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# ***Destination 6 "Leadership in AI based on trust"***





# **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

*Estimated EU contribution EUR 8.00-10.00 million (per project)*

## 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)**

We do NOT want:

- Proposals with limited ambition delivering only incremental progress over the scientific state of the art.
- Lack of description and availability of data to be used

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# HORIZON-CL4-2023-HUMAN-01-01- Topic evolution

*The main focus of this topic is new, but it has close relationship with some topics of the work-programme 2021-2022:*

HORIZON-CL4-**2021**-HUMAN-01-01 - Verifiable robustness, energy efficiency and transparency for Trustworthy AI: Scientific excellence boosting industrial competitiveness (AI, Data and Robotics Partnership) (RIA)

- *Research Area: Greener AI, increasing data and energy efficiency: [SustainML - New Green AI project coordinated by eProxima](#)*

HORIZON-CL4-2021-DATA-01-03 - Technologies for data management (AI, Data and Robotics Partnership) (IA)

- *[Enabling Data Enrichment Pipelines for AI-driven Business Products and Services | enRichMyData Project](#)*

*This topic is complemented by the topic:*

- **HORIZON-CL4-2023-HUMAN-01-04**: Open innovation: Addressing Grand challenges in AI: **Proposals are to dedicate tasks and resources to provide input to and involve their research teams in the respective challenge.**
- HORIZON-CL4-**2024**-DATA-01-01: AI-driven data operations and compliance technologies

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-01-01

## Key actors

Types of stakeholders that are addressed:

- Academy and research organizations
- industry (incl. SMEs and startups)
- Multidisciplinarity + SSH

Key group of actors driving this:

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



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

## Additional / background documents

- [Launch Event: Paving the way towards the next generation of R&I excellence in AI, Data and Robotics | Adra-e](#)
- [Horizon Europe: New Projects in Robotics and AI - June-November 2022 | Shaping Europe's digital future \(europa.eu\)](#)
- [The DIGITAL Europe Programme – Work Programmes | Shaping Europe's digital future \(europa.eu\)](#)



# **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.

*estimated EU contribution EUR 8.00 million (per project)*

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

We do NOT 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.*

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

## Topic evolution

*The main focus of this topic is new –*

*However – large scale pilots were called for in Horizon 2020 ICT  
Leadership in Enabling and Industrial Technologies (LEIT)*



# 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-01-02

## Additional / background documents

- [Launch Event: Paving the way towards the next generation of R&I excellence in AI, Data and Robotics | Adra-e](#)
- [Horizon Europe: New Projects in Robotics and AI - June-November 2022 | Shaping Europe's digital future \(europa.eu\)](#)



# Future Outlook



The AI, Data and Robotics Partnership is driving the future outlook in this area and the WP

<https://adr-association.eu/>



## Upcoming events / information days

Horizon Europe Cluster 4 “Digital, Industry and Space” Info Day

**(Destination 6): 14 December 2022**

<https://research-innovation-community.ec.europa.eu/events/3jM2kV6qwHjteovSf3VOrp/overview>

ADRA Info Day on WP23 - AI, Data and Robotics Partnership Topics:

**February 2023 (tbc)**

HORIZON-CL4-2023-HUMAN-01-03

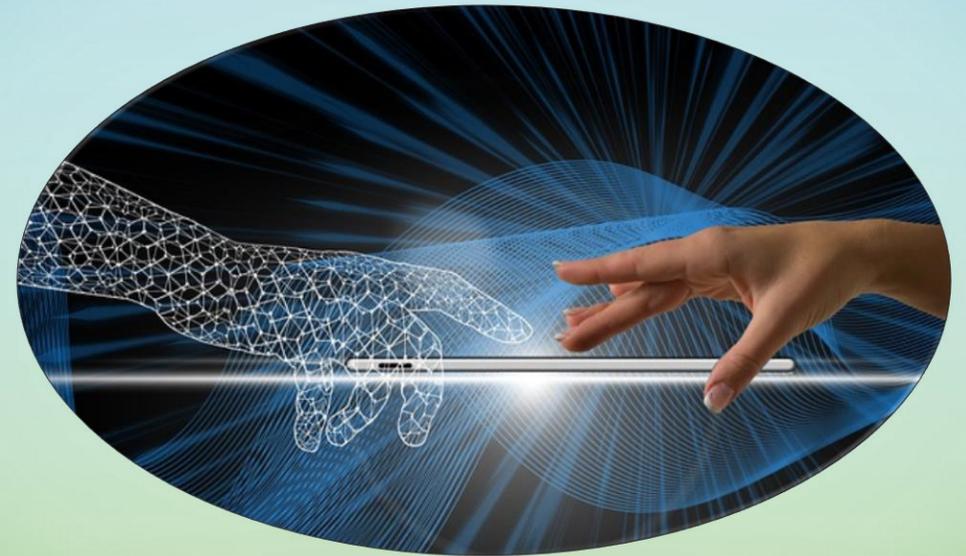
# Natural Language Understanding and Interaction in Advanced Language Technologies

(AI Data and Robotics Partnership)



## CHALLENGE

# Effective AI-based human-machine interaction and collaboration



NATURAL LANGUAGE UNDERSTANDING AND INTERACTION IN ADVANCED LANGUAGE TECHNOLOGIES



TOPIC  
BUDGET

EU CONTRIBUTION  
PER PROJECT

TYPE OF  
ACTION

TRL



20 Mio

6-8 Mio

RIA

TRL 2-5

*(3 projects)*

# What are we looking for?



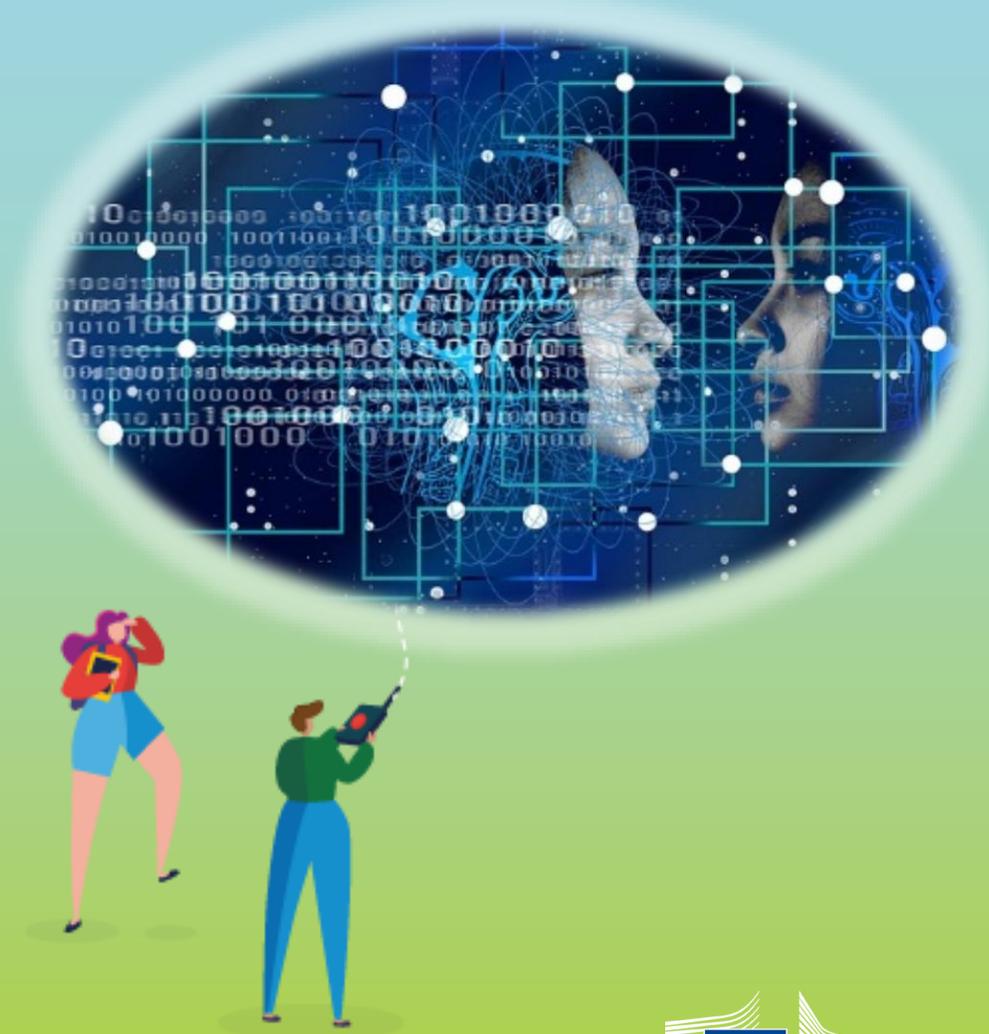
## EXPECTED OUTCOMES (1/4)

Development of **natural language understanding and interaction** in advanced language technologies, based on **context-aware language models** able to

- further integrate **long-term general knowledge** and
- **derive meaning**

in order to

- develop automated reasoning
- and enhanced interaction skills.



## EXPECTED OUTCOMES (2/4)

**Effective multilingual and bias-controlled language models, capable of**

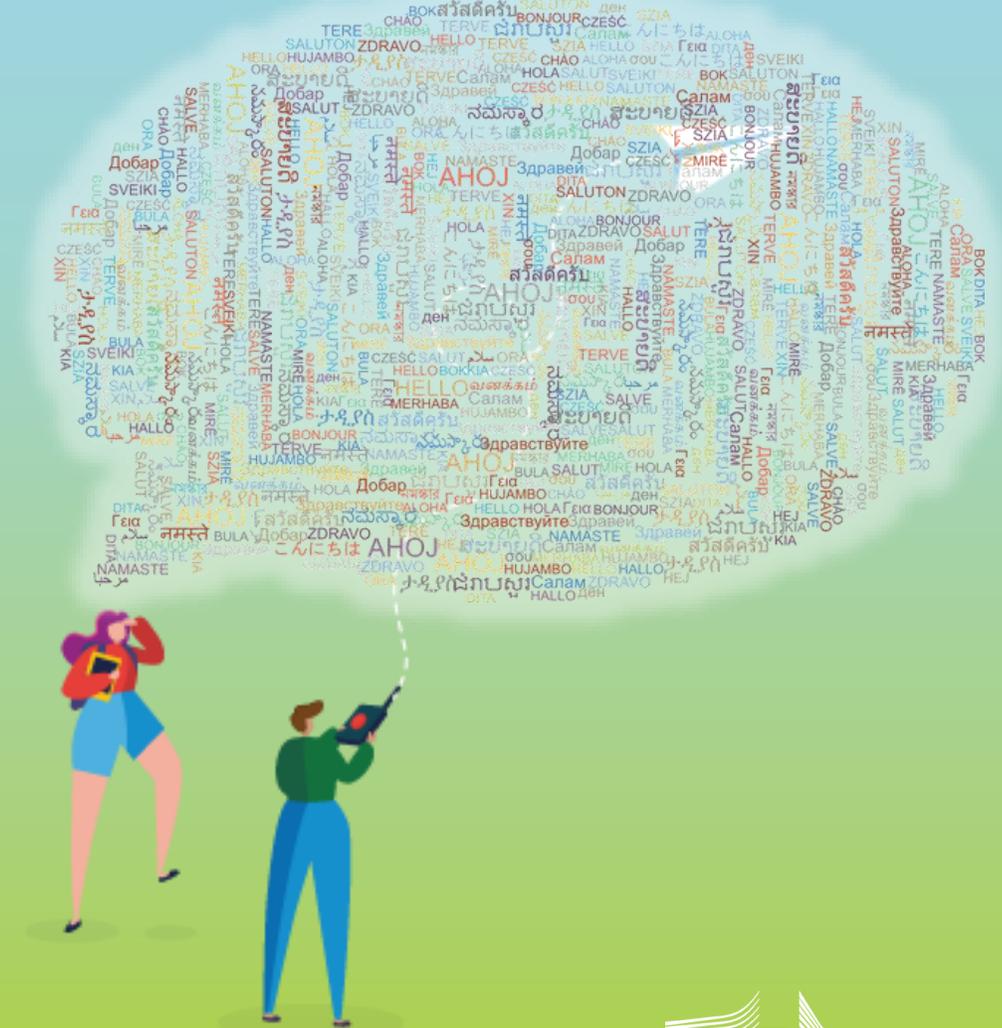
- learning from smaller language corpora,
- efficient in computing and
- respectful of European values.



