entx

Corporate Presentation

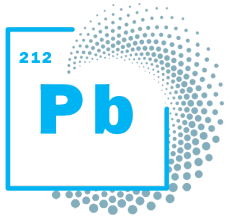
September 2025

entX Competitive Advantage

GenX Betavoltaic Power Generator

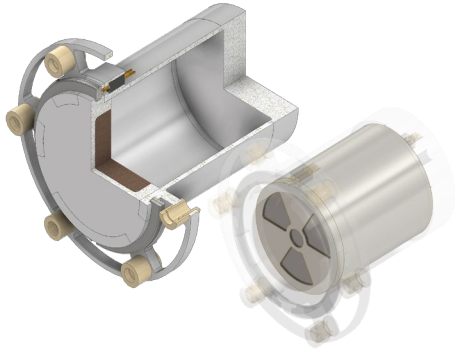
- **World-leading betavoltaic performance**.
- Volume manufacturing by design provides scalability and rapid deployment
- Disruptive IP in betavoltaic power generation that **unlocks new performance regimes**

Mines to Medicine



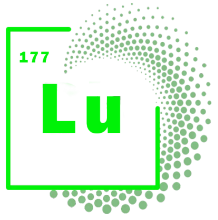
- **Significant resource industry experience and connections provide pathways to product**
- Australia's first commercial radioisotope production facility under construction
- Supply and offtake agreements in place

Radioisotope Heating Unit (RHU)



- Safe, fast to market cost-leading solutions that extend lunar mission lifespans from a few weeks to up to four years
- Engineering solutions with multiple customers
- First launch scheduled for 2026

Isotopic Enrichment



- **Unique IP using simple chemical process for isotopic separation**
- Potentially lower cost alternative to other enrichment technologies
- Seeking to provide western supply into a large and growing customer demand.

Our Strategy

entX

Purpose

entX is a nuclear science and advanced manufacturing company leading the advancement of innovative technologies, to create scalable technologies for the space, defence and healthcare sectors.

Promise

entX aims to develop sovereign capabilities in breakthrough technologies that deliver lasting environmental, social and economic benefits, while enhancing global security. We aim to deliver sustainable solutions that transform industries and create value for shareholders.

Pillars

Space and Defence	IsoMedica	Other Technologies
The S&D pillar is strategically positioned to capitalise on growth in the global space sector and rapidly increasing demand for autonomous applications in the defence industry. Through our unique energy technologies: GenX power system and RHU lunar night survival technology, entX is changing the landscape for future defence and space applications.	entX is scaling-up processes for producing the products, creating robust medical isotope supply chains to service the lucrative radiopharmaceutical industry, for which there are serious global supply limitations. We are leveraging our mining and nuclear experience to create 'mines-to-medicine' supply options for key isotopes required by the global radiopharmaceutical industry.	• PhosEnergy Process • Carbon transition technologies • Other commercialisation opportunities leveraging platform technologies and capabilities developed by entX.

Intellectual property & commercial capability underpinning our strong nuclear science background

Strategic partnerships

entX | Our people

Management

Bryn Jones
Founder
Managing Director

Dr Julian Kelly
Chief Technical Officer

Dr Massey de los Reyes
Principal Scientist IsoMedica

Dr Scott Edwards
General Manager – Generation Technologies

Damien Connor
CFO & Company Secretary

Leigh Whicker
Commercial Manager

Capital Structure

208m[1]	**$12.8m[1]**
Total shares on issue	Cash on hand
$62.4m[1]	**6.5m**
Post-money implied valuation	Total balance of unlisted options

