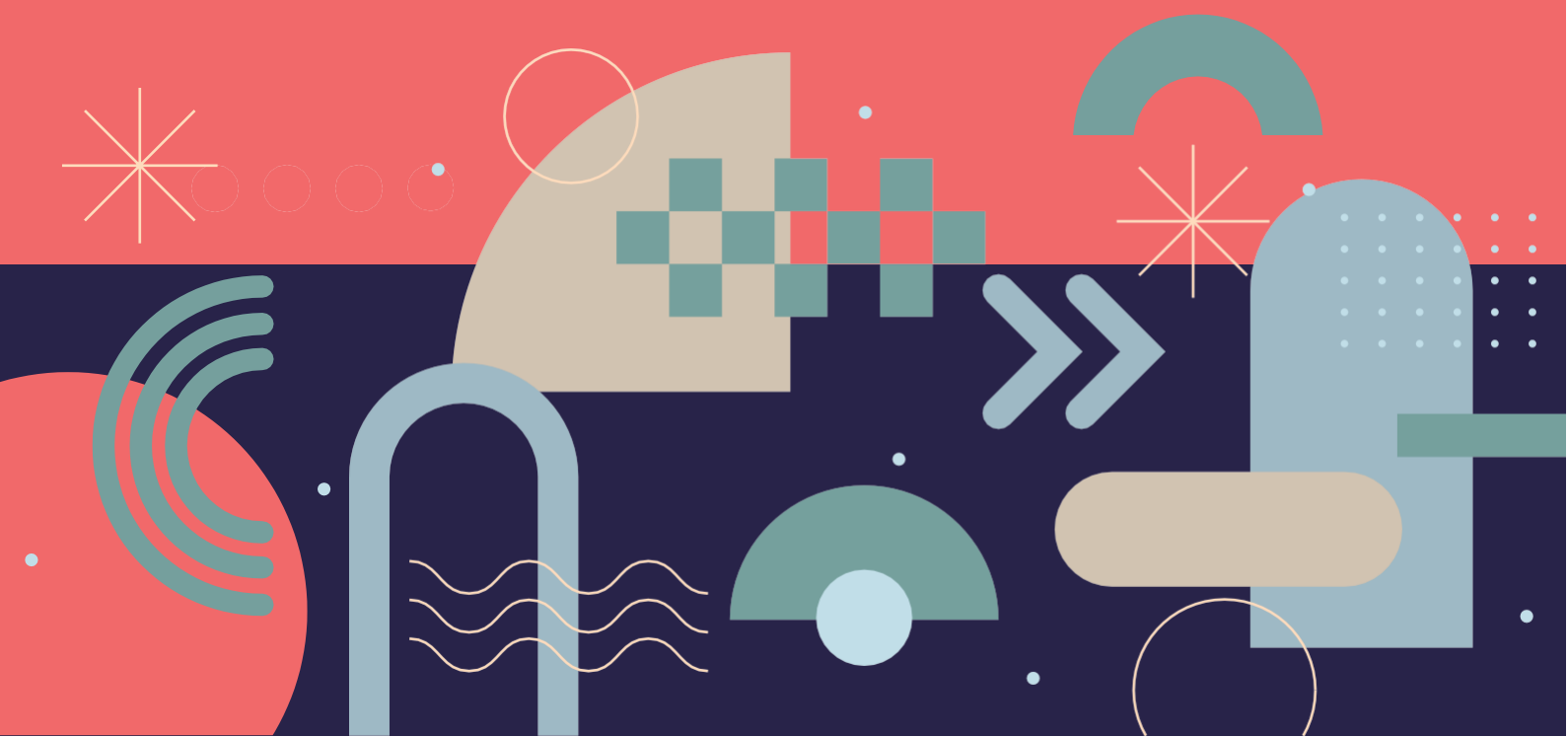


Funding Opportunities Report

# DIGITAL EUROPE 2023



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## Funding Opportunities Report

# DIGITAL EUROPE 2023

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## 2. DIGITAL-2023-CLOUD-AI-04-GENOME (DIGITAL-SIMPLE)

### *Genome of Europe*

Status	Opening date	Deadlines	Funding type	Keywords
Open	11 may. 2023	26 sept. 2023	DIGITAL-SIMPLE DIGITAL Simple Grants	

#### **Expected Outcome:**

Joint or coordinated sequencing (WGS), as described under Scope. New WGS data for a large number of representative European citizens, to be further specified in the call document, generated in accordance with the guidance, specifications and standards agreed within 1+MG (1+MG Trust Framework). Integration of eligible population-based WGS data generated independently of the GoE and made available to the project. The Genome of Europe federated reference database established and accessible through the federated European genomic data infrastructure and the European Health Data Space (EHDS) infrastructure for secondary use of health data (HealthData@EU).

