ASX RELEASE

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4DS POSITIONED TO DEMONSTRATE SCALABILITY AND YIELD OF ITS ReRAM TECHNOLOGY

Highlights

• Fitzroy completes acquisition of Silicon Valley based next generation memory developer and is renamed 4DS Memory Limited
• $2.75 million raised to fund continued development of non-volatile resistive random access memory (ReRAM) with US$10 million already invested in research and development (R&D) in the past 8 years
• Global memory market valued at US$79 billion annually with a CAGR of 16%
• Emerging non-volatile memory is predicted to replace NAND Flash (Flash) and is expected to be an US$6 to US$7 billion market by 2020
• Wholly owned, in-house developed intellectual property (IP) underpinned by 15 US patents granted, and 8 US patents pending
• Key attributes demonstrated for next generation storage in mobile devices and the cloud: a scalable non-filamentary ReRAM memory cell and a high-yield manufacturing process at geometries well under 250 nanometres (nm)
• Joint Development Agreement (JDA) with HGST, a global storage leader, provides 4DS with resources to expedite the development and potential commercialisation of MOHJO™ technology
• High-tech experienced management and industry respected scientists, complemented by a Board with significant international M&A and IPO experience
• Strategy is to prove the value of our technology and leverage the IP through strategic alliances
• A development update will be provided in the first quarter of 2016

4DS Memory Limited (ASX:4DS) (4DS) (previously named Fitzroy Resources Limited (ASX:FRY) (Fitzroy)), today has been reinstated to trading on the ASX following the successful acquisition of 4D-S Limited, a pioneer and developer of emerging non-volatile ReRAM technology with research and development facilities located in Silicon Valley.

With a successful oversubscribed Public Offering, 4DS raised $2.75 million demonstrating the memory sector investment appetite, in particular for the patented technology offered by 4DS. Over the next 12 months, 4DS will focus on enhancing and further testing its technology under the terms of the HGST JDA.

Chief Executive Officer and Managing Director, Dr Guido Arnout PhD, said “4DS is well positioned to address the massive memory storage demands of the future. The development of our transformational and disruptive memory technology has made significant progress demonstrating scalability, consistency and behaviour of memory cells at geometries well under 250 nanometres.

“We are committed to pioneering and developing an innovative non-filamentary, scalable and reliable ReRAM cell for next generation semiconductor memories in mobile and cloud based storage.

“4DS is addressing the fastest growing segment of the global memory market, which has commercial significance for the potential replacement of Flash technology.”

The global memory market is valued at US$79 billion annually with a CAGR of 16%. Non-volatile memory is the fastest growing segment of this market and today is mostly based on Flash memory. Flash is used in billions of mobile devices and solid-state drives which are quickly replacing hard disk drives. But the market is demanding more storage that uses less space at a lower cost. Current
mainstream technologies have diminishing ability to scale further and meet future storage needs due to fundamental technology limitations. Emerging non-volatile memory is predicted to replace Flash and is expected to have a market value of between US$6 to US$7 billion market by 2020.

The increasing need for fast and economical storage solutions across diverse applications is estimated to drive market growth over the next five years.

4DS is focused on continuous improvements of its core IP and manufacturing process optimisation to create the smallest cell geometries that can be reliably fabricated. The strength of 4DS’ proprietary technology and materials deposition process is underpinned by 15 US patents and represents a breakthrough in ReRAM functionality and manufacturing capability. Specifically, the formation of filaments is a common approach in ReRAM cell research and development today. Filamentary mechanisms may work well at relatively large cell geometries but pose significant current density (current divided by cell area), retention, endurance, access and control problems when trying to achieve gigabyte range memories.

By developing a filament-less switching mechanism 4DS differentiates itself from other ReRAM initiatives. 4DS has made significant progress demonstrating a functional cell and high yield lot-to-lot consistency for memory cells smaller than 250nm. Hetero junction non-filamentary switching is at the core of MOHJO™, 4DS’ wholly owned technology and materials deposition process IP portfolio, developed in house through an US$10 million R&D program over the last eight years.

Development is progressing in accordance with the scope of work defined in the JDA. This strategic partnership with HGST provides 4DS with resources that may expedite the development and potential commercialisation of 4DS MOHJO™ technology. Over the next 12 months, 4DS will focus on the enhancement, testing and acceleration of its technology to demonstrate scalability, density, consistency, and manufacturability at high yields.

Development, simulation and testing are performed and overseen by a team of industry respected scientists and developers with decades of experience in the semiconductor sector. Furthermore, management has expertise in founding and building multiple Silicon Valley high-tech companies and is complemented by a Board with international M&A and IPO experience.

4DS’ strategy is to prove the value of its technology and leverage its IP through strategic alliances.

4DS confirms that a development update will be provided in the first quarter of 2016.

ENDS

4DS Memory Limited (ASX:4DS), with research and development facilities located in Silicon Valley, is a developer of emerging non-volatile memory technology, pioneering non-filamentary memory cell innovation for next generation storage in mobile devices and the cloud. Established in 2007, 4DS owns a patented IP portfolio developed in house for the creation of next generation ReRAM.

For further information, visit www.4dsmemory.com or contact Mel Buffier at mel.buffier@4dsmemory.com or +61 411 622 899.

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