EMVISION

emvision.com.au

ASX:EMV

ORD MINNETT BIOTECH AND MEDTECH CONFERENCE

NOVEMBER 2024

ASX:EMV

DISCLAIMER

This presentation has been prepared by EMVision Medical Devices Limited ("EMVision" or "the Company"). This presentation is not a financial product or investment advice or recommendation, offer or invitation by any person or to any person to sell or purchase securities in EMVision in any jurisdiction. This presentation contains general information only and does not consider the investment objectives, financial situation and needs of individual investors.

Investors should make their own independent assessment of the information in this presentation and obtain their own independent advice from a qualified financial adviser having regard to their personal objectives, financial situation and needs before taking any action. No representation or warranty, express or implied, is made as to the accuracy, completeness, reliability or adequacy of any statements, estimates, opinions or other information, or the reasonableness of any assumption or other statement, contained in this presentation. Nor is any representation or warranty (express or implied) given as to the accuracy, completeness, likelihood of achievement or reasonableness of any forecasts, prospective statements or returns contained in this presentation. Similarly, past performance, including information concerning historical cash burn rates, should not be seen as indicative of future performance.

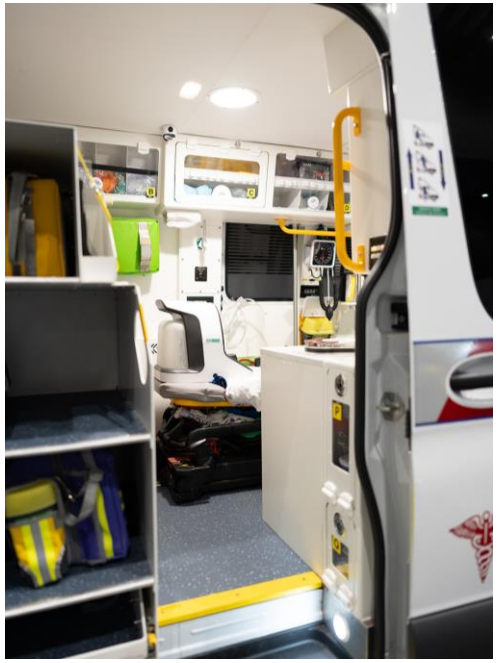
Such forecasts, prospective statements or returns are by their nature subject to significant uncertainties and contingencies, many of which are outside the control of EMVision. To the maximum extent permitted by law, EMVision and its related bodies corporate, directors, officers, employees, advisers and agents disclaim all liability and responsibility (including without limitation any liability arising from fault or negligence) for any direct or indirect loss or damage which may arise or be suffered through use or reliance on anything contained in, or omitted from, this presentation.

An investment in EMVision securities should be considered speculative and is subject to investment and other known and unknown risks, some of which are beyond the control of EMVision. EMVision does not guarantee any rate of return or the absolute or relative investment performance of EMVision securities. The distribution of this presentation including in jurisdictions outside Australia, may be restricted by law. Any person who receives this presentation must seek advice on and observe any such restrictions.

COMPANY OVERVIEW

EMVision (ASX:EMV) *is a medical device company developing and commercialising world-first portable brain scanner products to address significant unmet clinical needs*

- Founded in 2017 to advance and commercialise a decade of groundbreaking research out of the **University of Queensland**.
- EMVision has two distinctive portable brain scanner products to deploy in-hospital (**emu™**) or in the field (**first responder**) to enable earlier diagnosis and earlier triage, transfer or treatment decisions
- First indication targeted for **stroke care**, a **multi-billion-dollar market opportunity,** with a second planned indication in **traumatic brain injury**.
- Over **$50m invested** in **'world first'** product development since inception, including approximately $20 million of funding from **non-dilutive grants**.
- Executed several best-in-breed **clinical and industry collaborations,** including strategic investment from Keysight Technologies (NYSE:KEYS).
- **Experienced** board and management team, with a strong execution and shareholder value creation track record.



MEET THE TEAM

Significant medical device development and global commercialisation expertise across the group

Executive Leadership Team

Scott Kirkland
CEO,
Managing Director,
Co-founder

Sales and marketing executive, former Head of Client Sales at US-venture backed global AI advertising company Quantcast

Forough Khandan
Chief Technology Officer

Over 15 years medical device development expertise. Former Head of Program Management Nanosonics (ASX:NAN), a $1.1bn medical device success story.

