Digital Europe programme
and the common European mobility data space

Workshop on synergies between Horizon Europe and other EU funding programmes to support road transport

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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

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

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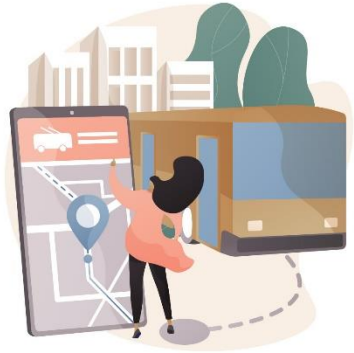
Digitally-enabled next generation mobility solutions

Electric and decarbonised mobility

Connected and automated vehicles

User-centric shared mobility services



Seamless multimodal mobility

Key digital enablers

data sharing, cloud-edge-IoT, AI, chips, 5G

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Digital Europe programme structure

High-performance computing

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

Cybersecurity

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

Artificial intelligence

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

Advanced digital skills

- Master courses
- Short term trainings
- Job placements
- Platform for Skills and Jobs

European digital innovation hubs

- At least one per MS or Associated Country

Deployments : emphasis on

- Destination Earth
- Digital twins for smart communities
- Further investments (CEF – ISA2) & Interoperability
- Blockchain
- Enhancing confidence in the digital transformation

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Digital Europe is complementary to other programmes with investments in digital

Support for the digital transformation of the Mobility Sector

Policy- framing conditions for the digital transformations in mobility:
- A European Strategy for data
- Sustainable and Smart Mobility Strategy (MOVE)
- Intelligent Transport Systems (MOVE)

Cross-sector interoperability: OpenDEI, AIoTI

Infrastructure

Deployment

Innovation

Research

Technology Maturity Level

CONNECTING EUROPE FACILITY 2:
Building cross-border 5G infrastructures
along major transport path

DIGITAL EUROPE:
Common European mobility data space - €9M (with MOVE)
Data space for smart communities
Testing and experimentation facilities for smart communities

HORIZON 2020:
Large Scale Pilots:
Automated driving: Autopilot
Smart cities: SynchroniCity

5G cross-border corridor trial

HORIZON EUROPE

Cluster 4: Testing and validation of innovative technologies through use cases in mobility: IoT, edge computing, AI, data, robotics, quantum, sensing systems, microelectronics

Cluster 5: Apply digital technologies in mobility: Connected, Cooperative and Automated Mobility (CCAM), smart mobility services, etc.

2020 2021 2022 2023 2024 2025 2026

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Horizon Europe Vs DIGITAL – specific issues

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 **delivery actual results**. It will make use of the most recent research results, but it will not support research.

- 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

Common European mobility data space

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At the crossroads of two EU strategies

Data Strategy

Establish a single market for data by enabling data sharing and establishing fair and clear rules on data use and access.

Sustainable and smart mobility strategy

Ensure that the EU transport sector is fit for a clean, digital and modern economy

→ A **common European mobility data space**
to facilitate access to and sharing of mobility data

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The European Data strategy

European Alliance for Industrial Data, Edge and Cloud

IPCEI* on Next Generation Cloud
(*Important Project of Common European Interest)

EU Data Strategy

Coordination

Cloud actions:
Cloud Rulebook

Co-Investments in cloud-to-edge services, cloud federation and marketplaces.

Data actions:
New legislation (Data Act, Data Governance Act, etc.)

Co-investments in common European data Spaces

Data Spaces Support Centre
Coordination and governance

DIGITAL EUROPE PROGRAMME

Federation & interoperability standards

Complementing & integrating private and public initiatives, e.g.:

Use cases; technical architecture

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Benefits of sharing mobility data

Easier to find the **most suitable travel options** for **travellers**

Better monitoring, planning and management of traffic and transport infrastructure by **authorities**

Safer mobility: e.g. use of sensor data to alert other vehicles of dangers

Faster **innovation in AI** for transport and mobility (e.g. autonomous driving) by pooling data

New mobility services (e.g. smart parking, charging)

Improved operations: optimised use of vehicles and itineraries in logistics, easier reporting to authorities

Sector coupling: use of electric vehicle data to optimise energy consumption and production

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Challenges of sharing mobility data

Reluctance to share data: security, competition concerns, lack of trust

Heterogeneity and diversity of stakeholders, transport modes, data types, etc.

