The AI Data Robotics Association

The AI Data Robotics Association

adr-association.eu

ADR Partnership Awareness Day

Building Trust and Excellence Through Partnerships

Co-funded by the European Union

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CAIRNE

ellis European Laboratory for Learning and Intelligent Systems

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Philip Piatkiewicz,
Secretary General

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Building Trust and Excellence Through Partnership

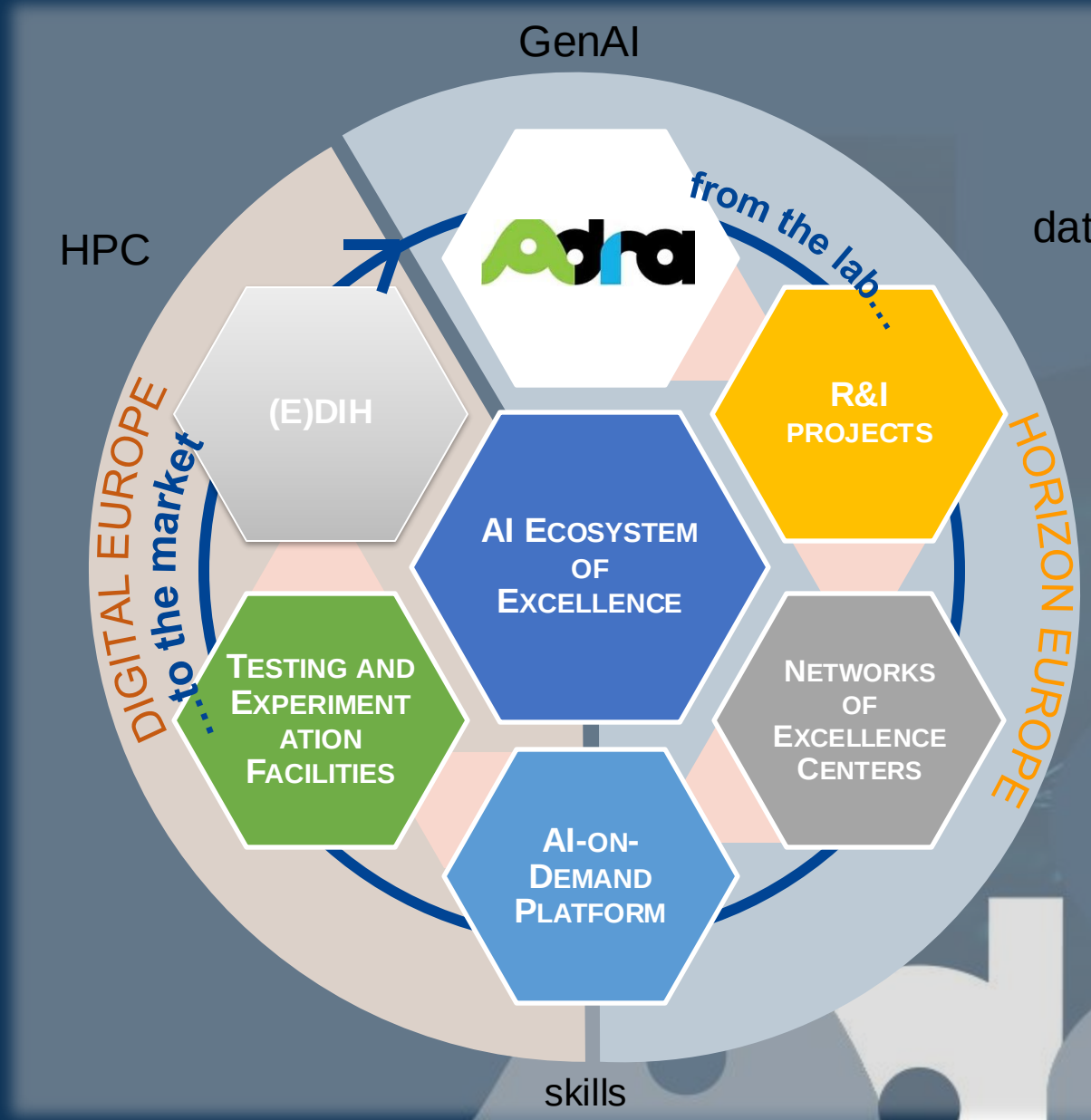
- Exploring the convergence of AI and Data regulation, Interoperability and Trustworthy AI, Generative AI, and foundational models, with a special focus on their integration into robotics technologies
- Two engaging tracks:
  - Building an ecosystem of trust and accountability
  - Fostering European excellence and best practices.

Whether you're navigating regulatory landscapes or exploring cutting-edge innovation, ADR Awareness Day 2024 is your platform to connect, contribute, and inspire progress.

The AI Data Robotics Association

ECOSYSTEM OF EXCELLENCE

ECOSYSTEM OF TRUST



The AI Data Robotics Association

AGENDA

10:00	Objectives, schedule and introduction to the ADR Partnership and ADR	**Philip Piatkiewicz,** Secretary General - AI, Data and Robotics Association
10:10	ADR Ecosystem Supports	**Jozef Geurts,** European Affairs Manager - Inria
10:20	Achievements of the Partnership (ADRA)	**Emanuela Girardi**, President - AI, Data and Robotics Association
10:50	Panel Discussion	**Kimmo Rossi**, Head of Sector - DG CONNECT, European Commission **Cem Gulec**, Policy and Programme Officer - DG CONNECT
11:20	Panel Discussion: Towards ecosystem of trust and excellence in ADR	**Stefan Leijnen**, Head of EU relations - AiNed **Fabio Pianesi,** Distinguished Fellow - FBK and Senior Advisor for EU Affairs - ARUBA/Dynamo **Nabil Belbachir**, Director BoD - euRobotics aisbl **Roy Fraser**, Global Product Leader - ABB **Robert Bruckmeier**, General manager, Computing and Artificial Intelligence Network - BMW Group
11:50	Call for book chapters	**Heike Vornhagen,** Insight Centre for Data Analytics
11:55	Close	**Philip Piatkiewicz,** Secretary General at ADRA

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Jozef Geurts
Deputy Director for European Partnerships
INRIA

Co-funded by the European Union

AI, Data and Robotics ecosystem

“e” is for ecosystem

ADR Partnership Awareness Day, 17 December 2024

Marc Schoenauer (project coordinator),

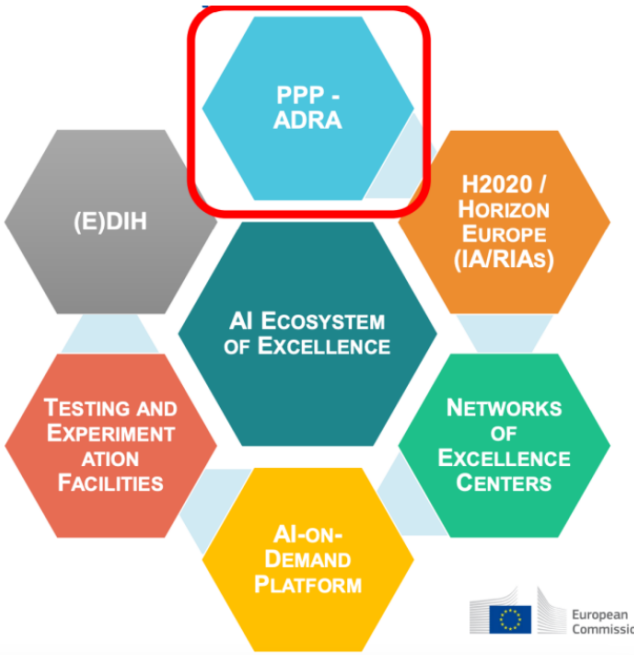
Joost Geurts

Funded by the European Union

"White Paper on Artificial Intelligence: a European approach to excellence and trust" (2020)