## EXPECTED OUTCOMES (3/4)

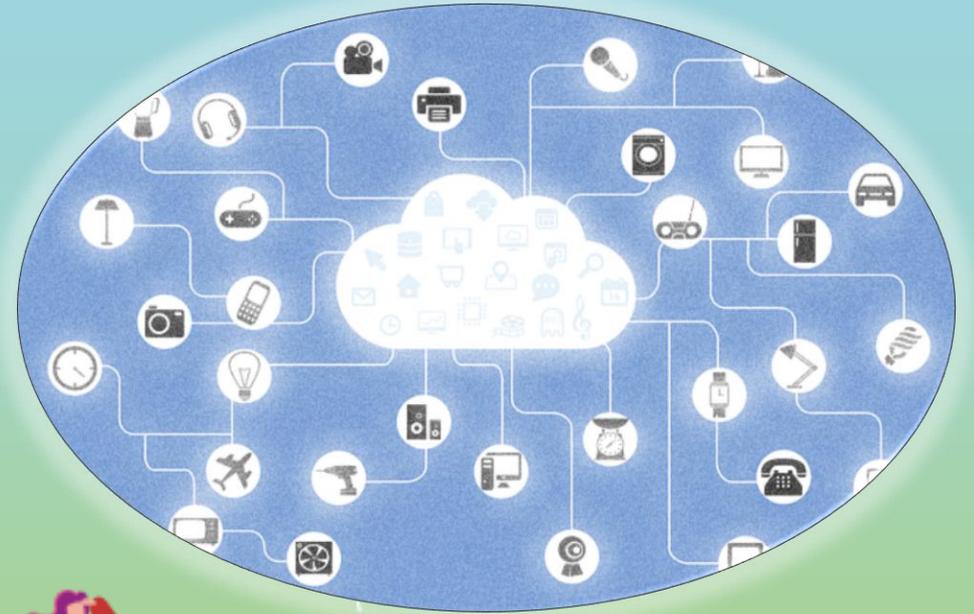
AI systems and solutions based on novel multilingual pre-trained language models that have assimilated

- cross-language and
- cross-cultural knowledge through
- textual and
- speech input.



## EXPECTED OUTCOMES (4/4)

**Higher uptake of innovative language technology solutions by European companies, providing extensive language coverage of AI-enabled applications and services in Europe.**



## SCOPE (1/6)

**Improve context-aware human-machine interaction** to increase

- understanding and
  - exploitation
- of
- the interaction context and
  - content in multimodal settings,

thus increasing responsiveness of interactive AI solutions, such as

- smart assistants,
- conversational and dialogue systems,
- content generation models, etc.



AND/ OR...

## SCOPE (2/6)

... **support and enhance seamless human-to-human communication** across languages e.g. by means of

- automatic translation or
  - interpretation (incl. automatic subtitling) in real time
- with a greater understanding of
- the communication context and
  - the meaning involved in it.



## SCOPE (3/6)

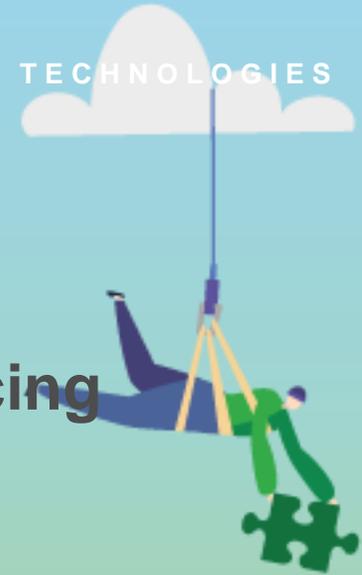
AT LEAST ONE OF THE FOLLOWING:

➤ **Developing novel methods and techniques for producing context-aware models**, which incorporate

- factual-based structured and
- unstructured knowledge

in

- broader situational and
- temporal information, and continual learning to achieve natural
- behaviour and
- reasoning in all intended settings.



## SCOPE (4/6)

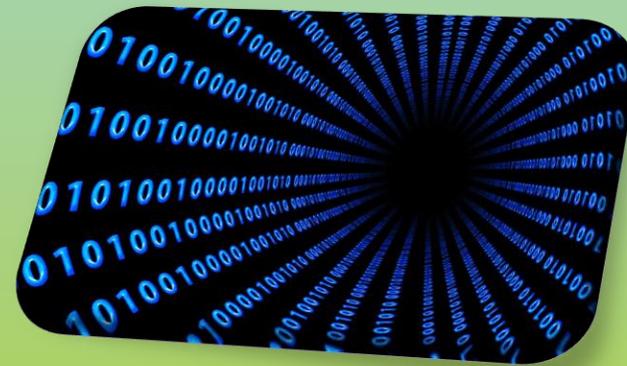
➤ **Improving large pre-trained multilingual language models** to cover a large set of languages, with

- a high level of natural language understanding and
- the ability to efficiently add more languages, including low-resource ones, via
- transfer or
- language-independent learning methods.



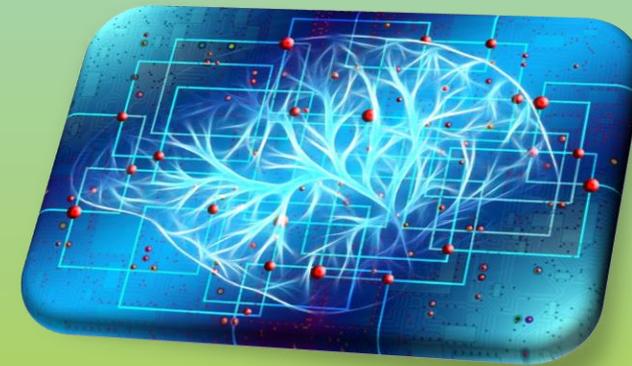
## SCOPE (5/6)

- **Improving language-independent and bias-controlling algorithms and methods for language model training and usage efficiency in terms of data, time and energy consumption while retaining performance, accuracy and general usability.**



## SCOPE (6/6)

- **Developing language representations**, encompassing an effective combination of multilingual, symbolic and sub-symbolic knowledge and allowing systems to perform cross-cultural reasoning in various contextual tasks.



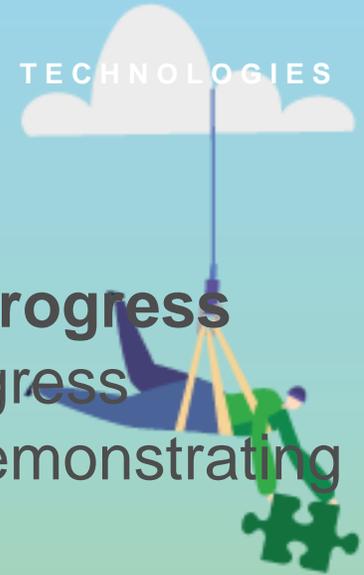
## CONDITIONS (1/2)

- ✓ **Appropriate expertise**, incl. data science, computer science, computational linguistics, machine learning, natural language processing, biases in language models, etc.
- ✓ **Bulding on existing standards and contributing to standardisation.**
- ✓ **Resulting in findable, accessible, interoperable and reusable research data** including metadata schemas and ontologies.



## CONDITIONS (2/2)

- ✓ Embedding **mechanisms to assess and demonstrate progress** (qualitative and quantitative KPIs, benchmarking and progress monitoring, as well as illustrative application use-cases demonstrating concrete potential added value).
- ✓ **Sharing communicable results with the European R&D community** through the AI-on-demand platform, Common European Data Spaces (esp. Language Data Space), etc.
- ✓ **Participation in the innovation challenges.**



# What do we NOT want?

- Simple copying / refreshing of existing ideas/ technologies/ solutions.
- Proposals where language modeling technologies and their evident applications are not the main subject.
- Proposals with a vague / imprecise description of the action.



# Topic evolution

HORIZON-CL4-2021-HUMAN-01-13  
**eXtended Reality Modelling (RIA)**



HORIZON-CL4-2023-HUMAN-01-03  
**Natural Language Understanding and Interaction  
in Advanced Language Technologies (AI Data  
and Robotics Partnership) (RIA)**



# Current project portfolio

**SERMAS (Socially-acceptable Extended Reality Models and Systems)**

<https://cordis.europa.eu/project/id/101070351>

**UTTER (Unified Transcription and Translation for Extended Reality)**

<https://cordis.europa.eu/project/id/101070631>

**VOX (Voice driven interaction in XR spaces)**

<https://cordis.europa.eu/project/id/101070521>



# Key actors

Leading research entities with expertise in:

- **Artificial Intelligence**, especially **Natural Language Processing**, **Data Science**, **Computational Linguistics**, etc.



Industrial users of language modeling technologies:

- **Communication**, **Telepresence**, **Smart Assistants**, **Chatbots**, **Content Generation**, **Internet of Things**, **Robotics**, etc.

