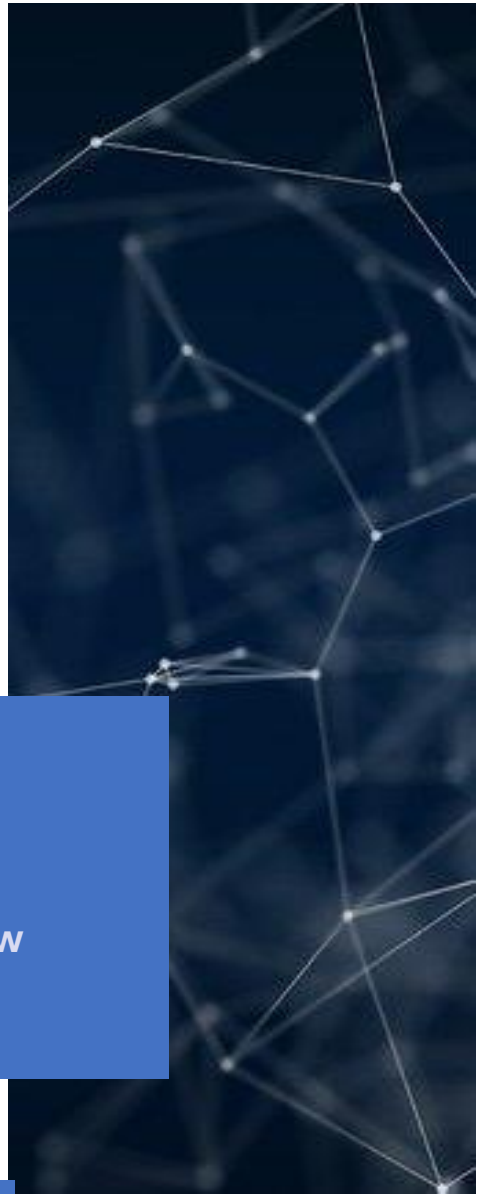
This Communication is part of a project that has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N°101069732

aerOS
EUROPEAN IOT-EDGE-CLOUD



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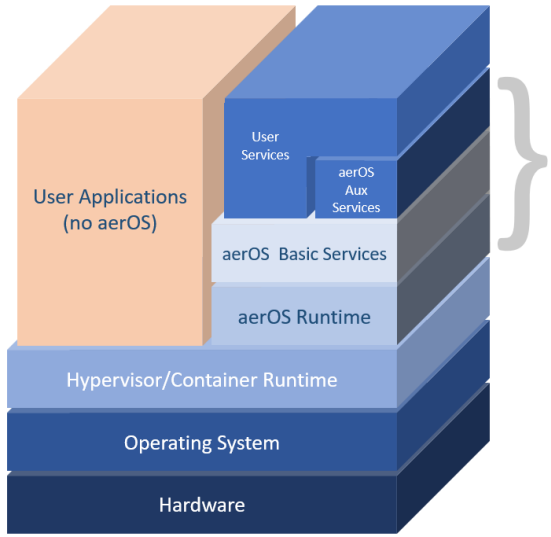
aerOS Overview of Results

