Oord in the Baltic region, with its offshore wind potential and plans. The level of local content they utilize depends on actual project awards and execution.

Boskalis provides offshore wind installation, cable laying, dredging, and heavy marine transport services worldwide. The company cooperates with a Polish partner on UXO (unexploded ordnance) disposal and employs four people locally. It has increased its Polish involvement by 100% compared to previous years. The company's planned investment in Poland ranges between 0.5 and 3.5 million euros, depending on project scope and contract opportunities.

Holmatro develops hydraulic tools and systems for lifting, tensioning, and maintenance in offshore wind projects. The company has not yet developed local content in Poland. Its activities will depend on market demand in offshore construction and maintenance.

Clarksons Port Services delivers shipping agency and port coordination services. It collaborates with various Polish subcontractors and port operators to support offshore wind logistics. The company's local engagement is growing in line with increasing offshore activity around Polish ports.

N-SEA delivers shipping agency and port coordination services. It collaborates with various Polish subcontractors and port operators to support offshore wind logistics. The company's local engagement is growing in line with increasing offshore activity around Polish ports.

2.5 Operations and Maintenance (O&M)

After the offshore wind farm is commissioned, the Operations & Maintenance (O&M) phase makes sure it stays operational and highly available for a long time. Onshore service bases help with this complicated process, which includes both routine preventative maintenance and urgent corrective maintenance. A combination of specialist vessels and remote monitoring systems is utilized by O&M to maximize the deployment of technicians and reduce the amount of time that they are unavailable.

The Unique Dutch Asset Management Methodology

The integrated, smart logistics and advanced, centralized management tools that make up the Dutch O&M model set it apart from others.

Another essential element is the focus on treating the offshore wind farm as a unified logistical system where maintenance is a predictive, rather than reactive, activity.

This is accomplished by:

- Port-as-a-Control-Hub: Specialized O&M ports, such as Eemshaven and IJmuiden, operate as real-time logistical control centres, rather than merely mooring stations. They facilitate the coordination of the movements of specialized vessel fleets (CTVs and SOVs) with port-based component inventory and technical teams.

- Dutch companies optimize uptime by managing assets in service of the proprietor or as co-owners through predictive maintenance through digital twinning. They employ predictive maintenance algorithms (often developed in collaboration with institutes such as TNO) and digital twinning (a virtual replica of the physical asset) to precisely foresee potential failures. This enables them to arrange corrective maintenance days or weeks in advance, thereby minimizing the expense of unplanned vessel callouts and reducing the time spent waiting for suitable weather windows.

The intelligent coordination of specialized vessel fleets, port inventory, and predictive analytics ensures turbine availability, lowering the Levelized Cost of Energy (LCoE) across wide service regions.

Development Plans in Poland: Operations & Maintenance

Bluestream & OEG Group delivers inspection, repair, maintenance, and offshore workforce solutions for wind farms and subsea assets. They report a modest level of local content in Poland. They currently work with two to three Polish suppliers and have been in contact with around eighteen potential partners in the past two years. At this stage, they do not provide services directly from Poland but continue to explore cooperation in diving, inspection, and maintenance-related areas. The company indicates that its engagement has increased gradually and expects investment levels over the next five years to depend on offshore project opportunities.

N-Sea N-Sea is deeply committed to long-term O&M activities in Poland, with a growth horizon of 35 years and beyond. This commitment supports both CAPEX and OPEX models, aligning with the offshore energy transition in the Baltic region.They are scaling their local workforce — from just a handful of people to around 50 Polish staff — and planning a dedicated O&M facility in partnership with local companies. This facility will provide services like inspection, maintenance, repair, and emergency response for subsea assets. By transferring specialized subsea know-how to Poland and training personnel, N-Sea not only builds local capacity but also enables job creation and career development in the offshore wind sector.

Z-Bridge, designs and operates motion-compensated gangways for safe offshore wind personnel transfers. The company has a small local footprint with one Polish supplier and three employees. No services are currently delivered from Poland. Engagement levels remain low, with about six Polish companies contacted over the last two years. Future activity and investment will depend on project contracts being secured.

Sima Charters operates crew transfer vessels and provide marine logistics services for offshore wind projects. Sima Charters is in the early phase of building its presence. It recently established Sima Baltic UAB in Klaipėda to cover Baltic operations and cooperates with four Polish partners. The company does not yet deliver services from Poland but is preparing for investment up to ten million euros depending on future opportunities.

RelyOn provide GWO safety and technical training for offshore wind personnel and service teams and has closely followed the Polish market since offshore wind development began. Seeing demand for trained workers, it invested directly by establishing a safety and technical training centre in Poland. The centre employs 15 people, works with 12 suppliers, and has engaged over 30 partners in two years. RelyOn provides GWO and technical training and plans further expansion as the sector grows.

Jack-Up Barge operate jack-up platforms for offshore wind turbine installation, maintenance, and heavy lifting operations. The company currently employs Polish crew members only on board. There are no local assets or suppliers involved yet. The company expects to expand into logistics support soon. Local activity has not increased so far, but if new contracts are secured, investment may become significant.

ORLEN Neptun's installation terminal in Świnoujście

Footage: Courtesy of **Świnoujście Offshore Terminal**

CHAPTER 3:

Offshore Wind in Poland: Policy Framework, Goals and Development Case for Local Content

3.1 Policy Framework in Poland

Poland's offshore wind policy framework is anchored in strong political and legislative support — combining ambitious capacity targets, stable long-term investment mechanisms, and integration with national industrial and infrastructure strategies — making offshore wind a central pillar of the country's energy transition and one of the largest coordinated investment programs in its modern history.

Offshore Wind as pillar of active energy transition

Offshore wind energy is unequivocally recognized by the Polish government as a key pillar of the country's active energy transition. The recently updated National Energy and Climate Plan (NECP) 2030 with a 2040 perspective (KPEiK) builds on an scenarios, which place expansion of offshore wind at the heart of Poland's decarbonization pathway.

Net achievable capacity of electricity generation sources according to technology (WAM scenario) [MW]

	2005	2010	2015	2020	2025	2030	2035	2040
PP_Lignite	8 197	8 145	8 643	7 445	7 007	14 033	17 117	12 680
PP_Hard coal	14 613	14 655	13 617	15 889	14 465			
PP_Fossil and renewable gas fuels	0	0	0	0	1 915	6 059		
PP_Nuclear (system)	0	0	0	0	0	0	0	3 510
PP_Nuclear_SMR	0	0	0	0	0	0	0	0
PP_Hydropower	914	935	964	987	1 008	1 118	1 148	1 178
PP_Pumped storage	1 679	1 679	1 705	1 705	1 767	2 510	2 510	4 235
CHP_Industrial	6 140	6 126	1 605	1 945	1 809	1 754	1 672	935
CHP_Utility-scale			4 968	5 226	4 037	3 238	2 187	0
CHP_Fossil and renewable gas fuels	760	807	928	2 688	5 434	6 870	7 561	9 228
PP & CHP_Biomass	102	140	513	534	638	702	710	611
CHP_Biogas			216	241	350	486	511	449
BECCS	0	0	0	0	0	0	0	0
PP_Onshore wind	121	1 108	4 886	6 499	11 315	16 647	26 411	34 585
PP_Offshore wind	0	0	0	0	0	5 873	13 633	18 033
PP_Geothermal	0	0	0	0	0	0	0	0
Photovoltaics	0	0	108	3 960	22 497	31 747	41 372	51 214
Combustion turbines_Fossil and renewable gas fuels	0	0	0	0	0	0	1 522	6 983
Energy storage	0	0	0	0	483	2 750	6 753	8 500
DSR/Capacity import	0	0	150	615	1 908	2 810	3 265	3 625
Total	**32 526**	**33 594**	**38 302**	**47 733**	**74 633**	**96 597**	**126 374**	**155 766**

Source: Page 73, "Załącznik 1. do aKPEiK Scenariusz aktywnej transformacji"

CHP - Combined Heat and Power plant
PP - Power Plant

The document establishes a coherent framework of quantitative targets, regulatory reforms, and industrial measures that make offshore wind one of the most strategically supported sectors in the national energy policy. Under the ambitious scenario, offshore wind is projected to play a decisive role in meeting Poland's climate and energy goals, including a reduction in power sector emissions.

The Act on Promoting Electricity Generation in Offshore Wind Farms

This is foundational law, passed unanimously, established 2020 the legal framework for the sector's development. It created a schedule for subsequent auctions to allocate support for new projects. 4 November 2025 The President of the Republic of Poland signed an amendment to the Offshore Act prepared by the government and earlier passed unanimously by the Parlament. The amendment increases the stability of the investment process and the operation of offshore wind farms, among other things by adjusting the rules for indexing support and settling negative balances. It also provides the simplification of administrative procedures, including regulations governing situations related to micro-movements of offshore turbine foundations, the shared use of power infrastructure by more than one wind farm, and the phasing of investments. The new act also clarifies the rules of the auction support system for offshore wind farms by introducing conditional pre-qualification and the possibility of launching an intervention auction in the event that the first auction, scheduled to take place in 2025, is inconclusive. The new regulations also provide, among other things, for the possibility of dividing offshore areas into two wind farms, and eliminate the doubts that have existed to date regarding the auction settlement procedure.

Installed Capacity

Target is 5.9 GW by 2030 and approximately 18 GW by 2040. Offshore wind farms integrated into the National Power System (KSE) from 2026 onwards are expected to produce 20.6 TWh in 2030 and 66.9 TWh by 2040. Offshore wind, alongside solar PV and onshore wind, is one of the three key technologies driving the share of renewables in final electricity consumption to around 50% in 2030 and 70% in 2040. These targets reflect Poland's transition from a coal-based to a diversified, low-emission power mix in line with EU climate neutrality objectives. The government commits to providing stable and predictable investment conditions for the offshore sector, minimizing risk for both domestic and international investors.