1. As at 31/08/25

Board of Directors

Tony Kiernan
LLB
Chairman

Bryn Jones
BAppSc, MMinEng, FAustMM
Managing Director

Lucy Gauvin
BCom (CorpFin), LLB
Non-Exec Director

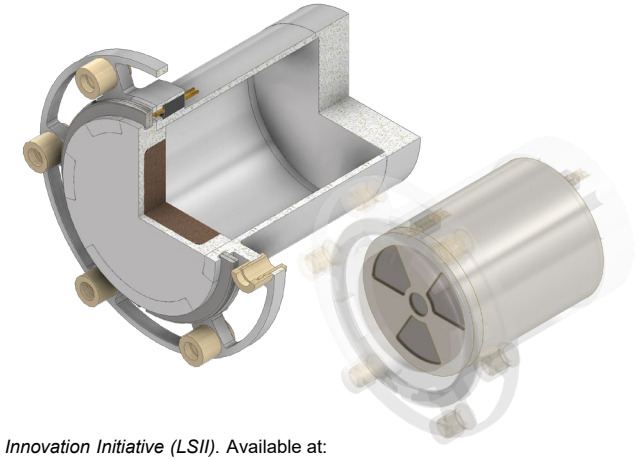
Tim Wise
BSc
Non-Exec Director

Space & Defence Focus Technologies

GenX Betavoltaic Power Generator

- The space and Defence industries view the lack of long-lasting, reliable power systems as a core limitation, **hindering mission capabilities and asset deployment**
- entX has developed disruptive IP in betavoltaic power generation that **unlocks new performance regimes**

Radioisotope Heating Unit (RHU)



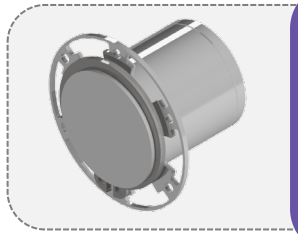
- The entX RHU is designed as a heat source to address the #1 key capability shortfall of the civic space industry[1] – ***surviving the lunar night***
- Accessing safe and transportable, reactor-derived radioisotopes using the nuclear medicine supply chain

Sector Tailwinds

- Increased spending from major defence programs is fueling the development of sovereign platform capabilities
- Increased M&A and strategic partnerships are streamlining supply chains and enhancing mission capabilities
- Private investment and government partnerships are driving advancements in technology across the sector

1. NASA (2023) *Lunar Surface Innovation Initiative (LSII)*. Available at: https://www.nasa.gov/directorates/spacetech/lunar_surface_innovation_initiative (Accessed: February 2025)

Radioisotope Heating Unit (RHU)



Radioisotope Heating Unit (RHU) for lunar night survival

What

entX's design uses **safe, commercially viable radioisotopes** to provide heat to critical systems for **lunar night survival**. Our RHU has the potential to extend mission life without the need to carry heavy batteries to power heaters and maximise asset utilisation in commercial lunar missions.

Applications Targeted

- Small payloads requiring lunar survival beyond one week, with a quickly deployable RHU solution that extends asset lifetime from days to months
- Long term survival for semi-permanent installations (2-5 yrs)

Current State of the Market

- Rapidly increasing number of payloads targeting a lunar landing are not able to survive the lunar night
- High Cost of Lunar payload delivery: **USD $1.2 - 4.5m /kg**
- **NASA** has identified lunar night survival as the **#1 key capability shortfall** in the Civil Space Industry (2024)

entX's Competitive Advantage

Revolutionising lunar exploration by offering options for safe, fast to market cost-leading solutions that extend mission lifespans from a few weeks to up to four years. **LOI in place to supply up to 48 RHUs** to a single customer by 2030. **AUD $1m ASA grant received for first launch** and agreement with Japanese lander company, ispace, to integrate RHUs

Civil Space Shortfall Ranking: Integrated List

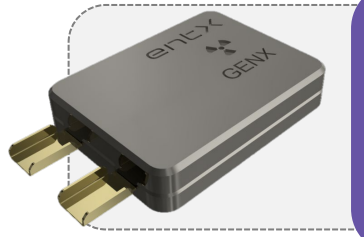
Using the methodology described, the Civil Space Shortfall Ranking integrates inputs from NASA mission directorates and centers, small and large industry organizations, other government agencies, academia, and other interested individuals. The list is ranked from highest (1) to lowest (187).

