Archer Materials
Quarterly Report

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

ASX Announcement (ASX: **AXE**) 27 October 2025

Q1 FY26 Activities Report and Appendix 4C

For the quarter ended 30 September 2025.

Key Highlights

- Enhanced readout of quantum information advanced the ^{12}CQ project closer to qubit functionality.
- Potassium ion testing in blood was improved to meet lab standards, moving the Biochip closer to clinical readiness.
- The biochip ion sensor platform is highly adaptable and is designed to also test for different ions, not just potassium
- Partnered with IMEC to accelerate development of the biochip. The work includes benchmarking silicon-based biochips against graphene.
- Operation and performance of TMR sensors were advanced to operate at cryogenic temperatures (very low temperatures) was verified.
- Strong cash position to fund activities with $11.6 million and no debt to fund R&D and commercial activities.

Archer Materials Limited ("Archer", the "Company", "ASX: AXE"), a quantum technology company developing advanced semiconductor chips for quantum technology and medical diagnostics, provides its Quarterly Activities Report and Appendix 4C for the quarter ended 30 September 2025 ("Quarter").

Commenting on Q1 FY26 activities, Greg English, Executive Chair of Archer, said

"We are very pleased with the progress made across our core areas of commercial focus. This Quarter we achieved key milestones that bring our technologies closer to real-world use. On the Biochip platform, we improved potassium testing accuracy to meet laboratory standards, which is critical for patient monitoring and lays the foundation for a handheld diagnostic prototype in 2026 that will be used in a pilot clinical trial. Our partnership with IMEC is accelerating development and strengthens the Biochip's scalability and manufacturing pathways."

"The Quantum team has advanced the ^{12}CQ chip's ability to readout quantum states through successfully demonstrating electrically detected magnetic resonance. Further we can see how to utilise this for a platform of quantum sensing applications. We also progressed our TMR sensor technology to work at cryogenic temperatures, proving it can operate in the extreme environments required for quantum computing, defence, aerospace, and navigation applications."

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Technology development and commercialisation activities

Quantum Technologies

^{12}CQ Project

During the quarter, the quantum team improved the ^{12}CQ project's readout (the output of quantum information on the computing chip) and strengthened its magnetic sensing capabilities, by demonstrating electrical detection of magnetic resonance (EDMR) on the Company's carbon qubit film material. The team achieved this in collaboration with its research partner, The École Polytechnique Fédérale de Lausanne (EPFL). This is one of the key milestones in working towards a qubit demonstration in 2026.

Archer and EPFL are now looking at how it can achieve more robust signal-to-noise ratios at higher operational temperatures for practical sensing and computing applications.

The "on-chip" EDMR means that the EDMR detection circuit is integrated onto a semiconductor chip—a huge step for reducing system complexity and aligning with established chip fabrication techniques. This is essential for real-world, commercial quantum devices. This work leverages Archer's core strengths in carbon qubit materials synthesis and device engineering and is supported by EPFL's expertise in spin resonance techniques.

The electrical detection of spin resonance in carbon films is a critical milestone for Archer. By moving beyond optical readout methods used in diamond-based systems, Archer's quantum technology promises simpler, more scalable quantum sensors as well as being another enabler for qubit readout.

Archer was also able to bolster its quantum readout and sensing capabilities by demonstrating magnetic field measurements at cryogenic temperatures using its Tunnel Magnetoresistance (TMR) sensor. The TMR sensors operating at these cold temperatures could have potential use in space exploration, aerospace and defence, and cryogenics research.

