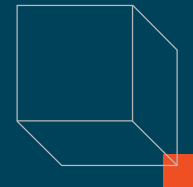


# ARCHER

## AGM Presentation

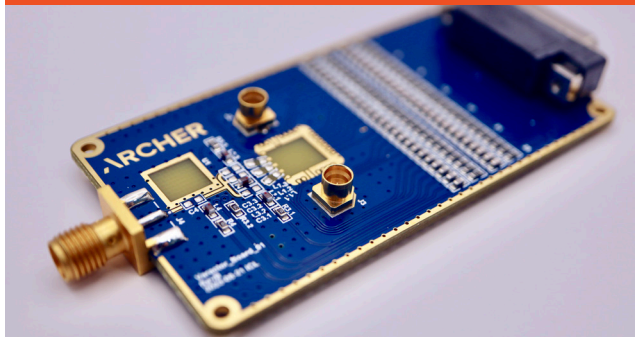


November  
2023





## 2022/23 Achievements



▶ Commenced working with world-leading and tier-one semiconductor manufacturers towards industry fabrication of Archer's technology.

▶ Progressed international patent applications and patent grants in relation to the  $^{12}\text{CQ}$  chip and biochip technologies.

▶ Partnered with the World Economic Forum's Centre for the Fourth Industrial Revolution as Australia's first industry representative alongside other advanced technology centres.

▶ Detected quantum information in the  $^{12}\text{CQ}$  qubit material on-chip and at room temperature for the first time using CMOS technology.

▶ Advanced the room temperature capabilities and functionality of the  $^{12}\text{CQ}$  qubit material while achieving unprecedented quantum coherence times.

▶ Validated the key tech-enabling quantum phenomena observed in the  $^{12}\text{CQ}$  qubit material using some of the most powerful supercomputers in the world.

▶ Developed an early-stage prototype of an integrated biochip system platform for biosensing with automated liquid sample handling and readout.

▶ Gained commercial access to world class semiconductor fabrication infrastructure and facilities, and technical experts in Australia and internationally to develop Archer's technology.



Archer has the foundations in place to advance its semiconductor development towards commercialisation in global markets.



Access to \$1B+ of deep-tech infrastructure and facilities.



Efficient use of funds with A\$21.3M cash and no debt as of 30 Sept 2023.



Patents granted in the US, China, South Korea, Japan, Hong Kong, Australia, and Europe.



Deep technology development backed by world-class R&D.



Partnered with tier-one foundries, tech institutes, international organisations and companies.



Attracting and retaining pioneering innovators and technologists.



Archer utilises its global partnerships to develop its technologies for potential deployment and use across multiple industries.



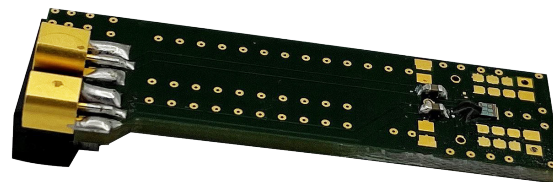
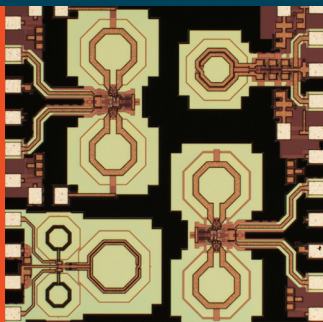
Archer's world-first  $^{12}\text{CQ}$  chip development involves qubit integration with modern devices made in industrial foundries. HEMT and CMOS integrated circuit technology devices have been used to detect quantum information in the  $^{12}\text{CQ}$  qubit material at room-temperature.

Advanced designs of Archer's biochip graphene field effect transistor sensor technology have undergone scalable semiconductor processing in a commercial foundry. Whole wafer and MPW runs have been completed with foundry partners in Europe.





Archer continues to progress towards making quantum processing devices in a much more easily-produced reality in everyday electronics.



Q4  
FY22



Q1  
FY23



Q2  
FY23



Q3  
FY23



Q4  
FY23



Q1  
FY24



Complex nanodevices fabricated in first steps towards qubit control and readout, linking directly to qubit operation.

The successful grant of all 12CQ chip patent applications in Archer's current portfolio across Australasia, Europe, and the US.

Quantum information in Archer's qubit material detected using CMOS technology (above), and supercomputers validate qubit material uniqueness.

Engagement with tier-one semiconductor companies, including TSMC, to secure future manufacturing capabilities.

Archer engineers its qubit material giving rise to unprecedented quantum functionality at room temperature in air.

