

AI on-demand

A user guide for the AI research and innovation community

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Funded by
the European Union



AI on-Demand platform

Why?

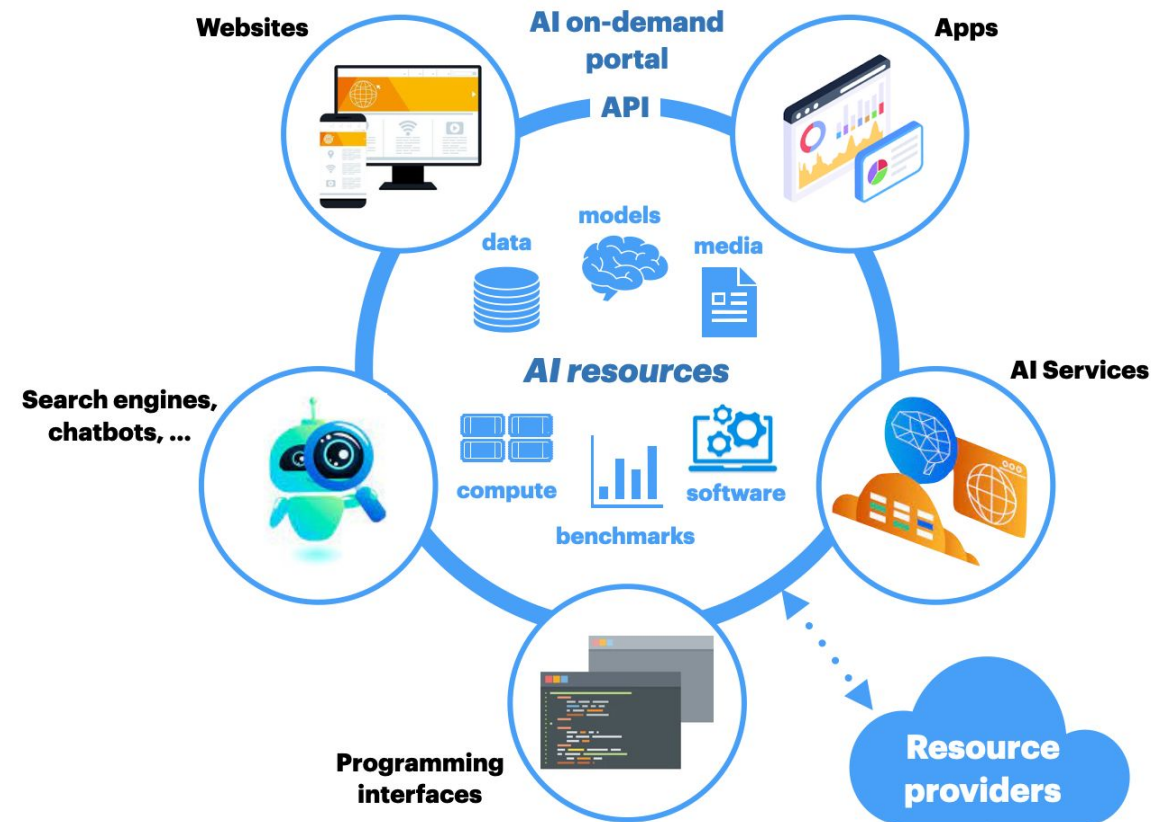
- Bring together Europe's existing and new AI data, software, services, platforms, computational resources, and expertise
- Support the needs of Europe's AI researchers, developers, educators and students

How?

- Easy-to-use interfaces to find AI resources
- Integrate (don't duplicate) AI services and platforms and build new ones on top of the AIoD platform

What?

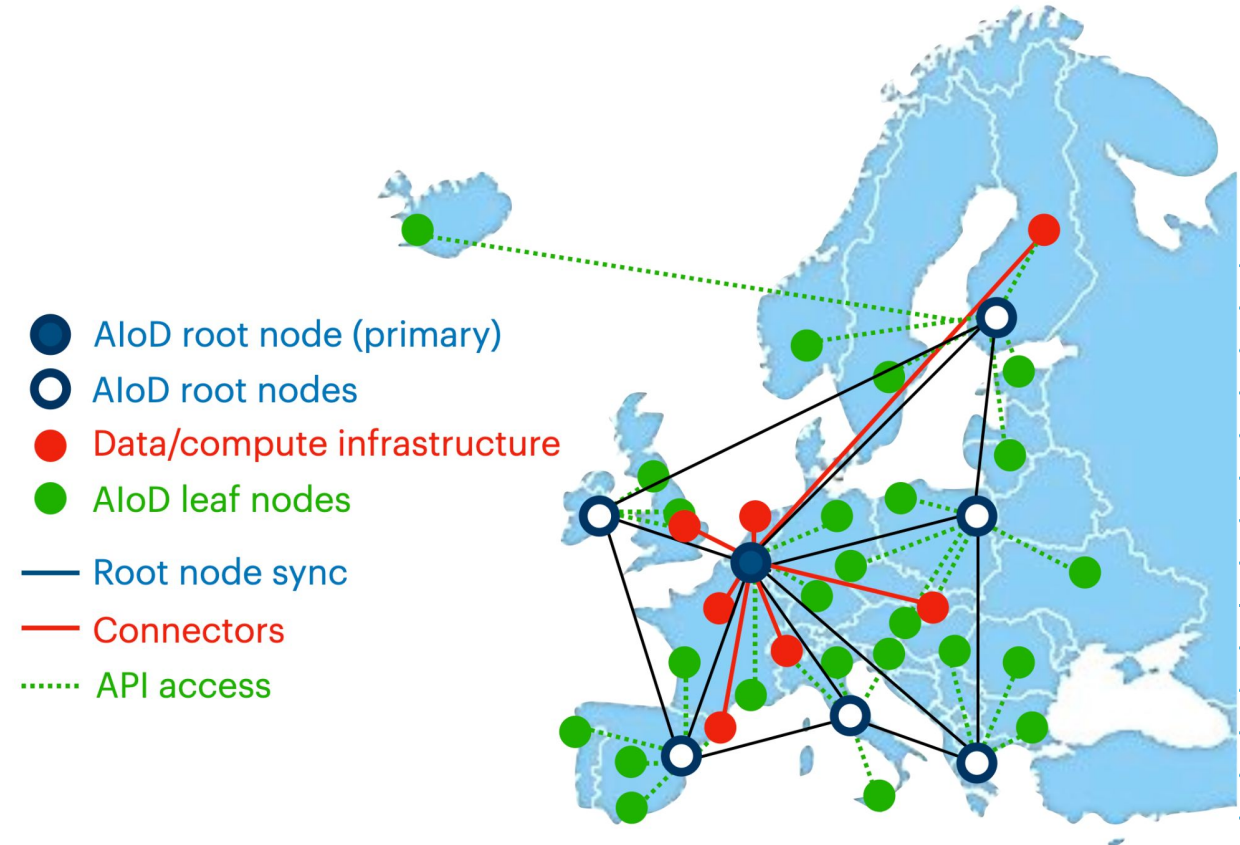
- AIoD resource catalogue (distributed)
- Search engines and chatbots (in progress)
- API to exchange resources, integrate and build
- Services to perform AI tasks (e.g. experiments)



