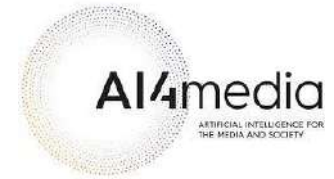



THE EUROPEAN AI-ON-DEMAND PLATFORM

RESULTS FROM THE AI4EU PROJECT



Dr. Joachim Köhler, Laszlo Friedmann | AI4Media Workshop – 11th November 2021





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**The strategic goal of the
European AI On-Demand
Platform**

The AI business market is emerging world-wide

Estimated growth of the AI market of 40,2% CAGR from 2021 to 2028

\$93,5 billion

Estimated Volume of the global AI market in 2021

\$997,8 billion

Estimated Volume of the global AI market in 2028

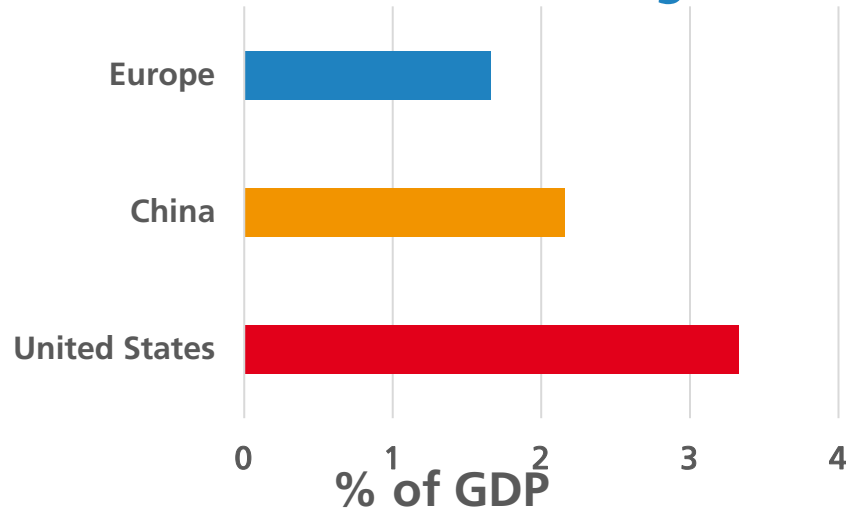
2 of 3

CEOs believe that AI will influence the business world more as the Internet

The European Perspective on AI

European digital & AI sovereignty is under pressure

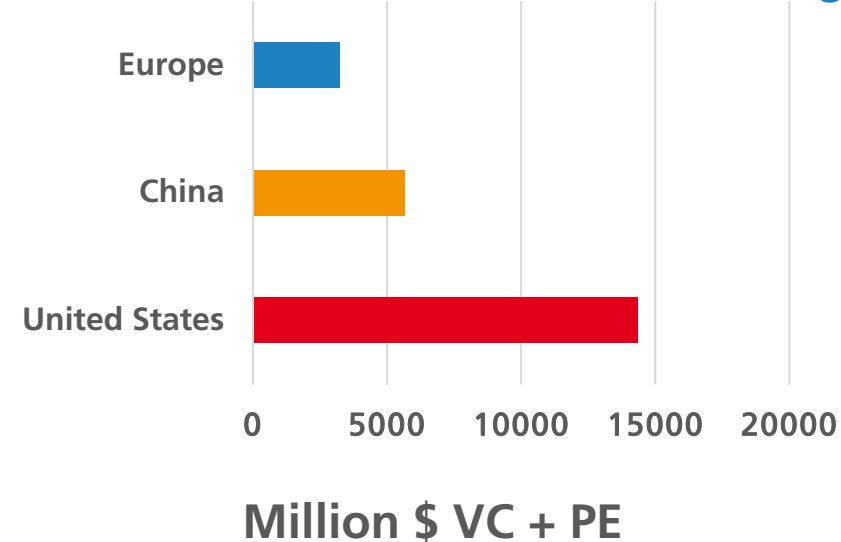
Europe lags behind
US and China in digital ICT



**Europe's Digital share
of ICT is just ~1.7%**

NOTES FROM THE AI FRONTIER TACKLING
EUROPE'S GAP IN DIGITAL AND AI, McKinsey Global
Institute, 2019

Europe lags behind
US and China in VC + PE funding



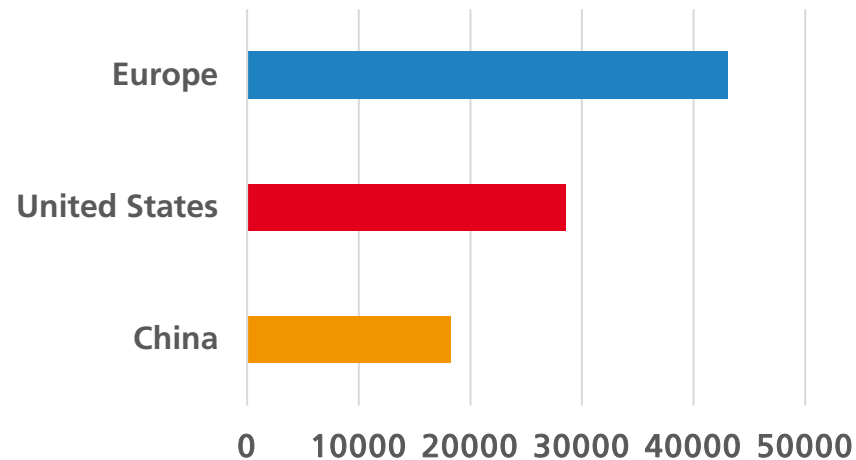
Who is winning the AI race: China, the EU, or the United States? 2021 Update,
Center for Data Innovation, 2021

