



Towards a data ecosystem for climate-neutral and smart communities

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The EU will create a single market for data
=> free flow of data; common rules

The EU will become an attractive, secure and dynamic data economy
=> clear and fair rules on access and re-use of data; data and cloud infrastructures; data spaces

Digital Europe Programme



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



Achieve scale through collective co-investments

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



Regain control over Europe's value chains

and ensure Europe's technological sovereignty



Better address Europe's economic and societal challenges

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



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

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



Support SMEs to acquire or access the latest technologies and skills

More than 400,000 EU vacancies in these fields

Digital Europe: 2021-2022 work programme

High-performance computing

- Procure exascale machines
- Upgrade existing supercomputers,
- Quantum computing
- Widen the access to and use of supercomputing

Artificial intelligence

- Data4EU : common Data Spaces, cloud, platforms and infrastructure
- Large Testing and Experimentation Facilities for health, smart communities, agriculture, manufacturing and AI edge HW
- Scale up the European AI platform to access tested AI technologies

Cybersecurity

- Deploy competence centers network
- Cybersecurity shield, quantum communication infrastructure - QCI
- Certification schemes
- Cybersecurity tools

Advanced digital skills

- Master courses
- Platform for Skills and Jobs

European digital innovation hubs

- At least one per MS

Deployments : emphasis on

- Destination Earth
- Data ecosystem for climate-neutral and smart communities
- Continuation of investments (CEF – IS)
- Blockchain
- Enhancing confidence in the digital transformation



Development of a blueprint for the data ecosystem for climate-neutral and smart communities

- Agreement on the relevant **datasets** (including public, private, personal, citizen-collected, real time, etc.) to be shared
- Developing a decentralised, multi-stakeholder **governance scheme**:
 - data brokers, data stewards/integrators, data sharing
 - transactions ('clearing house') **functionalities**
 - data protection / data trust, quality control and assurance, support and maintenance etc.
- The blueprint should re-use existing **building blocks** and propose an appropriate **architecture** and approach for **federation** of urban digital platforms at EU level
- The federated local data ecosystems will benefit from the **Data Spaces Support Centre** and the **generic cloud services** running on the EU Federated Cloud Infrastructure

Validation through Large Scale Pilots

- The projects will deploy AI-enabled, cross-sectoral urban data services in a significant number of cities and communities, focusing on one of the below:
 - (i) predictive traffic management / sustainable mobility planning
 - (ii) data-services related to extreme weather events to facilitate climate change adaptation, risk prevention and disaster resilience
 - (iii) management of energy flows and
 - (iv) pursuing the zero pollution ambition (e.g. air, water, soil pollution or waste)
- Set out a plan for the federation of the local data ecosystems to become economically sustainable in the long term
- Large Scale Pilots (min. 10 cities or communities from a minimum of 7 Member States), piloting AI-enabled, cross-sectoral urban data services

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