Archer Materials Limited (ACN: 123 993 233)
Lot Fourteen, Frome Road, Adelaide SA 5000
www.archerx.com.au

ASX Announcement (ASX: **AXE**) 20 November 2025

Annual General Meeting - Presentation

Archer Materials Limited ("Archer", the "Company", "ASX: AXE") is pleased to enclose a copy of the presentation to be delivered by Archer's Chief Executive Officer, Dr Simon Ruffell, at the Company's Annual General Meeting on 20 November 2025.

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

Investor enquiries

Luke Maffei
+61 403 193 579
luke.maffei@automicgroup.com.au

Media enquiries

Dylan Mark
+61 475 783 675
dylan.mark@automicgroup.com.au

About Archer

Archer is a technology company that operates within the semiconductor industry. The Company is developing advanced semiconductor devices, including chips relevant to quantum computing and medical diagnostics. Archer utilises its global partnerships to develop these technologies for potential deployment and use across multiple industries. www.archerx.com.au

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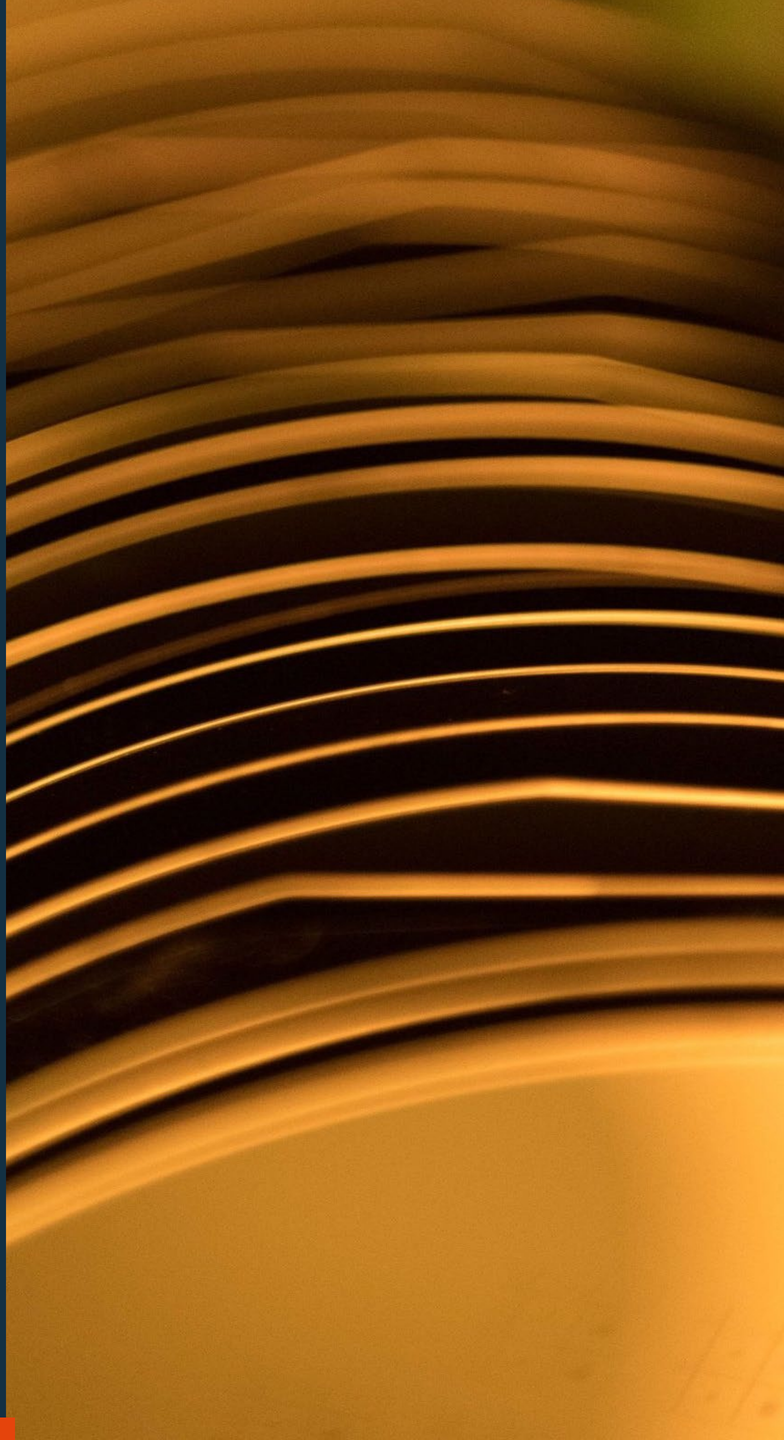
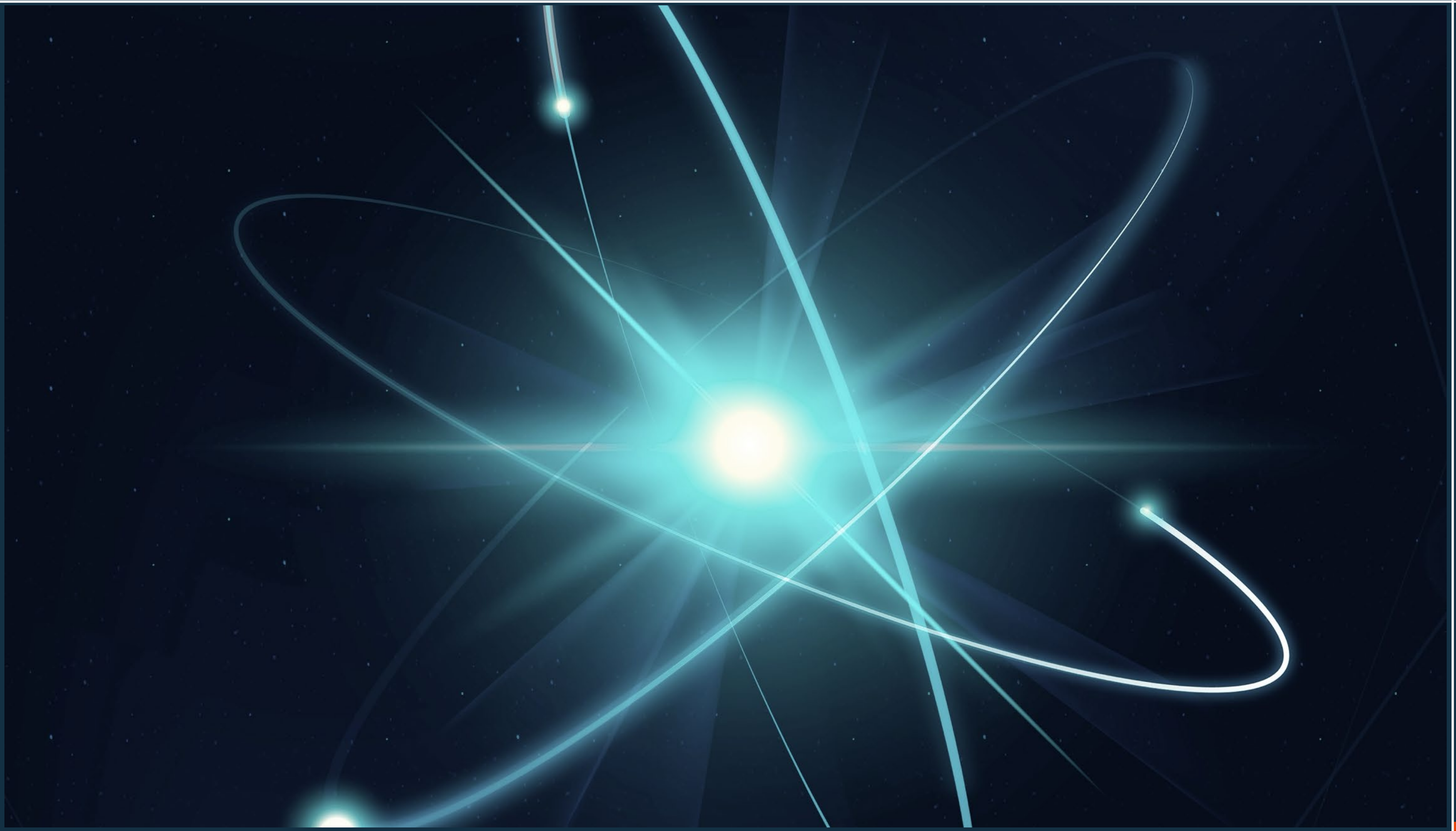
Annual General Meeting 2025