The European Chances & Strength on AI

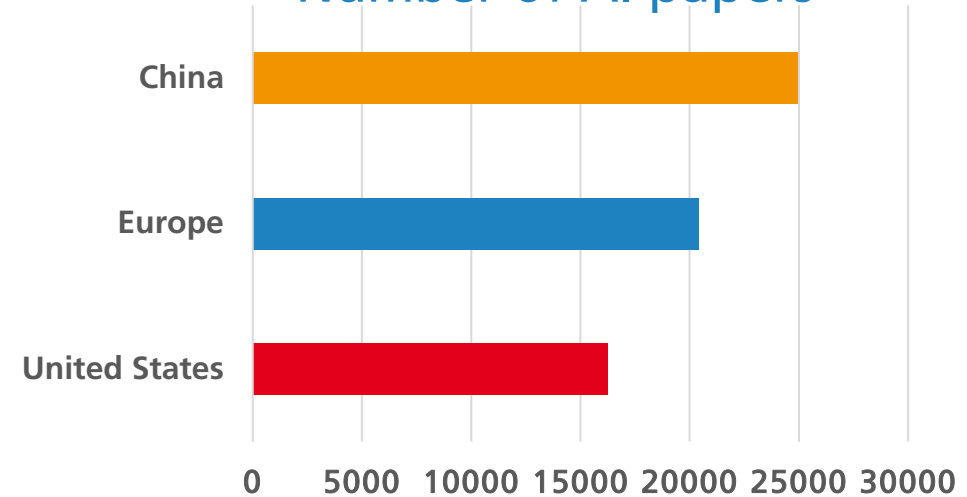
Excellent AI Research landscape

- Many excellent research organizations
- Strong number of publications on AI
- High number of AI researchers
- Many national and European AI programmes and initiatives

Number of AI Researchers



Number of AI papers

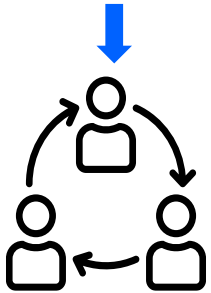


Vision and Scope of the European AI On-Demand Platform

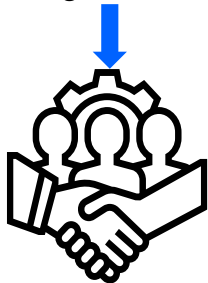
Reduce the weakness and empower the strength for AI in Europe



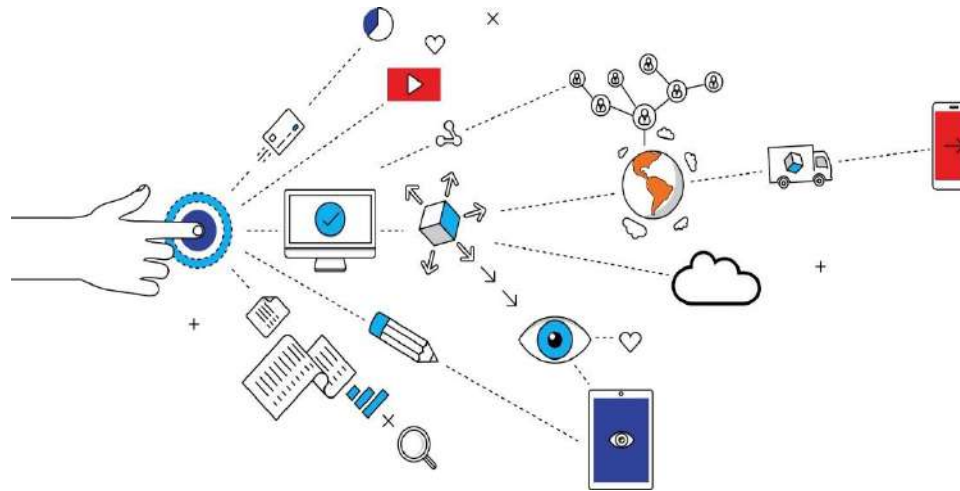
Europe has many skills in AI
We must scale the potential



