

Silex World Advances China-Independent Processing Platform for Allied Critical Materials Supply Chains

Integrated platform combines refining, traceability and modular processing to support resilient allied critical materials supply chains.

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/EINPresswire.com/ -- [Silex](#) World Ltd, a University of Leeds spinout focused on [critical materials](#) processing, today announced the continued development of its China-independent processing platform, designed to support allied economies seeking secure, resilient, and regionally controlled critical materials supply chains.



Silex World - China Independent processing

The platform brings together Silex World's rare earth recovery technologies, modular processing systems, digital traceability architecture, and scalable low-energy refining capabilities into an integrated approach intended to reduce dependence on geographically concentrated processing infrastructure.

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The challenge is no longer simply sourcing critical materials. It is building the infrastructure needed to process and reintegrate them into allied supply chains.”

Michael Hodges

Global demand for rare earth elements and other strategic materials continues to accelerate across defence, electrification, renewable energy, semiconductors, robotics, aerospace, and advanced manufacturing. At the same time, governments are increasingly seeking to diversify processing capability and establish trusted supply

chains that reduce reliance on overseas refining capacity.

Silex World believes the long-term challenge is no longer simply securing access to critical minerals, but establishing commercially viable processing capability within allied economies

capable of transforming raw materials, recycled feedstocks, and industrial residues into strategic products.

The company is currently progressing industrial rollout activities in India while continuing discussions with industrial partners across the United Kingdom, Europe, North America, and other allied markets regarding future regional deployment.

Silex World's platform is designed to support:

- * China-independent processing of rare earth-bearing feedstocks
- * Recovery of strategic materials from recycled and secondary resources
- * Continuous low-energy refining using modular processing infrastructure
- * Digital traceability and chain-of-custody verification throughout production
- * Regional deployment close to manufacturing demand and feedstock sources
- * Greater resilience across defence, energy, automotive, and advanced manufacturing supply chains

Rather than depending upon a small number of large international processing centres, Silex World believes future critical materials supply chains will increasingly be built around distributed regional infrastructure capable of supplying domestic manufacturing ecosystems.

Michael Hodges, Founder of Silex World Ltd, said:

"The future of critical materials is not simply about securing resources. It is about securing the capability to process those resources within trusted industrial partnerships."

He added:

"Building China-independent supply chains requires more than discovering new mineral deposits. It requires modern processing infrastructure capable of transforming materials into products that manufacturers can use, where they need them."

The platform has been developed with compatibility across multiple rare earth-bearing feedstocks, including recycled permanent magnets, industrial residues, manufacturing scrap, selected mineral concentrates, and other secondary material streams. Silex World is continuing to engage with governments, industrial organisations, strategic investors, and manufacturing partners to support deployment of regional processing capability across allied economies.

The company believes the transition towards China-independent critical materials supply chains will require close collaboration between governments, industry, research institutions, and technology providers. By combining scalable processing technologies with regional deployment models and digital traceability, Silex World aims to support the development of resilient, transparent, and secure critical materials ecosystems for the next generation of manufacturing.

About Silex World Ltd

Silex World Ltd is a University of Leeds spin-out company developing technologies for critical materials recovery, rare earth recycling, advanced materials processing, industrial minerals

upgrading, and sustainable manufacturing systems. The company is focused on creating scalable solutions that support resilient and circular supply chains for strategic materials.

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Image is for illustrative purposes only.

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