



ARISE aims to make industrial **human-robot-interaction (HRI)** more **accessible**, **cheaper** and more **flexible** to adapt. The project focuses on healthcare, intra-logistics and manufacturing, supporting humans and robots to maximize synergies.

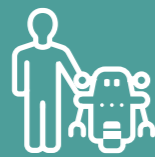
ARISE is designing a **trustworthy, human-centric framework** and **all-in-one middleware** through flagship experiments, by developing an **open HRI toolbox** and support system to foster a sustainable ecosystem.

Our Objectives



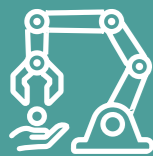
1. Open Robotics Middleware

Empowering European industry with a robust-real-time enabled open source middleware.



2. Trustworthy HRI Framework

Developing the human-centric framework and methodology for trustworthy industrial HRI.



3. Best-in-Class HRI Use Cases

Deploying and maintaining Testing and Experimentation Facilities, providing best practice examples.



4. Flagship FSTP Experiments

Engaging with European supplier SME, startups and end users to support adaptation and refine.



5. Open HRI Toolbox

Providing an open library of reliable open-source based AI modules with off-the-shelf AI skills for industrial HRI.



6. Long-Lasting Ecosystem

Providing a sustainable European reference ecosystem supporting open innovation in industrial robotics.

Contact us

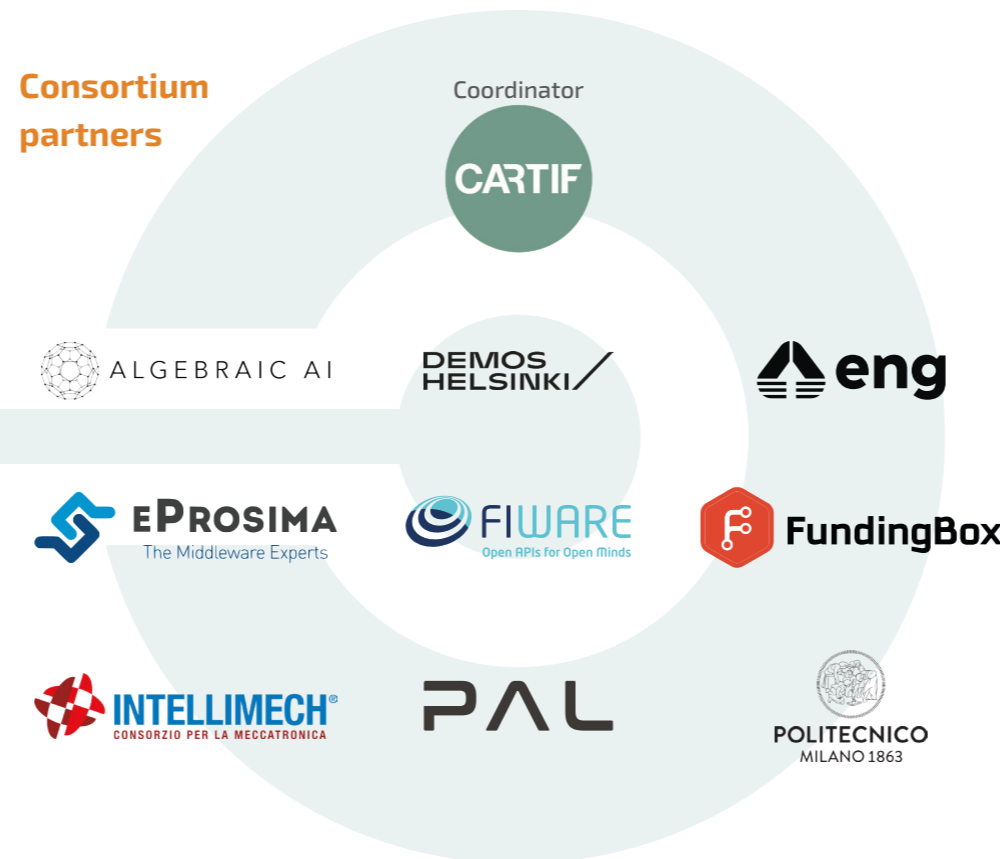
“We want to develop a new open middleware that helps European companies to generate industrial robotic applications in an agile and robust way respecting ethical and security standards to contribute to competitiveness of European companies.”

