



THE PRIMARY HELIUM COMPANY

Strategic resource in an
expanding market

May 2022 121 Presentation

AIM:HE1

helium-one.com

Helium One



A Globally Significant Asset To Resolve A Supply Constrained Market

- **4,512km²** licence area in Tanzania, 100% owned, with high-grade surface seeps up to **10.6%He**
- An established **working helium system** identified

De-risked basin with multiple prospective intervals and identified helium shows

- Expanded portfolio with new leads developed from extensive **subsurface database** and Phase II Seismic
- **Experienced management** with a track record of success
- **Low CAPEX development** of strategic size resource in increasingly business friendly jurisdiction
- Clean, **low-carbon**, sustainable source not associated with hydrocarbons

Capital Structure	AIM:HE1
Sector	Industrial Minerals
Cash (31 Dec)	USD \$9.7m
Shares	615,993,183
Options	75,659,832
Market Cap (29 Apr)	£66m
Avg Daily Volume	3,640,000



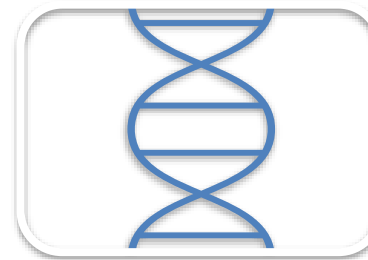
Helium One share price and volume since listing



Helium Demand

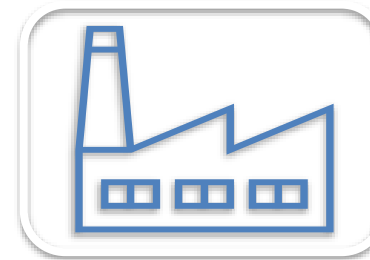
High-Tech, High-Value, High-Growth applications

- Unique properties for a range of high-tech applications
- Lowest boiling point of any gas
 - -272°C : 1°C above absolute zero
 - High specific heat capacity and low viscosity
- Smallest molecular size
 - Essential for a pure environment
 - Purging and leak detection



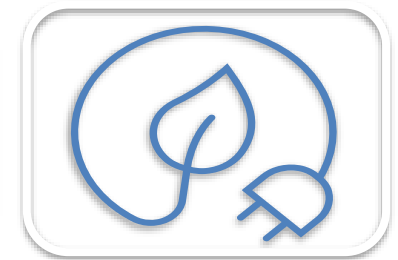
Medical

- MRI Scan
- Assisted Breathing



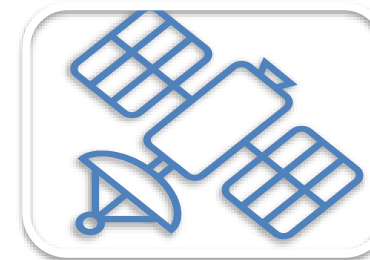
Manufacturing

- Semi-Conductors
- Fibre-Optics



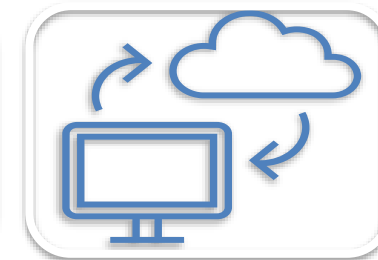
Energy

- Nuclear Fission
- Nuclear Fusion



Space

- Rocket Purging
- Leak Detection



Computing

- Data Centres
- Quantum Computing

Broad range of high-value end uses: Cannot be substituted and difficult to recycle

- Key growth sectors in healthcare, computing and high-tech manufacturing
- Rapid demand growth - expected to grow from 6Bcf to 8.5-10Bcf by 2030



