Investor Presentation

1 December 2021

Silex Systems Limited (Silex) (ASX: SLX) (OTCQX: SILXY) is pleased to provide the attached presentation that will be delivered by Dr Michael Goldsworthy, Silex CEO and Jonathan Hinze, President, UxC, one of the nuclear industry's leading market research and analysis companies.

The presentation provides an overview of commercialisation activities for the innovative SILEX laser uranium enrichment technology and a summary, presented by UxC, of Advanced Reactors and potential HALEU nuclear fuel demand.

Authorised for release by the Silex Board of Directors.

Further information on the Company's activities can be found on the Silex website: www.silex.com.au or by contacting:

Michael Goldsworthy
CEO/Managing Director
T +61 2 9704 8888
E investor.relations@silex.com.au

Julie Ducie
CFO/Company Secretary
T +61 2 9704 8888
E investor.relations@silex.com.au

Silex Systems Limited

(ASX: SLX) (OTCQX: SILXY)

Euroz Hartleys Investor Update Presentation

Dr Michael Goldsworthy
CEO/Managing Director

Jonathan Hinze
President, UxC, LLC

1 December 2021

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 has been under development for uranium enrichment jointly with US-based exclusive licensee Global Laser Enrichment LLC (GLE) for a number of years. Success of the SILEX uranium enrichment technology development program and the proposed Paducah commercial project remain subject to a number of factors including the satisfactory completion of the engineering scale-up program and uranium market conditions and therefore remains subject to associated risks.

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 uncertain and any plans for commercial deployment are speculative.

Additionally, Silex 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 for 5G mobile handset filter applications. The outcome of IQE's commercialisation program is also 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 or competitiveness 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 trends, government policies and any new or unforeseen circumstances. The statements expressed herein do not necessarily reflect the views of the Company's various commercialisation partners and stakeholders. 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 and social uncertainty, including in relation to the impacts of the COVID-19 pandemic; the results of the SILEX uranium enrichment engineering development program; the market demand for natural uranium and enriched uranium; the outcome of the project to develop technology 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; decisions made or actions taken by the Company's commercialisation partners that could adversely affect technology commercialisation programs; and the outcomes of various strategies and projects undertaken by the Company.

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

Our Mission: to commercialise the unique SILEX laser enrichment technology for application to:

Uranium production and enrichment (nuclear power)

Silicon enrichment (silicon quantum computing)

Other potential markets (e.g. medical isotopes)

Our strategy is focused on extracting maximum value from our core SILEX technology and expertise

SILEX Technology Commercialisation Overview

Silex

51% Owned

92 U Uranium 238.03

SILEX Uranium Production via GLE

Technology	SILEX laser enrichment Licensed to Global Laser Enrichment (GLE)
Revenue Model	51% ownership of GLE + 7% (min.) perpetual royalty
Partners	Cameco
Market Size[1].	Uranium: US$7bn Uranium Enrichment: US$3bn

1. UxC 2022 estimates, UMO and EMO Q3, 2021

100% Owned

14 Si Silicon 28.0855

SILEX Zero-Spin Silicon Production

Technology	SILEX laser enrichment
Revenue Model	Producer-based revenues for silicon quantum computing
Partners	UNSW THE UNIVERSITY OF NEW SOUTH WALES; Silicon Quantum Computing
Market Size[2].	Quantum Computing: $50bn (by 2040)

2. CSIRO, Growing Australia's Quantum Technology Industry, May 2020
(Note: raw materials such as ZS-Si would represent a very small fraction of this)

Other Potential Markets

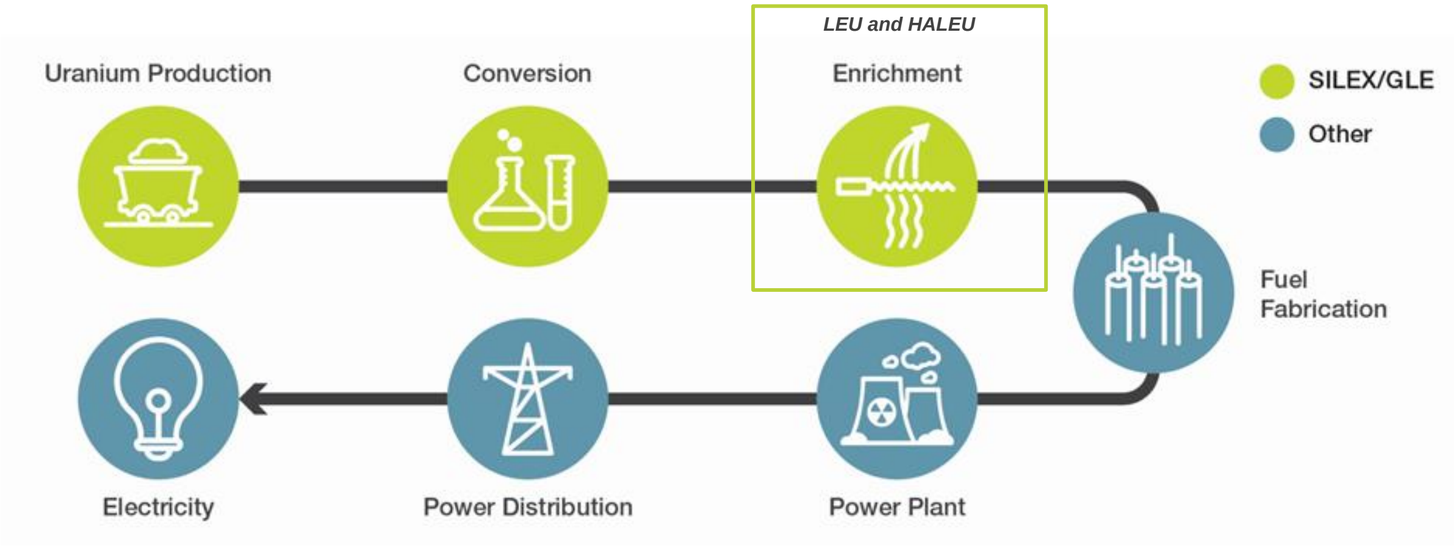
E.g. Medical Radioisotopes

Technology	SILEX laser enrichment
Revenue Model	Producer-based revenues TBD
Partners	TBD
Market Size	TBD

SILEX and Nuclear Fuel Production

The SILEX technology may provide 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 LEU - $^{235}UF_6$ assay increased up to 5%
- enrich uranium up to 20% - HALEU to fuel advanced Small Modular Reactors



