Silex Systems Limited
Investor Presentation

(ASX: SLX) (OTCQX: SILXY)

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27 August 2020

Forward Looking Statements and Risk Factors

About Silex Systems Limited (ASX: SLX) (OTCQX: SILXY)

Silex Systems Limited ABN 69 003 372 067 (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 technology was licensed exclusively in 2006 to GE-Hitachi Global Laser Enrichment LLC (GLE) in the USA for application to uranium enrichment. GLE has been undergoing a restructure for a number of years after GE-Hitachi disclosed it was seeking to exit the venture. In view of the time the GLE restructure has taken to date and the dependency of the closing of the restructure on obtaining US Government approvals, combined with the continuing depressed nuclear fuel market conditions, plans for commercial deployment of the SILEX technology have been significantly delayed, and remain at risk.

Silex is also in the early stages of pursuing additional commercial applications of the SILEX technology, including the production of 'Zero-Spin Silicon' for the emerging technology of silicon-based quantum computing. The 'Zero-Spin Silicon' project remains dependent on the outcomes of the project and the viability of silicon quantum computing and is therefore at risk. The future of the SILEX technology is therefore highly uncertain and any plans for commercial deployment are speculative.

Silex also has an interest in a unique semiconductor technology known as 'cREO™' through its ownership of subsidiary Translucent Inc. The cREO™ technology developed by Translucent has been acquired by IQE Plc based in the UK. IQE is progressing the cREO™ technology towards commercial deployment in various advanced semiconductor products. The outcome of IQE's commercialisation program is also highly uncertain and remains subject to various technology and market risks.

Forward Looking Statements

The commercial potential of these technologies is currently unknown. Accordingly, no guarantees as to the future performance of these technologies can be made. The nature of the statements in this Presentation regarding the future of the SILEX technology, the cREO™ technology and any associated commercial prospects are forward-looking and are subject to a number of variables, including but not limited to, unknown risks, contingencies and assumptions which may be beyond the control of Silex, its directors and management. You should not place reliance on any forward-looking statements as actual results could be materially different from those expressed or implied by such forward looking statements as a result of various risk factors. Further, the forward-looking statements contained in this Presentation involve subjective judgement and analysis and are subject to change due to management's analysis of Silex's business, changes in industry patterns, and any new or unforeseen circumstances. The Company's management believes that there are reasonable grounds to make such statements as at the date of this Presentation. Silex does not intend, and is not obligated, to update the forward-looking statements except to the extent required by law or the ASX Listing Rules.

Risk Factors

Risk factors that could affect future results and commercial prospects of Silex include, but are not limited to: ongoing economic uncertainty including concerning the COVID-19 pandemic; the outcome of the GLE restructure including obtaining US Government approvals; the results of the SILEX uranium enrichment engineering development program; the market demand for natural uranium and enriched uranium; the outcome of the project for the production of 'Zero-Spin Silicon' for the emerging technology of silicon-based quantum computing; the potential development of, or competition from alternative technologies; the potential for third party claims against the Company's ownership of Intellectual Property; the potential impact of prevailing laws or government regulations or policies in the USA, Australia or elsewhere; results from IQE's commercialisation program and the market demand for cREO™ products; and the outcomes of various strategies and projects undertaken by the Company.

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The views and opinions expressed in this presentation are solely those of Silex and do not reflect the view of GE-Hitachi Global Laser Enrichment LLC, or its owners or subsidiaries.

Silex

Silex is a platform technology company focused on the commercialisation of our innovative SILEX laser enrichment technology across multiple markets

The Silex Business Case

Two technologies being commercialised:

1) SILEX Laser Isotope Separation Technology
2) cREO™ Advanced Semiconductor Material Technology

Three commercial applications under development:

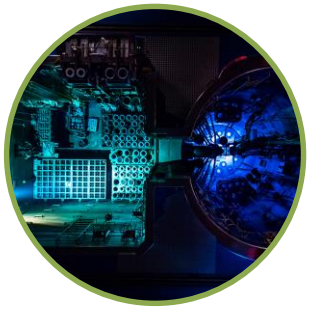
1) SILEX Uranium Enrichment Project with US-based Global Laser Enrichment (GLE)
2) SILEX Zero-Spin Silicon (ZS-Si) Project with UNSW Sydney and Silicon Quantum Computing
3) cREO™ 5G high frequency filter product development by UK-based IQE Plc

Three revenue models being pursued:

1) Licence / Royalty based revenues – SILEX Uranium Enrichment and cREO™
2) Equity based revenues – moving to 51% equity interest in GLE
3) Producer-based revenues – internal production of ZS-Si for silicon quantum computing

Target Industry Sectors

Target markets fall within significant global industries



Nuclear Fuel

Uranium market

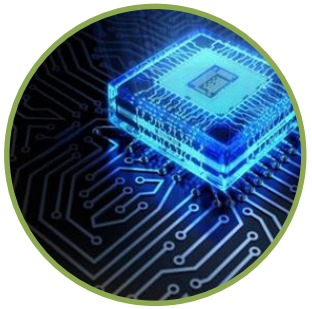
~ US$7bn (est. 2022)

Enrichment market

~ US$3bn (est. 2022)

SMR fuel market ~ TBD

(Source: UxC, UMO and EMO Q2, 2020)



Quantum Computing

Potential market

~ US$1bn (by 2025)

(Source: marketwatch.com/press-release/quantum-computing-market-size-growth-opportunity-and-forecast-to-2025-2020-04-19)

5G Front End

RF and Connectivity

~US$3bn (~2025)

(Note: cREO™ based products only a small fraction of this potential target market)

(Source: investors.iqep.com /media/1921/iqe-trading-update-24mar2020-presentation.pdf)

