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The logo for MICRO-X, with 'MICRO-' in black and '-X' in green.

# MICRO-X

ACN 153 273 735 / ASX: MX1

The text 'PRIMED FOR GROWTH' is overlaid on a dark, semi-transparent rectangular area. In the background of this area, a person in a suit is standing and looking at a large screen or display.

## PRIMED FOR GROWTH

2022 Annual General Meeting  
CEO presentation

Peter Rowland  
Managing Director & CEO

## MINIATURISING X - RAY

First mover in Nano Electronic X-ray (NEX) Technology for global health and security markets



# FINANCIAL HIGHLIGHTS FY2022

Foundations for future growth across all four products



**Revenue \$9.0M ↑ 138% (FY21 \$3.8M)**

Other income \$4.1M ↑ 38% (FY21 \$3.0M)



**Secured major contracts<sup>1</sup> AUD\$14M**

DHS US\$4M + ASA AUD\$8M



**Mobile DR sales \$3.8M (FY21 \$3.6M)**

Engineering income \$5.2M\* (FY21 \$0.1M)



**Costs reduced & realigned ↓22% FY23**

Mobile DR expenditure ↓ 40%, Overheads ↓ \$1.1M



**Geographic diversity of revenues**

USA \$4.2M

APAC \$4.0M

EMEA \$0.7M



**Cash \$10.4M<sup>2</sup>**

+ \$4.9M received from Varex in Sept22 quarter

+ \$4M due from Varex upon FIRB approval

+ Further \$6.0M from technology transfer to Varex by mid 2023

+ \$3.4M R&D Rebate due Dec 2022 / early 2023

1 Contracts with US Dept Homeland Security & Australian Stroke Alliance  
2. As at 30 Sept 2022

# F Y 2 0 2 2 O P E R A T I O N A L H I G H L I G H T S

Strong commercial progress and key developmental milestones achieved



## Mobile DR - Rover

- ✓ Major brand launch at RSNA
- ✓ USA - 2 largest independent distributors appointed
- ✓ EMEA – 5 distributors appointed + 7 on CE mark
- ✓ **Medlink \$1M minimum Rover orders x 3 years**
- ✓ **Rover Plus product complete + FDA certified**



## IED Camera - Argus

- ✓ Successful test images with 160kV x-ray system
- ✓ 2 dedicated ex-military EOD sales executives building awareness
- ✓ Defence, security, police demonstrations
- ✓ **Aust. Dept. Defence LAND 154 tender submission – 65 units**
- ✓ **Preparing for first sales in FY 2023**



## Checkpoints

- ✓ DHS accepted design for Miniature Baggage Scanner
- ✓ DHS accepted design for Self-Service Checkpoint
- ✓ Strong commercial interest from other airports + security
- ✓ **DHS milestones unlock balance of US\$4.5M contracts**
- ✓ **2 x prototype scanners to be delivered 2023**

