## IBM Welcomes LG Electronics to the IBM Quantum Network to Advance Industry Applications of Quantum Computing

LG Electronics joins IBM Quantum Network and aims to explore applications of quantum computing to support big data, artificial intelligence, connected cars, digital transformation, IoT, and robotics applications



SEOUL, South Korea, Jan. 10, 2022 /PRNewswire/ -- IBM (NYSE: IBM) today announced that LG Electronics has joined the IBM Quantum Network to advance the industry applications of quantum computing.

By joining the IBM Quantum Network, IBM will provide LG Electronics access to IBM's quantum computing systems, as well as to IBM's quantum expertise and Qiskit, IBM's open-source quantum information software development kit.

LG Electronics aims to explore applications of quantum computing in industry to support big data, artificial intelligence, connected cars, digital transformation, IoT, and robotics applications – all of which require processing a large amount of data.

With IBM Quantum, LG can leverage quantum computing hardware and software advances and applications as they emerge, in accordance with IBM's quantum roadmap. By leveraging IBM Quantum technology, LG will provide workforce training to its employees, permitting LG to investigate how potential breakthroughs can be applied to its industry.

"Based on our open innovation strategy, we plan to use IBM Quantum to develop our competency in quantum computing," said Byoung-Hoon Kim, CTO and Executive Vice President of LG Electronics. "We aim to provide customers with value that they have not experienced so far by leveraging quantum computing technology in future businesses."

"We're happy to welcome LG Electronics to a growing quantum computing ecosystem in Korea at an exciting time for the region," said Jay Gambetta, IBM Fellow and VP, Quantum Computing at IBM. "The relationship

between IBM and LG Electronics will permit LG to explore new types of problems associated with emerging technologies and will help strengthen the quantum capabilities in Korea."

Quantum computing is an exciting evolution in computation. While classical computers calculate in bits that represent 0 and 1, quantum computers use qubits that harness quantum mechanical phenomena such as interference and entanglement in computation to solve problems that are fundamentally intractable for classical computers. As a result, quantum computing is well suited to help explore new approaches of solving problems like those in LG Electronics' open innovation strategy including big data, artificial intelligence, connected cars, digital transformation, IoT, and robotics applications.

At the IBM Quantum Summit in November 2021, IBM recently unveiled its new 'Eagle' quantum computing processor with 127 qubits, a major step forward in IBM's roadmap to reach Quantum Advantage.

There are more than 170 clients, including LG Electronics, Fortune 500 companies, start-ups, academic institutions and research labs working with IBM Quantum technology to advance quantum computing and explore practical applications. The IBM Quantum team and clients are researching and exploring how quantum computing will help a variety of industries and disciplines, including finance, energy, chemistry, materials science, optimization and machine learning, among many others.

## **About IBM Quantum**

IBM Quantum is an industry-first initiative to build universal quantum systems for business and science applications. For more information about IBM's quantum computing efforts, please visit <a href="https://www.ibm.com/quantum-computing/">www.ibm.com/quantum-computing/</a>

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