Prof. Stuart Crozier
Chief Scientific Officer,
Co-inventor

Pioneer in medical imaging innovation. Professor Crozier's advancements in MRI technology are now central to 65% of all MRI machines.

Robert Tiller
Head of Design

Over 25 years in medical device product design and commercialization, previously CEO of Tiller Design

Dr. Christian Wight
Head of Regulatory

Previously Regulatory Manager at Corin. Multiple successful FDA, CE and TGA registrations

Emma Waldon
Chief Financial Officer,
Company Secretary

Over 20 years corporate advisory, capital market and corporate governance experience in Australia and UK

Board of Directors

John Keep
Independent
Non-Executive Chairman

As former CEO of Queensland Diagnostic Imaging, John grew the business to become one of the state's leading private imaging group and led the successful trade sale of the group

Dr Philip Dubois
Independent
Non-Executive Director

Neuroradiologist, former CEO of Sonic Healthcare Imaging (ASX:SHL), $13 bn market cap. Currently an Associate Professor of Radiology at the University of Queensland Medical School. Has served on numerous government and radiology group bodies.

Tony Keane
Independent
Non-Executive Director

Non-executive Chairman of National Storage Holdings Ltd (ASX:NSR), $3.4 bn market cap. Previously held numerous roles with a major trading bank principally in business, corporate and institutional banking.

Geoff Pocock
Independent
Non-Executive Director

Over 20 years experience in commercialisation, corporate finance. Previously Chairman of Argenica Therapeutics (ASX:AGN), developing neuroprotective therapies to reduce brain damage after stroke.

Patryk Kania
Independent
Non-Executive Director

Medical device executive with over 20 years commercialisation experience across US, Europe and APAC, within sales, marketing and general management. Current CEO of Field Orthopaedics, previously held senior roles at Abbott, J&J and Roche.

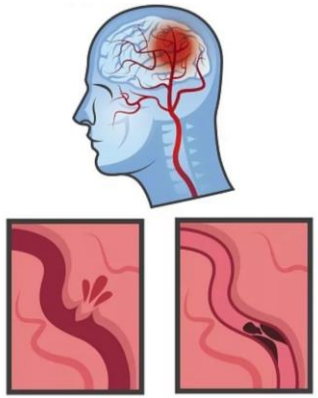
OUR VISION IS TO REDUCE THE GLOBAL BURDEN OF **STROKE** AND OTHER **TIME SENSITIVE MEDICAL EMERGENCIES**

First indication

Stroke

- 1 in 4 adults will suffer from a stroke in their lifetime[1].
- 60% of stroke patients suffer permanent disability after their stroke[2].
- The annual economic impact of stroke currently represents 0.66% of global GDP, estimated to exceed US$1 trillion by 2030[1].
- Treatment within 3 hours of symptom onset improve chances of recovery with little or no disability.
  - Only around 23.5% of patients receive tPA (clot-dissolving medication) in the US, partially due to the narrow treatment window of 4.5 hours from onset[3].
  - Thrombectomy is used in about 27% of all patients with vascular occlusions in the US[4], indicating an opportunity for growth.

Types of Stroke



Hemorrhagic Stroke | Ischemic Stroke

20 million brain cells are **saved** for every **10 minutes earlier** treatment is initiated

Second indication

Traumatic brain injury (TBI)

- 50 to 60 million people worldwide will suffer a TBI this year.
- TBIs are estimated to cost the world economy upwards of US$400 billion per annum.
- TBI is classified as mild, moderate or severe based on the severity of injury and its effects.
- For patients with suspected traumatic brain injuries, quick evaluation is critical.
  - Most patients with suspected traumatic brain injury are examined using neurological scales which are subjective and may lead to biases in care.

1. World Stroke Organisation
2. Poomalai et al., *Functional Ability and Health Problems of Stroke Survivors*, 2023
3. Rai et al., *Updated estimates of large and medium vessel strokes, mechanical thrombectomy trends...*, 2022
4. Mikulik et al., *Stroke 20 20: Implementation goals for intravenous thrombolysis*, 2021

CT SCANNERS ARE VITAL IN STROKE CARE, BUT ARE NOT READILY AVAILABLE AT THE POINT-OF-CARE

CT scanners cannot be widely deployed at the bedside, or in remote locations, or in every ambulance. EMVision's products can address this unmet need.

