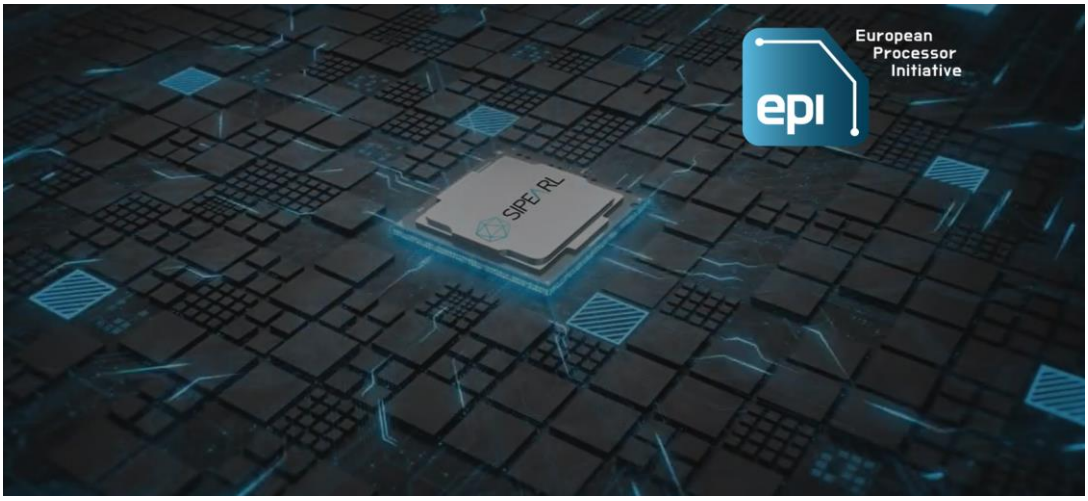
European Processor Initiative partner SiPearl will provide its general purpose processor for Europe's first EuroHPC exascale supercomputer JUPITER

Paris (France), 6th November, 2023.

The European Processor Initiative (EPI) https://www.european-processor-initiative.eu/, a project with 30 partners from 10 European countries, aiming to make the EU independent in HPC chip technologies and HPC infrastructures, is proud to announce that it has delivered a significant European sovereignty contribution with valuable business impacts.

One of its key partners, Eviden, the Atos Group business leading in advanced computing, as part of a consortium together with ParTec, the German modular supercomputing company, have won an emblematic contract with EuroHPC to provide the very first Exascale supercomputer in Europe, named JUPITER. SiPearl, another key EPI partner, will provide its brand new Rhea1 processor, an outcome of the EPI initiative [1], the first HPC-dedicated European processor on the market with exceptionally high memory bandwidth. JUPITER is a EuroHPC JU supercomputing infrastructure that will be operated by Forschungszentrum Jülich in Germany. This is a major milestone for SiPearl and EPI in fulfilling the European Union's mission to ensure European sovereignty through the return of high-performance, low-power processor technologies in Europe. It will contribute to the development of high-precision models of complex systems and artificial intelligence applications to solve strategic, scientific, industrial and environmental challenges with a low-carbon footprint.



JUPITER will be composed of two partitions, a highly scalable GPU accelerated Booster Module and a general-purpose Cluster Module with high memory bandwidth processors. The general-purpose Cluster Module will be based on SiPearl's first-generation processor, Rhea1. Using the Arm® Neoverse™ V1 platform, the Rhea1 is characterized by very high memory bandwidth, extraordinary compute performance and efficiency for an unmatched Byte/Flop ratio. It will help JUPITER run complex simulations and artificial intelligence applications to solve strategic, scientific, industrial and environmental challenges with a low-carbon footprint. Rhea1 will be available in 2024.

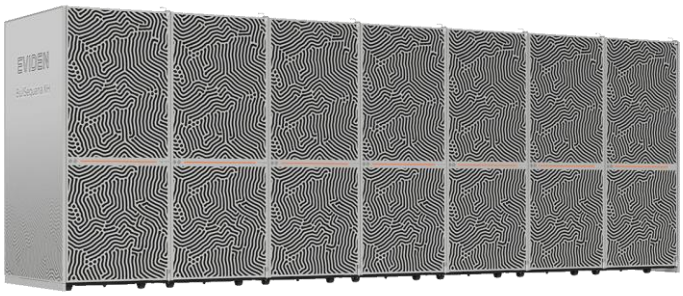
"*I am proud of this outstanding achievement, and I value the EPI team's cooperation. Together we are paving the way towards Europe's technological sovereignty. This is creating an unprecedented momentum for EPI to deliver its promises: European processors and accelerators for European exascale supercomputers. EPI is committed to supporting Eviden, Jülich, and SiPearl, key members of EPI, as well as Partec that is close to us, to make JUPITER a great European success*" – said **Eric Monchalin, Chairman of the EPI Board**.

"*JUPITER's dynamic modular architecture will demonstrate the benefits of using different processor types such as CPUs and GPUs in dedicated compute modules. We are excited about the power saving and execution speed opportunities that SiPearl's unique Rhea processor with its high memory bandwidth, a brainchild of EPI, will open up for JUPITER*" – highlighted **Prof. Thomas Lippert, Director of the JSC, Forschungszentrum Jülich**.

"*SiPearl is pleased to take part in this very first European exascale supercomputer. This is a great achievement for us and we look forward to working hand-in-hand with Jülich, Eviden and ParTec, our partners from the EuroHPC ecosystem. The dream of a European machine crossing the exaflop threshold with a European processor inside is coming true*", concluded **Philippe Notton, CEO and founder of SiPearl**.

"*We are extremely proud to be providing our BullSequana XH3000 for the first Exascale supercomputer in Europe and to be supporting our economic and industrial sovereignty. This powerful system will enable new breakthroughs in key sectors, such as medicine and climate change, and stimulate innovation for the whole European scientific community."* said **Emmanuel Le Roux, Group SVP, Global Head of HPC, AI & Quantum at Eviden, Atos Group**.

"Developing a strong European HPC supply chain with energy-efficient components and technologies is key to achieving digital sovereignty in Europe while promoting more sustainable supercomputing. The fact that a European microprocessor will underpin the first European supercomputer to exceed the one exaflop threshold is a pivotal victory for Europe!" said **Anders Dam Jensen, Executive Director of the EuroHPC Joint Undertaking**.



About EPI

The European Processor Initiative (EPI) is a project whose aim is to design and implement a roadmap for a new family of European low-power processors for extreme scale computing, high-performance Big-Data and a range of emerging applications.

The project has received funding from the European High Performance Computing Joint Undertaking (JU) under Framework Partnership Agreement No 800928 and Specific Grant Agreement No 101036168 (EPI SGA2). The JU receives support from the European Union's Horizon 2020 research and innovation programme and from Croatia, France, Germany, Greece, Italy, the Netherlands, Portugal, Spain, Sweden, and Switzerland.

[1] https://eurohpc-ju.europa.eu/procurement-contract-jupiter-first-european-exascale-supercomputer-signed-2023-10-03_en