

Over €8 million for quantum chips and quantum-secure communication in the Dutch-German border region

Six high-tech companies are joining forces with knowledge institutions to develop new quantum technology and build a 70-kilometre test connection between Enschede and Münster.

How can we keep digital communication secure in the future? Organisations are exchanging increasing amounts of sensitive and critical data over digital networks. At the same time, powerful quantum computers will eventually pose a challenge to existing security methods. New solutions are therefore needed to keep digital communication secure.

Dutch and German companies and knowledge institutions are working together on new solutions for quantum-secure communication. The Making ConneQtions project started in June 2026 and will run until September 2029.

With a budget of over €8 million, the partners are developing quantum chips and a cross-border test environment. This will allow companies to test their technology under realistic conditions and prepare it for practical use. Making ConneQtions brings together expertise in quantum technology, photonics, semiconductors and cybersecurity.

From quantum chip to application

Six specialised high-tech companies – QSA Technology, Sabratha Photonics, PiCard Systems, Xen Quantum, Microwave Photonics and Pixel Photonics – are working together with the University of Twente and Universität Münster. They are developing integrated photonic chips and components for Quantum Key Distribution (QKD), quantum-secure authentication (QSA) and single-photon detection. These chips are designed to make quantum communication systems smaller and easier to use.

At the same time, the partners are building a 70-kilometre quantum test connection between Enschede and Münster. Companies will be able to test prototypes there before taking the technology into a real-world environment together with end users. This is important to understand both what works technically and what future users need. In this way, the participating companies are working towards market introduction and scale-up.

Hilde van der Pluym, Programme Manager Making ConneQtions at Oost NL: *“The strength of Making ConneQtions lies in bringing together entrepreneurs, expertise and a truly cross-border test environment. Companies can develop and test their technology here and take the next steps towards the market. By connecting expertise and facilities in the eastern Netherlands and Germany, we create new opportunities for entrepreneurs and strengthen our position in Europe.”*

Reaching the market faster together

For the participating companies, Making ConneQtions offers more than funding. They gain access to expertise, testing facilities, international partners and potential customers. This helps high-tech companies not only develop new technology, but also put it into practice and bring it to market.

Oost NL is the lead partner of Making ConneQtions and, together with NMWP, connects end users to the project. A network of industry partners is also involved to strengthen the connection with the market.

Making ConneQtions strengthens the innovative capacity of high-tech companies in the region. At the same time, the project contributes to more secure digital infrastructure and industrial quantum products. It also helps strengthen Europe's high-tech sector and reduce Europe's dependence on technology from outside Europe.

About Making ConneQtions

Making ConneQtions is being implemented within the framework of the Interreg VI programme Deutschland-Nederland and is co-financed by the European Union, MWIKE NRW, the Niedersächsische Staatskanzlei, the Dutch Ministry of Economic Affairs and Climate (EZK), and the provinces of Overijssel, Gelderland, Groningen, Fryslân, Drenthe, Flevoland, North Brabant and Limburg. Oost NL is the lead partner of the project.

Would you like to stay up to date on the latest developments? Contact Hilde van der Pluym at hilde.vanderpluym@oostnl.nl.

Six high-tech companies are taking the next step in quantum-secure communication

We are exchanging increasing amounts of sensitive and critical data digitally. At the same time, powerful quantum computers will eventually pose a challenge to existing security methods. New solutions are therefore needed.

QSA Technology, Sabratha Photonics, PiCard Systems, Xen Quantum, Microwave Photonics and Pixel Photonics are joining forces with the University of Twente and Universität Münster to develop quantum technology that will help make digital communication more secure.

As part of Making ConneQtions, the partners are building a 70-kilometre test connection between Enschede and Münster. This will allow the companies to test their technology and prepare it for real-world and market applications.

The project started in June 2026 and will run until September 2029. Oost NL is the lead partner and, together with NMWP, connects end users to the project.

👉 Find out how this collaboration helps high-tech companies take quantum technology further: [\[link towards news article\]](#)

Making ConneQtions is being implemented within the Interreg VI programme Deutschland-Nederland and is co-financed by the European Union and the programme partners.

#interregdnl #euinmyregion