



ICT-48-2020: Towards a vibrant European Network of AI excellence centres

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European Commission





AGENDA

10:30 – 11:30	<ul style="list-style-type: none">– Call on European Network of AI Excellence Centres– AI on Demand Platform (Patrick Gatellier AI4EU Co.)– EurAI – Barry O’Sullivan (EurAI President)– Q&A
11:30 – 13:30	<p>Presentation of projects ideas</p> <p>2 MINUTES PER PROJECT or PROJECT + COMPETENCE</p>
13:30 – 14:30	Lunch and poster session project ideas (28)
14:30 – 16:15	<p>Presentation of competencies</p> <p>1 MINUTES PER COMPETENCE</p>
16:15 – 17:30	Poster sessions competencies (39) and Networking

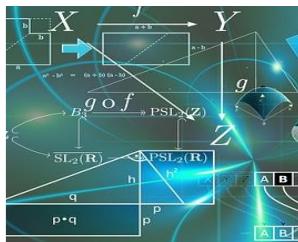
BOOSTING THE EU'S TECHNOLOGICAL AND INDUSTRIAL CAPACITY:



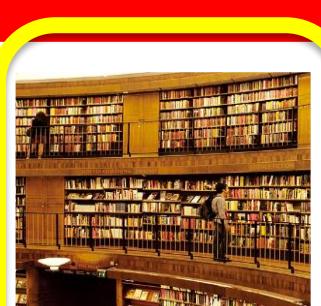
WP 2018 - 2020



€1.5 billion EC investments into AI in 2018-20
BY 70% INCREASE OF ANNUAL INVESTMENT



A network graph where nodes represent chemical molecules or structures, connected by lines representing interactions.



Basic and industrial research
(health, transport, agriculture, manufacturing, etc.)

AI-on-demand platform



Network of AI-focused Digital Innovation Hubs (DIHs)

Strengthening AI excellence centres

Setting up an industrial data platform

Beyond 2020:
Increasing investments to €20 billion / year (PUB & PRIV)

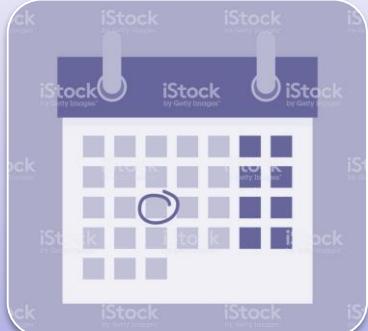


ICT-48-2020: Towards a vibrant European network of AI excellence centres



BUDGET/TOPICS:

- 4 RIAs (Research and Innovation Actions) **48M€**
- 1 CSA (Coordination and Support Action) **2M€**



DATES:

- Opening: 09 July 2019
- **Closing: 13 Nov 2019**



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CHALLENGE



SCOPE

- a) Research and Innovation Actions (RIA)
- b) Coordination and Support Action (CSA)



EXPECTED IMPACT



CHALLENGE



- *European strategic autonomy in AI → Huge potential socio-economic impact*
 - *Stay at the forefront of AI developments*
 - *Essential to reinforce and build on Europe's assets in AI, including its world-class researcher community*
 - *Efforts are scattered → joining forces is crucial to be competitive at international level*
 - *Scale up existing research capacities & tighter networks of European AI excellence centres → critical mass*
- ***Foster cooperation among the best research teams in Europe, joining forces to tackle more efficiently major scientific and technological challenges in AI hampering deployment of AI-based solutions.***



SCOPE

a) Research and Innovation Actions (RIA)

European
Commission



OBJECTIVES OF THE NETWORKS



COMPOSITION



ACTIVITIES



TECHNOLOGY FOCUS



SYNERGIES WITH THE AI-ON-DEMAND PLATFORM



BUDGET



SCOPE

a) Research and Innovation Actions (RIA)

European
Commission

Invest in strengthening AI research excellence centres across Europe and facilitate their collaboration and networking.

