

# Archer Materials

ASX: AXE

## 2026 Annual General Meeting

Greg English
Executive Chair

Simon Ruffell
Chief Executive Officer

Friday, 20 November 2026

# Board & Management



**Greg English**
Executive Chair



**Bernadette Harkin**
Non-Executive Director



Andrew Just
Non-Executive Director



**Dr Simon Ruffell**
CEO



**David Vander**
Quantum Business Executive



Clarissa Driver
Head of People & Operations



**Dr Andrew Sexton**
Head of Engineering



William Wang
Commercial Engagement Manager

# Australia's only listed pure-play quantum company

### Strategic partnership with IonQ
Bringing the world's leading compute power, IonQ Forte computing to Australia

### Deep technical expertise
In-house quantum hardware, software and applications team.

### Quantum Software
Quantum machine learning & applications IP

### Strategic IP
40+ patents filed globally across quantum and sensing, plus a growing quantum-algorithm IP base.

### Quantum Hardware
Carbon-based qubit & sensing technology

### Australian operating base
ASX-listed (ASX: AXE), Australian-incorporated; operations in Sydney and Adelaide (Lot Fourteen).

# Year in Review

Advancing our technology. Building commercial pathways.







### Biochip moved into product development

Completed an integrated alpha prototype and progressed towards external testing.

### Expanded Biochip manufacturing options

Work with IMEC demonstrated silicon-based sensing with performance equivalent to graphene devices, supporting a more manufacturable platform.

### Advanced proprietary quantum hardware

Progressed electrical readout methods and wafer-scale fabrication; functional qubit demonstration remains in development.

### Built quantum applications capability

Launched the CSIRO fraud detection collaboration, progressing through simulation and initial quantum hardware testing.

### Post year-end commercial momentum

Signed a three-year IonQ Quantum Compute Agreement and launched a National Quantum Commercial Pilot to develop Australian customer applications.

# FY26 Financial overview

Continued investment in technology development; strengthened cash position post year-end

| Profit & loss — A$ million | FY26 | FY25 |
|---|---|---|
| R&D tax incentive income | 2.35 | 2.06 |
| Interest and other income | 0.49 | 0.74 |
| **Total income** | **2.84** | **2.80** |
| Quantum and Biochip research expenditure | (5.78) | (4.79) |
| Employee benefits | (1.86) | (1.39) |
| Share-based payments | (0.40) | (1.89) |
| Other expenses[1] | (1.16) | (1.70) |
| **Total expenses** | **(9.20)** | **(9.77)** |
| **Net loss after tax** | **(6.36)** | **(6.97)** |

- **21% increase in research expenditure** supporting quantum and Biochip development.
- **$8.42m cash and term deposits at 30 June 2026**, with no corporate debt.
- **$13.01m cash at 30 September 2026**, following $7.50m in equity proceeds before costs.

# Introducing David Vander

New Quantum Business Executive to drive quantum commercialisation



### 16 years of global leadership at Microsoft

Former Worldwide Managing Director for Banking and Financial Services. Led Asia Pacific Professional Services with responsibility for a **US$320m P&L**

### Enterprise technology experience at scale

Led sales excellence across Microsoft's **US$29bn enterprise licensing business** and the large deals team as Regional Vice President at **Salesforce**.

### CEO experience and commercial execution

Former CEO of **Avolution Software** and **ASX-listed LiveTiles**, bringing experience in enterprise software, global growth and commercial strategy.

**Mandate:** Build enterprise and government customer opportunities | Deepen the IonQ partnership | Lead quantum commercialisation and hardware development