The Nuclear Fuel Supply Chain

Evolution of Enrichment Technology

1st Generation Technology

Gaseous Diffusion

ß = 1.004

High cost

Obsolete

2nd Generation Technology

Centrifuge

ß ~ 1.25

Lower cost

Current technology

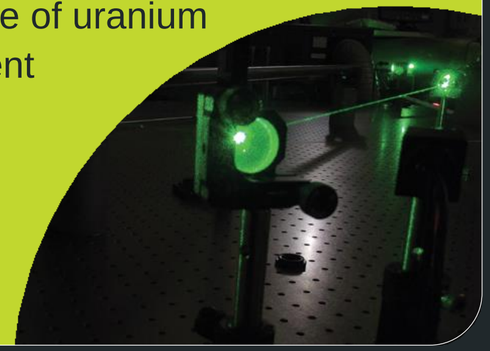
3rd Generation Technology

SILEX Laser

ß ~ 2 - 20[1]

Most cost effective

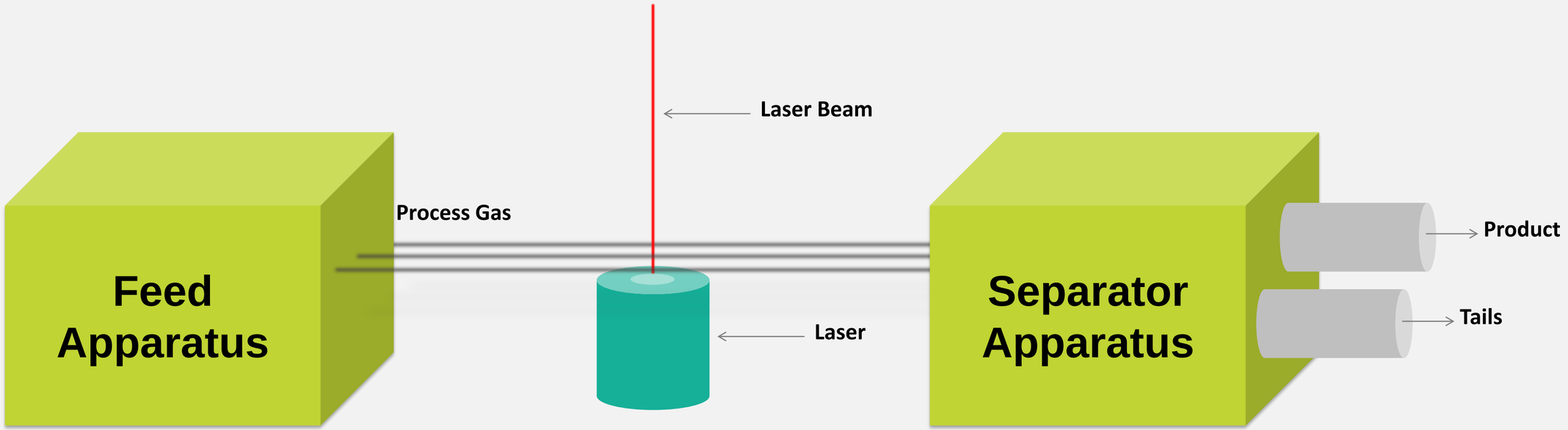
The future of uranium enrichment



1. ß is the process efficiency (Classified number)

- SILEX laser process → much higher separation efficiencies vs. centrifuge technology

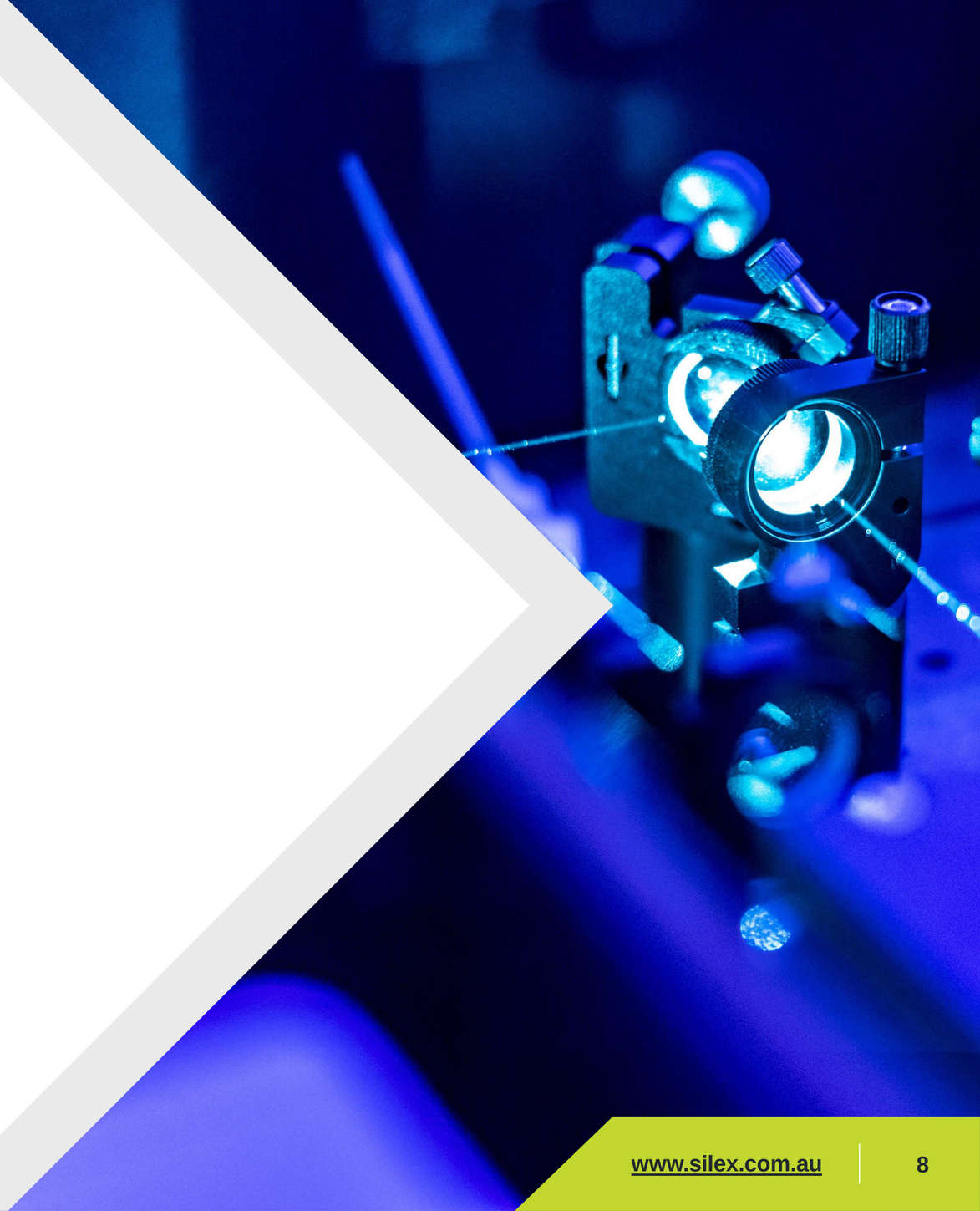
SILEX Process Overview



- Unique third generation (laser-based) enrichment technology
- Highly selective lasers to excite UF_6 and efficiently separate U^{235}
- Anticipated to be significantly more efficient than centrifuge technology