We must lower the European
fragmentation



And push more AI driven products,
services and technologies

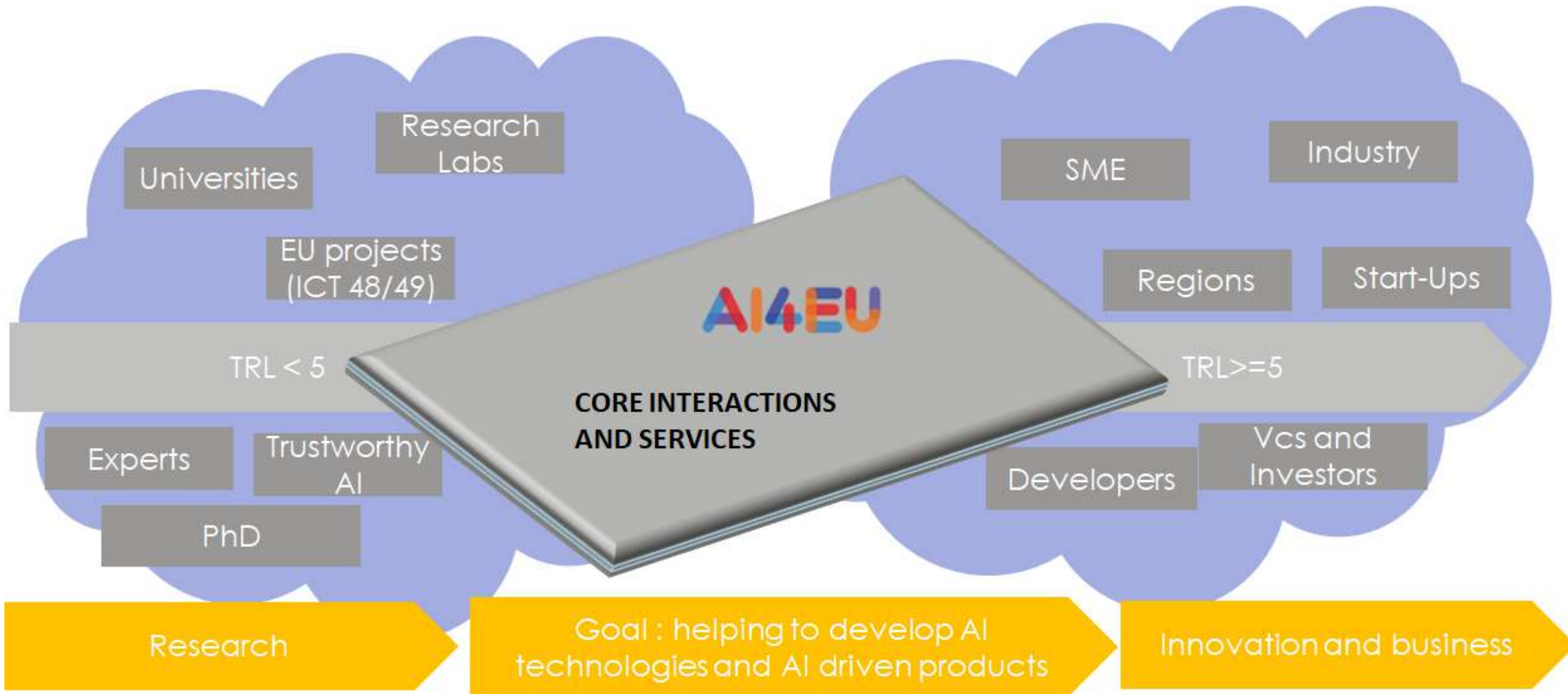


AI4EU is a collaborative H2020
Project that aims to

- **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

The European AI On-Demand Platform

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



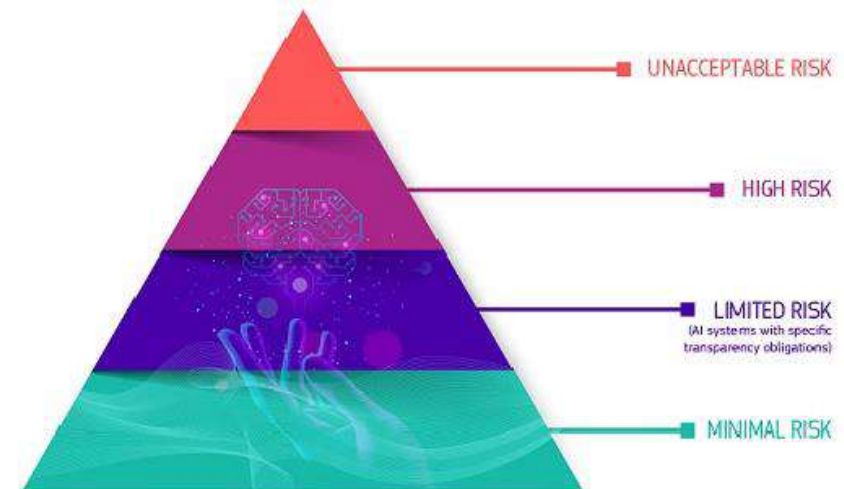
Main Strategic Arguments for the European AI On-Demand Platform

- Speed-Up of the innovation process from AI research to AI driven products
- Lower the barriers for SMEs to use and access AI technologies from research organisations and projects
- One Shop-Stop for European AI resources
- Collaboration to conduct research and innovation on AI
- Networks of researchers, SMEs, large industry and society (multiple stakeholder)
- Following and supporting Ethical and regulatory aspects (Trustworthy and certified AI) in Europe

The Artificial Intelligence Act

was proposed in [April 2021](#) by the European commission.