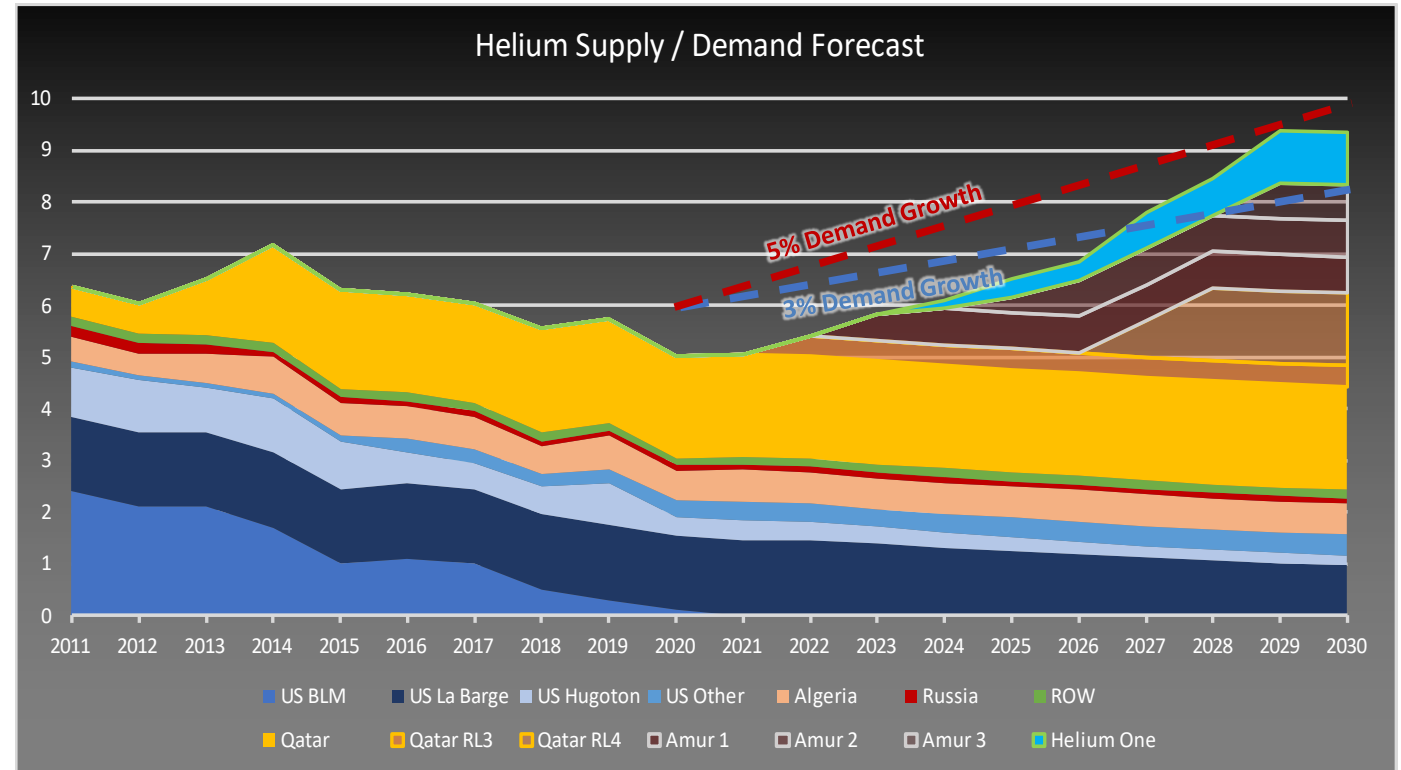
Helium Supply

Ongoing Supply Crisis

- Inelastic supply as by-product of hydrocarbons with concentrations typically 0.04-0.35% He
- Short term - Closure of US Federal Reserve in 2019 triggered a supply shock
- Medium term - ~2 Bcf of new supply from Russia in question
- Long term - structural deficit associated with the transition to green economy

