

Terakraft and Neurophos Partner to Pioneer the Future of Sustainable AI Computing

Companies will pilot Neurophos' advanced AI technologies at Terakraft's flagship Green AI Factory

AUSTIN, TX, UNITED STATES, August 19, 2025 /EINPresswire.com/ -- [Terakraft](#), a next-generation AI data center operator, and [Neurophos](#), a cutting-edge AI chip company revolutionizing speed and efficiency, today announced they entered into a collaboration agreement to provide sustainable, high performance, and energy efficient AI infrastructure.



Patrick Bowen CEO Neurophos

As artificial intelligence transforms industries and daily life, the demand for high performance computing infrastructure has never been greater. One of the biggest challenges facing the computing infrastructure industry is the immense energy consumption required to power and cool these systems. Today, two innovators – Terakraft and Neurophos – are joining forces to demonstrate how green data centers and breakthrough hardware can work together to chart a more sustainable path forward.

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Giorgio Sbriglia, Chairman of the Board of Terakraft

Green AI Data Centers in Norway

Located in Norway, Terakraft stands at the forefront of sustainable AI infrastructure. Powered entirely by renewable hydropower and cooled with natural lake water, Terakraft achieves a Power Usage Effectiveness (PUE) below 1.1 – among the best metrics in the industry. By repurposing an existing hydropower plant built with

reinforced concrete, Terakraft avoids additional embodied carbon and sets a new benchmark for low-emission operations.

Revolutionizing AI Chips with Photonics

Neurophos is rewriting the rules of AI hardware with proprietary optical processing units which are 100x more energy efficient than leading GPUs for the same workload. By harnessing the efficiency of photonics and scaling properties from metamaterials, Neurophos has successfully fabricated, demonstrated, and characterized its miniaturization of optical modulators by a factor of 10,000x, enabling future optical processing units to deliver the compute power of 100 GPUs while consuming the equivalent of 1% of the energy, validated by end-to-end simulation results. Its compute-in-memory architecture, inspired by the human brain's efficiency, allows for unprecedented processing speeds and density, making ultra-efficient, large-scale AI inference practical and scalable.

Early Access in 2027

The companies plan to host a pilot as part of a commercial early access program in 2027 for Neurophos' accelerated AI inference platform. The project will provide a real-world proving ground for sustainable, ultra-efficient compute — complementing today's GPU-driven systems with experimental next-generation photonic hardware.

"By hosting Neurophos' ultra-efficient optical chips in our green data center for select enterprise clients, we not only reduce our carbon footprint but also raise the bar for energy-efficient AI infrastructure. Our mission has always been to power the future responsibly, and this collaboration brings that vision to life," said Giorgio Sbriglia, Chairman of the Board of Terakraft.

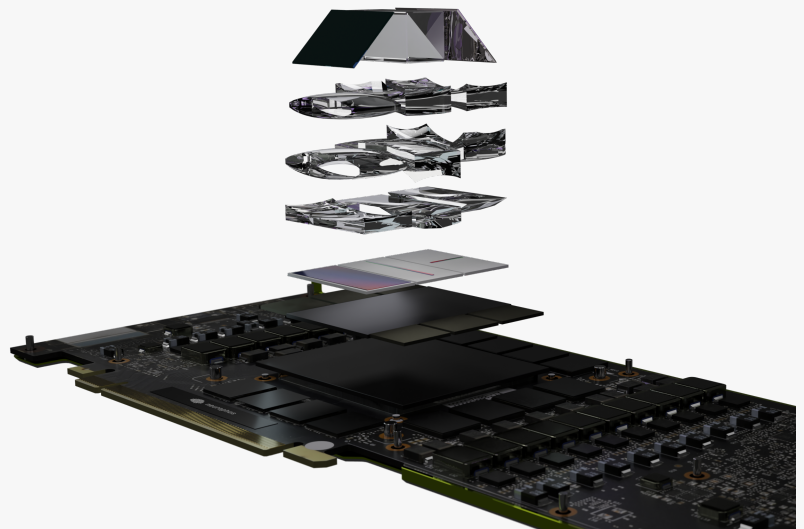
"Terakraft's commitment to renewable energy and innovative technologies aligns perfectly with our mission to democratize high-performance AI. By deploying our 100x more efficient inference chips in Terakraft's green data center, we're proving that AI's exponential growth can be achieved sustainably, together," said Patrick Bowen, CEO and Founder of Neurophos.

Why This Matters

This collaboration represents an innovative step forward for accelerated computing



Giorgio Sbriglia, CEO Terakraft



Neurophos Optical Processing Unit (OPU)

infrastructure, namely:

- Sustainable Infrastructure: Terakraft's 100% renewable energy and innovative cooling solutions drastically reduce operational costs and environmental impact.
- Unmatched Energy Efficiency: Neurophos' prototype results point to orders of magnitude higher AI compute power with a fraction of the energy required by current GPUs, directly addressing one of the biggest challenges in AI-power consumption.
- Future-Proofing AI: This partnership demonstrates a viable path for AI growth that is both economically and environmentally sustainable, paving the way for global adoption of green AI data centers and hardware.

Looking Ahead

The Terakraft and Neurophos pilot in Norway will serve as a real-world proving ground for the next era of AI infrastructure. As the world races to keep up with AI's potential, this collaboration lights the way toward a future where performance and sustainability go hand-in-hand.

For more information, feel free to contact Terakraft at info@terakraft.no and Neurophos at info@neurophos.com.

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