



# Strengthening the offshore wind supply chain

Aligning with sector priorities

November 2024



The offshore wind sector is entering a phase of rapid growth. With the UK Government's plan to quadruple offshore wind capacity by 2030, the pressure is on to establish a robust and globally competitive supply chain. The Industrial Growth Plan (IGP), published earlier this year, has outlined a clear roadmap for sector growth through the identification of key priorities and interventions that will prove essential to strengthening the offshore wind supply chain.

This brochure provides a snapshot of how the Offshore Wind Growth Partnership (OWGP) is accelerating supply chain growth by aligning its programmes with the five key priorities identified by the IGP. We highlight a number of innovative companies across the UK who have benefited from OWGP's targeted programmes and are making important contributions to the growth of the UK offshore wind sector.

Further examples of company success stories can be found on the OWGP website.



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# Growing the UK's offshore wind supply chain

## Who are we?

Offshore Wind Growth Partnership (OWGP) was established by the Offshore Wind Industry Council as part of the Offshore Wind Sector Deal 2019 to:

- Support growth of the UK offshore wind supply chain
- Deliver increased supply chain productivity, competitiveness and export capability
- Facilitate innovation and development of intellectual property
- Encourage UK-Based businesses with transferable capabilities to enter the offshore wind sector
- Promote greater collaboration in the sector within the UK and worldwide

OWGP delivers programmes tailored to grow companies within the sector and accelerate transition of companies from other sectors. We deliver these programmes with our trusted network of delivery partners.

## Our Aims

-  Increase economic value
-  Increase skilled jobs
-  Increase exports
-  Increase UK Intellectual Property

## Providing support through two major initiatives

### Funding Support Programmes



Our funding programmes are aimed at development of increased capability and capacity and technology commercialisation.

### Business Transformation Programmes



Business transformation programmes are designed to address needs such as sector knowledge, business strategy, tender readiness, and increased competitiveness.

## Our progress so far...

OWGP is increasingly playing a dual role in strengthening the UK offshore wind sector. Alongside delivering direct support to supply chain companies through targeted programmes, OWGP has actively contributed to broader, strategic initiatives that continue to shape the future of offshore wind.



**1550**  
New jobs in offshore wind



**£21.7m**

Awarded to UK companies through **grant funding** and **business transformation programmes**.



**302**  
Projects supported

Talk to our Funding Support team



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## Funding Support Programmes

OWGP run a pipeline of funding competitions to identify high-growth UK companies and award funding on a competitive basis. Our funds are designed to support transformative projects that will enhance competitiveness, drive innovation, and stimulate growth in the UK's Offshore Wind supply chain.

We encourage applications from existing supply chain companies and those looking to diversity from adjacent sectors.



⌚ £25K to £250K

Targeted at projects that deliver new innovative technologies, products and services to the sector.



⌚ £100K to £500K

Targeted at projects delivering company growth through new capability addition or expansion of existing capabilities.



⌚ up to £500K (NEW IN 2024)

To support essential pre-investment activities, paving the way for capital investment in new or expanding manufacturing facilities.

## Business Transformation

OWGP offers a suite of Business Transformation Programmes which support companies at different stages of their journey within the Offshore Wind sector to realise increased impact, productivity and growth.

Working with strategic partners and industry experts, our programmes provide access to a range of support services for companies of different levels of maturity. Programmes are for companies already operating in Offshore Wind, as well as those seeking to transition into the sector.



Our foundation level programme, low intensity, short and designed to give you strategic clarity through the provision of specialist advice, market intelligence and insight into the Offshore Wind sector.

- ⌚ Low intensity
- ⌚ Short term commitment
- ⌚ Specialist advice & market intelligence



A medium intensity support programme designed specifically to help the UK supply chain prepare to bid for work in the offshore renewables sector.

- ⌚ Medium intensity
- ⌚ Specialist advice
- ⌚ A focus on preparation for bidding



Our most intense programme suited to ambitious UK companies looking to accelerate growth in the Offshore Wind sector.

- ⌚ High intensity
- ⌚ Long-term commitment
- ⌚ A focus on accelerating growth

Talk to our Business Transformation team



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#### SUPPLY CHAIN IN FOCUS

# Advanced Turbine Technology

As the UK expands its offshore wind capacity, advanced turbine technology has become critical to retaining its leadership in generation capacity deployment.

The UK is seeking to be a leader in high-value manufacturing and technology development in the sector. This will in turn drive economic growth and job creation. The Industrial Growth Plan identifies opportunities in manufacturing of blades, as well as development of next generation drivetrains and towers. IGP projects a demand for 900 blades and 300 towers between now and 2030.

While the UK currently manufactures turbine blades at scale, it lacks domestic capabilities to manufacture towers and turbine drivetrains. Developing capability in this area represents a long-term market opportunity for the UK supply chain. The IGP identifies opportunities in increasing blades manufacturing capacity, advanced leading-edge protection, incorporating advanced materials into turbine designs and employing automated processes for blade and high-value component manufacturing.

A concentrated effort to enhance the UK's ability to produce high-value turbine components, such as towers and blades, could deliver a gross value add of between £4.9 – £8 billion over the next decade. To support this, OWGP has aligned its funding programmes with the Industrial Growth Plan's key priorities.

Through our programmes we have supported leading supply chain companies, such as Onyx Insight, Anakata and Proserv to fund groundbreaking innovations and develop new Intellectual Property (IP).

#### In this section:

-  Onyx Insight
-  Anakata
-  Proserv





## Reducing maintenance costs through predictive monitoring of offshore wind turbines

### BUSINESS PROFILE

- ➔ **Advanced sensing:** ecoCMS and ecoPITCH hardware systems that have been successful in providing strong ROIs to offshore operators.
- ➔ **Software:** FleetMONITOR is a hardware-agnostic software platform with fine-tuned analytics, thresholds and alarms for component failure monitoring and detection.
- ➔ **Engineering:** A fleet of skilled field engineers, with decades of experience, available for anything from inspections to RCA work.

### SUPPORT RECEIVED

- £ **Funding Support**

### Solutions for the offshore wind industry



ONYX Insight is developing advanced predictive monitoring solutions to address one of the offshore wind sector's key challenges.

These solutions aim to fill a critical market gap by providing wind farm operators with continuous blade monitoring, allowing early detection of faults before they escalate into costly failures.

ONYX Insight is a UK-based high-growth technology company that provides analytics software, advanced sensor solutions, and engineering services to the global onshore and offshore wind industry. ONYX's advanced technologies enable wind farm owners and operators to perform predictive maintenance on their wind turbines – detecting machinery faults many months before a catastrophic failure and is highly regarded, capable, and active in the offshore wind industry.



### Impact of the support

- Acceleration of product development.
- Expedition of revenue generation.
- Ability to diligently explore different sensor technologies to decide best fit for product.
- Two jobs created to support the development team.

### A closer look at predictive monitoring solutions

ONYX identified a market need for predictive monitoring solutions for turbine blades. Specifically, they saw an opportunity to address the spiralling costs of blade maintenance and blade condition monitoring in offshore wind. At present there is no accepted predictive maintenance solution for blades in the market. This means that progressive blade faults that could be fixed early and at a relatively low cost often develop to a severe and catastrophic state requiring much more expensive maintenance or a complete replacement. Continuous blade monitoring enables wind farm operators to predict failures well in advanced and schedule less costly early blade maintenance to reduce costs.

### Before

Prior to engaging with OWGP, ONYX had already established itself as a key player in the offshore wind supply chain. In 2021 it launched ecoPITCH, an advanced sensing solution to detect blade pitch bearing failures, which saw a strong market response. This led ONYX to investigate other market gaps, where similar predictive solutions would prove useful in identifying turbine blade faults and maintenance issues before a failure occurs. As such, ONYX applied for a Development Grant through OWGP and were successful.

### During

ONYX utilised the grant to develop methods for monitoring wind turbine blades in order to detect structural blade damage, including internal root cracks and delamination. This project has enabled ONYX to address critical challenges in the blade O&M market that demand effective solutions.

Among these challenges, blade liberation is the most severe, posing significant HSE and financial risks. Blade liberation can result in entire sites shutting down while RCA is conducted, leading to substantial financial losses. With crack progression sometimes advancing to liberation within as little as just a few months, periodic drone inspections may fail to identify these developments in time.

This highlights the need for a continuous monitoring solution to mitigate catastrophic failures. The product aims to transform down-tower blade repairs and blade liberation incidents into manageable up-tower repair cases by enabling early detection through continuous monitoring.

### After

The product has now been deployed on several turbines, successfully delivering true positive cases of damage detection through its analytics. These analytics are seamlessly integrated into ONYX's existing fleetMONITOR software platform, while the blade sensor technology utilises the existing ecoPITCH hardware platform. With these advancements, the product is fully prepared to enter its commercialisation phase. ONYX is keen to share its learnings with the wind industry and plans to explore benefits for its existing customers with blade issues.



OWGP's support has been invaluable in helping us develop our understanding of blade monitoring, addressing a critical need in the offshore wind industry. The Development Grant has enabled us to explore advanced blade sensing technologies and integrate them seamlessly into our fleetMONITOR platform. With proven damage detection now in place, we're excited to explore how we can significantly reduce maintenance costs and improve safety for wind farm operators. OWGP has been a key partner in driving this innovation forward.



**JOHN COULTATE**  
VP Advanced Sensing  
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## Advanced aerodynamic blade tip technology for offshore wind turbines

### BUSINESS PROFILE

- ➔ An aerodynamic specialist company that designs improvements to blade performance for new and operational blades.
- ➔ Offering a suite of products that extend the life of turbines by reducing fatigue loads and blade leading edge erosion.
- ➔ With an established track record of working within the onshore wind sector.

### SUPPORT RECEIVED

- £ Funding Support

### Solutions for the offshore wind industry



With OWGP's support, Anakata has developed its Super Aero Tip Booster (SATIP) to optimise offshore turbine performance by increasing energy capture, reduce turbine wakes, extend turbine lifespan and improve the lightning protection system on blades.

