

Horizon Europe Can Support Your R&I Project

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One-stop-shop for Horizon Europe programme among the French research, and innovation community

- ✓ Informing, raising awareness, and guiding candidates
- ✓ Targeting European stakeholders and facilitating emerging project ideas
- ✓ Training networks (geographic and thematic)
- ✓ Supporting European and beyond matchmakings (under our digital NCP network of networks)
- ✓ Communicating in a dedicated HE section on cluster 4 (Pillar II) Digital



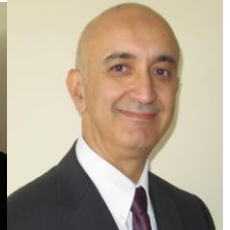
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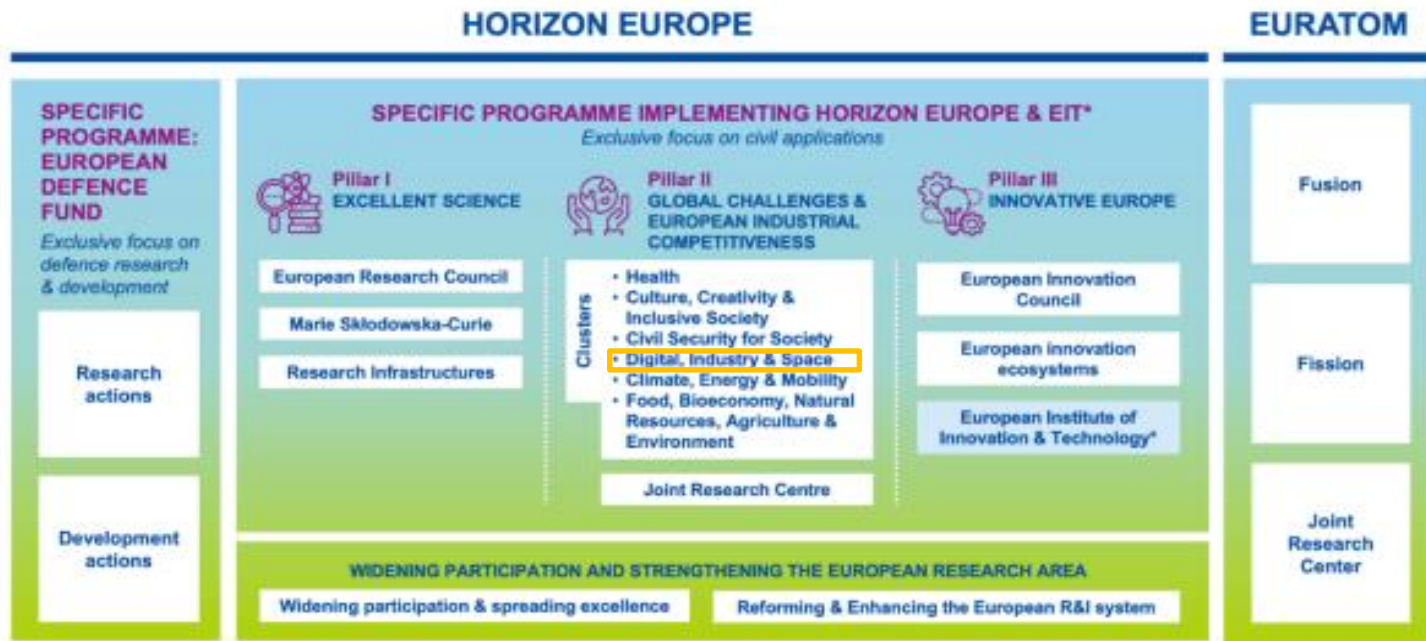


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More information: <https://www.horizon-europe.gouv.fr/numerique-cluster4>

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Horizon Europe programme: € 95,5 milliards 2021 - 2027



* The European Institute of Innovation & Technology (EIT) is not part of the Specific Programme

Eligible Activities for Grants

Action	Grant rate	TRL**	Description
RIA Research & Innovation Action	100% + 25%	2 – 5	R&D, establish new knowledge, explore the feasibility of a new or improved technology, product, process. Basic and applied research.
IA Innovation Action	From 60% to 100%* + 25%	6 - 8	Producing plans or designs for new or improved products, processes or services. Prototyping, testing, demonstrating, large-scale product validation, market replication
CSA Coordination & Support Action	100% + 25%	-	Bottom-up coordination actions, promote cooperation between legal entities MS and/or AC, strengthen the European Research Area.

(*) Non-profit organisation's are funded: 100% + 25% for overheads under an innovation action (IA)

(**) **T**echnology **R**eadiness **L**evel



Eligibility Criteria

At least **three partners**

One independent legal entity
in a Member State (MS)
And two other independent legal
entities in different MS or Associated
Countries (AC)

RIA & IA proposals: 45 pages
CSA proposal: 30 pages

There may be exceptions:
refer to the Work programme

Please note: in each call for projects, certain specific conditions may apply (more partners, other countries required and/or funded, etc.)

