Le programme européen pour la recherche et l'innovation
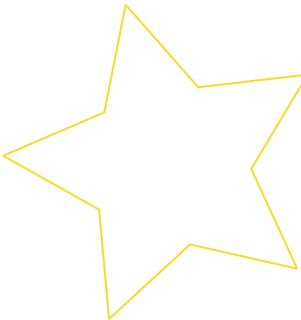
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SOMMAIRE

Horizon Europe est le programme-cadre de l'Union européenne pour la recherche et l'innovation.
Il couvre la période 2021-2027 et est doté d'un **budget** de **95,5 milliards d'euros.**

Le présent guide a été réalisé par les membres du **Point de Contact National** (PCN) français Horizon Europe en charge du **Cluster 4 sur la thématique numérique** (voir ici).

En **France**, le **dispositif des PCN** est placé sous l'autorité du **Ministère de l'enseignement supérieur et de la recherche.** (MESR) Il est piloté par la Délégation aux affaires européennes et internationales du Département « Accompagnement des opérateurs de l'ESR ». Les missions principales des PCN sont :

   - Informer, sensibiliser les communautés françaises de recherche et d'innovation sur les opportunités de financement d'Horizon Europe
   - Aider, conseiller et former les porteurs de projets aux modalités de fonctionnement du programme.

Ce guide s'adresse à tous les acteurs français de la recherche et du développement du secteur public et privé ainsi qu'aux autorités publiques, aux acteurs économiques, sociaux et culturels potentiellement ciblés par le Cluster 4 numérique.
Il offre un premier niveau d'accès au **programme de travail 2024 du Cluster 4 numérique**, en proposant des éléments structurels qui permettent de comprendre les fondements et les priorités de ce Cluster, ainsi qu'une synthèse des éléments clés de chaque appel.
Les porteurs de projets intéressés doivent se référer au programme de travail 2023-2024 du Cluster

Les synthèses et traductions proposées dans ce guide n'engagent que la responsabilité de leurs auteurs et en aucune manière celle de la Commission européenne.

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L'équipe Point de Contact National Numérique (PCN)
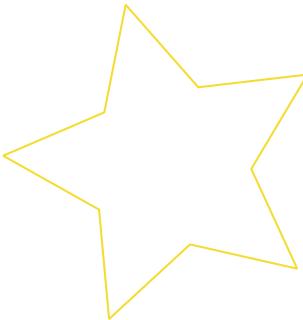
| Isabelle de Sutter MESR | Gaël Maugis MESR | Hélène Dereszowski MESR | Smail Niar MESR |

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horizon europe

Collaboration avec le représentant au comité de programmation (RCP) sur la thématique numérique Horizon Europe

Géraud CANET – MESR

Plus d'informations sur le groupe de travail national (GTN) et sa contribution à l'élaboration des futurs appels du Cluster 4 numérique :
geraud.canet@recherche.gouv.fr

Amont

GTN

RCP

Aval

Info Day

PCN

Acteurs participants
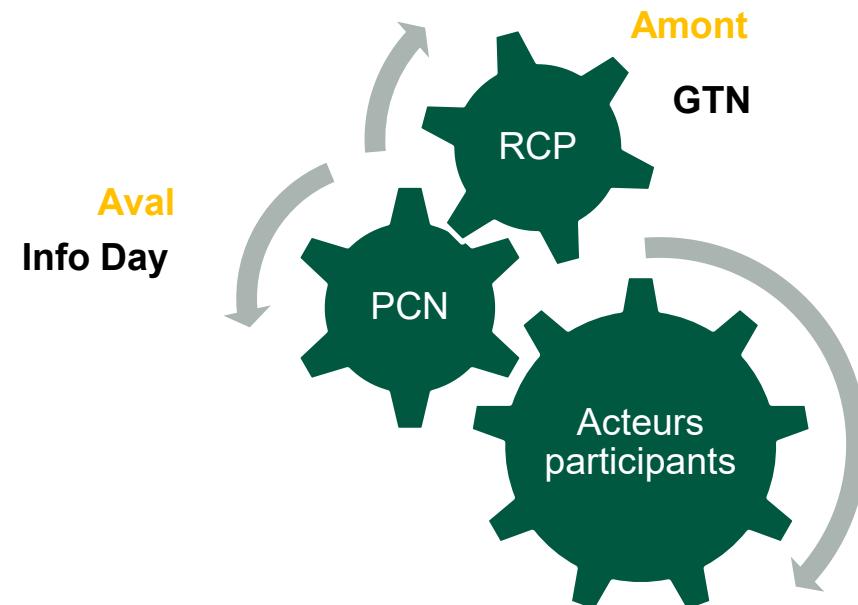
Accroître la participation française aux dispositifs européens de recherche et d'innovation

INCITER

➢ **A participer dans les projets européens**

➢ **A coordonner des projets européens**

1/ Communication renforcée

2/ Aides renforcées pour le montage d'une coordination française (MRSEI)

3/ Valorisation accrue des carrières EU des chercheurs

ACCOMPAGNER

➢ **Soutenir et former les écosystèmes et relais**

1/ Offre de services sur mesure avec un réseau professionnel de points de contact (PCN)

2/ Plus d'interactions avec les acteurs nationaux, régionaux et locaux (Relais des PCNs)

3/ Activités croisées entre les PCN thématiques

INFLUENCER

➢ **Renforcer le pouvoir d'influence à Bruxelles**

1/ Identification des sujets d'intérêt français

2/ En amont, préparation argumentée des textes des programmes de travail HE

3/ Usages de nos canaux formels (comitologie) et informels (représentation d'intérêts)
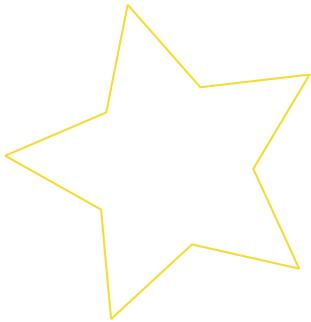
# LE PROGRAMME-CADRE DE L'UNION EUROPÉENNE POUR LA RECHERCHE ET L'INNOVATION

## 2021 – 2027

➢ **95,5 Mds€**

➢ *Renforcer les **bases scientifiques et technologiques** de l'Union ;*

➢ *Stimuler sa capacité d'**innovation**, sa **compétitivité** et la création d'**emplois** ;*

➢ *Concrétiser les **priorités politiques** stratégiques de l'Union ;*

➢ *Contribuer à répondre aux **problématiques mondiales**, dont les objectifs de **développement durable** des Nations Unies.*

Pilier 1 **25Mds**
Science d'excellence

Conseil Européen de la Recherche (ERC)

Actions Marie Sklodowska-Curie (MSCA)

Infrastructures de recherche

Pilier 2 **53,5Mds**
Problématiques mondiales et compétitivité industrielle européenne

Pôles
- Santé
- Culture, créativité et société inclusive
- Sécurité civile pour la société
- Numérique, industrie et espace
- Climat, énergie et mobilité
- Alimentation, bioéconomie, ressources naturelles, agriculture et environnement

Centre commun de recherche

Pilier 3 **13,6Mds**
Europe plus innovante

Conseil européen de l'innovation (EIC)

Écosystèmes européens d'innovation

Institut européen d'innovation et de technologie

Élargir la participation et renforcer l'espace européen de la recherche **3,5Mds**

