

# AI-on-Demand: Europe's unified gateway from AI research to real-world impact

## A strategic imperative

Artificial intelligence (AI) stands as the defining technology of the twenty-first century. Its ethical and economic deployment is essential for Europe's future competitiveness. Europe produces 20% of all academic research in artificial intelligence. Yet, many postdocs still plan to move abroad for opportunities, highlighting both its intellectual capacity and the challenge of efficiently mobilising this research.

The AI-on-Demand (AIoD) platform was conceived to address this strategic necessity. It serves as the single entry point for researchers, innovators, industry professionals, and the public sector to discover, share, and collaborate on essential AI assets across the continent. This is not simply a repository; it is a fundamental shift towards a unified, trustworthy ecosystem. The platform accelerates the journey from laboratory research to a successful market reality. This article examines the platform's core objectives, the pillars that sustain its vision, and the important milestones achieved by its dedicated partners and community.

## Core objective: accelerating research transition

The primary objective of the AIoD platform is to accelerate the transition of cutting-edge academic research into industry adoption and public sector solutions. Often, high-quality models, datasets, and tools developed in universities struggle to find practical applications. The platform acts as the critical connective tissue. It transforms isolated research findings into discoverable, reusable assets.

The AIoD aims to empower European researchers to showcase their work to a vast audience of potential partners. Furthermore, industry gains streamlined access to proven, ethical, and European-designed AI components. This direct link increases the impact of publicly funded research. The platform ensures Europe maintains its strong position in technological development.



## The power of 2 gateways

To effectively serve its diverse user base, the platform unifies 2 powerful gateways that support **research and innovation**, and the **industry and the public sector**. Researchers can focus on collaboration and academic sharing, while industry partners find scalable, deployment-ready assets. However, the platform is evolving, and these sides will soon unite into a single gateway to European AI.

The platform itself is sustained by a robust collaboration involving more than **40 partners**. This cross-European network includes leading universities, research institutes, and key industry players.

## Pillars of trust and collaboration

The AIoD vision is built upon 3 core pillars designed to ensure its sustainability and relevance.

- 1) **Trust and ethics:** Trustworthy AI is a foundational principle. The platform ensures all listed assets adhere to the high ethical and regulatory standards established across the European Union. Users confidently incorporate models and datasets, knowing the provenance is clear, and the underlying methodologies are sound. This commitment to ethics distinguishes the European approach globally, providing a vital competitive advantage.
- 2) **Accessibility and usability:** The platform must be universally accessible for wide-scale success. The

AIoD has developed sophisticated, integrated tools to ensure this. These tools allow users to rapidly combine, test, and adapt different AI components. The user-friendly interface supports both novice users and expert developers, democratising the development process.

- 3) **Community and growth:** The third pillar is the community itself. AI research thrives on shared knowledge. The AIoD facilitates this through dedicated forums and workshops, encouraging continuous feedback and active user engagement. This collaborative environment ensures the platform evolves in direct response to user needs. The AI-on-Demand Ambassador Network formally recognises continuous contribution, empowering active members to act as trusted voices in future development discussions.

## Comprehensive tooling for innovation

The platform provides a suite of advanced tools that transform the user experience from passive searching to active innovation, with comprehensive tutorials and guidance available to ensure rapid adoption and understanding of each service.

- **AI Catalogue** allows searching, selecting, and bookmarking assets and educational resources. In addition, it enhances the research and learning experience when used in conjunction with other services.
- **RAIL** is used for creating and sharing reusable experiments and enables collaboration and the consistent evaluation of models.
- **AI-Builder** simplifies advanced AI functions using multilingual Teuken-7B models and enables users to effortlessly retrieve documents, summarise content, and generate automated letters, all without coding knowledge.

- **EU AI Ecosystem Mapping** offers a comprehensive overview of key actors and their roles and facilitates the analysis of strengths and weaknesses, serving as a central repository for information. This enables matchmaking, benchmarking, and informed policy-making while fostering community engagement.
- **RoboCompass** addresses non-technological challenges in robotics adoption and development and ensures responsible practices while fostering ethical innovation in the field.
- **EuroCore** facilitates the sharing of project results and enables users to discover robotics and AI services. This feature significantly enhances community engagement and ensures the transferability of high-quality robotics and AI services across the European ecosystem.
- **Metadata Catalogue**, as a unified metadata schema, enables users to consistently search for assets across multiple platforms and also

supports programmatic integration for developing new services.

