

# HIGHER Project Update | A Look Back on the First Year

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The Higher Consortium at the Kick-Off Meeting in Heraklion, Greece.

The EU-funded HIGHER Project has successfully completed its first year, marking a major step toward delivering Europe's first fully homegrown, next-generation processor platform for data-center and edge environments.

After twelve months of intensive work, the consortium is moving closer to strengthening Europe's digital autonomy with cloud- and edge-ready computing infrastructure built entirely on European technologies and aligned with Open Compute Project (OCP) standards.

## What's at the Core of HIGHER?

**HIGHER** focuses on the development and integration of new Arm-based and RISC-V-based Host Processor Modules, including RHEA2 and EPAC 2.0 / EUPilot chips, combined with AI and high-performance computing accelerators.

These components will power OCP-compliant system platforms designed for:

- High performance
- Improved energy efficiency
- Modular and open architectures
- Data-center and edge workloads

The project targets Technology Readiness Level 6 (TRL6) for both hardware and software, supported by on-site evaluations of electrical, mechanical, and thermal performance.

## Key Achievements So Far

During this first phase, the consortium delivered several foundational milestones:

- Comprehensive system and use-case requirements analysis
- Refinement of four core project use cases
- Launch of full technical design activities

These use cases will later be used to assess performance, cost, and energy efficiency across cloud-to-edge deployments.

## Technical & Hardware Progress

- System architecture and component specifications finalized
- High-Performance Modules (HPMs) defined for RHEA2 and EPAC/EUPilot processors
- Management module specified with firmware and Platform Root of Trust functionality

Hardware prototyping is now underway, with the RHEA2-based HPM progressing on schedule and supporting single- and dual-socket chiplet configurations. Each module includes a complete software stack, from secure firmware and UEFI boot to Linux distributions and drivers with OpenMP offload support.

## Firmware, Software & Use Cases

Progress also includes:

- Secure boot design for Arm and RISC-V server SoCs

- Integration of an OCP-compliant Base Management Controller (BMC) with Root-of-Trust capabilities
- Early demonstrations using emulator-based environments

Use case partners are actively preparing deployments, with a strong focus on CXL-based memory disaggregation and software-stack readiness across platforms.

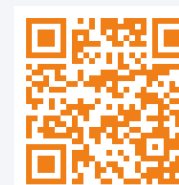
## What's next?


With a strong first phase completed, HIGHER is now entering full development, paving the way for Europe's first data-center-grade, fully European processor ecosystem.


## More updates on the website:


- [Meet the Consortium series](#)
- Technical news on the project
  - [Integration of the Caliptra Root-of-Trust in DC-SCM secure control modules \(FORTH\)](#)
  - [Advancing Modular and Secure Server Design \(SiPearl\)](#)
- Event updates
- Deliverables

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