Élargir la participation et développer l'excellence

Réformer et consolider le système européen de R&I

cost
EUROPEAN COOPERATION
IN SCIENCE & TECHNOLOGY

Strategic Plan (2021-2024) and Orientations → → → → **Destinations**

Making Europe the first digitally enabled, circular, climate-neutral and sustainable economy	1. Climate neutral, circular and digitised production TWIN-TRANSITION
Promoting an open strategic autonomy by leading the development of key digital, and enabling and emerging technologies, sectors and value chains	2. A digitised, resource efficient, and resilient industry - RESILIENCE **3. World-leading data and computing technologies - DATA** **4. Digital and emerging technologies for competitiveness and fit for the green deal - DIGITAL-EMERGING** 5. Open Strategic Autonomy in developing, deploying and using global space-based infrastructures, services, applications and data - SPACE
Creating a more resilient, inclusive and democratic European society	**6. A human-centred and ethical development of digital and industrial technologies - HUMAN**

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Pilier 2
Problématiques mondiales et compétitivité industrielle européenne

Pôles
- **Santé**
- **Culture, créativité et société inclusive**
- **Sécurité civile pour la société**
- **Numérique, industrie et espace**
- **Climat, énergie et mobilité**
- **Alimentation, bioéconomie, ressources naturelles, agriculture et environnement**

Centre commun de recherche

Approche *"top-down"* pour soutenir les **priorités politiques stratégiques** de l'Union Européenne et les **objectifs de développement durable** des Nations Unies.

o Appels à projets **centrés sur des problématiques sociétales**, des **défis globaux :**
  - Répondre aux **impacts attendus**
  - Fournir des **options** et **solutions (non) technologiques**, **recommandations...**

o Projets **collaboratifs** trans**disciplinaires**, trans**sectoriels** et trans**nationaux**

o **3-4 ans** en moyenne

o Minimum **2-3 M€**, et **4-6 M€** en moyenne – voire au delà

o **3 types de projets :** RIA, IA, CSA

Trois types de projets collaboratifs (instruments de financement)
Un financement à 100 %. Sauf : IA = financement à 70 % pour les acteurs privés (Entreprises de toutes tailles)

RIA – Research and Innovation Actions (TRL 2-5 en fin de projet)

➢ Projets visant à **établir de nouvelles connaissances** et/ou à **explorer la faisabilité** d'une technologie, d'un produit, d'un procédé ou d'un service : *recherche fondamentale et appliquée, développement de technologie, essais d'un prototype à petite échelle...*

IA – Innovation Actions (TRL 5-8 en fin de projet)

➢ Projets visant à produire des **plans, arrangements ou concepts pour un produit, procédé ou service** nouveau ou amélioré : *prototypage, essais, démonstration ou pilotes, validation du produit à grande échelle, première commercialisation...*

CSA – Coordination and Support Actions

➢ Projets consistant principalement en des **mesures d'accompagnement** : *mise en réseau des acteurs, actions de communication et sensibilisation, dialogue politique, production d'études/rapports, planification stratégique...*

Au minimum **3 entités légales indépendantes, dans 3 Etats membres** *ou associés* de l'U.E.* **dont au moins une établie dans un des 27 Etats membres.**

A savoir: dans chaque appel à projets, certaines conditions spécifiques peuvent apparaitre (plus de partenaires, autre pays obligatoire et/financés, etc …).

Source documentaire :Les pays éligibles au financement d'Horizon Europe

Les dépenses prévues dans un projet collaboratif sont remboursées à 100% (**sauf les entreprises dans les IA financées entre 60% et 70%**)

Les coûts directs (en lien direct avec le projet) :

- Coûts de personnel
- Sous-Traitance
- Coûts autres
  - déplacements
  - équipements (amortissement)
  - autres bien, travaux et services: consommables, …
- Autres catégories de coûts

+ Les coûts indirects : **taux forfaitaire de 25% des coûts directs** (sauf la sous-traitance, *les volontaires, le support financier à des tiers, les coûts unitaires spécifiques*)

Nota : Ces coûts éligibles s'appliquent dans le cadre du MGA général, pas aux projets en coûts unitaires.

Partenariats institutionnalisés	Partenariats co-programmés	Partenariats co-financés
• Key Digital technologies (renamed Chip Act) • Smart Networks and Services • High Performance Computing • European Metrology (Art. 185)	• AI-Data-Robotics • Photonics21	✗

Pour en savoir plus: https://www.horizon-europe.gouv.fr/partenariats-public-prive-numeriques-et-topics-numeriques-dans-les-clusters-28304

Les modalités d'évaluation et la convention de subvention des projets *lump sum (Financements par sommes forfaitaires)* suivent autant que possible l'approche standard

o Même critères d'évaluation, même calendrier des paiements, obligations de rapports techniques et similaires, avec l'accent mis sur l'achèvement des lots de travail (« work packages »)

Une somme est fixée dans la convention de subvention pour chaque lot de travail et répartie vers ses bénéficiaires

o L'achèvement définitif du lot de travail entraine le paiement de la somme forfaitaire
o Les paiements dépendent de la réalisation des activités, et non de l'obtention de résultats positifs.
o Les lots de travail peuvent être modifiés via des amendements

Deux options

Option 1 : L'appel à proposition définit le montant de la somme forfaitaire

o Le budget demandé dans votre proposition doit être égal à ce montant
o Votre proposition doit décrire les ressources que vous comptez mobiliser pour ce montant

Option 2 : Vous définissez le montant de la somme forfaitaire dans votre proposition

o Vous être libre de définir le montant nécessaires pour mener à bien votre projet
o Le montant de la somme forfaitaire doit être justifié par les ressources que vous comptez mobiliser

En savoir plus sur
Lump Sum

Programme de travail 2021-2022 du cluster 4
Industrie – **Numérique** – Espace du programme-cadre Horizon Europe

➤ **« Destination 3 » =** Section thématiques qui introduit les grandes orientations politiques et les impacts attendus

➤ **« Call » =** Appel thématique
➤ **« Heading »** = Rubrique

➤ **« HORIZON-CL4-2023-DATA-xx-xx » =**
Liste des sujets « topics » ouverts en 2023 aux candidatures pour des projets collaboratifs

Horizon Europe - Work Programme 2023-2024
Digital, Industry and Space

Table of contents

HORIZON-CL4-2023-DATA-01-02: Integration of data life cycle, architectures and standards for complex data cycles and/or human factors, language (AI, data and robotics partnership) (RIA)

1

Lire un appel « topic »

1) Code et titre de l'appel ou « topic » : Programme, Cluster, appel prévu en 2022, de la destination 3 (data) du 01er call, pour le 02 ^{ème} topic.

2) Conditions : budget approximatif par projet, budget total pour l'appel, instrument de financement...

3) Résultats attendus des projets financés

4) Activités : enjeux traités, périmètre du sujet, liens avec les stratégies politiques, références à d'autres projets, etc.

2

3

4

Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 9.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
Indicative budget	The total indicative budget for the topic is EUR 45.00 million.
Type of Action	Research and Innovation Actions
Eligibility conditions	The conditions are described in General Annex B. The following exceptions apply: If projects use satellite-based earth observation, positioning, navigation and/or related timing data and services, beneficiaries must make use of Copernicus and/or Galileo/EGNOS (other data and services may additionally be used).
Technology Readiness Level	Activities are expected to start at TRL 2-3 and achieve TRL 4-5 by the end of the project – see General Annex B

Expected Outcome: Projects are expected to contribute to the following outcomes:

- ability to process vast volumes data as one of the key enablers for other technological developments, supporting the competitiveness of the EU's industrial ecosystems;

- successful deployment of data spaces involving several sectors of economy or society;

Scope: Proposals should address the entire data life cycle from data generation/collection to the final use and disposal/deletion of data (especially when required by applicable legislation, for example the General Data Protection Regulation (GDPR)[215]. Proposals should build on

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Hop On Facility
HORIZON-WIDERA-2023-ACCESS-06 (RIA)

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Objectif : Permettre aux chercheurs d'un pays Widening de rejoindre les projets finacés sur le pilier 2 et l'EIC Pathfinder

    a.   gagner en visibilité,

    b.   accéder à des consortiums d'excellence,

    c.   acquérir de nouvelles compétences transnationales.