Fragmentation, lack of access and of interoperability

Dominance of large platforms capturing increasing share of value

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Preparatory action for a European data space for mobility (call 1)

DIGITAL-2021-CLOUD-AI-01-PREP-DS-MOB

Make an **inventory of existing mobility data initiatives, ecosystems and platforms** and their main characteristics

Propose **common building** blocks (technical, governance, business models) and explore **options for a common framework** for data sharing in the mobility sector

Bring stakeholders together and **encourage convergence** in the diverse mobility and transport ecosystem

Work with the Data Spaces Support Centre and the Alliance for Industrial Data, Cloud and Edge to **ensure alignment with the emerging ecosystem of data spaces**

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Data space for mobility - deployment (call 3)

DIGITAL-2022-CLOUD-AI-03-DS-MOBILITY

Call closes 24/01/2023

Key activities (summary)

Deploy an operational data space allowing participants to make data available and share data in a controlled, simple and secure way.

Projects will address: (1) data for EU sustainable urban mobility indicators and (2) traffic and travel information at urban level.

Primary focus: deployment of mobility data sharing use cases based on based on data space building blocks. Can be accompanied by activities related to the digitalisation of processes.

Objectives and success factors

Support the creation and deployment through real-life implementation projects of a **technical infrastructure** combined with **governance mechanisms** to facilitate data access and sharing**.**

Built and operated in **full compliance with existing and upcoming EU legislation** in the transport and mobility sector

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Key characteristics of a data space

- A **secure and privacy-preserving IT infrastructure** to pool, access, process, use and share data.
- A **data governance mechanism**, comprising a set of rules of administrative and contractual nature that determine the rights to access, process, use and share data in a trustful and transparent manner.
- **Data holders are in control** of who can have access to their data, for which purpose and under which conditions it can be used.
- Presence of vast amounts of data that are **made available on a voluntary basis** and can be reused against remuneration or for free, depending on the data holder's decision.
- Participation by an **open** number of organisations/individuals.

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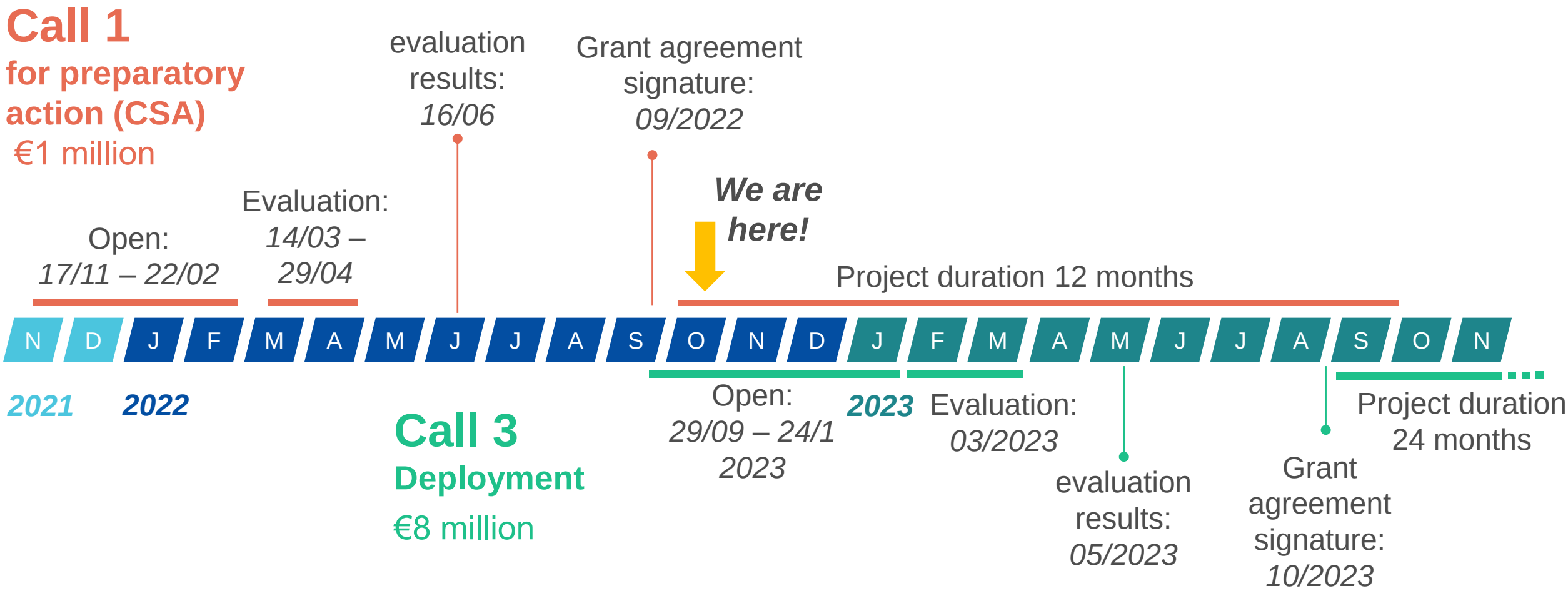
Timeline for Digital Europe Programme



