ALMA-AI IN THE EU ECOSYSTEM

ALMA MATER RESEARCH INSTITUTE FOR HUMAN-CENTERED ARTIFICIAL INTELLIGENCE

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IL PRESENTE MATERIALE È RISERVATO AL PERSONALE DELL'UNIVERSITÀ DI BOLOGNA E NON PUÒ ESSERE UTILIZZATO AI TERMINI DI LEGGE DA ALTRE PERSONE O PER FINI NON ISTITUZIONALI

UNIBO AI vision

Research Excellence

Recruitment of outstanding researchers

Multi-disciplinarity

International Reputation

EU, national and regional impact

Strategic public private partnerships

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Why here and now?

@UniBO – Top-ranked "large generalist university" in IT

- **26 UniBO departments** with active researchers in AI related topics
- **Joint research unit** with **CNR** Dept. of Social Science and Humanities
- **Joint research unit** with **INFN** (under definition)

@Bologna – World-class HPC and Big-data Hub

- **70% of supercomputing power in Italy is located in Bologna** (Cineca and INFN) – host site of pre-Exascale EuroHPC machine @ CINECA
- Data centre of the **European Centre for Medium-Range Weather Forecasts** (ECMWF) (which will move in 2020 from Reading, UK, to Bologna).

@Bologna – Strong and innovation-intensive industry pushing for AI

- Bologna hosts one of the 8 **national Industry 4.0 competence centres**, with **UniBO leading this centre**.

@Emilia Romagna – Foundation on Big Data and AI

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ALMA-AI in Numbers

26 departments involved

400+ researchers

7 ERC*

180+ projects and contracts*

49M research funding*

** Last 6 years*

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Research Challenges

AI and education

AI for Economic Growth

- *AI for Industry*
- *AI and HPC*

AI for Society

- *AI for Law and Governance*
- *AI for Health and well-being*
- *Humanistic AI*

Basic Research

- *AI and Hard Science*
- *Foundations of AI*

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Linked Didactic Initiatives

- **International Degree in AI**
  - International degree, inter-class LM-18 and LM-32
  - Strong specialization on AI
  - Open to INF/ING lauree and to other scientific areas (MAT, FIS)
- **Electronics for Intelligent Systems, Big Data and Internet of Things**
- **Master in Management of Digital Technologies: AI (with Bologna Business School)**
- **PhD in Data Science**
- **PhD in Computer Science and Engineering**
- **PhD in Law, Science and Technology** *(Marie Skłodowska-Curie ITN EJD grant agreement No 814177)*

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Strategic EU Initiatives

- LEIT ICT: AI4EU A European AI On Demand Platform and Ecosystem
- LEIT ICT: EPI European Processor Initiative
- European Association of AI (Deputy president)
- Involvement in BDVA, in the AI PPP proposal
- Involvement in ICT-48 Network of excellence

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BUILDING THE EUROPEAN AI ON-DEMAND PLATFORM

Michela Milano

www.ai4eu.eu

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825619

AI4EU ON DEMAND PLATFORM

PRESENTATION

The AI On-Demand Platform and Ecosystem

The Project

AI4EU is a collaborative H2020 Project that aims to

- **Mobilize the entire European AI community** to make AI promises real for the European Society and Economy
- Create a leading **collaborative AI European Platform** to nurture economic growth.

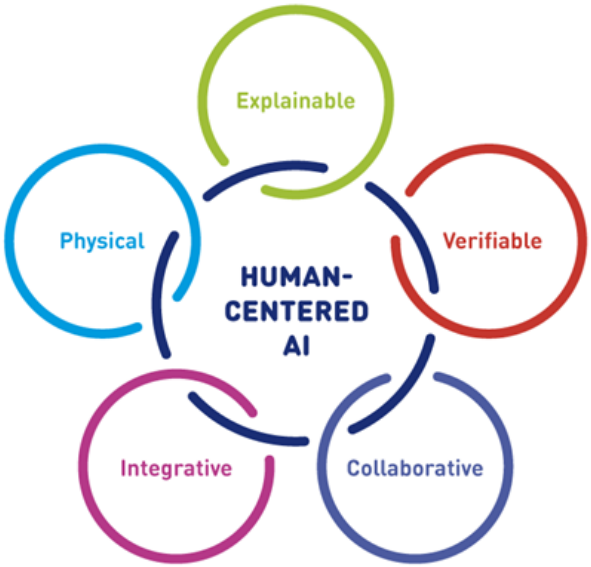
Key figures

- 81 members (60 leading research institutes)
- 21 partnering countries
- **€3m for Open Call**