The **bolded black text** in the table indicates the shortfall is within the top three ranked shortfalls in its capability category.

Integrated Rank	Average Integrated Score	Shortfall ID	Capability Category
1	8.1035	**1618: Survive and operate through the lunar night**	Thermal Management Systems
2	7.6118	**1596: High Power Energy Generation on Moon and Mars Surfaces**	Power
3	7.4345	**1554: High Performance Onboard Computing to Enable Increasingly Complex Operations**	Avionics
4	7.3831	**1557: Position, Navigation, and Timing (PNT) for In-Orbit and Surface Applications**	Communication and Navigation
5	7.2473	**1545: Robotic Actuation, Subsystem Components, and System Architectures for Long-Duration and Extreme Environment Operation**	Autonomous Systems and Robotics
6	7.2076	**1552: Extreme Environment Avionics**	Avionics

Source: NASA Shortfall Rankings

GenX – Improving Resilience in Space



GenX Betavoltaics for long lasting power

What

GenX **converts radioactive decay energy** from beta-emitting isotopes **into power** (betavoltaics) creating a steady, long-lasting power source.

Applications Targeted

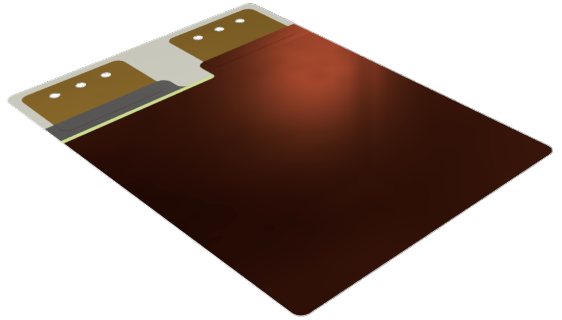
- Extreme duration power sources for military applications (Human carried charging systems, unattended surveillance sensors etc)
- **Unique capability opportunity** for spacecraft, unattended sensors and autonomous underwater vehicles (UUV)
- Remote sensing and IoT devices

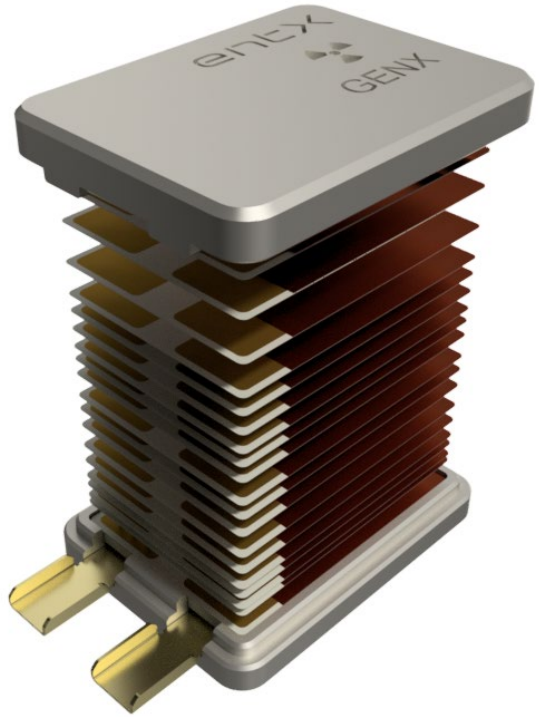
Current State of the Market

- Space TAM estimated at > USD $1.28b (2019[1])
- Defence TAM estimated to be much higher
- Very few market competitors
- **US Defence (DARPA) seeking performance of 1-5W/kg by 2030.**

entX's Competitive Advantage

Strong IP position in advanced electrode configurations and semiconductor technology, enabling **world-leading betavoltaic performance**. The company's volume manufacturing approach supports scalability and rapid deployment that is already attracting customers. **entX holds granted patents in five jurisdictions and expects its US patent to be issued in the coming months.**





