21 September 2026

dorsaVi Targets Humanoid Robotics with Established Movement Data, Neuromorphic IP and RRAM

Company engages robotics developers on applications for its extensive movement data library and bespoke sensor and Video AI capture capabilities, supported by its neuromorphic IP and RRAM development program.

Key Highlights:

- **Established movement data resource:** dorsaVi holds an extensive library of real-world movement data collected through its medical-grade sensing ecosystem, including FDA-cleared sensor devices. The data already provides a baseline for occupational health and safety studies and is now being presented to robotics companies for potential additional applications.

- **Engagement with robotics developers underway:** The Company is exploring opportunities to apply its movement data and biomechanics expertise to humanoid robotics, with an initial focus on balance, coordination and recovery. Discussions will help identify application requirements and potential technical evaluations.

- **Bespoke movement capture alongside the existing library:** dorsaVi combines wearable sensors and Video AI to capture and analyse movement for specific applications. Its experience extends from human movement to animal applications, including horses, providing a capability to generate additional datasets tailored to partner requirements.

- **Existing neuromorphic IP supports local response development:** dorsaVi's exclusively licensed Reflex Engine IP is designed to support rapid local responses to sensor inputs. The Company intends to assess how its movement data can support the development and evaluation of models using this technology.

- **RRAM hardware provides a pathway to further computing capabilities:** The NTU–ITRI program is progressing 180-nm RRAM validation toward a future 22-nm platform. The Company intends to investigate the materials' analogue characteristics for selected Compute-in-Memory functions, including neuromorphic processing and physical artificial neural networks.

- **An integrated Physical AI strategy:** dorsaVi is connecting its established sensing and data capabilities, licensed computing IP and developing semiconductor hardware to pursue applications beyond its existing sensor markets. Results from RRAM validation are intended to inform subsequent hardware evaluation and potential joint development with robotics companies.

Melbourne, Australia – dorsaVi Limited (ASX: DVL) ("dorsaVi" or the "Company") is pleased to announce that it has begun engaging with robotics companies to explore applications for its established human movement data library and bespoke motion-capture capabilities. The initial focus is humanoid balance, coordination and recovery, connecting the Company's sensing expertise with its exclusively licensed neuromorphic Reflex Engine IP and RRAM hardware development program.

Over more than a decade, dorsaVi has accumulated an extensive library of movement recordings across clinical, workplace and sporting settings, collected through its sensing ecosystem, including FDA-cleared wearable sensor devices. The data already serves as a baseline for occupational health and safety studies. Following an internal review, the Company is now presenting this resource to robotics developers to identify datasets relevant to their specific movement and control challenges.

Alongside this library, dorsaVi can undertake bespoke movement capture using its medical-grade wearable sensor technology and Video AI systems. This enables additional recordings to be collected around defined tasks, body segments and operating conditions. Its capture experience extends beyond human movement to animal applications, including horses.

For robotics developers, the combination offers access to an established data resource and the ability to commission additional capture to address specific requirements. Potential applications include studying coordinated movement through turns, changes in posture and responses to instability. Selected recordings would require preparation and adaptation to each robot's physical structure, actuators and control architecture.

These engagements are intended to help define candidate workloads for evaluation using dorsaVi's neuromorphic IP and, as validation progresses, its developing RRAM hardware. The objective is to investigate how movement knowledge, local processing and advanced memory can work together in future Physical AI systems.