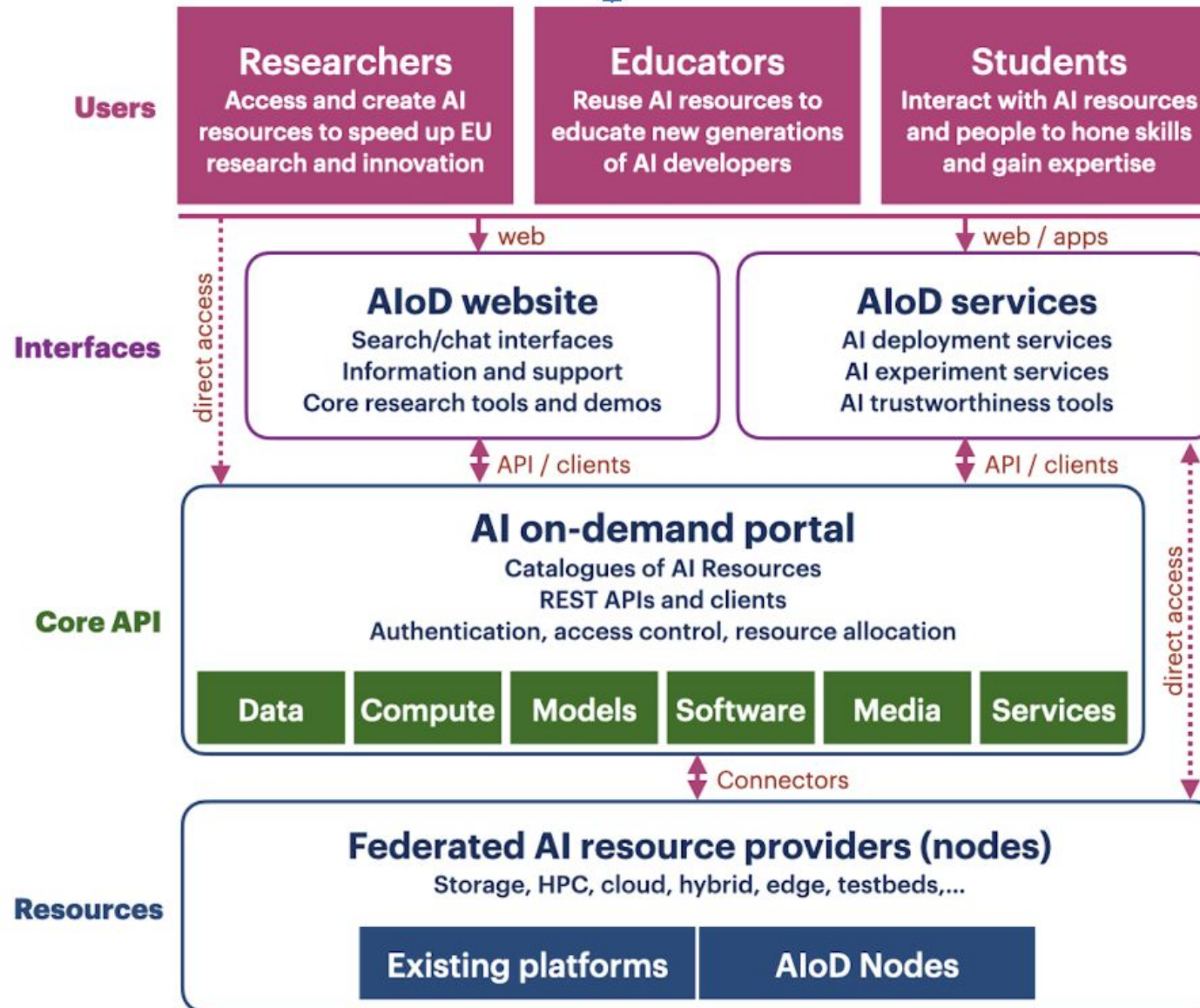
A decentralised AloD platform

Distributed architecture:

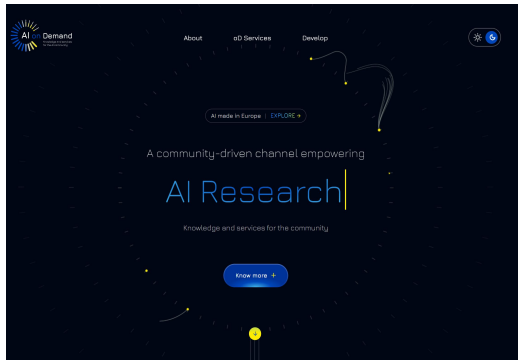
- **AloD nodes**
 - run core AloD services (e.g. AI resource catalogue, experimentation services,...)
 - Federated with existing data and compute infrastructure (by running *connectors*)
- **AloD leaf nodes**
 - run (your own) services built on top of the API or other services
 - facilitates integration of (existing) local services and resources.
- **External resources**
 - provide external resources (e.g. data and compute), integrated with connectors



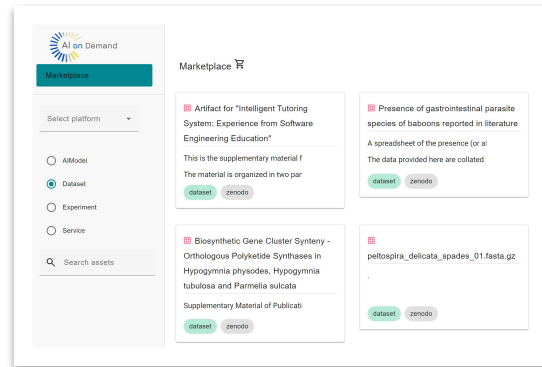
The AIoD Software Architecture (nodes)



