



RAISE

Research Analysis Identifier

Rent and Process Data
with Trust

Evdokimos Konstantinidis
Project Coordinator of RAISE

raise-science.eu

Consortium

20

Partners

10

Countries

4.836.125€

EU funding

40

Months



ARISTOTLE
UNIVERSITY
OF THESSALONIKI

vicomtech

MEMBER OF BASQUE RESEARCH
& TECHNOLOGY ALLIANCE

netcompany

intrasoft

ΠΑΝΕΠΙΣΤΗΜΙΟ ΔΥΤΙΚΗΣ ΜΑΚΕΔΟΝΙΑΣ
UNIVERSITY OF WESTERN MACEDONIA



HELLENIC REPUBLIC
UNIVERSITY OF MACEDONIA

TECREANDO



XEETI
TRANSFORMING VISIONS INTO EXCELLENCE



CERTH
CENTRE FOR
RESEARCH & TECHNOLOGY
HELLAS



KAROLINSKA INSTITUTET
ANNO 1810



ATHENA
Research & Innovation
Information Technologies



KNOWLEDGE IN ACTION



EUCENTRE
FOR YOUR SAFETY.





***Access and Process
Data with Trust!***



Funded by
the European Union

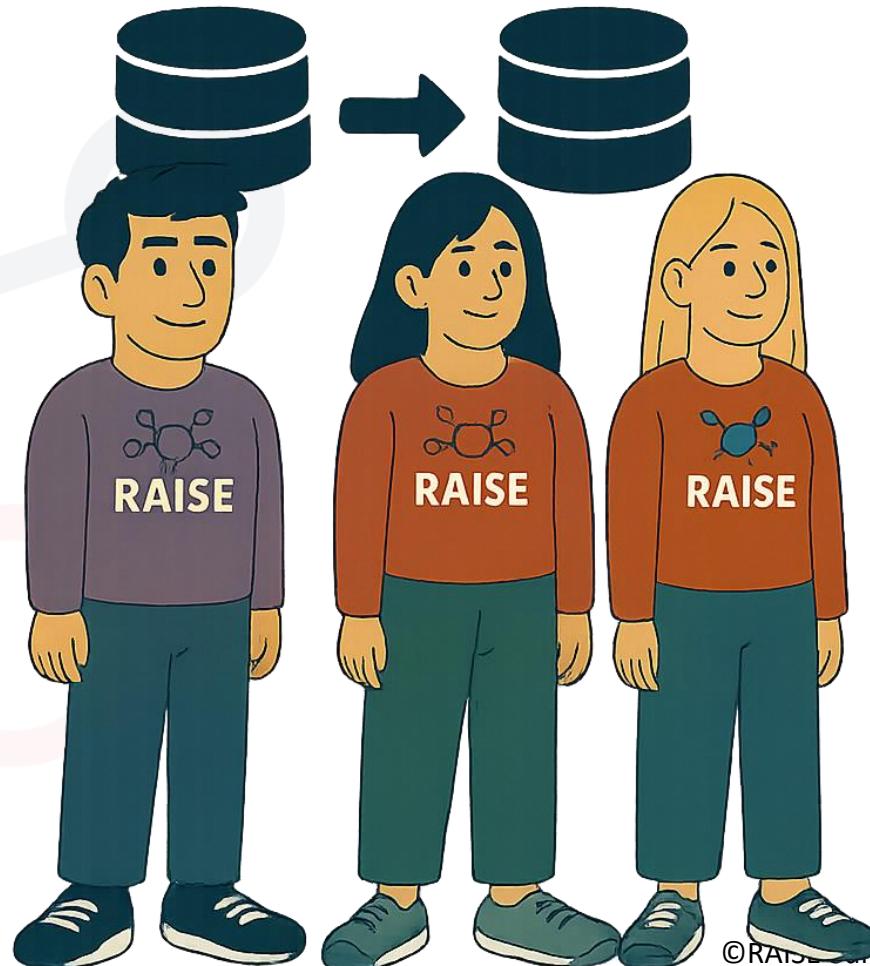


Our VISION is Open Science where **every researcher will be accredited for their work** and **all research data will be equally accessible** for processing **without violating** data protection regulations.

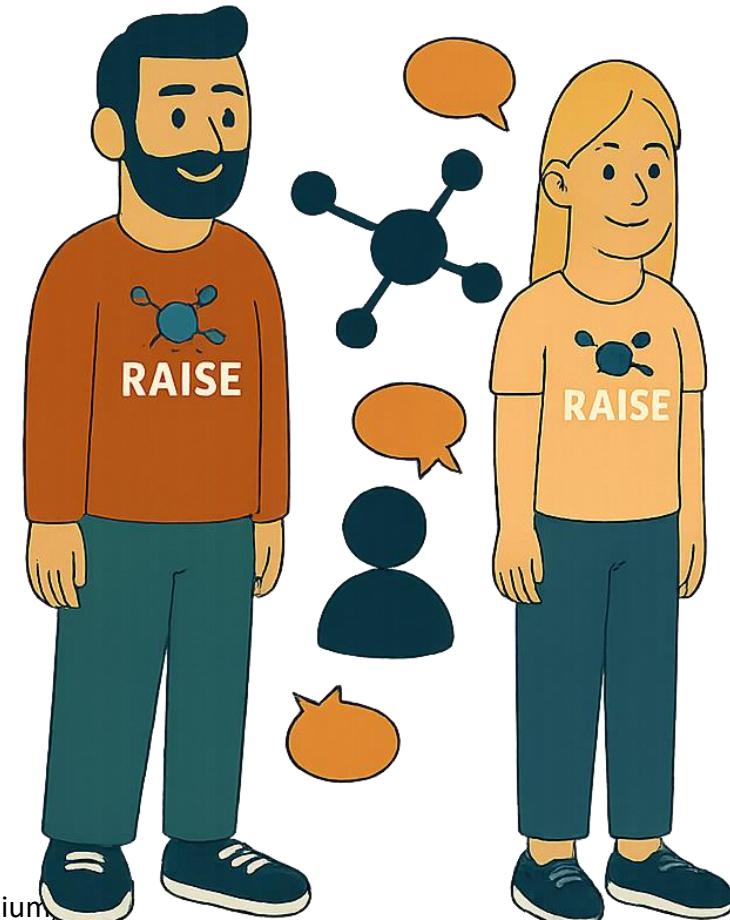
Our mission is a **distributed crowdsourced data processing system**, moving **from open data to data open for processing**. RAISE will provide the mechanism for sending the algorithm to the dataset.

