21 April 2026

RRAM–Neuromorphic Fusion Targets Transformational Step-Change Performance, Unlocking Breakthough Potential for Robotics and Exoskeletons

Technical validation confirms dorsaVi's RRAM platform and neuromorphic IP portfolio provide a credible pathway toward ultra-edge intelligence for robotic control, exoskeletons and adaptive wearable systems.

Key Highlights:

- **Technical validation undertaken:** dorsaVi has completed a technical validation of how its RRAM platform can operate together with its neuromorphic IP portfolio to support practical edge intelligence for robotics and exoskeleton applications.
- **Projected 10x Performance Gains:** The reviewed architecture brings memory, signal conversion and selected compute functions closer together, resulting in up to, a projected, 10x performance gains.
- **Technology Fit Confirmed:** The validation confirms that dorsaVi's RRAM memory technology and its neuromorphic processing IP work together as a coherent system — an important step in proving the combined platform is ready for real-world development and commercialisation.
- **Designed for ultra-edge deployment:** The combined platform is suited to applications requiring fast local decision-making, low power consumption and on-device adaptation, including prosthetics, exoskeletons, robotic motion control and smart sensing systems.
- **Faster and more efficient by design:** By processing information at the point of capture — inside the device itself — the platform reduces the delays and energy costs associated with sending data to the cloud or a remote processor. The result is smarter devices that respond faster and run longer on a single charge.
- **Clear relevance to robotics and exoskeletons:** The global exoskeleton market was valued at US$590 million in 2025 and is projected to reach US$1.79 billion by 2033, growing at a 14.48% CAGR[1], while humanoid robotics continues to attract billions in investment.
- **Further validation work planned:** DVL intends to continue validation work across the second group of neuromorphic IP assets — the sensing and signal interface technologies that sit at the front end of the platform, translating real-world inputs from the body and environment into data the system can act on.

[1] www.grandviewresearch.com

Melbourne, Australia, 21 April 2026 – dorsaVi Limited (ASX: DVL) ("dorsaVi" or the "Company") is pleased to announce that it has completed a technical validation confirming that the Company's proprietary RRAM memory technology and its neuromorphic processing IP work effectively together — establishing a clear pathway toward intelligent, low-power hardware for robotics, exoskeletons and advanced wearable devices. The review examined how the Company's two core hardware technologies operate together.

RRAM is a new class of memory that stores information without power, is highly durable, and operates at very low energy levels. The neuromorphic IP is a processing architecture inspired by how the brain works — designed to make decisions quickly and efficiently at the edge of a network, without needing a data centre. The validation found the two are extremely well suited to work together.

The validation concluded that dorsaVi's RRAM memory and neuromorphic processing IP form a credible, validated foundation for building intelligent hardware that can sense, process and respond locally — on the device itself — without sending data to the cloud. This is the key architectural requirement for the next generation of robots, exoskeletons and wearable systems.

This technical synergy represents a powerful value proposition where the fusion of high-durability RRAM and neuromorphic processing creates a proprietary ultra-edge architecture that is difficult and expensive to replicate. By enabling high-speed, brain-inspired decision-making without the power requirements or latency of a centralised data centre, the Company is positioned to address the transition toward autonomous, battery-powered robotic systems — a market shift that is already underway and accelerating.