#### **Objective:**

This action will support the implementation of the Genome of Europe (GoE) multi-country project and contribute to achieving the objectives and long-term ambition of the 1+Million Genomes (1+MG) initiative. GoE aims to establish and launch a European reference genome database of genetic variation obtained by whole genome sequencing (WGS) for at least 500,000 citizens based on population-based national reference genome collections, collectively representative of the European population. GoE has the potential to foster break-through advances in research, innovation, disease prevention and healthcare delivery, widely spread across clinical disciplines, beyond current use cases (disease areas). Moreover, creation of a reference database will allow meaningful savings in healthcare systems as it will enable data imputation and enrichment of genotype information. A concerted genome sequencing effort is necessary to achieve a critical mass of WGS data across Europe. By fostering it, this action is expected to bring major efficiencies due to economies of scale and should enable all GoE countries to contribute with WGS data. It will also ensure consistent application of agreed common data requirements and quality measures across all national datasets, enabling the creation of a high-value European reference dataset.

The objective is also to support the initiative taking into account the potential creation of a European Digital Infrastructure Consortium (EDIC).

#### **Scope:**

The focus of the action is on whole genome sequencing at clinical grade depth necessary for clinical application. This can be achieved by coordinated WGS sequencing expected to enable massive new data collection in all GoE countries. WGS data for the GoE must be generated following the 1+MG Trust Framework that brings together a set of minimal recommendations to enable secure cross-border access to genomic data in Europe, in particular as regards ethical and legal aspects, data standards, data quality and technical inter-operability. To this end, sequencing specifications should follow the available 1+MG guidance and align closely with that initiative.

The biological samples needed to generate the data, i.e., to sequence the genomes, can either originate from existing population-based cohorts and national biobanks, or be collected from participants recruited specifically for the national and European GoE reference databases. The participants will be selected at the national level to be representative of the respective population, including a contribution of relevant minorities. To ensure uniform approach, the exact inclusion and selection principles need to be agreed at the European GoE level.

In parallel to data generating activities (WGS sequencing), the architecture, hardware and software necessary to aggregate national reference databases into a European reference database (The Genome of Europe) need to be designed, developed and implemented in cooperation with the Genomic Data Infrastructure (GDI) project. As well as newly generated GoE data, this

should ensure effective integration of available national population-based WGS collections established before or independently of the GoE. The GoE database must be interoperable with and accessible through the 1+MG data infrastructure and equally aligned with the European Health Data Space (EHDS), in particular the infrastructure for secondary use of health data (HealthData@EU).

For data security reasons, sample transport, all WGS activities and genomic data transfer and storage must take place within the territory of eligible countries.

The GoE project forms an integral part of 1+MG and GoE data will be accessible via the European federated genomics data infrastructure (GDI) deployed under the Digital Europe topic DIGITAL-2021-CLOUD-AI-01-FEI-DS-GENOMICS. Besides Digital Europe's Data Spaces, the topic is also synergetic with the RRF support for the GoE multi-country project as stipulated in the national recovery and resilience plans of several Member States. Cooperation with other relevant European initiatives, and due consideration of other projects and infrastructures, for example those funded under the Horizon 2020 and Horizon Europe research and innovation programmes and the EU4Health Programme (e.g. Genomics for Public Health), will be strongly recommended to build on and bring forward their results as well as to ensure a good use of synergies and complementarities.

The awarded project will use, in so far as possible, the smart cloud-to-edge middleware platform Simpl, and have to work in partnership with the Data Spaces Support Centre deployed under the first W in order to ensure alignment with the rest of the ecosystem of data spaces implemented with the support of Digital Europe Programme. The joint work will target the definition of the data space reference architecture, building blocks and common toolboxes; the common standards, including semantic standards and interoperability protocols, both domain-specific and crosscutting;

The data governance models, business models and strategies for running data spaces.

## 5. DIGITAL-2023-CLOUD-AI-04-COORDINATEF (DIGITAL-CSA)

### *Coordination of AI sectorial testing and experimentation facilities*

Status	Opening date	Deadlines	Funding type	Keywords
Open	11 may. 2023	26 sept. 2023	DIGITAL-CSA DIGITAL Coordination and Support Actions	

#### **Expected Outcome:**

Action plan organised along different domains: technological, business models, skills development, dissemination, legal aspects, outreach, etc., to develop links and synergies with EDIHs, data spaces, edge AI TEF, network of AI research excellence centres, and the AI-on-demand platform. A catalogue of common resources and services across the TEFs. Joint dissemination and communication plan with TEFs on their activities and services, to be implemented within the project duration. A specialised support unit to coordinate co-funding instruments, including regular interactions with Member State's administrations, including with regards to Grant Agreements. Technical mechanisms for a seamless exchange of assets with the AI-on-Demand platform. Delivery of individual and targeted sectorial sections within the platform (distributed model). A specialised business consultancy unit focussing on business and go-to-market strategy, optimising TEF business sustainability. Periodic impact assessment and road-mapping: collection and analysis of the key performance indicators (KPI) defined for the TEFs and sharing of good practices and lessons learnt.