Participants/conditions : Un unique partenaire Widening par consortium.
Cela implique qu'aucune entité légale d'un pays Widening participe déjà au consortium.

Particularités : Le budget alloué (en extra) est utilisé pour intégrer l'entité Widening au consortium existant.
Ce projet est soumis par le coordinateur du consortium financé, après accord de tous les membres partenaires.
L'appel HORIZON-WIDERA-2023-ACCESS-06 est ouvert aux consortiums financés (ayant un protocole d'accords signé)

Procédure : L'évaluation porte sur la valeur ajoutée du nouveau partenaire et sur les tâches assignés à cette nouvelle entité au sein du consortium. Le projet n'est pas réévalué. En cas d'égalité, la priorité sera donnée aux projets traitant de la double transition.

Modalités : financement de 100k€ à 600k€/projet pour l'intégration du nouveau partenaire. Dossier de 8 pages seulement. Pays éligibles

Ouverture:
10 Janvier 2023

Clôture :
26 Septembre 2024

2024 : 40 M€
80 projets financés

Pour plus d'information: **solene.chevalier[a]recherche.gouv.fr**

1. Travailler avec de nouveaux acteurs

2. Renforcer les réseaux existants / créer de nouveaux réseaux

3. Soutenir les acteurs du « Widening » à améliorer leurs compétences grâce à votre expertise

4. Vous positionner vers de nouveaux espaces d'influence

5. « Hop On Facility » = ouvrir votre projet sur une nouvelle thématique, renforcer un aspect du projet/compétence au consortium initial, obtenir un complément de budget pour le projet

Exemples de projets avec des acteurs nationaux :

- CEA partenaire de deux projets ERA Fellowships (MAGRITTE avec la Slovénie, TopRooT avec le Portugal) et d'un Twinning avec Malte

- INRAE partenaire d'un projet Twinning avec la Lettonie

- IFP Energies nouvelles partenaire d'un projet Twinning avec la Grèce

- **Hop On Facility déposés par la France en coordination d'un projet hôte: CNRS, Innotrope SAS, Institut Pasteur, Thalese, Université Nice Côte d'Azur, CEA, Sorbonne Université, Université fédérale Toulouse Midi-Pyrénées.**

Cluster 4 : Destination 3, 4 et 6

IA (4 à 7)

RIA (2 à 5)

| Basic Principles observed | Experimental Proof Of Concept | Technology Validated in Relevant envt | System Prototype in operational envt | System in operations |

| Technology Concept formulated | Technology Validated in lab | Technology Demonstrated in relevant envt | System complete & qualified |

1 2 3 4 5 6 7 8 9

Niveau de maturité technologique (TRL)
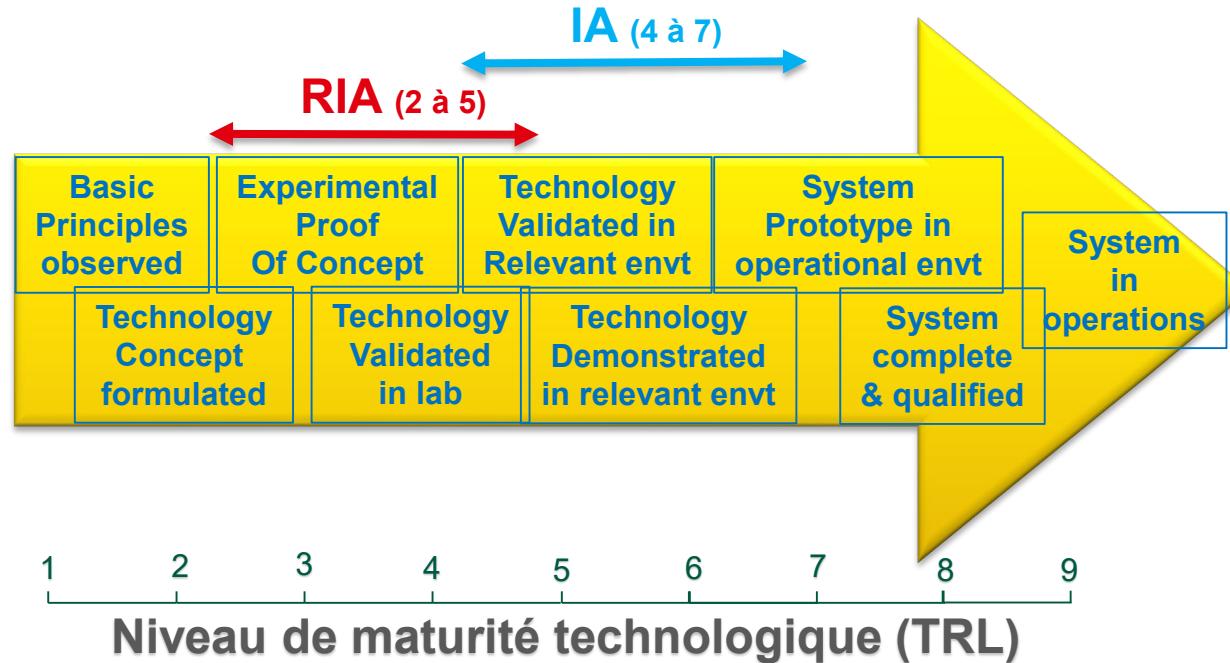
Destination 3
**Technologies informatiques et de données de pointe**

Destination 4
Les technologies numériques et émergentes au service de la compétitivité et de l'adaptation au Green Deal

Destination 6
Un développement des technologies numériques et industrielles éthique et centré sur l'homme
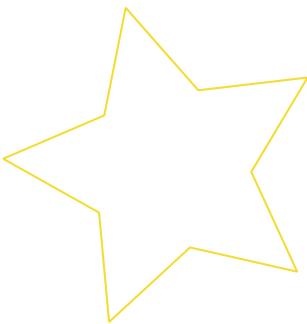
Destination 3 – Technologies informatiques et de données de pointe

➢ Partage des données et capacité d'analyse
➢ Du cloud à l'Edge et à l'IoT pour les données européennes

Destination 4 - Les technologies numériques et émergentes au service de la compétitivité et de l'adaptation au Green Deal

➢ Leadership européen en matière d'innovation dans le domaine de la photonique
➢ Intelligence Artificielle (IA), données et robotique
➢ Open Source pour le Cloud/Edge et les fondamentaux de l'ingénierie logicielle pour soutenir l'autonomie numérique
➢ Leadership européen dans les technologies émergentes et habilitantes
➢ Programme phare sur les technologies quantiques : un changement de paradigme
➢ Graphène : l'Europe en tête

Lien vers le programme de travail 2023/2024
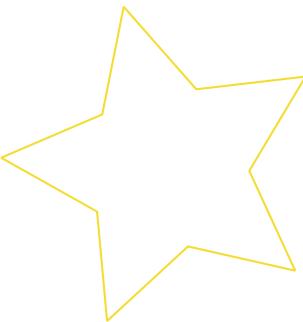
Destination 6 – Un développement des technologies numériques et industrielles éthique et centré sur l'homme

➢ Un leadership en intelligence artificielle (IA) basé sur la confiance
➢ Un Internet de la confiance
➢ Réalité élargie (XR)
➢ Des approches systémiques pour tirer le meilleur parti des technologies au sein de la société et de l'industrie.
➢ Recherche et innovation pour l'industrie 5.0
➢ Normes européennes pour la compétitivité industrielle
➢ Humanisme numérique et technologies compatibles avec l'homme
➢ La coopération internationale

| Lien vers le programme de travail 2023/2024 |

EU		FR
606	dépôts	323
118	sélectionnés	72
19 %		22 %
3400 M€	demandés	300 M€
610 M€	financés	61 M€
18 %		20 %
3651	entités candidates	322
1075	entités lauréates	114
part captée FR		10 %
propositions coordonnées FR		53
projets coordonnés FR		11