20 November 2025



Overview



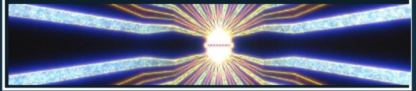
01

Our Technology

Archer Materials is the only ASX-listed quantum technologies company. We are developing products to address high-value problems in computing, sensing, and medical markets.

^{12}CQ Chip

A carbon-based quantum device for applications primarily in computing and the possibility of integrating with other electronics.



Advanced Quantum Sensing

Highly sensitive sensors.
Wide range of applications.

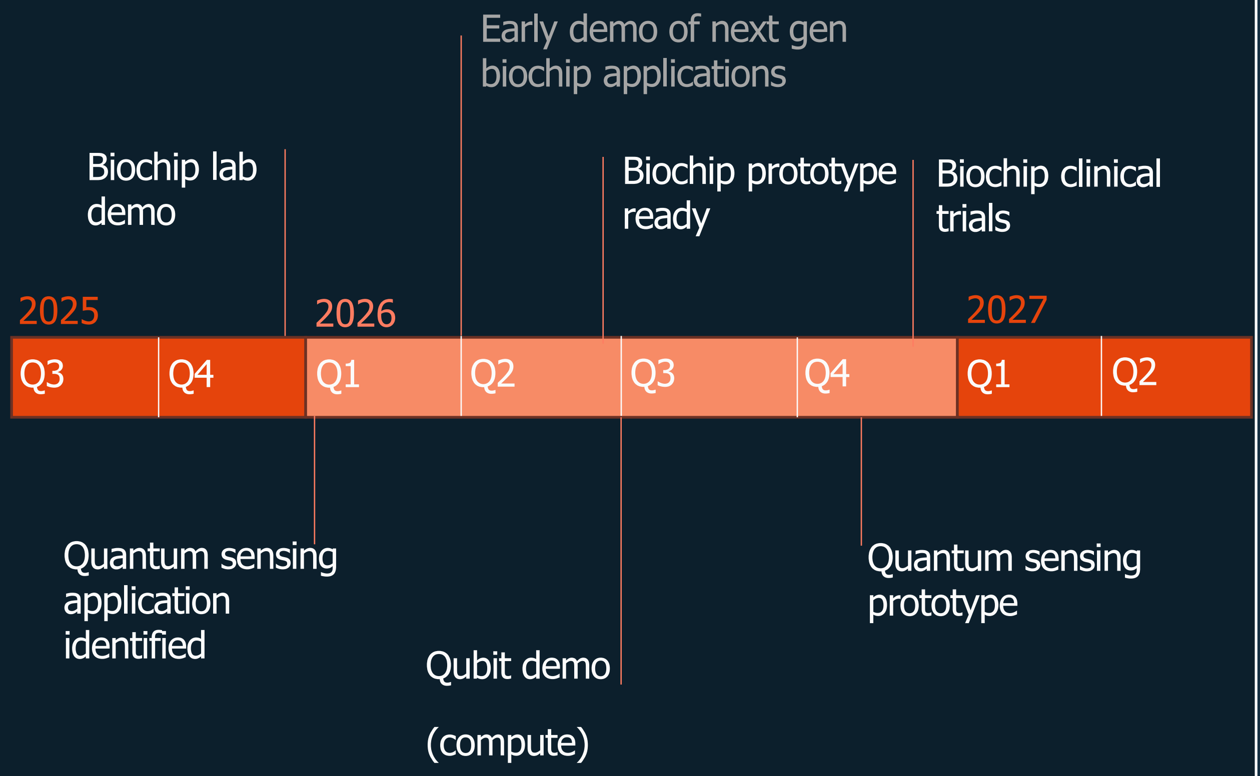
Biochip

Highly sensitive, chip-based sensors for at-home management and treatment of chronic diseases.

