

Overview of synergies Digital Europe/Horizon Europe/CEF Digital in support to Multi-country projects – 2021-2022

Multi-country-projects	Activities and Budget under EU Programme		
	Digital Europe WP 2021-2022	Horizon Europe WP 2021-2022	CEF Digital WP 2021-2023
European Common data infrastructure and services	2.1.1 Smart middleware for a European cloud federation and for the European data spaces	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€)	EF-DIG-2021-TA-PLATFORMS: Preparation of works for Operational digital platforms (CSA, 4M€)
	2.1.2 Large scale pilots for cloud-to-edge-based services	HORIZON-CL4-2021-DATA-01-03: Technologies for data management (AI, Data and Robotics Partnership) (IA, 30 M€)	Backbone networks for pan-European Cloud federation
	2.1.3 Marketplace for federated cloud-to-edge-based services	HORIZON-CL4-2021-TWIN-TRANSITION-01-08 Data-driven Distributed Industrial Environments (Made in Europe Partnership) (IA: 24 M€)	
	2.2.2.1 Data Spaces Support Centre	HORIZON-CL4-2022-DATA-01-04: Technologies and solutions for data trading, monetizing, exchange and interoperability (AI, Data and Robotics Partnership) (IA, 52 M€)	
	2.2.2.2 Public Sector Open Data for AI and Open Data Platform		
	2.2.1 All the topics in section data spaces (i.e. all sectorial data spaces covered by this Work Programme)	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€)	
	DIGITAL-2021-CLOUD-AI-01-PREP-DSMOB Data Space for Mobility (CSA, 1 M€)	HORIZON-CL4-2022-DATA-01-05: Extreme data mining, aggregation and analytics technologies and solutions (RIA, 30 M€)	
	DIGITAL-2021-PREFACTS-DS-01-AGRI Preparatory actions for the data space for Agriculture (CSA, 2 M€)		

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	<p>DIGITAL-2022-CLOUD-AI-DEPLOYMENT-DS-MOB Data Space for Mobility (Simple Grant, 8 M€)</p>	<p>HORIZON-CL4-2021-HUMAN-01-06: Innovation for Media, including extended Reality (IA, 26 M€)</p> <p>HORIZON-CL4-2021-DATA-01-05: Future European platforms for the Edge: Meta Operating Systems (RIA, 54 M€)</p> <p>HORIZON-CL4-2021-DATA-01-07: Coordination and Support of the 'Cloud-Edge-IoT' domain (CSA, 3 M€)</p> <p>HORIZON-CL4-2021-DATA-01-08: Roadmap for next generation computing and systems technologies (CSA, 2 M€)</p> <p>HORIZON-CL4-2022-DATA-01-02: Cognitive Cloud: AI-enabled computing continuum from Cloud to Edge (RIA, 50 M€)</p> <p>HORIZON-CL4-2022-DATA-01-03: Programming tools for decentralised intelligence and swarms (RIA, 40 M€)</p> <p>HORIZON-CL5-2021-D3-01-12: Establish the grounds for a common European energy data space (IA 32 M€)</p> <p>HORIZON-CL5-2021-D3-01-13: Reinforcing digitalisation related know how of local energy ecosystems (CSA 4 M€)</p>	

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		<p>HORIZON-CL6-2021-GOVERNANCE-01-19 - Development of the markets and use of digital technologies and infrastructure in agriculture – State of play and foresight: Digital- and Data technologies for the agricultural (4 M€)</p> <p>HORIZON-CL6-2021-GOVERNANCE-01-20 – Data economy in the field of agriculture – Effects of data sharing and big data (4 M€)</p>	
	TOTAL WP 2021-22: 330 M€	TOTAL WP 2021-22: 416 M€	TOTAL WP 2021-23: 140 M€
Secure quantum communication infrastructure (EuroQCI)	<p>3.1.1 Create a European Industrial Ecosystem for Secure QCI technologies and systems</p> <p>3.1.2 Deploying advanced national QCI systems and networks</p> <p>3.1.3 Coordinate the first deployments of national EuroQCI projects and prepare the large-scale Quantum Key Distribution (QKD) testing and certification infrastructure</p> <p>3.1.4 Deploy a large-scale testing and certification infrastructure for QKD devices, technologies and systems</p>	<p>HORIZON-CL4-2021-DIGITAL-EMERGING-02-19: Framework Partnership Agreements in Quantum Communications (FPA)</p> <p>‘OTHER ACTION’: 12. HORIZON-CL4-QUANTUM-04-SGA - Quantum encryption and future quantum network technologies (SGA, 25 M€)</p>	<p>European Quantum Communication Infrastructure (call 2022)</p> <ul style="list-style-type: none"> • Cross-border connections • Interconnection space segment • Links with SOCs • Management of encryption keys • (procurement of the first generation of satellites – via ESA)