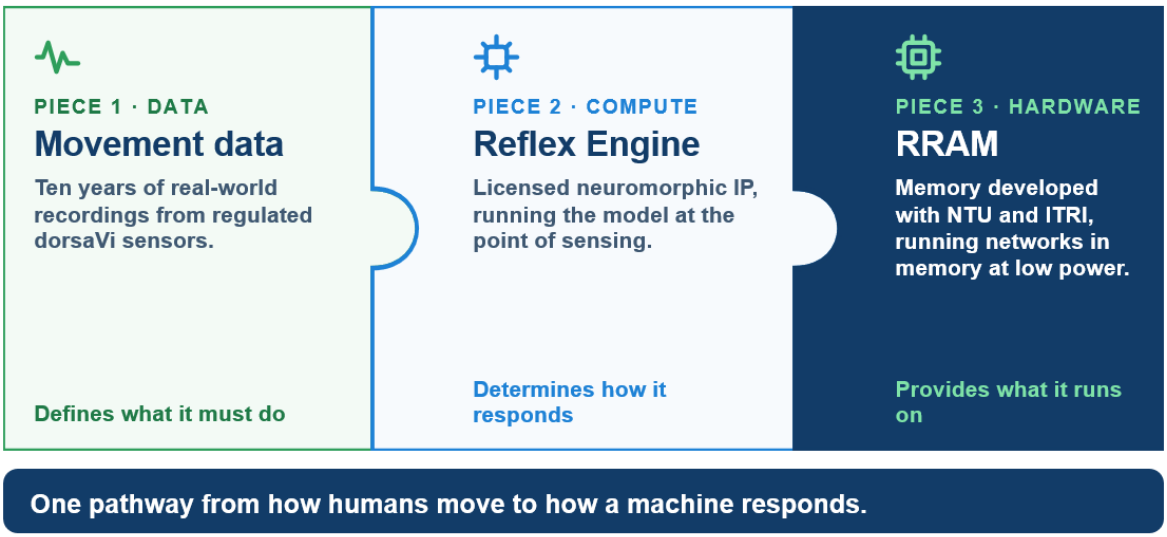

Figure 1: *dorsaVi's full physical AI stack, illustrating how movement data, neuromorphic compute and RRAM hardware interlock to enable low-power, on-device machine responses.*

Balance: The Unsolved Problem in Humanoid Robotics

Humanoid robots can now walk reliably on flat, predictable ground. What they still find difficult is everything that happens when conditions change: an uneven surface, an unexpected load, a slip, a push or a missed step.

When a person steps onto an uneven kerb, they do not consciously decide how to respond. Within a few hundred milliseconds, the foot and ankle register the change in load. The knee, hip and trunk then adjust in sequence, and the arms move to shift the centre of mass. The correction is spread across the body, ordered in time and finished before deliberate thought.

For a machine to do the same, three things are needed:

- **Real-world movement data** showing how a stable body detects and corrects instability.
- **Local processing** that can respond across multiple joints without sending data to a central processor and waiting for an instruction.
- **Low power use**, so the system can run continuously within the battery limits of a standalone robot.

Most humanoid developers are approaching this problem from first principles and in simulation. dorsaVi has spent more than a decade measuring how the human body already solves it.

