

ASX Announcement (ASX: AXE)

20 January 2021

First patent granted for ¹²CQ quantum computing chip

Highlights

- Japanese patent granted for Archer's ¹²CQ quantum computing qubit processor ("chip").
- Major commercial milestone achieved with the grant of a patent protecting the ¹²CQ chip technology in a Top 5 global economy.
- Archer is one of few key players[†] developing a qubit processor chip in the emerging multibillion-dollar quantum computing industry[‡].

Archer Materials Limited ("Archer", the "Company", "ASX: AXE") is pleased to announce the granting of a Japanese patent ("JP Patent") associated to Archer's ¹²CQ quantum computing chip technology ("¹²CQ chip").

The JP Patent (<u>Patent No. 6809670</u>) is the first granted patent protecting the ¹²CQ chip. The grant of the JP Patent represents a significant commercial milestone in Archer's development of the ¹²CQ chip. The grant of the JP Patent gives Archer access to the high-value Japanese market for the ¹²CQ chip and is the first step in the Company's efforts to access global markets.

The JP Patent application successfully underwent substantive examination procedures in Japan by the Japan Patent Office[§], which is one of the world's largest patent offices.

The success in the grant of the JP patent streamlines the patent granting process and procedures for the additional six international patent applications in the jurisdictions of Australia, South Korea, Hong Kong, China, Europe, and the US (ASX ann. <u>6 Oct 2020</u>).

The Company considers Japan as a critical strategic jurisdiction to protect and commercialise its IP. Japan is a major global economy^{**} and according to the World Economic Forum, ranks amongst the top 5 economies in the world for global competitiveness and GDP.

Commenting on the grant of the Japanese patent, Archer CEO Dr Mohammad Choucair said: "Archer's quantum computing chip IP is now well protected in Japan – a major global economy and centre for technological innovation. The grant of a patent in Japan further validates, and substantially derisks, our unique technology.

"Archer is one of very few companies in the world with a patent portfolio protecting quantum computing qubit processor technology, and this is strategically significant as we rapidly progress in commercialising the 12 CQ chip."

[†] https://www.nature.com/articles/s42254-020-00247-5; also https://www.ibm.com/quantum-computing/network/members/

[†] https://www.bcg.com/en-au/publications/2020/how-financial-institutions-can-utilize-quantum-computing

[§] https://www.jpo.go.jp/e/system/patent/gaiyo/patent.html

^{**} http://reports.weforum.org/global-competitiveness-report-2018/country-economy-profiles/#economy=JPN



About ¹²CQ

¹²CQ is a world-first qubit processor chip technology that Archer aims to build for quantum computing operation at room-temperature and integration onboard modern electronic devices. For more information, please view Archer's <u>webinar</u> with IBM.

About Archer

A materials technology company developing innovative deep tech in quantum computing, biotechnology, and reliable energy. The Company has strong intellectual property, world-class in-house expertise, a unique materials inventory, and access to Tier 1 technology development infrastructure.

The Board of Archer authorised this announcement to be given to ASX.

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