OBJECTIVE: develop networks of excellence centres to

- *Boost the research capacity in Europe*
 - *Europe as a research powerhouse for AI*
 - *Attractive for scientists and new talents*
 - *Contribute to the development of ethical and trustworthy Artificial Intelligence, the trademark for AI “made in Europe”.*
- ➔ *Mobilise researchers to collaborate on key AI topics, to reach critical mass on these topics and to increase the impact of the funding in progressing faster in joined efforts rather than working in isolation, with fragmented and duplicated efforts.*



OBJECTIVES OF THE NETWORKS

European
Commission

- *Up to 4 networks*
- *MAJOR Scientific or technological challenges*
- *Reinforce Europe's CAPACITY and PROGRESS in critical technologies*
- *SPREAD the latest and most advanced knowledge to ALL THE AI-LABS in Europe and prepare the next generation of TALENT in AI (AI-on-demand platform & CSA)*
- *Synergies & cross-fertilization with INDUSTRY → internships of academic staff (at all levels) in industry, or PhD programmes with industry*
- *The set of networks will form a COMMON RESOURCE - SHARED FACILITY - virtual laboratory offering access to knowledge and expertise and attracting the talents*
- *REFERENCE, creating an easy ENTRY POINT TO AI EXCELLENCE IN EUROPE and should also be instrumental for its VISIBILITY*



COMPOSITION OF THE NETWORKS

European
Commission

- *Driven by LEADING FIGURES IN AI from MAJOR EXCELLENT research centers, bringing the BEST SCIENTISTS distributed ALL OVER EUROPE. They will bring on board the necessary LEVEL of expertise and variety of DISCIPLINES and profiles to achieve their objectives.*
- **INDUSTRIAL participation:**
 - *research teams*
 - *identify important technological limitations hampering deployment*
 - *help defining the research priorities & raise new research questions.*
- **Demonstrate access to the required RESOURCES and INFRASTRUCTURE**
 - *Data (including Copernicus)*
 - *HPC (central, GPUs, edge computing), storage, robotics equipment, IoT infrastructure*
 - *Support staff and engineers to develop experiments, etc.*



ACTIVITIES OF THE NETWORKS (1/3)

European
Commission

For each activity, select the most appropriate mechanisms & detail it :

- *To structure activities → focus on*
 - important scientific or technological **CHALLENGES** with **INDUSTRIAL** relevance
 - where Europe will **MAKE A DIFFERENCE** (build on **STRENGTHS**, or fill **CRITICAL GAPS**)
- *Challenge → Develop and implement common research agendas:*
 - The main **VISION**
 - **ROADMAP** with targets within the projects
 - Methodology to implement and **MONITOR PROGRESS**
- **PROGRESS demonstrated in USE-CASES → industry-academia collaboration.**

SPECIFIED IN PROPOSAL &
FURTHER DEVELOPED
DURING THE PROJECT.



ACTIVITIES OF THE NETWORKS (2/3)

European
Commission

- ***STRONG LINKS among the members of the networks***
 - collaborative projects, exchange programmes, or other mechanisms to be defined by the consortia
- ***Mechanisms to FOSTER EXCELLENCE, increase efficiency of collaboration, and develop a vibrant AI network in Europe.***
- ***DISSEMINATE the latest and most advanced knowledge to ALL the academic and industrial AI laboratories IN EUROPE***
 - Involving them in collaborative projects/exchange programmes
 - Projects defined initially or via financial support to third parties – max. 20% of EU contribution [OPTIONAL! → select the most efficient solution]
- ***Interactions with the INDUSTRY (in/out the consortium)***
 - New scientific questions
 - Take-up of scientific advances



ACTIVITIES OF THE NETWORKS (3/3)

European
Commission

- ***Collaboration with the relevant DIGITAL INNOVATION HUBS***
 - disseminate knowledge and tools & understand their needs
- ***Common academic/industrial PhD - PostDoc programmes focusing on industrial challenges.***

➔ Ambition: ***WORLD-RECOGNISED brand for a European programme for INDUSTRIALLY-ORIENTED PHDs IN AI and to keep researchers in Europe afterwards***
- ***Foster INNOVATION & exploit new ideas coming out of the network's work (e.g. incubators).***
- ***Become a VIRTUAL CENTER OF EXCELLENCE:***
 - Offering access to knowledge
 - Serving as a reference in their field
 - Ensure visibility.

