

# MICRO-X

ACN 153 273 735

ASX: MX1

## 2020 Annual General Meeting

10.00am (Adelaide time)  
Virtual Conference

18 November 2020





# Agenda

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- Open Meeting
- Chairman's address
- AGM Resolutions
- CEO's Presentation
- Tube Manufacturing Facility Virtual Tour
- Question and Answer
- Close Meeting

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## Conference

Annual General Meeting will be held virtually on the online platform, Zoom webinar at [https://us02web.zoom.us/webinar/register/WN\\_Juna6n0RR76S8II9bG1b7g](https://us02web.zoom.us/webinar/register/WN_Juna6n0RR76S8II9bG1b7g)

## Voting

Voting to be conducted via [web.lumiagm.com/377426520](http://web.lumiagm.com/377426520)

## Chairman's Address

## Items of Business

- 2020 Financial Statements and Reports
- Resolution 1 – Adoption of Remuneration Report
- Resolution 2 – Re-election of Patrick O'Brien as a Director
- Resolution 3 – Re-election of David Knox as a Director
- Resolution 4 – Ratification of Issue of Placement Shares
- Resolution 5 – Approval of Employee Share Scheme
- Resolution 6 – Approval of Performance and Service Rights to Peter Rowland
- Resolution 7 – Approval of 10% Placement Capacity

## 2020 Financial Statements and Reports

While not a requirement that shareholders vote in relation to the accounts, we are pleased to answer any questions you may have relating to them.

ersonal use only

## RESOLUTION 1 – Adoption of Remuneration Report

To consider and, if thought fit, to pass the following resolution as an ordinary resolution:

***“That for the purpose of Section 250R(2) of the Corporations Act and for all other purposes, the Remuneration Report (included in the Directors' Report) for the financial year ended 30 June 2020 be adopted.*”**

Note: In accordance with the Corporations Act, this resolution is advisory only and does not bind the Company or the Directors of the Company. The Directors will consider the outcome of the vote and comments made by Shareholders on the Remuneration Report at the meeting when reviewing the Company's remuneration policies.

	Votes “For”	Votes “Against”	Votes “Abstain & Excluded”	Votes “Open-Usable”
Resolution 1	103,525,512	440,286	23,620,323	1,206,439*

\* Open-Usable Board 499,294  
Open-Usable Non-Board 707,145

## RESOLUTION 2 – Re-election of Mr Patrick O’Brien as a Director of the Company

To consider and, if thought fit, pass the following resolution as an ordinary resolution:

***“That Mr Patrick O’Brien, being a Director who retires pursuant to the Constitution of the Company and being eligible for re-election, offers himself for re-election, is hereby re-elected as a Director of the Company.”***

	Votes “For”	Votes “Against”	Votes “Abstain & Excluded”	Votes “Open-Usable”
Resolution 2	126,853,333	67,134	670,654	1,201,439*

\* Open-Usable Board 494,294  
Open-Usable Non-Board 707,145

## RESOLUTION 3 – Re-election of Mr David Knox as a Director of the Company

To consider and, if thought fit, pass the following resolution as an ordinary resolution:

***“That Mr David Knox, being a Director who was appointed by the Company's directors on 7 April 2020 pursuant to the Constitution of the Company and being eligible for re-election, offers himself for re-election, is hereby re-elected as a Director of the Company.”***

	Votes “For”	Votes “Against”	Votes “Abstain & Excluded”	Votes “Open-Usable”
Resolution 3	127,118,982	97,134	375,005	1,201,439*

\* Open-Usable Board 494,294  
Open-Usable Non-Board 707,145



## RESOLUTION 4 – Ratification of issue of the Placement Shares

To consider and, if thought fit, pass the following resolution as an ordinary resolution:

***“That, for the purposes of ASX Listing Rule 7.4 and for all other purposes, Shareholders ratify the issue of the Placement Shares on the terms and conditions set out in the Explanatory Statement.”***

	Votes “For”	Votes “Against”	Votes “Abstain & Excluded”	Votes “Open-Usable”
Resolution 4	76,820,092	131,379	50,639,650	1,201,439*

\* Open-Usable Board 494,294  
Open-Usable Non-Board 707,145

## RESOLUTION 5 – Approval of Employee Incentive Plan

To consider and, if thought fit, pass the following resolution as an ordinary resolution:

***“That, for the purposes of ASX Listing Rule 7.2 (Exception 13) and for all other purposes, Shareholders approve the Employee Equity Plan and Employee Gift Plan (together, the Employee Incentive Plan), and the grant of Incentive Securities and the issue of underlying securities under the Employee Incentive Plan, on the terms and conditions set out in the Explanatory Statement.”***

	Votes “For”	Votes “Against”	Votes “Abstain & Excluded”	Votes “Open-Usable”
Resolution 5	103,747,383	2,035,928	21,829,810	1,179,439*

\* Open-Usable Board 472,294  
Open-Usable Non-Board 707,145

## RESOLUTION 6 – Approval of issue of Performance Rights and Service Rights to Mr Peter Rowland under the Employee Equity Plan

To consider and, if thought fit, pass the following resolution as an ordinary resolution:

***“That, for the purposes of ASX Listing Rule 10.14, sections 200B and 200E of the Corporations Act and for all other purposes, Shareholders approve the issue of Performance Rights and Service Rights to Mr Peter Rowland (or his nominee) under the Employee Equity Plan on the terms and conditions set out in the Explanatory Statement.”***

	Votes “For”	Votes “Against”	Votes “Abstain & Excluded”	Votes “Open-Usable”
Resolution 6	112,623,662	1,302,154	13,687,305	1,179,439*

\* Open-Usable Board 472,294  
Open-Usable Non-Board 707,145

## RESOLUTION 7 – Approval of 10% Placement Capacity

To consider and, if thought fit, pass the following resolution as an ordinary resolution:

***“That, pursuant to and in accordance with ASX Listing Rule 7.1A and for all other purposes, Shareholders approve the issue of Equity Securities up to 10% of the issued capital of the Company (at the time of the issue) calculated in accordance with the formula prescribed in ASX Listing Rule 7.1A.2, over a 12 month period from the date of the Annual General Meeting, at a price not less than that determined pursuant to ASX Listing Rule 7.1A.3 and on the terms and conditions set out in the Explanatory Statement accompanying this Notice of Annual General Meeting.”***

	Votes “For”	Votes “Against”	Votes “Abstain & Excluded”	Votes “Open-Usable”
Resolution 7	94,846,631	32,216,321	468,169	1,261,439*

\* Open-Usable Board 554,294  
Open-Usable Non-Board 707,145



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# MICRO-X

ACN 153 273 735

ASX: MX1

## CEO Presentation

Fast becoming a commercial success

18 November 2020

Peter Rowland,  
Managing Director & CEO



# Disclaimer

MICRO-X

## SCOPE & LIMITATIONS

This Presentation has been prepared by Micro-X Limited (**Micro-X** or the **Company**) (ASX.MX1). The Presentation is a summary only and does not contain all the information about the Company's assets and liabilities, financial position and performance, profits and losses and prospects. This material in this Presentation may be supplemented with an oral presentation and/or other more detailed documents and should not be taken out of context. Although the information contained herein is based upon generally available information and has been obtained from third-party sources believed to be reliable, the Company does not guarantee its accuracy, and such information may be incomplete or condensed. The Company also refers to its filings made with the ASX Limited and the Australian Securities & Investments Commission.

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# Key Achievements for FY2020

MICRO-X

Micro-X is now in the commercialisation phase of its globally unique x-ray technology with increased product sales and expanded production capacity



Demonstrated growth in **sales penetration: \$3.8M** into international markets



Further insourcing of proprietary technology – **High Voltage Generators**



**Advanced tube manufacturing facility** commissioned and further investment in facility



**Patent granted** for our in-house CNT emitter



Won **second contract for UK Government** 'Future Aviation Security Solutions'



**Selected by TSA** to design Next Generation Checkpoint for US Airports



Achieved **US regulatory clearance for Rover**



**Significant deepening in Board and Management** commercial expertise



Strengthened Balance Sheet with **\$30M capital raised**



# State-of-the-art, tube manufacturing facility

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MICRO-X

A video tour of our x-ray tube manufacturing facility is available on our website

# Technology Status

MICRO-X

## Growing acceptance that Cold-Cathode is the future of X-Ray

01

Micro-X is **first to market** with a proven, Cold Cathode, Medical X-Ray product