Data sharing and Data spaces democratization

DATA SHARING DEMOCRATIZATION



DATA SPACES DEMOCRATIZATION



Peer-to-Peer Home Renting Platforms

 Lets you offer homes for rent

 Guests
Travelers book homes

RAISE

 Lets you give access to your datasets **stored only on your premises**

 **Visiting Algorithms**
Algorithms visit datasets

Like Home Renting Platforms let you visit homes, RAISE allows your algorithm to visit the data you need

Like Home Renting Platforms let you rent your home with trust, RAISE enables your data to be processed by others with trust and control

We designed **the peer-to-peer platform** for Research Data



privacy
protection



ownership
accreditation



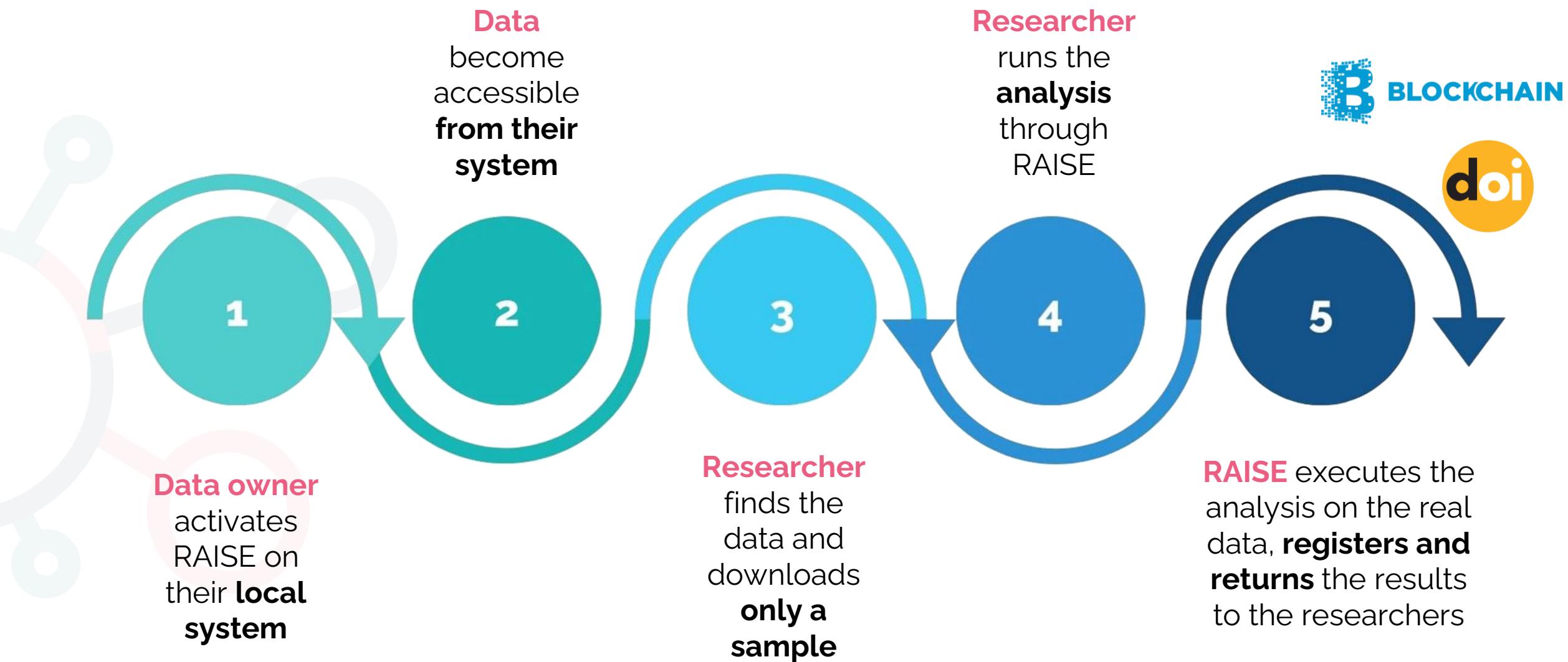
compliance



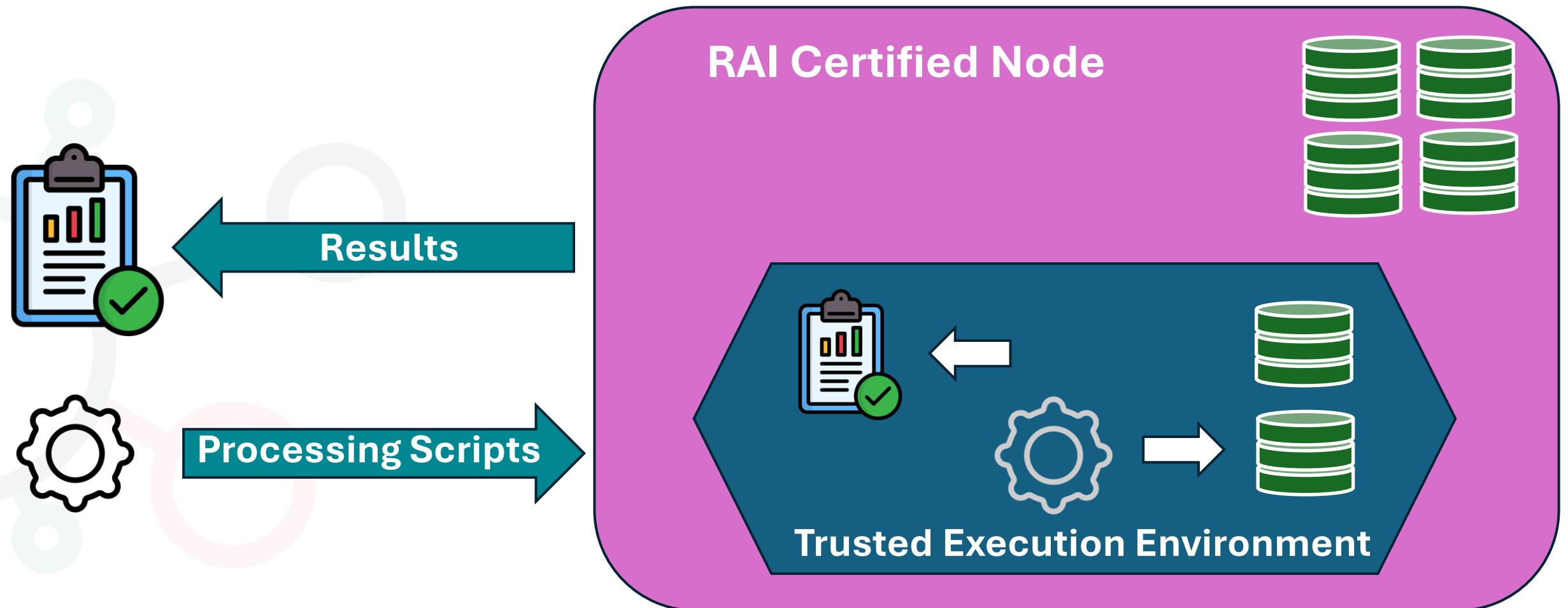
traceability

Trust through Data Visiting

DATA VISITING LIFE CYCLE



Trusted Execution Environment



Where to store my datasets

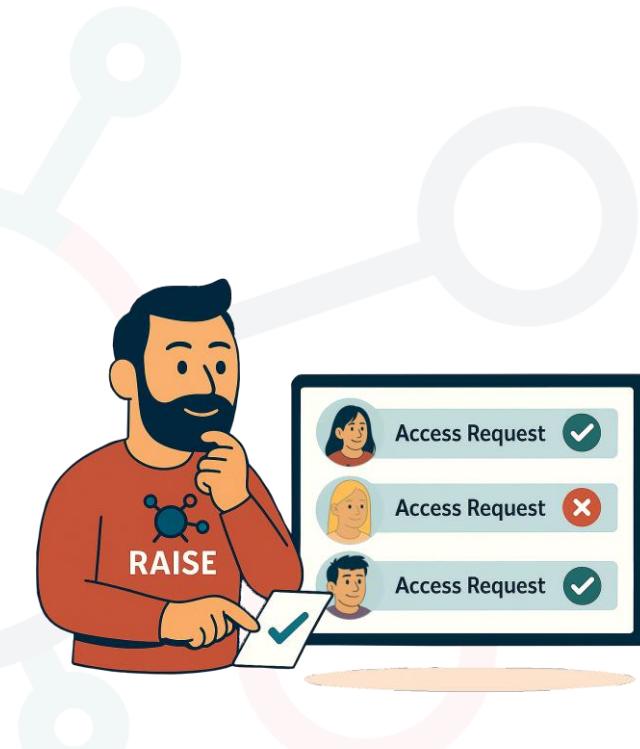


Upload your dataset to a **public certified node**



Deploy your **own node** at your premises.
Optionally, configure it as **private** so that only
authorized users can store their datasets there

Who can process my datasets



Allow all users to process your dataset, **knowing always who processed** them. Optionally, you can deny access to any user.



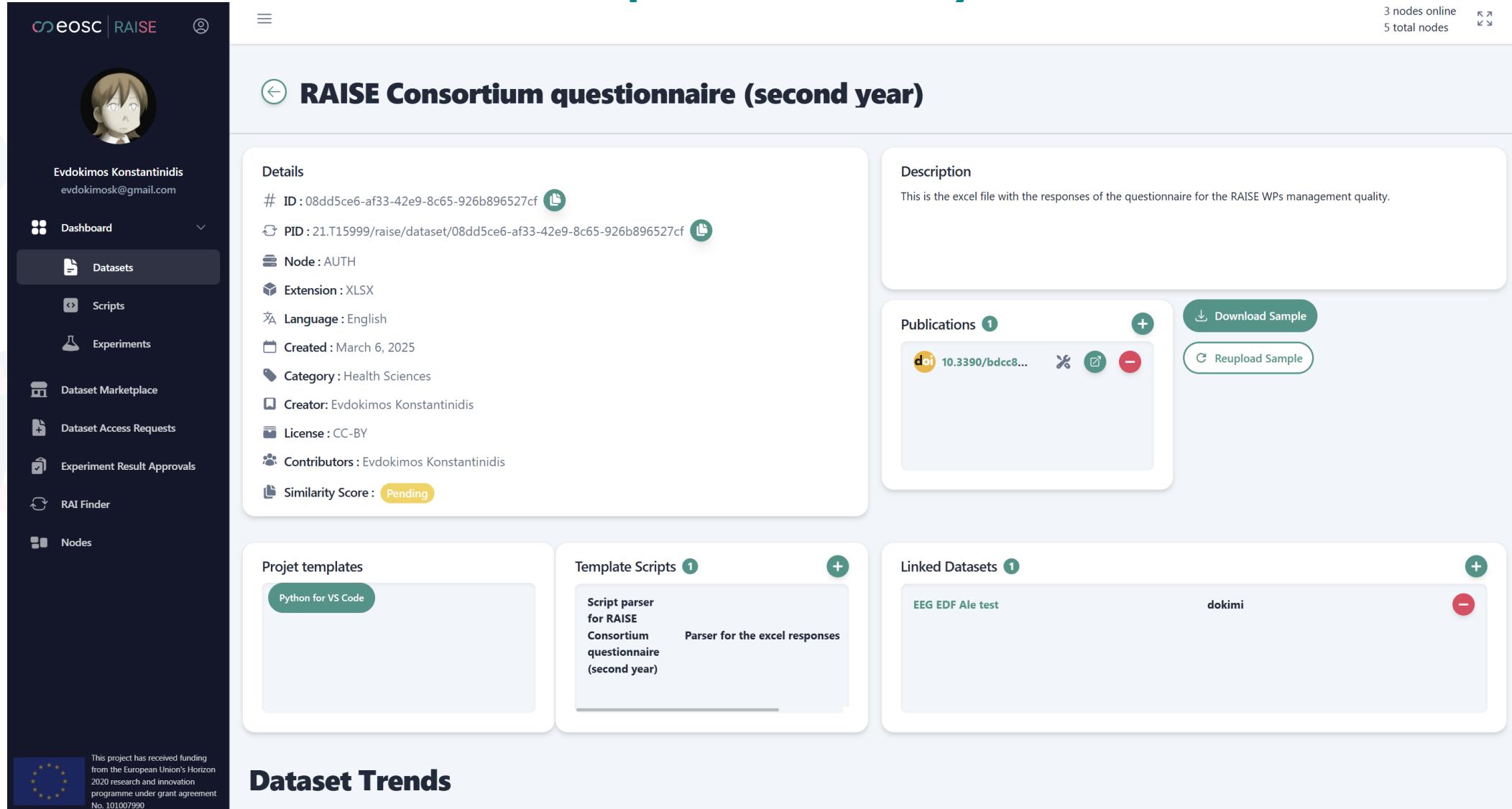
Set your datasets to require **access request**. **Grant or deny access** to the requests or even change your decision at any time.

How can I make sure others cannot go against my principles or other regulations by processing my datasets?



