



**CoGNETs**  
Continuums of Game Nets

# Continuums Of Game NETs: swarm intelligence as information processing

## Cognitive Computing Continuum Cluster

Presenter: Georgios Spanos

Affiliation: Centre for Research and Technology Hellas

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Federal Department of Economic Affairs,  
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Grant Agreement  
No 101135930



# Project Introduction

CoGNETs aims to develop a Middleware Framework that will empower IoT, Edge, and Cloud devices to autonomously organizing dynamic IoT-to-Cloud swarm continuums for optimal data processing and seamless service provisioning

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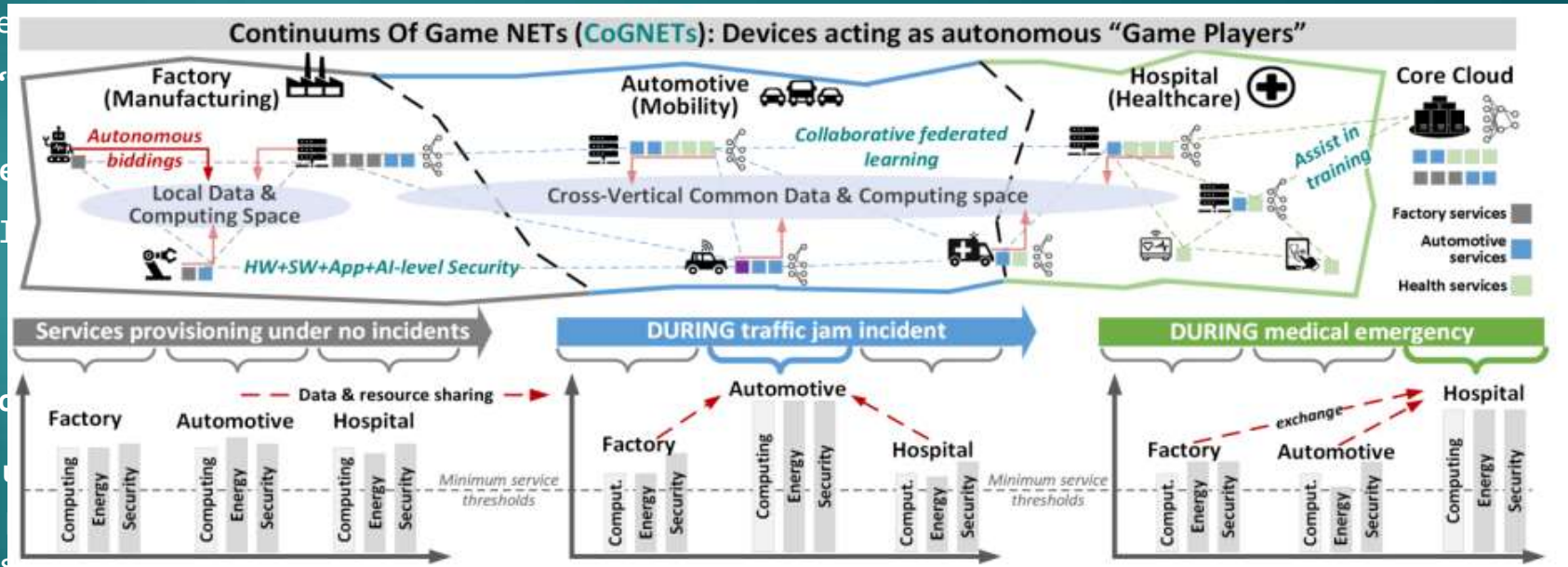
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Swarm continu

