

PRESENTAZIONE DEI BANDI A CASCATA FAIR

Le opportunità
del Partenariato
PNRR Future
AI Research
per le imprese

4 marzo 2024

Illustrazione dei Bandi a cascata FAIR

Marco Conti

Presidente Comitato Tecnico Scientifico FAIR

organizzato da



in collaborazione con



con il supporto operativo di

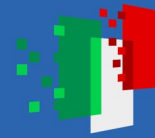




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Future
Artificial
Intelligence
Research

FAIR Objectives

In line with the **National Strategic Program for AI**, FAIR aims to:

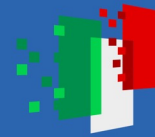
- Advance frontier research in AI to **make Italy a global research and innovation hub of AI;**
- **Reduce** AI research **fragmentation;**
- Create **human-centered, trustworthy and sustainable AI;**
- Foster **AI-based innovation** and development of AI technology;
- Create, retain attract **AI talent** in Italy.



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FAIR Research Program

To achieve FAIR goals, we have designed a very ambitious **multidisciplinary research** program to design and build future AI systems that are capable of:

- **interacting and collaborating with humans;**
- perceiving and acting within **evolving contexts;**
- being aware of their own limitations and **able to adapt to new situations;**
- interact appropriately in **complex social settings;**
- being aware of their **perimeters of security and trust;**
- being attentive to the **environmental and social impact** that their implementation and execution may entail.

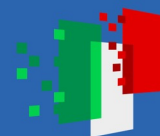
The research program is implemented by 10 spokes, under the coordination of a Hub: **the FAIR Foundation**



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SPOKE 1 - **HUMAN-CENTERED AI**