#### **Objective:**

The Coordination and support action grant will support the sectorial Testing and Experimentation Facilities (TEFs) created under the WP 2021-2022 (Health, Manufacturing, Agri-Food, Smart Cities and Communities) and the future new ones to be created under the Digital Europe Programme, to develop complementary cross-TEF activities in providing AI services from a cross-sector perspective, to maximise the overall impact of TEFs in their ambitions of achieving world-class excellence and help the sectorial TEFs to better link with relevant EU projects, initiatives and stakeholders in the AI ecosystem of excellence. By boosting the reinforcing feedback loops, the CSA will also bolster the sectorial TEF's and the ecosystem's sustainability.

Once the sectorial TEFs funded under the 2021 call are established, it is necessary to coordinate the TEFs with other actions launched in the Digital Europe Programme (in particular data spaces, the edge AI TEF, the AI-on-demand platform, relevant cloud and HPC initiatives) and to develop a strong ecosystem around the TEFs enabling a faster and growing adoption of AI technologies in the European market.

#### **Scope:**

The CSA will help develop synergies and exchanges between the TEFs, and with other relevant projects, such as the European Digital Innovation Hubs (EDIHs), data spaces, network of excellence research centres, and other actions funded e.g. under DEP and Horizon Europe, AI-on-demand platform, and the community at large. It will establish strong links with Edge to Cloud and relevant HPC actions funded under strategic objective 1 (EuroHPC JU), using when appropriate the SIMPL platform as a connector, and help TEFs to make the most out of all these resources and services. It will support the running projects in allowing economies of scales regarding common activities run by the individual networks (e.g., organization of events, access to common resources, mentoring and exchange mechanisms among TEFs, integration with 3rd party services and other EU funded projects, etc.) and exchanges of best practices to reinforce and optimize cooperation. It will support TEFs to help companies using their services to comply with the AI Act. This could be through regulatory sandboxes, standards, certifications, labelling schemes, research methodologies for the explainability of AI systems and collaboration with public authorities, depending on what TEF themselves offer and what additional or complementary support to the companies is needed. It will support TEFs in their dissemination activities towards industry, users and public administrations. Special attention should be on coordinating mentoring and twinning programmes for innovators in order to foster fair participation and potential expansion of TEFs activities

across Europe to complement and reinforce the on-going TEFs. It should contribute to the visibility of AI & robotics in Europe, building on technologies tested in TEFs and targeting sectorial audiences, with a clear focus on real world applicability. Support and coordination with regards to co-funding instruments, helping TEFs in common approaches towards Member States including support and exchange of best practices in the implementation and reporting requirements imposed by state-aid rules, contractual requirements, interpretation of the Grant Agreements etc. Act as facilitator for cooperation with the AI-on-demand platform. Foster contribution from TEFs and channelling TEFs needs towards the AI-on-demand platform. Facilitate coordination with the edge AI TEF. Solutions developed and tested in the former could be later integrated and tested in the sectorial TEFs. The CSA will establish the necessary resources to help and support TEFs in their coordinated go-to-market approach, including but not limited to sustainability plans, sale strategies, price lists, etc. Facilitate exchanges with EDIHs and national competence centres, etc. to maximise the opportunities offered e.g., to maximise the outreach to all regions across Europe). Support the European Commission in the monitoring of existing TEFs, assessing progress and providing recommendations for their implementation and drawing lessons for policy-making. Targeted stakeholders: The consortium should include a relevant representation of all the sectorial TEFs selected from the 1st call of the Digital Europe Programme, to ensure that the selected CSA optimally support their coordination. These organisations will be subject to Article 12(6) of Regulation (EU) 2021/694.

## 7. DIGITAL-2023-CLOUD-DATA-04-DIGIPASS (DIGITAL-SIMPLE)

### **Digital Product Passport**

Status	Opening date	Deadlines	Funding type	Keywords
Open	11 may. 2023	26 sept. 2023	DIGITAL-SIMPLE DIGITAL Simple Grants	

#### **Expected Outcome:**

Deployed and validated at scale and real life setting Digital Product Passports in at least two value chains. Report on further needs for standardisation and specifications to ensure interoperability, security and acceptance by all the stakeholders. Recommendations based on the lessons learnt for the deployments of DPP in other value chains.

#### **Objective:**

To enable sharing of key product related information that are essential for products' sustainability and circularity, including those specified in Annex III of ESPR proposal, across all the relevant economic actors. Consequently, to accelerate the transition to circular economy, boosting material and energy efficiency, extending products lifetimes and optimizing products design, manufacturing, use and end of life handling. To provide new business opportunities to economic actors through circular value retention and optimisation (for example product-as-a-service activities, improved repair, servicing, remanufacturing, and recycling) based on improved access to data; To help consumers in making sustainable choices; and To allow authorities to verify compliance with legal obligations.

