



NEMO

NExt Generation Meta Operating System

NEMO METAOS
ACCELERATING INDUSTRY 5.0

AIOTI DAYS

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SYNELIXIS



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NEMO concept



Main Goal: Create a CEI continuum, where applications will be transparently executed in an optimal way (*i.e. Resources, Responsive, Human Centric, Resilience, CO2 reduction*)

Solution Ingredients

- **Transparent network connectivity**, grouping devices in auto-healing clusters
- **AI/FDM** as the main decision-making mechanism. Data close to the user
- **Secure Execution Engine** (using sandbox techniques) and a **meta-Orchestrator** offering optimal micro-services scheduling/ migration
- **DevZeroOps** for just in-time plug-in installation/activation/management
- **Distributed Monetization** mechanism giving incentives for sharing
- **Solution adoption** via Open Source and Open Calls

NEMO for Industry 5.0



Industry 5.0 Challenges

- **Smart and on-demand Manufacturing** (IoT, robotics, data analytics)
- **Human Centric** towards *WISE* workspaces (Wellbeing, Inclusiveness, Safety, Ergonomics)
- **Zero-defect & FRANCA capabilities** (Flexibility, Redundancy, Agility, Nearness, Cybersecurity and Awareness)
- **Sustainability** and **decarbonization**
- **Worldwide Market uncertainty & heavily-invest sector** where machines have long lifecycle.

NEMO Contribution

- **Progressively upgrade** rather than replace: *Open APIs and Meta-* is the keyword
- **Homogenized workload orchestration** optimizing industry resources (private 5G across factories)
- **Utilize edge cloud/cloud resources** in parallel to industry dedicated resources
- Improve **Man-machine collaboration** and accelerate **AR/XR** technologies
- Contribute to **sustainable** operations (via green Data Centres)

