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the European Union

DeployAI: Platform Architecture and Project Overview

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DeployAI

Outline

1. The European AI-on-Demand Platform
2. DeployAI Project Overview
3. Platform Architecture & Components
4. Current Status & Next Steps



The European AI-on-Demand Platform

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The European AI-on-Demand Platform



- Fundamental element of EC's strategy to make Europe a world leader in **human-centric and trustworthy AI**
- Shared repository of AI knowledge, services, tools and resources
- Exchanging and building AI resources and applications within the European AI **innovation ecosystem**

Timeline



AI4EU
(2019-2021)

01

AI4EU builds a comprehensive European AI-on-Demand (AIoD) platform to lower barriers to **innovation**, to boost **technology transfer** and catalyse the growth of start-ups and SMEs in all sectors through open calls and other actions.



ICT-49 cluster
(2021-2023)

02

The ICT-49 project cluster bulbs upon AI4EU, and aims at consolidating the AIoD ecosystem by bringing in a **larger user community**, especially from the **non-tech sector**, and by reinforcing the service layer of the platform.



AI4Europe
(2022-2025)

03

AI4Europe aims to establish an open, collaborative AI-on-Demand Platform that fosters **research excellence, knowledge sharing**, and innovation, enabling Europe to lead in cutting-edge AI **research** while ensuring long-term sustainability.



DeployAI
(2024-2027)

04

The primary goal of the DeployAI project is to build, deploy, and launch a fully operational AIoD platform, promoting trustworthy, ethical, and transparent European AI solutions for the **industry**, with a focus on **SMEs** and the **public sector**.



DeployAI Project Overview

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Project Mission



DeployAI aims is to build, deploy, and launch a fully operational AIoD platform, promoting trustworthy, ethical, and transparent European AI solutions for the industry, with a focus on SMEs and the public sector.

DeployAI will become a vendor-independent and trustworthy AI platform that will provide European Start-ups, SMEs and Enterprises with seamless access to the cutting-edge AI technology



Project Funding



28 Million Euros

Duration: 01.01.2024 - 31.12.2027

The DeployAI project has received funding from the Digital Europe Programme (DIGITAL) under grant agreement №. 101146490 - DIGITAL-2022-CLOUD-AI-B-03.

Project Consortium



28 Partners from 13 Countries



Project Offering



1

A comprehensive AI resource catalogue and marketplace

A curated collection of ready-to-use AI tools and services. Access to European-developed LLMs. Support for complex (Gen)AI workflows.

2

Access to European High Performance Computing Resources

Seamless access to EU HPCs (with an emphasis on the EuroHPC context) and other Cloud resources for efficient and scalable model training and inference.

3

Interoperability with the wider European AI-Ecosystem

Connectors with several EU initiatives, such as: European Data Spaces (SIMPL, GAIA-X, Copernicus), EuroHPC, TEFs, EDIHs and external stores & services.

