OCEAN WALL

Silex Systems Ltd- ASX: SLX

CONTENTS

COMPANY OVERVIEW

Silex Systems ("Silex") is a research and development company whose primary asset is the Silex laser enrichment technology, originally developed at the company's technology facility in Sydney, Australia.

The Silex Laser Isotope Separation (LIS) technology was invented by Silex scientists Dr Michael Goldsworthy (current CEO) and Dr Horst Struve in the 1990's at its Lucas Heights facility south of Sydney, Australia.

SILEX stands for Separation of Isotopes by Laser Excitation. Silex is the only third-generation enrichment technology company at an advanced stage of commercialisation today.

Silex's mission is to commercialise the unique SILEX laser enrichment technology for applications to:

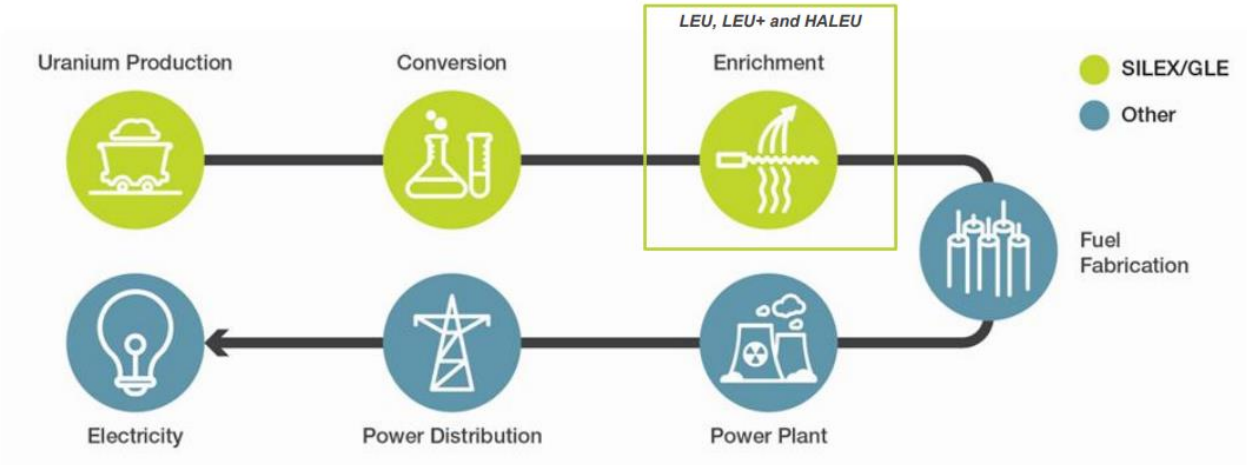
- Produce and enrich uranium
- Enrich silicon for quantum computing
- Target other potential markets such as medical isotopes

The strategy is focused on extracting maximum value from the core SILEX technology and expertise.

In January 2021, Silex acquired its uranium technology licensee, Global Laser Enrichment (GLE) through a JV with Cameco (the world's second largest uranium producer). GLE is a US based enrichment company and exclusive worldwide licensee of the proprietary Separation of Isotopes by Laser Excitation (SILEX) technology. GLE was previously owned by GE-Hitachi.

The JV resulted in Cameco increasing their stake in GLE from 24% to 49% in 2021. The Canadian-listed group also has an option to increase their stake to 75% from January 2023 at fair market value.