#### **Scope:**

Support one Pilot action that will demonstrate in real setting and at scale DPPs in at least 2 value chains (product categories) with a preference to those with long and complex supply chain and/or challenging repair, refurbishment and recycling. This DPP information system should rely on international or European standards in the following areas: data carriers and unique identifiers, access rights management, Interoperability (technical, semantic, organisation) including data exchange protocols and formats, data storage, data processing (introduction, modification, update), data authentication, reliability, and integrity, data security and privacy. Where possible, this will consist in using the smart cloud-to-edge middleware platform Simpl. The access to information included in the DPP should be role-dependent (i.e., differentiated by stakeholder type). The full interoperability of the same DPP information system among different supply chains should be one of the characteristics tested and proven by the pilot.

The pilot will build on the available results of the Coordination and support action (CIRPASS) as well as other relevant initiatives. It will also consider the appropriateness of the latest tracking and tracing technologies, internet of things systems, distributed ledger technologies, cybersecurity methods and cloud technologies and infrastructures (such as GAIA-X).

A specific contribution is expected on demonstrating at large scale the feasibility of acquiring, managing and securely sharing the data held or generated by operators such as supply chain actors, manufacturers, resellers, repairers, remanufacturers, and recyclers, along these value chains for which an access by other relevant stakeholders would have a major beneficial impact on circularity and sustainability.

The real-life deployment should validate and further improve protocols for secure and tailored access for the relevant stakeholders. It should test in real life setting open digital solutions for identification, tracking, mapping and sharing of product information along its life-cycle, ensuring interoperability across borders and a well-functioning EU Internal Market. This pilot will build on existing open international and European standards with the aim to provide for a consistent operational framework.

## 8. DIGITAL-2023-DEPLOY-04-EDMO-HUBS (DIGITAL-SME)

### ***European Digital Media observatory (EDMO) - National and multinational hubs***

Status	Opening date	Deadlines	Funding type	Keywords
Open	11 may. 2023	26 sept. 2023	DIGITAL-SME Digital SME Support Actions	

#### **Expected Outcome:**

At the end of the actions, a network of existing and newly established research hubs will be active across the EU under the coordination of EDMO. Networks of experts and organisations linked to the hubs will be part of a European multidisciplinary community which will actively detect, analyse and expose disinformation campaigns in Europe. Each hub will have produced or contribute to at least 100 fact-checks, 20 investigations and reports on disinformation campaigns and shared them through EDMO. Each hub will have established at least 10 tailor-made media literacy programs in Member States and produced reports (at least 1 per year) regarding the implementation and effectiveness of online platforms policies to tackle disinformation.

#### **Objective:**

The European Digital Media Observatory (EDMO) has been created with the aim of supporting an independent multidisciplinary community to tackle the phenomenon of disinformation. EDMO is composed of a central platform and governance which support and coordinate the work of the EDMO national/multinational hubs.

The objective of this topic is to finance the work of independent national /multinational hubs for analysis of digital media ecosystems in order to ensure the coverage of geographical areas covered by the EDMO hubs for which the funding is ending at the end of 2023 and in 2024.

A national/multinational hub involves organisations active in one or several Member State(s), that will provide specific knowledge of local information environments so as to strengthen the detection and analysis of disinformation campaigns, improve public awareness, and design effective responses relevant for national audiences. The activities of the hubs should be independent from any public authority.

These national/multinational centres will focus their activities on emerging digital media vulnerabilities and disinformation campaigns, which are of special relevance within the territory and/or linguistic area in which they will operate. Multinational hubs will cover more than one Member State with similar media ecosystems within an EU region.

#### **Scope:**

Support will be provided to:

Support the operations of an independent national or multinational hubs pulling together a national/multinational multidisciplinary community composed of academic researchers, fact-checkers, open-source investigation organisations, media practitioners and other relevant stakeholders in order to create a network capable of quickly detecting and analysing disinformation campaigns, as well as producing content to support national and local media and inform about regarding emerging harmful disinformation campaigns. They will work in cooperation with EDMO and contribute to its activities providing fact-checks, media literacy materials, scientific articles, surveys on disinformation trends, situational analyses and assessments of online platforms' policies to address disinformation-related harms. Detect, analyse, and disclose disinformation campaigns at national, multinational and EU level, and their impact on society and democracy. To this end hubs will analyse relevant actors, vectors, tools, methods, dissemination dynamics, and targets of disinformation campaigns in coordination with EDMO. Hubs will monitor the evolution of disinformation-related harms on relevant audiences. Each hub will also support a regular assessment of the impact of relevant disinformation campaigns on society and democratic processes, as well as the effectiveness of the policies

set out by online platforms to counter various disinformation phenomena. In addition, the hubs will actively participate to the EDMO joint activities of fact-checking and research and promptly react to EDMO requests linked to emerging disinformation issues. Create tailor-made media literacy campaigns for the covered territory or linguistic area. Hubs will leverage on the exchange of good practices and materials coordinated by EDMO and contribute to the EDMO repositories with newly created educational and training materials. Cooperate with national authorities for the monitoring of online platforms' policies and digital media ecosystem in the territory or linguistic area covered by the proposal. In particular, they will provide relevant insights which might help competent national authorities, including the audio-visual regulator(s), monitoring the implementation of the Strengthened Code of Practice on Disinformation by its signatories.