# Additional/ background documents

<https://digital-strategy.ec.europa.eu/en/policies/language-technologies>

<https://www.european-language-technology.eu/>

<https://live.european-language-grid.eu/>

<https://european-language-equality.eu/>

<https://www.lr-coordination.eu/>



# Future Outlook

## Artificial Intelligence Index Report 2022

Stanford University

<https://aiindex.stanford.edu/report/>

## 2022 Tech Trends Report, Artificial Intelligence

Future Today Institute

<https://futuretodayinstitute.com/trends/>

## State of AI Report 2022

Nathan Benaich, Ian Hogarth

<https://www.stateof.ai/>



# Upcoming events/ information days

**12-14/12/2022**

Horizon Europe Cluster 4 Info Days





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

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

We are looking for (1/2):

- 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. Therefore contributing to uptake of research results by industry



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

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

We are looking for (2/2):

- Demonstrate and reinforce Europe's research excellence in AI by driving substantial scientific progress in the following major scientific & technological AI areas:
  - 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)



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

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

We do NOT want:

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

*DO NOT DEVIATE FROM ADMIN/FORMAL requirements: font size and formatting imposed by the templates.*



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

## Topic evolution

*This topic is new. However previous projects had successfully implemented innovation challenges:*

[Large Scale Learning Challenge | Knowledge 4 All Foundation Ltd. \(k4all.org\) – Pascal \(Pattern Analysis, Statistical Modelling and Computational Learning 2\)](#)

[SciRoc](#) - H2020 project supporting the European Robotics League (ERL), whose aim was to bring ERL tournaments into smart cities.

*This topic complements and is expected to collaborate with the following topics:*

- CL4-2023-HUMAN-01-01 *Efficient trustworthy AI - making the best of data*
- CL4-2023-HUMAN-01-03 *Natural Language Understanding and Interaction in Advanced Language Technologies*
- CL4-**2024**-HUMAN-01-06 *Explainable and Robust AI*
- CL4-**2024**-HUMAN-01-07 *Collaborative intelligence – combining the best of machine and human*



# 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/>



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

## Additional / background documents

- [Launch Event: Paving the way towards the next generation of R&I excellence in AI, Data and Robotics | Adra-e](#)
- [Horizon Europe: New Projects in Robotics and AI - June-November 2022 | Shaping Europe's digital future \(europa.eu\)](#)



# Future Outlook



The AI, Data and Robotics Partnership is driving the future outlook in this area and the WP

<https://adr-association.eu/>



## Upcoming events / information days

Horizon Europe Cluster 4 “Digital, Industry and Space” Info Day

**(Destination 6): 14 December 2022**

<https://research-innovation-community.ec.europa.eu/events/3jM2kV6qwHjteovSf3VOrp/overview>

ADRA Info Day on WP23 - AI, Data and Robotics Partnership Topics:

**February 2023 (tbc)**

# Work Programme topic: **HORIZON-CL4-2023-HUMAN-01-05** **Through AI from Disinformation to Trust**

1. What are you looking for?

1-Innovative AI solutions for trusted information production for media professionals.

2-Innovative AI solutions for supporting trustworthy online activity of citizens.

Following the results of the Horizon Europe 2020/21 Work Programme, the second Horizon Europe 2023/24 Work Programme will support innovation activities to move closer to AI-based market and ultimately widely available solutions that can play an important role in ensuring pluralistic access to meaningful information, quality content and trustworthy online interaction.

## Work Programme topic

### 2. What do you NOT want?

- Proposals without scientists from various relevant disciplines
- Proposals without focus on media professionals or citizens)
- Having a narrow focus on Disinformation
- Not addressing next generation social media as part of digital universe(s) or fediverse(s)

## Work Programme topic – topic evolution

### 3. Is this new or has it been called before?

New, previous relating calls did not target the AI aspect:

- HE-CL4-2021-HUMAN-01-27 AI to fight disinformation
- H2020-ICT-28-2018 Hyperconnected Sociality
- H2020-ICT-54-2020 Block for the Next Generation Internet, subtopics 2 and 3

# Work Programme topic – topic evolution

## 4. Current project portfolio

On Social Media Innovation related to the field:

- AI4TRUST
- TITAN
- VERA.AI
- TREBLO/TRUBLO
- ONTOCHAIN
- EUNOMIA
- AI4Media

## Work Programme topic – Key actors

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

Media practitioners, journalists, scientists from various disciplines, AI specialists, technology providers, citizen representatives

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

EDMO – European Digital Media Observatory

PPP on AI, Data and Robotics and funded actions related to this partnership

## Work Programme topic

### 7. Are there any additional / background documents?

Audiovisual and Media Action Plan

<https://digital-strategy.ec.europa.eu/en/policies/media-and-audiovisual-action-plan>

European Democracy Action Plan

[https://ec.europa.eu/info/strategy/priorities-2019-2024/new-push-european-democracy/european-democracy-action-plan\\_en](https://ec.europa.eu/info/strategy/priorities-2019-2024/new-push-european-democracy/european-democracy-action-plan_en)

The 2022 Code of Practice on Disinformation

<https://ec.europa.eu/newsroom/dae/redirection/document/87585>

# Future Outlook

## Follow-up in HE WP 2025-2026

- Social media innovation against disinformation
- Metaverse(s)
- AI-tools and solutions
- Big Data components
- Digital Well-Being
- Media literacy aspects

**WORK PROGRAMME 2023-2024 – DESTINATION 6**  
A Human-centred and ethical development and industrial  
technologies

**HORIZON-CL4-2023-HUMAN-01-05:  
Through AI from Disinformation to Trust  
(IA) 10 MEUR**

**Open: 01/12/2022**  
**Deadline: 29/03/2023**

# **HORIZON-CL4-2023-HUMAN-01-05: Through AI from Disinformation to Trust**

## **Expected Outcomes:**

1. Innovative AI solutions for trusted information production for media professionals.
2. Innovative AI solutions for supporting trustworthy online activity of citizens.

**Indicative budget: 10 MEUR**

**EU contribution per project: max. 5 MEUR**

**Type of Action: IA – Innovation Action**

**TRL: from 3-4 to 6-7**

## **Relevant documents:**

EDAP – European Democracy Action Plan

MAAP – Media and Audiovisual Action Plan

The 2022 Code of Practice on Disinformation

# HORIZON-CL4-2023-HUMAN-01-05: Through AI from Disinformation to Trust

## Scope:

- Given the emergence of the next generation of social media as part of digital universe(s) or fediverse(s), which are more immersive and based on virtual realities and gaming contexts, the detection of different forms of content manipulation (e.g. deep-fakes, tampered content and scammed environments) becomes even more challenging.
- Solutions provided would include the correlation/comparison of various sources of information, multi-modal language interpretation, rapid visual pattern detection in moving images and simulated environments, capabilities as recommendation engine/personal companion, and interfacing with augmented, virtual reality and gaming environments.
- Solutions should be gender-sensitive and not perpetuate harmful stereotypes. The innovation actions will bring together technological providers, media professionals and end users for ensuring market readiness of the results.

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# ***Destination 6 - Objective "European standards for industrial competitiveness"***





**Topic Horizon-CL4-2023-HUMAN-01-65**

***Support facility for digital standardisation and international cooperation in digital partnerships***

# ***Support facility for digital standardisation and international cooperation in digital partnerships***

## 1. What are we looking for?

A CSA for:

- engaging with national administrations and key ICT standardisation stakeholders from third countries (Japan, South Korea, Taiwan, Singapore, Canada, Australia and the USA) to work towards a common vision and agenda for key digital technologies and its standardisation.
- Setting up a coordination mechanism with these stakeholders to align positions on international standardisation (SDOs and other fora/consortia).
- Setting up a mechanism to monitor the effective implementation of international standards in trade & cooperation agreements (e.g. Digital Partnerships and TTC) with these third countries.

Indicative Budget: 1.5 M€

Indicative Timing: 2 years

## ***Support facility for digital standardisation and international cooperation in digital partnerships***

### 2. What do we NOT want?

- Direct contribution to international standardisation activities
- Coordination mechanism targeting only formal SDOs (ISO/IEC, ITU). It should also target other international fora and consortia (e.g. 3GPP, oneM2M, IETF...)

## ***Support facility for digital standardisation and international cooperation in digital partnerships – Topic evolution***

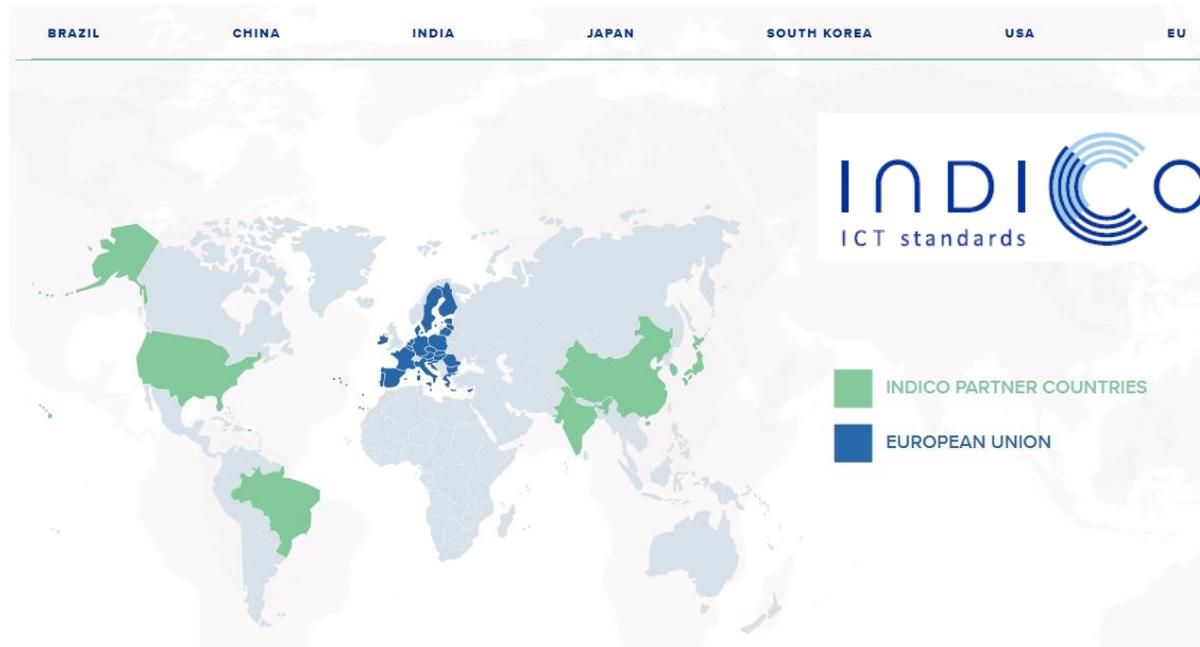
### 3. Is this new or has it been called before?

- It is partially a continuation of [InDiCo](#), supported by the Foreign Policy Instrument (FPI) unit of the EEAS
- NEW => different target countries; monitor implementation of standards in trade & cooperation agreements.
- Relation with other topics in the current WP
  - Strong links with HUMAN-01-66 (also partially continuation of InDiCo)
  - Links with HUMAN-01-61 (StandICT.eu), which aims to support the participation of EU experts and map relevant activities in international standardisation
  - To any topic that may contribute to international standardisation. This project can support by providing contacts of key stakeholders in third countries

# Support facility for digital standardisation and international cooperation in digital partnerships – Topic evolution

## 4. Current project portfolio

<https://www.indico-ictstandards.eu/>



## ***Support facility for digital standardisation and international cooperation in digital partnerships – Key actors***

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

- ✓ National administrations and SDOs from the USA, Japan, South Korea, Canada, Australia, Singapore and Taiwan.
- ✓ EU experts in international standardisation (ETSI, CEN & CENELEC, NSBs, PPPs...)