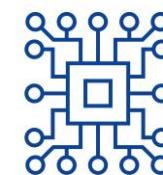
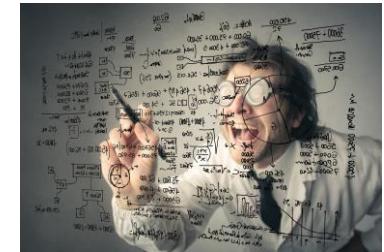


TECHNOLOGY FOCUS

European
Commission

*Collaborative projects focus on **ONE OR SEVERAL** of the following topics & bring necessary competencies :*

- *Advances in **FOUNDATIONS** of AI (e.g.: learning and reasoning approaches) and **APPROACHES** for **TR AI SOLUTIONS** (including explainable AI, unAI, safety, reliability, verifiability etc.),*
- *Developing the next generation of **INTELLI ROBOTS**,*
- *Advanced **PERCEPTION** or **INTERACTION** with humans (for human-centered AI) and environments.*
- *AI at the **EDGE** and **HARDWARE** for AI.*





WP18-20: EUROPEAN AI-ON-DEMAND PLATFORM



<https://www.ai4eu.eu/>

THE Central access point – shared resource for Europe

- Integrating tools and resources
- Offering solutions and support to all users of AI to integrate AI into applications, products and services
- Mobilisation of the community
- Large project - 20M€

Only the start → Expect « CONTINUITY » until 2027 (at least)



SYNERGIES WITH THE AI-ON-DEMAND PLATFORM

European
Commission

- *AI-on-demand platform = **ONE-STOP-SHOP FOR AI resource in Europe** → backbone of these networks:*
 - **PROVIDING tools and algorithms, data, support services, also to the research community**
 - **LINK TO THE COMMUNITY AT LARGE** → spread the knowledge and develop collaborations
 - **ENRICHING the platform (tools, competencies, services)** → make it the **REFERENCE and QUALITY LABEL** for resource in AI.
 - tools, algorithms, resources developed in the networks of excellent centres → available to all via the AI-on-Demand platform



BUDGET

European
Commission

- *EUR 12 million per network (indicative)*



SCOPE

b) Coordination and Support Action (CSA)

European
Commission

- *Develop SYNERGIES and EXCHANGE*
 - *between the selected projects*
 - *with other relevant projects (AI-on-demand platform, community at large, academic and industrial)*
- *Support the four RIAs in COMMON ACTIVITIES → economies of scales*
 - *Organization of events, logistics support for calls for FSTP, exchange mechanisms among labs, etc.*
 - *Exchanges of best practices to reinforce and optimize cooperation, etc.*
- *Support the RIA projects in their DISSEMINATION ACTIVITIES towards industry, users, and citizens. Diversity and gender aspects should be addressed, when relevant.*



SCOPE

b) Coordination and Support Action (CSA)

European
Commission

To maximise the AI benefits

→ Equip professionals with right **SKILLS**

Support academia in cooperation
with industry:

→ What? Identify

- AI courses and modules that could be integrated in **NON-ICT** education master programmes
- Mechanisms for **INTEGRATION**.