The platform also provides the community with **other functionalities and services**.

- **Forums** serve as the central hub for discussion, collaboration, and support around the AIoD Platform. Users are welcome to ask questions, share ideas, and engage with fellow researchers, developers, industry professionals, and AI enthusiasts across Europe, ensuring a thriving community-driven environment.
- **Success stories** allow users to discover how AI is transforming businesses and research areas. A dynamic catalogue of inspiring cases is available, highlighting organisations and professionals who leveraged AIoD solutions to achieve tangible results, innovate processes, and create positive impact within their respective fields.
- **Pool of experts** connects users directly with a diverse network of leading AI professionals across

Europe. The space is designed to facilitate knowledge sharing, enabling users to receive expert guidance and collaborate on innovative solutions. Whether exploring emerging technologies or seeking advice on best practices, the necessary support is accessible within the platform.

- **Media hub** ensures users stay up-to-date with the latest news, events, and press releases on AI research and innovation across Europe. It serves as a central point to discover key milestones and community highlights stemming from the AIoD platform.
- **AIoD API** allows developers to access the contents of the AIoD platform programmatically (in Python). The API enables users to effortlessly share resources and effectively interconnect platforms and services, promoting deep system integration across the European AI ecosystem.
- **UI guidelines** provide a stylesheet to build user interfaces (UIs) and reusable AIoD components. It also includes an AIoD WordPress theme designed to facilitate the creation of quick, brand-aligned websites, ensuring visual consistency across all community outreach and platform extensions.

goal has been to establish a lasting ecosystem. The platform achieved major capability expansion by integrating a comprehensive suite of advanced tooling and services. This sustained growth confirms the core message: AI-on-Demand will continue to grow and evolve through ongoing European collaboration, providing cutting-edge tools, infrastructure, and a thriving community for those pioneering the future of AI in Europe. The work achieved is now setting the stage for the platform's future iteration, ensuring long-term sustainability and operational management. The platform is a permanent and essential fixture in Europe's digital future.

## A shared, innovative future

The AI-on-Demand platform represents a strategic, coordinated effort to consolidate Europe's vast intellectual capital in AI. By accelerating the transition of research into application, and by building its operation on principles of trust, accessibility, and a unified community, the platform has become far more than a simple database. It is a vibrant ecosystem where collaboration thrives.

Its objectives are being met through advanced tools and strong community engagement. With major milestones achieved, including the successful implementation of dual gateways, the platform ensures that Europe's 20% share of global AI academic output translates into a greater share of global technological leadership. All stakeholders are invited to explore the platform, contribute their expertise, and participate in building this shared, innovative future.

## Quantifiable impact and milestones

The platform's success is demonstrated by its rapidly growing community and the quantifiable contributions it has made. The community is not only using the platform but actively fuelling its growth. It now supports over **2000 users across 70 countries** and has seen the contribution of **1 022 256 datasets, 12 experiments, 1853 publications, and 13 platforms**. The community has also generated **292 news items, 263 events, 10 forum conversations, 58 success stories, and 106 hosted projects on AIoD**. Additionally, **302 organisations have mapped their work into the European AI ecosystem using the platform**.

The history of the AIoD Platform is one of continuous strategic evolution. From its inception, the primary



## PROJECT SUMMARY

Europe produces 20% of global AI research but struggles to turn it into industry solutions, risking fragmentation and brain drain. The AI-on-Demand (AIoD) Platform addresses this by offering a unified gateway to move research into market-ready applications. With a focus on trust, accessibility, and community, AIoD is building a solid and trustworthy European AI ecosystem.

## PROJECT PARTNERS

The AI-on-Demand platform is managed by 2 key projects: AI4Europe and DeployAI. AI4Europe (2022-2025) focuses on advancing AI across Europe, while DeployAI (2023-2027) works to drive the deployment of AI technologies in industry. Both projects bring together researchers and experts to ensure the platform's success in creating an advanced European AI ecosystem.

## PROJECT LEAD PROFILE

DeployAI is led by Joachim Köhler from Fraunhofer Institute IAIS, a leading German non-profit for applied research. With a doctorate from the Technical University of Munich, he specialises in natural language processing, generative AI, and large AI models. He also coordinated the OpenGPT-X project and the publication of the Teuken language model.

## PROJECT CONTACTS

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