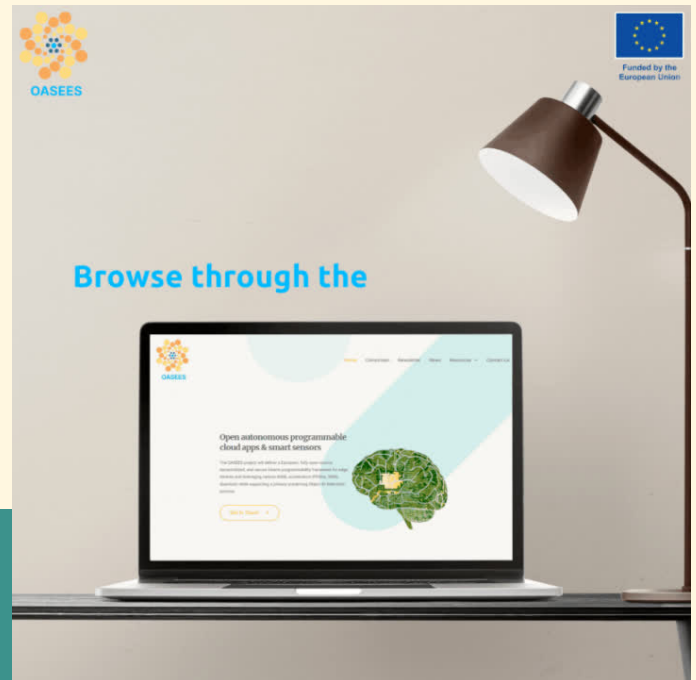




Welcome to the OASEES Newsletter!

We are pleased to announce the publication of the third issue of the OASEES Newsletter! This newsletter will be published twice a year bringing the latest news and advances of the OASEES project!

First and foremost, OASEES is a 36-month Research and Innovation Project, funded by the European Union, that will last until December 2025.

The OASEES project will deliver a European, fully open-source, decentralized, and secure Swarm programmability framework for edge devices and leveraging various AI/ML accelerators (FPGAs, SNNs, Quantum) while supporting a privacy-preserving Object ID federation process.



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Our pilots

e-Health

The outcome of this pilot will be an intelligent edge device capable of sensing, recording and analysing patients' utterances, as well as providing smart, adaptive and personalised guidance on rhythm and intonation. The system will be usable both in rehabilitation centres during sessions with therapists and at home. We will adopt a privacy-by-design approach when collecting and treating patients' acoustic data

Drone Swarm for area and infrastructure inspection

Autonomous drone inspections provide tower companies with data and insights to expand their infrastructure by gathering high-resolution aerial data, generating accurate 3D models and a 360-degree panoramic view of a potential antennae location. It helps to identify potential obstructions, establish the distance from nearby existing antennae, and acquire local permits easily. It also enables tower companies to adapt their existing site to the 5G network needs in urban environments.

Collaborative robotic automation

This use case investigates the application of a finishing machine in the context of medium and large-scale industrial operations. The machine is specifically designed to meet the demands of companies that prioritize high-quality sanding and finishing outcomes. The study takes into consideration the ongoing transformation of the furniture market, which is shifting from mass production to a more customized approach characterized by small batch production and even single piece fabrication. The research highlights the machine's ability to enhance the thermal properties of treated wood materials.

Energy

The real-field pilot will demonstrate the capability of deploying and coordinating in a scalable yet near the real-time way the operation and management of swarms of IoT-based devices (e-vehicles), which will be coordinated and programmed through the OASEES SDK and orchestration platform.

Structural Safety for Building and Critical Infrastructure

The structural condition of critical infrastructures is inferred by processing data from local sensors, SENSO operates a decision support software that collects this structural data and helps in decision-making during critical times. Currently, the collection of sensor data takes place on customer's premises, but it is inefficient and causes data privacy concerns and increased response time. A distributed DSS architecture, with components at the edge and the central cloud, would be more beneficial.

