



## **HEAD CT DEVICE DELIVERS FIRST FULL 3D CT IMAGES**

\$0.5m milestone achieved, triggering preparation of hospital systems for future human clinical trials

**Adelaide, Australia, 6th December 2024:** Australian hi-tech company Micro-X Ltd (ASX:MX1) (**Micro-X** or the **Company**), a leader in cold cathode x-ray technology for health and security markets globally, is pleased to announce its Head CT test bench has successfully generated CT images to complete the next milestone of the Medical Research Future Fund (**MRFF**) program.

## **Key points**

- World-first production of full Head CT images using proprietary Micro-X miniature X-ray tube array, high voltage switching and imaging software
- Images show clinical detail and visualisation of brain anatomy
- MRFF Project milestone achieved \$0.5m payment due
- Micro-X Head CT measured to have one-third of the radiation dosage of a conventional stroke CT
- Commencing manufacture of hospital test benches enabling ethics approval application and progress towards human clinical trials

Micro-X has delivered CT images taken by its Head CT test bench showing the skull and soft tissue structure of the brain of an anthropomorphic head phantom. Clinical leads at the Australian Stroke Alliance (ASA) determined the images show detail of the sulci, ventricles and vascular anatomy in the supratentorial compartment. This marks a significant milestone achievement in the Head CT project, with an associated payment of \$0.5m. The Company is now building hospital test benches that will support an application to the Royal Melbourne Hospital's Ethics Committee, with human clinical trials planned to commence in early 2025.

Radiation measurements under this milestone determined the effective dose to a patient from Micro-X Head CT imaging is around one third of a conventional head CT dose. This is well below annual radiation exposure limits for members of the general public.

Micro-X Chief Executive Officer Kingsley Hall commented:

"The significance of this achievement in developing a world-first mobile Head CT device should not be underestimated.

The value of this technology goes beyond head imaging, enabling future opportunities including the next generation of full body CT imaging. We are committed to our purpose of creating revolutionary X-ray imaging that betters lives, and today's achievement is another step forward in delivering on our promise."

## **About the Micro-X Head CT**

The Micro-X Head CT consists of a world-first array of Micro-X proprietary mini tubes, a novel curved detector, a rapid high-voltage switching control system and Micro-X's compact high-voltage generator.

Micro-X has developed advanced high-voltage switching electronics that turn the mini-tube cathodes on and off in rapid succession at 100kV while the array is connected to Micro-X's high-voltage generator. CT images are reconstructed using an in-house image software framework and novel adaptive deep scatter estimation algorithms to generate three dimensional images. This core technology underpins the development of Full Body CT for ARPA-H.

The next milestone involves the build of three hospital test systems with demonstrated full diagnostic image quality to progress ethics approvals and commence live human imaging.

Head CT opens up the pre-hospital point of care market for deployment in emergency response vehicles, as well as providing cost and space effective head CT imaging in Emergency Departments and neurological operating rooms.

Micro-X Ltd. ABN 21 153 273 735, 1284 South Road, MAB Gate 2, Tonsley, South Australia 5042 www.micro-x.com



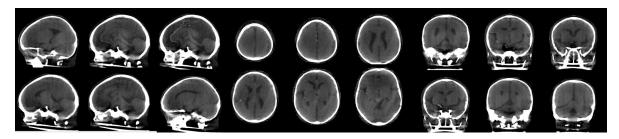


Fig: 1 Head CT images showing the skull and soft tissue structure of the brain of an anthropomorphic head phantom

Micro-X Chief Operating Officer Anthony Skeats, leading the Head CT programme, commented:

"Achieving this milestone is the culmination of hard work, dedication and belief that Micro-X NEX Technology can deliver CT imaging that is accessible for all. In the last three years our team and partners have shown incredible collaboration and determination to show that our novel approach works.

Co-chair of the Australian Stroke Alliance, Professor Stephen Davis AO: "I am pleased to see these very promising results from the initial scans in phantom models. We look forward to testing the technology in stroke patients in the hospital environment."

Co-chair of the Australian Stroke Alliance, Professor Geoffrey Donnan AO: "The strength of this technology is its lightweight portable structure, which will make it ideal for use in prehospital settings, particularly in remote locations".

This ASX Announcement is authorised by the Board of Micro-X.

- ENDS -

#### **About Micro-X**

Micro-X Limited (the Company) is an ASX listed hi-tech company developing and commercialising a range of innovative products for global health and security markets, based on proprietary cold cathode, carbon nanotube (CNT) emitter technology. The electronic control emitters with this technology enables x-ray products with significant reduction in size, weight, and power requirements, enabling greater mobility and ease of use in existing x-ray markets and a range of new and unique security and defence applications. Micro-X has a fully vertically integrated design and production facility in Adelaide, Australia. A growing technical and commercial team based in Seattle is rapidly expanding Micro-X's US business.

Micro-X's product portfolio spans four, high margin, product applications in health and security. The first mobile digital radiology products are currently sold for diagnostic imaging in global healthcare, military and veterinary applications and the Argus X-ray Camera for security and defence is now commercially available. The US Department of Homeland Security has contracted Micro-X to design a next-generation Airport security checkpoint. A miniature brain CT imager for pre-hospital stroke diagnosis in ambulances, is being developed with funding from the Australian Government's Medical Research Future Fund.

For more information visit: www.micro-x.com

# **Contacts**

Micro-X Limited	Investor Enquiries
Kingsley Hall, Chief Executive Officer Rebecca Puddy, Head of Corporate Communications Tel: +61 8 7099 3966 Email: media@micro-x.com	David Allen/John Granger  Hawkesbury Partners  Tel: +61 2 9103 9494  Email: dallen@hawkesburypartners.com  jgranger@hawkesburypartners.com

Micro-X Ltd. ABN 21 153 273 735, 1284 South Road, MAB Gate 2, Tonsley, South Australia 5042 www.micro-x.com