See more [here](#)..

Open-Source in Cluster 4 Destination 3 and 4

Destination 3 – World-leading Data and Computing Technologies

- Data sharing and analytics capacity
- From Cloud to Edge to IoT for European Data

Destination 4 - Destination 4: Digital & Emerging Technologies for Competitiveness and Fit for the Green Deal

- Flagship on Quantum Technologies: a Paradigm Shift
- European Leadership in Emerging and Enabling Technologies
- **Open Source for Cloud/Edge Digital Autonomy**
- European Innovation Leadership in Photonics
- AI, Data and Robotics
- Graphene: Europe in the lead

[Link to the Work programme 2023/2024](#)



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Horizon Europe - Numérique

DESTINATION 3

2024



World-leading Data and Computing Technologies

Open : 15/11/2023

Deadline: **19/03/2024**

			Type of action	Budget (M€)	Expected EU contribution per project	Indicative Nb of projects expected to be funded
Data sharing and analytics capacity (38 M€)	HORIZON-CL4-2024-DATA-01-01	AI-driven data operations and compliance technologies (AI, data and robotics partnership)	IA	38	8 to 10	4
From Cloud to Edge to IoT for European Data (45M€)	HORIZON-CL4-2024-DATA-01-03	Piloting emerging Smart IoT Platforms and decentralized intelligence	IA	45	20 to 25	2
---	HORIZON-CL4-2024-DATA-01-05	Platform Building, standardisation and Up-scaling of the 'Cloud-Edge-IoT' Solutions	CSA	2	Around 2	1

HORIZON-CL4-2024-DATA-01-03: Piloting emerging Smart IoT Platforms and decentralized intelligence (IA) / TRL 6-7

- 20-25 M€ per project - 2 projects funded (45 M€)
- Development of systems to become open platforms underpinning an emerging open edge ecosystem including midcaps, SMEs and start-ups that foster edge solutions

HORIZON-CL4-2024-DATA-01-05: Platform Building, standardisation and Up-scaling of the 'Cloud-Edge-IoT' Solutions (CSA)

- 2 M€ per project - 1 project funded (2 M€)
- International collaboration with trusted partner regions, guaranteeing a minimum level of interoperability, portability thereby fostering competition in the Cloud/Edge services market for the European cloud/edge and software industry and facilitate European access to foreign markets

HORIZON-CL4-2024-DATA-01-03: Piloting emerging Smart IoT Platforms and decentralized intelligence (IA)

- Financial support to third parties (FSTP), Max 20% EU contribution, up to 200 k€/grant
- Contribute to WP2024-DATA-01-05 (CSA)
- Develop synergies with other relevant European programmes and platforms such as KDT JU, GAIA-X

Customise, explore the limits, test, optimise and validate emerging European smart IoT and edge computing systems (decentralized intelligence)

Creation of common management tools and standardised edge architectures

Address cross-sector platforms in more than one application domain : renewable energy, buildings and electro-mobility, farming and/or industrial automation, ...

Expected results

- Adoption in key applications and sectors of IoT and next generation edge computing technologies
- Support future hyper-distributed applications by building open platforms
- **Open platforms underpinning an emerging open edge ecosystem**
- Demonstrate cross-domain standardisation and up-scaling of edge infrastructure solutions

HORIZON-CL4-2024-DATA-01-05: Platform Building, standardisation and Up-scaling of the 'Cloud-Edge-IoT' Solutions (CSA)

- Develop synergies with other relevant European programmes and platforms such as KDT JU

Ensuring an efficient interplay of the various elements of computing, network connectivity, AI and learning.

Establish a concept through a forum to link to relevant European and national initiatives and partnerships like KDT JU and add value ,

Active cross-fertilisation across academia and industry and sectors.

Expected results

- Supporting the Commission in coordinating the proposal portfolio in particular resulting from HORIZON-CL4-2024-DATA-03 (ensure consistent exploitation of the outcomes)
- **Creating an expanding innovation eco-system (Alignment with national or regional initiatives) and underpinning an emerging open edge ecosystem**



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Horizon Europe - Digital

DESTINATION 4

2024



DIGITAL-EMERGING Destination - 5 headings



1. AI, Data and Robotics
2. **Open Source for Cloud/Edge and Software Engineering Fundamentals to support Digital Autonomy**
3. European Innovation Leadership in Photonics
4. Graphene & 2D Materials: Europe in the lead
5. Flagship on Quantum Technologies: a Paradigm Shift

Date d'ouverture : 15/11/2023

Date de clôture : **19/03/2024**

HORIZON-CL4-2024-DIGITAL-EMERGING-01-21: Open Source for Cloud/Edge to support European Digital Autonomy (RIA) / TRL 4 to 6