Wind Energy

Blockchain can be used in the distribution and operation of IoT networks as a target for DAO paradigms, providing a backend for distributed data structures to securely store transactions in a decentralized manner. Smart metering is a key enabler for integrating smart energy renewable systems to existing infrastructure. In the OASEES project, novel IoT-based meters will be implemented to support on-the-fly programmability, using IoT sound transducer (microphones) applied to wind turbines



4th Plenary Meeting

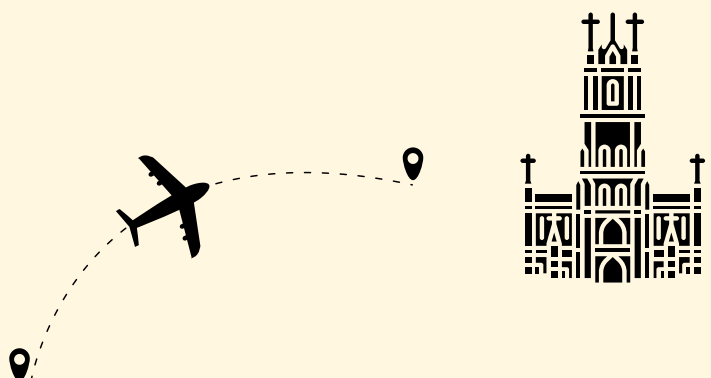


OASEES' 4th Plenary Meeting took place at the Premises of Imec , in Ghent, Belgium.

The meeting lasted 2 days, 1st and 2nd of February, 2024.

All 21 partners from across Europe got together, engaged in fruitful conversations and worked together collaboratively to mold the future of edge computing using their entirely open-source, decentralized, and secure Swarm programmability framework.

The consortium during the 4th Plenary Meeting at Ghent.



5th Plenary Meeting



OASEES' 5th Plenary Meeting took place on 18th and 19th of June 2024 at the Premises of NKUA , in Athens, Greece.



The consortium during the first day of 5th Plenary at NKUA in Athens.

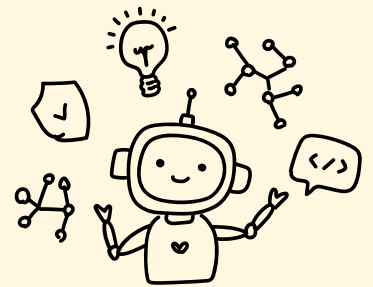
The consortium during the 5th Plenary Meeting in Athens



Events

3rd Festival of Robotics and Intelligent System

Oasees was present at the 3rd Festival of Robotics and Intelligent Systems on the 18th of May!



9th Internantional Conference on Smart and Sustainable Technologies



Tech-X Agenda 2024



Gaia-X Tech-X Event took place on 23rd and 24th of May and it was a smashing success.

But that's not all – **Oasees** took center stage during one of the presentations, expertly crafted by the talented team at Technalia.

OASEES's paper was presented by Technalia at the Splitech conference in Croatia from June 25-28.

Webinars



This webinar brought together the 5 Horizon Europe projects answering to the swarm computing call and are addressing the ever-increasing complexities of developing correct and performant heterogeneous swarm system. One of those was **Oasees**.

Conferences



Sofia Karamitsiani, Project Manager at OASEES, participated in the Research Panel on Next Generation IoT & Swarm at the EUCEI's Open Continuum Final Conference!



Oasees participated in the 6th International Congress on Blockchain and Applications, held from June 26-28, with Tecnalia serving on the organizing committee. The event featured in-depth discussions on advanced blockchain technologies and their practical applications



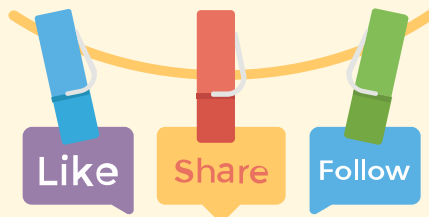
Next Issue



Our first review is coming this September, and we are thrilled to share it with you!

Stay tuned and don't miss our upcoming edition!

OASEES 6th Plenary Meeting will take place on November, in Valenthia and will bring the consortium together in order for them to discuss the evolution of the project!



Until the next issue, don't forget to visit our social media to stay updated on all the exciting news!

Make sure to follow OASEES' LinkedIn and Twitter to not miss any updates!

Consortium

Get to know the OASEES Consortium!