1. Knowledge Sourcing Intelligence

Space & Defence – Achievements and Milestones

Achievements to Date

- Over AUD $12m in grant and partner contributions to developing entX's S&D energy portfolio
- Designed demonstration RHU and engaged with customers, securing SASIC funding to complete a feasibility assessment for ispace's lunar lander
- Signed LOI with Fleet Space for the supply of up to 48 RHUs subject to performance and mission conditions
- Developed scale manufacturing process for GenX using industry standard processes
- Achieved world-leading betavoltaic performance – GenX

Forecast Milestones | Next 12 Months

- Launch our RHU into space (Flight Heritage) – Q2 2026
- Complete RHU prototype unit and complete required pre-flight testing – Q4 2025
- Target prototype supply agreement with GenX to enable end-user testing – Q4 2025
- Commission GenX demonstration manufacturing facility commissioning (Q4 2025) and produce customer prototypes – Q1 2026
- Further improve betavoltaic performance culminating in consistently exceeding DARPA 2030 target power density in testing – Q1 2026

IsoMedica

Global Radiopharmaceutical Industry | Market View

IsoMedica

Radiopharmaceutical Companies with Drugs in Development

Ratio Therapeutics	Abdera Therapeutics	Ariceum	bicycle therapeutics	Full-Life Technologies
Starget	Actinium Pharmaceuticals, Inc.	ARTBIO	Cellectar Biosciences	itm
Telix	AdvanCell	Bristol Myers Squibb	Clarity Pharmaceuticals	Lilly Point Biopharma
LNCYT 蓝纳成	alpha9 Theranostics	RayzeBio	Convergent Therapeutics	Lantheus
3B Pharmaceuticals	Aktis Oncology	Blue Earth Therapeutics	Curium	Novartis
Radionetics Oncology	RAD Radiopharm Theranostics	RadioMedix	Precirix	Perspective Therapeutics
Pentixapharm	oranomed	Nuview Life Sciences	Debiopharm	mariana oncology
	ImaginAb	AstraZeneca	Bayer	

Lead-212 (Pb-212)

- An emerging Targeted Alpha Therapy isotope rapidly being adopted by major pharmaceutical companies, including:
  - **Orano Med and Sanofi** sign €2 billion deal to develop Pb-212 based drugs
  - **Telix (Mkt Cap AUD $6b)** Announces Pb-212 generator development and drug strategy. Telix and entX sign supply LOI
  - **AdvanCell** raise USD $115m to progress Pb-212 drug and generator development.
  - **Lilly** (Point Biopharma) maintains strategic stake in AdvanCell
  - **Bristol Myers Squibb** (RayzeBio) updates US RAM application for a significant volume of Pb-212 precursors
  - **Molecular Partners** and **Orano Med** expanded Pb-212 pipeline to ten programs
  - **Thor Medical** secure three-year Pb-212 supply agreement for preclinical research.

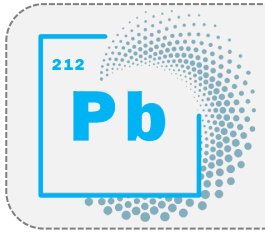
→ ***The smart money is moving towards Pb-212***

Lutetium-177 (Lu-177)

- There is strong momentum across the Lu-177 radiopharmaceutical ecosystem from established market participants. Lu-177 is an established therapeutic isotope that emits beta radiation that efficiently kills nearby cancer cells when labelled to a cancer-seeking molecule.

IsoMedica | Summary

IsoMedica



Lead-212

IsoMedica's Market Positioning

- Permit and build medical isotope production facility
- Secure isotope upstream supply
- Supply **Thorium-228 pre-cursor** into existing demand

Current State of the Market

- **TAM** estimated at **>AUD $300m**[1] p.a (supply of Thorium-228 Pre-cursor)
- Number of inflight clinical trials globally: **28**
- Large pharma companies are now announcing their Pb-212 strategies – increasing future demand forecasts. ***Supply is key!***

entX's Competitive Advantage

IsoMedica is one of very few companies that can feasibly build, own, license and operate their own commercial production facility. Further, IsoMedica has relationships with customers, access to readily available waste streams through its commercialisation agreement with Tellus Holdings Ltd and has developed a novel extraction process to produce commercial quantities of Thorium-228. **entX has signed an LOI for Th-228 and Ra-226 with Telix**.