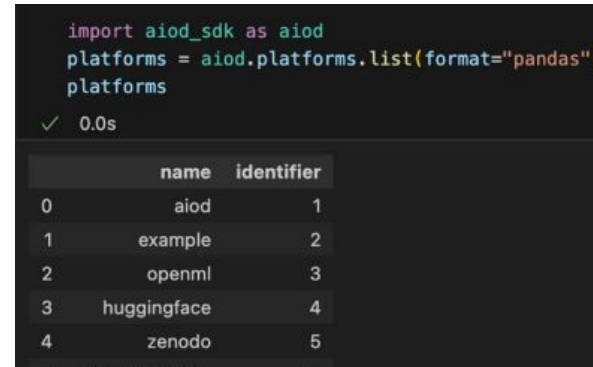
Diverse interfaces for diverse users



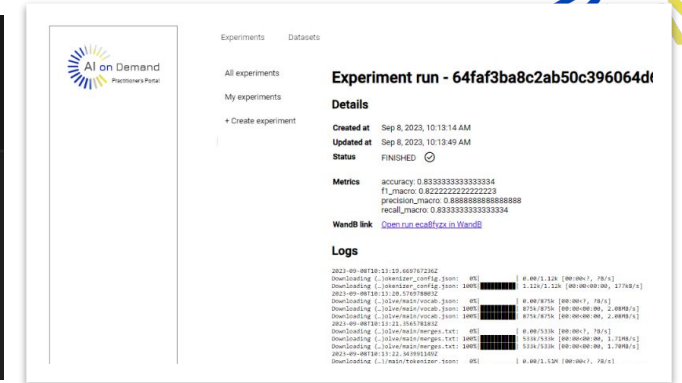
Web portal
general information



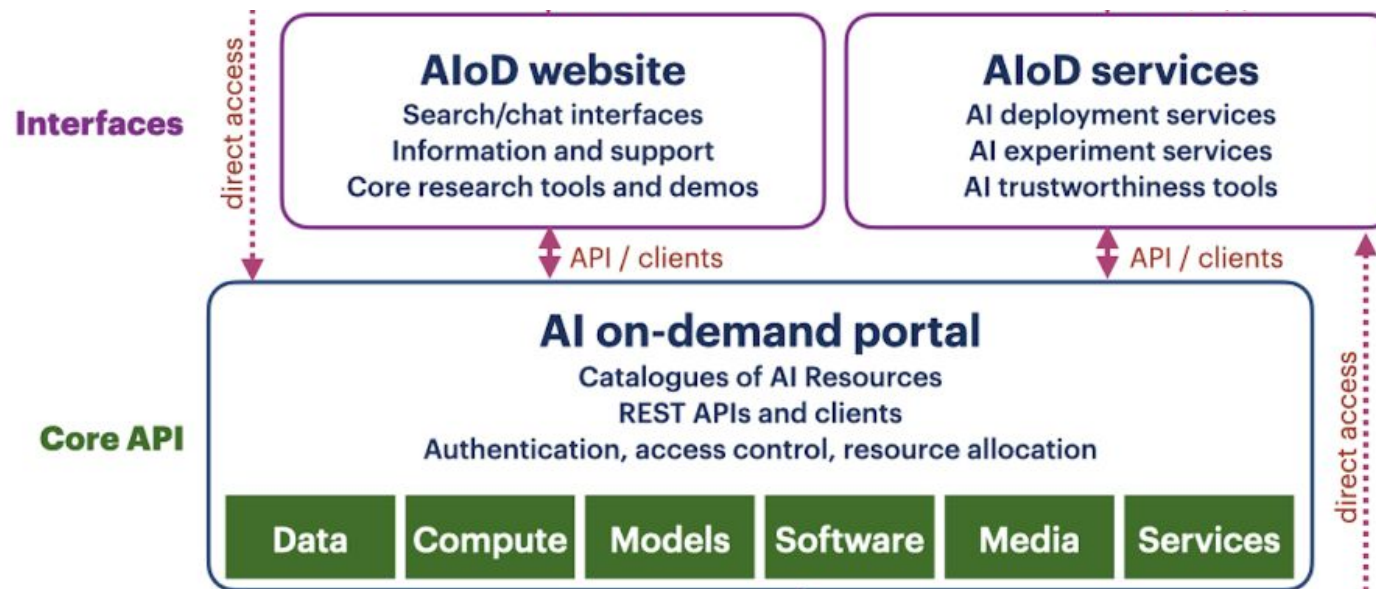
Search