Contracts for Difference (CfD) and auctions

The main support mechanism is based on a two-way CfD system that compensates the gap between market prices and offshore generation costs, offered for up to 25 years. Offshore wind auctions with a total capacity of up to 12 GW are scheduled for 2025/2026, 2027, 2029, and 2031. Together, these measures aim to de-risk offshore investments, stabilize returns, and ensure sustained private sector engagement. Poland's national plans focus on eliminating administrative barriers and ensuring the infrastructure needed to integrate large-scale offshore capacity from the Baltic Sea. Offshore wind investments are classified within the *Renewable Energy Acceleration Areas (OPRO)* framework, which mandates permit issuance within 24 months.

Grid Expansion

Offshore wind is a primary driver of transmission network expansion. The Transmission System Operator (PSE) is tasked with connecting Baltic Sea wind farms and ensuring efficient north–south power transmission across the country. Over 8 GW of OWF capacities have connection agreement already. On 20 December 2024, the President of the Energy Regulatory Office (URE) agreed on the PSE Transmission Network Development Plan (PRSP)[3] for 2025-2034. 4,700 km of new 400 kV lines, 28 new and 110 modernised substations – these are the pillars of Polskie Sieci Elektroenergetyczne's investment plans until 2034, which anticipates 18 GW of OWF capacity till 2040.

National Development Strategy of Poland 2035 (document to be enacted soon)

Poland's key strategic documents — including the *National Development Strategy of Poland 2035* — explicitly identify offshore wind energy as one of the pillars of the national energy transition and a major economic growth driver for the country's northern regions. This strategic positioning provides stable regulatory and financial foundations for large-scale investments in the offshore sector and confirms the government's long-term commitment to renewable energy development. Offshore wind is recognized as a critical part of Poland's renewable energy strategy due to its high efficiency, advanced technological potential, and reliability of generation. The strategy sets ambitious goals to streamline investment procedures — including accelerated permitting, improved auction systems. **The National Development Strategy** promotes also deep integration of Polish industry into the offshore value chain, emphasizing the active participation of domestic companies in construction, manufacturing, and operations.

[3] PSE Transmission Network Development Plan (PRSP) for 2025-2034:
https://www.pse.pl/documents/20182/21595261/PRSP_2025_2034_dokument_glowny_2024_12_20.pdf/55b0f905-3dd9-4e7e-b33a-78694e893928?safeargs=646f776e6c6f61643d74727565

Offshore wind development is directly linked to large-scale investments in transmission and port infrastructure. The expansion and digitalization of north–south power transmission lines will enable the integration of offshore generation into the national grid. Maritime ports in Gdańsk, Gdynia, and Szczecin–Świnoujście are being transformed into offshore logistics and installation hubs, supporting Poland's energy transition and strengthening national energy security. Offshore wind assets, including subsea cables and substations, are seen as critical infrastructure, with dedicated measures to enhance maritime security and naval surveillance in the Baltic Sea region.

3.2 Offshore Wind Supply Chain Development in Poland

Poland's sectoral local content strategy aims to transform offshore wind into a powerful driver of national industrial growth — shifting from low domestic participation toward full integration into the European value chain — through targeted investment, supply chain financing, port and vessel development, and the creation of Polish Tier 1 suppliers capable of manufacturing key components, delivering offshore substations and foundations, and providing high-value engineering and installation services.

Document available here:

Economic goals:

The wider economic strategy arising from offshore wind development shall transform the offshore wind sector into a long-term engine for the Polish economy, with over **PLN 400 billion in expenditures** on domestic farms by 2050 and even greater export potential. The goal is to establish Poland as a key hub for the European offshore wind supply chain, particularly in manufacturing turbine components, foundations, and offshore substations, and in providing installation services.

Local content in Phase 1 - low domestic participation: In the first phase of projects, the estimated share of Polish companies in the capital expenditure (CAPEX) phase is only **5-15% (expected to reach around 20% in life cycle of projects, including OPEX).** There are over several hundreds of Polish firms with potential, but only a few have secured major contracts.

New investments in offshore wind manufacturing facilities in Poland are a positive development. However, they are being implemented primarily with a very high share of foreign capital and based on international know-how. The announced investments in Poland's offshore wind supply chain are concentrated mainly around foreign corporations such as Vestas, Windar, and GRI Renewables (with participation from the Polish Agency of Industrial Development - ARP). These global players lead the way in producing key components such as wind turbines and towers, and their decision to invest in Poland should be viewed as a clearly positive signal for the country's industrial landscape. Nevertheless, there are also domestic companies within specific segments of the supply chain that demonstrate significant potential to evolve into Tier 1 suppliers, but they face serious challenges in securing financing and executing their investment projects.

Financing. Insufficient Funding for the Supply Chain:

Financial support systems are developing too slowly. The National Recovery Plan (KPO) was a "major disappointment" because funds were allocated to development of wind farm projects themselves and ports' infrastructure, not to building the domestic manufacturing base. Polish companies struggle without dedicated state guarantee programs, which are crucial for securing large contracts and becoming Tier 1 suppliers.

Offshore wind excellence requirements:

Participating in the offshore wind supply chain requires a high level of operational excellence. This is driven by the multi-billion scale of projects, which—being financed largely through debt —are built around minimising risk. As a result, every stage of the supply chain relies on companies with the highest standards of management, production, quality, workforce capability, and innovation. Polish companies — often highly experienced in other sectors — need a systematic strengthening of their production, management, and quality competencies, specifically tailored to the needs of the offshore industry.

Promoting cooperation among Polish enterprises is essential for strengthening the reliability of long-term, multimillion-euro contracts. By forming strong consortia and partnerships, Polish companies will be better positioned to compete in the international offshore wind market and to deliver large-scale, complex projects. Collaboration between enterprises enables the sharing of resources, knowledge, and experience, leading to improved operational efficiency, cost reduction, and lower project execution risks — ultimately reinforcing regional supply chains.

Maximizing the benefits of foreign investment is equally important. Encouraging Tier 1 suppliers in key component areas to locate at least part of their manufacturing operations in Poland is only the first step. It is also necessary to actively promote deeper cooperation between these global players and domestic firms — integrating specialized Polish suppliers into international value chains where they can competitively deliver selected, high-value components for Tier 1 manufacturers.

3.3 Polish Supply Chain Development Ambitions

- **Vision for Local Content**

The ultimate goal is to move beyond a low-level supplier role and establish Polish companies as **European champions** in key segments. The proposed strategy, developed by PWEA, Wind Industry Hub and CEE Energry Group is centered on maximizing Polish industrial participation through a set of nine **Priority Implementation Programs.** The strategy is the initiative of the industry experts and is being recognised as the analytical ground work for the implementation of local content initiatives in Poland. The strategy and proposed programs define a clear scenario for developing domestic capabilities and securing a significant share of the value chain.

- **Modern planning, design, and monitoring services for offshore wind farms are a key element of the strategy**

The program assumes that the majority (over 50%) of development and implementation (DEVEX) activities will be carried out in Poland. This will enable the country to build local expertise in offshore wind project management and maintain high levels of control over every stage of the investment process. It will also create jobs in specialized fields such as marine engineering and wind farm design, thereby strengthening both the offshore wind sector and related branches of the Polish economy in the long term. Poland should develop its own capabilities for designing key connection infrastructure, including offshore substations and cable systems.

- **A complete supply chain for offshore wind turbines**

Developing a local supply chain for offshore turbine components is crucial for achieving Europe's independence in this field. Poland should become a central hub for European industrial champions in turbine manufacturing. The program's goal is to ensure that between 50% and 75% of all turbine components produced in Europe (by value up to Tier 2 level) are manufactured in Poland. This also includes securing access to the necessary raw materials and technologies essential for production.

- **Assembly of foundations for offshore wind farms**

Polish shipyards and ports have strong potential to host the assembly of foundations — including transition pieces, jackets, floating foundations, and monopiles. Gravity-based foundation technology could further stimulate the participation of domestic contractors. Although dependent on the supply of key raw materials (e.g. heavy plate), locating foundation production facilities in Poland will intensify the industrial development of Baltic ports.

- **National offshore substation program.**

Every offshore substation serving Polish wind farms should be built domestically, supporting the development of the Polish shipbuilding, electrical, and auxiliary equipment industries. Expanding design and engineering capabilities will preserve national expertise in marine engineering while ensuring cybersecurity and resilience for this critical energy infrastructure.

- **Cables**

Poland should define and support the ambition of developing a European cable manufacturing champion for offshore wind. Building domestic production capacity for subsea cables will strengthen the local supply chain and reduce dependence on foreign suppliers.

- **A new European offshore installation and service company headquartered in Poland**

The transport and installation of offshore wind farms are currently dominated by large European companies, and Poland should play an active role in this domain. The national goal is to create a regional European installation company based in Poland, capable of executing offshore wind installations through a partnership with an established European leader. This initiative will increase Poland's autonomy in installation services, reduce project costs, accelerate project timelines, and lead to the creation of a modern installation and support fleet, enhancing Polish competitiveness on the global market.

- **Production of the installation and service fleet**

The objective of this program is to bring specialized shipbuilding for offshore wind — particularly installation vessels (WTIVs) — back to Europe, positioning Poland as the primary manufacturing location. The country already possesses at least three unique industrial assets capable of building or converting installation vessels domestically. These plans are coherent with strategic goal of European Union to rebuild Europe's shipbuilding industry.

- **Innovative operations and maintenance (O&M) services**

This program focuses on developing modern maintenance and operation solutions for offshore wind farms using the latest technologies such as artificial intelligence and automation. It aims to create tools and systems for remote or unmanned monitoring and maintenance, minimizing downtime, reducing maintenance costs, and enhancing physical and operational security. The implementation of such innovative O&M solutions will increase the efficiency of wind farm operations, generating long-term economic and environmental benefits for Poland and enabling the export of these services to international projects.

- **Security**

The evolving perception of offshore wind farms as critical infrastructure, along with their potential use for dual-purpose technologies, necessitates a clear definition of the role of the national defense industry in the development of offshore wind farms both in Poland and globally.