Fed by 8 pilots experiments

- Citizen, Robotics, Industry, Healthcare, Media, Agriculture, IoT, Cybersecurity

Based on 5 Research Areas

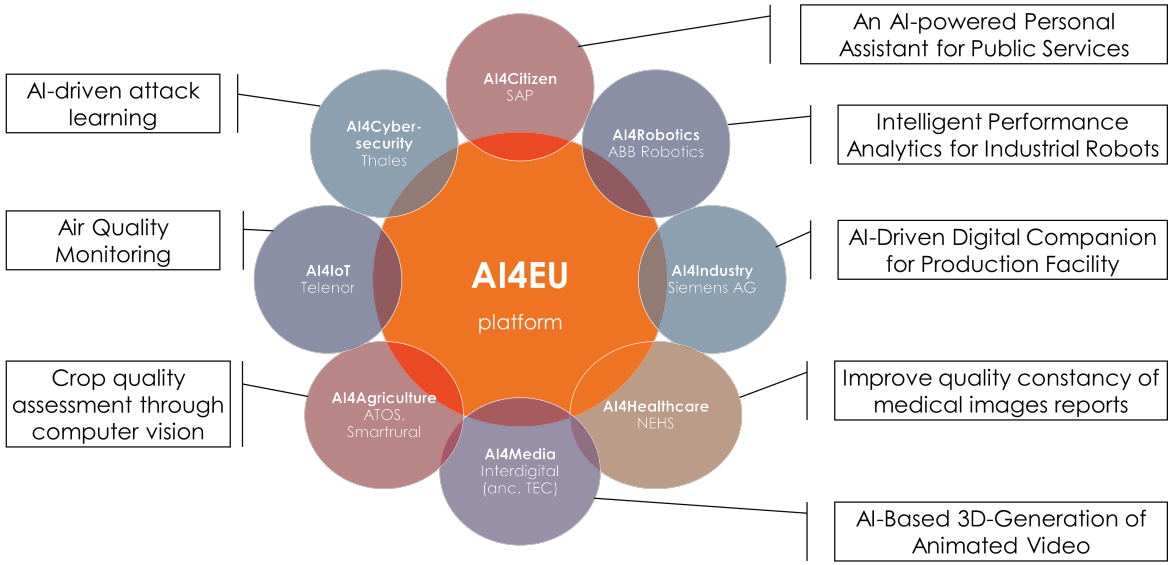


Ethical Observatory

Strategic Research and Innovation Agenda

AI4EU Project pilots

“ Eight pilots (small scale experimentation) nurturing the platform



Three open calls to showcase the platform added value to help to solve AI challenges