Ecosystem of Trust
Ecosystem of Excellence

Two sides of the same coin



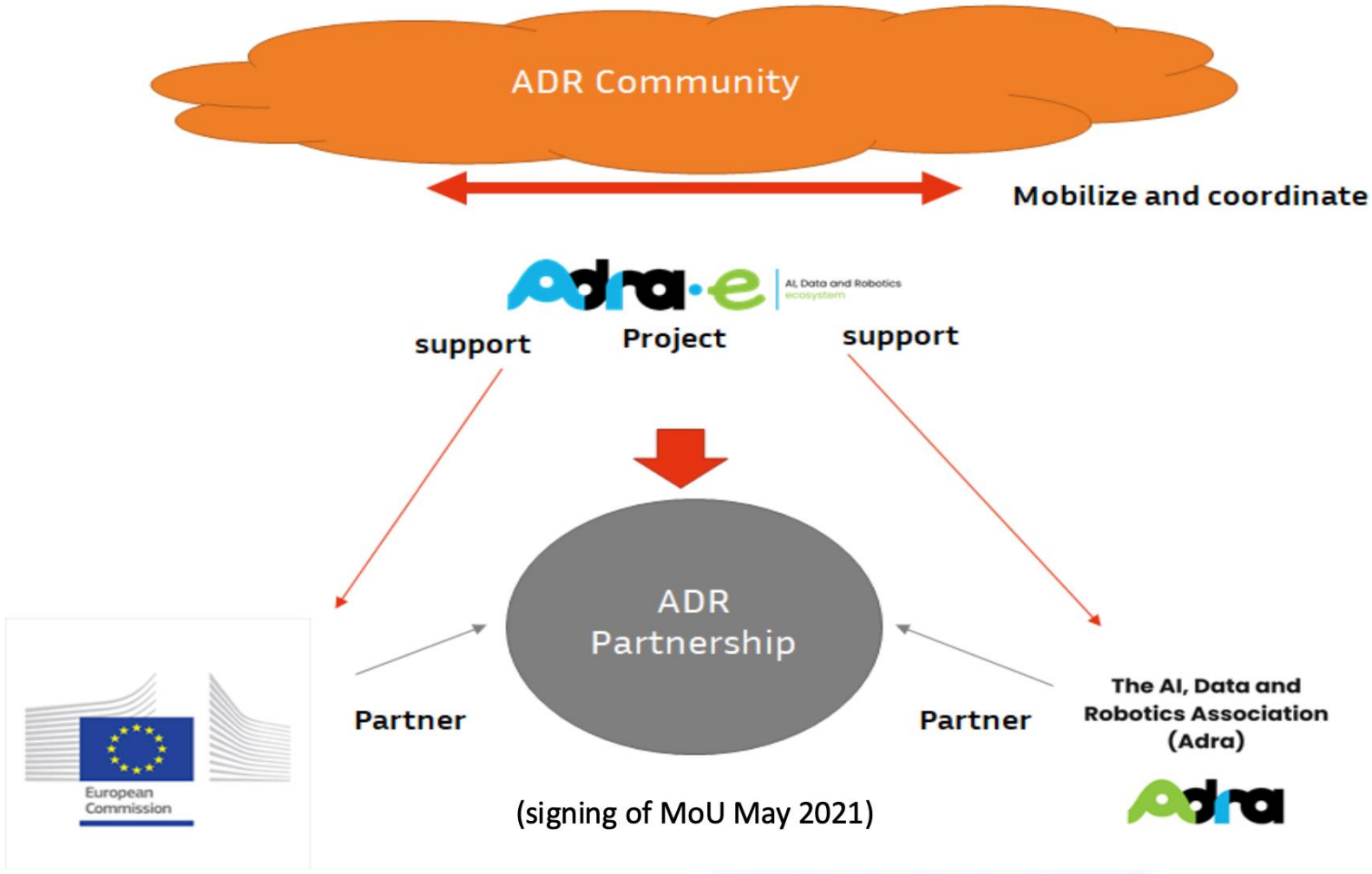
ADR Partnership is an important element in the strategy

partnership objectives

- Secure **European sovereignty over AI, Data and Robotics** technologies and know-how
- Establish **European leadership in AI, Data and Robotics** technologies with high socio-economic and environmental impact
- Reinforce a **strong and global competitive position of Europe** in AI, Data and Robotics

https://commission.europa.eu/publications/white-paper-artificial-intelligence-european-approach-excellence-and-trust_en

Adra-e mission: support the AI, Data, Robotics Partnership



About Adra-e

"-e" stands for eco-system

- Coordination and Support Actions (CSA),
- Started July 2022 – June 2025
- Set-up, and run in close collaboration with Adra

The Adra-e consortium

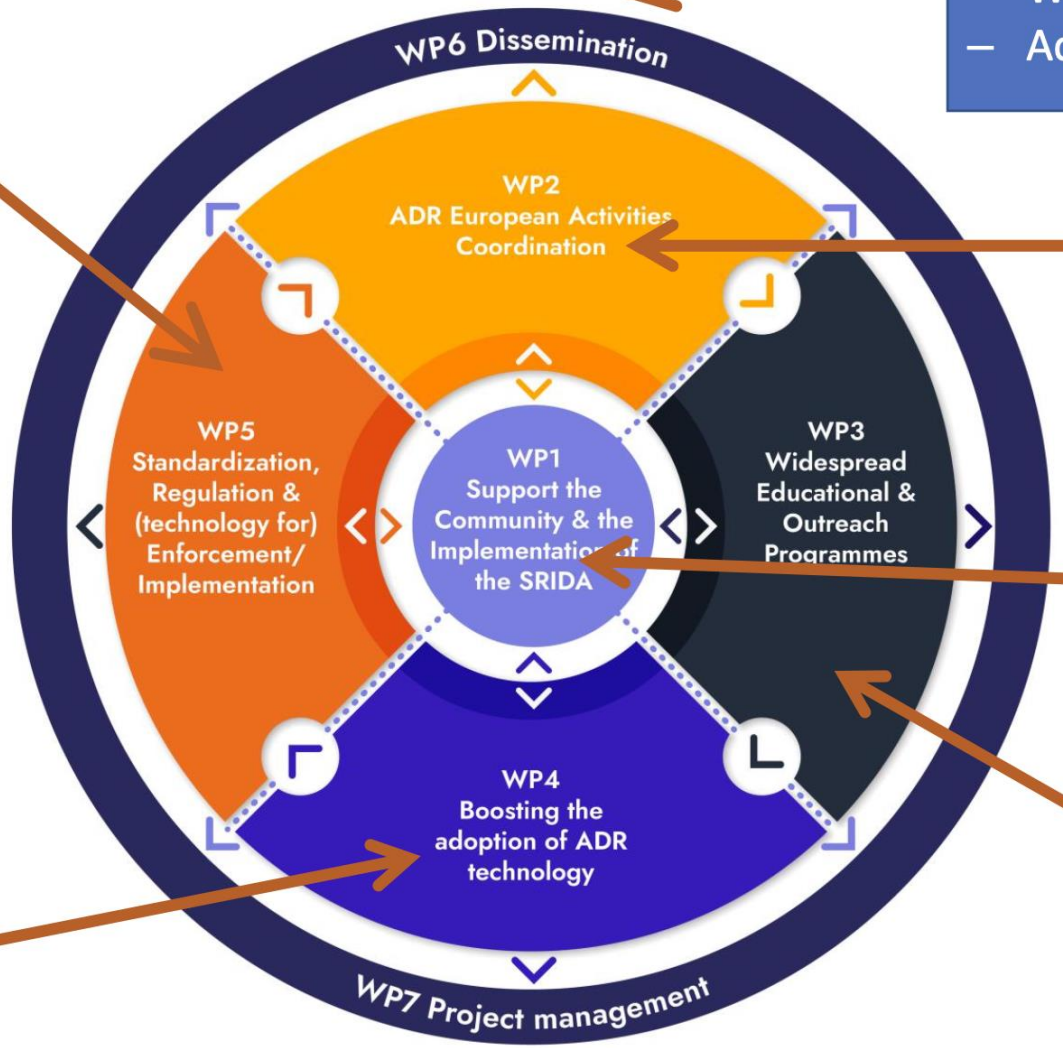
Objective Adra-e " ... **create the conditions for a sustainable, effective, multi-layered, comprehensive, and coherent European AI, Data and Robotics ecosystem.**"

But where to start?

Adra-e products

- Communication, dissemination and exploitation
- Web platform
- Adra-e sustainability with Adra

- State of the art standards and monitoring of standardisation activities
- Mapping of regulations and recommandations to update of the SRIDA



- Mapping of initiatives
- Awareness mechanism

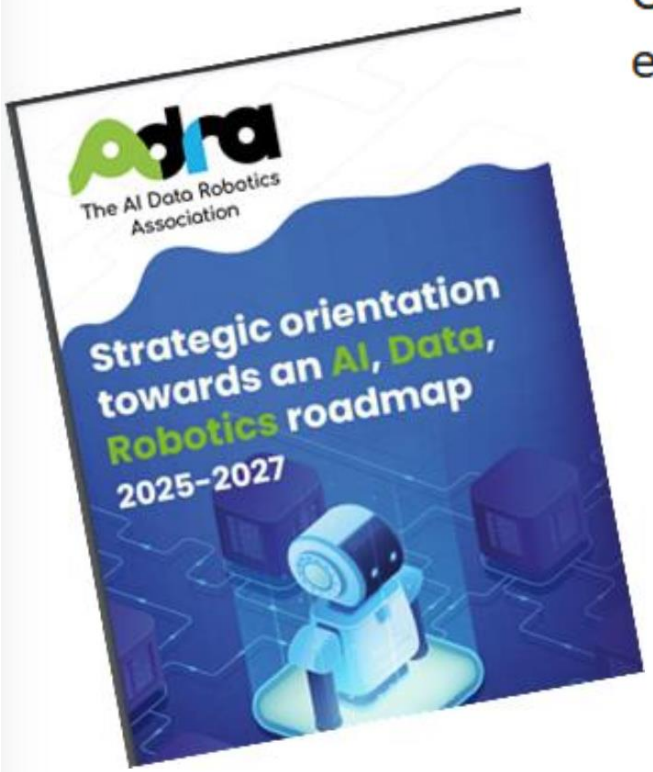
- Support to SME strategy : regional ecosystem to boost innovation and reduce friction
- Increase of trustworthy AI in procurement
- Adoption of ADR technologies in MS/AC