This innovative solution directly addresses the Advanced Turbine Technology priority outlined in the IGP to tackle key challenges like erosion and fatigue, driving down the Levelised Cost of Energy (LCOE) and boosting UK leadership in offshore wind technology.

Anakata is a specialist company that combines Formula One level aerodynamic solutions with deep wind turbine expertise to improve the blade performance of onshore wind turbine technology. Their existing solutions have been demonstrated to deliver > 5% increase in Annual Energy Production (AEP) and Anakata sought to bring these capabilities to the offshore wind sector.

### Impact of the support

Introduced two new marketable products in offshore wind.

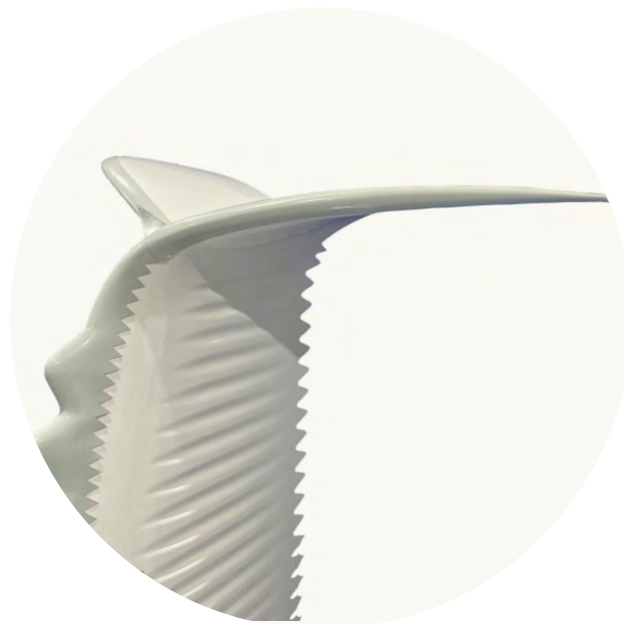
Created three new jobs.

Increased exports by £85,000.

Increased turnover by £185,000.

### A closer look at blade tip technology

Anakata applied for grant funding to develop their SATIP, an evolution of their onshore wind technology. This new device is tailored to meet the specific additional needs of offshore turbines with their longer blades, higher tip speeds and harsh operating environment. Each design improvement in SATIP is focussed on improving blade performance and supporting the growth of offshore wind.



### Before

Anakata, a leader in aerodynamic solutions for onshore wind, had established a strong reputation for designing innovative upgrades for new and operational wind turbine blades. With proven success in increasing AEP by > 5% in onshore applications, the company set its sights on the offshore wind sector and sought grant funding through OWGP to design, develop and test its SATIP solution. Anakata envisioned SATIP as both a retrofit solution for existing turbines and a modular factory-fit component for new blades. This project promised to position the UK at the forefront of offshore wind blade innovation, reducing the LCOE and unlocking significant export opportunities.

### During

The development of SATIP has focused on optimising blade performance to lower LCOE and extend turbine lifespan by addressing four key areas; energy capture, reducing turbine wakes, fatigue life and Leading-edge Protection (LEP). This is being achieved by enhancing aerodynamic flow at the blade tip using its patented-winglet technology, employing novel control devices to mitigate unsteady aerodynamic forces at the blade tip and introducing a next-generation LEP system, ensuring turbine performance is maintained over its lifetime. SATIP was designed and developed at Anakata's facilities in Oxford, in collaboration with a UK-based composite prototype manufacturer. Prototypes underwent rigorous testing in UK wind tunnel facilities to validate their performance.

### After

The first SATIPs were installed on a 7MW offshore turbine in the UK in summer 2024 with further deployments planned for 2025. With SATIP Anakata has positioned itself as a key innovator in offshore wind turbine technology. Designed for both domestic and international markets, SATIP will support UK-based OEMs and wind farm operators while expanding the UK's export capabilities in blade technology. Initial production utilises existing UK suppliers, with Anakata aiming to establish dedicated manufacturing facilities, creating more manufacturing jobs in the UK offshore wind sector. This initiative not only strengthens the UK's role in offshore wind innovation but also drives down LCOE, improves turbine efficiency, and creates export opportunities. Addressing the critical challenges of turbine performance positions Anakata to deliver transformative benefits to the global offshore wind sector.



OWGPs support played a critical role in supporting Anakata develop SATIP. The project has involved an intensive R&D programme, engaging with offshore wind farm owners to understand the additional challenges offshore blades face, and designing and testing prototype devices ahead of the first SATIPs being installed this year. OWGPs support helped accelerate this programme and provide Anakata with additional momentum to make it happen.



HUW GRIFFITHS  
CEO

Anakata

[www.anakatawindpower.com](http://www.anakatawindpower.com)



## Optimising and extending the life expectancy of critical offshore wind infrastructure through dynamic closed loop controls technology

### BUSINESS PROFILE

- ➔ Global leaders in control system technology with a 60-year heritage in offshore energy.
- ➔ Employing over 300 people within the UK, and 800 people globally.
- ➔ Controls technology company delivering asset-wide intelligence and optimisation to offshore wind.

### SUPPORT RECEIVED

- ➔ Business Transformation

### Solutions for the offshore wind industry



Through strategic guidance on standards, certification, and market positioning, OWGP has helped Proserv accelerate the development of its technology strategy in direct support of the Advanced Turbine Technology priority set out in the IGP.

Proserv is set to deliver transformative impacts on offshore wind operations through innovative solutions, ensuring greater reliability, reduced costs, and long-term sustainability for the sector.

Proserv is a leading technology developer in the energy sector. Proserv's vision is to define and lead controls technology through the development of best-in-class technologies, partnering with like-minded innovative technology providers to support data driven asset-wide operations and maintenance.

### Impact of the support

Now focused in specific areas to broaden its offerings in offshore wind.

Created 2 offshore wind related jobs.

Benefitted from strategic planning which will enable future growth.

### A closer look at advanced alternative technologies

Proserv continues to expand upon its core capabilities to offer the offshore wind market an advanced alternative to technologies that currently needs to be imported or is new novel technology. Proserv sought strategic support on how to develop and move its latest disruptive technology forwards from a standards and certification perspective without which it would risk this technology being resisted and 'killed' by overseas-based OEMs.



### Before

Prior to engaging with OWGP, Proserv had established a presence in offshore wind through the development of its leading holistic cable monitoring technology, ECG™, which received widespread industry support. Proserv have continued to build on this progress by developing new solutions for future electrical systems, cables and other critical offshore wind infrastructure.

After engagement with senior level operators, Proserv identified a clear need to optimise and extend the life span of wind turbines. This prompted the strategic development of its controls technology which enables turbine parameters to be optimised in real-time to maximise productivity when prices are favourable and prioritise life when prices are low.

Proserv sought support to leverage its unique capabilities and develop a technology strategy to compete effectively in a market characterised by established overseas OEMs. Proserv required support on two fronts: strategic standards and certification support; and guidance to secure first use case industry sponsor.

### During

Proserv received a combination of technical and strategic business support to help it develop its wind turbine technology strategy. Workshops provided insights into control optimisation, pricing, traditional routes to market and the integration of new technologies, including non-modelling methods.

The programme helped Proserv refine their approach to the retrofit market, understand challenges related to turbine end-of-life assessments, and explore new Operations & Maintenance (O&M) contracting models. Proserv was also advised to recruit an engineer and were provided with guidance to identify market opportunities and secure R&D funding.

Overall, the support provided offered Proserv strategic direction for technology development and market strategy.

### After

Since receiving support through the WEST programme Proserv has continued its growth in the offshore wind sector, securing contracts for their offshore wind solutions in the UK and Norway. OWGP's guidance has helped Proserv identify areas of investment and innovation. Proserv are currently in the process of investing in these areas to broaden its offerings in offshore wind.



Working with OWGP has enabled us to make key strategic business decisions on where to invest in innovation. Proserv are currently in the process of investing in these areas outside of core business activity to broaden our offerings and technology in the offshore wind sector.



**PAUL COOK**  
Vice President, Renewables

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According to the Industrial Growth Plan, investing in the manufacture of industrialised foundations and substructure components is expected to drive significant economic and industrial gains. This focus could secure a first-mover advantage in a £209 billion global market and accelerate domestic job creation, with a projected Gross Value Added (GVA) impact of £6.3 billion to £12.1 billion over ten years.

To realise this potential, our programmes have been tailored to support companies like Apollo, Marine Power Systems and CASC to advance engineering and manufacturing capabilities in industrial foundations and substructures for offshore wind.

