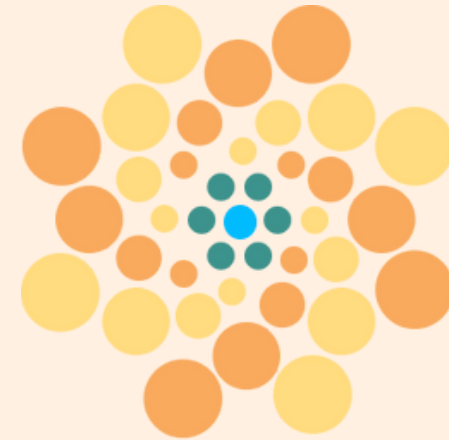
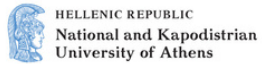


CONSORTIUM





OASEES


Open Autonomous
programmable cloud apps &
smart EdgE Sensors


STAY IN TOUCH

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Grant Agreement ID: 101092702

OUR MOTIVE

Recent developments in edge computing have led to the emergence of various infrastructure and service management platforms, including open-source options. However, to fully realize the potential of edge processing, a holistic solution incorporating central infrastructures and smart devices is required. Despite the distributed and heterogeneous nature of cloud computing, there is a lack of open management frameworks. Existing solutions, such as hybrid core/edge management offerings, are limited in scope and are not suitable for private deployments. Accessibility is a crucial aspect for researchers, thus, user-friendly interfaces for data management and ML/AI algorithm selection and optimization are necessary. Unfortunately, these are currently lacking in edge orchestration solutions.



OUR PURPOSE

The OASEES project aims to create a new programmability framework that will allow edge devices to work together in a decentralized and secure way, using advanced technologies such as AI/ML accelerators (FPGAs, SNNs, Quantum) and a privacy-preserving Object ID federation process. This framework will be fully open-source and developed specifically for Europe.



USE CASES



E-Health: Smart Nodes for Analysis of Voice, Articulation and Fluency Disorders in Parkinson Disease



Energy: EVs fleet coordinated recharging to support optimal operation of electricity grid.



Drone Swarm for area and infrastructure inspection: Drone Swarm over 5G for High Mast Inspection.



Structural Safety for Building and Critical Infrastructure: Swarm powered intelligent Structural safety assessment for Buildings



Collaborative robotic automation: : Robotic Swarm powered Smart Factory for I4.0



Wind Energy: Smart Swarm Energy harvesting and Predictive Maintenance Wind turbines

PROJECT FACTS

Duration: 3 years | 36 months

Start Date: January 1st, 2023

Work Programme: Horizon Europe

Grant Agreement ID: 101092702

Funding Scheme: Digital, Industry and Space

Project's Budget: € 7.987.425

Consortium: 21 partners from 9 European countries

Project Coordinator: National Centre for Scientific Research "Demokritos"

Technical Manager: IMEC

Dissemination Manager: Adrestia R&D