

Path to Commercialization: LPKF Develops Glass Components for Quantum Computers in Funded QVLS-iLabs Future Cluster

- LPKF develops glass components for ion traps, vacuum chambers and quantum sensors in three projects
- Laser micromachining of glass provides the precision required for quantum computer components
- Future cluster QVLS-iLabs (QVLS = Quantum Valley Lower Saxony) receives €15 million in funding to accelerate commercialization of quantum technologies

HANNOVER/ GARBSEN, 23h of February 2026 – LPKF Laser & Electronics is participating as a technology partner in the QVLS-iLabs future cluster, which has secured an additional €15 million in funding from the German Federal Ministry for Research, Technology and Space Travel (BMFTR) for the next three years. The cluster accelerates the transfer of quantum technologies into commercial applications – LPKF contributes its expertise in glass micromachining.

As part of the future cluster, LPKF is working on three projects developing glass components for quantum computers and quantum sensors:

AMETIQ focuses on automating the construction of ion traps for quantum computers on glass substrates. Ion traps are central building blocks for quantum computers, and glass substrates provide precise optical and electrical properties for their fabrication.

GALACTIQ aims to develop a micro quantum system with a glass-based vacuum chamber and magneto-optical atom trap. The miniaturization and integration of such systems is crucial for deploying quantum technologies outside the laboratory.

In **INERTIQ**, a glass-based optomechanical resonator is being developed to compensate for vibrations in quantum sensors. Such sensors have potential for applications ranging from battery manufacturing to navigation.

"Quantum computers and quantum sensors require the highest precision in manufacturing their optical and mechanical components," explains Roman Ostholt, Managing Director Electronics at LPKF. "Our solution for glass micromachining enables the production of complex structures with the required accuracy in high volume manufacturing – a key competency on the path to commercializing quantum technologies."

The QVLS-iLabs future cluster brings together 25 partners from research, industry and startups in the Hanover-Braunschweig region. LPKF is one of 21 industrial companies working alongside leading research institutions such as the Physikalisch-Technische Bundesanstalt and TU Braunschweig to bring quantum technologies to market readiness.

- Further information about the project: <https://qvls.de/de/ilabs/qvls-ilabs-partner/>

ABOUT LPKF

Pressinformation

LPKF SolarQuipment GmbH is a 100% subsidiary of LPKF Laser & Electronics SE a leading provider of laser-based solutions for the technology industry. LPKF laser systems are crucial for the production of printed circuit boards, microchips, automotive parts, solar modules, and many other components. Founded in 1976, the company is headquartered in Garbsen near Hanover and operates worldwide through subsidiaries and representative offices. The shares of LPKF Laser & Electronics SE are listed in the SDAX of the German Stock Exchange (ISIN 0006450000).

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