GUIDE DES APPELS 2024
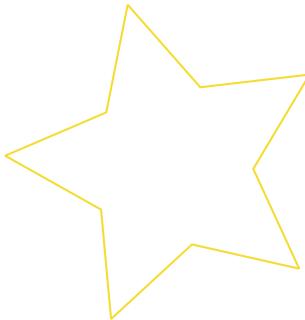
Cluster 4 – Numérique
*HORIZON EUROPE*

- 1er Avril 2024 -

Horizon Europe - Numérique

DESTINATION 3

Appels de l'année 2024

DATA Destination - 2 headings
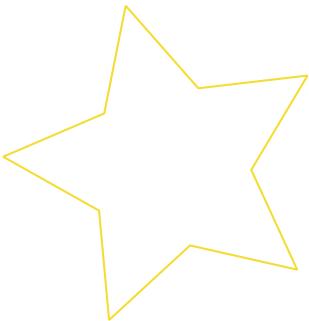
1. Data sharing and analytics capacity
2. From Cloud to Edge to IoT for European Data

Date d'ouverture : 15/11/2023
Date de clôture : **19/03/2024**

D3.1 - Data sharing and analytics capacity

1

Objective

- o Support the competitiveness of the EU's industrial ecosystems
- o Drive the European data economy and industrial transformation
  - **Data sharing and the availability of interoperable datasets**
- o Make Europe the most successful area in the world in terms of data sharing and data re-use while respecting the legal framework
- o Make the EU fully autonomous in processing, combining, modelling and analysing large amounts of data
  - **Support the development of responsible and useful AI solutions, built on high-quality and high-value data**

HORIZON-CL4-2024-DATA-01-01: AI-driven data operations and compliance technologies (AI, data and robotics partnership) (IA) / TRL 6-7

- 8 to 10 M€ per project - 4 projects funded (38 M€)
- Provide Common European data spaces and AI data provision with reliable mechanisms to monitor, control and track/record transactions on data, to ensure compliance

HORIZON-CL4-2024-DATA
D3.2 - From Cloud to Edge to IoT for European Data

2

Objective

o nurture a European ecosystem and deliver swift results

o establish the European supply and value chains in cloud to edge computing to Internet of Things (IoT) and tactile internet

  • **enhanced performance enabled by AI**

o ensure digital autonomy for Europe in key high-end supercomputing technology (hardware and software)

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 Europe - Numérique

DESTINATION 4

Appels de l'année 2024

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

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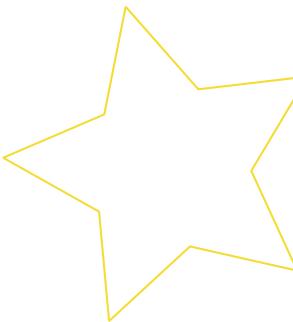
1. AI, Data and Robotics
2. Open Source for Cloud/Edge and Software Engineering Fundamentals to support Digital Autonomy
3. European Innovation Leadership in Photonics
4. Graphene & 2D Materials: Europe in the lead
5. Flagship on Quantum Technologies: a Paradigm Shift

Date d'ouverture : 15/11/2023
Date de clôture : **19/03/2024**

D4.1 - AI, Data and Robotics

D4.1

Objective

o Ensure autonomy for Europe in AI, data and robotics in developing world-class technologies:

- **From manufacturing to healthcare**
- **Public sector, utilities, retail, finance, insurance, transport, agriculture, energy, telecommunications, environmental monitoring, construction, media, creative and cultural industries, fashion, tourism ……**

2 topics in 2024

	Old topics					New topics				
	Topic	Title	Budget	Key words	Deadline	Topic	Title	Budget	Update	New deadline
Graphene & 2DM	**HORIZON-CL4-2024-DIGITAL-EMERGING-01-34**	Synergy with national and regional initiatives in Europe (CSA)		European, national and regional initiatives in graphene and 2DM	19-Mar-24	**HORIZON-CL4-2024-HUMAN-02-36**	Synergy with national and regional initiatives in Europe on Innovative Materials (CSA)	4*1	other advanced materials in line with the Commission initiative 'Advanced Materials for technology leadership	10-Sep-24
Quantum Computing	**HORIZON-CL4-2024-DIGITAL-EMERGING-01-42**	Stimulating transnational research and development of next generation quantum technologies, including basic theories and components (Cascading grant with FSTP)	15*1	Support to transnational projects in quantum technologies, synergy : European, national and regional initiatives	19-Mar-24	**HORIZON-CL4-2024-DIGITAL-EMERGING-02-02**	Stimulating transnational research and development of next generation quantum technologies, including basic theories and components (Cascading grant with FSTP)	15*1		18-Sep-24
	No					**HORIZON-CL4-2024-DIGITAL-EMERGING-02-01 (IA)**	Developing and deploying a network of quantum gravimeters in Europe	25*1	New Topic	18-Sep-24

HORIZON-CL4-2024-DIGITAL-EMERGING-01-03

Novel paradigms and approaches, towards AI-powered robots– step change in functionality (AI, data and robotics partnership) (RIA)

- o Around 8M€ per project - 4 projects funded (30 M€) - **start at TRL 2-3 and end at TRL 4-5**
- o Stand out from leading-edge solutions and meet more complex functional challenges, in particular make a significant enhancement to the navigation capabilities

HORIZON-CL4-2024-DIGITAL-EMERGING-01-04

Industrial leadership in AI, Data and Robotics boosting competitiveness and the green transition (AI Data and Robotics Partnership) (IA)

- o Around 10M€ per project - 5 projects funded (60 M€) - **start at TRL 3-5 and end at TRL 6-7**
- o Contribute to <u>1</u> of the following 2 outcomes: Creation of systems to address large scale challenges
1. using combined robotics data and AI solutions
2. using combined AI and data solutions

HORIZON-CL4-2023-DIGITAL-EMERGING

D4.2 - Open Source for Cloud/Edge and Software Engineering Fundamentals to support Digital Autonomy

2

3 topics in 2024

Objective

o Support the next steps of development and adoption of Open technologies on different levels while fostering progress on responsible software engineering fundamentals :

- **creating a single market that will ensure Europe's global competitiveness and data sovereignty**
- **pre-requisite for Digital autonomy : Open computing architectures at many levels based on Open approaches spanning both software/hardware**

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)
- o 2M€ per project - 1 project funded (2 M€)
- o 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-CL4-2023-DIGITAL-EMERGING
D4.3 - European Innovation Leadership in Photonics

3

Objective:
- European photonics industry excellent position in core segments
  - Strengthen current leadership in photonic technologies/applications
  - Secure access in Europe to cutting-edge photonic technologies

2 topics of this heading are under the co-programmed Partnership "Photonics21"

2 topics in 2024

European Innovation Leadership in Photonics

HORIZON-CL4-2024-DIGITAL-EMERGING-01-54: Smart photonics for joint communication & sensing and access everywhere (Photonics Partnership) (RIA)

- TRL 2 and achieve TRL 5

- 3-5 M€ per project - 4 projects funded (18 M€)

- Photonics for communication network

HORIZON-CL4-2024-DIGITAL-EMERGING-01-55: Photonics Innovation Factory for Europe (Photonics Partnership) (IA)

- TRL 2-5 and achieve TRL 4-7

- 15 M€ per project - 1 project funded (15 M€)

- provide a **virtual factory with a flexible and open structure**, allowing for a multiplicity of competitive actors and services, fully integrated European ecosystem of cross-border deep innovation support in core photonics technologies for the benefit of **European industry**

D4.4 - Graphene and 2D materials: Europe in the lead

4

Objective

- o A critical point where first simple products are being launched.
- o R&I activities would now need to be pursued to achieve technology advances (e.g. aviation, automotive, electronics, batteries, healthcare).