„The proposed AI regulation ensures that Europeans [can trust](#) what AI has to offer.“





The AI4EU project

EU Project AI4EU

Main Facts:

Horizon 2020 Project

- 01.01.2019 until 31.12.2021
- Volume 20 Mio. Euro
- 80 Partners from all over Europe

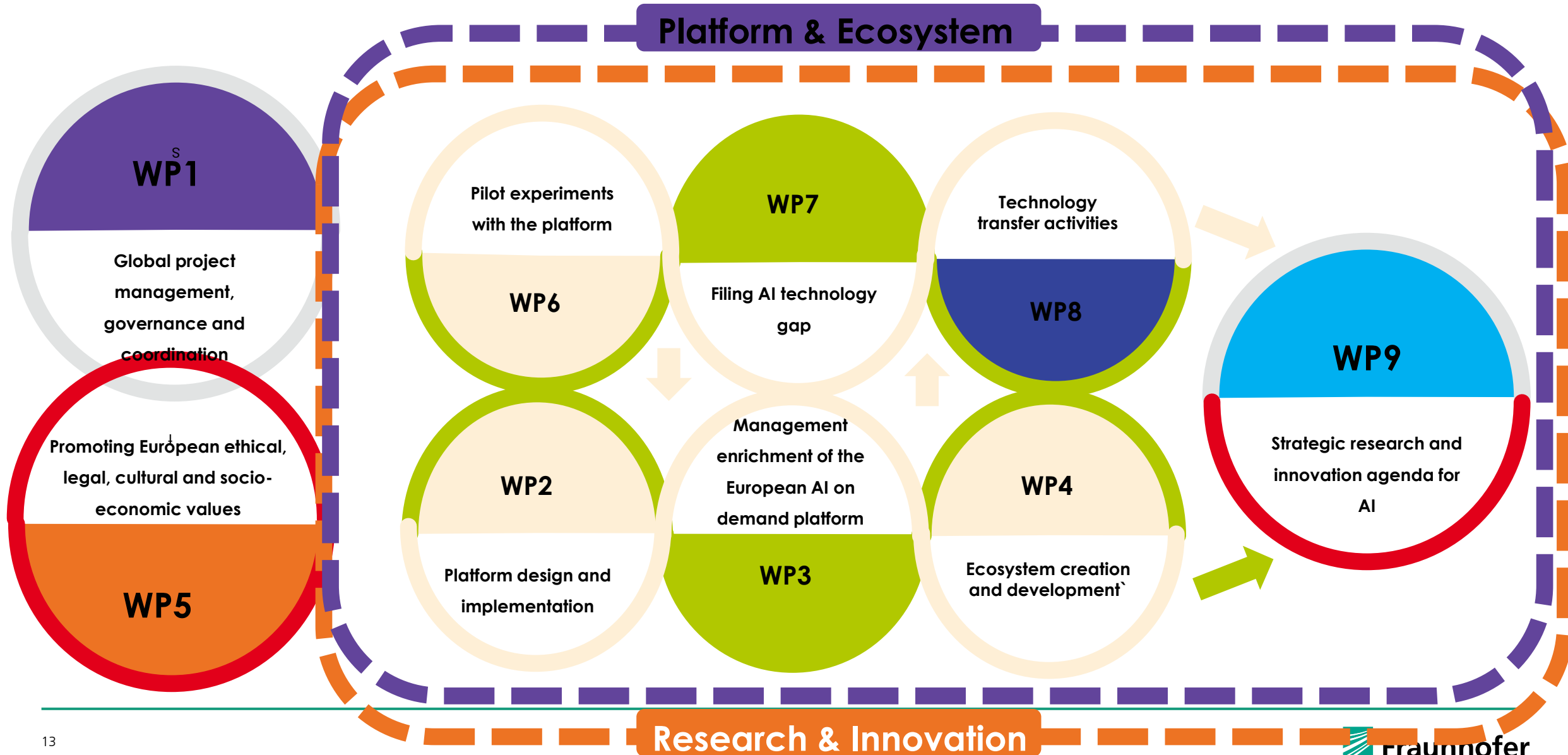
Results & Vision

- **Strengthen the European AI landscape** by fostering the AI community, it's collaboration and information exchange on **one platform**
- **Accelerated innovation** with **interoperable** software components, usable in a **visual editor** to promote new software systems, e.g. **Hybrid AI**
- **Lowered AI adoption barrier** by providing access to **100 AI solutions**, ready for deployment or **flexible combination** in the visual editor