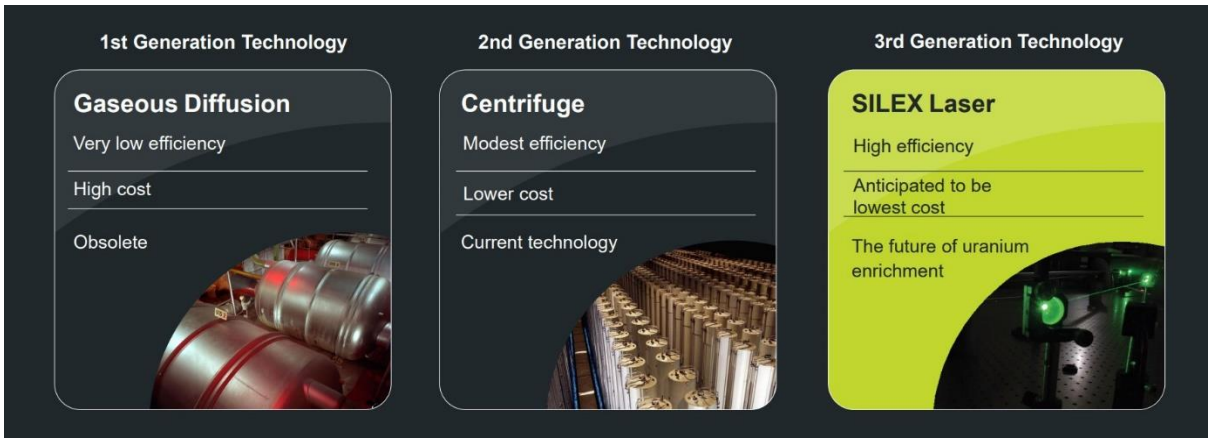
Silex is a pure play enrichment company, with a primary focus on uranium. Silex has created the technology to vertically integrate the first three stages of the nuclear fuel cycle, whereby they can provide natural uranium (Unat), low-enriched uranium (LEU), LEU+ and high-assay low-enriched uranium (HALEU).



The Nuclear Fuel Supply Chain

Source: SILEX Investor Presentation

SILEX TECHNOLOGY



Source: Silex Investor Presentation

Laser Isotope Separation (LIS) injects laser energy at the precise frequency to ionise atoms and separate ions to a desired level of enrichment.

This third-generation enrichment technology is unique to Silex, and has allowed them to create a model able to produce:

- U_{nat} – Natural uranium
  - Potential for a 'Tier 1' uranium project which involves the re-enrichment of DOE inventories
  - Up to 5m lbs per year making Silex a potential top 10 uranium producer globally
- LEU – Low-enriched uranium
  - 3-5% enriched uranium
  - Applicable for traditional water-cooled reactors
- HALEU – High-assay low-enriched uranium
  - 5-20% enriched uranium
  - Fuel needed for next generation reactors

As outlined in the company's annual report, Silex LIS technology has many advantages over first and second generation enrichment technology:

- Inherently higher efficiency resulting in lower enrichment costs
- Smaller environmental footprint than centrifuge and diffusion plants
- Greater flexibility in producing advanced fuels for next generation SMR's
- Anticipated to have the lowest enrichment plant capital costs

URANIUM ENRICHMENT

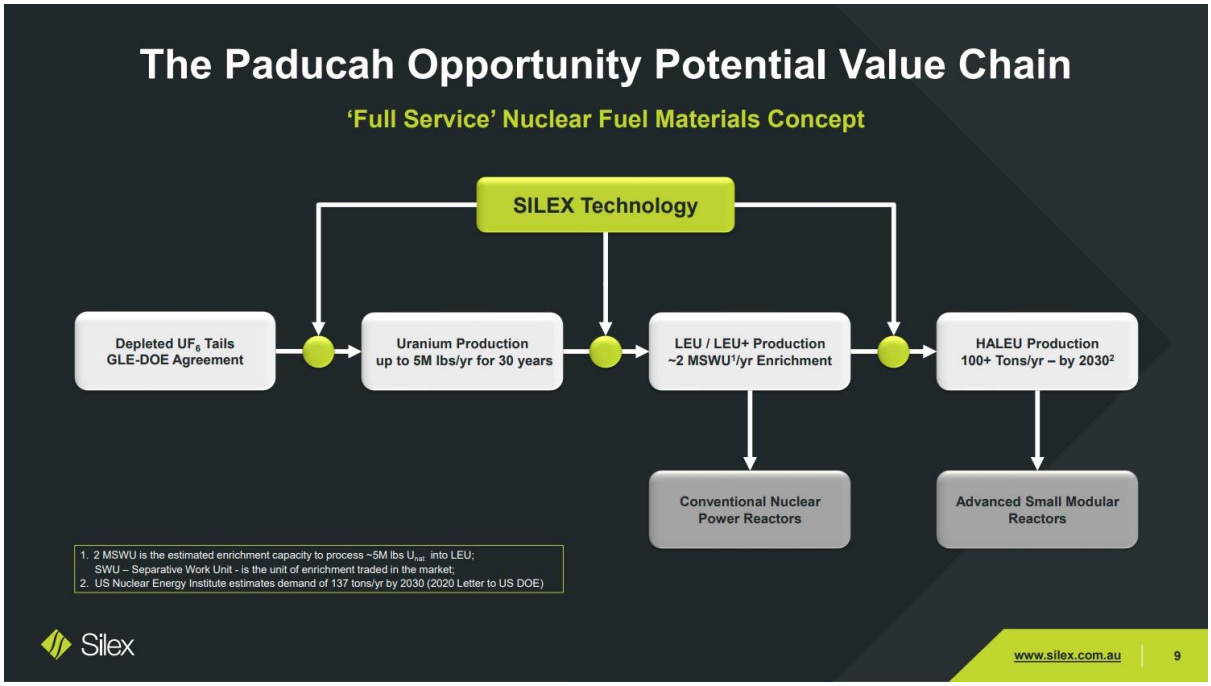
For natural uranium to be serviceable by nuclear utilities, it must be enriched. Natural uranium (uranium ore) is 0.711% U^{235} and needs to be enriched to between 3-5% for use in a water-cooled reactor (most traditional reactors). To do this, the uranium undergoes an enrichment process that requires an input of separative work. For reference, 70% of the value of a fuel bundle comes from the production and enrichment of uranium.

