28 January 2026

dorsaVi Enters into Collaboration with World Leading Research Institute ITRI to Develop Next-Generation 22-nm RRAM Technology

Joint program commenced with dorsaVi, ITRI and NTU to advance dorsaVi's RRAM platform to the 22-nm technology node

Key Highlights:

- **RRAM Collaboration with ITRI and NTU:** Building on the current partnership with Nanyang Technological University (NTU), Singapore, dorsaVi has forged a multi-year collaboration with the Industrial Technology Research Institute (ITRI), Taiwan, to propel its proprietary RRAM platform to the 22-nm technology node.

- **Tier-1 Semiconductor Partnership:** ITRI is a world-leading applied technology research institute with more than 6,500 employees, playing a pivotal role in establishing Taiwan's semiconductor ecosystem.

- **Anchored on Exclusively Licensed NTU Background RRAM IP [1]:** The initiative builds on strong device and wafer-level results at the 40-nm technology node and is aimed at delivering higher density, lower energy and faster switching consistent with the Company's roadmap for embedded non-volatile memory, wearables and AI-driven systems.

- **Integration on Commercial 22-nm CMOS Foundation:** The 22-nm RRAM architecture is being jointly developed by dorsaVi, ITRI and NTU for full compatibility with TSMC's 22-nm CMOS process, advancing dorsaVi's RRAM platform into a technology sweet spot that combines compelling performance with cost efficiency for broad adoption, and aligns with the Company's performance and cost requirements for commercial intelligent hardware systems. The underlying logic wafers are based on standard commercial foundry manufacturing while the proprietary RRAM device-level innovation and integration are being driven by NTU's advanced RRAM device and materials R&D expertise together with ITRI's circuit co-design expertise and advanced back-end-of-line (BEOL) processing capabilities.

- **Advanced RRAM Targeting Breakthrough Performance and Versatility:** The 22-nm RRAM program aims to define a new performance-efficiency frontier, combining faster access, lower power and scalable integration with a versatile RRAM architecture that adapts performance, reliability and energy consumption to application-specific needs.

[1] Refer to ASX Announcement dated 12 June 2025

- **Foundation for Compute-in-memory and Neuromorphic Computing:** The 22-nm RRAM program realizes RRAM-based compute-in-memory building blocks that enable ultra-low-power AI acceleration and neuromorphic processing, delivering faster real-time responsiveness with exceptional energy efficiency.

- **Unified Strategy Across dorsaVi's Rich IP Portfolio:** The 22-nm RRAM architecture is intended to integrate with dorsaVi's sensor and process-in-memory IP to create a breakthrough neuromorphic computing solution to support real-time ultra edge intelligence.

- **Clear Robotics-led Commercial Focus:** The platform targets robotics, wearables and medical robotics markets, the Company identifying robotics as the highest-potential initial opportunity.

Melbourne, Australia, 28 January 2026 – dorsaVi Limited (ASX: DVL) ("dorsaVi" or "the Company") is pleased to announce the commencement of a 22-nm RRAM fabrication and co-design program, undertaken in collaboration with Nanyang Technological University (NTU) and the Industrial Technology Research Institute (ITRI), to advance the Company's proprietary RRAM architecture into the 22-nm technology node.

The 22-nm RRAM program represents a strategic inflection point for dorsaVi, advancing its RRAM technology platform into a technology sweet-spot node that delivers compelling performance and cost efficiency, enabling broad adoption of commercial-scale intelligent hardware. The program combines dorsaVi's proprietary system-level IP with deep RRAM device expertise developed in NTU and ITRI's advanced device and circuit co-design capabilities, to enable a customisable memory and in-memory computing platform that is configurable across a wide range of use cases and operating requirements.

This move is driven by increasing demand across robotics, wearables, industrial automation and medical devices for ultra-low-power, low-latency and application-tunable computing solutions that cannot be readily addressed using off-the-shelf silicon.

The collaboration brings together:

- dorsaVi's proprietary, sensor and newly acquired process-in-memory IP [2],
- NTU's advanced RRAM device and materials research capabilities,
- ITRI's expertise in RRAM device and circuit design, and
- Stable and scalable path to mass production enabled by a world-leading commercial foundry service.