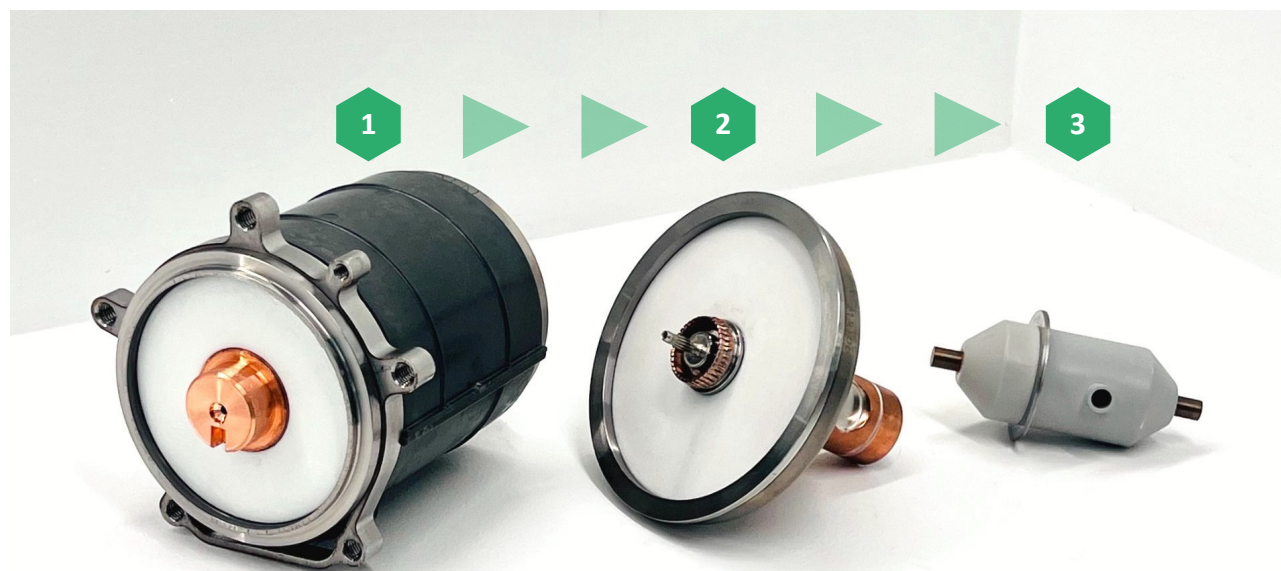


## Brain CT Scanner

- ✓ \$8M ASA contract signed + launch with Royal Flying Doctors
- ✓ Strong international interest – EU emergency services conference
- ✓ Project on time and budget
- ✓ **Major milestone – design capable of meeting best clinical practice images for stroke diagnosis**
- ✓ **Partnership with Johns Hopkins University**

## TUBE DEVELOPMENT

Three different tubes, all using NEX technology



1

**First generation NEX tube** - **developed in 2018** - **sold commercially in Mobile DR products**

2

**Reverse polarity NEX tube** – **developed in 2021-22** – **in Argus IED camera and CT Baggage Scanner from 2023**

3

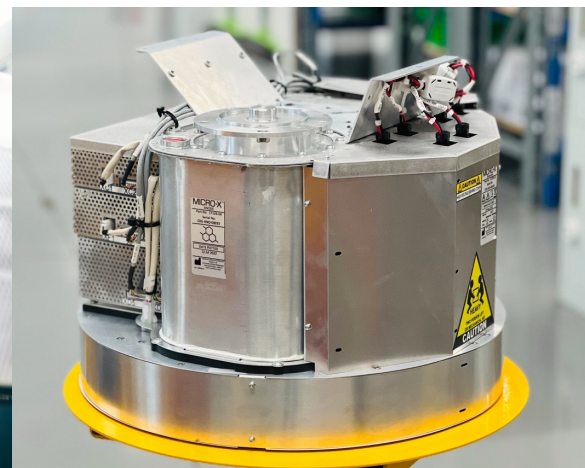
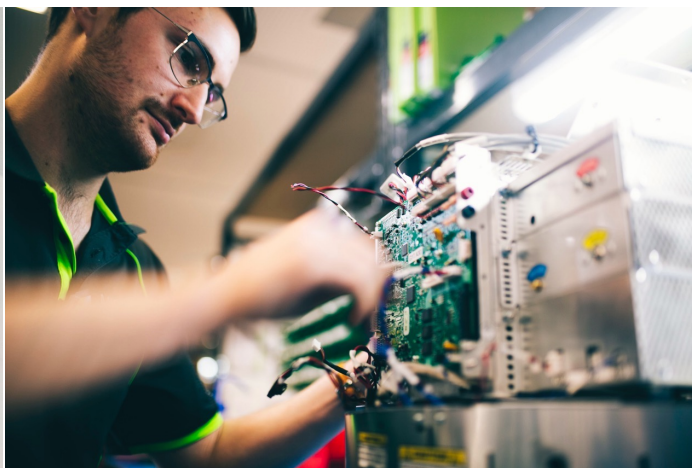
**Miniature NEX tube** - *in development* – **in CT Scanner from 2023**



## GENERATOR DEVELOPMENT

### World-leading innovation in high voltage power supplies

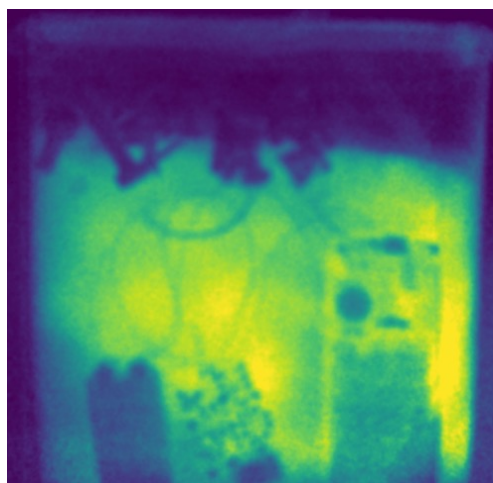
- ✦ In-house design and manufacture of high-voltage generators optimises product design, means we can better control manufacturing costs and reduces reliance on overseas suppliers
- ✦ Expansion of core technology expertise drives innovation
- ✦ Bespoke generator design allows for smaller, more capable product designs such as Argus, as well as creating a new avenue for commercial opportunities



