



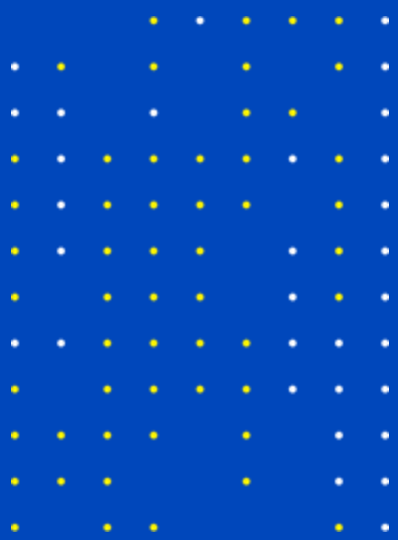
# Leveraging the AI-on-Demand Platform for AI Research: Opportunities for Postgraduates

AIDA Excellence Lecture Series

9 December 2025



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Long Pham, PhD  
University College Cork (UCC)  
AI4Europe Coordination Team

[NOTE: All links provided in this lecture are valid on 9 Dec 2025]



# Research

22,000 AI patent applications  
in 2024

15 AI Factories by 2026

120+ AI Research Centers  
& Labs

€1.5 bn in Grants by the  
European Research  
Council

50,000+ AI Researchers  
in Europe



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Only 26% of the European  
adult workforce experiments  
with AI at work

70% of the European cloud market  
owned by American cloud  
providers

40-60% demonstrate poor  
understanding of AI  
technology

Only 20.97% of medium  
and 11.21% of small  
enterprises use AI

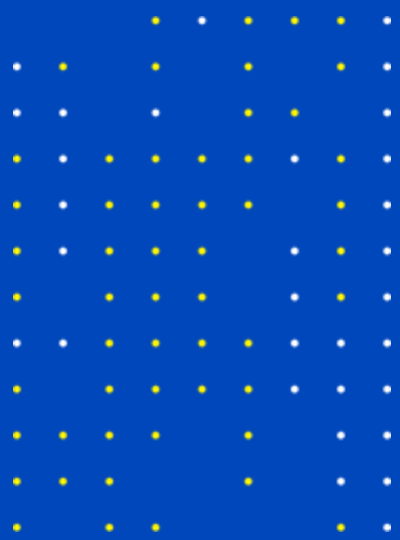
\$8 billion in AI venture  
investment in 2024,  
compared to \$109.1 billion in  
the US

Europe captures merely  
7% of global AI  
investment...

...while the US and  
China combined  
account for 80%



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# Industry

**€87.84 bn** European AI Sector  
Market Value

**202** European AI unicorns

**6.300+** European AI  
Startups

**€13 bn** Investment in  
European AI

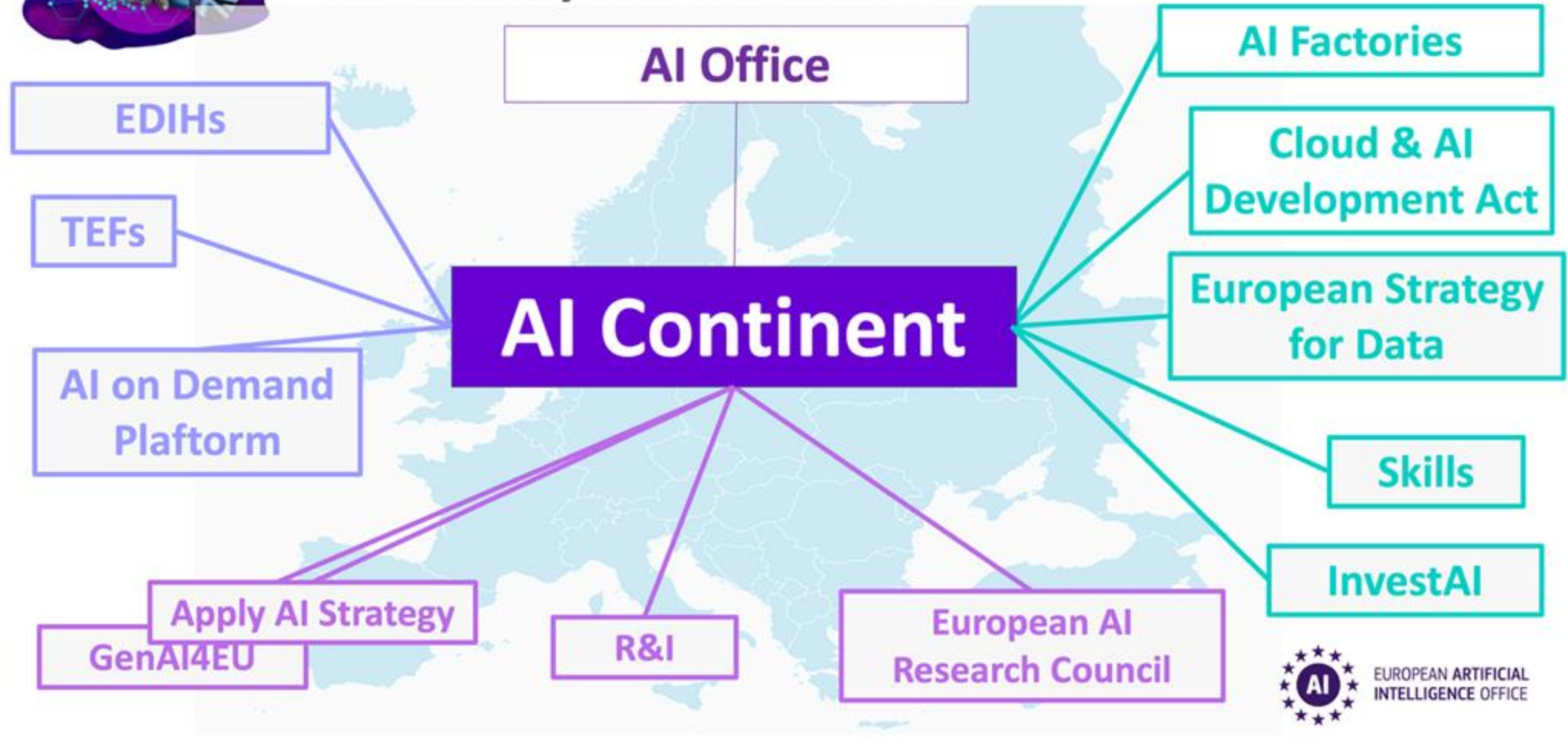
**+32%** Annual AI Investment  
Growth



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# The AI Continent: The best place in the world to develop trustworthy and advanced AI



EUROPEAN ARTIFICIAL  
INTELLIGENCE OFFICE



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# The Mission

Unite European AI research, industry,  
and public sector through a single  
platform- enabling collaboration, shared  
innovation, trusted tools, and pan-  
European visibility.



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# The Vision

Driving Europe's AI forward with one trusted platform—enabling shared innovation, scalable technologies, and strong visibility throughout the European landscape.