About Industrial Technology Research Institute (ITRI):
The Industrial Technology Research Institute (ITRI) is a world-leading R&D organization dedicated to innovating a better future. Founded in 1973, ITRI has played a vital role in transforming Taiwan's industries from labour-intensive into innovation-

[2] Refer to ASX announcement dated 12 November 2025

driven. Headquartered in Taiwan, ITRI also operates offices in the U.S., Germany, the UK, Japan, and Thailand. For more information, please visit https://www.itri.org/eng.

Why the 22-nm Technology Node Matters:

While dorsaVi's RRAM platform has been validated on a mature technology node, next-generation robotics and ultra edge-AI systems increasingly require application specific designs and performance levels that can only be enabled by the capabilities of the 22-nm technology node.

The 22-nm RRAM program builds on this by combining faster access, lower power, and scalable integration with a versatile RRAM architecture that can be configured to balance performance, reliability, and energy consumption according to application-specific requirements.

This approach enables dorsaVi to tailor memory, compute-in-memory and neuromorphic functionality to the precise needs of target products and applications rather than adapting to generic silicon intended for broad, non-specialised use. The result is lower power consumption, deterministic latency, and tighter integration with sensors and control systems.

Consideration	Generic RRAM Platform	dorsaVi's RRAM Platform	Core Impact of
Technological Capability	**General-purpose solution with limited competitive advantage**	**Application-specific solution with clear competitive advantage**	**Enables application-optimized architectures, unconstrained by generic technology limitations**
Power, performance and reliability trade-off	**Fixed**	**Configurable on a per-application basis**	**Optimises power, performance and reliability across diverse deployment conditions**
Compute-in-memory and neuromorphic computing support	**Targeted for binary operation**	**Configurable for multi-state operation**	**Reduces data movement, enabling lower latency and ultra-low-power compute, supporting robotics and ultra edge AI applications**

Figure 1: Table showcasing the value of dorsaVi's 22-nm RRAM platform.

RRAM-based in-memory computing is increasingly being recognised as an important enabler for next-generation intelligent hardware, particularly as conventional CMOS-centric architectures face growing constraints from power consumption and data-movement inefficiencies. By enabling computation to occur closer to or directly within memory arrays, repeated data transfers between logic and memory can be significantly reduced, supporting lower energy operation and faster response in embedded and ultra edge systems. These attributes align closely with the 22-nm

RRAM program, which is designed to ultimately support compute-in-memory and neuromorphic functionality for robotics and ultra edge-AI applications of which deterministic latency, energy efficiency and always-on operation are critical system requirements.

Applications Enabled by the 22-nm RRAM Platform:

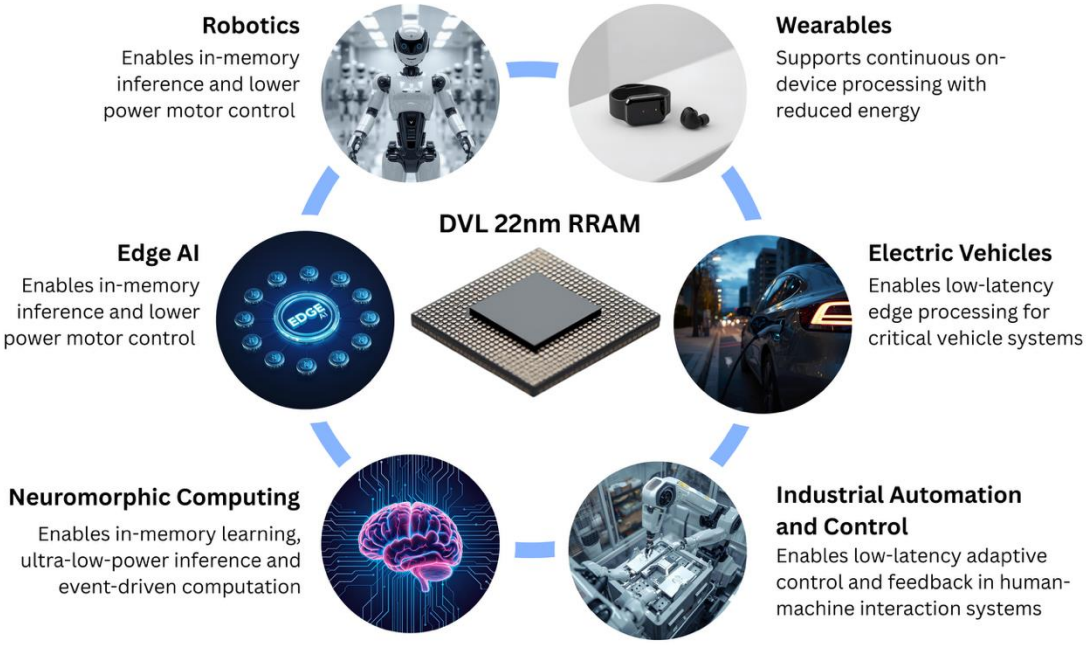

Figure 2: Conceptual illustration of target markets addressed by dorsaVi's 22-nm RRAM.

The 22-nm RRAM platform is being developed to address multiple high-growth end markets where ultra-low latency, energy efficiency and on-device intelligence are critical system requirements. Advancing to the 22-nm technology node materially expands the range of commercial applications dorsaVi can support.

Market	Key Applications	Market Size	22-nm Impact
Robotics (Primary)	**Industrial, collaborative, AMRs, humanoids**	**Estimated to reach US$372.59 Billion by 2034** [3]	**Enables sub-millisecond control loops, in-memory inference and lower power motor control in autonomous systems**
Wearables	**Health monitoring, assistive devices**	**Estimated to reach US$186.14 Billion by 2030** [4]	**Supports continuous on-device signal processing with materially reduced energy per operation**

[3] https://www.precedenceresearch.com/robotics-technology-market
[4] https://www.grandviewresearch.com/industry-analysis/wearable-technology-market

Electric Vehicles (EV)	**Battery management, motor control, sensor fusion**	**Estimated to reach US$6.5203 Trillion by 2030 [5]**	**Enables low-latency edge processing and energy-efficient control for safety-critical vehicle subsystems**
Industrial Automation and Control	**PLCs, motion controllers, machine safety systems**	**Estimated to reach US$378.57 Billion by 2030 [6]**	**Enables low-latency adaptive control and feedback in human-machine interaction systems**
Neuromorphic Computing	**Adaptive edge AI, event-driven processing, learning systems**	**Estimated to reach US$20.27 Billion by 2030 [7]**	**Enables in-memory learning, ultra-low-power inference and event-driven computation**
Smart Energy	**Data Centres, smart inverters, energy storage control**	**Estimated to reach US$337.19 Billion by 2030 [8]**	**Enables fast fault detection, always-on monitoring and energy-efficient control at the ultra edge**
Ultra Edge AI	**On-device inference, sensor fusion, real-time analytics**	**Estimated to reach US$66.47 Billion by 2030 [9]**	**Reduces data movement and latency by enabling computation directly at the ultra edge**

Figure 3: Summary of key addressable markets and representative applications targeted by dorsaVi's 22-nm RRAM platform.

Primary Focus: Robotics as the Lead Commercial Opportunity

Within these markets, the Company has identified robotics as the highest near-term commercial opportunity, driven by accelerating adoption of intelligent automation across industrial, medical and service environments.