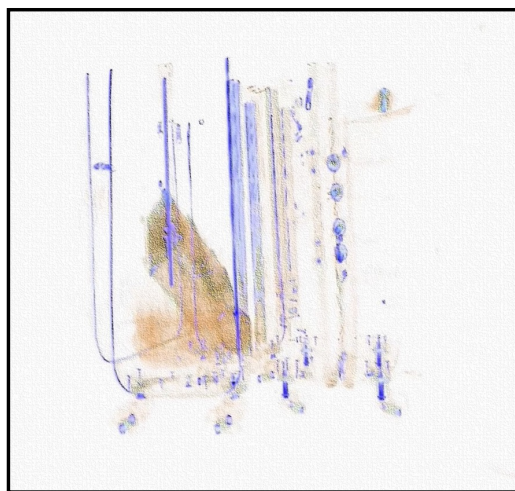
## IMAGING SOFTWARE

Common image reconstruction and processing techniques supports products

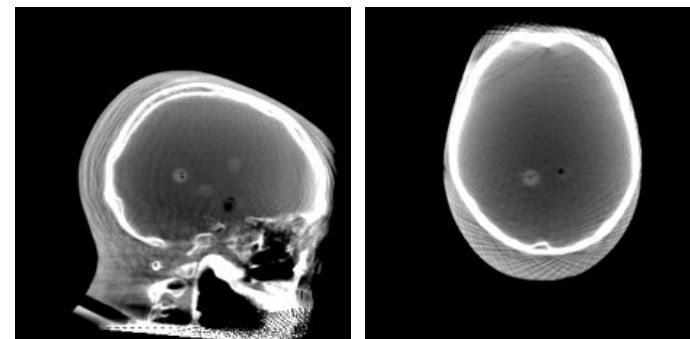
- ✦ **Rover** – 2D imaging
- ✦ **Argus** – 2D imaging using backscatter
- ✦ **CT Baggage Scanner & Brain CT Scanner** – 3D imaging - engineers in Adelaide and Seattle developing algorithms and software



Argus – integrated system test image



Mobile Baggage Scanner - test imaging



CT Scanner - Johns Hopkins imaging simulations

# VAREX STRATEGIC COLLABORATION

## \$15M technology collaboration and investment by Varex Imaging



✦ **Technology collaboration** strongly validates Micro-X NEX technology

- Collaborating with a leading innovator and manufacturer of x-ray tubes & detectors
- Builds greater acceptance and adoption of technology – a win win



✦ **Licence** is for Micro-X NEX Technology in multi-beam emitter x-ray tubes

- US\$5.0M (A\$7.5M) in five milestones within 12 months - **\$1.5M received**
- No conflict with Micro-X products – all designed with single beam emitters



✦ **Investment** for 9.9% of Micro-X and Board seat

- \$7.5m - **\$3.5M received** and \$4.0M on FIRB approval \*

Micro-X is classified as a defence company and Varex has invested \$3.5M to hold 4.9%. FIRB approval is anticipated to be decided by 31 December 2022 to take this investment to 9.9% upon payment of a further \$4.0M



MICRO-X

ONE COMPANY, FOUR BUSINESSES

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The power of Micro-X NEX Technology

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## M O B I L E   D R

## Launch of Rover Plus and expanded US distribution network



- ✘ **First tier mobile** X-ray unit - 100kg v 600kg
- ✘ **Proven versatility** in a range of uses
  - **Medical – Military – Veterinary – In-home**
- ✘ **High quality & reliability** – industry leading ‘tubes for life’
- ✘ Next gen **Rover Plus** – **higher x-ray performance**
- ✘ **Multiple commercial strategies**
  - Micro-X Rover (base) and Rover Plus (enhanced)
  - Direct and distributor channels
  - OEM Products – Carestream DRX-Revolution Nano
  - Imaging sub systems Product – DMS in France
- ✘ **Expanding Distribution network** in 2022
  - 2 largest US independent distributors – Medlink US\$1M pa
  - Network of EU and EMEA distributors on-boarded



Over 250 units in service in 35 countries –  
FDA and TGA certifications<sup>10</sup>