Our roadmap

Key Catalysts and Outlook

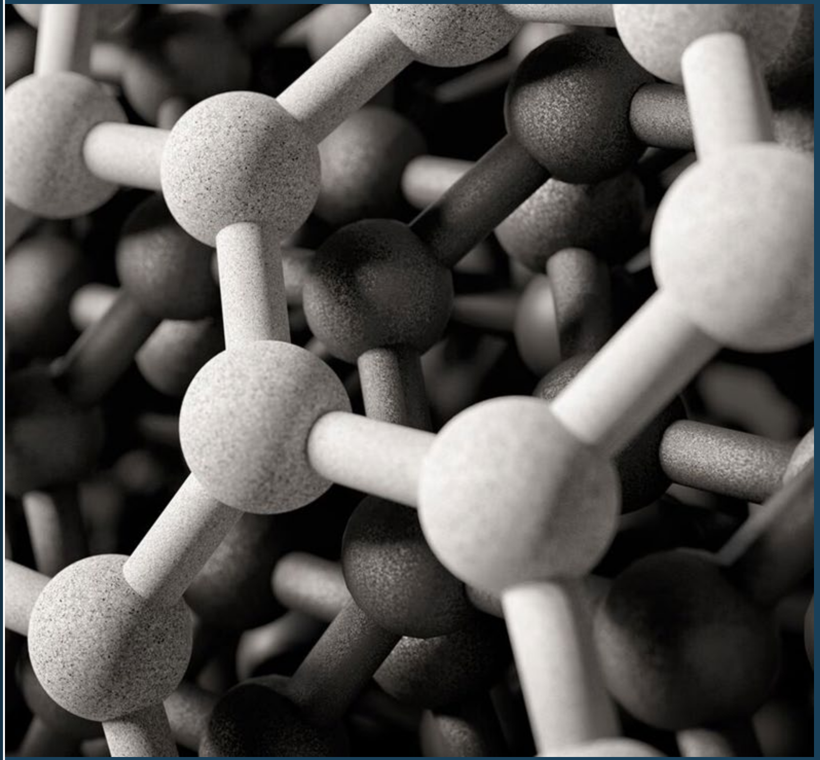
Calendar years to 2027



- Lab demonstrator of blood potassium sensor end of 2025
- Blood potassium prototype sensor mid-2026
- End of 2026 begin clinical trials for blood potassium sensor
- Targeting quantum application and market validation end of 2025 (TMR, carbon/graphene)
- Work to begin on development of next generation biosensor from R&D – early 2026
- Carbon-based quantum qubit demonstration mid-2026 (computing)

Archer's Carbon Quantum – differentiation & advantages

- Our **differentiated** approach is aimed at tackling current quantum technology roadblocks like manufacturability, scaling, cost, and complexity.
- Our purpose is to commercialise quantum innovation in ways that deliver real competitive advantage to customers.
- Attractive quantum properties that provide:
  - Simplified device architectures.
  - Manufacturable technology.
  - Diverse technologies from qubits for computing to sensing in areas like navigation and biomedical.