02

**Proven performance, reliability and lifetime** of patented technology in production in Adelaide

03

**No more hot filaments** – the Edison light bulb becomes solid-state LED

04

**Huge opportunities** for new products with this technology

The goal is attractive, **others are attempting to follow:**

- Nanox in Israel
- VEC Imaging in Germany with Varex in USA
- Meidensha in Japan

We will have **competitors - How long have we got?**

- Getting high current (> 5mA) from the emitter is the first challenge
- Learning how to operate it in an x-ray tube is even harder

Based on our experience, we probably have a **five-year lead**

- This drives the pace of our commercialisation

# Our Strategy

MICRO-X

## Monetise our 'First Mover' advantage

Commercialise high in the value chain to maximise revenue –  
avoid commoditisation as long as possible –  
**keep innovating to stay in front of competitors**

Look for the 'low hanging fruit' products where our technology delivers the most customer benefit and thus the best product margins

Expand channel partners & collaborations in order to create required paths to market at scale

Successful first movers in breakthrough technology move quickly: **early commercial domination becomes a barrier to entry for others**

1<sup>st</sup>



**Our Goal** is for Micro-X to have **four production lines** for **four global, high-volume, high-margin products** operating **within five years:**

- **Mobile DR** (Nano, Rover, et al)
- **Backscatter imager** for IEDs
- **Airport self-service** checkpoint
- **CT Brain Scanner** (in-ambulance stroke diagnosis)

# Mobile DR: Nano Mobile X-ray for Healthcare

MICRO-X

Approved for sale in 40 countries – significant COVID-19 related sales demand  
**\$3.8m purchase orders in FY 2020**



**Bedside imaging** – hospitals & temporary facilities



**Small & portable** – 95kg compared to 350-600kg



**Approvals** – FDA, CE Mark and TGA



**Installations in global markets** ~ 14 countries already



**Proven reliability + Positive customer feedback**



**Addressable market** ~ **US\$500 million per annum**



**Orders growing** - **\$3.8m in FY2020**



Above: Nano being used in The Alfred Hospital, Melbourne

# Mobile DR: **Rover** for Military & Remote Users

MICRO-X

Strong military interest responding to their unmet need – FDA approved  
**\$1.4m Sales via WHO in Oct 2020**



Rover is an **adapted version of the Nano** for the military

- Deployed medical facilities treat injured military personnel
- Higher power for trauma use in development
- For use in combat support, disaster relief & humanitarian aid



**Unmet need** – military currently using small-animal vet X-ray



**Limited competition** - means higher potential gross margins



Achieved FDA Approval - seeking CE mark and TGA approvals



Selected for ADF contract for new deployable hospital



**Addressable market in NATO countries ~US\$170M**



Above: Rover testing in deployed hospital setting

# Mobile DR: Expanding Rover Markets

MICRO-X

The extreme mobility and low weight of Rover opens up possible new uses



## Point-of-Care x-ray imaging

- Avoiding x-ray outpatient dept in hospitals
- Door-to-door x-ray service with tele-radiology
- Aged-care homes
- Home visits



## Small-animal veterinary hospitals

- Increasingly upgrading from film to digital imaging
- Improve workflow & productivity
- Reduced regulatory environment



# IED Imaging Camera

MICRO-X

## Backscatter X-Ray Assessment of IEDs via robot

- X-Ray 'Camera' takes images without separate detector– **one sided viewing**
- Bomb disposal technicians face life threatening situation when placing conventional X-ray detector behind target
- Australian Defence Force **proof of concept imaging test completed**
- Customer interest from **military and FBI / bomb disposal** technicians
- **No competition = high gross margins**
- **Addressable market ~US\$1.8B**



Illustration of MBI in action



# Breaking News: Imaging test success

MICRO-X

*New Backscatter Imaging Approach confirmed for project - new architecture for IED Camera*



10 second image  
Explosive material easily visible  
inside backpack

***Bomb/No Bomb  
Assessment***



60 second image  
High Resolution Scan

***Detailed Threat Assessment***



Resolving easily:

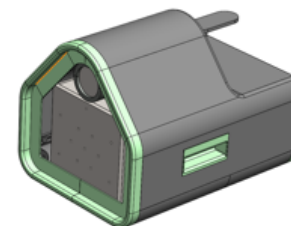
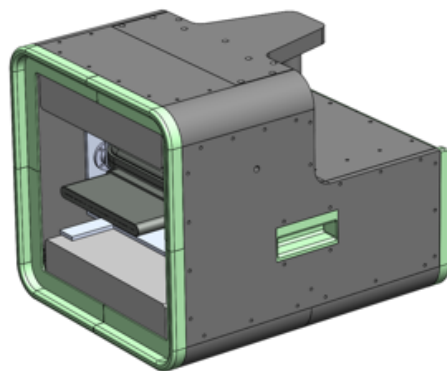
- Thin red wires 0.32mm diameter
- Electronic circuits



# Breaking News: Major architecture change now adopted **MICRO-X**

*New Backscatter Imaging Approach – smaller, lighter, and faster with higher resolution, larger field-of-view, configurable design, faster to market, and lower development risk .*

***New product COGS is 30% of previous***



Feature	Previous Configuration	New Configuration
Dimensions of System	43.5cm x 43.5cm x 54cm	34cm x 34cm x 47cm
Weight	36kg	22kg
Field of View	<b>18cm x 18cm</b>	<b>40cm x 40cm</b>
Resolution	0.5mm	0.33mm
Imaging Speed	30 second (low resolution) 180 second (high resolution)	10 second (low resolution) 60 second (high resolution)
Time to Market	<b>30 months</b>	<b>12 months</b>
Development Risk	<b>High</b>	<b>Low</b>

# Airport Self-service Checkpoint

MICRO-X

## TSA funded 'Checkpoint of the Future'

### Airport Checkpoint security

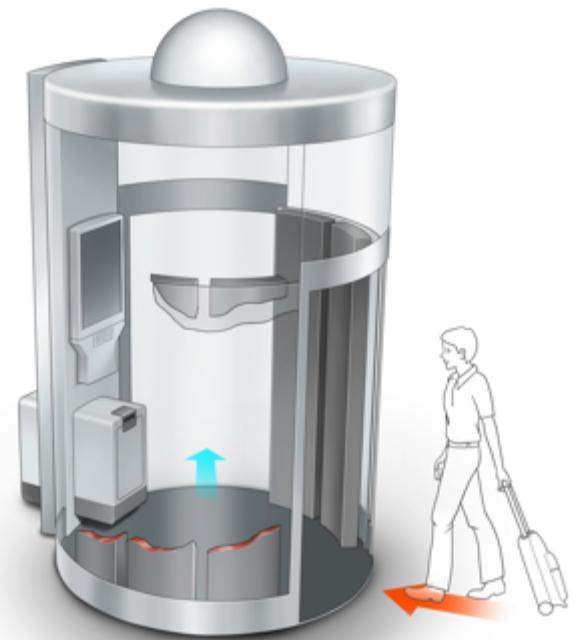
A blend of backscatter and transmission X-ray to provide **three dimensional imaging of carry on luggage**

Integrated body scanner and passport reader

Based on work Micro-X is undertaking with the UK Government's Department for Transportation

Concept reimagines the future of airport checkpoints based on self-service model

**Addressable global market ~US\$24B**  
**TSA alone US\$8B market opportunity**



Above: Illustration of Future Airport Checkpoint Portal

# Brain imaging for strokes

MICRO-X

## Point-of-care diagnosis inside the Golden Hour

### Brain Tomography for Stroke diagnosis

New medical imaging technology for pre-hospital diagnosis of strokes in a mobile setting such as a road or air ambulance

Curved detector will be the first of its kind and be built in collaboration with **Fujifilm**

Awaiting confirmation of **potential \$15m funding** under Second Phase of the Australian Stroke Alliances Project