## 10. DIGITAL-2023-DEPLOY-BESTUSE-TECH-04-ENERSAVING (DIGITAL-SIMPLE)

### *EU Energy saving reference framework*

Status	Opening date	Deadlines	Funding type	Keywords
Open	11 may. 2023	26 sept. 2023	DIGITAL-SIMPLE DIGITAL Simple Grants	

#### **Expected Outcome:**

An EU Energy saving Reference Framework that should lead to a standardised reference application that will be developed in close collaboration with energy providers and will draw from applications and services already available in the market. The deployment of the EU Energy saving Reference Framework across the Union in close collaboration with energy providers.

#### **Objective:**

The current context – Russia's invasion of Ukraine and the accompanying high inflation – compels us to accelerate the energy transition and save energy to ensure a sustainable, resilient, and fair economy. This entails making better use of the data that is generated all along the energy supply chain and to exploit the potential of digital technologies to reduce demand, eliminate wastage and reduce energy bills.

Smart meters and smart apps enable consumers to reduce and optimise their energy consumption and cut their energy bills. They provide greater consumer awareness and opportunities to monitor and control in real time the energy consumption of their appliances. Across the European Union, however, the functionality and availability of such meters and apps remain very fragmented.

The Digitalisation of Energy Action Plan adopted on 18 October 2022, sets out for the European Commission, working with Member States, to develop a common European reference framework, including an open-source reference implementation, for a consumer application that allows for voluntary reductions in energy consumption and thereby help reduce energy costs.

#### **Scope:**

The scope of this action is to develop and deploy an EU Energy saving Reference Framework as a key tool to conserve electricity when there is an anticipated shortage of energy supply. Alerts are to be based on energy generation data and real time energy consumption. Clear messages are to guide consumers to adopt the right measures to ensure a good energy supply for all. For example, following an alert, consumers can voluntarily reduce their electricity consumption and thereby contribute to avoiding possible power blackouts.

## 12. DIGITAL-2023-PROGRAM-SUPPORT-04-NETWORK-NCPs (DIGITAL-CSA)

### *Supporting the network of National contact points (NCPs)*

Status	Opening date	Deadlines	Funding type	Keywords
Open	11 may. 2023	26 sept. 2023	DIGITAL-CSA DIGITAL Coordination and Support Actions	

#### **Expected Outcome:**

The action is expected to contribute to the following outcomes:

Improved and professionalised NCP services across Europe, supporting access to Digital Europe Programme calls, lowering the entry barriers for newcomers, and raising the average quality of proposals submitted; Robust NCP support services across Europe that are adapted to specific objectives of Digital Europe Programme, including; more participation of new players in the programme; matchmaking activities to connect potential participants from widening countries with emerging consortia in this thematic area using a variety of tools; dissemination of information about security and ownership control rules in Digital Europe Programme for applicants.

#### **Objective:**

This action will support the coordination between different National Contact Points (NCPs) for the Digital Europe Programme, the preparation and execution of actions that maximise awareness and the impact of the programme and the long-term dissemination and exploitation of results.

The selected project will provide support for all specific objectives of Digital Europe Programme.

#### **Scope:**

Proposals will contribute to the development of a specific NCPs network for Digital Europe Programme.

Proposals should facilitate trans-national co-operation amongst NCPs, encouraging cross-border activities, sharing good practices and raising the general standard of support to programme applicants and facilitate participation of new players in the programme.

The selected proposals will provide adapted support for Digital Europe Programme communication (including info days), dissemination and exploitation activities, including, for instance, the preparation of material and organisation of events.

Special attention should be given to enhancing the competence of NCPs, including helping less experienced NCPs rapidly acquire the know-how built up in other countries. Where relevant, synergies should be sought with existing networks to organise matchmaking activities.

### 13. DIGITAL-2023-SKILLS-04-BOOSTINGDIGIT (DIGITAL-CSA)

#### *Boosting Digital Skills of young pupils, in particular girls*

Status	Opening date	Deadlines	Funding type	Keywords
Open	11 may. 2023	26 sept. 2023	DIGITAL-CSA DIGITAL Coordination and Support Actions	

#### **Expected Outcome:**

Stronger cooperation between primary, secondary and VET schools and tertiary education and research to increase the number of pupils enrolling in digital studies aiming at gender convergence. This will lead to the development of: Summer schools, Specialised information and career days, Dissemination and outreach activities, such as EU Code Week.