**In this section:**

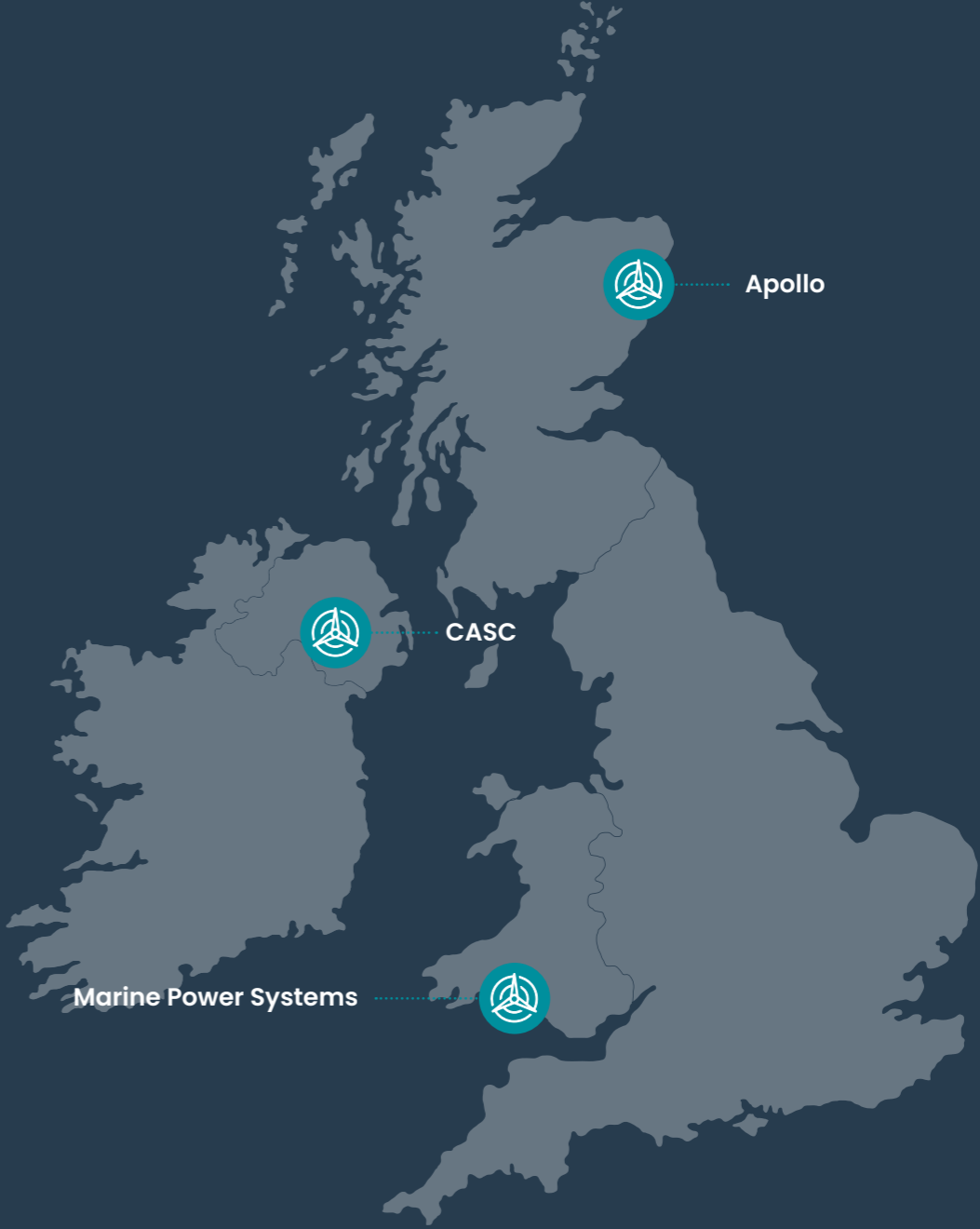
-  Marine Power Systems
-  Apollo
-  CASC

**SUPPLY CHAIN IN FOCUS**

# Industrialised Foundations & Substructures

Industrialised Foundations and Substructures represent a significant opportunity for domestic supply chain growth. The UK supply chain can expand its current foundation manufacturing capability to cater to deeper waters, create industrialised floating substructure manufacturing capability, and leverage existing offshore and oil & gas mooring systems knowhow.

The aim is to boost the capacity to manufacture these components at scale, employing technology and automation to improve speed of delivery and cost-competitiveness. There is an imperative for the UK to protect its monopile and transition piece manufacturing capability, and to innovate to position its supply chain as a leader for serial manufacturing of floating substructures and mooring systems. Automated welding, advanced materials and corrosion protection solutions can unlock significant value for decades to come.





## Providing engineering solutions for fixed and floating offshore wind structures

### BUSINESS PROFILE

- Team of 28+ based in South Wales, UK.
- Marine energy technology company supplying a flexible floating platform for the offshore wind market.
- PelaFlex platform has been designed with industrial-scale floating offshore wind in mind.

### SUPPORT RECEIVED

- Funding Support
- Business Transformation

### Solutions for the offshore wind industry



- Improved reliability and speed of connection and disconnection of offshore energy devices.
- Reduced time and cost for installation, disconnection and maintenance.
- Reduced LCOE.

OWGP funding supported an engineering design project to adapt Apollo's Pull And Lock Mechanism (PALM) QCS – a quick-connect device used to attach moorings and electrical systems in wave energy structures – for Floating Offshore Wind structures.

### Impact of the support

PALM QCS product attained technology readiness level 4 (TRL4).

Developed a clear strategy to progress to TRL6 and beyond.

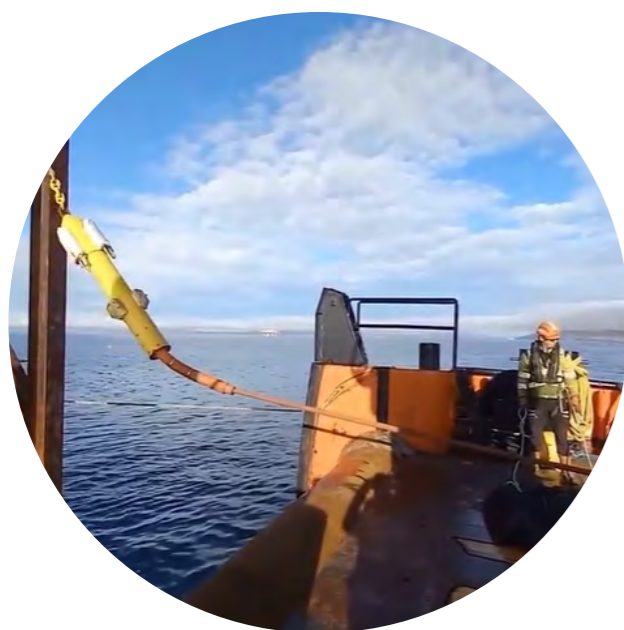
Insight into the cost benefit of the PALM QCS and identification of target markets.

### A closer look at connection mechanisms

The connection and disconnection of the moorings and cables that anchor floating platforms to the seabed are a high-cost area in the Floating Offshore Wind market.

Required at mobilisation, demobilisation and during repairs, the cost – including the resulting interruption in power generation – is substantial.

The quick connection mechanisms of PALM QCS offer an efficient way for platform operators to reduce costs and improve reliability, without the need for specialised boats and handling equipment, hydraulics or motion correction. The PALM QCS provides a scalable, robust device which reduces the levelised cost of energy (LCOE).



### Before

With a 10-year history in delivering engineering solutions for fixed bottom Offshore Wind structures, Apollo was developing its service and product offering to cater for the growing Floating Offshore Wind market. Apollo's own research suggested that quick-connect and release devices would be required for Floating Offshore Wind installations as a strategy for reducing the LCOE. Prior to OWGP's support, Apollo had been developing an innovative new device, PALM QCS, to enable quick connection of mooring and electrical systems for floating wave energy developers.

### During

Apollo secured funding via OWGP's Cross-Sector Call 2020 to undertake a research and design project to adapt its PALM QCS product to work with an existing product on the market, Floating Power Plant's (FPP) hybrid wind to wave converter. This was with a view to improving the costs and reliability of connection and disconnection in the Floating Offshore Wind sector. The findings were supported by engineering calculations and the project concluded with the delivery of a commercialisation report.

Later in 2022, Apollo applied for and received business transformation support through the WEST programme to help them commercialise their newly developed product, PALM and understand the key market opportunities and best positioning of this product.

### After

As a result of the project, Apollo gained a deeper understanding of existing connector technology which led the company to develop the market positioning strategy for PALM QCS as an LCOE reduction tool for Floating Offshore Wind farms. Apollo also has a clearer vision of the product's scalability and cost benefit offering to its target market. The resulting concept from the design project has attained TRL4 readiness, with a clear strategy for progressing to TRL6 and beyond.

The work done through WEST gave Apollo a wider perspective of the industry allowing them to find gaps in the market where their products would prove commercially viable and helping them to develop a business plan to capitalise on these opportunities in a strategic way.



We knew that we had a concept with strong potential for floating renewables. The OWGP project allowed us to demonstrate how it can reduce installation and operating costs in floating offshore wind, while identifying the technology drivers, market opportunity and route to technical readiness. With this sound basis we are excited to be developing the PALM QCS for Scotwind, INTOG and other forthcoming deployments in the UK.



**NIGEL ROBINSON**  
Offshore Renewables Director

Apollo

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# Modular floating platform for industrial-scale floating offshore wind

## BUSINESS PROFILE

- Team of 28+ based in South Wales, UK.
- Marine energy technology company supplying a flexible floating platform for the offshore wind market.
- PelaFlex platform has been designed with industrial-scale floating offshore wind in mind.

## SUPPORT RECEIVED

- Business Transformation

## Solutions for the offshore wind industry

PelaFlex modular platform design has only four distinct primary steel parts, enabling simple logistics, fast assembly, and alignment with local supply chains.

Tension-legged platform design delivers a high degree of system stability, minimal seabed footprint, and zero tilt, reducing the wear and tear on the turbine.

Low overall mass and zero tilt maximises energy yields, allows for simple installation using standard vessels and increases operation and maintenance weather windows.



Cambridge Vacuum Engineering (CVE) is the only Company based in the UK that manufacture electron beam welders – a technology that allows for 20–30x faster fabrication of large steel structures compared to conventional methods, with lower energy use and carbon emissions. This application has already proven successful in the energy industry, with CVE applying electron beam welding to the development of nuclear reactor vessels.

## Impact of the support

Allowed CVE to develop and modify their Ebflow electron beam welding solution for the fabrication of offshore wind foundations and towers.

Paired CVE with Global Energy Group to trial the technology, and integrate Ebflow welding into their planned UK offshore wind tower facility.

Commercial partnership and ongoing support from OWGP is paving the way for accelerated commercial deployment in the UK.

## A closer look a floating structures

MPS holds intellectual property rights for its floating structure design. Additionally, MPS possesses expertise in manufacturing, fabrication, assembly, deployment, installation, and operational processes. The company leverages extensive engagement with the global supply chain and port infrastructure to optimise costs, enhance local content, and expedite development timelines.



## Before

MPS were steadily developing a fabrication and assembly strategy for the PelaFlex platform and cost model while simultaneously looking for ways to accelerate and refine the process with improved outcomes, after an extensive review of various possibilities MPS decided to partner with OWGP via Xodus on the WEST programme as this offered a good pathway to move forward.