**Potential to be a game changer in modern stroke treatment with addressable market ~US\$5B**

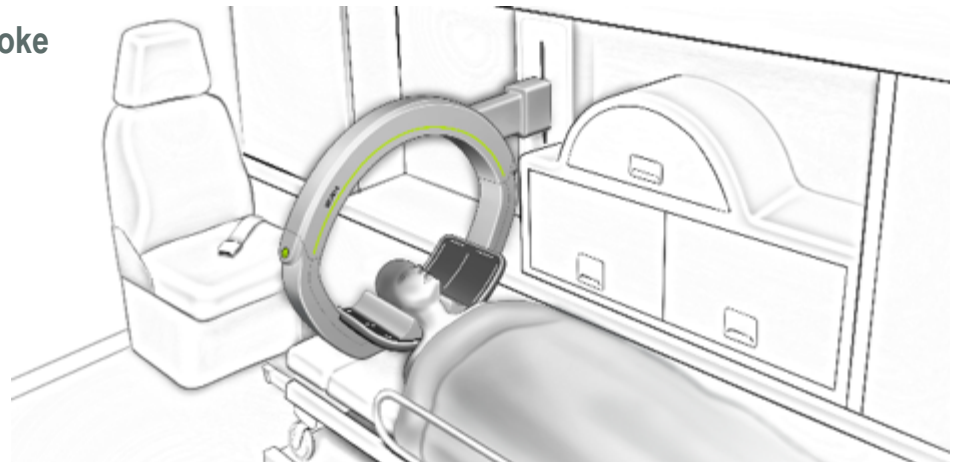


Illustration of curved ring scanner in ambulance setting

Personal use only

# Established Capability: Manufacturing Operations MICRO-X

World-class manufacturing with efficiency learned from the automotive industry

- State of the art manufacturing facility spanning over 2,000m<sup>2</sup>
  - South Australian Tonsley Innovation District
- ISO 13485 certified Quality Management System
- \$4 million invested since April 2020
  - Capacity now 2 units (Nano/Rover) per day
  - Component inventory supports Nano or Rover product
- Local supply chain – heading towards 95% Australian with huge reduction in cycle time
- Nano and Rover build on same line with 95% parts commonality



Above: Assembly of Rover units prior to shipment



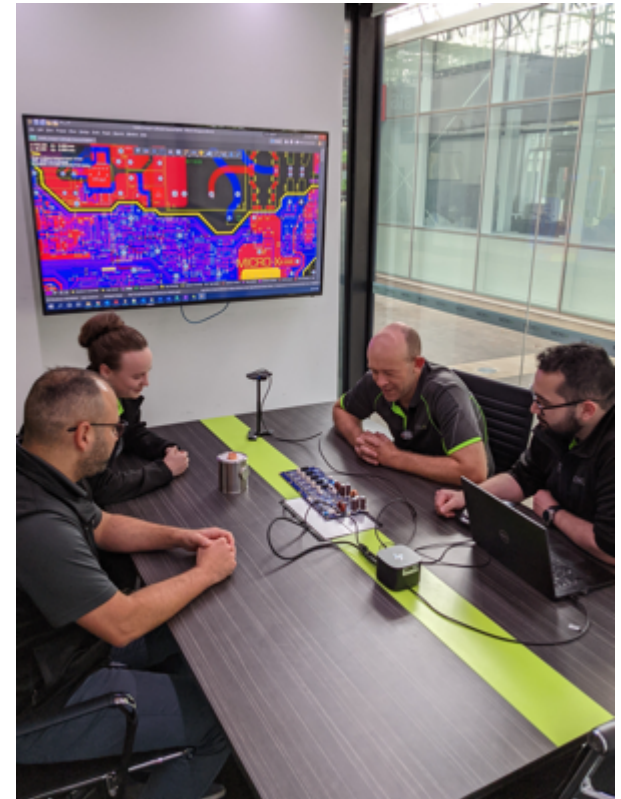
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# Established Capability: Engineering Design

MICRO-X

## World-class capability in multi-disciplinary systems design

- Customer-led design methodology; proven fast track development process
- ISO13485 accredited design processes
- 23 engineers and scientists covering: Mechanical & Materials; Electronics & Control; Software & Systems; Vacuum physics; High Voltage engineering; Ergonomics & workflow
- Centre of Excellence in software & Image processing to be established in Micro-X Inc. in Seattle WA
- 2 key patents granted this year
- In-house, proprietary, image re-construction software algorithms for 3D backscatter and transmission
- TSA contract award recognises systems design, project management & prime contracting capability - not just CNT technology

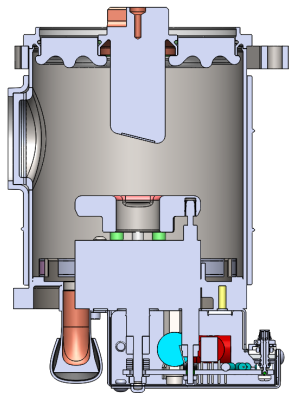


# Platform Technologies: Next Gen CNT X-ray

MICRO-X

Summit: Next generation mini-tube for multi-source applications – designed for mass production