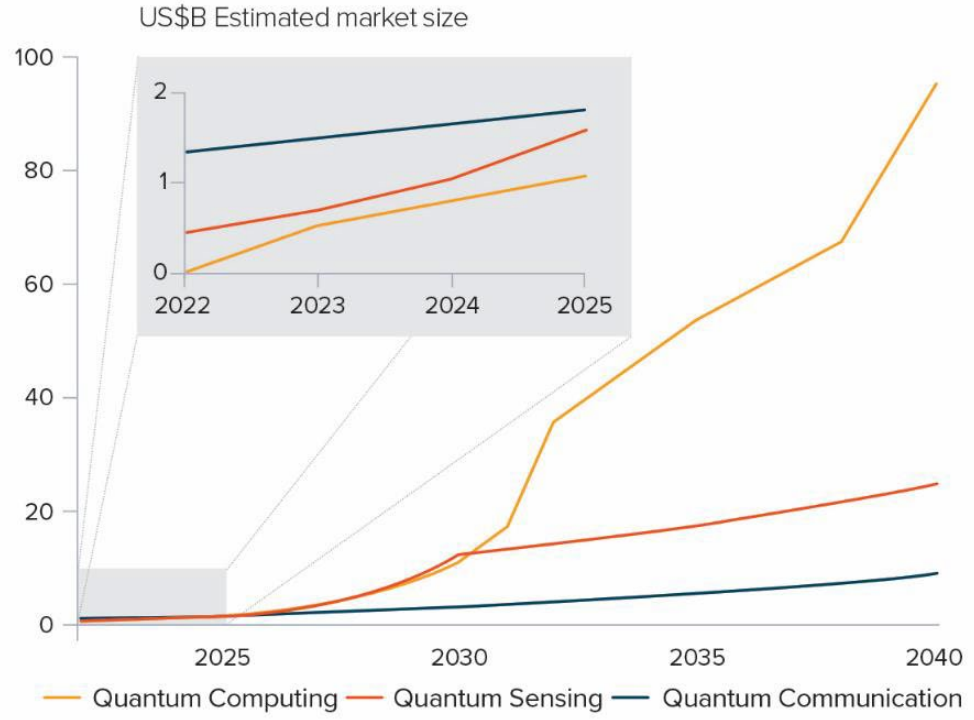


Quantum Technology: The Next Frontier

Archer considers quantum technology to be the next great technological advance.

- Archer is the only ASX-listed quantum company.
- Adoption of quantum tech expected to increase with quantum hardware maturity.
- Quantum computing and sensing is expected to rapidly increase in share of total quantum value.
- US$30B market by 2030.

Quantum Technology Market Growth Projections 2025-2040



Sources:
BCG analysis
Krelina, "Quantum technology for military applications" EPJ Quantum Technology (2021); IBM quantum roadmap; IonQ quantum roadmap

BioChip

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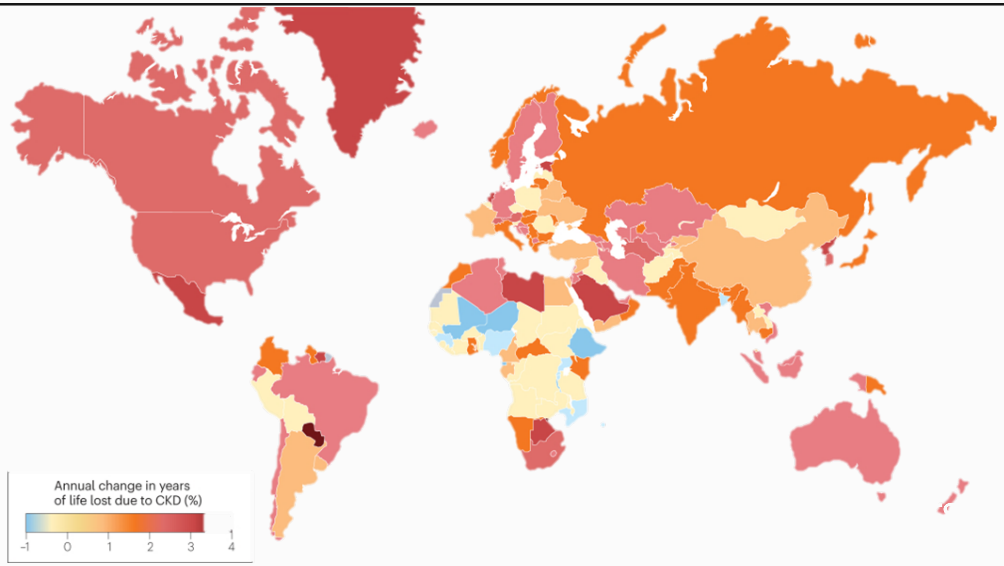
High-Value Problem

Archer's biochip uses highly sensitive, high speed, low power sensors to detect ions in blood. The chip will be integrated into an at-home testing system that will analyse a finger prick of blood.