Once the results produced, the data user does not have access to them until the **data owner audits and approves/rejects** them.

I want to facilitate others using my dataset, to increase the impact of my data.



The screenshot shows the eosc RAISE dataset management interface. The top navigation bar indicates 3 nodes online and 5 total nodes. The main page displays a dataset titled "RAISE Consortium questionnaire (second year)". The "Details" section lists the following metadata:

- # ID : 08dd5ce6-af33-42e9-8c65-926b896527cf
- PID : 21.T15999/raise/dataset/08dd5ce6-af33-42e9-8c65-926b896527cf
- Node : AUTH
- Extension : XLSX
- Language : English
- Created : March 6, 2025
- Category : Health Sciences
- Creator: Evdokimos Konstantinidis
- License : CC-BY
- Contributors : Evdokimos Konstantinidis
- Similarity Score : Pending

The "Description" section states: "This is the excel file with the responses of the questionnaire for the RAISE WPs management quality." Below this, the "Publications" section shows a DOI link: 10.3390/bdcc8... with options to "Download Sample" and "Reupload Sample".

Below the main content are three cards: "Project templates" (Python for VS Code), "Template Scripts" (Script parser for RAISE Consortium questionnaire questionnaire (second year) and Parser for the excel responses), and "Linked Datasets" (EEG EDF Ale test by dokimi).

At the bottom, a "Dataset Trends" section is visible.

Project Acknowledgment: This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101007990.