3.4 Polish approach to industrial policy framework

Over the past years, the debate on offshore wind in Poland has become inseparable from a broader discussion on economic sovereignty, industrial resilience, and national security. In a changing geopolitical landscape marked by global trade frictions, wars on Europe's borders and growing protectionism, Poland has been recalibrating its industrial policy to ensure that large-scale investments generate lasting value within the domestic economy. At the centre of this new approach stands the concept of *local content (the Governmental so called "Local First" strategy).* Once considered mainly as an economic preference, it has evolved into a strategic requirement, linking industrial policy with the wider objectives of security and resilience. The guiding principle is clear: public funds invested in energy infrastructure should strengthen national capabilities, build sustainable supply chains and contribute to long-term competitiveness, not flow out of the country without added value.

This orientation reflects both pragmatic and strategic considerations. Pragmatic, because Poland is entering a decade of unprecedented energy investments, with expenditures counted in the hundreds of billions of euros. Strategic, because the ability to build and maintain offshore infrastructure with a significant contribution from domestic firms is now seen as a matter of economic autonomy and security in a world of increasing uncertainty.

The policy narrative goes beyond offshore wind itself. It is part of a wider industrial repositioning: from defence to steel, from pharmaceuticals to agriculture, local content is being promoted as a guiding principle of public procurement and industrial development. Offshore wind, however, is the flagship example – both due to the scale of investment and because it offers a laboratory for testing how domestic suppliers can be integrated into global value chains.

At the same time, this approach recognises the need for balance. Domestic firms are expected to raise their competitiveness, but there is also an understanding that they may require time, patience, and initial support in terms of capital and contracts. The vision is not of isolation or autarky, but of building a strong, reliable industrial base capable of cooperating on equal terms with international players. In this context, local content policy in offshore wind is not only about maximising domestic participation in current projects. It is also about creating a resilient, future-oriented supply chain that can contribute to Poland's long-term energy transition, while positioning the country as a credible and competitive partner in the European offshore wind sector.

The implementation of the Net-Zero Industry Act (NZIA) in Poland is a key element in accelerating the development of the offshore wind sector and other technologies supporting the decarbonization of the economy. The NZIA reinforces the principles of the Renewable Energy Directive (RED III), which aims to simplify and accelerate permitting procedures for renewable energy projects by strengthening local supply chains within the EU.

For Poland, this means in particular the acceleration of administrative procedures, which often represent one of the main barriers to the realization of offshore projects.

Another important aspect of NZIA implementation is support for innovation and domestic enterprises by promoting the production of components within the EU. At the same time, Poland should be prepared to adapt the NZIA framework to the realities of the national budget, including through the creation of a Sovereignty Fund, which would increase the financial resources available to clean-energy industries.

The concept of local content has become a cornerstone of Poland's new industrial policy framework. It is regarded not only as an economic instrument but as a key mechanism for building national industrial capabilities and ensuring that large-scale strategic investments create tangible value within the domestic economy.

In this context, local content is often referred to as a process of "repolonization" — a re-anchoring of value creation within Poland through active participation of domestic enterprises in major investment projects, particularly those implemented by state-owned companies in the energy and infrastructure sectors.

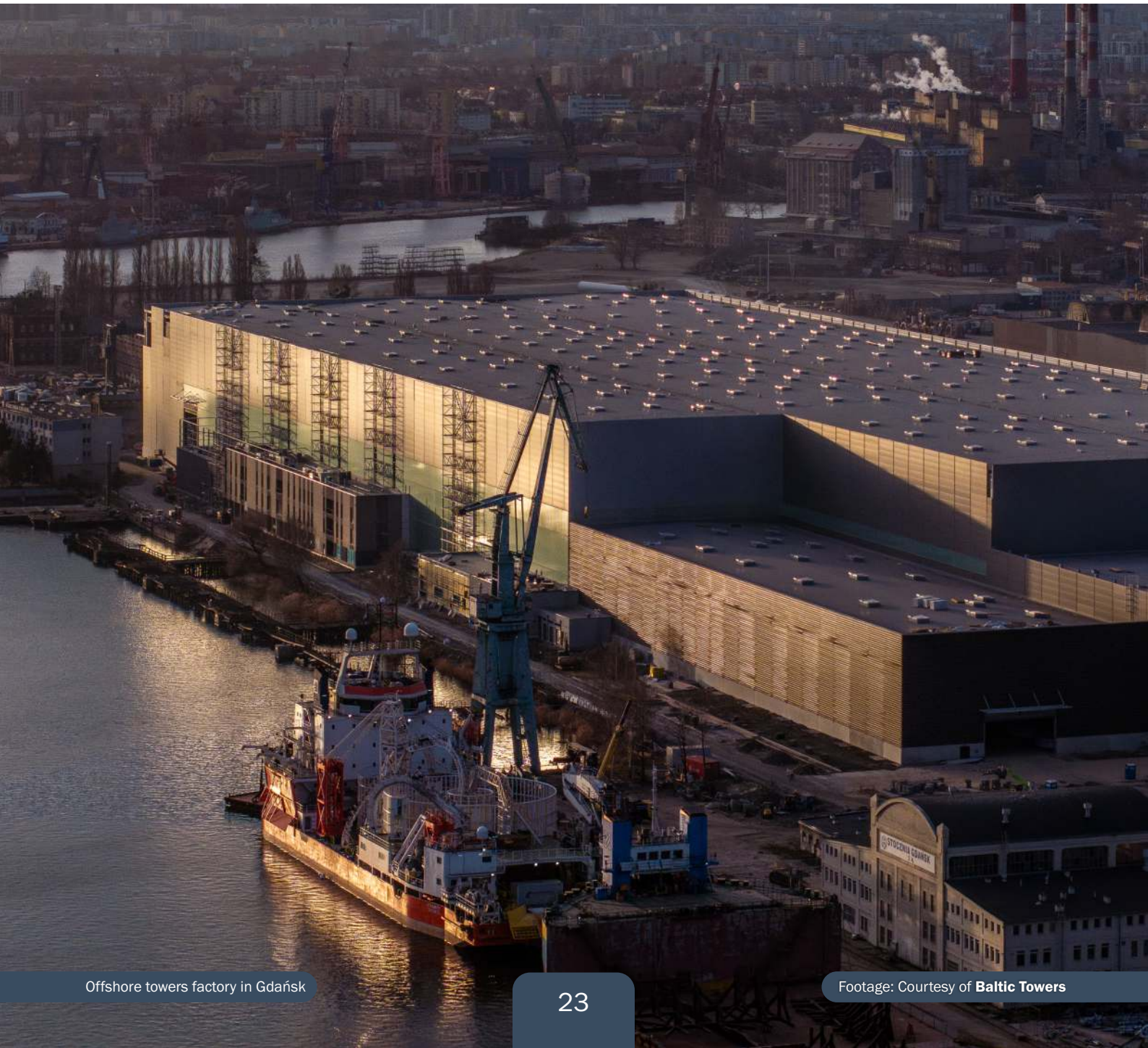
The overarching goal of this policy is to create favourable conditions for Polish businesses to join the supply chains of flagship national investments, such as offshore wind farms, transmission infrastructure, and port modernization. While the offshore sector plays a leading role, the approach is designed to extend across multiple industries, establishing a systemic framework for national participation in strategic projects.

Historically, Polish enterprises have had limited access to large-scale energy and industrial projects, mainly due to insufficient references, lack of international certifications, and limited project management experience at global standards. As a result, the first phase of Poland's offshore wind development relied heavily on foreign engineering and technology providers. The current policy seeks to reverse this trend by addressing structural barriers—financial, procedural, and regulatory—that have traditionally restricted the participation of Polish suppliers.

To implement this approach, the government established the Task Force for the Participation of Domestic Components in Key Investment Processes — commonly referred to as the Local Content Task Force — under the auspices of The Task Force supports the government's priority of expanding domestic participation in the supply chains of large-scale investment projects, especially those managed by state-owned enterprises. Its responsibilities include developing a working definition of the "domestic component" and establishing a consistent methodology for measuring its share in strategic investments; reviewing legislation related to the protection of national security interests and exploring regulatory options for supporting local content in non-defence sectors; benchmarking international best practices from European countries to identify legally compliant mechanisms that strengthen national industry participation while remaining aligned with EU internal-market rules; preparing a set of good practices and operational guidelines for state-owned enterprises on how to integrate domestic suppliers into their business strategies and how to monitor and report on their implementation; and finally, designing a pilot initiative to apply the local content framework in the renewable energy sector—most likely in offshore wind and/or onshore—as a test case before broader rollout. To operationalize the local content policy, the government is developing a package of financial and regulatory instruments designed to help Polish firms access high-value contracts in strategic sectors.

This policy not only enhances local economic impact but also aligns Poland with the European objective of strengthening regional supply chains for clean-energy technologies — positioning offshore wind as both an energy and an industrial transformation driver.

In preparation for the so-called second wave of offshore wind projects in Poland, a noticeable shift is emerging in how supply chains are being structured—both from the perspective of developers and public authorities. Many offshore wind developers in Poland have recently expanded their procurement teams, introducing dedicated local content managers responsible for inclusive engagement and for supporting the development of domestic production and service capabilities. Polish project will be responding constructively to evolving EU and Polish policy priorities, aligning their procurement and partnership strategies with the broader goals of the European Green Deal and the Net-Zero Industry Act. This does not imply rigid local-content obligations, but rather a cooperative, market-based approach that encourages integration, innovation, and the strengthening of supply-chain resilience across Europe. By working closely with local suppliers and international partners, developers can help ensure that Poland's offshore wind expansion delivers sustainable value both nationally and within the wider European industrial ecosystem.



Offshore towers factory in Gdańsk

Footage: Courtesy of **Baltic Towers**

CHAPTER 4:

Insights and Recommendations from Dutch Industry Feedback

4.1 Market Context and General Observations

The survey conducted among Dutch offshore wind companies active in or exploring the Polish market reveals a cautiously optimistic outlook. Poland is widely recognized as a country with strong industrial potential, strategically located ports, and a growing political commitment to offshore wind. Respondents consistently describe the market as — showing ambition and scale, but constrained by complex procedures, bureaucratic barriers, and an insufficiently transparent investment environment.