## During

OWGP partnered Marine Power Systems with Xodus on the WEST programme, which supported Marine Power Systems with a template to further develop a fabrication and assembly strategy for their PelaFlex platform, particularly the programme accelerated the development of a detailed model improving cost accuracy enhancing the MPS business model of delivering a low cost finished platform to the quay side.

## After

Thanks to OWGP support and a strong commercial strategy, MPS have entered into partnerships and MOUs with researchers, engineering companies, EPC's, Ports and offshore wind developers worldwide. These include RWE in the Celtic Sea, SimplyBlue Group in Northern Ireland, the European Marine Energy Centre in Orkney, Biscay Marine Energy platform in Spain (BiMEP), and JGC Group in Japan.

MPS are planning to commence our megawatt scale demonstrator in BiMEP during 2024 with completion scheduled for late 2025.



The support received from the OWGP WEST programme assisted MPS in gaining enhanced industry traction not just in the UK but also Europe and globally.



DR GARETH STOCKTON  
CEO

Marine Power Systems

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## Site mobilisation services, component design and structural component manufacturing

### BUSINESS PROFILE

- ➔ Small start-up maintaining business throughout the global pandemic.
- ➔ Already operating in the Offshore Wind sector, predominantly in site mobilisation.
- ➔ Seeking new equipment to increase breadth of offering to clients.

### SUPPORT RECEIVED

- £ Funding Support

### Solutions for the offshore wind industry



Tube lasers save up to 83% manufacturing time in comparison to traditional manufacturing methods.

Improved precision, versatility and efficiency of laser cutting saves costs for clients.

In-house capabilities to design, manufacture and install both flat and 3D profiles of various materials up to 200mm thickness.



### Before

Prior to engaging with OWGP, CASC had a strong reputation in Offshore Wind having already worked on multiple projects in the sector. Encouraged by consultations with original equipment manufacturers (OEMs) and in line with the company's growth plans, CASC was seeking to upscale the scope of its offering beyond site mobilisation to include the design and manufacture of components for the sector.

### During

Having approached OWGP for the competitive Development Grant in November 2020, CASC secured the funding in March 2021 and purchased a tube laser and flatbed laser to complement the company's existing suite of cutting tools. The new equipment arrived and was installed in January 2022. Towards end of 2022, CASC sought additional support through the OWGP WEST programme to gain deeper insight into the requirements of other OEMs and ensure they have a package of work that can easily transfer to meet the needs of clients other than SGRE.

### After

With a more diverse portfolio of products and services, CASC is now well positioned to secure projects of enhanced scope. The company has already manufactured and delivered components made by the new equipment to Offshore Wind customers across the globe, and is experiencing growing demand. CASC now has an unrivalled suite of technology, featuring a range of cutting, friction drilling and tapping benefits ideal to meeting the needs of the global Offshore Wind sector. With the support of OWGP CASC has boosted operational output capabilities and capacity and aligned the strategic and support side of the business to ensure the right model is there to deliver on ambition. The growth plans they have outlined will see the business upskill existing staff and recruit around 130 new roles.



We are an ambitious and driven company with extensive growth plans in Offshore Wind energy. The funding from OWGP has helped us take the next vital step in our development – ensuring we stay relevant and viable in a fiercely competitive, rapidly changing sector.

CASC used the funding from OWGP for a capital expenditure purchase of two pieces of manufacturing equipment critical to expanding the company's engineering capabilities. The tube laser allows CASC to work with 3D metal profiles to manufacture structures such as staircases and platforms, while the secondary flatbed laser further improves CASC's capacity to manufacture components for site operations.

### Impact of the support

Enhanced the company's offering by expanding its engineering capabilities.

Unlocked potential of export market.

Created 120 jobs.

### A closer look at product diversification and manufacturing

The new equipment will facilitate CASC's growth plans within Offshore Wind by allowing the company to offer clients a more diverse range of products and services, such as frames, platforms and walkways. It will also boost CASC's exports by increasing the company's capacity to quickly resolve issues on site through the provision of its own manufactured components.



**KARL CROCKARD**  
Managing Director

CASC Limited

[www.casconline.co.uk](http://www.casconline.co.uk)



SUPPLY CHAIN IN FOCUS

# Future Electrical Systems & Cables

The UK is currently a successful exporter of electrical cables and cable protection systems, with UK-based companies winning numerous offshore wind contracts across Europe, APAC and North America.

The UK has existing capability to design and manufacture HVAC systems, including array cables, export cables and components. With the UK's first two




HVDC cable factories now under construction, the nation is in a solid position to build on its existing strengths and develop new capabilities in line with this priority.

Significant demand from UK wind farms (1,700km per year) and expected investment in UK grid infrastructure coupled with a strong academic background in electrical engineering in the UK makes this a key priority for investment and future development with much of the groundwork already in place.

The IGP suggests that through increased innovation and investment in technology, UK manufacturers can minimise cable failures, develop next generation, high-transmission-capacity static and dynamic cables and interoperable HVDC systems. Leveraging our competitive advantage, the UK could benefit from a greater share of a global serviceable market worth £77 billion between now and 2035, and a domestic serviceable market worth £19 billion over the same period with a ten-year GVA of up to £3.4 billion.

OWGP has tailored our 2024 funding calls to align with this priority and supported several companies, including JDR Cable Systems, Tekmar and Continuum Industries to accelerate their product development and help optimise product positioning.

In this section:

-  JDR Cable Systems
-  Tekmar
-  Continuum Industries





## Developing next generation array cables for offshore wind

### BUSINESS PROFILE

- ➔ Pioneers in inter-array cables for both fixed and floating offshore wind, as well as wave and tidal energy solutions, production umbilicals, intervention workover control systems, and bespoke end terminations and accessories.
- ➔ Operates advanced manufacturing facilities in the UK, and Poland.
- ➔ Announced a new High Voltage Cable Manufacturing facility to be constructed in Cambois, near Blyth, Northumberland, UK.

### SUPPORT RECEIVED

- £ Funding Support

### Solutions for the offshore wind industry



With OWGP's support, JDR is developing next-generation array cables that address the offshore wind industry's need for higher-capacity and more efficient power transmission.

This initiative enables the deployment of innovative materials and technologies, reducing costs and enhancing the performance of future offshore wind projects.

JDR Cable Systems, a leading manufacturer of subsea cables and control solutions, connects the offshore energy industry with world-class technologies and services. With over 30 years of experience, JDR specialises in the design, engineering, manufacture, installation, and support of subsea power cables and umbilical systems for the oil and gas and renewable energy sectors. JDR is at the forefront of innovation in subsea connectivity.



### Impact of the support

Launched its new 66 kV, 1200 mm<sup>2</sup> array cables.

Completed type test qualification of a next-generation 132 kV, 800 mm<sup>2</sup> export/array cable.

Opened new opportunities in the subsea high-voltage cable market.

Invested in a £130m new state-of-the-art manufacturing facility in Cambois which will create over 171 highly skilled jobs in the UK offshore wind manufacturing sector.

### A closer look at next generation array cables

JDR Cable Systems is advancing its Next Generation Array Cable project, which focuses on developing innovative solutions for the offshore wind sector. The project aims to create cutting-edge 66 kV array cables with 1200 mm<sup>2</sup> conductor sizing in copper and aluminium, as well as a next-generation 132 kV 800 mm<sup>2</sup> export/array cable prototype. These developments will incorporate new polymer and materials technologies to enable greater power transmission from next-generation turbines operating at 14 MW and beyond.

### Before

JDR Cable Systems has been a key player in the offshore wind array cabling market since entering the sector in 2009. The company has supplied over 4000 km of inter-array cables enabling over 15 GW of offshore wind turbine power to be connected from projects across the UK, Europe, the US, and Taiwan, while leading the transition from 33 to 66 kV array cables to help developers achieve significant cost reductions.

Driven by increased industry demand for larger, higher-capacity cables, JDR sought to produce next generation array cable technology to be used across a range of products including long-length array cables up to 30 km without joints, whilst also enabling the company entry into the supply-constrained HV Export Cables market. To kickstart the development of this technology JDR turned to OWGP for a Development Grant to assist in accelerating their product innovations.

### During

JDR has been a consistent driver of innovation in subsea cable technology, refining designs to address the evolving demands of the offshore wind sector. During this project, JDR leveraged its robust project execution team and a stage-gate process, to maintain a thorough oversight and continuous improvement at every stage. Their agility and efficiency were exemplified by their ability to meet strict deadlines during the course of this project.

### After

In 2023, JDR successfully launched its new 66 kV, 1200 mm<sup>2</sup> array cables and in 2024 a next-generation 132 kV, 800 mm<sup>2</sup> export/array cable completed type test qualification. These innovative products enabled JDR to participate in projects requiring over 14km of Interlink or Platform Connector Cables between two offshore substations. The 132 kV cable development has opened new opportunities in the subsea high-voltage cable market for the business. Building on the designs and concepts developed through the OWGP-funded project, JDR has also introduced additional products and achieved record production lengths, further solidifying its position as a leader in the industry.

This growth has been a catalyst for significant investment in a £130m new state-of-the-art manufacturing facility in Cambois, near Blyth in Northumberland, dedicated to producing high-voltage, long-length cables. Set to become operational next year, the facility will support the continued demand for JDR's advanced cables and create over 171 highly skilled jobs in the UK offshore wind manufacturing sector in its first phase.



We strongly encourage supply chain companies to engage with the Offshore Wind Growth Partnership (OWGP). Their transformative programs provide invaluable support for businesses looking to scale, innovate, and meet the future energy demands of the industry. Whether you're developing new technologies, exploring fresh ideas, or seeking guidance on market expansion, OWGP is an essential partner in driving growth and addressing the evolving needs of the offshore wind sector.



**JAMES YOUNG**  
Chief Strategy Officer  
JDR Cable Systems  
[www.jdr-cables.com](http://www.jdr-cables.com)



## Driving strategic business improvement and increasing exports of offshore cable solutions

### BUSINESS PROFILE

- Tekmar have been supplying into the offshore wind sector for 20+ years.
- Manufacturers of renewable energy equipment.
- Providing subsea cable protection solutions, engineering and geotechnical services.

