



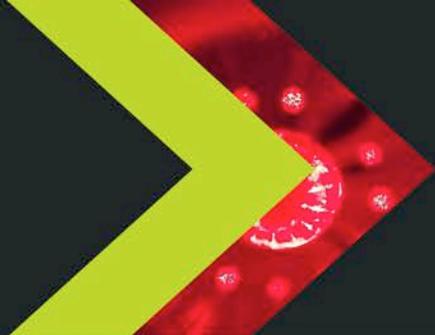
Silex Systems Limited 2017 Annual General Meeting

(ASX: SLX) (OTCQX: SILXY)

Dr Michael Goldsworthy
CEO/Managing Director

10 November 2017

Forward Looking Statements



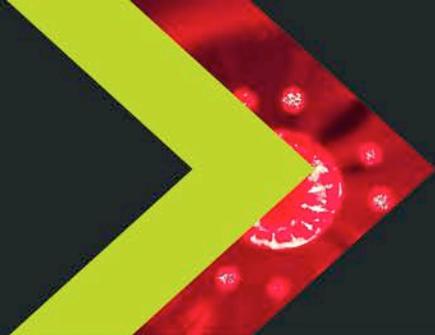
Silex Systems is a research and development Company whose primary asset is the SILEX laser uranium enrichment technology, originally developed at the Company's technology facility in Sydney, Australia. The SILEX technology, licensed exclusively to GE-Hitachi Global Laser Enrichment LLC (GLE) in the USA, is currently in the engineering development stage and plans for commercial deployment remain speculative and uncertain.

Silex also has an interest in a unique semiconductor technology known as 'cREO™' through its ownership of subsidiary Translucent Inc. The cREO™ technology is exclusively licensed to 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 remains uncertain.

The commercial potential of these two technologies remains to be determined. Accordingly, the statements in this presentation regarding the future of the SILEX technology, the cREO™ technology and any associated commercial prospects are forward looking and actual results could be materially different from those expressed or implied by such forward looking statements as a result of various risk factors.

Risk factors that could affect future results and commercial prospects include, but are not limited to: the outcome of the GLE restructure, results from the SILEX uranium enrichment engineering development program being conducted jointly by the Company and GLE; the demand for natural uranium and enriched uranium; the time taken to develop the SILEX technology; results from IQE's commercialisation program and demand for cREO™ products, the potential development of competing technologies; the potential for third party claims against the Company's ownership of Intellectual Property; the potential impact of government regulations or policies in the USA, Australia or elsewhere; and the outcomes of various commercialisation strategies undertaken by the Company and/or its Licensees GLE and IQE.

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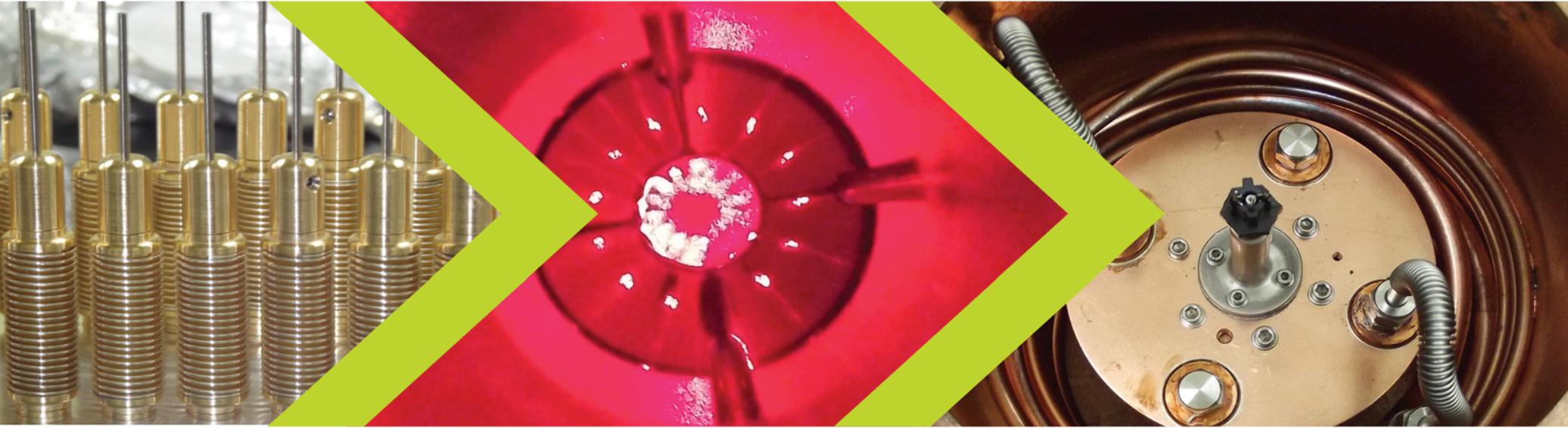
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Silex Systems Limited

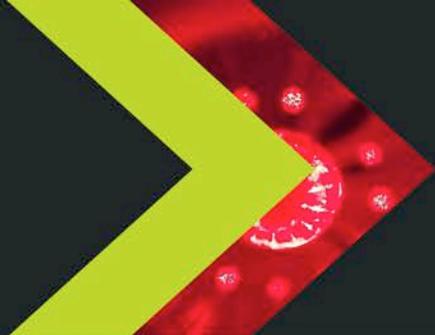
Silex Systems (Silex) is an advanced technology company focused on the commercialisation of its innovative SILEX laser enrichment technology for nuclear fuel production



Our Mission and the Year in Review



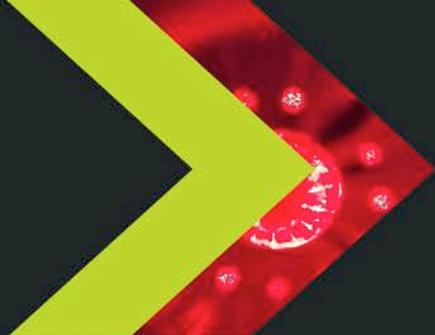
Our Mission



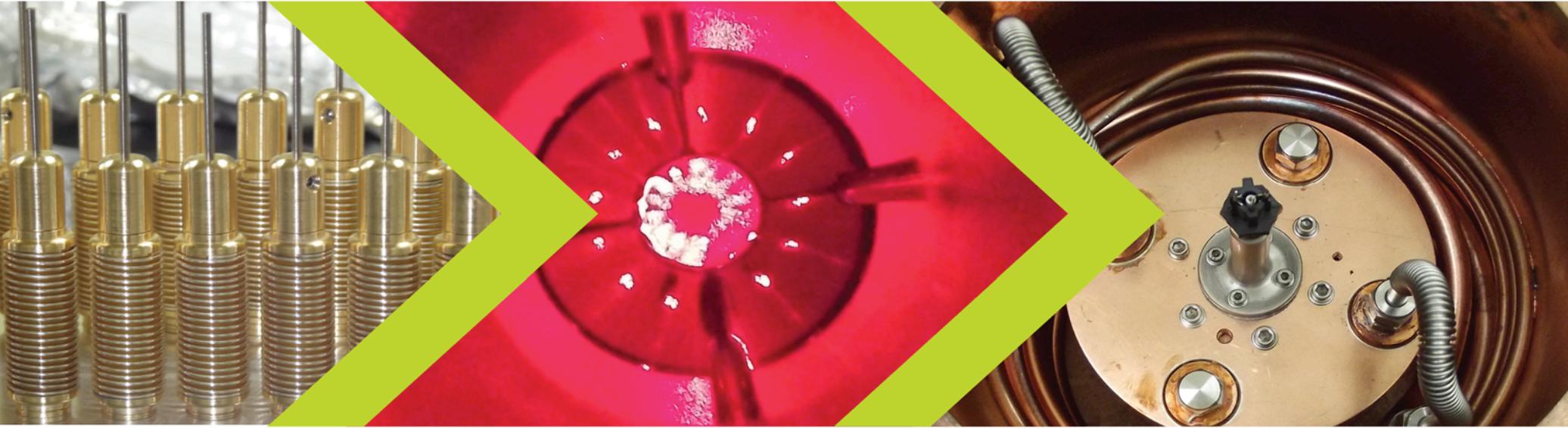
To successfully commercialise our core asset, the SILEX technology, in collaboration with exclusive licensee Global Laser Enrichment (GLE)

- Key to the execution of our mission are the following:
 - Increasing Silex's involvement with GLE – potentially as a majority shareholder
 - Increasing our presence in the US, the target market for deployment of the SILEX technology
 - Positioning the company to participate in the forecasted recovery of the global market for uranium in the mid-2020's.
 - Continuing activities to support planning for the Paducah DOE tails re-enrichment opportunity
 - Retaining our core expertise in the US and Australia and maintaining our Sydney facility as a centre of innovation for SILEX laser technology
 - Focusing on effective cost management to ensure the most efficient use of cash reserves

The Year in Review



- The Company's primary focus during the year has been on progressing the restructure of US-based licensee GLE
- Silex continued to lead the search for new investors for GLE in 2017. Discussions and due diligence continue with a number of interested parties, however no firm commitments made to date
- August 2017, Silex and GE-Hitachi Nuclear Energy (GEH) extended and amended the term sheet concerning GLE's restructure, with Silex pursuing the acquisition of GEH's 76% interest in GLE
- Key activities in relation to the Paducah DOE tails re-enrichment opportunity were undertaken in conjunction with GLE, including discussions with various corporate and government stakeholders
- UK-based IQE Plc, exclusive licensee of Translucent's 'cREO™' technology, continued to advance the technology towards commercial deployment in several advanced semiconductor markets
- After re-commissioning Translucent's semiconductor reactors in IQE's Greensboro, North Carolina production facility, template samples are being produced for testing in initial products