No end in sight for current supply shortages

- New primary helium projects are required to meet demand growth

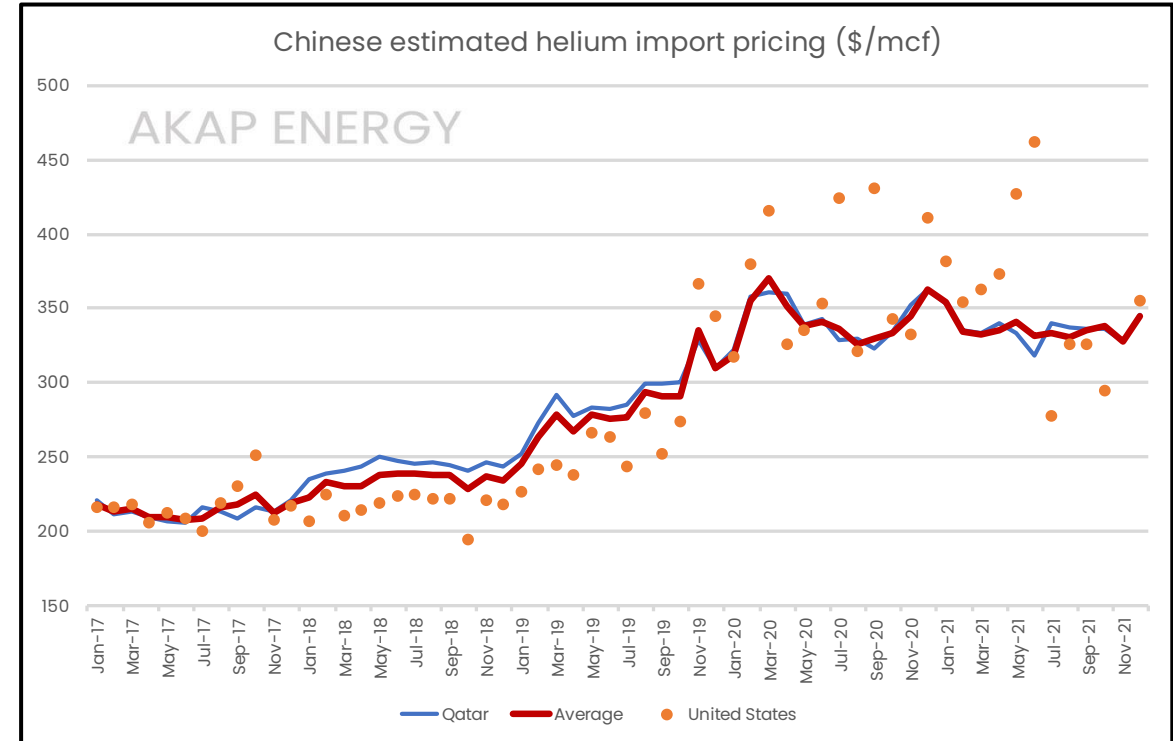
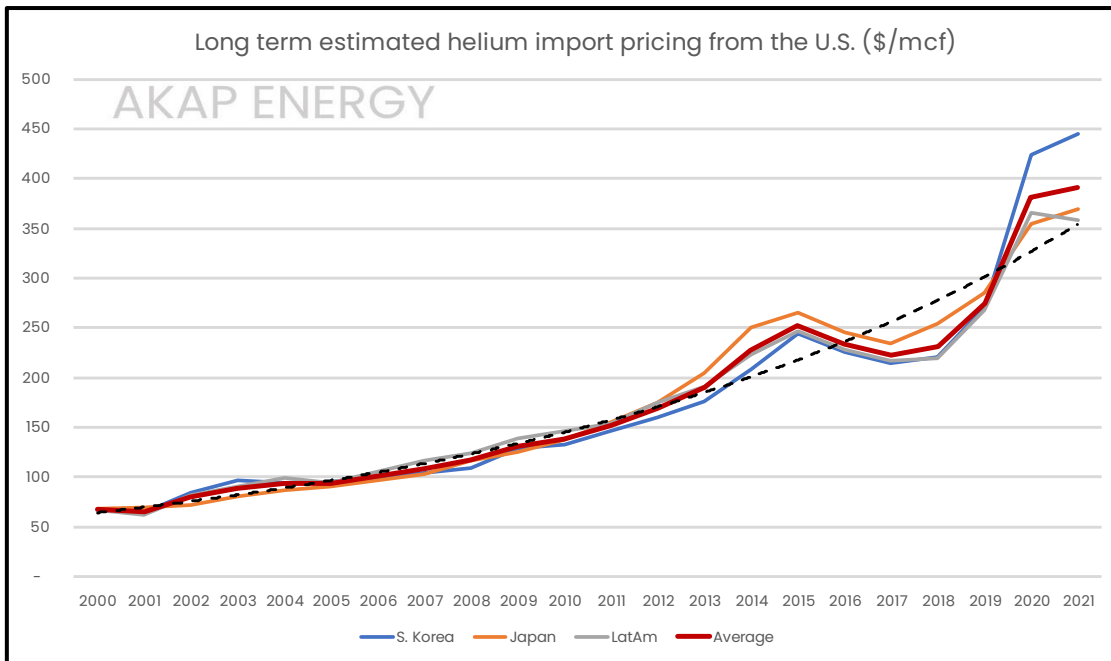




Helium Pricing

Sustained Demand Lead Price Increase

- Long term price growth of **8% CAGR** based on sustained demand growth
- **Rapid price growth** 2019 onward in response to ongoing supply crisis caused by closure of US Federal Reserve