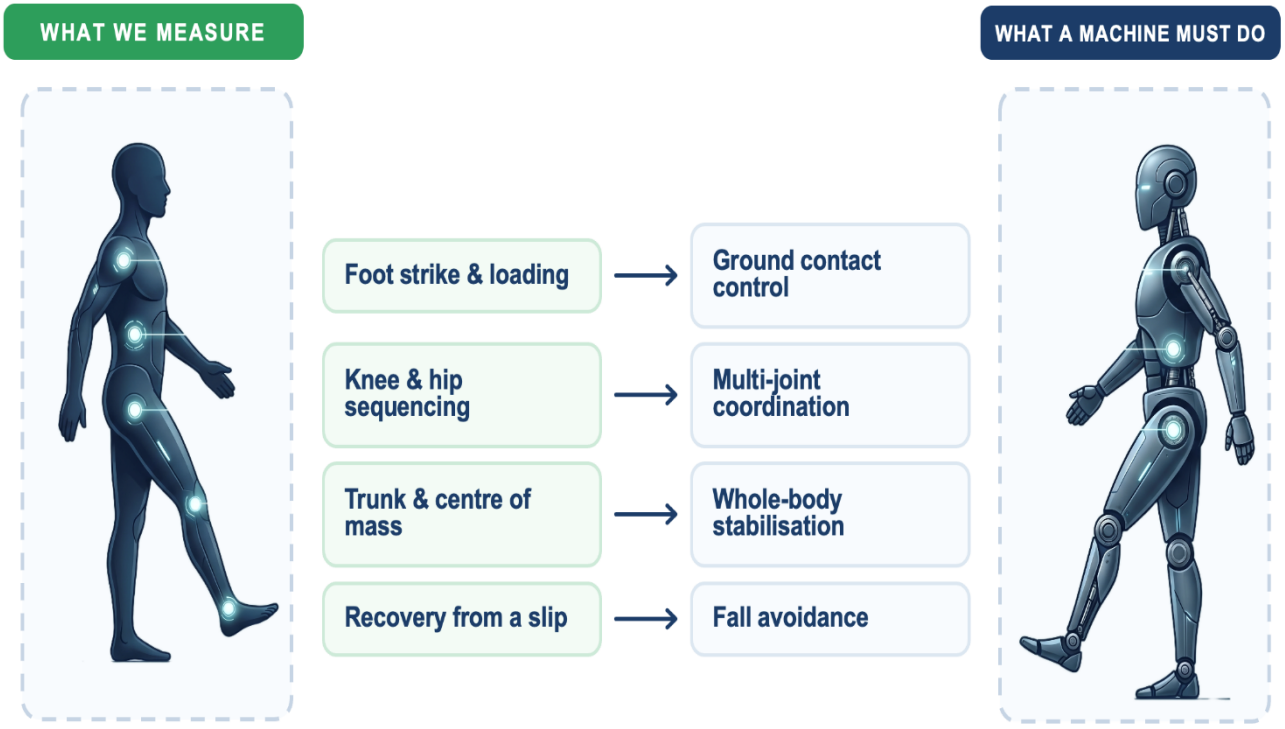

Figure 2: *Translating high-precision human movement data into dynamic physical AI control systems.*

Connecting dorsaVi's Data, Neuromorphic IP and RRAM

dorsaVi's Physical AI strategy brings together three complementary capabilities:

- **Movement data and bespoke capture:** An established library of real-world recordings accumulated across clinical, workplace and sporting applications, complemented by wearable-sensor and Video AI capture tailored to specific requirements. These resources provide a basis for developing and evaluating movement models for potential robotics applications.
- **Reflex Engine:** dorsaVi's exclusively licensed neuromorphic IP, designed to support rapid local responses to sensor inputs. The Company intends to assess its application to selected balance and coordination tasks identified through its movement data and outreach to robotics developers.
- **RRAM hardware:** Memory technology under development with NTU and ITRI. The program will evaluate the potential of RRAM's analogue characteristics to support selected Compute-in-Memory functions, including neuromorphic processing and physical artificial neural networks.

Together, these capabilities establish a development pathway from human movement knowledge to local machine responses. The data helps define candidate tasks and performance requirements, the Reflex Engine provides a foundation for response processing, and the RRAM program is developing potential hardware implementations. Their integration into robotic systems will require application-specific engineering and validation.