- Connecting communities
- Implementation and update of the SRIDA

- Awareness Centre
- Analysis of externalities of acceptability and trustworthiness
- Choice of an AI Trust Label

Few Highlights

Development of the SRIDA
Strategic Research Innovation and Deployment Agenda



Objective: Towards a methodology for developing a consensual SRIDA ensuring balance and representation of all relevant stakeholders

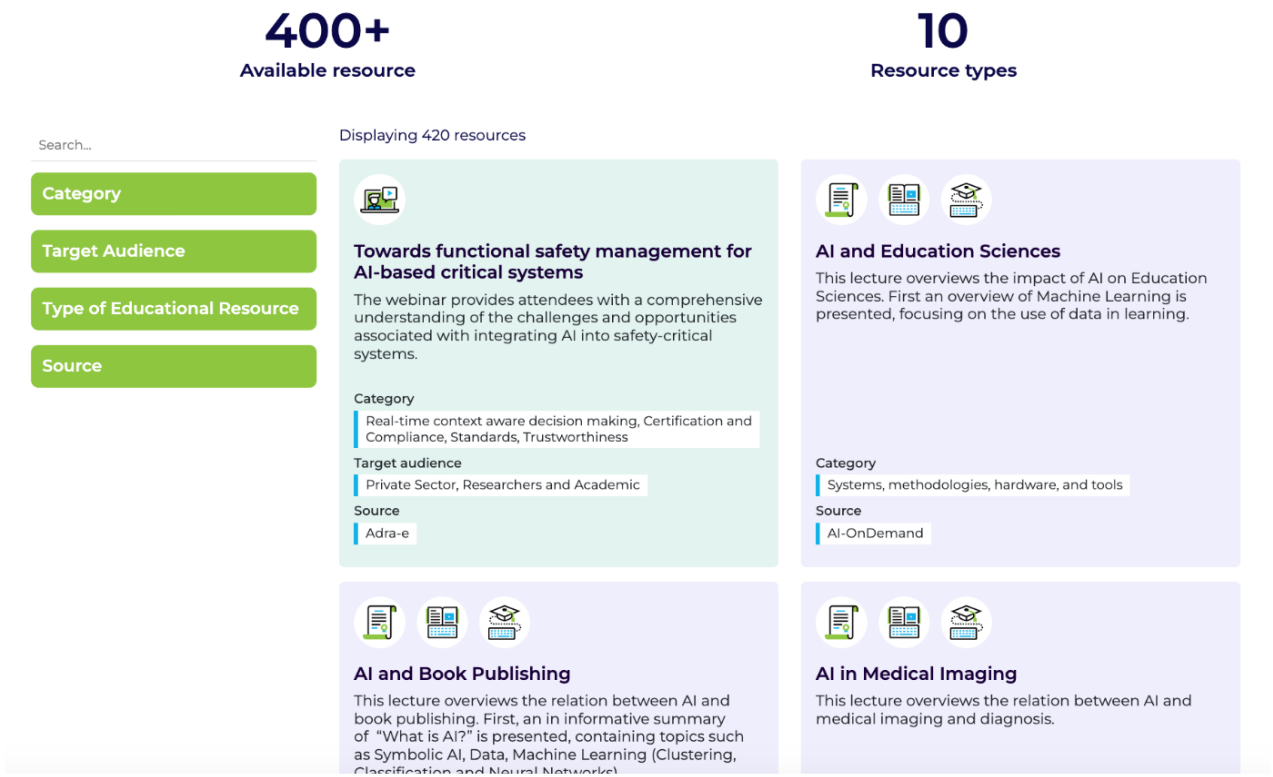
SRIDA development process (starting September 2022) :

- Survey (Nov – Dec 2022)
- 10 pager identifying priorities (March 2023)
- Big ticket sections (Sept 2023)
- 40 page SRIDA (Nov – Dec 2023)
- Update (Sept 2024)

The SRIDA is a living document

Collaborative effort
- Adra members
- Founding Organizations
- Network of AI Excellence centers
- And more (member states, EC, …)

ADR Awareness Center



- **What does this Centre provide?** AI, Data, and Robotics educational resources and materials produced in the EU
- **Who is this for?** Everyone. Every project and organization in Europe including the general member of the public
- **How can I contribute and publish my resources?** The Centre designed a very simple process for you to submit and publish your resources.
- …

AI on Demand enabled

https://adra-e.eu/adr-awareness-centre

Spotlight events

ADR Forum
1st edition (Versailles): 08-09 Nov 2023
2nd edition (Eindhoven): 04-05 Nov 2024

ADR Awareness Day
1st edition (online): 20 Oct. 23
2nd edition (online): today!

European Convergence Summit
1st edition (online): 19 June 2024
2nd edition (Brussels): 09 April 2025)

Future-Ready: On-Demand Solutions with AI, Data, and Robotics

upcoming

Date:

- 18-19 February 2025

Location:

- Brussels

Participants:

- ADR projects, AioD engineers, and Adra topic groups

Objectives: :

- Disseminate project results and consolidate and sustain the expertise and know-how
- Identify emerging R&I challenges to inform the next iteration of the SRIDA and future project rounds.
- Engage projects on the AIoD platform through initiatives like code labs, hands-on sessions, and more.

Joint-effort by AioD and Adra

The AI Data Robotics Association

Join us!

adr-association.eu

@adra_eu_

/company/adr-association/

secretary-general@adr-association.eu

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Emanuela Girardi
President

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Agenda

- Adra & the ADR Partnership: Our Vision, Mission, Goals
- Key Achievements
- Plans for the future
- What can we do together
- Summary & next steps

December 17, 2024

The AI Data Robotics Association

Vision, Mission, Goals

BMW
UPDATE

Adra was founded in 2021 to bring together the European communities of AI data and robotics

The AI Data Robotics Association

A Joint Initiative by

BDV BIG DATA VALUE ASSOCIATION

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Consulting with member states on their ADR ecosystems

AI

Data

Robotics

Team Adra - Secretariat

Philip Piatkiewicz
Secretary General

Amaya Garmendia
Membership ecosystem and Project Manager

Mei Shan Krishnan
Campaigns and Events Manager

Christine Gosseye
Finance and Office Manager

Our Members...

Adra
The AI Data Robotics Association

DEFINED.AI
TUNNEL EURALPIN LYON TURIN
ellis
AALBORG UNIVERSITET
SINTEF
Shadow Robot
ADItech
COORDINADOR SINAI
Sistema Navarro de I+D+i
PROFEN
University of Salford MANCHESTER
PAL ROBOTICS
VDE
Politecnico di Torino
NORCE
ceit
Real Ai
Tübingen AI Center
Łukasiewicz
TEKNOLOGISK INSTITUT
Insight
SFI RESEARCH CENTRE FOR DATA ANALYTICS
Inria
cea
UvA
eu ROBOTICS
ROM
TOFAŞ
TÜRK OTOMOBİL FABRİKASI A.S.
ITCL
CENTRO TECNOLÓGICO
NOM
ICCS
MCFLY
Robot Technologies
AI SWEDEN
TOFAŞ
TÜRK OTOMOBİL FABRİKASI A.S.
ROM
UiA
MiPU
A?
Aalto University
LINKÖPINGS UNIVERSITET
RUNNR.ai
intellico
LMS
Laboratory for Manufacturing Systems & Automation
CTAG
JKU
JOHANNES KEPLER UNIVERSITÄT LINZ
TÜV AUSTRIA
NCRI
uni.lu
UNIVERSITÉ DU LUXEMBOURG
TNO
scch
software competence center hagenberg
VTT
SX
Gaillimh Galway
enliteAI
UNIVERSIDAD DE MÁLAGA
CATEC
NAITEC
CISPA
DIMECC
Brightlands
BDV
BIG DATA VALUE ASSOCIATION
vicomtech
MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE
tecnalia
Kristiania
imec
IDEKO
ikerlan
BRUSH
INGKA
Quantile
MOONCAKE AI
UNIVERSITY OF TWENTE.
INGKA
ELTE
Saidot
ETH zürich
iit ISTITUTO ITALIANO DI TECNOLOGIA
KINIT
BUCHAREST FROM ORDESTS
INGKA
Quantile
DFKI
CAIRNE
4DOT
CeADAR
CSC
ABB
EurAi
ČVUT
EPFL
oost nl
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iti
CENTRE FOR RESEARCH & TECHNOLOGY - HELLAS
Information Technologies Institute

Enhancing European competitiveness and productivity

1. Creating a strong, coherent, and effective ecosystem for AI, Data, and Robotics
2. Maintaining and strengthening European industrial leadership in robotics and trustworthy AI
3. Integrating and connecting the European research landscape around AI, data and robotics
4. Developing a powerful strategy for skills development and attracting talent to Europe
5. Developing ADR technologies with high socio-economic impact to reinforce Europe's strong and globally competitive position
6. Ensure societal trust in data and robotics

Strategic Research and Innovation Agenda (SRIDA)

- Vision (North Star) for Europe's Research and Innovation roadmap
- European ecosystem approach

High-impact pilots for industry: accelerating AI (software) – robot (hardware) convergence

Sovereign Development of intelligent machines

- Control over full technology stack

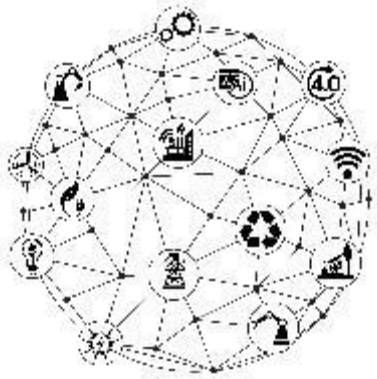
Challenge-based(stage-gate) approach to grow champions

- Application discovery and quicker deployment
- Close gap between Research, Industry and end-user

Creating consonance across member states and ecosystems

- Overcome fragmentation in priorities, funding, and policy
- Achieving multi-level alignment of objectives

Value to special target groups



Big industry

Adra helps companies to bring the **strategy discussion** and analysis to next level leveraging the ADR convergence.