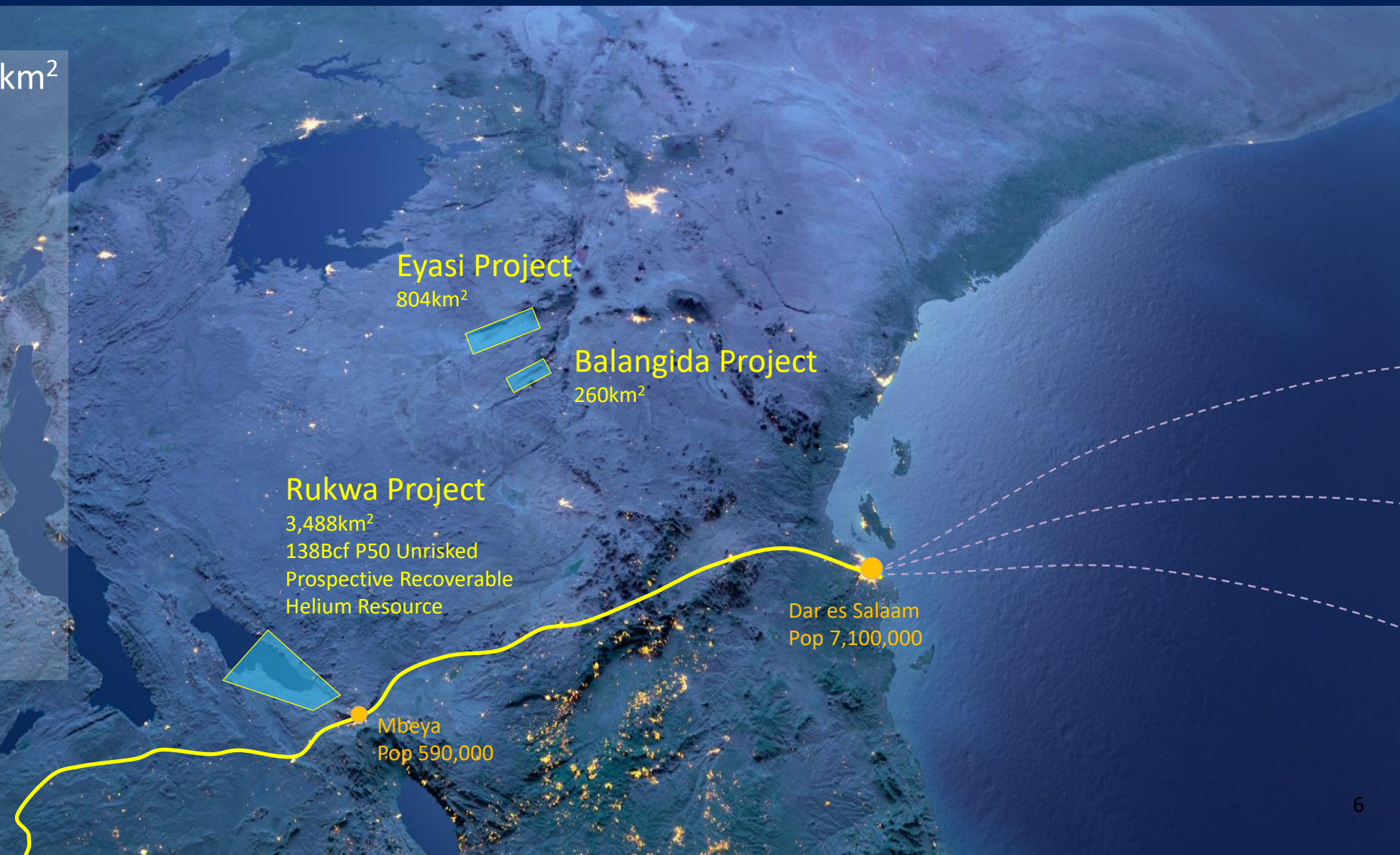
- China bulk contract import price increased from ~\$200/Mcf in 2017 to **~\$350/Mcf** in 2021
- ‘Short contract’ price from USA up to **\$450/Mcf**
- In 2022 bulk spot pricing has risen to well over **\$1,000/Mcf** given the severe helium shortage



Primary Helium Assets

Developing a Strategic Resource

- 100%-ownership 4,512km²
- 3 Project areas
- Unrisked Prospective Recoverable Helium Resource (2U/P50) of 138Bcf
- Surface helium concentrations of up to 10.6%
- Simple logistics via Tanzam Highway to port Dar es Salaam