#### **Objective:**

Students in digital and ICT disciplines represent a minority, in 2021 they were 4.5% of total graduates. There is also a severe gender balance issue, with only 19% of ICT specialists and one in three science, technology, engineering and/or mathematics (STEM) graduates being women. During the Structured Dialogue for digital education and skills, Member States also report about competition for the few pupils that have suitable profiles and interest in studying STEM disciplines at university level. In order to fill the significant shortage of sector specialists using advanced digital technologies and ICT specialists, it is necessary to increase the pool of pupils who would be ultimately interested to study STEM and ICT, with a special focus on girls and women who are vastly underrepresented in the digital field. Boosting the development of digital skills from an early age and in a continuous manner is essential for influencing the level of digital skills of the EU population and the number of male and female students that will consider studies and career in the ICT. Moreover, evidence shows that pupils who are involved in the learning of coding or computational thinking from an early age are more likely to continue studying ICT or digital-related fields and this has an impact for example on the number of girls choosing this study-path.

In the bilateral dialogues with Member States as part of the structured dialogue on digital education and skills, many called for innovative approaches to attract young people, and especially girls as of primary school (or even earlier), to digital careers and to encourage a mind-set shift in their perception. This action will therefore include dedicated activities to encourage girls and women to take part in digital studies.

#### **Scope:**

The aim of this action is to pilot actions to increase the number of students pursuing digital studies and careers, with a special focus on increasing participation of girls. It will support joint actions between leading technical higher education institutions, businesses and schools to promote digital studies, through hands-on activities and challenge-based projects. Another aim of this action is to scale-up the EU Code Week initiative, putting it on stronger and broader footing, thus further increasing its impact beyond the &gt; 4 million people reached every year, among which almost half are young women and girls.

For example, the actions will finance summer schools for high-school students on digital areas, career days for people interested in digital, with a view to encourage more gender diversity and promote exchanges between higher education institutions and primary and secondary schools on digital topics. Digital Europe Programme consortia already awarded under the first WP could also be leveraged, with a view to give the possibilities to younger students to access the state-of-the-art laboratories, experience the campus facilities and follow seminars from the most renowned experts in Quantum computing, Cybersecurity, AI, cloud, among others. Special attention should be given to the role of girls and women in the digital field, with a focus on debunking stereotypes and tackling the self-efficacy and confidence gap.

This action is in line with Action 13 of the Digital Education Action Plan (2021-2027), which aims to enhance girls and women's digital competences through projects like Girls Go Circular and ESTEAM Fests.

## 14. DIGITAL-2023-SKILLS-04-SEMICONDUCTORS (DIGITAL-SIMPLE)

### **Reinforcing skills in semiconductors**

Status	Opening date	Deadlines	Funding type	Keywords
Open	11 may. 2023	26 sept. 2023	DIGITAL-SIMPLE DIGITAL Simple Grants	

#### **Expected Outcome:**

Concerning the projects addressing the Academic network (point I in scope above)

Definition of the required curricula using the ECTS system with capacity for around 500 students/year across at least 5 Member States, for BSc and MSc levels. A scholarship programme for selected semiconductors students enrolled in the common curriculum at BSc and MSc levels. On-the-job experiences for undergraduate students in companies involved in the consortium. Upgrade of laboratories used for the teaching activities delivered by the project. Communication initiatives toward the public, including social media. Local or regional programmes led by the industrial partner(s) to target secondary school students, including for example a Summer/Winter School based on practical learning activities, introductory seminars, visit to facilities etc.

Concerning the projects addressing the Vocational training (point II in scope above)

Bootcamps, workshops and career days dedicated to semiconductors, addressing start-ups and SMEs needs, at least one of them focusing on diversity and inclusivity. Definition of VET curricula in semiconductors and delivery of the relevant training courses with capacity for around 1000 technicians involving at least 20 start-ups and SMEs across at least 5 Member States.

#### **Objective:**

The share of students choosing ICT and notably semiconductors disciplines is too low to satisfy the demand required by the labour market. It is estimated that the BRIICS countries (including Indonesia) will produce three-quarters of the global STEM graduates by 2030 while Europe will be lagging well behind with an 8% share[1]. The shortage of potential employees with specific knowledge in semiconductors, and in particular the negligible share of students willing to undertake this field, has many different causes related to the low awareness of the impact of semiconductors in the society and citizens' daily life, and to low expectations in terms of prospective career and employment conditions. The problem is acute, given the gap between the labour market demands and the unavailability of both technicians and high-level graduates, and it is even more exacerbated by a strong gender imbalance.

The image of semiconductors related jobs needs to be improved in this regard with a holistic approach by industry and academia, jointly addressing: The low awareness of the public, and particularly the younger generation, of the social importance of semiconductors and its benefits for the whole society, i.e., for the green and digital transition or the targets set by the Chips Act. The awareness gap on future work commitments and employment conditions. It is well known that studies are greatly influenced by students' previous experience within the secondary school and in their private lives, which can hardly provide insight into this high-tech sector. Starting from the very first classes in secondary schools is of the greatest importance for targeting students interested to approach these disciplines, with particular focus on female students. The obstacles faced by companies, in particular SMEs given their limited means, to get the required talents, by setting up initiatives to attract both technicians and graduates, and bridge the gap between education and their labour demands. The need to provide updated academic curricula both in theoretical knowledge and lab experience on cutting edge topics - the high pace of advancements in the semiconductor sector forces upgrades that are difficult to implement by private and public universities, and liaison with industrial stakeholders is essential to access new technologies, launch educational opportunities and increase their attractiveness to students. The need of continuing vocational training to enhance employability, supporting personal development and encouraging re- and up-skilling. Technicians must be provided with additional training during their lifelong careers to keep up to date with new technologies and techniques.

