

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€		
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€	12-10-21	30-03-22
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€		
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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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€		
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 2021				
HORIZON-CL4-2021-DATA-01-01: Technologies and solutions for compliance, privacy preservation, green and responsible data operations (AI, Data and Robotics Partnership)	RIA	52 M€	22-06-21	21-10-21
HORIZON-CL4-2021-DATA-01-03: Technologies for data management (AI, Data and Robotics Partnership)	IA	30 M€		
HORIZON-CL4-2021-DATA-01-05: Future European platforms for the Edge: Meta Operating Systems	RIA	54 M€		
HORIZON-CL4-2021-DATA-01-07: Coordination and Support of the 'Cloud-Edge-IoT' domain	CSA	3 M€		
HORIZON-CL4-2021-DATA-01-08: Roadmap for next generation computing and systems technologies	CSA	2 M€		
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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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-01-01: Ultra-low-power, secure processors for edge computing	RIA	26 M€	22-06-21	21-10-21
HORIZON-CL4-2021-DIGITAL-EMERGING-01-05: Open Source Hardware for ultra-low-power, secure processors	CSA	2 M€		
HORIZON-CL4-2021-DIGITAL-EMERGING-01-06: Advanced optical communication components (Photonics Partnership)	IA	26 M€		
HORIZON-CL4-2021-DIGITAL-EMERGING-01-07: Advanced Photonic Integrated Circuits (Photonics Partnership)	RIA	39 M€		
HORIZON-CL4-2021-DIGITAL-EMERGING-01-09: AI, Data and Robotics for the Green Deal (AI, Data and Robotics Partnership)	IA	27 M€		
HORIZON-CL4-2021-DIGITAL-EMERGING-01-10: AI, Data and Robotics at work (AI, Data and Robotics Partnership)	IA	22 M€		
HORIZON-CL4-2021-DIGITAL-EMERGING-01-11: Pushing the limit of robotics cognition (AI, Data and Robotics Partnership)	RIA	44,5 M€		
HORIZON-CL4-2021-DIGITAL-EMERGING-01-12: European Network of Excellence Centres in Robotics	RIA	11,5 M€		
HORIZON-CL4-2021-DIGITAL-EMERGING-01-13: Academia-Industry Forum on Emerging Enabling Technologies	CSA	2,5 M€		
HORIZON-CL4-2021-DIGITAL-EMERGING-01-14: Advanced spintronics: Unleashing spin in the next generation Ics	RIA	17 M€		
HORIZON-CL4-2021-DIGITAL-EMERGING-01-21: Next generation quantum sensing technologies	RIA	13,5 M€		
HORIZON-CL4-2021-DIGITAL-EMERGING-01-23: International cooperation with Canada	RIA	4 M€		
HORIZON-CL4-2021-DIGITAL-EMERGING-01-26: Coordination of European Smart Network actions	CSA	3 M€		
HORIZON-CL4-2021-DIGITAL-EMERGING-01-27: Development of technologies/devices for bio-intelligent manufacturing	RIA	22,5 M€		
HORIZON-CL4-2021-DIGITAL-EMERGING-01-30: Investing in new emerging quantum computing technologies	RIA	10 M€		
HORIZON-CL4-2021-DIGITAL-EMERGING-01-31: Functional electronics for green and circular economy	RIA	35 M€		

HORIZON-CL4-2021-DIGITAL-EMERGING-01-32: Support and coordination of the Quantum Technologies Flagship Initiative	CSA	6,4 M€		
HORIZON-CL4-2021-DIGITAL-EMERGING-02-10: Strengthening the quantum software ecosystem for quantum computing platforms	RIA	12 M€		
HORIZON-CL4-2021-DIGITAL-EMERGING-02-16: Basic Science for Quantum Technologies	RIA	16 M€	28-10-21	27-01-22
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€		
HORIZON-CL4-2022-DIGITAL-EMERGING-01-05: AI, Data and Robotics for Industry optimisation (including production and services) (AI, Data and Robotics Partnership)	IA	19 M€		
HORIZON-CL4-2022-DIGITAL-EMERGING-01-06: Pushing the limit of physical intelligence and performance	RIA	28,5 M€		
HORIZON-CL4-2022-DIGITAL-EMERGING-01-07: Increased robotics capabilities demonstrated in key sectors (AI, Data and Robotics Partnership)	IA	36 M€	23-11-21	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-02-17: 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€		
HORIZON-CL4-2022-DIGITAL-EMERGING-02-19: 2D materials-based devices and systems for biomedical applications	RIA	6 M€	16-06-22	16-11-22
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€	28-10-21	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€		