Conventional CT

1,800 – 2,700 kg
Fixed, hospital-only
Ionizing radiation
Specialist operator

$$$$$

Mobile Stroke Units (MSUs) are custom-built ambulances fitted with a mobile CT

Mobile CT Scanner

450 – 1,000 kg
Mobile
Ionizing radiation
Specialist operator

$$$$$

880 mm

emu™

100 kg
Portable, in-hospital
Non-ionizing
Trained healthcare professional

$$

430 mm

First Responder

< 12 kg
Portable, pre-hospital
Non-ionizing
Trained healthcare professional

$

ACCESSIBLE NEURODIAGNOSTICS AT EVERY STAGE

EXAMPLE STROKE PATIENT PATHWAY

Stroke Symptoms

0 to 2.5 hours

Emergency Response

< 2.5 hours

Hospital Arrival

< 4 hours

Triage and Imaging

< 4 hours

Acute Treatment

< 24 hours

Post-Acute Care and Discharge

> 3 weeks to lifetime

Time since LSW
(Last Seen Well)

First commercial product **emu™**

Second commercial product **First Responder**

POTENTIAL CLINICAL USE-CASES

First Responder

- Positively **identify hemorrhages** for pre-hospital **blood pressure management.**
- **Reliably distinguish between haemorrhagic and ischaemic strokes,** opening the door to potential in-field thrombolysis opportunities.
- **Reliably identify potential endovascular clot retrieval or neurosurgery candidates,** assisting decision-making on transfer to appropriate comprehensive stroke-capable hospitals.

emu™

- **Front-line decision support where there is limited access to CT imaging (e.g., in rural and remote areas)** to inform patient triage and transfer decision-making.
- **Keep a closer eye on potential complications** and monitor patients following therapy or surgical intervention.
- Detect **secondary bleeding earlier.**
- Identification of **post-operative stroke.**

Ultimately reducing time from symptom onset to treatment or intervention is a key objective.

EMVision's portable solutions deliver rapid neurodiagnostic capabilities across diverse settings, ensuring timely triage, transfer or treatment decision making. The EMVision products are not designed to replace CT but fill a gap where CT are not immediately available.

MARKET OPPORTUNITY

Attractive Revenue Models

Traditional CapEx or innovative OpEx selling model offerings to provide buyer flexibility through direct or distributor sales channels.

emu

Capital equipment and consumables model

- Capital Equipment
  Target of ~US$175,000
- Consumables (disposable cap, coupling media)
  Target of ~US$25 / per scan
- Preventative maintenance & service contracts
  Target of ~10% of capital equipment p.a.
- Software upgrades (including additional indications)

Monthly subscription model

- Target ~US$8,000 / month (subject to term)
- Delivery of the unit and training
- Consumables (subject to quota)
- Software upgrades
- Potential integration into PACS and EMR
- Access to cloud storage and viewing
- Routine maintenance included

Significant consumable opportunity for both emu and First Responder point-of-care brain scanners.

emu consumables ~US$25 / per scan

Coupling media

Disposable cap

First Responder consumables ~US$50 / per scan

Total Addressable Market

emu ADDRESSABLE MARKET ~$15B

US	GER, FRA, UK	AUS	ROW
10,200	5,960	545	86,000

Market estimates are calculated on the assumption deployed per relevant department (e.g,. emergency department, stroke ward, ICU)

Key Targets

1,600 PSC/CSC	**642 PSC/CSC**	**93 PSC/CSC**	

CSC = Comprehensive Stroke Centre, PSC = Primary Stroke Centre

1,300 Critical Access Hospitals (CAH) in the US:
< 25 inpatient beds, average < 96 hours inpatient stay, located > 35 mi from other hospitals.
Unique reimbursement (allowable costs plus 1% reimbursement)

First Responder ADDRESSABLE MARKET

US	GER, FRA, UK	AUS	ROW
60,000	58,000	5,200	54,000

Road and aeromedical ambulances

EMV cautions investors that there are regulatory barriers and unique access challenges to each market and can be subject to varying rates of penetration. Addressable market sources: estimates based on ABS, U.S Census Bureau, WHO, AHA, EMS data and other publicly available data.. There are further regulatory hurdles to sell into the rest of the world (e.g., China, Japan, Brazil, Mexico, South Korea, Spain, Italy, India and Canada)

