

#innovacion
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Data @Horizon Europe

Enrique Pelayo Campillos

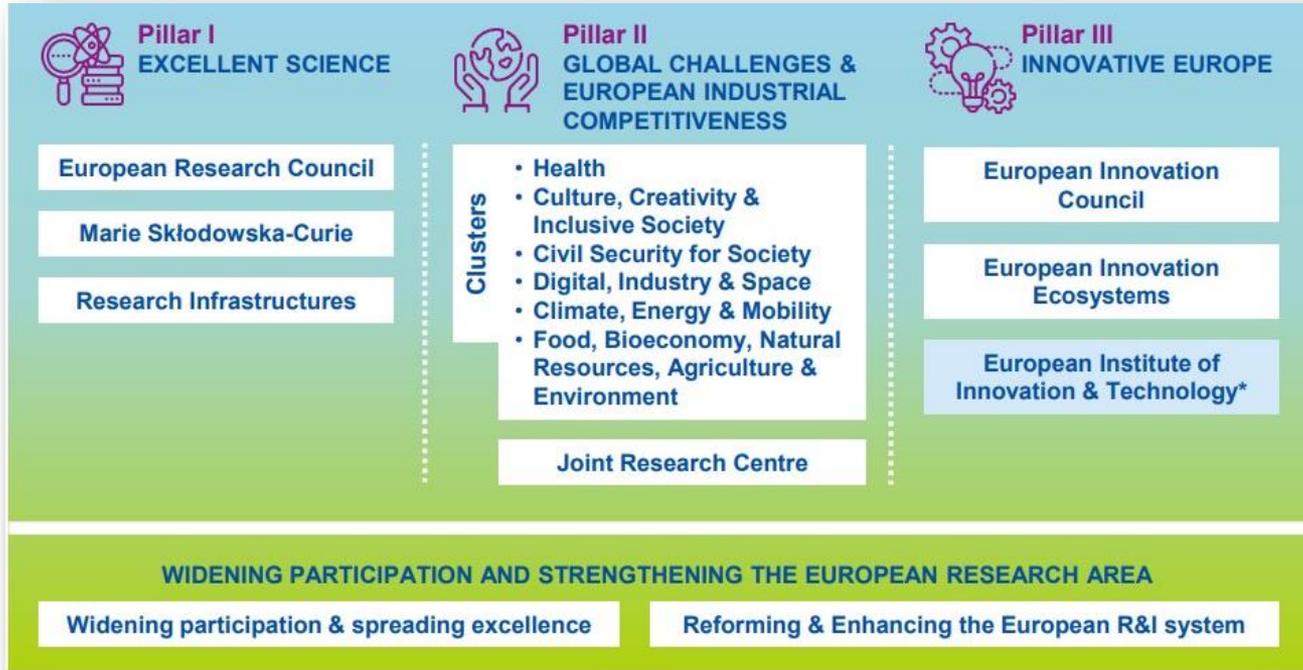


#HorizonEU

HORIZON EUROPE

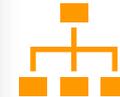
THE EU RESEARCH &
INNOVATION PROGRAMME

Horizon Europe



95.500 M€

2021-2027



/ Pillars
/ Clusters
/ Destinations
/ Topics



+3 Countries
(12 partners @XR)

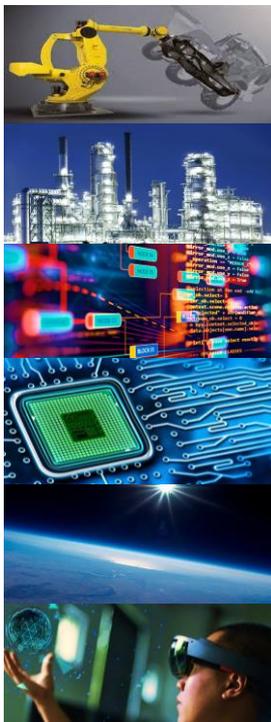


- Research (RIA)
- Innovation (IA)
- Coordination (CSA)

