**28 April 2026**

# DVL Expands Robotics Intelligence Strategy into Next-Generation Exoskeleton Applications

*Company leveraging existing sensor technology and neuromorphic semiconductor program to evaluate opportunities in emerging human robot collaboration markets.*

**Key Highlights:**

- **Exoskeleton systems identified as priority application:** dorsaVi's wearable motion sensor platform and RRAM neuromorphic semiconductor program are well suited to next generation powered exoskeleton systems.
- **Proprietary motion sensing as intelligence layer:** the Company's human body motion sensing technology enables real-time movement monitoring, adaptive control, and safety compliance in powered exoskeletons.
- **RRAM and neuromorphic program directly applicable:** DVL's semiconductor development program is positioned to deliver the ultra-low power, edge-compute processing that exoskeleton systems require.
- **Exoskeleton market projected to exceed USD ~2 billion by 2033[1]:** strong demand defence, industrial, rehabilitation, and aged care sectors.
- **Technology platform extends into broader robotics applications:** The Company's sensor and neuromorphic capabilities have potential applicability across collaborative robotics, surgical robotics, Autonomous mobile robots and defence systems, representing a combined addressable market exceeding USD 100 billion by 2030[2].
- **Strategic opportunities under evaluation:** The Company is assessing its position within the human robot collaboration ecosystem and expects to provide updates as initiatives progress.
- **Neuromorphic and In-Memory Processing IP acquisition completed**: The company has completed the previously announced acquisition of neuromorphic and in-memory processing IP and has commenced discussions with strategic partners and venture capital firms based in Israel to progress development opportunities.

**Melbourne, Australia** – dorsaVi Ltd (ASX: DVL) ("dorsaVi" or "the Company") is pleased to announce it has identified next generation exoskeleton systems as a strategic application pathway for the Company's existing sensor intelligence platform and its RRAM based neuromorphic semiconductor development programme. The Company sees exoskeletons as the first of several high value human movement adjacent application areas within the broader human-robot collaboration space that DVL intends to address.

[1] Exoskeleton Market Size and Share | Industry Report, 2033
[2] Refer to Table 3

The Company is formally exploring commercial opportunities in the exoskeleton intelligence space, with an initial focus on three high value application areas: exoskeleton intelligence layers, human-in-the-loop robotic control, and fatigue aware robotics.

Critically, this is not a departure from DVL's existing strategy. The exoskeleton opportunity represents a direct and natural extension of the Company's core capabilities, leveraging the same sensor technology and the same semiconductor platform that underpin DVL's broader ambitions in human robot collaboration.

Importantly, the underlying technology stack being developed for exoskeleton systems, encompassing real-time human sensing, biomechanical analytics, and neuromorphic edge compute, has significant applicability across the wider collaborative robotics market, including industrial cobots, autonomous mobile robots, and surgical robotics. The Company is actively evaluating opportunities to accelerate its position in these adjacent markets and expects to update shareholders on its broader robotics strategy in the coming months.

## Why Exoskeletons: The strategic logic

Powered exoskeletons are wearable robotic systems that augment human movement, strength, and endurance. No longer confined to R&D environments, these systems are moving rapidly into high value commercial sectors, from frontline defence to aged care, as costs fall and performance improves. We are at an inflection point as the market migrates into applications where intelligence, safety, and energy efficiency are the critical differentiators.

The critical technology gap in current exoskeleton systems is intelligence, specifically the ability to sense, interpret, and respond to human movement in real time with guaranteed safety. This is precisely DVL's domain expertise.

DVL's sensor heritage is the missing piece. The Company's proprietary wearable motion sensors already capture high-fidelity biomechanical data from the human body. In an exoskeleton context, these sensors become the *intelligence layer* that tells the system how the wearer is moving, where force is being applied, and when fatigue or injury risk is developing.

*Figure 1: Conceptual Example Images of exoskeletons and their use-cases*[3]

[3] Left image from: synaptichealth.ca/blog/what-is-an-exoskeleton, right image from: www.defensenews.com/digital-show-dailies/eurosatory/2022/06/16/the-army-could-take-a-run-at-developing-a-robotic-warrior-suit/

Sensor intelligence enables safe, adaptive control. DVL's real-time motion sensing provides the foundational data layer that exoskeleton systems need to operate safely. By continuously monitoring joint angles, force distribution, and movement patterns, DVL's sensors can detect unsafe conditions such as overextension, asymmetric loading, or excessive force and feed that intelligence to the exoskeleton's control system. As the Company deepens its expertise in human robot collaboration, it sees significant potential to develop and acquire complementary safety and control technologies that further strengthen this capability.

