

Svetoslav Mihaylov

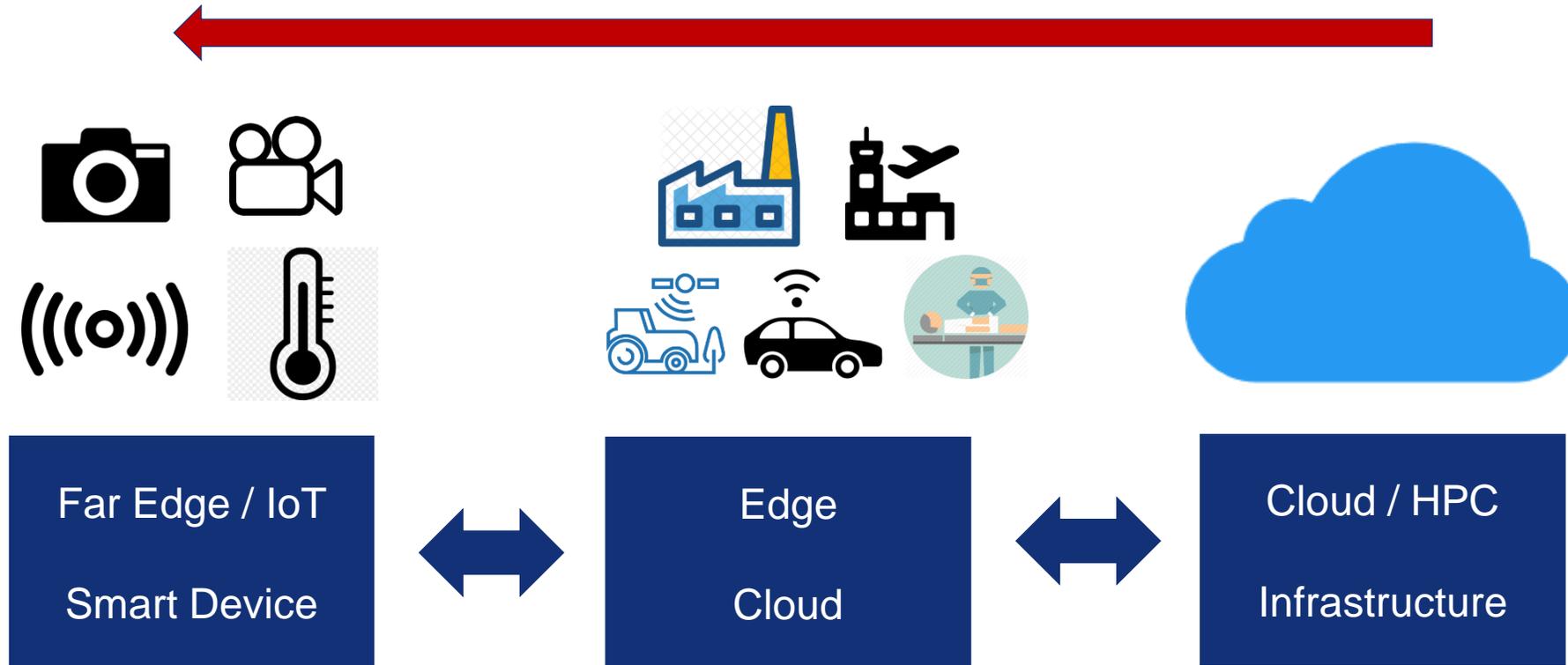
Policy Officer

DG CONNECT/E4 – Internet of Things

European Commission

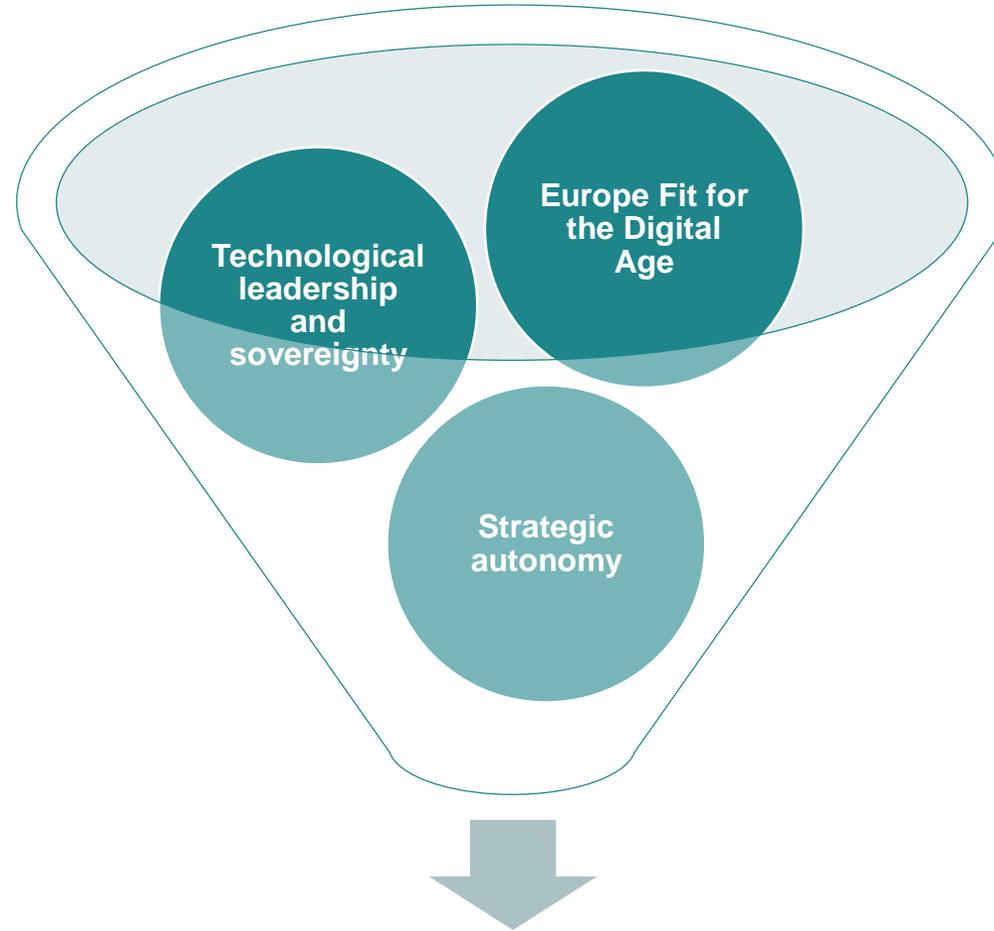
Cloud-Edge-IoT Orchestration

Trend/Paradigm Shift: from Cloud to Edge
Bringing compute resources closer to the data



Federating far edge resources ad hoc via wireless (5G, mesh)
to provide cloud resources close to the edge

Some guiding principles



European Strategy for Data

A more strategic approach to enable stakeholders to gather, store, pool, share and analyse data securely

A European Data Strategy

EU Data Strategy

Cloud actions:

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

Data actions:

- New legislation (Data Governance Act & Data Act)
- Co-investments in EU data spaces

Important Project of Common European Interest (IPCEI)

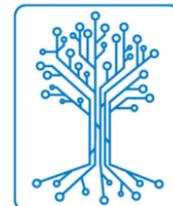
European Alliance for Industrial Data, Edge and Cloud