For next generation reactors, the concentration needs to be between 5-20%, and for weapons grade uranium, over 90%.

Silex inject laser energy at a frequency which ionises only the U^{235} atoms, and separates the U^{235} ions from the U^{238} atoms with an electromagnetic field to a desired level of enrichment.

GLE – the only licensed facility to enrich uranium using SILEX technology - will pay Silex a 7% perpetual royalty on SWU sales (unit of measurement to quantify enrichment effort) using Silex technology as well as up to US$20m in milestone payments for the development of high-assay low-enriched uranium (HALEU) at their Paducah facility (previously owned by Centrus Energy).

"The Silex uranium enrichment commercialisation program is underpinned by the agreement between GLE and the US Department of Energy for the proposed Paducah, Kentucky uranium production project. This large, multidecade project could enable the SILEX technology becoming the 'go to' technology for the production of nuclear fuel for today's conventional nuclear power reactors and for the next generation Small Modular Reactors currently under development."



Source: Silex Investor Presentation

This agreement is over 40 years, where GLE would have access to ~200k tonnes of depleted UF_6 tails from the DOE. Using the SILEX technology, GLE are in the Commercial Pilot Demonstration phase of proving a capability to enrich uranium and re-enrich depleted uranium (spent fuel).

A separate DOE HALEU demonstration project was initially given to Centrus Energy Corp. Due to supply chain issues the DOE were unable to secure the supply of HALEU cylinders, and the contract will expire in June 2022. The DOE has now changed the scope of this contract to a new, competitively awarded contract.

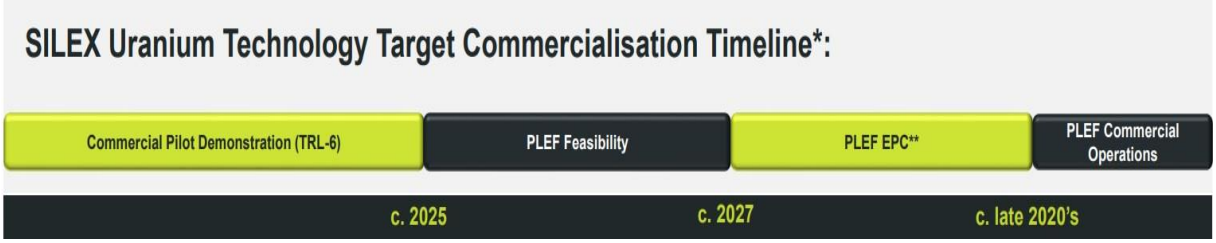
GLE has applied for this RFI and will likely compete for the contract. Securing this contract would be a major milestone for the company, giving recognition for the efficacy of their third-generation LIS enrichment technology.

Centrus Energy is most likely the front runner for this contract. However, with Russian-owned TENEX accounting for the majority of the company's LEU supply, GLE is well positioned to compete for this contract. In addition, Silex has diversified applications for its technology outside of uranium enrichment as we will discuss.