SPOKE 2 - **INTEGRATIVE AI**

SPOKE 3 - **RESILIENT AI**

SPOKE 4 - **ADAPTIVE AI**

SPOKE 5 - **HIGH-QUALITY AI**

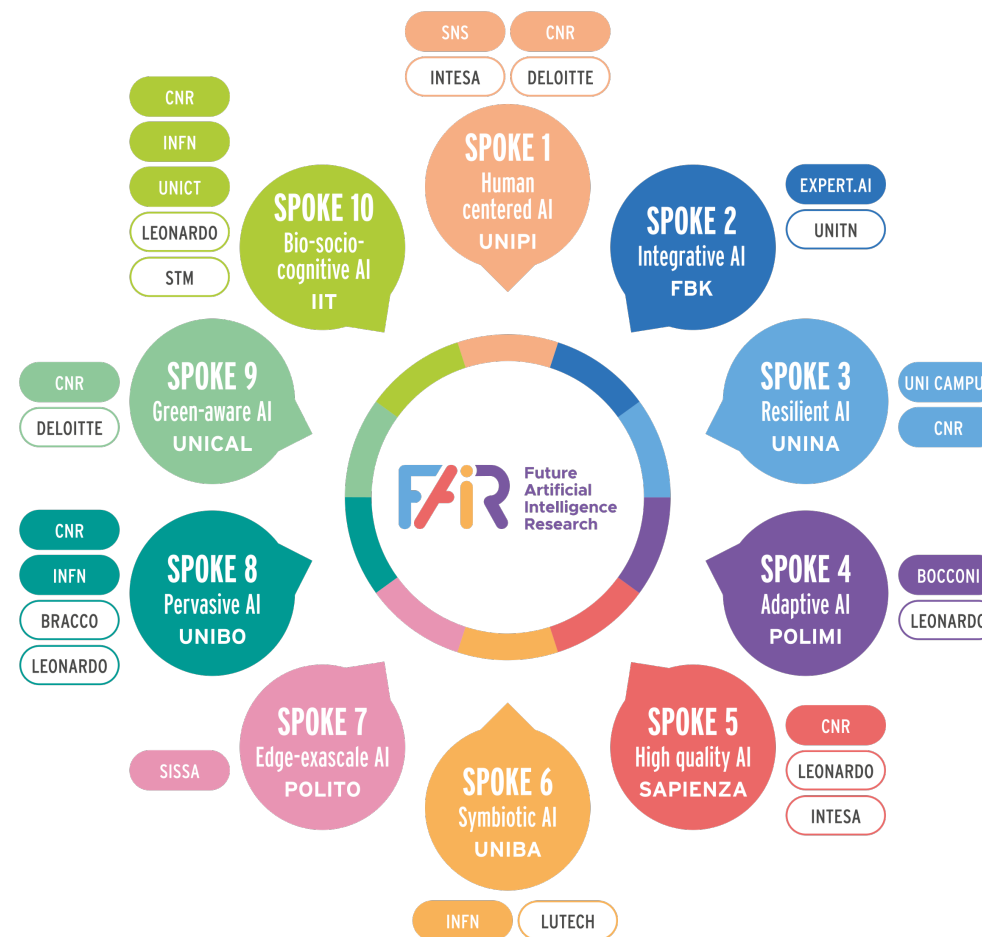
SPOKE 6 - **SYMBIOTIC AI**

SPOKE 7 - **EDGE/EXASCALE AI**

SPOKE 8 - **PERVASIVE AI**

SPOKE 9 - **GREEN-AWARE AI**

SPOKE 10 - **SUSTAINABLE AND BIO-COGNITIVE AI**





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Future Artificial Intelligence Research



LEGAL AND ETHICAL DESIGN OF TRUSTWORTHY AI SYSTEMS (TP1)



VISION, LANGUAGE AND MULTIMODAL CHALLENGES (TP2)



LEARNING & REASONING FROM INDIVIDUAL, TO COMMUNITY, AND SOCIETY (TP3)



ADJUSTABLE AUTONOMY AND PHYSICAL EMBODIED INTELLIGENCE (TP4)



FRONTIERS OF MACHINE LEARNING: HARD-SCIENCES FOR MACHINE LEARNING (TP5)



FRONTIERS OF MACHINE LEARNING: LIFELONG LEARNING (TP6)



DATA CENTRIC AI AND INFRASTRUCTURES (TP7)



Transversal Projects

Coordination among the spokes is based on "Transversal Projects", i.e., inter-spoke activities

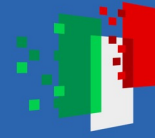
Transversal Projects aim to coordinate activities on relevant inter-spoke challenges which involve specific communities of researchers belonging to different spokes.



