TRUMPF Venture invests in quantum technology startup Quside

As extremely powerful random number generators, Quside's chips ensure highly secure encryption // The market volume for such random number generators is expected to be around 10 billion euros by 2026 // The chip also enables simulations such as traffic predictions to be performed up to 20 times faster and with greater energy-efficiency

Ditzingen/Barcelona (Spain), January 19, 2023 – TRUMPF Venture is making a multimillion euro investment in the Spanish startup Quside. The company's core product is a high-performance random number generator located in a photonic chip . Using the quantum mechanical properties of light, it produces completely random number combinations very quickly (Gb/s). This makes it possible to improve the encryption of messages enormously. It can also be used to perform simulations such as risk analyses in the financial sector or weather forecasts much faster and with far greater energy-efficiency. The chip is compatible with common semiconductor manufacturing (CMOS), which enables easy mass production. Quside is based in Castelldefels near Barcelona and currently employs around 30 people. Founded in 2018, the startup's first customers are from sectors with high security requirements, such as aerospace. The company plans to expand into the consumer market in the coming years, to use chips to increase the security of smartphones, tablets or even vehicles.

The chip can be integrated into common manufacturing processes

Quside's chip enables the encryption of messages that even computationally powerful quantum computers cannot decrypt. Currently, there is already a great demand in industries where security plays a major role. In the coming years, the technology could also play an increasingly important role in private devices. In 2026, the market of random number generators is expected to be between around seven and ten billion euros worldwide, depending on the forecast.

Fast and energy-saving simulations

In addition to encryption, Quside's random number generator also enables a faster and more energy-efficient calculation of simulations. This means, for example, that traffic forecasts can be calculated up to ten times faster. Energy consumption is up to 20 times lower. Such simulations are also used by the insurance industry, the logistics sector and the pharmaceutical industry.

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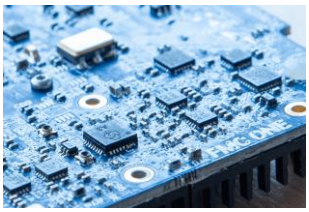
Photonic chip from Quside
Quside's chips generate random numbers that lead to greater security in data transmission and processing. (Source: Quside)



Easy chip fabrication
Quside's chips can be manufactured using conventional manufacturing processes (Source: Quside).

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About TRUMPF

TRUMPF is a high-tech company offering manufacturing solutions in the fields of machine tools and laser technology. The Company drives digital connectivity in manufacturing through consulting, platform products and software. TRUMPF is a technology and market leader in highly versatile machine tools for sheet metal processing and in the field of industrial lasers.
In 2021/22, the company employed some 16,500 people and generated sales of about 4.2 billion euros. With over 80 subsidiaries, the TRUMPF Group is represented in nearly every European country as well as in North America, South America and Asia. The company has production facilities in Germany, France, the United Kingdom, Italy, Austria, Switzerland, Poland, the Czech Republic, the United States, Mexico and China.

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