Horizon Europe / cluster 4



Cluster 4 - Destinations



CLIMATE NEUTRAL, CIRCULAR AND DIGITISED **PRODUCTION**

INCREASED AUTONOMY IN KEY STRATEGIC VALUE CHAINS FOR **RESILIENT** INDUSTRY

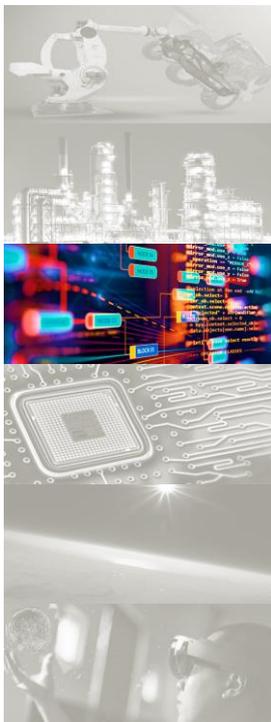
WORLD LEADING **DATA** AND COMPUTING TECHNOLOGIES

DIGITAL AND **EMERGING** TECHNOLOGIES FOR COMPETITIVENESS AND FIT FOR THE GREEN DEAL

OPEN STRATEGIC AUTONOMY IN DEVELOPING, DEPLOYING AND USING GLOBAL **SPACE**-BASED INFRASTRUCTURES, SERVICES, APPLICATIONS AND DATA

A **HUMAN**-CENTRED AND ETHICAL DEVELOPMENT OF DIGITAL AND INDUSTRIAL TECHNOLOGIES

Cluster 4 - Data



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Cluster 4/Data: Expected Impacts

IOIO
IOIO



- Improved European leadership in the global **data economy**
- Maximised **social and economic** benefits from the wider and more effective use of data
- Reinforced Europe's ability to manage urgent **societal challenges** (e.g. data for crisis management, digital for clean energy).

Cluster 4/Data



▪ Data Sharing



▪ Cloud-Edge



▪ Analytics



▪ EuroHPC

Cluster 4/Data



▪ Data Sharing



▪ Cloud-Edge



▪ Analytics

2022



▪ EuroHPC

Institutionalised partnership

Cluster 4 / DATA



Data sharing in the common European data spaces

2021-DATA-01-01: Technologies and solutions for compliance, privacy preservation, green and responsible **data operations** (, Data and Robotics Partnership) (RIA)

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

2022-DATA-01-04: Technologies and solutions for **data trading**, monetizing, exchange and interoperability (IA)



From Cloud to Edge to IoT for European Data

2021-DATA-01-05: Future European **platforms for the Edge**: Meta Operating Systems (RIA)

2021-DATA-01-07: **Coordination** and Support of the 'Cloud-Edge-IoT' domain (CSA)

2021-DATA-01-08: **Roadmap** for next generation computing and systems technologies (CSA)

2022-DATA-01-02: **Cognitive Cloud**: AI-enabled computing continuum from Cloud to Edge (RIA)

2022-DATA-01-03: **Programming tools** for decentralised intelligence and swarms (RIA)



Strengthening Europe's data analytics capacity

2022-DATA-01-01: Methods for exploiting data and knowledge for extremely **precise outcomes** (analysis, prediction, decision support), reducing complexity and presenting insights in understandable way (RIA)

2022-DATA-01-05: **Extreme data** mining, aggregation and analytics technologies and solutions (RIA)

2022

HORIZON-CL4-2021-DATA-01-01

Techs & solutions for compliance, privacy preservation, green & responsible data operations (RIA)



- **RIA**
- **TRLs:** 2/3 >> 4/5
- **Budget:** 52M€, 8-11M€ per project

Outcome

- Improve the efficiency and the use of trustworthy digital techs.
- Privacy/confidentiality
- **Data operators** (life cycle)

Scope

- **Technologies, methods, architectures and processes** (collection, storage, processing, querying, analytics and delivery of data)
- Data compliance (GDPR), safe/secure, re-use (Data Spaces), green, human/ethical/trustworthy AI.
- **&:** Cybersecurity/DataSpaces/Gaia-X and EOSC,

HORIZON-CL4-2021-DATA-01-03

Technologies for data management (IA)



- IA
- TRLs: 5 >> 8
- Budget: 30M€, 5M€ per project

Outcome

- Secure and energy-efficient **data management tools** improving the usability and discoverability of data: data provenance, synthetic data generation, data quality management, data interoperability, metadata management and ensuring data security, privacy and integrity.