# Archer's IP highlights

Quantum device and biosensor IP protected across key global markets




Granted: quantum and biosensor patents

Granted: quantum patents

**Quantum technology:** 5 patent families | **Biosensor technology:** 8 patent families

**13** Patent families (Protected Inventions)

**2** Core protection areas: quantum & biosensor applications

**11** Internationally granted patents

**7** Key semiconductor manufacturing Jurisdictions

# A global network advancing Archer's technology

SWITZERLAND

**EPFL**

Quantum chip components

BELGIUM

**imec**

Biosensor manufacturability & integration

UNITED STATES

**IonQ**

Full stack quantum platform & merchant

UNITED KINGDOM

**Paragraf**

Potassium sensing accuracy & reliability

CANADA

**HyliDx**

Biochip cartridge & CKD regulatory pathway

AUSTRALIA

**CSIRO**

Quantum machine learning

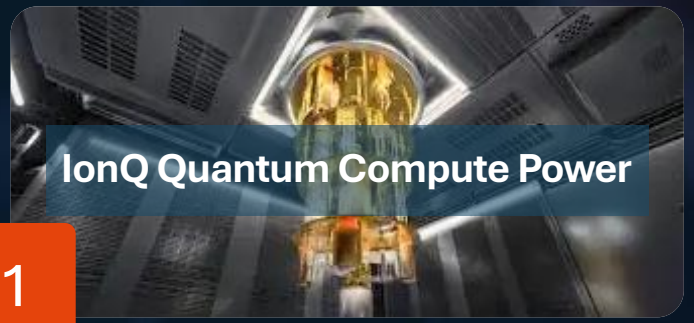
AUSTRALIA

**Emergence Quantum**

Quantum sensing integration

# Our portfolio

## Complementary technologies to solve complex quantum problems




1

### Near-term revenue. World-class capability.

- Strategic partnership with global leader IonQ.
- Provides direct access to IonQ Forte Enterprise, the most powerful commercially available quantum compute power.
- Quantum Commercial Pilot to convert access into commercial pipeline development.




2

### Quantum Software & PQC Readiness

- Archer–CSIRO QML program for financial services
- Moving from simulation to IonQ hardware
- Quantum-advantage benchmarks vs classical methods

**Carbon Based Quantum Hardware**

- Developing carbon spin qubits for next-gen ruggedised quantum devices
- Engineered for long coherence times, high stability, and scalable manufacturing



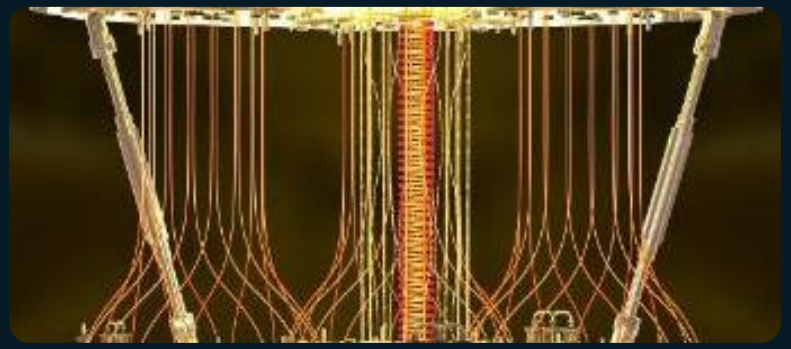

3

### Point-of-care medical diagnostics platform for global markets.

- Miniaturised chip-based biosensor bringing clinical-grade diagnostics to the point of care.
- Developed with IMEC, the biochip enables fast, accurate, and low-cost digital testing.
- Opens new applications in medical health.
- A standalone commercial asset with near-term clinical trials and licensing potential.

# IonQ strategic partnership

Expanding Archer's commercial opportunities in quantum computing



**3-year**

**Quantum Compute Agreement**

Access to IonQ's quantum cloud, including Forte-class hardware, simulation tools and technical support.

WHAT THE AGREEMENT ENABLES

1

### Build applications and customer relationships

Develop quantum solutions for Australian enterprise and government using commercial quantum systems.

2

### Assess future Australian infrastructure

Joint evaluation of potential onshore capability, informed by customer demand and infrastructure requirements.

+

### Complement Archer's proprietary technology

Applications and services development alongside the ongoing 12CQ quantum hardware program.

WHY IT MATTERS **Broadens Archer's commercial pathways and reduces reliance on a single technical milestone.**

# Partnership progress to date

Establishing the foundations of an Australian quantum computing business

### National quantum commercial pilot launched

Selected participants receive complimentary access to IonQ Forte Enterprise to test high-value computational problems.

### Joint commercial planning advanced

Strategic planning with IonQ leadership in the US: Australian customers, applications and potential onshore capability.

### Financial services engagement underway

Top-and mid-tier financial institutions attended the first CSIRO–Archer workshop on potential quantum applications. Follow-up discussions in progress.

### Fraud detection moving towards hardware testing

CSIRO quantum machine learning program progressed to testing on IonQ hardware and benchmarking against classical approaches.

✓ Delivered → In progress

**NEXT PRIORITIES**

1. **Select pilot projects**
2. **Deliver benchmark results**
3. **Progress qualified customer opportunities**

# Quantum software fraud detection

CSIRO collaboration progressing towards hardware testing and benchmarking

JAN 2026 | CY2026 | MID-FY27 TARGET | OUTCOME




## Collaboration established

Commenced the CSIRO quantum machine learning (QML) project in January 2026, targeting financial fraud detection.

