CEF Digital 2023 - 3rd Call for Proposals Slovenian Info Day

30 November 2023, 10:00–12:30

Welcome

Dr. Miroslav KRANJC,

State Secretary, Ministry of Digital transformation, Republic of Slovenia

European Commission

CEF- Digital
Call 1, Call 2 and Call 3 - Policy context

Mr. Gerasimos SOFIANATOS,

Deputy Head of Unit B.5. - Investment in high-capacity networks,

DG CONNECT, European Commission

European Commission

The Political Context: Digital Compass

2030 Digital Compass: The European Way for the Digital Decade

Digital Compass Policy Programme

Gigabit for everyone, 5G in all populated areas

Declaration on Digital Principles

Universal access to internet services

International Partnerships

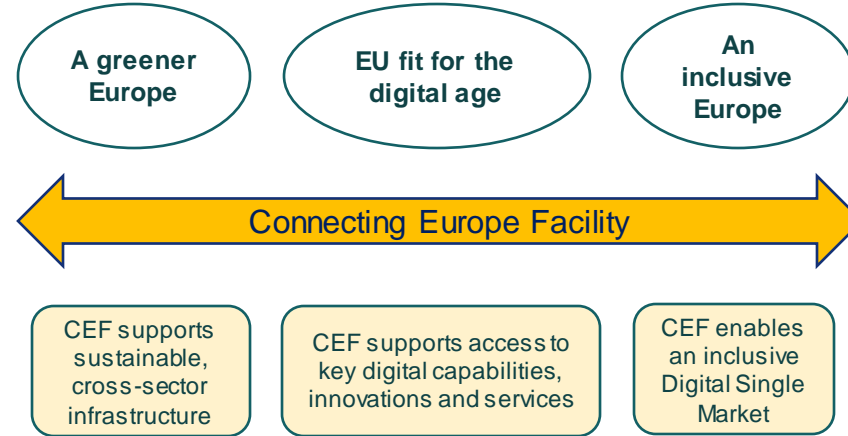Connecting EU with the rest of the world

Baseline 2020

Gigabit coverage	59%
5G in all populated areas	14%

European Commission

Connectivity for a post-COVID era

- ❑ New EU Digital Decade policy targets: 1Gbps to all households, 5G in all populated areas

- ❑ Connecting the "large": pan-European, cross-border backbones and 5G corridors

- ❑ Connecting the "small": IoT systems, towards a "zero-distance society"

- ❑ Connectivity driven by innovative use-cases, stimulus to EU digital supply, strategic autonomy

Socio-Economic Drivers and Use-Cases

Digital Platforms & Solutions

AI

HPC

Cloud

Data

Policy objectives

Gigabit infrastructure

European Commission

Funding instruments for digital connectivity

DIGITAL in the next MFF

Horizon Europe: R&D&I

Digital Europe: Capacities & roll out €7.6 billion

CEF– Digital: Connectivity €2 billion

InvestEU

ESIF

A greener Europe

EU fit for the digital age

An inclusive Europe

Connecting Europe Facility

CEF supports sustainable, cross-sector infrastructure

CEF supports access to key digital capabilities, innovations and services

CEF enables an inclusive Digital Single Market

CEF 2021-2027 (million €)

Digital (2.000)

Energy

Transport

Connectivity objectives

- ❑ 2025: 100 Mbps to all households, upgradable to 1Gbps

- ❑ 2025: 1Gbps to all main socio-economic drivers

- ❑ 2025: Uninterrupted 5G coverage in all urban areas and all major terrestrial transport paths

- ❑ **2030 (Digital Decade): 1Gbps to all households; 5G in all populated areas**