2 topics in 2024

HORIZON-CL4-2024-DIGITAL-EMERGING-01-31: Pilot line(s) for 2D materials-based devices (RIA)

- TRL 2-3 and achieve TRL 4-5
- 33 M€ per project - 1 project funded (33 M€)
- Accessible pilot line(s) fostering the creation of electronic and photonic devices and systems (co-)integrating two-Dimensional Materials (2DM)

HORIZON-CL4-2024-DIGITAL-EMERGING-01-34: Synergy with national and regional initiatives in Europe (CSA)

- 3 M€ per project - 1 project funded (3 M€)

- Well-coordinated European, national and regional initiatives in the field of graphene and two-dimensional materials (2DM)

D4.5 - Flagship on Quantum Technologies: a Paradigm Shift

5

Objective

- o Develop QT and their applications in QC, simulation, sensing and communication,
- o Strengthen EU technological sovereignty
- o Maintain and develop Q competences and skills in EU
- o Details in the Quantum Flagship's SRA*

2 topics in 2024

*https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=65402

HORIZON-CL4-2024-DIGITAL-EMERGING-01-42: Stimulating transnational research and development of next generation quantum technologies, including basic theories and components (Cascading grant with FSTP) (RIA)

- 15M€ per project - 1 project funded (15 M€)
- TRL 1-4 and achieve TRL up to 6
- Support to transnational projects in QT, synergy between EU, national and regional initiatives and promoting broader partnerships between the EU stakeholders in QT

HORIZON-CL4-2024-DIGITAL-EMERGING-01-45: Quantum sensing and metrology for market uptake (IA)

- 4-5M€ per project - 3 projects funded (15 M€)
- TRL 4-5 and achieve TRL 6-7
- Contribute to mature Q sensing technologies and devices in different application sectors

Horizon Europe - Numérique

DESTINATION 6

Appels de l'année 2024

HUMAN Destination - 3 headings
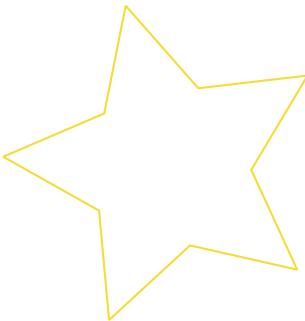
1. Leadership in AI based on trust
2. Systemic approaches for accelerating uptake of technology & innovation
3. European standards for industrial competitiveness

Date d'ouverture : 15/11/2023
Date de clôture : **19/03/2024**

D6.1 Leadership in AI based on trust

1

Objective:

- o Ensure autonomy for Europe in AI
- o Develop technologies that industries & citizens will trust
  - • **trustworthy AI is particularly key in applications such as healthcare or in diverse critical infrastructures**
- o Deploy technologies that are beneficial to humans
  - • **individually, organisationally and societally**
- o Adhere to European values

2 topics in 2024

	Old topics					New topics				
	Topic	Title	Budget	Key words	Deadline	Topic	Title	Budget	Update	New deadline
AI & Robotics	**No**					**HORIZON-CL4-2024-HUMAN-03-01**	Advancing Large AI Models: Integration of New Data Modalities and Expansion of Capabilities (AI, Data and Robotics Partnership) (RIA)	43 (21*2)	**New topic**: large AI systems to new domains through the integration of innovative data modalities, general-purpose AI models (i.e., generative AI). High modality.	18-Sep-24
	HORIZON-CL4-2024-HUMAN-01-06	Explainable and Robust AI (AI Data and Robotics Partnership) (RIA)	30M	Reliable AI, applicability, explainability and robustness of AI-systems, foundational AI	19-Mar-24	**HORIZON-CL4-2024-HUMAN-03-02**	Explainable and Robust AI (AI Data and Robotics Partnership) (RIA)	12M (6*2)	Generative AI added in the outcomes	18-Sep-24
	HORIZON-CL4-2023-HUMAN-01-81 (CSA)	Digital Humanism - Putting people at the centre of the digital transformation (CSA)		active network and cross disciplinary, digital humanism , ICT experts, ethnologists, sociologists	29-Mar-23	**HORIZON-CL4-2024-HUMAN-03-03 (CSA)**	Digital Humanism - Putting people at the centre of the digital transformation	1.5	active network and cross disciplinary, digital humanism , ICT experts, ethnologists, sociologists	18-Sep-24
	HORIZON-CL4-2024-HUMAN-01-07	Collaborative intelligence – combining the best of machine and human (AI Data and Robotics Partnership) (RIA)	20M	human-machine collaboration and interaction	19-Mar-24	CANCELLED				

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	Old topics					New topics				
	Topic	Title	Budget	Key words	Deadline	Topic	Title	Budget	Update	New deadline
NCP and Public organization Supports	**HORIZON-CL4-2024-HUMAN-01-34 (CSA)**	Support for transnational activities of National	5*1	Support for transnational activities of National	Mar-24	**HORIZON-CL4-2024-HUMAN-02-34 (CSA)**	Support for transnational activities of NCP (CSA)	5*1		10-Sep-24
	No					**HORIZON-CL4-2024-HUMAN-02-35 (CSA)**	Intellectual asset management support for public research organisations, academic institutions and their spin-offs (CSA)	2*1	New Topic, support to public research organisations and their spin-offs for a stronger culture of entrepreneurship	10-Sep-24

HORIZON-CL4-2024-HUMAN-01-06: Voir : Horizon-CL4-2024-HUMAN-03-02
Explainable and Robust AI (AI Data and Robotics Partnership) (RIA)
- 9 to 10 M€ par project – 3 projects funded (30 M€) – start at TRL 2-3 and end at TRL 4-5
- Contribution to one of the following outcomes:
  - Enhanced robustness, performance and reliability of AI systems
  - Improved explainability and accountability, transparency and autonomy of AI systems

HORIZON-CL4-2024-HUMAN-01-07:
Collaborative intelligence – combining the best of machine and human (AI Data and Robotics Partnership) (RIA)
- Around 5 M€ per project - 4 projects funded (20 M€) – start at TRL 2-3 and end at TRL 4-5
- Demonstrate the value of human-machine collaboration and interaction and
  Demonstrate how collaborative decision-making improves over human decision-making

D6.2 - Systemic approaches to make the most of the technologies within society and industry

2

Objective:

Encourage creativity & make the most of technologies

- o promote various systemic approaches
- o test, experiment, demonstrate, & support for take-up
  - • using the capacities, infrastructures, and EDIHs
  - ➢ testing of ideas in local communities;
  - ➢ support for IP, standardisation and industry-academia exchanges;
  - ➢ art-driven design;
  - ➢ assessments of complex socio-economic systems.

1 topic in 2024

D6.3 - European standards for industrial competitiveness

3

Objective/
○ Technology leadership goes hand-in-hand with leadership in standard-setting

○ Bringing R&I communities early on into the standards-making process is key to:
- identify the issues and priorities
- share views on future developments and stakeholder needs,
- provide recommendations to the European Commission and European standardisation organisations for future standardisation needs

1 topic in 2024

HORIZON-CL4-2024-HUMAN-02-34 (CSA):

Support for transnational activities of National Contact Points in the thematic areas of Digital, Industry and Space (CSA)

- o 1.5 to 5 M€ par project - 3 projects funded (5 M€)
- o *The approach and budget for this support will be implemented through the 2024 amendment, once information is available from the three ongoing NCP networks of Cluster 4*

HORIZON-CL4-2024-HUMAN-03-01: Advancing Large AI Models: Integration of New Data Modalities and Expansion of Capabilities (AI, Data and Robotics Partnership) (RIA)

Opening: 16 Apr 2024 Deadline(s): 18 Sep 2024, Around 21.5 M€ per project - 2 projects funded (43 M€)

Expected Outcome: 1 of the following outcomes:

- Enhanced applicability of large AI systems to new domains by integration of innovative data modalities, ex : sensor measurements in robotics, IoT, remote sensing (earth observation), as input.