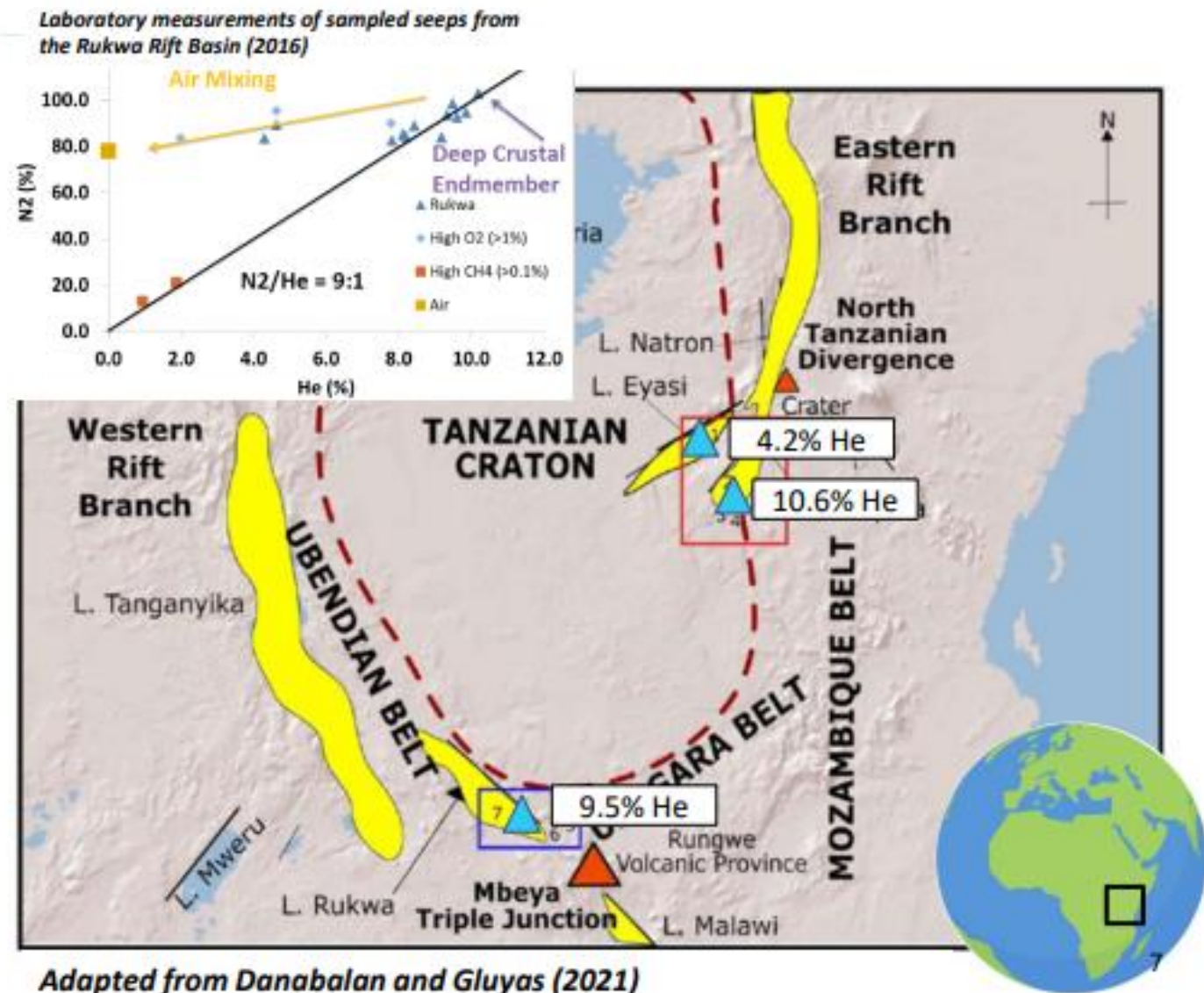
East Africa Rift

High Grade Helium in a Unique Geological Setting

- Circa 700,000 Bcf helium develop in Tanzanian Craton released by hot fluid when basement is broken by rifting
- Helium One has secured acreage within the 'Goldilocks Zone' for helium release across three separate rift basins: Rukwa, Eyasi and Balangida

Primary Helium 50x – 200x higher grade than current production with no associated greenhouse gasses

- Abundant surface helium anomalies identified from a multispectral satellite spectroscopy study; indicating widespread charge and migration