Mireya de Diego Moro, ARISE coordinator CARTIF



LinkedIn

Consortium partners



All-in-One Middleware and Tools for Human-centric industrial Robots

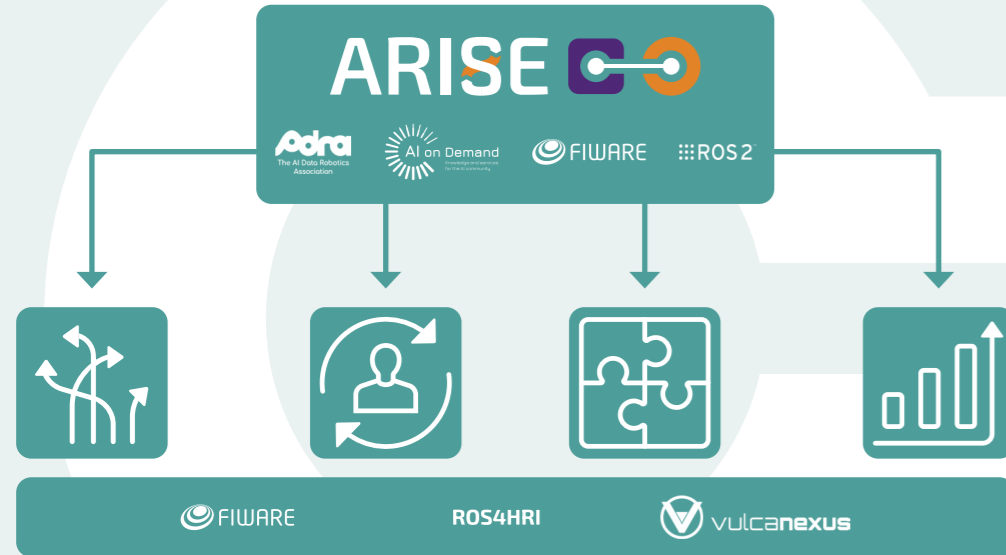
OpenSource | OpenStandards | Industry5.0



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The ARISE Ecosystem

Based on a collaborative approach ARISE provides a sustainable, collaborative European reference ecosystem.



Agility

Defines the ability of a production system to quickly adapt and respond to changes in demands, technology, or unforeseen circumstances while maintaining (cost-) efficiency and quality.

Human-centricity

Entails prioritising the needs, safety, preferences, and experiences of individuals in the design and implementation of products, services, and systems.

Community

Collaborates to create and enhance technological solutions, driving advancements and efficiency within industrial processes and systems.

Continuous performance

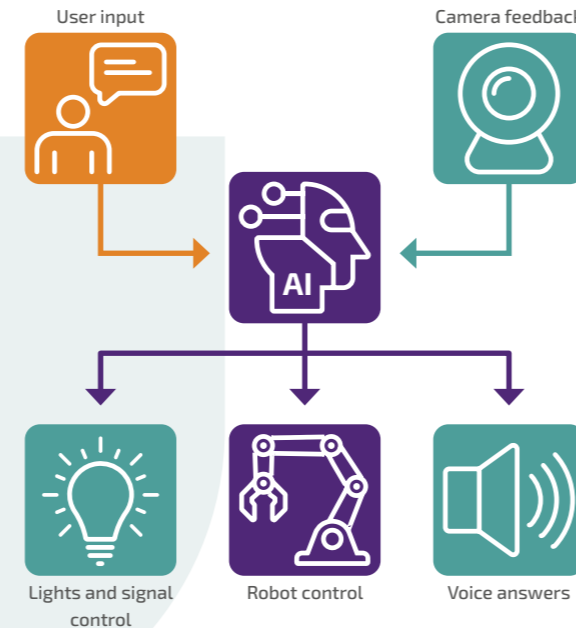
Seamless integration of new technologies and practices within existing systems, ensuring reliable smooth operations and sustainable progress.

Testing and Experimentation Facilities (TEFs)



"Experts in Residence"

- + Ensure an established ecosystem fostering collaboration between academia, industry, and other stakeholders, driving innovation and competitiveness.
- + Are hosting pilots: to enable researchers and businesses to conduct experiments, validate hypotheses, and accelerate the transition of ideas, lab-to-market.
- + Offer State-of-the-Art equipment, technical support, and access to interdisciplinary knowledge.
- + Provide expertise to support the development and testing of new technologies, products, and processes.



Cutting edge technology blocks

- + Powered by **FIWARE**, the reference provider of Open Cross-industry technology standards
- + **Vulcanexus**: the European All-in-One ROS2 tech reference

Providing real time robotic middleware

- + High Performance
- + Easy Multi-Platform Integration
- + Agile Open Source Innovation
- + Industry Standard and interoperability

Facilitating

- + Sustainable Business Ecosystem
- + Co-Creation
- + Cost-effective Innovation

2 Rounds of Open Calls - stay tuned!

2 rounds - 1. Open Call opening in Autumn 2024



Eligible for Funding

Teaming up:

- + 1 Tech provider developing HRI solution
- + 1 Tech-enduser providing use-case

Funding up to 200.000,- €

Contains:

- + Mentoring Plans: Tech, Non-tech and Business
- + Continuous Deployment and Experimentation
- + Demos: Proof of concept, MVP, Final Demo
- + Launch and promotion of AI modules for HRI

Access to Infrastructure, Expert Mentoring Support and best-practices in the Area of:

- + Collaborative robotics for dismantling and assembly of high-value products and complex product picking with collaborative robotics in industrial warehouses.
- + Flexible collaborative robots and smart programming for adaptability.
- + Enhancement of HRI through multimodal interaction around functional tasks and fetch-and-carry tasks in healthcare environments.
- + HRI for improved efficiency of workers in high-precision flexible tasks and HRI for improving ergonomics in high-precision tasks.