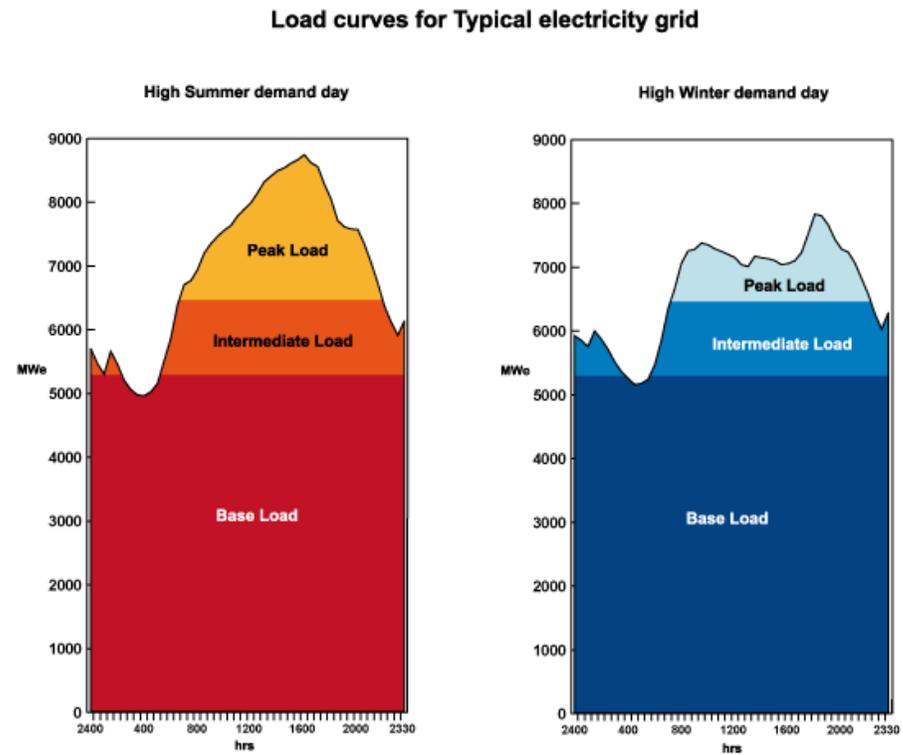


Overview of the Nuclear Power Industry

Advantages of Nuclear Power

Nuclear addresses grid stability and supply security issues

- Proven, robust base load generation
- Low generation cost per unit (LCOE of \$100 /MWh or 10c /kWh)
- Electricity generated is dispatchable on demand and able to varied up or down with grid loading
- Power price stability - fuel is a low proportion of power cost, (~30%)
(coal fired plant ~80%, gas-fired plant ~90%)
- Provides voltage support for grid stability
- Contributes to clean air and low-CO₂ emissions objectives



Source: World Nuclear Association

Global Nuclear Power Remains Strong

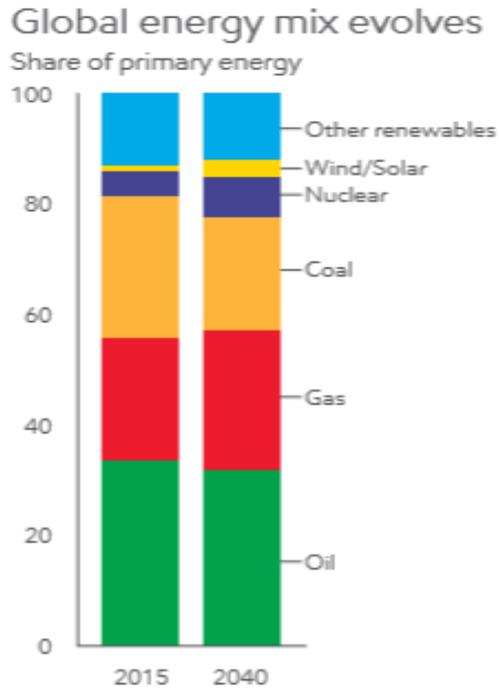
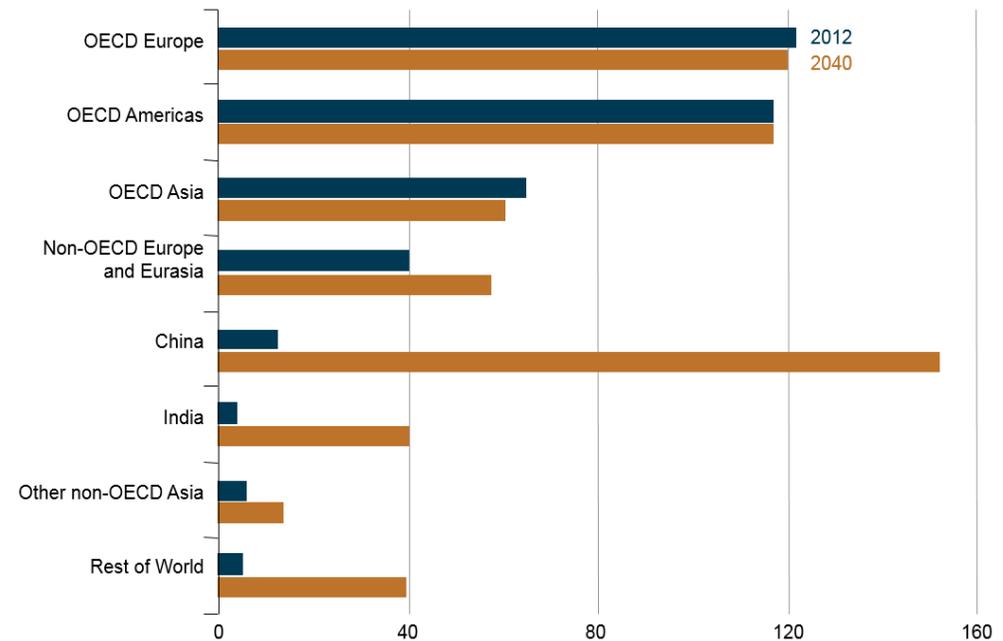


Figure 1-8. World nuclear electricity generation capacity by region, 2012 and 2040 gigawatts



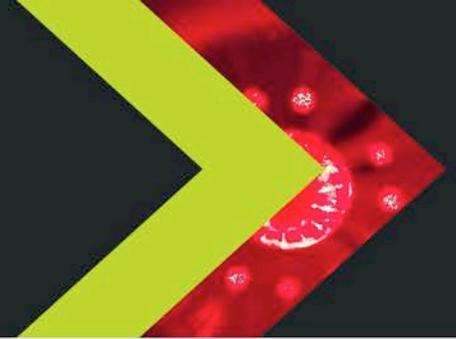
Source: U.S. EIA: *International Energy Outlook 2016*

“Nuclear and renewables see strong growth, contributing close to 40 percent of incremental energy supplies to meet demand growth”

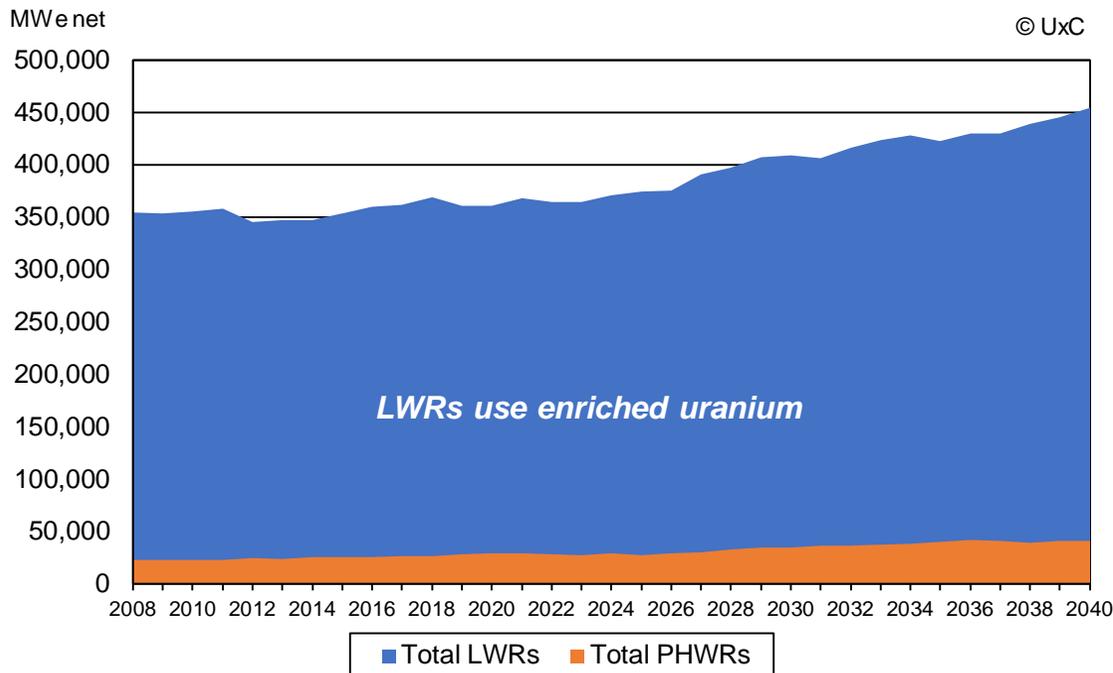
Source: ExxonMobil: 2017 Outlook for Energy: A View to 2040

Nuclear Power Growth Outlook

Ongoing need for Enriched Uranium



Nuclear Power Growth 2008 - 2040



Source: Ux Consulting, October 2017

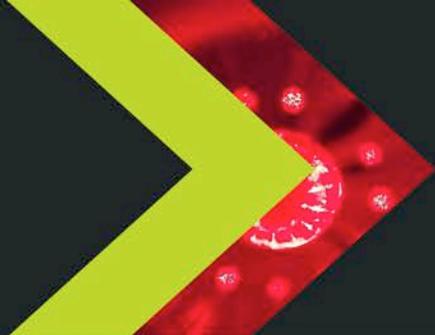
LWRs: Light Water Reactors - use enriched uranium
 PHWRs: Pressurised Heavy Water Reactors - use natural uranium