### SUPPORT RECEIVED

- Business Transformation

### Solutions for the offshore wind industry



Through support from the OWGP SIG programme, Tekmar has strengthened its position as a key provider of cable solutions for the offshore wind sector by enhancing its strategic and operational capabilities.

These improvements have positioned Tekmar to meet the increasing demands of the offshore wind industry with precision and scalability, driving innovation and excellence in subsea cable protection and engineering services.

Tekmar Group, a UK-based company with a global presence, brings over 40 years of experience to the subsea industry. Renowned as a market leader in subsea protection and stability solutions, as well as engineering and geotechnical services, Tekmar has delivered over 10,000 cable protection systems across more than 120 projects worldwide. With its solutions safeguarding over 40GW of offshore energy capacity, Tekmar continues to play a pivotal role in supporting the growth and resilience of renewable energy infrastructure. Tekmar operate across several emerging regions and expect to strengthen their position in APAC, ME, US over the next few years.

### Impact of the support

Established a clear organisational structure with strong leadership teams in place.

Redefined systems, processes and governance with a clear strategy for future growth.

Improved core business metrics of FAC, OTD, RFT, COPQ.

Increased staff engagement and motivation.

Driven higher customer satisfaction.

### A closer look at business strategy and leadership development

Having recently acquired several new businesses into their portfolio Tekmar Group sought to develop and deliver strategic business and leadership plans to transform and align these companies under the Group. Tekmar felt that leadership development would be crucial to driving forward the company's strategic execution plan, equipping them with the skills and behaviours to shape the culture, improve financial performance and retain talent.



### Before

Tekmar Group, initially established as a small business driven by entrepreneurial spirit, had experienced rapid growth. However, this expansion highlighted gaps in their internal systems, processes, and governance structures. With much of the company's knowledge residing informally within its workforce and leadership, Tekmar faced challenges in documenting and standardising their operational practices. Recognising the need to build a more structured foundation for sustainable growth, the company sought support through the SIG programme. Their aim was to formalise their governance processes, capture institutional knowledge, and position themselves for continued success in a competitive global market.

### During

The SIG programme's support focused on enhancing Tekmar's strategic capabilities and fostering alignment across the organisation. Early interventions centred around defining the company's strategic direction, identifying growth opportunities, and crafting an implementation plan to turn strategy into action.

One of the standout components of the programme was the Effective Leadership Behaviours course, which saw participation from 50% of Tekmar's workforce. This initiative played a crucial role in embedding the principles of strategic planning and execution across all levels of the organization. This inclusive approach enabled greater communication between leadership and factory floor employees, ensuring every employee understood the company's goals and their individual roles in achieving them. Tekmar also engaged in a variety of other SIG courses and interventions, designed to enhance their expertise and refine processes. The holistic nature of the programme enabled them to embed robust governance structures and establish a shared sense of purpose throughout the organisation.

### After

Since engaging with the SIG programme, Tekmar has achieved remarkable results, transforming into a global player in the offshore wind sector. The company now exports approximately 80% of its business worldwide, delivering projects in major markets such as Europe, APAC, and the United States. Domestically, Tekmar is contributing to landmark projects with the provision of their subsea cable protection solutions. In addition to their global expansion, Tekmar has significantly improved their key account management practices and delivery model. These enhancements have bolstered their ability to reliably meet customer demands, laying the groundwork for long-term success in a rapidly evolving industry.



During the course of our involvement in the SIG programme, the company has experienced significant growth and are currently exporting around 80% of the business while also supporting a number of high-profile UK-based projects. Much of this success comes down to the work we have done through the programme. It has had a real impact on our business.



MARC BELL  
Managing Director

Tekmar

[www.tekmar.co.uk](http://www.tekmar.co.uk)



## AI tools for power and utility transmission planning

### BUSINESS PROFILE

- Tech company providing software solutions to power and utility Companies.
- Team of 35+ based in the UK and the US.
- Already active in Offshore Wind (alongside electricity, water and hydrogen), looking to consolidate their international customer base.

### SUPPORT RECEIVED

- £ Funding Support

### Solutions for the offshore wind industry



The Optioneer tool analyses millions of potential cable routes for Wind Farm grid connection to narrow down the most cost-effective, environmentally conscious options.

User-friendly interactive tool designed for stakeholder engagement during the consenting process.

150+ users to date, with clients including bp-EnBW consortium, Mainstream Renewable Power, Muir Mhòr Offshore Wind Farm.

Continuum Industries is an AI company accelerating the global energy transition by helping infrastructure developers and utilities to accelerate and de-risk their project planning programmes while minimising the impact on the environment and communities. In the context of offshore wind, their tool, Optioneer, is designed specifically to support the planning of wind farm grid connection options – which can be a significant bottleneck to project development. Their grant from OWGP allowed the company to test and further develop the platform’s functionality – focusing on onshore export cable routes and substation construction.

### Impact of the support

Tested and released new software functionality for onshore export cable routes and substations to help developers efficiently design their own onshore connections.

OWGP support, alongside overall platform development and a strong commercial strategy, helped Continuum Industries raising £8m Series A capital.

Strategic platform developments to help reach into new horizons in US and Europe.

### A closer look at cable routing

The combination of vast computing power, geospatial data, and human intuition unlocks unique insights throughout projects, from conception to completion. This includes generating a shortlist of viable routing options from millions of alternatives in just a matter of hours, real-time iteration of designs as new data arises, recording key decisions and mitigating against unforeseen delays at later stages.



### Before

Before OWGP’s support, the Company had worked in partnership on a number of power, transmission and utility projects – mostly in Scotland and England. Continuum Industries had seen good uptake for their Optioneer software in the UK, and were growing an engaged customer base in Offshore Wind.

### During

The OWGP grant allowed Continuum Industries to test and launch advanced features within Optioneer to empower offshore wind developers to efficiently explore a broader range of onshore export cable route options and substation sites during the early stages of development and consent process. These elements play a pivotal role in the onshore infrastructure necessary for offshore wind projects and significantly impact the success of consent applications for new developments.

### After

Expanding Optioneer’s functionalities to include onshore export cable routing has not only deepened their integration within customers’ organisations, but has also broadened its applicability across various project stages. This strategic enhancement positioned them to seize new contract opportunities and further solidify their presence in the market. Overall development of the platform and a clear commercial strategy helped Continuum to demonstrate growth potential to private investors, raising £8m Series A capital. Continuum Industries now has plans to further expand internationally into the European and the US offshore wind markets.



The OWGP grant helped us to strategically allocate resources towards the development of crucial functionalities, dedicated to serving our customers within the offshore wind industry and expanding our reach into new horizons. In the next few years, we aim to bring a complete platform for infrastructure development to our customers. It will build on the foundations of network and project development but continue to support the consenting/permitting process, public consultation, and environmental analysis.



GRZEGORZ MARECKI  
CEO & Co-founder

Continuum Industries

[www.continuum.industries](http://www.continuum.industries)





SUPPLY CHAIN IN FOCUS

# Smart Environmental Services




Key to the future growth of the offshore wind supply chain is investment in environmental surveys, particularly during early development including surveys, land clearance activities, buoys and vessels.

The UK has a long track record in exporting these types of services across more than 28 projects totalling c.22GW capacity in the last 8 years and home to several companies at the forefront of survey technology, including remote sensing, autonomous surveys, and data analytics.

UK projects tend to rely on the domestic supply chain for these services with further investment in this focus area likely to contribute to a GVA of up to 0.5 billion over 10 years, shoring up our domestic supply and expanding international supply in a serviceable market worth 0.5 billion by 2035.

Our programmes have already helped a number of UK based companies to grow their smart environmental services capabilities, including BizGive, Natural Power, and Exo Environmental.

In this section:

-  BizGive
-  Natural Power
-  Exo Engineering





## Maximising the socio-economic impact of assets in host communities

### BUSINESS PROFILE

- Established in 2017 to facilitate ESG-aligned collaboration through software platforms.
- Providing actionable workflows to implement and track impact initiatives.
- Positioned as a scalable global standard for renewable energy sectors, addressing the growing demand for verified social and environmental impact metrics.

### SUPPORT RECEIVED

- Business Transformation
- Funding Support

### Solutions for the offshore wind industry



BizGive supports the advancement of smart environmental solutions in the offshore wind sector by providing innovative tools to maximise the socio-economic impact of assets in host communities.

With support from OWGP, BizGive has deepened its understanding of the offshore wind market and tailored its platform to address the sector's unique challenges, creating new workflows for community engagement and ESG alignment.

BizGive is a technology company specialising in SaaS solutions that enable companies to identify, implement, and measure their social and environmental impact. Designed with a focus on renewable energy, the BizGive platform connects companies to charitable, community, and academic organisations to deliver projects aligned with Environmental, Social, and Governance (ESG) goals. It supports the creation and tracking of both qualitative and quantitative outcomes, helping clients drive meaningful and measurable impact in their host communities.

### Impact of the support

Revenue increase of 50% in the first 6-months of AssetFace being released.

3x large new clients onboarded and replicating across their asset pipeline.

Enabled the additional release of AssetChat, an industry-first Generative AI tool that enables stakeholders to query asset documentation and receive automated responses.

### A closer look at maximising the socio-economic impact of offshore assets

BizGive had already established itself in the renewable energy sector but sought support to better understand the unique dynamics of offshore wind and identify how its existing solutions could be tailored to support the sector more effectively. Through the OWGP WEST programme, BizGive gained valuable insights into the offshore wind market, and highlighted new opportunities for growth in the offshore wind supply chain. The lessons learned through WEST led to the development of a new platform feature designed specifically for offshore wind, helping clients to maximise the socio-economic impact of assets in their host communities.