Emerging Nuclear Fuel Opportunities – Advanced Reactors (i.e. SMRs) and HALEU Fuel Demand

Jonathan Hinze
President, UxC, LLC



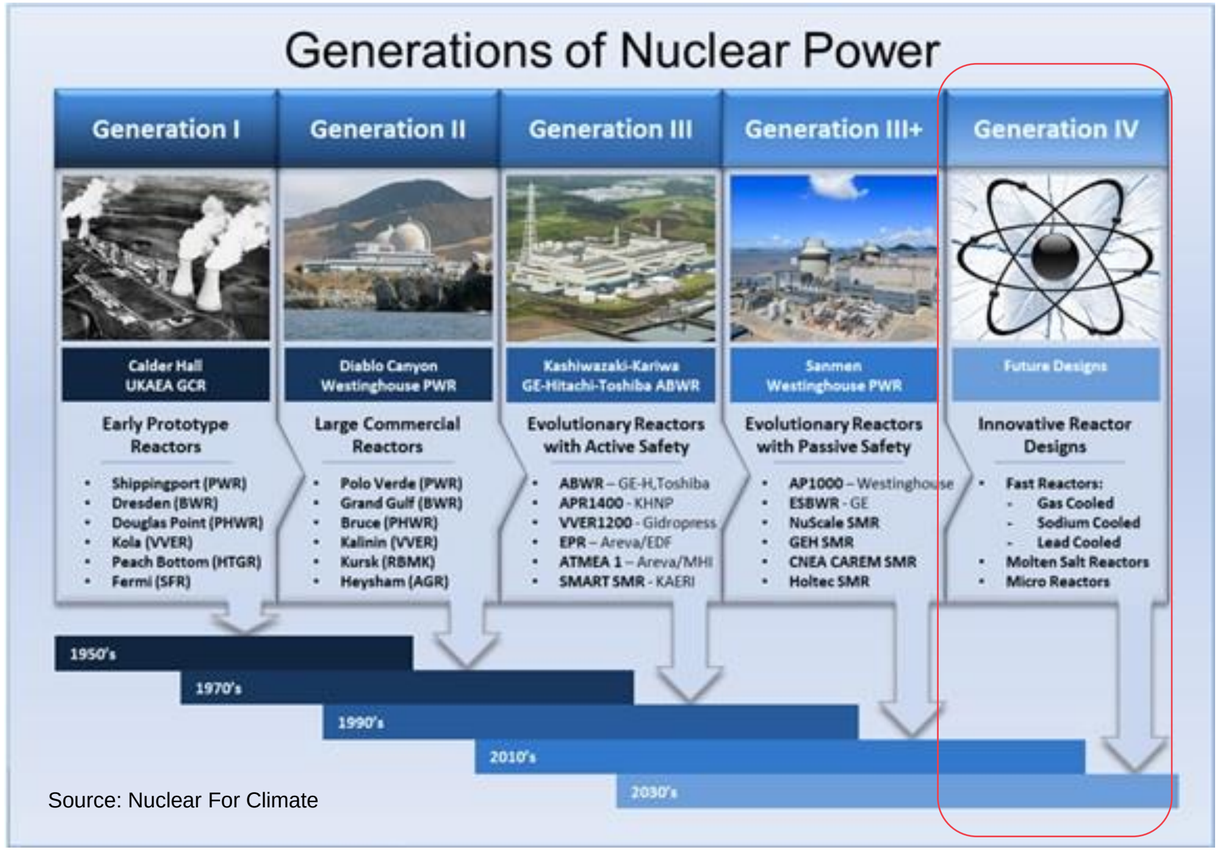
Advanced Reactors & Future HALEU Demand

December 1, 2021

Jonathan Hinze
President
UxC, LLC

What are SMRs & ARs?

- **SMR = <300 MWe capacity**
  - Often evolutionary designs based on light water reactor (LWR) technologies
- **AR = non-LWR “revolutionary” designs**
- **High Temperature Reactors (HTR)**
  - Gas cooled
- **Liquid Metal Reactors (LMR)**
  - Sodium or lead cooled
- **Varying sizes for ARs**
  - Some larger up to ~500 MWe
  - Growing interest in microreactors (<10 MWe)



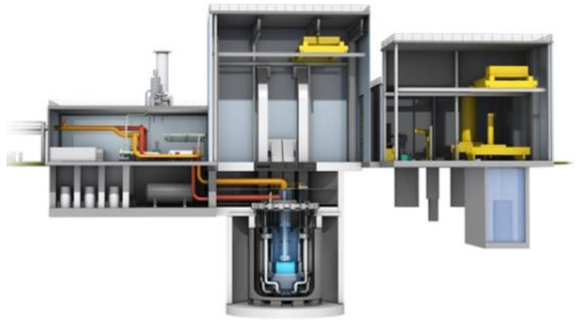
Source: Nuclear For Climate

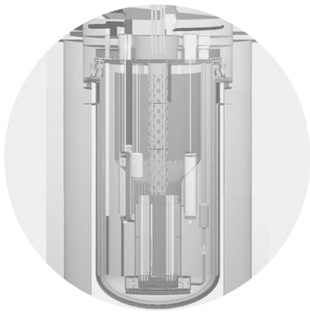
Why the Interest in SMRs & ARs?

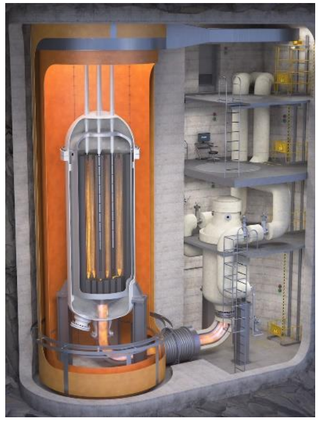
- **Attractive due to lower capital costs and enhanced safety potential as SMR/AR plant may cost ~$1 billion vs. $5-8 billion for large reactor**
- **Fill many niche market needs:**
  - Modular nuclear capacity expansion (small bites off the apple)
  - New countries & utilities with smaller grids or smaller power needs
  - Replacement of aging coal/oil-fired plants
  - Back-up power integrated with renewables
  - Better suited to remote sites, islands, mines, etc.
  - Various non-electricity applications (e.g., process heat, desalination, hydrogen, etc.)
- **Compete more directly with diesel, natural gas, hydro, or renewables rather than with large nuclear reactor designs**
- **Global nuclear power market is not a zero-sum game, and there is ample room for SMR/ARs as well as large reactors**