How Performance Gains Impact the Exoskeleton and Robotics Market

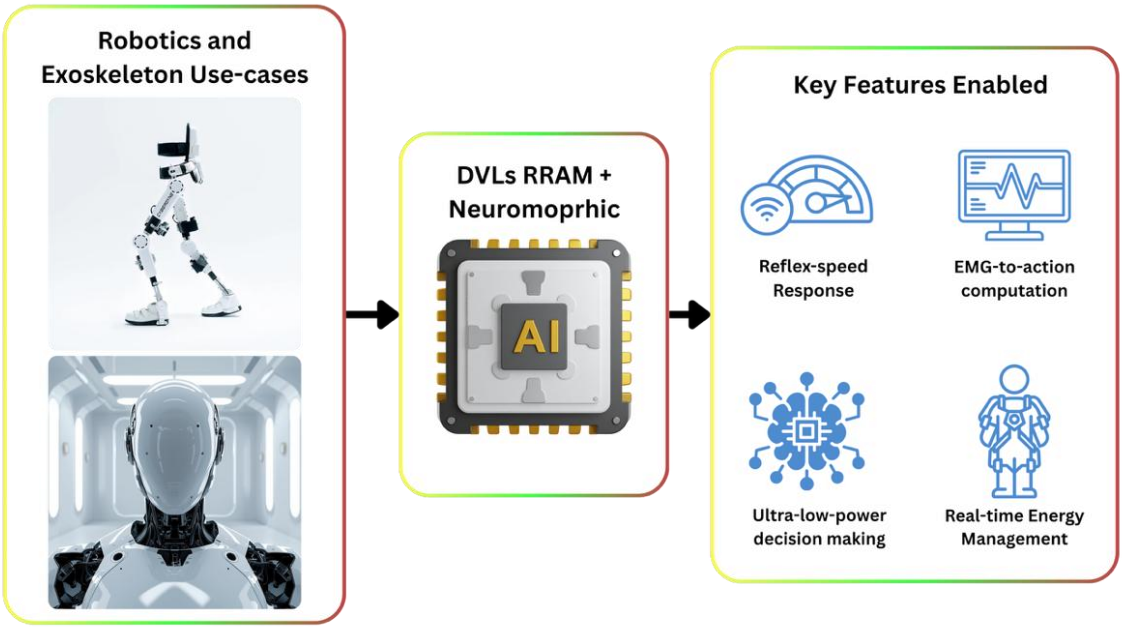

Figure 1: How dorsaVi's RRAM and neuromorphic platform translates into real-world capability from robotics to exoskeleton applications [2]

[2] Image from: www.cnet.com/science/cyberdyne-hal-exoskeleton-medical-rehabilitation/

The technical review indicated **four distinct performance advantages for exoskeleton and robotics applications**. The table below maps each to the underlying compute component.

KEY FEATURE	WHAT DRIVES IT	WHY IT MATTERS FOR ROBOTICS AND EXOSKELETONS
Exoskeleton Power Management	Adaptive neural ADC architectures	**Power Optimisation Advantage:** Supports efficient signal conversion and adaptive operation, helping manage power use in wearable and robotic systems.
Reflex-speed response	In-memory adaptive processing engine	**Adaptive Control Advantage:** Enables low-latency adaptive control, reflex-speed response and reduced data movement, supporting compact EMG processing and potential on-device recalibration.
Muscle signal to movement	Delta-sigma neuron architecture	**Signal-to-Decision Advantage:** Helps convert EMG and other bio-signals into usable control outputs with robust local inference.
Ultra-low-power decision making	RRAM memory + neuromorphic processing engine	**Low-Power Intelligence Advantage:** Brings memory and inference closer together to reduce data movement, supporting efficient local decision-making at the edge.

These four capabilities — battery-efficient operation, reflex-speed response, muscle signal interpretation and ultra-low-power decision making — work together to make robots and exoskeletons faster, smarter and longer-lasting, without needing a connection to the cloud.

Clear Synergies Between RRAM and Neuromorphic Reflex Engine

Following the Company's previously announced acquisition of Neuromorphic IP[3], DVL's portfolio is structured into two broad groups:

- Group 1 – Neuromorphic Processing-in-Memory ("**Reflex Engine**"): the processing core that makes decisions directly inside the memory chip, without needing to send data elsewhere. Think of it as the brain of the system — capable of learning and responding in real time, on the device.

[3] Refer to ASX Announcement dated 12 November 2025

- Group 2 – Adaptive Interface Layer ("**Sensory Nerve Endings**"): the interface layer that sits between the physical world and the processing core — converting signals from sensors, muscles and the environment into data the system can understand and act on.

This validation work focused on the synergies between Group 1, the Reflex Engine, and DVL's RRAM technology and its end impact on the exoskeleton and robotics market.

The Reflex Engine is designed to make decisions inside the memory itself — rather than shuttling data back and forth between separate memory and processor components. This is more efficient, faster and far less power-hungry. The validation confirms that dorsaVi's RRAM memory technology is a strong fit for this architecture. The table below shows how each component of the neuromorphic portfolio contributes to the combined system:

NEUROMORPHIC IP	WHAT IT DOES	HOW OUR RRAM SYNERGISES
RRAM programmable substrate	Acts as the memory of the system — storing learned patterns and decisions without needing constant power	**Memory Foundation** Provides the persistent, power-efficient memory foundation that enables the system to learn and make decisions locally without cloud connectivity
Delta-sigma neuron architecture	Keeps the system accurate and reliable even in noisy, real-world environments like factories, hospitals and outdoor settings	**Inference Robustness** Makes the combined RRAM-neuromorphic system more reliable in practice — ensuring it performs consistently in real-world conditions, not just in a lab
In-Memory Learning Engine	Processes and learns directly inside the memory chip — the equivalent of thinking and remembering in the same place at the same time	**Adaptive Response** Enables fast, adaptive responses at the edge — allowing an exoskeleton or robot to adjust to a person's movement in real time without sending data to a remote server
Adaptive neural ADC architectures	Translates real-world signals — movement, muscle activity, environmental data — into digital information the processing system can understand and act on	**Sensor Edge Intelligence** Brings intelligence right to the sensing layer — so the device begins interpreting the world at the point of contact, before data even enters the processing core