Next Generation EU Recovery and Resilience Facility

MS own investments

Private investments

CEF 2 Digital - in figures

2 Billion

- Co-funding : rates from 30% (inside-MS infrastructures) to 75% (socio-economic drivers)
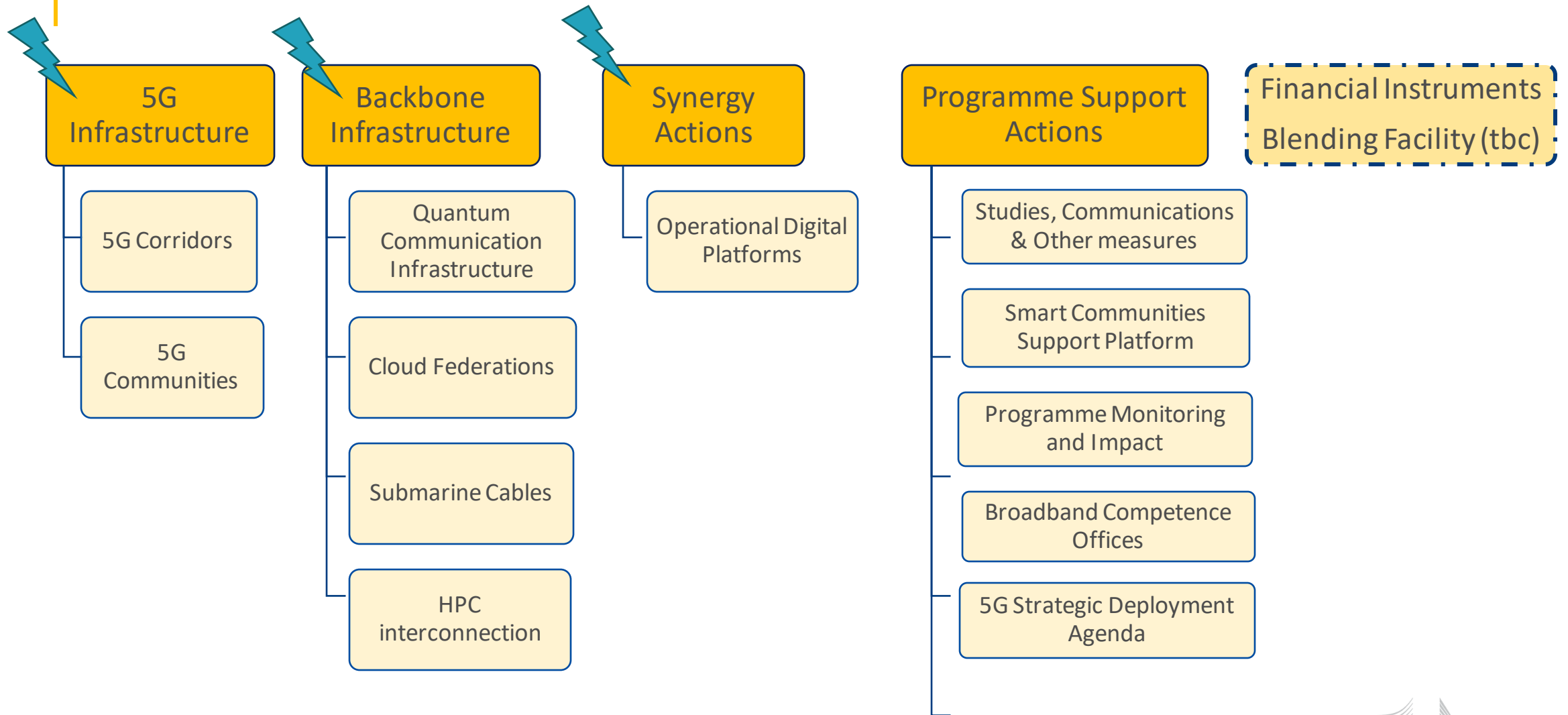- Market Failure Intervention Logic

2 Work Programmes

- WP1 2021-23 / WP2 2024-27
- Synergy with RRF and other programmes (incl. via Blending)

7 Key Actions

- Strategic Backbones / 5G / Digitising ener. & transport networks
- Coordination and support actions

European Commission

Work Programme 2021-23 – Content Overview

5G Infrastructure
- 5G Corridors
- 5G Communities

Backbone Infrastructure
- Quantum Communication Infrastructure
- Cloud Federations
- Submarine Cables
- HPC interconnection

Synergy Actions
- Operational Digital Platforms

Programme Support Actions
- Studies, Communications & Other measures
- Smart Communities Support Platform
- Programme Monitoring and Impact
- Broadband Competence Offices
- 5G Strategic Deployment Agenda

Financial Instruments Blending Facility (tbc)

European Commission

CEF-Digital Call-3: Policy context

➢ Underpinning Digital Decade targets (5G & Gigabit)