Dataset Marketplace

30 datasets

Here, you can view & request access to all available datasets



Search Datasets



SeizeIT2: Participants 101 to 110

ZIP · Health Sciences · Creator: Nikos Melanitis
Uploaded 2 days ago

Source code refactorings v4

ZIP · Physical Sciences · Creator: Nikolaos Nikolaidis
Uploaded 2 hours ago

Accelup usage data

XLSX · Social Sciences & Humanities · Creator: Despoina Petsani
Uploaded 2 days ago

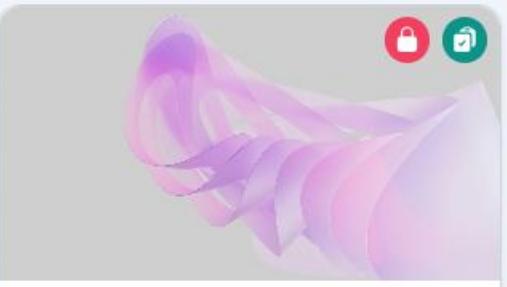
OHDSI dummy 15

CSV · Health Sciences · Creator: manoshatzak
Uploaded 3 days ago

Test

CSV · Health Sciences · Creator: Nikos Athanasopoulos
Uploaded 2 days ago

Fitbit data

XLSX · Health Sciences · Creator: Despoina Petsani
Uploaded 2 days ago

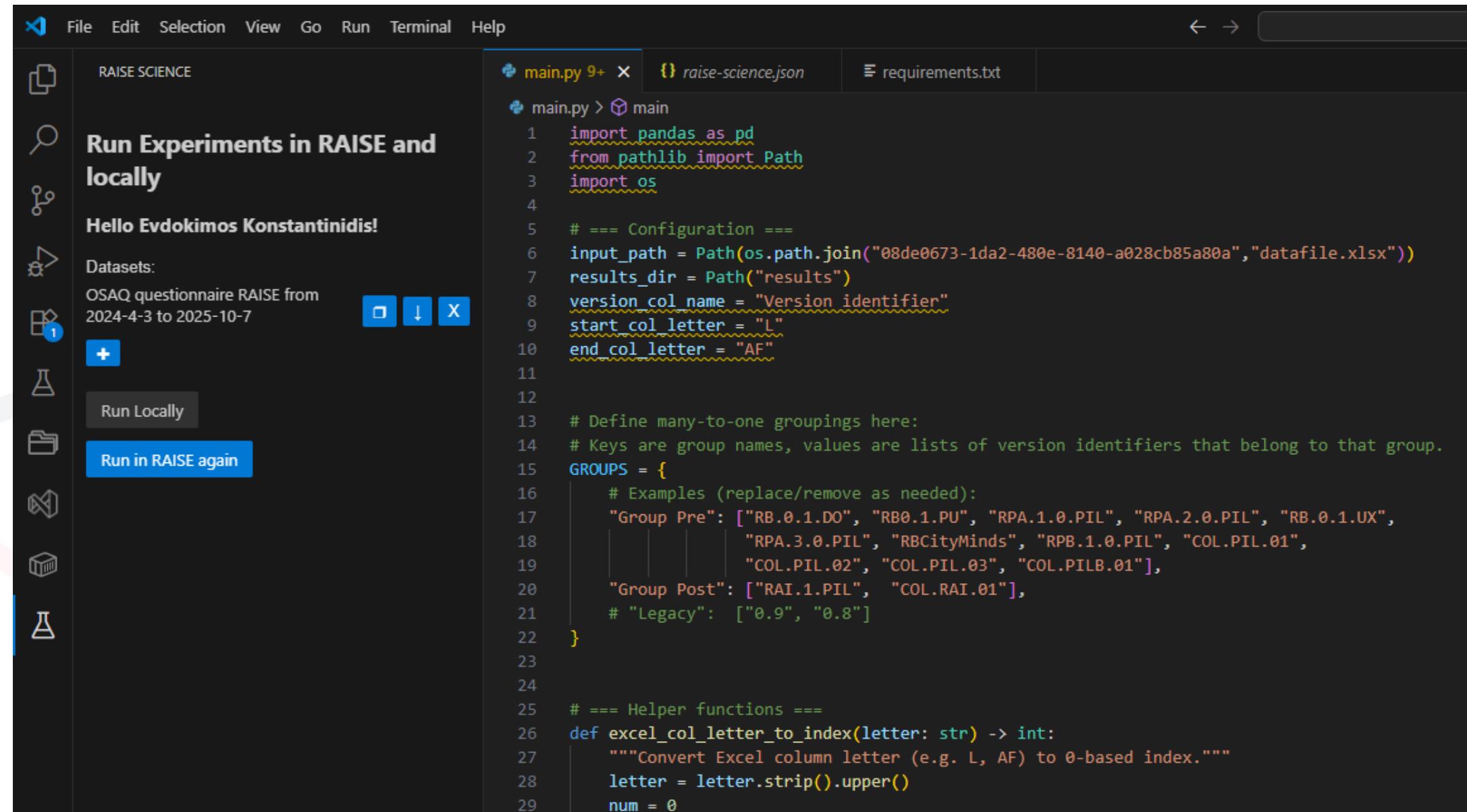
Fitbit Dataset Testing

XLSX · Health Sciences · Creator: Nikos Athanasopoulos
Uploaded 2 days ago

MAIN

CSV · Life Sciences · Creator: Klein Ramiro
Uploaded 25 days ago

Use IDE to prepare the algorithm on the sample dataset



RAISE SCIENCE

Run Experiments in RAISE and locally

Hello Evdokimos Konstantinidis!

Datasets:

OSAQ questionnaire RAISE from 2024-4-3 to 2025-10-7

Run Locally

Run in RAISE again

```
main.py 9+ X raise-science.json requirements.txt
```

```
main.py > main
1 import pandas as pd
2 from pathlib import Path
3 import os
4
5 # === Configuration ===
6 input_path = Path(os.path.join("08de0673-1da2-480e-8140-a028cb85a80a", "datafile.xlsx"))
7 results_dir = Path("results")
8 version_col_name = "Version identifier"
9 start_col_letter = "L"
10 end_col_letter = "AF"
11
12
13 # Define many-to-one groupings here:
14 # Keys are group names, values are lists of version identifiers that belong to that group.
15 GROUPS = {
16     # Examples (replace/remove as needed):
17     "Group Pre": ["RB.0.1.DO", "RB0.1.PU", "RPA.1.0.PIL", "RPA.2.0.PIL", "RB.0.1.UX",
18                  "RPA.3.0.PIL", "RBCityMinds", "RPB.1.0.PIL", "COL.PIL.01",
19                  "COL.PIL.02", "COL.PIL.03", "COL.PILB.01"],
20     "Group Post": ["RAI.1.PIL", "COL.RAI.01"],
21     # "Legacy": ["0.9", "0.8"]
22 }
23
24
25 # === Helper functions ===
26 def excel_col_letter_to_index(letter: str) -> int:
27     """Convert Excel column letter (e.g. L, AF) to 0-based index."""
28     letter = letter.strip().upper()
29     num = 0
```

Send algorithm to the dataset through RAISE



Static analysis before the code is executed. A short summary of what the code will do, along with potential hazardous actions are produced.



