

## University of Basel and QuantumBasel Join Forces for Quantum Computing Innovation in Switzerland

**The University of Basel and QuantumBasel have agreed to collaborate to further develop the Center for Quantum Computing and Quantum Coherence (QC2) at the Department of Physics into a leading center of excellence for quantum computing and to strengthen the bridge between cutting-edge research and industrial applications in quantum computing. This partnership will enhance the cluster of quantum research in the Basel region and drive the development of quantum algorithms and their practical application. This will strengthen Switzerland's position in the international race for the leading role in technology.**

With its research into the realization of spin qubits in silicon semiconductor structures and Majorana qubits in topological systems, the University of Basel has been pioneering scientific work in quantum hardware for years. The partnership with QuantumBasel will enable the university to expand its expertise in the development of quantum algorithms and practical applications of quantum computing, including the use of other quantum hardware modalities such as superconducting and ion qubits. This will strengthen the bridge between basic research and industrial application of this disruptive technology, accelerate the development of quantum talent and further advance the cluster for quantum research in the Basel region and Switzerland.

The two partners are working together to develop the QC2 into an international center of excellence that plays a leading role in both basic research and practical applications. The QC2 was founded in 2005 by researchers in theoretical and experimental physics under the direction of Prof. Daniel Loss and is closely linked to the National Center of Competence in Research NCCR SPIN, which is also based at the University of Basel.

“The regional ecosystem in quantum computing offers us a unique starting point in Switzerland for linking cutting-edge academic research with industrial applications,” says Prof. Primo Schär, Vice President for Research at the University of Basel. “We benefit from the partnership with QuantumBasel in the training of doctoral candidates, for example, but it also improves our position in the acquisition of third-party funding from national and international funding programs.”

### **Strategic Network on the uptownBasel Innovation Campus**

QuantumBasel is part of the uptownBasel Group. A dynamic ecosystem is currently being created on the innovation campus in Arlesheim/BL near Basel, which will establish the region and Switzerland as a global hub for quantum computing. Selected technology companies, leading companies in the field of quantum computing and start-ups will find a perfect working environment here to combine research and industry. A long-term goal of the cooperation is to conduct some of QC2's research activities on the Innovation Campus. The aim is to advance research in direct proximity to leading companies in the field of quantum computing.

“By collaborating with the University of Basel, we are driving technological progress in both worlds and actively working towards a better and sustainable future. Excellent research is combined with our various innovation approaches, and together, we can position Switzerland even better in the global race for technological leadership,” explains Damir Bogdan, CEO of QuantumBasel. Strategisches Netzwerk auf dem uptownBasel Innovationscampus

The cooperation contributes to the targeted training of highly qualified talents and creates a structured environment to promote joint research and application projects in quantum computing. In close collaboration, projects are to be realized in order to advance basic research and ultimately create significant added value for customers. This partnership intensifies the exchange of knowledge and experts from research and industry and strengthens Switzerland's position as a global center of innovation.

## **Contact**

QuantumBasel Corp., Sophie Peggs, Lead Marketing, [Sophie.peggs@quantumbasel.com](mailto:Sophie.peggs@quantumbasel.com)  
University of Basel, Matthias Geering, Head of Communication and Marketing, [matthias.geering@unibas.ch](mailto:matthias.geering@unibas.ch)

## **About the University of Basel**

The University of Basel is Switzerland's oldest university. Founded in 1460, it now has some 13,000 students and 4,900 researchers from over a hundred nations. Its internationally competitive research in the life sciences, translational medicine, quantum physics and nanosciences is reflected in the excellent publication record of its scientists and a number of prestigious awards. International rankings regularly place the University of Basel among the world's top 150 universities. Located in one of the world's largest life sciences hubs, the University of Basel maintains successful collaborations with numerous industry and academic partners. [www.unibas.ch/en](http://www.unibas.ch/en)

## **About uptownBasel and QuantumBasel**

uptownBasel is an international center of excellence for Industry 4.0 – networked with the world, anchored in Europe and rooted in Basel. On the historic Schorenareal site in Arlesheim/BL near Basel, a development and production site of around 70,000 square meters is being constructed for technology companies and other organizations. The focus is on industrial production, healthcare and logistics as well as the cross-sectional function of digitalization. In total, 50 to 100 companies with up to 2,500 jobs are planned to settle here, the investment volume amounts to over CHF 500 million. uptownBasel is made possible by the private ownership of the family of Monique and Thomas Staehelin and realized by Fankhauser Arealentwicklungen. [www.uptownbasel.ch](http://www.uptownbasel.ch)

QuantumBasel is a competence center for quantum and AI technology in Switzerland and drives access to commercial quantum computing to foster innovation. QuantumBasel places particular emphasis on technological neutrality, which includes e.g. superconductors, ion traps as well as annealers. Technology partners include IBM, D-Wave and IonQ, with the latter currently building its first European quantum computer at the uptownBasel site, expected to be completed by the end of 2024. With its team of quantum and data scientists, QuantumBasel trains companies in harnessing these technologies and carries out joint projects. Collaboration with universities and universities of applied sciences is also strongly supported. By building an internationally networked ecosystem, QuantumBasel enables companies in the fields of industrial production, logistics, finance, energy and life sciences as well as start-ups, universities and universities of applied sciences to access know-how and technologies that they cannot develop on their own. [www.quantumbasel.com](http://www.quantumbasel.com)