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

- ✓ EU experts in international standardisation (ETSI, CEN & CENELEC, PPPs...)

## ***Support facility for digital standardisation and international cooperation in digital partnerships***

### 7. Are there any additional / background documents?

- [EU-US TTC WG1 on standardisation](#)
- [Japan-EU Digital Partnership](#)
- [EU-Republic of Korea Digital Partnership](#)
- Reports from InDiCo regarding Japan, South Korea and the USA
- [Rolling Plan for ICT standardisation 2022](#)

*e.g. call specific background / guidance notes;  
EC communications and other policy documents;  
work programme consultation workshop reports;  
strategic research agendas, other research roadmaps;*

## ***Support facility for digital standardisation and international cooperation in digital partnerships – Future outlook***

8. Do you have information about future trends, emerging initiatives, roadmaps, key players in this area?

- [EU-Singapore Digital Partnership](#)
- [EU-Republic of Korea Strategic Partnership](#)



**Topic Horizon-CL4-2023-HUMAN-01-66**

***Promoting EU standards globally***

## ***Promoting EU standards globally***

### 1. What are you looking for?

A CSA for:

- promoting EU ICT/digital standards for key technologies prioritised in the Horizon Europe programme (AI, chips, quantum...)
- promoting the EU model for setting global & interoperable ICT/digital standards
- fostering capacity building in third countries for ICT/digital standardisation around EU values

Indicative Budget: 2.5 M€

Indicative Timing: 3 years

## ***Promoting EU standards globally***

### 2. What do you NOT want?

- Direct contribution to international standardisation activities
- Influence of third countries / companies on the EU model for setting standards
- Targeting only formal SDOs (ISO/IEC, ITU). The CSA should also target other international fora and consortia (e.g. 3GPP, oneM2M, IETF...)

## ***Promoting EU standards globally– Topic evolution***

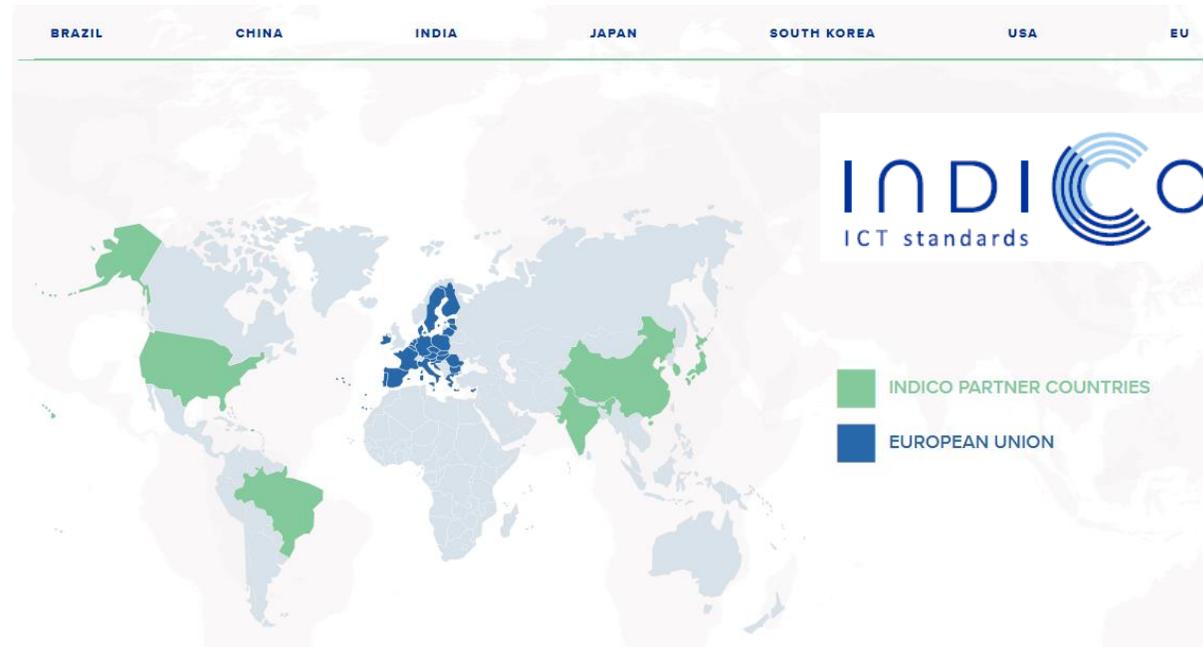
### 3. Is this new or has it been called before?

- It is partially a continuation of [InDiCo](#), supported by the Foreign Policy Instrument (FPI) unit of the EEAS
- NEW => extended geographical scope (Africa, Eastern Europe, Southeast Asia or LAC); different target countries; extended technological reach.
- Relation with other topics in the current WP
  - Strong links with HUMAN-01-65 (also partially continuation of InDiCo)
  - Links with HUMAN-01-61 (StandICT.eu), which aims to support the participation of EU experts and map relevant activities in international standardisation
  - To any topic that may contribute to international standardisation. This project can support by providing contacts of key stakeholders in third countries

## Promoting EU standards globally– Topic evolution

### 4. Current project portfolio

<https://www.indico-ictstandards.eu/>



## ***Promoting EU standards globally– Key actors***

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

- ✓ National administrations and SDOs or telecom regulators in India (e.g. TSDSI, DOT), China (e.g. CCSA), Brazil (e.g. ANATEL) and other targeted countries in LAC region, African Union, Southeast Asia, Western Balkans and the Eastern Partnership
- ✓ EU experts in international standardisation (ETSI, CEN & CENELEC, NSBs, PPPs...)

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

- ✓ EU experts in international standardisation (ETSI, CEN & CENELEC, PPPs)

## ***Promoting EU standards globally***

### 7. Are there any additional / background documents?

- [Global Gateway](#)
- [Press release of EU-India Trade and Technology Council](#)
- Reports from InDiCo regarding Brazil, China and India
- [Rolling Plan for ICT standardisation 2022](#)

*e.g. call specific background / guidance notes;  
EC communications and other policy documents;  
work programme consultation workshop reports;  
strategic research agendas, other research roadmaps;*

## ***Promoting EU standards globally– Future outlook***

8. Do you have information about future trends, emerging initiatives, roadmaps, key players in this area?

- EU-LAC Digital Alliance (to be launched prior to EU-LAC Summit in June 2023)

# HORIZON-CL4-2023-HUMAN-01-62: Boosting industrial symbiosis by standardisation (CSA)

## Projects are expected to contribute to the following outcomes:

- Reinforcing the links between standardisation and research and innovation in circular value chains, ensuring that standardisation facilitates cross-sector interoperability at all levels.
- Facilitating the market entry of innovative solutions, which could aid the circularity of resources and zero pollution.
- Identifying the major bottlenecks for standardisation related framework conditions to support industrial symbiosis.
- In order to support the implementation of the ERA Industrial technology roadmap for low carbon technologies , helping the development of agile and green standards to ensure interoperability in the domain of industrial symbiosis.

**Indicative budget of the call: 2.0 million EUR**

**EU contribution per project: 2.0 million EUR**

**Type of Action: Coordination and Support Action (CSA)**

# **HORIZON-CL4-2023-HUMAN-01-63: Provide for a strong and sustainable pool of experts for European Standardisation: attract the students of university/HEI**

## **1. What do you want?**

- The creation of a robust and sustainable pool of European professionals ready to contribute to standardisation and support positioning EU as global standard-setter.
- Those teachers of EU universities/HEI, who already integrate standardisation-related content in their lectures, should team up and, in co-operation with industry, design an innovative teaching concept of standardisation.
- The teaching concept has the mission to bridge the technical and societal facets of standardisation, as well as to integrate the aspects of a human-centric standardisation and the EU core values.
- This concept should foster the development of green and digital skills and underline the respective support through standardisation.

**HORIZON-CL4-2023-HUMAN-01-63:  
Provide for a strong and sustainable pool of experts for European  
Standardisation: attract the students of university/HEI**

2. What do you NOT want?

- Desk research or papers on the topic

## **HORIZON-CL4-2023-HUMAN-01-63: Provide for a strong and sustainable pool of experts for European Standardisation – Evolution**

3. Is this new or has it been called before?

This is a new topic that was not included in previous research programmes.

## **HORIZON-CL4-2023-HUMAN-01-63: Provide for a strong and sustainable pool of experts for European Standardisation – Evolution**

### 4. Current project portfolio *(if relevant)*

N/A



## Work Programme topic – Key actors

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

EU universities / Higher Education Institutions (HEI)

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

No



## **HORIZON-CL4-2023-HUMAN-01-63: Provide for a strong and sustainable pool of experts for European Standardisation**

### 7. Are there any additional / background documents?

An EU Strategy on Standardisation – COM(2022) 31 of 2/2/2022

Digital Education Action Plan 2021-2027 – COM(2020) 624 of  
30/9/2020

## Future Outlook

8. Do you have information about future trends, emerging initiatives, roadmaps, key players in this area?

None.

## Upcoming events / information days

9. Please list upcoming information days and other events of relevance to this area

Horizon Europe Destination 6 Info Day – 14/12/2022

## **HORIZON-CL4-2023-HUMAN-01-64**

# **Pre-normative research and standardisation in industrial ecosystems**

### **1. What are you looking for?**

- Coordination/execution of pre-normative research activities in the industrial ecosystems with a view to exploit synergies among the stakeholders.
- Boosting the interactions between research projects and pre-normative work in the various ecosystems, and to increase the European contribution and presence in the subsequent formal European and international standardisation processes.
- Establishing interoperability standards for data sharing within and across the ecosystems, through the implementation of the FAIR data principles and leveraging on already adopted practices especially those in the relevant European common data spaces and in the European Research infrastructures.
- Additionally, a strategy for education and skills development within the ecosystems should be developed, associating social partners when relevant.

# **HORIZON-CL4-2023-HUMAN-01-64**

## **Pre-normative research and standardisation in industrial ecosystems**

### 2. What do you NOT want?

- The aim is to bring together the research world (projects, universities, innovation centres, etc.) with supply chains and stakeholders within industrial ecosystems to define standardisation needs and priorities, the role to be played by pre-normative research, and the contributions to be provided at the European and international standardisation level
- Generic studies or papers are not expected as main actions

# **HORIZON-CL4-2023-HUMAN-01-64**

## **Pre-normative research and standardisation in industrial ecosystems – Evolution**

3. Is this new or has it been called before?

- This is a new topic

# **HORIZON-CL4-2023-HUMAN-01-64**

## **Pre-normative research and standardisation in industrial ecosystems - Evolution**

### 4. Current project portfolio *(if relevant)*

None

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-01-64**

### **Pre-normative research and standardisation in industrial ecosystems – Key actors**

5. Who are the types of main stakeholders that are addressed?
  - Industry, research centres, existing projects, relevant European, national or regional initiatives, funding programmes and platforms.
  