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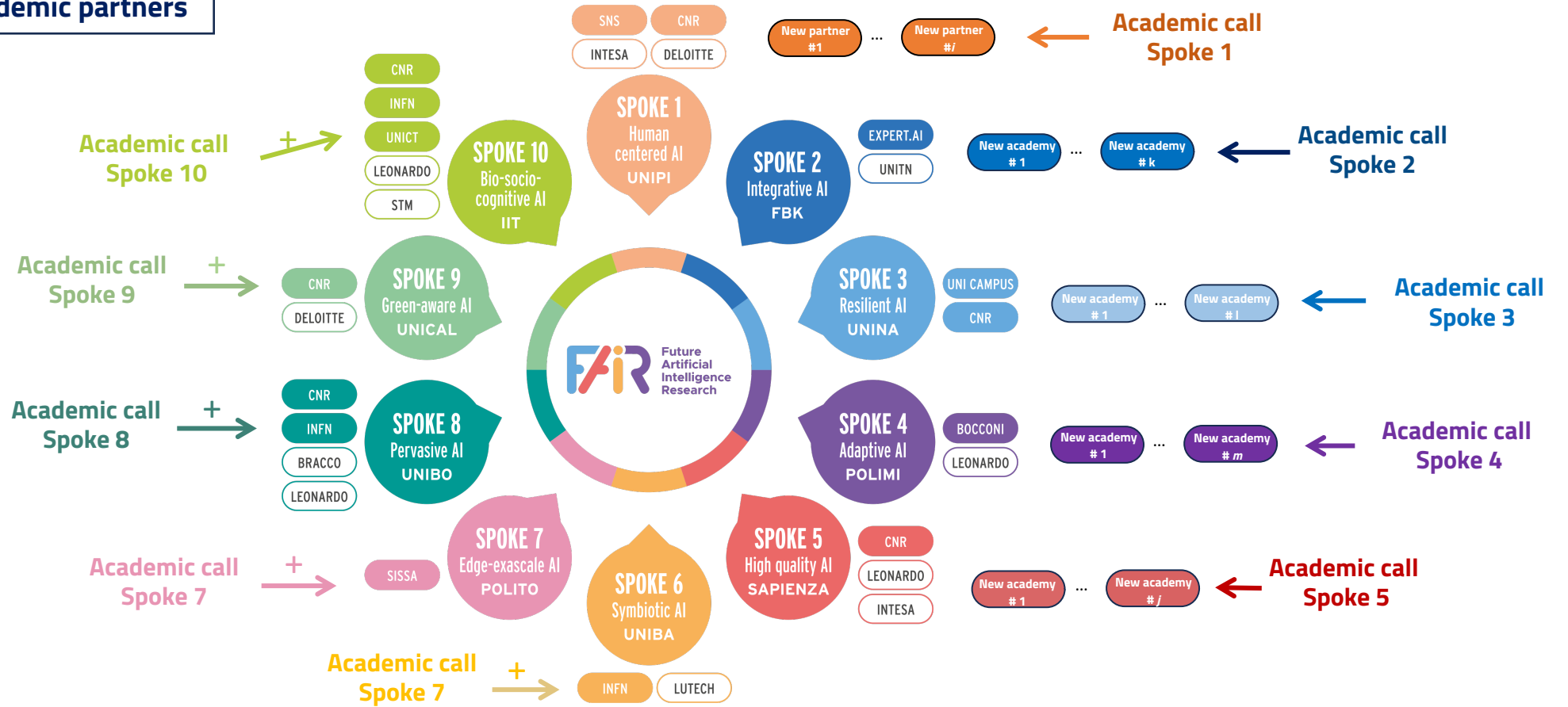


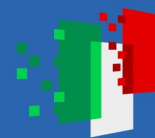
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Future Artificial Intelligence Research

Cascade Calls for Academy (ongoing)
Expected [30-50] new academic partners





From Research to Innovation

FAIR innovation activities focus on the 11 priority sectors defined in the Italian Strategic Program for Artificial Intelligence and each Spoke will focus its activities on some priority sectors.

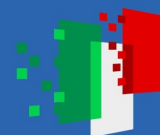
		SPOKE 1	SPOKE 2	SPOKE 3	SPOKE 4	SPOKE 5	SPOKE 6	SPOKE 7	SPOKE 8	SPOKE 9	SPOKE 10
Priority Sectors of Italian AI Strategy	Industry and Manufacturing		X		X	X		X	X	X	X
	Education system								X		
	Agri-food		X	X		X				X	
	Culture and tourism			X		X					X
	Health and Wellbeing	X	X	X	X		X		X		X
	Environment, infrastructures and networks									X	X
	Banking, Finance, and Insurance	X					X	X	X		
	Public Administration	X					X				X
	Smart cities, areas and communities	X	X	X			X	X		X	
	National Security	X							X		
	Information Technologies				X	X	X				



