

**2018 Australian MicroCap Investment Conference** 

Micro-X: The End of the Beginning

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#### The MX1 Platform Technology Achievement

### The World's First Electronic-Controlled X-Ray



- Miniaturising X-Ray Sources
- FDA 510(k) & CE Mark approvals
- Micro-X now recognised globally







#### The MX1 Core Business Model:

Developing & manufacturing innovative, ultra-lightweight, X-ray imaging products for global medical and security markets.

- Core technology is Carbon Nano-Tube (CNT) emitters
  - Exclusively licenced from technology partner XinRay Systems
  - Enables small size and electronic control of X-Ray tubes
- -Of personal use Path-to-market Partnership with global brand name, Carestream Health
  - OEM supply ex-works Adelaide
  - Follow-on product opportunities under discussion
  - Leverage contracts with Australian Department of Defence & UK Government
    - Unfulfilled need for deployable medical x-ray and stand-off IED imaging
    - Appetite for a new paradigm in airport checkpoint security
    - ADF as reference customer for MX1 brand development
    - Prove new electronic beam 3-D imaging modality
  - New products pioneer unique x-ray modality



#### First Product - Now On Sale

#### Carestream DRX Revolution Nano

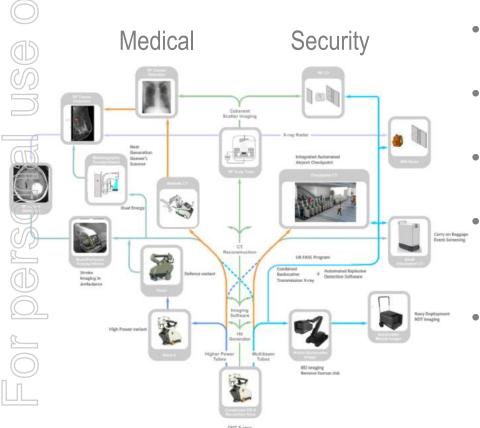


- Carestream sales and marketing now taking orders
- In clinical use in US hospitals
- Initial user feedback very positive
- MX1 production deliveries against first order
- Air freight damage issues resolved
- Sales prospects strong



#### The Long-Term Strategy Hasn't Changed

#### Ajourney of 1,000 miles starts with a single step



- Prove the CNT technology platform with the 'Carestream DRX Revolution Nano'
- Prove the MX1 team can deliver worldclass innovation, design and manufacture
- Become established in both Medical and Security markets
  - Create a Product Roadmap of opportunities where we can offer high customer value and there is no competitor
  - Progress the opportunities in order of best risk/return



#### **Strategic Crossroads**

## The End of the Beginning

- We have invested in.....
  - People, Culture, Technology, Partnerships
  - Manufacturing, Facilities, Processes, Equipment, QMS, Regulatory Approvals,
  - The platform technology, overcoming unexpected hurdles
- We have proven ourselves with a game-changing First Product
- The technology platform provides sustainable competitive advantage for the long-haul
- We have unique roadmap of high-margin products ahead with no competitors
- We have global x-ray industry leaders wanting to work with us
- How do we realise maximum value from these achievements?
- How do we accelerate the product revenues?



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#### **Grand Alliance**

#### Partnering to Accelerate Global Commercialisation

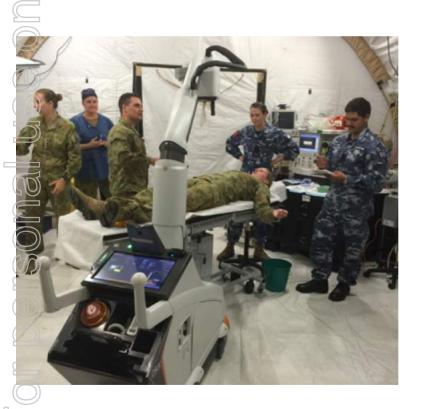
- Collaboration discussions have progressed well with a number of global radiology companies
- MX1 is looking for :
  - A shared vision for technology and applications
  - Investment to accelerate product development and commercialisation
  - Technology synergy: 1 + 1 = 3
  - New paths to market
  - Access to additional resources for acceleration
- Project funding as well as corporate investment sought
- Expect an announcement in Q4 CY18



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#### **Future Product Opportunity in Development**

#### Rover



- X-Ray tube re-designed for the more demanding, higher-energy exams used in trauma medicine
- Imaging tests for Australian Defence
   Force completed
- Operated up to 10kW (100kV, 100mAs)
- Australian Defence Force Radiologist imaging reviews shows full diagnostic quality
- Australian Army tender in evaluation.