6. Is there a key group of actors (eg. Partnership or other) driving this?
  - European and international standardisation organisations are the prominent actors

## **HORIZON-CL4-2023-HUMAN-01-64**

# **Pre-normative research and standardisation in industrial ecosystems**

### 7. Are there any additional / background documents?

- An EU Strategy on Standardisation – COM(2022) 31 of 2/2/2022
- The first Annual Single Market Report [SWD(2021) 351 of 5/5/2021]
- DG GROW Industrial Forum  
([https://single-market-economy.ec.europa.eu/industry/strategy/industrial-policy-dialogue-and-expert-advice\\_en](https://single-market-economy.ec.europa.eu/industry/strategy/industrial-policy-dialogue-and-expert-advice_en))
- ERA industrial technology roadmap for low-carbon technologies in energy-intensive industries (<https://op.europa.eu/s/xfbu>)
- FAIR data principles  
([https://ec.europa.eu/info/sites/default/files/turning\\_fair\\_into\\_reality\\_1.pdf](https://ec.europa.eu/info/sites/default/files/turning_fair_into_reality_1.pdf))

## Future Outlook

8. Do you have information about future trends, emerging initiatives, roadmaps, key players in this area?
  - High-Level Forum on Standardisation

## Upcoming events / information days

9. Please list upcoming information days and other events of relevance to this area

- Horizon Europe Cluster 4 Destination 6 Info Day – 14/12/2022

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# ***Destination 6 – Objective "An Internet of Trust"***



# NGI

**NEXT GENERATION INTERNET IN WP 2023**

**Section: An Internet of Trust**

**Topic: Next Generation Internet Fund topic**

**HORIZON-CL4-2023-HUMAN-01-11**

*European Commission – DG CONNECT*

# Next Generation Internet Fund topic

## 1. What are you looking for?

“The general objective is to **nurture** a **structured human-centric** internet **eco-system** by turning digital **values** into motivating challenges for **top** value-driven **open source** innovators in Europe enabling to **create, mature and grow** new internet **commons**”

## Next Generation Internet Fund topic

### 2. What do you NOT want?

- That the beneficiaries do the research work
- Proprietary and/or non-open source solutions
- Pushing a specific technology through the fund
- That technical or non-technical support tasks (e.g. security audits) are implemented through the budget earmarked for the financial support to third parties

## Next Generation Internet Fund topic – topic evolution

3. Is this new or has it been called before?
  - This topic is a consolidation of previous topics where funding was split by technology area: e.g. Internet architecture & decentralised technologies (2022); Trust & data sovereignty on the Internet & Trustworthy open search and discovery (2021)
  - The objective is to avoid fragmentation and structure the eco-system with critical mass

# Next Generation Internet Fund topic – topic evolution

## 4. Current project portfolio

- NGIO Entrust (2021)
  - NGI Search (2021)
  - NGIO Core (2022)
  - TrustChain (2022)
- (all 80% FSTP)



## Next Generation Internet Fund topic – Key actors

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

As per WP “Applicants should demonstrate their experience and understanding of open source communities and their expertise covering the full open source life cycle through proven track record including years of experience and indication of volume of open source projects supported”

See also additional sub-criteria 3: “Capacity and proven experience of the consortium to create and grow internet commons based on open source software, hardware and standards”

### 6. Is there a key group of actors (eg. Partnership or other) driving this? No Partnership or other

## Next Generation Internet Fund topic

7. Are there any additional / background documents?

Report "Towards a sovereign digital infrastructure of commons"

[https://www.diplomatie.gouv.fr/IMG/pdf/report\\_of\\_the\\_european\\_working\\_team\\_on\\_digital\\_commons\\_digital\\_assembly\\_june\\_2022\\_netherlands\\_cle843dbf.pdf](https://www.diplomatie.gouv.fr/IMG/pdf/report_of_the_european_working_team_on_digital_commons_digital_assembly_june_2022_netherlands_cle843dbf.pdf)

[www.NGI.eu](http://www.NGI.eu), where you may find documents / reports relevant to Next Generation Internet as well as events of relevance to this area; but these are not related to or supporting the call

## Upcoming events / information days

8. Do you have information about future trends, emerging initiatives, roadmaps, key players in this area?

N/A

9. Please list upcoming information days and other events of relevance to this area

Information Day: 14 December 2022 10h-12h

# NGI

**NEXT GENERATION INTERNET IN WP 2023**

**Section: An Internet of Trust**

**Topic: Pilots for the Next Generation Internet  
Topic**

**HORIZON-CL4-2023-HUMAN-01-12**

*European Commission – DG CONNECT*

# Next Generation Internet Pilots topic

## 1. What are you looking for?

“The aim of this topic is to **foster the take up** of NGI technologies and solutions in Europe by integrating them in a variety of industrial and societal use cases, enabling the emergence of internet ecosystems supporting the needs of specific sectors”

## Work Programme topic

### 2. What do you NOT want?

- Research focused activities as this is an **IA**
- Proprietary and/or non-open source solutions
- Single sector proposal

## **Work Programme topic – topic evolution**

3. Is this new or has it been called before?

- This topic is new in the NGI portfolio.

# Work Programme topic – topic evolution

4. Current project portfolio *(if relevant)*  
*Not relevant.*



## Work Programme topic – Key actors

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

- User organisations from vertical sectors
- Other Digital Technology providers
- NGI Innovators
- SSH experts

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

No

## Work Programme topic

7. Are there any additional / background documents?

The proposers should look at the NGI solutions and technologies on the NGI catalogue at <http://NGI.eu>

## Upcoming events / information days

8. Do you have information about future trends, emerging initiatives, roadmaps, key players in this area?

N/A

9. Please list upcoming information days and other events of relevance to this area

Information Day: 14 December 2022 10h-12h

# NGI

**NEXT GENERATION INTERNET IN WP 2023**

**Section: An Internet of Trust**

**Topic: NGI International Collaboration – USA**

**HORIZON-CL4-2023-HUMAN-01-13**

*European Commission – DG CONNECT*

## Work Programme:

### 1. What are you looking for?

- Enhanced EU-US cooperation in the development of Next Generation Internet technologies, services and standards
- A transatlantic ecosystem of Internet researchers, open source developers, high-tech startups, ...
- Generate new business opportunities for European Internet innovators based on decentralised technologies and open source



## Work Programme topic

- **NGI International Collaboration - USA (RIA, € 4 million, 80% FSTP)**

R&I projects between European NGI researchers / innovators and entities participating in Internet related projects funded by NSF:

- Proposals should implement three open calls and should make provisions for the coordination with NSF of these open calls in terms of scope, proposals submission and selection, as well as implementation of the third party projects
- The thematic focus should be on trust / privacy, data sharing and portability, sustainable internet, electronic identities, internet architecture renovation and decentralised technologies
- Research leading to advanced technology development; may include joint demonstrators and joint contributions to standards

## Work Programme topic (cont.)

The proposal should support open source software and open hardware design.

- An overall duration of typically 48 months would allow these outcomes to be addressed appropriately, while allowing the implementation of three open calls for third party projects. Nonetheless, this does not preclude submission and selection of proposals requesting other durations.
- For ensuring focused effort, third parties should be funded through projects typically of EUR 150 000, with indicative duration of 18 months.

## NGI International Collaboration – topic evolution

3. Is this new or has it been called before?
4. Current project portfolio

*Since the last WPs of Horizon 2020, International Collaboration with the USA has been an active area in NGI, focusing on mobility of researchers and on R&I collaborations.*

*Running collaboration projects are: NGI Enrichers on mobility of researchers; NGI Atlantic and NGI Sargasso (to start soon) on R&I collaborations. All the information on current NGI projects is available at: [www.NGI.eu](http://www.NGI.eu)*

*The new project from this call will concentrate on the same subject areas, but will differ in its exclusive focus on R&I collaborations with NSF and in the size / duration of the third party projects, which will aim for more in-depth research collaborations.*

## An Internet of Trust – key actors

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

*These are organisations with long expertise in R&I collaborations with the US, that have leadership in Internet R&I and that can mobilise the ecosystem of Internet innovators.*

*These organisations will have to run later on the FSTP calls for internet innovators.*

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

*No*

## An Internet of Trust - documents / events

7. Are there any additional / background documents?
8. Do you have information about future trends, emerging initiatives, roadmaps, stakeholders?
9. Please list upcoming information days and other events of relevance to this area

*No, we do not have any background documents or any additional information elaborating the content of the call. We are not planning to organize any specific information day on NGI International Collaboration – USA*

*Horizon Europe WP 2023 Information Day: 14 December 2022 10h-12h*

*However, at: [www.NGI.eu](http://www.NGI.eu), you may find documents / reports relevant to Next Generation Internet as well as events of relevance to this area; but these are not related to or supporting the call*

# NGI

**NEXT GENERATION INTERNET IN WP 2023**

**Section: An Internet of Trust**

**Topic: Next Generation Internet Commons Policy**

HORIZON-CL4-2023-HUMAN-01-14

*European Commission – DG CONNECT*



# Work Programme topic: Next Generation Internet Commons Policy (HUMAN-01-14 CSA – 2 M€)

1. What are you looking for?

“While **internet commons** are critical in our digital life **their importance it is not fully reflected** at the **strategic level** with little representation of the communities involved, lack of structure, gap between grass-root commoners and top-down sovereignty policies, fragmented funding landscape”

=> The action should put in place the measures to bridge this gap

# Next Generation Internet Commons Policy

2. What do you NOT want?

- General purpose study

# Next Generation Internet Commons Policy topic – topic evolution

3. Is this new or has it been called before?

- New subject

# Next Generation Internet Commons Policy topic – topic evolution

## 4. Current project portfolio

The action will strongly relate to the NGI portfolio.

See: [NGI Projects | Next Generation Internet](#)

# Next Generation Internet Commons Policy topic – topic evolution

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

As per WP “Proposals should also demonstrate strong knowledge of the open source and internet commons context (e.g. funding mechanisms, methods of working, communities involved, commons life-cycle) and be familiar with the technology building blocks that make the internet.”