search for AI resources



API
programmatic access

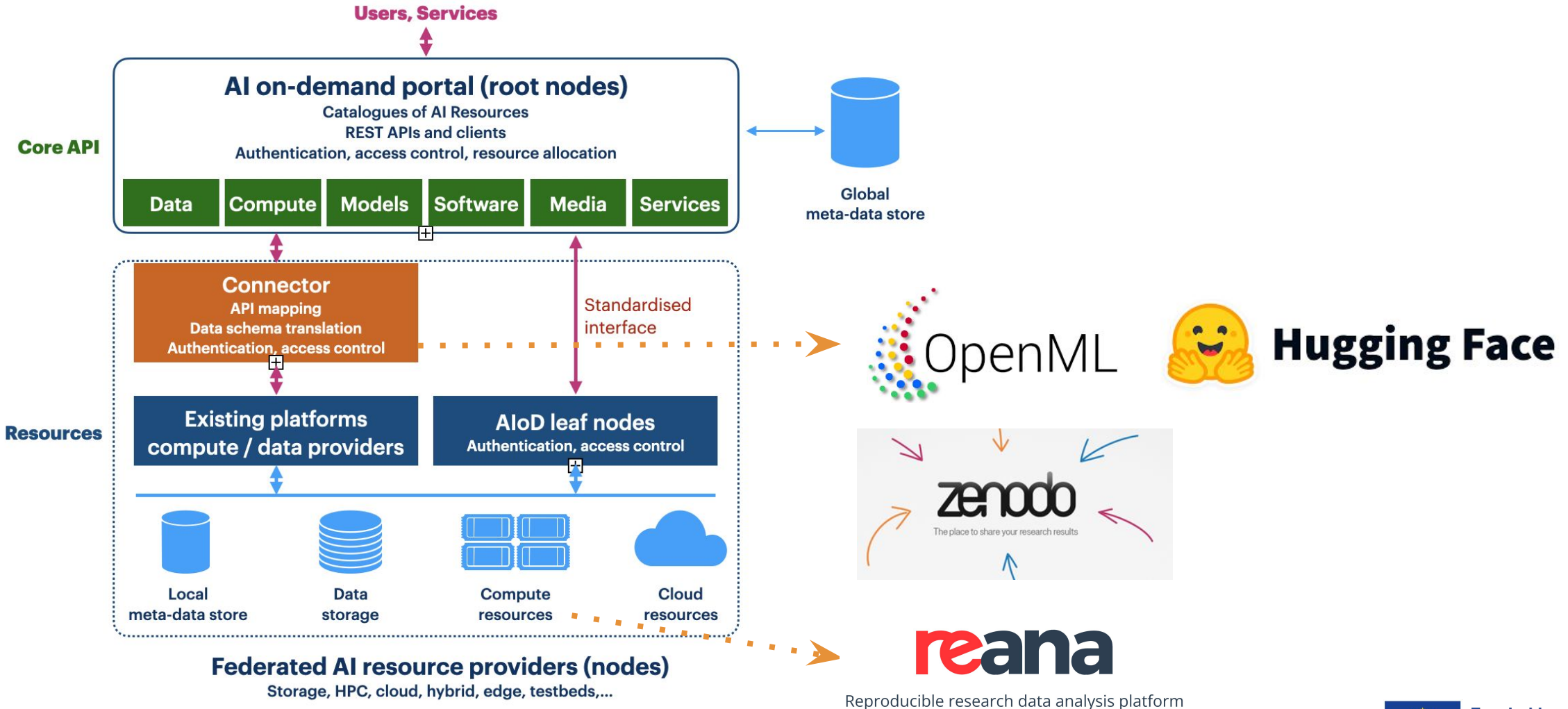


Services
advanced interfaces

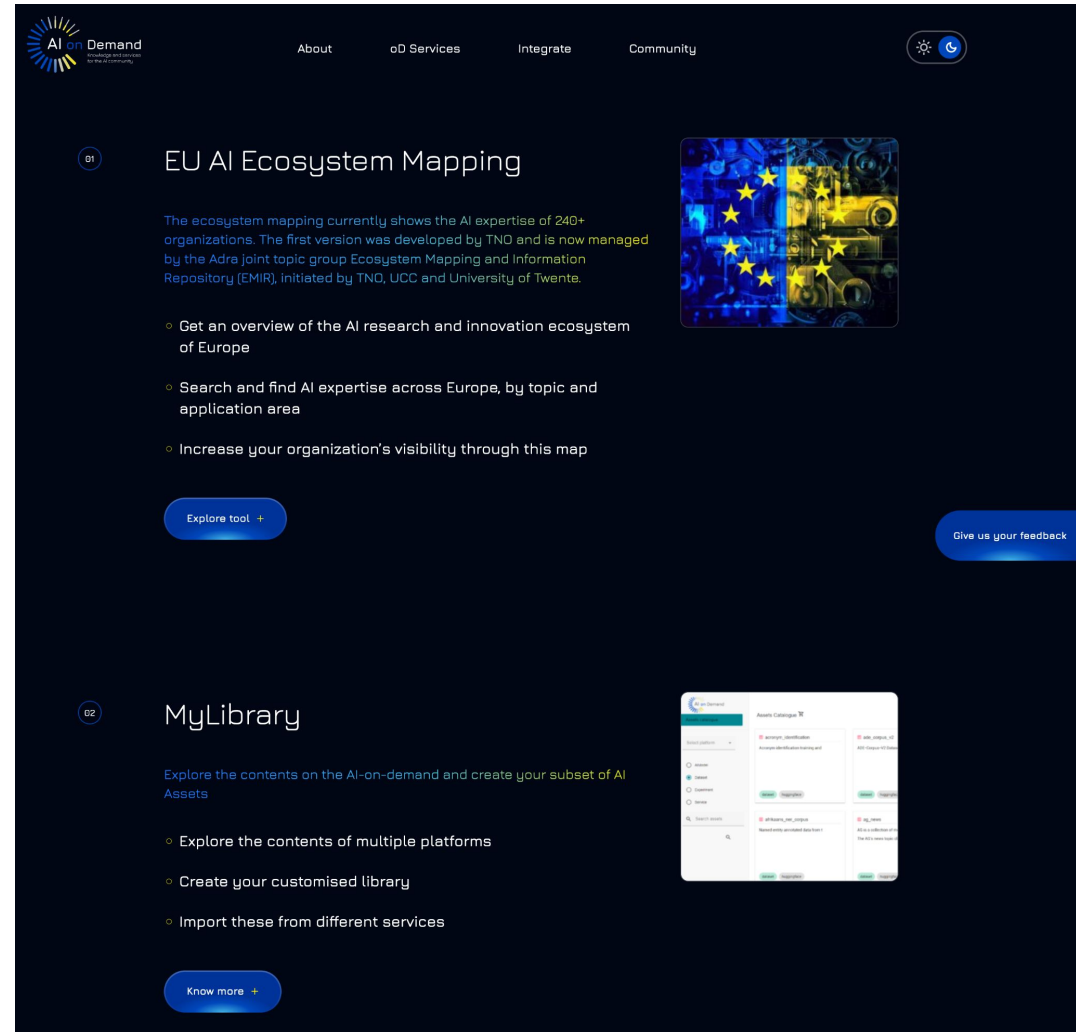
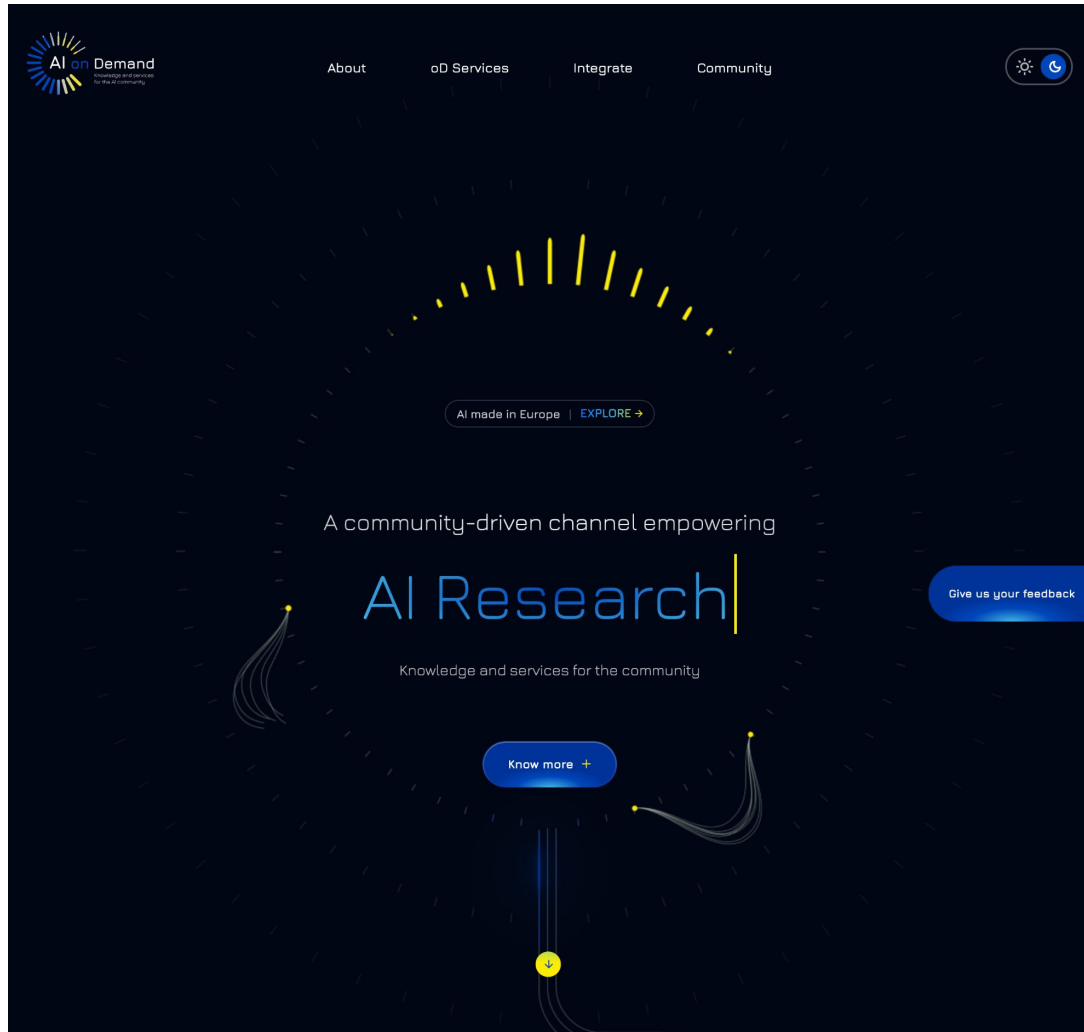




