

Appels à propositions dans le cadre du programme européen pour la recherche et l'innovation « HORIZON EUROPE »

Numérique, Industrie, Espace

Destination - Production neutre climatiquement, circulaire et numérisée

| Titre | Type | Budget | Date d'ouverture | Date limite |
|---|------|---------|------------------|-------------|
| Production neutre climatiquement, circulaire et numérisée 2022 | | | | |
| HORIZON-CL4-2022-TWIN-TRANSITION-01-01 - Rapid reconfigurable production process chains (Made in Europe Partnership) | IA | 27,5 M€ | 12-10-21 | 30-03-22 |
| HORIZON-CL4-2022-TWIN-TRANSITION-01-02 - Products with complex functional surfaces (Made in Europe Partnership) | RIA | 21,5 M€ | | |
| HORIZON-CL4-2022-TWIN-TRANSITION-01-03 - Excellence in distributed control and modular manufacturing (Made in Europe Partnership) | RIA | 21,5 M€ | | |
| HORIZON-CL4-2022-TWIN-TRANSITION-01-04 - Intelligent work piece handling in a full production line (Made in Europe Partnership) | RIA | 21,5 M€ | | |
| HORIZON-CL4-2022-TWIN-TRANSITION-01-06 - ICT Innovation for Manufacturing Sustainability in SMEs (I4MS2) (Made in Europe Partnership) | IA | 30 M€ | | |
| HORIZON-CL4-2022-TWIN-TRANSITION-01-07 - Digital tools to support the engineering of a Circular Economy (Made in Europe Partnership) | RIA | 22 M€ | | |
| HORIZON-CL4-2022-TWIN-TRANSITION-01-09 - Demonstrate the use of Digital Logbook for buildings | IA | 9 M€ | | |
| HORIZON-CL4-2022-TWIN-TRANSITION-01-10 - Circular flows for solid waste in urban environment (Processes4Planet Partnership) | IA | 42,5 M€ | | |
| HORIZON-CL4-2022-TWIN-TRANSITION-01-11 - Valorisation of CO/CO2 streams into added-value products of market interest (Processes4Planet Partnership) | IA | 42,5 M€ | | |
| HORIZON-CL4-2022-TWIN-TRANSITION-01-13 - Raw material preparation for clean steel production (Clean Steel Partnership) | IA | 4 M€ | | |

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| HORIZON-CL4-2022-TWIN-TRANSITION-01-15 - New electrochemical conversion routes for the production of chemicals and materials in process industries (Processes4Planet Partnership) | RIA | 30 M€ | |
| HORIZON-CL4-2022-TWIN-TRANSITION-01-16 - Modular and hybrid heating technologies in steel production (Clean Steel Partnership) | IA | 10 M€ | |
| HORIZON-CL4-2022-TWIN-TRANSITION-01-17 - Integration of hydrogen for replacing fossil fuels in industrial applications (Processes4Planet Partnership) | IA | 42,5 M€ | |



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Numérique, Industrie, Espace

Destination - Autonomie accrue dans les chaînes de valeur clés pour une industrie résiliente