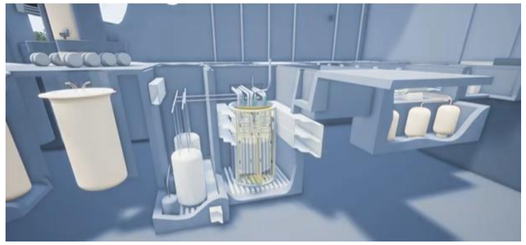
Leading AR Technologies

- X-energy's Xe-100
- TerraPower's Natrium
- Terrestrial Energy's IMSR
- USNC's MMR
- Oklo's Aurora
- ARC Clean Energy's ARC-100
- Moltex Energy's SSR
- Urenco's U-Battery
- HolosGen's HOLOS
- Westinghouse's eVinci
- BWXT's Advanced Nuclear Reactor
- Kairos Power's FHR
- Southern Co's MCFR









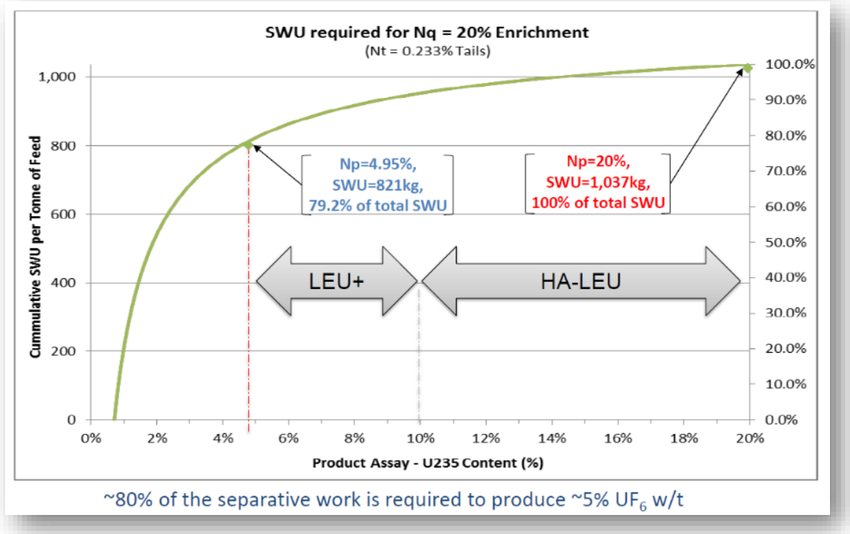
U.S. DOE's ARDP

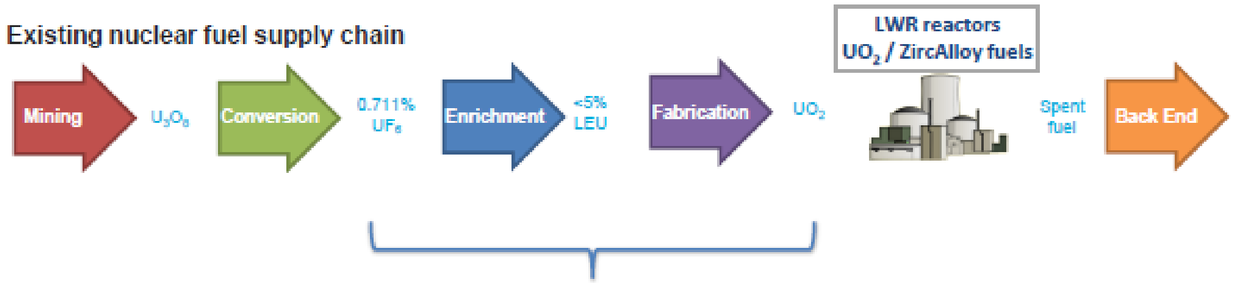
- **U.S. Department of Energy (DOE)'s Advanced Reactor Demonstration Program (ARDP)**
- Cost-shared 50/50 full demonstration of two designs (Xe-100 & Natrium)
  - $3.2 billion in total funding over ~7 years (all funds included in recent infrastructure bill)
  - Natrium plant in Kemmerer, Wyoming & Xe-100 plant in Richland, Washington
  - Aim is to deploy first plants by ~2028
- Risk reduction for five additional designs
  - KP-FHR, eVinci, BANR, SMR-160, & MCFR
  - $30 million awarded to date
  - Aim is to support demonstration within 10-14 years
- Concept development for three additional designs
  - ARC-100, GA's FMR, MIT's HTGR
  - $20 million awarded to date
  - Aim is to mature technology for potential demonstration by mid-2030s

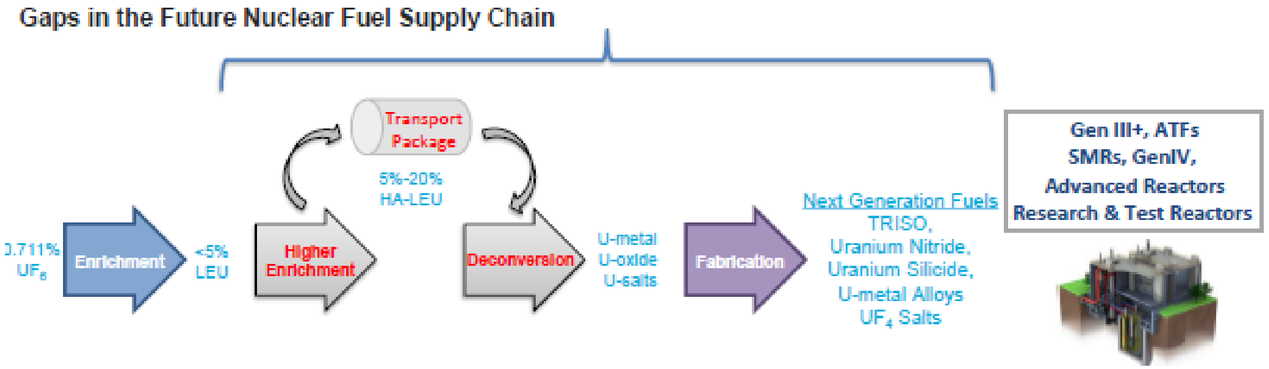
For more details see: https://www.energy.gov/ne/articles/infographic-advanced-reactor-development

AR Fuel Cycles

- Current commercial LWRs use low enriched uranium (LEU) with less than 5% ^{235}U content
- Most ARs require high assay low enriched uranium (HALEU) with enrichments ranging from 5% up to 19.75% as a fuel source
- Currently there is no commercial source of supply of HALEU in the western world







HALEU Fuel Demand

- **U.S. annual HALEU demand could reach as high as 500 MTU per year by 2035**
- **Currently no commercial market for HALEU, but prices likely to be significantly higher than standard LEU**
  - Today's LEU price: ~$2,300/kgU
  - Future HALEU price: $8,000-10,000/kgU*
- **Future U.S. market size**:**
  - **2030: $650-820 million**
  - **2035: $4-5 billion**

U.S. Outlook for HALEU Demand

Estimated Annual Requirements for High Assay Low Enriched Uranium to 2035 (MTU/yr)