## MOBILE DR

Saving lives and simplifying workflow for health professionals

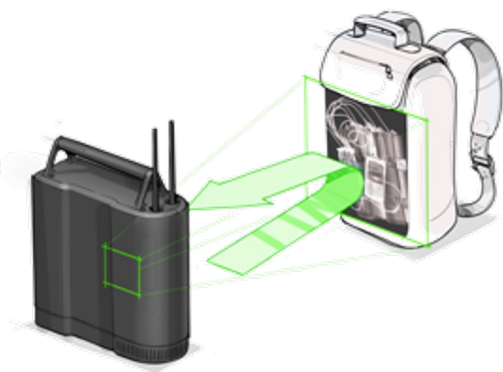
*“The availability of mobile x-ray units with a built-in battery (in connection with the regular shelling of Ukraine’s energy infrastructure) is currently among the needs to ensure a quick examination of wounded persons... This will save thousands of lives of Ukrainian citizens.”*

-Ukraine Army unit commander in Kherson

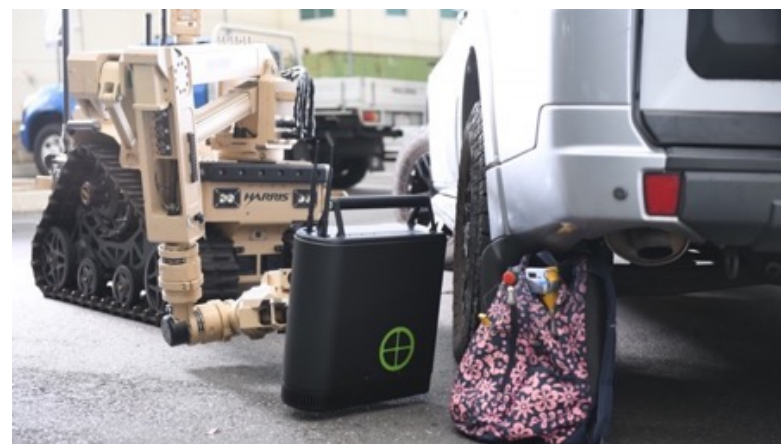


## IED X-RAY CAMERA – ARGUS

Saving lives in the world's most dangerous workplace



- ✖ **Remote viewing** with Argus camera carried by EOD robot
- ✖ **Vastly lower risk to technician** – robot can perform assessment as well as disrupt device remotely
- ✖ **High resolution image** allows diagnosis to component level
- ✖ **Small size** – 17kg unit can be carried by most EOD robots
- ✖ **9 US agencies requested trials** – FBI, US military, Police
- ✖ **Submission to Australian DoD** for Land 154 procurement of 64 units



***“This product is what we have been looking for, and waiting for, for years”.***

-US Govt bomb school trainer

## ARGUS PROGRESS

Product development being completed, customer trials 2023



- ✦ Key components **designed, built and tested**
  - Reverse polarity 160kV x-ray tube – **smaller than Rover**
  - High-voltage generator - **miniaturised**
  - Image reconstruction software – **Patented backscatter technique**
  - Lightweight, rugged casing – **highly versatile**

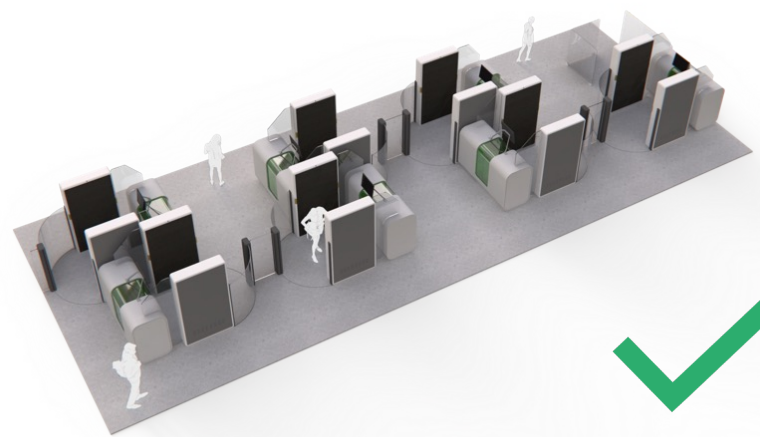


- ✦ **Technical refinements** for a robust, production product
  - New processes in high voltage insulation in Generator
  - X-ray tube design refinements to improve yield
  - Increased component packing density to minimise product size