Apply the code on the shareable version of the dataset to audit the results and detect code execution anomalies.



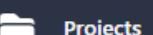
RAISE Consortium questionnaire (second year) - 4



Datasets



Scripts



Projects



Data



Data



Experiment



RAI Finder



Nodes

Details

Registered



Script Used in Experiment

Konstantinidis, E., Epelde, G., Tsimpita, K., Vasilopoulou, E., Hernandez, M., Athanasopoulos, N., Fernández, M., Bamidis, D., Katertsidis, N., Natsos, D., Nikolaidis, N., Symeonidis, A., Chatzigeorgiou, A., Kouris, I., Konstantinidis, G., Josep Maria, S. G., Dimos, T., ... Bamidis, P. (2025). *RAISE Open Science Attitude Questionnaire*. <https://doi.org/10.82136/275>

Author

Evdokimos Konstantinidis

PID

10.82136/275



Results Access level

 Results can be downloaded by other users[http://doi.org/10.82136/275](https://doi.org/10.82136/275)

Download Results

Datasets Used in Experiment

RAISE Consortium
questionnaire...

Approved

Uploaded By
Evdokimos Konstantinidis

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101007990

I want others to be able to see the results of my experiment when they resolve RAI through doi.org

The screenshot shows the eosc | RAISE web interface. On the left, a sidebar lists 'Datasets', 'Scripts', 'Projects' (selected), 'Dataset Marketplace', 'Dataset Access Requests', 'Experiment Result Approvals', 'RAI Finder', and 'Nodes'. The main content area displays a project titled 'RAISE Consortium questionnaire (second year) - 4'. The 'Details' section shows the name, run date (Jan 11, 2026, 1:11), node (AUTH), author (Evdokimos Konstantinidis), and PID (10.82136/275). A modal dialog is centered, titled 'Change experiment's result access level', with the message 'Are you sure you want to allow other users to download the results of the experiment?'. It has 'Cancel' and 'OK' buttons. Below the modal, there is a 'Results Access level' toggle switch set to 'Results can be downloaded only by you'. At the bottom of the main content area are 'Download Results' and 'Share' buttons. To the right, sections for 'Script Used in Experiment' and 'Datasets Used in Experiment' are visible, both showing the 'RAISE Consortium questionnaire (second year)' project with an 'Approved' status. The bottom of the page includes a European Union funding logo and a footer with '20 Online Nodes' and '26 Total Nodes'.

I want to know the usages of my dataset.

Dataset Trends

Access Requests 34 Experiments 71 Sample Downloads Coming Soon

Successful Experiments Failed Experiments

Dataset Access Requests

Sample Downloads (Coming Soon)

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101007990

IDE Plugins, SDKs, Libraries and APIs

Visual Studio | Marketplace

Sign in

New to Visual Studio

Visual Studio Code > Other > Raise-Science

Raise-Science

RAISE Science | 14 installs | (0) | Free

This extension will provide a simpler interaction with the RAISE platform

[Install](#) [Trouble Installing?](#)

Overview Version History Q & A Rating & Review

VSCode extension

For using in development environment, you can download the .vsix file from this repo [here](#).

And then from your VS Code, you can open the "Extensions" view (or Ctrl + Shift + X), select the three dots in the top right of the view, select the last option "Install from VSIX", and select the downloaded file.

Functionalities

- Download Sharable datasets
- Create initial Python file
- Add read function in Python file
- Upload and Execute experiment
- Usage of multiple datasets

Categories
Other

Tags
eosc open data science

Works with
Universal

Resources
[License](#) [Changelog](#)

More Info
Version 0.0.7

Swagger Supported by SMARTBEAR

RAISE API Gateway v1 OAS3

<https://develop.api.portal.raise-science.eu/swagger/v1/swagger.json>

Dataset

GET /dataset/{id}

PUT /dataset/{id}

GET /dataset/{id}/public-details

Select a definition **Raise.APIGateway v1**

Search projects

Help Sponsors Log in Register

raise-sdk 0.2.0

`pip install raise-sdk==0.2.0`

Latest version

Released: about 1 hour ago

RAISE Software Development Kit

Navigation

Project description

Release history

Download files

Verified details

These details have been [verified by PyPI](#)

Maintainers

raise-science
RAISE

Project description

RAISE SDK

A software development kit for interacting with the core functionalities of the RAISE project. At the moment, it includes one submodule, `revo` (i.e. Remote Execution Validation Operations), and a `utils` folder.

- REVO (Remote Execution Validation Operations)

