



DG CNECT November 2021

#DigitalEuropeProgramme



### Digital Europe Programme

#### recap the main objectives

Strategic

autonomy



#### Compete globally

Other regions of the world invest huge amount of public capital in advanced technologies. For example, the US and China spend € 10-20 billion annually on AI alone



# Better address Europe's economic and societal challenges

E.g. climate, health, mobility and public services



### Achieve scale through collective co-investments

Given the size of investments needed, scale required and risks involved Europe needs to pool the resources together



## Ensure broad take-up of digital technologies across all regions of EU

In deploying latest technologies to offer best services to citizens and business



### Regain control over Europe's value chains

and ensure Europe's technological sovereignty



# Support SMEs to acquire or access the latest technologies and skills

More than 400,000 EU vacancies in these fields

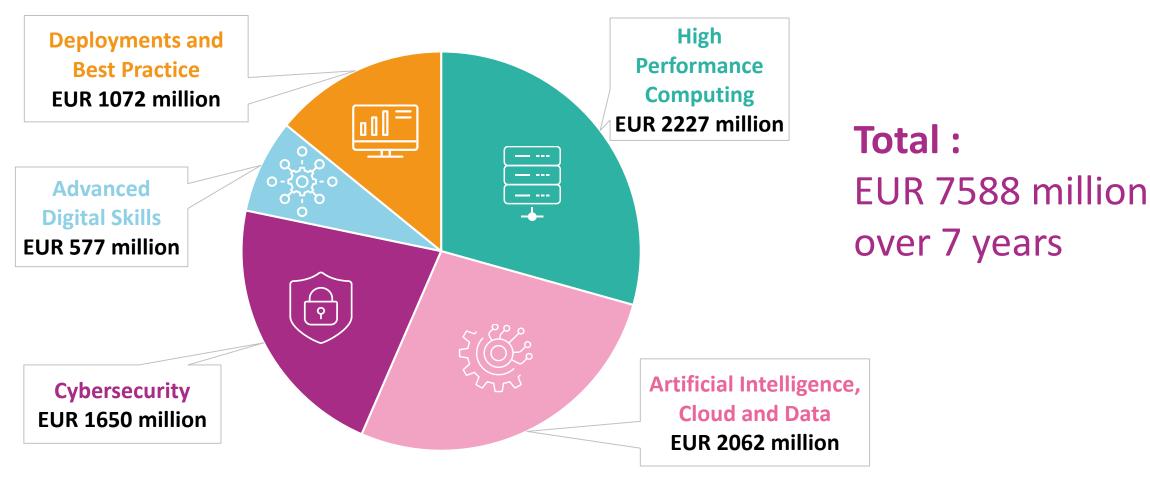


# Digital Europe is complementary to other programmes with investments in digital

EU-wide collective effort					National regional and local			Financial instrument
Horizon Europe	Digital Europe	CEF	Creative	Health	Cohesion	Agriculture Funds	⊃ RRF	◯ InvestEU
Research Innovation	Strategic capacities: computing, data, testbeds, etc. Advanced digital skills EU-Wide deployment	Broadband and 5G roll out Connecting Communities	Creative industry Media	Telemedicine eHDSI	Digital connectivity in white and grey areas Support to enterprises in line with Smart specialisation Digital skills for all citizens	Making use of Big Data for CAP monitoring Broadband rollout in rural areas	Connect Scale-up Modernise Reskill and Upskill 20% digital	Leverage private capital for investments in SMEs, research, digital, infrastructure, skills



#### Budget as in Regulation





### Digital Europe programme structure

#### ACCELERATING THE BEST USE OF DIGITAL TECHNOLOGIES

European
Digital
Innovation
Hubs

High impact deployment s

**High Performance Computing** 

**Artificial Intelligence** 

Cybersecurity

**Advanced Digital Skills** 























### Some specific features

- Funding schemes: Similar but not exactly the same to Horizon Europe, e.g.
  - Grants with cost reimbursement 50% for everybody or with 75% for SMEs
  - CSA at 100%
  - Wider use of procurement
- Focus is on <u>delivery actual results</u>. It will make use of the most recent research results, but <u>it will not support research</u>. For example, the programmes will support:
  - The acquisition of HPC machines
  - The set-up of sectorial data spaces, eg manufacturing
  - The building or reinforcing of Testing and Experimentation Facilities
  - The set up and delivery of Master courses in key advanced digital technologies
  - The set-up, interoperability, operations and maintenance of a number of services in the eGov area
- The Call text will specify the detailed information needed to submit a proposal
- The programme has specific restrictions to participation of entities not in the EU or in the EEA. These restrictions are specified in the wp and in its annexes.