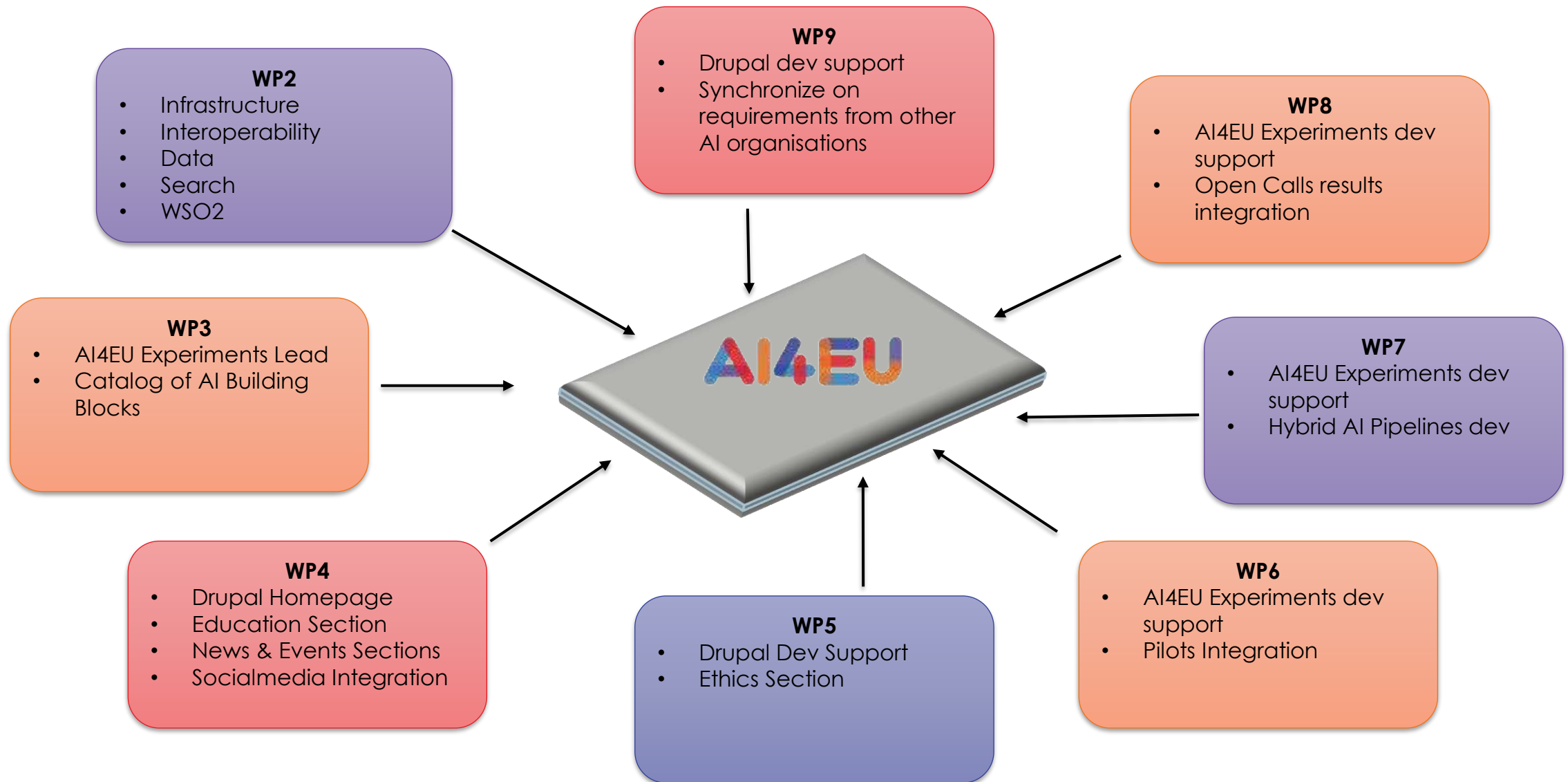


The AI4EU Platform serves as a **catalyst** to aid **AI-based innovation**, resulting in **new products**, services and solutions to benefit European industry, commerce and society.

AI4EU: Workpackages at a glance



Contribution of the WPs for the Open Platform development



The AI4EU Consortium





The European AI On-Demand platform at the glance

The European AI On-Demand Platform: <https://www.ai4europe.eu/>

[AI Community](#)[Business & Industry](#)[Research](#)[Education](#)[Ethics](#)[Services](#)[News & Events](#)[Organizations](#)[Projects](#)

The European AI on Demand Platform

AI4EU is a one-stop-shop for anyone looking for AI knowledge, technology, tools, services and experts.

@scaliger – stock.adobe.com

Our Services

Here you find the latest news on cutting-edge AI applications, development trends, research, ethics and social impact. We inform you about upcoming events and invite you to join our community. Explore our catalog of AI assets, such as datasets, algorithms, tools and models. We provide access to the AI4EU Experiments platform where you can build AI solutions in an intuitive way.