Company	A	B	C	D	E	F	G	H	I	J	K	Total	Cumulative
Enrichment Range	13-19.75%	19.75%	10-19.75%	15.5%	19.75%	19.75%	19.75%	10.9-15.5%	14.4%	12-13%	19.75%		
Year													
2021		1.7								1.1	0.0	2.8	2.8
2022		3.3								0.0	0.0	3.3	6.1
2023	1.0	3.3					1.0			4.4	0.0	9.7	15.8
2024	1.0	3.3	0.2						0.5	6.6	0.4	12.0	27.8
2025	1.0	3.3	0.2		15.0		1.0		0.5	11.0	0.0	32.0	59.8
2026	1.0	3.3	0.2	3.1	15.0		3.0	24.2	0.5	13.2	0.7	64.2	124.0
2027	1.0	3.3	1.6	4.0	5.0		3.0		0.5	13.2	1.1	32.7	156.6
2028	1.0	3.3	1.6	4.8		17.5	6.0		0.5	13.2	2.1	50.0	206.6
2029	1.0	5.0	1.6	5.7	17.0		6.0	24.2	0.5	16.5	4.2	81.7	288.3
2030	23.0	5.0	3.0	7.8	46.0	19.0	9.0		1.0	16.5	7.0	137.3	425.6
2031	35.0	6.7	4.5	11.5	29.0	20.5	9.0	24.2	3.0	16.5	10.5	170.4	596.0
2032	47.0	6.7	6.0	15.9	46.0	22.0	12.0	24.2	6.0	19.8	14.4	220.0	816.0
2033	58.0	8.3	9.0	21.0	46.0	23.5	12.0	48.4	9.0	19.8	19.3	274.3	1090.2
2034	70.0	8.3	15.0	26.8	46.0	25.0	12.0	121	12.0	19.8	25.2	381.1	1471.3
2035	93.0	10.0	21.0	35.8	91.0	26.5	12.0	145.2	15.0	22.0	29.8	501.3	1972.6

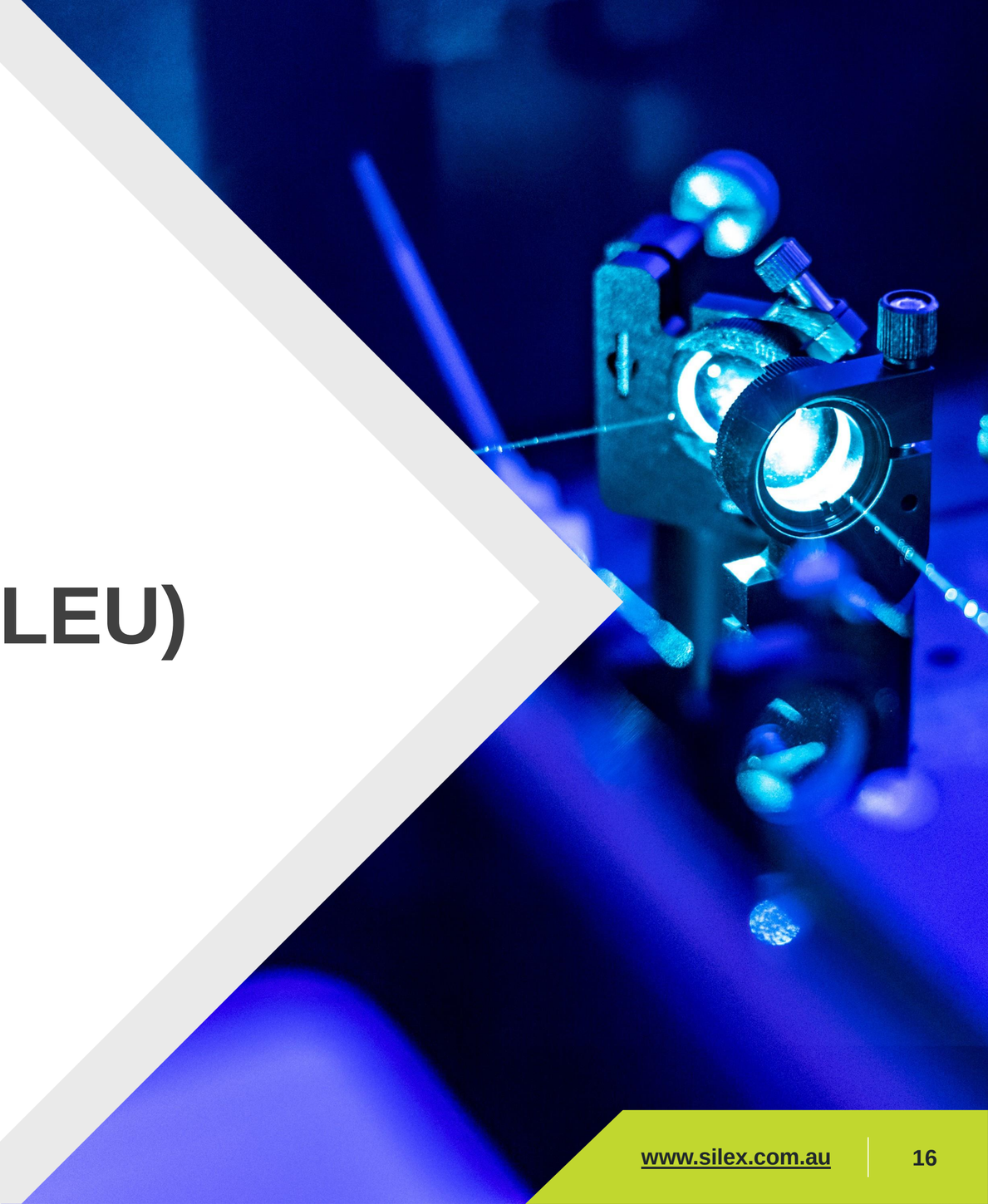
Source: NEI

https://www.nei.org/CorporateSite/media/filefolder/resources/letters-filings-comments/NEI-Letter-to-the-Secretary-of-Energy-HALEU-Update.pdf

***SWU value likely to be ~40% of total**

****Global market could be double U.S. market size**

Production of Uranium and Enriched Uranium (LEU, HALEU) with SILEX Technology



SILEX Uranium Production Opportunity

Global demand for Uranium is set to rise:

A significant potential uranium supply shortage is forecast

- Structural supply deficit could occur without a timely increase in production
- Demand could grow significantly as zero-emissions nuclear is embraced
- There are few low cost resources to supply increasing demand from the mid 2020's
- Uranium prices must keep increasing to provide stimulus for increased production

The Flagship Paducah uranium project – Global Laser Enrichment (GLE)

- Silex owns 51% equity interest in GLE with Cameco Corporation owning the balance of 49%
- GLE has an agreement with US DOE[1] to purchase tails inventories owned by the US Government
- GLE's Paducah project aims to enrich the tails using the SILEX technology to produce natural uranium

1. US Department of Energy

Paducah Uranium Production Opportunity*

Target Commercial Operation Date

Anticipated to be late 2020's

Akin to a 'Tier 1' Uranium Resource

Based on low cost and longevity of production

(Silex estimate of all-in cost currently < US$25/lb)