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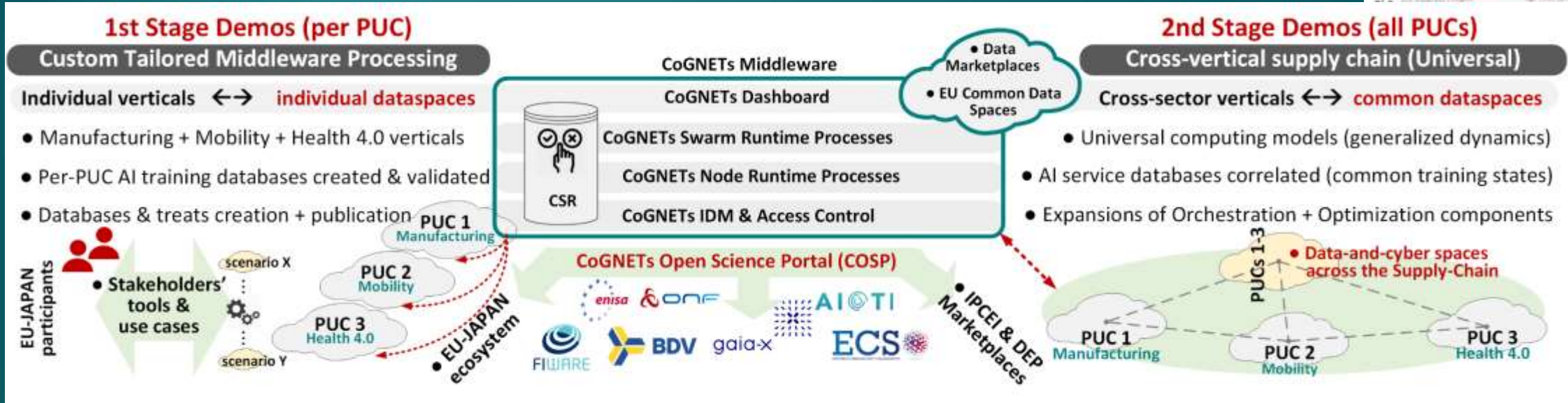
The games are designed to sensing and deciding for additional heterogeneity dynamics related to cyber-risks, energy consumption, system faults, offering more freedom with respect to the devices' cognition for safeguarding the overall continuum's cyber-resilience, digital-privacy, and energy-efficiency holistically



# Project Use Cases

## PUC1 - Manufacturing: Connected Factories

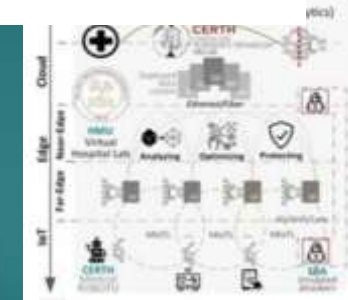
Autonomous precision control optimization



Assisted Diagnostics and Medical Data Analytics

Secured hospital and homecare prevention

Next-generation Telehealth Services





# Project Impact

**Strategic Impact:** CoGNETs has been conceived in line to the objectives and the vision of the EU Strategic Foresight Report, the EU Strategy for Data, and the Digital Agenda for Europe strategies

**Economic Impact:** COGNETs will deliver business-friendly software tools and best practices for efficient and secured data processing, thereby boosting EU Industries and SMEs competing and growing in key Economy sectors

**Scientific Impact:** The CoGNETs modellings and studies will enhance the EU innovation capacity by providing both Theoretical and Practicable scientific results in the areas of IT, AI, ICT, Robotics, and Cybersecurity

**Societal Impact:** CoGNETs technology will directly improve the digital applications of EU citizens, while ensuring highly computing efficient and cyber-secure services with seamless protection of personal data



# Project goals for the next semester

www.cognets.eu

## Design Phase

Technologies Selection

Reference Architecture  
Design

Use case Scenarios & KPIs  
Definition

## Development Phase

Intelligent Game Agents

Collaborative Federated  
Learning Mechanisms

Distributed Middleware  
Framework

## Communication & Dissemination

Newsletter

Events Participation

Scientific Publications



# Thank you!

## GET IN TOUCH



[info@cognets.eu](mailto:info@cognets.eu)



[cognets.eu](http://cognets.eu)



[CoGNETs](#)

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