Nuclear Power Figures

- Over 100 GWe of nuclear generation to be introduced over next 20+ years
- 90% (92 GWe) require Low Enriched Uranium (LEU) for fuel
- 56 new plants under construction
- 160 plants planned
- Assumes 100+ GWe in retirements
- 351 plants proposed (not included above)

Source: World Nuclear Association – September 2017

SMRs and Advanced Nuclear Reactors



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

- Modular, smaller size (< 300 MWe) allows flexibility and competition with distributed generation such as renewables
- Designed-in load-following versatility – ramp up or down quickly as needed
- Smaller upfront investment – can compete in deregulated markets
- Can be mass produced on a modern factory production line rather than as custom built capital projects – significant reduction in capital costs
- Several can use High Assay Low Enriched Uranium (HALEU) - SILEX technology provides flexibility and low cost to produce HALEU for SMR's
- Around 20 different designs being developed – expected to reduce to a few
- Leading contenders anticipated to be introduced around 2030

Nuclear Gaining US Government Support

1) White House Nuclear Review June 2017

- Strong support from the White House for nuclear
- President Trump announced a major review into nuclear energy policy in the US

2) US DOE Grid Reliability Study August 2017

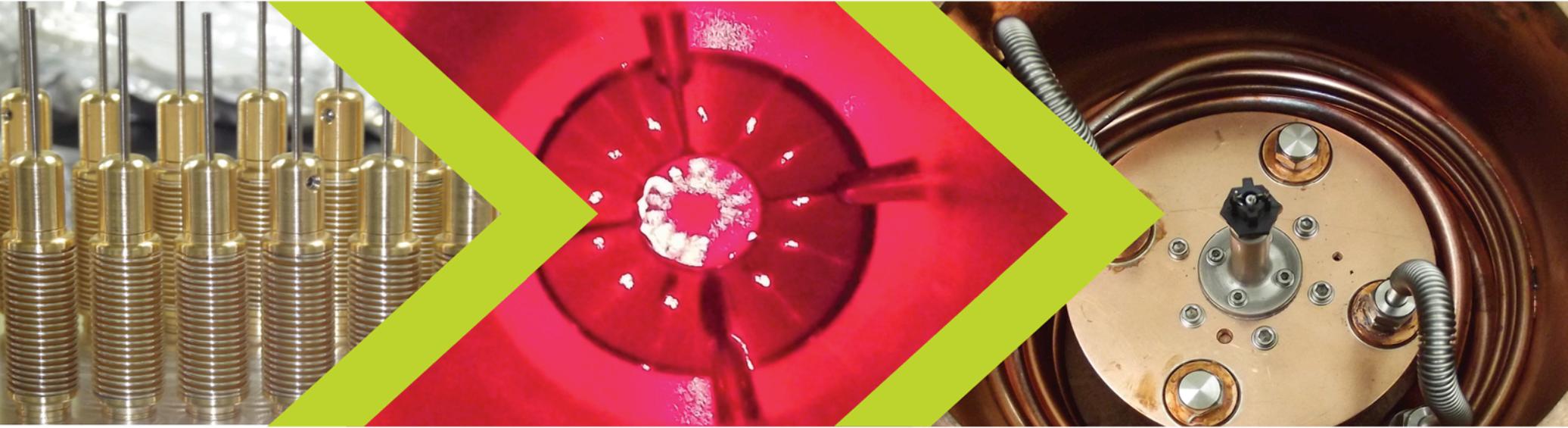
- Need to provide market mechanism to value reliability of base load nuclear and coal power plants in the US
- Large subsidies for renewables plus low cost natural gas have placed nuclear and coal at a disadvantage
- Government support of nuclear welcomed by US nuclear utility operators

Source: DOE, *Staff Report to the Secretary on Electricity Markets and Reliability* - August 2017



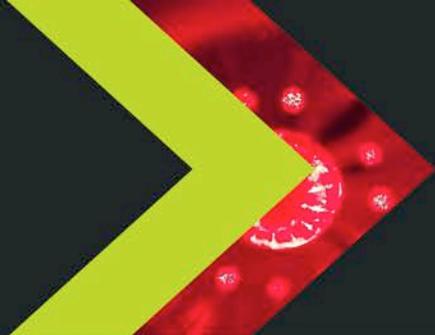
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GLE Restructure

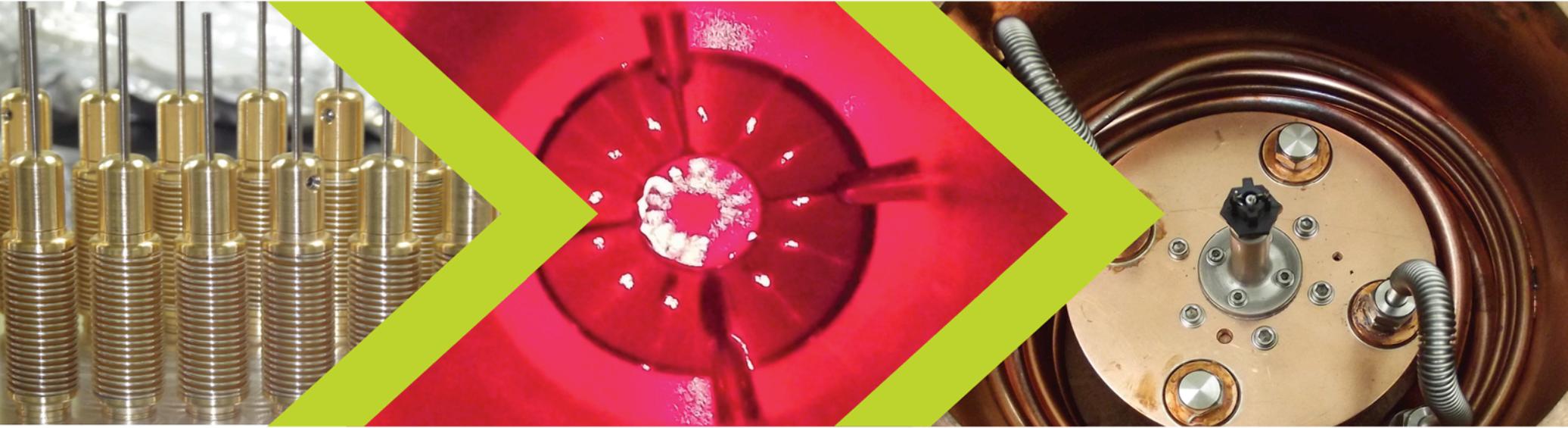
GLE Restructure



- A restructure of GLE was precipitated when GEH disclosed on 18 April 2016 that it was looking to exit due to changes in business priorities and continuing difficult market conditions
- Silex and GEH signed a term sheet on 29 April 2016 giving Silex an exclusive and assignable option to purchase GEH's 76% stake at a heavily discounted valuation
- Cameco holds a 24% position in GLE and is supporting the GLE restructure
- Silex led the search for new investors during 2016 and 2017 - discussions and due diligence activities with potential investors continue – however no commitments made to date
- Under an amended term sheet signed in August 2017, Silex is pursuing the acquisition of the 76% GEH interest in GLE - aiming to execute a full agreement by end of CY2017
- Contingent on various conditions to closing, including approval of the transaction by the US Government, Silex intends to have a majority position in GLE by the end of CY2018

GLE Restructure Overview





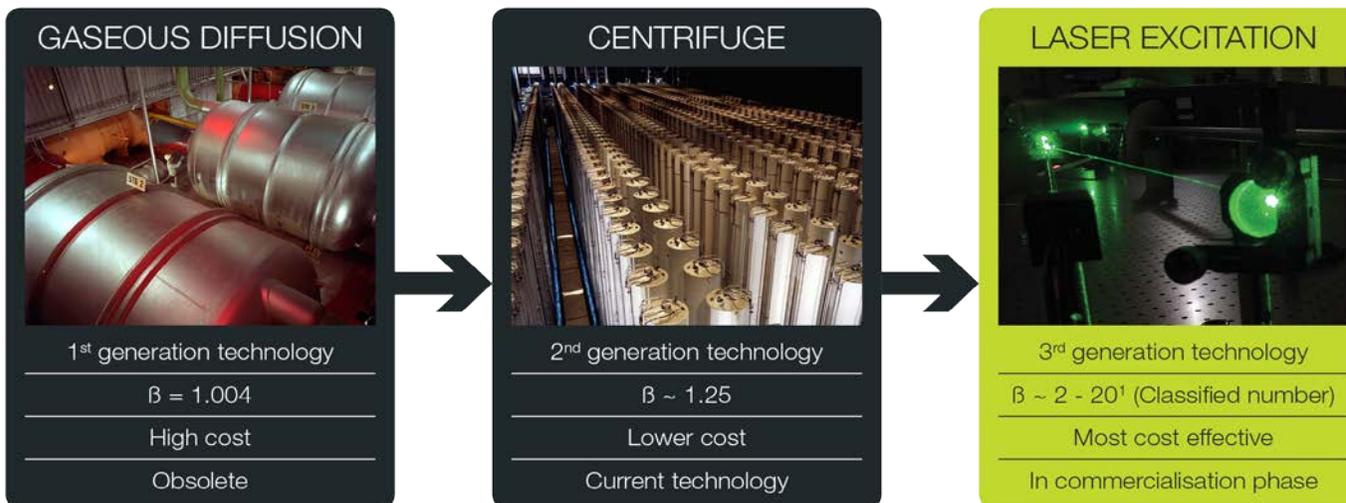
Overview of the SILEX Technology



Enrichment Technology Overview

- SILEX - third generation laser enrichment technology
 - SILEX - **S**eparation of **I**sotopes by **L**aser **E**Xcitation
 - Highly selective laser (optical) excitation of $^{235}\text{UF}_6$ to separate isotopes
 - Very high enrichment efficiency – expect low SWU* costs
 - Only known large scale commercialisation program in the world today