When these components work together, the result is a system capable of delivering significant performance gains across the applications that matter most to dorsaVi's target markets. In plain terms, the platform enables:

- Devices that clean and interpret sensor data on the spot, without needing external processing

- Systems that identify what matters in a stream of movement or sensor data in real time — the same way a trained eye spots a problem before it becomes one
- Fast, on-device decision making that does not require a powerful processor or cloud connection — small enough to run on a wearable, fast enough to act in a split second
- Devices that adapt and improve over time from real-world use — learning a patient's movement patterns or a factory floor's conditions without sending sensitive data off the device

This is not a platform chasing large-scale data centre workloads. It is purpose-built for compact, real-time intelligent devices — the kind that need to sense, decide and act on the spot, with no cloud in the loop.

Early Validation Indicate up to 10x Performance Gains

The validation supports a simpler commercial proposition: **smarter machines that can sense, interpret and respond closer to the edge.** For exoskeleton and robotics applications, this matters because local intelligence can improve responsiveness, reduce system complexity and lower power consumption.

In particular, the validated architecture has the potential to deliver 10x performance gains across the following applications:

- **Support faster control response** by reducing the distance between sensing, inference and action
- **Improve power efficiency** by limiting unnecessary data movement.
- **Support adaptive exoskeleton and prosthetic** control through local recalibration and learning.
- **Strengthen robotics performance** in environments where reliable, low-latency edge processing is required.

Where This Technology Is Headed

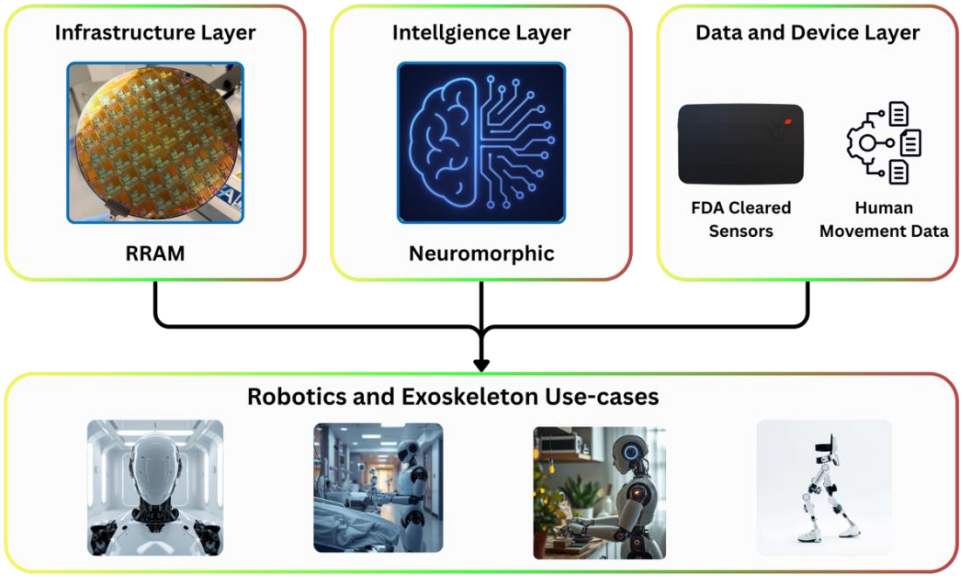

Figure 2: The validated RRAM-neuromorphic architecture sits at the core of dorsaVi's integrated platform, connecting hardware IP to commercial robotics and exoskeleton markets

This technical validation supports the Company's broader roadmap to combine its existing sensor business, RRAM memory platform and neuromorphic IP portfolio into an **integrated ultra-edge intelligence stack**. In that strategy, DVL's sensor operations provide both a practical source of real-world data and a potential test bed for developing and validating next-generation edge hardware.

The work also reinforces the Company's longer-term objective of building an integrated platform for robotics, exoskeletons and advanced wearable systems in which sensing, memory, inference and adaptive control operate more closely together — signalling a strong opportunity where DVL can differentiate itself most clearly in the emerging ultra-edge intelligence market.

This technical foundation provides the hardware layer upon which a complete robotics intelligence stack can be built. The Company is actively evaluating strategic IP and technology acquisitions that would sit above this RRAM-neuromorphic hardware foundation — providing the safety control and data acquisition layers required for real-world human-robot collaboration and exoskeleton deployment. The Company expects to update shareholders on progress in this area in the coming months.