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

No Partnership or other

## Future Outlook

7. Are there any additional / background documents?

Report “Towards a sovereign digital infrastructure of commons”

[https://www.diplomatie.gouv.fr/IMG/pdf/report\\_of\\_the\\_european\\_working\\_team\\_on\\_digital\\_commons\\_digital\\_assembly\\_june\\_2022\\_wnetherlands\\_cle843dbf.pdf](https://www.diplomatie.gouv.fr/IMG/pdf/report_of_the_european_working_team_on_digital_commons_digital_assembly_june_2022_wnetherlands_cle843dbf.pdf)

[www.NGI.eu](http://www.NGI.eu), where you may find documents / reports relevant to Next Generation Internet as well as events of relevance to this area; but these are not related to or supporting the call

8. Do you have information about future trends, emerging initiatives, roadmaps, key players in this area? N/A

## Upcoming events / Information days

9. Please list upcoming information days and other events of relevance to this area

Information Day: 14 December 2022 10h-12h

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# *Destination 6 – Objective "eXtended Reality"*





## **HORIZON-CL4-2023-HUMAN-01-21: Next Generation eXtended Reality (RIA)**

### **We are looking for:**

- Next generation of XR devices and applications (incl. virtual worlds)
  - Human-centred
  - Providing intuitive and realistic user experiences
  - Technologies: 5G/6G, IoT, data, AI, edge-cloud, microelectronics
  - Domains of use: education, manufacturing, health, cultural heritage, media, security...
  - More realistic, more affordable and gender-neutral
  - Developed by European companies
  - Respecting European values of ethics, privacy, security and safety,
  - Aiming at technological sovereignty and resilience

## **HORIZON-CL4-2023-HUMAN-01-21: Next Generation eXtended Reality (RIA)**

### **We do not want:**

- State-of-the-art XR components and applications
- Non suitable, unethical or unsafe solutions
- Research non-grounded into real world use cases and scenarios
- Non-transdisciplinary research
- Research that does not involve end-users
- Research that does not involve SSH

## HORIZON-CL4-2023-HUMAN-01-21: Next Generation eXtended Reality (RIA)

### Topic evolution:

- **XR Modelling (RIA - 2021)**
- XR for All – Haptics (RIA - 2021)
- eXtended Collaborative Telepresence (IA – 2021)
- Innovation for Media, including XR (IA - 2021)
- XR Ethics, Interoperability and Impact (CSA – 2021)
- XR Learning - Engage and Interact (IA - 2022)
- **XR Technologies (RIA - 2022)**

## **HORIZON-CL4-2023-HUMAN-01-21: Next Generation eXtended Reality (RIA)** **Links to other topics in current WP:**

- **eXtended Reality for Industry 5.0 (IA)**
- **Supporting the emergence of an open human-centric Metaverse (CSA)**
- CL4-2023-DIGITAL-EMERGING-01-57: Advanced imaging and sensing technologies (IA) (Photonics Partnership)
- CL4-2024-TWIN-TRANSITION-01-44: Digital transformation and ensuring a better use of industrial data, which can optimise steel supply chains (Clean Steel Partnership) (IA)
- EUSPA-2023-SPACE-01-41: EGNSS - Transition toward a green, smart and more secure post-pandemic society



## **HORIZON-CL4-2023-HUMAN-01-21: Next Generation eXtended Reality (RIA)**

### Key actors:

- Research institutions and universities
- Industry, SMEs and start-ups (XR, microelectronics, photonics)
- End-users
- SSH experts



# HORIZON-CL4-2023-HUMAN-01-21: Next Generation eXtended Reality (RIA)

## Future outlook:

### Commission Work Programme 2023

→ Initiative on virtual worlds, such as metaverse (non-legislative, Q2 2023)

“Apart from our continued joint efforts with Member States to deliver on targets under the Digital Decade, we will propose tools on **developing open human-centric virtual worlds**, such as metaverses. These provide a myriad of possibilities for industries and service sectors, the creative arts and citizens, as well as opportunities to address broader social challenges such as health and smart cities.”

“Building on the success of the Conference on the Future of Europe, citizens’ panels are now part of the Commission’s policymaking in certain key areas. The **new generation of citizens’ panels** will deliberate on next year’s initiatives on food waste, learning mobility and virtual worlds.”

# **HORIZON-CL4-2023-HUMAN-01-22: eXtended Reality for Industry 5.0 (IA)**

## **Expected outcome**

1. Develop “XR made in Europe”, contributing to technological sovereignty
2. Contribute to develop virtual worlds European platforms
3. Support the use of XR technologies for a sustainable, human-centric and resilient European industry

## **HORIZON-CL4-2023-HUMAN-01-22: eXtended Reality for Industry 5.0 (IA)**

### **We do not want:**

- Non suitable, unethical or unsafe solutions
- Solutions not grounded in real world scenarios
- Non-transdisciplinary approach
- Research that does not involve end-users
- Approach not involving SSH

## HORIZON-CL4-2023-HUMAN-01-22: eXtended Reality for Industry 5.0 (IA)

### Topic evolution:

- XR Modelling (RIA - 2021)
- XR for All – Haptics (RIA - 2021)
- **eXtended Collaborative Telepresence (IA – 2021)**
- **Innovation for Media, including XR (IA - 2021)**
- XR Ethics, Interoperability and Impact (CSA – 2021)
- XR Learning - Engage and Interact (IA - 2022)
- **XR Technologies (RIA - 2022)**

## **HORIZON-CL4-2023-HUMAN-01-22: eXtended Reality for Industry 5.0 (IA)**

### **Links to other topics in current WP**

- HORIZON-CL4-2023-HUMAN-01-21: Next Generation eXtended Reality (RIA)

### **Research and Innovation for Industry 5.0**

- HORIZON-CL4-2023-HUMAN-01-51: Pilots for an innovative human-centric industry (RIA)
- HORIZON-CL4-2023-HUMAN-01-52: Drivers and success factors for progress towards Industry 5.0 (RIA)



# **HORIZON-CL4-2023-HUMAN-01-22: eXtended Reality for Industry 5.0 (IA)**

## **Key actors**

- Industry, AR/VR Industrial Coalition
- XR innovators
- SMEs and other multidisciplinary actors
- end-users
- relevant SSH expertise

# **HORIZON-CL4-2023-HUMAN-01-22: eXtended Reality for Industry 5.0 (IA)**

## **Additional / background documents**

### **The Virtual and Augmented Reality Industrial Coalition**

- platform for structured dialogue between the European VR/AR ecosystem and policymakers
- [Strategic paper](#)

# HORIZON-CL4-2023-HUMAN-01-22: eXtended Reality for Industry 5.0 (IA) Future Outlook

## Commission work programme 2023

*"Apart from our continued joint efforts with Member States to deliver on targets under the Digital Decade, we will propose tools on developing open human-centric virtual worlds, such as **metaverses**."*

## **President von der Leyen's State of the Union letter of intent**

*"We will continue looking at new digital opportunities and trends, such as the **metaverse**"*

## **Commissioner Breton blog People, technologies & infrastructure – Europe's plan to thrive in the **metaverse****

*"Our European way to foster the virtual worlds is threefold: people, technologies and infrastructure"*



# **HORIZON-CL4-2023-HUMAN-01-22: eXtended Reality for Industry 5.0 (IA)**

## **Upcoming events / Information days**

Info day: 14 December 2022, 11.40-11.50

(VR days, 29-30 Nov)

kick-off meeting of AR/VR Coalition: Q2 2023

# HORIZON-CL4-2023-HUMAN-01-23: Supporting the emergence of an open human-centric Metaverse

## 1. What are you looking for?

**A proposal** that:

- contributes to structure and support the Metaverse community and stakeholders
- organises a vast engagement process – stakeholders, citizens
- reinforces the links between the various Metaverse-related elements (i.e. in particular XR and AI, Blockchain, Connectivity)
- supports the development of a Metaverse-related EU strategy and roadmap
- helps with the definition of industry standards for the Metaverse
- identifies continuity and discontinuity elem. bet. today's internet and Metaverse
- identifies ethical, legal, societal and economic aspects, IPR and governance models supporting the human-centric vision & explore the potential of open-source models
- closely collaborates and builds synergies with other existing related European initiatives and supports international cooperation

# HORIZON-CL4-2023-HUMAN-01-23: Supporting the emergence of an open human-centric Metaverse

## 2. What do you NOT want?

- R&I on metaverse technologies
- Poor understanding of the European principles and values that should underpin the virtual worlds/metaverses
- Proposals with disproportionate focus on the technology side, rather than a tridimensional approach (people-technologies-infrastructure)
- Unclear vision of the connections between the various metaverse building blocks
- Lack of ties and synergies with relevant European initiatives
- Duplication of the work performed under HE funded project [XR4Human](#) (CSA)



# HORIZON-CL4-2023-HUMAN-01-23: Supporting the emergence of an open human-centric Metaverse

## 3. Is this new or has it been called before?

It is a new topic *per se*, but builds upon 2 important previous initiatives (CSAs)

Horizon 2020 - [XR4All](#) - ended, currently active as [XR4Europe](#)

Horizon Europe - [The Equitable, Inclusive, and Human-Centered XR Project \(XR4Human\)](#) - ongoing

# **HORIZON-CL4-2023-HUMAN-01-23: Supporting the emergence of an open human-centric Metaverse**

## **4. Current project portfolio** *(if relevant)*

Single initiative of exploratory nature.

*It could potentially be associated with :*

HORIZON-CL4-2023-HUMAN-01-14: Next Generation Internet Commons Policy (CSA)

HORIZON-CL4-2023-HUMAN-01-81: Digital Humanism - Putting people at the centre of the digital transformation (CSA)



## **HORIZON-CL4-2023-HUMAN-01-23: Supporting the emergence of an open human-centric Metaverse**

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

Stakeholders coming from **areas of relevance** for this action such as, but not limited to, metaverse-related technologies (XR,5G, blockchain, cloud etc.), telecommunications, SSH, consumer protection, ethics, law, CCIs, data protection, standardisation, media...

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

N/A

# HORIZON-CL4-2023-HUMAN-01-23: Supporting the emergence of an open human-centric Metaverse

## 7. Are there any additional / background documents?

### [Commission work programme 2023](#)

*"Apart from our continued joint efforts with Member States to deliver on targets under the Digital Decade, we will propose tools on developing open human-centric virtual worlds, such as **metaverses**."*

### **President von der Leyen's State of the Union [letter of intent](#)**

*"We will continue looking at new digital opportunities and trends, such as the **metaverse**"*

### **Commissioner Breton blog [People, technologies & infrastructure – Europe's plan to thrive in the metaverse](#)**

*"Our European way to foster the virtual worlds is threefold: people, technologies and infrastructure"*

## Upcoming events / information days

9. Please list upcoming information days and other events of relevance to this area

**Horizon Europe Cluster 4 InfoDay: 14 December 2022**

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# ***Destination 6 - Objective "Digital Humanism and human compatible technologies"***



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

## Digital Humanism and human compatible technologies

- HORIZON-CL4-2023-HUMAN-01-81: Digital Humanism - Putting people at the centre of the digital transformation (CSA)
- HORIZON-CL4-2023-HUMAN-01-82: Art-driven digital innovation: Towards human compatible and ecologically conscious technology (CSA)

# Digital Humanism - Putting people at the centre of the digital transformation (CSA)

- **Create an active network** and cross disciplinary communities on digital humanism bringing together ICT experts, ethnologists, sociologists and experts in fundamental rights
- Help defining and strengthening EU's approach to a human-centred digital transformation as part of the Digital Decade 2030 strategy, **through cross-disciplinary, world class foundational and application oriented research**
- Formulate a list of **recommendations and roadmaps** to address current gaps or issues that are preventing the development of **digital solutions that will reinforce digital humanism across the society**
- Develop a conceptual framework as well as **tools and indicators to monitor and promote the progress of the 'declaration on digital rights and principles'**

## Work Programme topic – topic evolution

It is a new approach linked to new major policy initiatives

- *Linking **technological development with EU values** horizontally*
- ***Linked with agreed digital strategy at EU level** – Digital decade policy programme 2030 and the Declaration on digital rights and principles*
- *Contributing to ensure more **join-up thinking** between tech and social/societal experts*
- ***Holistic / horizontal / multi-disciplinary / multi-actors approach***



## **Work Programme topic – Key actors**

Who are the types of main stakeholders that are addressed?

