



12 June 2025

dorsaVi Secures Exclusive Worldwide Licence to Advanced RRAM Technology from NTU Singapore

Transformational IP portfolio to power next-generation smart sensors across healthcare, AI, and IoT.

Key Highlights:

- **Worldwide Licence Secured** with dorsaVi signing exclusive worldwide rights to a cutting-edge resistive random-access memory (RRAM) technology developed by Nanyang Technological University, Singapore (NTU Singapore).
- **Nine Patent/IP Inventions Families** covering broad applications across AI, Spatial Computing (AR, VR, XR), IoT, Edge Computing, Automotive, Robotics and Wearable Health-Tech.
- **One of the key RRAM innovations** focus on the tailoring of the main memory layer material with specific defects density to achieve stable operation under low voltage operation, which is suitable for energy conscious electronics.
- **Another key RRAM innovation** puts an emphasis on the interface enhancement through a novel plasma treatment and ion obstruction barrier. Achieving a thermally robust structure with ultra-high endurance capability.
- **RRAM technology** offers a robust versatile solution to not only memory problem but also a significant improvement on a system level, through its excellent performance characteristics, such as high speed, scalability, endurance and retention while maintaining low power consumption, as well as its tunable properties to meet specific application requirements.
- **dorsaVi is focused on developing** innovative motion analysis device technologies for use in clinical applications, elite sports, and occupational health and safety using wearable sensor technology. Used in many aspects of detailed human movement and position to accurately capture, quantified, and assessed outside a biomechanics lab, in both real-time and real situations.
- **Integration of RRAM into dorsaVi's existing FDA-cleared sensors** offers a more efficient system with RRAM as a non-volatile working memory component in tandem with legacy NAND flash as mass data storage, allowing low latency hybrid system with extended battery life and prolonged device lifespan.

- **Strategic Platform for Worldwide Expansion.** The technology positions dorsaVi for growth in new high-value markets including elite sports, rehabilitation, occupational safety, and industrial automation.
- **Backed by 10 years in R&D** and developed by world renowned non volatile memory researcher Professor Lew Wen Siang and his team at NTU Singapore's School of Physical and Mathematical Sciences.
- **Capital-Light and Scalable Deal** structure through a new dorsaVi subsidiary with manageable staged payments, and no impact to existing operations.
- **dorsaVi received firm bids for AUD\$2.4M** to existing and new sophisticated and professional investors.

Melbourne, Australia, 12 June 2025: dorsaVi Limited (ASX: DVL) ('dorsaVi' or 'the Company'), a leader in FDA-cleared movement-sensor technology, is pleased to announce that it has secured approval to advance a transformational agreement with NTUitive Pte Ltd, NTU Singapore's innovation and enterprise office, granting exclusive worldwide rights to a portfolio of cutting-edge non-volatile memory technologies.

The core technology consists of the RRAM device material design and process developed to meet the industry performance benchmark in terms of device scalability, reliability, low latency, and low energy consumption, while maintaining its compatibility with standard memory mass manufacturing process. The platform is the result of over 10 years of R&D by NTU Singapore and spearheaded by world-renowned non-volatile memory researcher Professor Lew Wen Siang and his team from the University.

In addition to the core technology, a separate RRAM technology developed through rigorous multilayer materials design and engineering, on-going research on a different RRAM device architecture shows an early sign of promising performance that offers enhanced device control. This architecture is specifically designed to meet the hardware requirements for in-memory computing and artificial neural network applications. The licence gives dorsaVi a first-mover advantage to embed this ultra-efficient memory architecture into its suite of wearable sensors and unlock new opportunities across edge AI, neuromorphic computing, and IoT Systems.

Commenting on the licencing agreement, Andrew Ronchi, CEO of dorsaVi: *"This licence gives dorsaVi the foundation to build the next generation of intelligent, low-power sensing platforms. We're not just upgrading our products—we're redefining what's possible with wearables"*