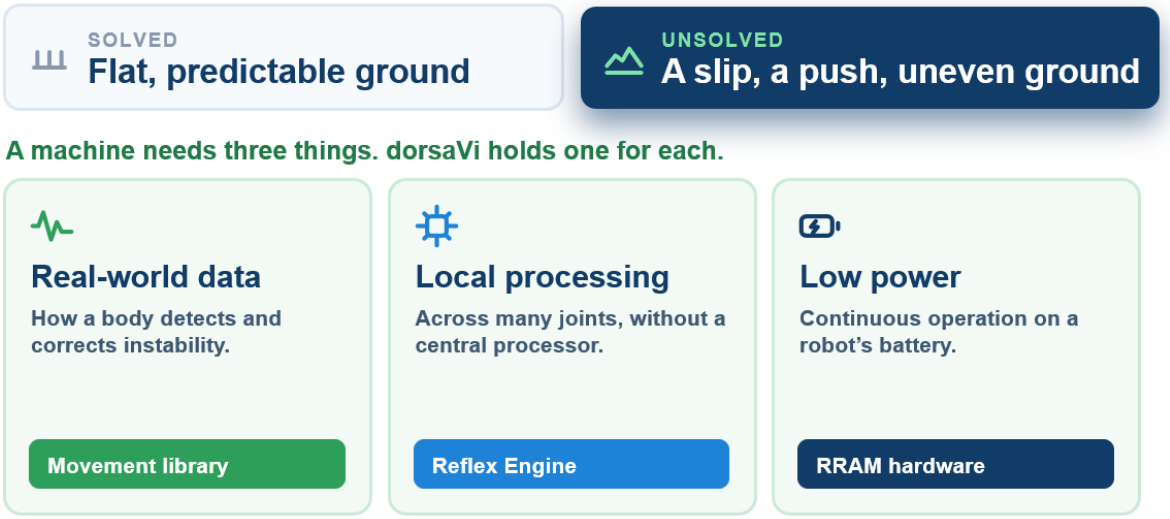

***Figure 3** : The unsolved balance problem in humanoid robotics, and how dorsaVi's movement library, Reflex Engine and RRAM hardware each address one requirement for solving it.*

Why Our Clinical-Grade Movement Data is our Competitive Advantage

dorsaVi already holds two vital technological building blocks: a licensed "reflex engine" designed to react instantly and locally at the sensor rather than relying on slow central processing, and a developing RRAM pathway intended to place memory directly alongside that computation. What is

missing is the specific engineering blueprint: a clear definition of exactly what that hardware must accomplish to correct and maintain balance in the real world.

Language and vision models are trained on internet-scale datasets, but physical AI has no equivalent. Movement data has to be captured deliberately, in the real world, using suitable sensors.

Scale is only part of the advantage as dorsaVi's recordings were made in clinics, workplaces and elite sport settings rather than motion-capture labs, using the Company's FDA-cleared sensors. They show how people actually move under real conditions, including how they recover from instability and how they move when injured.

Both are poorly represented in open datasets and directly relevant to humanoid control. This record took more than a decade to build and cannot be quickly replicated by developers relying on open-source or simulated data.

Table 1 sets out the movement categories in the library and their relevance to humanoid robotics.

Movement category	What dorsaVi's platforms have measured	Relevance to machine balance
Gait and locomotion	Stride, cadence, symmetry and loading across walking and running	Baseline locomotion, and how it changes under load and fatigue
Change of direction	Trunk and lower-limb mechanics through turning, cutting and deceleration	The transitions at which balance is most frequently lost
Postural control	Trunk position, sway and weight distribution under static and dynamic conditions	How a stable state is defined and maintained
Perturbation and recovery	Responses to slips, uneven loading and instability in real environments	The correction sequence itself — what moves, in what order, and how quickly
Loading and impact	Forces absorbed through landing, lifting and repetitive task work	Tolerance limits, and how a system protects itself
Impairment and compensation	Movement in populations with injury, pain or restricted range of motion	How a system continues to function when a component underperforms

Table 1: *Movement categories represented in dorsaVi's sensing history and their relevance to machine balance. Coverage and fidelity across each category are the subject of the current review.*