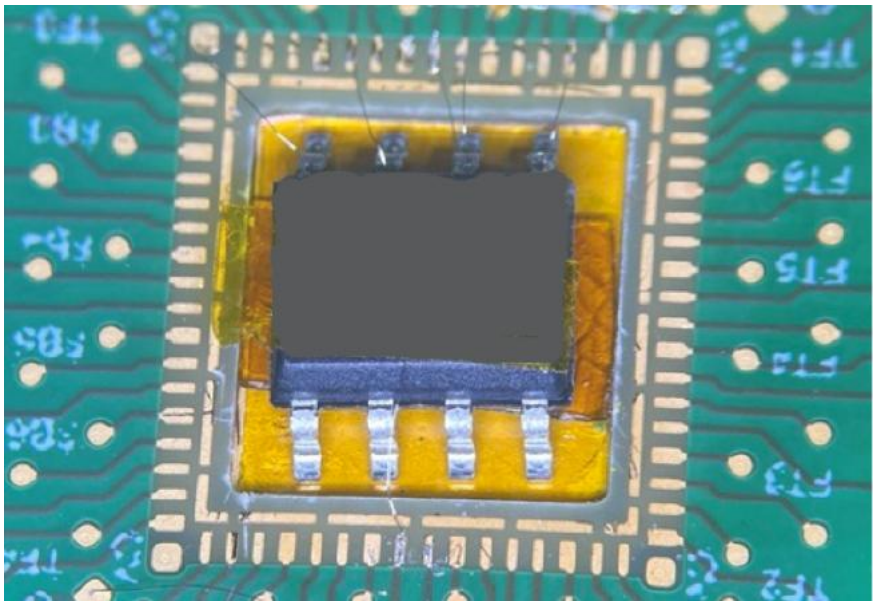

Image 1: TMR sensor on cryogenic test board

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The sensors were fabricated by the Company's foundry partner and integrated into a cryogenic-compatible test platform leveraging Archer's in-house expertise in quantum technology, cryogenics, and semiconductor device integration. By providing a pathway to high-resolution magnetic field sensing in cryogenic environments, Archer's technology will be designed to support essential diagnostics and stabilisation processes for quantum hardware development. This functionality is increasingly important as the quantum industry scales and moves toward more error-resilient architectures.

The TMR sensor work is part of the ^{12}CQ quantum project in developing magnetic sensors that are highly sensitive, have high bandwidth, and low power consumption to replace traditional sensing technology.

Biochip

During the quarter, the Biochip team accelerated development and expanded the material platform beyond graphene-based technology into silicon, through forming a partnership with Interuniversity Microelectronics Centre (IMEC) in Belgium. Silicon-based chip technologies are more commonly used in the industry, and if silicon is found to deliver comparable sensitivity to graphene, it will provide a more scalable path to manufacture and commercialisation. This will help derisk Archer's Biochip by having a dual graphene and silicon-based platform.

Archer is currently working with IMEC to develop the potassium ion sensors and is set to produce a full handheld prototype in 2026 for use in a pilot clinical trial.

The project with IMEC will derisk various aspects of the Biochip development, such as supply chain, manufacturability, and integration of the chip into a final product. This marks another major step in the potential commercialisation of Archer's Biochip sensor platform.

The Biochip team has also made significant improvements in measuring the accuracy of potassium levels in blood. Current testing consistently demonstrates potassium measurement precision within ±0.3 mM/L, in alignment with Clinical Laboratory Improvement Amendments (CLIA) requirements for equivalent testing in a pathology lab. Clinical trials of the Biochip are set to begin in 2026.

The biochip sensing platform is designed to be inherently adaptable. By modifying surface chemistry and sensor configuration, the platform can be tuned to detect other ions of interest without the need for a complete redesign of the sensing architecture. This flexibility enables potential applications across multiple sectors, including point-of-care diagnostics, environmental monitoring, and industrial process control. As a result, the Company has also commenced early testing of other ions on the Biochip. Archer is using the foundations it has built with its potassium testing for chronic kidney disease to test other ions.