SMEs & startups

Enhance their products and services through the convergence of AI, Data and Robotics and to enlarge the application domains. It allows them to **position** themselves in the developing ADR field and towards the socio-economic challenges.

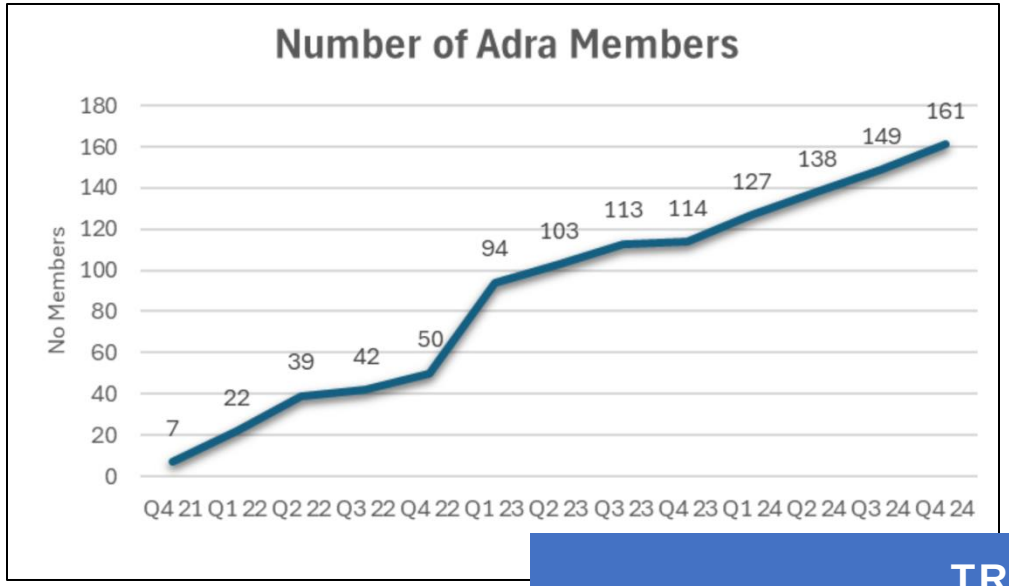
RTOs & universities

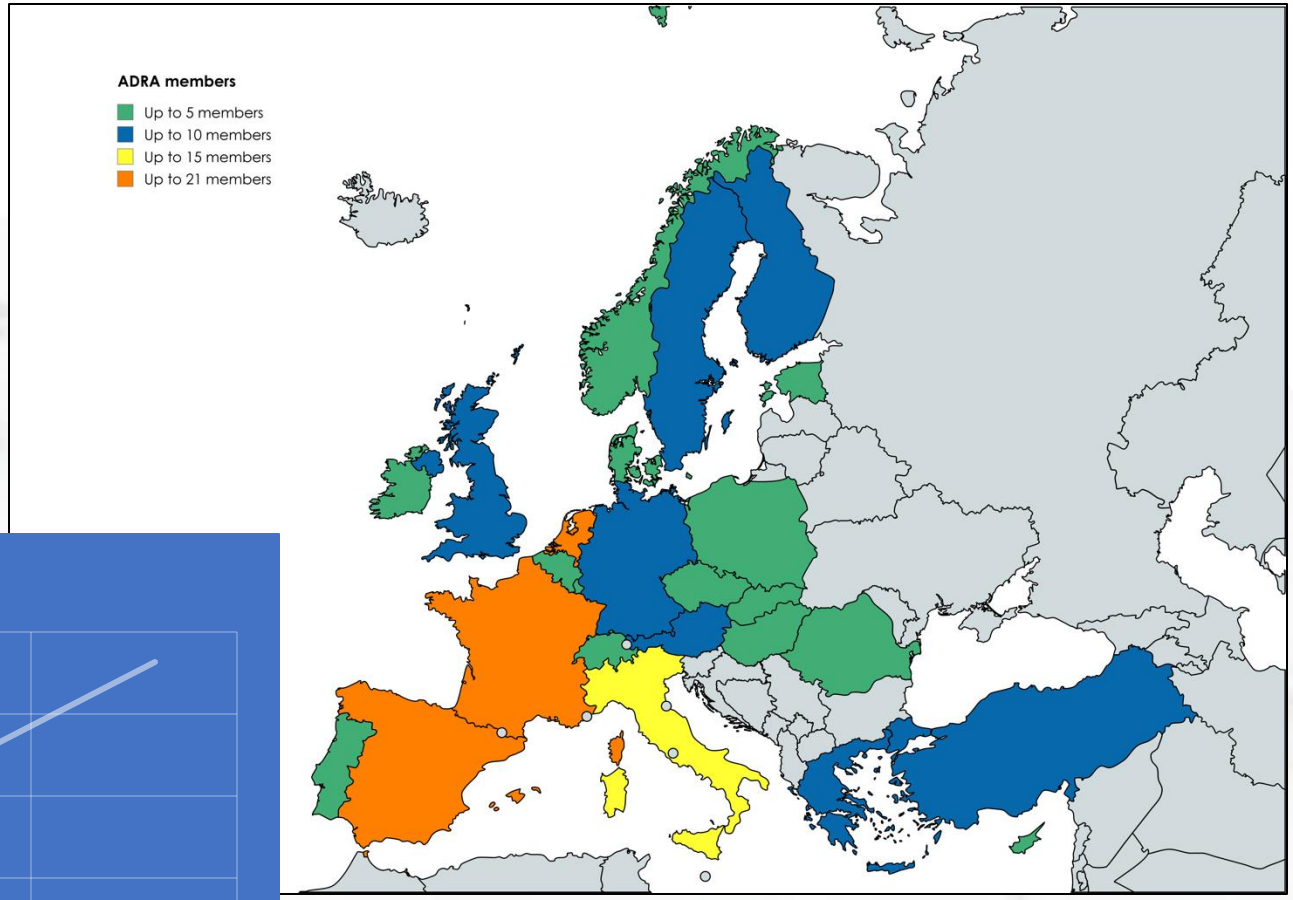
Shape Europe's **research objectives** in solving major challenges. Adra offers its research members opportunities to long-term **collaboration with industry** and to maintain sustainable ADR excellence.

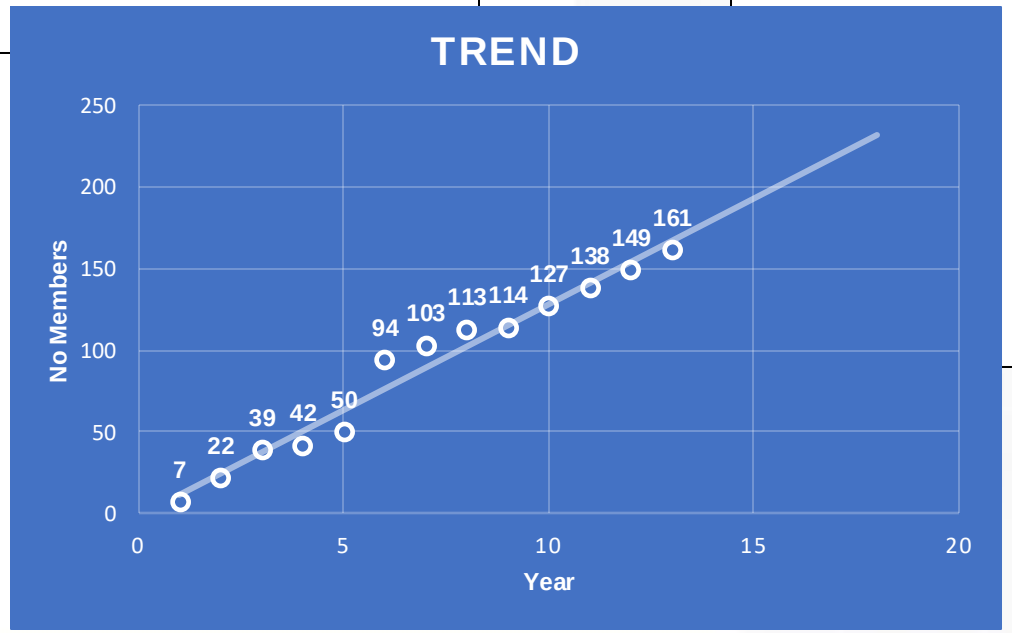
End users, public sector & NGO´s

Adra supports end users, public sector and NGOs in **using** ADR technologies to raise productivity and advance socio-economic targets.