| Titre | Type | Budget | Date d'ouverture | Date limite |
|---|------|---------|------------------|-------------|
| Une industrie numérisée, efficace en ressource et résistante 2021 | | | | |
| HORIZON-CL4-2021-RESILIENCE-02-32: Social and affordable housing district demonstrator | IA | 10 M€ | 16-09-21 | 25-01-22 |
| Une industrie numérisée, efficace en ressource et résistante 2022 | | | | |
| HORIZON-CL4-2022-RESILIENCE-01-01: Circular and low emission value chains through digitalisation (Processes4Planet Partnership) | RIA | 25,3 M€ | | |
| HORIZON-CL4-2022-RESILIENCE-01-02: Monitoring and supervising system for exploration and future exploitation activities in the deep sea | RIA | 14 M€ | | |
| HORIZON-CL4-2022-RESILIENCE-01-03: Streamlining cross-sectoral policy framework throughout the extractive life-cycle in environmentally protected areas | CSA | 2,4 M€ | | |
| HORIZON-CL4-2022-RESILIENCE-01-04: Developing digital platforms for the small scale extractive industry | IA | 15 M€ | | |
| HORIZON-CL4-2022-RESILIENCE-01-05: Technological solutions for tracking raw material flows in complex supply chains | RIA | 13,5 M€ | | |
| HORIZON-CL4-2022-RESILIENCE-01-06: Sustainable and innovative mine of the future | IA | 36 M€ | | |
| HORIZON-CL4-2022-RESILIENCE-01-07: Innovative solutions for efficient use and enhanced recovery of mineral and metal by-products from processing of raw materials | IA | 36 M€ | | |
| HORIZON-CL4-2022-RESILIENCE-01-08: Earth observation technologies for the mining life cycle in support of EU autonomy and transition to a climate-neutral economy | RIA | 13,5 M€ | | |
| HORIZON-CL4-2022-RESILIENCE-01-10: Innovative materials for advanced (nano)electronic components and systems | RIA | 20 M€ | | |
| HORIZON-CL4-2022-RESILIENCE-01-11: Advanced lightweight materials for energy efficient structures | RIA | 20 M€ | | |
| HORIZON-CL4-2022-RESILIENCE-01-12: Functional multi-material components and structures | RIA | 20 M€ | 12-10-21 | 30-03-22 |
| HORIZON-CL4-2022-RESILIENCE-01-13: Smart and multifunctional biomaterials for health innovations (RIA) | RIA | 20 M€ | | |

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| HORIZON-CL4-2022-RESILIENCE-01-14: Membranes for gas separations - membrane distillation (IA) | IA | 21 M€ | | |
| HORIZON-CL4-2022-RESILIENCE-01-16: Building and renovating by exploiting advanced materials for energy and resources efficient management | IA | 21 M€ | | |
| HORIZON-CL4-2022-RESILIENCE-01-19: Advanced materials modelling and characterisation | RIA | 18 M€ | | |
| HORIZON-CL4-2022-RESILIENCE-01-20: Climate Neutral and Circular Innovative Materials Technologies Open Innovation Test Beds | IA | 34 M€ | | |
| HORIZON-CL4-2022-RESILIENCE-01-21: Leveraging standardisation in Digital Technologies | CSA | 4,5 M€ | | |
| HORIZON-CL4-2022-RESILIENCE-01-23: Safe- and sustainable-by-design organic and hybrid coatings | RIA | 20 M€ | | |
| HORIZON-CL4-2022-RESILIENCE-01-24: Novel materials for supercapacitor energy storage | RIA | 23 M€ | | |
| HORIZON-CL4-2022-RESILIENCE-01-25: Optimised Industrial Systems and Lines through digitalisation | IA | 15 M€ | | |
| HORIZON-CL4-2022-RESILIENCE-01-26: 'Innovate to transform' support for SME's sustainability transition | CSA | 10 M€ | | |
| Une industrie numérisée, efficace en ressource et résistante 2021 (PCP) | | | | |
| HORIZON-CL4-2022-RESILIENCE-02-01-PCP: Boosting green economic recovery and open strategic autonomy in Strategic Digital Technologies through pre-commercial procurement | PCP | 9 M€ | 12-10-21 | 30-03-22 |

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Technologies de computing et données mondiales pionnières

| Titre | Type | Budget | Date d'ouverture | Date limite |
|---|------|--------|------------------|-------------|
| Technologies de computing et données mondiales pionnières 2022 | | | | |
| HORIZON-CL4-2022-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 | 33 M€ | 23-11-21 | 05-04-22 |
| HORIZON-CL4-2022-DATA-01-02: Cognitive Cloud: AI-enabled computing continuum from Cloud to Edge | RIA | 50 M€ | | |
| HORIZON-CL4-2022-DATA-01-03: Programming tools for decentralised intelligence and swarms | RIA | 40 M€ | | |
| HORIZON-CL4-2022-DATA-01-04: Technologies and solutions for data trading, monetizing, exchange and interoperability (AI, Data and Robotics Partnership) | IA | 52 M€ | | |
| HORIZON-CL4-2022-DATA-01-05: Extreme data mining, aggregation and analytics technologies and solutions | RIA | 30 M€ | | |

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Numérique, Industrie, Espace

