Global Uranium and Enrichment

ASX:GUE
OTCQB:GUELF
ASX Announcement

12 February 2025

Ubaryon Shareholder Update

HIGHLIGHTS

- **Ubaryon has advanced its strategic planning to secure long term funding.**
- **GUE is the largest shareholder in Ubaryon (21.9%), a private Australian Company.**
- **Ubaryon owns 100% of an innovative Uranium Enrichment Technology.**
- **Enrichment technology continues to advance with numerous capital initiatives underway to accelerate development.**
- **Russia's recently imposed restrictions on enriched uranium exports to the U.S. poses critical supply risks for nuclear market.**

Global Uranium and Enrichment Limited (**ASX:GUE, OTCQB: GUELF**) is pleased to advise that Ubaryon has provided a shareholder update which conveys that Ubaryon is making significant progress on its 100% owned Uranium Enrichment Technology ("**Ubaryon Enrichment Technology**") and is also well advanced in a process to identify a strategic partner for the business moving forward.

Process to secure strategic funding

Ubaryon has updated shareholders regarding commercial interest from potential strategic partners towards securing funding for ongoing development for the business. A potential transaction is expected to be completed in the first half of 2025 and is expected to expedite Ubaryon's technology towards a commercial outcome.

As a part of a structured process to find a strategic partner, selected organisations involved in the Nuclear Fuel Cycle production industry have expressed interest in reviewing technology and potentially investing. Ubaryon has site visits planned from late February 2025 and has received government approval for appropriate independent experts to review the details of its technology. Ubaryon has also engaged an independent security approved nuclear engineer to review and report on Ubaryon's technology.

A key motivation for Ubaryon to secure a strategic partner is to enable future commercialisation of Ubaryon's technology in one of the most highly regulated industries in the world. Ubaryon is confident that the current strategic organisations engaging with Ubaryon can provide this.

Ubaryon Background

Ubaryon is a private Australian company which is developing and commercialising a unique uranium enrichment technology ("**Ubaryon Enrichment Technology**") based on the chemical separation of naturally occurring uranium isotopes.

Ubaryon was established in 2015 after environmental testing identified a process anomaly, after which Ubaryon lodged a patent application over its Ubaryon Enrichment Technology in 2018. Australian Safeguards and Non-Proliferation Office ("**ASNO**") classified the intellectual property in September 2018. ASNO and Defence Export Controls ("**DEC**") now regulate all Ubaryon's technical disclosure.

The Ubaryon Enrichment Technology has been tested and validated over a significant number of experimental runs since inception. The magnitude of the observed enrichment factor is between 10 and 30 times higher than that of previous chemical enrichment technologies developed in France and Japan in the 1970's.

A significant feature of the Ubaryon Enrichment Technology is that it eliminates the need for conversion from uranium oxide or yellowcake (UO_4 or U_3O_8) to gaseous uranium (UF_6) and the need for deconversion from UF_6 to uranium oxide. Removing conversion and deconversion simplifies the enrichment process and allows for additional flexibility in the nuclear fuel cell supply chain.

Technical Development – Uranium Isotopes

Ubaryon's core technology is a chemical separation process for uranium isotopes. The technology has continued to advance well and Ubaryon is now advancing numerous capital initiatives in order to accelerate development. As an example, Ubaryon is in the process of setting up additional lab facilities (outside Ubaryon's existing lab inside ANSTO) which will house a recently purchased Inductively Coupled Plasma / Mass Spectrometer (ICP/MS) unit. To date, Ubaryon has been constrained by relying on third party laboratories. Fit out and application for permits for the new lab are in progress. Ubaryon will also add two more technical people to the team to extract best value from this new analytical capability.

Technical Development – Stable Isotopes

Ubaryon continues to work on developing separation of stable isotopes of Ytterbium (**"Yb"**), which is a rare earth element with medical applications. Ongoing testing (funded by third parties) has confirmed positive results in demonstrating the potential for chemical isotope separation of Yb isotopes. Discussions are ongoing to the best path forward to development the Ytterbium technology.

Separately, Ubaryon has received significant interest the potential to separate the Chlorine **("Cl")** isotopes using the Ubaryon technology. Discussions are ongoing with third parties likely to collaboratively fund front end research costs to advance the technology. Initial investigations into the potential target income stream are impressive.

This announcement has been authorised for release by the board of Global Uranium and Enrichment Limited.

Further information:

Andrew Ferrier
Managing Director
E: info@globaluranium.com.au
P: +61 8 6117 9338

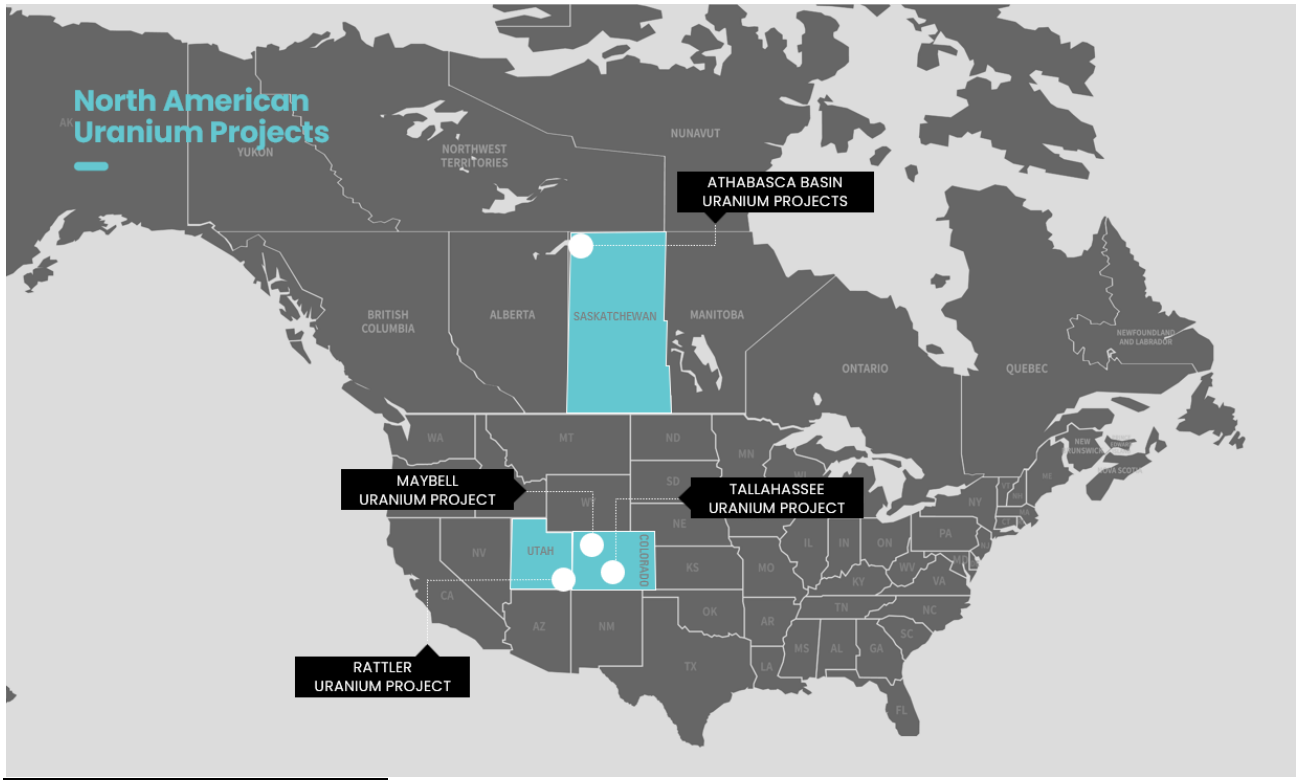
Paul Ryan
Media and Investor Relations
E: paul.ryan@sodali.com
P: +61 409 296 511

An Emerging Uranium Powerhouse

Global Uranium and Enrichment Limited in an Australian public listed company providing unique exposure to not only uranium exploration and development but the uranium enrichment space. Amid a nuclear energy renaissance, Global Uranium is developing a portfolio of advanced, high grade uranium assets in prolific uranium districts in the U.S. and Canada, and has established a cornerstone position in Ubaryon, an Australian uranium enrichment technology.

Asset Portfolio:

- **Tallahassee Uranium Project (Colorado, USA)**: JORC 2012 Mineral Resource estimate of 52.2 Mlbs U_3O_8 at a grade of 530ppm U_3O_8[1] with significant exploration upside. Located in Colorado's Tallahassee Creek Uranium District, host to more than 100 Mlbs U_3O_8.
- **Athabasca Basin Projects (Saskatchewan, Canada)**: Portfolio of six high-grade exploration assets in the Athabasca Basin, home to the world's largest and highest-grade uranium mines. Portfolio includes the Newnham Lake Project with grades of up to 1,953ppm U_3O_8 in historic drilling and the Middle Lake Project with boulder-trains with grades of up to 16.9% U_3O_8.[2]
- **Ubaryon Investment (Australia):** Cornerstone position in Ubaryon, an Australian uranium enrichment technology.
- **Maybell Uranium Project (Colorado, USA)**: High grade Exploration Target established at the project.[3] Historical production of 5.3 million pounds of U_3O_8 (average grade 1,300ppm).
- **Rattler Uranium Project (Utah, USA)**: Located within La Sal Uranium District, Utah, 85km north of White Mesa Uranium/Vanadium mill, the only operating conventional uranium mill in the USA.



[1] Competent Persons Statement - Information on the Mineral Resources presented, together with JORC Table 1 information, is contained in the ASX announcement dated 5 September 2024 and titled "Tallahassee Uranium Project JORC Resource increased to 52.2 Mlbs U_3O_8". Measured 2.96Mlbs of 550 ppm U_3O_8, Indicated 21.01Mlbs of 610 ppm U_3O_8, Inferred 28.2Mlbs of 480 ppm U_3O_8 calculated applying a cut-off grade of 250ppm U_3O_8. Numbers may not sum due to rounding. Grade rounded to nearest 10ppm.
The Company confirms that it is not aware of any new information or data that materially affects the information in the relevant market announcements, and that the form and context in which the Competent Persons findings are presented have not been materially modified from the original announcements. Where the Company refers to Mineral Resources in this announcement (referencing previous releases made to the ASX), it confirms that it is not aware of any new information or data that materially affects the information included in that announcement and all material assumptions and technical parameters underpinning the Mineral Resource estimate with that announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons findings are presented have not materially changed from the original announcement.

[2] Refer to the Company's ASX announcement dated 9 November 2021 for the JORC details of the Athabasca Projects and other historical information. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement of 9 November 2021.

[3] Refer to the Company's ASX announcement dated 14 December 2023 for the Exploration Target and JORC details. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement of 14 December 2023. Historical production data has been sourced of an article in Rocky Mountain Association of Geologists (1986) titled "Geology and Production History of the Uranium Deposits in the Maybell, Colorado Area" from W. L. Chenoweth.