



March – May 2025



aeros-project.eu

INSIDE THIS ISSUE

1. Issue Highlights
2. Communication & Dissemination Activities
3. Submitted Deliverable
4. Plenary Meeting



ISSUE HIGHLIGHTS

The 11th issue of aerOS newsletter presents the project activities during the period March – May 2025. This specific issue focuses on the communication and dissemination activities and the project period activities and the latest Plenary Meeting.

aerOS trimester activities in numbers:

- 4 Publications
- 2nd Edition of the ATHENA Workshop
- FIWARE Global Summit 25
- MECC 2025
- New Pilot Videos
- EUCloudEdgeIoT Activities
- Submitted deliverable
- aerOS Technical Meeting



Communication & Dissemination Activities

Publications

The publication in IEEE Xplore entitled "Another Look at Side-Channel-Resistant Encoding Schemes", linked to the aerOS project, explores cutting-edge advancements in edge computing and orchestration. As we push the boundaries of AI-driven, adaptive, and efficient computing infrastructures, this work marks another step toward a more connected and intelligent future. Find more information here: <https://ieeexplore.ieee.org/document/10508964>

The publication in IEEE "Transactions on Instrumentation and Measurement" entitled: "Semantic-Enhanced Digital Twin System for Robot-Environment Interaction Monitoring" is now available! You may find more information here: <https://ieeexplore.ieee.org/document/9380190>

The aerOS journal paper entitled "AI/ML Service Enablers and Model Maintenance for Beyond 5G Networks" is now available! This paper sheds light on AI/ML analytics service enablers by considering a system-level approach elaborating on the key technologies related to service discovery, request, control, and reporting of AI/ML analytics. Find more here: <https://ieeexplore.ieee.org/document/10012307>

The publication in IEEE Xplore entitled "Deterministic Networking Empowered Robotic Teleoperation", linked to the aerOS project, explores how the integration of visual, audio, tactile, and immersive interfaces enhances situational awareness, enabling teleoperators to interact effectively with complex remote environments and make informed decisions. Find more here: <https://ieeexplore.ieee.org/document/10723744>



2nd Edition of the ATHENA Workshop

The 2nd Edition of the ATHENA Workshop will serve as a key platform for advancing the transition toward 6G technologies. Organized in conjunction with IEEE NFV-SDN 2025, it will bring together leading researchers, industry experts, and policy makers to discuss future directions in research infrastructures, adaptive frameworks, and intelligent network architectures. The workshop will focus on AI-driven adaptability, advanced testbeds, and the convergence of terrestrial and non-terrestrial networks. Through collaboration and knowledge exchange, ATHENA will foster innovative approaches that will shape the evolution from 5G to 6G.

- Paper Submission Deadline: 14/7/2025
- Acceptance Notification: 1/8/2024
- Camera-Ready Submission: 8/8/2024

Find more information here: <https://nfvsdn2025.ieee-nfvsn.org/>



The poster for the Athena Workshop features the aerOS logo at the top left. To the right is a circular image of the Parthenon in Athens at night, illuminated by warm lights against a dark sky with a full moon. The title 'Athena Workshop' is prominently displayed in the center. Below the title, a calendar icon indicates the dates '10 -12 November 2025'. Further down, a stack of papers icon is followed by the submission deadlines: 'Paper Submission Deadline: 14/7/2025', 'Acceptance Notification: 1/8/2024', and 'Camera-Ready Submission: 8/8/2025'. A location pin icon marks the venue as 'Athens'. To the right of the text, there is a decorative pattern of blue dots. At the bottom, a blue banner contains the URL 'https://aeros-project.eu/2023/05/29/2nd-edition-of-athena-workshop/'.



FIWARE Global Summit 25

aerOS Project participated at "FIWARE Global Summit 25 in Morocco – Spreading the Word About European Innovation"! At FGS2025, the aerOS project proudly took the stage to showcase how European initiatives can drive global impact. During the FIWARE training session, FIWARE Senior Technical Expert Jason Fox introduced participants to the principles of registration and federation within the FIWARE ecosystem—paving the way for meaningful cross-border collaboration.

Following this, Ken Zangelin, FIWARE Senior Technical Expert, delivered an insightful talk on the aerOS project.



MECC 2025

The aerOS project proudly participated in the Special Panel Discussion for metaOS EU-funded projects, which took place last week as part of MECC 2025 — a major event dedicated to advancing the Meta Operating Systems (metaOS) vision in Europe.