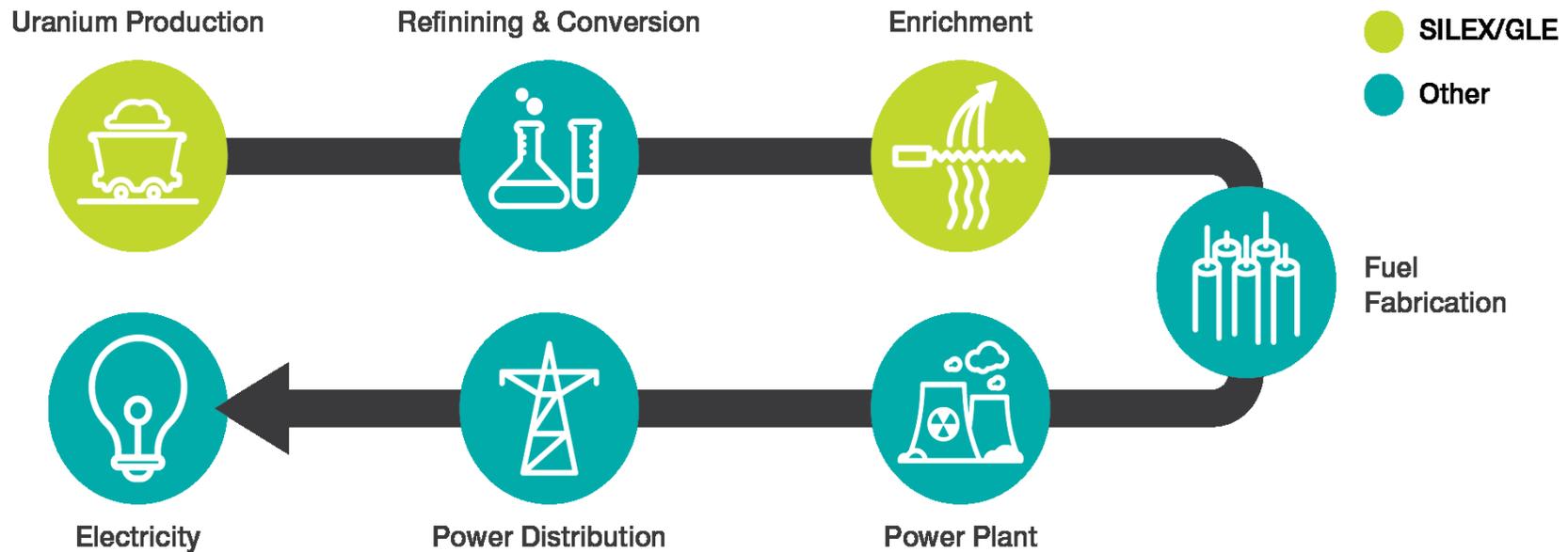
URANIUM ENRICHMENT TECHNOLOGY



* SWU: Separative Work Unit – the marketable unit of enrichment

1. β is the process efficiency

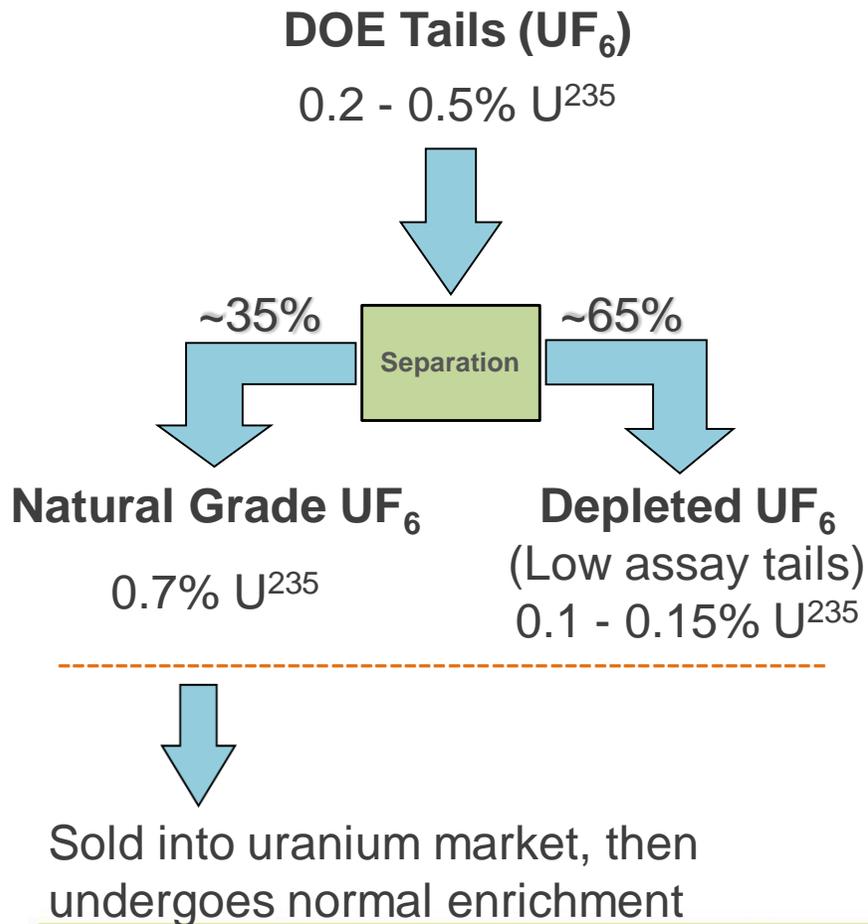
SILEX and Nuclear Fuel Production



- The SILEX technology can be utilized to produce:
 - natural grade uranium via re-enrichment of tails inventories (e.g. Paducah)
 - enriched uranium for use as fuel in nuclear power reactors (including HALEU)
- Uranium production (~45%) and enrichment (~25%) comprise ~70% of the value in a fuel bundle (based on recent market pricing)

The Tails Re-Enrichment Opportunity

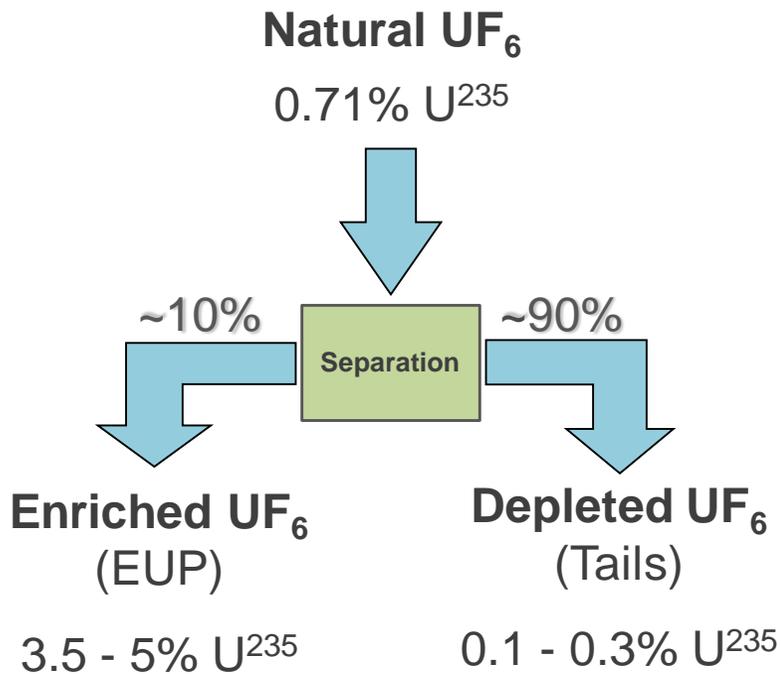
A Tier 1 Uranium Production Asset



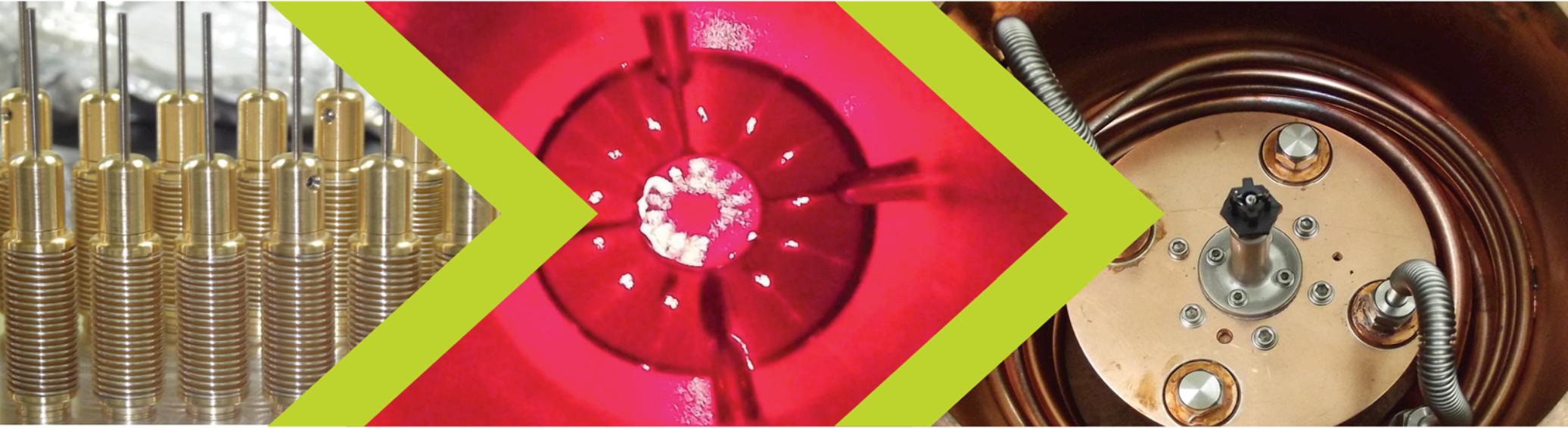
- The US DOE holds over 500,000 MTU of tails material from decades of enrichment operations
- Approximately ~300,000 MTU are regarded as 'high assay tails' (over ~0.25%)
- SILEX technology could recover around a third of these stockpiles as natural grade uranium
- Current estimates of uranium production cost make Paducah a Tier 1 uranium asset
- The uranium will be sold into the uranium market and then enriched to reactor grade fuel
- Potential exists to source and process other stockpiles of high assay tails around the world