→ How? Workshops & other appropriate
approaches





BUDGET

European
Commission

- *EUR 2 million per network (indicative)*



EXPECTED IMPACT



- *Reinforce Europe's **RESEARCH CAPACITY** in AI*
- *Ensure Europe's **LEADERSHIP** in key **STRATEGIC** research topics*
- *Make Europe a research **POWERHOUSE** for AI*
- *Increase Europe's **ATTRACTIVENESS** for scientists → nest for future generations of scientists and breakthrough in AI*
- *Strengthen the **AI-ON-DEMAND PLATFORM***
- *Mobilization and commitment from the community & high level experts → making AI-on-Demand platform **THE REFERENCE RESOURCE** for European researchers, developers, integrators and users*
- *Pave the way to enrich the **EDUCATION OFFER** → equip a broad range of **NON-ICT PROFESSIONALS** with the necessary AI skills*



More information on this topic

- *Publication of the call* → [Participant portal](#)
- *Q & A document* → *elaborated overtime* – [Participant portal](#)
- *ICT Proposers' Day 2019 – Helsinki Sept. 19-20*
- [Virtual Agora](#)
- [This event web-site](#)



AI4EU



WP18-20: EUROPEAN AI-ON-DEMAND PLATFORM



<https://www.ai4eu.eu/>

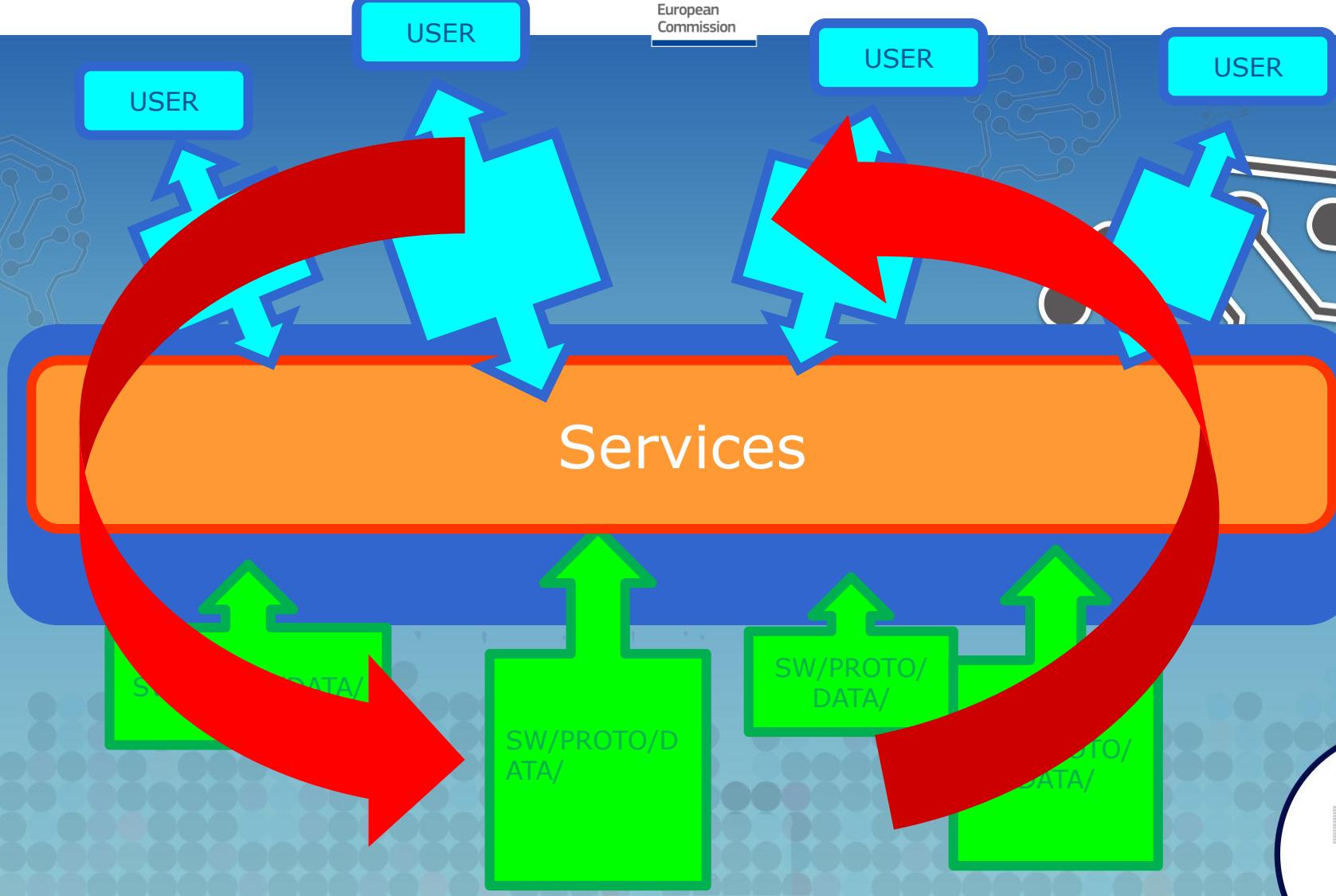
THE Central access point – shared resource for Europe