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	Digital Europe WP 2021-2022	Horizon Europe WP 2021-2022	CEF Digital WP 2021-2023
	enabling their accreditation and rollout in EuroQCI		
	TOTAL WP 2021-22: 170 M€	TOTAL WP 2021-22: 25 M€	TOTAL WP 2021-2023: 200 M€
Genome of Europe	2.2.1.7.1 Health data space - Federated European Infrastructure for Genomics data	<p>HORIZON-HLTH-2022-STAYHLTH-01-04-two-stage: Trustworthy artificial intelligence (AI) tools to predict the risk of chronic non-communicable diseases and/or their progression (60 M€)</p> <p>HORIZON-HLTH-2021-DISEASE-04-04: Clinical validation of artificial intelligence (AI) solutions for treatment and care (60 M€)</p> <p>HORIZON-HLTH-2021-DISEASE-04-07 Personalised medicine and infectious diseases: understanding the individual host response to viruses (e.g., SARS-CoV-2) (60 M€)</p>	N/A
	TOTAL WP 2021-22: 20 M€	TOTAL WP 2021-22: 180 M€	N/A
Processors and semiconductors chips	2.1.5 Testing and Experimentation Facility for Edge AI	<p>1) KDT JU: 460 M€ in 2021-2022</p> <p>2) Cluster 4 WP:</p> <p>HORIZON-CL4-2021-DIGITAL-EMERGING-01-01: Ultra-low-power, secure processors for edge computing (RIA, 26M€)</p>	N/A

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	Digital Europe WP 2021-2022	Horizon Europe WP 2021-2022	CEF Digital WP 2021-2023
		<p>HORIZON-CL4-2021-DIGITAL-EMERGING-01-05: Open-Source Hardware for ultra-low-power, secure processors (CSA, 2M€)</p> <p>HORIZON-CL4-2021-DIGITAL-EMERGING-01-31: Functional electronics for green and circular economy (RIA, 35M€)</p> <p>HORIZON-CL4-2022-DIGITAL-EMERGING-01-38: International cooperation in semiconductors (CSA, 3M€)</p> <p>HORIZON-CL4-2022-DIGITAL-EMERGING-01-03 Advanced multi-sensing systems (RIA, 48 M€)</p> <p>HORIZON-CL4-2021-DIGITAL-EMERGING-01-07 Advanced Photonic Integrated Circuits (RIA, 39 M€)</p> <p>HORIZON-CL4-2021-DIGITAL-EMERGING-01-06 Advanced optical communication components (IA, 26 M€)</p>	
	TOTAL WP 2021-22: 77 M€	TOTAL HE WP 2021-22: 460€M+179 M€	N/A
Connected public administration	5.3.1 European Digital Government Eco System (EDGES)	N/A	N/A

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	Digital Europe WP 2021-2022	Horizon Europe WP 2021-2022	CEF Digital WP 2021-2023
	5.3.2 Justice and consumer protection 2.2.1.12 Data spaces for Public Administrations		
	TOTAL WP 2021-22: 184 M€	N/A	N/A
European Blockchain Services Infrastructure	EBSI has the ambition to become an EDIC to strengthen the European nature, MS cooperation and co-financing as well as supporting its legal framework for operating services in a pan-European network with public and private organisation managing and operating nodes. 5.2 European Blockchain Services Infrastructure (EBSI) and Regulatory Sandbox Pilot project(s) are also expected to leverage EBSI as part of the 5.4. EuID topic (toolbox)	N/A	N/A
	TOTAL WP 2021-22: at least 38 M€ (5.2 budget)	N/A	N/A

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	Digital Europe WP 2021-2022	Horizon Europe WP 2021-2022	CEF Digital WP 2021-2023
High-tech partnerships for digital skills and specialized education	4. Advanced Digital Skills	N/A	N/A
	TOTAL WP 2021-22: 166 M€	N/A	N/A
Supercomputing and Quantum	<p>Jointly investing in acquiring and operating:</p> <ul style="list-style-type: none"> • Petascale Supercomputer • Pre-exascale and/or Exascale supercomputers • Quantum computers (as standalone machines or as accelerators of supercomputers) • Connecting with the EuroHPC extreme-bandwidth communication network <p>Investing and cooperating in HPC national competence centres and HPC & Quantum skills</p>	EuroHPC JU - cf WP EuroHPC for details	tbc
	TOTAL WP 2021-22: 566 M€	TOTAL 243 M€ from Horizon in 2021-2022	
5G corridors	N/A	The SNS JU is the main vehicle to coordinate the MCP on 5G Corridors. While there is no funding from Horizon Europe for corridor deployment (see column on CEF), the SNS JU is tasked to	5G coverage along transport corridors: Priority set on cross-border sections of 5G corridors under the 1st WP covering the