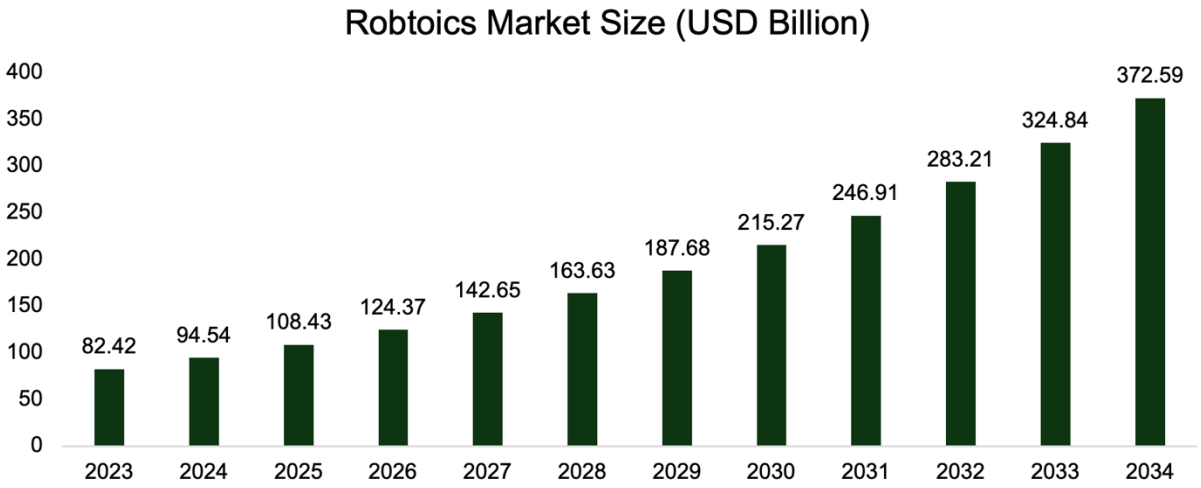

Figure 4: Projected growth in the global industrial robotics market. [10]

[5] https://www.grandviewresearch.com/industry-analysis/electric-vehicles-ev-market
[6] https://www.grandviewresearch.com/industry-analysis/industrial-automation-market
[7] https://www.grandviewresearch.com/industry-analysis/edge-ai-market-report
[8] https://www.mordorintelligence.com/industry-reports/smart-energy-market
[9] https://www.grandviewresearch.com/industry-analysis/edge-ai-market-report
[10] www.precedenceresearch.com/robotics-technology-market

Representative Robotics Segments:

Robotics Sector	Sample Applications
Collaborative & Industrial Robotics	**Assembly, pick-and-place, material handling**
Autonomous Mobile Robots (AMRs)	**Warehousing, logistics, goods movement**
Medical & Rehabilitation Robotics	**Surgical assistance, exoskeletons, rehab devices**
Service & Humanoid Robotics	**Mobile manipulation, human-interactive systems**
Bio-speed Reflex Robotics	**Reflex-speed motor control, human-interactive safety and collision avoidance**

Figure 5: Target robotics sectors and their respective applications.

Across these segments, the ability to perform computation directly within memory, combined with neuromorphic processing enables faster response times, lower power consumption and reduced reliance on cloud or off-chip processing.

Computing Focus: Neuromorphic Computing as the Enabler

To enable our robotics applications, the Company has identified neuromorphic computing as a foundational platform opportunity that underpins multiple high-growth markets requiring real-time, adaptive and energy-efficient intelligence at the ultra edge.

Neuromorphic computing architectures are increasingly relevant as conventional AI approaches face fundamental constraints in power consumption and processor-memory bottlenecks. By integrating RRAM-based compute-in-memory with neuromorphic design principles, dorsaVi is positioning its 22-nm platform to support event-driven, always-on intelligence across sensing and control systems.

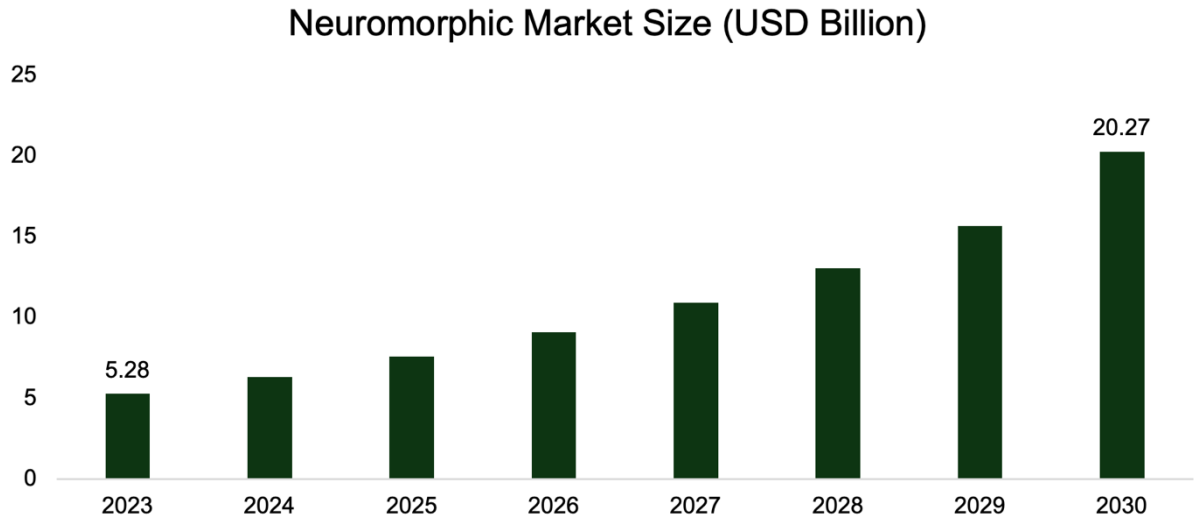

Figure 6: Showing projected growth to US$20.3B in the global neuromorphic computing market. [11]