Equivalent U_3O_8 Production

Planning for up to 5 million lbs p.a. for approximately 30 years

Potential capture of Conversion Value

Feed and Product is UF_6 (current conversion value ~US$18/kg)

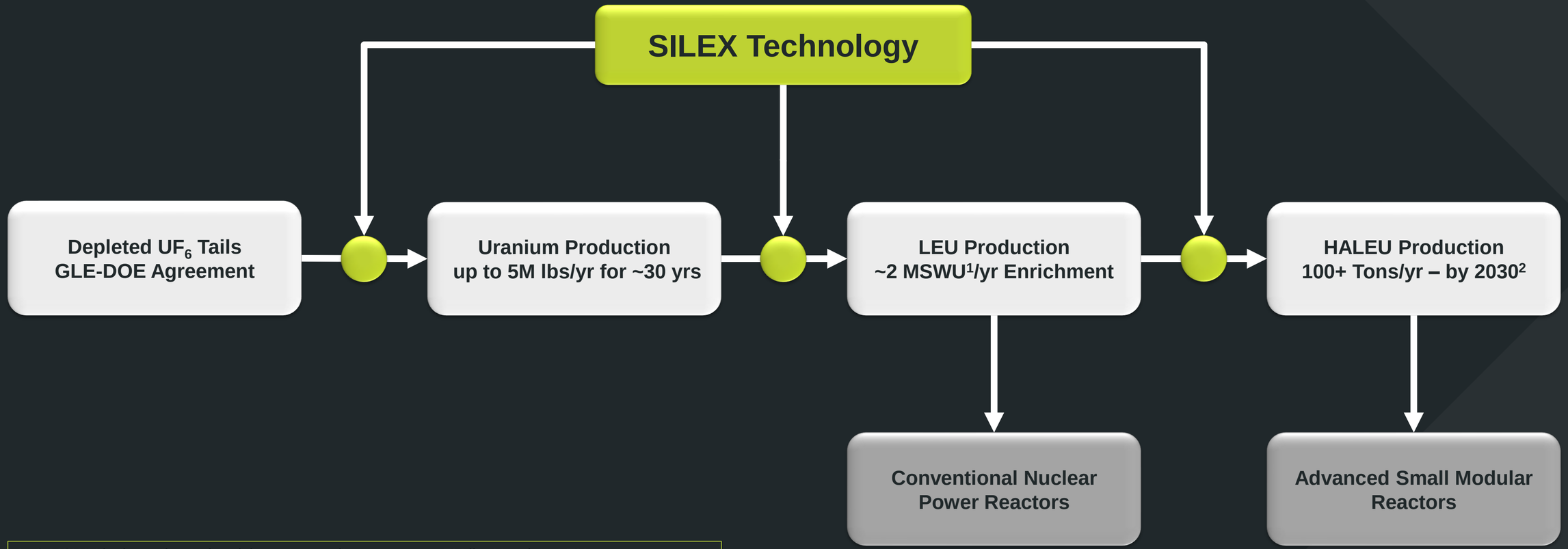
Potential to enrich further

From natural grade (0.7%) to LEU (up to 5%) & HALEU (up to 19.9%)

* All production estimates are based on preliminary modelling by Silex of project economics and longevity. Actual production output will depend on prevailing uranium market prices and other factors.

The Paducah Opportunity Potential Value Chain

‘Full Service’ Nuclear Fuel Materials Concept



1. 2 MSWU is the estimated enrichment capacity to process ~5M lbs U_{nat} into LEU;
   SWU – Separative Work Unit - is the unit of enrichment traded in the market;
2. US Nuclear Energy Institute estimates demand of 137 tons/yr by 2030 (2020 Letter to US DOE)

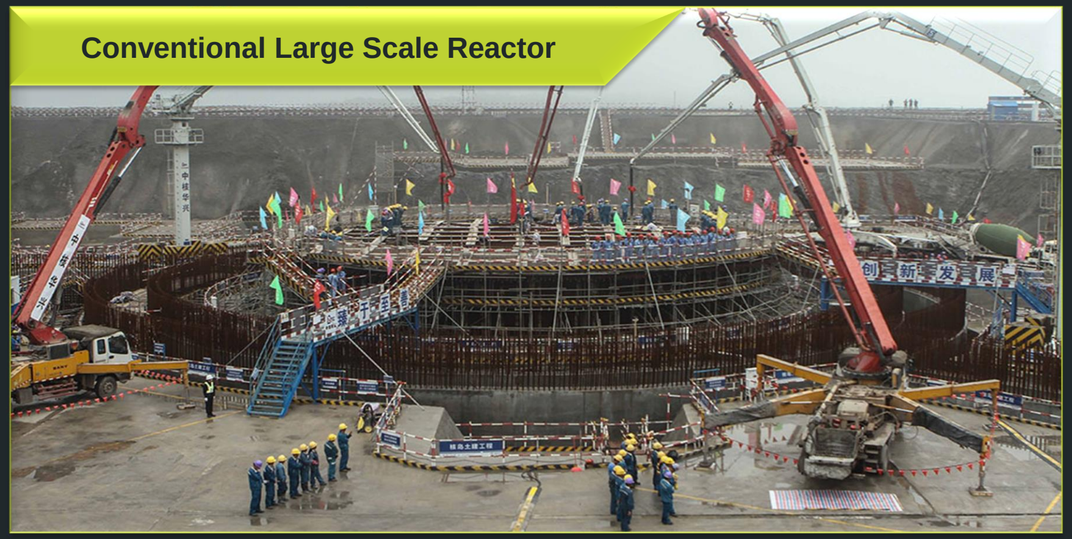
Emerging Opportunity - Small Modular Reactors (SMRs)

- Several next generation SMR designs / vendors plan to use High Assay Low Enriched Uranium (HALEU)
- SILEX technology may provide a flexible low cost alternative to produce HALEU for SMRs
- SMR’s are modular, smaller size (50 MWe to 300 MWe) allows greater flexibility in deployment
- Designed for production-line manufacturing rather than conventional custom built capital projects
- SMRs anticipated to result in significant reduction in capital costs and shorter construction times
- Leading contenders anticipated to be introduced commercially in early 2030’s in the US