## Models developed and tested

Progressed data preparation, feature engineering, simulation and initial quantum computer testing.

## Commercial benchmarking

Further testing on IonQ Forte will compare quantum and classical approaches. Benchmark demonstration data targeted for mid-FY27.

## Supporting customer engagement

Providing a technical foundation for discussions with Australian financial institutions and potential proof-of-concept projects.

NEXT MILESTONE

**Establish comparative performance evidence to assess commercial potential.**

# Quantum hardware: towards a functional qubit

Advancing device engineering and manufacturing development

NEXT MILESTONE

## Demonstrate a functional carbon spin qubit with readout.

This milestone is required before discussions with potential licensees can begin. Further engineering is required to establish scalability and commercial viability.

### Readout methods progressed

Advanced electrical spin-state detection and single-electron transistor approaches for reading quantum information.

### Wafer-scale fabrication advanced

Completed wafer-scale manufacturing runs of refined graphene designs, with device fabrication and testing continuing.

### Manufacturing options broadened

Worked with foundry partners and assessed additional graphene suppliers to support development and potential future scale-up.

CURRENT STATUS

## Functional demonstration remains in development

This world-first demonstration milestone is taking longer than anticipated. Archer is addressing technical challenges through parallel development work and partner collaboration.

# Biochip progress towards external testing

Advancing from sensing technology to an integrated diagnostic device




**DONE** ✓

### Integrated prototype developed

Sensing chip, cartridge, microfluidics and electronics tested in alpha prototype. Significant technical derisking.

**IN PROGRESS** 2

### Beta development progressed

Refined cartridge design, sensing architecture and electronics through successive prototype iterations. Suitable for studies at externals.

**TARGET: MID-FY27** 3

### External evaluation prototype

Australian testing plans progressed with leading contract manufacturers and labs.

**TARGET: Q4 FY27** 4

### US study

Discussions with a leading US clinical research institution to progress clinical trial*.

*Subject to final arrangements.

**MANUFACTURING OPTIONS EXPANDED**

**IMEC work demonstrated silicon-based sensing with performance equivalent to graphene devices.**

# Biochip pathway to commercialisation

Combining proprietary sensing technology with product engineering

## ARCHER'S PROPRIETARY TECHNOLOGY

### Sensing chip

Core device architecture and ion-sensing capability.

### Surface chemistry

Functionalisation and ion-selective membranes for target analytes.

### Fabrication methods

Processes and know-how supporting device production.

## PRODUCT DEVELOPMENT AND VALIDATION

### System integration

Bringing the chip, cartridge, fluid handling and electronics together.

### Manufacturing development

Working with foundry and manufacturing partners on reproducibility and scale-up.

### Clinical preparation

Engaging clinicians and potential partners to align testing with clinical workflows.

IMMEDIATE PRIORITY

**Validate the integrated device externally**

Establish the evidence required for clinical and commercial development.

# Outlook and catalysts

Upcoming milestones across Archer's programs

| | FY27 TARGETS | | WHAT IT UNLOCKS |
|---|---|---|---|
| **Quantum software**<br>CSIRO QML program | **Benchmark demonstration data**<br>Quantum vs classical on IonQ Forte | **Customer discussions**<br>Proof of concept projects. Feed into IonQ program | **Evidence to engage financial institutions** |
| **Biochip**<br>PoC testing platform | **External evaluation prototype**<br>Suitable for external studies | **US clinical research study**<br>Subject to final arrangements | **Evidence for clinical and commercial development** |
| **Quantum hardware**<br>12CQ spin qubit | **Functional qubit demonstration**<br>Carbon spin-qubit demo | **Scale-up**<br>Next steps for scale-up and initial commercial discussions | **World-first demonstration of highly stable and coherent functional qubit.** |
| **IonQ partnership**<br>Commercialising sovereign compute | **Customer discussions**<br>Potential proof-of-concept projects | **Select pilot projects**<br>Progress qualified customer opportunities | **Australian commercial pipeline** |

FY27 = year ending 30 June 2027. Timings are targets and may change.

# Investment summary

### Sovereign quantum first-mover

Positioning to deliver Australia's first commercial sovereign quantum computing platform.

### Australia's only listed pure-play

The only pure-play quantum exposure on the ASX, with hardware and software platforms.

### Tier-one IonQ partnership

A multi-year agreement with the world's leading quantum platform company.