Destination - Technologies numériques et émergentes pour la compétitivité et adaptées au Pacte vert

| Titre | Type | Budget | Date d'ouverture | Date limite |
|---|------|---------|------------------|-------------|
| Technologies numériques et émergentes pour la compétitivité et adaptées au Pacte vert 2021 | | | | |
| HORIZON-CL4-2021-DIGITAL-EMERGING-02-10: Strengthening the quantum software ecosystem for quantum computing platforms | RIA | 12 M€ | 02-11-21 | 27-01-22 |
| HORIZON-CL4-2021-DIGITAL-EMERGING-02-16: Basic Science for Quantum Technologies | RIA | 16 M€ | | |
| HORIZON-CL4-2021-DIGITAL-EMERGING-02-20: Quantum sensing technologies for market uptake | IA | 23 M€ | | |
| Technologies numériques et émergentes pour la compétitivité et adaptées au Pacte vert 2022 | | | | |
| HORIZON-CL4-2022-DIGITAL-EMERGING-01-03: Advanced multi-sensing systems (Photonics Partnership) | RIA | 48 M€ | 21-12-21 | 05-04-22 |
| HORIZON-CL4-2022-DIGITAL-EMERGING-01-26: Open source for cloud-based services | RIA | 22 M€ | | |
| HORIZON-CL4-2022-DIGITAL-EMERGING-01-30: European Enabling technologies for Beyond 5G/6G RAN disaggregated architectures | RIA | 13 M€ | | |
| HORIZON-CL4-2022-DIGITAL-EMERGING-01-35: Advanced characterisation methodologies to assess and predict the health and environmental risks of nanomaterials | RIA | 17,5 M€ | | |
| HORIZON-CL4-2022-DIGITAL-EMERGING-01-38: International cooperation in semiconductors | CSA | 3 M€ | | |
| HORIZON-CL4-2022-DIGITAL-EMERGING-01-39: Ultra low energy and secure networks | RIA | 13 M€ | | |
| HORIZON-CL4-2022-DIGITAL-EMERGING-02-05: AI, Data and Robotics for Industry optimisation (including production and services) (AI, Data and Robotics Partnership) (IA) | IA | 19 M€ | | |
| HORIZON-CL4-2022-DIGITAL-EMERGING-02-06: Pushing the limit of physical intelligence and performance (RIA) | RIA | 28,5 M€ | 16-06-22 | 16-11-22 |
| HORIZON-CL4-2022-DIGITAL-EMERGING-02-07: Increased robotics capabilities demonstrated in key sectors (AI, Data and Robotics Partnership) (IA) | IA | 36 M€ | | |
| HORIZON-CL4-2022-DIGITAL-EMERGING-02-17: New generation of advanced electronic and photonic 2D materials-based devices, systems and sensors | RIA | 16,5 M€ | | |
| HORIZON-CL4-2022-DIGITAL-EMERGING-02-18: 2D materials-based devices and systems for energy storage and/or harvesting | RIA | 9 M€ | | |

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| HORIZON-CL4-2022-DIGITAL-EMERGING-02-19: 2D materials-based devices and systems for biomedical applications | RIA | 6 M€ | |
| HORIZON-CL4-2022-DIGITAL-EMERGING-02-20: 2D-material-based composites, coatings and foams | IA | 9 M€ | |
| HORIZON-CL4-2022-DIGITAL-EMERGING-02-22: Supporting the coordination of the Graphene Flagship projects | CSA | 3 M€ | |



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Destination - Autonomie stratégique ouverte en développant, déployant et utilisant des infrastructures, services, applications et données mondiaux basés sur l'espace