**Scope:**

Consortia can apply for one or both the actions described below.

**Academic network**

The proposed project is required to develop a European Semiconductors Skills Academy: a European network of higher education institutions and relevant industries, including start-ups and SMEs in microelectronics, to address the above issues.

The Academy must strive for collective actions to increase the visibility and the attractiveness of existing curricula already run by the members of the consortium. In particular, focus should be on increasing the number of enrolled students coming from secondary schools and ensuring the availability, in higher education institutions' curricula, of topics addressing industry's needs as well as cutting-edge topics in the sector, for example Chip Design.

The Academy should address, for example:

the identification of relevant courses, jointly vetted with the industry partners, starting from existing curricula, or from newly selected cutting-edge topics, which should eventually lead to an automatic recognition of the European Credit Transfer System (ECTS) across universities, facilitating students' and workers' mobility and competence recognition across Member States; the upgrade of university laboratories for the delivery of the courses identified; cooperation agreements resulting in hands-on experiences in industry and financed by industry as part of the student curricula; the involvement of start-ups and SMEs as beneficiaries of students' mobility; communication actions and initiatives aimed at the general public as well as specific activities for the promotion of studies in semiconductors in local areas, particularly aimed at secondary school students.

**Vocational training**

The proposed project is requested to define a platform among Vocational and Educational Training (VET) centres, industry, in particular start-ups and SMEs, academia, and social partners to address the need of continuing vocational training to enhance employability. Notably, the platform will support innovative approaches to attract talents and re-/up-skill workforce for start-ups and SMEs, for example, through:

the identification of relevant training contents, jointly vetted with the industry partners; bootcamps on specific semiconductors topics vetted by and including start-ups and SMEs; training curricula implying the involvement of SMEs as beneficiaries of technicians' mobility; recognition of specific hard and soft semiconductors VET curricula across Europe; addressing the gender dimension of employability in the sector; apprenticeships in start-ups and SMEs and online training addressing employability for migrants and immigrants.

[1]"Education Indicators in Focus N°31" by the OECD, 2015.

## 15. DIGITAL-ECCC-2023-DEPLOY-CYBER-04-EULEGISLATION (DIGITAL-JU-SIMPLE)

### *Support for implementation of EU legislation on cybersecurity and national cybersecurity strategies*

Status	Opening date	Deadlines	Funding type	Keywords
Open	25 may. 2023	26 sept. 2023	DIGITAL-JU-SIMPLE DIGITAL JU Simple Grants	

#### **Expected Outcome:**

Incident management solutions reducing the overall costs of cybersecurity for individual Member States and for the EU as a whole. Better compliance with NIS2 (Directive (EU) 2022/2555) and higher levels of situational awareness and crisis response in Member States. Organization of events, workshops, stakeholder consultations and white papers. Enhanced cooperation, preparedness and cybersecurity resilience in the EU. Support actions in the area of certification.

#### **Objective:**

The action focuses on capacity building and the enhancement of cooperation on cybersecurity at technical, operational and strategic levels, in the context of existing and proposed EU legislation on cybersecurity in particular the NIS2 Directive (Directive (EU) 2022/2555), the Cybersecurity Act and the proposed Cyber Resilience Act, and the Directive on attacks against information systems (Directive 2013/40). It complements the work of SOCs in the area of threat detection. It is a continuation of work currently supported under the previous WP.

In addition, the action also aims at improving industrial and market readiness for the cybersecurity requirements set in the proposal for a regulation on cybersecurity requirements for products with digital elements, known as the Cyber Resilience Act bolstering cybersecurity rules to ensure more secure hardware and software products.

Proposals should contribute to achieving at least one of these objectives;

Development of trust and confidence between Member States. Effective operational cooperation of organisations entrusted with EU or Member State's national level cybersecurity, in particular cooperation of CSIRTs (including in relation to the CSIRT Network) or cooperation of Operators of Essential Services including public authorities. Better security and notification processes and means for Operators of Essential Services and for digital service providers in the EU. Better reporting of cyber-attacks to law enforcement authorities in line with the Directive on attacks against information systems. Improved security of network and information systems in the EU. More alignment of Member States' implementations of NIS2 (Directive (EU) 2022/2555). Support cybersecurity certification in line with the Cybersecurity Act.