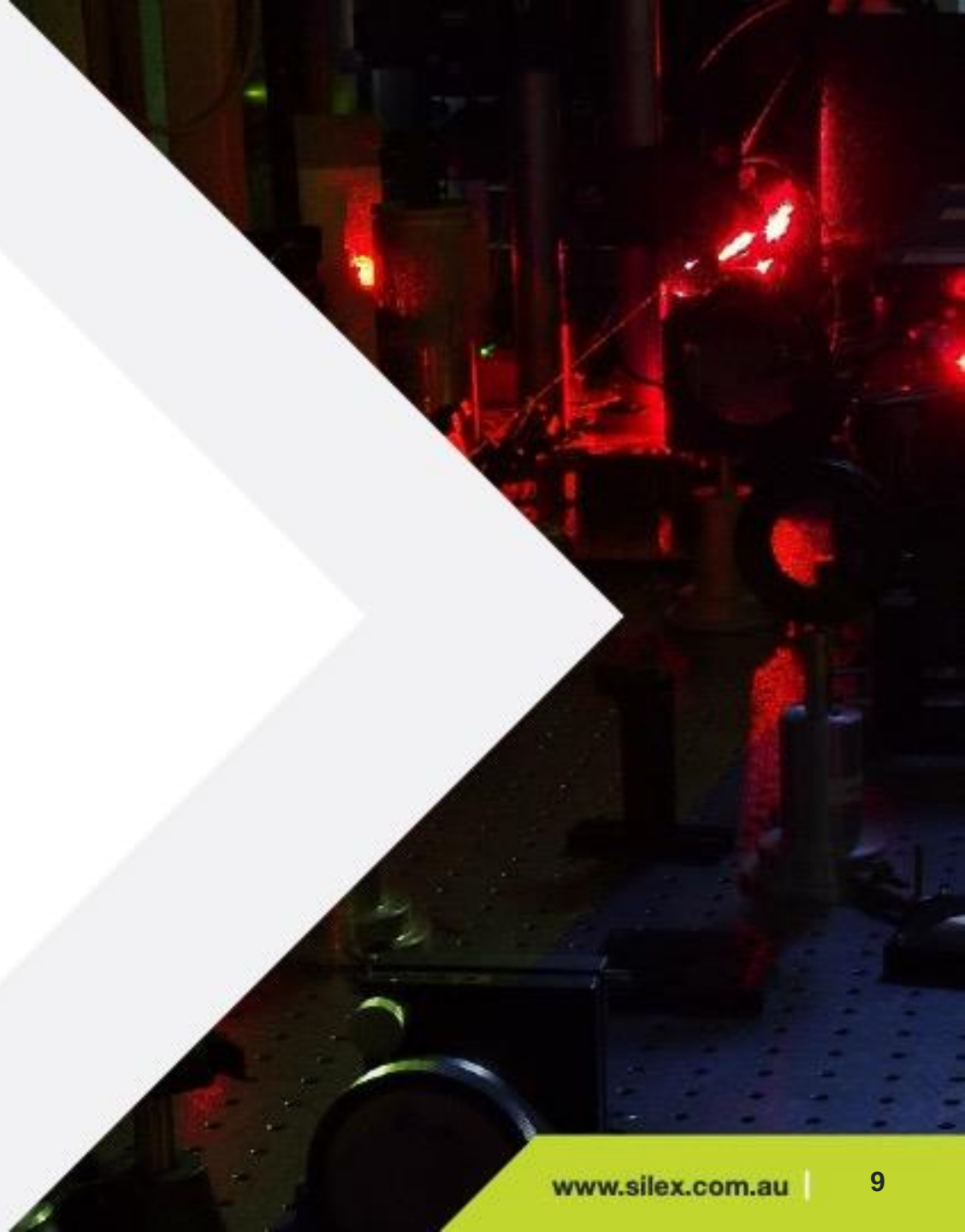
Our Strategy

- Secure the commercialisation path in the US for our core asset - the SILEX technology - in the primary application of uranium enrichment
- Increase our involvement in the SILEX commercialisation program through the purchase of a majority interest in GLE – the exclusive licensee of the SILEX uranium enrichment technology
- Advance the Paducah commercial project underpinned by the Agreement between GLE and the US Department of Energy (DOE) (amended in June 2020) and capitalise on the recovery in the uranium market
- Enhance the credentials of GLE and the SILEX technology as a potential supplier of High Assay Low Enriched Uranium (HALEU) fuel for next generation small modular reactors
- Develop SILEX laser isotope separation technology for production of Zero-Spin Silicon – a key material for the emerging silicon quantum computing industry

Highlights of FY2020

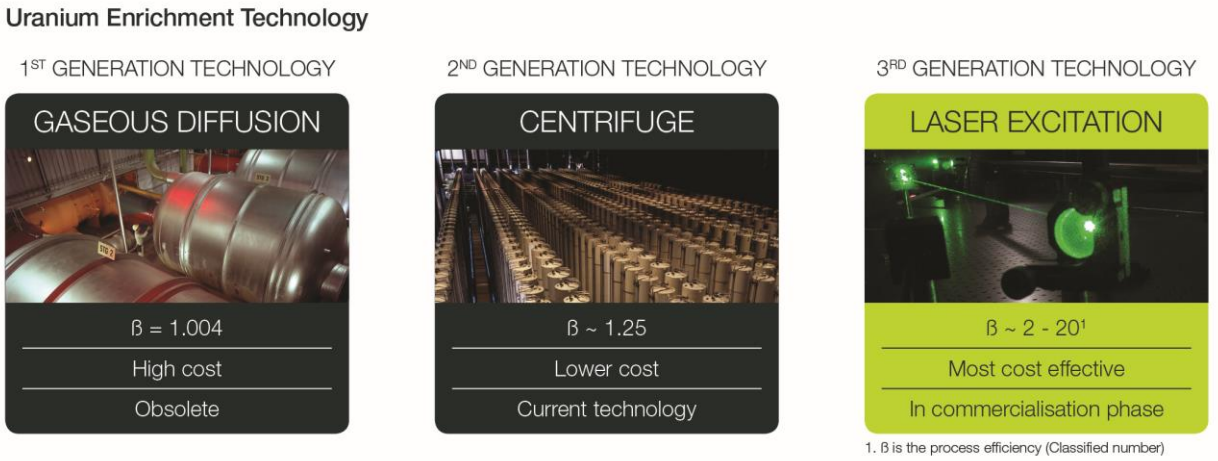
- Silex and Cameco signed a binding agreement in December 2019 for the restructure of SILEX technology licensee – GLE, involving the joint purchase of GE-Hitachi's 76% interest in GLE
- Subject to obtaining US government approvals, completion of the restructure will result in Silex holding 51% interest in GLE and Cameco increasing its interest from 24% to 49%
- The 'Zero-Spin Silicon' (ZS-Si) project was launched in December 2019, with the aim to produce this key material (with SILEX technology) for use in the silicon quantum computing industry
- The 3-year ZS-Si project, being conducted in collaboration with UNSW Sydney and Silicon Quantum Computing (SQC), received a $3 million Federal CRC-P funding grant in February 2020
- Silex and SQC signed an Offtake Agreement for the sale of initial ZS-Si product to SQC, who also acquired a small equity interest in Silex via a placement in January 2020 (total contribution from SQC of $1.8 million)
- Payment of US$400k was received from UK-based IQE Plc in March 2020 for the initial minimum royalty pursuant to IQE's purchase of Silex subsidiary Translucent's 'cREO™' technology

