14th September 2026

dorsaVi Characterises RRAM Energy Efficiency for Physical AI and Advanced Humanoid Robotics

New electrical energy measurements to advance dorsaVi's low-power RRAM-CMOS hardware pathway, with applications across Physical AI, advanced robotics, autonomous systems and intelligent wearables

Key Highlights:

- **RRAM energy testing underway:** dorsaVi has commenced targeted electrical measurements to quantify the energy required to update memory states in its engineered RRAM structures, establishing a key performance metric for the Company's next-generation ultra-edge hardware pathway.
- **Positioned for high-value Physical AI applications:** Advanced robotics, autonomous vehicles and mobile machines, industrial automation and adaptive wearables are illustrative, high-value markets where local or near-sensor memory and processing may become increasingly important.
- **A building block for intelligent Ultra-Edge systems:** RRAM provides the memory function within a broader architecture, while associated CMOS logic and, in future, CIM or neuromorphic functions can support local interpretation and system response.
- **Advanced humanoid robotic hands as a high-value opportunity:** Next-generation robotic hands may require continuous tactile sensing across multiple points of contact while operating within tight space and energy constraints.
- **RRAM as an enabler of local intelligence:** Local or near-sensor memory and processing could retain selected tactile context close to where it is generated, with RRAM as a potential enabling memory technology within a broader system architecture.
- **Building an energy benchmark ahead of validation chip testing:** dorsaVi has commenced electrical measurements of its engineered RRAM structures to establish an initial benchmark for RRAM state-update energy. The results will provide an important input for subsequent evaluation using the Company's RRAM Validation Chip and its broader RRAM-CMOS and Compute-in-Memory pathway.

Melbourne, Australia – dorsaVi Limited (ASX: DVL) ("dorsaVi" or the "Company") is pleased to announce that it has commenced a targeted energy-efficiency evaluation of its engineered Resistive Random-Access Memory (RRAM) structures, assessing the energy required to update RRAM memory states.

The assessment will generate device-level energy data to support the continued development of dorsaVi's low-power RRAM-CMOS hardware pathway. The findings are intended to inform further optimisation and subsequent reliability, array-level, Compute-in-Memory (CIM) and CMOS-integration evaluation as the Company progresses towards more integrated hardware capability.

Physical AI is a synergistic use case for dorsaVi's developing sensing, memory and processing capabilities. As memory and processing move closer to sensors, power, space and thermal capacity can become constrained, particularly where memory is updated frequently alongside sensing, local interpretation, communication and responsive action.

Future Physical AI systems may therefore benefit from hardware that retains and processes selected information close to where physical data is generated, rather than continuously transferring all raw data to a distant processor.