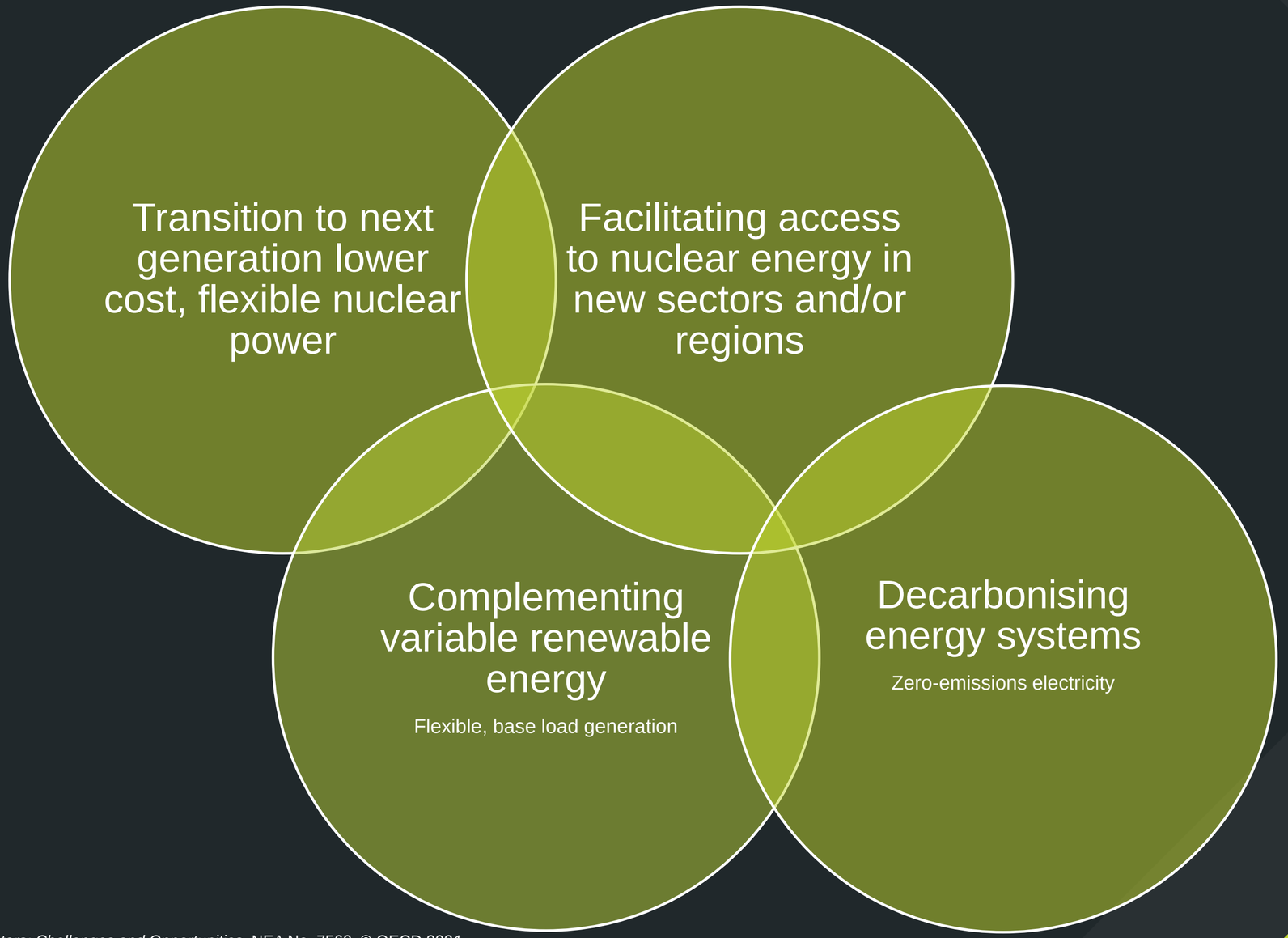
Small Modular Reactor (concept)

VS

Conventional Large Scale Reactor

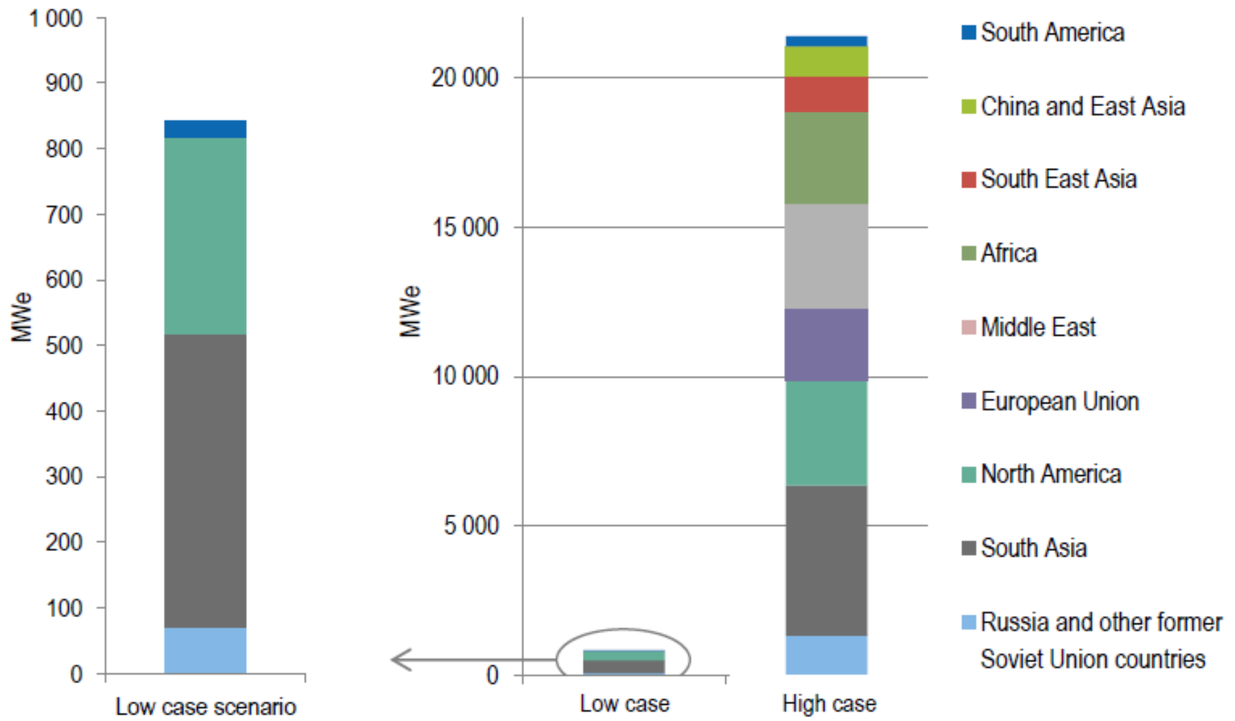


SMRs anticipated to provide next-generation zero-emissions base load electricity



Source: Adapted from *Small Modular Reactors: Challenges and Opportunities,* NEA No. 7560, © OECD 2021