- **Think-tanks, NGOs**
- **Business developers**
- **Universities, research entities (public, private)**
- **Digital innovation hubs**

## Work Programme topic

Are there any additional / background documents?

- **Digital Compass Communication** : [the European way for the digital decade](#)
- **Digital Decade policy programme 2030**: [the path to the Digital Decade](#)
- [Declaration on digital rights and principles](#)
- **Special Eurobarometer** [518 Digital Rights and Principles](#)

## Future Outlook

- State of the Digital Decade report (June 2023)
- National strategic roadmaps (September 2023)



# HORIZON-CL4-2023-HUMAN-01-82

## Art-driven digital innovation

### Towards human compatible and ecologically conscious technology

#### What are we looking for : Activities envisaged

- Art as catalyst for creativity for **all** industry: **S**ynergies between art and technology in addressing challenges from digital and green (twin) transformation.
- Three strands of this call:
  - **S+T+ARTS residencies** promote artistic experimentation with technologies
  - **S+T+ARTS prizes** give visibility of successful art and technology collaborations via an annual prize
  - **AI and Music S+T+ARTS Festival** highlights synergies of digital - AI - with human creativity in music.

## What are we looking for : **STARTS** residencies

- Launch open calls for artists to propose art-driven use experiments with (digital or bio) technologies.
- Follow/mentor these residencies so they contribute to overall goals of project.
- Ensure that artists and hosts of residencies (technology institutes, industry, end-users) can be brought together.

### Topics (non-inclusive):

- Art-driven compatible AI and applications of high-performance computing
- Art-driven uptake of the digital in the spirit of digital innovation hubs
- Art-driven use of technology to facilitate the Green Transition in spirit of 'New European Bauhaus'
- Art-driven use of digital media to fight disinformation



# Art-driven use experiments and design:

## The don'ts

Not art for art sakes

Not technology for technology's sake

The idea is not to have standard R&D that add artistic contribution at the end of process but to have a reflected R&I cycle with contributions of the arts at all stages.

The call is NOT to provide funding to the arts but to have the arts contribute to the new European approach to innovation

The call addresses all pertinent sectors of industry (it is NOT targeted specifically on CCI)

## Topic Evolution: the call is a part of S+T+ARTS program in DG CONNECT that is organised in four STARTS pillars.



Address economic/social/ ecological challenges jointly with artists.



Encourage and facilitate stays of artists in technology institutions



Annual prize honouring successful art and tech collaborations between



Artists and digital experts teach digital skills e.g. to young adults

Annual STARTS price since 2016 (in total 7 years)

In H2020, lighthouse pilots addressed topics like recyclable textiles or urban planning.

In HE (WP2021-2022) three projects address food security, urban planning, novel application in robotics.(call: HORIZON-CL4-2021-HUMAN-01-21 Art-driven use experiments and design)

The present call intends to promote the most successful STARTS instruments – prizes and residencies - without imposing on projects a predetermined theme.

## Art-driven use experiments and design: Key actors: whom do we expect to submit?

- **Institutions able to facilitate links between art and technology**  
This call does not require technical expertise in the consortium but capacity to establish links of industry partners as hosts of residencies and artists interested to work with industry or with research institutions.
- **Institutions with a strong reputation in organizing Festivals that link music and digital**
- **Artists are central:** they will be funded exclusively through third party funding. Artists are not foreseen as beneficiaries in the project.

FSTP for STARTS residencies (400-600KEUR, max 40kEUR/artist)

FSTP for STARTS prizes (120kEUR, 3 annual awards of two prizes of 20KEUR)

- **Hosts of residences:** All sectors of industry that contribute to the areas mentioned in the call but in particular all digital players.

## Examples



**STARTS lighthouse pilot REFREAM**  
engages, industry, end-users and artists  
in a broad artistic exploration of  
technologies for fashion.  
Goal: creating a urban manufacturing  
value chain for recycle Fashion.



**STARTS prize 2017: Shaping low-grade granular material ('gravel') with robotic machines as architectural structures**



**STARTS prize 2019**  
**Alias** by Bjørn Karmann,  
Tore Knudsen

Control the curiosity of your  
smart assistant



# **HORIZON-CL4-2023-HUMAN-01-82**

**Art-driven digital innovation**

**Towards human compatible and ecologically conscious technology**

Upcoming events pertinent in the present context will be also posted on <https://www.starts.eu/>

The website STARTS.eu also contains links to

- all running projects,
- all STARTS residencies funded
- all STARTS prize winners

EC contacts:

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The logo for STARTS, consisting of the letters "S", "T", and "ARTS" in a bold, white, sans-serif font, separated by a minus sign and a plus sign. The logo is set against a solid black rectangular background.

**S-T+ARTS**

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# ***Destination 6 - Objective "Systemic approaches for accelerating uptake of technology and innovation"***



# HORIZON-CL4-2023-HUMAN-01-31: Toolbox for efficient IP licensing for market uptake and societal value creation (CSA)

## Projects are expected to contribute to the following outcomes:

- Promote effective use and deployment of intellectual property ensuring easier access to and sharing of IP-protected assets which are essential to the development of digital and industrial solutions among others, benefitting society.
- Provide models to improve the preparedness to respond to future emergencies with adequate solutions (including digital and industrial solutions) via efficient technology licensing.

**Indicative budget of the call: 2 million EUR**

**EU contribution per project: 2 million EUR**

**Type of Action: Coordination and Support Action (CSA)**

# HORIZON-CL4-2023-HUMAN-01-32: Piloting communities of expert facilitators to improve industry-academia-public sector co-creation (CSA)

## Projects are expected to contribute to the following outcomes:

- Strengthen the base for industry-academia collaboration in the higher education institutions in the European Union and Associated Countries and help fostering skills addressing industry and public sector needs;
- Facilitate industry and SMEs to capitalise on the diversity of R&I talents, skills and cultures across the European Union and Associated Countries and spread novel approaches for industry-academia-public sector co-creation in cross-border manner;
- Boost valorisation of excellent research results and innovation, i.e. transforming them into sustainable solutions with economic and social value.

**Indicative budget of the call: 2 million EUR**

**EU contribution per project: 2 million EUR**

**Type of Action: Coordination and Support Action (CSA)**

# HORIZON-CL4-2023-HUMAN-01-33: Fostering knowledge valorisation through societal and cultural interactions (CSA)

## Projects are expected to contribute to the following outcomes:

- Value creation and transfer to economy and society by increased interactions between arts and cultural institutions, citizens and industry;
- Innovative solutions with strong societal acceptance for uptake and transformative capacity through new conceptualisations of societal challenges enabled through artistic methodologies and approaches;
- Enabling interactions, schemes and modes engaging civil society, arts, cultural institutions and industry to benefit diverse communities, develop skills and promote preparedness, recovery and the twin transition.

**Indicative budget of the call: 5 million EUR**

**EU contribution per project: 1 million EUR**

**Type of Action: Coordination and Support Action (CSA)**

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# ***Destination 6 - Objective "International Cooperation"***



## **Work Programme topic: HORIZON-CL4-2023-HUMAN-01-91: International Hub for Digital Partnerships in the Indo-Pacific (CSA)**

### **1. What are you looking for?**

- Organise networks, conferences, workshops and other actions that support R&I activities in the Digital Partnerships with Japan, South Korea and Singapore, and with India in the context of the Trade and Technology Council. The thematic areas of cooperation would include semiconductors, especially next generation of semiconductors, emerging privacy-enhancing technologies, high performing, energy efficient and sustainable 5G and Beyond 5G technologies, data technologies, Artificial Intelligence, SME's digital transformation, smart cities, High Performance Computing and Quantum technologies, standardisation, trust services including eID and blockchain.
- Collect and analyse information as well as conduct surveys and draft reports and position papers on partner countries' R&I policies, strategies and programmes, on all the above-mentioned topics of cooperation including platform cooperation, digital education and digital connectivity.

## Work Programme topic (cont.)

- Foster cooperation and prepare ground for joint research and raise greater awareness of R&I and industrial cooperation opportunities to promote the digital transformation of industry, disruptive innovation and particularly SMEs.
- The action should ensure that relevant stakeholders from both the EU and the partner countries are engaged during the process through regional and international workshops and a set of communication and dissemination actions.
- Increased networking and collaboration of stakeholders from the EU and the partner countries with a view to addressing current needs, considering future requirements and stimulating long-term cooperation.

## Work Programme topic

### 2. What do you NOT want?

- Usual research proposal in **IA spirit**
- Proposal that is **redundant** with other existing initiatives / no overlap
- Proposal **without awareness & visibility** dimension: important objective is also to improve visibility of EU and the partner countries research
- Proposal **disconnected** from:
  - Existing EU strategies and policies in the digital field
  - EU - Indopacific cooperation initiatives and strategies
- Proposal **incompatible with EU Human-centric** values and EU 2030 Digital Compass



## Work Programme topic – Key actors

### 3. Who are the types of main stakeholders that are addressed?

- See 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).

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

- The Digital Partnerships (Japan,ROK, Singapore) and the TTC with India provide a comprehensive framework of digital cooperation which includes enhanced research cooperation among the key deliverables.
- Public and private stakeholders from the EU and the partner countries will be regularly involved in the preparation and implementation of the deliverables of each Partnership.

# Work Programme topic

## 5. Are there any additional / background documents?

**Communication: "2030 Digital Compass: the European way for the Digital Decade"**

[EUR-Lex - 52021DC0118 - EN - EUR-Lex \(europa.eu\)](#)

**Joint Communication EU Strategy for Cooperation in the Indo-Pacific**

[Joint communication on the Indo-Pacific | EEAS Website \(europa.eu\)](#)

**Japan-EU Digital Partnership**

[最終版-jp-eu-digital-partnership-clean-final-docx.pdf \(europa.eu\)](#)

**EU-India: Joint press release on launching the Trade and Technology Council**

[EU-India: Joint press release on launching the TTC \(europa.eu\)](#)

## Future Outlook

6. Do you have information about future trends, emerging initiatives, roadmaps, key players in this area?
  - The Partnerships and TTC should be seen as flexible instruments to go beyond dialogue and exchange of information and to create a collaboration vehicle to deliver concrete deliverables that will be reviewed according to new technology challenges and other developments.