Recent events in the Ukraine have highlighted the need to reduce reliance on Russian energy products and services. The only uranium enrichment company in the world producing a commercial supply of HALEU is Russia's TENEX. Russia is by far the world's largest producer of enriched uranium, accounting for ~35% of global demand.

Nuclear power is poised to contribute more to global decarbonisation efforts, utilities will seek alternative sources of enrichment capacity outside of Russia.

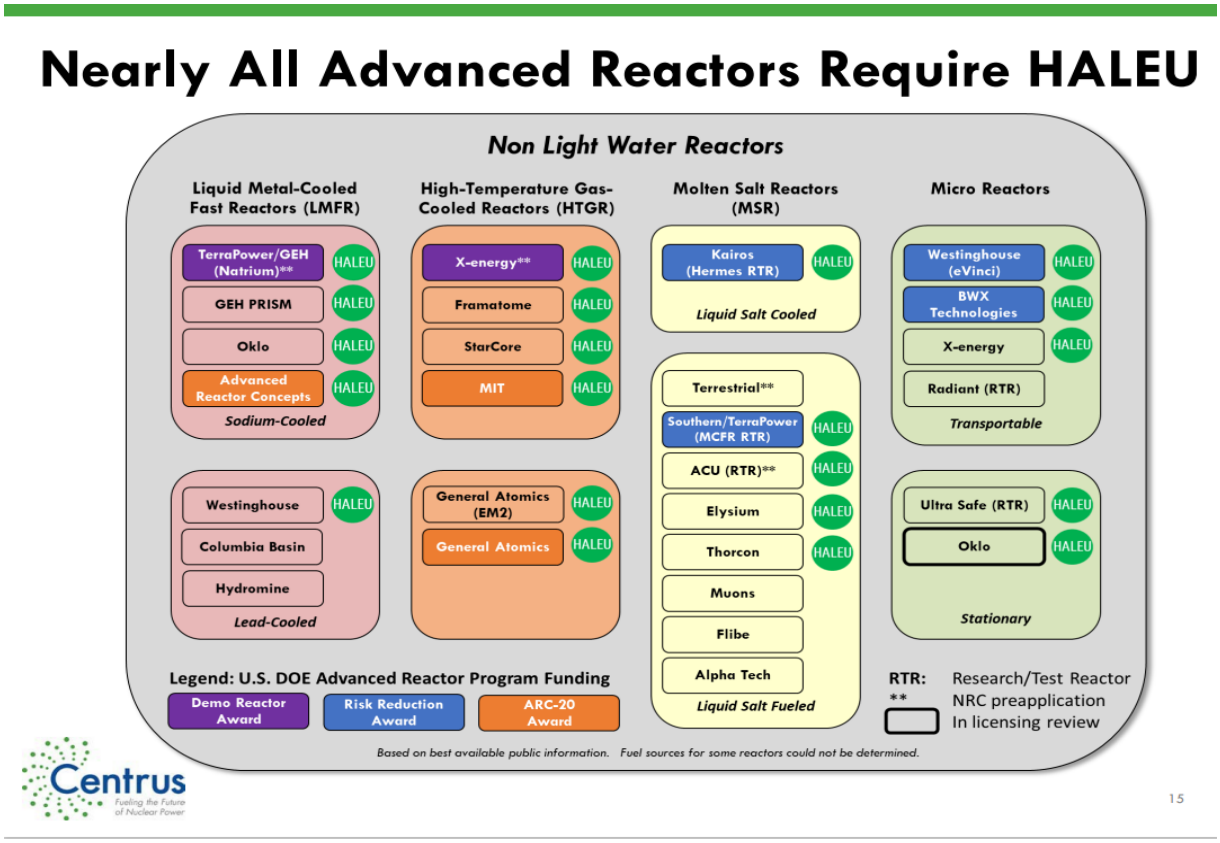
GLE has **zero** reliance on Russian counterparties for its uranium.