DEP

European Common Data spaces

Coordination

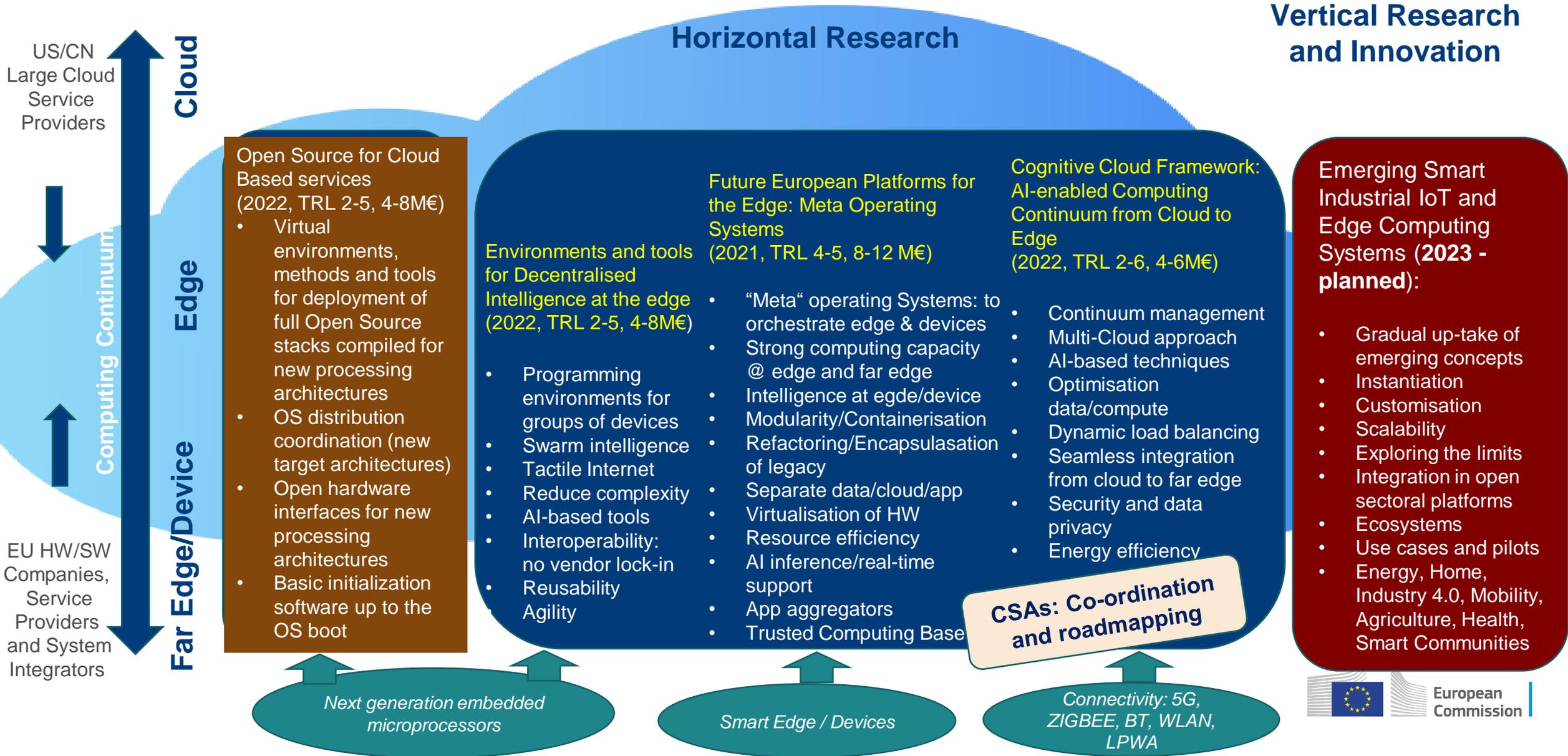
Federation & interoperability standards



GAIA-X

Use cases; technical architecture

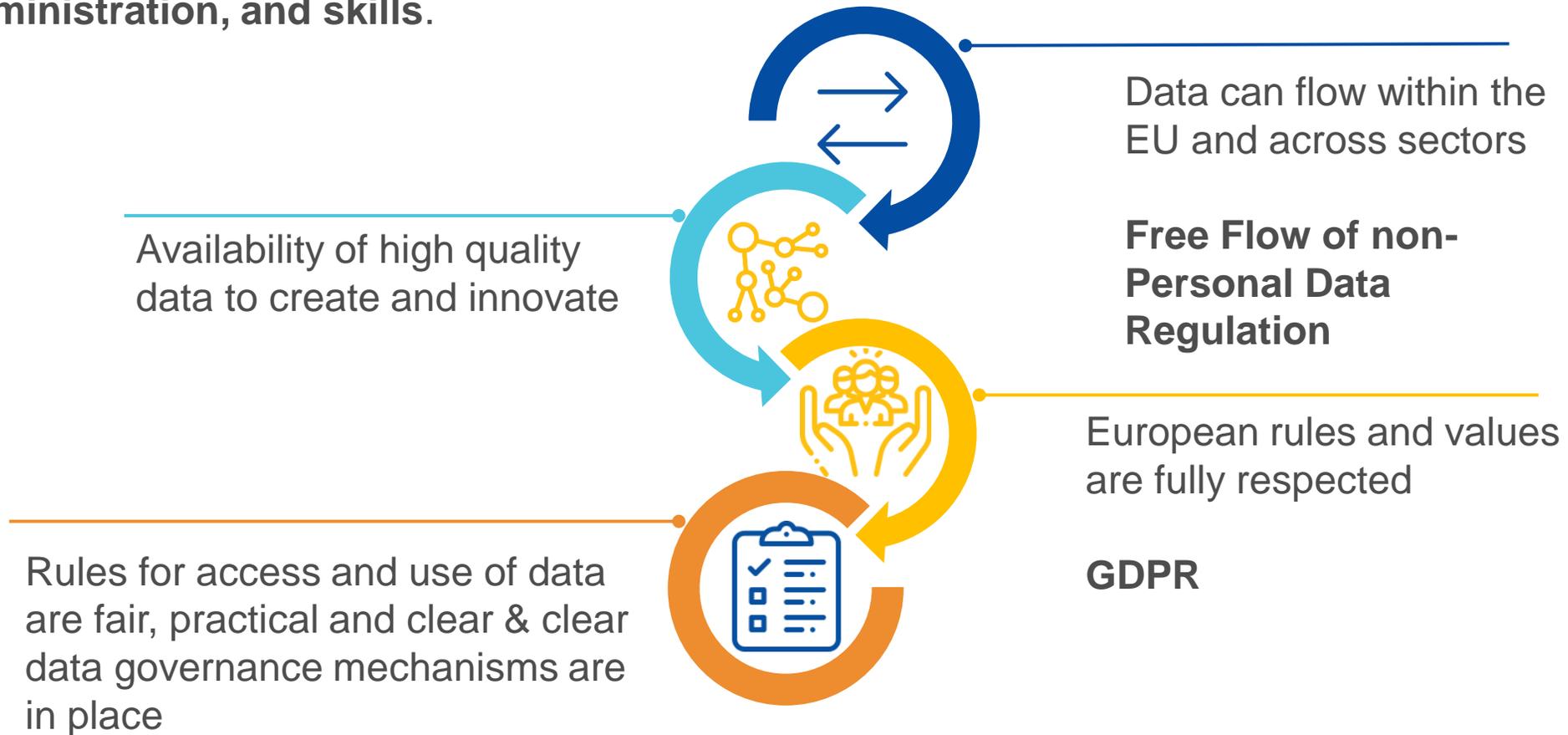
A Strategic Approach for Cloud-Edge-IoT



A European Strategy for Data

- Towards a single European data space -

Encouraging the creation of common European data spaces in nine crucial sectors: health, environment, energy, agriculture, mobility, finance, manufacturing, public administration, and skills.



Common European data spaces



High Value Datasets from public sector

- Driven by stakeholders
- Rich pool of data of varying degree of openness
- Sectoral data governance (contracts, licenses, access rights, usage rights)
- Technical tools for data pooling and sharing

Data Spaces Support Centre

- Coordinating the development of data spaces
- Assuring common standards and interoperability

Technical infrastructure for data spaces



Edge & cloud Services

Smart Middleware solutions

Marketplace

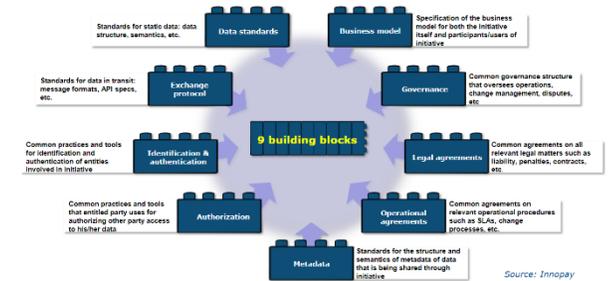
High-Performance Computing

AI on demand platform

AI Testing and Experimentation Facilities

OpenDEI: Design Principles for Data Spaces

- High-level architecture of data space
- Four Design Principles
- Nine building blocks - technical/technological, business, and organisational/operational
- Sector-specific data spaces - manufacturing, health, energy, and agriculture
- Governance and business models
- Roadmap for co-creating the soft infrastructure underlying European data spaces,
- Data Spaces supported by an Ecosystem



Minimum Interoperability

- **Minimal Interoperability Mechanisms (MIMs) or Minimum Viable Product** principles are the minimal but sufficient capabilities needed to achieve (“good enough”) interoperability of data, systems, and services.
- Case in point - SynchroniCity - Scaling up with the power of MIMs AI-and IoT-enabled market-ready services: 50 services in 21 cities (synchronicity-iot.eu)
- Focusing on cross-domain interoperability - cross connecting silos