MTU - Metric Tons Uranium

The SILEX Enrichment Process



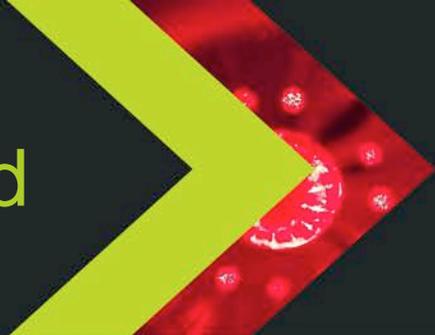
- Enrichment technically difficult - high barriers-to-entry
- Nearly all enrichment is currently performed with gas centrifuge technology
- SILEX laser technology inherently higher efficiency → lower costs expected
- SILEX capital costs anticipated to be half those of centrifuge capital costs
- NRC License for Wilmington enrichment plant granted in 2012 (up to 6 MSWU)
- Potential to enrich HALEU up to 19.9% for next generation SMR technology



The SILEX Technology License Agreement and Commercialisation Program

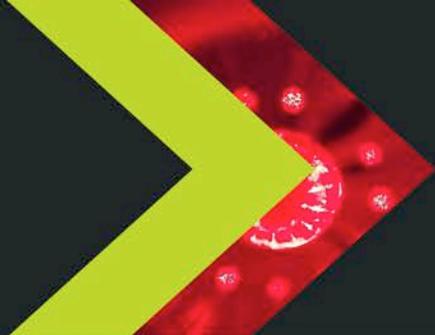


Commercialisation Program Background



- 2006: GE signed Commercialisation and License Agreement with Silex Systems
 - Technology transferred to US in 2007 under US-Australia Bilateral Treaty
- 2007: GE and Hitachi partnered (as GEH) to form GLE – based in Wilmington, NC
- 2008: Cameco bought 24% stake in GLE for US\$124m - with GE (51%) and Hitachi (25%)
- 2010: Test Loop demonstration facility began operating in Wilmington
- 2012: World's first license for planned laser enrichment plant granted by US NRC
- 2013: DOE selected GLE's proposal for a tails re-enrichment plant in Paducah, KY
- 2014: GLE's development program slowed to align with adverse market conditions
- 2015: Key technology demonstration activities - independent consultants verify progress
- 2016: GEH discloses intent to exit GLE – Silex signs Term Sheet with GEH (29 Apr)
Agreement signed between GLE and DOE for the Paducah Tails Opportunity (10 Nov)
- 2017: Term Sheet amended - Silex pursues the purchase of GEH's 76% share of GLE

SILEX License Agreement Overview



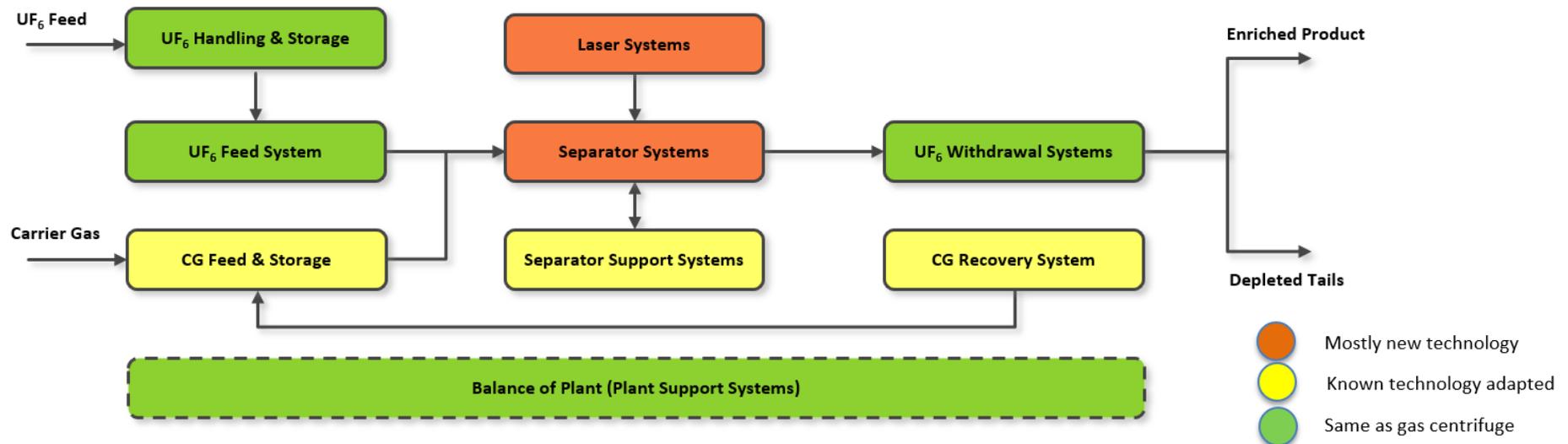
Technology License Agreement with GLE

- Exclusive worldwide commercialisation and license agreement for the SILEX technology – signed in 2006
- Technology validation milestone May 2013 – triggered US\$15 million payment to Silex
- Next milestone payment triggered by start of construction of initial commercial plant: US\$5 million
- Final milestone payment – US Nuclear Regulatory Commission (NRC) verification of construction compliance of initial commercial plant: US\$15 million
- Royalty streams payable upon use of SILEX technology for both normal 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)

GLE's Commercialisation Program

For the SILEX Technology

- 'Technology Validation' successfully completed in 2013 at the Test Loop Facility
- 'Economic and Engineering Validation' the current focus - includes demonstration of full scale commercial production capability ~2021
- Commercialisation plan firmly focused on the Paducah tails re-enrichment opportunity
- Additional plans include a commercial enrichment plant of up to 6MSWU in Wilmington, NC



Paducah Tails Re-enrichment Opportunity

The path to commercialisation

- Agreement between GLE and DOE signed 10 November 2016 involving the Paducah Laser Enrichment Facility
- Re-enrichment of DOE tails stockpiles equivalent to a large, low cost uranium mine operating for at least 40 years
- SILEX efficiency enables economic tails stripping capability and provides attractive economics
- The Paducah opportunity represents an ideal path to market – smaller plant and lower capital cost
- Possible funding of plant through the DOE's Loan Guarantee Program could help reduce finance costs
- Attractive commercial potential, depending on the level of recovery in the uranium price
- Will allow full scale commercial deployment and could provide the foundation for future larger SWU plants



Paducah Enrichment Plant Site

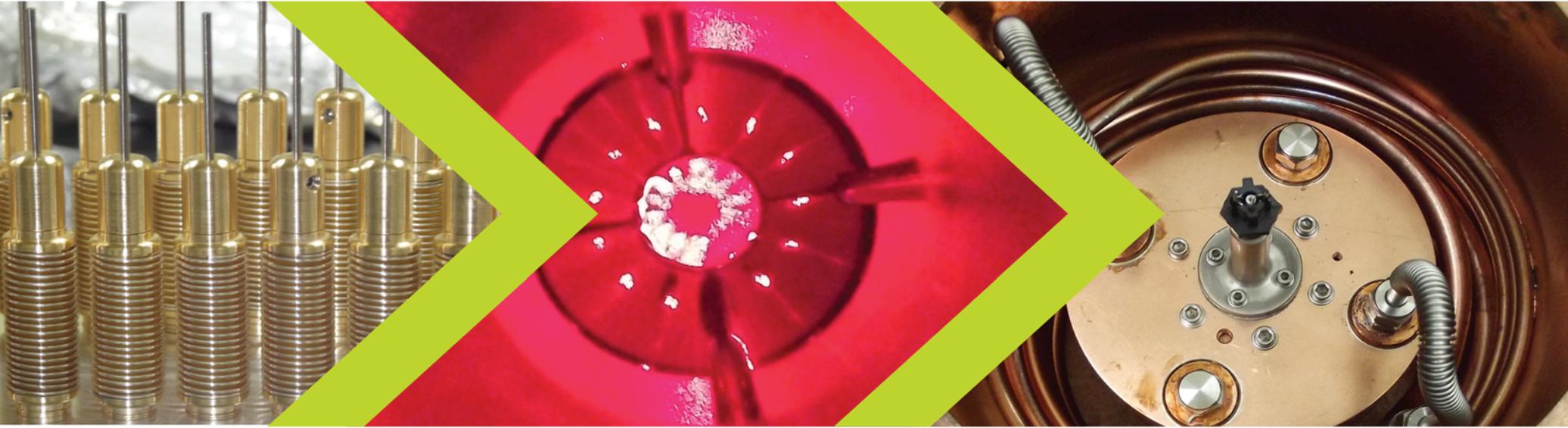
Wilmington Enrichment Plant Opportunity

NRC License obtained in 2012

- US enrichment demand currently ~15 MSWU total
- Current enrichment capacity in the US is only one third of US requirements (4.7 MSWU - URENCO USA)
- Positive support from US utilities for a new low-cost US-based SWU supplier
- GLE submitted application for a proposed 6MSWU enrichment plant in Wilmington, NC to the NRC in 2009
- NRC approved a combined construction and operating license (COL) for the Wilmington plant proposal in 2012
- The Wilmington plant COL approval is the first license in the world for a laser enrichment facility
- Potential Wilmington enrichment plant site conveniently located next to GNF's fuel fabrication plant