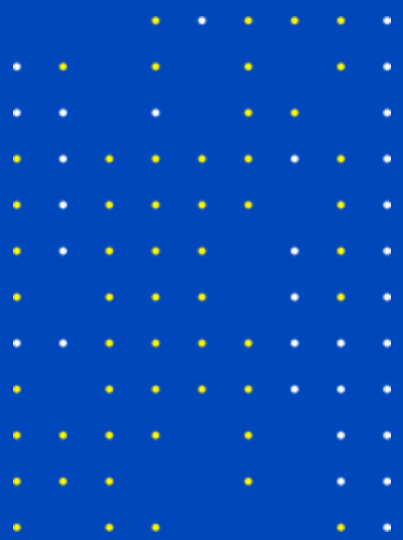
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# How will we achieve it?

By bringing together AI services, resources, and tools and making them easily accessible in **one place**.

**A platform** where AI researchers, SMEs, tech providers, EU-funded projects, Digital Innovation Hubs, and other European actors come together to share AI progress.





# AloD Platform dialogue: Research and Industry



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# One Platform. Two Gateways. AI For Europe.



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# Why join the AI-on-Demand platform?





# For Researchers & Innovators

Explore. Build. Share.



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1

Find and use relevant assets, such as resources, datasets, tools, or services.



- “**AI Catalogue**” - Bookmarking AI assets as you explore the Catalogue, creating your own collection.
- “**AI-Builder**” - Simplifying AI with Teuken-7B — retrieve, summarise, and generate with no coding needed.
- “**Research and Innovation AI Lab (RAIL)**” - Building, sharing, and testing models together with reusable experiments.
- “**RoboCompass**” - Navigating non-technical challenges to accelerate Responsible Robotics.
- “**Success Stories**” - Connecting success stories to users with tailored support and expert matching.
- “**EU Ecosystem Mapping**” - Mapping Europe’s AI actors to enable collaboration, benchmarking, and policy insight.



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2

Use the platform as a dissemination channel to share research outputs, news updates, or forthcoming events, and engage with the AI community.



- Make **communication requests** for news, events, announcements, blog/opinion articles, publications and press releases.
- Access **branding assets, promotional resources**, and **guidelines** to help showcase your work internationally.
- Connect with peers in the **AloD Forum**, become an **AI mentor**—or find the right expert to support your journey.





# 3 Access AI educational courses and resources.



Browse, search and access all the AI education resources currently available under the AI Catalogue, including distance courses, onsite courses, and more.

You are also welcome to publish your own educational resources.



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# 4

Technically develop or deploy different components, services, or tools.



- “[Learn how to do it](#)” [videos](#) - Watch short video tutorials and learnings on how to install, authenticate and access AloD knowledge.
- “[AloD Metadata Catalogue](#)” - Explore the Swagger documentation for the AloD Metadata Catalogue.
- [AloD Open API](#) - Access the contents of the AloD and the documentation to construct services.
- “[Integrate with AloD](#)” [section](#) - Build your service using the AloD API and save time.
- Use a [stylesheet](#) that helps you save time on building UIs and contains reusable AloD guidelines for your UI/UX team.



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# For Industry, SMEs & Public Services

Build. Train. Operate.



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## Build. Train. Operate.



AloD is a one-stop platform for companies to **build, test, and scale** AI solutions—faster, more securely, and with full visibility across the European market.

- A single-entry point to trusted tools, infrastructure, and partners
- Built for real business needs: speed, control, and growth
- Designed for European companies that want to innovate and scale responsibly



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# 1 Build.

Design and develop AI solutions,  
faster.



Get started faster with secure, ready-made components.

- Low-code tools and prebuilt components help you build quickly
- Use proven models and assets from trusted European sources
- No vendor lock-in – keep full control of your development



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## 2 Train.

Train with confidence—securely  
and at scale.



Train your AI securely, using scalable European infrastructure.

- Use cloud or HPC resources for lightweight or high-performance training
- Pre-configured tools help reduce setup time and complexity
- Built for compliance and transparency from day one.



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# 3 Operate.

Deploy, share, and grow  
your AI solution.



Bring your solution to market—and make it visible  
throughout Europe.

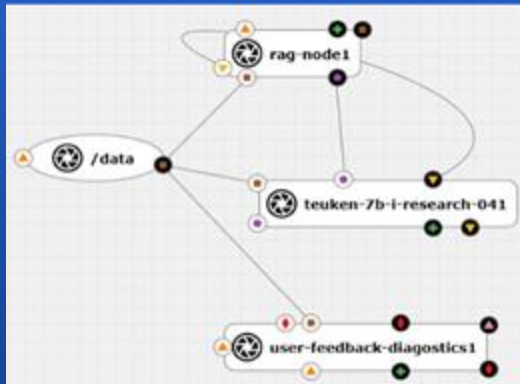
- List your AI solution in a trusted European marketplace
- Gain visibility across industries and borders
- Use the Business Navigator to find the right partners and use cases
- Operate on GDPR-compliant infrastructure with full data control





## DevOps tools

Services & tools (workflow engines, cloud resources, LLMs etc.) for accelerating the process of building, training, and operating AI.



## Marketplace

Provides a catalogue of European AI products and services, offering e-commerce services, pricing models, billing integration.



## Business Navigator

Overview and Navigation of European business contacts, visualized on a map, different views to filter and explore the landscape.





# What's in it for you?



## Deploy services at speed

Instantly publish your AI models, apps, and services in a fully managed enterprise Marketplace - complete with billing, payments, quoting, and API integrations.



## Reach real buyers

The Business Navigator connects you directly with thousands of European enterprises - instant matchmaking, lead generation, and deal flow across the EU.



## Empower every user

Everyone can deploy and customize AI - no programming bottlenecks, just pure innovation.



## Run & scale globally

Deploy seamlessly across sovereign cloud infrastructures. Keep your data and models in Europe.



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# Why join the AI-on-Demand platform?

- **Unified platform**

All tools, services, and partners in one place – streamlined, scalable, and ready to use

- **Trusted & European by design**

GDPR-compliant, sovereign infrastructure with built-in European values and standards

- **Inclusive access**

Whether you're an SME or a large enterprise – AloD lowers the barrier to trusted AI

- **Built for visibility and growth**

List, share, and scale your solutions across Europe with no lock-in, full control, and maximum exposure



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the European Union



# Why join the AI-on-Demand platform?

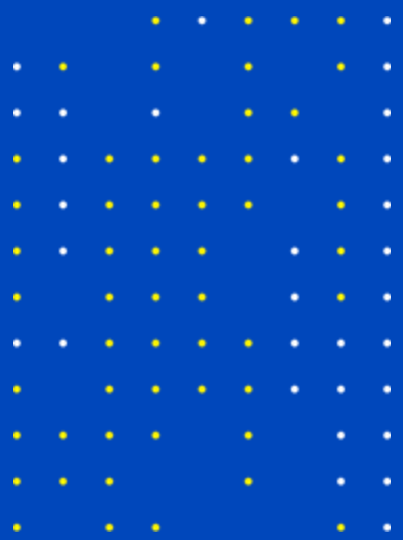
## For Research & Innovation

- Metadata Catalogue - Search 500,000+ AI assets
- AI Catalogue - Bookmark and organize resources
- RAIL - Collaborate on AI experiments
- EU Ecosystem Mapping - Connect with researchers
- RoboCompass - Robotics ethics guidance