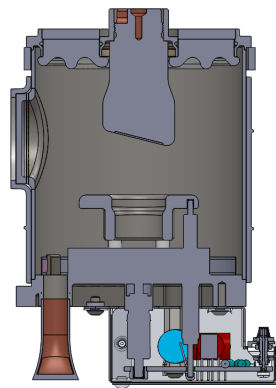
**NUGGET**



Specification	Value
Voltage Range	40kV – 110kV
Current Range	30mA – 70mA
Size (cm)	16.3 x 11 x 10
Weight (kg)	1.5

Our first in-house X-ray tube for NANO

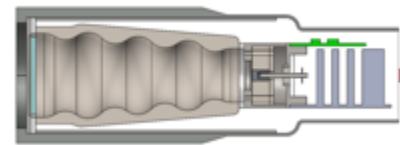
**MOSAIC**



Specification	Value
Voltage Range	40kV – 120kV
Current Range	30mA – 100mA
Size (cm)	16.3 x 11 x 10
Weight (kg)	1.5

High Power X-ray tube for ROVER

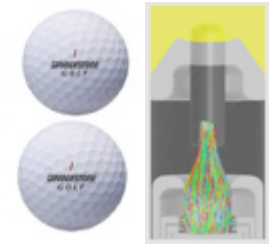
**FUGGLES**



Specification	Value
Voltage Range	160kV
Current Range	1mA
Size (cm)	
Weight (kg)	0.5

Integrated Tube and Generator for MBI

**SUMMIT**



Specification	Value
Voltage Range	60kV-120kV
Current Range	60mA
Size (cm)	8.2 x 3.8 x 4.2
Weight (kg)	0.5

Next Generation Mini-Tube

- Mass production for multi-source gantry applications:
  - Airport Security
  - Brain CT

## Image Reconstruction & Processing

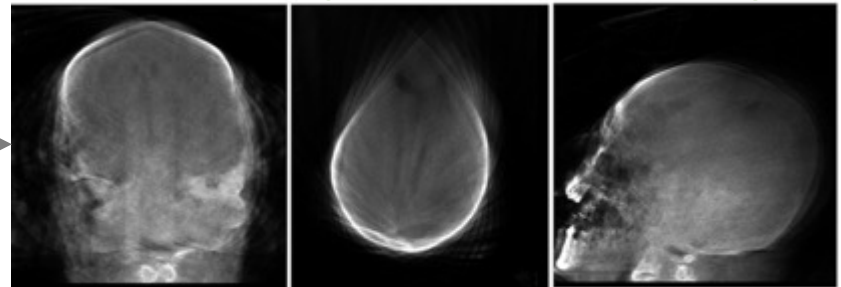
```
40
41 $(function){cards();};
42 $(window).on('resize', function(){cards();});
43 function cards(){
44   var width = $(window).width();
45   if(width < 750){
46     cardssmallscreen();
47   }else{
48     cardsbigscreen();
49   }
50 }
51 function cardssmallscreen(){
52   var cards = $('#cards').length;
```

### Core Property Imaging Software and Algorithms

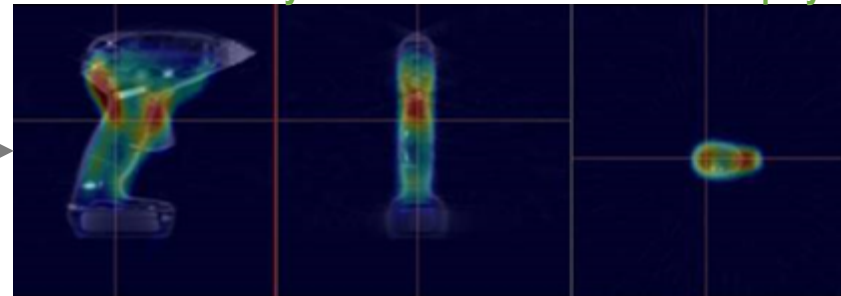
- Platform Imaging software leveraging unique properties of CNT x-ray tubes
- Combines conventional x-ray 3D imaging with unique backscatter imaging
- Developed in-house during MRFF phase 1 grant, UK DFT grant, and MBI development
- Continue to develop in TSA funded program