➢ Strengthening EU connectivity with the rest of the world (Global Gateways)

➢ Ensuring EU resilience in a tense geopolitical context

➢ Supporting the transformation of the telecom sector

European Commission

CEF-Digital Call-3: Building on Call 2 lessons

- ➢ More time for applicants to prepare proposals

- ➢ More time for MSs to provide support/approvals

- ➢ Continuity with exclusion clauses and guarantees

- ➢ Size of calls and readiness of topics

- ➢ Indicative grant size of proposals

European
Commission

Call 3: Opened 17 Oct 2023 – Closes 20 Feb 2024

Accelerating 5G deployment

➤ **5G corridors (EUR 100 million):**
  - o 95M€ for works
  - o 5M€ for studies

➤ **5G communities (EUR 51 million)**
  - o 51M€ for works
  - o We expect around 15 new 5G standalone best practices

➤ **5G corridors:**
  - o 25M€ for works
  - o 5M€ for studies and CSA (5G-cloud-edge integration)

➤ **5G communities**
  - o 50M€ for works
  - o We expect around 15 new 5G standalone best practices

Strategic backbones

➤ Global gateways (EUR 90 million)
  - o 75M€ for works, key strategic projects based on Global gateway priorities
  - o 15M€ for studies

Total budget: 241M€
Quality of proposal is key for success of calls!

European Commission

Presentation by topic

European Commission

Call 3: 5G and Edge Cloud for Smart Communities

Mr. Gerasimos SOFIANATOS,

Deputy Head of Unit B.5. - Investment in high-capacity networks,

DG CONNECT, European Commission

European Commission

The 5G "continuum"

Large-scale 5G deployments | Local 5G systems

Major transport paths

Urban areas

Rural areas

<u>Geographical continuum</u>:
From main corridors and cities to local communities and villages

Use Case
Use Case
Use Case
Use Case

Cloud Edge infrastructure

Connected objects and devices (IoT)
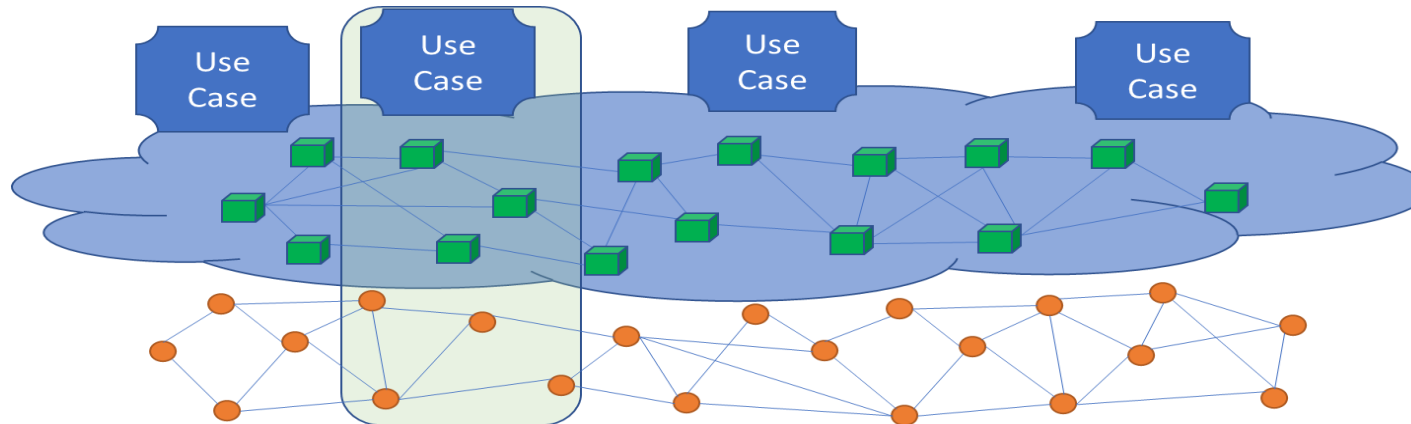
<u>Technological continuum</u>:
Application-driven vertical integration, stimulus to EU digital supply chain

5G deployment and take up (bundling connectivity to applications via cloud-to-edge/data/IoT)