## For Business & Industry

- Gain visibility across Europe through a trusted AI platform
- Connect with partners and funding through smart ecosystem navigation
- Accelerate development with ready-to-use, low-barrier AI tools
- Scale AI efficiently using secure, high-performance infrastructure
- Deploy with confidence in a reliable, enterprise-ready environment
- Access trustworthy AI aligned with European values and regulations





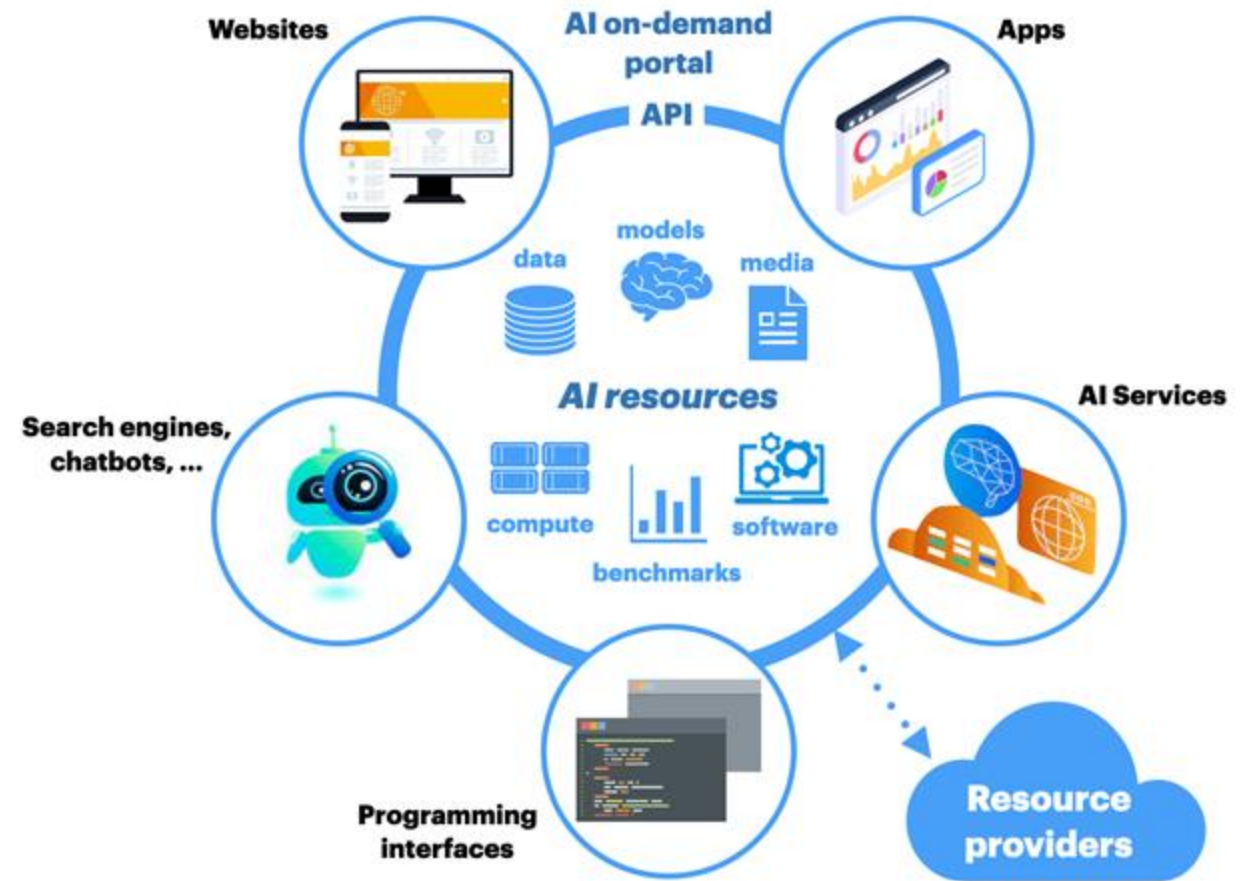
# LIVE Demo-Session on the AloD Platform



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# AI on-Demand platform - How?

- **Easy-to-use interfaces** for different types of users
  - Website, chatbot, API,...
  - From no-code to custom code
- **Services to help people use AI**
  - Search / discovery
  - AI model building
  - Experiments / benchmarks
- **Connect existing infrastructure and communities**
  - Break silos
  - Share data/models where you want
  - Cover all resource types
  - Entirely open source



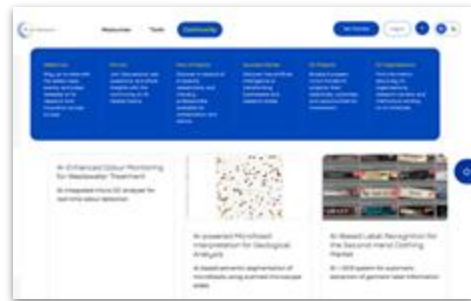
# AIoD API

Everything we've shown is built on the open source AIoD API

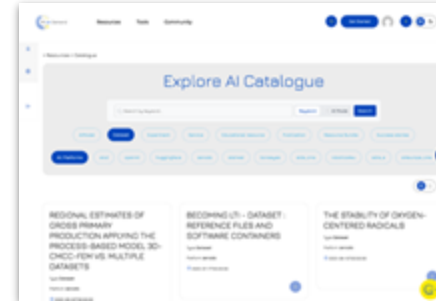
You can also auto-upload resources, integrate your services, build new tools,...



Web portal



Community Portal



AI Resources search + chatbot



AI Catalog share + edit

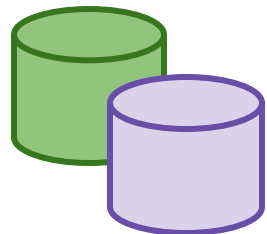


(Your) services / scripts

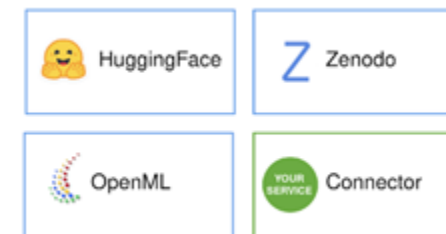
AIoD API (metadata catalog)



Authentication



Unified Meta-Databases



Connectors to other platforms



# Resources

## Resources

- [AI Catalogue](#)
- [Communication Materials](#)
- [SDKs and APIs](#)

## Tools

- [RAIL](#)
- [AI Builder](#)
- [RoboCompass](#)
- [AloD Metadata Catalogue](#)
- [EU AI Ecosystem Mapping](#)

## Community:

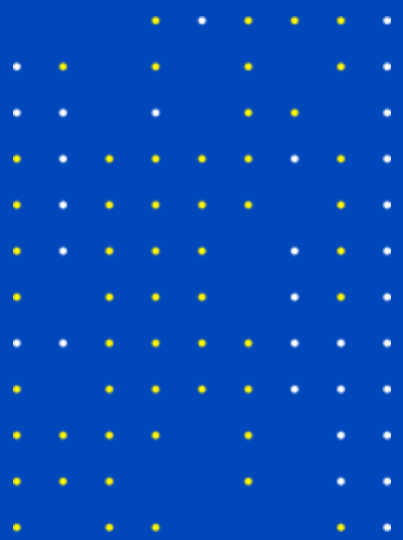
- [Forum](#)
- [Media Hub](#)
- [Success Stories:](#)
- [Pool of Experts](#)
- [Projects](#)

## Integrate:

- [AloD API](#)
- [AloD Metadata Catalogue](#)
- [Open source community](#)

## Tutorials:

- ["Learn how to do it" videos](#)



# Use case of RoboCompass



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# Responsible Robotics Compass



Welcome to RoboCompass

## Responsible Robotics Compass

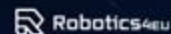
Welcome to the RoboCompass, an innovative tool  
designed to assess the non-technological  
aspects of responsible robotics.