Integration with other platforms



Interfaces: The AloD portal (current)



The Portal (reimagined)



AI Resources

Catalogue

About

Feedback

AI4 | eosc
Powered by AI4eosc marketplace

Join our community, grow your knowledge and learn from others!

Sign In

Don't have an AI4D account? [Sign up](#)

Collapse

> AI Resources

Explore our extensive AI Catalogue

Search for anything...

Select platform

Select type

Suggested Queries Lorem Ipsum Lorem Ipsum Lorem Ipsum Lorem Ipsum

3d Body Detection

Type AI Model Platform Hugging Face Badge Availability v1.1 [Related resources](#) Sep 25, 2024 44.5k 14k

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Type AI Model Platform Hugging Face Badge Availability v1.1 [Related resources](#) Sep 25, 2024 44.5k 14k

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3d Body Detection

Type AI Model Platform Hugging Face Badge Availability v1.1 [Related resources](#) Sep 25, 2024 44.5k 14k



The Portal (reimagined)



Overview

Resources

Services

Community



Login



Experiments

Public Experiments

My Experiments

Create Experiment

Templates

Public Templates

My Templates

Create Template

Datasets

Documentation

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Collapse

RAIL > Public Experiments

Search...



665f324b2490e7270324a1fa

Summarization experiment

Dec 14, 2023

Go to detail

Show more

665f324b2490e7270324a1fa

Machine Translation experiment (user-defined model)

Dec 14, 2023

Go to detail

Show more

665f324b2490e7270324a1fa

Machine Translation experiment (env-var model)

Dec 14, 2023

Go to detail

Show more

665f324b2490e7270324a1fa

Machine Translation experiment (env-var model)

Dec 14, 2023

Go to detail

Show more

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Machine Translation experiment (env-var model)

Dec 14, 2023

Go to detail

Show more



Overview

Resources

Services

Community



Login

The Portal (reimagined)

</> Integrate Your Service

Getting Started

AloD API - Metadata Catalogue

Documentation

Support

Join our community, grow your knowledge and learn from others!

Sign In

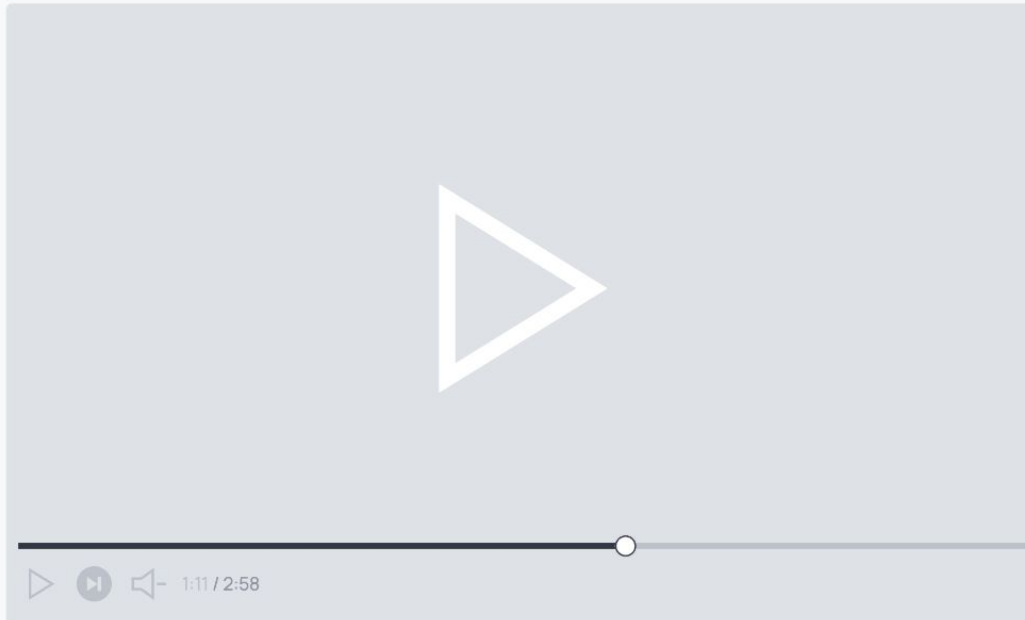
Don't have an AloD account? [Sign up](#)

← Collapse

> Integrate Your Service > Getting Started

AloD Software Developer's Tools

AI-On-Demand Platform | 14 videos | 302 visualizações



Getting started

3/12 Completed

01. Consectetur adipiscing elit ✓

02. Mollit voluptate adipiscing ✓

03. Officia pariatur Lorem sit ✓

04. Avoluptate adipiscing ▶

05. Exercitation elit incididunt esse

06. Deserunt pariatur eiusmod

06. Deserunt pariatur eiusmod

06. Deserunt pariatur eiusmod

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The Portal (reimagined)



- Community**
- Press Corner
- AI NoE
- Success Stories
- Forum

Join our community, grow your knowledge and learn from others!

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← Collapse

> Community > Press Corner > Events

- News
- Events**
- Newsletters
- Projects

Upcoming Events

Digital SME Summit 2024

Qui aliquip quis magna non sint voluptate officia qui. Laborum sit mollit id sint et dolore conseq

UI/UX Design

UI Design, a User-Centered Approach

UI/UX Design

Pick Awesome Color Palette for Your App

UI/UX Design

Principles of Great UI Design System

The Portal (reimagined)



Community

- Press Corner
- AI NoE ^
 - Map
 - Statistics
 - Topic & Applications
 - Information
- Success Stories
- Forum ^

Join our community, grow your knowledge and learn from others!

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[← Collapse](#)

> Community > European AI research and innovation ecosystem > Map



The Portal (reimagined)



- Dashboard
- Notifications 9
- Contribute
- Dissemination Requests
- Resources Saved
- Settings

Welcome back, Pedro!

