

ASX Announcement ([ASX: AXE](#))

20 November 2024

## Chairman's 2024 Annual General Meeting address

The past year has brought significant growth, diversity and progress for Archer. The team has made significant developments in the functionality of our technologies, which are bringing them closer to practical application and opening up new pathways.

Archer has done this by shaping a new team upon the departure of its former Chief Executive Officer, Dr Mohammad Choucair. Although a search continues for a new CEO, Dr Simon Ruffell stepping in to lead the quantum, Biochip and other projects as Chief Technology Officer, with his experience in quantum technology and the global semiconductor industry, has been instrumental in moving Archer's technologies forward to where they are today. Simon will manage the activities of our large team of engineers and scientists working on Archer's 100% owned Biochip and <sup>12</sup>CQ projects.

I would firstly like to thank and acknowledge Dr Mohammad Choucair's contribution to Archer over his tenure as CEO. Mohammad left in place strong foundations which has meant Archer has not only been able to seamlessly continue its technology development, but it has been able to accelerate the pace of progress.

For Archer's quantum technologies, while it is still in the initial stages for developing a quantum computing chip, we are pleased to have recently announced that our team will be using its quantum mechanics expertise to develop tunnel magnetoresistance (TMR) sensors.

TMR sensors are important for industries such as automotive, data centres, artificial intelligence, and the internet-of-things (IoT), where they need to move on from traditional sensor technologies to bolster the detection of electrical currents and magnetic fields for high sensitivity. This includes more efficient power consumption in electronics.

Archer is working with its overseas foundry partner to complete a prototype TMR sensors in the coming weeks, with the view to potentially commercialise the technology within a couple of years. This is a really exciting additional pathway for Archer, and one that is a potential nearer term revenue opportunity.

Alongside this, the quantum team has also made progress in the <sup>12</sup>CQ project to create a chip that has the aim of being embedded into electronic devices that enables quantum computing capabilities in ambient environments. In order to have a functioning chip, it must have control, which is sensing the input of information, and readout, which is producing the output of information, which essentially act as levers to manipulate quantum information. The quantum team has improved the control and readout of the quantum computing chip over the past year, including developing new carbon films to better detect electron spins and improve the chip's manufacturability, and extending quantum coherence spin lifetimes at room temperature. The creation of the pulsed electron spin resonance (p-ESR) chip over the past year also boosts control capabilities and helps with sensor applications for Archer.

The last 12 months have also been pivotal for the Biochip team as it has now focused on its first use case in chronic kidney disease (CKD). Archer is currently doing initial experiments on the device to detect ions like potassium, which is key in the monitoring of CKD. Ultimately,

Archer is looking to have a device for the at-home testing of CKD, like a 'lab-on-a-chip', helping both the patient and medical professionals properly analyse potassium levels to more correctly diagnose tailored treatments. This presents a large opportunity for Archer with one in ten people across the world suffering from the disease. Archer will soon be working with regulatory authorities to begin the process of attaining the relevant approvals required to commercialise a product.

As a fabless semiconductor company, Archer has been working closely with its global foundry partners to improve the manufacturability (foundry readiness) of its chips, preparing them for commercialisation. The quantum and Biochip teams have also been building stronger relationships with Archer's R&D partners to improve the functionality of its technologies and bolster its IP portfolio of chip designs.

Having a streamlined fabless model for Archer means that it is well capitalised to bring its chips to market, as the Company does not have to spend cash on foundry equipment and other tangible assets that some semiconductor companies may have.

Archer's technologies are in their early phases but has a highly-qualified and experienced team drive to advance these global solutions towards commercialisation.

There is a strong market demand for the next generation technologies that Archer is developing, as investment across the world continues to ramp up for finding solutions in computing, sensing, and medical diagnostics. For instance, traditional computers have run their limit for computing power and are unable to solve complex problems, but quantum computing will be able to achieve this.

I extend my gratitude to my fellow directors for their guidance, and to the management team for their leadership in achieving our business objectives.

I also express my appreciation to the Archer team for their dedication in advancing Archer's technologies to where they are today.

Lastly, I would like to thank our shareholders for your continued support of Archer .

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

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**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](http://www.archerx.com.au)