Estimated SMR Capacity in 2035 by Region



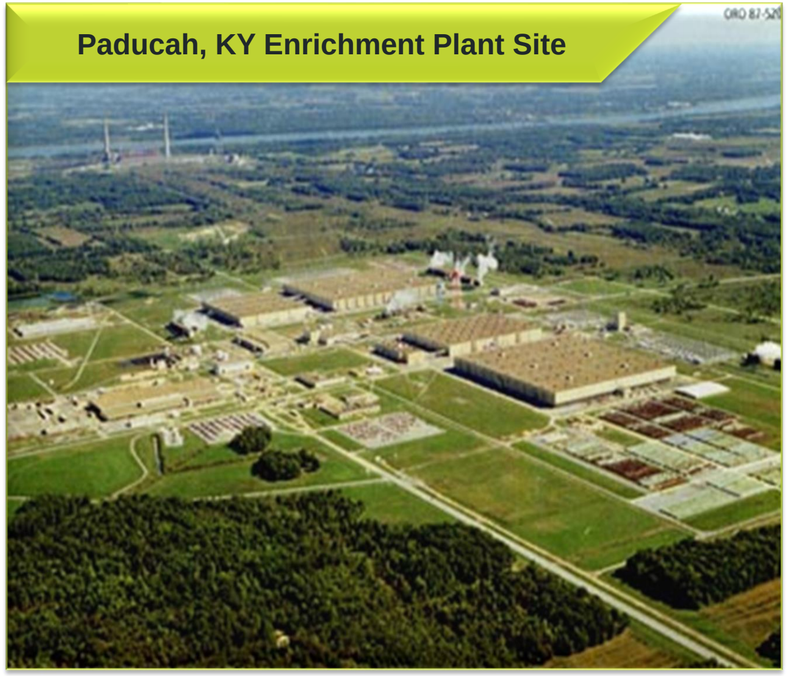
Source: *Small Modular Reactors: Challenges and Opportunities*, NEA No. 7560, © OECD 2021

- High case scenario forecasts over 20,000 MWe installed by 2035

Silex

SILEX Commercialisation and Royalty Agreement

- GLE holds exclusive worldwide license for use of SILEX laser technology for uranium
- License agreement includes US$20 million in payments to Silex triggered by commercial development milestones:
  - US$5 million: Commercial pilot demonstration (c.2025)
  - US$5 million: Commencement of PLEF[1] EPC (c. 2027)
  - US$10 million: PLEF commercial operations (c. late 2020's)
- Perpetual royalty of 7% (min.) 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 (currently Silex holds 51% ownership)
- Cameco holds an option to purchase an additional 26% of GLE equity from Silex at fair market value



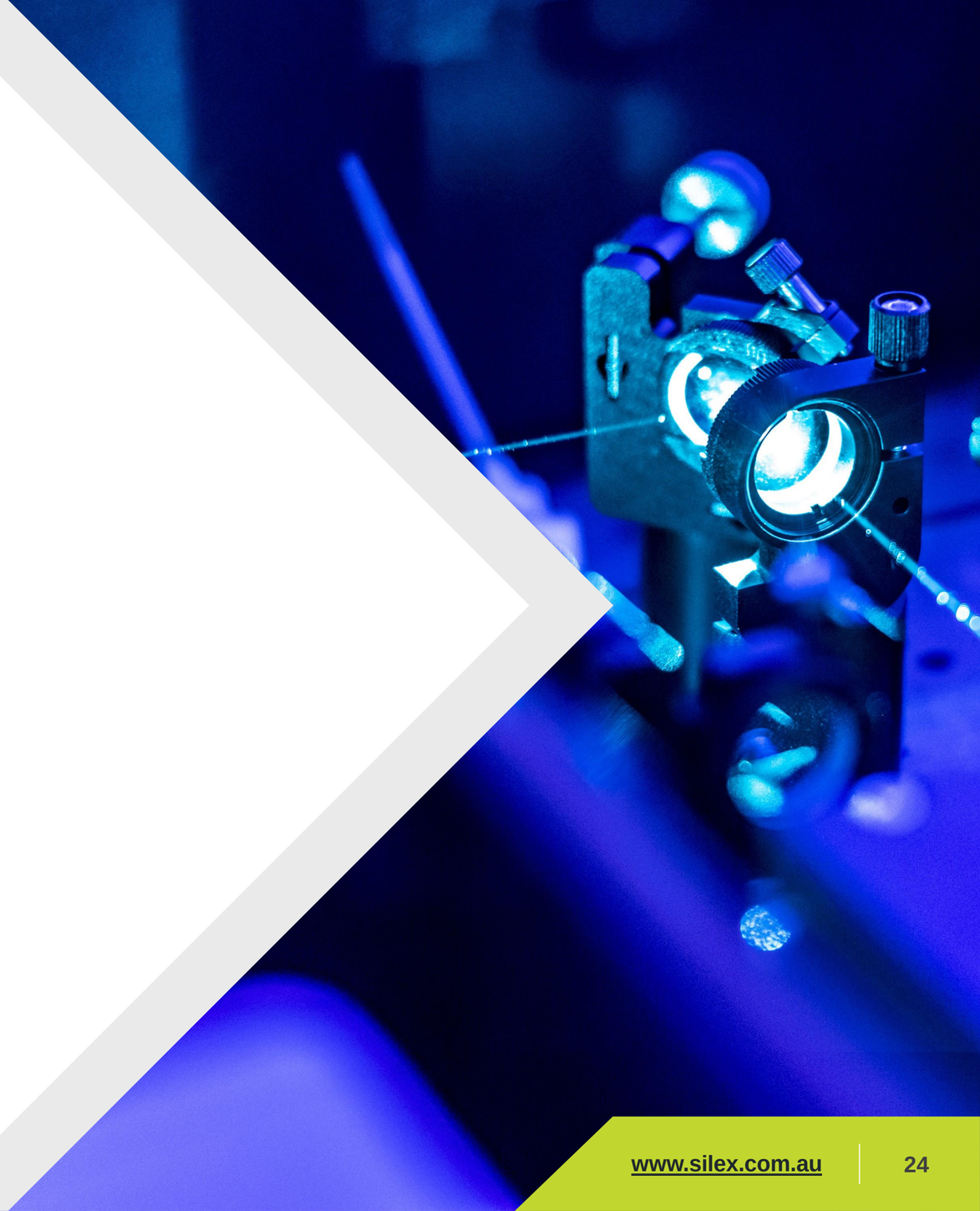
1. PLEF: Paducah Laser Enrichment Facility

SILEX Uranium Technology Target Commercialisation Timeline*:

Commercial Pilot Demonstration	PLEF Feasibility	PLEF EPC**	PLEF Commercial Operations
c. 2025	c. 2027	c. late 2020's	

* Subject to technology development program outcomes, market conditions and other factors ** Engineering, Procurement and Construction (EPC)

Summary



Summary

- Long-term fundamentals for global growth in zero-emissions nuclear power remain positive
- Significant uranium supply deficit looming in the absence of a timely increase in uranium production
- GLE's path to market focused on the Paducah opportunity – potentially a large, low cost uranium production project with additional scope for uranium enrichment to produce LEU
- Emerging opportunity to produce HALEU nuclear fuel for next-generation SMR nuclear power
- GLE JV (Silex 51% and Cameco 49%) aiming to demonstrate SILEX uranium enrichment technology at pilot commercial scale by the mid 2020's

Thank you