



**European  
Processor  
Initiative**



**FRAMEWORK PARTNERSHIP AGREEMENT IN EUROPEAN  
LOW-POWER MICROPROCESSOR TECHNOLOGIES**



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 826647



## MISSION

- European independence in High Performance Computing Processor Technologies
- EU Exascale machine based on EU processor by 2023
- Based on solid, long-term economic model, go beyond the HPC market
- Address the needs of European Industry (Car manufacturing market)
- End-to-end security



## VISION

- High Performance Computing needs for Exascale machines beyond 2022
- Connected mobility and Autonomous Driving computing needs beyond 2023
- Low power CPU needs for Servers and Cloud
- Other markets under exploration (Server, Cloud)



## IMPACT

- Strengthening the competitiveness and leadership of European industry and science
- European microprocessor technology with drastically better performance/power ratios
- Tackling important segments of broader and/or emerging HPC and Big-Data markets

## ROADMAP



## PROJECT PILLARS

- Common platform and global architecture stream
- HPC general purpose processor stream
- Accelerator stream
- Automotive platform stream

**EUROPEAN  
PROCESSOR  
INITIATIVE**



**SIPEARL**  
The Silicon Pearl

**Committed**



**HPC**



**eHPC (Automotive)**



**AI & Big-Data**

**Future**



**Cloud & Servers**



**Space**



**Industry 4.x**



[www.european-processor-initiative.eu](http://www.european-processor-initiative.eu)

**BMW  
GROUP**



Rolls-Royce  
Motor Cars Limited



**Atos**



**Barcelona  
Supercomputing  
Center**  
Centro Nacional de Supercomputación



**FORTH**  
INSTITUTE OF COMPUTER SCIENCE



**KALRAY**



silicon design and verification services



ALMA MATER STUDIORUM  
UNIVERSITÀ DI BOLOGNA



**CHALMERS**



UNIVERSITY OF ZAGREB  
Faculty of Electrical  
Engineering and  
Computing



**UNIVERSITÀ DI PISA**



**Fraunhofer**



latency matters.

**E4**

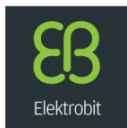
COMPUTER  
ENGINEERING



**SARA**



**TÉCNICO  
LISBOA**



PROVE & RUN



Karlsruher Institut für Technologie



**ETH zürich**



**SIPEARL**  
The Silicon Pearl