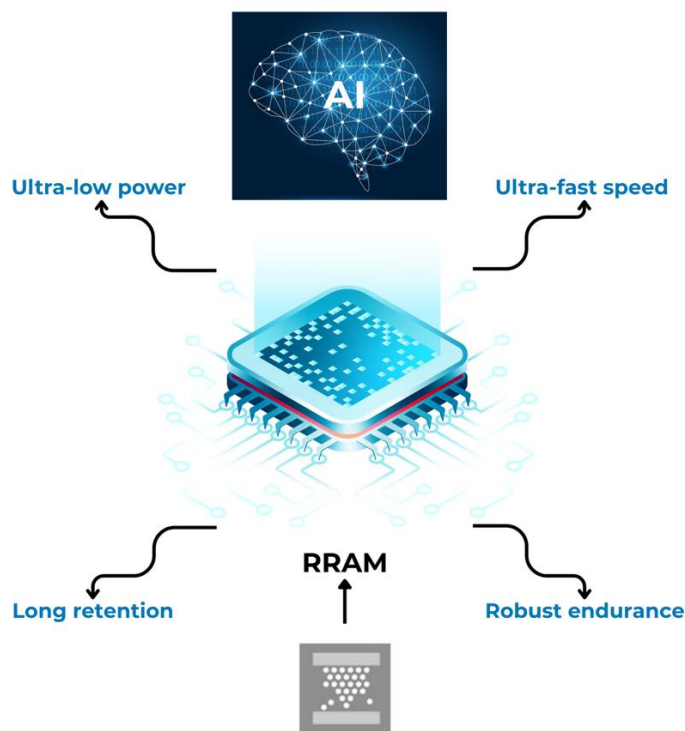


Figure 1: RRAM superior device performance coupled with its scalability and key metrics tunability making it an ideal and versatile solution for running AI directly on-chip and energy-efficient devices at the edge.

BACKED BY SCALABLE AND DEEP R&D

The proposed licence grants dorsaVi access to a portfolio of nine patent families encompassing advanced RRAM technologies, developed by Professor Lew Wen Siang and his team at NTU Singapore's School of Physical and Mathematical Sciences. Professor Lew is a globally recognised expert in nanofabrication, spintronics, and semiconductor design.

THE CRUCIAL ROLE OF RRAM

RRAM is distinguished by its ability to deliver ultra-fast read/write (R/W) operations while consuming minimal power, making it highly suited for deployment in latency-sensitive, energy-constrained environments. Its non-volatile characteristics ensures robust data retention without continuous power supply, and its high endurance, scalability, and resilience make it ideal for wearables, IoT sensors, and mission-critical edge computing nodes.

In parallel with the core RRAM technology, research in RRAM device architecture trades-off device footprint more significantly enhanced device control allowing characteristics transition from digital to analog change in resistance. This offers a more desirable device performance for emerging field of computing, such as brain-inspired computing in which RRAM plays a role as one of the most important hardware components, i.e., artificial synapse. This emerging innovation strengthens the long-term potential of the technology as a key enabler of brain-inspired computing and adaptive AI functions directly on-device.

The commercial applications for RRAM span a broad spectrum of high-growth sectors including:

- Consumer electronics (e.g., smartphones, smartwatches, hearing aids)
- Edge AI and robotics
- Industrial IoT and predictive maintenance

- 5G infrastructure and autonomous vehicles
- Medical imaging and remote diagnostics
- Data centre acceleration and hardware-level security

NTU Singapore An International Hub For Innovation

Nanyang Technological University, Singapore, is a globally recognised, research-intensive public university. It is home to world-renowned autonomous institutes including the National Institute of Education, S. Rajaratnam School of International Studies, and the Singapore Centre for Environmental Life Sciences Engineering. The University also hosts various leading research centres such as the Earth Observatory of Singapore, the Nanyang Environment & Water Research Institute, and the Energy Research Institute @ NTU (ERI@N).

NTUitive Pte Ltd, NTU Singapore's innovation and enterprise office, manages the University's intellectual property and licensing activities, has granted an exclusive licence to dorsaVi and dorsaVi sees this agreement as the foundation for a broader collaboration with NTU Singapore, with the aim of exploring further innovation and co-development opportunities in advanced sensor technologies, edge AI, and healthcare applications.

UNLOCKING NEXT-GENERATION SENSOR PERFORMANCE

Integrating RRAM technology into dorsaVi's wearable sensor platform will provide a distinct competitive edge to meet the growing need for energy efficient hardware making it ideal for remote injury rehabilitation, elite sports performance monitoring, and workplace safety applications. The enhanced efficiency and local processing capability also reduce cloud dependency, improving data privacy and lowering operational expenditure (Opex).

The NTU Singapore-developed RRAM technologies incorporate several world-first innovations that are anticipated to significantly enhance dorsaVi's sensor set, including:

✓ **Extended Battery Life Through Ultra-Stable Architecture**

- A multi-layered RRAM cell architecture engineered with controlled defects density and enhanced interface enables superior device performance. These characteristics are critical for wearable medical and industrial devices that must perform reliably under fluctuating conditions.
- For dorsaVi, this translates to sensors with extended battery life, minimising recharge cycles and enhancing usability in continuous clinical monitoring, such as remote rehabilitation, and elite sports applications. The improved durability and performance consistency also enable 24/7 monitoring in aged care and workplace safety contexts, boosting the appeal to enterprise clients.