- Easy, simple, quick and cheap to implement and easy to test for compliance
- No new standards where standards exist - NGSI LD, SAREF(4Cities), etc.
- Pivotal Points of interoperability
- Development of a viable market – cutting costs, minimising risk and preventing vendor lock-in

CEF Digital - Preparation of works for Operational Digital Platforms (ODPs)

CEF-DIG-2021-TA-PLATFORMS

Objectives

- ODPs aim to support the EU environmental and energy targets, by providing both technologies and connectivity to enable a cyber-secure Internet of Energy and an optimised transport system along the major European paths.
- ODPs will build on and integrate with existing and emerging European data, cloud and edge computing and connectivity infrastructures, in particular those supported in other parts of CEF Digital, the Digital Europe Programme, and Horizon Europe.
- This topic will be implemented in two phases via two interlinked actions: a Coordination and Support Action (CSA) in the current CEF Digital work programme and (a) works project(s) in the future CEF Digital work programme 2024-2027

Scope

- The selected CSA will prepare the future works project(s)
- Proposals submitted should cover all four stages of the CSA, to be implemented within 27 months' period, as follows:
 1. exploratory study to prepare the baseline and identify and shortlist lead use cases in energy, mobility and cross-sector energy/mobility (5 months);
 2. feasibility study for the shortlisted cases (7 months);
 3. detailed preparations for the shortlisted cases (9 months); and
 4. assistance to projects coming from the first call for works (6 months).
- Consortium should be well balanced across the relevant stakeholder groups and covering the three CEF sectors i.e. digital, transport and energy

Indicative budget for the CSA: EUR 4 mil.

Deadline for submission: 22 March 2022 – 17:00:00 CET (Brussels)

Web link: [call-fiche_cef-dig-2021-ta_en.pdf \(europa.eu\)](https://european-commission.eu/call-fiche_cef-dig-2021-ta_en.pdf)

Thank you



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