| Titre | Type | Budget | Date d'ouverture | Date limite |
|---|------|----------|------------------|-------------|
| Autonomie stratégique en développant, déployant et utilisant des infrastructures, services, applications et données mondiaux basés sur l'espace 2021 | | | | |
| HORIZON-CL4-2021-SPACE-01-11: End-to-end satellite communication systems and associated services | RIA | 12 M€ | 02-11-21 | 16-02-22 |
| HORIZON-CL4-2021-SPACE-01-12: Future space ecosystems: on-orbit operations, new system concepts | RIA | 6 M€ | | |
| HORIZON-CL4-2021-SPACE-01-21: Reusability for European strategic space launchers - technologies and operation maturation including flight test demonstration | RIA | 39 M€ | | |
| HORIZON-CL4-2021-SPACE-01-22: Low cost high thrust propulsion for European strategic space launchers - technologies maturation including ground tests | RIA | 19,8 M€ | | |
| HORIZON-CL4-2021-SPACE-01-23: New space transportation solutions and services | RIA | 3 M€ | | |
| HORIZON-CL4-2021-SPACE-01-41: Copernicus Climate Change Service evolution | RIA | 11 M€ | | |
| HORIZON-CL4-2021-SPACE-01-42: Copernicus Atmosphere Monitoring Service evolution | RIA | 7,5 M€ | | |
| HORIZON-CL4-2021-SPACE-01-43: Copernicus Security and Emergency Services evolution | RIA | 5 M€ | | |
| HORIZON-CL4-2021-SPACE-01-44: Copernicus evolution for cross-services thematic domains | RIA | 5,6 M€ | | |
| HORIZON-CL4-2021-SPACE-01-62: Quantum technologies for space gravimetry | RIA | 17 M€ | | |
| HORIZON-CL4-2021-SPACE-01-81: Space technologies for European non-dependence and competitiveness | RIA | 10,32 M€ | | |
| Autonomie stratégique en développant, déployant et utilisant des infrastructures, services, applications et données mondiaux basés sur l'espace 2022 | | | | |
| HORIZON-CL4-2022-SPACE-01-11: Future space ecosystems: on-orbit operations, preparation of orbital demonstration mission | RIA | 26 M€ | | |
| HORIZON-CL4-2022-SPACE-01-12: Technologies and generic building blocks for Electrical Propulsion | IA | 5,1 M€ | | |
| HORIZON-CL4-2022-SPACE-01-13: End-to-end Earth observation systems and associated services | IA | 8,1 M€ | | |
| HORIZON-CL4-2022-SPACE-01-21: Multi sites flexible industrial platform and standardised technology for improving interoperability of European access to space ground facilities | RIA | 2 M€ | | |

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| HORIZON-CL4-2022-SPACE-01-41: Copernicus Marine Environment Monitoring Service evolution | RIA | 10 M€ | 02-11-21 | 16-02-22 |
| HORIZON-CL4-2022-SPACE-01-42: Copernicus Anthropogenic CO₂ Emissions Monitoring & Verification Support (MVS) capacity | RIA | 6 M€ | | |
| HORIZON-CL4-2022-SPACE-01-43: Copernicus Land Monitoring Service evolution | RIA | 5 M€ | | |
| HORIZON-CL4-2022-SPACE-01-62: Space Weather | RIA | 2 M€ | | |
| HORIZON-CL4-2022-SPACE-01-72: Education and skills for the EU space sector | CSA | 3 M€ | | |
| HORIZON-CL4-2022-SPACE-01-81: Space technologies for European non-dependence and competitiveness | RIA | 10,5 M€ | | |
| HORIZON-CL4-2022-SPACE-01-82: Space science and exploration technologies | RIA | 8 M€ | | |



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Numérique, Industrie, Espace

Destination - Un développement éthique et centré sur l'humain des technologies numériques et industrielles

| Titre | Type | Budget | Date d'ouverture | Date limite |
|---|------|---------|------------------|-------------|
| Un développement éthique et centré sur l'humain des technologies numériques et industrielles 2022 | | | | |
| HORIZON-CL4-2022-HUMAN-01-01: AI for human empowerment (AI, Data and Robotics Partnership) | RIA | 16 M€ | 23-11-21 | 05-04-22 |
| HORIZON-CL4-2022-HUMAN-01-02: European Network of AI Excellence Centres: Expanding the European AI lighthouse | RIA | 34,5 M€ | | |
| HORIZON-CL4-2022-HUMAN-01-03: Internet architecture and decentralised technologies | RIA | 22 M€ | | |
| HORIZON-CL4-2022-HUMAN-01-05: Next Generation Safer Internet: Technologies to identify digital Child Sexual Abuse Material (CSAM) | RIA | 2 M€ | | |
| HORIZON-CL4-2022-HUMAN-01-07: NGI International Collaboration - USA and Canada | RIA | 6 M€ | | |
| HORIZON-CL4-2022-HUMAN-01-14: eXtended Reality Technologies | RIA | 19 M€ | | |
| HORIZON-CL4-2022-HUMAN-01-19: eXtended Reality Learning - Engage and Interact | IA | 21,5 M€ | | |