RRAM neuromorphic computing is the ideal processor. Exoskeletons require ultra-low-power and real-time edge processing. DVL's RRAM-based neuromorphic semiconductor program is developing precisely this capability, a braininspired compute that can process sensor data and run adaptive control algorithms at the edge. Further, without reliance on cloud connectivity, and with power consumption suitable for wearable battery-powered systems.

## Three Application Pathways

| EXOSKELETON INTELLIGENCE LAYER | HUMAN-IN-THE-LOOP ROBOT CONTROL | FATIGUE-AWARE ROBOTICS |
|---|---|---|
| **Sensor-Driven Exoskeleton Control**<br>*Fast to market \| Clear demand*<br>• DVL sensors embedded in exoskeleton systems as the real-time movement intelligence layer<br>• Provides adaptive gait control, joint tracking, and force feedback to the exoskeleton's actuators<br>• Directly applicable to rehabilitation, aged care, and industrial exoskeletons<br>• Licensing and OEM partnership model, fast path to revenue | **Closed-Loop Human-Robot Systems**<br>*Differentiated \| Defence + industrial*<br>• Combining DVL sensors with neuromorphic edge processing to create closed-loop human-in-the-loop control<br>• The exoskeleton responds to the human; the human guides the robot, with mathematically guaranteed safety boundaries<br>• Strong defence and industrial applications where operators need augmented strength with precise control<br>• RRAM neuromorphic chip enables on-body edge processing | **Predictive Fatigue & Injury Prevention**<br>*Unique positioning \| Safety/compliance*<br>• DVL's motion analytics detect fatigue patterns, asymmetric loading, and injury risk in real time<br>• Exoskeleton automatically adjusts assistance level based on wearer's physical state<br>• Addresses mandatory workplace safety and compliance requirements globally<br>• Creates a data flywheel: continuous biomechanical data feeds AI models that improve over time |

*Table 1 – Three Application Pathway*

## DVL'S Current Market Opportunity

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$2 billion by 2033[4], driven by adoption across healthcare, defence, industrial and rehabilitation applications.

[4] Exoskeleton Market Size and Share | Industry Report, 2033

Key market segments include:

- **Defence & Military**: Soldier augmentation, load carrying, and endurance enhancement. Major programmes active across the US, EU, and Asia-Pacific. Safety certified human augmentation is a critical requirement.
- **Industrial & Construction:** Reducing musculoskeletal injuries in heavy manual work. Workplace safety compliance is driving adoption. DVL's fatigue-aware analytics address a direct regulatory need.
- **Rehabilitation & Healthcare:** Powered exoskeletons for stroke recovery, spinal cord injury rehabilitation, and mobility assistance. Sensor driven adaptive control is the key differentiator.
- **Aged Care**: Assistive exoskeletons for elderly populations across Asia-Pacific. Policy-supported, high-growth market aligned with DVL's geographic strengths.

