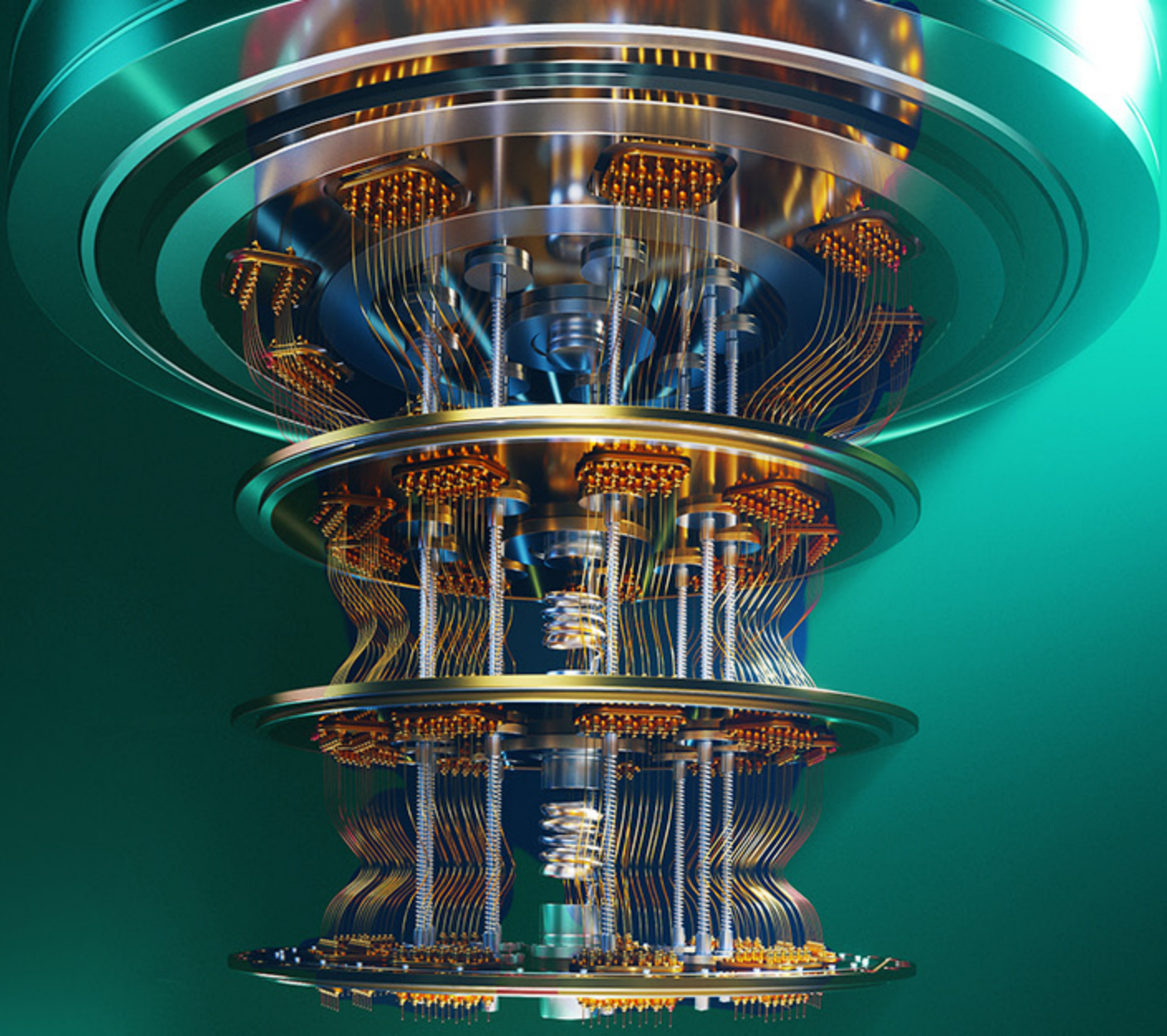

5 Insights From the Quantum Index Report 2025

The MIT Initiative on the Digital Economy's inaugural "Quantum Index Report 2025" offers a comprehensive, data-driven assessment of the state of quantum technologies. The report aims to make quantum computing and networking technologies more accessible to entrepreneurs, investors, and business leaders — all of whom will play a critical role in the technology's development. Here are five insights from the report.

