

## Quside unveils the world's first Randomness Processing Unit

ICFO spin-off's RPU provides acceleration and energy-efficient processing for randomized workloads

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ICFO spin-off company Quside Technologies SL that recently announced successful Series A funding investment, specializes in developing and commercializing quantum random number generation (QRNG) technologies for cryptographic and computing applications. Now Quside unveils its vision for **the Randomness Processing Unit (RPU), a device designed to simultaneously accelerate the execution of intensive randomized workloads with reduced energy consumption and execution time savings.**

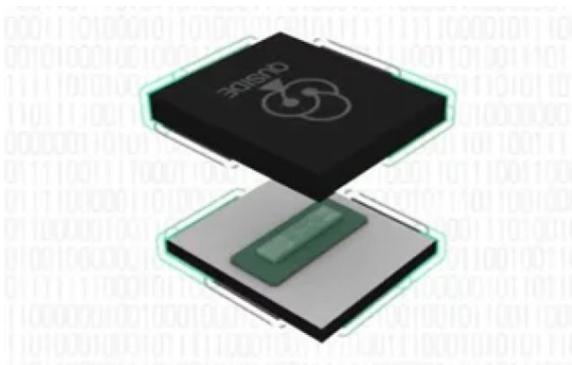
Many of the most relevant simulation, optimization, and prediction workloads rely on stochastic processes. In turn, they require an ever-increasing source of high-quality, high-speed random numbers and associated processing tasks. Current approaches using pseudo-randomness generation in high-performance environments often lead to significant energy consumption and performance inefficiencies, as well as potentially introducing artifacts and co-dependencies in the statistical results.

½Pseudo-random number generation subroutines may involve up to 50% of the total computing resources for stochastic workloads½, mentions **Jose Martinez, Lead Scientist** at Quside.

Quside's new Randomness Processing Unit, based on high-speed, high-quality QRNGs and hardware-based randomness acceleration, **allows customers to off load their randomness generation and processing tasks from the CPU thereby accelerating their randomized workloads, boosting the efficiency of their infrastructure and improving the quality of their simulation, optimization, and prediction needs.**

Using the newly announced first-generation RPU, customers can now get an efficient **hardware-accelerated randomness source with full-workload performance improvements of up to 10X and energy-saving efficiencies of up to 20X.** Also, the product can be easily deployed and integrated into a broad range of randomized calculations using C++. Virtual Machine image integrations are available as well.

½We've been working with customers and users in industry and academia for several months to optimize the value of this new product. We are thrilled to announce the availability of this new product and to work with customers to accelerate their randomized workloads½, explains **Carlos Abellan, CEO at Quside.**



Product video