**European Commission**

#HorizonEU

**HORIZON EUROPE**

**THE EU
RESEARCH & INNOVATION
PROGRAMME**

2021 – 2027

**Destination 6: A human-centred and ethical development of digital and industrial technologies**

*Research and Innovation*

# HORIZON-CL4-2023-HUMAN-01-01

## Efficient trustworthy AI - making the best of data (AI, Data and Robotics Partnership) (RIA)

European Commission

# HORIZON-CL4-2023-HUMAN-01-01
### Efficient trustworthy AI - making the best of data (AI, Data and Robotics Partnership) (RIA)

- **EU contribution per project: EUR 7-9 million**

- **Indicative budget of the call: EUR 35 million**

- **TRL: Achieve TRL 4-5 by the end of the project**

- Eligibility conditions are described in **General Annex B**. The following exceptions apply: If projects use satellite-based earth observation, positioning, navigation and/or related timing data and services, beneficiaries must make use of Copernicus and/or Galileo/EGNOS (other data and services may additionally be used)

- To ensure a balanced portfolio coverage, grants will be awarded to applications not only in order of ranking but at least also to the **highest ranked proposals for each of the two focus areas**, provided that the applications attain all thresholds

# HORIZON-CL4-2023-HUMAN-01-01
### Efficient trustworthy AI - making the best of data (AI, Data and Robotics Partnership) (RIA)

We are looking for:

- Optimized AI solutions: optimizing model design and data usage to maximize accuracy and robustness.
- Ensure in general, the pipeline of high-quality, representative, unbiased and compliant training data for AI development in all relevant sectors
- Support data preparation and AI training processes that lead to efficient and more trustworthy AI

# HORIZON-CL4-2023-HUMAN-01-01 - Focus

- automated and AI-based mining, harvesting, selection, cleaning, annotation, and/or enrichment/augmentation of data for AI; generating and using synthetic data to reduce the need for large volumes of real and potentially sensitive data; validating the efficiency of these processes in AI systems;

- lighter, less data-intensive and less energy-consuming AI models, optimized learning processes that require less input (data efficient AI) without degrading the quality of the output; machine learning methods and architectures that deal with lower volumes such as transfer learning; one-shot learning; continuous and/or lifelong learning.

! Proposals should clearly mention which of the two areas will be their main focus area.

# HORIZON-CL4-2023-HUMAN-01-01
## Efficient trustworthy AI - making the best of data (AI, Data and Robotics Partnership) (RIA) – additional information

- contribute to increasing **data efficiency** and **energy efficiency** of **AI**, and rationalize the **provision of data for AI**. The work should support a**ppropriate AI paradigms** (central, distributed, dynamic, hybrid**), responding** and **adapting** easily to the needs of the use situation, and to the **changing characteristics**, **availability** and **use conditions** for **data**.

- Target AI systems should be **appropriately evaluated**, and **results analysed** and **fed back** to ensure **continuous improvement** of the **"data for AI" pipeline**.

# HORIZON-CL4-2023-HUMAN-01-01
## Efficient trustworthy AI - making the best of data (AI, Data and Robotics Partnership) (RIA) – additional information

- The proposal should describe the **characteristics and availability** of the data to be used within the project and explain how the possible privacy and IPR issues related to the data are addressed.

- In order to achieve the expected outcomes, **international cooperation** is **encouraged**, in particular with Canada and India.

# HORIZON-CL4-2023-HUMAN-01-01
## Efficient trustworthy AI - making the best of data (AI, Data and Robotics Partnership) (RIA)

We do <u>NOT</u> want:

- Proposals with limited ambition delivering only incremental progress over the scientific state of the art.

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# HORIZON-CL4-2023-HUMAN-01-02

Large Scale pilots on trustworthy AI data and robotics addressing key societal challenges(AI, Data and Robotics Partnership) (RIA)

European Commission

# HORIZON-CL4-2023-HUMAN-01-02

## Large Scale pilots on trustworthy AI data and robotics addressing key societal challenges (AI Data and Robotics Partnership) (IA)

- **EU contribution per project: EUR 8 million**

- **Indicative budget of the call: EUR 24 million**

- **TRL: Achieve TRL 6-7 by the end of the project**


- Eligibility conditions are described in **General Annex B**.

- All proposals should demonstrate the assessment criteria upon which the proposed sectors/use-cases have been selected (e.g. in terms of socioeconomic factors, etc.)

- involvement of end-users in the requirement and validation of the pilots to ensure human-centric approach and maximise acceptance

# HORIZON-CL4-2023-HUMAN-01-02: Large Scale pilots on trustworthy AI data and robotics addressing key societal challenges (AI Data and Robotics Partnership) (IA)

We are looking for:

- Strengthening EU's ecosystem of AI, Data and Robotics excellence and innovation in world class foundational and application-inspired and application-oriented research;
- Technology progress in AI addressing major challenges hampering the deployment of AI, Data and Robotics technologies;
- Wide uptake of AI, Data and Robotics technologies by industry and end-users towards the Digital Decade targets for 2030.