### Before

Before engaging with OWGP, BizGive had established its platform in the renewable energy sector but sought to better understand the specific needs and dynamics of the offshore wind market. While community benefit and stakeholder engagement are established principles in wind energy, particularly onshore, BizGive wanted to explore how its solutions could address the unique challenges of offshore wind. Through engaging in WEST, BizGive sought to validate the market opportunity for its platform, refine its product to fit the offshore wind sector, and develop a clearer strategy for engaging with developers and managing community benefit initiatives.

### During

Through participation in the programme, BizGive was supported to understand and align its platform with the specific needs of the offshore wind sector. The programme provided BizGive with in-depth offshore wind market research, helping it to assess how its platform fit within the market's requirements.

BizGive also received advice on messaging and communication strategies, enabling the company to engage more effectively with stakeholders and introducing them to an elite network of offshore wind developers. This support was instrumental in shaping BizGive's approach to addressing market needs and its product positioning.

### After

The WEST programme gave BizGive a deeper understanding of the offshore wind sector, enabling the company to identify opportunities to diversify their products to fill market gaps. BizGive spotted an opportunity to enhance their platform with a new solution tailored to community engagement within the industry.

Their new platform feature aims to shift community engagement from merely mitigating disruption to maximising socio-economic impact, fostering stronger connections between developers, communities, and other stakeholders. Building on the insights gained through WEST, BizGive applied for a development grant to bring forward this new solution and have been successful. Pilots of their new product AssetFace are now underway across several offshore wind companies.

In addition to this, BizGive have now launched AssetChat—an industry-first Generative AI tool that enables stakeholders to query asset documentation and receive automated responses derived from a company's internal documentation.

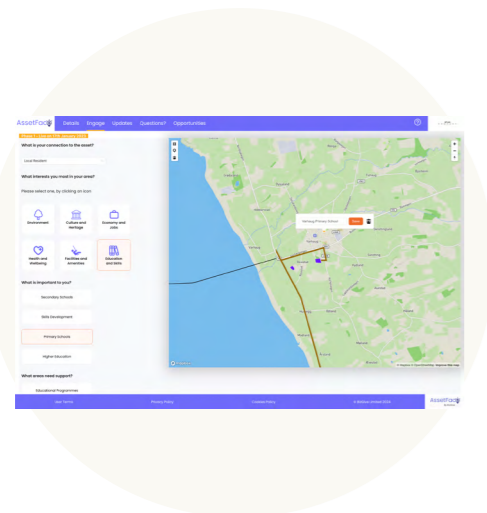


OWGP's support has been fundamental in enabling us to design and build a new part of the BizGive platform for community engagement in offshore wind. Through OWGP's innovation funding, large network of offshore wind developers and in-house knowledge and expertise, we were able to build AssetFace in close collaboration with the sector to ensure we delivered a product that serves the offshore wind industry.



LOUISE DOWNING  
Founder

BizGive  
[www.bizgiveworld.com](http://www.bizgiveworld.com)





## Low cost offshore wind survey technique based on environmental DNA (eDNA) analysis

### BUSINESS PROFILE

- Specialist consultancy and service provider with a sole focus on supporting renewable energy projects.
- 25 years of experience advising on offshore wind projects, with expertise from site-selection and consenting to decommissioning / repowering.
- International team of >500 headquartered in Scotland.

### SUPPORT RECEIVED

- Grant funding Programme name

### Solutions for the offshore wind industry

OWGP-funded collaborative project looking to demonstrate environmental DNA (eDNA) sampling as a survey method around offshore wind farms, enabling lower-cost, faster and more precise environmental data for consent applications.

Compared with traditional trawl surveys, eDNA sampling requires only small samples of seawater; reducing damage to habitats and eliminating the need for specialised vessels.



Natural Power has been operating in the renewable energy sector for over 25 years. Its OWGP-funded project was focussed around demonstrating the validity of survey method for offshore wind consenting – environmental DNA (eDNA) sampling. By analysing small fragments of DNA found in seawater, this method reveals data on the abundance and distribution of fish species around offshore wind farms. Collecting such information is an important part of environmental impact assessments and compliance monitoring that support the consent of new offshore wind farms.

### Impact of the support

OWGP grant funded around 50% of the project costs with Natural Power collaborating with NatureMetrics and EDF Renewables.

Successful trial of eDNA demonstrated several benefits over traditional methods, and generated novel insights that could improve understanding of offshore wind's local environmental effects.

Results of the trial presented and made publicly available in November 2023, with the long-term aim to gain regulatory approval for the method.

### A closer look at environmental data collection

Rather than trawling fish with nets from specialised vessels and manually recording different species, eDNA sampling requires only samples of seawater to be collected from above the seabed. This offers a non-intrusive sampling method, improving the reliability and precision of offshore wind environmental data collection, from a wider range of vessels which can be combined with other site-based surveys and activities.



### Before

Natural Power was already a well-established provider in the renewable energy sector, having supported numerous offshore wind projects throughout their lifecycle. Natural Power was seeking partners to trial environmental DNA (eDNA) as a cheaper and more efficient alternative to fish trawls during offshore wind environmental impact assessments and ongoing compliance monitoring.

### During

OWGP funded 50% of this collaborative research project costs and supported the team throughout with advice. The project also included NatureMetrics, who provided the eDNA sampling solution, and EDF Renewables, who facilitated a trial around its Blyth Offshore Wind Farm and provided additional funding. During the project, the team compared data on fish biodiversity around the wind farm collected via the eDNA method versus traditional fish trawls. Four surveys were conducted comparing the two methods during a period of 12 months. Due to the project's early success, OWGP provided additional support, with a view to expanding the method to invertebrates and other marine species in the future.

### After

The pilot project resulted in successful demonstration of the eDNA method through its proof-of-concept white paper, which was able to capture data on more fish species than traditional trawling. The paper demonstrates that the eDNA methodology developed allows for the calculation of ecological diversity metrics and provides robust data on spatial and seasonal changes in fish communities around OWFs. Compared with trawling, the team was also able to generate more detailed spatial data on the distribution of different fish around the offshore wind farm – including between wind turbines themselves, which are inaccessible to trawl vessels. One interesting finding is a relative abundance of bottom-feeding and reef dwelling species found close to wind turbines, indicating that foundations may provide hard substrate habitats that provide shelter, feeding and nursery grounds for certain species. The promising results of this study are now paving the way for a regulator-approved survey method, which could significantly reduce the cost and risk of delay of environmental surveys required to consent new offshore wind projects.



As we rapidly transition to renewable energy sources to help tackle climate change, supply chain resources are under pressure so there's never been a greater need for new technology and practices that help to maximise resources. This study, made possible in part due to OWGP Innovation Grant Funding; demonstrates that eDNA-based surveys offer a market-ready solution to optimise consenting phase surveys of offshore wind site development, as well as ongoing monitoring and targeted mitigation strategies. Regulator and stakeholder acceptance of eDNA methods for use in offshore baseline setting and monitoring will now be a key step towards accelerating and improving environmental monitoring for future offshore wind development.



**MICHELLE ELLIOTT**  
Principle Environmental Consultant  
Natural Power  
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## ExoReef, the smart environmental solution to scour protection for offshore wind farms

### BUSINESS PROFILE

- ➔ Pioneers in sustainable marine innovation with market solutions like Greening the Grey® technology, fostering marine biodiversity and habitat restoration, GeoBlock®, repurposing waste materials into nature-inclusive products and offering Creativity is in our nature®, custom solutions.
- ➔ Exo collaborate with key industry players such as the Environment Agency, CEFAS, Southend City Council, The Rich North Sea, Total Energies EP Nederland, ORE Catapult, Hiraeth Energy.

### SUPPORT RECEIVED

- 🔄 Business Transformation
- £ Funding Support

### Solutions for the offshore wind industry



Exo Engineering supports the offshore wind sector by providing practical, sustainable solutions that integrate ecological considerations into project development.

Nature inclusive solutions offer scalable scour protection systems in line with rapidly developing marine environmental policies and requirements.

Its innovative GeoBlock® and Greening the Grey® technologies offers methods for recycling dredged materials into products that promote marine biodiversity.

Since 2014, Exo has been providing cutting-edge solutions to the freshwater and marine industries, blending innovative technologies like Greening the Grey® and GeoBlock® with extensive expertise in habitat restoration and environmental consultancy. Exo Engineering provide bespoke nature inclusive designs for coastal and offshore applications, which protect infrastructure from scour, whilst also providing thriving reef habitats.



### Impact of the support

Created 3 new jobs in the offshore wind sector.

Increased revenue and are currently looking to export more of their products internationally.

Developed a range of new smart, nature inclusive products into the offshore wind market including, ExoSphere, ExoHedron, ExoMat, ExoAnchor, ExoReef and ExoRock.

### A closer look at nature-inclusive scour protection

With a growing market demand for sustainable solutions to address global biodiversity loss, climate change, and plastic pollution, Exo developed an environmentally friendly approach to scour protection. These products leverage Exo's technologies to create complex surface textures and habitat features which allow reef ecosystems to become established and thrive, ensuring developers can meet their biodiversity targets.

### Before

In 2019, Exo Environmental began developing its first ecologically enhanced scour protection for turbine monopiles and cable routes, supported by a GTI grant. Initial R&D brought the technology to TRL7. By 2022 Exo Engineering Int. Ltd was split off as a separate entity with the sole purpose of developing and manufacturing Nature Inclusive Design solutions for the marine environment. Exo aimed to advance to TRL8, transitioning from prototypes to pre-production with an aim to improve offshore wind foundations' ecological impact.

To support this next step, Exo Engineering applied for an OWGP Development Grant to study the industrial-scale production and deployment of its Nature Inclusive products. The project aimed to demonstrate the feasibility of manufacturing, transporting, and deploying these units at scale, culminating in a full-scale pilot in an operational environment.

### During

The project focused on key milestones, including research, product design, facility engineering, and deployment trials, managed through collaboration with universities, contractors, and wind farm developers. Exo allocated resources to enhance manufacturing capabilities, expand its team, and foster partnerships to address industry challenges like decommissioning and ecological shifting baseline syndrome. These efforts have laid the groundwork for future opportunities in offshore wind.