4.2 Current Cooperation with Polish Suppliers

Dutch offshore wind companies are already working with Polish suppliers and service providers on ongoing projects. Cooperation mainly takes place in foundation manufacturing, transport and installation, port logistics, and marine coordination. The overview below shows where these partnerships are happening and how local content is gradually taking shape.

Dutch company	Polish cooperation / location	Main activity
Van Oord	Port of Gdańsk / Port of Gdynia	Installation base & pre-assembly for Baltica 2 and Baltic Power
Boskalis	Gdańsk / Świnoujście	Export & inter-array cable T&I
Sif + Smulders Consortium	Smulders Project Poland (Żory, Świnoujście)	Fabrication & assembly of 100 transition pieces for Bałtyk II & III
IQIP	Port of Gdynia / Łeba base	Hydrohammer® & noise mitigation during Baltic Power foundation installation
Bluestream Offshore (OEG Group)	Polish ports (Gdańsk / Świnoujście)	EPCI for ICCP corrosion protection
CORROSION Group	Via Gdańsk port facilities	ICCP systems (with Bluestream)
N-Sea (N-Sea Polska)	MAG Offshore (Gdynia)	Joint operation of Marine Coordination Centre (MCC) for Poland & Baltics
N-Sea (N-Sea Polska)	Gdańsk/Gdynia	Local activities
SeaZip Offshore Services	PŻB Offshore (Gdynia)	Consortium for crew transfer / service vessels
Damen Shipyards	Several locations in Poland	Own production sites
HAPAM Polska	Łódź	Local production of high voltage disconnectors
Z-Bridge	Gdańsk	Local representative and Polish operators
RelyOn	Gdańsk	Takeover of local entity and investment in a new training facility
Broekman Logistics	Gdynia, Wyszków, Błonie, Poznań	Broekman has four own locations incl port of Gdynia for bulk transport and warehousing

KEY BOTTLENECKS FOR LOCAL CONTENT INVESTMENT

While most Dutch companies expressed willingness to invest and collaborate locally, several structural bottlenecks were repeatedly identified:

Regulatory and procedural complexity:
Lengthy administrative procedures, unclear responsibilities, and unpredictable timelines discourage investment.

Limited pipeline visibility:
Uncertainty about future auctions, contract awards, and project schedules prevents long-term planning.

Shortage of experienced offshore professionals:
Poland faces a talent gap in engineering, installation, and project management, with skilled experts often absorbed by large international developers.

Bureaucratic tendering and RFIs:
Developers frequently request detailed information and consultancy input without a clear or binding RFP process, generating high pre-contract costs.

Lack of transparency and coordination:
Fragmented communication between public institutions and industry players results in limited clarity about real project progress and supplier needs.

Price-driven procurement:
The prevailing focus on lowest-cost tenders limits opportunities for quality-based partnerships and penalizes international investors.

COOPERATION CHANNELS AND SUPPLIER ACCESS

Most Dutch firms remain open to new partnerships and describe direct contact as the most effective entry point for Polish suppliers. Common pathways include:

- Engaging through local business developers or branch offices in Poland.
- Registering on corporate supplier portals.
- Reaching out via procurement departments or dedicated websites.
- Networking at international events such as **LinkedbyOffshoreWind** meetings or **PSEW** conferences.

Some companies already have Polish partners or logistics operations and emphasize the advantage of local representation to build trust and credibility. Others plan to establish a Polish presence once projects reach financial close, noting that local recognition is key to sustainable cooperation.

REQUIREMENTS AND BARRIERS FOR POLISH SUPPLIERS

Dutch respondents presented a consistent set of expectations for potential Polish suppliers. These can be grouped into six core areas:

1. Operational excellence
Compliance with ISO, IEC, and DNV-GL norms; full HSE adherence; and traceable QA/QC procedures.

2. Proven experience
Demonstrable project track record in offshore wind or other heavy industrial sectors.

3. Financial stability
Creditworthiness, ability to provide guarantees or bonding, and sound financial reporting.

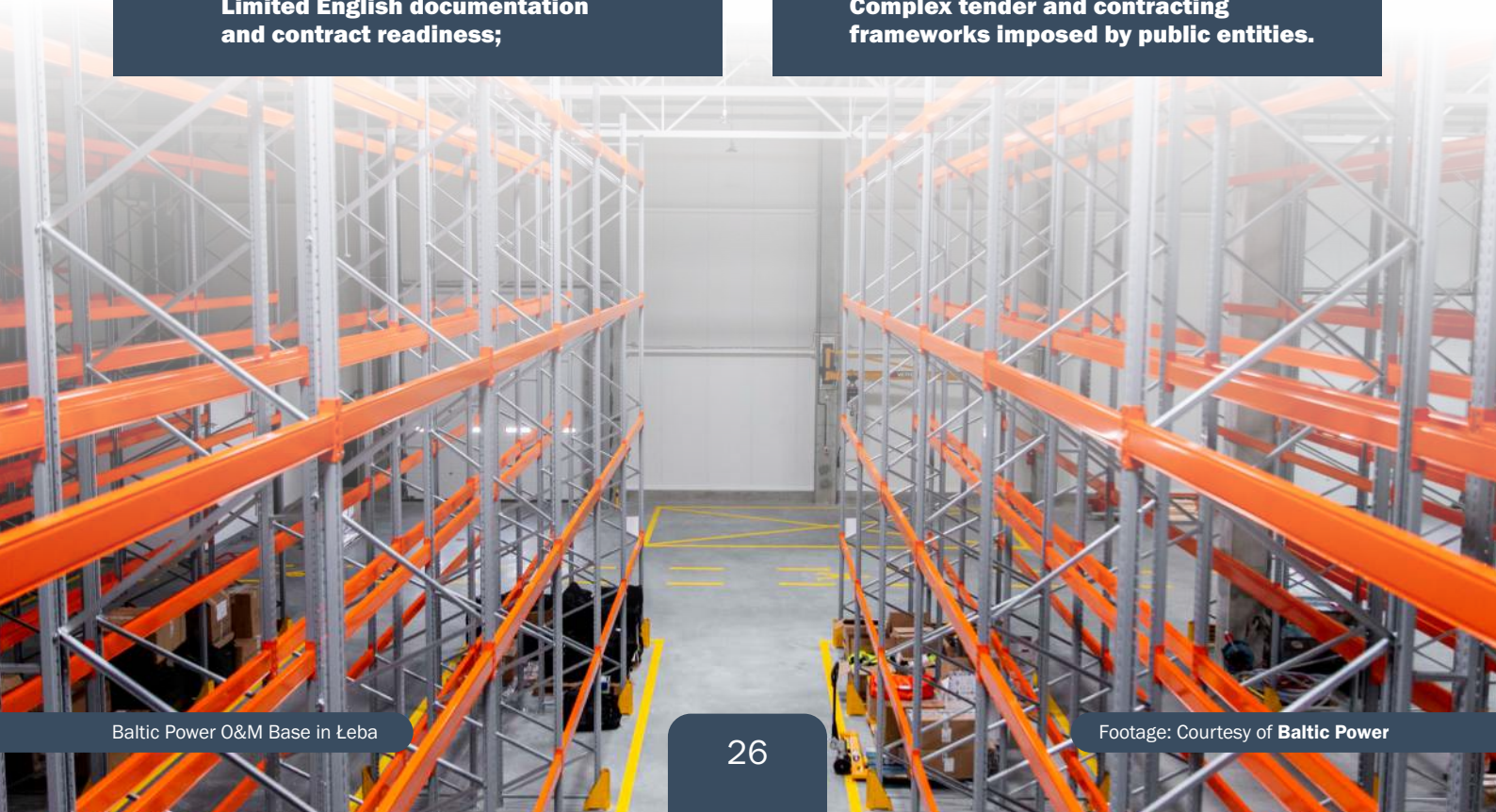
4. Communication and documentation
Fluent use of English in contracts, documentation, and health & safety materials.

5. Production and logistics capacity
Ability to deliver required volumes within deadlines, supported by appropriate infrastructure.

6. Innovation and co-development mindset
Willingness to engage in R&D collaboration rather than focusing solely on product delivery.

At the same time, respondents identified several recurring **barriers:**

- **Insufficient overview of available Polish suppliers and capabilities;**
- **Gaps in compliance with international offshore safety and quality standards;**
- **Limited English documentation and contract readiness;**
- **Complex tender and contracting frameworks imposed by public entities.**



Baltic Power O&M Base in Łeba

Footage: Courtesy of **Baltic Power**

MEASURES TO IMPROVE COOPERATION

Respondents suggested multiple practical measures to foster a more efficient and trust-based collaboration between Dutch and Polish actors:

1. Reduce bureaucracy and improve transparency
Streamline tender procedures, simplify administrative steps, and clarify decision-making criteria.

2. Establish a transparent supplier database
E.g. a joint initiative of PSEW, LinkedbyOffshoreWind, and Dutch institutions to provide a verified overview of Polish capabilities.

3. Introduce framework agreements
Especially in engineering and consultancy, enabling flexible cooperation while maintaining quality control.

4. Recognize local content in tender scoring
Ensuring that companies investing locally gain measurable advantages.

5. Encourage innovation and continuous learning
Support knowledge transfer and promote international best practices.

6. Promote long-term pipeline visibility
Through clearer auction schedules, project milestones, and predictable regulatory timelines.

INSTITUTIONAL ROLES AND SUPPORT MECHANISMS

Both LinkedbyOffshoreWind (LBOW) and the Polish Wind Energy Association (PSEW) received positive evaluations for their networking role. Dutch companies value these platforms for helping them identify credible partners, understand local dynamics, and access key stakeholders. Respondents suggested that both organizations could further enhance cooperation by:

- Organizing targeted B2B matchmaking and trade missions;
- Facilitating introductions to Polish developers, ports, and industrial clusters;
- Promoting the value of international experience and cross-European collaboration;
- Supporting training and certification alignment for Polish SMEs;
- Offering visibility to international experts and suppliers at conferences and panels;
- Acting as a neutral bridge between government, developers, and industry.