- Integrating tools and resources
- Offering solutions and support to all users of AI to integrate AI into applications, products and services
- Mobilisation of the community
- Large project - 20M€ – 3M€ to be redistributed

Only the start → Expect « CONTINUITY » until 2027 (at least)



European
Commission



European
Commission



AI4EU Programme Quick Summary

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

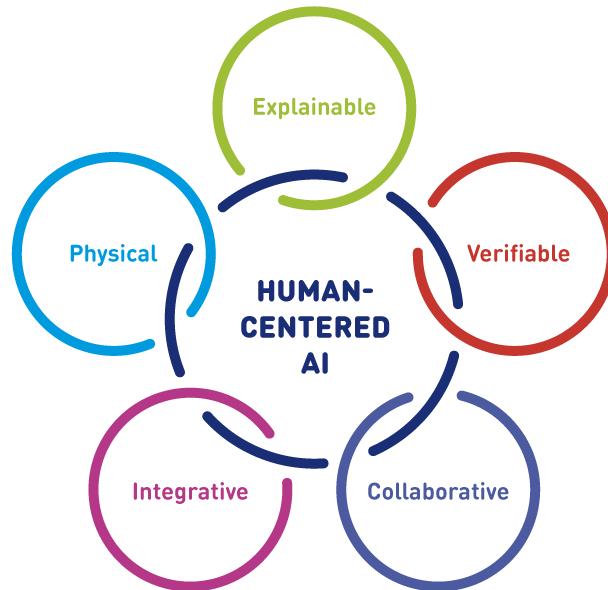
- 79 members (60 leading research institutes)
- 21 partnering countries
- €3m Cascade Funding

Fed by 8 pilots experiments

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

3 open calls for Start-up, SMEs and AI talent and an ambitious technology transfer program

Based on 5 Research Areas



Ethical Observatory

Strategic Research and Innovation agenda

About ICT-48-2020: Towards a vibrant European network of AI excellence centres

- The AI4EU project will provide an equal support to any ICT-48 project asking for it
- As AI4EU, we may present a proposal for the ICT-28 CSA ... if we conclude in the weeks to come that this will facilitate the success of the European AI Ecosystem and Platform

for any contacts on this, please email Violette.lepercq@thalesgroup.com,
quoting « ICT-48 proposal » in the mail title

Summary





VIRTUAL AGORA MATCHMAKING TOOL

VIRTUAL AGORA



Register



Create a profile



Share cooperation offers

- Project ideas
- Expertise
- Requests



Find & contact partners



A service offered by:
the network of ICT
National Contact Points



Home How It works

As stated in the communication from the European Commission on [Artificial Intelligence for Europe](#) and the [Coordinated Action Plan](#) between the European Commission and the Member States, while Europe has undeniable strengths with its many leading research centres, efforts are scattered.

To ensure European strategic autonomy in such critical technology as AI, underpinning most of our future professional and private activities, with huge potential socio-economic impact, it is essential to reinforce and build on Europe's assets in AI, including its world-class researcher community, in order to stay at the forefront of AI developments.