- Improvement of current multimodal large AI systems capabilities (more data modalities), leading to broader application potential and improved AI performance.

Proposals should address at least 1 of the following focus areas:

- Integration of innovative modalities of data as input for large AI models:

   Event streams, structured data and sensor measurements. Enhancements to model performance and enable their application in new domains: weather forecasting, robotics, production and manufacturing.

- Enhanced multimodal models, exceed the current SotA, improved capabilities or the ability to handle a larger number of modalities

HORIZON-CL4-2024-HUMAN-03-02:

Explainable and Robust AI (AI Data and Robotics Partnership) (RIA)

Opening: 16 Apr 2024 Deadline: 18 Sep 2024,

- ○ 6 M€ par project - 2 projects funded (12 M€) - **start at TRL 2-3 and end at TRL 4-5**
- ○ Contribution to one of the following outcomes:
  - ▪ Enhanced robustness, performance and reliability of AI systems, including **generative AI** models, awareness of the limits of operational robustness of the system
  - ▪ Improved explainability and accountability, transparency and autonomy of AI systems

- **HORIZON-CL4-2024-HUMAN-03-03:** **Digital Humanism - Putting people at the centre of the digital transformation (CSA)**
  - **Opening: 16 Apr 2024 Deadline: 18 Sep 2024**,
  - Around 6 M€ per project - 1 project funded (1.5 M€)

- 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 through cross-disciplinary, world class foundational and application oriented research

- Formulate a list of recommendations and roadmaps for digital humanism across the society

HORIZON-CL4-2023-HUMAN-03-04 **Facilitate the engagement in global ICT standardisation development (CSA)**
Opening: 16 Apr 2024 Deadline: 18 Sep 2024,
  - Around 6 M€ per project - 1 project funded (6 M€)
  - Share information about global sectorial ICT standardisation ecosystems and engagement of European stakeholders in global standardisation settings

HORIZON-CL4-2024-DATA-01-01: AI-driven data operations and compliance technologies (AI, data and robotics partnership) (IA)

- 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)

- Funding rate is 60% (except for non-profit legal entities where the funding is 100%)

- Proposals should build on :

  - H2020 (ICT-13-2019)

  - HE CL4 (2021-DATA-01-01 and 2023-HUMAN-01-01)

Projects are invited to employ appropriate technologies and methods, such as federated and distributed AI/analytics and associate them with trustworthy AI techniques; protect privacy and confidentiality of AI training data and reduce energy footprint.

The competences represented in the consortium should cover all the relevant aspects (technical, legal, commercial, societal, ethical)

Expected results

- To enable companies and public sector to easily comply with existing and emerging regulation and create value on data assets (that they possess or that they acquire from the market)

- Shorten the time-to-market and reduce development costs of compliant data solutions

- Contribute to open, trusted and federated Common European data spaces

- Quantify and reduce the environmental footprint of data operations

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

- 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)

- 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 <u>more than one</u> application domain such as renewable energy, buildings and electro-mobility, farming and/or industrial automation, including strategic aspects such as condition-monitoring/predictive maintenance and logistic…

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

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

- 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, etc. establish a concept through a forum to link to relevant European and national initiatives and partnerships like KDT JU and add value by 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

- Accelerate the pick-up of novel advanced edge technology in most important sectors for Europe's economy

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DESTINATION 4

Présentation détaillée
Appels de l'année 2024

HORIZON-CL4-2024-DIGITAL-EMERGING-01-03
Novel paradigms and approaches, towards AI-powered robots– step change in functionality (AI, data and robotics partnership) (RIA)

Improve the functional performance such as accuracy, strength, speed, planning, physical perception, grasping, or manipulation

Take into account safety and security aspects, as well as the data life cycle

Example of application sectors

- manufacturing, assembly, energy, transportation infrastructures, medicine and healthcare, materials processing and microfabrication

Multidisciplinary research is important

Should address several of the following points:
- Integration of sensing into physical structures to improve motion and perception

- Advanced navigation capabilities to move in dynamic and complex environments

- Mobile manipulation, with dexterity, of very small, large, soft and complex objects

- Natural human-robot interaction features

- Advanced cognitive capabilities, integrating any kind of learning or reasoning

- New design approaches, e.g. soft robotics, under-actuated, miniaturized and modular robots

Expected results
- Ability of robots to perform novel functional tasks in realistic environments

- Interact with humans, and improve robustness and safety

- Guarantee the sovereignty of key robotics technologies

- Maintain the scientific excellence in

- Address general societal challenges.

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HORIZON-CL4-2024-DIGITAL-EMERGING-01-04:
Industrial leadership in AI, Data and Robotics boosting competitiveness and the green transition (AI Data and Robotics Partnership) (IA)

Contribute to one of the following two outcomes, **exclusively**:

- **sub-area A:**
  Creation of systems using combined **robotics, data and AI**
- **sub-area B:**
  Creation of systems using combined **AI and data solutions**

Financial support to third parties - **FSTP only in sub-area B**

- 200 K€ is the maximum amount to be granted to each third party
- 40% of the budget

Must share results through the AI-on-demand platform and/or the Digital Industry Platform for Robotics.

Must demonstrate the added value of technology integration, through large-scale validation scenarios reaching a critical mass and contributing to Green Deal.

Multidisciplinary innovation activities must address one of the following A or B:

A. Large-scale pilots bringing together to exploit and integrate existing tools, subsystems and existing solutions that **can be reused in other sectors**

B. Large-scale pilots of green impact applications addressing **key challenges in AI, data and robotics deployment**.

Must include a clear business case and operating strategy

Expected results
- Validate solutions at scale by demonstrating the potential of technology integrating to meet the industrial ecosystem challenges and to contribute to the green deal.
- Explore scientific and technological breakthroughs to maintain scientific excellence and ensure sovereignty in key technologies.
- Boost the use of AI, data and robotics to contribute to environmental sustainability.

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

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

Lump sum

Progress state of the art 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 including 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

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HORIZON-CL4-2024-DIGITAL-EMERGING-01-54: Smart photonics for joint communication & sensing and access everywhere (Photonics Partnership) (RIA)

This topic implements the co-programmed European Partnership Photonics.

Expected Outcome :

- Sensors/probes to **monitor the quality of the communication ne**twork

- Methods to use the network as **large-scale distributed sensor**

- Development of **foundational optical technologies, systems and networks** for future access infrastructure

- Scope: At least one of the following activity areas

1. **Light-based solutions** to let the communication network **sense**, while transporting data. Example: Enhance the security, Make network more energy efficient, Warn and protect against natural disasters, earthquakes etc.

2. Light-based solutions for **internet everywhere**

   - Integration of all access technologies in **one system**

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HORIZON-CL4-2024-DIGITAL-EMERGING-01-55: Photonics Innovation Factory for Europe (Photonics Partnership) (IA)

This topic implements the co-programmed European Partnership Photonics.