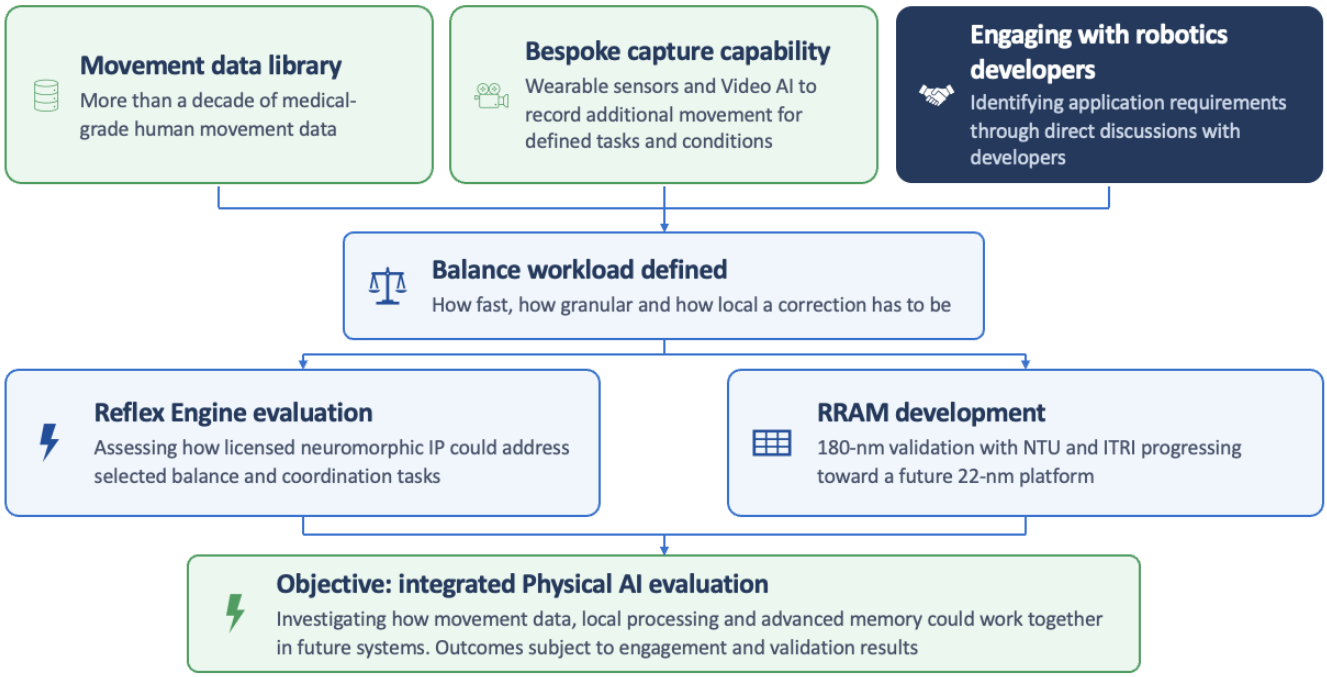

Figure 4 : *The pathway from dorsaVi's existing movement data and capture capabilities, through engagement with robotics developers, to workload definition and evaluation against the Company's neuromorphic IP and RRAM program.*

The Compute Layer: Reflex Engine and RRAM

Compute-in-Memory and neuromorphic IP

The Company's existing neuromorphic reflex-system IP is built to react to sensor input instantly and locally, rather than waiting on a distant processor. The same "fast, local decision" behaviour that balance correction depends on.

As engagement with robotics developers identifies candidate balance and coordination tasks, the Company intends to investigate how this existing IP could be applied to them, and how its capabilities could be extended should RRAM devices with suitable characteristics be developed.

RRAM semiconductor development

dorsaVi is developing the RRAM devices this approach needs, working alongside leading international research institutes to turn the concept into physical hardware.

The relevance of RRAM to this application is that it can store and process information in the same location, rather than moving data between separate memory and processing chips. That data movement introduces latency and power cost, both of which constrain a continuously running balance system.

Subject to the outcome of the movement data review and the outcome of its engagement with robotics developers, dorsaVi intends to use the candidate workload definition as one of the reference requirements against which RRAM materials are assessed. Whether materials meeting that requirement can be identified and developed into devices is not yet determined.