Backscatter Image Reconstruction and Display



Stroke Tomosynthesis Reconstruction and Display



Explosives Imaging CT Reconstruction and Detection

Personal use only

# Platform Technologies: High Voltage Supplies

## In-house High Power generator project – central to all future x-ray tubes

**Objective:** Complete in-house design & manufacture of high power generator by mid 2021  
- reduce manufacturing costs and enable high-power Rover product for sale



**Design work** for in-house generator largely completed



Project investment is **\$3.5m over 10 months**

- Build samples, test, certify and develop manufacturing infrastructure
- \$1.6m in materials and Capex; \$1.9m on engineering services



**Production of generators targeted by end of 1Q 2021**

- Enable control of supply chain and reduced manufacturing costs
- **Platform technology** for all future products

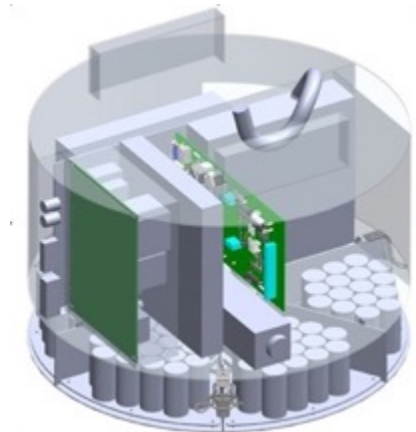
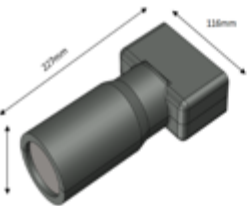
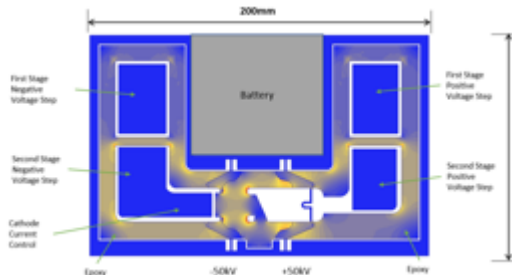
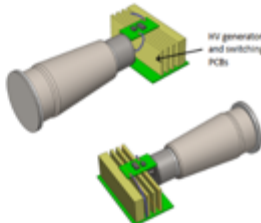


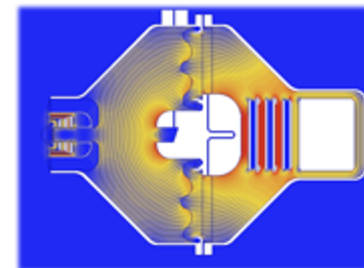
Illustration of High Powered 120kV Generator



Monoblock 160kV



Bi-Polar hand held Monoblock 100kV






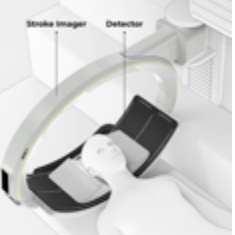
Multi-Source high voltage switching for MBS/Brain Tomo



# Our Four Production Lines

MICRO-X

Micro-X has a strategically planned product roll-out as our CNT technology is advanced

Product	First sales	Addressable Market
 <p>Mobile Bedside DR</p>	<p>2018</p>	<p>US\$670M p.a.</p>
 <p>Backscatter Counter-IED</p>	<p>2022*</p>	<p>US\$1.8B</p>
 <p>Airport Checkpoint</p>	<p>2024*</p>	<p>USA: US\$8B RoW: US\$16B</p>
 <p>Stroke Brain Scanner</p>	<p>2026*</p>	<p>US\$5B</p>

\* These dates are estimates and may vary

# Conclusion

MICRO-X

## Unlocking value from our revolutionary CNT technology

- Own the **proven technical edge**
- Products in market – with **revenue**
- **Multiple product lines** in design
- **Massive addressable markets**
- **Customer pull** – not technology push
- Demonstrated **design & manufacturing capability** to deliver
- Continuous **innovation to drive value**



# MICRO-X Ltd

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# Ordinary Business

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MICRO-X

**Question Time**

**Voting to Close**

**Conclusion of Formal Business**

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