IQE announces achievement of key demonstration milestone for new 5G filter device built on cREO™

18 February 2021

Silex Systems Limited (Silex) (ASX: SLX) (OTCQX: SILXY) provides the following information disclosed by IQE in London (AIM: IQE), relating to Silex's wholly owned subsidiary Translucent Inc's cREO™ technology. In 2018 IQE purchased the cREO™ technology from Translucent in accordance with an Option and Licence Agreement between the parties.

IQE announced the achievement of a key demonstration milestone for its new high frequency (RF) filter product, called IQepiMo™, which is built on the cREO™ technology platform. IQE announced that data from customer and partner device trials indicated significant improvement in the performance of its 5G filter device, compared to incumbent technology, when tested at the top end of the frequency range used in current 5G applications.

The 5G industry is finding it difficult to achieve high levels of performance at these higher frequencies using conventional filter technology. The new IQepiMo™ template technology therefore offers customers a path to overcoming these inherent challenges while still using their current 5G infrastructure and processes. Additional trials of the new RF filter product are continuing with IQE's partners. The full IQE announcement is attached hereto.

Under the Agreement between Translucent and IQE, Translucent is currently eligible for minimum annual royalties for the cREO™ technology and a perpetual royalty of at least 3% will be payable to Translucent on the sales revenues from any IQE products that utilise the cREO™ technology. The first minimum royalty payment of US$400,000 for the year ended CY2019 was received in March 2020, with the second payment for CY2020 due in the coming weeks.

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

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 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 of these technologies can be made. The nature of the statements in this Announcement 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 Announcement 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 Announcement. 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 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 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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IQE plc

Reach

Cardiff, UK
17 February 2021

IQE's proprietary IQepiMo™ delivers improved BAW filter performance

- Superior material quality, achievable using IQepiMo™, is linked to significant improvement in filter device performance
- Early data indicates k^2 increases by as much as 40% at a frequency of 6Ghz
- These results demonstrate the potential of IQepiMo™ for 5G BAW applications

IQE plc (AIM: IQE, "IQE" or the "Group"), the leading global supplier of advanced semiconductor wafer products and material solutions to the semiconductor industry, is pleased to announce a significant milestone in the development of its IQepiMo™ template technology for high-performance Bulk Acoustic Wave (BAW) RF Filters. Customer device data shows that filters fabricated using IQE templates demonstrate improved performance when compared to incumbent technology.

Following an announcement in November 2020, IQE has since trialled its IQepiMo™ product with potential customers and partners. Recent data indicates that IQepiMo™ enables customers to achieve improved electromechanical coupling (as measured by k^2), a key measure of filter performance, compared with conventional technology.

Initial data indicates k^2 increases by as much as 40% at a frequency of 6Ghz, which is at the top end of the frequency range used in current 5G applications. At present, the industry is finding it difficult to achieve high levels of performance using conventional BAW filter technology at these higher frequencies. The data confirms that the superior material quality achievable using IQepiMo™ is linked to significant performance improvement in electromechanical device performance in this challenging frequency range.

IQE and its partners remain engaged in additional trials and testing to further refine this technology for high-end BAW filters. It is expected that IQE's templates will provide significant benefit to high scandium-content ScAlN BAW designs that will form a key component of high-performance filters at the higher 5G frequencies. As scandium content increases in BAW filters, maintaining high acoustic material quality and thereby performance becomes ever more challenging. IQepiMo™ offers customers a route to overcoming these inherent challenges whilst still using their current infrastructure and processes.

Built on its cREO® technology platform, which was acquired by IQE in March 2018, the IQepiMo™ templates are available in diameters of up to 200 mm.

Dr Rodney Pelzel, Chief Technology Officer of IQE, commented*:*

"IQE's strategy of investing in unique leading-edge materials technologies for the broad semiconductor industry means that we are now at the forefront of providing our customers with improved 5G device performance and solutions.

This key milestone for our IQepMo™ template technology shows its potential for providing customers with the necessary means to enable their current infrastructure and processes to deliver the demanding performance required for 5G filters, especially at higher frequencies."

Contacts:

IQE plc
+44 (0) 29 2083 9400
Drew Nelson
Tim Pullen
Amy Barlow

Headland Consultancy (Financial PR)
+ 44 (0) 20 38054822
Andy Rivett-Carnac: +44 (0) 7968 997 365
Chloe Francklin: +44 (0)78 3497 4624

ABOUT IQE

http://iqep.com

IQE is the leading global supplier of advanced compound semiconductor wafers and materials solutions that enable a diverse range of applications across:

- handset devices
- global telecoms infrastructure
- connected devices
- 3D sensing

As a scaled global epitaxy wafer manufacturer, IQE is uniquely positioned in this market which has high barriers to entry. IQE supplies the whole market and is agnostic to the winners and losers at chip and OEM level. By leveraging the Group's intellectual property portfolio including know-how and patents, it produces epitaxy wafers of superior quality, yield and unit economics.

IQE is headquartered in Cardiff UK, with c. 650 employees across nine manufacturing locations in the UK, US, Taiwan and Singapore, and is listed on the AIM Stock Exchange in London.

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