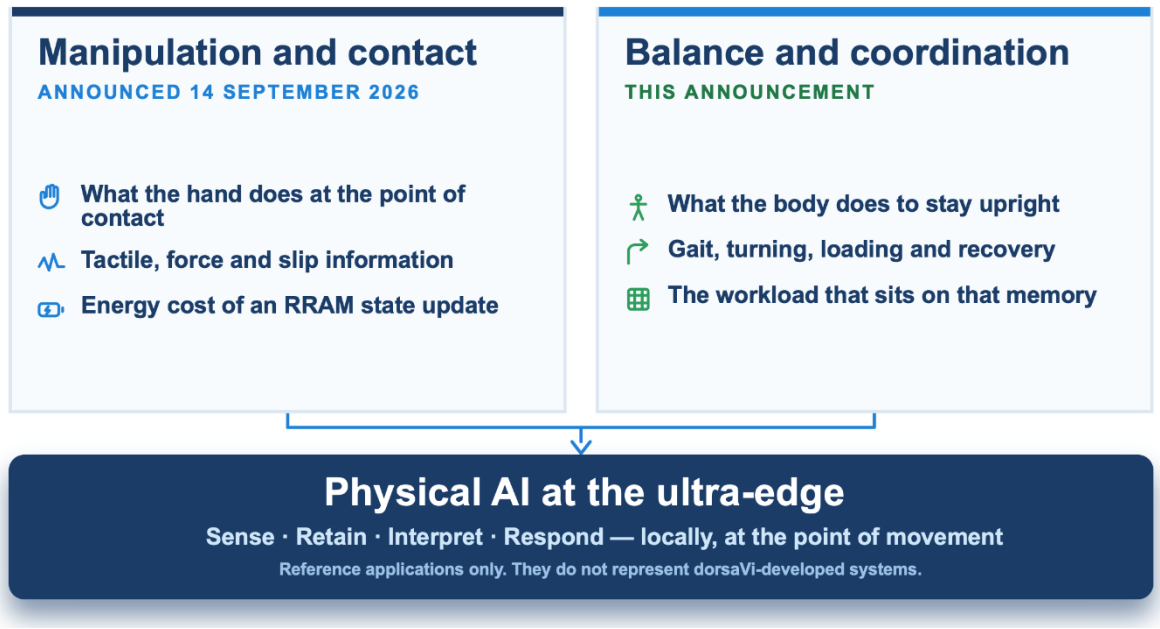

Figure 5: *Manipulation and balance as complementary halves of the Physical AI problem. Reference applications only.*

Review Scope and Development Pathway

The Company's internal review will establish:

- which movement categories are represented in the library, across what populations, conditions and durations;
- the fidelity, sampling characteristics and consistency of the data across those categories;
- the preparation, structuring and labelling required for the data to be used in movement modelling and hardware evaluation; and
- which balance and coordination behaviours the data is capable of describing in a meaningful way.

Subject to its findings, the Company expects subsequent steps to include preparation of selected datasets, definition of the reflex engine workload for a balance application, and engagement with robotics developers regarding their requirements and potential joint evaluation.

CEO Commentary

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

"For more than a decade, dorsaVi has collected detailed movement data in clinics, workplaces and sporting environments. That data already supports occupational health and safety studies, and we are now reaching out to robotics companies to explore its potential in a new market.

"Coordinated movement involves the whole body. Turning, managing a changing load or recovering balance requires adjustments across the feet, ankles, legs, torso and arms. We believe our movement library and biomechanics expertise can provide useful inputs for developers addressing these challenges in humanoid robots.

"We can also capture additional data for specific requirements using our wearable sensors and Video AI systems. This gives us a practical way to work with developers: understand the movement problem, identify relevant recordings and design further capture where needed.

"This opportunity connects the three parts of our strategy. We have an established sensing and data business, exclusively licensed neuromorphic IP designed for rapid local responses, and an RRAM hardware program progressing with NTU and ITRI. Our objective is to bring these capabilities together for selected Physical AI applications.

"The energy-characterisation work announced on 14 September focuses on the energy required to update RRAM memory states. Alongside that work, defining relevant movement-processing tasks will help us assess the demands future applications could place on the hardware. Subsequent testing will establish how these elements perform together.

"Our next step is to identify specific opportunities with robotics developers and build a basis for technical evaluation. We see a clear opportunity to extend the value of our existing movement data and capture capabilities while informing the development of our neuromorphic and RRAM technologies."

- ENDS -

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

Mathew Regan **Group Chief Executive Officer** **+61 427 477 298** **Email:** mregan@dorsaVi.com	**Gernot Abl** **Chairman** **+61 419 802 653** **Email:** ga@dorsaVi.com

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