#### **Future Product Opportunity in Development**

#### Mobile Backscatter Imager (MBI) for Counter-IED Assessment



- Today Explosive Ordnance Disposal technicians exposed to high risk acquiring x-ray image to assess and render-safe IEDs
- MX1 has demonstrated stand-off backscatter imaging to Australian Defence Force with 0.5mm resolution

- Voice of Customer meetings conducted with Australian Defence Force and FBI & DoD in Washington DC
- Interest in product very strong
  - New configuration of standalone imaging unit which can be picked up by any EOD robot
- More challenging weight target
- Addressable global market \$1.8B





#### **Brain Perfusion CT Imaging**



- Multi-beam CT is small, light and affordable Potential fit to every ambulance
- Treatment can commence in Ambulance
- Addressable global market: \$25B

- Stroke dichotomy: Thrombotic or Haemorrhagic? CT diagnosis must precede treatment
- Time to commencement of treatment biggest factor in recovery and on-going patient care costs.
- Stroke Ambulance is single-purpose due to large size of conventional CT imaging

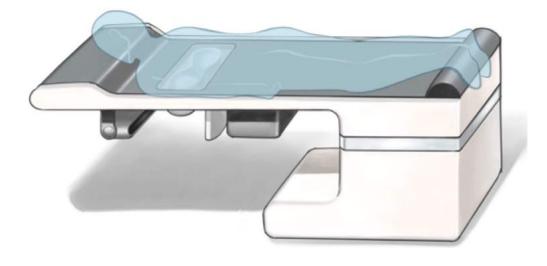




# 2D projection x-ray imaging being

- 2D projection x-ray imaging being replaced by 3D CT to improve diagnosis
- Pain from 20kg breast compression forces in current technology reduces patient participation in screening CNT technology product offers:
  - No breast compression
  - Short scan time
  - No motion blur
  - Dual energy to improve detection

Addressable global market: \$1.3B





#### Bedside CT Imaging

Risks in moving ICU Patients for a conventional CT scan

Mobile Tomosynthesis Applications include:

Coronary Artery CT, Pneumothorax,
 Pulmonary Tuberculosis, Mycobacterial
 Disease, Cystic Fibrosis

CT image slices shown below from proof-of-concept imaging



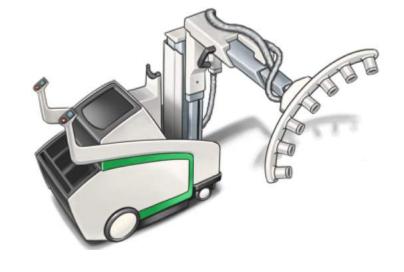














#### Airport Checkpoint X-Ray Security





Future Airport Checkpoint X-Ray concept uses same imaging module technology Combination Multi-beam CT & Backscatter with automated detection algorithms

ECAC Detection Standards 3 & 4

No divestment necessary - 1200 bags per hour possible (currently 200)

Looking for global go-to-market partie.

Addressable global checkpoint CT market: \$2.4B

Contract from UK Government Future Airport Security Solutions

The in Electronics" leads to next-generation checkpoints. "Finding Explosives in Electronics" leads to next-generation checkpoint x-ray





#### **MX1** Beyond the Crossroads

#### Valuing the near-term Product Roadmap

- Commercialising product revenue quickly is important to derive most value
- The Grand Alliance allows parallel product development instead of serial
- Best products first
- Building Micro-X brand image by first product recognition also important
- NPV of the 9-year cashflows from these products (at 15% discount) points to a Billion dollar company.



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