Give us  
your feedback

Login 

Tool Info

# Responsible Robotics Compass



## Tool Info

### Responsible Robotics Compass: Prepare your robot for the future

Responsible Robotics Compass: Prepare your robot for the future

Welcome to the RoboCompass, an innovative tool designed to assess the non-technological aspects of responsible robotics. Whether you are a robotics manufacturer, a small or large company, a researcher from industry or academia, or even an EU-funded project or policymaker, the RoboCompass is here to help you.

Our assessment tool provides a comprehensive overview of the development of the aspects which affect the acceptance of a robot, such as socio-economic issues, human experience, environment, legal and data.

Before the assessment starts, you have to choose the importance that each of these aspects have in your system. You should adjust them based on your customers' requirements and use case. After choosing your priorities, you're directed to the dashboard, where your assessment takes place. You must choose an area to calculate your global score. Once you click on an area, the real assessment starts. You will be asked different questions, divided into two parts:

- The risk assessment questions, where you'll identify the hazards and risks associated with the different robot's dimensions.

Give us  
your feedback


Tool Info

# Responsible Robotics Compass

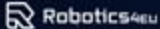


# Responsible Robotics Compass







AI on Demand  
Knowledge and services  
for the community




Robotics4EU

Home

Joana  
LOBA

Log out



Let's start the assessment!

What is your system's name?

Give a name to your assessment.

ex: Electra

or create another version of an assessment  
you've created before.

Joana Martinheira

Give us  
your feedback

My Assessments

Continue →

Tool Info

# Responsible Robotics Compass



AI on Demand  
Robotics4EU

Let's start the assessment!

TRL

Select from 1 to 9.

After selecting a TRL, changes cannot be made - so choose wisely!

1 2 3 4 5 6 7 8 9

Technology development and testing  
Initial prototypes are developed and tested in a laboratory environment

My Assessments

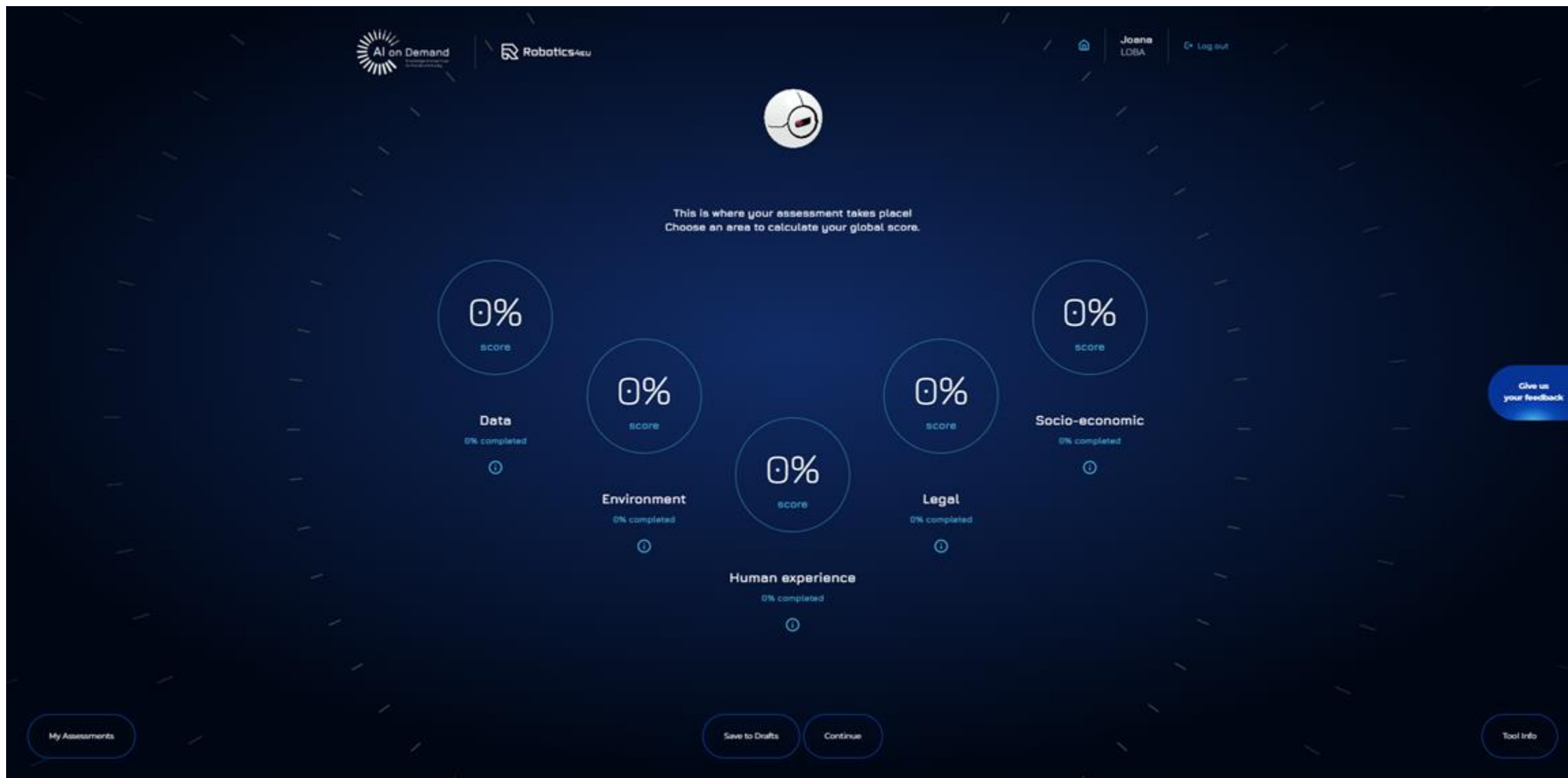
Continue →

Tool Info

Give us your feedback

Logout  
LOBA

# Responsible Robotics Compass



# Responsible Robotics Compass



AI on Demand  
Intelligent Automation  
by Design

Robotics4eu

Home

Joana  
LOBA

Log out

Data

Please answer the following questions.