### Low-capex, high-margin model

Develops and prototypes in-house, then scales via foundry, partner and reseller models.

### Expanding IP portfolio

40+ patents filed globally, plus growing quantum-algorithm and applications IP.

### Deep technical leadership

A deep-tech team backed by a global network of scientific advisors and partners.

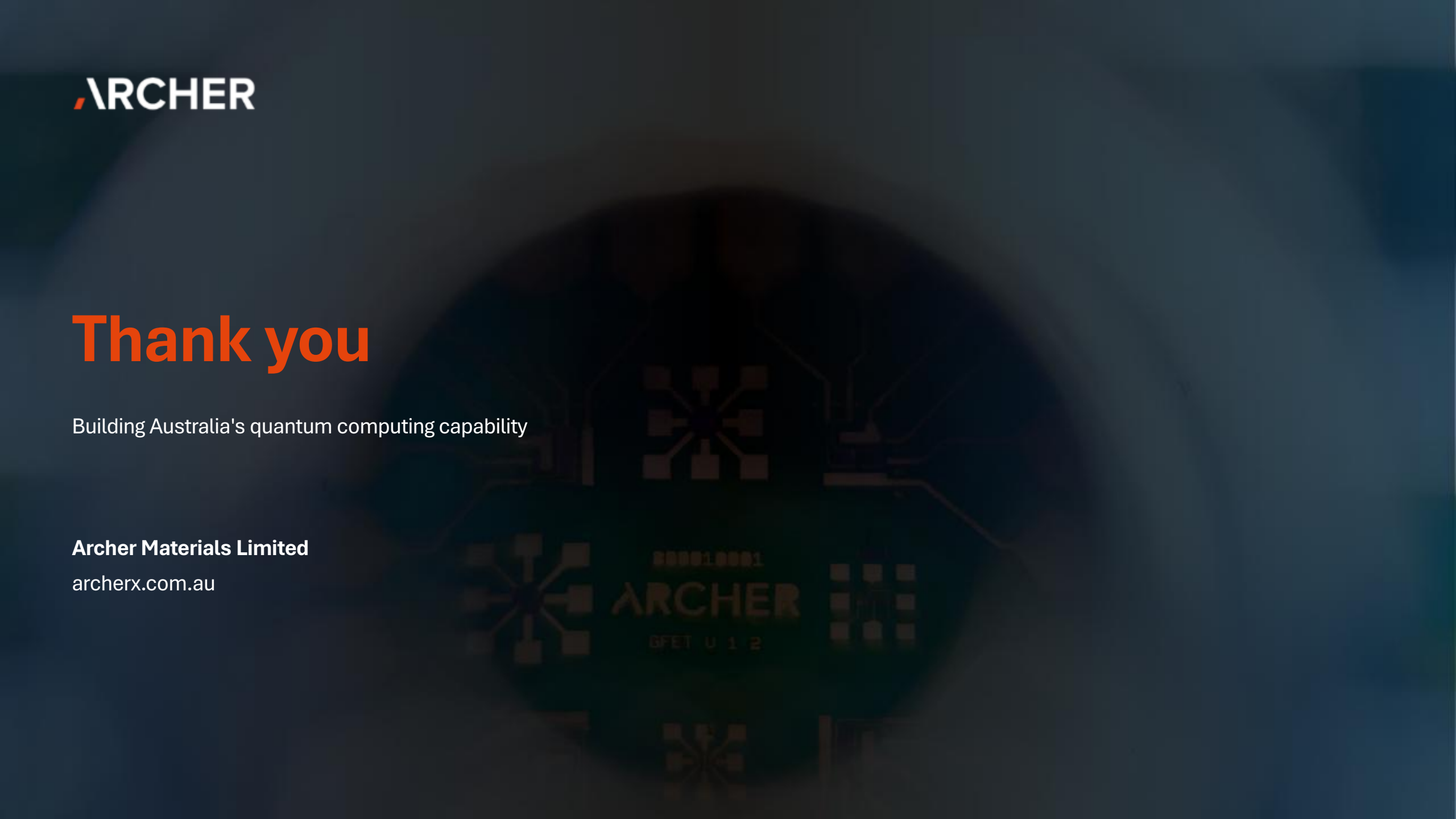
# Q&A



**Greg English**
Executive Chair



**Dr Simon Ruffell**
CEO




# Thank you

Building Australia's quantum computing capability

**Archer Materials Limited**

archerx.com.au

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