Source: Silex Investor Presentation

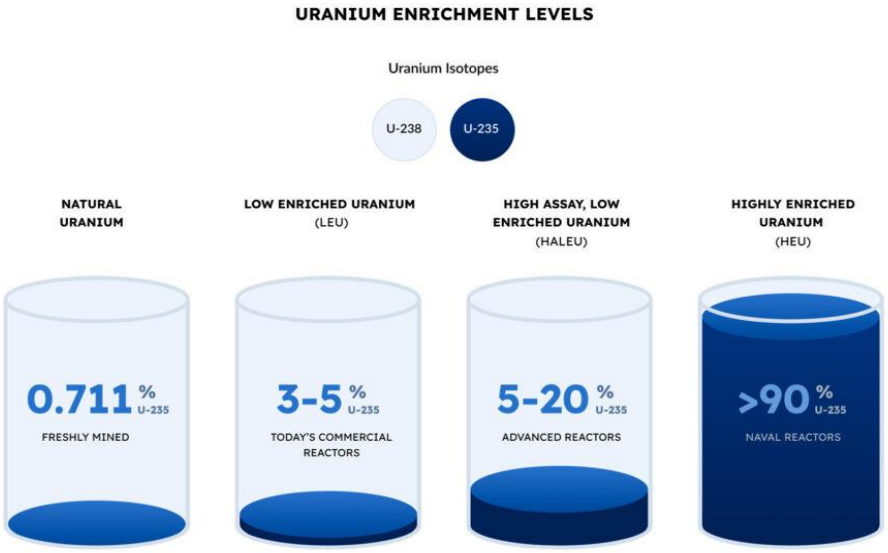
SMALL MODULAR REACTORS & HALEU

While there is currently no commercial HALEU market today, next generation reactors will create a demand for this product. For example, nine of the ten advanced reactor designs selected by the DOE for its Advanced Reactor Demonstration Program will require HALEU.



Source: Centrus Energy

WHAT IS HALEU?



Source: Centrus Energy

HALEU is uranium that has been enriched so that the concentration of the fissile isotope U^{235} is between 5-20% of the mass of the fuel. The existing fleet of reactors require a concentration – also known as "assay" - of low-enriched uranium between 3-5% U^{235}.

BENEFITS OF HALEU

The higher concentration of the fissile U^{235} isotope means:

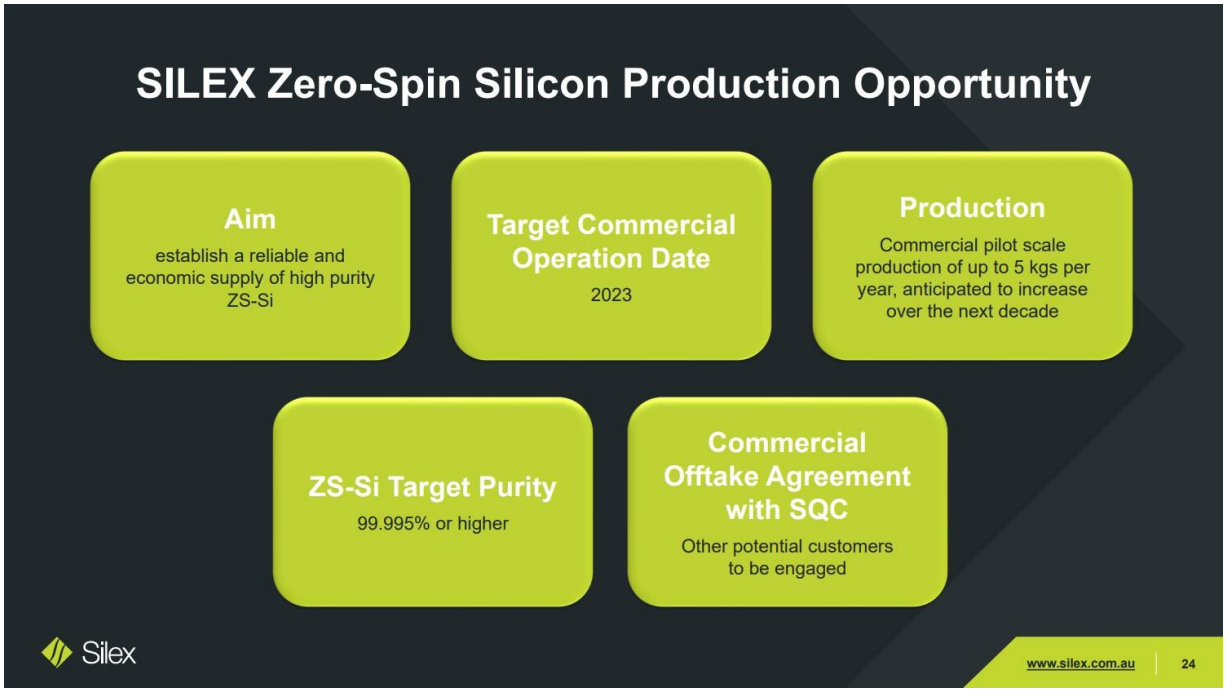
- Smaller designs for fuel assemblies and reactors
- More infrequent reactor refuelling
- Reduced waste generation
- Improved economics
- Improved safety features
- Greater amount of carbon-free electricity can be generated