Relevant for you

Discover a handpicked selection of news, events, and resources tailored just for you, based on your unique interests and activities.

AI Model

UI Design, a User-Centered Approach

Dataset

Pick Awesome Color Palette for Your App

Educational Resource

Principles of Great UI Design System

Dataset News

Principles of Great UI Design System



Authentication: single login for all services



AI on Demand
Knowledge and services for the AI community

Sign in to your account

Continue with EGI Check-in

Or sign in with your local account ▼

Username or email

Password

Sign In

Login

LOG IN WITH EGI FOUNDATION

or

CHOOSE ANOTHER ACCOUNT

Search...

EGI Found

29 Mayis

A*STAR - Agency for Science, Technology and Research

AAF Virtual Home

aai.lab.maeen.sa

AAI@EduHr Single Sign-On Service

Aalborg University

or

Bitbucket

D4SCIENCE

DARIAH

eduTEAMS

EGI SSO

EDG-IN

B2ACCESS

GitHub

Google

IGTF

LinkedIn

ID ORCID

umbrella

WeChat

ria

Can't find your identity provider?

Interfaces: Catalogue search

<https://mylibrary.aiod.eu>



Assets catalogue

About

Contact

Select platform

- AIModel
- Dataset
- Experiment
- Service
- Educational resource

Search assets

Assets Catalogue

arrhythmia

Author: H. Altay Guvenir, Burak Acar,
Source: [UCI](#)
Please cite: [UCI](#)

Cardiac Arrhythmia Database
The aim is to determine the type of
Examining the study of H. Altay Gu

[dataset](#) [openml](#)

common_gen

CommonGen is a constrained text g
CommonGen is challenging because

[dataset](#) [huggingface](#)

common_language

This dataset is composed of speech

[dataset](#) [huggingface](#)

letter

Author: David J. Slate
Source: [UCI](#) - 01-01-1991
Please cite: P. W. Frey and D. J. Slate

- TITLE: Letter Image Recognitic
The objective is to identify eac

[dataset](#) [openml](#)

audiology

Author: Professor Jergen at Baylor C
Audiology Database This database i

- Each property that appears an
- A property such as age_gt_60 i

[dataset](#) [openml](#)

liver-disorders

Author: BUPA Medical Research Ltd.
Source: [UCI](#) - 5/15/1990
Please cite:

BUPA liver disorders
The first 5 variables are all blood tes

[dataset](#) [openml](#)

common_voice

Common Voice is Mozilla's initiative

[dataset](#) [huggingface](#)

autos

Author: Jeffrey C. Schlimmer ([Jeffre](#))
Source: [UCI](#) - 1987
Please cite:

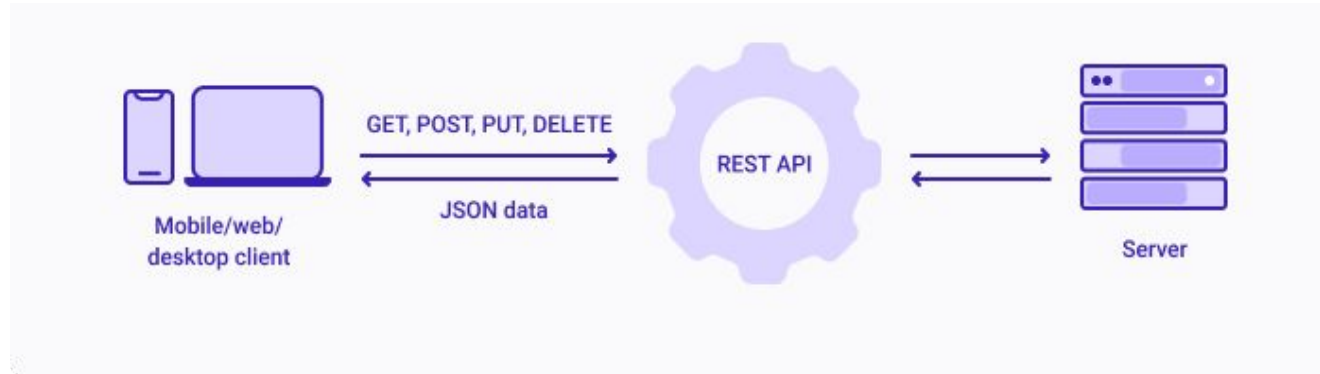
1985 Auto Imports Database
This data set consists of three types

[dataset](#) [openml](#)

Interfaces: Programming Interface (API)



Everything you can do via the website, you can do via code (and much more)



```
import aiod

aiod.datasets.get_list()

aiod.publications.search(search_query="Robotics")
```


Python API

<https://aiondemand.github.io/aiondemand/>



Installation

The `aiondemand` package is on [PyPI](#):

```
$ pip install aiondemand
```



Python API

<https://aiondemand.github.io/aiondemand/>



Usage

You can directly access endpoints through the Python API, for example to browse datasets:

```
import aiod

aiod.datasets.get_list()
```

And results will be returned as a [Pandas](#) dataframe (though the `data_format` may be used to get JSON instead):

```
   platform platform_resource_identifier      name  date_published  https://huggingface.co/
0  huggingface  acronym_identification  acronym_identification  2022-03-02T23:29:22  https://huggingface.co/
...
9  huggingface      allegro_reviews      allegro_reviews  2022-03-02T23:29:22  https://huggingface.co

[10 rows x 30 columns]
```

Python API

<https://aiondemand.github.io/aiondemand/>



You can even query the elastic search endpoints:

```
aiod.publications.search(search_query="Robotics")
```

```
platform platform_resource_identifier
0 robotics4eu 1803 Responsible Robotics & non-tech ba

[1 rows x 36 columns]
```

Python API

<https://aiondemand.github.io/aiondemand/>



Async methods (e.g. to build your own web services on top of AloD)

```
In [7]: data = await aiod.datasets.get_list_async(offset=300, limit=5, batch_size=3)
data[["platform", "name", "identifier", "is_accessible_for_free"]]
```

Out[7]:

	platform	name	identifier	is_accessible_for_free
0	openml	rosowky	301	True
1	openml	garrat	302	True
2	openml	doherty	303	True
3	openml	chang	304	True
4	openml	qsabr2	305	True

Python API

<https://aiondemand.github.io/aiondemand/>



Get started now
-> Read the docs :)

AIoD Python SDK

- Introduction
- Example usage
- API Reference ▼
- Case Studies
- Computational Assets
- Contacts
- [Datasets](#)
- Educational Resources
- Events
- Experiments
- ML Models
- News
- Organisations
- Persons
- Platforms
- Projects
- Publications
- Services
- Teams
- Changelog
- Contributing
- Code of Conduct

```
get_asset_from_platform(*, platform,  
platform_identifier, version=None,  
data_format='pandas')
```

Retrieve metadata for a specific datasets identified by the external platform identifier.