European Commission

5G and Edge Cloud for Smart Communities

CEF-DIG-2023-5GSMARTCOM-EDGE-WORKS
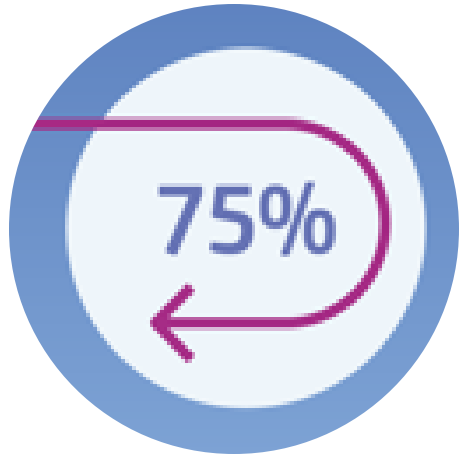
- Reimbursing **up to 75%** of the infrastructure costs

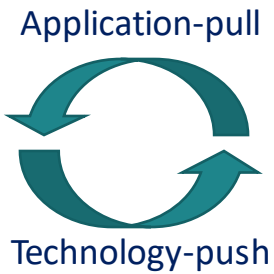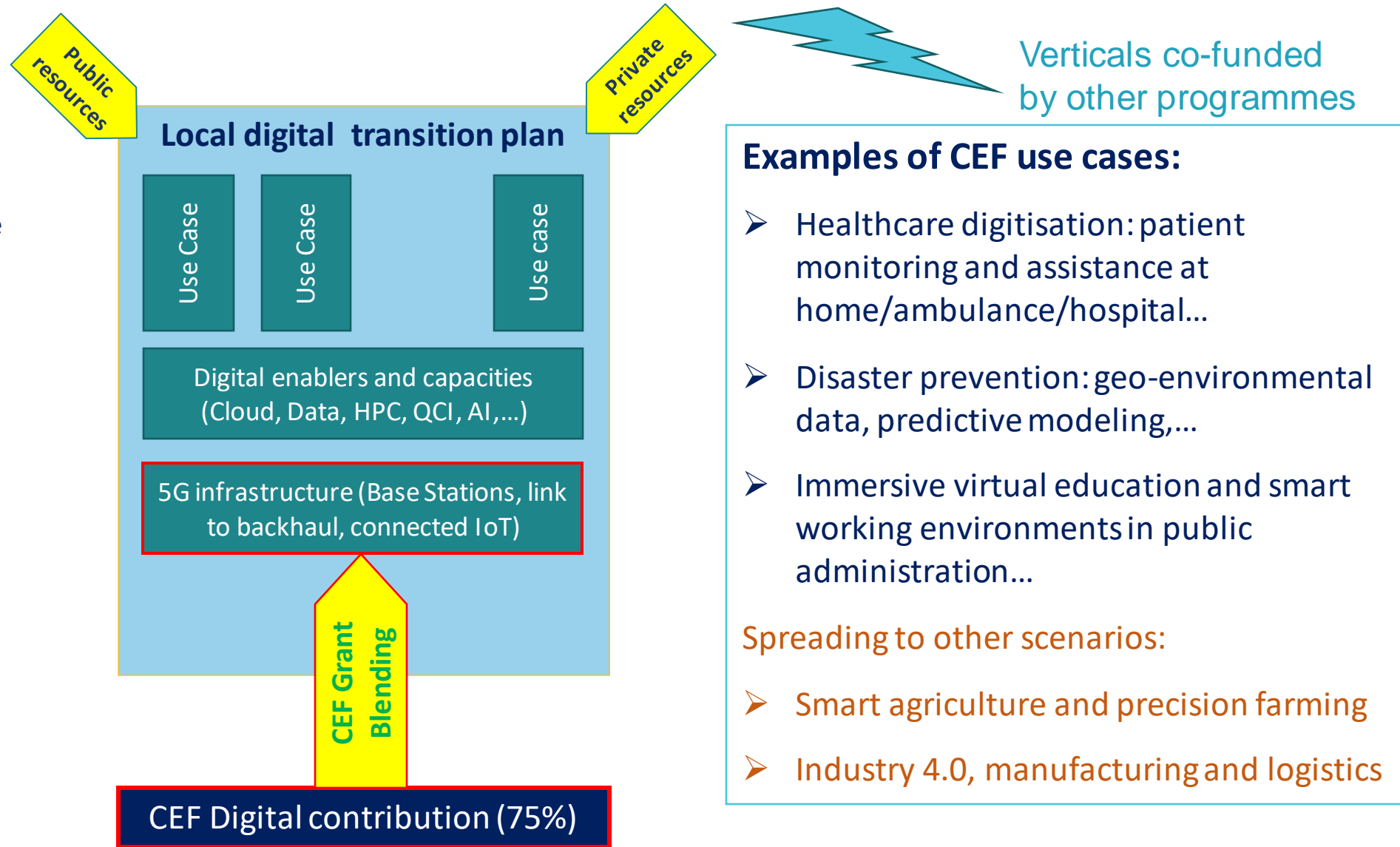- Facilitating an **online community** for stakeholders (**5GSC.EU**)