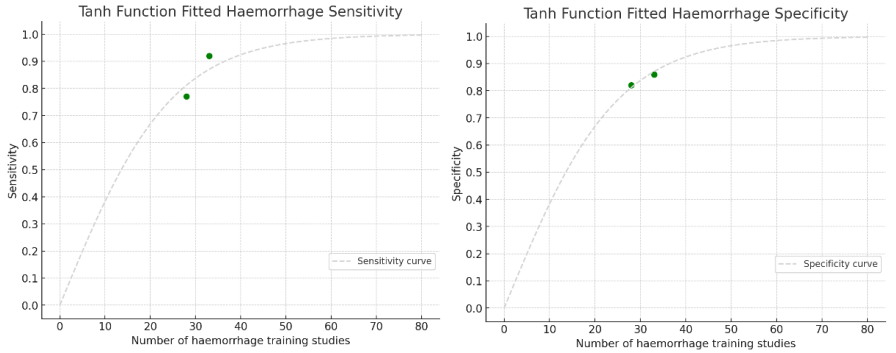
EMView PRE-VALIDATION CLINICAL TRIAL RESULTS

The *EMView* multi-site study involved 307 participants, including 277 acute suspected stroke patients, enrolled at Liverpool Hospital, Royal Melbourne Hospital, and Princess Alexandra Hospital.

‘*Haemorrhage* (bleed) *or not*’

	Haemorrhage	Not Haemorrhage
Total Test Cases	13	55
Correctly Identified Cases	12	47
Performance	**92% Sensitivity**	**85% Specificity**

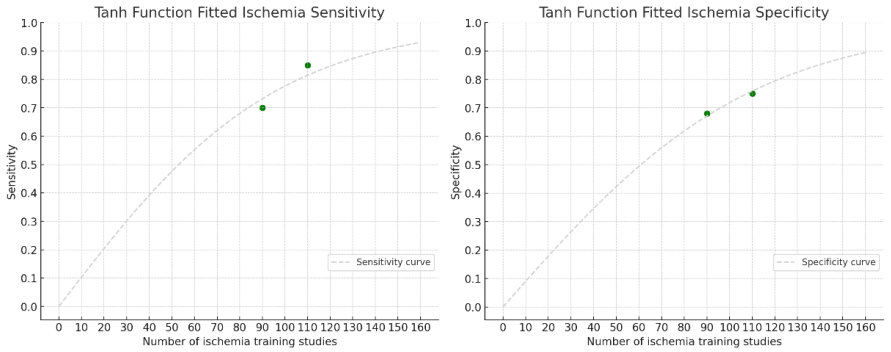
Including 20 ischaemic,
15 stroke mimics,
20 healthy patients



‘*Ischemia* (clot) *or not*’

	Ischemic	Not Ischemic
Total Test Cases	20	32
Correctly Identified Cases	17	25
Performance	**85% Sensitivity**	**78% Specificity**

Including 20 haemorrhages,
20 stroke mimics,
2 transient ischaemic attacks



Reading learning curves

These graphs depict improvements in algorithm performance as the quantity of training datasets increase.

Sensitivity and specificity steadily increase as our algorithms ‘*learn*’.

Comparison thresholds

Stroke Scales

NIHSS (cut-off of 8)
73% Sens., 79% Spec.

NIHSS (cut-off of 10)
64% Sens., 84% Spec.

LAMS (cut-off of 4)
69% Sens., 81% Spec.