GE Hitachi HQ, Wilmington, NC

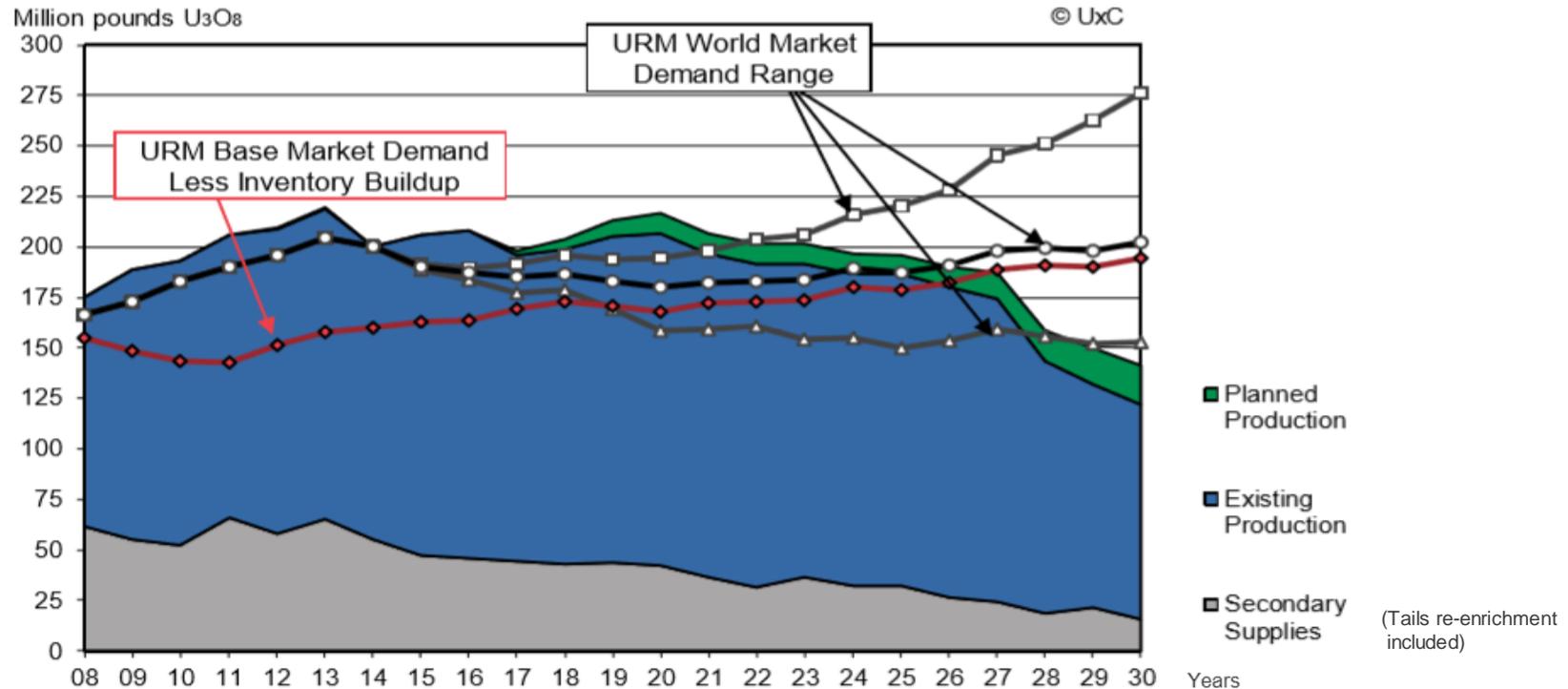


The Market Outlook – Uranium and Enrichment

UxC Market Views

Uranium Market Outlook

Uranium Supply and Demand Forecast 2008-2030

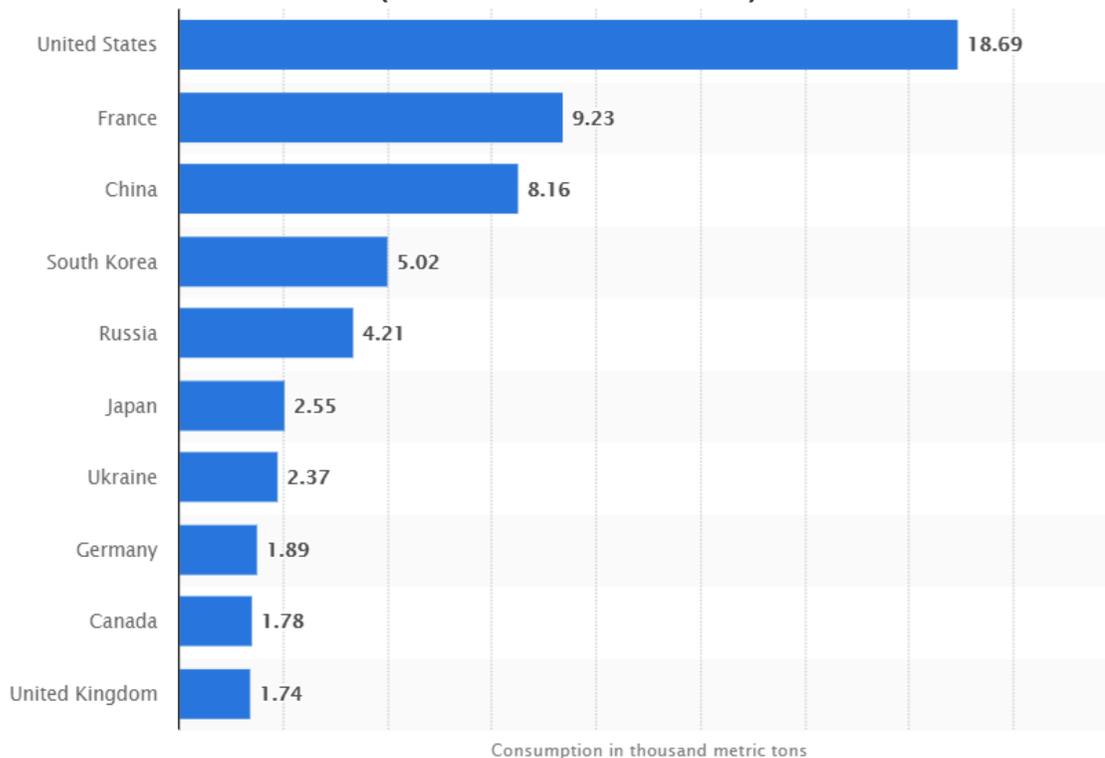


Source: UxC Uranium Market Outlook, Q3 2017

- Uranium supplies remain excess to market demand, under the mid-case scenario, until mid 2020's
- Secondary uranium supplies include production from underfeeding and tails re-enrichment

US Market Focus

Leading countries based on uranium consumption worldwide (in thousand metric tons)



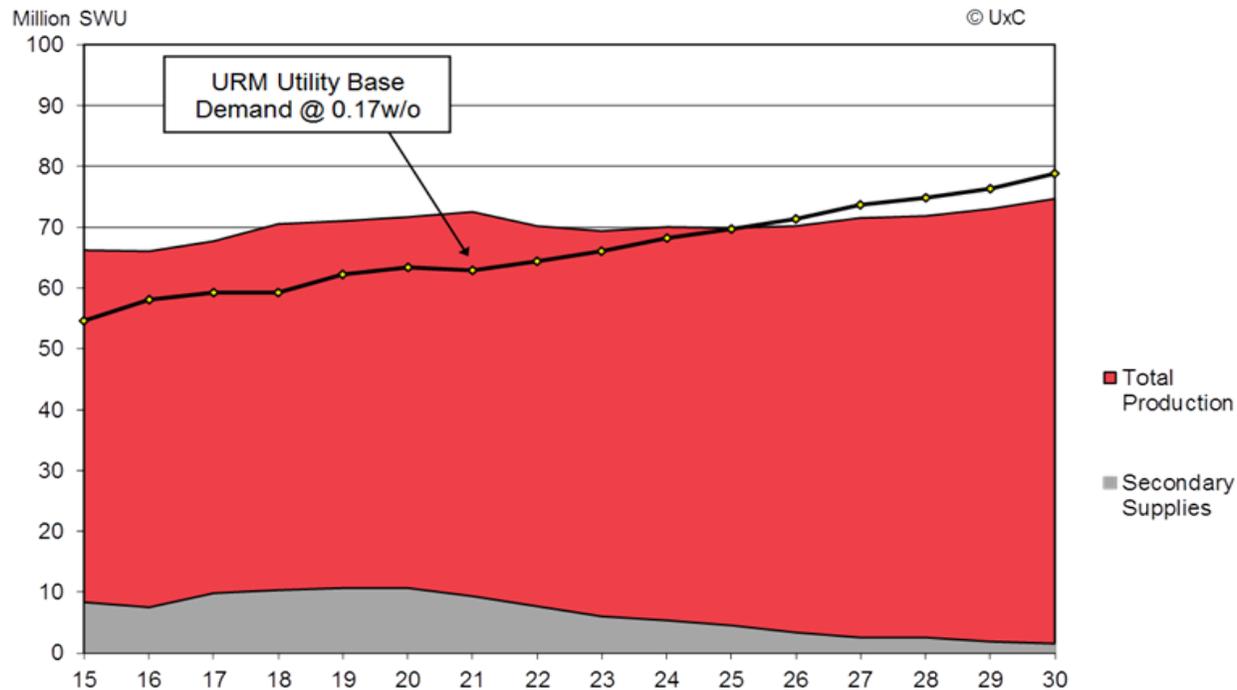
Source: Statistica, October 2017, for year 2015

- US market the largest user of nuclear fuel with 99 reactors
- US is leading the development efforts for next generation SMRs
- While China, India and Middle East growing, US remains the dominant consumer uranium through 2030