Parameters:

Name	Type	Description	Default
<code>platform</code>	<code>str</code>	The platform where the datasets asset is retrieved from.	<i>required</i>
<code>platform_identifier</code>	<code>str</code>	The identifier under which the datasets is known by the platform.	<i>required</i>
<code>version</code>	<code>str None</code>	The version of the endpoint (default is None).	<code>None</code>
<code>data_format</code>	<code>Literal['pandas', 'json']</code>	The desired format for the response (default is "pandas"). For "json" formats, the returned type is a json decoded type, in this case a dict.	<code>'pandas'</code>

Returns:

Type	Description
<code>Series dict</code>	The retrieved metadata for the specified datasets.

Table of contents

- [datasets](#)
- [counts](#)
- [get_asset](#)
- [get_asset_from_platform](#)
- [get_assets_async](#)
- [get_content](#)
- [get_list](#)
- [get_list_async](#)
- [search](#)

REST API

<https://api.aiod.eu/>

You can also reach the API directly via REST



datasets

GET	/datasets/v1	List Datasets	🔒	▼
POST	/datasets/v1	Dataset	🔒	▼
GET	/counts/datasets/v1	Count Of Datasets		▼
GET	/datasets/v1/{identifier}	Dataset	🔒	▼
PUT	/datasets/v1/{identifier}	Dataset	🔒	▼
DELETE	/datasets/v1/{identifier}	Dataset	🔒	▼
GET	/platforms/{platform}/datasets/v1	List Datasets	🔒	▼
GET	/platforms/{platform}/datasets/v1/{identifier}	Dataset	🔒	▼
GET	/datasets/v1/{identifier}/content	Dataset		▼
GET	/datasets/v1/{identifier}/content/{distribution_idx}	Dataset		▼



Example: AI Ecosystem map

<https://eu-ai-ecosystem.tnods.nl>

Search organizations on keyword,
research topic, and/or application area.

Enter keyword



→ RESEARCH TOPICS

→ APPLICATION AREAS

→ TYPE OF ACTIVITY

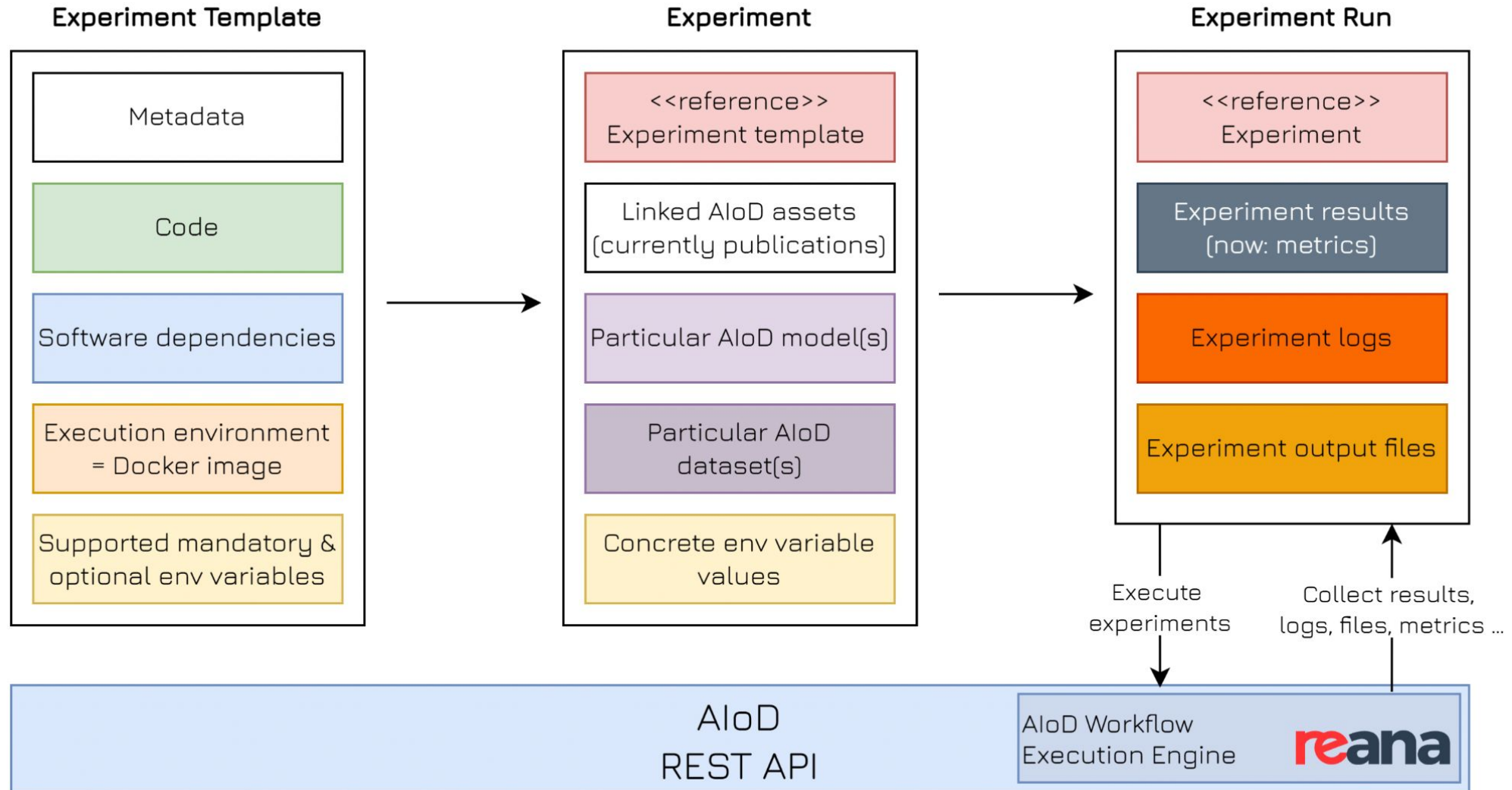


European AI Networks of Excellence (click on a logo to filter by network)