✓ **Scalable Production Compatible with Standard Memory Manufacturing Process**

- The RRAM structures are fully compatible with standard high volume manufacturing processes ensuring RRAM devices deliver consistent and reliable performance. Importantly, it also opens the door to high-volume supply

agreements and OEM partnerships across digital health, consumer wearables, and industrial IoT.

- For dorsaVi it offers attractive licensing or co-development revenue opportunities whilst allowing the company to scale rapidly using existing foundry infrastructure reducing capital expenditure and accelerates time-to-market.

✓ **Faster Development via Advanced Simulation Tools**

- Access to SPICE modelling (Simulation Program with Integrated Circuit Emphasis) and IC design tools enables engineers to simulate memory behaviour before hardware fabrication. This capability significantly minimising integration risk and accelerates the development of new sensor products, as engineers can rapidly iterate and fine-tune system performance.
- For dorsaVi it allows for shorter design cycles and lower R&D costs which is particularly important when tailoring solutions for specific verticals such as physiotherapy networks, hospital systems, or occupational safety regulators. These validated models strengthen dorsaVi's ability to co-develop and license solutions with additional hardware partners, creating opportunities for joint ventures and revenue-sharing arrangements across global markets.

✓ **Compact AI Processing at the Edge**

- The miniaturisation of RRAM cells, coupled with variation-tolerant sensing architecture, supports artificial intelligence (AI) processing to occur directly within ultra compact electronic components. This advancement allows smart sensing devices to operate independently of cloud infrastructure by performing real-time data processing and pattern recognition locally, within the device itself. Importantly, this level of miniaturisation and autonomy does not compromise reliability, even in space and power-constrained environments.
- A parallel innovation with similar underlying device physics further enhances this capability by integrating memory and processing in a single device, supporting adaptive learning and neuromorphic functions in ultra-compact environment.
- For dorsaVi, this means its sensors can become significantly more powerful and efficient without increasing form factor. Devices used in elite athletic performance, remote rehabilitation, and industrial settings can now process data on the spot delivering faster feedback, reducing latency, and ultimately enhancing user experience. Localised data processing also ensures better patient privacy and less reliance on internet connectivity improving uptime and makes the devices more suitable for high-volume, real-world deployment across healthcare, sports technology, and industrial AI markets.

For a complete list of patented technologies and their descriptions refer to Annexure table 1.

Licence Rationale

This proposed agreement has the potential to enhance dorsaVi's existing product lines as well as open commercial applications in a broad range of industrial edge AI and next generation sensing markets. The integration of NTU Singapore's RRAM technology into dorsaVi's sensor platform is expected to support the Company's mission to deliver smarter, faster, and more autonomous sensor systems with a forward-looking outlook to generate sustained near and long-term value for shareholders.

The licence grants dorsaVi exclusive worldwide rights to a portfolio of high-performance memory technologies, which can be applied into products across several high-growth sectors, including AI, AR/VR, IoT, automotive, ICT, drones, and health-tech (excluding MedTech). It also includes robust territorial protections preventing third-party licensing of the same background IP in key regions such as the USA, Europe, Singapore, and Australia.

The integration of RRAM is expected to drive four key strategic benefits for dorsaVi, spanning product performance, operational efficiency, technological leadership, and market expansion.

1. Smarter, Faster Sensors

The RRAM integration into dorsaVi's sensors will be strategically performed in two stages, i.e., hybrid (NAND flash + RRAM) and RRAM only memory solution. This allows a smooth and efficient transition from legacy flash to RRAM technology with no significant effect on the production cost. dorsaVi's sensors will gain faster data access (RRAM with 10,000x lower read latency and 5-50x faster write operation), extended battery life, and real-time responsiveness due to RRAM superior memory capability with low power consumption. Furthermore, dorsaVi can also embrace the future towards in-sensor computing, enabling a smart sensor system, where not only the data acquisition and storage occurs but also equipped with built-in processing and communication capabilities for tasks like data manipulation and decision-making. This in-sensor computing approach, will not only be limited to current dorsaVi electromyography (EMG) products but also potentially other wearable sensors such as electrocardiogram (ECG).