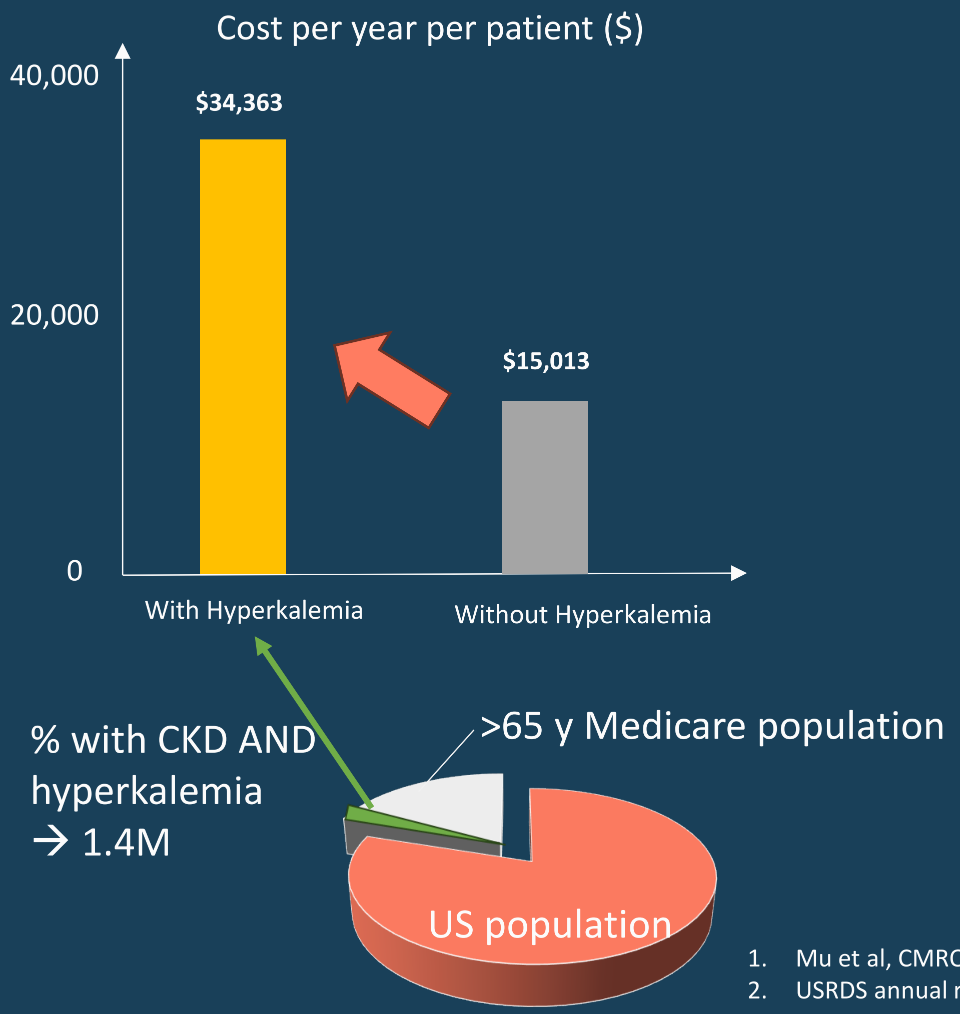
Up to **4% annual increase** in years of life lost due to CKD in high-burden regions — highlighting the growing global impact and unmet need for early intervention.

1. Kidney Health Australia (https://kidney.org.au/kidney-check-heart-diabetes-blood-pressure)
2. Yole "Biosensors Marketing Report 2024-32", Market Research Future "Renal Disease Market Report". Bottom-up estimate using refs above

- Over 850M people (>10% of global population) suffer from chronic kidney disease (CKD).
- More than US$3B total addressable market within the US$80B+ renal disease space.
- Kidney disease patients are at high risk of lethal potassium imbalances (kidneys regulate electrolytes) → Hyperkalemia.
- Potassium testing is lab-based, monthly, and too infrequent for timely intervention.
- Extendable to heart disease and treatment.
- Extendable to more applications in medicine, industrial, and agriculture.