The AI4Experiment Area: <https://www.ai4europe.eu/development>

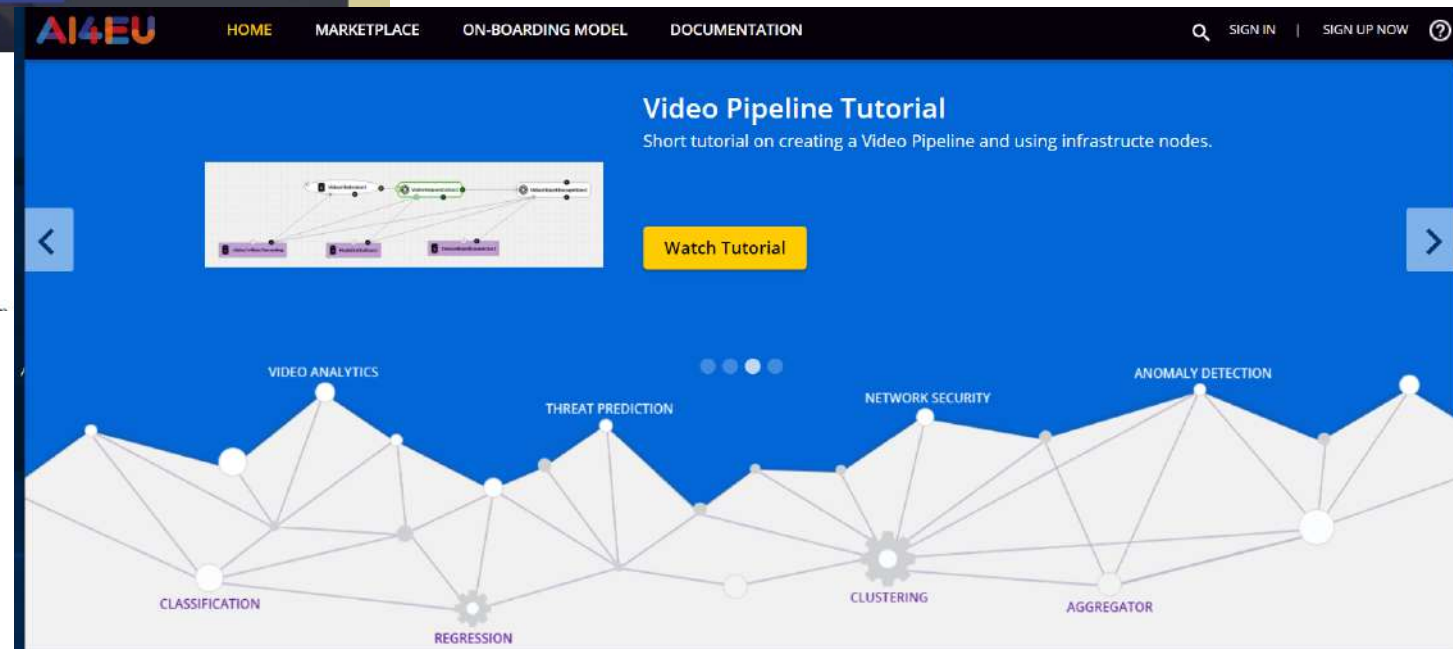
<https://www.ai4europe.eu/development>



<https://aiexp.ai4europe.eu/#/home>

Discover the AI4EU Experiments Platform

The AI4EU Experiments platform is an open space for AI developers. The platform offers a collaborative and intuitive design methodology to facilitate the creation of AI solutions.