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		<p>provide guidance to and coordination of 5G deployment activities funded under CEF and other EU and national programmes such as the RRF. This will contribute to consistency and best practice exchange among the projects, setting-up project pipelines and community building in particular for CEF and RRF. A dedicated SNS Working Strategic Group is currently delivering this task and it will be supported by a CSA funded under CEF Digital.</p>	<p>early wave (2022) and first big wave (2023-24) of deployment works.</p> <p>Proposals to be endorsed by Member States concerned, and support may include as well regional and local authorities.</p> <p>Public bodies can participate in the project consortium, e.g. public road authorities, road operators or rail companies.</p> <p>Under Call 1, “Early wave” 8 projects co-funded under CEF Digital kick-started at the beginning of 2023, 7 Works and 8 Inception studies projects, for a combined amount of EUR 41.6 M€ (grants).</p> <p>The consumed budget for the 2021-2023 period, depending on the outcome of Call 2 (7 projects selected, final validation pending) and Call 3 – that will be based on the 8 Inception Study projects under Call 1 and possibly more under Call 2, currently stands at EUR 229.6 M€.</p>

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	Digital Europe WP 2021-2022	Horizon Europe WP 2021-2022	CEF Digital WP 2021-2023
	N/A		TOTAL WP 2021-23: 346 M€
European Digital Innovation Hubs	The establishment of the network will be supported from the Digital Europe Programme, to be matched by a similar investment from Member States.	HORIZON-CL4-2022-TWIN-TRANSITION-01-06, ICT Innovation for Manufacturing Sustainability in SMEs (I4MS2) (Made in Europe Partnership) (IA: 30 M€)	N/A
	TOTAL WP 2021-23: 329,3 M€	TOTAL HE WP 2021-22: 30 M€	N/A
Security Operation Centres (SOC)	The creation, interconnection and strengthening of Security Operations Centres (SOC) can improve cybersecurity resilience with faster detection and response to cybersecurity incidents at national and EU level by leveraging disruptive technologies and sharing of information leading to increased situational awareness and stronger EU supply chains. A key element will be capacity building, e.g., by leveraging artificial intelligence and dynamic learning of the threat landscape.	<p>HORIZON-CL3-2021-CS-01-03 AI for cybersecurity reinforcement (RIA, 11M€)</p> <p>HORIZON-CL3-2022-CS-01-01 Improved monitoring of threats, intrusion detection and response in complex and heterogeneous digital systems and infrastructures (RIA, 21M€)</p> <p>HORIZON-CL3-2021-CS-01-04 Scalable privacy-preserving technologies for cross-border federated computation in Europe involving personal data (RIA, 17M€)</p>	
	TOTAL WP 2021-22: 110 M€	TOTAL WP 2021-22: 49 M€	N/A

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	Digital Europe WP 2021-2022	Horizon Europe WP 2021-2022	CEF Digital WP 2021-2023
[AI synergies – not an MCP]	<p>Testing and Experimentation Facilities on AI (WP21-22 in sectors: healthcare, agri-food, manufacturing, smart cities and communities).</p> <p>Deployment of the AI on Demand Platform (one-stop shop to access AI tools for the European industry and for public administrations).</p>	<p>(AI, Data and Robotics topics developing solutions that can be tested and validated in the TEFs)</p> <p>AI on Demand Platform - maintenance and necessary developments and services provision for the AI-on-demand-platform, with a focus on supporting the research community.</p>	N/A
	TOTAL WP 2021-2022: 1139 M€	TOTAL WP 2021-22: 9M€	N/A
Europe Start-ups Nations Alliance (ESNA)	<p>The Access to Finance standard (one 8 “EU Start-up nation standards” that ESNA will support EU countries in implementing) will benefit from the €50m Strategic Digital Technologies (SDT) that DEP is supporting. SDT will provide an investment Platform focusing on aims to mobilize private co-investment on a scale that addresses the financing gap in the market. The SDT will also be accompanied by an investment support programme for this purpose.</p>	<p>The Europe Start-up Nations Alliance (ESNA) was established in Dec 2021 under Portuguese law to support the 27 countries (26 EU MS & Iceland) that signed the Europe Start-ups Nations Standard declaration (declaration launched in March 2021 at Digital Day 4). ESNA will support these countries in implementing the best practices that underpin a growth friendly environment for start-ups. ESNA has the ambition to become an EDIC and so strengthen the European nature of its vocation. ESNA is financed by the European Commission (€1m Horizon Europe grant) and the Portuguese Resilience and Recovery Plan (€7,5m).</p> <p>ESNA’s goals are also supported by the €4m HE funding for a tech due diligence and venture building pilot (launching Q1 2022). This is highly</p>	

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		relevant to the tech transfer standard of the EU Start-up Nations Standard for which ESNA is also supporting MS.	
		TOTAL WP 2021-22: <ul style="list-style-type: none"> • ESNA: 1 M€ • Tech Due Diligence and venture Building pilot: 4 M€ 	N/A