- "Partner search" function of the Funding & Tenders portal

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Using CEF Digital to pool resources

Application-pull

Technology-push

- 5G use cases to improve a Service of General Interest or develop new SGIs for a local community …

- Stimulating European digital supply chain and standards

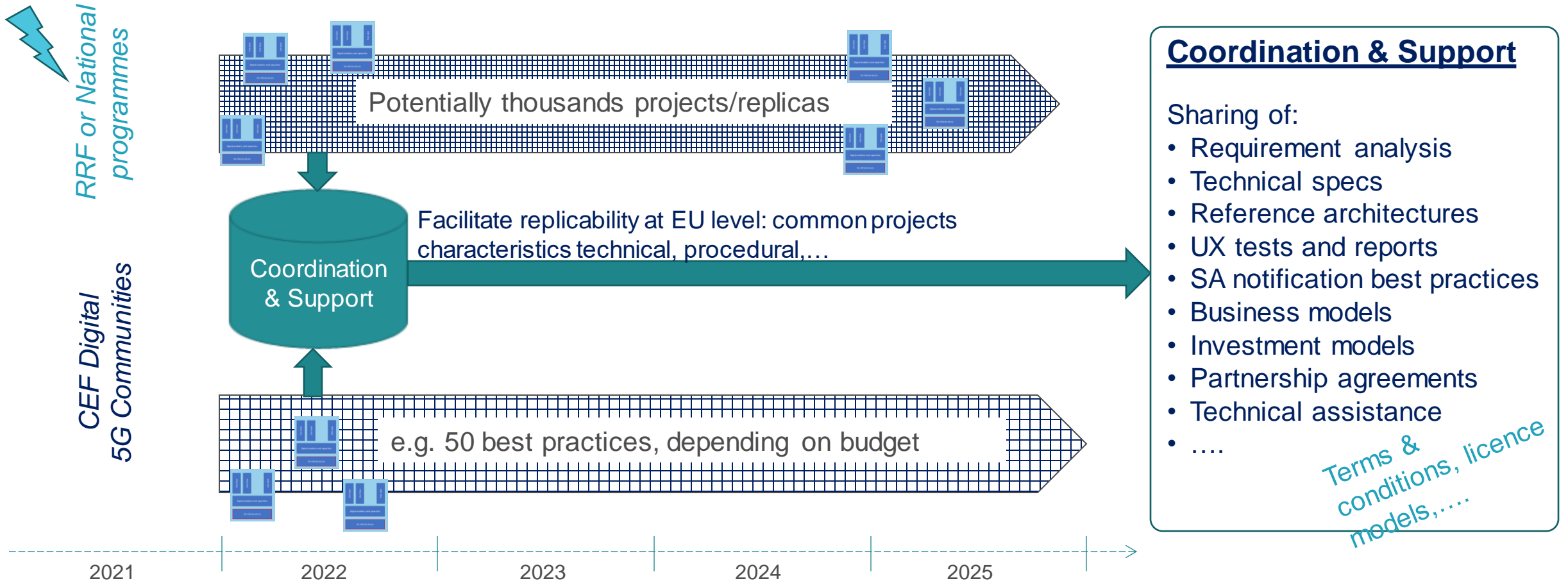- 5G deployments linked to use cases and enabling digital capacities' interconnection