### Overall planning

- First Orientations July 2019: public consultation until October 2019
- MFF Negotiation concluded in December 2020
- DEP Regulation adopted in March-April 2021 with an approx. budget of EUR 7.5 billion over 7 years
- 1st Work programmes content discussed with the Member States Expert Group / Programme Committee
- Work programme adopted by Commission on 10 November 2021
- First call opened on 17 November 2021

- Second call indicatively will open in Q1 2022
- Third call indicatively will open in Q3 2022



### Digital Europe work programmes 2021-22

- Four work programmes :
  - High Performance Computing  $\rightarrow$  managed by the EuroHPC JU and not part of the package to be adopted by the Commission
  - Cybersecurity → managed by the ECCC and, ad interim, by DG CNECT
  - European Digital Innovation Hubs → managed by DG CNECT
  - "Main" work programme → managed by DG CNECT, EA HaDEA and making use of Indirect management for some actions

### High Performance Computing WP2021 and WP2022

Work programme is *annual* and is discussed and adopted by the EuroHPC JU Governing Board

- WP 2021 has been adopted
- WP 2022 is under discussion with the participating States, and it is likely to be adopted before the end of the year

#### Areas covered:

High Performance Computing

Budget of 550 million Euros for 2021 and 2022 (Union funding from DIGITAL) Implementation mode:

• Indirect Management: the EuroHPC Joint Undertaking will draw and manage the funds from Digital Europe, Horizon Europe and CEF Digital for the sector



### High Performance Computing WP2021

Areas covered by the first work programme

Pending final decision of the Governing Board

Procurement of exascale machines

Procurement of mid-ranges supercomputers

Centers of excellence for HPC applications: exascale and petascale

Widen the access to and use of supercomputing

### "Main" WP (2021-2022)

#### Areas covered:

- · Cloud, data and AI
- Cybersecurity actions focused on Quantum communication infrastructure
- Advanced digital skills
- Deployment and best use of technologies (actions in support of Green deal, Blockchain, public services and confidence in digital transformation)

#### Budget of 1.38 billion Euros for 2021 and 2022

- Call1: approx. 415 MEUR
- Call2: approx. 250 MEUR
- Call3: approx. 170 MEUR
- The rest of the budegt is implemented via contribution agreements and procurement

#### Implementation modes:

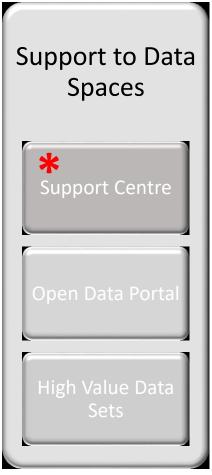
- Direct management (grants and procurement)
- Indirect management (Contribution Agreements and Financial Instrument)

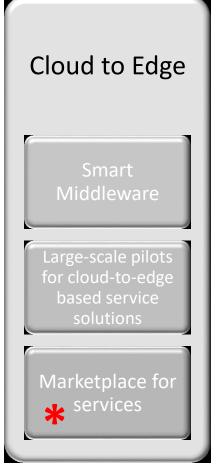
#### 3 calls planned:

- 1st call → Q4 2021-Q1 2022
- 2nd call →Q1 2022-Q2 2022
- 3rd call → Q3 2022-Q4 2022

### Artificial intelligence, data and cloud











<sup>\*</sup>Call1: in several cases preparatory actions to be followed by a capacity building action in Call3 or in the wp 2023-2024.

The Secretariat for the alliance on industrial data, edge and cloud and the Secretariat for the alliance on processors and semiconductor technologies are also part of Call1.



### Cybersecurity and trust

Only the first area will be covered by the "main" work programme and managed by DG CNECT.

QCI topics are open in Call 1.

Quantum Communication Infrastructure \*\*

Support to Implementation of relevant EU Legislation

Deployment of cybersecurity infrastructures

Support to market players and skills



### Advanced digital skills

Actions will mostly be managed by HaDEA.