[11] www.grandviewresearch.com/industry-analysis/neuromorphic-computing-market

How dorsaVi's IP Portfolio Enables Neuromorphic Computing:

IP Block	Core Function
Sensor	**Benchmark testing and integration into world-leading movement sensors**
22-nm RRAM	**Compute-in-memory processing and multi-state data storage with exceptional versatility**
Process-in-memory	**In-memory inference and on-device adaptation, enabling deterministic and reflex-grade response**
Adaptive Interface	**Intelligent ADC/DAC interfaces enabling real-time, closed-loop adaptation**

Figure 7: Overview of dorsaVi's core IP blocks and the core functions they enable to support neuromorphic computing applications.

22-nm RRAM Program Core Features and Enablers for AI and Robotics:

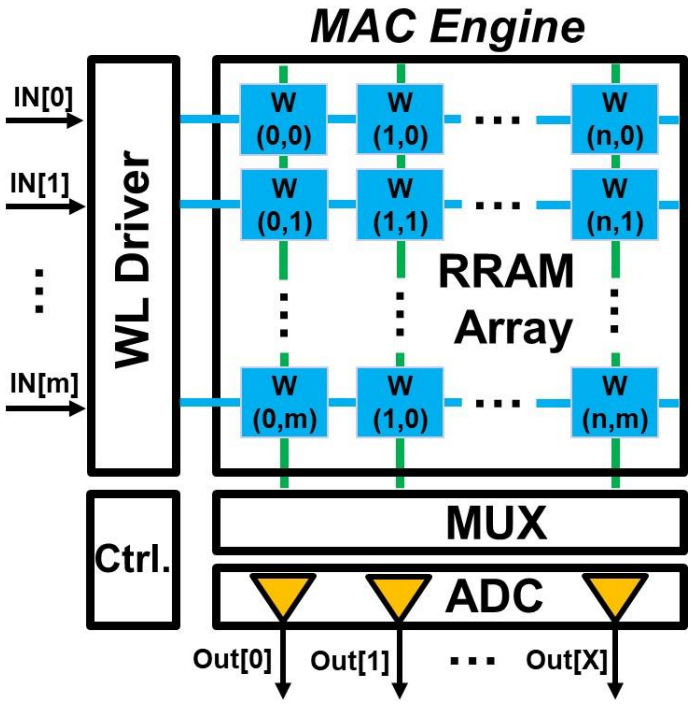

Figure 8: ITRI chip architecture graphic

The 22-nm RRAM program incorporates the following core features, which collectively establish the essential building blocks and process flow required to support the prototyping of advanced AI and robotics systems:

- Device and materials optimisation, refining the RRAM stack to maintain stable switching behaviour and predictable resistance states.
- Circuit and peripheral co-design, developing robust read/write and write-verify schemes to manage variability and ensure reliable operation across dense arrays.

- CMOS-compatible BEOL integration, providing a clear pathway to prototyping, volume manufacturing and future product deployment.

- Configurable RRAM device architecture enabling application-specific optimisation across endurance, retention and operating voltage, rather than a one-size-fits-all memory implementation. Key deliverables include 1-Mbit RRAM macros with integrated write-verify capability and and support for multiple device and density options.

- Compute-in-memory array structures, tightly integrating memory and computation within the RRAM arrays to minimise data movement and enable ultra-low-power AI acceleration with deterministic latency. Key deliverables include multi-state CIM macros with an accumulation depth of 64 and energy efficiency exceeding 20 TOPS/W (tera operations per second per watt).

- Co-design-ready test vehicles and design enablement that allow rapid iteration across device, circuit and architecture levels, accelerating translation from RRAM technology to system-level prototypes.