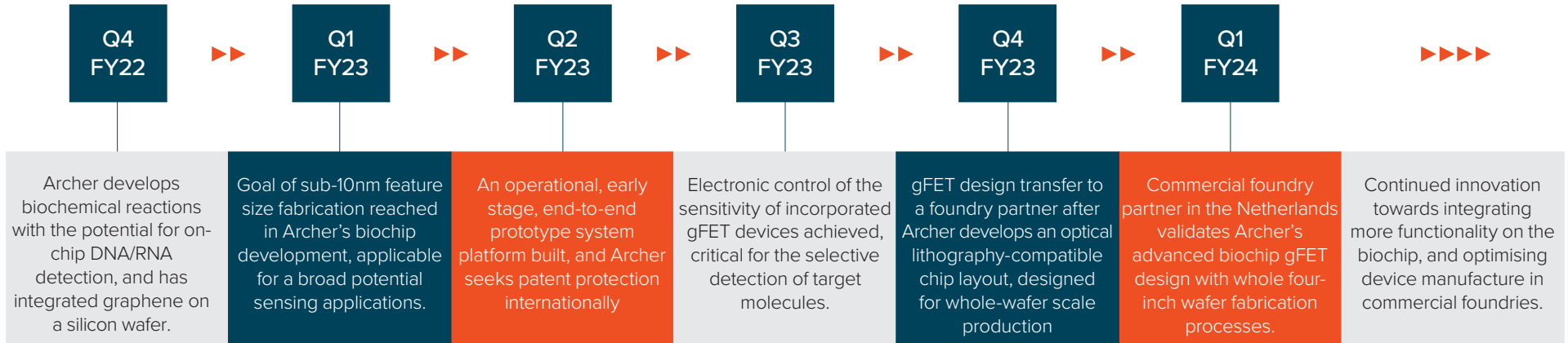
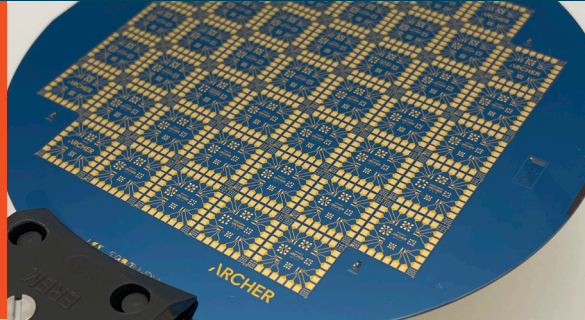
Design and build of microwave circuitry for readout devices, validated using electromagnetic simulation software.

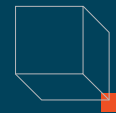
Substantial progress in innovation at the forefront of international quantum development.





Archer's Biochip technology uses graphene transistors as miniaturised and ultrasensitive sensors to detect and analyse disease.





# Archer is primed to become a global semiconductor company

The future of tech will look fundamentally different





Archer continues to de-risk its technology and enters FY24 with a strong cash balance to fund continued technological and commercial developments.



In 2023/24, Archer's growth involves:

### Technology

Progressing world-first technology development, including  $^{12}\text{CQ}$  qubit processor chip and graphene-based lab-on-a-chip biochip.



### Partnerships

Establishing and strengthening strategic commercial partnerships, including securing future semiconductor manufacturing capabilities advancing technology development.



### Innovation

Utilising world-class technology development infrastructure and facilities, R&D, people, and IP, to support pre-market development.



### Patents

Protecting intellectual property (e.g., patents and international patent applications) with global competitive advantages to underpin innovative technology.



### Talent

Hiring new staff to expedite developing and working towards commercialising the Company's technology.







Archer's technology innovation aims to solve long-standing human problems that can't be solved using existing technology.



### The future of tech.

Archer's complementary quantum devices offer the potential to overcome significant limitations in traditional digital technologies.

### Tier-one supply-chain links.

Archer's partnerships are strong with clear goals. We work with multinationals, startups, and leading R&D labs around the world.

### Talented team to rival any.

Archer is developing advanced semiconductor devices based on the breakthrough scientific discoveries of our staff.

### Global competitive advantage worth protecting.

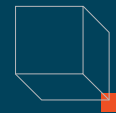
Archer is the only ASX listed company and one of a few players in the semiconductor industry with patents protecting qubit processor technology.

The Company has a growing IP portfolio of granted and pending patents for potentially commercialising step-change advances in its R&D Programs.

### Activities with significant impact.

Archer has a solid track record delivering on ambitious goals, with a strong pipeline of 'news flow' expected over the next year.

Archer is part the wider global ecosystem of the semiconductor industry



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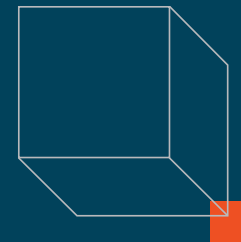
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ASX Code: **AXE**

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



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