CT Scans

NCCT for AIS
39% - 70% Sensitivity

CTP for AIS
80% - 90% Sensitivity

NCCT for haemorrhage
90% - 100% Sensitivity

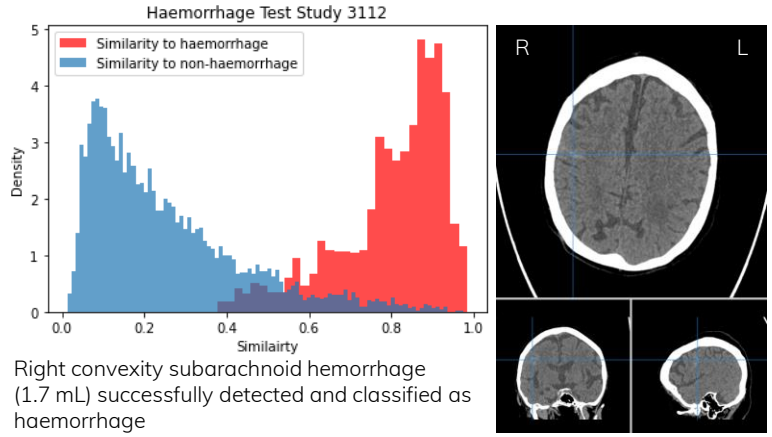
AIS = Acute Ischemic Stroke

See November 2024 ASX Release ‘Algorithms Deliver Excellent Results in EMView Study’ for full details and sources.

EMView PRE-VALIDATION CLINICAL TRIAL RESULTS

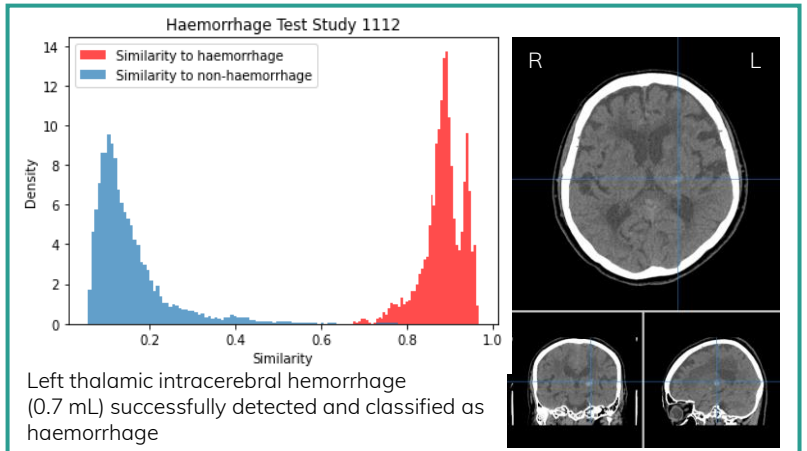
Exemplar case studies

Case #1



Right convexity subarachnoid hemorrhage (1.7 mL) successfully detected and classified as haemorrhage

Case #2

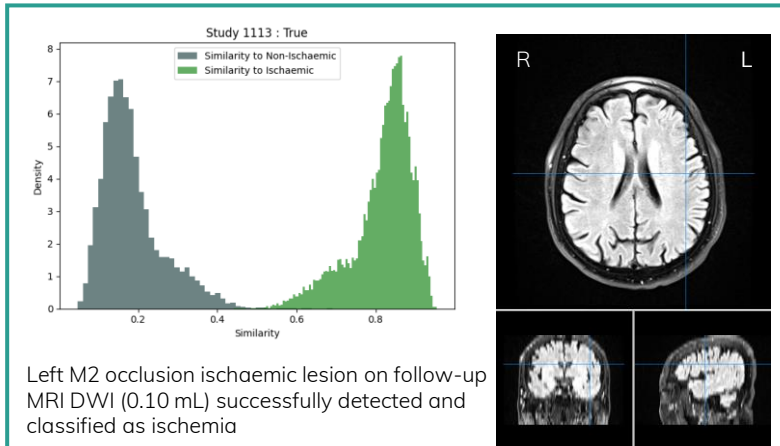


Left thalamic intracerebral hemorrhage (0.7 mL) successfully detected and classified as haemorrhage

The median reported haemorrhage volume is 14.0 mL. 75% of hemorrhage volumes exceed 3.8 mL (n = 1117, Robinson et al., 2021)