Collection (1)

1234

Risk

Does the robot collect the following data?

☐ Images and/or voice

☐ Medical information

☐ Personal communications (e.g. private messages)

☐ Geolocation data

☐ Fingerprints or other biometric data

☐ Financial information (bank account, credit card)

☐ Password and other forms of authentication

☐ Government identifiers

☐ Data is collected from infants or other vulnerable groups.

☐ Databases are not controlled for cognitive biases at the collection stage.

☐ The system acquires large amounts of data, particularly as the solution scales up, resulting in storage or processing inefficiencies.

☐ Not sure/not applicable

☐ Other

Give us your feedback

# Responsible Robotics Compass



- ☐ Password and other forms of authentication
- ☐ Data is collected from infants or other vulnerable groups.
- ☐ The system acquires large amounts of data, particularly as the solution scales up, resulting in storage or processing inefficiencies.
- ☐ Other
- ☐ Government identifiers
- ☐ Databases are not controlled for cognitive biases at the collection stage.
- ☐ Not sure/not applicable

## Mitigation

What mitigation steps are put in place for data collection risks?

- ☐ By default, only data necessary for operations is collected - the user has to opt-in for any additional data collection
- ☐ User is provided with documentation stating what type of user data is collected (e.g. in the user manual).
- ☐ Users are alerted when data collection is taking place - this should be informative but not disturbing, for example a light indicator showing when sensors are on.
- ☐ Data is organized and labeled including origin and date of acquisition.
- ☐ Other
- ☐ The data collection policy is explained in training sessions to involved parties (e.g. employees, end-users, buyers, etc.)
- ☐ The user can access, modify and delete the data collected about them.
- ☐ A data management plan is implemented.
- ☐ Not sure/not applicable

Give us your feedback

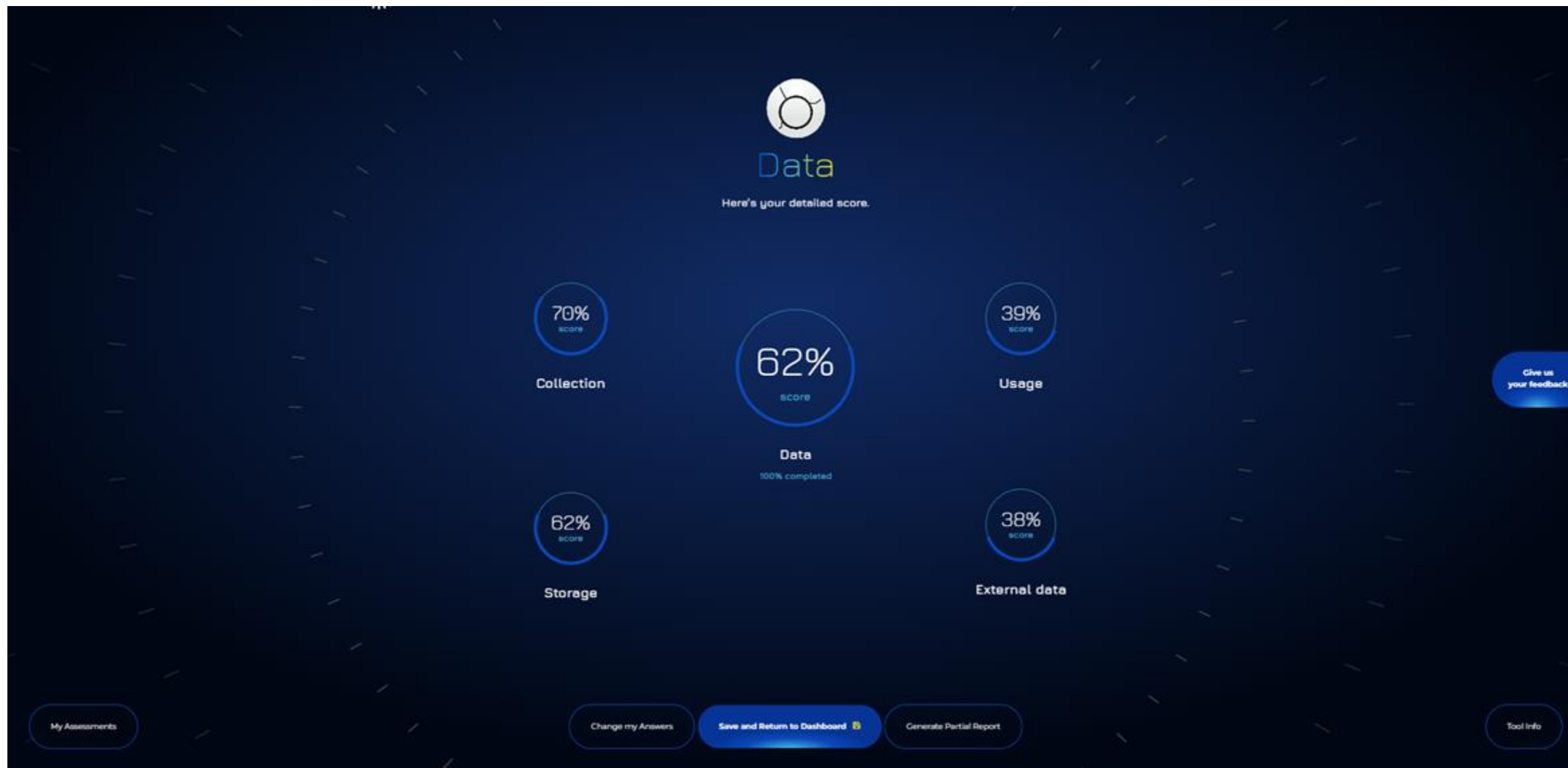
My Assessments

Save and Quit

Next →

Tool Info

# Responsible Robotics Compass



# Responsible Robotics Compass



The interface is a web application for the Responsible Robotics Compass. It features a dark blue background with a white robot head icon at the top center. The main heading is "Choose your priorities." followed by a subtext: "These are up to you! These sliders allow you to set the importance of different categories in the assessment of your system. Adjust them based on your customers' requirements and use case."