SILEX 3rd Generation Uranium Enrichment Technology



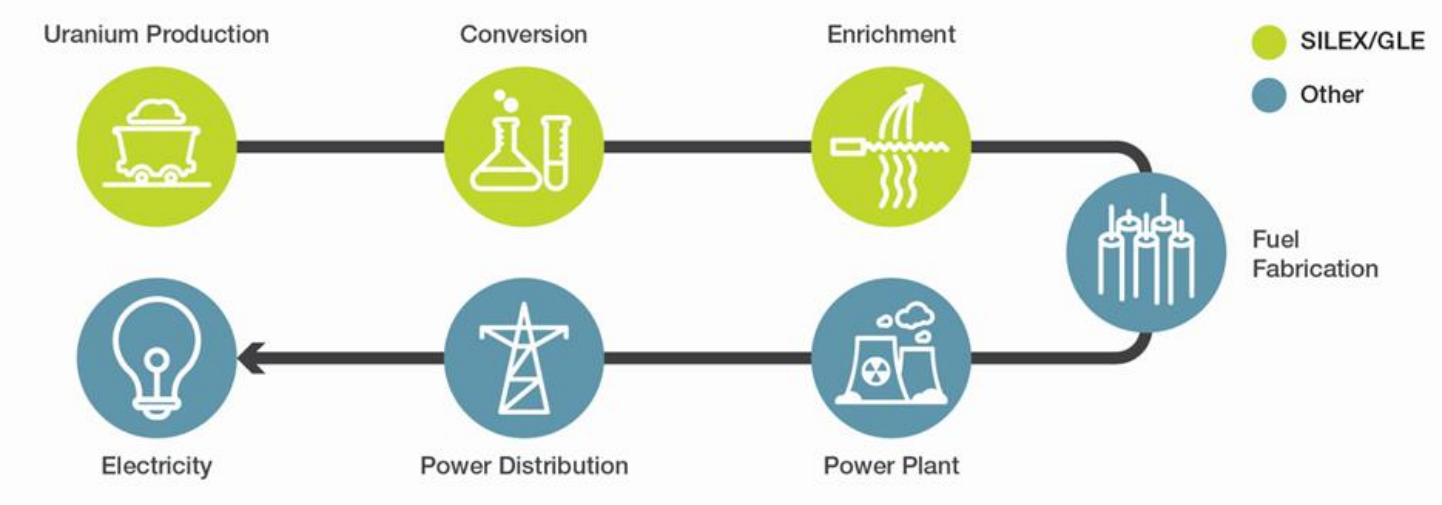
Enrichment Technology Overview

- Most nuclear reactors require an enriched form of uranium fuel to enable sustainable reactions
- Enrichment: $^{235}UF_6$ assay increased from 0.7% (natural) to ~4% (low enriched uranium – LEU)
- **SILEX** - **S**eparation of **I**sotopes by **L**aser **Ex**citation - laser enrichment (third generation)
- Laser provides highly selective excitation of $^{235}UF_6$ which drives efficient isotope enrichment
- High enrichment efficiency is expected to make SILEX technology cost competitive
- SILEX is the only laser enrichment commercialisation project in the world today



SILEX and Nuclear Fuel Production

- The SILEX technology provides GLE with multiple opportunities in the production of nuclear fuel:
  - produce natural grade uranium via enrichment of depleted tails inventories (Paducah project)
  - capture the value of conversion contained in the depleted UF_6 tails material (Paducah project)
  - enrich natural uranium to produce Low Enriched Uranium LEU - $^{235}UF_6$ assay increased to ~ 4%
  - enrich uranium up to 20% - high assay LEU (HALEU) to fuel advanced Small Modular Reactors

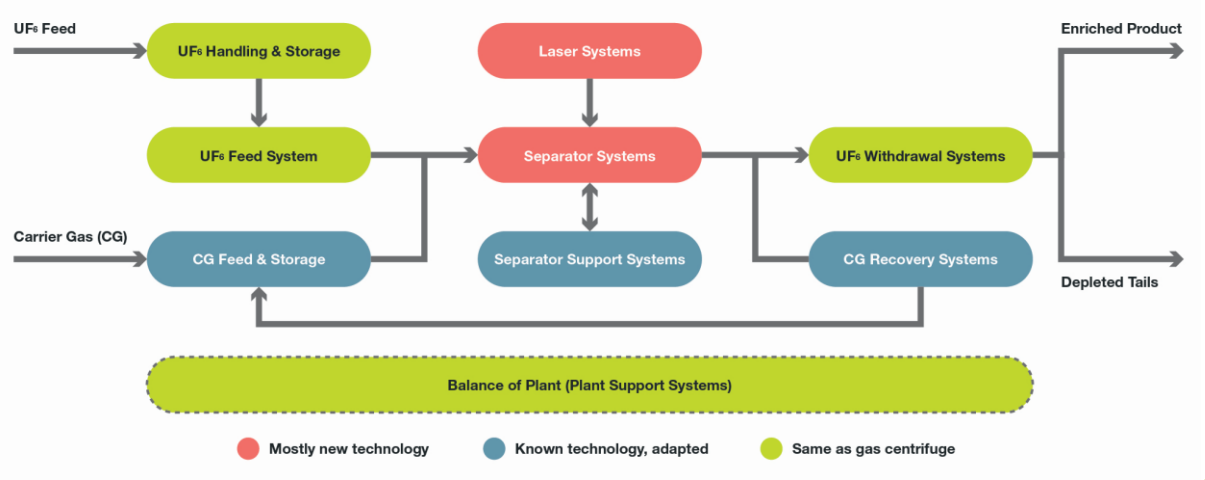


The Nuclear Fuel Cycle

SILEX Technology Commercialisation Program

- Phase 1: Technology Validation: completed at GLE's Test Loop Facility in the US
- Phase 2: Engineering and Economic Validation: includes full-scale pilot demonstration
- Phase 3: Paducah project development for uranium production – first commercial plant
- SILEX technology commercialisation program ~ US$500 million invested to date (Aust. + US)
- Currently GLE and Silex continue to make good progress with Phase 2 scale-up and testing
- Planned completion of Phase 2: mid-2020's and commercial production: late 2020's

Commercial Plant Layout



The GLE Restructure

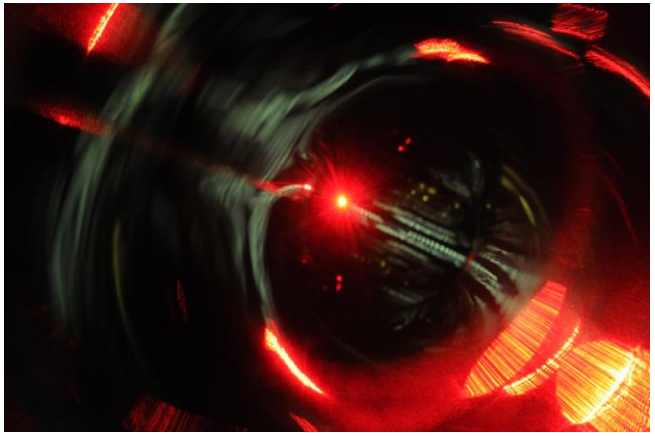
The GLE Restructure

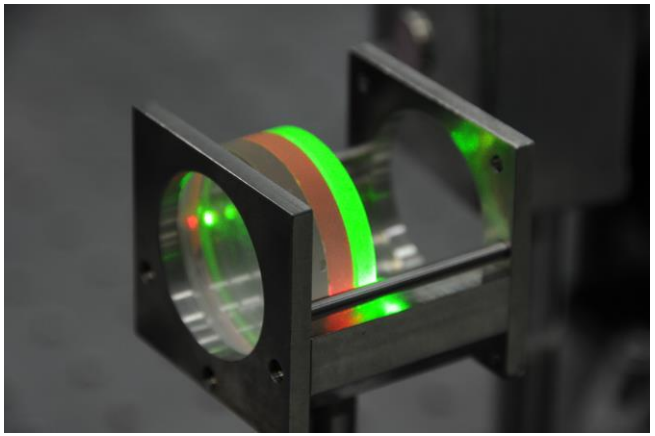
- Purchase agreement for GE-Hitachi's 76% interest in GLE executed in December 2019
- Silex to acquire a 51% interest in GLE – Cameco to increase their interest from 24% to 49%
- No upfront consideration – deferred annual purchase payments (4 x US$5 million) triggered after 1st year GLE generates US$50 million in revenues
- A Site Lease will support GLE's activities at the Wilmington Test Loop facility for an initial term of 3 years with options to extend
- Closing remains subject to US government approvals - expected late CY2020, subject to possible minor delays due to COVID-19
- Silex and Cameco agreed on an option for Cameco to purchase (at fair market value) an additional 26% interest in GLE, potentially increasing their interest to 75% in the future