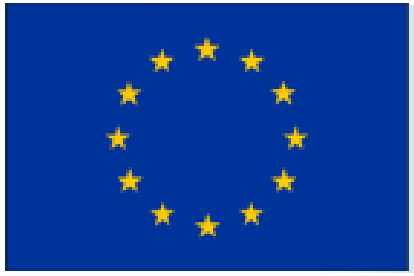
Membership growth







The AI, Data and Robotics public-private partnership (2021-2030)



European Commission
Public Side

Co-Programmed Partnership

Adra Association
Private Side

The AI Data Robotics Association

Sovereignty
Secure European autonomy in AI, Data & Robotics

Industry
Boost competitiveness through digital & green transformation

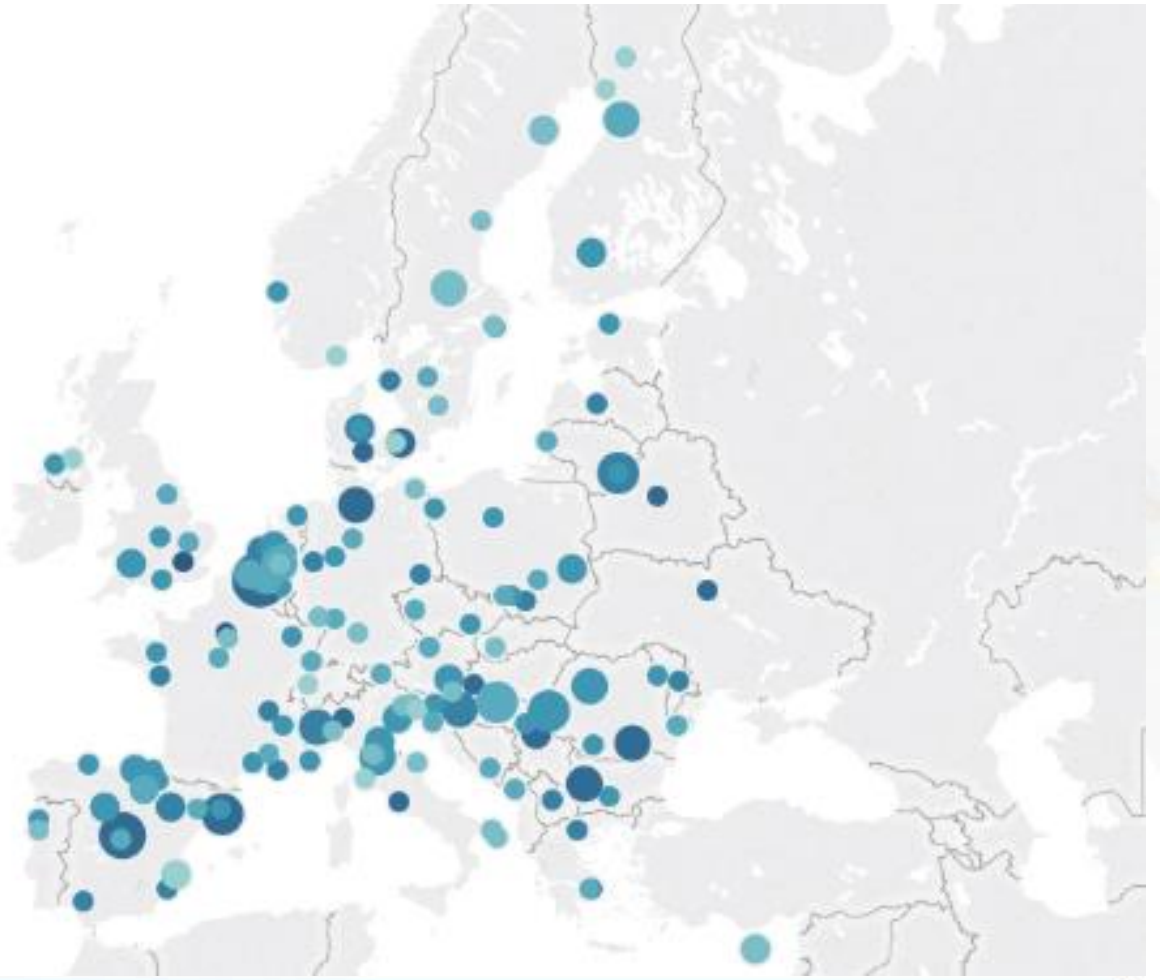
Research
Achieve global research excellence

Social Impact
Drive solutions for climate, health, energy & security

Built European's ADR Innovation Ecosystem

A United Community of Excellence

- **Integrated Network**: Connecting AI, Data & Robotics expertise across Europe
- **Multi-Stakeholder Collaboration**: Industry + Research + Academia + Government
- **Research Excellence**: Europe's top minds in ADR technologies
- **Industry Bridge**: Transforming research into market solutions
- **Geographic Reach**: Active presence across Member States
- **Rapid Mobilisation**: Ready expertise for strategic initiatives



The AI Data Robotics Association

Key Achievements of the ADR-partnership

SRIDA: The Strategic Research Innovation and Deployment agenda

Big Tickets

#1: **Ground-breaking technological foundations** in ADR

#2: **Effective and Trustworthy General-Purpose ADR**

#3: An interoperable and integrated framework for **data and model ecosystems**

#4: Next generation **smart embodied robotic systems**

#5: Developing **ADR technology** for the **sciences**

#6: Research, innovation, and tools for **compliance**

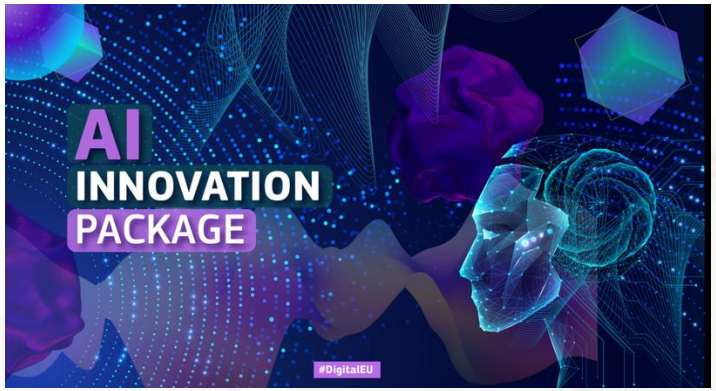
Support European Commission's AI data & robotics agenda

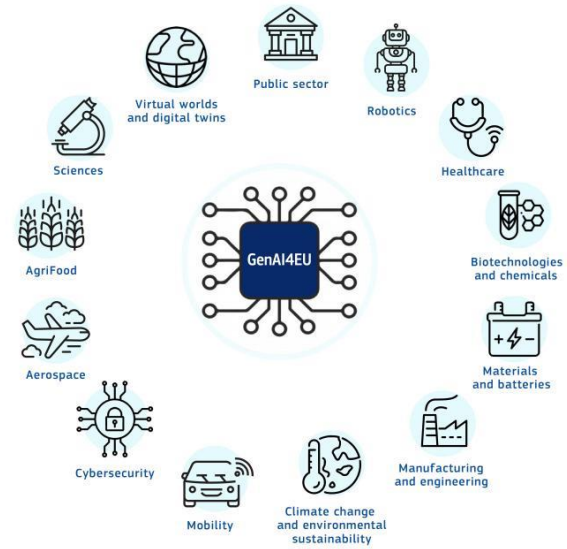
Strategic Community Mobilisation & Implementation Support

GenAI4EU | **Applied AI**

Key Actions

- Bridge between Commission and ADR community
- Knowledge dissemination to stakeholders
- Community engagement facilitation
- Expert feedback coordination
- Call participation coordination
- Connecting domain experts with implementers
- Rapid expert mobilisation for critical topics