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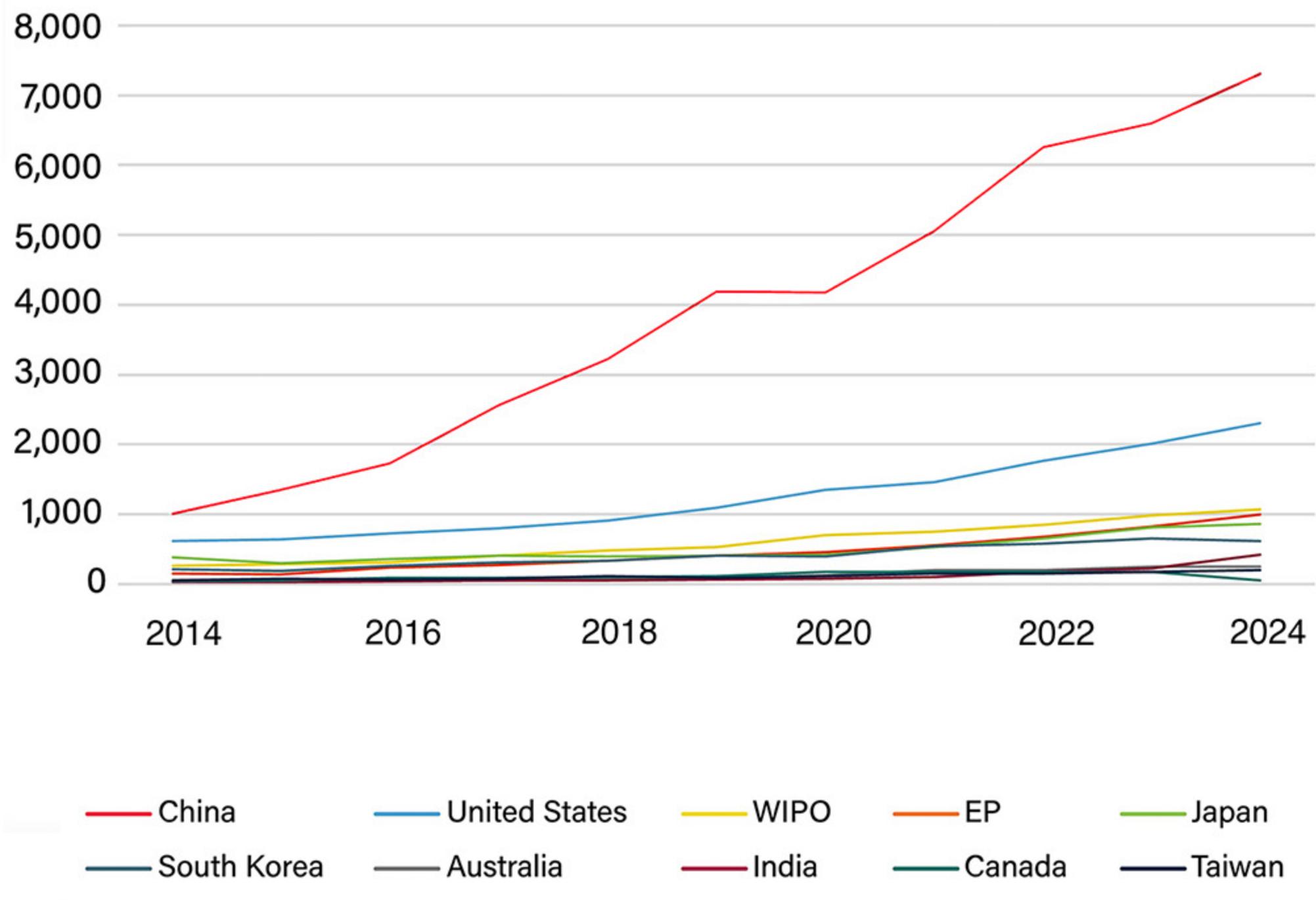
1. Quantum processor performance is improving.

Quantum processor performance is improving, with the U.S. leading the field. Two-dozen manufacturers are now commercially offering more than 40 quantum processing units (QPUs), which are the processing hardware for a quantum computer. This is an indicator that the technology is becoming more accessible to business. While there have been impressive advancements in performance, QPUs do not yet meet the requirements for running large-scale commercial applications such as chemical simulations or cryptanalysis.

2. Quantum technology patents are soaring.

Quantum technology patents are soaring, with the total number increasing fivefold from 2014 to 2024. Corporations and universities are spearheading innovation efforts, accounting for 91% of the patents filed, with corporations holding 54% and universities 37%. China held 60% of quantum patents as of 2024, followed by the U.S. and Japan.

Quantum Technology Patents by Country, 2014 – 2024



Note: "WIPO" is the abbreviation of World Intellectual Property Organization — a specialized agency of the United Nations. "EP" is the abbreviation of European patent.

Source: J. Ruane, E. Kiesow, J. Galatsanos, C. Dukatz, E. Blomquist, P. Shukla, "The Quantum Index Report 2025," MIT Initiative on the Digital Economy, Massachusetts Institute of Technology, Cambridge, Massachusetts, May 2025.