Scope

- **Practical, robust & scalable tools** => interoperability, quality, and integrity of data and metadata (life cycle, accountability, fairness, confidentiality, FAIR principles)
- Common ontologies, vocabularies and data models, standardised and automated authoring, co-creation, curation, annotation and labelling
- **&**: ai Initiatives, standards

HORIZON-CL4-2021-DATA-01-05

Future European platforms for the Edge: Meta Operating Systems (RIA)



- **RIA**
- **TRLs:** 4 >> 5
- **Budget:** 54M€, 8-12M€ per project
- **FSTP:** 20%, 150K per party.

Outcome

- Next generation of higher-level meta-operating systems for smart IoT
- European Autonomy in hyper-distributed applications.
- Open edge ecosystem / Industrial demonstrators

Scope

- Develop **meta operating systems** for the edge (cloud / edge computing orchestrations)
- AI training and inference at the edge.
- Validation @ 3 different applications (mobility, logistics, manufacturing, energy and other utilities, buildings or farming)

HORIZON-CL4-2021-DATA-01-07

Coordination and Support of the 'Cloud-Edge-IoT' domain (CSA)



- **CSA**
- **Budget:** 3M€, 1,5M€ per project

Outcome

- Coordinating the proposal portfolio
- Synergies national/private.
- European competitiveness in internet infrastructures

Scope

- **Evolution** of the computing continuum
- Analyse the **needs** for advanced smart IoT and edge computing nodes and systems

HORIZON-CL4-2021-DATA-01-08

Roadmap for next generation computing and systems technologies (CSA)



- **CSA**
- **Budget:** 2M€, 2M€ per project

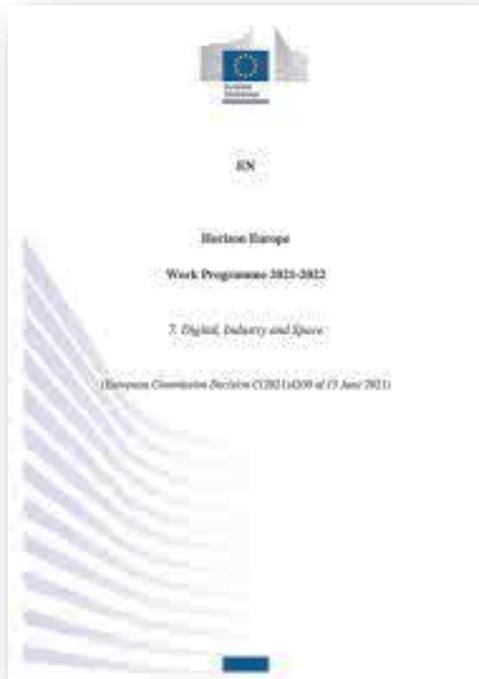
Outcome

- Networking events and **vision workshops** for the academic and industrial computing community..
- Yearly updated **roadmaps** on computing.

Scope

- **Bridge** between:
 - Destinations 3 (“From Cloud to Edge to IoT”)
 - Destination 4 (“Ultra Low Power Processors”),
 - JTIs (KDT, SNS, HPC).
- **Academic/industrial** perspectives.

C4: Work Program 2021/22



<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/how-to-participate/reference-documents;programCode=HORIZON>

22 Jun - 21 Oct

National Contact Points - DIGITAL



enrique.pelayo@cdti

fernando.rico@cdti



fernando.martin@cdti.es

HORIZONTE EUROPA

+ info sobre programas y ayudas
para la
internacionalización de la I+D+I española



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