- Provide a **virtual factory with a flexible and open structure**, multiplicity services operating as a sustainable fully integrated
  - A network of competence centers acting as a single consortium
- European **ecosystem of cross-border deep innovation** support in core photonics technologies for the benefit of European industry
- **Speed up the deployment of proven photonics** technologies within European industry

Expected results

- Substantially improved **penetration of core photonics technologies** into multiple end-user applications and industry sectors,
  - Carefully selected SMEs and new start-ups with the **strongest potential for high impact** business growth and employment,
- **Creation of an ecosystem for photonics in Europe** from TRL 2-7, providing European Cross-Border Added Value, investments made at national and regional level in photonics..

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HORIZON-CL4-2024-DIGITAL-EMERGING-01-31: Pilot line(s) for 2D materials-based devices (RIA)

Build on collaboration with existing projects other relevant European, national or regional initiatives and platforms (KDT JU)

Scope:

- Continue the efforts started in the 2D experimental Pilot Line of the Graphene Flagship

- Establish a 2DM pilot line(s), EU companies and research centres can produce on a pilot scale electronic and/or photonic

- Focus on the (co-)integration of 2DM with established technologies (CMOS)

Expected results (both)

• Accessible pilot line(s) for the creation of electronic and photonic devices and systems (co-)integrating 2DM.

• Significant progress towards the adoption of the 2DM in the silicon and semi-conductor domains

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HORIZON-CL4-2024-DIGITAL-EMERGING-01-34: Synergy with national and regional initiatives in Europe (CSA)

- lump sum

Projects are expected to contribute to the following outcomes:

- Well-coordinated European, national and regional initiatives in graphene and 2DM;

- Development of a strong European innovation ecosystem in 2DM-based technologies.

Expected results (both)

- Active networking of relevant initiatives and R&I communities.

- Active follow-up of the projects funded under FLAG-ERA*

- Supporting the national and regional actors to organize joint calls for proposals

HORIZON-CL4-2024-DIGITAL-EMERGING-01-42: Stimulating transnational research and development of next generation quantum technologies, including basic theories and components (Cascading grant with FSTP) RIA

- Proposals are expected to use FSTP) for closer coordination with # programmes for

- Minimum 85% of the EU funding allocated to the purpose of FSTP , selected through joint calls

Networking and coordination of national activities, support of the Q Flagship, implementing calls for proposals to TP

i) Gaps in the Strategic Research Agenda, not covered by Flagship

ii) Support transnational efforts, sovereign pan-Eu Q ecosystem

iii) Support early-stage involvement in industry, R&D agendas to next generation QT

Expected result

- Support to transnational projects in QT

- ↑ synergy between European, national and regional initiatives

- promoting partnerships between the European stakeholders in QT

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HORIZON-CL4-2024-DIGITAL-EMERGING-01-45: Quantum sensing and metrology for market uptake (IA)

- Participation is limited to legal entities established in Member States, Iceland and Norway and the following additional associated country: Israel

- Entities established in an eligible country listed above, but directly or indirectly controlled by a non- eligible country may not participate

Proposals address the development of mature quantum sensing tech and 1 or network-operating devices for new applications including transportation, metrology, health, etc.

Demonstrate advanced prototypes of such sensing technologies that provide an unprecedented level of precision and stability, making new types of sensing, imaging and analysis possible

Expected result

- Projects expected to contribute to mature quantum sensing technologies and devices in different application sectors,
- Establishing a reliable, efficient supply chain, standardisation for rapid market uptake.

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DESTINATION 6

Présentation détaillée
Appels de l'année 2024

D6.1 - Leadership in AI based on trust

Opening: 15 Nov 2023				
Deadline(s): 19 Mar 2024				
HORIZON-CL4-2024-HUMAN-01-06	RIA	30.00	9.00 to 10.00	3
HORIZON-CL4-2024-HUMAN-01-07	RIA	20.00	Around 5.00	4

HORIZON-CL4-2024-HUMAN-01-06 (03-02): Explainable and Robust AI (AI Data and Robotics Partnership) (RIA)

Must address all of the following:

- involve appropriate expertise in all relevant disciplines including gender and intersectional knowledge

- Provide tasks and resources to collaborate and contribute to the HORIZON-CL4-2023-HUMAN-01-04 open innovation challenge addressing explainability and robustness.

- Contribute to ensuring that AI and robotics solutions meet the requirements of trustworthy AI.

International cooperation is encouraged, in particular with Canada and India.

AI algorithms capable of operating safely under a variety of real-world conditions

Advance robustness and explainability, while resulting in an acceptable loss of accuracy and efficiency, and with known verifiability and reproducibility

The following methods may be considered, but are not required:

- efficient data learning, reinforcement learning, federated and edge learning

- hybrid approaches of neuromorphic computing, approaches inspired by nature, …

- continuous learning, active learning, multimodal learning, natural language processing, speech recognition, and reading comprehension

Expected results
Must contribute to <u>one</u> of the following outcomes:

A. Improved robustness, performance, and reliability of AI systems, as well as awareness of system operational robustness limitations.

B. Improved explainability and accountability, transparency, and autonomy of AI systems, as well as awareness of system working conditions

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HORIZON-CL4-2024-HUMAN-01-07:
Collaborative intelligence – combining the best of machine and human
(AI Data and Robotics Partnership) (RIA)

Proposals should clearly state which of these two areas they address:

A. Collaboration and human-computer interaction

B. Collaborative decision making

At least one proposal from each area will be selected

Involve expertise in SSH

Build on existing standards or contribute to standardization

Build on existing projects

↔ HORIZON-CL4-2023-HUMAN-01-04

Share results through the on-demand AI platform or the digital industry platform for robotics

The work should focus on

- Fundamental research towards the next generation of collaborative AI
- Simulations and experimentation with and without humans in the loop
- Integration of advances in human-computer interaction and automatic reasoning
- Verification of applicability to a wide range of domains

Expected results

Proposals are expected to address at least one of the following outcomes

- Demonstrate that human-machine collaboration improves effectiveness, intuitiveness, efficiency, completeness and other subjective, objective or quantifiable measures.
- Demonstrate that collaborative decision making improves human decision making and covers all stages of reasoning (data collection, analysis, reasoning and communication)

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D6.2 - Systemic approaches for accelerating uptake of technology and innovation

Opening: 15 Nov 2023				
Deadline(s): 19 Mar 2024				
HORIZON-CL4-2024-HUMAN-01-34	CSA	5.00	1.50 to 5.00	3

HORIZON-CL4-2024-HUMAN-01-34: Support for transnational activities of National Contact Points in the thematic areas of Digital, Industry and Space (CSA)

- Eligible costs will take the form of a **lump sum**

Pending …

*Nota: The approach and budget for this coordination support action will **be implemented through the 2024 amendment,** once information is available from the **three ongoing NCP networks of Cluster 4***

D6.3 - European standards for industrial competitiveness

Opening: 15 Nov 2023				
Deadline(s): 19 Mar 2024				
HORIZON-CL4-2024-HUMAN-01-61	CSA	6.00	Around 6.00	1

HORIZON-CL4-2024-HUMAN-01-61: Facilitate the engagement in global ICT standardisation development (CSA)

Eligible costs will take the form of a **lump sum**

Financial support to third parties (FSTP) :

- 50 K€ is the maximum amount to be granted to each third party

- FSTP should be typically in the order of 1 to 10K€ by expert

- a minimum of 70% of requested EU contribution should go to open calls

↔ ICT-40-2017, StandICT.eu & ICT-45-2020

Share information on :
- The global sectoral ICT standardization ecosystems
- The European stakeholders' involvement in global standardization

Proposals should include:
- An analysis of the international ICT standardization landscape and gaps
- Establishment of a management mechanism to support the European contributions Animation of a foresight committee
- Promoting the relevance and benefits of ICT standardization