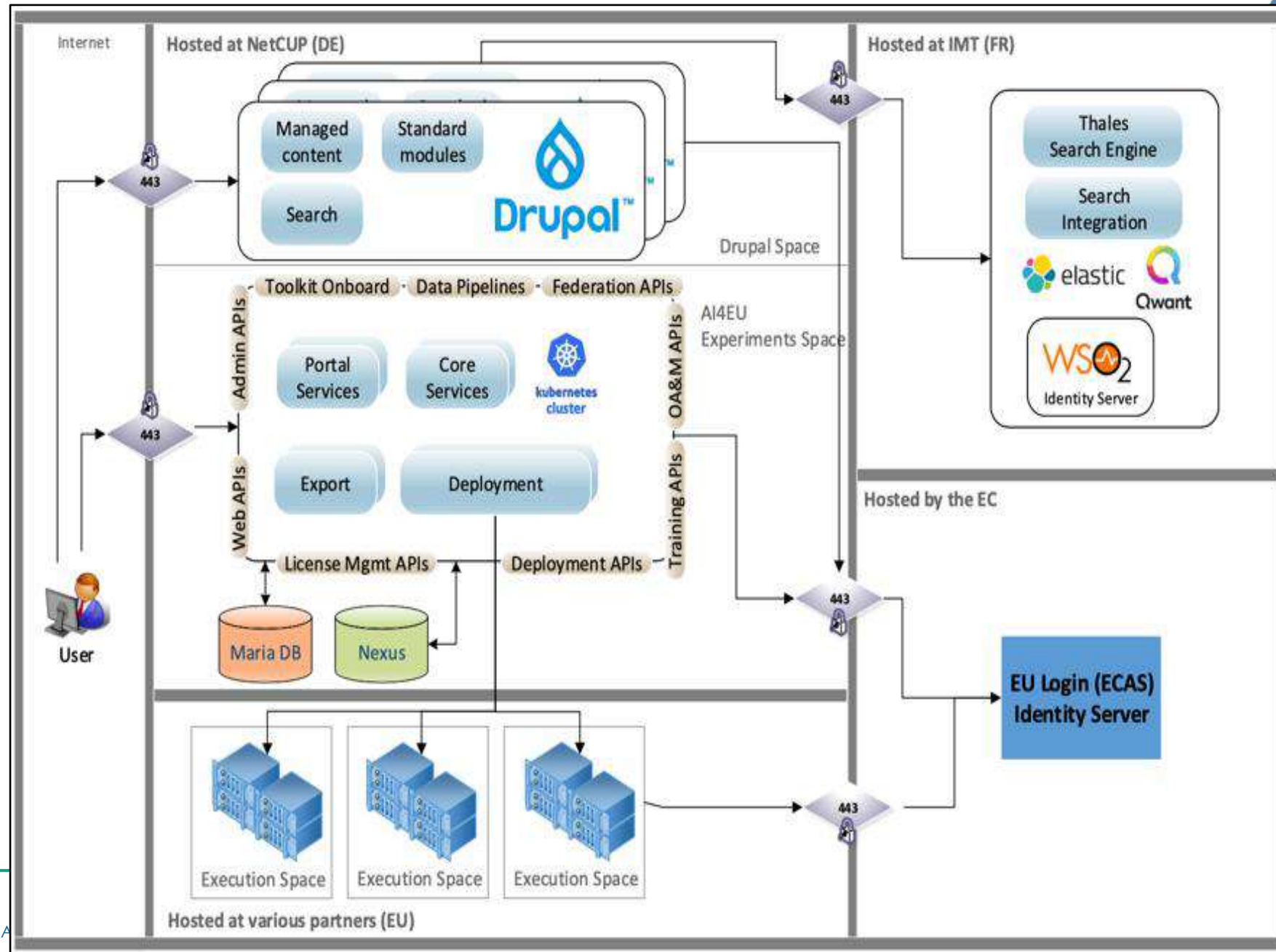


The Development Process of the Platform

The Open Distributed Development Model

- Involve many partners in the development process to avoid bottlenecks
- Organized in sub developments
- Each WP is responsible for the requirements and the development
- **The platform is owned by the consortium and managed by the EB and the community**
- Source code is open and accessible to external partners
- ICT-48/49 involvement
- Partners of AI4EU provide and commit skilled development resources
- Coordination of the technical issues in the **Technical Governance Board**
 - Infos/Minutes: <https://ws63-nextcloud.tl.teralab-datascience.fr/index.php/s/j5EbmEaPEa9r6B4?path=%2F>
 - 20 -30 attendees
 - Mailing list contains >100 participants
 - Intensive technical discussions
 - Some external projects are regularly involved (e.g. ELG)

High-Level Architecture of the European AI On-Demand Platform



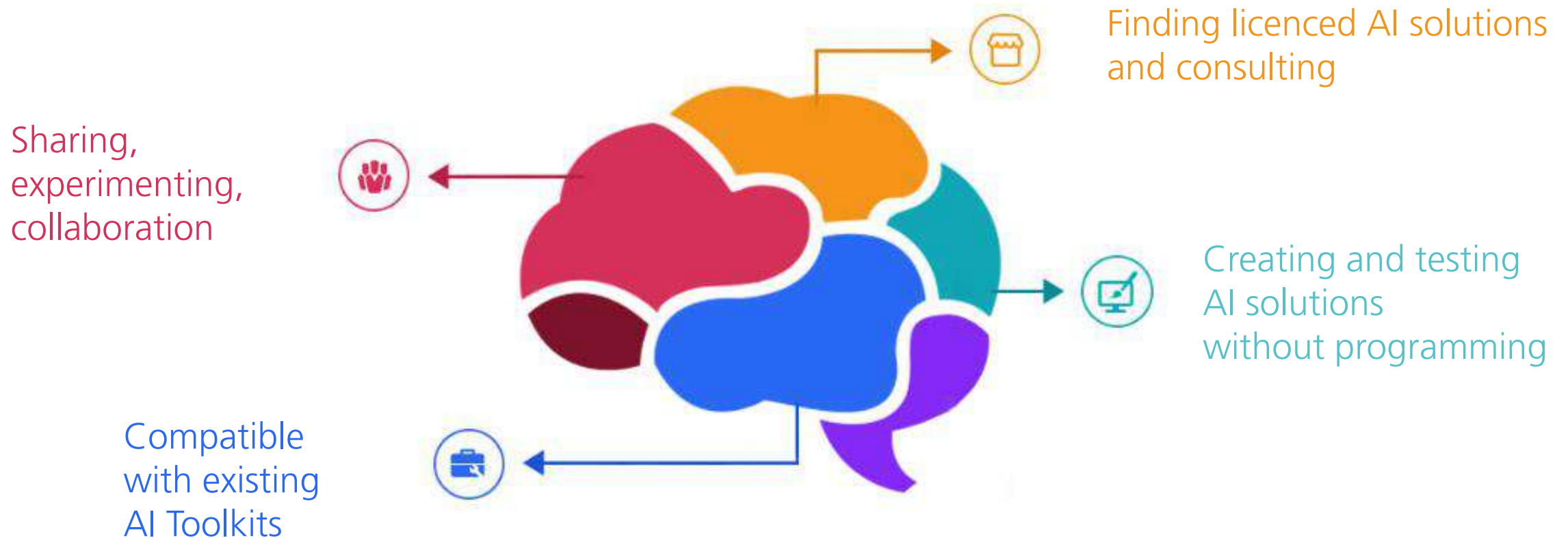
🗨️ Update from the TGB meetings (since August 2021)

- TGB 13.08.2021
 - Redistribution of ressources
- TGB 27.08.2021
 - Redistribution of ressources
 - ECAS integration versus WSO2
 - CMS issues
- TGB 01.10.2021
 - AI4EU Experiments Roadmap, AI4EU Experiments Streaming, AI4EU Experiments ROS Integration, AI4EU Experiments Playground Concept
 - Sustainability
 - IMT Infrastructure
- **Next TGB 19.11.2021**
 - Sustainability
 - Update of components
- Infos: <https://ws63-nextcloud.tl.teralab-datascience.fr/index.php/s/j5EbmEaPEa9r6B4?path=%2F>



How does the platform work (selected services)

AIExperiment Platform Concept



Overview of Services in the AI4EU Platform across an AI Innovation Process

Simplify the usage of AI-Technologies & foster the collaboration in AI innovation