Additional organizations mentioned as potentially valuable intermediaries include:

- **Linkedbyoffshorewind** (*Linkedbyoffshorewind.eu)*
- **Netherlands Embassy** in Warsaw *(https://www.netherlandsworldwide.nl/contact/embassies-consulates-general/poland/embassy-warsaw)*
- **The Polish Embassy** in the Netherlands *(https://www.gov.pl/web/netherlands/embassy)*
- **The PAIH** office in Amsterdam *(paih.gov.pl/rynki-zagraniczne/niderlandy/)*
- **The Netherlands Enterprice Agency/RVO** *(RVO https://english.rvo.nl/*
- **Netherlands Polish Chamber of Commerce** in Warsaw *(NPCC.PL)*
- **Polish Chamber of Commerce** in the Netherlands *(PCCC.NL)*

STRATEGIC RECOMMENDATIONS

Based on the collected insights, the following recommendations are proposed to strengthen Dutch–Polish cooperation within the offshore wind value chain:

Build a transparent supply chain platform.
Create a shared, regularly updated database of certified Polish suppliers, mapping capabilities by product category and region.This initiative could be co-managed by state and sectoral bodies.

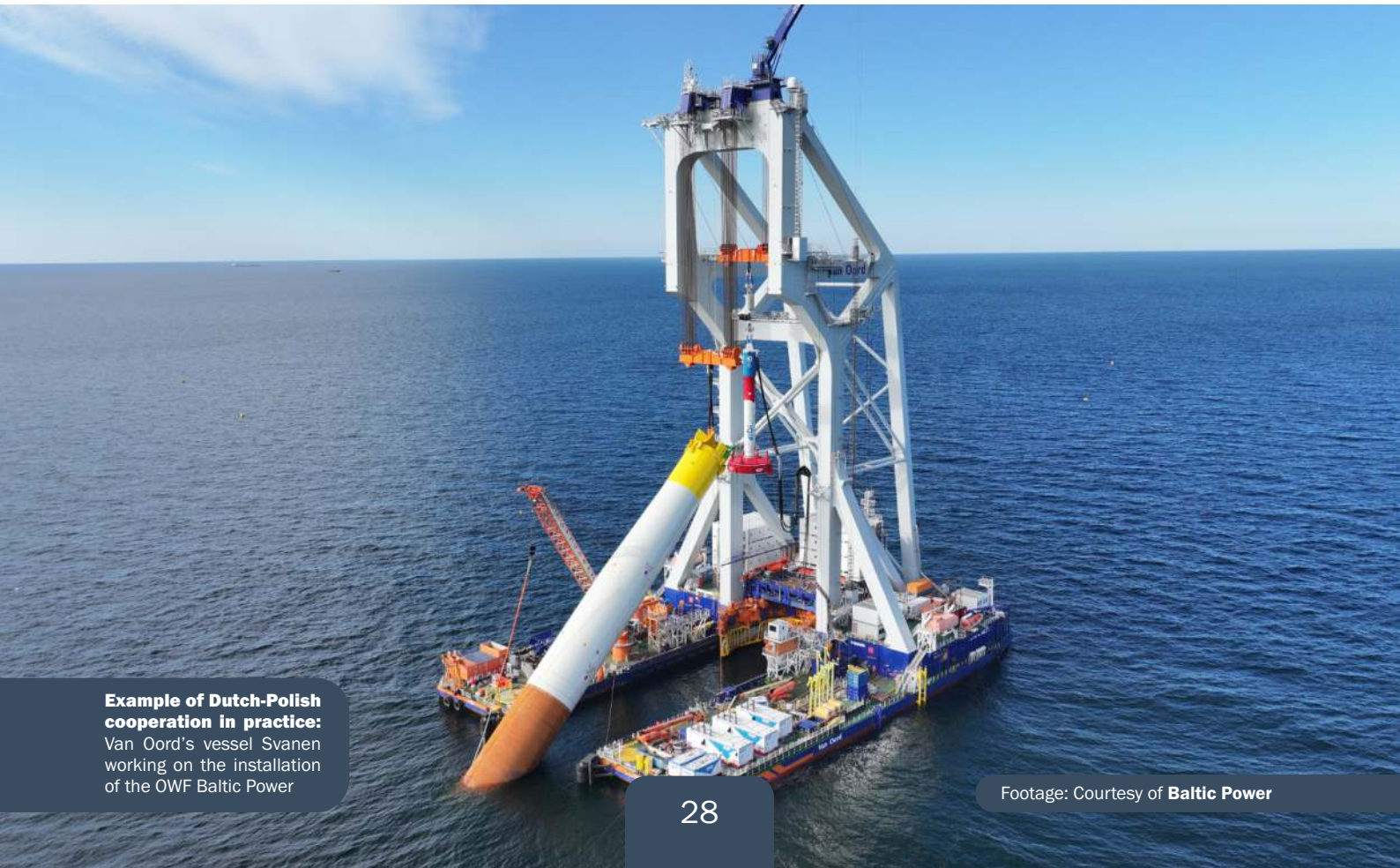
Introduce tender incentives for local content.
Advocate for clear, measurable scoring for local engagement and industrial contribution in Polish offshore wind tenders. This would align investment incentives with policy objectives and strengthen investor confidence.

Enhance institutional dialogue.
Establish a permanent Dutch–Polish Offshore Wind Task Force to coordinate policy feedback, share regulatory experiences, organize matchmaking and monitor cooperation outcomes.

Strengthen certification and workforce alignment.
Launch joint training, certification, and reskilling programs for Polish companies and workers to meet international offshore standards (DNV, HSE, ISO). This would directly address the shortage of experienced local personnel.

Promote knowledge exchange and innovation.
Organize regular joint workshops, seminars, and study visits focused on innovation, safety, and project management in offshore wind. Encourage participation of universities, R&D centers, and SMEs.

Increase visibility and long-term commitment.
Encourage Dutch and Polish stakeholders to maintain continuous presence in each other's markets—through offices, partnerships, and public communication—to build long-term trust and credibility.



Example of Dutch-Polish cooperation in practice: Van Oord's vessel Svanen working on the installation of the OWF Baltic Power

Footage: Courtesy of **Baltic Power**

CHAPTER 5:

Company Profiles: How They Scaled Up

Iv

Noordhoek 37 3351 LD Papendrecht,
the Netherlands

+31 **889 433 300**
info@iv.nl
https://www.iv.nl/en/

Beginning

Iv's origins are rooted in general marine and industrial engineering within the Netherlands, building up expertise in-complex multi disciplinary projects and system integration.

Critical Scaling Steps *(The How)*

Specializing in Modular EPC: Iv scaled by focusing on a specific, high-value, high-complexity component of the offshore grid: the Offshore Substation (OSS). They transitioned from general engineering to managing the entire Engineering, Procurement, and Construction (EPC) process for for these massive structures both bottom fixed and floating.

Key defining moment:
Accelerating Grid Build-Out: Their focus on modularization directly addresses the industry's need to accelerate grid development, making them a crucial partner in meeting national energy targets across the continent.

Securing a global position

Iv demonstrates its status by successfully participating in major cross-border projects like the Jasmund OSS in the German Baltic Sea. Their innovation lies in mastering modular construction techniques—designing substation topsides and foundations that can be rapidly fabricated and installed. This specialization allows them to meet the urgent demand for standardized, high-volume grid infrastructure required by European Transmission System Operators (TSOs) and offshore wind farm developers.

PONDERA

Haskoning Polska Sp. Z o.o.
17 Bonifraterska Street
00-203 Warsaw, Poland
Pondera Consult, Amsterdamseweg 13,
6814 CM Arnhem, The Netherlands

+31 **887 663 372**
info@ponderaconsult.com
www.ponderaconsult.com

Beginning (c. 2007)

Small Beginnings: Founded in 2007 amid an escalating climate crisis, Pondera embarked on a mission: to harness natural resources and foster a transition to sustainable energy. Early activities focused on supporting local wind energy projects, both onshore and pioneering offshore. Today, Pondera delivers full-scope services across the renewable energy sector, providing solutions for complex challenges throughout the energy transition.

Working with us as a supplier

We are looking for:

1. Qualified subcontractors with local expertise and knowledge of regulations and experiance collaborating with stakeholders (TSOs).

2. Qualified service providers with local knowledge and local assets for surveys.

Get in touch.
Gertjan Jobse
G.Jobse@ponderaconsult.com

Critical Scaling Steps *(The How)*

Growth through acquisition: In 2024, Pondera joined forces with Haskoning, strengthening its position as a leading consultancy in renewable energy. This integration expanded its international reach and added multidisciplinary expertise, enabling comprehensive support across the energy value chain, from generation and transmission to storage and conversion.

Key defining moment:
Specializing in High-Value De-Risking: Pondera supports the full project development lifecycle—from planning and permitting to realization— with hands-on expertise at every stage. The company excels in early-phase development, with a strong focus on pre-feasibility, environmental compliance, consenting, and risk mitigation. Its expertise in energy yield analysis, layout optimization and engineering ensures bankable projects, earning the trust of international investors and governments, as demonstrated by Pondera's involvement in the ELWIND project and offshore wind initiatives in the Netherlands and UK North Sea.

Securing a global position

Part of Haskoning's renewable energy advisory team, Pondera operates internationally, contributing to gigawatt-scale projects. With experience spanning over 60 GW of renewable energy —more than 20 GW offshore wind—Pondera and Haskoning have built a strong global track record. Clients include project developers, investors, port operators, and public authorities seeking to accelerate, de-risk, and scale offshore wind. All work is guided by the principles of sustainability, collaboration, and long-term value creation.