Expected results
- Establish a mechanism to support the participation of European specialists in international ICT standardization bodies and global forums and consortia
- Develop and update the sectoral ICT standardization landscape and gap analysis of ICT standardization needs in support of EU policies
- Provide a forum for forward-looking analysis in different sectors
- Increase awareness of ICT standardization development
- Support international standardization meetings and forums to facilitate the participation of European stakeholders

Des documents pour aller plus loin

➢ **Les appels du Cluster 4 Horizon Europe**

❑ Sur le **portail européen** "Funding & tenders"

❑ Sur le **portail français** : https://www.horizon-europe.gouv.fr/numerique-cluster4

❑ **Les documents de référence pour le numérique**

❑ European data strategy | European Commission (europa.eu)

❑ A European approach to artificial intelligence | Shaping Europe's digital future (europa.eu)

❑ European Data Governance Act | Shaping Europe's digital future (europa.eu)

❑ Data Act | Shaping Europe's digital future (europa.eu)

❑ European Chips Act | European Commission (europa.eu)

❑ Europe's Digital Decade: digital targets for 2030 | European Commission (europa.eu)

Page dédiée "Lump Sum sur le portail "Funding &Tenders opportunities"

Conseils	• What do I need to know? & Quick guide • Frequently asked questions • Detailed guidance for applicants and beneficiaries • Lump sum briefing slides for experts
Documents de référence	• Model Grant Agreement Lump Sum • Decision authorising the use of lump sum contributions under the Horizon Europe Programme
Etudes	• European Commission assessment (October 2021) • European Parliament (STOA) study on lump sums in Horizon 2020 (May 2022)
Evènements	• Future events • Past events and recordings
Listes des sujets "Lump Sum"	• List of Horizon Europe topics using lump sum funding

HORIZON EUROPE

Lump Sum Grants

in Horizon Europe

Why do we need them
and how do they work
in practice?

Research and
Innovation

Vous êtes un **acteur de la R&I publique**, Candidatez au **MRSEI** (ANR), <u>ici</u>

Un processus accéléré & une mesure simplifiée

3 mois d'évaluation   1 mois

Dépôt du projet   Montant d'aide maximal : **30 000 €**

Les Dépenses éligibles :
- Prestations de services (cabinet conseil) : 10 k€ max.
- Frais généraux non forfaitisés :
frais de missions, frais de déplacement des personnels, frais de réception et d'organisation de séminaire/colloques en lien avec le projet.
- Frais d'environnement :
Frais de la tutelle (10,5%)
Frais de la structure de recherche (3%)
Deux candidatures 2024 : 15/02 et 12/09

anr°
agence nationale
de la recherche
AU SERVICE DE LA SCIENCE

Vous êtes un **acteur de la R&I privé**, Candidatez au **Diagnostic Partenariat Technologique International** (bpifrance), <u>ici</u>

Il concerne les **entreprises françaises** de (-) de 2 000 salariés, n'appartenant pas à un groupe de (+) de 2 000 personnes.

Les dépenses éligibles : :

- La recherche de partenaire(s),

- La négociation de l'accord de consortium,

- Les recours à des conseils ou prestataires spécialisés,

- La préparation des réponses aux appels à projets, des accords et des candidatures,

- L'assistance et conseil juridique.

Le **montant maximum de la prestation est fixé à 25 000 € HT** si l'entreprise bénéficiaire est cheffe de file. (Le co-financement par Bpifrance est à hauteur de 50 % du montant TTC.

Candidatures 2024 : au fil de l'eau

bpifrance

Les appels à proposition Horizon Europe du cluster 4 Numérique s'opèrent en consortium. Savez-vous que vous disposez de sources d'information pour identifier vos partenaires ?

Le PCN Numérique collecte **les recherches et offres de compétence émises par les acteurs français de la R&I** afin de faciliter leur participation dans les appels à proposition du programme Horizon Europe.

- Formulaire à renseigner, **cliquez ici**

Il diffuse les profils et les demandes auprès de ses homologues PCN (réseaux européens et internationaux) afin de maximiser les mises en relation

Sur la page du PCN numérique du site Horizon Europe,

Consultez le **site Horizon Europe**, découvrez tous les **services offerts.**
Cliquez ici : Recherche de Partenaires | Horizon-europe.gouv.fr

Les rencontres :

"Infodays" et « **Brokerages events** »

Il suffit de créer un compte (profil) pour y accéder. La navigation est simple et intuitive.

Par exemple : Sélectionner :

- "Project Cooperation" pour obtenir la liste des appels et des partenaires avec leurs domaines de compétences.

- "Consortium seeks Partners" pour connaitre les consortiums en cours de construction qui sont en recherche de nouveaux partenaires

- "Partner seeks Consortium » pour visualiser les partenaires à la recherche de consortiums.

Le site :

"**Funding & tender opportunities**" permet de rechercher, par mots clés, dans une base contenant les participants à des projets européens antérieurs

Les réseaux de points de contact (PCN) nationaux et internationaux soutiennent les proposants tout au long du cycle d'élaboration de la proposition
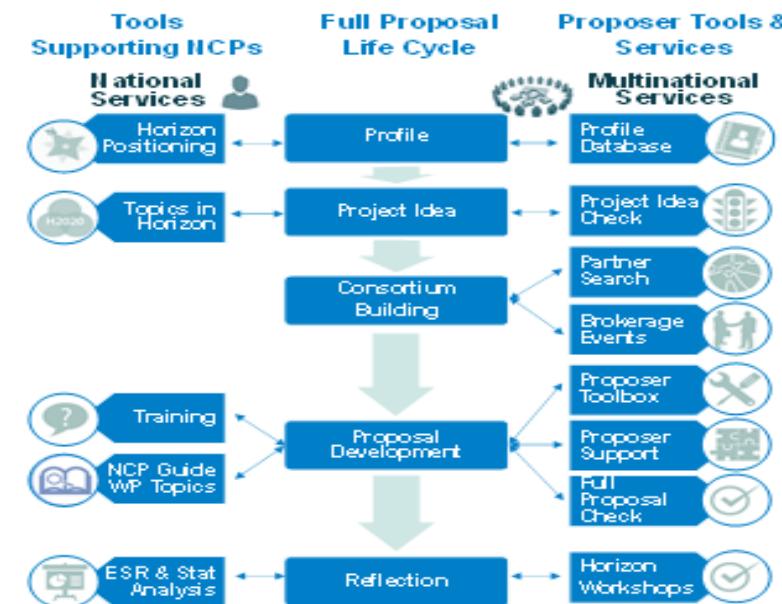
Devenez expert-évaluateur pour HORIZON EUROPE

Pourquoi

- ✓ Comprendre **l'évaluation** des projets, les attendus
- ✓ Être en **contact direct avec les responsables** des Directions thématiques de la CE
- ✓ Bénéficier d'un **environnement de travail international** - réseautage
- ✓ Bénéficier d'**un état de l'art** à l'instant T dans votre domaine

Comment

- • **Inscription une seule fois** pour 7 ans ⤳ *Mise à jour régulière de votre profil*
- • La CE interroge la base de données à travers des **mots clés** pour solliciter les experts et constituer ses panels d'évaluation

Liens

- • Guide pour devenir expert
- • S'enregistrer comme expert

Posez-nous vos questions

➤ **Via le formulaire sur le site d'Horizon Europe :**
https://www.horizon-europe.gouv.fr/contactez-les-pcn?point_de_contact_national=num%C3%A9rique

ou

➤ **Par email** : pcn-tic@recherche.gouv.fr

➤ **Suivez nos actualités via notre lettre d'information** :
https://www.horizon-europe.gouv.fr/inscription-liste-numerique

➤ **Visitez notre site PCN Numérique** :
https://www.horizon-europe.gouv.fr/numerique-cluster4

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