Supply Chain

Mining and Mineral Waste

↓

Advanced Radiochemical Production Facility (ARPF)

↓

Thorium-228 (Ultra High Purity)

↓

Sale to Lead-212 Producers

Telix
AdvanCell
PERSPECTIVE THERAPEUTICS
ARTBIO

↓

entX Lead-212 Production (non-clinical)

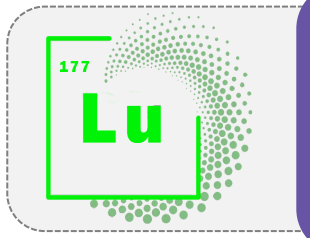
↓

Sales to drug developers

1. Based on a current price of USD $ 135 / MBq of Thorium-228

IsoMedica | Summary

IsoMedica



Lutitieum-177

IsoMedica's Market Positioning

- Developed and demonstrating unique isotope purification technology
- Providing **pre-cursor materials** into high demand isotope supply chains, securing sovereign supply

Current State of the Market

- 2030 TAM estimated at **>AUD $695m** p.a (Supply of Lutitieum-177 pre-cursor)
- Number of inflight clinical trials globally: **105**
- Well established infrastructure for Lu-177 production and distribution. The challenge is Yb-176 feedstock.

entX's Competitive Advantage

IsoMedica can produce Yb-176 at higher levels of purity than most market competitors, leading to reduced issues with reactor operators to produce Lu-177 and thus, is in greater demand from end users. Our isotope purification process has much lower capital costs than competitors.

Supply Chain

Natural Ytterbium (~12.5% Yb-176)

entX Isotope Purification

Yb-176 (>95% Yb-176)

ANSTO

ANSTO

Nuclear Reactors

End Users

NB: Ytterbium= Yb

IsoMedica – Achievements and Milestones

Achievements to Date

- Awarded AUD $1.9m ERF grant to build Australia's first commercial isotope production facility (ARPF)
- Successfully proved Yb-176 enrichment in a novel process and engaged with end-users
- Signed Joint Development Agreement with Tellus Holdings to access Pb-212 precursors and awarded AUD $2.9m CRC-P to advance Th-228 supply capability.
- Successfully extracted Th-228 (product) from waste sources.
- Successfully produced Pb-212 at lab scale – suitable for pre-clinical trials.

Forecast Milestones | Next 12 Months

- ARPF Construction underway, commissioning expected – Q2 2026
- Commission demonstration plant and produce product validation quantities of Yb-176 – Q1 2026
- Sign additional supply agreements for Pb-212 precursors – Q4 2025
- Commission Pilot and deliver demonstrator quantities of Th-228 to customers – Q4 2025
- Provide Pb-212 radiolabeling services for drug developers along with Pb-212 isotope for trials – Q2 2026

Technology platform opportunity

IsoMedica

The platform technology and capabilities developed by entX will have application far beyond its current scope and projects, creating the potential for future inorganic growth and licensing revenue

Technology Platforms

Layered Semiconductors	• **GenX Betavoltaic** • Next Generation perovskite photovoltaics (GenS) • Industrial heat recover (GenT)
Isotopic Purification	• **Yb-176 production for Lu-177 production** • Next wave of radiopharmaceutical isotopes • Isotopic fingerprinting for guaranteed source of origin
Advanced Ion Exchange	• **Th-228 feed stock recovery (Mines to medicine)** • **Isotopic purification platform technology** • **PhosEnergy uranium from phosphates** • **UXP Energy – A new uranium from phosphates model**
Nuclear Engineering	• **Development of energy sources for GenX and RHU** • Development of new candidate radiopharmaceutical isotopes

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