\*Topics are open in Call1 as well as some complementary actions (CSA)

Design and implementation of specialized education\*programmes and modules in key capacity areas (master classes)

Traineeships in key capacity areas

Short term trainings in advanced technologies (contribution to SME strategy)

Digital skills platform

Digital transformation of Education



### Accelerating the best use of digital technologies

Actions will be managed through HaDEA, with the exception of the EDIH, which will be managed by CNECT

EDIH

European
Digital
Innovation
Hubs:
one per region

Green Deal Destination Earth **Urban digital** twins for smart communities Digital Product **Passport** 

Blockchain European Blockchain Service Infrastructure

**European Digital Government Eco** System Core services from CEF and ISA2 Interop. Knowledge & **Support Centre Digital Identity** GovTech Justice and **Consumer Protection** Law enforcement

**Enhancing** Confidence in Digital **Transformation** Safer Internet European Digital Media Observatory

\* Call for proposal in Call1



### Investment Platform for Strategic Digital Technologies

#### Main characteristics

- under the InvestEU program
- based on the experience of the existing EU-AI/blockchain investment pilot
- <u>provide improved dedicated financial support</u> to innovative digital start-ups and SMEs at all stages of their development (early stage and scale-up phases)
- equity and quasi-equity by combining funding from Digital Europe Programme with InvestEU guarantee
- focus on providing improved financing to strategic digital technologies, including AI, blockchain, 5G/edge computing, microelectronics, quantum technologies, high performance computing, cybersecurity and IoT in line with the EU digital strategy.
- use of these strategic digital technologies is expected to also contribute to sustainability and the greening of the ICT sector
- MEUR 35 for the first two years from the Digital Europe programme

#### The platform aims to

- pool financial resources from the European Commission (through the Digital Europe Programme, InvestEU programme and other EU programmes), International Financial Institutions, including the European Investment Bank, the European Investment Fund, the EBRD and the Member States through financing from National Promotional Banks
- seek synergies, including exchange of good practises, and complementarity with the EIC Fund of the European Innovation Council
- leverage EC funding to enable additional investments from private investors and
- provide efficient risk sharing mechanisms between different investors



### EDIH – work programme 2021-2023

- Areas covered:
  - Creation of the network of European Digital Innovation Hubs
- Budget of 329.3 million Euros for 2021, 2022 and 2023
- Implementation mode:
  - Direct management (grants and procurement) by the European Commission using annual instalments.
- 2 restricted calls for proposals are planned:
  - 1st call → Q4 2021-Q1 2022
  - 2nd call → Q3 2022-Q4 2022



# Deployment, best use of digital capacity and interoperability - EDIH

#### The European Digital Innovation Hubs

- The plan is to have at least one EDIH per region during the programme
- Task of the hubs: focus on digital transformation of SMEs and public sector (Adopt AI)
- EDIH will collaborate with all existing networks funded by other programmes and avoid overlap, also thanks to
- Member States involvement in designating the entities (consortia) which can participate to the call for proposal (existing centres might be designated to take over this additional role)



### Cybersecurity WP (2021-2022)

#### Areas covered:

- Deployment of an European Cybersecurity Shield
- Support to the implementation of relevant EU legislation

#### Budget of 269 million Euros for 2021 and 2022

#### Implementation mode:

• Until the ECCC has the capacity to implement its own budget, the European Commission will implement the actions in direct management on behalf of the ECCC (grants and procurement)

#### 2 calls for proposals planned:

- 1st call → Q1 2022 Q2 2022 for 43 MEUR
- 2nd call → Q3 2022 Q4 2022 for 184 MEUR

#### Calls for tenders planned

• For a total of 42 MEUR over the two years



### Cybersecurity and trust

Actions will be managed by the ECCC, once established, with the notable exception of QCI which will be managed by DG CNECT

Quantum Communication Infrastructure

Support to Implementation of relevant EU Legislation

Deployment of cybersecurity infrastructures

Support to market players and skills



#### More information

• <u>Digital Programme | Shaping Europe's digital future (europa.eu)</u>

- Participants portal Funding & tender opportunities
  - https://ec.europa.eu/info/funding-tenders/opportunities/portal



## Thank you — Questions?



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### In summary

#### **High-performance computing**

- Independent annual work programme
- Adopted by the EuroHPC JU Governing Board
- Adoption of 2021 work programme expected in the next days

#### Cybersecurity

- Independent work programme
- It will be managed by ECCC, but for the moment is with DG CNECT

#### Execption

 Quantum communication infrastructure – QCI which is covered in the "main" work programme

#### **European digital innovation hubs**

- Independent work programme covering three years
- Managed by DG CNECT



- In the "main" work programme, covering two years
- Adopted and managed by the Commission
- Adoption of 2021-22 work programme expected in the next days



- In the "main" work programme, covering two years
- Adoption by Commission of 2021-22 work programme expected in the next days
- Managed by HaDEA

#### **Deployments**

- In the "main" work programme, covering two years
- Adopted by the Commission
- Mainly managed by HaDEA
- Adoption of 2021-22 work programme expected in the next days