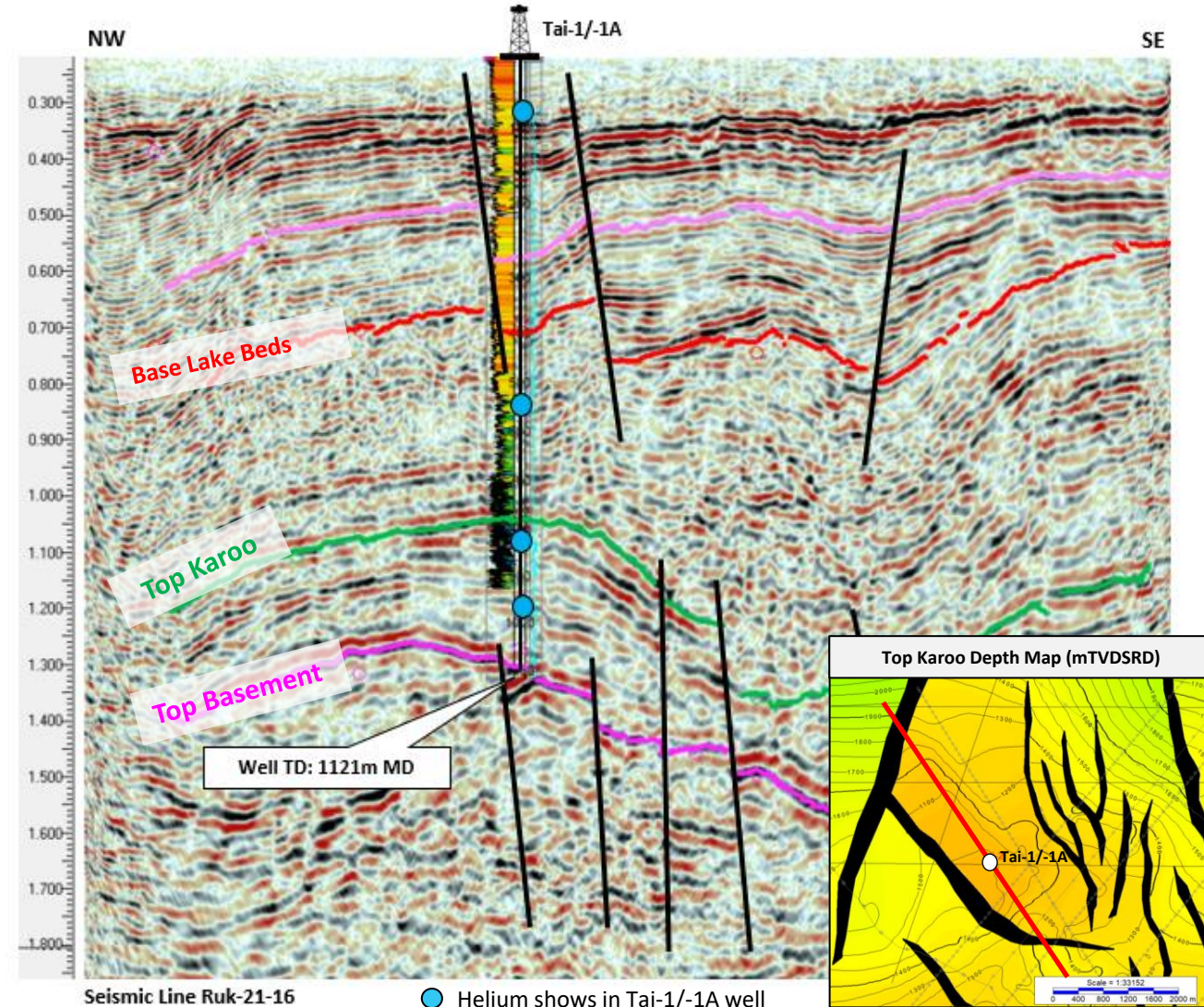
A Working Helium System

Evidence of Subsurface Helium in the Rukwa Rift Basin

- 2021 drilling campaign provided proof of concept and de-risked a number of play concepts
- Tai-1/1A encountered multiple intervals with helium shows:
 - **Lake Bed Fm:** 2.2% He in mud from 70m
 - **Red Sandstone Group:** He 1000x above background
 - **Karoo Group:** multiple untested shows
- Excellent quality reservoir units
- Good quality sealing units
- A working helium system with multiple plays

Excellent results from 2021 encourage further drilling and exploration

Seismic section illustrating the Tai-1/-1A well drilled in the Rukwa Rift Basin in 2021

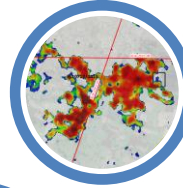




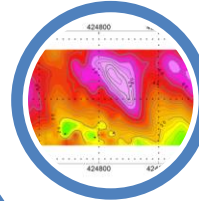
Growing Subsurface Database

Supporting the Identification of 2022 Drilling Targets

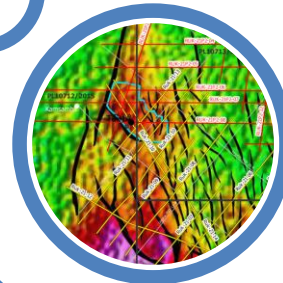
- Helium One use an integrated matrix of geological datasets in subsurface interpretation and decision making
- Integrated datasets assist in the prioritisation of subsurface targets to be tested in 2022 drilling campaign



Multispectral Satellite Spectroscopy: Remote sensing data demonstrating multiple near surface helium anomalies

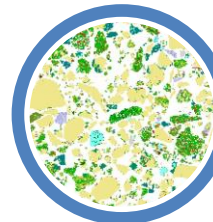
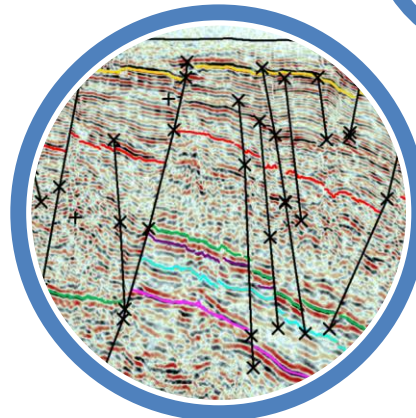


Electrical Resistivity Tomography: Ongoing survey to identify near surface anomalies in top 200m



Airborne Gravity Gradiometry: Maps basin / basement contact to identify structural highs and migration conduits

2D Seismic: Powerful tool to identify stratigraphic data and structural closures from 200m to basement



QEMSCAN: Provides information on reservoir, seal, mineralogy, and grain size distribution to correlate drill data to seismic interpretation

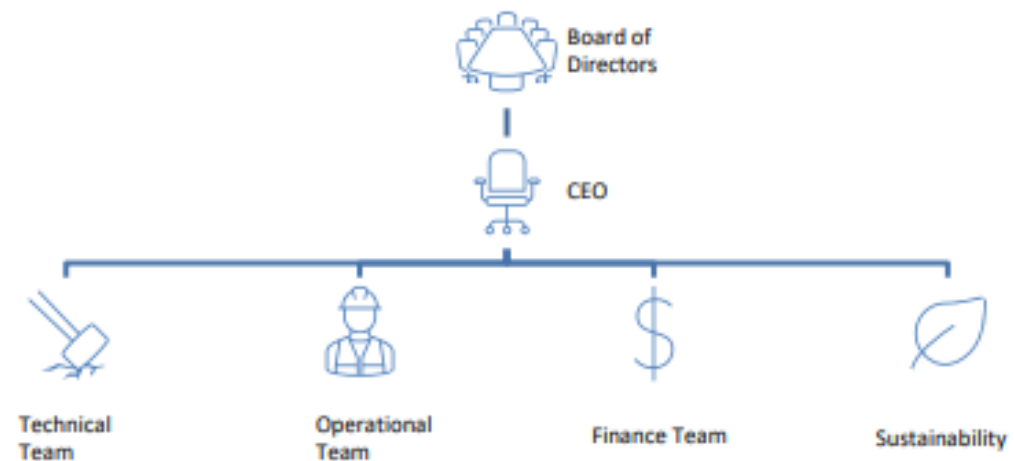
Strengthened Management

Experienced Technical and Operational Specialists

- Cost-effective exploration requires a **highly skilled team** of industry specialists