SILICON ENRICHMENT OPPORTUNITY

Quantum Computers (QC) are expected to be 1000's of times more powerful than the computers of today. Global enterprises such as Intel, Google, IBM and Microsoft are all seeking breakthroughs in this next generation technology that will have applications in medicine, AI, cybersecurity, finance and logistics.

QC using silicon is a leading contender in the potential for this technology to come to fruition. Silicon QC requires highly enriched silicon, which is currently in limited supply and very expensive. If a stable supply chain is established, silicon may lead global QC efforts.

Silex has already proven its ability to enrich silicon in the form of Zero Spin Silicon (ZS-Si). The third and final phase of their current ZS-Si project is due to be completed at the end of 2022. This phase will showcase the company's ability to demonstrate production for ZS-Si at a commercial pilot scale.



Source: Silex Investor Presentation

To date, Silex has established a Proof of Concept for the SILEX process and validated its prototype of SILEX technology and scalability for ZS-Si production. The company are targeting a commercial operation date in 2023, a near term catalyst for Silex.

Source: Silex Investor Presentation

MANAGEMENT HIGHLIGHTS

- Silex:
  - Current CEO has been at the company since inception and was the inventor of Silex technology.
  - Helen Cook was appointed as a director in October 2021. She is an evangelist for nuclear power and has "extensive relationships with key US government agencies and US nuclear industry groups".
- GLE:
  - In September 2021, GLE hired Stephen Long as CEO. Steve spent thirteen years with GE Hitachi Nuclear Energy (GEH) and Global Nuclear Fuel (GNF).
  - In June 2021, GLE hired James Dobchuk as the President and Chief Commercial Officer. Previously, James Dobchuk was Executive Director of Cameco.

2021 HIGHLIGHTS

SILEX Uranium Enrichment Technology/GLE Highlights:

- GLE acquisition completed January 2021 - resulting in Silex acquiring a 51% interest in GLE (Cameco 49%)

- GLE recruited key executives – CEO and CCO with extensive technical and commercial acumen to lead GLE
- GLE continues to make good progress in the execution of the technology demonstration project and commercialisation strategy
- HALEU fuel opportunity for advanced Small Modular Reactors - emerging as next generation nuclear power reactors
- Zero-Spin Silicon (ZS-Si) project Stage 2 completed January 2022 – demonstration of ZS-Si production with prototype facility
- Assessment of other applications of the SILEX technology ongoing (focus currently on medical radioisotopes)
- Capital raising completed October 2021, net Placement proceeds ~US$23.55 million plus Share Purchase Plan ~US$5.25 million

RISKS

- Competition: Silex faces major competition from producers who may be less cost sensitive or receive subsidisation from foreign governments. The company competes with Orano (France), TENEX (Russia), Urenco (Netherlands/UK/Germany) and CNEIC (China). All these entities have far greater financial support than Silex currently. However, none of these companies use LIS technology, only second-generation centrifuge enrichment technology.
- HALEU: While HALEU demand is inevitable, the first US advanced reactors will likely not be up and running until the late 2020s (estimated for 2028). The current market environment has not been supportive of forward revenue growth companies.
- Uranium Enrichment: This technology is to date unproven in terms of its ability to scale. Delays or inability to prove its efficacy would have significant implications for the company's outlook.
- DOE: The development of the company is subject to winning DOE RFPs. These processes can take time with no guarantee of successful application.
- Nuclear Disaster: As with any nuclear related company, Silex has the highly unlikely threat of a nuclear disaster such as Fukushima/Chernobyl. Such an event would set nuclear energy back years. The company has diversified its technology applications and is not solely reliant on nuclear.