Therefore joining forces will be crucial to be competitive at international level. Europe has to scale up existing research capacities and reach a critical mass through tighter networks of European AI excellence centres. The objective is to foster cooperation among the best research teams in Europe, joining forces to tackle more efficiently major scientific and technological challenges in AI hampering deployment of AI-based solutions.

This [Face2Face Virtual Agora](#) is brought to you by [Ideal-ist](#), the network of National Contact Points for information and communication technologies in Horizon 2020.

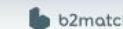
The Face2Face Virtual Agora offers a unique networking facility for all actors in the AI field!

Why should you register?

- build quality partnerships for participating in the upcoming AI excellence center call
- facilitate the setup of project consortia for Horizon 2020 calls
- discuss and develop new project ideas on AI at international level
- acquire new cross-border contacts and initiate collaborations
- promote your research expertise, technologies and know-how
- initiate requests for complementary expertise needed for your project proposal

Register now
Open until 13 November 2019

ORGANISED BY



ai-excellence.b2match.io



European
Commission

EurAI



EurAI: European Artificial Intelligence Association

Barry O'Sullivan (President)

b.osullivan@cs.ucc.ie

University College Cork, Ireland

EurAI – The European Artificial Intelligence Association



EurAI is one of the world's largest AI associations in the world with over 4500 members across 30 countries.

- **Purpose:** The European Association for Artificial Intelligence **EurAI** (formerly ECCAI) was established in July 1982 as a representative body for the European Artificial Intelligence community. Its aim is to promote the study, research and application of Artificial Intelligence in Europe.
- **Activities:**
 - European Conference on AI
 - Advanced Courses on AI
 - Fellows Program (top 3% of European AI)
 - Distinguished Service Award
 - European AI Dissertation Award
- **Web:** <http://www.eurai.org>
- **Contact:** b.osullivan@cs.ucc.ie

EurAI – Access the European AI Community



We're happy to connect you with excellence in AI in Europe. Please contact us through our web-site at <https://www.eurai.org/organisation/contact> or contact me (President) at b.osullivan@cs.ucc.ie

Organisation / Member societies

Member societies

Acronym	Full name	Country	URL
ACIA	Asociación Catalana d'Intel·ligència Artificial	Catalonia	 http://www.acia.cat
ADUIS	Асоціація Створювачів та Пользователів Інтелектуальних Систем	Ukraine	 http://www.aduis.com.ua/
AEPiA	Asociación Española para la Inteligencia Artificial	Spain	 http://www.aepia.org/
AFIA	Association Française pour l'Intelligence Artificielle	France	 http://www.afia.asso.fr/
AIAI	Artificial Intelligence Association of Ireland.	Ireland	  http://4c110.ucc.ie/aiai/
AIIA	Associazione Italiana per l'Intelligenza Artificiale	Italy	  http://www.aiixa.it/
AISB	Society for the Study of Artificial Intelligence and Simulation of Behaviour	U.K.	 http://www.aisb.org.uk/
APPiA	Associação Portuguesa para a Inteligência Artificial	Portugal	 http://www.appla.pt/
ARiA	Asociația Română pentru Inteligență Artificială	Romania	 http://www.aria-romania.org/
BAIA	Bulgarian Artificial Intelligence Association	Bulgaria	
BCS-SGAI	Specialist Group on Artificial Intelligence	U.K.	 http://www.bcs-sgai.org/

Awards and grants / Fellows

Fellows

The EurAI Fellows Program honors only a very small percentage of the total membership of all EurAI member societies (up to a maximum of 3%). More information can be found in the [Fellows Program](#).