- Targets : developers, Start-ups, SMEs

AI4EU

The AI4EU Platform expected set of assets and services

Social Network

AI4EU Smart Search Engine

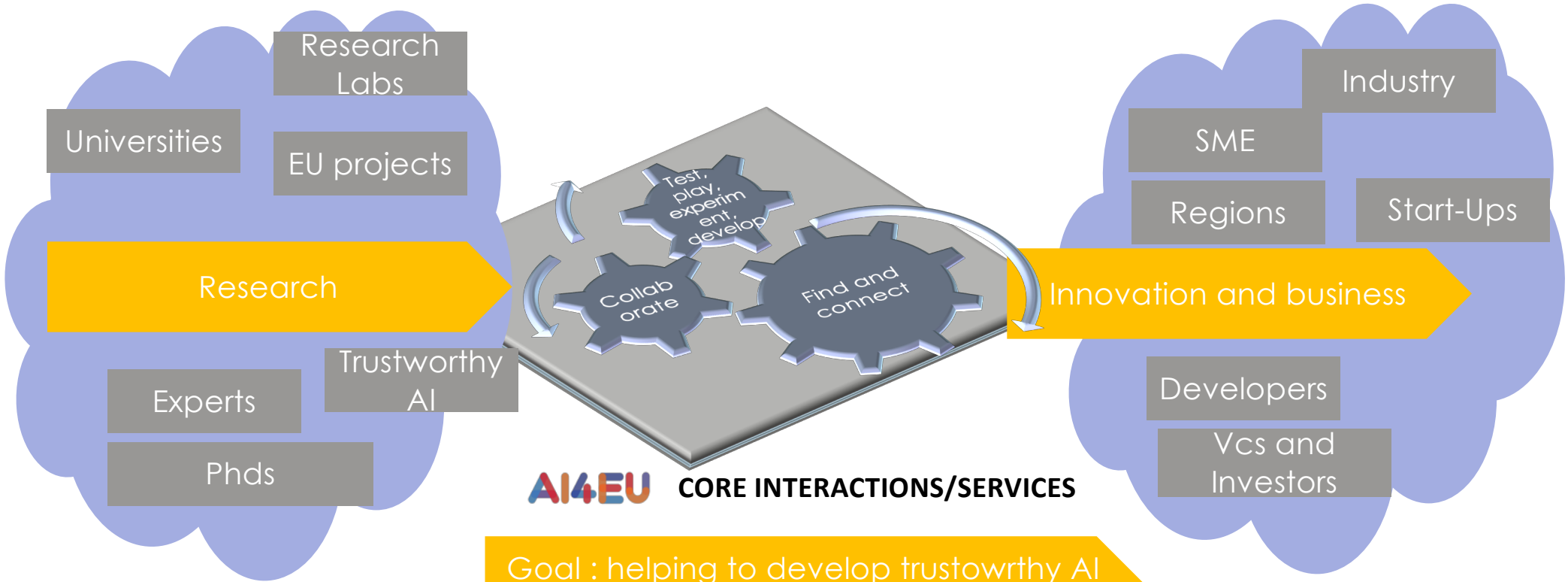
AI4EU Asset Resources Repository & Catalog

AI4EU Asset Facility for experimenting combining and running AI Resources

AI4EU Asset Challenges, open calls & Pilots

ICT-49 : should bring more services to the platform

AI4EU as Bridge & Catalyst between the European AI research landscape and AI industry



AI4EU **CORE INTERACTIONS/SERVICES**

Goal : helping to develop trustowrthy AI technologies and AI driven products

AI4EU Platform targeted users

Targeted Users	Characteristics Needs	AI4EU services
SMEs	◎ IT/AI based companies ◎ Non-IT orientated SMES	AI4EU Asset repository and catalog AI Asset Smart Search Engine
Industry	◎ Large companies with AI research departments ◎ Collaboration partners, experts	AI4EU Social network AI4EU Assets Facility for Experiment, Combine and run AI Resources AI4EU Asset for challenges and pilots
Start-Ups and individuals	◎Developers, Data Scientists ◎MVP, quick wins	AI4EU Social Network AI4EU Asset Facilty for Experiment, Combine and run AI Resources
Research	◎Scientists and Researchers ◎Teachers and students	AI4EU social network AI Asset Smart Search Engine
Local govs	◎Decision and policy makers, politic ◎Region	AI4EU Facility Asset for Experiment, Combine and run AI Resources AI4EU Asset for challenges and pilots

AI4EU ON DEMAND PLATFORM

HOW TO CONNECT AND INTERACT

“ What is needed?

- An Open Call Strategy
- Developing new software services and corresponding technical support (*tests, qualification, integration, etc*) for the platform, tailored for industries and particularly SMEs you are targeting in your proposal
- New industrial domains/ecosystems joining the platform to develop services and pilots
- News users/participants to connect onto the platform

Contacts

- Platform and project web site
  - https://www.ai4eu.eu/
- Coordination team
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THANK YOU!

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