HORIZON-CL4-2022-SPACE-01-41: Copernicus Marine Environment Monitoring Service evolution	RIA	10 M€	28-10-21	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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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 2021				
HORIZON-CL4-2021-HUMAN-01-01: Verifiable robustness, energy efficiency and transparency for Trustworthy AI: Scientific excellence boosting industrial competitiveness (AI, Data and Robotics Partnership)	RIA	36 M€		
HORIZON-CL4-2021-HUMAN-01-02: European coordination, awareness, standardisation & adoption of trustworthy European AI, Data and Robotics (AI, Data and Robotics Partnership)	CSA	13 M€		
HORIZON-CL4-2021-HUMAN-01-03: European Network of AI Excellence Centres: Pillars of the European AI lighthouse	RIA	9 M€		
HORIZON-CL4-2021-HUMAN-01-04: Trust & data sovereignty on the Internet	RIA	26 M€		
HORIZON-CL4-2021-HUMAN-01-05: Trustworthy open search and discovery	RIA	2 M€		
HORIZON-CL4-2021-HUMAN-01-06: Innovation for Media, including eXtended Reality	IA	5 M€		
HORIZON-CL4-2021-HUMAN-01-07: Next Generation Internet community-building and outreach	CSA	2 M€		
HORIZON-CL4-2021-HUMAN-01-08: NGI International Collaboration - Transatlantic fellowship programme	CSA	1,5 M€		
HORIZON-CL4-2021-HUMAN-01-09: NGI Tech Review	CSA	14,5 M€		
HORIZON-CL4-2021-HUMAN-01-13: eXtended Reality Modelling	RIA	6 M€		
HORIZON-CL4-2021-HUMAN-01-14: eXtended Reality for All – Haptics	RIA	1 M€		
HORIZON-CL4-2021-HUMAN-01-17: Awareness raising on Intellectual property (IP) management for European R&I	CSA	8,5 M€	22-06-21	21-10-21
HORIZON-CL4-2021-HUMAN-01-18: Fostering standardisation to boost European industry's competitiveness	CSA	10 M€		
HORIZON-CL4-2021-HUMAN-01-19: Testing innovative solutions on local communities' demand	CSA	14 M€		
HORIZON-CL4-2021-HUMAN-01-20: Piloting a new industry-academia knowledge exchange focussing on companies' needs	CSA	5 M€		
HORIZON-CL4-2021-HUMAN-01-21: Art-driven use experiments and design	RIA	13 M€		
HORIZON-CL4-2021-HUMAN-01-24: Tackling gender, race and other biases in AI	RIA	12 M€		
HORIZON-CL4-2021-HUMAN-01-25: eXtended Collaborative Telepresence	IA	1 M€		

HORIZON-CL4-2021-HUMAN-01-26: Workforce skills for industry 5.0	RIA	1 M€		
HORIZON-CL4-2021-HUMAN-01-27: AI to fight disinformation	RIA	17 M€		
HORIZON-CL4-2021-HUMAN-01-28: eXtended Reality Ethics, Interoperability and Impact	CSA	2 M€		
HORIZON-CL4-2021-HUMAN-01-29: Support for transnational activities of National Contact Points in the thematic area of Digital	CSA	2,5 M€		
HORIZON-CL4-2021-HUMAN-01-30: Support for transnational activities of National Contact Points in the thematic area of Industry	CSA	2,5 M€		
HORIZON-CL4-2021-HUMAN-01-31: Support for transnational activities of National Contact Points in the thematic area of Space	CSA	1,5 M€		
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€		