Giovanni Adorni, Italy - University of Genoa
Juan Antonio Rodriguez-Aguilar, Spain - IIA-CSIC
José Alferes, Portugal - Universidade Nova de Lisboa
Leila Amgoud, France - Université Paul Sabatier
Elisabeth André, Germany - Augsburg University
Grigoris Antoniou, Greece - FORTH
Franz Baader, Germany - Technical University Dresden
Salem Benferhat, France - Université d'Artois
Christian Bessiere, France - LIRMM, CNRS
Wolfgang Bibel, Germany - TH Darmstadt
Susanne Biundo, Germany - University of Ulm
Hendrik Blockeel, Belgium - KU Leuven
Margaret A. Boden, UK - University of Sussex
Vicent Botti, Spain - Universitat Politècnica de València
Michael Brady, UK - Oxford University
Pavel Brazdil, Portugal - University of Porto
Ivan Bratko, Slovenia - Jozef Stefan Institute
Gerhard Brewka, Germany - University of Leipzig
Maurice Bruynooghe, Belgium - Katholieke Universiteit Leuven
Alan Bundy, UK - University of Edinburgh
Wolfram Burgard, Germany - University of Freiburg
Hans-Dieter Burkhardt, Germany - Humboldt Universität Berlin
Diego Calvanese, Italy - Free University of Bozen-Bolzano
Luigia Carlucci Aiello, Italy - Università di Roma
Cristiano Castelfranchi, Italy - Institute of Cognitive Sciences and Technologies, CNR

<https://www.eurai.org/organisation/member-societies>

https://www.eurai.org/awards_and_grants/fellows



HOME CALL FOR PAPERS SANTIAGO ATTENDING ORGANIZERS IMPORTANT DATES SPONSORSHIPS COMMITTEES CONTACT



• • • •

ECAI2020: June 8-12



Welcome to ECAI 2020, the 24th European Conference on Artificial Intelligence, that will take place in Santiago de Compostela (Spain) June 8-12, 2020. The conference will include a workshops and tutorials program scheduled before the main conference. The venue will be the Galicia's Auditorium, an excellent location to visit the old town of the city. The Conference is hosted by the Spanish AI Society (AEPIA) and organized by the Intelligent Systems Group (GSI) and the Research Center on Information Technology (CITIUS) of the University of Santiago de Compostela (USC). In 2020 "the AI way" goes to ...Santiago!



<http://ecai2020.eu>



Annex



DIGITAL INNOVATION HUBS (DIH) ?

Commissioner Oettinger:

*"My objective is to have at least one world class **digital innovation hub** in every region in Europe."*

Objective:

Access to digital technologies and expertise within "working distance" for any industry in Europe, especially SMEs, mid-caps, non-tech

- **Regions and local authorities have a key role to play**
- **EU funding: at least 500 million € in H2020 (for EU added value)**