The SILEX Technology License Agreement and the Paducah Opportunity

SILEX License Agreement Overview

- Exclusive worldwide commercialisation and license agreement for the SILEX laser uranium enrichment technology with GLE
- Agreement provides for a perpetual royalty and a further US$20 million in payments triggered by commercialisation milestones
- Royalty streams payable upon use of SILEX technology for both normal uranium enrichment and tails re-enrichment operations
- Perpetual royalty in range of 7% to 12% of future GLE revenues from commercial operations (based on calculation of cost per unit production installed)





The Paducah Opportunity – a 'Tier 1' Uranium Project

- Sales Agreement between GLE and DOE amended in 2020 for the sale of depleted UF_6 tails inventories to GLE
- Agreement underpins the Paducah Laser Enrichment Facility (PLEF) – first commercial opportunity for GLE
- Enrichment of depleted DOE tails inventories akin to a large, low cost uranium mine operating for a few decades
- Potential annual output from the PLEF around 5.2 million pounds uranium, ranking in the top 10 mines currently
- Paducah opportunity is an ideal path to market for SILEX technology involving a smaller footprint and low capital costs
- Economic return will be driven primarily by a continued recovery in the uranium market price
- Commercial deployment dependent on market conditions, licensing requirements and stakeholder arrangements

Paducah, KY Enrichment Plant Site

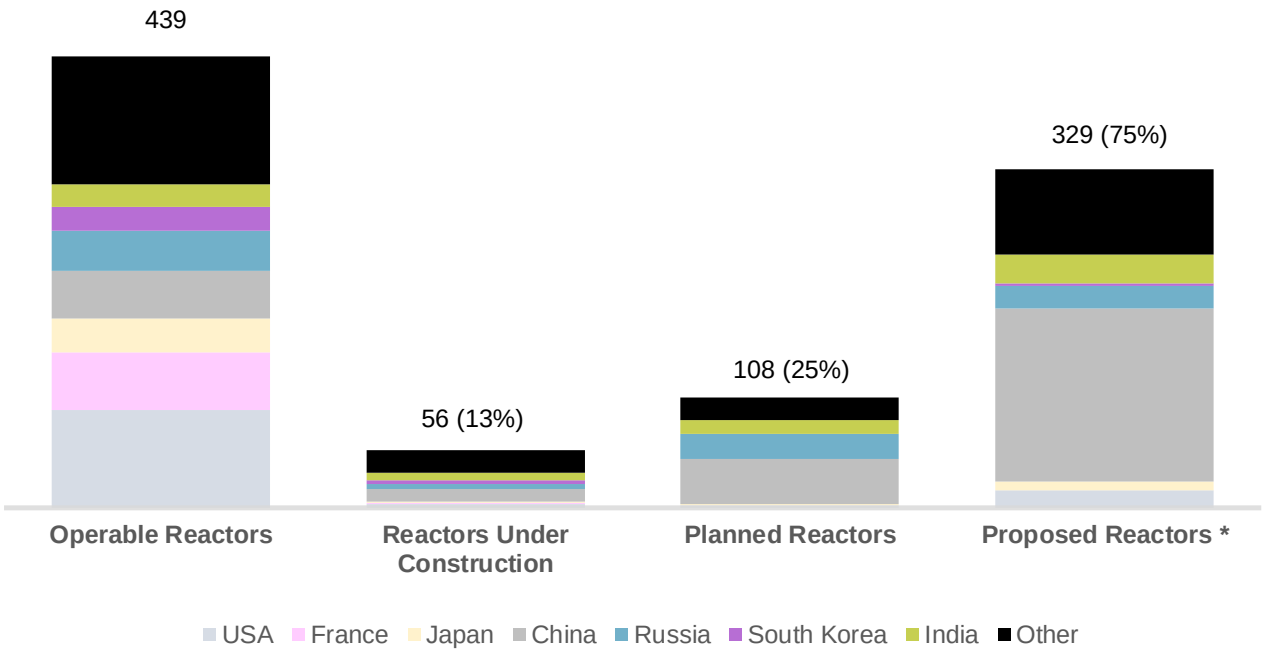
Nuclear Power Growth and Market Outlook

Benefits of Nuclear Power

- Proven, robust and reliable base-load (24/7) electricity generation
- Largest source of carbon-free power in the US, EU and developing economies - key to climate change mitigation
- Affordable and reliable electricity to a growing global population – low generation cost (LCOE of ~$100 /MWh or 10c /kWh – IEA World Energy Outlook 2018)
- Electricity generated is dispatchable and able to be varied up or down with changes in demand (grid load following)
- Power price stability – nuclear fuel is a low proportion of total power cost ~30% (coal fired plant ~80%, gas-fired plant ~90%)
- 6 nuclear reactors connected globally to the grid in the 12 months ended July 2020
- 56 nuclear reactors under construction globally today, with another 108 reactors planned

Nuclear Power Growth

World Nuclear Reactor Population



*** Other Proposed Reactors include 16 proposed in Saudi Arabia, 8 in Turkey, 8 in South Africa and 8 in Japan**

Source: *World Nuclear Association* July 2020

The Future - Small Modular Reactors (SMRs)

Next generation of nuclear reactors may offer significant advantages over large conventional reactors

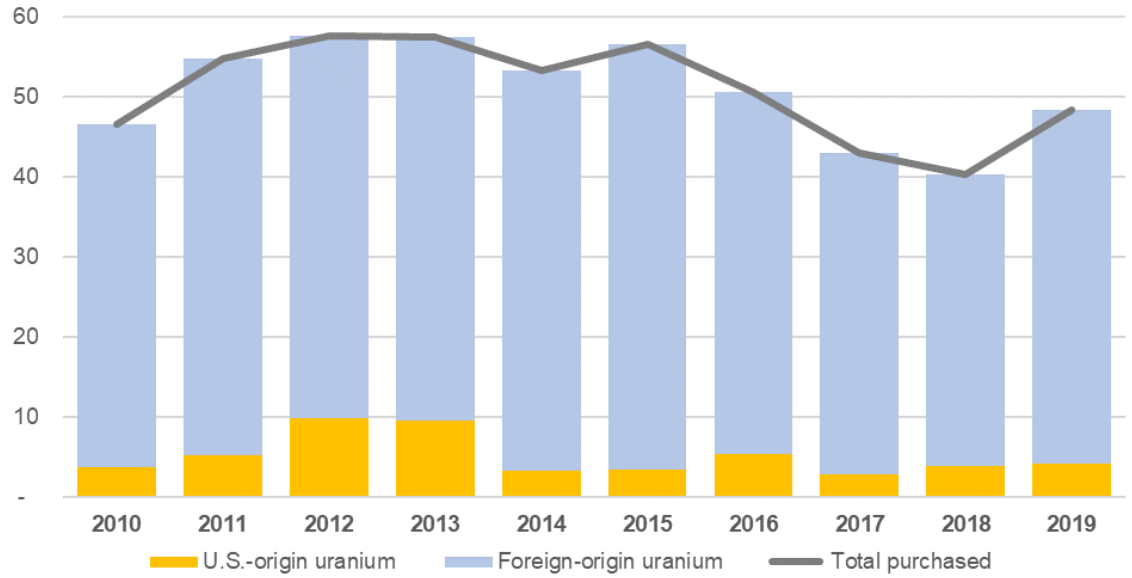
- Modular, smaller size (50 MWe to 300 MWe) allows greater flexibility in deployment
- Potentially competitive with distributed generation (such as renewables) and in deregulated markets
- Designed for production-line manufacturing rather than custom built capital projects – significant reduction in capital costs and shorter construction times
- More than 20 different designs being developed – expected to reduce to much fewer by 2030
- Leading contenders anticipated to be introduced commercially in early 2030's in the US
- Several SMR designs use High Assay Low Enriched Uranium (HALEU) - SILEX technology can provide a flexible low cost alternative to produce HALEU for SMRs