The finalised project

5-December-2025

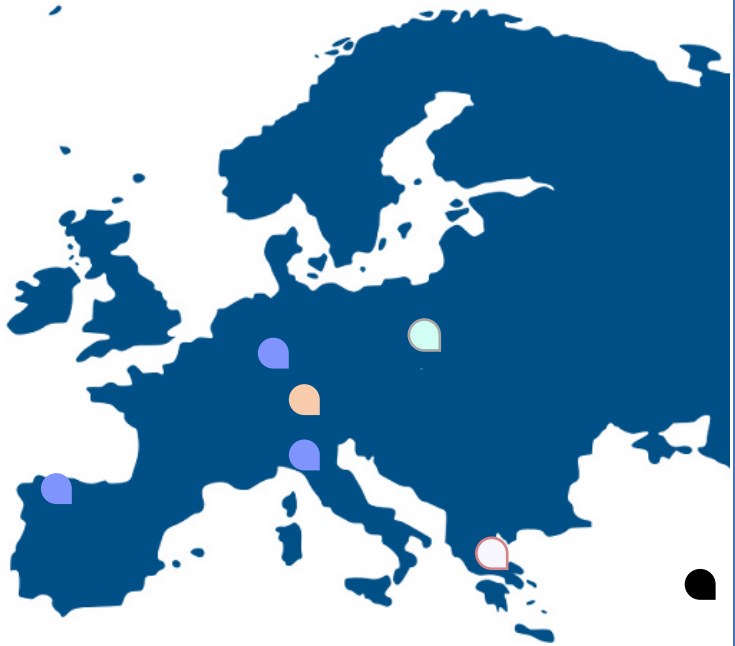
aerOS Final Review

aerOS departing challenges and scope



- …using context-awareness to distribute software task (application) execution requests
- …supporting intelligence as close to the events as possible
- …supporting execution of services using "abstract resources" (e.g., virtual machines, containers) connected through a smart network infrastructure
- …allocating and orchestrating abstract resources, responsible for executing service chain(s)
- …open source as a pillar for innovation

aerOS overarching goal has been to design and build a virtualised, platform-agnostic meta operating system for the IoT edge-cloud continuum. As a solution, to be executed on any Infrastructure Element within the IoT edge-cloud continuum – hence, independent from underlying hardware and operating system(s)



Manufacturing: Data-Driven Cognitive Production Lines (Manufacturing Autonomy Level 4 – MAL4)

Renewable energy: Containerised Edge Computing near Renewable Energy Sources

Machinery: High Performance Computing Platform for Connected and Cooperative Agricultural Mobile Machinery to Enable CO2 Neutral Farming (HPCP-F

Maritime ports: Smart edge services for the Port Continuum

Smart Buildings: Energy Efficient, Health Safe & Sustainable Smart Buildings

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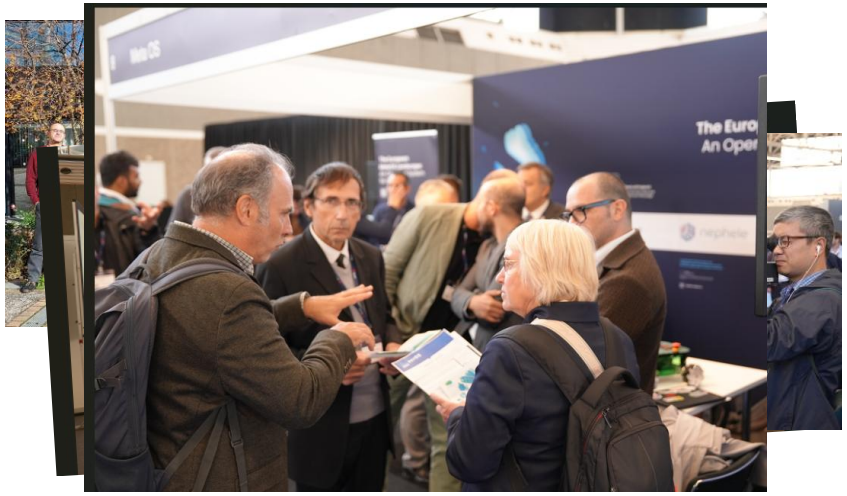
aerOS Results in Numbers

- 23 public deliverables
- 8 milestones accomplished
- 2 project amendments
- 13 Physical Meetings conducted
  - 9 Plenary Meetings
  - 4 code-camps



- 29 Journal Articles Published
- 32 Conference Proceeding Articles published
- 53 presentations at physical or virtual events
- 33 (co-)organized or invited workshops or special sessions
- 8 appearances at Whitepapers
- 2 rounds of Open Calls organized
  - 15 successfully finalized projects (ok 60k€ each)