Physical AI: High-Value Applications

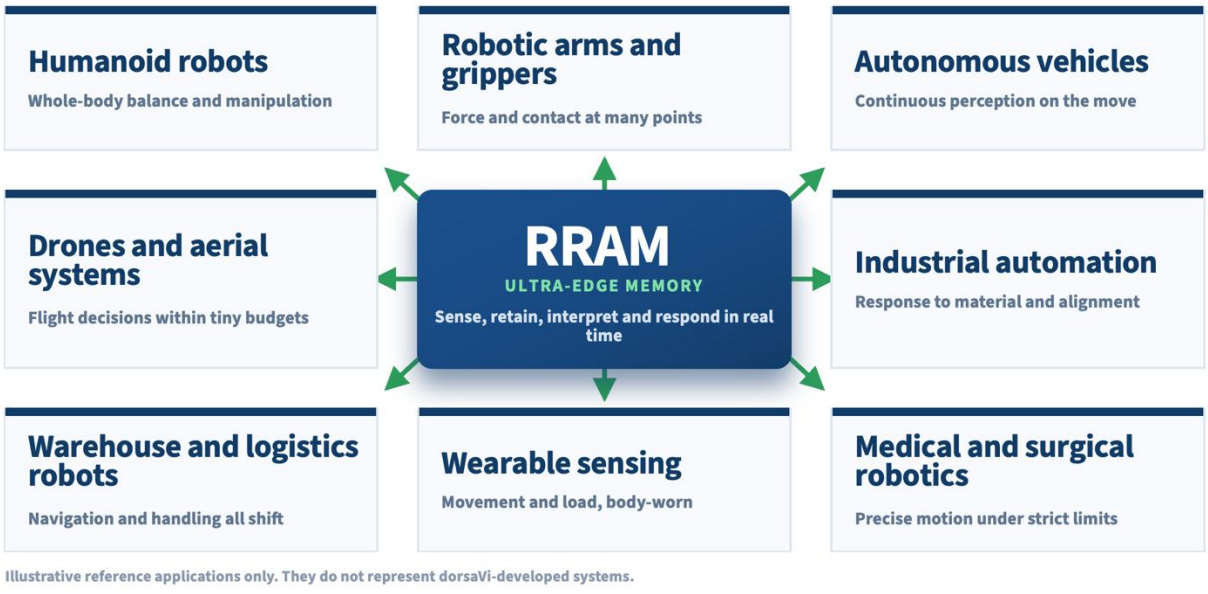

Figure 1: *A graphic showcasing potential applications and markets for RRAM.*

Illustrative Physical AI applications include advanced robotics, autonomous vehicles and mobile machines, industrial automation and adaptive wearables. The applications differ, but each may benefit from lower-latency and more energy-efficient intelligence at the ultra-edge. They are reference applications only and do not represent dorsaVi-developed systems.

Illustrative use case	Key handling challenges	Impact of energy-efficient hardware
Delicate and variable materials handling	Objects can vary significantly in shape, stiffness and grip stability.	Tactile information can be retained close to the point of contact.
Precision manufacturing and electronics assembly	Small changes in alignment, resistance or force can affect component placement.	Fast feedback without moving all sensor data to a central processor.
Surgical and laboratory robotics	Instruments, samples and sensitive materials need controlled handling	Local sensing and memory can support quicker adjustment as contact changes.
Humanoid and service robotics	Everyday objects can be flexible, fragile and non-uniform, requiring continuous adaptation.	Compact hardware is important where space and energy are limited.

Robotic Hands: An Illustrative Synergistic Use Case

Figure 2: *A graphic showcasing advanced robotic hands as a prospective application for local or near-sensor memory and processing.*

Advanced robotic hands are an illustrative use case within the broader Physical AI opportunity. They bring sensing, memory, processing and movement together in a compact system, while operating across multiple, changing points of contact. Unlike conventional industrial grippers designed for repeatable

movements in structured environments, next-generation hands may need to handle irregular parcels, flexible materials, delicate components, tools and everyday objects.

Such systems may incorporate tactile sensing across articulated fingers and the palm, generating pressure, contact, force and slip data. In prospective architectures, local or near-sensor memory and processing could retain selected tactile context close to where that data is generated. RRAM may be a potential enabling memory technology within this broader architecture, while interpretation and coordinated response would rely on surrounding CMOS logic and potentially later CIM or neuromorphic functions.