There are five sliders for different categories:

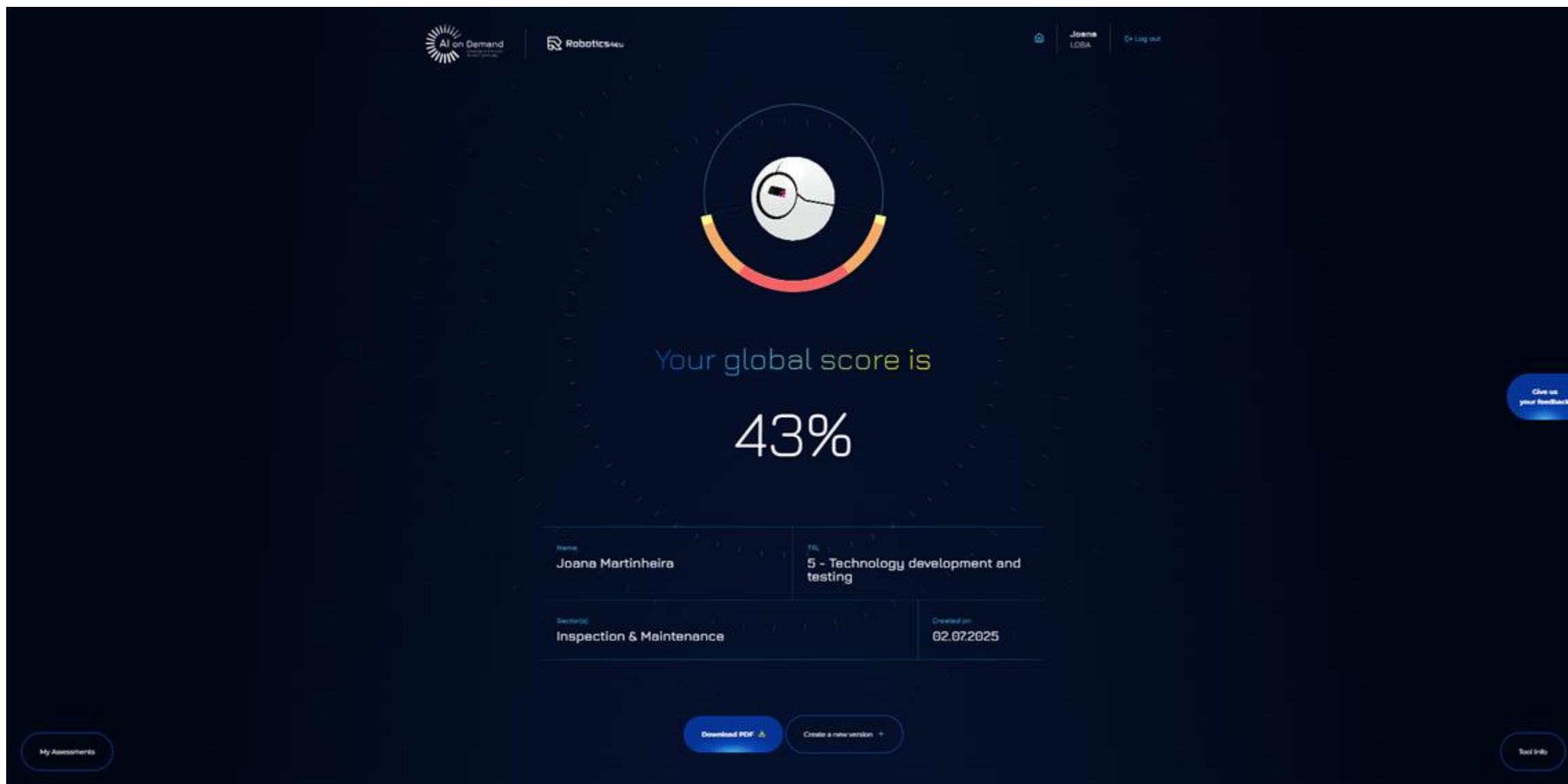
- Data**: Slider set to "Very important"
- Environment**: Slider set to "Important"
- Human experience**: Slider set to "Important"
- Legal**: Slider set to "Important"
- Socio-economic**: Slider set to "Important"

Navigation and utility buttons are located at the bottom:

- My Assessments** (bottom left)
- Return to Dashboard** (bottom center-left)
- Generate Report** (bottom center, highlighted in blue)
- Save to Drafts** (bottom center-right)
- Tool Info** (bottom right)

Additional elements include a top navigation bar with "AI on Demand", "Robotics4eu", a home icon, "Joana LOBA", and a "Log out" link. A "Give us your feedback" button is on the right side.

# Responsible Robotics Compass



# Responsible Robotics Compass

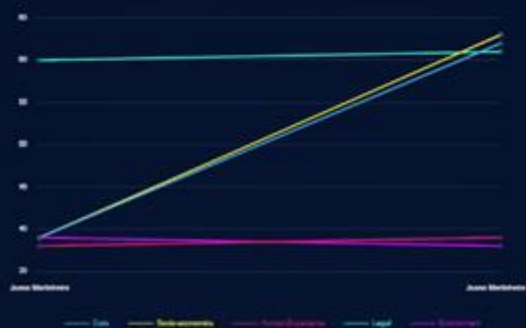


Check your risk / mitigation relation



View on your dashboard

Compare all the assessments you have conducted for your system



My dashboard

Test tool

# Responsible Robotics Compass



## Collection

### What is Collection?

This section evaluates the types of data collected by the robot and their potential impact on privacy.

### Why is Collection important?

The collection of personal data by intelligent systems is a major concern among the general population.



Your risk and mitigation levels are balancing each other out. Please go over the different sub-categories and double check whether this holds up or if there is a case where the scores are very unbalanced. Additionally, please look at where your mitigation level can be improved as there is still a lot of room.

Give us your feedback

### 10% Risk Score

Your robot has an extremely low risk level. Please double check your inputs more critically. If done so, and the risk levels are still this low, think of steps you can take to maintain your current risk level whilst continuing the development and exploitation of the robot.

### 10% Mitigation Score

Your robot has an extremely low mitigation level.

## Recommendations

Minimise collected data. All non necessary data should be opt in for the user.

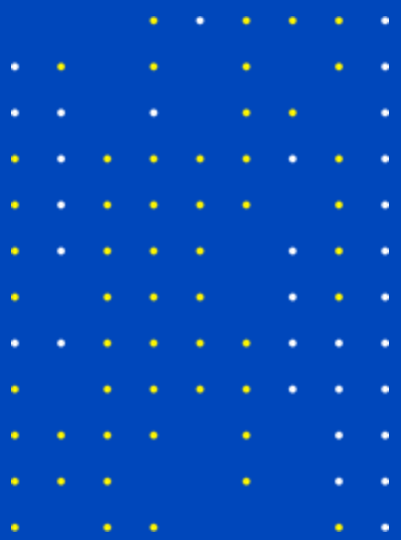
Include information on the data collection policy and possible actions to change what data is collected into all relevant training documents.

The manual should specify what type of user data is collected.

Give the user the possibility to access, modify and delete the data collected about them.

