Press release

Rosenxt on the North Sea Summit in Hamburg: Offshore wind expansion requires scalable key components for speed and resilience

Wietmarschen-Lohne/ Hamburg – 27. January 2026. In the context of the meeting of North Sea coastal states ("North Sea Summit") in Hamburg, Rosenxt highlighted the importance of industrialized, robust key components for the accelerated expansion of offshore wind energy in Europe. In addition to grid expansion, approvals, and investment security, implementation at sea must become faster, more predictable, and more resilient. In practice, this is often slowed down by limited special ship and vessel capacities, narrow weather windows, and complex logistics and installation processes – at the same time, requirements are increasing due to ever larger turbines and higher loads.

"The North Sea Summit sends an important signal: offshore wind is a central component of energy security in Europe. For expansion to really pick up speed, in addition to political framework conditions, scalable technical solutions are needed that function reliably under the very harsh offshore conditions," says Dr. Judith Weigold, responsible for the Offshore Wind division at Rosenxt. Offshore wind farms are also increasingly becoming part of Europe's critical energy infrastructure. In addition to speed and costs, the question of how offshore installations can be designed to be resilient in the long term – against extreme environmental conditions and increasing operational safety requirements – is becoming increasingly important.

Xelcor: Foundation connection system for extreme offshore conditions

With the declared goal of the Hamburg meeting being to install offshore wind energy capacity in the North Sea from the current 9 gigawatts to around 300 gigawatts by 2050 – a significant portion of which will be in cross-border projects – there is a growing need for standardized and resilient components along the entire value chain.

Rosenxt is active in the offshore industry, among others, and is developing Xelcor, a next-generation foundation connection for offshore wind turbines. The goal is to make offshore projects more scalable through robust, practical connection technology – with a focus on predictable and cost-effective installation and operational reliability. As a passively locking connection system, Xelcor uses a polyurethane (PU) layer to permanently and securely connect two conical parts – for example, between a monopile and a transition piece or between segmented monopiles. The technology is designed for use above and below water, as well as in the particularly stressful splash zone, thus

supporting robust offshore infrastructures even under demanding conditions. With unique material properties, optimized load distribution through polyurethane at the connection point, and scalability across turbine sizes and very deep waters, Xelcor enables faster installation, reduces the need for specialized ships and vessels, and improves both project efficiency and the resilience of offshore foundation structures.

For such solutions to be scaled more quickly, ambitious expansion targets need to be accompanied by an industrial policy framework that enables standardization, industrialization, and innovation in equal measure. It is crucial that key technical components are put into practice more quickly so that offshore projects can be implemented in a predictable manner and Europe's energy system becomes more resilient.

“Europe is rightly discussing expansion targets and cooperation today. However, the decisive factor will be how quickly we can implement these targets. To this end, politics and industry must work together to create the necessary conditions – from standardization and a reliable framework for innovation to resilience requirements for critical offshore infrastructure,” Dr. Weigold continued.

Media information

Rosenxt is available to the media for background discussions and sound bites during the North Sea Summit—in particular on how offshore projects can be implemented more quickly, predictably, and resiliently using scalable connection technologies such as Xelcor, thereby helping to accelerate the implementation of the North Sea Summit's political goals.

About Rosenxt

Rosenxt is a forward-thinking technology group. Launched in 2023 by Hermann Rosen, the founder of the ROSEN Group, the company builds on decades of engineering excellence. As a privately owned global partner with more then 550 employees, Rosenxt continues to focus on developing cutting-edge technologies and has a broad expertise in sensor technology, autonomous robotics, AI, and advanced materials. The company explores and develops highly innovative products and services for customers in very challenging environments – the underwater sector, industrial production, renewable energy, and integrity of assets in water and energy supply. The headquarters of the Rosenxt Group is located in Switzerland. For more information, please visit www.rosen-nxt.com.

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