RRAM and Energy Efficiency Across Physical AI

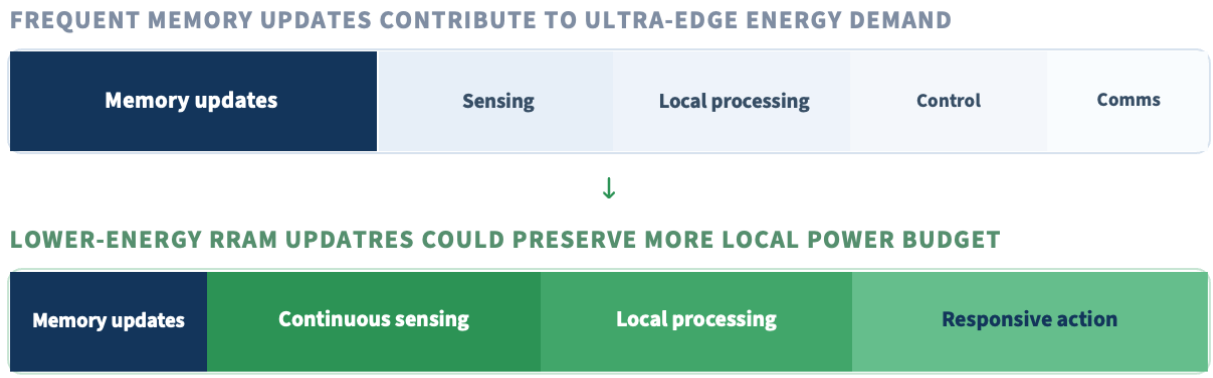

Figure 3: *A graphic showcasing how lower-energy RRAM memory updates may support future Physical AI hardware architectures.*

For Physical AI hardware, the electrical energy associated with RRAM state updates may become relevant where memory is updated close to sensing functions. The current study is designed to measure this device-level energy characteristic. It will not determine the full power consumption of a broader Physical AI system, which also includes sensing, CMOS logic, communications, actuation and other components.

Subject to further validation, lower-energy RRAM updates could be a useful characteristic for future local or near-sensor memory architectures. Any system-level impact will depend on the eventual array design, associated CMOS, integration approach, compute architecture and workload. For dorsaVi, energy-efficient RRAM remains a potential building block within its broader sensing, RRAM-CMOS and future CIM hardware pathway.

Evaluation Scope and Development Pathway

The current assessment will generate new electrical measurements of the energy required to update memory states in dorsaVi's engineered RRAM structures. These measurements will establish an initial energy-performance benchmark and provide an important input ahead of more comprehensive evaluation using dorsaVi's RRAM Validation Chip.

The subsequent Validation Chip program will extend this work towards array-level operation, CMOS integration and future Compute-in-Memory evaluation, alongside further reliability and workload-level assessment.

CEO Commentary

Mathew Regan, Group Chief Executive Officer of dorsaVi, said:

"The physical world creates a different challenge for AI. It is not enough for a machine to identify an object. It must be able to understand what is happening when it touches that object. Advanced robotic hands are a powerful reference application because they show why memory, processing and energy efficiency need to move close to the point of contact. Our study is focused on the energy efficiency of our RRAM structures and how that may support the next generation of ultra-edge hardware."

- ENDS -

This release has been authorised for lodgement to the ASX by the Board.

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Forward-Looking Statements

This announcement may contain certain forward-looking statements and projections. Such forward-looking statements/projections are estimates for discussion purposes only and should not be relied upon. Forward looking statements/projections are inherently uncertain and may therefore differ materially from results ultimately achieved. dorsaVi Limited does not make any representations and provides no warranties concerning the accuracy of the projections and disclaims any obligation to update or revise any forward-looking statements/projections based on new information, future events or otherwise, except to the extent required by applicable laws.

About dorsaVi

dorsaVi Ltd (ASX: DVL) is an ASX company focused on delivering intelligence at the ultra-edge. Enabling real time AI-driven decisions to be made locally, at the point of sensing, without reliance on cloud connectivity. dorsaVi's wearable sensor technology captures, quantifies, and assesses detailed human movement and position outside a biomechanics lab, in both real-time and real situations for up to 24 hours, across clinical applications, elite sports, and occupational health and safety. Underpinning this vision, dorsaVi is building the hardware foundations of the ultra-edge through strategic investments in neuromorphic computing and RRAM memory technology. dorsaVi's focus is on three major markets:

- Ultra-Edge Intelligence: dorsaVi's sensor platforms are designed to process and act on data locally, embedding AI-driven inference directly at the point of capture. By investing in neuromorphic computing and RRAM memory technology, dorsaVi enables real-time decision-making without round-tripping to the cloud, delivering lower latency, lower power consumption, and reliable operation in latency- and connectivity-constrained environments across industrial, clinical, and autonomous systems applications.

- 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.

- 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