

New Joint Industry Project Launches to Standardise Offshore Wind Geospatial Data Management

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The Carbon Trust has announced the launch of the Unison Project, a new joint industry initiative aimed at developing a standardised offshore wind data model to support safer, faster, and more cost-effective construction of offshore wind farms.

Led by a consortium of 12 major offshore wind developers and industry stakeholders, the project will be delivered by the Carbon Trust as part of its Offshore Wind Innovation Platform.

The rapid growth of the offshore wind sector has increased demand for geospatial data services, which are essential to offshore site development. However, varying data structures and formats across contractors and developers have created inefficiencies, higher costs, and greater risks during project execution.

The Unison Project aims to address these challenges by creating a consistent, open-source data model to improve how geospatial information is managed and shared during the construction phase of offshore wind developments.

Through the project, the Carbon Trust will deliver a standardised offshore wind data model published on its website, accompanied by technical documentation, model diagrams, and a data dictionary. The initiative will also include workshops and presentations to encourage industry-wide adoption.

“The Unison Project builds on data standardisation successes from the oil and gas sector, but it is tailored specifically to meet the needs of offshore wind construction,” said the Carbon Trust.

Patricia Teixeira, Principal GIS Specialist at Ørsted, said, “Collaboration is often a catalyst for industry progress, unlocking expertise that accelerates innovation and helps set shared standards. What started as an idea of sharing Ørsted’s proprietary construction data model became the spark for something bigger! Ørsted shared it with the industry, invited collaboration, and brought together partners across the value chain. Through countless conversations, engagement and effort the idea has grown into what is now UNISON which will set a new standard for how we work together, ultimately advancing efficiency, sustainability and safety. Together, we are bringing the idea to life.”

Arnaud Vidal, Data and Digital Technologies / Head of Geospatial at TotalEnergies, said, “Unison Project represents a pivotal step forward in offshore wind geospatial data management. By establishing a standardized and open-source GIS data exchange model, it streamlines collaboration across developers, contractors and technical partners. This harmonization reduces costs associated with data duplication, format inconsistencies, and operational delays, while enhancing data reliability and traceability. Ultimately, it enables better risk control and more efficient capital deployment throughout the construction lifecycle.”

Anthony Hunt, Head of GIS Team in BA Wind at Vattenfall, said, “At Vattenfall we are committed to standardisation and continuous improvement as key drivers when working with spatial data. We are pleased to support wider industry initiatives that promote standardised practices leading to increased efficiency and quality while bringing cost reductions.”

Barend Vos, Geospatial Specialist at Shell, said, “Shell welcomes an integrated offshore wind construction data model, as it will drive cost savings by optimizing planning and execution, while providing clear insights into the financial implications of design, logistics and risk management decisions.”

Caroline Coccoli, Senior Manager at the Carbon Trust, said, “As the industry faces economic headwinds, the Unison Project shows that meaningful progress doesn’t always require massive investment. It’s exactly the kind of targeted innovation needed, and it builds on the Carbon Trust’s strong track record in supporting standardisation across the offshore wind sector.”

The Unison Project, proposed by Ørsted and supported by 11 other leading developers, will run for 14 months and conclude in autumn 2026.

Consortium members include the Carbon Trust, EnBW, Equinor, Flotation Energy, Jera Nex BP, Ørsted, Ocean Winds, RWE, Scottish Power Renewables, Shell, SSE Renewables, TotalEnergies, and Vattenfall.

A Technical Review Group and other stakeholders will provide expert input and help promote the project’s outcomes across the wider offshore wind industry.