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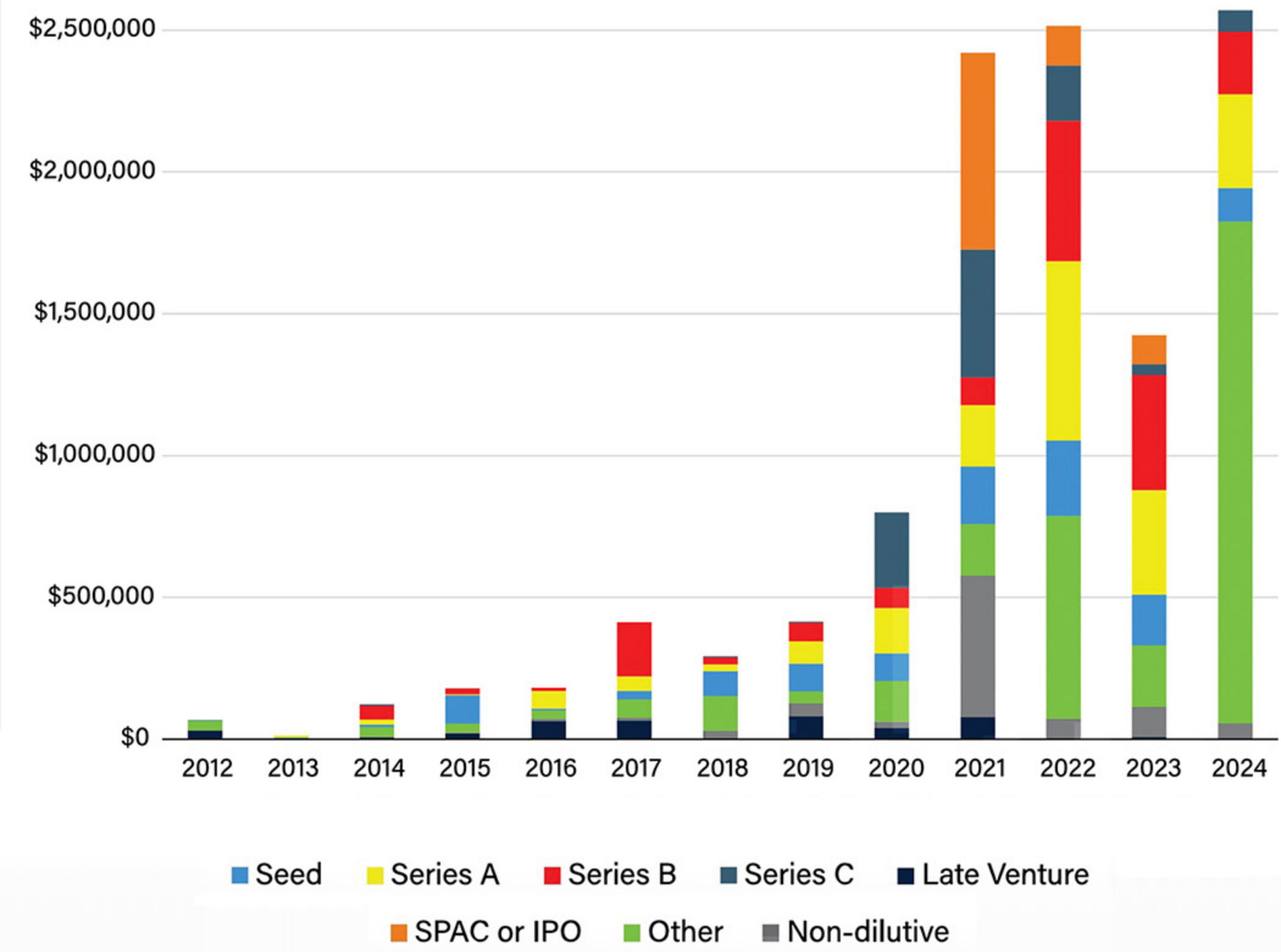
3. Venture capital funding for quantum technology has reached a high point.

Venture capital funding for quantum technology reached a new high point in 2024. Quantum computing firms received the most funding ($1.6 billion in publicly announced investments), followed by quantum software companies at $621 million. The researchers note that quantum received less than 1% of total venture capital funding worldwide.

Quantum Technology Funding Landscape by Round, 2012 – 2024



Note: The "Other" funding category encompasses a wide variety of investments that either did not fit discreetly into the standard classification groups or was not precisely reported.

Source: J. Ruane, E. Kiesow, J. Galatsanos, C. Dukatz, E. Blomquist, P. Shukla, "The Quantum Index Report 2025," MIT Initiative on the Digital Economy, Massachusetts Institute of Technology, Cambridge, Massachusetts, May 2025.