# HORIZON-CL4-2023-HUMAN-01-02

We do <u>NOT</u> want:

- Academic focus with limited potential for commercial exploitation of the results after the end of the project.
- Lack of or limited **end user** involvement (human-centric approach)
- Lack of critical mass of industry and therefore non-realistic settings disconnected from actual needs of key industries, sectors and services.
- Focus on low impact sectors with little potential to deliver economic or societal benefits.
- *DEVIATIONS FROM ADMIN/FORMAL requirements: font size and formatting imposed by the templates.*

5. Who are the types of main stakeholders that are addressed?

6. Is there a key group of actors (eg. Partnership or other) driving this?

# HORIZON-CL4-2023-HUMAN-01-02 Key actors

Types of stakeholders that are addressed:

- Academy and research organizations

- Critical mass of industry in targeted sectors/applications (incl. SMEs and startups)

- End user involvement (human centric approach)

Key group of actors driving this:

- AI, Data and Robotics Partnership
  https://adr-association.eu/

# HORIZON-CL4-2023-HUMAN-01-04

## Open innovation: Addressing Grand challenges in AI (AI Data and Robotics Partnership) (CSA)

# HORIZON-CL4-2023-HUMAN-01-04
## Open innovation: Addressing Grand challenges in AI (AI Data and Robotics Partnership) (CSA)

- **EU contribution: EUR 4 million**

- **Indicative budget of the call: EUR 4 million**

- **TRL:** Achieve **TRL 4-5** by the end of the project

- **FSTP: minimum 50%** of the requested EU funding

- The support to **third parties** can only be provided in the form of **prizes**.

- The maximum amount to be granted to each third party is **EUR 500.000** to address open innovation challenges on key important S&T challenges and drive general progress on important tasks through a common challenge/benchmark problem.

- Eligibility conditions are described in **General Annex B.**

# HORIZON-CL4-2023-HUMAN-01-04

We are looking for:

- Demonstrate and reinforce Europe's research excellence in AI by driving substantial scientific progress in the following major scientific & technological AI areas
- Develop prestigious AI open innovation challenges that will mobilise wide participation of top scientists from academia, industry including start-ups and as well as young teams and rising stars from all over EU and Associated countries.
- Substantially increase interest from industry in AI (incl. SMEs and start-ups), in particular from key socio-economic sectors for Europe, and contributing to uptake of research results by industry

# HORIZON-CL4-2023-HUMAN-01-04

Aim of open innovation challenges:

- Attract outstanding talent and the best research teams to tackle key scientific and technological AI challenges, of relevance to industry.

- Drive substantial and broad scientific progress in key AI areas with the aim to reinforce the research excellence in Europe.

- Enable strong cooperation and co-creation between academia and industry

- Attract industry and business interest in demonstrating advanced performances meeting the needs of user industry, in view of fostering deployment and business opportunities in Europe.

- Define a process that fosters the uptake of developed algorithms/solutions across Europe

# HORIZON-CL4-2023-HUMAN-01-04:

CSA should prepare **at least** three open innovation challenges addressing challenges in collaboration with the projects funded under the following topics:

- Optimisation (in collaboration with CL4-2023-HUMAN-01-01)
- natural language understanding and interaction (in collaboration with CL4-2023-HUMAN-01-03)
- Explainability, robustness (with CL4-**2024**-HUMAN-01-06)
- and collaborative intelligence (with CL4-**2024**-HUMAN-01-07)

The projects funded through these calls should participate in the respective open innovation challenges, and can receive rewards, but will not be eligible to receive prize money as they are already funded.

# HORIZON-CL4-2023-HUMAN-01-04:

**Proposals are expected to:**

- Provide a **sound methodology** for the **design** of **AI challenges** as **open innovation** challenges and/or **benchmarks**

- Provide a **convincing approach** to **attract** the best teams from academia and industry, incl. start-ups and SMEs, students, rising stars and newcomers

- Address all aspects of running open innovation challenges and best exploit them to maximise the visibility of AI to the wider audience.

- Mobilise external partners (incl. from industry)

- Collaborate with the AI on Demand Platform, the AI, Data and Robotics Partnership, the Networks of AI excellence centres, and projects funded under CL4-2023-HUMAN-01-01+03, CL4-2024-HUMAN-01-06+07, as well as other relevant initiatives.

# HORIZON-CL4-2023-HUMAN-01-04
## Open innovation: Addressing Grand challenges in AI
(AI Data and Robotics Partnership) **(CSA)**

We do <u>NOT</u> want:

- Proposals with limited ambition and plans delivering only incremental progress over the scientific state of the art.
- Lack of expertise to organize, plan and to attract and engage outstanding talent and best research teams in the challenges
- Limited visibility of the innovation challenges

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5. Who are the types of main stakeholders that are addressed?

6. Is there a key group of actors (eg. Partnership or other) driving this?

# HORIZON-CL4-2023-HUMAN-01-04
## Key actors

Types of stakeholders that are addressed:

- Academy, research organizations and organizations having experience with carrying out innovation challenges

- industry (incl. SMEs and startups)

Key group of actors driving this:

- AI, Data and Robotics Partnership
https://adr-association.eu/