

# Unlock the Future of Data Processing with HYPER-AI

## // HYPER-AI: Revolutionising the Network Continuum

HYPER-AI, funded by HORIZON Europe, overcomes network continuum challenges by integrating smart virtual nodes from the Cloud, Edge, and IoT to optimise intensive data processing.



### Smart, Autonomous Computing Swarms

HYPER-AI introduces self-organised computing swarms of smart nodes, offering processing, storage, and communication resources. It uses semantic representation to enable seamless network integration.



### Autonomic Systems for Enhanced Performance

Inspired by autonomic systems, HYPER-AI uses self-CHOP principles (self-configuration, self-healing, self-optimisation, and self-protection) to simplify deploying and managing smart swarms, ensuring efficient resource use and robust security for better performance.



### Vision for a Unified Computing Continuum

HYPER-AI envisions a hyper-distributed multi-cloud/multi-edge environment unified by a collaborative framework. It aims to develop connectors for seamless integration, creating adaptive hybrid ecosystems.



### Multi-Objective Optimisation Framework

HYPER-AI's optimisation framework considers infrastructure, application needs, and energy efficiency. It dynamically allocates resources, maximising use and minimising energy consumption, while supporting rapid analysis and testing.



### Transforming the Future of Computing

HYPER-AI fosters a new ecosystem of devices, software, hardware, and services within a computing continuum. AI-augmented optimisation and resource management from cloud to edge enhance resource discovery, interoperability, and data handling.



## Use case #1: Industry 4.0

AR-based / AI-augmented remote assembly and Robot-as-a-Service for improved process efficiency and workers' safety



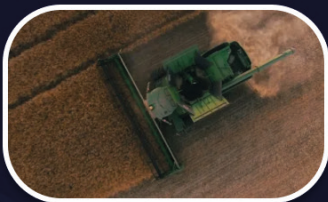
## Use case #2: Green Energy

Energy efficient data processing simulation for monitoring of critical infrastructures



## Use case #3: Mobility and Automotive

Accessing automated and connected vehicles computing platforms



## Use case #4: Farming and Agriculture

Precision Agriculture improved by computing continuum from Cloud-to-edge -to-IoT



## Use case #5: Healthcare

Disease Control originating from Wild Animals to prevent future Pandemics

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Revolutionising big data  
applications with autonomous  
cloud-to-edge resources

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## Join the HYPER-AI Revolution

Be a part of the future with HYPER-AI and join our community to make data processing across the computing continuum more flexible, efficient and innovative.

Visit our [website](http://hyperai.eu) or [contact us](mailto:hyperai@hyperai.eu)

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