During the project, Exo leveraged insights gained from their previous engagement with the OWGP WEST programme, which provided biodiversity market analysis, regulatory guidance, and a comprehensive understanding of offshore wind projects and scour protection needs in the UK.

### After

Through the OWGP backed Living Windfarms Project, currently underway, Exo has enjoyed significant growth in size and IP. Not only will this support the production and deployment of existing Nature Inclusive products but also pave the way for the development of new products and intellectual property. The company has gone from having 1 concept at TRL7 to having 5 commercially available products at TRL8 & 9. At present, Exo are poised for expansion into international markets, including Canada, the Dutch North Sea and Taiwan.



Since working with OWGP on the WEST programme Exo has achieved significant traction in the offshore wind industry. Having gained a solid understanding off the industry through the WEST programme, Exo has gone on to lead projects in the sector with the Living Windfarms Project with further OWGP support. Thanks to this, Exo has been able to bring a suite of Nature Inclusive scour protection systems from concept stage to commercialisation.



**WILLIAM COULET MSC**  
Managing Director

Exo Engineering  
[www.bizgiveworld.com](http://www.bizgiveworld.com)



SUPPLY CHAIN IN FOCUS

# Next Generation Installations Operations & Maintenance




The UK has established a reputation as an expert in O&M. Companies based in the UK have operated installation vessels that service the UK and European markets. Many technology providers have developed intelligent remote monitoring and inspection solutions to improve the reliability and reduce the cost of offshore operations.

The UK supply chain has extensive experience in vessel design, operation, and deck equipment design. Having access to the largest operating wind farm capacity in Europe enables UK companies to drive forward innovative O&M technologies, increasing the opportunity for exports.

Investing in installation and O&M services, along with the deployment of low carbon Crew Transfer and Service Operation Vessels, could give the UK a strategic edge in a global market valued at £211 billion up to 2035. These advancements could generate up to £2 billion in Gross Value Added (GVA) for the UK economy over the next decade.

OWGP programmes are designed to help companies seize this opportunity. Our 2024 Innovation Grants have provided businesses with up to £200,000 in matched funding to develop near-market or market-ready solutions in Next Generation Installation and O&M Technologies. Through previous programmes, OWGP has supported several installation, and O&M projects for companies such as Sonardyne, Zelim, and Echobolt.

In this section:

-  Sonardyne
-  Zelim
-  Echobolt





## Acoustic Doppler Current Profiler technology to improve subsea installation, operations and maintenance data

### BUSINESS PROFILE

- Established provider of technology for subsea survey, installation and operations and maintenance, especially those where robotic systems are used.
- Primary markets include oil and gas, offshore renewables, defence and ocean science.
- Sonardyne is an international company headquartered in Hampshire, with over 350 employees.

### SUPPORT RECEIVED

- Business Transformation
- Funding Support

### Solutions for the offshore wind industry



Enabling autonomous vehicles with navigation systems, measurement devices, positioning and data harvesting for wide-ranging data collection in and around offshore wind sites.

Technology can obtain data on currents, underwater noise, unexploded ordnances and scour to assist offshore wind developers - from consenting and site development, to construction and operations & maintenance.

Market-leading positioning system for the offshore wind sector.

Sonardyne International has been operating in subsea solutions for over 50 years and is a market leader in the manufacture of advanced subsea positioning, communications, navigation and monitoring products. Sonardyne has committed to growing its presence in offshore wind, with technology well-suited to supporting the sectors ambitious growth plans. To date, their technology has been used on a high proportion of major windfarms, from positioning cable laying of ScottishPower's East Anglia ONE and site assessment for potential offshore wind sites in Taiwan.

### Impact of the support

Grant funding helped Sonardyne to develop topside communications link for their new ADCP, to measure sea current, wave height and temperature to optimise turbine and mooring placement.

Technology showcased at the opening of Offshore Renewable Energy Catapult's Digital Autonomous and Robotics Engineering (DARE) centre.

Revenue from OSW has grown from £1.2 million to £5 million, supported by a 10% increase in overall staff, including the establishment of a dedicated offshore wind applications team.

### A closer look at current profiler technology

Acoustic Doppler Current Profilers (ADCPs) play a critical role in offshore wind development by measuring the water column to provide insights into currents, wave motion, and turbulence. These measurements inform key decisions on turbine placement, mooring strategies for floating turbines, scour risk to cables, array cable routing, and burial depth predictions. Sonardyne sought to solve this problem by enhancing its ADCP Seabed Lander technology, enabling it to deliver the high-resolution Metocean data needed to address these challenges effectively.



### Before

In 2021, Sonardyne identified a need for higher resolution Acoustic Doppler Current Profiler (ADCP) technology to better distinguish between turbulence and dissipation and provide more accurate Metocean data in deeper offshore environments. Improving this function would provide developers with more accurate data, enabling them to determine the most appropriate installation solutions. Sonardyne applied for an innovation grant through OWGP to support the enhancement of its existing ADCP Seabed Lander technology. This project aimed to integrate the ADCP with a LiDAR buoy, enabling developers to access a seamless and comprehensive dataset. The development of this technology is particularly important for floating offshore wind projects, where precise data is essential to monitor scour and cross-correlate behaviour in mooring systems and dynamic cables, ensuring greater reliability and cost-efficiency in project planning.

### During

Sonardyne implemented a structured project plan to deliver the enhanced Acoustic Doppler Current Profiler (ADCP) Seabed Lander technology, integrating it into their existing project management system. The plan comprised six key work packages: project management and requirements capture, ADCP processing and onboard testing, topside integration with buoy or vessel transceivers, external integration with the Lidar buoy, cloud development for data presentation, and offshore deployment, monitoring, and recovery of the ADCP system. The project was meticulously risk-assessed, with identified risks managed through mitigation strategies to ensure smooth execution.

### After

The development of Sonardyne's enhanced Acoustic Doppler Current Profiler (ADCP) technology has delivered significant results for the company and the offshore wind sector. Successful trials in Plymouth have led to valuable engagements with key industry players. Since the project's inception, Sonardyne's offshore wind revenue has grown from £1.2 million to £5 million, supported by a 10% increase in overall staff, including the establishment of a dedicated offshore wind applications team. The deployment of the ADCP has demonstrated its value in providing developers with accurate data for better planning and decision-making. This success has also paved the way for Sonardyne to secure further support from OWGP, including a second Innovation Grant to develop a floating wind condition monitoring system and participation in the Wind Expert Support Toolkit (WEST) programme to refine their business strategy. These advancements have positioned Sonardyne as a key innovator in offshore wind technology.



The OWGP grant enabled us to connect the ADCP data to the Cloud much earlier than we had initially planned in our roadmap. This advancement resulted in a complete end-to-end package we can offer to our customers. OWGP has been very supportive of the project, even going so far as to introduce us to potential users of the system.



**MICHAEL ELLIS**  
Business Development Manager  
Renewables, Sonardyne  
[www.sonardyne.com](http://www.sonardyne.com)



## The world's first unmanned and semi-autonomous rescue vessels

### BUSINESS PROFILE

- ➔ Developing solutions for the safety of mariners.
- ➔ Start-up in technology development phase.
- ➔ < 15 employees.

### SUPPORT RECEIVED

- £ Funding Support

### Solutions for the offshore wind industry



Immediately deployable unmanned rescue crafts reduce risk to rescue crews.

Deliver blanket health and safety coverage across a wind farm.

Frees up resources for operations and maintenance activity.

Zelim won grant funding from OWGP to undertake commercialisation tests of its patented overboard recovery solution, enabling the business to secure customer demonstrators with both a crew transfer vessel (CTV) operator and an offshore wind farm owner operator, and deepen its relationship with wind farm original equipment manufacturers (OEMs).

### Impact of the support

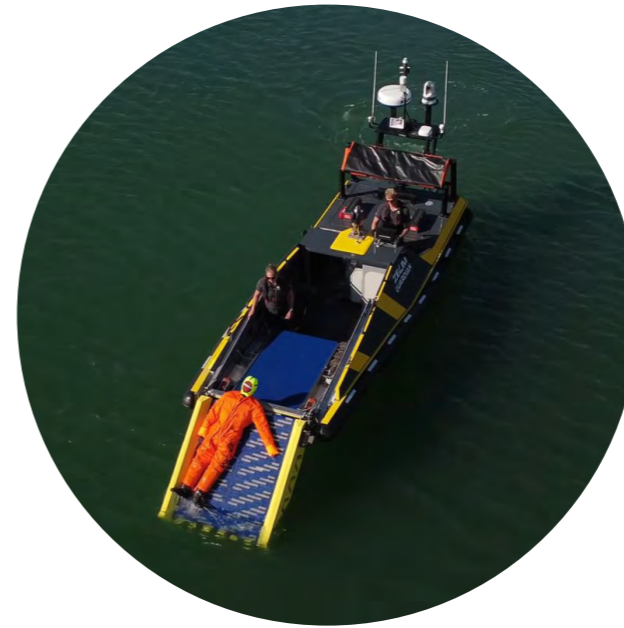
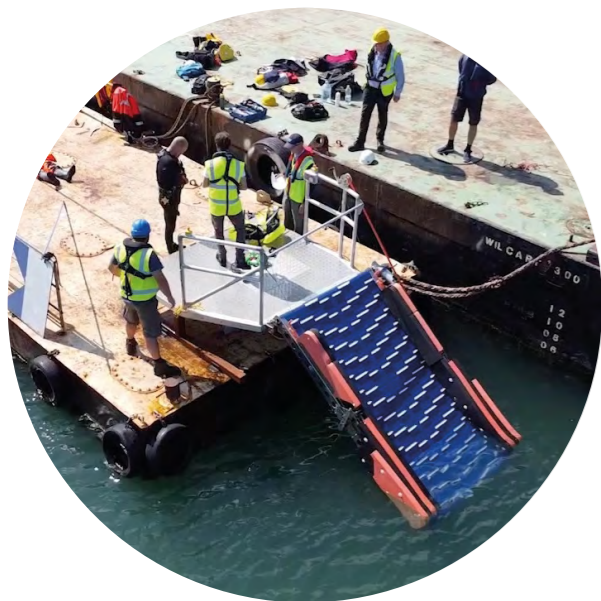
Completed proof of concept for next generation person overboard detection system.