#### **Scope:**

The action will focus on the support of at least one of the following priorities:

Implementation, validation, piloting and deployment of technologies, tools and IT-based solutions, processes and methods for monitoring and handling cybersecurity incidents. Collaboration, communication, awareness-raising activities, knowledge exchange and training, including through the use of cybersecurity ranges, of public and private organisations working on the implementation of NIS2 (Directive (EU) 2022/2555). Twinning schemes involving originator and adopter organisations from at least two different Member States to facilitate the deployment and uptake of technologies, tools, processes and methods for effective cross-border collaboration preventing, detecting and countering Cybersecurity incidents. Robustness and resilience building measures in the cybersecurity area that strengthen suppliers' ability to work systematically with cybersecurity relevant information or supplying actionable data to CSIRTs. Ensure that manufacturers improve the security of products with digital elements since the design and development phase and throughout the whole life cycle. Ensure a coherent cybersecurity

framework, facilitating compliance for hardware and software producers. Enhance the transparency of security properties of products with digital elements. Enable businesses across all sectors and consumers to use products with digital elements securely. Support to Cybersecurity certification, including support to national cyber authorities and other relevant stakeholders, such as SMEs.

The support will target relevant Member State competent authorities, which play a central role in the implementation of NIS2 (Directive (EU) 2022/2555), as well as other actors with the scope of this Directive.

The action may support amongst other the continuation of the kind of cybersecurity activities funded through the CEF Telecom programme, building where relevant on the results from the CEF projects.

Support will be provided amongst other for the on boarding to the CEF Cybersecurity Core Service Platforms of public and private organisations working on the implementation of NIS2 (Directive (EU) 2022/2555) and are potential users of the CEF Cybersecurity Core Service Platforms.

The action also supports industry, with a particular focus on start-ups and SMEs, to seize the industrial and market uptake opportunities given by the proposed Cyber Resilient Act and Cybersecurity Act.

## 16. DIGITAL-ECCC-2023-DEPLOY-CYBER-04-SUPPORT-ASSIST (DIGITAL-JU-GFS)

### ***Preparedness support and mutual assistance***

Status	Opening date	Deadlines	Funding type	Keywords
Open	25 may. 2023	26 sept. 2023	DIGITAL-JU-GFS DIGITAL JU Grants for Financial Support	

#### **Expected Outcome:**

Preparedness support servicethreat assessment and risk assessment servicesrisk monitoring servicesmutual assistance among Member States.

#### **Objective:**

This mechanism aims to complement and not duplicate efforts by Member States and those at Union level to increase the level of protection and resilience to cyber threats, by assisting Member States in their efforts to improve the preparedness for cyber threats and incidents by providing them with knowledge and expertise.

The mechanism should also support mutual assistance between Member States for both preparedness and incident response actions.

#### **Scope:**

The provision of preparedness support services (ex-ante) shall include activities listed below:

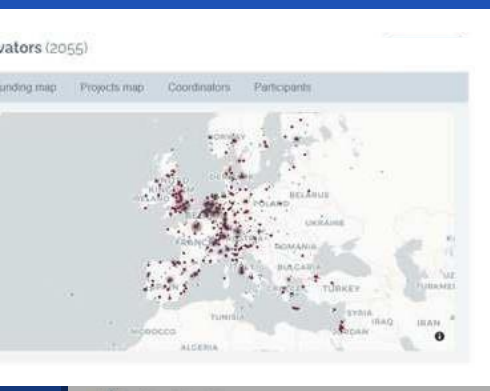
Support for testing of essential entities operating critical infrastructure for potential vulnerabilities. Development of penetration testing scenarios for MS cybersecurity infrastructure (including infrastructure of Operators of Essential Services, Digital Service Providers and Governmental entities). The proposed scenarios should cover Networks, Applications, Virtualization solutions, Cloud solutions, Industrial Control systems, and IoT.Support for conducting testing of essential entities operating critical infrastructure for potential vulnerabilities.Support the deployment of digital tools and infrastructures supporting the execution of testing scenarios and for conducting exercises such as the development of standardised cyber-ranges or other testing facilities, able to mimic features of critical sectors (e.g., energy sector, transport sector etc.) to facilitate the execution of cyber-exercises, in particular within cross-border scenarios where relevant.Evaluation and/or testing of MS cybersecurity capabilities (including capabilities to prevent, detect and respond to incidents).Consulting services, providing recommendations on how to improve infrastructure security and capabilities. Support for threat assessment and risk assessment. Threat Assessment process implementation and life cycle.Customised risk scenarios analysis. Risk monitoring service. Specific continuous risk monitoring such as attack surface monitoring, risk monitoring of assets and vulnerabilities.

Preparedness actions should benefit entities in NIS2 (Directive (EU) 2022/2555) sectors (e.g., energy, transport, banking...) and entities in other relevant sectors, as well as including SMEs and start-ups. Also within scope are actions for mutual assistance among Member States, i.e., tailored and targeted short-term assistance upon request and depending on the specific needs arising from an incident.



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