

In a nutshell

AGIMUS aims to deliver an open-source breakthrough innovation in AI-powered agile production, introducing solutions that push the limits of perception, planning and control in robotics, enabling general-purpose robots to be quick to set up, autonomous and easily adaptable to changes in the manufacturing process.

Project objectives

- Significantly accelerate the deployment of a robotic system to a new agile production environment and/or processes
- Increase the level of autonomy by leveraging enriched edge-computing decision making to adapt online to unforeseen situations.
- Ancillary services for further increasing the level of autonomy by computational energy efficiency and optimized cloud-to-robot communication
- Demonstrate, evaluate and validate AGIMUS in testing zones and real-world industrial pilots.
- Ensure trustworthiness, privacy, security and ethics by design
- Establish synergies and cohesion activities while also exchanging knowledge and driving the sustainable exploitation of results in line with the objectives of the AI, Data and Robotics Partnership.

PROJECT PARTNERS



CENTRE NATIONAL DE LA RECHERCHE
SCIENTIFIQUE CNRS
www.cnrs.fr

France



CESKE VYSOKE UCENI TECHNICE V PRAZE
www.cvut.cz

Czech Republic



INSTITUT NATIONAL DE RECHERCHE EN
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www.inria.fr

France



PAL ROBOTICS SL
www.pal-robotics.com

Spain



TOWARD SAS
<https://toward.fr>

France



Q-PLAN International Advisors PC
www.qplan-intl.gr

Greece



AIRBUS
www.airbus.com

France



KLEEMANN HELLAS SA
www.kleemannlifts.com

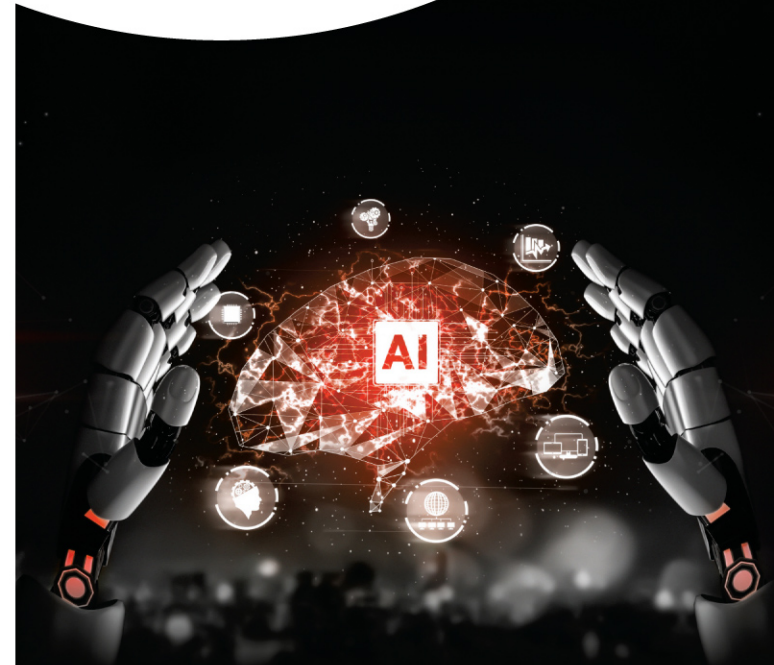
Greece



THIMM OBALY, K.S.
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Next generation
of **AI-powered**
robotics for
agile production

www.agimus-project.eu

Stakeholders

The key stakeholders for dissemination can be segmented into the target groups outlined below:



Industrial stakeholders



Academia & Researchers



Governmental/policy stakeholders



Other: General public, End-users, Open platforms and databases

PROJECT IDENTITY

Project Title:

Next generation of AI-powered robotics for agile production

Grant Agreement No: 101070165

Start: 1 October 2022

Duration: 48 months

Budget: €4,999,187.50

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Framework

- Physics-based differentiable simulator
- Trajectory optimizer
- Sophisticated task and motion planning
- Learning from videos
- Policy optimization algorithm
- 6D pose estimation of objects seen or unseen during training
- Predictive control anticipating future input by considering both haptic and visual observations



Skills

1 VISUAL CONTROL

2 PHYSICAL INTERACTION

3 GUIDED MULTI-STEP PLANS

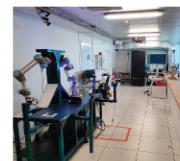
TESTING ZONES



LAAS
Robotics
Experimental
Room



CIIRC
Testbed



INRIA
Paris
Robotic
Laboratory

INDUSTRIAL PILOTS



AIRBUS
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