## 7. **Upcoming events / information days**

Horizon Europe Information Days – Cluster 4 (12-14 Dec 2022)



**Work Programme topic: HORIZON-CL4-2023-HUMAN-01-93** R&I cooperation with **Latin America (Mexico, Brazil, Argentina, and other countries in the BELLA network or members of RedClara) (CSA)**

**BELLA** - submarine fibre-optic cable linking Lisbon (Portugal) with Fortaleza (Brazil) as well as an onward terrestrial connection with several countries in the region through **RedClara**

European and Latin American R&D actors have now **high speed high capacity interconnectivity** whose potential has to be more amply exploited

**Dialogues on Policies for Digital** with **key countries** (Brazil, Mexico, Argentina) and **sub-regional organisations**

## 1. **What** are we looking for?

- **Support** implementation of commitments on **R&I** from **digital dialogues with key countries (Brazil, Mexico, Argentina)** and **sub-regional organisations** in LAC (**Pacific Alliance, MERCOSUR, EU-LAC Digital Economy Dialogue**)
- Develop a **roadmap for future R&I cooperation** with the LAC region and relevant **national, regional and international funding schemes** for its application
- Fully **exploiting the potential** of the newly established **BELLA network**
- Strategic partnership in R&I with LAC in areas such as **Cloud, IoT and 5G**.
- **Promote EU values for a human-centric digital transformation** and contribute to **Sustainable Development Goals (SDGs)**

## How (non prescriptive)?

- Engage with **relevant stakeholders** from both the EU and the partner countries
- Foster cooperation and **prepare ground for joint R&I** and **raise** greater **awareness of R&I and industrial cooperation opportunities**
- Organize **networks, conferences, workshops** and other actions that support R&I activities with Brazil, Mexico, Argentina and other countries connected to the BELLA network or members of RedClara
- Collect and analyse information, **draft reports** and **position papers** on **partner countries' R&I policies, strategies and programmes**, including on **data governance** and data technologies

## Work Programme topic

### 2. What do you NOT want?

- Usual research proposal in **IA spirit**
- Proposal that is **redundant** with other existing initiatives / no overlap
- Proposal **without awareness & visibility** dimension: important objective is also to improve visibility of EU and LAC R&I capabilities
- Proposal **disconnected** from:
  - Existing initiatives (BELLA, ...)
  - EU strategy (e.g. Global Gateway) and/or SDGs
- Proposal **incompatible with EU Human-centric** values



## Work Programme topic – Key actors

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

- Public and private R&I stakeholders across EU and LAC
- See also 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).*

### 6. Are there actors (eg. Partnership or other) playing a special role in this?

- For BELLA related actions: **GEANT** and **RedClara** and their members
- Bear in mind also that cooperation on digital matters is also supported by a structure called **D4D Hub** (EU, Member States development agencies and other players from both continents)

# Work Programme topic

## 7. Background documents

### **EU Joint Communication on Global Gateway**

- [https://ec.europa.eu/info/strategy/priorities-2019-2024/stronger-europe-world/global-gateway\\_en](https://ec.europa.eu/info/strategy/priorities-2019-2024/stronger-europe-world/global-gateway_en)

### **EU Joint Communication: European Union, Latin America and the Caribbean: joining forces for a common future**

- [https://www.eeas.europa.eu/eeas/latin-america-and-caribbean\\_en](https://www.eeas.europa.eu/eeas/latin-america-and-caribbean_en)

### **BELLA - Building the Europe Link to Latin America**

- [https://international-partnerships.ec.europa.eu/policies/programming/programmes/bella-building-europe-link-latin-america\\_en](https://international-partnerships.ec.europa.eu/policies/programming/programmes/bella-building-europe-link-latin-america_en)
- <https://bella-programme.redclara.net/index.php/en/>

### **Dialogues on Digital Economy and Information Society**

**Brazil, Argentina, Mexico**

### **Digital for Development Hub for LAC (D4D Hub)**

- <https://d4dhub.eu/lac-event>

## Future Outlook

8. Do you have information about future trends, emerging initiatives, roadmaps, key players in this area?

**EU-LAC Digital Alliance**

**Re-launching the EU – LAC partnership**

**Upcoming events / information days**

**Horizon Europe Information Days – Cluster 4 (12-14 Dec 2022)**



## Work Programme topic: HORIZON-CL4-2023-HUMAN-01-92: R&I cooperation with Sub-Saharan Africa (CSA)

1. What are you looking for?
  - Foster cooperation and prepare ground for joint research and innovation and raise **greater awareness** of R&I cooperation opportunities between the EU and sub-Saharan Africa.
  - Organize networks, conferences, workshops and other actions that **support R&I activities** and **monitor digital-relevant activities** in sub-Saharan Africa.
  - Collect and analyse **information** as well conduct surveys and draft reports and position papers on sub-Saharan African countries' R&I policies, strategies and programmes.

## Work Programme topic (cont.)

- **Link EU and African internet R&I communities**, building on the work of existing projects such as the African-European Digital Innovation Bridge (AEDIB) and the FPI project "*Open Internet in Africa*".
- The action should ensure that relevant stakeholders from both the EU and African countries are engaged during the process through regional and international workshops and a set of **communication and dissemination actions**.

## Work Programme topic

### 2. What do you NOT want?

- Usual research proposal in **IA spirit**
- Proposal that is **redundant** with other existing initiatives / no overlap
- Proposal **without awareness & visibility** dimension: important objective is also to improve visibility of Sub-Saharan African research
- Proposal **disconnected** from:
  - Existing EU-Africa cooperation initiatives
  - African strategies and/or SDGs
- Proposal **incompatible with EU Human-centric** values and/or Global Gateway principles



## Work Programme topic – Key actors

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

- See 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).*

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

Africa-EU digital cooperation is covered by a structure called D4D Hub bringing together EU, Member States development agencies, private and public players from both continents

# Work Programme topic

## 7. Background documents

### ***EC communications on Global Gateway***

[https://ec.europa.eu/info/strategy/priorities-2019-2024/stronger-europe-world/global-gateway\\_en](https://ec.europa.eu/info/strategy/priorities-2019-2024/stronger-europe-world/global-gateway_en)

### ***African Union Digital Transformation Strategy 2020***

*Publication of the African Union's Digital Transformation Strategy[1] in spring 2020*

<https://au.int/en/documents/20200518/digital-transformation-strategy-africa-2020-2030>

## Future Outlook

8. Do you have information about future trends, emerging initiatives, roadmaps, key players in this area?

### ***Digital for Development Hub – D4D Hub***

The African Union-European Union (AU-EU) branch of the [D4D Hub - Digital for Development](#) supports African institutions to lay grounds for an inclusive digital transformation.

***AEDIB joint Africa-EU initiative*** : <https://aedibnet.eu/>

***PRIDA***: progressive regulation harmonization at continental level (joint AUC-EU initiative) <https://au.int/fr/node/38115>

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# ***Destination 6 – Objective "Research and Innovation for Industry 5.0"***



# HORIZON-CL4-2023-HUMAN-01-51: Pilots for an innovative human-centric industry (RIA)

## Projects are expected to contribute to the following outcomes:

- Improved understanding of the socio-technical and ethical implications of advanced (digital) technologies for workers and work organisation across industrial sectors;
- Work and learning environments and work models that make best use of the possibilities of advanced (digital) technologies and the human capabilities and creative potential in a synergistic manner, thus contributing to enhanced European industrial competitiveness in existing and new markets;
- A skilled and creative industry workforce that is empowered through and in control of advanced technologies that are aligned with European social and ethical values.

**Indicative budget of the call: 10 million EUR**

**EU contribution per project: 10 million EUR**

**Type of Action: Research and Innovation Action (RIA)**

# HORIZON-CL4-2023-HUMAN-01-52: Drivers and success factors for progress towards Industry 5.0 (RIA)

## Projects are expected to contribute to the following outcomes:

- Increased uptake of the Industry 5.0 principles and practices across industrial sectors, achieved through improved understanding of its benefits for enterprises and society and actionable knowledge about factors of success and impediment;
- Sound data and analysis of the uptake of Industry 5.0 in its different dimensions for policy makers at EU, national/regional and sectoral level.

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

**EU contribution per project: 4 million EUR**

**Type of Action: Research and Innovation Action (RIA)**

# HORIZON-CL4-2023-HUMAN-01-53: Localised and Urban Manufacturing, supporting creativity and the New European Bauhaus (RIA using FSTP)

## Projects are expected to contribute to the following outcomes:

- Designing and demonstrating symbiotic and sustainable factories that support a decentralised manufacturing vision close to the customer – this will in turn bring benefits in terms of flexibility, resilience, urban transformation and minimisation of transport costs and impacts;
- Developing regenerative concepts that offer increased value for the larger community, inspired by the New European Bauhaus, paying particular attention to regenerative design and regenerative and value-added manufacturing;
- Human-centric and participatory approaches to enhance wider engagement and creativity, with appropriate contributions from Social Sciences and Humanities (SSH), including cognitive science;
- Raising the profile of manufacturing as an attractive career option;
- Improved access to flexible production capabilities in decentralised environments, especially for SMEs.

**Indicative budget of the call: 10 million EUR**

**EU contribution per project: 1.5-2.5 million EUR**

**Type of Action: Research and Innovation Action (RIA) using FSTP (100k per third party, max 1/3 of the total EU contribution)**

**TRL: Activities are expected to start at TRL 5 and achieve TRL 6 by the end of the project**

# HORIZON-CL4-2023-HUMAN-01-54: Green and digital skills and training needs for a just transition (CSA)

## Projects are expected to contribute to the following outcomes:

- Reduce skills gaps that hold back the green and digital transitions, by developing and disseminating suitable skills development programmes and training modules, including to prepare future scale-up e.g. through ESF+ or the European Institute of Innovation and Technology (EIT).
- Support collective action on skills development by companies and providers of education and training, and hence support deep-tech innovation; and contribute to the European Year of Skills 2023 , to the large-scale skills partnerships in key industrial ecosystems under the Pact for skills , and to the flagship to skill, re-skill and up-skill talents in the deep tech fields outlined in the Commission's new European Innovation Agenda.
- Support the training of advanced ICT-specialist skills or other key digital technologies' skills that would contribute to industrial leadership and strategic autonomy and rely on advanced specialised know-how, and to reaching the digital decade targets.

**Indicative budget of the call: 2.5 million EUR**

**EU contribution per project: 0.5 million EUR**

**Type of Action: Coordination and Support Action (CSA)**