Established a safety case for the technology in an operational Offshore Wind farm.

Raised the company's profile within the Offshore Wind industry and potential investors.

### A closer look at offshore safety solutions

Zelim's patented overboard recovery system sets a new benchmark in safety, providing the ability to recover people from the water in seconds with a single operator. Where other solutions are slower at getting people out of the water and challenging to operate alone, Zelim provides unrivaled speed and single handed or autonomous solutions.



### Before

Prior to working with OWGP, Zelim had engaged with other enabling organisations and programmes to support growth in Offshore Wind such as ORE Catapult's Launch Academy and had successfully secured innovation funding to support earlier stages of the technology's development.

### During

With OWGP's support, Zelim completed commercialisation testing of its patented overboard recovery solution which enabled the business to create evidence of the technology's capabilities and impact. This evidence was instrumental in Zelim's communications and business development work to secure customer demonstrators with both a CTV operator and an Offshore Wind farm owner operator and deepening Zelim's relationship with wind farm OEMs.

### After

Upon completion of the project, Zelim reached technology readiness level 8 (TRL8) with its technology, a critical step in the pathway to commercialisation. Zelim found that its association to OWGP provided significant credibility in the Offshore Wind market, raising its profile within the industry and with potential investors.



Working with OWGP has been a great experience, both logistically and from an industry engagement perspective, where we have had access to industry support throughout the duration of our project; helping to make sure that we develop products that are fit for the market.

Overall, we are looking to continue and deepen our relationship with OWGP and would encourage any other companies looking to get into Offshore Wind to apply.



**SAM MAYALL**  
CEO

Zelim

[www.zelim.co](http://www.zelim.co)



## Engineering and fastener inspection services for the offshore wind sector

### BUSINESS PROFILE

- Start-up already operating in Offshore Wind sector.
- Undertaking research and design of BoltWatch software technology.
- Actively seeking a different delivery model to bring BoltWatch to a larger market.

### SUPPORT RECEIVED

- Funding Support

### Solutions for the offshore wind industry



Reduces maintenance costs of wind turbines by over 80%.

Results in decreased downtime and higher revenue for operators.

Improves operators' health and safety performance by reducing the duration of annual asset maintenance and eliminating risks with hydraulic tooling.

The funding enabled EchoBolt to develop a customer version of its bolt integrity analysis software, BoltWatch, giving customers immediate visibility of asset health. Working with energy giant RWE's operations engineers, EchoBolt was able to design a tailored product specific to the needs of the Offshore Wind market and provide a platform to perform EchoBolt inspections at customers' sites.

### Impact of the support

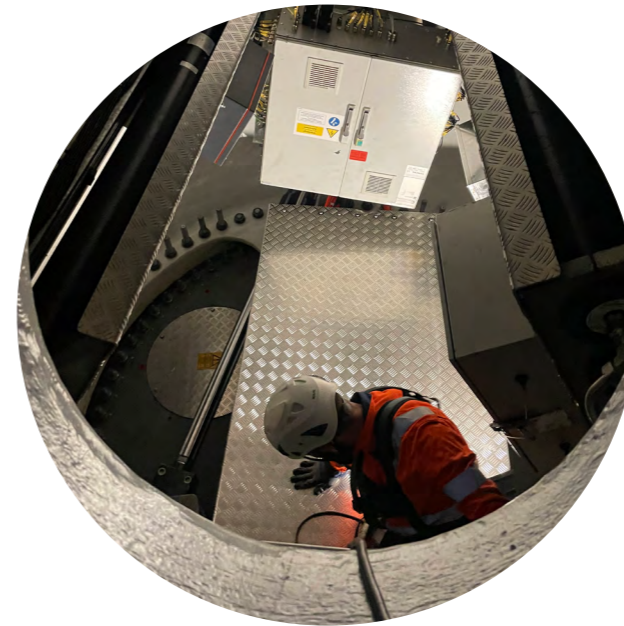
Commercial licensing of EchoBolt's ultrasonic bolt inspection software, BoltWatch.

Expansion of contracts to cover more than 20% of the UK's Offshore Wind capacity in 2022.

Estimated 30% increase in turnover for the next 12 months.

### A closer look at BoltWatch

Bolt tightening is the single biggest scheduled maintenance task in Offshore Wind operations. EchoBolt's innovative software, BoltWatch, removes this time-consuming and expensive process by allowing customers to view the status of their assets in real-time and retrospectively, using a digital analytics platform accessed via a cloud portal. Working with major players across the Offshore Wind sector, EchoBolt has drastically improved maintenance practices by removing costly re-torquing maintenance tasks, validating asset integrity and confirming the effectiveness of installation practices.



### Before

Prior to engaging with OWGP, EchoBolt was a start-up SME operating in the Offshore Wind sector. The company conducted routine on-site inspections for clients, followed by periodic reporting of asset integrity.

EchoBolt sought access to a larger share of the market with its ultrasonic inspection technology, BoltWatch – an internal data analysis software tool without a customer interface.

### During

After securing funding through OWGP's grant funding programme, EchoBolt embarked on a project with ORE Catapult to conduct a market assessment and cost reduction analysis of its inspection technology, clearly identifying the requirements to facilitate a self-perform feature for customers as a value driver for its growth. Working with major players across the renewables sector including RWE and SSE Renewables, user requirements were mapped and software development targeted to overcome customer pain points, resulting in a software product truly optimised for the sector.

### After

OWGP's support has been instrumental in enabling EchoBolt to license its services. The company has since won significant new business, leading to an estimated 30% increase in turnover for the coming year, and a projected 300% increase over the next five years. The company has also entered into a partnership with a leading global engineering company, Worley, which will deliver EchoBolt's services alongside its holistic asset management service offering.



Support from OWGP has been invaluable in supporting EchoBolt's growth. Through the development of the BoltWatch asset health platform, we can now support customers delivering EchoBolt technology directly, and have been able to embed our technology within strategic partner service offerings.



**PETE ANDREWS**  
Managing Director

Echobolt

[www.echobolt.co.uk](http://www.echobolt.co.uk)





# Delivering on the Industrial Growth Plan

**A clear focus on the five key priorities outlined in the IGP could see the UK economy benefit from an additional £25 billion in GVA over ten years post investment, up to 10,000 cumulative additional jobs in offshore wind, tripling the existing manufacturing capacity of the UK and doubling R&D investment and output.**

The Industrial Growth Plan aims to expand supply chain capacity, accelerate innovation, and strengthen the UK's position in both national and international markets. Through careful targeting of key sector priorities, the IGP sets out a pathway to growing UK supply chain's share of the immense economic opportunity offshore wind promises. A world-leading offshore wind supply chain anchored in the UK will reduce generation capacity deployment risk, drive sustainable growth, attract further investment to develop differentiating technologies at scale and contribute to generation of affordable, clean energy.

## A blueprint for growth




The IGP sets a clear and ambitious vision to build capacity, drive innovation, and seize opportunities in domestic and international markets. Strategic investment in critical areas will foster value creation in the areas where the UK has or can gain a competitive edge.

Central to the IGP's success are key enablers designed to turn its vision into reality. More targeted and better coordinated public and industry funding will provide vital financial support for IGP delivery and investment over the next five years. Powered by a long-term strategy, technology development, testing and demonstration will be coordinated by the Advanced Turbine Technology Institute (ATTI) and WinDD Hub. Progress against the Growth Plan will be monitored and necessary changes will be implemented with input from a wide range of stakeholders.

## The Delivery Body

Delivering on the IGP requires a coordinated and collaborative approach. A dedicated delivery body (IGP DB) will act as the central driver, facilitating alignment of efforts across industry, government, and other stakeholders. IGP DB will connect funders, suppliers, customers and sector stakeholders. It will oversee the implementation of the Growth Plan, ensuring investments are impactful, progress is monitored and reported, and the plan is regularly refreshed to meet evolving needs.

The delivery body's goal is to position the UK as a world leader in selected offshore wind sub-sectors, convening the sector and its stakeholders around a single strategic roadmap for innovation and growth.

Enablers	Delivery Body Responsibilities	Stakeholders
Collaborative joint industry fund	 Own the Growth Plan and create sector buy-in  Drive IGP execution and growth of the supply chain	Governments
UK and Devolved Government funding		Developers
UK Export Finance	 Facilitate alignment of other sources of supply chain investment  Leverage demand and champion investment in the UK  Manage and distribute new industry funding associated with the Growth Plan	Research and Technology organisations
UK Infrastructure Bank and Scottish National Investment Bank		Supply chain
Research and Innovation funding	 Monitor the progress and growth of the UK's supply chain  Shape the future of the sector and adapt the plan	The Crown Estate and Crown Estate Scotland
CfD and Sustainable Industry Rewards		Wider infrastructure including Ports and Grid



## Future Vision

As we reflect on the progress we have collectively made in driving supply chain growth, OWGP's role as the UK's flagship growth funding and business support organisation for offshore wind is more critical now than ever.

We are fortunate to have worked with so many resourceful and competitive companies; yet most of the work is still ahead of us. In order to sustain progress and capitalise on the incredible opportunities offshore wind offers, we must remain focused and in tune with sector needs.



**Anil Sayhan**  
Programme Director

The Industrial Growth Plan is a clear roadmap to success and opportunity, informed by a thorough analysis of the sector and the UK's relative strengths. We have adapted our programmes to target the key priority areas identified in the IGP and will be seeking to collaborate with all stakeholders to realise the potential outlined in the plan. OWGP will continue to refine its programmes, as sector requirements change. What will not change is our commitment to work tirelessly to achieve a globally competitive supply chain across all priority areas. Let's leave no room for doubt. It may take time, but we will get there.



[www.owgp.org.uk](http://www.owgp.org.uk)

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