My Assessments

Tool Info



# LIVE Demo-Session on the AloD Platform



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# The European AI-on-Demand (AloD) Platform

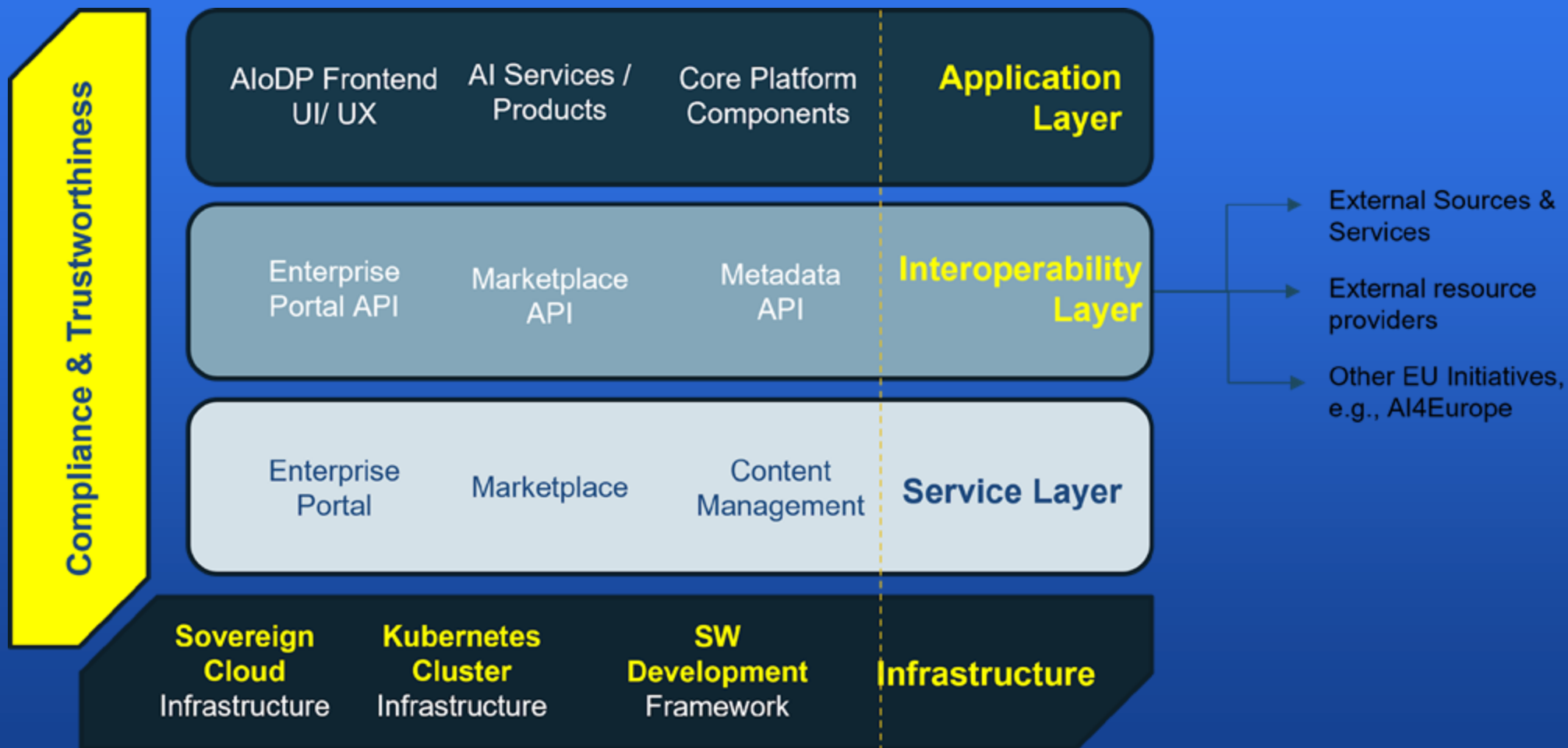


- Objectives:
- ENHANCEMENT
- SUSTAINABILITY
- ENGAGEMENT
- INTEGRATION
- SCALABLE PLATFORM





# AloD Platform High-level Architecture Overview





# Examples of Application and Service Layers of AloD Platform



## Business Navigator

Overview and Navigation of European business contacts, visualized on a map, different views to filter and explore the landscape.



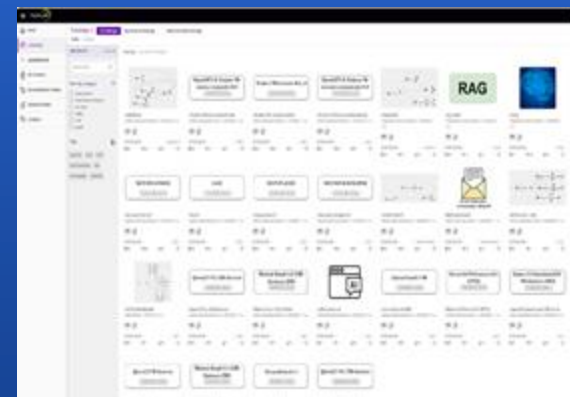
## Marketplace

Provides a catalogue of European AI products and services, offering e-commerce services, pricing models, billing integration.



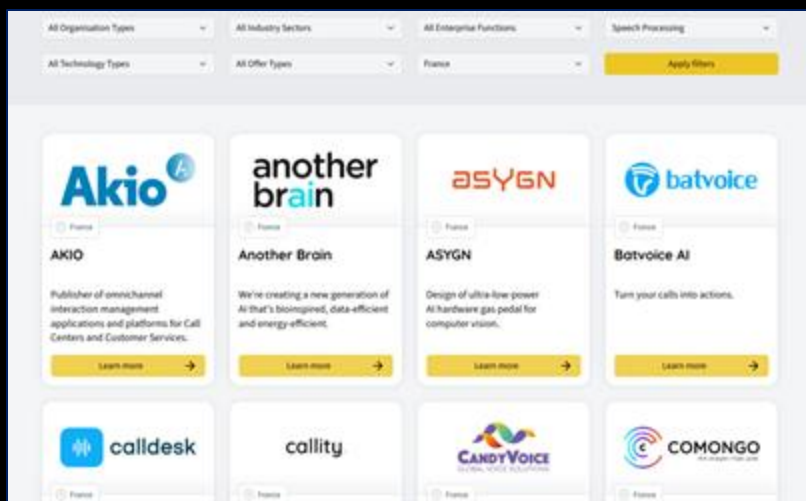
## AI Builder

Services & tools (workflow engines, cloud resources, LLMs etc.) for accelerating the process of building, training, and operating AI.





# Business Navigator



## Comprehensive Overview and Navigation of TOP European AI Contacts:

- Offers visibility among the EU ecosystem
- Overview and Navigation of European business contacts
- Business contacts easily accessible
- MAP with visualized Landscape
- Different views to filter and explore the landscape