Public resources

Private resources

Local digital transition plan

Use Case

Use Case

Use case

Digital enablers and capacities (Cloud, Data, HPC, QCI, AI,…)

5G infrastructure (Base Stations, link to backhaul, connected IoT)

CEF Grant Blending

CEF Digital contribution (75%)

Verticals co-funded by other programmes

Examples of CEF use cases:

- Healthcare digitisation: patient monitoring and assistance at home/ambulance/hospital…

- Disaster prevention: geo-environmental data, predictive modeling,…

- Immersive virtual education and smart working environments in public administration…

Spreading to other scenarios:

- Smart agriculture and precision farming

- Industry 4.0, manufacturing and logistics

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Synergy between programmes

RRF or National programmes

Potentially thousands projects/replicas

CEF Digital 5G Communities

Coordination & Support

Facilitate replicability at EU level: common projects characteristics technical, procedural,…

e.g. 50 best practices, depending on budget

2021 2022 2023 2024 2025

Coordination & Support

Sharing of:
- Requirement analysis
- Technical specs
- Reference architectures
- UX tests and reports
- SA notification best practices
- Business models
- Investment models
- Partnership agreements
- Technical assistance
- ….

Terms & conditions, licence models,….

European Commission

5G Communities

Early adoption initiative to boost 5G coverage & take up in Europe

- ❑ Demand-driven: beneficiaries are providers of SGIs

- ❑ Focus on projects that do not involve state aid or aid that can be considered compatible without notification

- ❑ Innovative use-cases for which 5G is "indispensable"

- ❑ Fibre backhaul capacity available

- ❑ Best practice, blueprint for possible replication and/or co-funding under other programmes, including RRF

- ❑ Up to 75% co-funding from CEF (Art. 14 of CEF Reg.)

Health, Education, R&I programmes…

5G and Edge Cloud for Smart Communities

CEF-DIG-2023-5GSMARTCOM-EDGE-WORKS

Funding

- Call-3: **51 million euros**

- Deployment of 5G and Edge infrastructure elements that enable innovative use-cases for services of general interest or public authorities

Raising Awareness

- [Benefits of 5G in populated areas](#) & the importance of reaching 5G targets

- FYI: The dedicated **Coordination & Support platform (CSA)** will gather good practices & disseminate results

- See also the call: CSA for edge cloud integration

European Commission

5G and Edge Cloud for Smart Communities

CEF-DIG-2023-5GSMARTCOM-EDGE-WORKS

Eligible costs

✓ 5G passive & active infrastructure, including **5G connectivity software** & **services** and **connectivity hardware/software** for objects

✓ **Edge cloud hardware/software**

✓ Fibre backhaul, yet *not* the major focus (< about 10%)