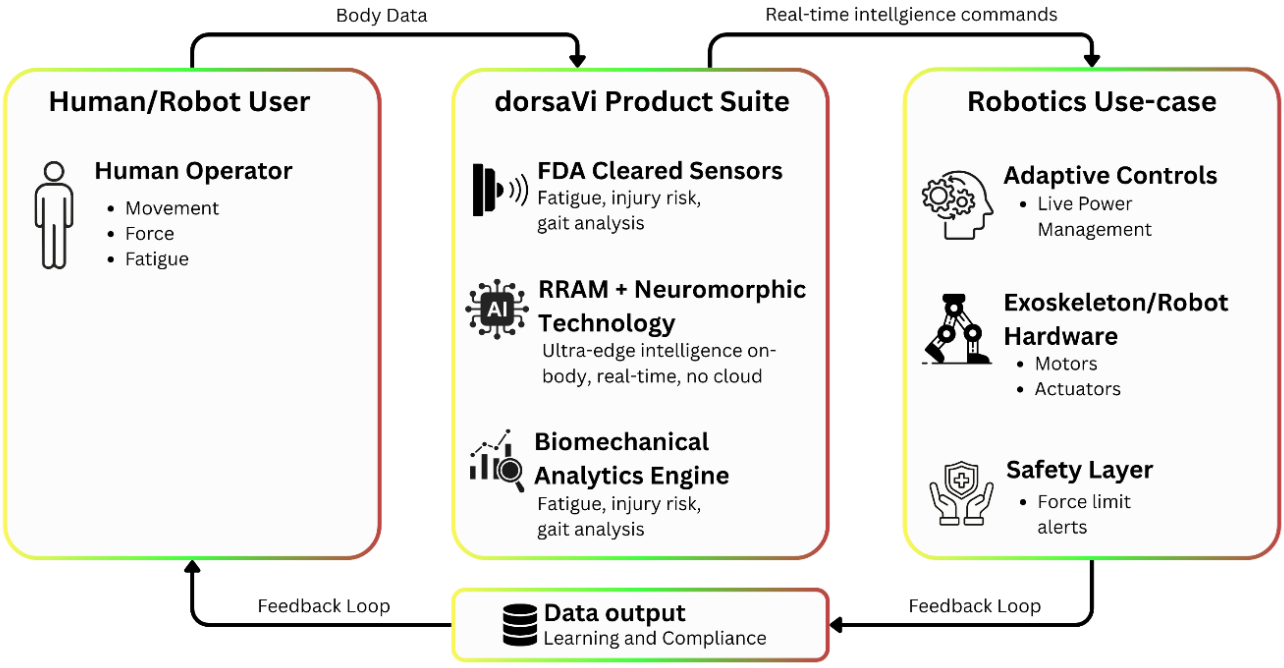


*Figure 2: DVL's three proprietary components (sensors, RRAM chip, analytics) sit at the centre of the entire system*

## How This Builds on DVL'S Existing Platform

The Company wishes to emphasise that this strategic expansion requires no new foundational technology development. Each component of the exoskeleton intelligence opportunity is built directly on capabilities DVL already possesses or is actively developing:

| DVL CAPABILITY | EXOSKELETON APPLICATION |
|---|---|
| **Wearable Motion Sensors** | Become the intelligence layer embedded in exoskeleton systems, real-time biomechanical feedback for adaptive control, gait analysis, and force monitoring |
| **Biomechanical Analytics** | Real-time movement quality assessment, joint angle monitoring, and force distribution analysis, enabling exoskeletons to detect unsafe conditions and adapt to the wearer's physical state |
| **Wearable Data Ecosystem** | Automated multimodal data capture from exoskeleton operations feeds machine learning models, enabling continuous improvement of control algorithms and fleet-wide learning |
| **RRAM Neuromorphic Chip** | Ultra-low-power, brain-inspired edge processor runs adaptive control algorithms and sensor fusion on-body, no cloud dependency, battery-compatible, real-time response |
| **Motion Analytics Platform** | Fatigue detection, injury risk prediction, and movement pattern analysis, enabling adaptive exoskeleton behaviour and workplace compliance reporting |

*Table 2 – Exoskeleton Applications*

## RRAM & Neuromorphic Computing – The Edge Advantage

A key enabler of DVL's exoskeleton strategy is the Company's RRAM (Resistive Random-Access Memory) based neuromorphic semiconductor development program. Neuromorphic computing mimics the architecture of the human brain in which processing information in parallel with the ability to learn and adapt at the edge and at ultra-low power.

For exoskeleton applications, this is transformative. Current exoskeleton processors rely on conventional compute architectures that are power-hungry, latency-prone, and often require cloud connectivity. DVL's neuromorphic approach enables:

- **On-body real-time processing:** Sensor fusion, safety calculations, and adaptive control algorithms running directly on the exoskeleton, no cloud round-trip required
- **Ultra-low power consumption:** RRAM-based neuromorphic chips operate at a fraction of the power of conventional processors, critical for battery-powered wearable systems
- **Continuous edge learning:** The neuromorphic architecture enables the processor to adapt to individual wearers over time, improving control precision and safety
- **Hardware-software integration**: DVL's neuromorphic chip combined with its proprietary sensor intelligence creates a vertically integrated compute + sensing stack purpose-built for human augmentation and, in time, for broader collaborative robotics applications