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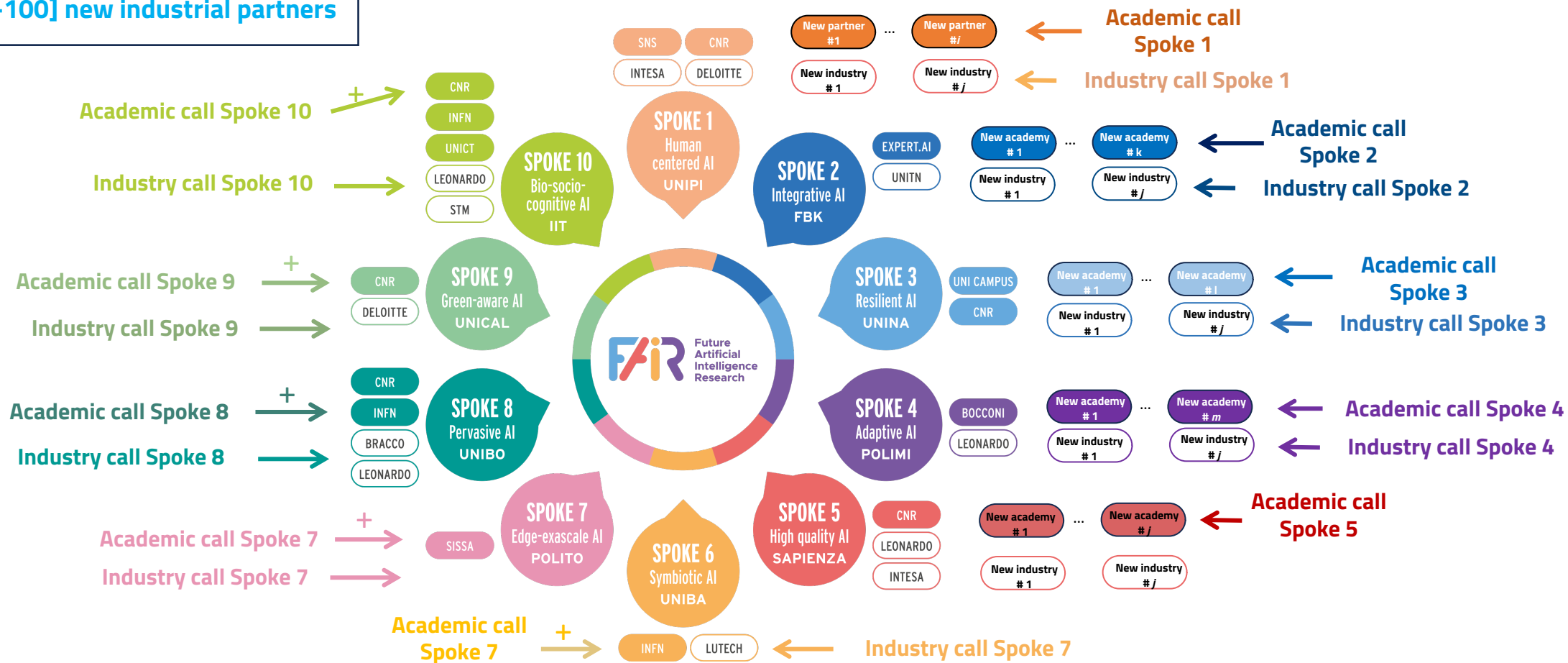


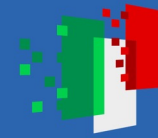
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Future Artificial Intelligence Research

Cascade Calls for Industry (open soon)
Expected [50-100] new industrial partners





From Research to Innovation: the FAIR Ecosystem

FAIR Ecosystem: we are working to promote the creation of an Italian AI ecosystem involving, in addition to the public and private partners that are already members of FAIR, other research institutions, citizens and companies:

We have already received many expressions of interest of public and private entities to collaborate with FAIR:

PA entities:

- Tuscany Region government and its economic programming agency IRPET;
- Innovapuglia S.p.A ;
- The National Cybersecurity Agency (ACN);
- Istituto Superiore di Sanità;
- The ICCD institute of the Italian Ministry of Culture;
- CONSOB;
- SOGEI;
-

**The first step
in collaborating
with FAIR**

Private entities: More than 100 companies, and 20+ startups and spin-offs