US Nuclear Industry Review

- Growing concerns the US has fallen behind China, Russia and other state-owned enterprises in nuclear technology
- US nuclear fuel supply is currently dominated by foreign imports for uranium, and foreign enrichment providers
- Nuclear Fuel Working Group appointed by the White House in July 2019 to undertake review of US nuclear industry
- Report released by the DOE in June 2020 recommends several measures to bolster the US nuclear fuel industry
- Overall positive for GLE as an aspiring domestic supplier of uranium (Paducah project) and enrichment for current and advanced small modular reactors
- Little detail available on how measures will be implemented or funded, but GLE continues to promote its credentials as a future US fuel supplier with the SILEX laser technology

US Uranium Market Focus

Uranium purchased for US nuclear power reactors, 2010 – 2019

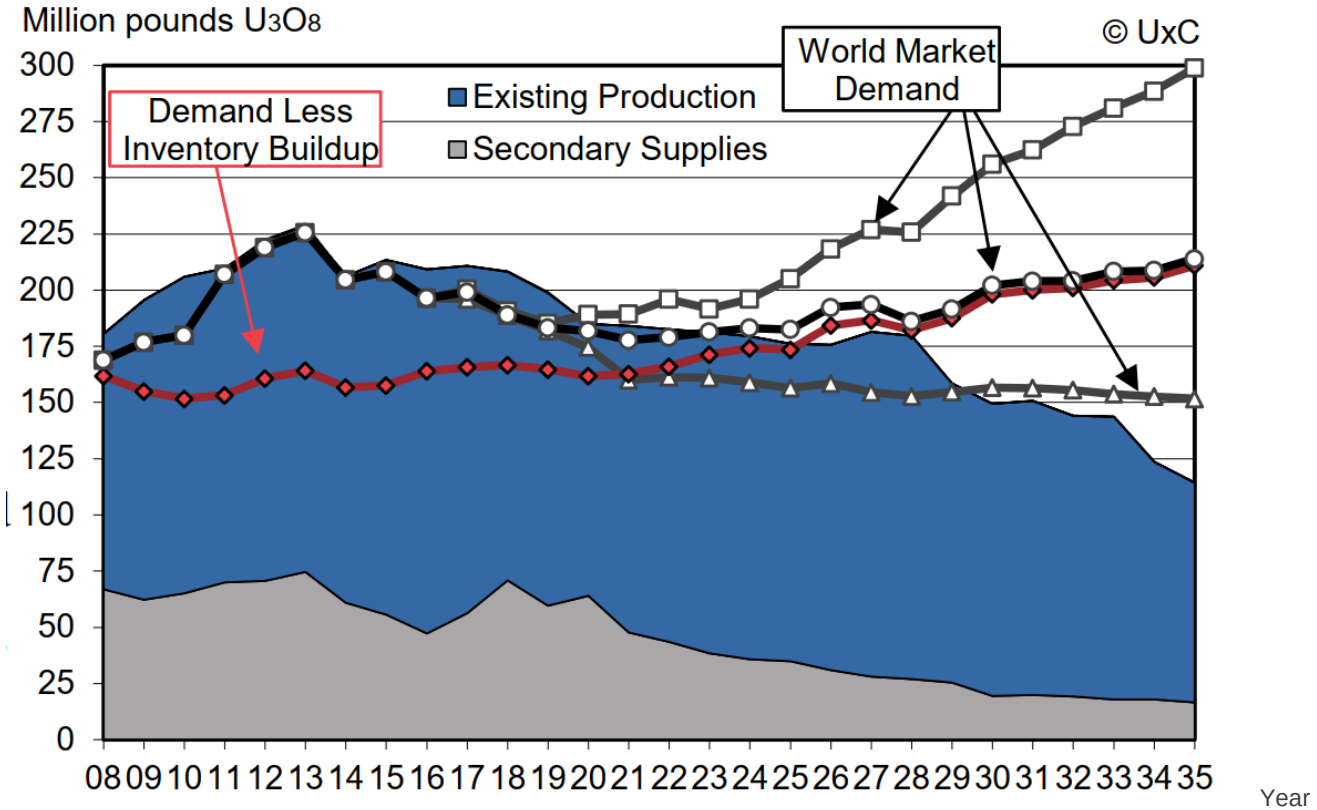


Source: U.S. EIA *Uranium Marketing Annual Report*, Released May 2020

- US is the largest user of nuclear fuel with 95 operating reactors - but with uranium requirements met predominately by imports