Helium One has built a strong management team with experience in delivering successful exploration

- **Technical Team:** Geologists and Geophysicists with deep experience of gas exploration in rift valley settings
- **Operational Team:** Managers and Engineers with detailed knowledge of project development and implementation
- Supported by **Board of Directors** with 140 years of Resources sector experience, including a sophisticated knowledge of operating in Africa
- Directors and Management incentivised with **share options**, with appropriate vesting criteria, to **align all interests**





A Clean and Sustainable Source

Primary Helium Not Associated With Hydrocarbon

1,000 litres of helium from Qatar North Field requires the production of 2,500,000 litres of hydrocarbon

- Majority of helium is currently sourced as a low-grade byproduct with hydrocarbon
- As we transition towards a green economy, production of hydrocarbon will reduce
- Helium One focusses on primary helium associated with Nitrogen carrier gas

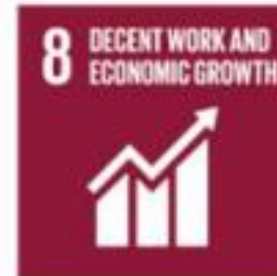
Helium One can produce carbon-neutral helium



SUSTAINABLE DEVELOPMENT GOALS

Long term training and employment opportunities

Helium sourced with minimal environmental impact



Helium critical to next-gen technologies

Multi-generational economic growth

Helium without associated hydrocarbon dependency



Sustainable Communities

Multi-Generational Project for Growth and Development

Helium One is working to bring long term opportunities to the Songwe Region

- Partnership with University Dar es Salaam in providing technical and academic skills transfer
- CSR programme providing assistance for local schools within Rukwa basin
- Preference given to indigenous companies and local workers in employment during exploration



Large scale resource allows multi-generation development, education and employment opportunities in remote part of SW Tanzania