Value Proposition (US Medicare Population)

- **The Problem**: CKD patients with hyperkalemia drive billions in preventable costs (>$15k per patient, >$30B total).
- **The Gap**: No convenient, fast, low-cost potassium testing exists today.
- **The Opportunity**: Our portable tester enables early detection → fewer admissions → significant savings.
  - $1 to $10B savings from the >$30B current burden.
  - $50 to $1000 per year per patient cost vs >$15,000



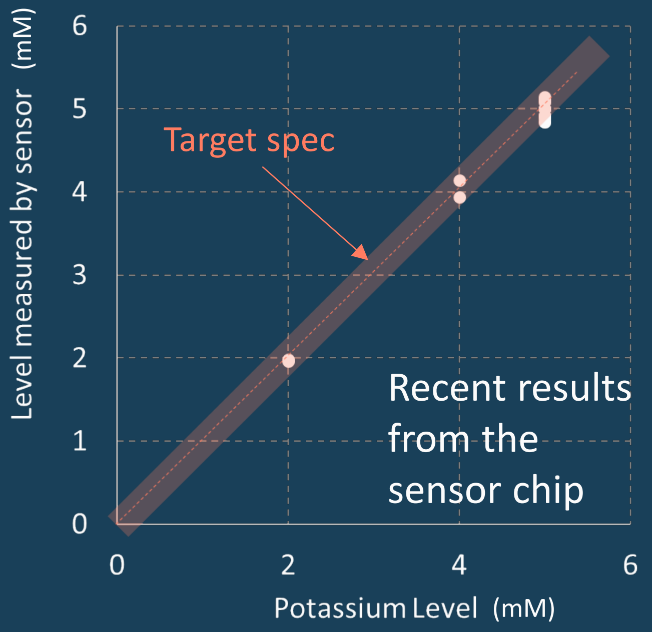
1. Mu et al, CMRO (2020)
2. USRDS annual report

Our Solution: Archer Potassium Test

The first of its kind and the most technologically advanced POC medical diagnostic in the world.

- A technology inflection beyond decades-old lateral flow tests.
- More capability and applications.

Lead application for our chip-based sensing platform.



Concept Image

Built to prevent life-threatening cardiac events.

Potassium Sensor

Chip - Highly sensitive, fast response, low power

Haemolysis Sensor

Eliminates false positives from blood cell rupture

Accessible

Simple at-home testing, even in rural or remote areas

At-home Potassium Sensor - Roadmap

Phase gate development process for a diagnostic medical device regulated under ISO13485

Proof of concept	Feasibility	Development & Optimisation	Scale up & transfer to manufacturing	Verification & validation	Launch