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4. Businesses are buzzing over quantum computing.

The report tracks how often the technology was mentioned across more than 50,000 corporate communication vehicles, including press releases and earnings calls, from 2022 to 2024. There was a significant uptick in mentions each quarter in 2024, with the frequency outpacing that of previous years by a substantial margin. The researchers said that this positively correlates with the maturing of the quantum market and the growing presence of quantum technology in mainstream business discourse.

5. Quantum skills and training are growing in importance.

Quantum skills and training are growing in importance as companies begin to focus on workforce development. The demand for quantum skills has nearly tripled since 2018, according to the report. In response, universities are establishing quantum hubs and standing up programs that connect business leaders with researchers.

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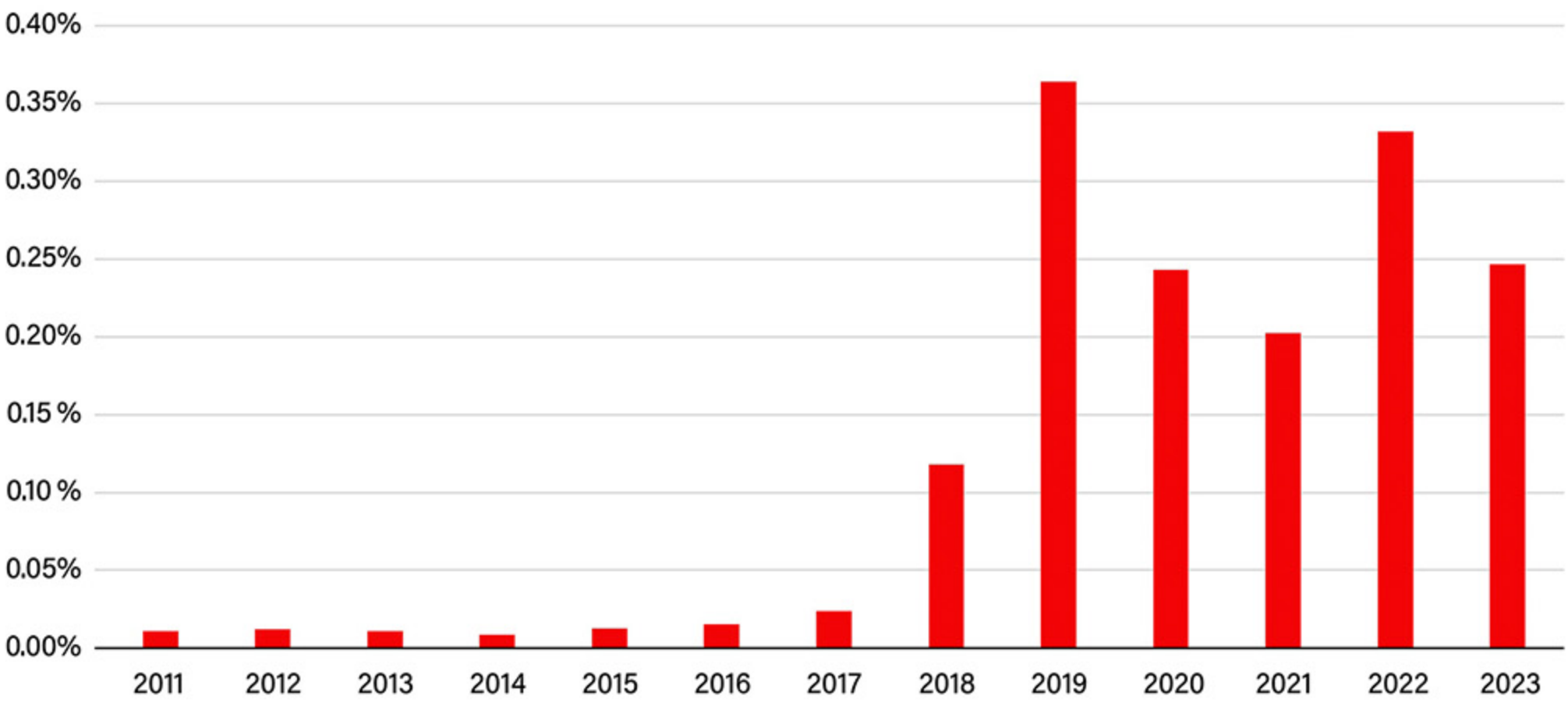
US Job Postings With Mentions of "Quantum" as Share of Total Job Postings, 2011 – 2023



Source: J. Ruane, E. Kiesow, J. Galatsanos, C. Dukatz, E. Blomquist, P. Shukla, "The Quantum Index Report 2025," MIT Initiative on the Digital Economy, Massachusetts Institute of Technology, Cambridge, Massachusetts, May 2025.

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