Ventolines

P.J. Oudweg 4
1314 CH Almere, the Nederlands

+31 **362 050 400**
info@ventolines.nl
https://www.ventolines.nl/en/

Beginning (c. 2007)

Founded in 2007 by siblings Anne and Jelma de Groot, Ventolines has grown into an integrated service provider in the renewable energy sector. With more than 100 specialists, the organisation guides clients through every stage of their wind, solar, energy storage and system integration projects. Whether it involves Project Design, Engineering and Execution, Project Structuring, or Management and Operations, Ventolines helps clients to make the right choices at the right time to optimise the value of their sustainable energy projects.

Critical Scaling Steps *(The How)*

Ventolines combines all relevant and required expertise throughout all project phases. This integrated approach ensures consistent decision-making from early development to repowering.

Key defining moment:
Impactful projects for Ventolines were Windpark Fryslân and Windpark Westermeerwind, two of Europe's most complex nearshore wind projects. As Owner's Engineer, the company demonstrated its capability to manage large-scale project integration. Covering all aspects of development, legal services, financial advisory, contracting, construction, asset management, and energy markets & PPAs.

Securing a global position

By working closely with our clients, understanding the local markets, and respecting societal expectations and needs, Ventolines continues to refine its integrated approach. The organisation remains active in the Netherlands and has expanded its activities to projects in Poland, the Baltic States, Scandinavia, the United States and Canada, sharing its expertise to accelerate the global renewable energy transition.

Working with us as a supplier

Want to know more about what we can do for you?

Contact Elisabetta Aarts (CBO)
at elisabettaaarts@ventolines.nl

GustoMSC

Karel Doormanweg 35,
3115 JD Schiedam, the Netherlands

+31 **102 883 000**
info.gustomsc@nov.com
https://www.nov.com/gustomsc

Beginning (150+Years)

GustoMSC has roots going back over 150 years in maritime and offshore engineering, initially focused heavily on the Oil & Gas sector (e.g., designing jack-up rigs and drillships since the 1970s). They specialized in mobile offshore units for harsh environments.

Working with us as a supplier

Best way is to follow the NOV supplier qualification:

www. https://www.nov.com/about/our-business-units/rig-technologies/rig-technologies-supplier-resources/supplier-connect

Critical Scaling Steps *(The How)*

The Strategic Pivot: The company recognized that the core technology used in oil & gas (jack-up rigs) was perfectly suited to install offshore wind turbines. They made a strategic pivot to design Wind Turbine Installation Vessels (WTIVs), leveraging their deep structural engineering history. This foresight allowed them to quickly dominate the emerging market.

Key defining moment:
Engineering the Future Choke Point: By designing vessels for the largest possible turbines, GustoMSC proactively solved a critical logistical "choke point" for the offshore windindustry, making them indispensable to all global installers and developers.

Securing a global position

GustoMSC is the leading global designer of WTIVs, having designed roughly two-thirds of the global fleet. Their innovation (like the NG-20000X mega jack-up) dictates the maximum size of turbines the industry can install. Their 2018 acquisition by NOV (National Oilwell Varco) provided the immense capital, manufacturing scale, and global supply chain necessary to support the worldwide boom in vessel construction.

Sif

Mijnheerkensweg 33
6041 TA Roermond, the Netherlands

+31 **475 385 777**
info@sif-group.com
https://sif-group.com/

Beginning

Monopile Manufacturing Heritage: Since 1948, Sif has been a leading manufacturer of thick-walled tubular steel structures. Since 2000, the company has focused on producing large-scale foundations including XXXL monopiles, transition pieces, and offshore steel structures that enable the growth of offshore wind energy and the wider energy transition.

Core Business:
Sif manufactures tailor-made offshore foundations for wind turbine developer.

Critical Scaling Steps *(The How)*

Investment in XL Scale: A milestone in Sif's development was the collaborative investment in a high-volume, dedicated manufacturing plant at Maasvlakte 2, built to meet the growing global demand for larger offshore wind foundations. The facility, located directly at sea, #enables higher efficiency and lower logistics emissions.

Key defining moment:
Strategic Modularization: Strategic Modularization: By focusing on end-to-end foundation solutions through innovation, engineering, and high-quality production — complemented by marshalling and logistics services — Sif contributes to optimising the offshore wind supply chain. This integrated approach supports safe, efficient, and accelerated production to meet the high-volume demands of national offshore wind roadmaps, such as those of the Netherlands, Germany, and emerging markets like Poland.

Securing a global position

Global Monopile Market Leader: Sif is a key enabler for the world's largest offshore wind projects, recognized for industrial scale and logistical excellence. With manufacturing in Roermond and assembly, coating, and load-out at Maasvlakte 2 in Rotterdam, Sif delivers efficient foundation solutions that strengthen Europe's offshore wind value chain, help reduce the Levelized Cost of Energy (LCOE), and support the global energy transition.

Working with us as a supplier

Companies who work with Sif contribute to a shared mission: expanding renewable energy capacity and strengthening Europe's sustainable energy.

www. https://sif-group.com/contact/supplier-information

DDC

Coenecoop 3 B4,
2741 PG Waddinxveen, the Netherlands

+31 **182 634 625**
info@ddcbv.com
https://ddcbv.com/

Beginning

DDC grew from the Netherlands' deep-rooted expertise in offshore construction and geotechnical engineering. Originating in the oil & gas sector, the company and it's partners specialized in drilling, pile driving, and complex foundation work for heavy marine structures. Over time, this technical foundation evolved into a core business in marine piling and foundation services, applying decades of offshore experience to the challenges of modern energy infrastructure and coastal development.

Critical Scaling Steps *(The How)*

Transfer of Oil & Gas Efficiency: The strategic scaling step was the direct transfer of high-efficiency drilling and foundation installation methods from the mature oil & gas sector to offshore wind. This included adapting high-torque drilling tools and methods to the challenging, heterogeneous North Sea seabed conditions, solving foundation installation issues that general maritime construction firms struggled with.

Key defining moment:
Focus on Geotechnical De-Risking: Their value proposition became about reducing project risk and time by reliably pre-drilling or installing piles in difficult areas. This specialized service proved invaluable in international tenders where seabed conditions often cause major delays and cost overruns.

Securing a global position

Specialist Foundation Installation Provider: Dutch Drilling Consultants is a specialized, asset-light drilling service provider, offering de-risked foundation solutions globally.

Key involvement in complex international projects (e.g., challenging UK or French offshore sites) where geotechnical risk is the primary concern, proving their niche market dominance in a high-value phase of construction.

Corrosion

Zernikestraat 2
2665 JJ Bleiswijk, the Netherlands

+31 **795 931 295**
info@corrosion.nl
https://www.corrosion.nl/contact/

Beginning

Corrosion originated in the Netherlands' maritime, shipbuilding, and infrastructure sectors, where it built expertise in active cathodic protection systems for ships, offshore foundations, and harbor structures. Over time, this foundation evolved into a specialized focus on the application and inspection in field as well via SCADA services, ensuring long-term durability and reliability for marine and off-shore assets.

Working with us as a supplier

First point of contact:

Niels Ros:
nr@corrosion.nl

Critical Scaling Steps *(The How)*

Certification and Standardization of Offshore-Specific Systems: The critical step was achieving top-tier ISO certification and specialization in Cybersecurtity for critical energy infrastructures. The predictable Dutch market provided the volume necessary to perfect the industrial application process for the massive surface areas of XL offshore wind foundations.

Key defining moment:
The 'Integrated Durability' USP: Their strategic focus shifted from traditional supplier of active protection products in the supply chain to a total partner role for asset owners. With full support during O&M with field engineers, as well as support with SCADA engineers and everything covered with knowledge from an in-house laboratory.

Securing a global position

Corrosion has established itself as a global expert in asset integrity management, combining technical application and consultancy for long-term offshore protection. Its reputation is built on the ability to design and deliver corrosion prevention systems that guarantee the 25–30-year lifespan of multi-billion-dollar offshore assets. Drawing on decades of Dutch engineering experience, the company now plays a leading role in setting and verifying international corrosion protection standards in new markets such as the US and Asia, where durability under different climate conditions presents unique challenges. Corrosion's technologies and processes are recognized and integrated into global industry frameworks — including ISO 9001, 14001, 45001 & ISO 27001 and DNVGL guidelines — positioning the company not merely as a supplier but as a reference point for best practice in long-term offshore durability.

HAPAM

W. Tymienieckiego 22/24,
90-349 Łódź, Polska

+48 **426 635 450**
hapam@hapam.pl
https://www.hapam.pl/

Beginning

HAPAM's origins are rooted in the long-standing design and production of high-voltage disconnectors and earthing switches for utility substations across the Netherlands and Europe. This foundation built a centennial legacy of reliability, durability, and virtually maintenance-free design for critical grid components, which later extended to offshore substations and grid connection systems. Today, the company focuses on manufacturing robust, high-voltage switchgear— disconnectors and earthing switches up to 800 kV —for utilities operating both onshore and offshore.

Working with us as a supplier

First point of contact is the purchase department
hapam@hapam.pl

Critical Scaling Steps *(The How)*

Their expertise became globally valuable by delivering high-reliability isolation—a non-negotiable safety requirement—in a compact, low-maintenance design now used by Transmission System Operators worldwide in increasingly complex renewable grids.

Securing a global position

HAPAM is a global specialist in high voltage isolation and switching, supplying HV disconnectors to over 125 countries. Their disconnectors are crucial for providing the visible metallic isolation required for maintenance on major land-based substations that connect offshore wind power to the main grid. With production facilities in the Netherlands and Łódź, Poland, Hanoi Vietnam and Montreal, Canada. More than 200,000 disconnectors have been supplied worldwide, HAPAM's focus on component directly supporting the reduction of lifecycle costs, making its products a standard choice for transmission projects far beyond Dutch borders.

HSM

Westfrankelandsedijk 9
Haven 528 3115 HG Schiedam
the Netherlands

+31 **104 279 200**
sales@hsmoffshoreenergy.com
https://hsmoffshoreenergy.com

Beginning

Company heritage HSM's heritage lies in the construction of heavy, complex steel structures, rooted in the well-established Dutch civil industry (e.g., steel bridges and lock gates) and the upstream oil and gas sector (e.g., offshore topsides, modules, and jackets). As a pioneer, HSM began its offshore activities in 1962, focusing on upstream developments. Until 2002, its core business centered on the fabrication of large steel structures for both the civil and oil & gas industries.