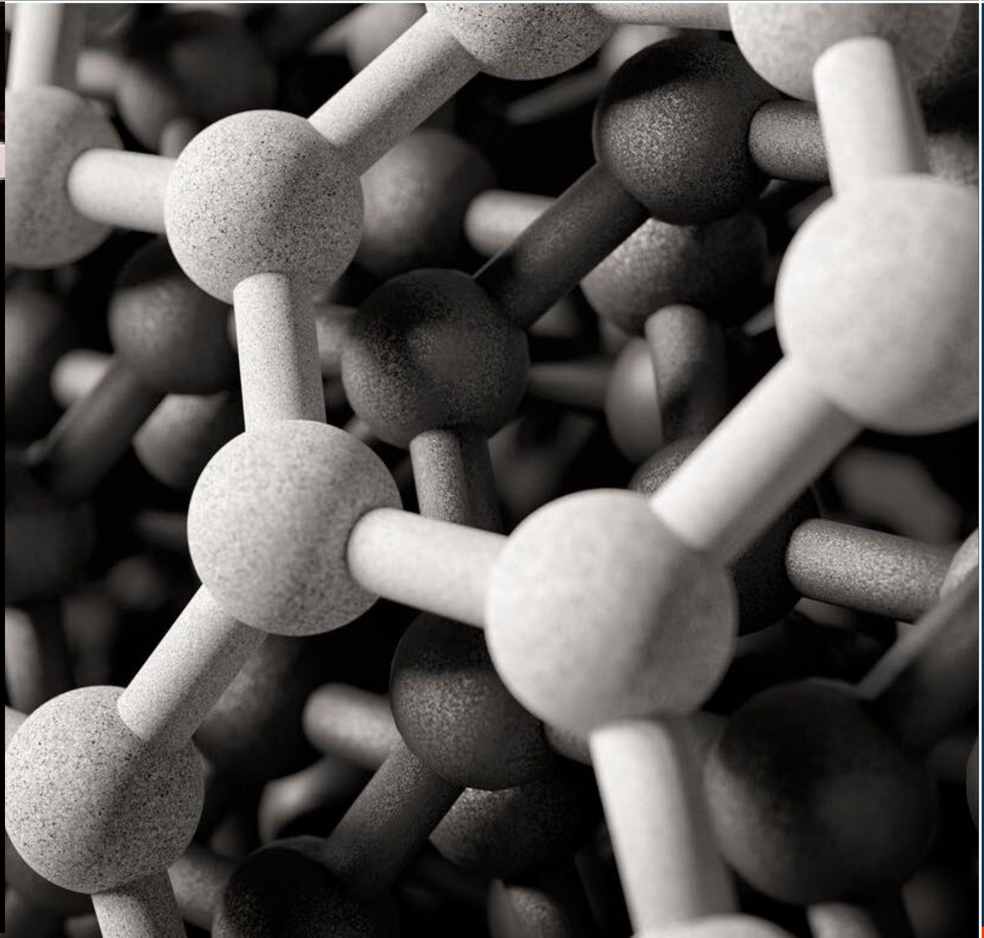
2025

- Work ramping up in Sydney, towards Archer's 1st prototype.
- Building strategic partnerships: medical diagnostics companies, academic groups, product development consortia.
- Building access to clinical advisors, potential trial locations.
- Developing regulatory and product placement/use-case strategy.

Target of prototype in 2026. Regulatory and product placement plan.

Archer aiming to begin clinical trials by end of 2026.

Quantum Computing and Sensing



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Qubit Roadmap

Work will be extended on devices built around nanodots of carbon. Targeting a qubit architecture demonstration in 2026.

Demonstration of gating in Archer's proprietary carbon film ✓

Electron spin state readout – Detection of Zeeman split spin states and time averaged readout

Full qubit demonstration including single spin control and readout

2025

2026

Q2	Q3	Q4	Q1	Q2	

Single electron transport
Electrical coupling to spins ✓

Creating of single electron transistor ✓

Microwave spin control

Tapping into Growing Quantum Sensor Market

- Overseas foundry developing TMR sensor with Archer for industrial applications.
- TMR sensors have applications in AI, data centers, automotive, and IoT implementation.
- TMR leverages quantum phenomena to provide a performance edge over classical incumbents.
- Part of Archer's ^{12}CQ project, leveraging expertise in quantum mechanics to design advanced TMR sensors.
- We have been investigating potential applications, partners, and potential customers.

2025 To identify a lead application and build product development strategy.

2026 Protype and go-to-market strategy development.

Key Partnerships

imec

Key for biochip productization and derisking various aspects of the biosensor development, such as supply chain, manufacturability, and integration of the chip into a final product.

PARAGRAF

Paragraf is one of the world's only dedicated graphene foundries. They're a key partner for Archer's technologies including the biochip, computing, and other graphene quantum.

HyliDx

Partnering to integrate their homolysis sensor with our biochip for the CKD product.

EPFL

EPFL have been a long-time partner and have helped us make key breakthroughs in chip-based control and readout for our qubit technology.

EMERGENCE QUANTUM

We're harnessing graphene and carbon-based materials through a phased innovation and commercialisation program that bridges research and application.

Our partnerships are critical to our success. They bring experience and world-leading expertise to our programs.

Thank you

ASX Code: AXE

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

Sydney

Level 2, 477 Pitt St
Sydney NSW 2000

Adelaide

Lot Fourteen, Frome Rd
Adelaide SA 5000

Website

www.archerx.com.au

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This presentation contains information which was reported in ASX announcements lodged between 1 October 2017 and 13 February 2024 (together the "Announcements"). All material assumptions and technical parameters set out in the Announcements continue to apply and have not materially changed. The Announcements can be viewed online at www.archerx.com.au.

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