2. Lower Costs, Higher Margins

RRAM in-sensor computing approach will reduce the data transmission by processing data locally, which can save bandwidth, transmission cost, as well as reducing the overall power consumption, extending the battery life of the sensor. This will also reduce the sensor reliant on external hardware, software, and cloud infrastructure, with the perks of improved overall system latency. Furthermore, RRAM bit cells can endure 10-100x more program/erase cycles, prolonging the overall sensor life. This shift is projected to save dorsaVi up to AUD\$150,000 annually in cloud infrastructure costs, unlocking greater operational efficiency and stronger margins.

3. Built-in Edge AI

RRAM versatility as both digital and/or analog memory components enables AI to run directly on-chip, powering intelligent sensor features like fall detection, motion analysis, and posture correction without external processing. It facilitates the hardware implementation of various emerging computing architectures, such as brain-inspired computing, positioning dorsaVi for growth in emerging fields like AI-powered robotics, drones and autonomous sensing technologies.

4. Pathway to New Markets

Thanks to its miniaturised, ultra-resilient, and low-power design, RRAM opens doors to high-growth markets beyond healthcare such as logistics, agriculture, industrial automation, drones, and consumer wearables. This significantly expands dorsaVi's commercial footprint and licensing potential whilst future proofing the company in the face of accelerating demand for intelligent, energy-efficient sensing solutions across both clinical and industrial domains.

KEY TERMS OF THE TRANSACTION

- Licence: Exclusive, worldwide, for healthcare, AI, and IoT applications
- Expenses to Access and Maintain Patent Family:
 - Payment of ~ SGD \$400,000 over the first 2 years
 - SGD\$700,000 over the next 10 years
- Introducer Fee: 60,000,000 fully paid ordinary shares to Clayton Capital Pty Ltd, subject to shareholder approval

Proposed issue of Performance Rights

Subject to shareholder approval at the next general meeting of shareholders (EGM), it is proposed that an aggregate 25 million performance rights will be issued to Gernot Abl, Michael Winlo and Leigh Travers as follows:

- 12,500,000 Performance Rights with a vesting condition of DVL achieving, weighted average share price \$0.02 (14-day VWAP, must be achieved within 36 months); and
- 12,500,000 Performance Rights with a vesting condition of DVL achieving, weighted average share price \$0.03 (14-day VWAP, must be achieved within 36 months).

Further details will be included in the Notice of Meeting for the upcoming EGM.

Details of the Placement:

The Placement comprises the issue of approximately 187,500,000 fully paid ordinary shares at \$0.013 each ("Placement Shares"), representing a 18.75% discount to the last traded price as at 6 June 2025, or a 4.02% discount to the 15-day volume-weighted average price ('VWAP').

The Placement Shares will be issued in two tranches. The first tranche of approximately 105,000,000 Placement Shares will be issued pursuant to the Company's existing placement capacity under ASX Listing Rules 7.1 and 70,000,000 under its 7.1A capacity, to raise \$2,275,000 (before costs).

The second tranche of approximately 12,500,000 Placement Shares, to raise \$162,500, will be issued subject to shareholder approval to be sought at a General Meeting of shareholders to be held in July 2025. Proceeds from the Placement will be strategically directed towards advancing the integration of Resistive RAM (RRAM) innovations with DorsaVi's existing sensor platform and to support ongoing working capital requirements.

62 Capital Pty Ltd ("62 Capital") acted as Lead Manager to the Placement and will receive a 6% capital raising fee on funds directly raised under the Placement. In addition, 62 Capital will be issued 20,000,000 unlisted options exercisable at \$0.02 each, expiring three years from the date of issue ("Placement Options"), subject to shareholder approval. Settlement of the first tranche of the Placement is expected to occur on or around Tuesday, 24 June 2025, with the corresponding issue of Placement Shares anticipated on or around Wednesday, 25 June 2025.