Critical Scaling Steps *(The How)*

First-Mover EPCIC in Offshore Wind: A critical step in HSM's evolution was becoming a first mover in Engineering, Procurement, Construction, Installation, and Commissioning (EPCIC) for Offshore High-Voltage Substations (OHVS). Focusing on large steel topsides, HSM leveraged its deep oil and gas heritage to deliver highly complex, integrated electrical platforms. This transformation began with landmark projects such as the world's first large commercial offshore wind farm: Horns Rev A (2002).

Key defining moment:
HSM transitioned from a steel construction company into a full-scale EPCIC contractor capable of integrating high-, medium-, and low-voltage systems, along with auxiliary equipment, into smart Offshore High-Voltage Substation designs characterized by a high power-to-weight ratio. This was achieved through strategic collaborations with trusted partners, combining engineering expertise, efficient lead times for high-voltage equipment, and proven offshore installation capabilities.

Securing a global position

HSM's proven expertise in complex offshore topsides and substations has established it as one of Europe's leading EPCIC contractors, a position reinforced through its integration into the Eiffage Smulders Group. Building on a long track record in offshore energy, the company is now broadening its capabilities toward emerging sectors such as offshore hydrogen and carbon capture and storage (CCS), applying its modular fabrication approach to the next generation of energy infrastructure.

TKF

Spinnerstraat 15,
7481 KJ Haaksbergen, the Netherlands

+31 **535 732 255**
info@tkf.nl
https://www.tkf.nl/en

Beginning

TKF has been founded in 1930 and began as a general cable manufacturer, serving onshore utilities, industrial automation, and telecom sectors, establishing foundational expertise in cable design, insulation, and material science Their core business is manufacturing of cable solutions for various industrial applications. In its early years, the company quickly supplied cables for the electrification of the Dutch Wadden Islands and was listed on the Amsterdam Stock Exchange.

Critical Scaling Steps *(The How)*

Due to the growing demand for sustainable energy, more and more wind farms are being developed, and TKF has decided to set up a new factory for subsea cables. Due to its success in the market, a new factory for inter-array cables for offshore wind was opened in Eemshaven in 2024. A state-of-the-art production facility was opened in Poland in 2023.

Securing a global position

TKF has established itself as a global leader in inter-array cable systems, supplying cables to major offshore wind projects across Europe, including Germany and the UK. Being part of the technology company TKH Group NV, TKF has access to breakthrough solutions, concepts and technologies. It's strong performance on largescale developments has reinforced TKF's reputation as a trusted partner for highvoltage connectivity, ensuring reliable power transmission within increasingly complex offshore networks. This proven track record positions the company as a strategic supplier in the global offshore wind value chain.

Van Oord

Schaardijk 211
3063 NH Rotterdam, the Netherlands

+31 **888 260 000**
info@vanoord.com
https://www.vanoord.com

Beginning

Marine Contractors 1868: Founded as a family business in the softwood trade, Van Oord developed into experts in dike construction, dredging, and land reclamation. This laid the foundation for core expertise in seabed works, complex civil engineering, and operating large marine fleets under diverse conditions.

Working with us as a supplier

Active suppliers are registered in our Supplier Marketplace. Potential or new suppliers are asked to register through the supplier registration form -

www. https://www.vanoord.com/en/suppliers-information/

Critical Scaling Steps *(The How)*

Leveraging Dredging to Installation: By applying its deep knowledge of seabed conditions, Van Oord delivers specialised transportand installation of foundations and turbines, subsea cables, and scour protection alongside its traditional dredging activities. This combined expertise ensures Van Oord remains a trusted partner for complex marine infrastructure projects worldwide.

Key defining moment:
Van Oord's journey in offshore wind is marked by several pivotal milestones:
• 2014 – Launch of Aeolus: The newbuild of its first dedicated offshore wind installation vessel demonstrated Van Oord's early commitment to the offshore wind industry.
• 2016 – Gemini Offshore Wind Farm: Van Oord not only acted as EPC contractor but also as co-developer, delivering one of the largest offshore wind projects of its time. The successful completion of Gemini showcased Van Oord's ability to execute complex projects and helped make offshore wind competitive in the Netherlands.
• 2025 – Investment in Boreas: Continuing its commitment to offshore wind, Van Oord invested half a billion euros in Boreas, a next-generation offshore wind installation vessel designed to install foundations and turbines of up to 20 MW.

Securing a global position

Van Oord manages the entire lifecycle of wind farm development, from engineering and design to the installation of subsea foundations, electrical infrastructure, and turbines, as well as heavy maintenance and repair. Their dedication to marine ingenuity drives them to deliver sustainable solutions for today's global challenges. Working closely and safely with their clients and stakeholders, Van Oord addresses the growing demand for space, resilient maritime transport infrastructure, and stronger coastal protection. At the same time, they recognise the urgency of reducing global CO_2 emissions and meeting the world's rising energy needs. Offshore wind is a cornerstone of this energy transition, and Van Oord plays a leading role in building the energy infrastructure of the future.

Boskalis

Rosmolenweg 20
3356LK Papendrecht, the Netherlands

+31 **786 969 000**
royal@boskalis.com
https://www.boskalis.com

Beginning

Dredging & Marine Services (1910): Founded on a long history of dredging and marine contracting, specializing in creating and maintaining navigable waterways and ports. This instilled core competence in seabed preparation and managing large-scale marine operations.

Working with us as a supplier

Get in touch via:

www. https://boskalis.com/terms-and-condi tions-of-purchase
or visit our booth at events.

Critical Scaling Steps *(The How)*

Vertical Integration in Subsea Services: Boskalis scaled by strategically integrating and mastering the entire subsea project lifecycle for offshore wind, from UXO (Unexploded Ordnance) clearance and geophysical/geotechnical surveys to high-accuracy subsea cable installation and protection.

Key defining moment:
Acquisition and Process Mastery for Cables: Their acquisition of cable installation expertise (like VBMS) allowed them to offer a complete, de-risked subsea cable package using proprietary equipment (e.g., advanced ploughs and trenchers). This single-source responsibility for complex cable installation is highly valued by international TSOs and developers, reducing project interface risk and time.

Securing a global position

Boskalis has emerged as a global leader in integrated subsea solutions, combining marine construction, cable installation, and seabed intervention within a single in-house capability. With over 5,000 km of export and array cables installed worldwide, the company has proven its capacity to deliver large, complex offshore energy projects and has secured a strong position in new growth regions such as the Baltics and Asia, reinforcing its role as a world-class offshore contractor.

Damen

1st Indyjska Str.
81-336 Gdynia, Poland

+48 **586 221 410**
info@damen.com
https://www.damen.com

Beginning

Standardized Ship Design (1927): Core business centered on a modular approach to shipbuilding, using standardized designs and components to quickly and efficiently produce vessels (tugs, workboats, ferries). This created a robust, cost-efficient, and adaptable manufacturing base.

Working with us as a supplier

First point of contact Damen Engineering Gdańsk.

www.
https://www.damen.com/companies/damen-engineering-gdansk/supply-chain
or send an email to:
procurement@damen.com

Critical Scaling Steps *(The How)*

Applying Modular Design to Service Vessels: Damen scaled into offshore wind by applying its core standardization principle to the specialized Service Operations Vessel (SOV) and Fast Crew Supplier (FCS) markets. The certainty of the Dutch wind build-out allowed them to develop and market standardized, serial-built SOVs/FCSs with the "Sea Axe" hull design for superior seakeeping.

Key defining moment:
Innovation in Service Vessel Efficiency: The key innovation was the SOV—a purpose-built vessel that acts as a floating, offshore hotel and workshop with a Walk-to-Work (W2W) gangway. Damen's designs (like the SOV 9020 and 7017) became a global standard, reducing maintenance costs, increasing technician comfort, and maximizing weather-independent operational uptime—a crucial value proposition for long-term wind farm O&M contracts worldwide.

Securing a global position

Damen is a world-leading and highly innovative shipbuilder, active across many key global markets in the maritime industry. The company is setting new standards in sustainable shipping with advanced hybrid, fully electric, and alternative-fuel vessel designs that shape the next generation of the maritime fleet. Damen continues to drive progress in offshore wind as well, contributing to the development of future maintenance and support vessels for this sector.

Clarkson Port Services

Monnickendamkade 19
1976 EC Ijmuiden, the Netherlands

+31 **223 614 700**
floris.vanderkerk@clarksons.com
https://www.clarksons.com/port-services

Beginning

Local Integrated Logistics (1997, as DHSS): Started as a service provider (logistics, agency, warehousing) in Den Helder, a port strategically located near the earliest North Sea offshore projects (initially oil & gas). This built expertise in complex port agency, customs, and coordinated offshore supply.

Working with us as a supplier

First point of contact:

Floris van der Kerk
floris.vanderkerk@clarksons.com

Critical Scaling Steps *(The How)*

Standardizing the Logistics Hub Model: The high-volume, continuous Dutch offshore wind market demanded a specialized, year-round logistics service. DHSS scaled by becoming a sector-specialist in integrated port logistics for the entire wind farm lifecycle (installation, O&M, warehousing, helicopter support), effectively standardizing the "gateway to offshore" model.

Key defining moment:
Strategic Acquisition & Replication: The company's expertise in providing a single point of contact for all onshore support (from vessel agency to customs and inventory) became a highly transferable model. The acquisition by Clarksons Port Services enabled the DHSS model and team to be rapidly replicated and offered on a global scale, specifically targeting the international offshore renewables sector.

Securing a global position

Global Port & Logistics Integrator: Operating under Clarkson Port Services, the company provides essential turnkey integrated logistics from strategically located ports across the North Sea region (Netherlands, UK, Ireland).