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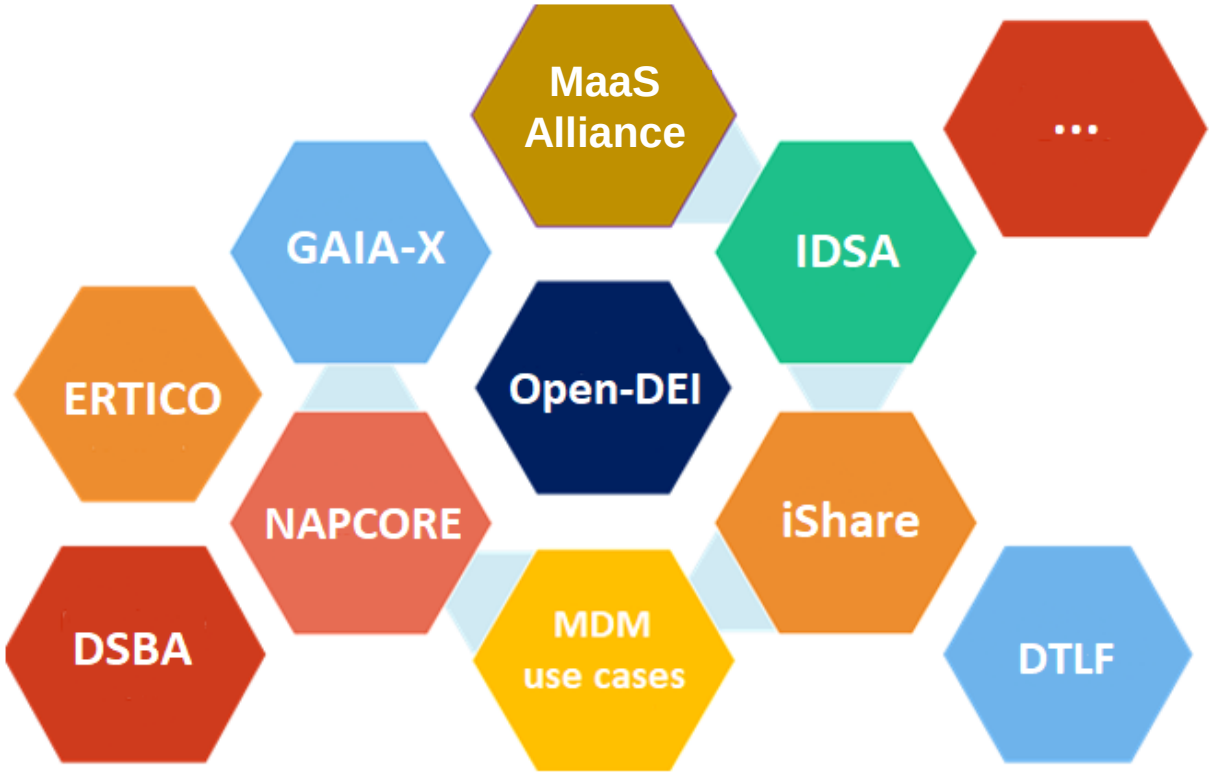
Leveraging the momentum

Converging guidelines worldwide

Ongoing data spaces-related initiatives across Europe



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Useful links

European data strategy
https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/european-data-strategy_en

Sustainable and smart mobility strategy
https://transport.ec.europa.eu/transport-themes/mobility-strategy_en

DIGITAL Work Programme 2021-2022
Work Programmes – DIGITAL (web page) and Main work programme.

Funding and tenders portal
DIGITAL-2022-CLOUD-AI-03-DS-MOBILITY **(Deployment action – Call 3 open)**
DIGITAL-2021-CLOUD-AI-01-PREP-DS-MOB **(CSA – Call 1 closed)**

Staff working document on data spaces
https://digital-strategy.ec.europa.eu/en/library/staff-working-document-data-spaces

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Thank you

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