

Industrial Agentic Al Autonomous, Goal-Driven Al for Smarter Manufacturing







ORGANISATION PROFILE

- •Personnel & Size: ~90 experts across AI, robotics, data analytics, manufacturing systems, and sustainability.
- •Services & Areas: Applied research, testbeds, pilot lines, and consultancy in advanced manufacturing.
- •R&D Expertise: Al for scheduling, predictive maintenance, energy optimisation, digital twins, and human-centred Al. RAG and fine-tuning of LLMs in our local server.
- •Experience: Extensive participation in European projects (Horizon Europe, Eureka etc).







PROPOSAL INTRODUCTION (I)

Vision:

Enable European manufacturing systems to become **self-optimising**, **resilient**, **and sustainable** through agentic AI.

Motivation:

Current AI is predictive and siloed; decision-making remains manual, reactive, and inefficient. Industry needs **autonomous**, **trustworthy AI agents** that collaborate with humans and adapt to dynamic shop floor conditions.

Content:

- Develop a multi-agent Al architecture combining planning, reasoning, and optimisation.
- Integrate agents with digital twins, real-time data, and shop-floor systems.
- Validate in industrial pilots (scheduling, predictive maintenance, energy efficiency).





PROPOSAL INTRODUCTION (II)

Expected Outcome:

- A validated **industrial agentic AI platform** ready for adoption.
- Demonstrated improvements in throughput, downtime reduction, and energy use.
- Guidelines for safe and human-centric deployment.

Impacts:

- Market competitiveness through adaptive, resilient production.
- Reduced carbon footprint and improved sustainability.
- Strengthened European sovereignty in industrial Al.

Schedule:

- Project start: Q2 2025
- Duration: 25 months





PARTNERS

Current Consortium:

IMR (Coordinator) – expertise in AI strategy, scheduling, testbeds, and industrial validation.

Partner Search:

- Industrial AI developers (agent-based systems, reasoning engines).
- Manufacturing companies for pilot use cases (automotive, medtech, energy-intensive sectors).
- Digital twin providers and system integrators.
- Partners from Europe, with strong industrial networks





CONTACT INFO

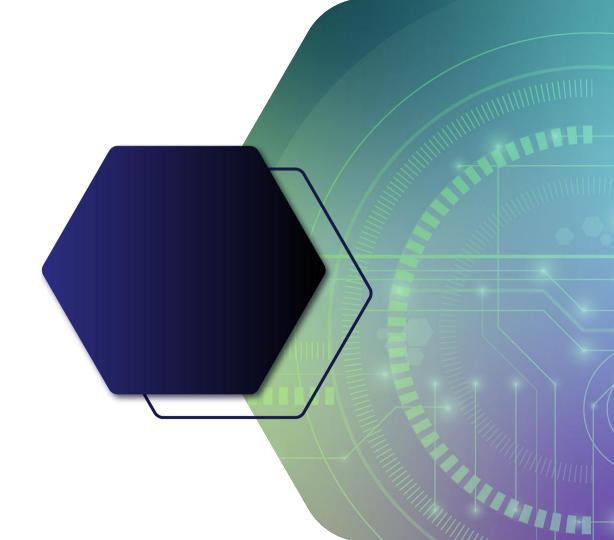
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