## CHECKPOINTS

Transforming the future of air travel – speed, safety, privacy



**Market opportunity is US\$24B in airports alone**

- ✦ **US\$8B in US airports** and US\$16B in ROW airports
- ✦ TSA annual manpower cost of checkpoints is US\$4B
- ✦ **Staffing shortages** post COVID
- ✦ **7 portals in same footprint** as each current x-ray lane
- ✦ Applications for **transport, government building, stadia**

**Customer driven concept to improve travel experience**

- ✦ Automation will improve experience - **faster**
- ✦ Automated and enhanced threat detection - **safer**
- ✦ Individual screening portals – **privacy**
- ✦ **Integrates** with passport scan, photometric ID, body scan, baggage CT
- ✦ Less interaction with security staff – **efficient** & **COVID safe**

## CHECKPOINTS

Funded by two contracts with Department of Homeland Security – US\$4.5M

## CT Baggage Scanner

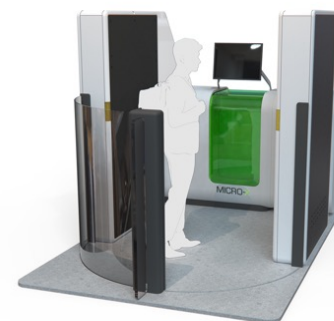
- US\$2M contract for prototype mid 2023



- ✦ **3D imaging** of passenger carry-on luggage
- ✦ **Automated detection** of threats with software
- ✦ **Design accepted** for modular baggage scanner - March 22
- ✦ **Contract extension** for second prototype
- ✦ 2 x Prototypes for **DHS testing in 2023**
- ✦ **Global interest** from other airports and security uses

## Passenger Self Screening Portal

- US\$2.5M contract for design completes 2023



- ✦ **Self service portal** for entire passenger security checkpoint
- ✦ **Micro-X Centre of Excellence** established in Seattle, USA
- ✦ **Design accepted** and full contract option exercised - May 22
- ✦ **Testing of passenger experience** with partners underway
- ✦ **Global leading partners** – MX1 as prime contractor

MICRO-X

# PASSENGER SELF-SCREENING CHECKPOINT

The video played at today's AGM will be available on the Company's website

## B R A I N   C T   S C A N N E R

Programme on time & on budget - commercial product in 3 years

**Micro-X CT Scanner supported by \$8M** from Commonwealth MRFF Fund in partnership with **Australian Stroke Alliance**

- ✦ Robust imager with **no moving parts**
- ✦ Designed to **image bleeds smaller than 1mm**  
'Standard of Care' CT for MSU diagnosis can see 2mm bleeds
- ✦ **Not changing current mobile diagnostic criteria**  
– proven in existing mobile units
- ✦ **Enables stroke care in every ambulance**  
– being smaller and cheaper – access for rural and remote locations



### Pathway to Regulatory Approval in 3 years

- ✦ First cadaver and human imaging trials in 2023 / 2024
- ✦ Regulatory submissions in 2024 / 2025

### Leveraging Partners for Excellence



Above: Curved CT scanner in ambulance setting

# ENVIRONMENT, SOCIAL & GOVERNANCE

Our people and culture are the key to our ongoing innovation & success



**23% female employees** and  
**18 nationalities represented**  
**Reconciliation Action Plan** in  
development

0

**Lost time injuries** since Dec 2020  
**Zero fatalities or serious injuries**  
since Micro-X founded



Partnered with Non-Government  
Organisations to **deliver Rover x-ray**  
**systems to Ukraine** to rebuild  
medical capability



↓ **34% electricity usage** in x-ray tube bakeout  
↓ **27% electricity usage** for x-ray  
components processing furnaces



**Lead industrial partner of STEM Fast**  
**Track** to encourage young people  
interested in STEM careers through  
industry experience



**Strengthened and audited IT and**  
**cybersecurity** protections  
**ISO 13485 successfully passed**  
annual surveillance audit



## OUTLOOK FOR 2023

### Primed for growth

- ✦ **Argus x-ray camera first sales**
  - Successful customer demonstrations
  - Australian DoD LAND 154 tender decision
  - First sales of Argus systems
- ✦ **CT Baggage Scanner prototypes delivered to DHS**
- ✦ **Self-Screening Checkpoint design completion**
- ✦ **Mobile DR growth in pipeline, conversion and sales**
  - CE Mark and launch in EMEA
- ✦ **Brain CT development of system and algorithms**
- ✦ **Varex technology transfer and collaboration**

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