22-nm RRAM Program Targets and Deliverables:

Parameter	Current [12] (40-nm node)	Goal (22-nm node)	Key Impact
Write Voltage	**2.0 – 2.5 V**	**< 2.0 V**	**Lower energy per write, supporting battery-powered and always-on systems**
Write Latency (Array-Level)	**200 ns @ 2.0 V 50 ns @ 2.5 V**	**100 – 200 ns**	**Reduced decision latency in edge and reflex-driven applications**
Endurance	**> 10M cycles**	**> 10M cycles**	**Endurance customized to application, balancing performance, lifetime and energy efficiency**
Retention	**> 10 years @ 85°C**	**> 10 years @ 125°C**	**Improved reliability for industrial and safety-critical environments**
Write-Verify	**External**	**Integrated**	**Improved reliability and consistency across large arrays**
AI and Neuromorphic Computing Enablement	**Binary operation**	**Multi-state compute-in-memory macros**	**Enables ultra-low-power AI and neuromorphic processing**
Compute-in-memory Array Efficiency	**Not measured**	**> 20 TOPS/W**	**Provides highly efficient building blocks for AI and neuromorphic computing applications**

Figure 9: Summary of dorsaVi's RRAM performance metrics.

[12] Refer to ASX announcement dated 16 July 2025

Building a Unified Computing Platform for Robotics and Edge Intelligence

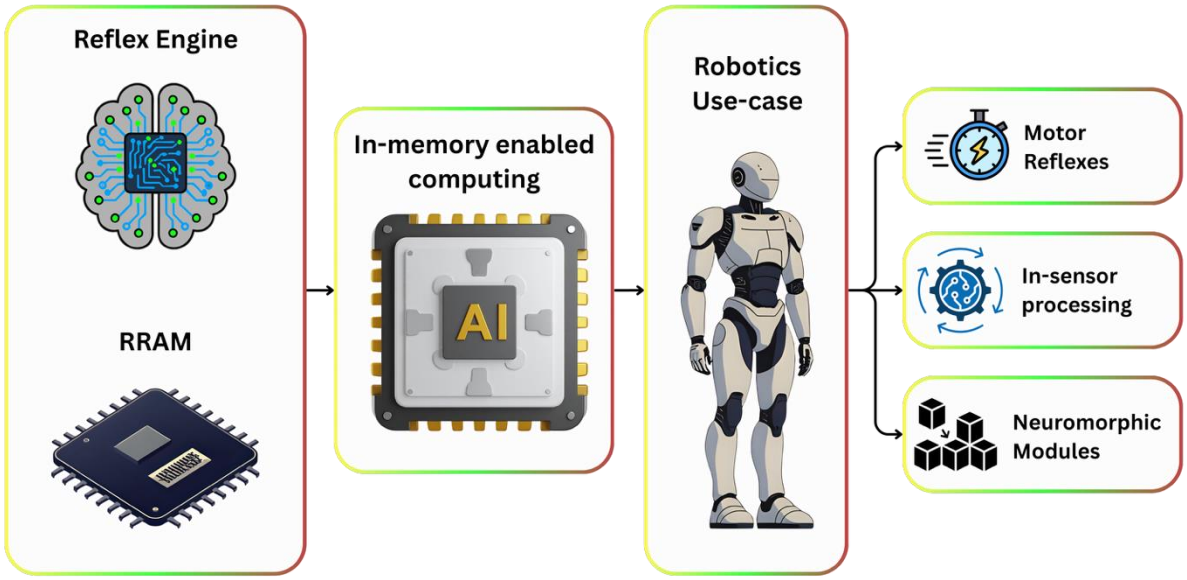

Figure 10: Conceptual architecture showing integration of RRAM, in-memory compute and reflex processing for robotics applications.

The 22-nm RRAM program supports dorsaVi's strategy to integrate embedded memory, in-memory compute, neuromorphic processing and real-time sensor intelligence into a unified hardware platform. By reducing decreasing power consumption and data movement at the silicon level, this platform is intended to enable fast, energy-efficient decision making for robotics and other edge-based intelligent systems.

These programs collectively form the foundation of dorsaVi's **Ultra Edge Intelligence strategy**, focused on moving sensing, decision-making, and action as close to the sensor as possible.

Other information

The Collaboration is proposed to be for an initial period of 2-3 years.

Although the financial impact of this Collaboration cannot currently be estimated, the Company believes it will enhance its human movement sensor technology and support expansion into new adjacent markets.

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

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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 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