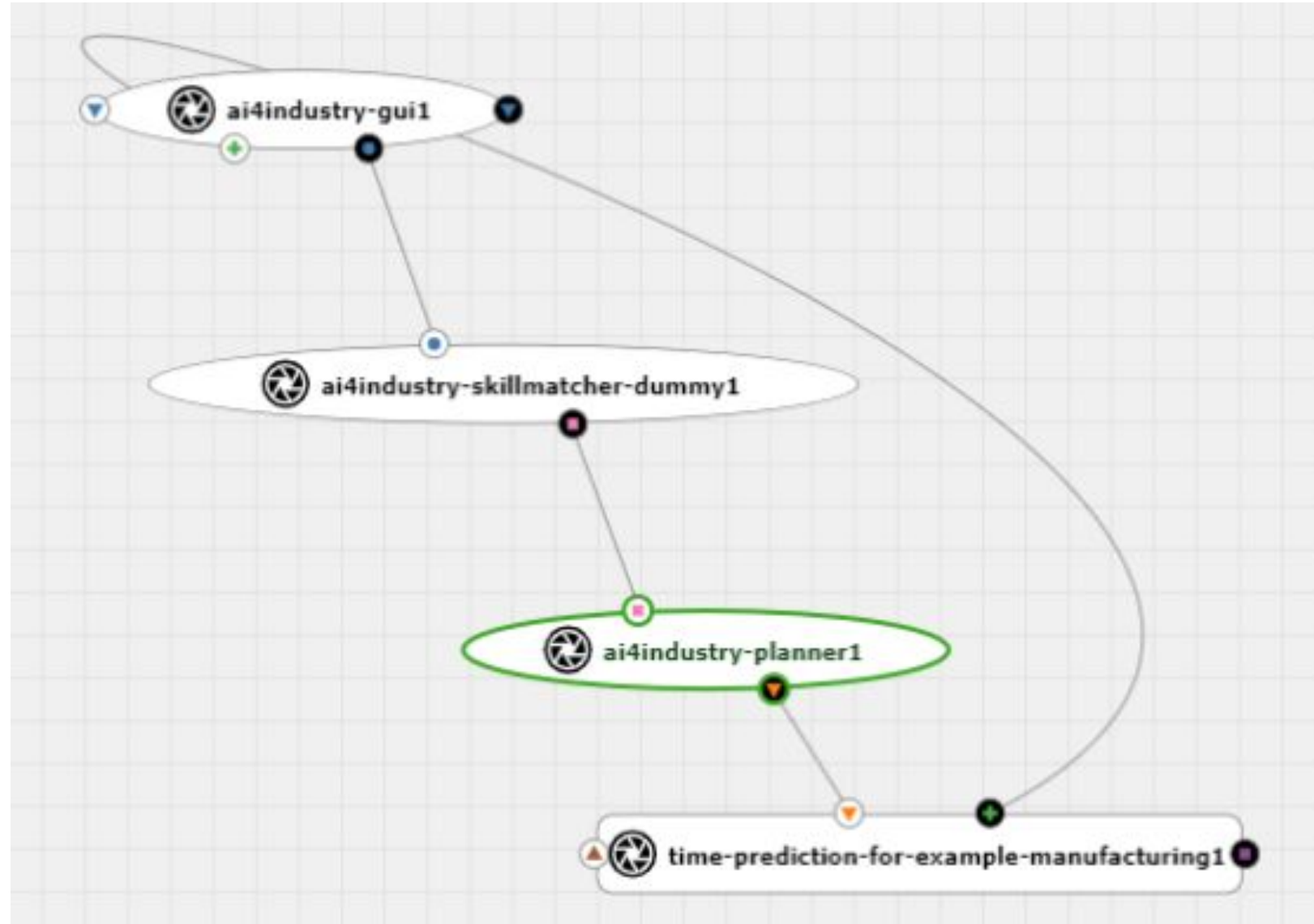
RAIL: Easily run AI experiments

<https://rail.aiod.eu>



AI Builder: no-code interface to build AI workflows

<https://ai-builder.aiod.eu>

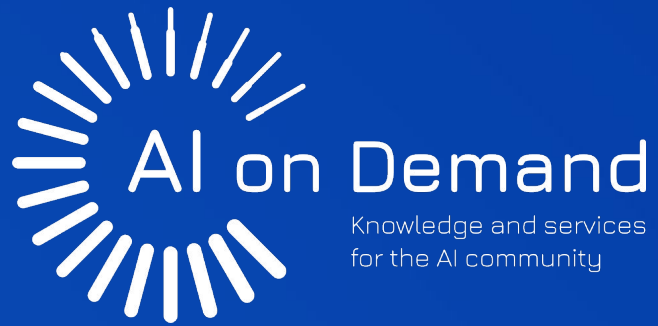


Sharing your own AI resources and services

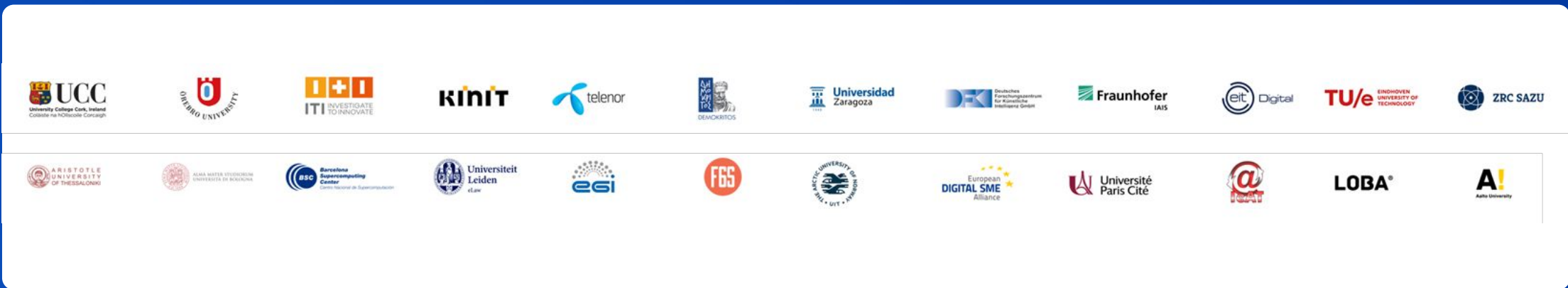


- **Upload to any of the connected platforms** (OpenML, HuggingFace, Zenodo,...)
 - AloD will find them and index them
- **Upload via the AloD website** (<https://www.ai4europe.eu/contribute>)
- **Upload via the API** (Python or REST)
- **Integrate your own repositories** (if you have many datasets, need access control)
- **Implement your own services on top of the API** (for more complex interfaces)

Need help? Simply reach out :)



Thank you!



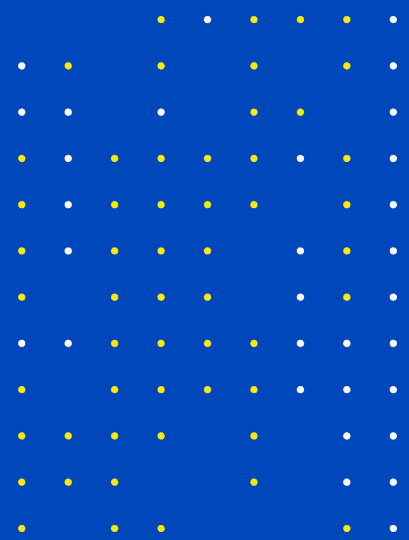
www.aiod.eu

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The AI-on-Demand Platform

A community-driven platform empowering
AI Research & Innovation



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