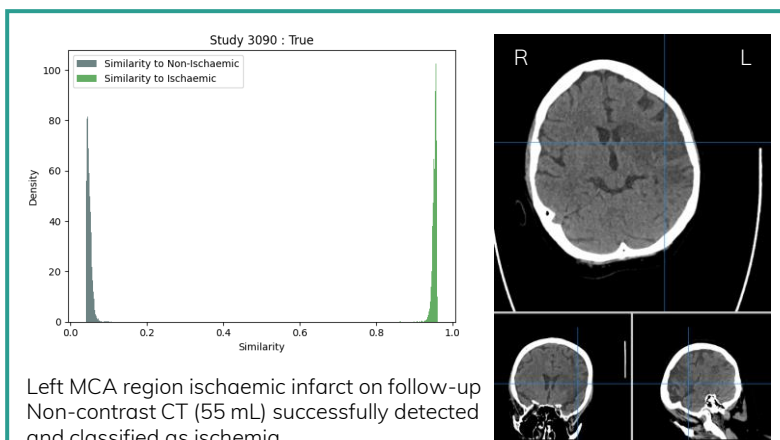
Robinson et al., *What is the median volume of intracerebral hemorrhage and is it changing?*, 2021

Case #3



Left M2 occlusion ischaemic lesion on follow-up MRI DWI (0.10 mL) successfully detected and classified as ischemia

Case #4



Left MCA region ischaemic infarct on follow-up Non-contrast CT (55 mL) successfully detected and classified as ischemia

Diffusion-weighted MRI is considered the most accurate imaging modality in the detection of early ischemia however, its utility is often limited due to lack of availability.

See November 2024 ASX Release 'Algorithms Deliver Excellent Results in EMView Study' for further details

TECHNOLOGY OVERVIEW

Algorithm portfolio

Signals obtained in a matter of minutes

What is it? → **Detection and classification**
CORE DIAGNOSTIC FEATURE

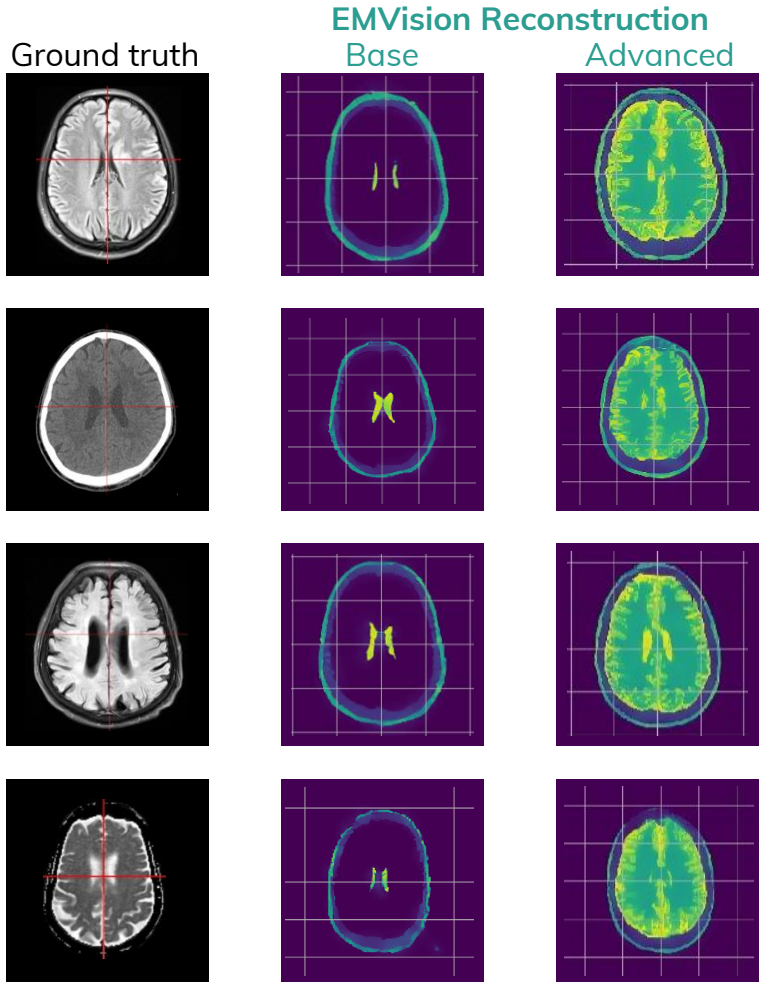
Where is it? → **Localization of abnormality**

Show me a picture → **Probabilistic anatomical reconstruction**

Expansive intellectual property portfolio

14 patent families across hardware and software
4 design registrations, 2 trademarks
Several trade secrets

Probabilistic anatomical imaging case studies



Probabilistic anatomical imaging, which remains under development, is designed as a fiducial orientation tool.