4

Trustworthy AI resources, innovative AI services and use-cases

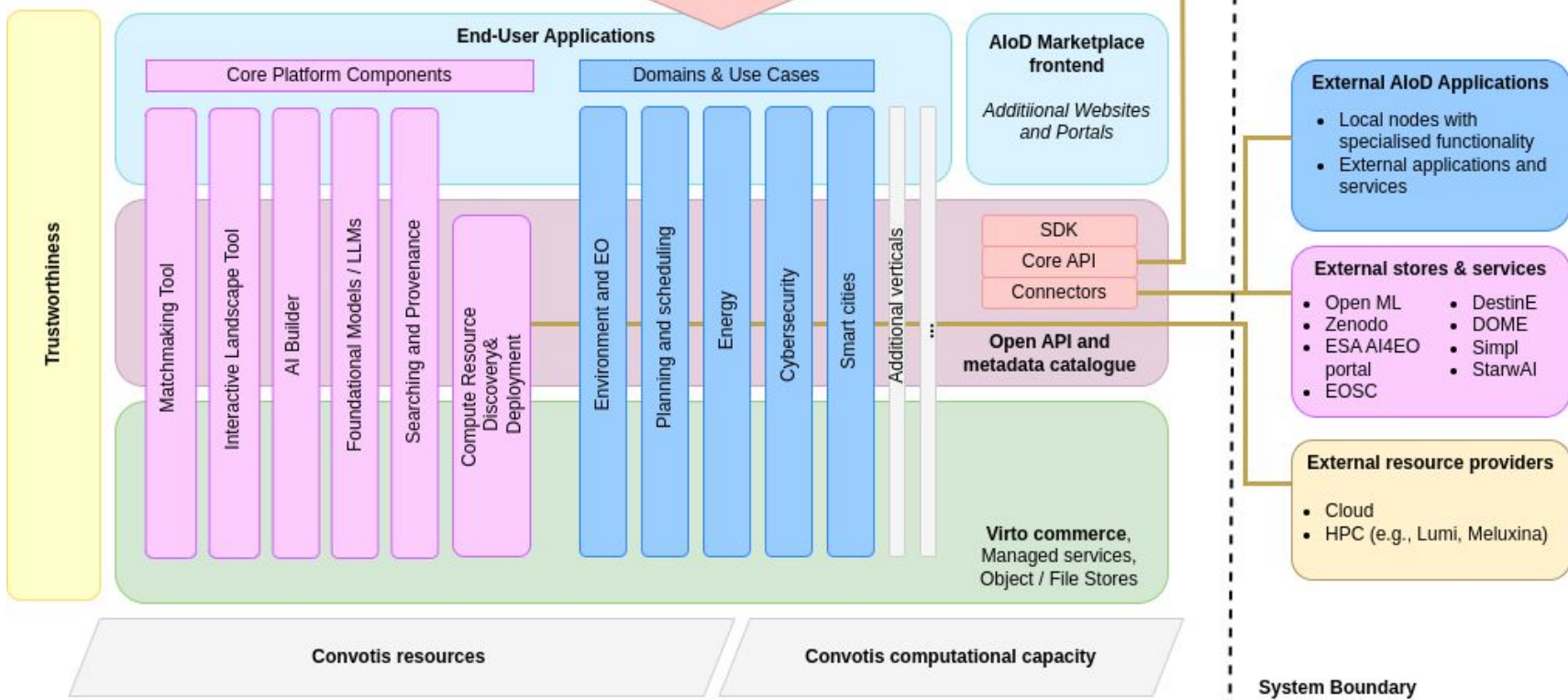
EU regulatory compliance and trustworthiness support. Ensuring TAI principles. Convergence with high-impact domains (environment, energy, etc)



Platform Architecture & Components

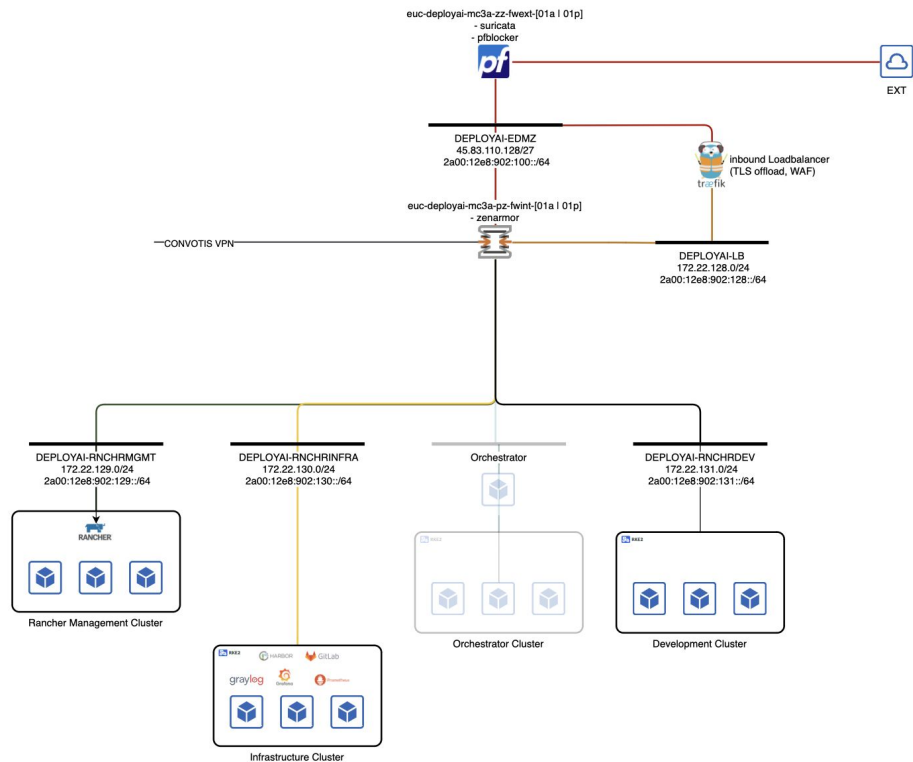
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Architecture