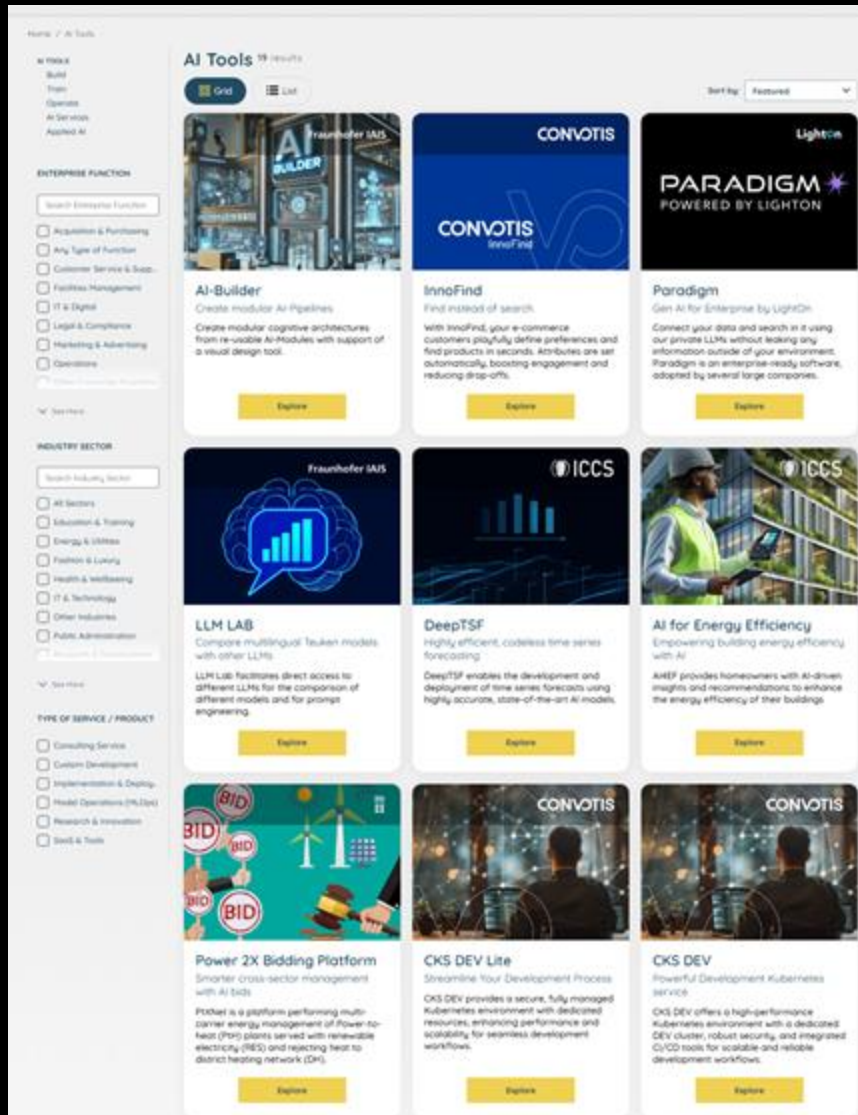
<https://business-navigator.aiodp.ai>



Financed by  
the European Union



# Marketplace



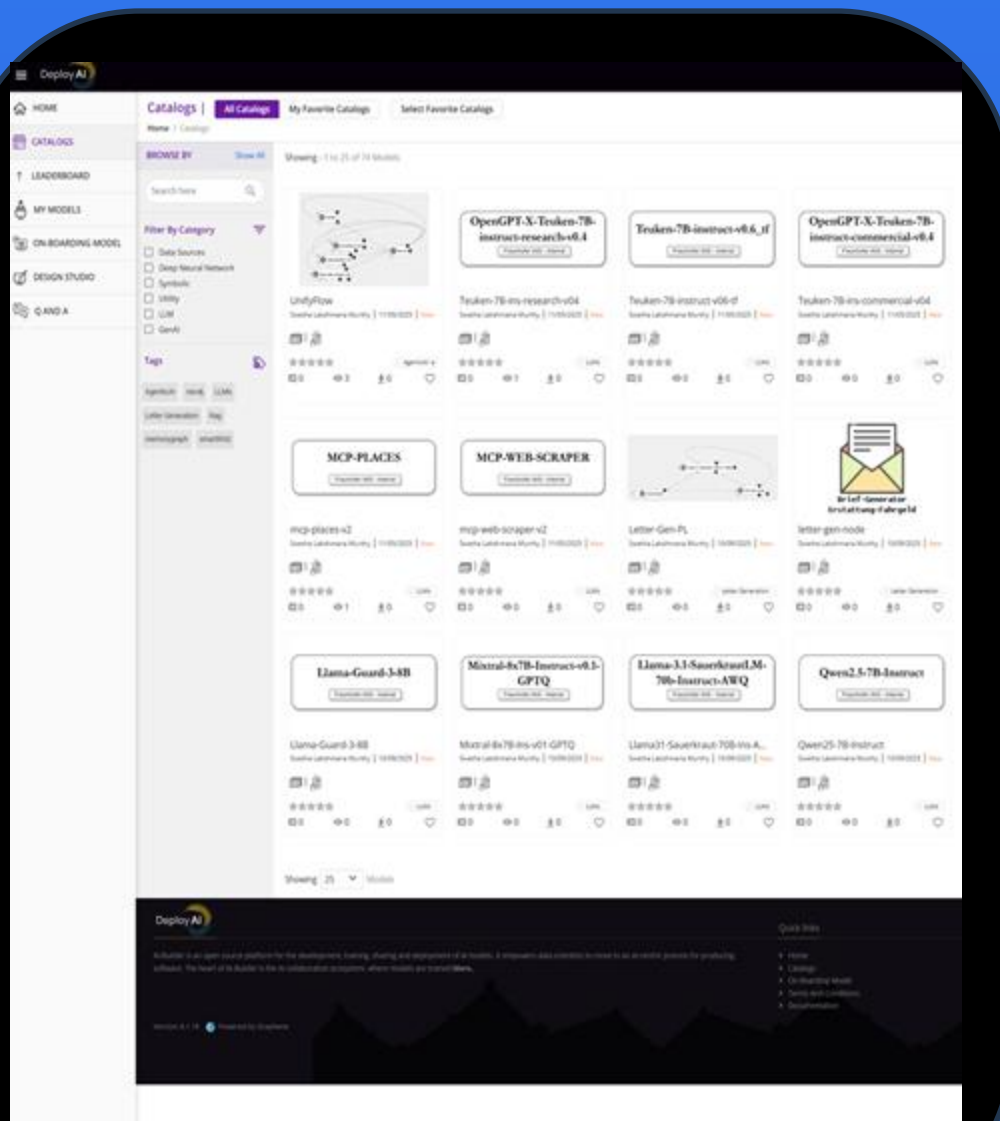
## One-Stop Shop for AI Innovation

- Provides a secure and transparent catalogue of European AI products and services
- Offering e-commerce services, pricing models, billing integration.

<https://marketplace.aiodp.ai>



# AI Builder



**An open-source platform for the development, training, sharing and deployment of AI models.**

- Catalog of AI-Modules: catalog with integration to the Virto Commerce marketplace to buy and sell them as products
- Visual AI-Pipeline Editor: easily create, share and deploy AI-Pipelines from reusable AI-Modules from the catalog without coding

<https://ai-builder.aiodp.ai/#/home>

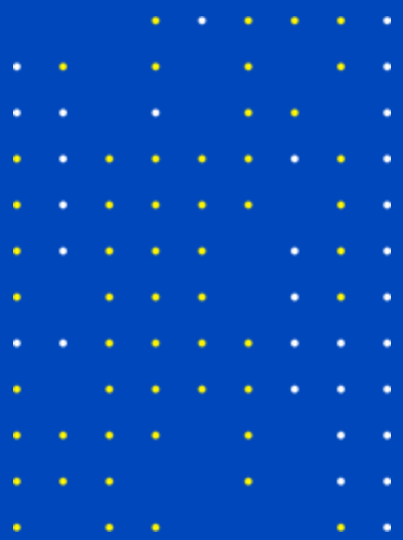


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Shop For AI Innovation

Empowering AI Research  
& Industry

Research ↗

Industry ↗



Time to register and join our community



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