ADRA Strategic Focus Areas

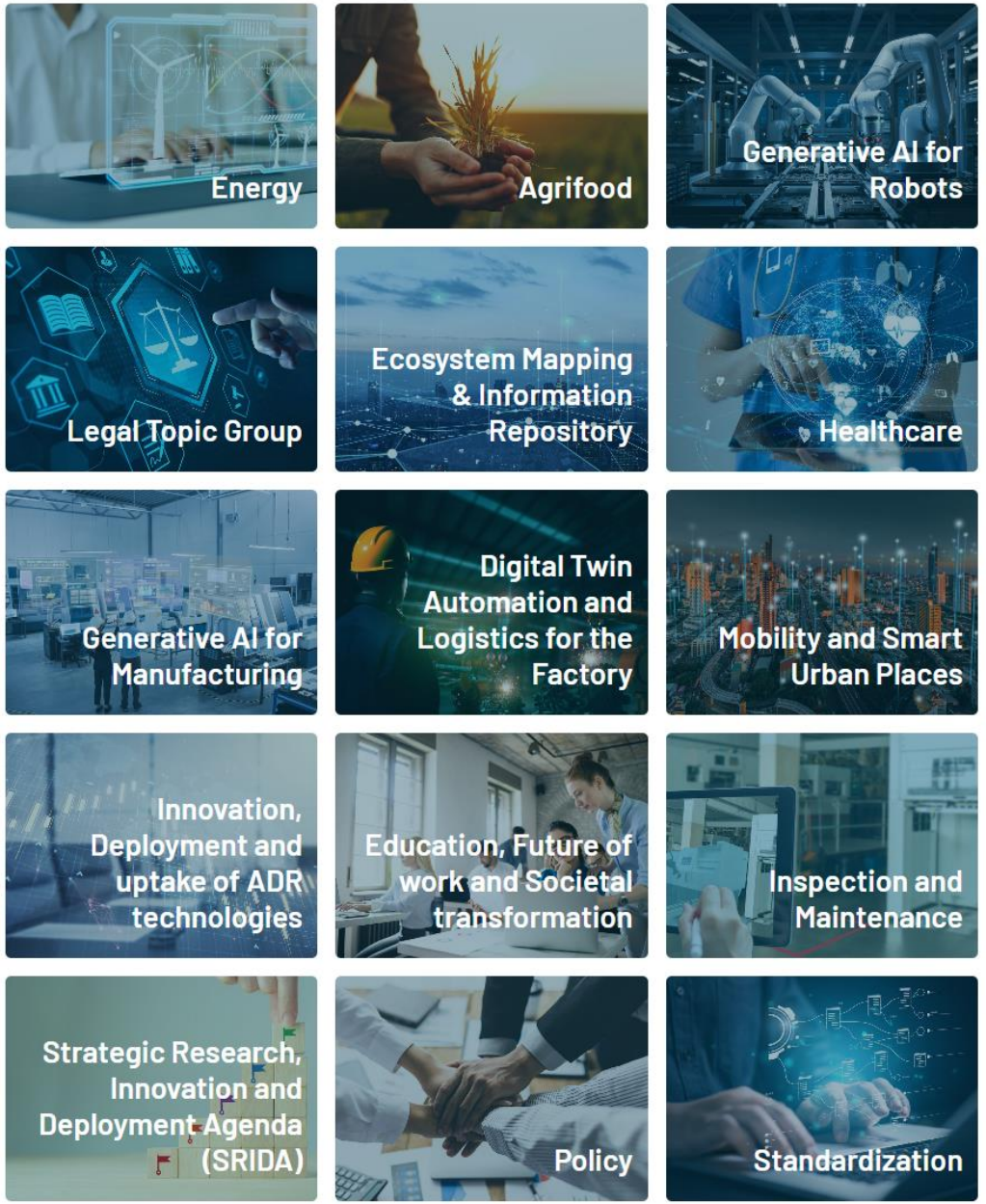
Core Innovation Areas
Generative AI Applications
- Manufacturing
- Robotics

Sector-Specific Taskforces
- Energy & Sustainability
- Agrifood Systems
- Healthcare Innovation
- Legal & Regulatory
- Digital Manufacturing (Factory Automation, Digital Twin, Logistics)

Cross-Cutting Groups
- Ecosystem Mapping & Information Repository
- Mobility & Smart Urban Solutions
- Innovation & Technology Uptake
- Education & Work Transformation
- Inspection & Maintenance
- Policy
- Standardization

Strategic Coordination
- SRIDA Implementation

15 Topic groups



GenAI for Robotics policy paper and technology roadmap

Empowering Europe Through GenAI & Robotics

Critical Convergence

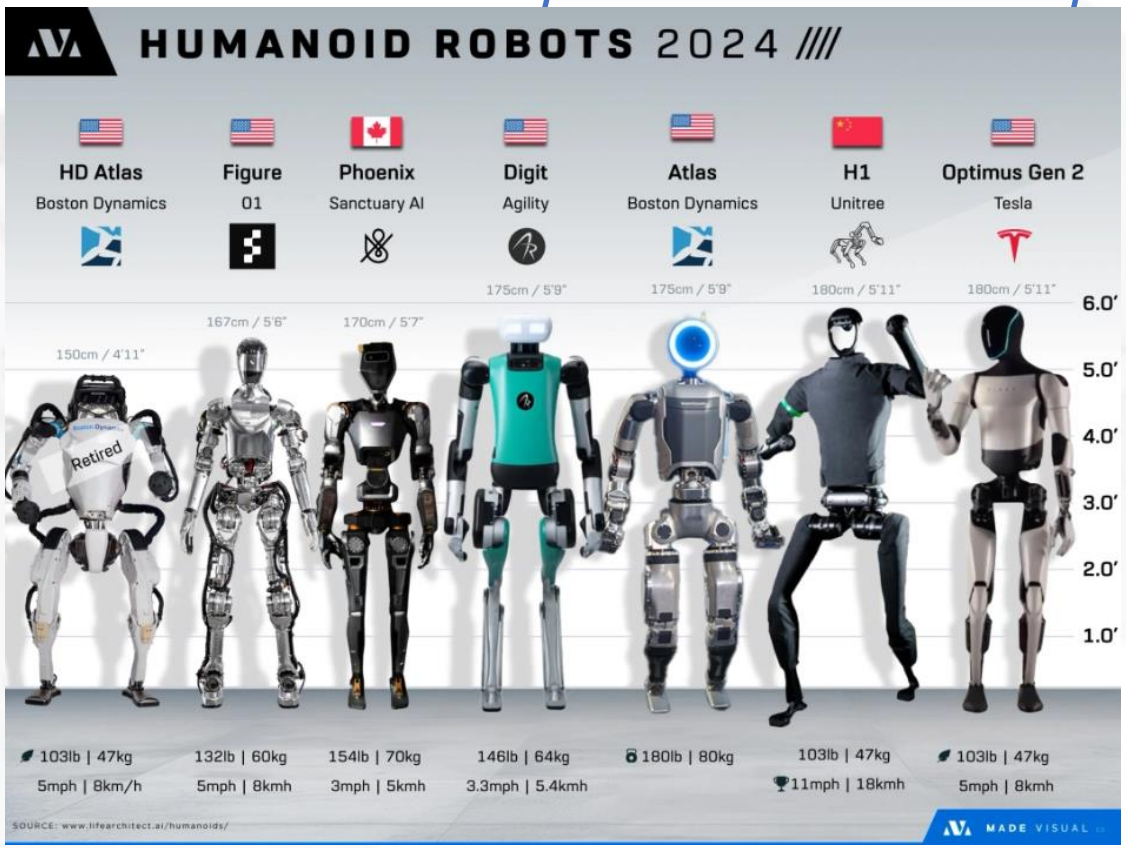
- **GenAI** enhances robot capabilities: environment understanding, natural interaction, adaptation
- **Robots** give GenAI physical presence: real-world data, testing, embodied intelligence

European Opportunity

- Focus on **trustworthy, safe, frugal** solutions
- Bridge **research-to-market gap**

Strategic Actions

- Build sovereign foundation models reflecting **EU values**
- Invest in physics/**mechatronics** for real-world impact
- Develop **integrated HW/SW** approaches
- Create European **standards** for safe deployment



Outreach in 2024

Global stakeholder development and community outreach

- ✓ ADRF 24, Eindhoven
- ✓ European Manufacturing Conference, Brussels
- ✓ Hannover Messe 2024, Hannover
- ✓ European Research & Innovation DAYS, Brussels
- ✓ Hungarian Tech Week, Budapest
- ✓ Viva Tech 2024, Paris
- ✓ ICRA, Rotterdam
- ✓ NTU Singapore-Europe Dialogue on Trust and safe AI, Singapore
- ✓ International AI summit, Brussels
- ✓ Robotic Festival 2024, Pisa
- ✓ European AI Alliance, Madrid
- ✓ Sido, Lyon

…and many more!