The integrated company now boasts a team of over 200 FTE, leveraging the Den Helder model to secure major international contracts for long-term O&M port logistics and warehousing (e.g., with RWE for the Nordseecluster project), validating their global, repeatable service standard.

WIND Cable Solutions

Oudegracht 164-168
1811 CP Alkmaar, the Netherlands

info@wind.nl
https://www.wind.nl

Beginning

Founded in 1991 as a cargo ship owner, WIND occupies a unique position in the subsea cable market today. Drawing on our extensive shipping network, large pool of cable handling equipment and dedicated cable crews, it is our mission to deliver excellent services characterized by safety, trust and expertise.

Working with us as a supplier

Either for Draftec and Wind First point of contact is:

Martijn Rensen
info@wind.nl

Critical Scaling Steps *(The How)*

Built a modular, repeatable operating system around end-to-end cable logistics: Cable transport, cable transfers, long- and short-term storage, specialist crews & equipment and in-house engineering & project management. Secured own equipment chain via recent acquisition of Draftec (engineering and manufacturing firm) to perform in-house development of cable handling equipment. Follow-themarket hubs added in the USA and Asia to mirror Dutch standards abroad. This playbook—asset control + tandardized processes + global coverage—translated the stable Dutch demand into scalable global capacity.

Securing a global position

Global footprint and marquee projects: Cable storage yards in Europe, Asia, and the USA; Significant investment in new range of SMART caroussels. Recognized as world market leader in cable logistics/storage/recovery, serving top offshore wind developers and TSOs worldwide.

SeaZip

Korte Lijnbaan 25
8861 NS Harlingen, the Netherlands

+31 **517 431 225**
info@seazip.com
https://www.seazip.com/

Beginning

SeaZip Offshore Service, foundedin 2010, emerged from the maritime cluster in Harlingen, Netherlands, building on the ship management expertise of the JR Shipping Group. Initially focused on crew transfer and support operations for offshore wind farms in the North Sea, SeaZip quickly became known for its reliability and operational excellence in challenging offshore conditions.

Critical Scaling Steps *(The How)*

SeaZip scaled by developing a standardized, high-spec fleet of Crew Transfer Vessels (CTVs) designed for safety, efficiency, and rapid deployment. By integrating vessel operation, management, and technical service under one roof, SeaZip offered turnkey marine logistics solutions for both construction and O&M phases of offshore wind projects.

Key defining moment:
Their collaboration with major European wind developers and operators (e.g., Ørsted, RWE, and Vattenfall) proved the scalability of their operational model. This partnership-based approach allowed SeaZip to continuously refine vessel design and fleet management around client performance data and evolving offshore logistics demands.

Securing a global position

From its base in Harlingen, SeaZip has extended operations into the UK, German, and Baltic offshore markets. Its reputation for dependable CTV and small-scale offshore logistics has positioned it as a preferred partner for integrated marine support—covering crew transfers, component transport, and emergency response.

The company's focus on sustainable operations, including hybrid propulsion innovations and digital fleet monitoring, reinforces its role as a forward-looking logistics specialist supporting Europe's offshore wind expansion.

N-Sea Polska

Pomeranian Science and Technology Park Gdynia,
al. Zwycięstwa 96/98 (C3.17 – Tower 3, Floor 3)
PL81-451 Gdynia Poland

+48 **692 831 969**
info@n-sea.pl
https://www.n-sea.com

Beginning

N-Sea is a top tier subsea services provider:

- Founded in 1932 as Noordhoek Shipping Company
- Expanded as a diving contractor in the 60's
- Moved into subsea services for the North Sea in the 80's
- Started with site investigation survey in 2004
- Re-branded as N-Sea in 2011
- Founded UXOcontrol in 2016 as JV with Bodac
- Established N-Sea Polska and UXO Control Polska 2020
- Acquired by CapitalChange in 2021

Critical Scaling Steps *(The How)*

Since 2021:

- Built a team of more than 500 professionals working in our facilities and on our vessels
- Built a fleet of 12 multi-purpose vessels, 7 ROV's and 14 launch & recovery systems (LARS)
- Has become a 'one-stop-shop' services provider for subsea infrastructures
- Balance between customers' CapEx and OpEx subsea projects
- Turnover growth of 30% CAGR since 2021
- Member of PSEW and signatory of Polish Sector Deal

Securing a global position

N-Sea is an integrated total subsea solutions provider in Survey, UXO ID & Disposal, IRM & Construction, and Subsea Cable Repair & Installation.

The company's approach focuses on delivering total solutions for subsea infrastructures and assets that meet the needs of its clients and the international offshore energy industries, considering a safe (working) environment.

N-Sea operates throughout Europe, the UK, and the Baltic region. We aim to leverage Poland as a strategic hub for our operations in the Baltic. N-Sea has increased its investments in assets located in Gdynia, Władysławowo, Świnoujście and other parts of Poland to further strengthen our capabilities in the region.

N-Sea creates substantial value through managing and reducing complex interfaces, solid project management & support, full client focus, and awareness. N-Sea Group is a privately owned company headquartered in NL with decades of experience, over 500 people employed and more than 14 vessels, and supports its customers with subsea projects in Europe, the Baltics and in the Middle East.

Broekman logistics

Towarowa 35/5
61-896 Poznań Polska

+48 **506 026 001**
poznan@broekmanlogistics.com
https://www.broekmanlogistics.com

Beginning

Heavy-lift and project logistics origin: Broekman grew out of full-service logistics in Rotterdam and Eemshaven, handling oversized, breakbulk and industrial equipment for maritime and terminal operations.

Working with us as a supplier

First point of contact is:

Jan Willem Dijksterhuis
J.Dijksterhuis@broekmanlogistics.com

Critical Scaling Steps *(The How)*

Focusing on offshore wind and industrial energy transition cargo: Broekman strengthened its capability by operating terminals (e.g., the Project Services terminal in Rotterdam Heijplaat) with heavy-lift cranes (up to 700 t indoor) and quayside for vessel mobilisations, enabling rapid handling, storage, assembly and shipment of offshore wind farm components and installation vessels.

Securing a global position

Broekman now operates as a global logistics partner for offshore wind projects: from its hubs in Rotterdam and Eemshaven, it provides end-to-end supply-chain services (vessel agency, transport, heavy-lift, assembly, storage, cable reels etc.) across international markets, positioning it as a key player for the offshore wind value chain.

J-UB
JACK-UP BARGE

Jack-up Barge

Everdenberg 17
4902 TT Oosterhout, the Netherlands

+31 **184 420 091**
info@jackupbarge.com
https://www.jackupbarge.com/

Beginning

Founded in 2003, Jack-Up Barge (JUB) originated in the Netherlands as a owner and exclusive operator of their fleet of self-elevating platforms for offshore construction and maintenance. Building on the Dutch maritime engineering tradition, JUB quickly established a reputation for reliable nearshore and offshore support in wind, oil & gas, and civil marine projects. Its early operations in the North Sea laid the foundation for deep expertise in safe, efficient, and flexible offshore access solutions.

Working with us as a supplier

Mainly through the logistics partner in Poland or via the website.

www.
https://www.jackupbarge.com/contact

Critical Scaling Steps *(The How)*

JUB's growth was driven by its investment in monohull jack-up units capable of operating in shallow and transitional waters — in both coastal construction and offshore wind installation and maintenance support. This capability allowed developers to deploy assets more cost-effectively and flexibly across multiple projects.

Key defining moment:
The introduction of Offshore Wind marked a turning point: JUB transitioned from supporting nearshore construction to being a partner in the development and maintenance phase with year-round workability in major wind farms. With six jack-ups available, they match demand of this emerging market.

Securing a global position

Jack-Up Barge has become a recognized and reliable offshore wind partner across Europe, the Middle East, and Asia, with high workability and minimum downtime. Operating from the Netherlands with a modern fleet of jack-ups (JB-series), the company supports Wind Farm Developers, EPC contractors and OEMs in the full wind farm lifecycle—from installation to commissioning and O&M campaigns.

By high operatibility, large accommodation facilities and lifting support operations, JUB has secured framework agreements with major developers and service providers, validating its position as a reliable, globally active operator in the offshore renewables sector.

IQIP using their EQ piling system in Rotterdam, the Netherlands

Footage: Courtesy of **IQIP**

Notes

Notes

WIND INDUSTRY HUB

JOIN OUR COMMUNITY
to shape to future of wind energy together!

www.windindustry.pl

The Wind Industry Hub Foundation was established in 2023 by the Polish Wind Energy Association, which has been in existence since 1999, the largest industry organization in Poland and a member of WindEurope. The mission of the Wind Industry Hub Foundation is to develop a strong supply chain for the wind sector and support the involvement of the domestic industry in Polish and European wind investments. The Foundation aims to improve energy and economic security by ensuring an adequate industrial base in Poland.

The Wind Industry Hub, through its activities, strengthens Polish companies in their expansion into foreign markets and develops the flow of foreign investment into Poland. The Foundation guarantees the building of strong business relations, knowledge and technology transfer, as well as support for the implementation of joint projects between domestic and foreign industrial entities operating in the wind sector. Through cooperation with government administration and support of the business and legal environment, the Foundation co-creates Poland's coherent industrial policy and the dynamic development of the Polish wind industry. The Foundation's goals also include supporting Polish companies and institutions in the implementation of the EU's policy to strengthen the European industry supplying components for investments in climate-neutral energy technologies.

CEE Energy Group

CEE Energy Group is a Polish consulting company supporting the development of the wind energy industry, combining over 20 years of experience of its founders and owners, Maciej Mierzwiński and Krzysztof Tomaszewski. We specialise in creating business strategies for supply chain development, analysing production and investment capacities, as well as providing financial, organisational and institutional consulting. Working with public administration, investors and manufacturers, CEE Energy Group identifies barriers to the development of local suppliers, designs support programmes and initiates activities to strengthen the competitiveness of Polish industry.

GO TO OUR WEBSITE TO FIND YOUR NEW PARTNER!

NL

WWW.LINKED BY OFFSHORE WIND.EU