The panel brought together leading researchers, developers, and practitioners from across the EU to exchange ideas, present cutting-edge innovations, and discuss the transformative potential of metaOS in shaping the future of distributed computing. Through lively discussions and collaborative insights, participants explored how metaOS technologies will revolutionize computing across the Cloud-Edge-IoT continuum, enabling seamless orchestration, interoperability, and intelligent resource management from the cloud to the edge and beyond.

The aerOS team's contribution highlighted the project's role in developing intelligent, secure, and adaptive metaOS solutions that will empower next-generation applications and services in diverse domains — from smart cities and Industry 4.0 to sustainable and data-driven environments. This engagement reflects aerOS's ongoing commitment to fostering cross-project collaboration, driving technological innovation, and supporting the European vision for a resilient and future-ready digital ecosystem.



aerOS new Videos

- aerOS Pilot 1 Scenario 4 - AGV Zero-Breakdown Logistics:
https://www.youtube.com/watch?v=_DqnAE0ltgE
- aerOS Pilot 5 - Forecasting Component:
<https://www.youtube.com/watch?v=PpVjaunb6Ek&t=2s>
- aerOS Pilot 1 Scenario 2 - Remote Operations and Setup & Configuration:
<https://www.youtube.com/watch?v=0mCbQIwcTpo&t=21s>

EUCloudEdgeIoT news digest issues

- March 2025:
<https://preview.mailerlite.io/preview/185345/emails/150038729323448143>
- April 2025:
<https://preview.mailerlite.io/preview/185345/emails/151306860855560047>
- May 2025:
<https://preview.mailerlite.io/preview/185345/emails/155105146342213109>



Submitted Deliverable

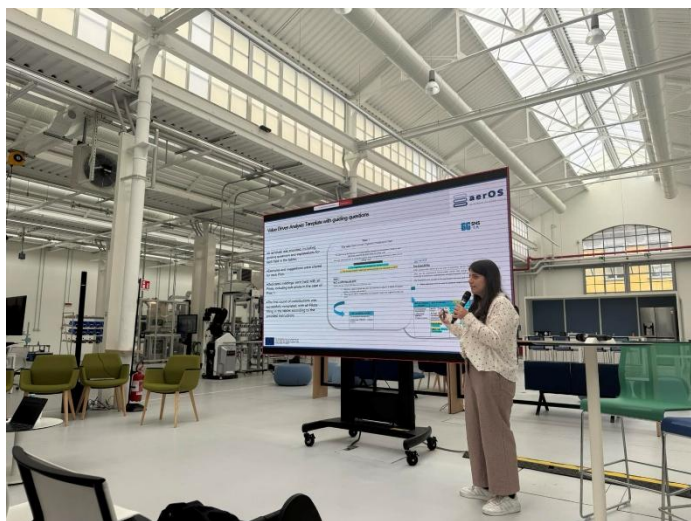
D5.2 Integration, evaluation plan and KPIs definition (2) [M24] – Will document the three pilots and integrated third parties, addressing the proposed use cases and scenarios. This will be the final version.



All public aerOS deliverables are available for downloading
at aerOS website: <https://aeros-project.eu/dissemination/deliverables/>

aerOS 7th Plenary Meeting

The 7th Plenary Meeting of the aerOS project commenced at the MADE premises in Milan (6 & 7 May 2025), bringing together all partners to review progress and align on upcoming objectives. Over the course of the meeting, participants engaged in a series of presentations and technical discussions focusing on the project's ongoing developments and pilot implementations. The second day featured in-depth sessions on communication, dissemination, and exploitation strategies, further reinforcing collaboration across work packages. On the final day, partners discussed key topics related to impact, exploitation, open-source software (OSS), and technical pilot demonstrations, concluding with a presentation of MADE and a guided tour of its facilities, offering valuable insights into innovation and industrial col laboration within the project's context.



FOLLOW US!



aeros-project.eu



This project has received funding from Horizon Europe, the EU's key funding programme for research and innovation, under grant agreement No 101069732

Call: WORLD LEADING DATA AND COMPUTING TECHNOLOGIES 2021
Topic: HE-CL4-2021-DATA-01-05
Type of Action: RIA
Duration: 36 Months
Start Date: 1 September 2022