The AI Data Robotics Association

Align, Act, Accelerate

Shaping tomorrow: current initiatives and future directions

Strategic Direction: SRIDA UPDATE

Focus Areas

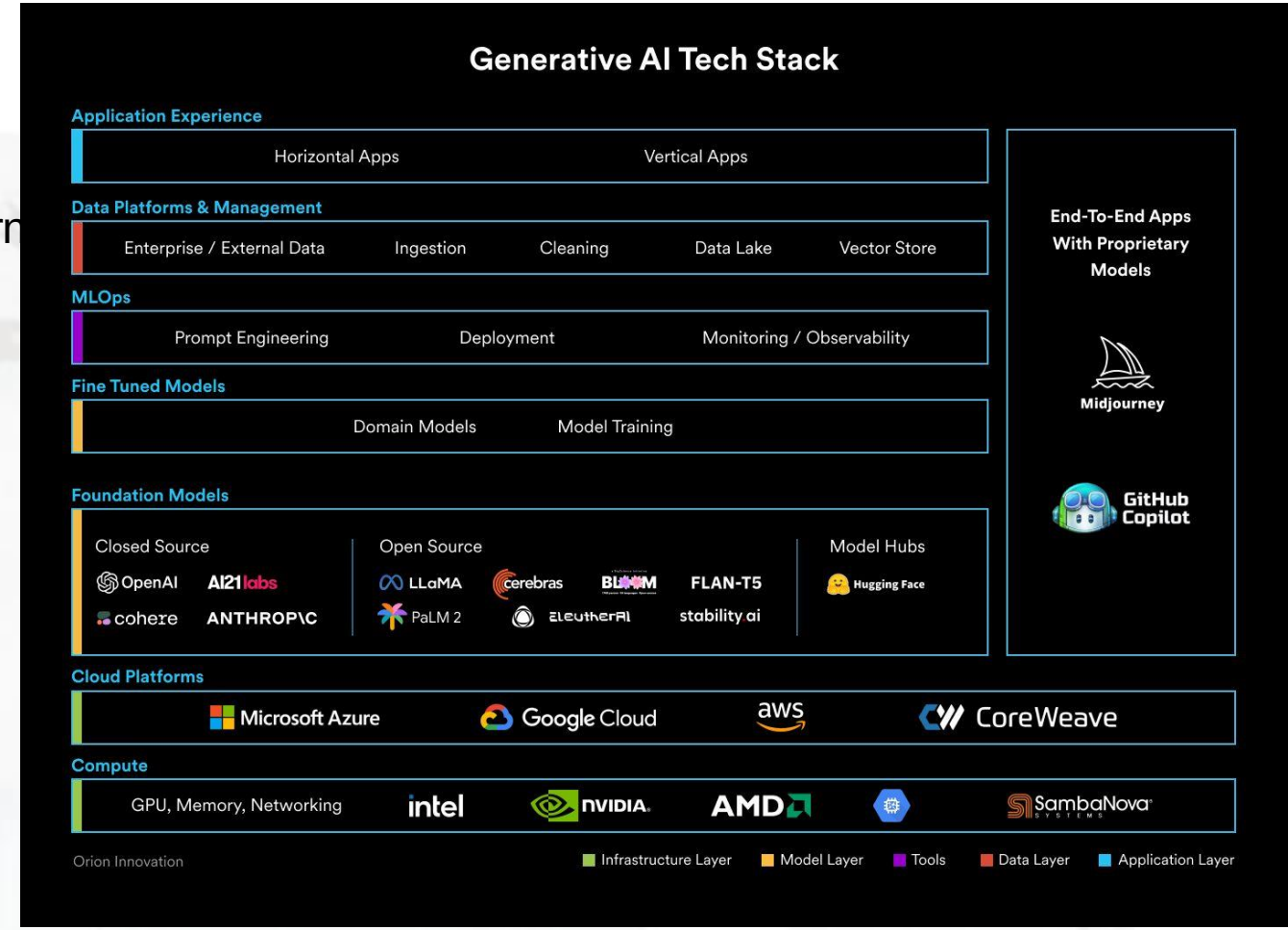
- The **full AI stack** sovereignty
- Trustworthy GenAI development
- Robotics – AI ecosystem integration
- Advanced R&D Research: Neurosymbolic AI – Learn and reasoning

Industrial Strategy

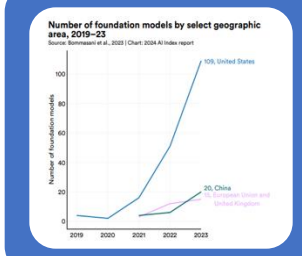
- Strengthening EU competitiveness
- Build comprehensive **AI Factories**
- Support supply chain resilience
- Foster **research-industry collaboration**

Key Investments

- Large-scale testbeds and deployment
- **Foundation models reflecting EU values**
- Human-centric innovation and skills
- **Cross-border coordination**



The European Challenge: Sovereign Foundation Models



Strategic Imperative

- Foundation models are becoming critical infrastructure
- Current dependency on non-EU technologies creates risks
- Need for European values-aligned AI development

Establishment of **Adra Generative AI Taskforce in 2023**

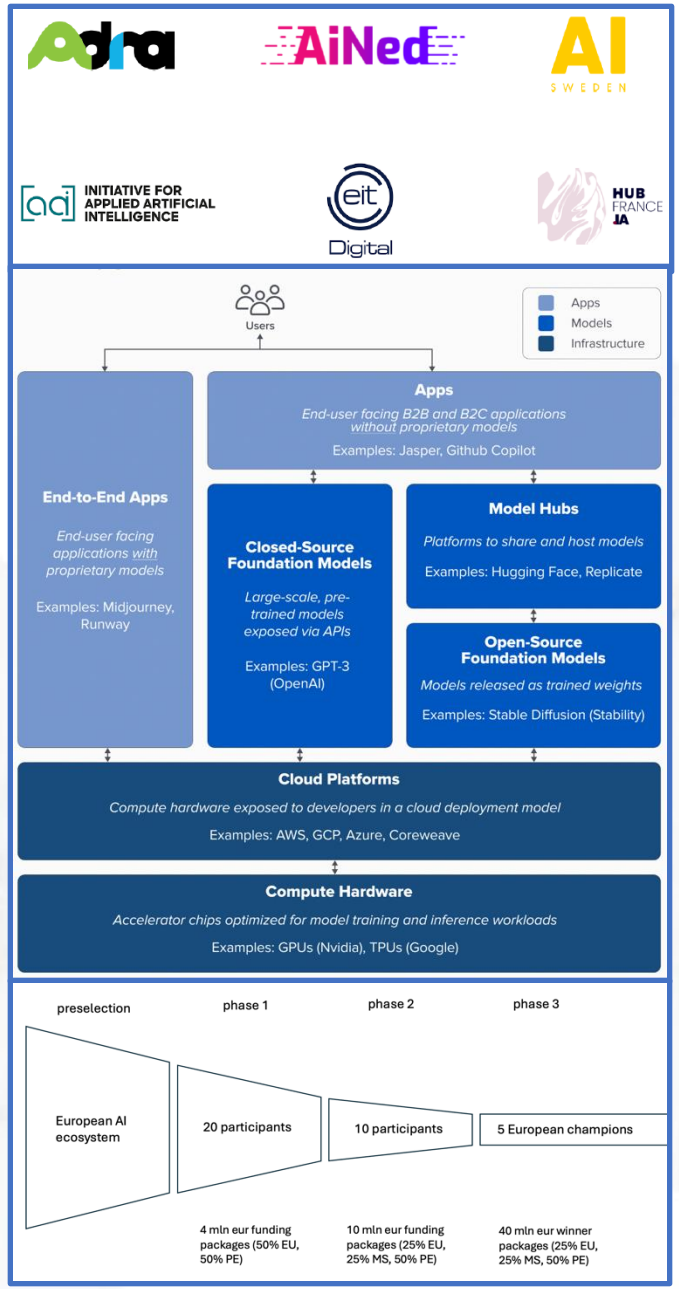
Key Insights

- Fostering a more open and competitive market requires **investable European champions in generative AI**
- Downstream effects, enabling rise and development of large AI-based industrial ecosystems in Europe
- Challenge-based instruments create delivery-based competitiveness

Key Results of GenAI Taskforce

- Support for launch of the AI Innovation package (January 2024)
- Alignment with Draghi report “Future of European Competitiveness”
- Support for AI BOOST challenge mechanism
- Proposal for establishing a **challenge-based generative AI incubator in ALT-EDIC (LLM-BRIDGE)**

Building Europe's AI future through sovereign foundation models



Intelligent Robotics for Industry – Identify High-Impact Pilots & Applications

Objective

Identify high-impact applications of (Gen)AI-enabled robotics in the manufacturing industry to serve as reference points for Europe's Intelligent Robotics Roadmap

Deliverables

- Broad **consultation** on representative industrial ecosystem (end-users !)
- **Market Pull** in complement to Technology Push
- High-impact **challenges** for competitiveness, societal development, and European autonomy
- Required pre-competitive technology **capabilities & infrastructures**

A challenge : improving productivity of manual work in the manufacturing industry through AI-powered robotics !