✗ Individual applications, internet software services
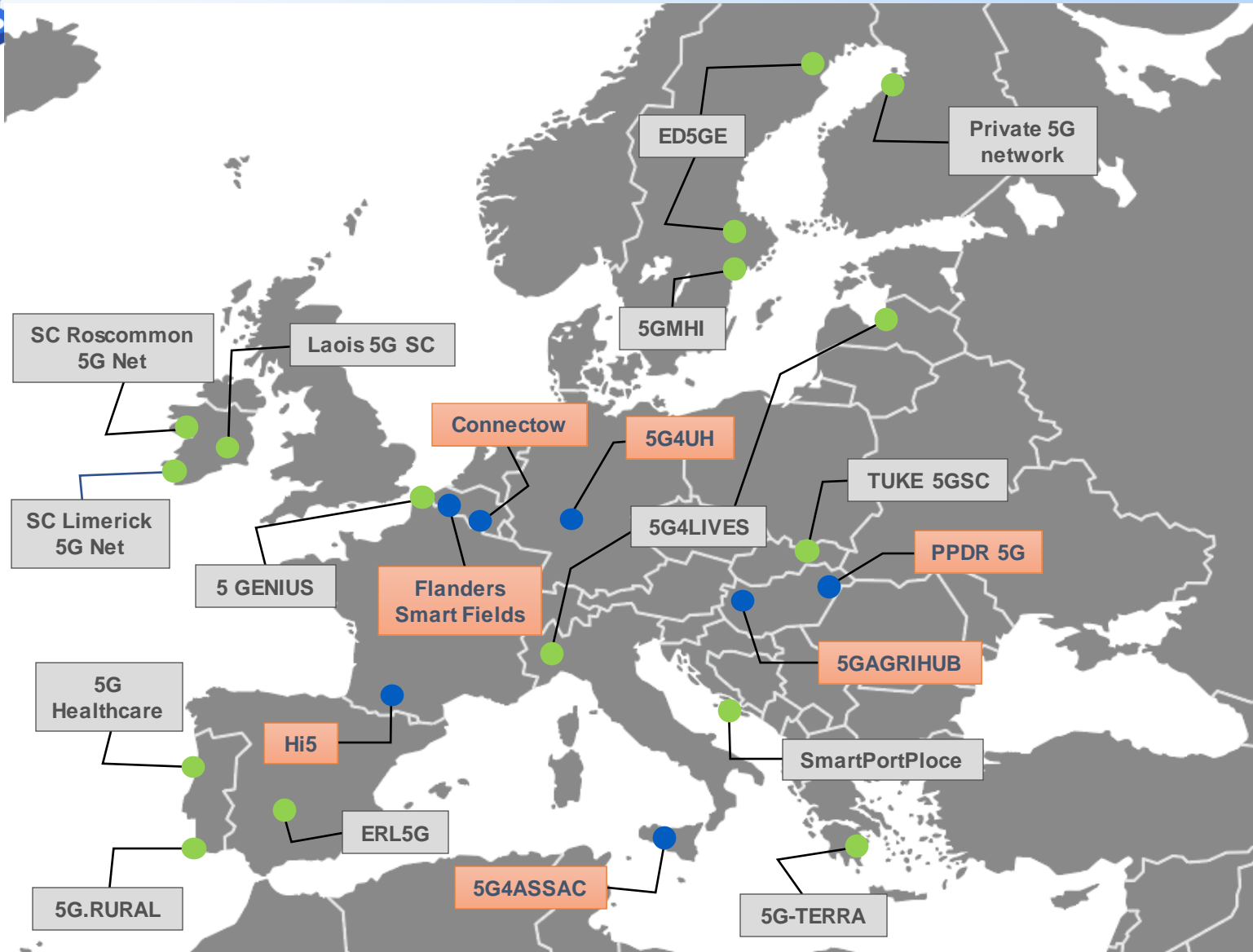
Security Requirements

✓ Applicants should fill in **self-declarations**, including **guarantees approved by the Member State** in which they are established, on the basis of national law

(Not applicable for the end-users of the consortium)

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Call 1 to Call 2 Evolution

Call 1 (ongoing projects)