Annexure Table 1

TD Ref	Title	Description
2021-239	Resistive Non-Volatile Memory with An Oxygen Gradient and Methods Of Fabricating The Same	Provided as an electrically actuated resistive non-volatile memory and the method of fabricating the same. The resistive memory device comprises a first electrode, a second electrode, a buffer layer, and a primary memory layer disposed there between. Oxygen gradient is configured across the multiple layers. The memory device is advantageous because it can provide a multilayer memory cell structure with low power consumption, stable resistive switching and simple fabrication processes.
2021-392	Non-Volatile Memory Containing Oxygen-Scavenging Material Portions and Methods Of Making The Same	The invention provides for a resistive non-volatile memory comprising of oxygen scavenging materials. An exemplary embodiment of a non-volatile memory is included. In the present invention, a non-volatile memory with both stable resistive switching and high thermal budget can be achieved.
2022-316	Thin Film Multi-Layered Resistive Switching Memory Elements and Methods Of Fabricating The Same	The present invention relates a resistive switching memory element composed of thin films with multiple layers: main switching layer, a first and second electrode, a scavenger layer and a diffusion barrier layer. The main switching layer includes repeated units, and each unit has both barrier and active layer.
2022-377	Resistive Switching Memory Device with An Ion Obstruction Barrier Layer and Fabrication Method Thereof	An object of the present invention is to provide a resistive non-volatile memory device that are more reliable and have low operation voltages. According to the present invention, a resistive non-volatile memory device comprises a first electrode, a second electrode facing the first electrode and a resistive switching layer disposed between the first and second electrode. The resistive switching layer has multiple layers of metal oxide, with the first region as a buffer layer, the second region as the primary switching layer, and the third region as an ion obstruction barrier layer.
2023-276	Memory Device, Plasma Treatment, and Thermal Stability Improvement Thereof	This invention relates to use of novel plasma treatment on metallic electrode layer of oxide-based resistive switching memory cells. The plasma treatment improves thermal stability of the memory cell devices as well as its memory performance. The memory cell devices consist of an oxide resistive switching layer sandwiched between active and inert electrode. In the present invention, non-volatile memory cells with high thermal stability and high performance are demonstrated.

2023-277	Memory Device, Via Oxygen Scavenging Electrode, and Methods Of Making The Same	This invention relates to novel oxide-based resistive switching memory cells and their integration approach with a transistor as a select device for memory array implementations. The reported memory cell devices exhibit excellent improvement in terms of memory window and variation under the controlled oxygen gradient across layers and incorporation of insertion layer. Highly reliable switching performance and thermal stability are demonstrated.
2023-362	SPICE Modeling Of Resistive Random-Access Memories	An improved model is developed through exploring the currently available SPICE models for oxide-based bipolar RRAM devices. The Monte Carlo model is added in the model library for simulating device-to-device variability. The simulation results show that the improved model is accurate and robust to simulate resistive switching behaviours. This has been applied in the large-scale memory array simulation by the IC design team of the inventors.
2023-411	Method For Fabricating Resistive Switching Memory Cells	Embodiments of a method for device fabrication of resistive switching memory cells. In the invention, an annular-shaped pattern may be formed with positive lithography resist, offering flexibility in addressing a wide range of fabrication requirements, including but not limited to improving resolution and tuning of mask transmission. In the present invention, device sizes from 1 μm to 200 nm memory device cells with high endurance and high performance are demonstrated.
2021-063	Variation Tolerant Sensing Scheme for Resistive Random Access Memory	The invention is about IC design scheme for memory array such as 512kb, 512 x 1024 cells for main array, 512 x 128 cells for parity bits, and 512 x 2 cells for replica array. There are 16:1 column MUX and reading 72 bits (64 data bits + 8 parity bits), and use of replica array for reference generation. The invention enables differential sensing for large margin and simple operation for non-volatile memory.

This release has been authorised for lodgement by the Company's Board of Directors.

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About dorsaVi

dorsaVi Ltd (ASX: DVL) is an ASX company focused on developing innovative motion analysis device technologies for use in clinical applications, elite sports, and occupational health and safety. dorsaVi believes its wearable sensor technology enables, for the first time, many aspects of detailed human movement and position to be accurately captured, quantified, and assessed outside a biomechanics lab, in both real-time and real situations for up to 24 hours. dorsaVi's focus is on two major markets:

- **Workplace:** dorsaVi enables employers to assess risk of injury for employees as well as test the effectiveness of proposed changes to OHS workplace design, equipment or methods based on objective evidence. dorsaVi works either directly with major corporations, or through an insurance company's customer base with the aim of reducing workplace compensation and claims. dorsaVi has been used by major corporations including London Underground, Vinci Construction, Crown Resorts, Caterpillar (US), Boeing, Monash Health, Coles, Woolworths, Toll, Toyota, Orora, Mineral Resources and BHP Billiton.
- **Clinical:** dorsaVi is transforming the management of patients with its clinical solutions (ViMove+) which provide objective assessment, monitoring outside the clinic and immediate biofeedback. The clinical market is broken down into physical therapy (physiotherapists), hospital in the home and elite sports. Hospital in the home refers to the remote management of patients by clinicians outside of physical therapy (i.e. for orthopaedic conditions). Elite sports refer to the management and optimisation of athletes through objective evidence for decisions on return to play, measurement of biomechanics and immediate biofeedback to enable peak performance.

Further information is available at www.dorsaVi.com