See November 2024 ASX Release 'Algorithms Deliver Excellent Results in EMView Study' for further details

emu and First Responder
OUR PATH TO MARKET ENTRY

emu — First commercial product

We are here

Pre-Validation Trial	Validation Trial (Pivotal)	Regulatory Submission + Market Entry
COMPLETED CY Q3 2024	TARGET **COMMENCEMENT** CY Q1 2025	2025+ ONWARDS
Location: Liverpool Hospital, Royal Melbourne Hospital, Princess Alexandria Hospital	Location: **6 sites** 2 in Australia, 4 in United States	FDA De Novo application — Market entry; CMS NTAP reimbursement submission
Patients: 30 healthy, 277 suspected strokes	Patients: Up to 300 suspected strokes	TGA application and approval — Market entry; MSAC reimbursement submission
Objectives: Safety, hardware verification, algorithm development, performance test	Objectives: Efficacy and safety for regulatory approval; Human factors engineering and usability validation	MDR CE Marking — Market entry
	ESTIMATED DURATION 6 – 12 MONTHS	

First Responder — Second commercial product

We are here

Feasibility Study	Substantial Equivalence	Regulatory Submission + Market Entry
TARGET **COMMENCEMENT** CY Q1 2025	2025 ONWARDS	2026+ ONWARDS
Location: Road and air ambulances (RFDS)	Further product development and clinical evaluation dependent on findings from feasibility studies.	Leveraging predicate device regulatory approval processes. e.g., FDA 510(k)
Patients: 30 patients at scene of event		Utilise networks and alliances established through commercialisation of emu™.
Objectives: In-field feasibility and usability	Substantial equivalence testing	

Roadmaps are indicative and subject to change.

First Responder

DOMESTIC FEASIBILITY STUDY OVERVIEW

Targeted commencement CY Q1 2025

Study design	Prospective, Convenience Sample, Usability, Pilot Study
Investigational sites	Road Ambulance Service Air Ambulance Service (Royal Flying Doctor Service)
Estimated duration	< 6 months
No. of participants	30 total, 20 by road and 10 by air
Study objectives	· To evaluate device usability, scan quality, reliability and patient acceptance · To determine workflow time metrics including those related to scan completion and emergency dispatch
Endpoints	· User & patient feedback, EMV First Responder scan data, patient diagnosis · Time metrics including: 1) symptom onset, 2) scanning metrics

Suspected stroke → Load device and dispatch → Arrival and scanner warm-up → Standard assessment → First Responder Scan → Transfer to hospital

Time last seen well | Dispatch metrics | Workflow metrics | Reference standard | Workflow metrics

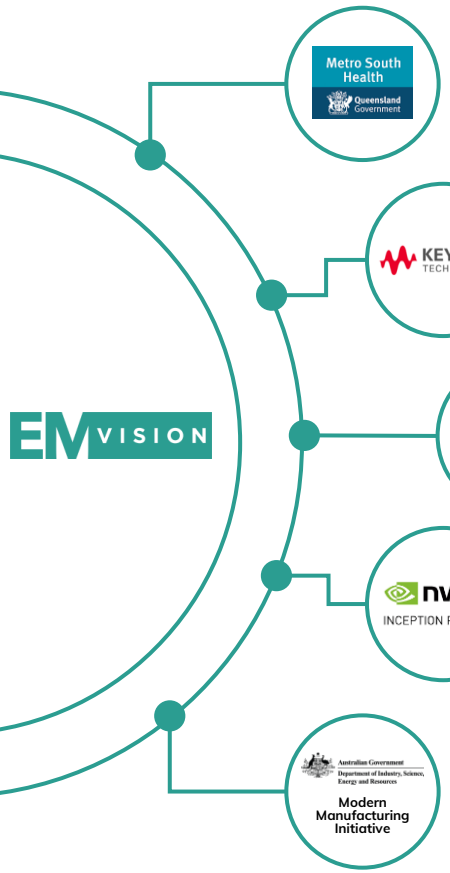
Usability Feedback

Scan data | Diagnosis

Device Feedback

PARTNERS & COLLABORATORS

Track record of securing and ongoing access to non-dilutive funding provides good flexibility
Grant schemes are competitive and subject to due diligence before award



Clinical Research Partnership
Access to neurology, radiology and critical care expertise, access to simulation rooms and hospital infrastructure, advancement of bedside processes as well as input into technology development.