## Beyond Exoskeletons – Future Applications Pathways

The technology stack DVL is building for exoskeletons such as real-time human sensing, biomechanical analytics, and neuromorphic edge compute, is not limited to wearable augmentation. It is a platform technology with direct applicability across the rapidly expanding human-robot collaboration ecosystem. The Company sees exoskeletons as the entry point into a significantly larger opportunity.

| FUTURE APPLICATION | HOW DVL'S TECHNOLOGY APPLIES | MARKET OPPORTUNITY |
|---|---|---|
| **Collaborative Robots (Cobots)** | DVL's sensor intelligence provides real-time human proximity and movement data to cobotsenabling safe, adaptive human-robot collaboration on factory floors, warehouses, and assembly lines. Neuromorphic edge compute enables on-device processing without cloud latency. | **~USD 17B by 2033**[5]<br>~18% CAGR. Safety compliance is mandatory for every cobot deployment globally. |
| **Surgical & Rehabilitation Robotics** | Precision motion sensing and biomechanical analytics are essential for surgical robotic systems and rehabilitation devices. DVL's sensors can provide real-time patient movement feedback to surgical platforms and adaptive rehabilitation robots. | **~USD 30B by 2030**[6]<br>Human-safety IP is non-negotiable in healthcare robotics. Premium pricing power. |
| **Autonomous Mobile Robots (AMRs)** | Warehouse and logistics robots operating alongside human workers require real-time human detection and proximity awareness. DVL's wearable sensors worn by workers create a direct safety communication layer with AMR fleets. | **~USD 17B by 2030**[7]<br>Amazon, Ocado, JD Logistics scaling rapidly. Human-robot coexistence is the bottleneck. |
| **Defence & Soldier Systems** | Beyond exoskeletons, defence applications include human-robot teaming where soldiers operate alongside robotic ground and air systems. DVL's sensor + neuromorphic stack provides the real-time human state awareness that unmanned systems need to operate safely alongside personnel. | **Multi-billion (classified)**<br>Active programmes across AUKUS nations. High barriers to entry favour trusted technology partners. |
| **Agriculture & Field Robotics** | Agricultural robots working alongside human operators require gentle force control and human proximity awareness. DVL's motion sensing and neuromorphic processing are directly applicable to safe, adaptive field robotics. | **~USD 56B by 2030**[8]<br>Labour shortages accelerating adoption. Human-robot coexistence in unstructured environments. |

*Table 3 – Future Application Pathways*

**Matthew Regan, Group Chief Executive Officer of dorsaVi, said: "***I am incredibly excited about the strategic transformation dorsaVi is undertaking. By integrating our gold-standard motion data with our neuromorphic computing and RRAM architectures, we are effectively giving robotics a digital nervous system. We are shifting from being a sensor company to providing the essential intelligence layer that allows advanced machinery to synchronise with human intent.*

*The market opportunity is immense, and dorsaVi is uniquely positioned. This is not a concept and is an executable roadmap that transitions our clinical-grade diagnostics into a scalable robotic control engine. We are solving the fundamental human-machine interaction problem, which unlocks immediate value for enterprise and defence clients globally."'*

[5] Collaborative Robot Market To Reach $17,227.4Mn By 2033
[6] Surgical Robots Market Size, Share & Growth Report, 2030
[7] Warehouse Robotics Market Size & Trends Report, 2030
[8] Agriculture Robots Market Report 2025-2030 [200 Pages & 310 Tables]

## Strategic Outcomes and Market Position

The successful execution of this roadmap establishes dorsaVi as a foundational intelligence platform for the multi-billion-dollar human-robot collaboration sector. By activating its existing sensor heritage and RRAM neuromorphic programme, the Company is creating a clear path to commercial deployment across defence, industrial, and healthcare verticals. This strategy achieves three objectives:

- Commercial Entry: Capturing a first-mover position in the high-growth exoskeleton market by providing the missing piece of real-time intelligence required for safe, adaptive control.
- Capital Efficiency: Maximising return on existing investment by activating the Company's medical-grade IP and sensor heritage rather than pursuing speculative foundational development.
- Platform Expansion: Building competitive advantages that extend beyond wearables into the USD 100 billion broader robotics ecosystem[9], including cobots, surgical platforms, and autonomous mobile systems.