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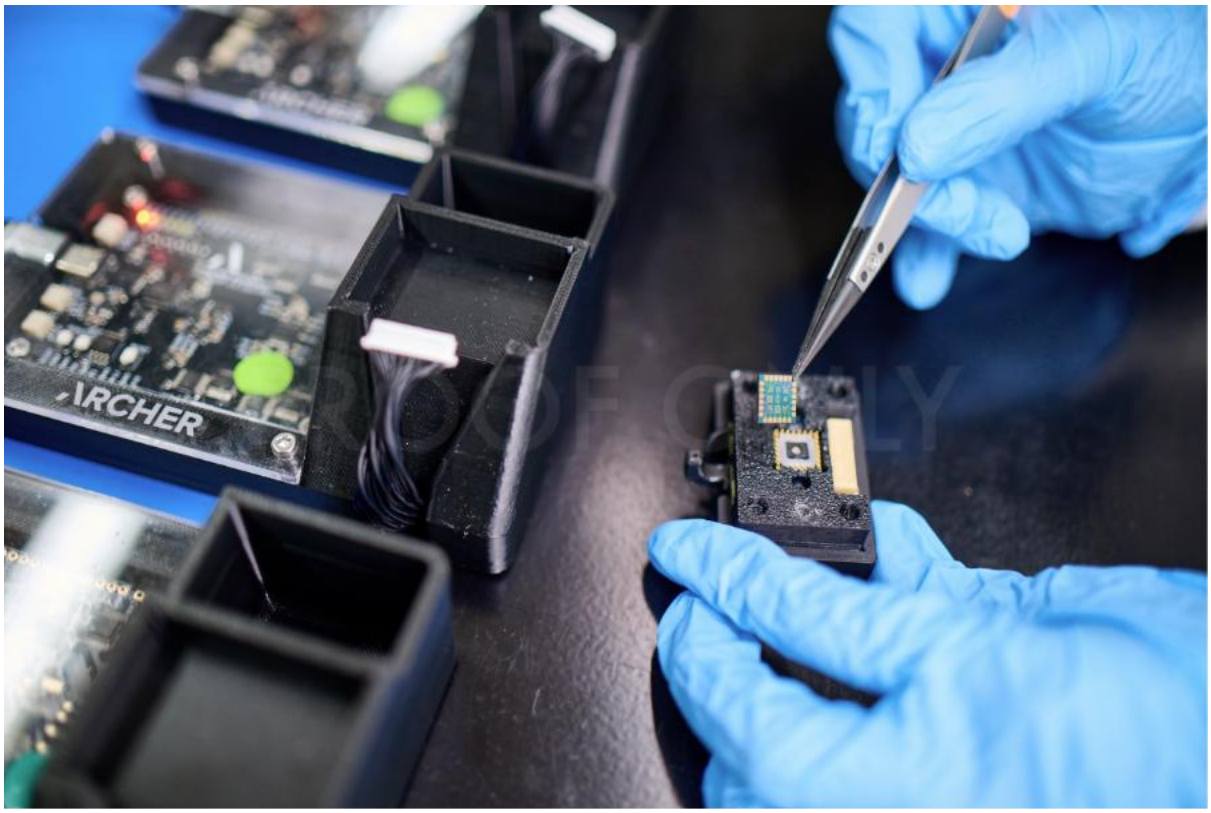

Image 2: Archer's lab biochip testing systems in Sydney. An engineer is placing prototype biochips into our fluidic system which then gets connected to the electronic readout system. The bolstered engineering team along with increased testing capability, like the setups above, is accelerating the development.

The Biochip is entering a key phase on the engineering roadmap as the Company seeks to optimise the chip design and electronic readout system. The new chip layout and readout electronics are expected to deliver greater measurement accuracy. Importantly, both are close to final product form, requiring only minor tweaks to fit into a full prototype. Chip design is complete, fabrication is set to begin soon, and the readout electronics are in the final stages of assembly.

Financial and corporate update

The Company's cash balance at the end of the Quarter was $11.6 million and has no debt.

Archer's accompanying Appendix 4C cashflow report for the Quarter includes an amount of $217,000 at item 6.1, relating to executive and non-executive director fees paid as salaries and wages.

