PSNC joins IBM Quantum Network to become the first hub of this type in Central and Eastern Europe

Polish researchers will have access to expertise in IBM's quantum computers and software as well as most advanced quantum computers available in the computing cloud

Poznań, 4th February, 2022 – Poznań, Poland, will soon boast the first IBM Quantum Hub in Central and Eastern Europe. Poznań Supercomputing and Networking Center (PSNC) affiliated to the Institute of Bioorganic Chemistry, Polish Academy of Sciences, is joining the IBM Quantum Network to develop quantum computing technologies and their applications including advanced solutions for AI, space technologies, metrology, and crisis modelling.

This is an important day for Polish science and the technological innovation of Poland. To ensure a strong position in the European economy, Poland must actively participate in research and development works on quantum computing. Addressing the ambitious assumptions we have set for ourselves in the field of digital innovation for science and the information society requires Poland to have access to the most modern e-infrastructure. It is necessary to enable interested parties to use advanced engineering simulations and large data calculations. The integration of supercomputers into Poland's strategic resources is one of the tasks we have set ourselves for implementation within the Cyber Poland 2025 area, says Janusz Cieszyński, Secretary of State for Digitization in the Chancellery of the Prime Minister of Poland.

The IBM Quantum Network members enjoy access to the IBM quantum computing systems including Eagle, a newly launched 127-qubit quantum processor, as well as IBM's expertise in quantum technologies and Qiskit, a leading open-source quantum software development toolkit.

Polish research groups interested in quantum computing have identified PSNC as a center with sufficient human and technological potential to provide access to IBM quantum computers. The access will also be available for universities that plan to include quantum computing in their courses, remarks Prof. dr hab. inż. Roman Słowiński, Vice President of the Polish Academy of Sciences.

As the first Polish public institution joining the IBM Quantum Network we will have the opportunity to develop future-oriented competences in quantum computing as well as specialized software and new programming tools for end users, says dr hab. inż. Krzysztof Kurowski, Technical Director for PSNC.

By entering into collaboration with IBM, PSNC is joining the IBM Quantum Network, a community of over 170 members, including Fortune 500 companies, start-ups, academic institutions, and research labs that work on quantum computing development and study their practical applications.

Launching the IBM Quantum Hub in Poland is a genuine milestone towards expanding our quantum ecosystem. Collaboration with IBM will allow PSNC to make new discoveries concerning the variety of fields in which quantum computing may be a complete game changer. That, in turn, may ultimately help tackle challenges related to newly invented materials and drugs, says Marcin Gajdziński, Country General Manager for Poland and Baltics.

PSNC's initiative will be financed by the Polish Prime Minister's designated subsidy from the resources of the Ministry of Digitization.

About IBM Quantum
IBM Quantum is an unprecedented initiative to build universal quantum systems for business and science. For more information on IBM's efforts in quantum computing go to www.ibm.com/quantum-computing

About PSNC
(www.psnc.pl)

Poznań Supercomputing and Networking Center (also known as PCSS) affiliated to the Institute of Bioorganic Chemistry, Polish Academy of Sciences, is an internationally reputed hub of the European research area in IT infrastructure for science and a significant R&D center for information and communication technologies. A vital element of the global R&D base, PSNC implements numerous projects, mainly as part of successive EU Framework Programs, and supports R&D initiatives with over 1000 partners from all over the world. The Center is consistent in expanding its own HPC infrastructure, and its systems are ranked high on TOP500 and GREEN500. Over the last few years, PSNC has also been actively participating in quantum challenges to be faced by contemporary IT.

Boasting state-of-the-art, nationwide optical fiber network named PIONIER, PSNC combines the research potential of Polish academic units with access to European and global institutions. It is for several years that the network has been providing Polish scientists with a direct connection with the European Organization for Nuclear Research (CERN).
With its extensive experience in supercomputing, grid and cloud technology development as well as big data processing, PSNC actively contributes to HPC initiatives related to multidisciplinary applications of science and technology. The Polish Roadmap for Research Infrastructures has recently included as many as ten projects implemented in PSNC; some of them aim at HPC computing technology development (e.g., PRACE-LAB and the National Data Storage), while others focus on quantum technologies (e.g., the National Laboratory for Photonics and Quantum Technologies, PRACE-LAB2 and Euro-HPC PL). Aspiring for advanced technology development, PSNC has recently launched the first quantum cryptography system in Poland, which works in the operating telecommunication environment and provides secure network connections using innovative solutions that apply quantum technologies in network communication.

About Cyber Poland 2025
Cyber Poland 2025 is one of ten key areas listed in the Polish Deal, an economic package for recovery from the COVID-19 pandemic. Thanks to the adopted guidelines, Poland is expected to rank as one of the most technologically advanced country in Europe within the next few years. www.gov.pl/web/polski-lad/cyberpoland-2025