- 4-6M€ per project - 4 projects funded (20 M€)
- Facilitate the emergence of a full European Open Cloud and Edge Computing Architecture

HORIZON-CL4-2024-DIGITAL-EMERGING-01-22: Fundamentals of Software Engineering (RIA) / TRL 2 to 5

- 4-6M€ per project - 4 projects funded (13,5 M€)
- Implementing responsible software engineering (optimising energy usage, reducing the environmental footprint, security-by-design, and data protection) by demonstrating their developments in at least three industrial or societal use-cases

HORIZON-CL4-2024-DIGITAL-EMERGING-01-23: Public recognition scheme for Open Source (CSA)

- 2M€ per project - 1 project funded (2 M€)
- Develop a scheme including a list of fields related to Open Source (deep contributions to kernel code, brilliant utilization of open source in companies) => Annual award



HORIZON-CL4-2024-DIGITAL-EMERGING-01-21: Open Source for Cloud/Edge to support European Digital Autonomy (RIA)

- 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)
- Develop synergies and relate to activities and outcomes of the KDT/Chips and the EuroHPC

Developing open source alternatives to enable the physical use of emerging processors in cloud and edge server systems

Demonstrating actual cloud and edge systems in real life or emulated computing environments exploiting the benefits of an extended open source stack on emerging processor architectures (e.g. RISC-V).

Expected results

- Prototypes of cloud and edge servers demonstrated in relevant centralised and distributed environments and allowing full computing infrastructure deployments based on European processor technology, thereby establishing **a full Open Computing Architecture stack**, which supports emerging processing architectures (e.g. RISC-V).
- Standards and best practices consolidating the European Open Computing Architecture, as well as its interfaces to current industry standards

HORIZON-CL4-2024-DIGITAL-EMERGING-01-22: Fundamentals of Software Engineering (RIA)

Lump sum

Progress in SOTA in at least one of these areas:

- Methods and tools that allow smart intelligent system specification
Advanced code analysis, fault prediction and location and self-repair by using emerging techniques, in particular based on AI and data technologies
- Methods and tools for the development of dynamic and resilient software for systems running on multiple processing architectures (cross-compilation, run-time self-adaptation and multi-architecture executables)

Projects are encouraged to deliver results under Open Source licenses

Expected results

- Responsible software engineering methods, tools, and best practices leveraging, among others, novel AI and data technologies to accelerate the development and maintenance of software (modelling, verification and validation, as well as vulnerability assessment and mitigation)

HORIZON-CL4-2024-DIGITAL-EMERGING-01-23: Public recognition scheme for Open Source (CSA)

- 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)
- Lump sum

The action should elaborate an adequate process to :

- scrutinize different fields of action relevant to open source,
- select appropriate candidates for being recognised,
- implement adequate award ceremonies.

Expected results (both)

- Establishment of a system of European annual awards that acts as a spotlight stirring up contributions to **Open Source Software and Hardware projects**.
- Increased interest for the contribution to, integration of and exploitation of **Open Source assets**

Destination 2 – Innovative Research on the European Cultural Heritage and the Cultural and Creative Industries

- HORIZON-CL2-2023-HERITAGE-ECCCH-01-01: **A European Collaborative Cloud for Cultural Heritage**
 - 1 project expected: 20 to 25M€ | IA – Deadline : **21 September 2023**
- HORIZON-CL2-2023-HERITAGE-ECCCH-01-02: **A European Collaborative Cloud for Cultural Heritage – Innovative tools for digitising cultural heritage objects**

All software developed should be open source.

- 2 projects expected: 4 to 5M€ | RIA – Deadline : **21 September 2023**

Destination 1 – Innovative Research on Democracy and Governance Past, present and future of democracies

- HORIZON-CL2-2024-DEMOCRACY-01-06 (RIA): **Computational Social Science approaches in research on democracy**

Proposals should leverage the data & services available at European Research Infrastructures federated under the European Open Science Cloud.

- 3/4 projects expected: 4 to 5M€ | RIA – Deadline of this call for proposal: **07 February 2024**

Destination: Increased Cybersecurity

HORIZON-CL3-2023-CS-01-02: **Privacy-preserving and identity management technologies**

The expected outcome of the 2023 project is "Strengthening of the European ecosystem of open source software developers and researchers of privacy-preserving solutions".

- **4 projects 2-4 M€ | IA** - Deadline of this call for proposal: **23 november 2023**

Destination: Increased Cybersecurity

- HORIZON-CL3-2024-CS-01-01: **Approaches and tools for security in software and hardware**

The potential security implications of using open-source software and hardware, and security auditability in that context, should be further explored.

- **6-8 projects 4-6M€ | IA** - Deadline of this call for proposal: **20 november 2024**



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**Thank you for your attention
Feel free to contact us**

More information: <https://www.horizon-europe.gouv.fr/numerique-cluster4>

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