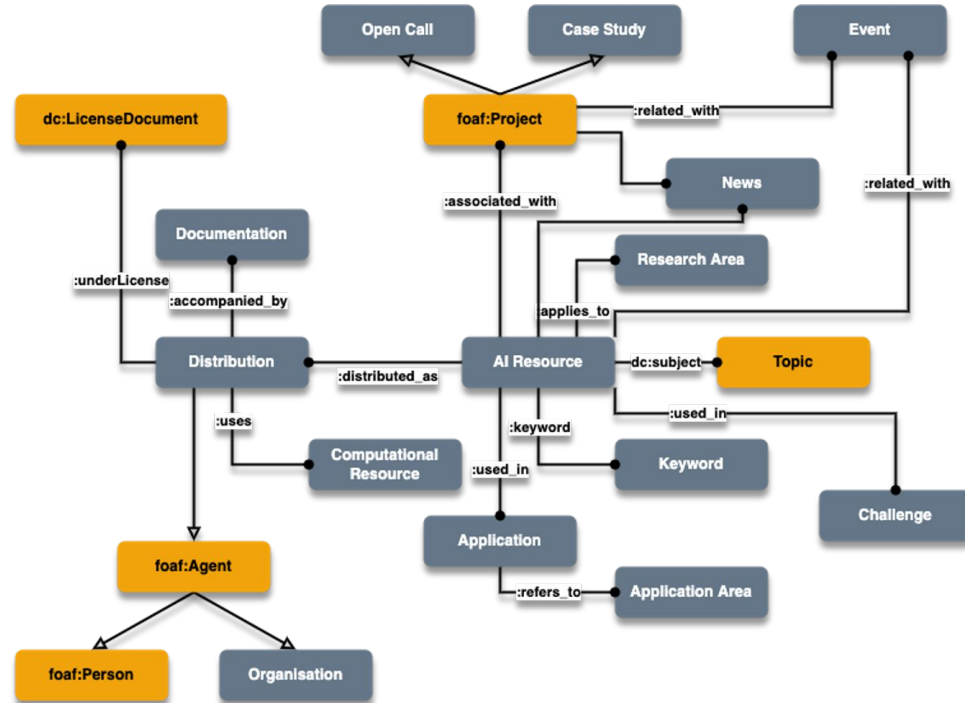
Infrastructure

- Multi-layered Security: firewalls, load balancers, VPN
- Kubernetes for Container Orchestration
- Rancher for Cluster Management
- Separate clusters for management, infrastructure, and development



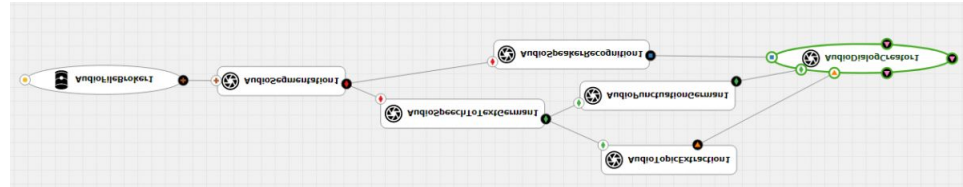
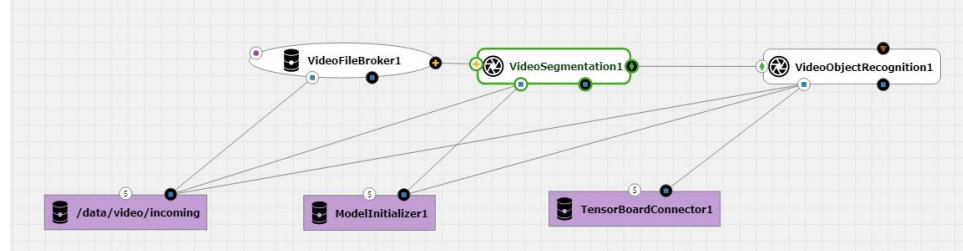
Metadata Catalogue

- **Metadata** in an Open and Standard form
- Based on user-stories obtained and analysed across projects, domains, applications, etc.
- **API** based component, integrated with platforms like **HuggingFace** and **Zenodo**.



AI Builder

- A platform for the **development** and **deployment** of AI solutions by assembling reusable AI modules into AI **pipelines**.
- Microservice-based deployment
- Workflow editor



Platform Components



- Metadata Catalogue
- AI Builder
- Interactive Landscape Tool
- Matchmaking Tool
- Access to European LLMs
- Access to HPC and Cloud Resources
- Interoperability with several EU initiatives
- DeployAI Marketplace
- Domain-specific services
- Use-cases



Current Status and Next Steps

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Current Status & Next Steps

✓ **DeployAI Website Launched:**
Successfully launched our website <https://deployaiproject.eu/> providing information about the project and its goals.

🎯 **MVP Development:**
Focused on delivering the MVP of the platform by January, 2025.



Thank you!



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