Product Collaboration
Strategic OEM Agreement with Keysight Technologies (NYSE:KEYS) with exclusivity in the field of neuroimaging for the supply of the "fast sweep" feature in the VNA (core to the sensors inside EMV's portable brain scanner).

Keysight is a substantial holder in EMV (8.7%), investing $15m in Feb 2024.

Clinical Development & Validation, Non-dilutive funding
ASA is providing clinical expertise and $8m in non-dilutive funding to support clinical validation and deployment to transform pre-hospital stroke care

Inception Member
NVIDIA Inception nurtures dedicated and exceptional startups who are revolutionizing industries with advances in AI and data science.

Manufacturing Grant
$5m non-dilutive Federal manufacturing grant to establish first commercial production run

Commonwealth CRC-P Grant Program Collaborators

Australian Government Department of Industry, Innovation and Science

The University Of Queensland AUSTRALIA

GE Healthcare

Princess Alexandra Hospital BRISBANE • AUSTRALIA

CRC-P grant supported an industry-led collaboration, including cash contribution from GE Healthcare, to develop and successfully test EMVision's earlier proof of principle prototype device

NSW Medical Devices Fund backing

NSW Health MEDICAL DEVICES FUND

$2.5m non-dilutive grant funding awarded in November 2022 to support EMVision's multi-site clinical trials

INVESTMENT HIGHLIGHTS

- ✓ We have assembled a team of MedTech experts that have successfully done this before and created significant shareholder value
- ✓ We have compelling support from the leading minds in neurological care
- ✓ Multi-billion-dollar market opportunity in stroke care alone
- ✓ Globally there is an increasing demand for point-of-care sensing and imaging solutions
- ✓ Our technology has multiple additional applications for unmet clinical needs of high value, including traumatic brain injury
- ✓ We focus our energies on markets with very little or no competition

KEY 2025 CATALYSTS

	emu™	First Responder
	Validation (pivotal) trials	Pre-hospital road and air trials

Activation, recruitment, and reporting

Establishment of go-to-market partnerships and strategic relationships

Regulatory submissions for approvals in major markets

CAPITAL STRUCTURE

ASX TICKER: EMV

Headquarters
4.01, 65 Epping Road,
Macquarie Park
Sydney, Australia

Share Price (27th Nov 2024)	$1.92 AUD
Shares on issue	85,516,535
Total Options on issue	3,900,000
Market Capitalization	$164.2m AUD
Enterprise Value	$147.4m AUD
Cash balance (30th Sept 2024)	$16.8m AUD
Remaining non-dilutive staged grants	$0.8m AUD

Strong Capital Management Track Record

- Secured ~$20m in non-dilutive grant funding since inception
- Cash position of $16.8m (30th Sept)
- Modest historical cash burn
- Validation (pivotal) clinical trials capital efficient at ≤$4m
- Founders, Management, and Directors closely aligned to shareholders, holding approximately 20% of shares on issue
- Keysight Technologies (NYSE:KEYS) substantial shareholder

ASX: EMV

THANK YOU

ASX: EMV

CLINICAL FEEDBACK

"This is an exciting development in stroke and neurological care. We have found the EMVision scanner to be a very user-friendly portable imaging modality. The EMVision scanner has potential for wide application in both the prehospital and acute hospital settings."

Dr Dennis Cordato
Stroke Neurologist,
Principal Investigator for 'EMView' Trial

"It cannot be underestimated how important this cutting-edge technology could become for future stroke management."

Professor Geoffrey Donnan AO
Stroke Neurologist
Co-chair ASA, Past-President of World Stroke Organization

"The concept of bringing imaging to the patient will dramatically reduce times to administer life saving interventions such as thrombolysis and thrombectomy."

Professor Stephen Davis AO
Stroke neurologist
Co-chair ASA, Past-President of World Stroke Organization

"Equitable healthcare for Australians in remote areas needs to overcome the tyranny of distance. Portable brain imaging is a crucial next step in bringing critical care to patients sooner."

Dr Mardi Steere
Executive General Manager Medical and Retrieval Services, Royal Flying Doctor Service