Market Context

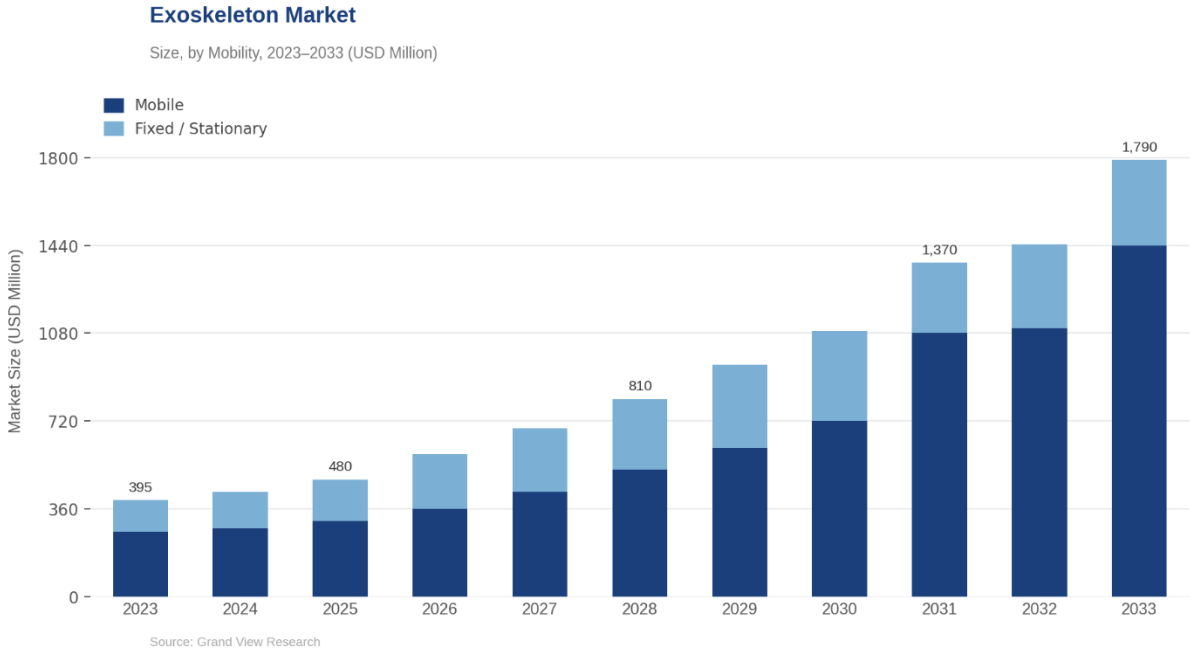

Figure 3: Highlighting the growth in the exoskeleton market [4]

The markets targeted by this platform are large and growing rapidly. The global exoskeleton market was valued at US$590 million in 2025 and is projected to reach US$1.79 billion by 2033 at a 14.48% CAGR, driven by adoption across healthcare, defence, industrial and rehabilitation applications. The broader humanoid robotics market has attracted over US$5 billion in investment since 2020 and is projected to reach US$38 billion by 2035. More than 5 million industrial robots are already installed globally, with the collaborative robotics segment expected to exceed US$13 billion by 2030.

[4] https://www.grandviewresearch.com/industry-analysis/exoskeleton-market

By combining DVL's FDA-cleared EMG and motion sensors with over a decade of enterprise deployment data, this positions the Company at the intersection of these converging markets. The validated RRAM-neuromorphic architecture extends this foundation into the hardware layer, targeting exoskeletons, robotics and wearable systems with the sensing, memory and inference capabilities required for intelligent edge deployment.

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

> *"This validation shows our RRAM platform, together with our neuromorphic Reflex Engine, can support a credible path to ultra-edge intelligence in robotics and exoskeletons. We believe bringing memory, inference and adaptive control closer together is key to faster, lower-power intelligent systems. This is the performance foundation the next generation of exoskeletons and collaborative robots is going to be built on — and we are building it deliberately, layer by layer."*

Next Steps

The Company intends to use this validation to guide the next phase of technical and commercial development across its robotics and exoskeleton roadmap.

In parallel, DVL plans to extend its validation work to the second group of neuromorphic IP assets — the "Sensory Nerve Endings" interface technologies. These sit at the front end of the platform, translating real-world signals from the body and environment into data the system can act on. That validation is expected to further strengthen the case for the combined platform across exoskeleton, robotics and wearable applications.

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. Forwardlooking 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 realtime 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