Uranium Market Outlook

Mid-Case Uranium Supply and Demand Forecast

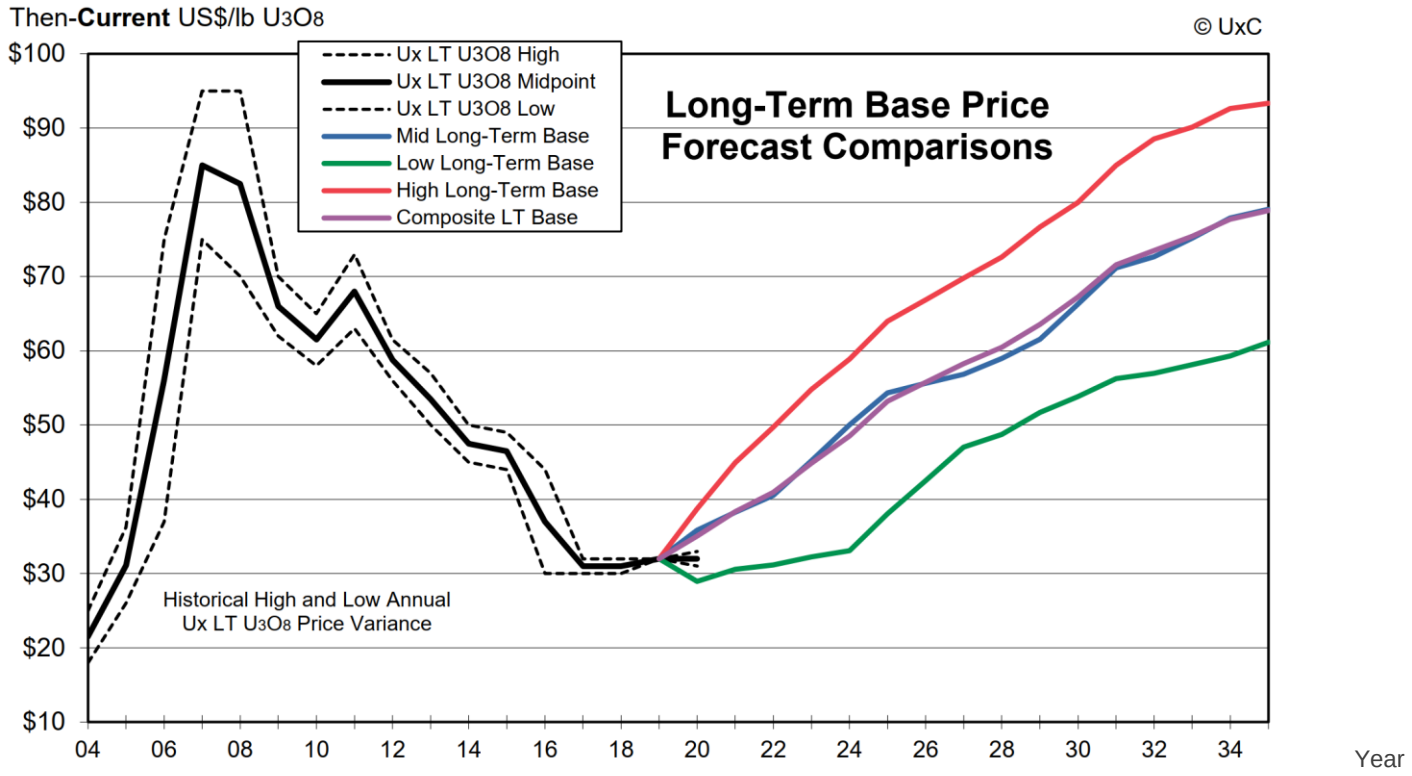


Source: UxC *Uranium Market Outlook*, Q2 2020

- Uranium supplies will remain excess to demand, under the mid-case scenario, until around 2025
- Secondary uranium supplies include production from underfeeding and tails re-enrichment

Uranium Price – Early Signs of Term Price Recovery?

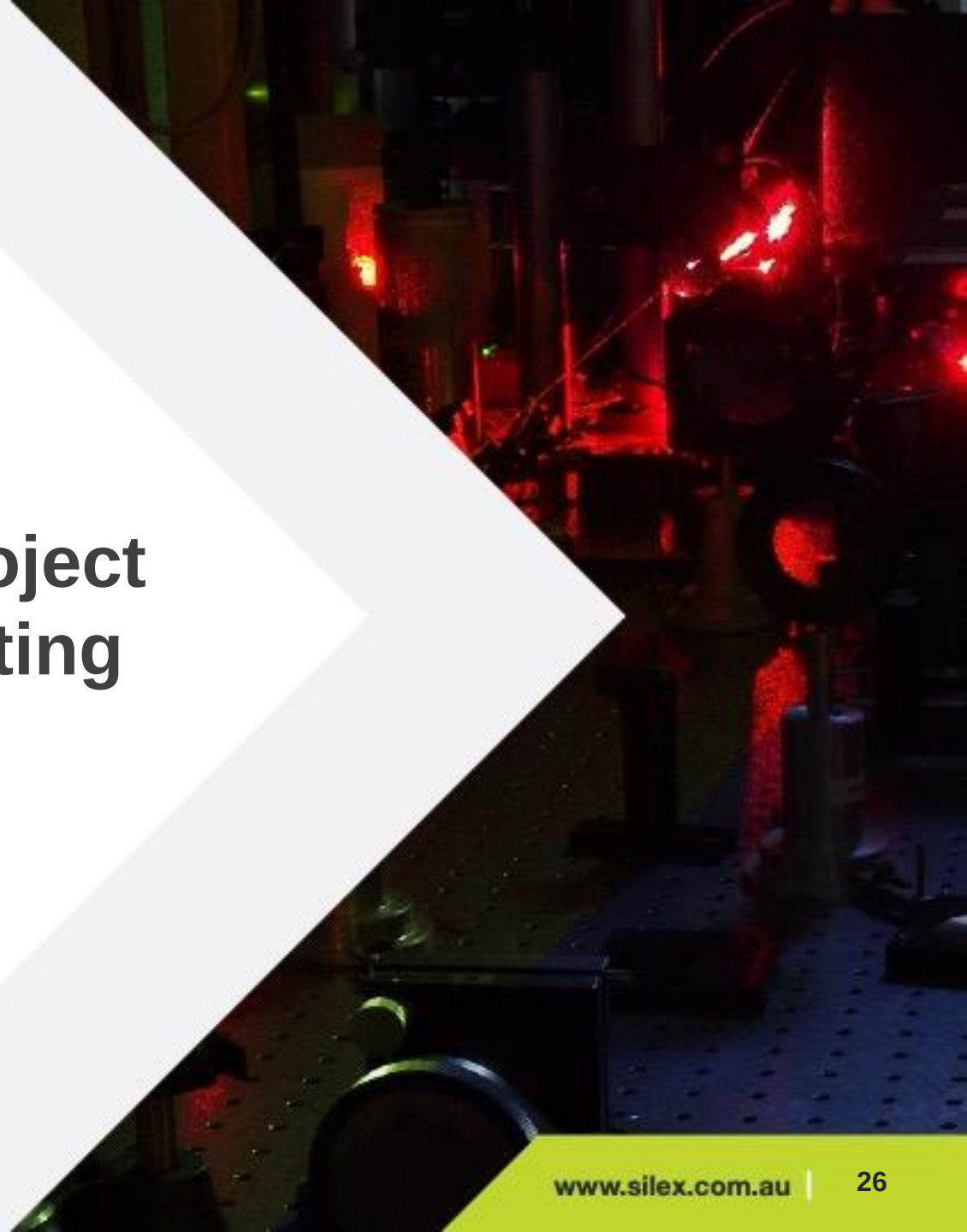
Uranium Long-Term Base Price Forecast



Source: UxC *Uranium Market Outlook*, Q2 2020

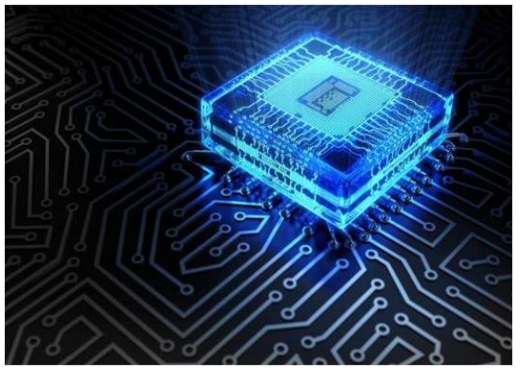
- UxC forecast the mid-case uranium price recovering to over US$50/lb from around 2025
- Recovery of the uranium market price is key to the Paducah project

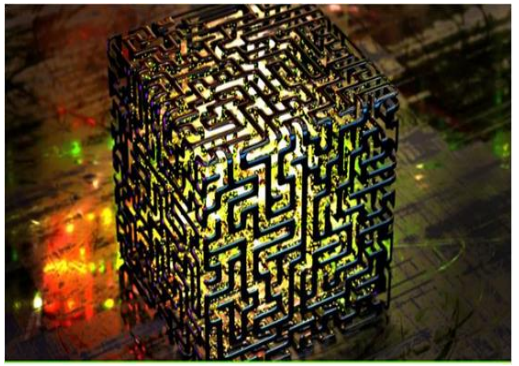
Zero-Spin Silicon Project for Quantum Computing