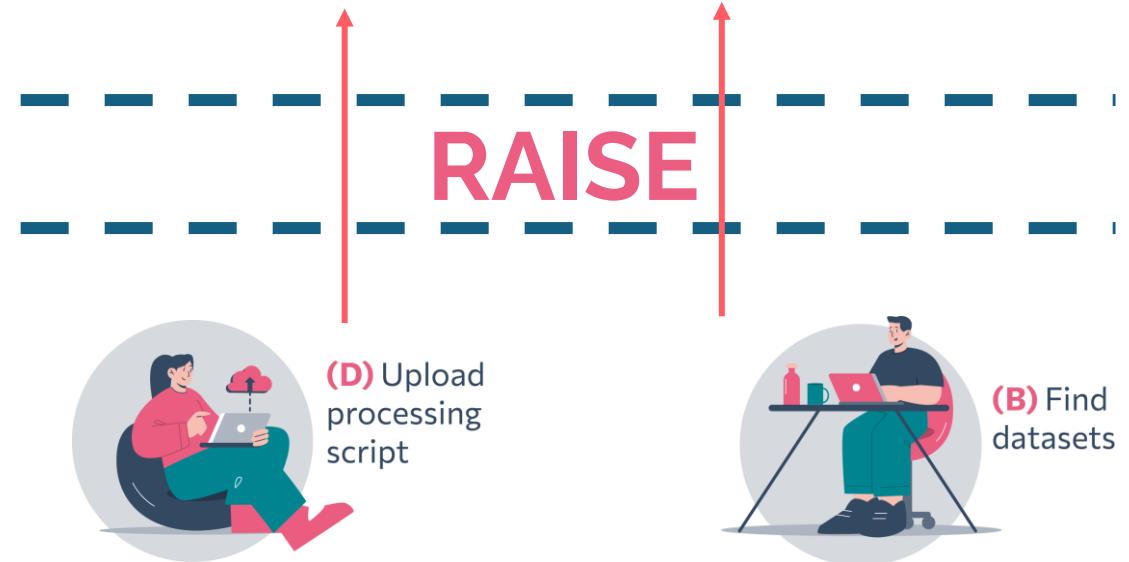
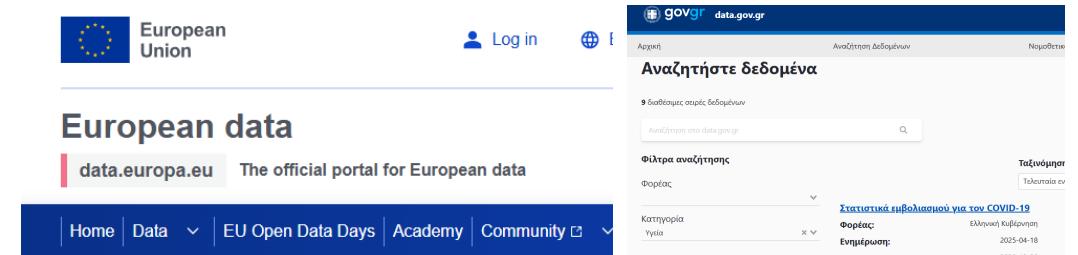
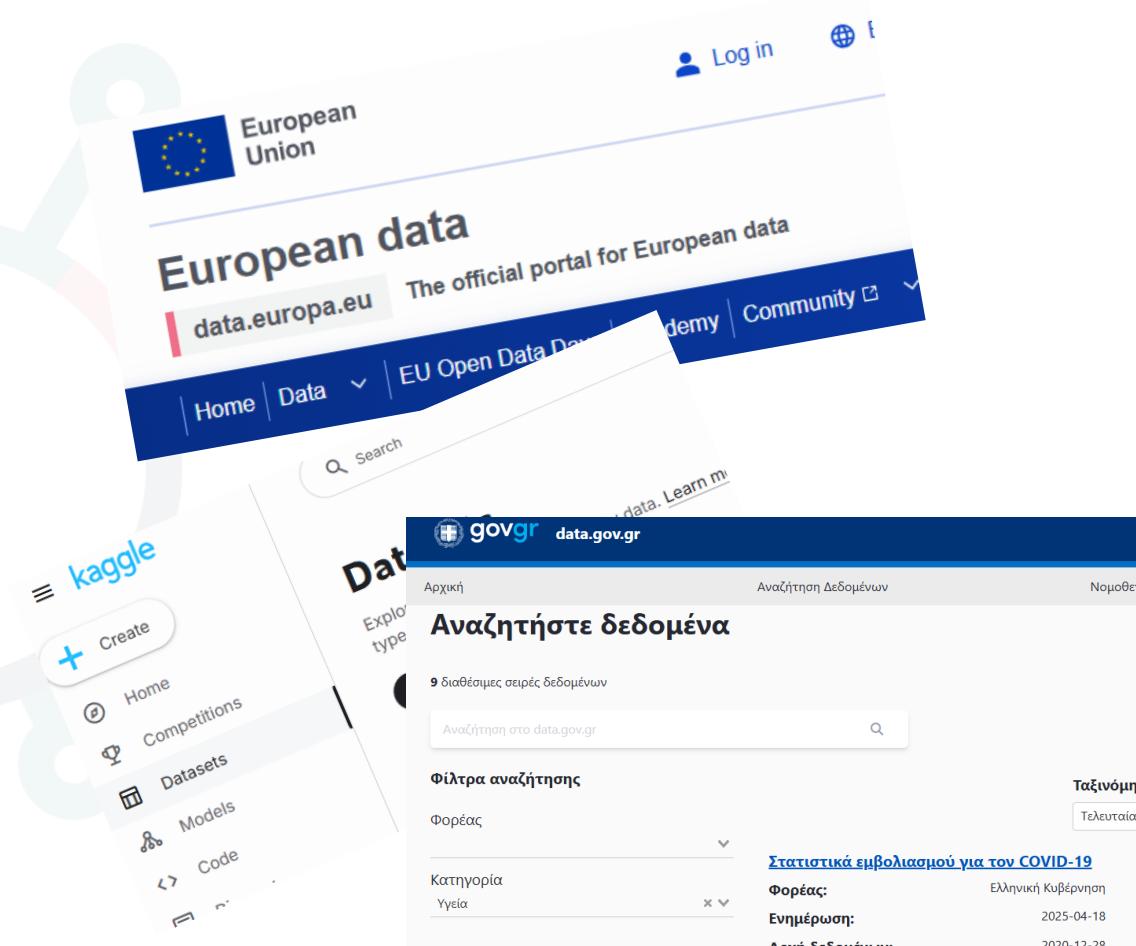
The REVO module is designed to implement the core functionalities of the RAISE Processing Script Manager, enabling seamless execution and management of Python scripts for experiments. It is designed to automate key tasks such as managing dependencies, handling dataset selection, and running the main Python script, while also ensuring proper validation throughout the process. By integrating these features, REVO ensures that experiments are executed efficiently and with accurate logging, while validating the execution environment and providing detailed results for further analysis.

- Utils

The Utils module contains a collection of utility modules that provide reusable, convenient, and well

RAISE is not just another data portal

RAISE is the infrastructure for providing access to data



The Aristotle University of Thessaloniki can provide storage to key stakeholders for providing access to their data

RAISE System features

- **Data owners can deploy their nodes in their premises**, storing their data there.
- **Datasets remain on-premises**; only approved algorithms can run on them.
- **Metadata of datasets are searchable** to help researchers discover datasets.
- **Only a sample** (or synthetic version) of the dataset **is downloadable** for script development.
- **Data owners can either create** these **downloadable samples manually** or allow RAISE to **automatically generate a synthetic** dataset from the real dataset.
- **Data owners can require access approvals**, so that they have to approve requests by other researcher for processing their datasets.
- **Data owners retain full control** of **who processes the data** and **can revoke** access at any time.
- **Data owners can require result auditing**, so that they can see and **approve (or reject) results** generated by analysis of their datasets before these results become available to the data consumer.
- **Processing results are registered** on the **blockchain** and assigned a **DOI compatible RAI** Persistent Identifier (example <http://doi.org/10.82136/275>).
- When the RAI Persistent Identifier is cited in a paper, the **data owner is also included in the citation's metadata**.
- Data owners have as **metrics** how many times, when and by whom their **datasets have been processed**.
- Researchers can **choose** whether **scripts** and **results** produced by them **are downloadable** by others.
- The **real dataset** is **never downloaded or visible** by other researchers

Higher agreement that RAISE addresses:



Q4 Lack of recognition



Q3 Misinterpretation / falsification



Q1 Data Protection



Q6 Commercial exploitation

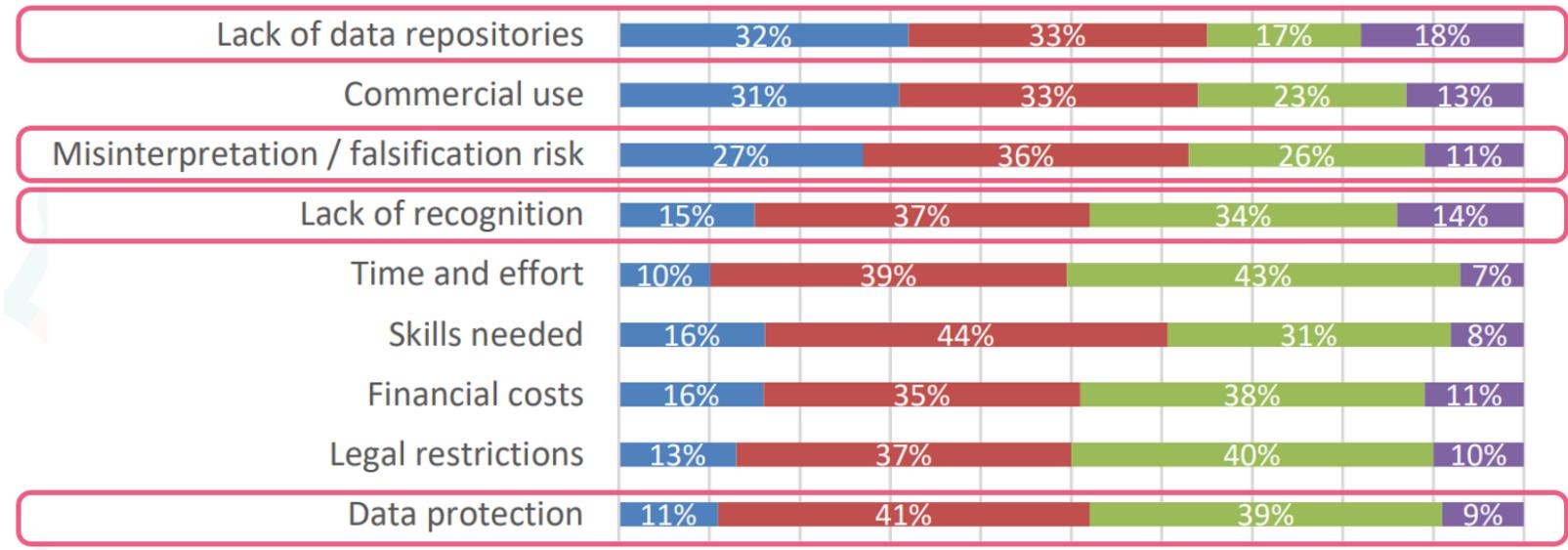


Q7 Lack of repositories



Q11 Trust in other researchers

Obstacles to the management and sharing of research data



0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Significant Attitude Changes with vs without RAISE



Be acknowledged for the reuse of your open data by others



Open science environment increases your visibility



Current open science environment benefits your career



Opening your data might result in misuse



Able to control data usage if you make them open

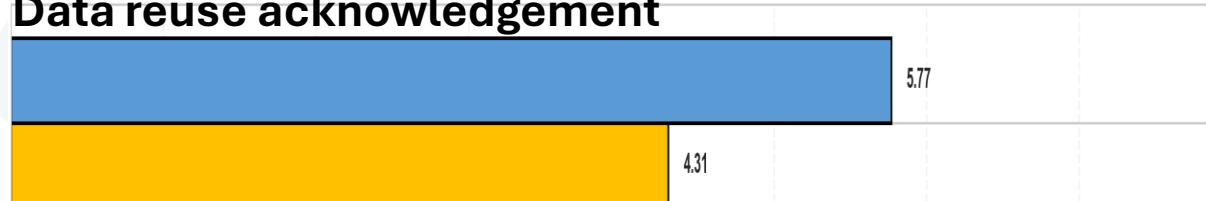


Efficiency in your research by using available open data

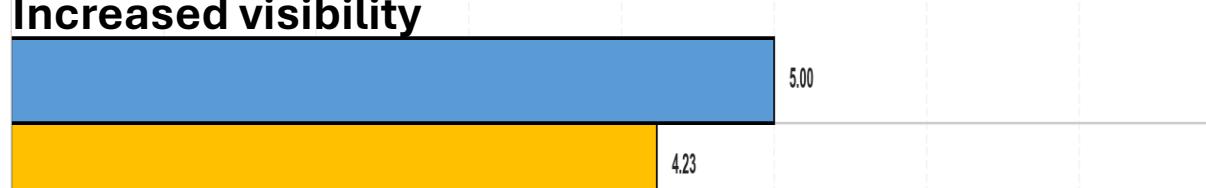
Significant Changes ($p < 0.05$)

Near-Significant Trends ($0.05 \leq p < 0.10$)

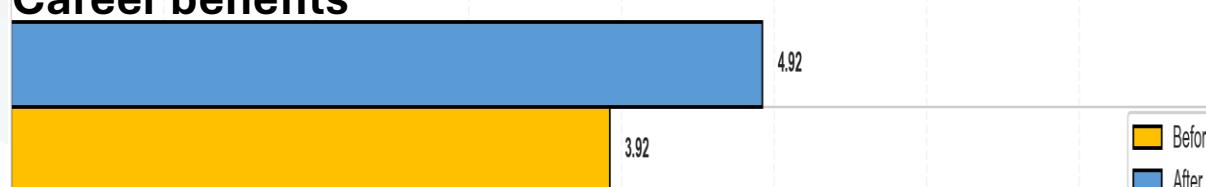
Data reuse acknowledgement



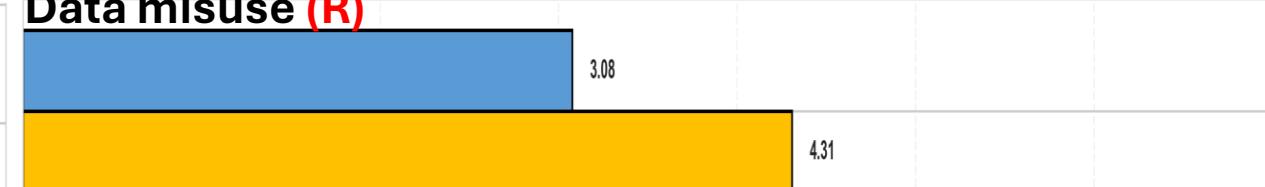
Increased visibility



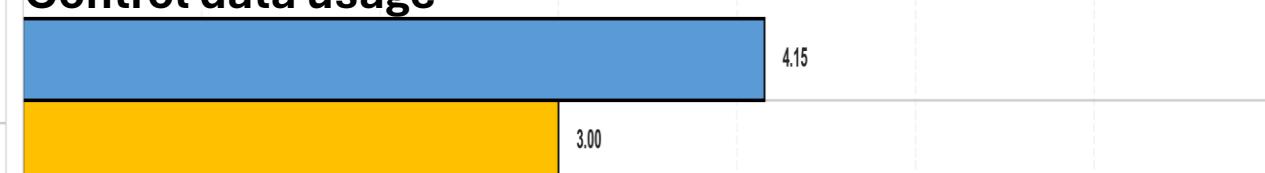
Career benefits



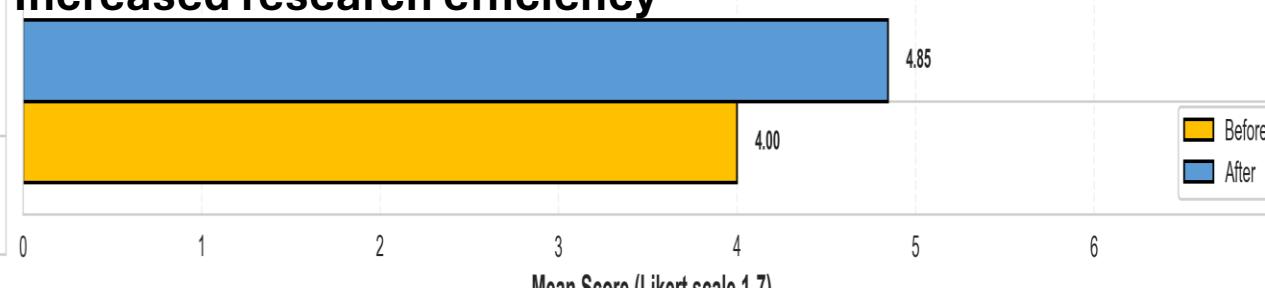
Data misuse (R)



Control data usage



Increased research efficiency



Before
After

re negatively-worded; lower scores indicate more positive outcomes.