UxC Market Views

Enrichment (SWU) Market Outlook – Q4 2016

Base Case Enrichment Supply and Demand Forecast



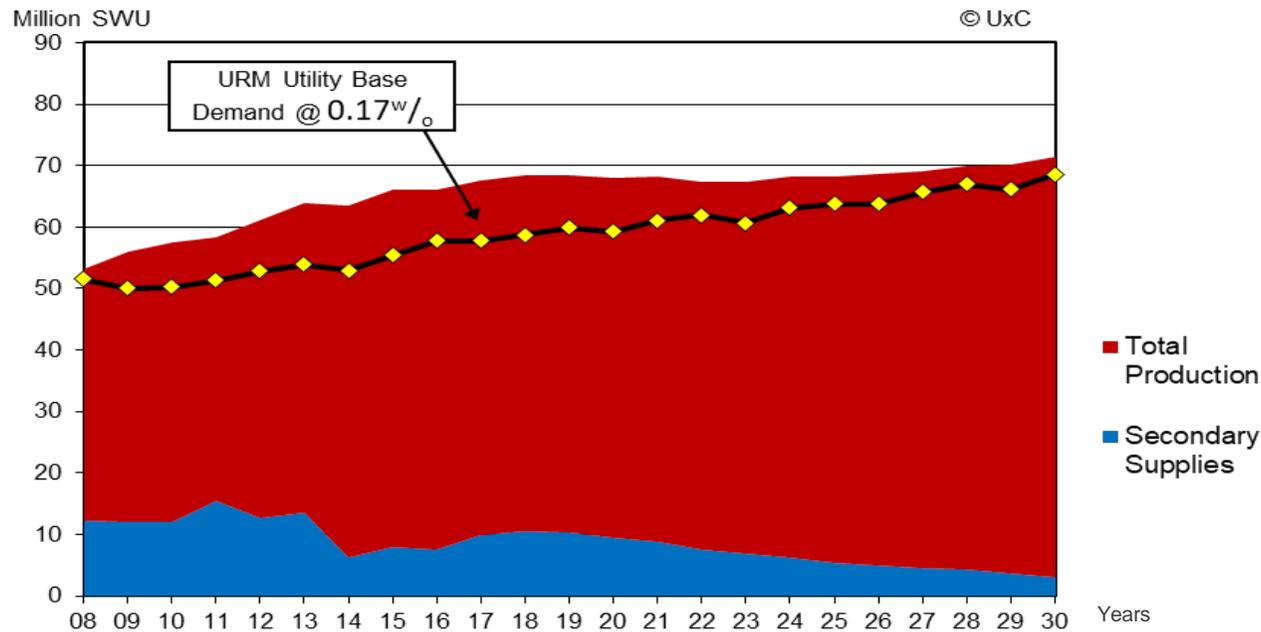
Source: UxC *Enrichment Market Outlook*, Q4 2016

- Base case forecast showed market back in balance ~2025 and then going into supply shortage
- Assumed timely restarts of Japanese units and fewer premature shut downs than currently expected

UxC Market Views

Enrichment (SWU) Market Outlook – Q3 2017

Base Case Enrichment Supply and Demand Forecast



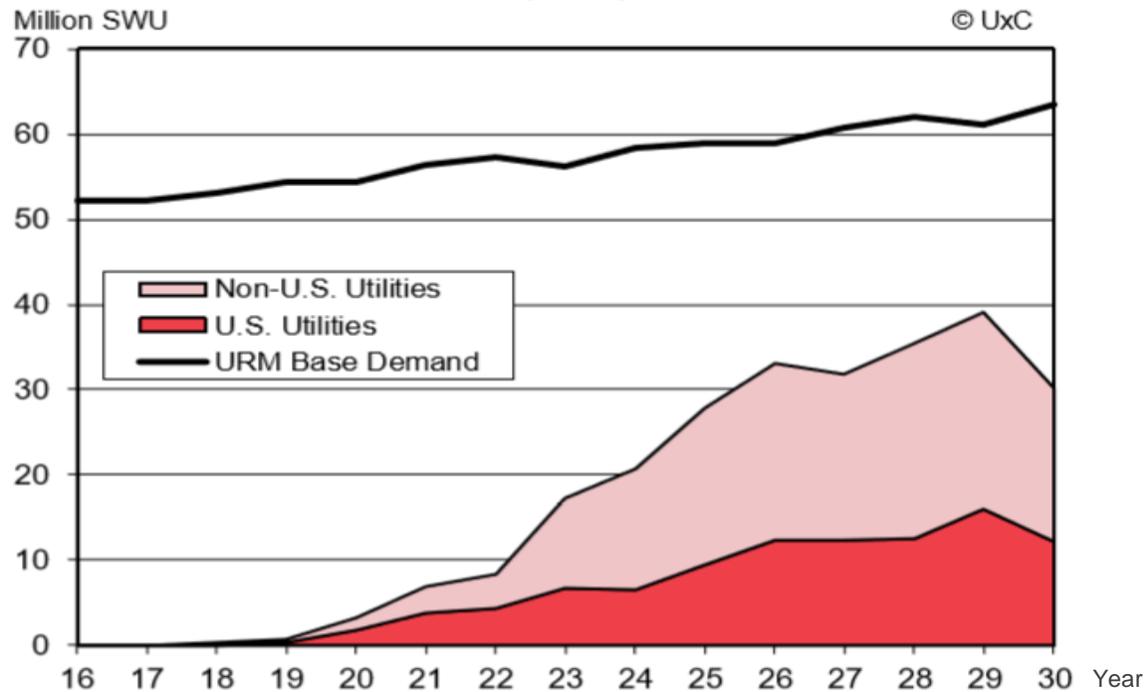
Source: UxC *Enrichment Market Outlook*, Q3 2017

- Forecast demand for SWU has softened further over the first three quarters of 2017, with potential oversupply (dominated by Russian capacity) extending to 2030 and beyond
- Despite the softening outlook for SWU demand, US utilities are concerned about security of supply with only one domestic (foreign owned) SWU producer

Target Market for SILEX SWU

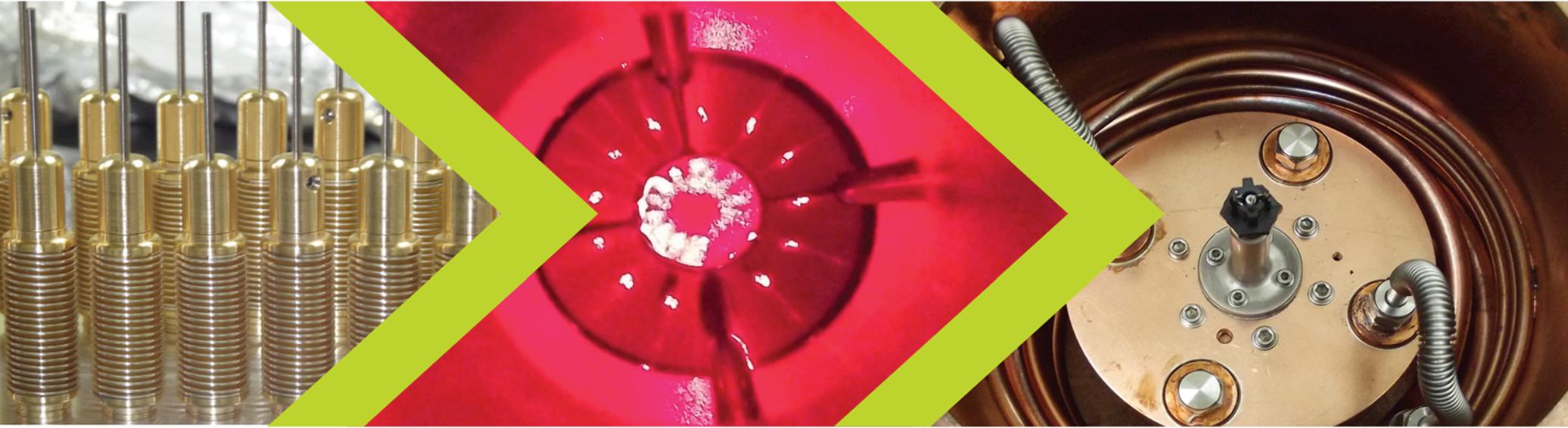
Uncovered SWU Demand 2016 – 2030

Base Case Uncovered Demand Forecast



Source: UxC *Enrichment Market Outlook*, Q3 2017

- From 2025, forecast uncovered US SWU demand is in excess of 10MSWU per year
- Significant opportunities for SILEX SWU remain from the mid 2020's and beyond



Translucent Inc – cREO™ Technology



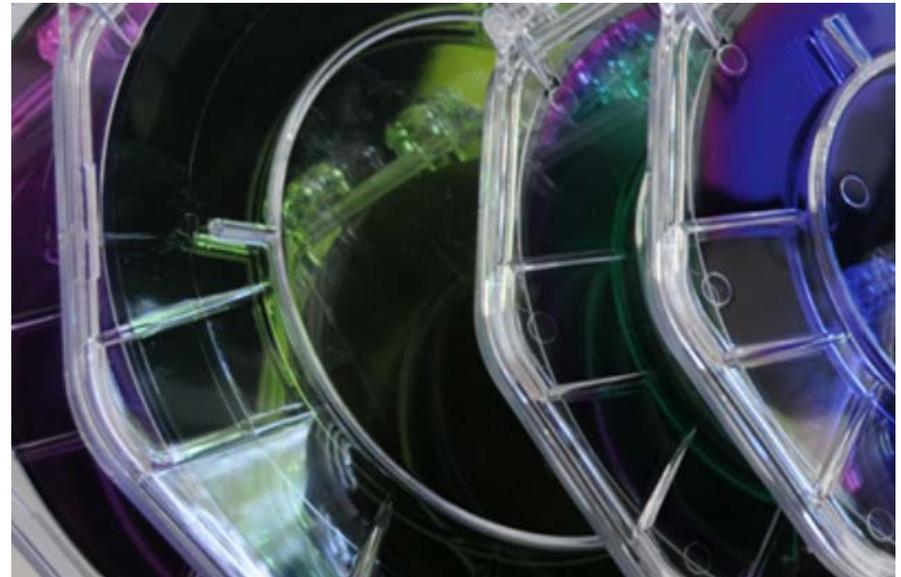
The Translucent – IQE Agreement

- Translucent's innovative 'Rare Earth Oxide' (cREO™) technology has commercial application to advanced semiconductor devices and chips
- Translucent signed an exclusive license agreement in September 2015 with IQE - the world's leading semiconductor epiwafer supplier
- Initial license fee of US\$1.4 million received March 2016 in IQE shares – now worth approximately US\$10 million (at time of writing)
- Agreement provides 30-month license (to March 2018) for IQE to commercialise initial products incorporating the cREO™ materials
- IQE can then elect to purchase the cREO™ technology with payment of a further US\$5 million (in cash or IQE shares) at the end of the license period
- ***A royalty of up to 6% of IQE's revenues derived from use of the technology will be payable to Translucent – potentially significant in target semiconductor sectors (communications, power electronics)***



cREO™ - IQE Development Program

- cREO™ technology was transferred to IQE's Greensboro, North Carolina manufacturing facility for the completion of initial product development activities over the remaining license period to March 2018
- Product development focus is on high volume sectors such as wireless communications chips and power electronics devices which require higher performance semiconductor materials
- IQE have been producing cREO™ templates on silicon wafers using Translucent's production reactors for a number of months
- Semiconductor characteristics of the templates produced by IQE are consistent with those previously developed by Translucent
- Templates are currently being utilised for testing and qualification activities within the IQE Group and with selected commercial partners



cREO™ - Initial Applications

cREO™ Substrates



- High efficiency power conversion devices
- Next-gen high performance wireless communications chips