ZS-Si: Silicon Enrichment Project for Quantum Computing

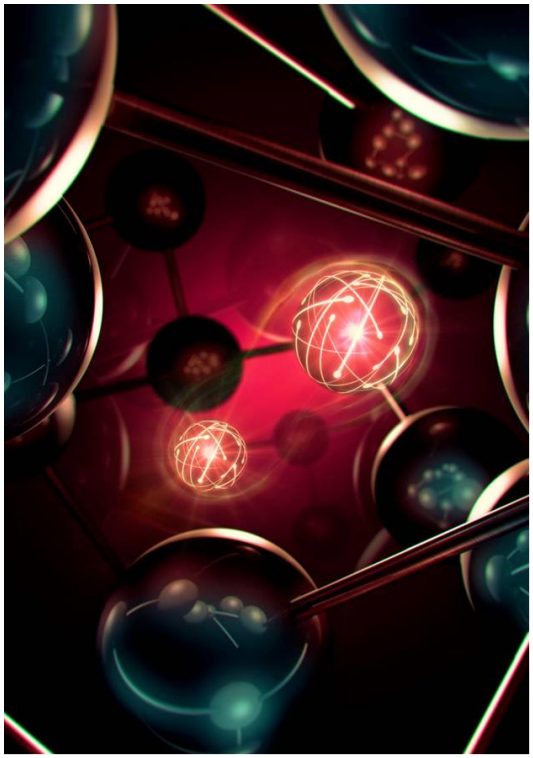
- Stable isotope program underway to utilise SILEX Laser Isotope Separation (LIS) technology for semiconductor and medical diagnostic applications
- Zero-Spin Silicon (ZS-Si) project launched December 2019 in collaboration with Silicon Quantum Computing Pty Ltd (SQC) and UNSW Sydney
- ZS-Si is the key enabling material for silicon-based quantum processors and is required to support the development and anticipated global growth of silicon-based Quantum Computer (QC) technology
- QC's will be 1000's times more powerful than today's computers, creating new opportunities in medicine, AI, cybersecurity, finance, logistics etc
- Many governments around the world and key corporates such as Intel, Google, IBM, Microsoft are vying for leadership in QC development
- SQC and UNSW are part of the Federally funded 'CQC2T Centre of Excellence' at UNSW – a world leader in QC technology development
- CSIRO - global QC technology market estimate ~$50 billion p.a. by 2040 – even a small ZS-Si component could be a significant opportunity for Silex





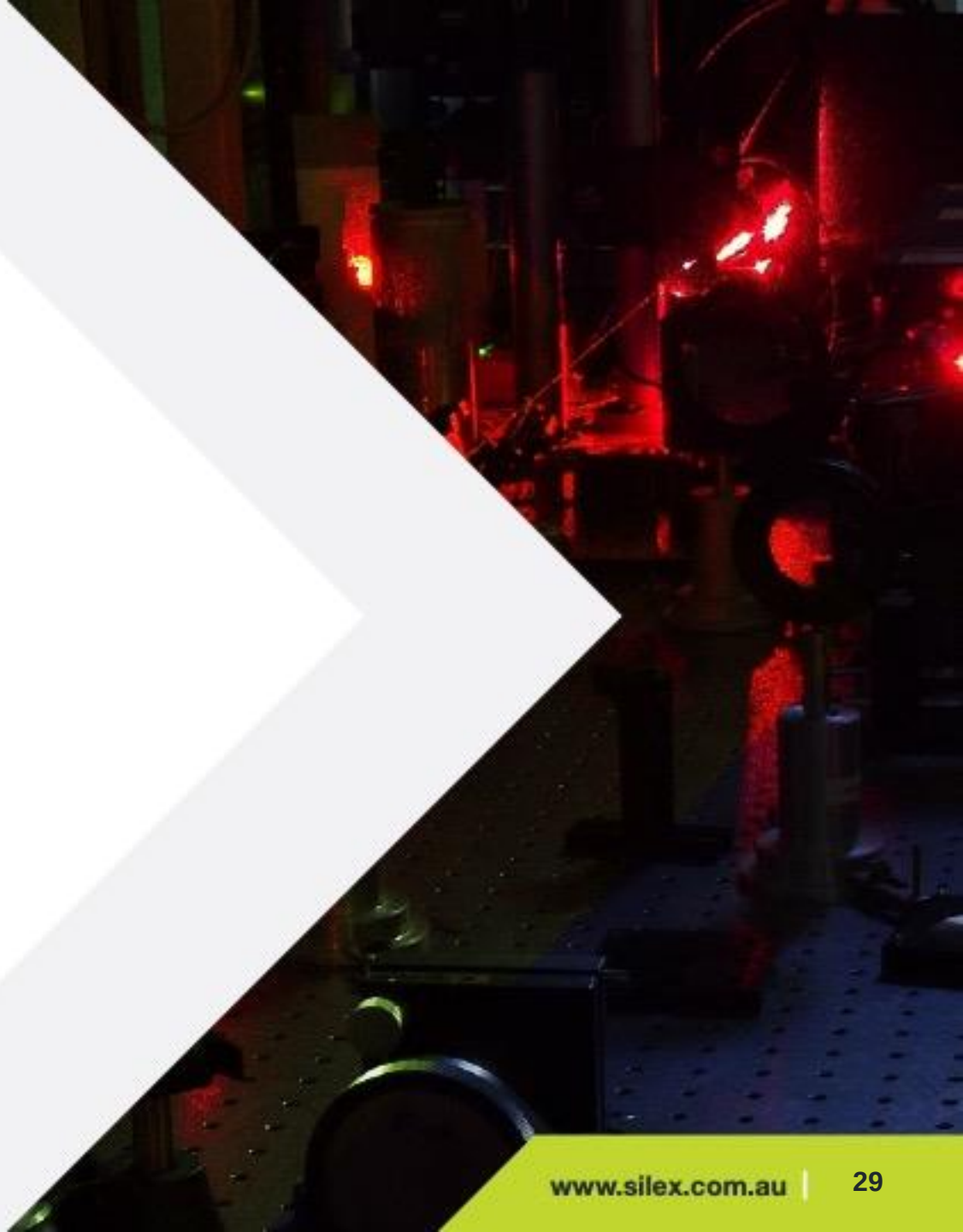
ZS-Si : Silicon Enrichment Project for Quantum Computing

- Current centrifuge production of enriched silicon is limited and costly - SILEX technology anticipated to produce much higher purity for lower cost
- Project aim is to provide a secure supply of ZS-Si in support of efforts by SQC and UNSW to commercialise silicon quantum computing technology
- The project is expected to be completed at end of CY2022, is supported by a $3m Federal CRC-P funding grant and $1.8m product Offtake Agreement and placement with SQC who will become the first commercial customer
- Stage 1 of the project, establishing 'proof-of-concept' for the LIS process, was successfully completed on schedule in June 2020
- Stage 2 involves validation of the LIS technology and scalability for ZS-Si production and is scheduled for completion at the end of CY2021
- Stage 3 involves a full technology demonstration for ZS-Si production at commercial pilot scale and is scheduled for completion at the end of CY2022
- The Stage 3 pilot plant will be sufficient to produce initial commercial quantities for SQC and other customers from 2023 onwards



Prof. Michelle Simmons team at UNSW/CQC2T demonstrated the fastest 2 qubit gate in silicon using atomic qubits. Nature 571, 371 (2019) (Illustration by Tony Melov)