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

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About Archer

Archer is a next-generation quantum technology company building advanced semiconductor devices for quantum computing, quantum sensing, and medical diagnostics. Its carbon-based platform is designed to integrate with existing semiconductor manufacturing processes, allowing Archer to build a scalable pathway to commercial quantum applications in global markets.

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Appendix 4C

Quarterly cash flow report for entities subject to Listing Rule 4.7B

Name of entity	
Archer Materials Limited	
ABN	**Quarter ended ("current quarter")**
64 123 993 233	30 September 2025

Consolidated statement of cash flows		**Current quarter $A'000**	**Year to date (3 months) $A'000**
1.	**Cash flows from operating activities**		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) research and development	(679)	(679)
	(b) product manufacturing and operating costs	-	-
	(c) advertising and marketing	-	-
	(d) leased assets	-	-
	(e) staff costs	(1,041)	(1,041)
	(f) administration and corporate costs	(414)	(414)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	50	50
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (provide details if material)	-	-
1.9	**Net cash from / (used in) operating activities**	**(2,084)**	**(2,084)**

2.	**Cash flows from investing activities**		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) businesses	-	-
	(c) property, plant and equipment	(8)	(8)
	(d) investments	-	-
	(e) intellectual property	(22)	(22)
	(f) other non-current assets	(1)	(1)

Consolidated statement of cash flows		Current quarter $A'000	Year to date (3 months) $A'000
2.2	Proceeds from disposal of:		
	(a) entities	-	-
	(b) businesses	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) intellectual property	-	-
	(f) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	**Net cash from / (used in) investing activities**	**(31)**	**(31)**

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	-
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	(4)	(4)
3.10	**Net cash from / (used in) financing activities**	**(4)**	**(4)**

4.	**Net increase / (decrease) in cash and cash equivalents for the period**		
4.1	Cash and cash equivalents at beginning of period	13,745	13,745
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(2,084)	(2,084)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(31)	(31)

Consolidated statement of cash flows		Current quarter $A'000	Year to date (3 months) $A'000
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(4)	(4)
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	**Cash and cash equivalents at end of period**	**11,626**	**11,626**

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter $A'000	Previous quarter $A'000
5.1	Bank balances	1,543	2,663
5.2	Call deposits	10,083	11,082
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	**Cash and cash equivalents at end of quarter (should equal item 4.6 above)**	**11,626**	**13,745**

6.	Payments to related parties of the entity and their associates	Current quarter $A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	217
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.

7.	**Financing facilities** *Note: the term "facility' includes all forms of financing arrangements available to the entity.* *Add notes as necessary for an understanding of the sources of finance available to the entity.*	**Total facility amount at quarter end $A'000**	**Amount drawn at quarter end $A'000**
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	**Total financing facilities**	-	-

7.5	**Unused financing facilities available at quarter end**	N/A

7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.

8.	**Estimated cash available for future operating activities**	**$A'000**
8.1	Net cash from / (used in) operating activities (item 1.9)	(2,084)
8.2	Cash and cash equivalents at quarter end (item 4.6)	11,626
8.3	Unused finance facilities available at quarter end (item 7.5)	0
8.4	Total available funding (item 8.2 + item 8.3)	11,626
8.5	**Estimated quarters of funding available (item 8.4 divided by item 8.1)**	5.58

Note: if the entity has reported positive net operating cash flows in item 1.9, answer item 8.5 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.5.

8.6 If item 8.5 is less than 2 quarters, please provide answers to the following questions:

8.6.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer: N/A

8.6.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer: N/A

8.6.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: N/A

Note: where item 8.5 is less than 2 quarters, all of questions 8.6.1, 8.6.2 and 8.6.3 above must be answered.

Compliance statement

1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.

2 This statement gives a true and fair view of the matters disclosed.

Date: 27 October 2025

Authorised by: The Board
(Name of body or officer authorising release – see note 4)

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.

2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standard applies to this report.

3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.

4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [*name of board committee – eg Audit and Risk Committee*]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".

5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.