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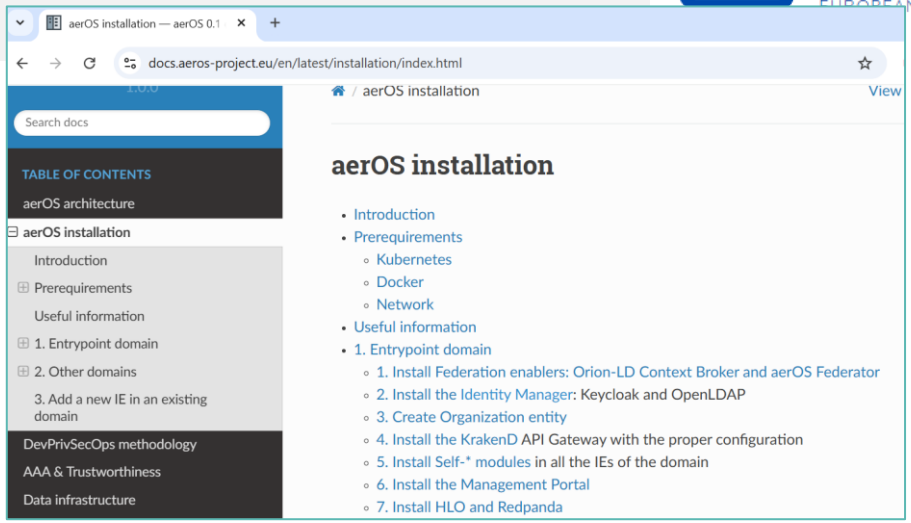
aerOS Results in Numbers

- **Complete installation and adoption guide,** improved by comments from pilots and Open Call participants. https://docs.aeros-project.eu/en/latest/
- Contribution to Open Source initiatives such as FIWARE Smart Data Models, KubeEdge or IOTA (DLT).



- 4 Key Exploitable Results (and a complete list of Exploitable Assets per pilot)

	P1 Mfg	P2 RES	P3 Agri	P4 Port	P5 Buildings
KER1 MetaOS	Portable runtime; line ops	Green nodes runtime	Mobile runtime	Multi-tenant port services	Building services runtime
KER2 Orchestration	Policy-based placement; OE ↑	Energy-aware placement	Mobility-aware placement	Low-latency ETA/ops	Demand response & comfort
KER3 Data Fabric	Traceability/DPP	Cross-site federation	Farm–OEM data loops	Port community sharing	Asset & energy/occupancy data interoperability
KER4 DevPrivSec	Compliant analytics	Privacy by design	On-device privacy	Secure multi-tenant flows	Tenant privacy & safety

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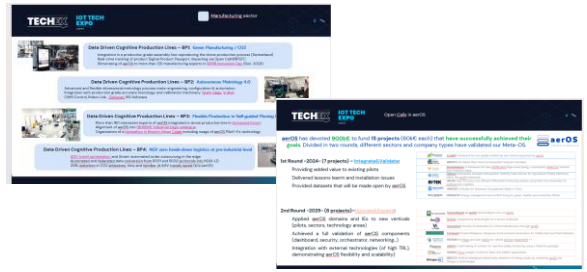
On-going impact generation!

- **aerOS finalised** 31-October-2025.

- Several research projects have **already adopted the Meta OS**
  - SAFE-6G, 6G-BRICKS, O-CEI..

- Companies have **already inserted** (all or part of) aerOS in their operations
  - Internal – aerOS partners (SME, research…): CloudFerro, Prodevelop, IQB, TID, SIEMENS
  - External – Open Call winners – SMEs and Universities

- 8 Pilots have **successfully integrated** orchestration, network management, AI procedures, data Exchange, IoT deployment, trust via DLT, security, function-as-a-service, self-capabilities, among others…



Please, attend topic#6 presentations about **pilots** and **Open Calls**

ECLIPSE aeriOS EUROPEAN CLOUD-EDGE-IOT

ECLIPSE **Open Source product** is created emanating from aerOS technology

- Standard ISO/IEC SC41/JTC1 IoT – DT **orchestration track is championed by aerOS**

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THANK YOU!

Prof. Carlos E. Palau
+34 96 387 73 01
cpalau@dcom.upv.es
www.satrd.es