Mean Score (Likert scale 1-7)

Mean Score (Likert scale 1-7)

Usage



Nodes created

26



Users

197



Datasets

388



Experiments

769



RAI (PIDs)

279

Early adopters (beyond EOSC ecosystem)



HELLENIC REPUBLIC
REGION OF
CENTRAL MACEDONIA



Class IIa certified
Software-as-medical-
device to collect, visualize
and compute patients'
physiological parameters

SHIFT-HUB

Health Datasets

SHIFT-HUB and Dynamic Health Data powered by RAISE

Search datasets...

20 Participants 101 to 110
SeizeIT2: Participants 101 to 110
Full Description is available in dataset 217599PH/used/datasets/05bb0040-2206-4682-8000-0d46334a2494. Here, we include ECGs...

20 Source code refactorings v4
Source code refactorings v4
For S-Ascece projects quality metrics and wherever in that instance of metrics there was a refactoring

102 Accelup usage data
Accelup usage data
All the projects posted in Accelup platform throughout 2020.

WITHINGS



Wifi Body
Scale



Blood
Pressure



Scan
Watch



Body
Scan

Football Club





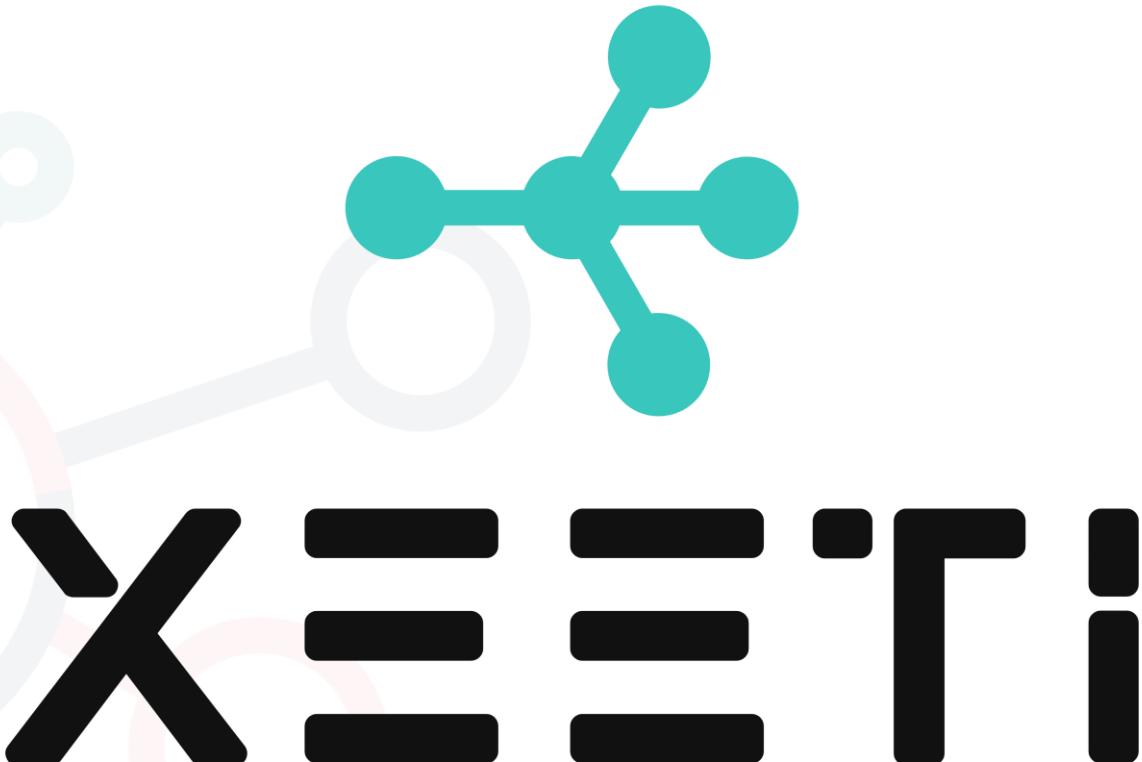
Oct 2022 – Jan 2026



Funded by
the European Union

Sept 2025 – Dec 2028

XEETI spin-off



TRANSFORMING VISIONS INTO EXCELLENCE

The **ultimate**
blockchain for
open science and AI
data management



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the European Union

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CORDIScovery podcast

EUROPEAN EXCELLENCE AWARDS 2025



Projects & results

Since the 1980s, the EU has funded thousands of research projects through its framework programmes.

Access detailed information about all these projects, **download** entire framework programmes' data as open data, **read** articles highlighting key projects, and **explore** interactive maps showing project connections and advanced dashboards for deeper analysis.

Looking for regional insights, beyond the FW programmes? Have a look at the [Kohesio](#) database for projects co-funded by the EU cohesion policy.

Horizon Collaboration Network

An interactive map that unveils the connections within EU research funded by the Horizon framework programmes



DATA VISUALISATION

Explore and discover the collaborative network of organisations participating in Horizon projects

Project of the month

Every month we select a project that has particular potential for innovation in its field of science



NEWS

PROJECT OF THE MONTH

Technology for a more transparent approach to sharing, visiting and processing data

2 January 2026



NEWS

LIFE AFTER...

Catching up with CHARTER: Improving adaptation to the changing Arctic

8 December 2025



We are live at portal.raise-science.eu



<https://documentation.raise-science.eu>

 info@raise-science.eu

Contact Us



Funded by
the European Union

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Online presence

 <https://raise-science.eu/>

 <https://twitter.com/RaiseScience>

 <https://www.facebook.com/raise.science>

 <https://www.linkedin.com/company/raise-science/>

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<https://www.auth.gr/en/>
<https://imedphys.med.auth.gr/>

 info@raise-science.eu

Project coordinator:
Dr. Evdokimos Konstantinidis

Scientific coordinator
Prof. Panos Bamidis

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TECREANDO



 **CERTH**
CENTRE FOR RESEARCH & TECHNOLOGY HELLAS



 **ViLabs**
Versatile Innovations

 **cyclopt**
Your software, Our priority.

 **Karolinska Institutet**
ANNO 1810

 **AOHN** Ερευνα & Καινοτομία
Τεχνολογίες Πληροφορίας

 **AINIGMA**

 **UHASSELT**
KNOWLEDGE IN ACTION

 **OpenAIRE**

 **EUCENTRE**
FOR YOUR SAFETY.

 **EnvEx**

 **University of Southampton**

 **McGill**
UNIVERSITY