Find AI Resource in Market Place



Creation of AI pipelines using Design-Studio



Flexible Deployment of AI Application

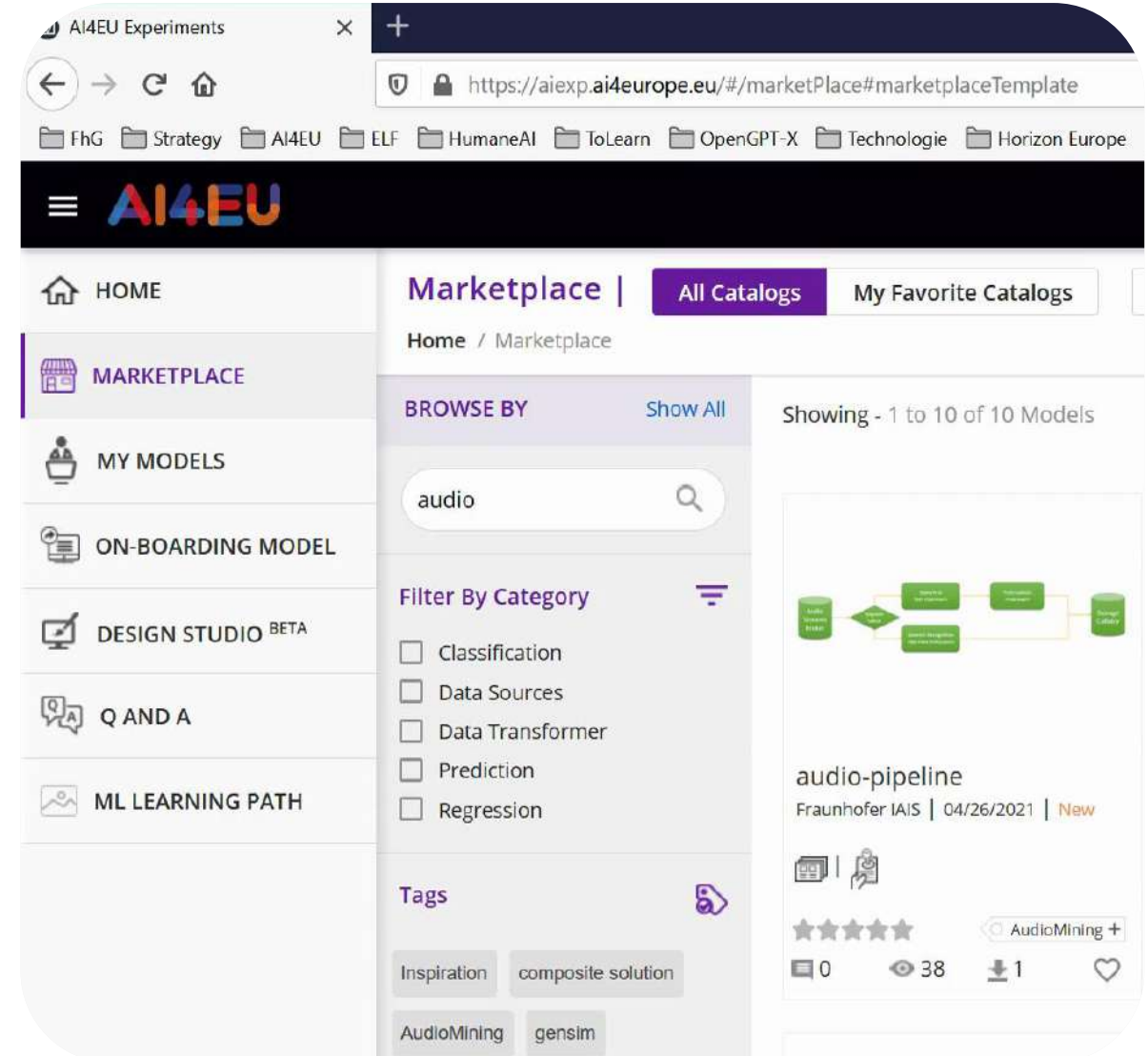


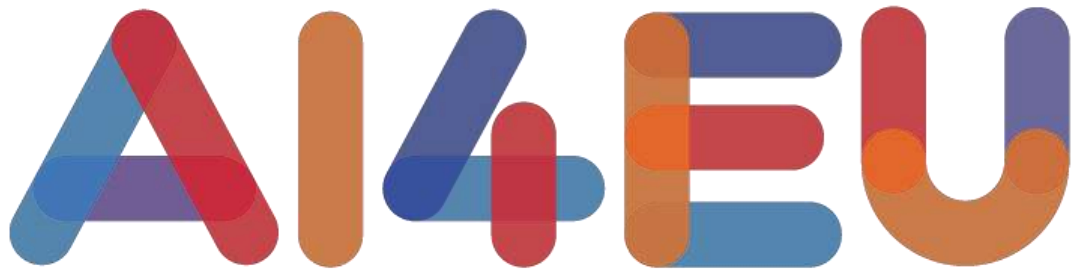
Publish AI Resource in Market Place



The AI On-Demand Marketplace for ready-to-use Docker Containers

- it is used to find a suitable solution. It is searchable by **term**, **category** or **tag**.
- Publication process is established
- Publication process online since I/2020
- >100 AI resources are already published
- Broad areas of AI categories
- **Important for AI4Media (WP 7) !!!!**





BUILDING THE EUROPEAN AI ON-DEMAND PLATFORM

THANK YOU!

Dr. Joachim Köhler (Fraunhofer)
Technical Coordinator AI4EU, WP3 lead
Email: Joachim.Koehler@iais.fraunhofer.de



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