DIGITAL INNOVATION HUB: ACTORS



ACADEMIA



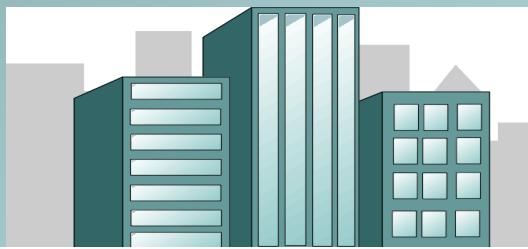
ENTREPRENEUR



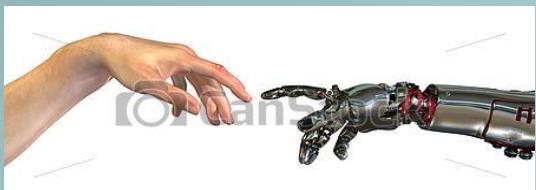
INCUBATOR



GOVERNMENT



**COMPETENCE CENTER
SHARED PHYSICAL
INFRASTRUCTURE & SUPPORT
(TECHNICAL, LEGAL,
ADMINISTRATIVE,
BUSINESS,...)**



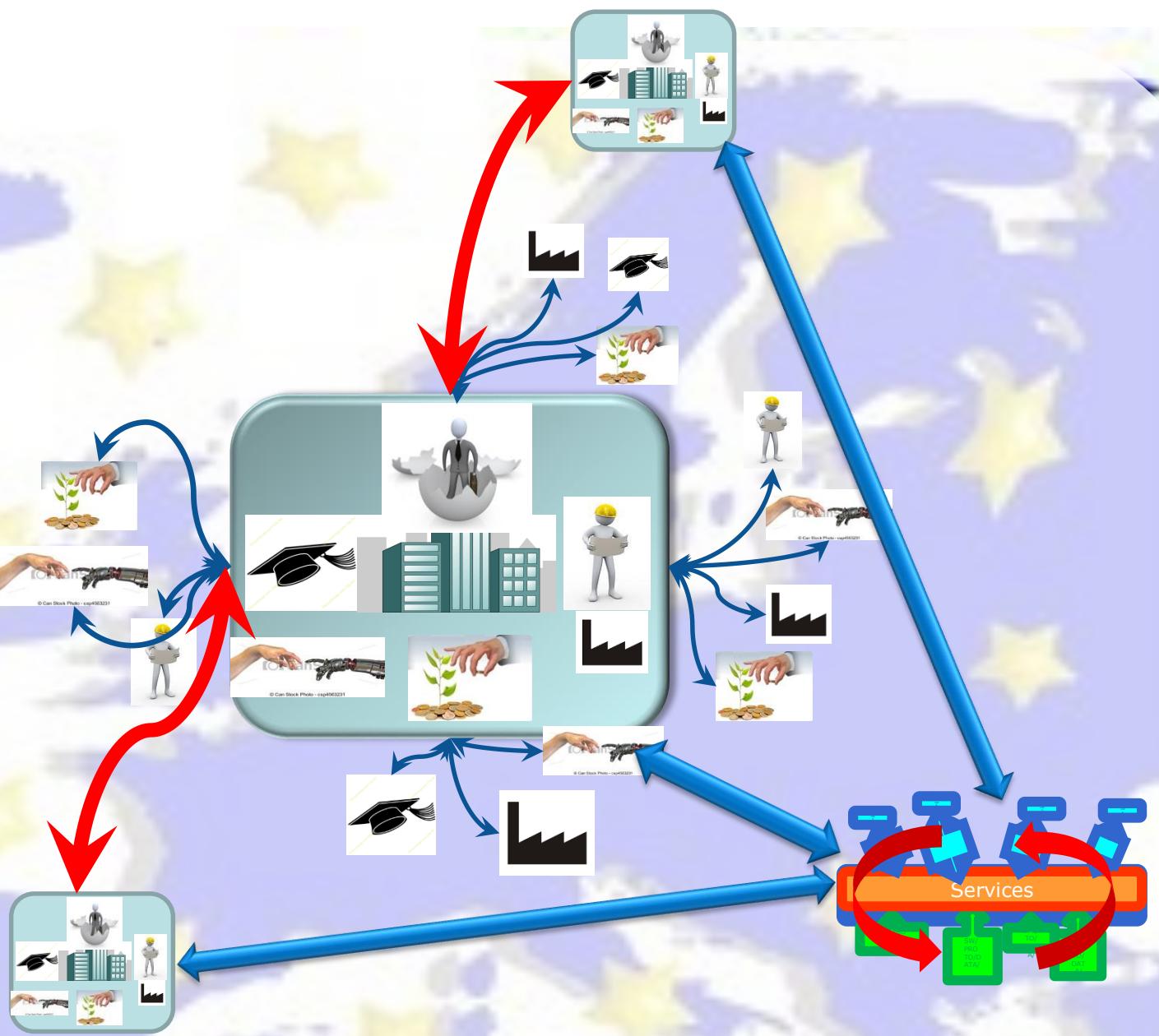
USERS COMMUNITY:
SMEs, CITIZENS,
LOCAL ECONOMIC ACTORS,...



INDUSTRY



INVESTORS





Thank you

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