Power electronics applications



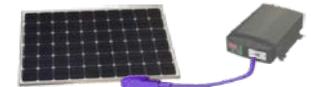
Electric vehicle power converters



Motor controllers for electrical appliances



Lighting power converters
(e.g. street lights)



DC/AC conversion
(e.g. solar inverters)

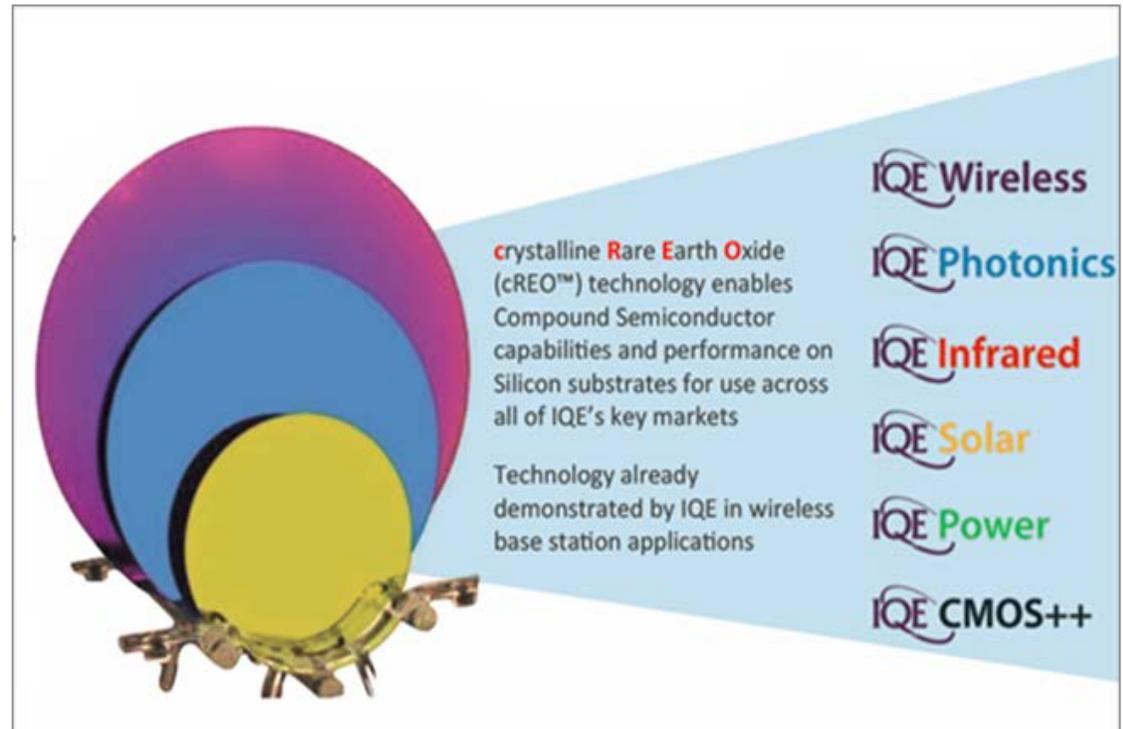
Wireless communications



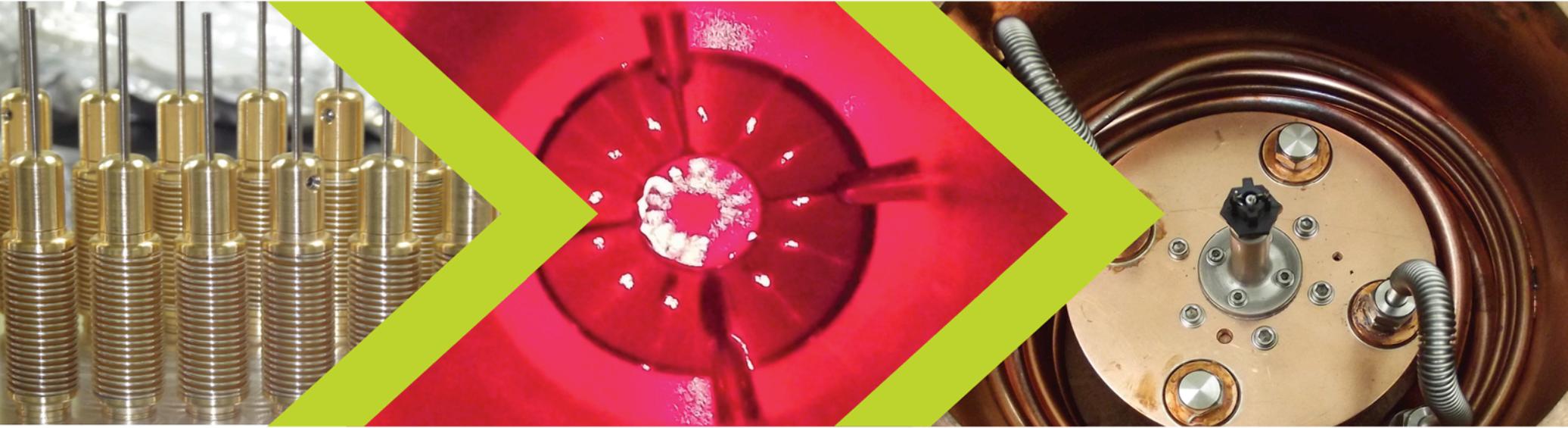
Mobile phone chips

cREO™ - IQE Commercialisation Outlook

- The technology is protected by a wide ranging IP portfolio, including the original Translucent patents and several newer applications filed by IQE
- cREO™ technology has the potential to be applied across all six of IQE's key market sectors
- Initial target market sectors for cREO™ technology (wireless and power) are forecast to grow strongly over the next decade

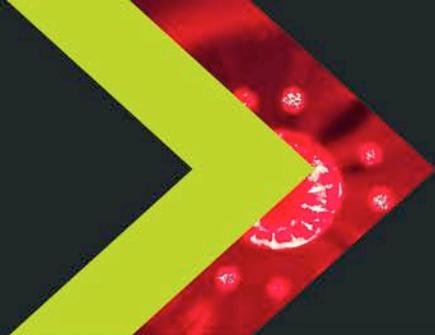


Source: iqep.com/markets/cmos/creo/

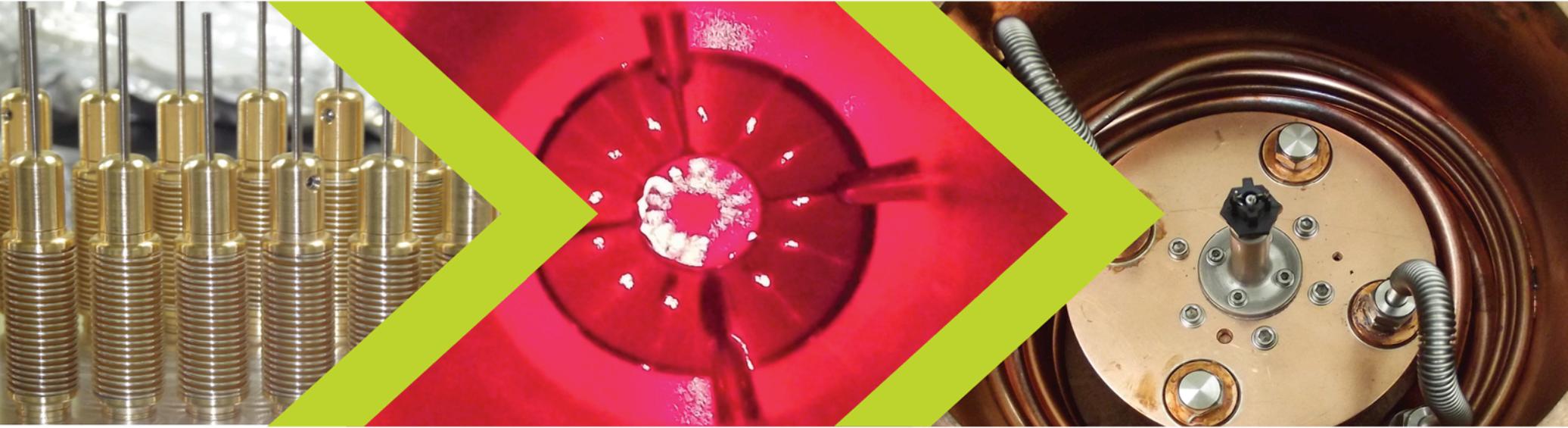


Summary and Outlook

Summary and Outlook



- Unique third generation SILEX laser enrichment technology at advanced stage of development
- Proven high efficiency provides potential cost advantages with increased operational flexibility
- Continued focus on the successful restructure of GLE with increased participation by Silex
- Paducah opportunity (agreement between DOE and GLE) represents a lower risk path to market
- Long-term fundamentals for global growth in nuclear power remain positive
- Strong business case remains intact with the opportunity to deploy our game-changing technology in the US, the world's largest market for nuclear power
- Silex pursuing a majority position in GLE, targeting equity returns in addition to royalty revenues
- Translucent cREO™ technology being advanced by IQE towards commercial deployment in several advanced semiconductor markets, providing additional shareholder value



Thank you