FINANCIALS

- Stock Information: *as of March 31st 2022*
  - Ticker: SLX
  - Primary Exchange: ASX
  - Market Cap: US$186.4m
  - Average Daily Volume: US$358,819 (392,152 shares)
  - 52-week high: US$1.48
  - 52-week low: US$0.65
- As of 31 December 2021, the company's balance sheet had total assets of US$43.35m and net assets of US$41.25m, which included US$36.9m in cash and term deposits.
- In Oct 2021 a capital raising was completed which led to net Placement proceeds of ~US$23.55 million plus Share Purchase Plan ~US$5.25 million
- License agreement with GLE for US$20m in payments to Silex for certain commercial development milestones.
- Perpetual royalty of 7% on GLE's enrichment SWU revenues from use of SILEX for production of natural and enriched uranium

- Royalty and milestone payments are in addition to any equity-based distribution of profits payable from GLE's commercial operations.
- While the company is essentially pre-revenue, it has not traded as such, and has for the most part traded in line with the North Shore Global Uranium Mining ETF (URNM). See comparison below:

Source: Bloomberg

SHAREHOLDER LIST

Michael D. Boyd	29,801,030	14.6%
Michael P. Goldsworthy	6,076,055	2.97%
Barry Sydney Patterson	4,073,863	1.99%
Throvena Pty Ltd.	2,978,203	1.46%
Christopher Wilks	2,833,716	1.39%
Colin Goldschmidt	2,525,937	1.23%
Silicon Quantum Computing Ltd.	2,300,000	1.12%
Toni Aburn Harken	2,002,952	0.98%
Sporran Lean Pty Ltd.	1,799,000	0.88%
Rd Super Pty Ltd.	1,460,000	0.71%

- The largest shareholder in Silex is Jardvan Pty Ltd, the family company of Michael Boyd, a major investor in the phenomenally-successful pathology-services provider Sonic Healthcare Ltd. Boyd's father-in-law, Barry Patterson, is chairman of Silex.
- Dr Colin Goldschmidt, Sonic's CEO, is also a Silex director. Christopher Wilks and Peter Campbell are Silex directors.
- The top ten shareholders own 29.17% of the company
- The largest shareholder has ~5x holding of the second largest shareholder (CEO Michael Goldsworthy)
- Ten of top ten sharholders are Australian investors or institutions

DISCLAIMER

This Report is not an offer or a solicitation to buy or sell any security. It should not be so construed, nor should it or any part of it form the basis of, or be relied on in connection with, any contract or commitment whatsoever. It is not an advertisement to an unlimited group of persons of securities, or related financial instruments. The Report does not constitute a personal recommendation and the investments referred to may not be suitable for the specific investment objectives, financial situation or individual needs of recipients and should not be relied upon in substitution for the exercise of independent judgement. Past performance is not necessarily a guide to future performance and an investor may not get back the amount originally invested. The stated price of any securities mentioned herein is not a representation that any transaction can be affected at this price.

Each Report has been prepared using sources believed to be reliable, however these sources have not been independently verified and we do not represent it is accurate or complete. Neither Ocean Wall Limited, nor any of its partners, members, employees, or any affiliated company accepts liability for any loss arising from the use of the Report or its contents. It is provided for informational purposes only and does not constitute an offer to sell or a solicitation to buy any security or other financial instrument. Ocean Wall Limited accepts no fiduciary duties to the reader of this Report and in communicating it Ocean Wall Limited is not acting in a fiduciary capacity. While Ocean Wall Limited endeavours to update on a reasonable basis the information and opinions contained herein, there may be regulatory, compliance or other reasons that prevent us from doing so. The opinions, forecasts, assumptions, estimates, derived valuations, and target price(s) contained in this material are as of the date indicated and are subject to change at any time without prior notice.

The views expressed and attributed to the research analyst or analysts in the Report accurately reflect their personal opinion(s) about the subject securities and issuers and/or other subject matter as appropriate. Information that is non-factual, interpretive, assumed or based on the analyst's opinion shall not be interpreted as facts and where there is any doubt as to reliability of a particular source, this is indicated.