Low CAPEX Development

Low-Cost / High-Margin Operation

- Ease of processing high grade bimodal gas

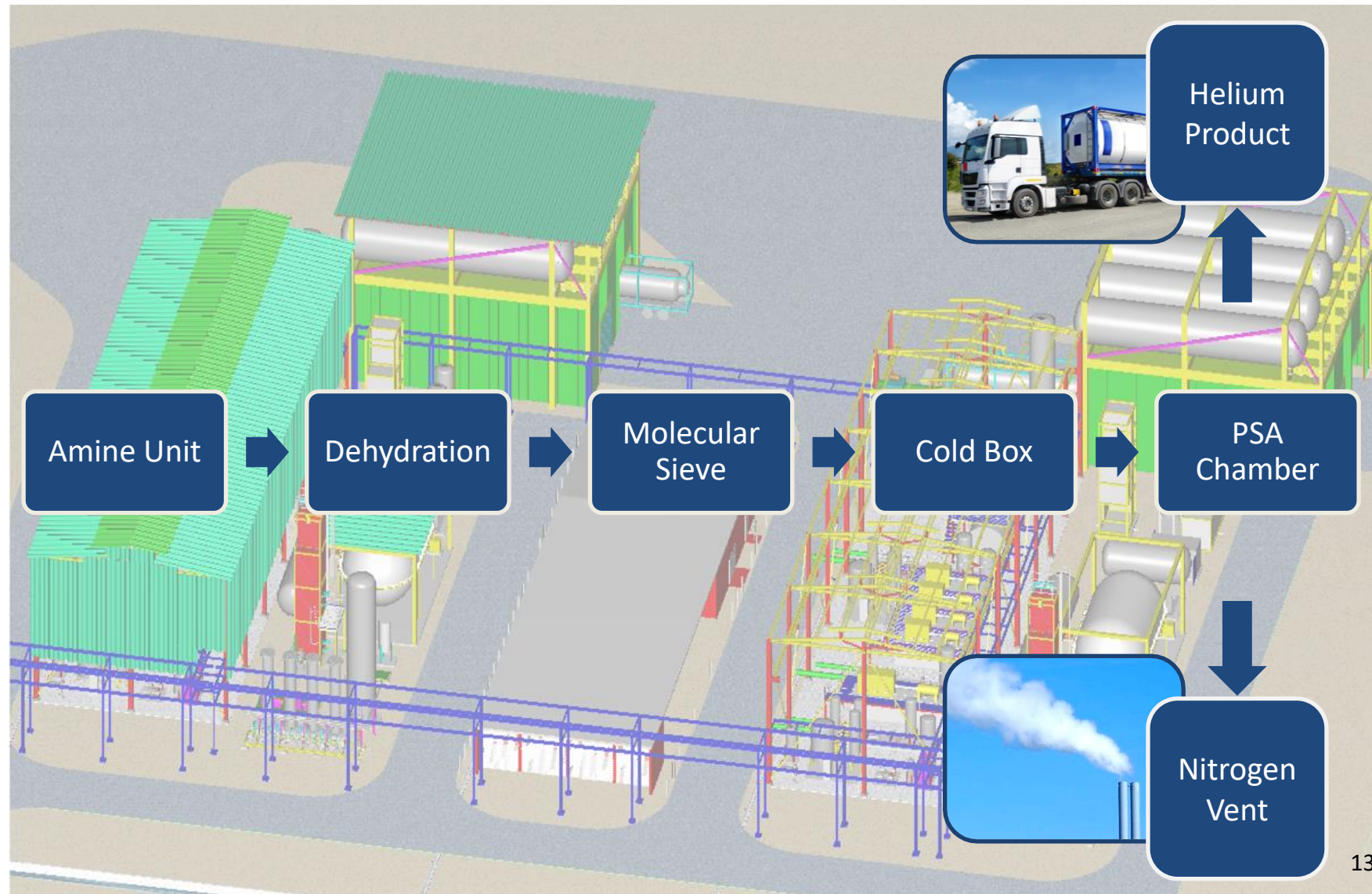
CAPEX \$50m per module

350,000 Mcf/yr

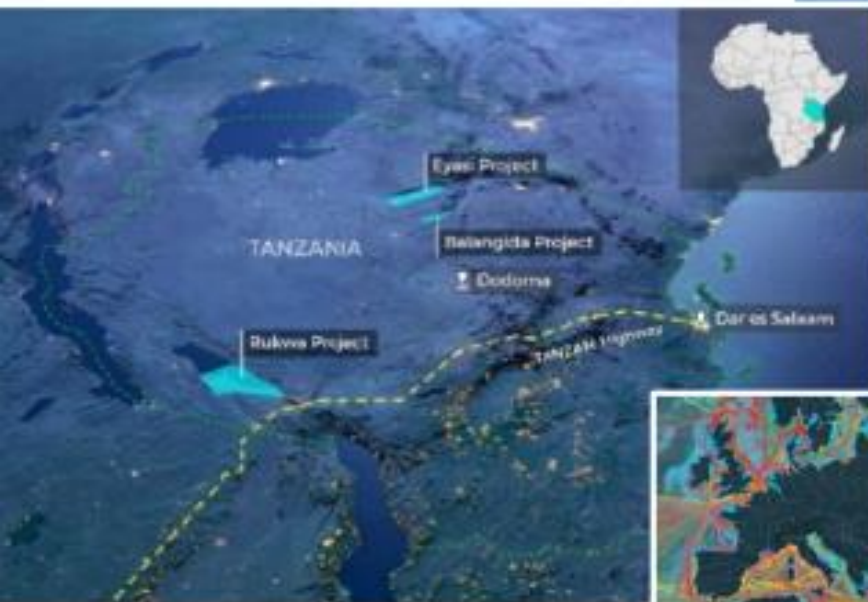
OPEX \$15-\$20/Mcf

Price \$350/Mcf

- Debt finance - ~1yr payback
- Scalable production with additional modules to produce 1Bcf/yr
- Clean process – low /no CO₂ nitrogen vent to atmosphere



Right: Tanzam Highway near to Rukwa



Above: Route of the Tanzam Highway

Right: Freight shipping routes from port of Dar es Salaam to China, Far Eastern and European Markets



- Simple logistics utilising existing infrastructure
- Trucking of liquid helium in ISO containers: One truck per day
- Upgrade existing Momba Road from site to Tanzam Highway: 130km
- Tanzam Highway, paved carriageway connecting Lusaka (Zambia) to port Dar es Salaam: 850km
- Helium ISO containers loaded into container ships for transport to China, Far Eastern and European markets



Tanzania

A Supportive Business Orientated Jurisdiction

- Pro-business agenda under Tanzania's first female leader President Samia Hassan
- Significant FDI growth - \$4.1Bn (2022) vs \$1.0Bn (2020)
- GDP \$62.4Bn growing 5.8%pa (2022 est)
- Demonstrated improvements to regulatory process
 - Simplification of business taxes
 - Streamlined award of mining licences

Government cites helium as a key commodity to empower growth in mining sector

- Helium classed as an Industrial Mineral under Mining Act
 - 3% Royalty
 - 16% Government Free Carry





A Transformational Opportunity...



Strategic Resource



De-Risked Basin



Experienced Management



High Margin Operation



Part of the Green Transition



Feeding the Digital Revolution

... Advancing Towards Discovery 16



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