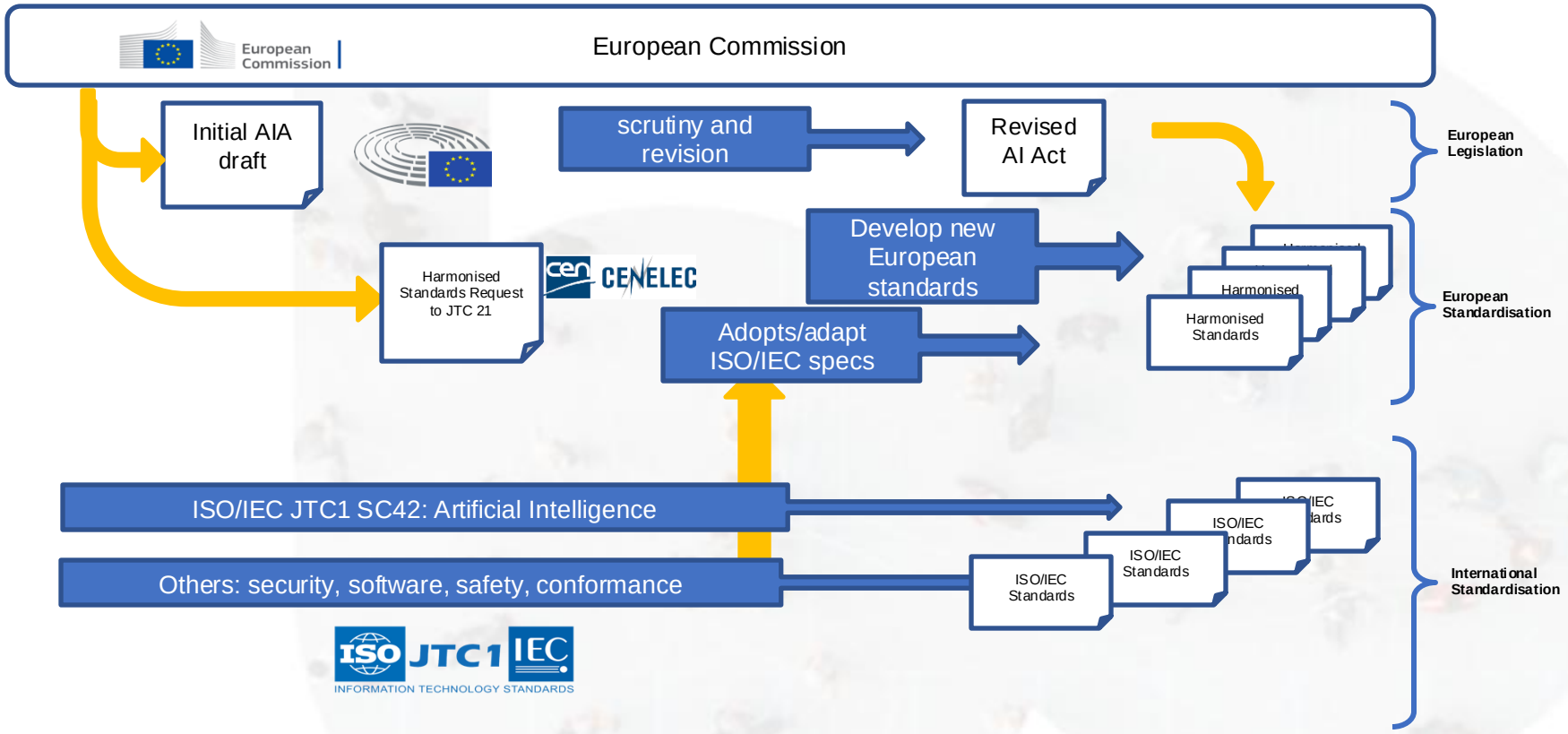
Standards: Supporting AI Act Implementation Through Standardization

Harmonised Standards (HS) under development

Compliance to HS by Providers conveys presumption of conformity

ADRA's Strategic Role

- Create **awareness** on the importance of standard
- Bridging **industry expertise with regulatory requirements**
- Supporting development of domain-specific standards
- Facilitating consensus between stakeholders



The AI Data Robotics Association

What can we do together?

Join us!

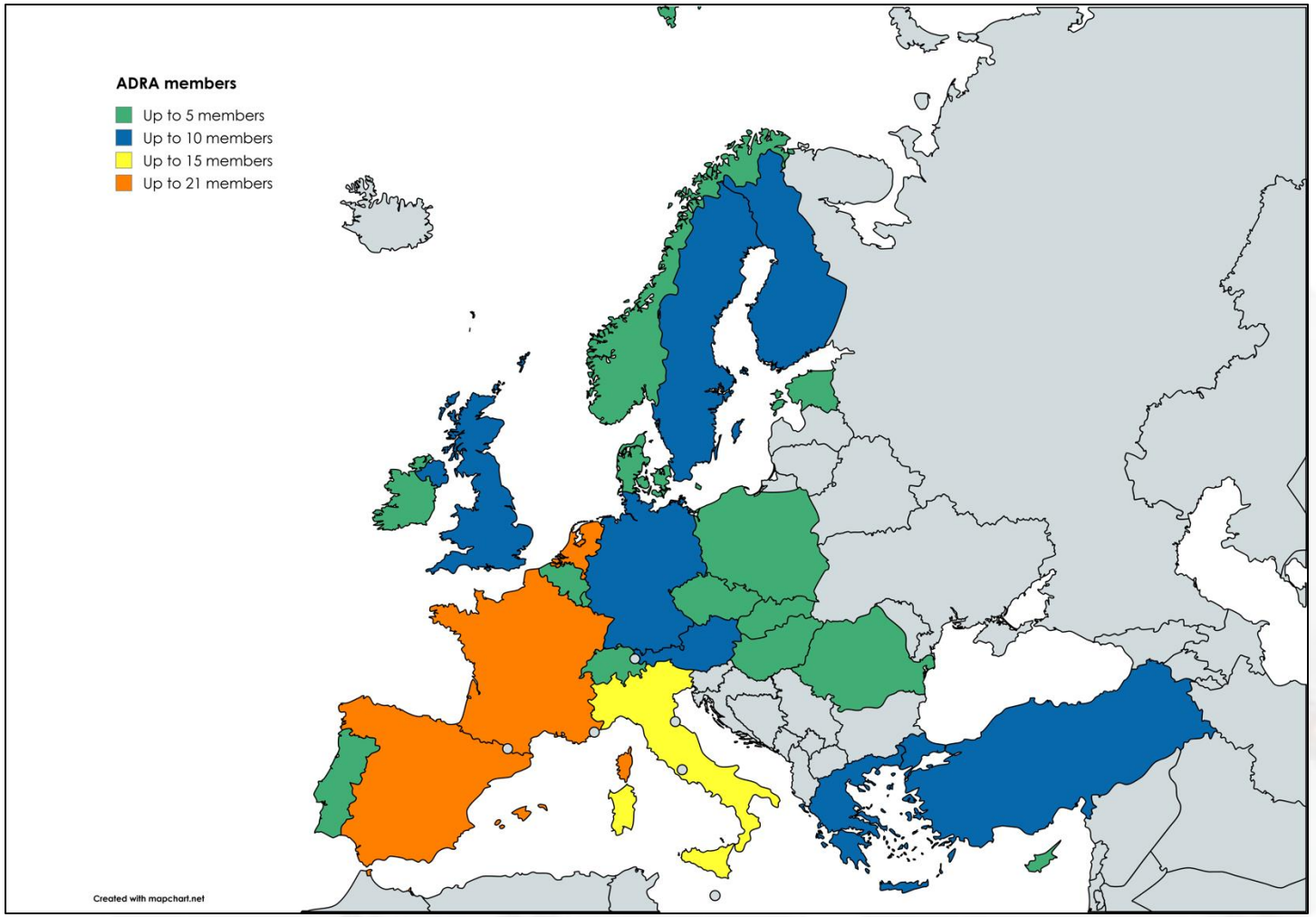
Bring your national industry & research players into Adra

Adra Association in numbers

160 Members

26 EU Countries

15 Topic Groups



Let’s develop new partnerships together

Summary

- **Building Europe's Innovation Ecosystem**

ADRA integrates AI, Data, and Robotics to foster competitiveness and sovereignty

- **Driving Collaboration**

Bridging fragmentation with unified efforts across Member States and stakeholders

- **Advancing Strategic Initiatives**

Supporting critical areas like generative AI, robotics, and trusted innovation.

- **Empowering Impact**

Creating a robust community to address Europe's strategic priorities.

Join us in shaping the future of Europe

- Bring national players into Adra
- Collaborate with Adra to strengthen the European ecosystem

Contribute to innovation, sovereignty, and sustainable growth

The AI Data Robotics Association

Panel Discussion with:

Kimmo Rossi & Cem Gulec

DG Connect, European Commission

Moderator:
Professor Edward Curry, Insight Centre for Data Analytics

The AI Data Robotics Association

Towards ecosystem of trust and excellence in ADR

Stefan Leijnen,
Head of EU relations
AiNed

Fabio Pianesi,
Distinguished Fellow FBK and
Senior Advisor for EU Affairs
ARUBA/Dynamo

Nabil Belbachir,
Director BoD
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The AI Data Robotics Association

Call for Proposals – Open Access Book

Artificial Intelligence, Data and Robotics: Foundations, Transformations, and Future Directions

Educate the reader on techniques and technologies for AI, Data and Robotics

Explore cutting-edge theories, technologies, methodologies, and **best practices** within industrial and public sector scenarios

Provide a **basis for understanding** the scientific foundations, the transformation potential of the technologies, and the future research challenges

Two primary audiences:

1. Researchers and students in the fields of AI, Data and Robotics and associated disciplines
2. Industrial practitioners

Deadline for abstracts: **6th Jan 2025**

For further information: heike.vornhagen@insight-centre.org

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