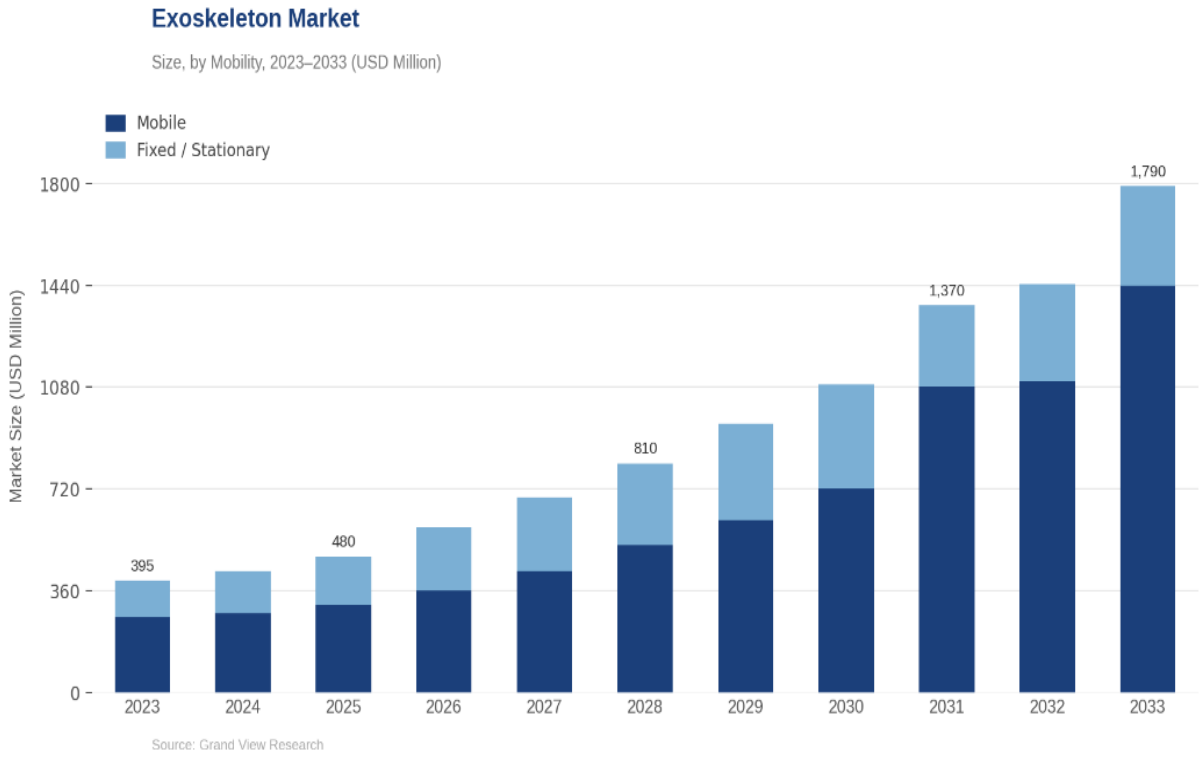


*Figure 3: Highlighting the growth in the exoskeleton market[10]*

## Completion of Neuromorphic and In-Memory Processing IP Acquisition from The Technion

dorsaVi has also completed the acquisition of neuromorphic and in-memory processing intellectual property from one of the world's foremost research universities in electrical engineering, computer science and nanotechnology.

[9] Refer to Table 3
[10] Exoskeleton Market Size And Share | Industry Report, 2033

This acquisition strengthens dorsaVi's proprietary IP portfolio in processing-in-memory and neuromorphic computing architectures, complementing the Company's existing RRAM platform and the 22-nm development programme underway with ITRI and NTU. The IP provides additional depth in circuit-level design for memristor-based logic and in-memory computation, capabilities that are central to dorsaVi's "Intelligence at the Ultra Edge" strategy.

Following completion of the acquisition, the Company has commenced discussions with commercial partners and venture capital firms based in Israel to progress development and commercialisation opportunities. Israel's deep technology ecosystem, particularly in semiconductor design, AI hardware and defence electronics, presents a compelling environment for advancing dorsaVi's neuromorphic and in-memory computing capabilities toward commercial deployment.

**- ENDS -**

**This announcement has been approved for release by the Board of Directors of dorsaVi Limited.**


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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