Translucent Inc
cREO™ Technology

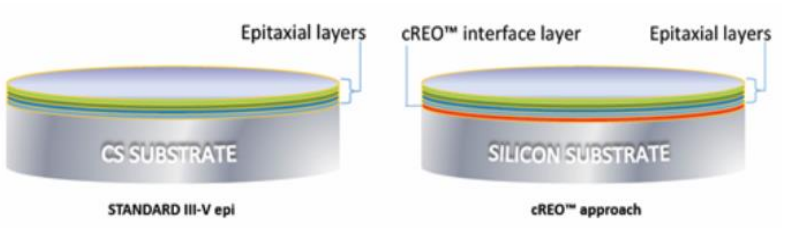


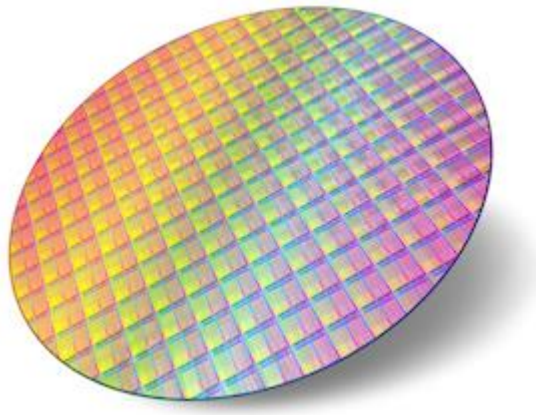
The Translucent – IQE Agreement

- Silex subsidiary Translucent's 'Rare Earth Oxide' (cREO™) technology purchased by UK-based IQE in 2018 with payment of US$5 million (in IQE shares)
- IQE is global leader in the supply of advanced semiconductor wafer products used in many of today's semiconductor devices e.g. wireless communications, sensing, power and photonics
- IQE is a key supplier to the emerging global 5G wireless communications market
- A perpetual royalty of at least 3% of IQE's revenues derived from use of the technology payable to Translucent
- First minimum royalty payment (US$400k) received March 2020

cREO™

ENABLING NOVEL COMPOUND MATERIALS ON SILICON





Source: IQE.com

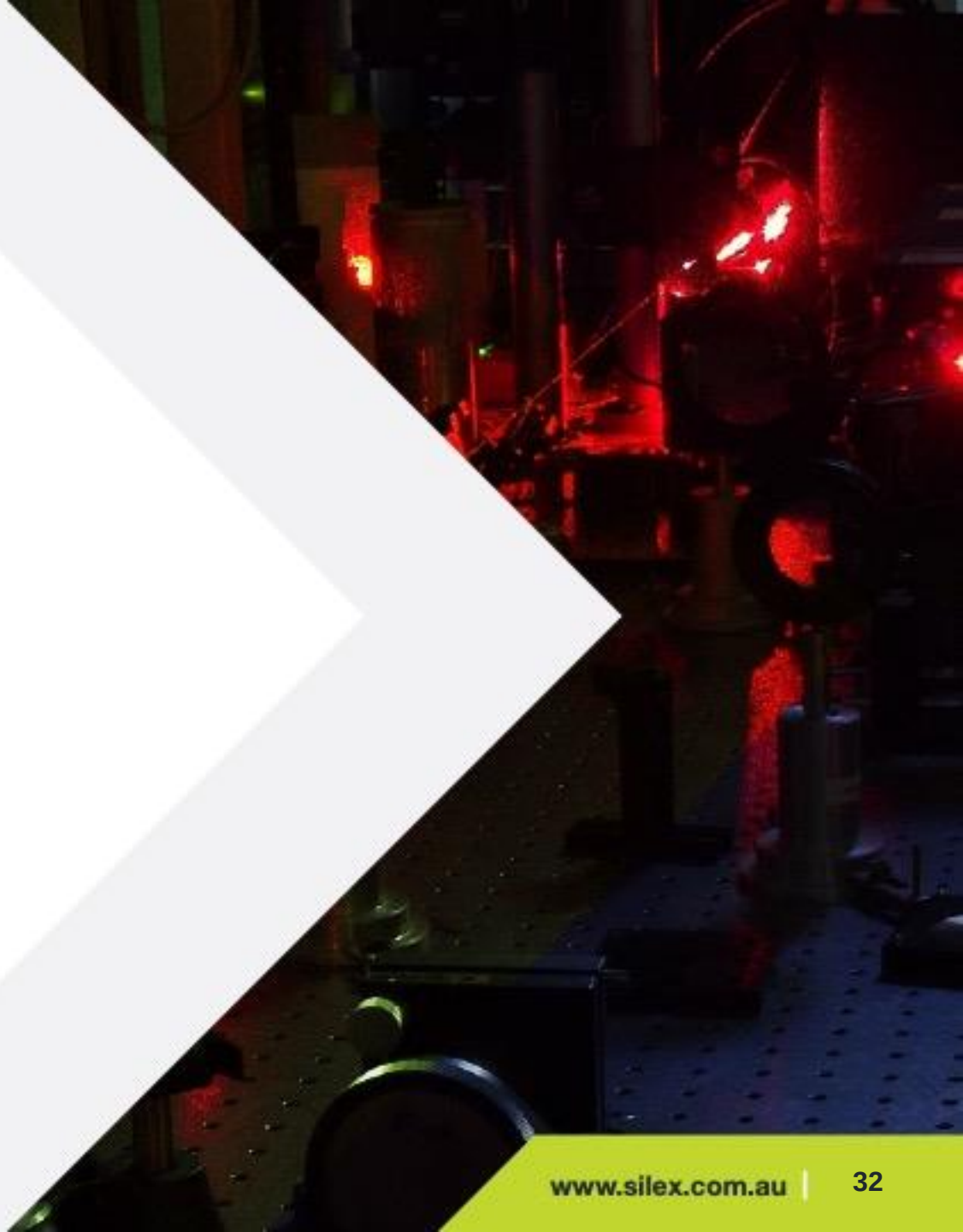
cREO™ - IQE Development Program

- cREO™ technology commercialisation program being conducted at IQE's Greensboro NC, US manufacturing facility
- Continued investment by IQE to progress commercialisation of cREO™ advanced semiconductor material technologies
- IQE is making progress in the development of its unique high frequency filter materials portfolio for 5G - based on cREO™ technology
- IQE is engaged with multiple customers to bring the first cREO™ filter products to market
- IQE continues to assess additional possible routes to market for the cREO™ technology

IQE's RF chips inside a smartphone

Source: IQE.com

Summary



Summary

- Current focus is on closing of the GLE restructure and continuation of the SILEX technology commercialisation project at GLE's facility in the US and Silex's facility in Sydney
- Successful completion of the GLE restructure, subject to US government approvals, will result in Silex acquiring a 51% interest in GLE and Cameco increasing its interest from 24% to 49%
- Long-term fundamentals for global growth in nuclear power remain positive despite the short-term difficulties in nuclear fuel markets
- Silex's LIS technology being developed to produce Zero-Spin Silicon for initial customer SQC in support of its efforts to commercialise silicon quantum computing in collaboration with UNSW Sydney
- Translucent cREO™ technology being advanced by IQE towards commercial deployment in the emerging 5G communications market with high frequency filters and switches
- Company's balance sheet remains solid with net assets of ~$27.5m, including ~$18.4m in cash and approximately ~$8.5m in IQE shares; receivables and other assets of ~$2.5m; liabilities of ~$1.9m (as at 30/06/20)

Thank you