Connectow

5G4UH

Flanders
Smart Fields

PPDR 5G

5GAGRIHUB

Hi5

5G4ASSAC

European
Commission
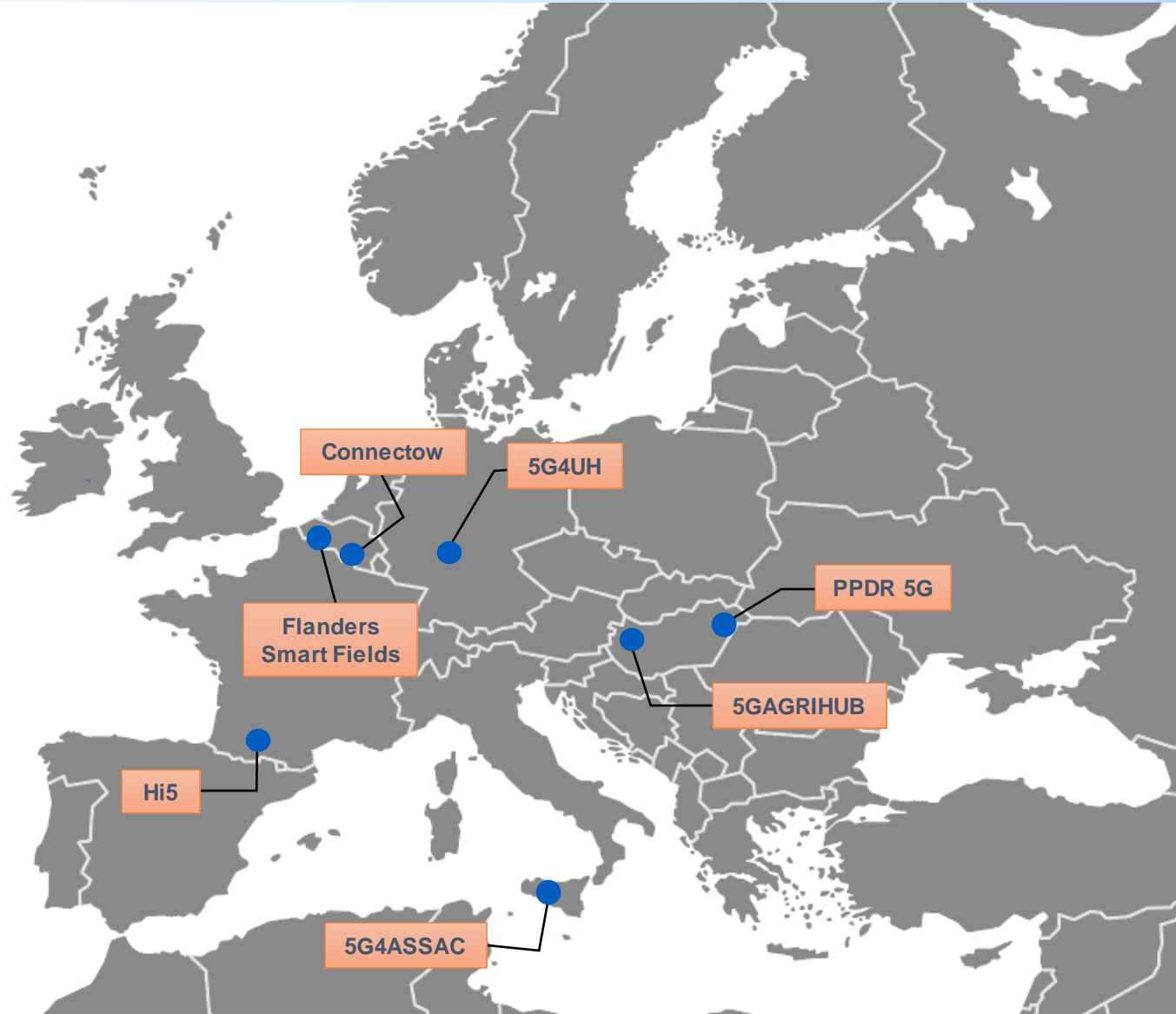
Call 1 to Call 2 Evolution

Call 1 (ongoing projects)

Call 2 (submitted proposals)

ED5GE

Private 5G network

5GMHI

SC Roscommon 5G Net

Laois 5G SC

SC Limerick 5G Net

Connectow

5G4UH

TUKE 5GSC

5G4LIVES

PPDR 5G

5 GENIUS

Flanders Smart Fields

5GAGRIHUB

5G Healthcare

Hi5

SmartPortPloce

ERL5G

5G.RURAL

5G4ASSAC

5G-TERRA

European Commission

Example of projects

≈ € 4.00 M

5G for a Smart Academic Campus in Sicily

≈ € 3.34 M

5G for the Frankfurt University Hospital

≈ € 4.00 M

A 5G network for Disaster Relief & Public Protection along Hungary-Ukraine border

≈ € 0.4 M

A 5G network in a Mosonmagyaróvár farm

≈ € 2.8 M

5G Connectivity for Smart City Services in Toulouse

≈ € 2.98 M

A 5G Network for Emergency Responses in Wavre

≈ € 4.13 M

5G Coverage for Healthcare & Education in Flanders Fields

*The amounts refer to the max EU financial contribution

European Commission

5GSC Call-1 & -2 trends

- **From projects' portfolio**
  - Public Operators - Alternative Operators - Tower Companies
  - Public & Private 5G Networks (MPN)
  - Transitional flexibility: 5G Standalone (SA) & 5G non-Standalone (NSA) (RF upgrade, 4G core)
  - **Edge Cloud** network integration (with EU-based cloud solutions)
    - Key benefits:
      - Densification: increase of the connected objects & devices
      - Reduced power consumption
  - Variety of IoT applications (port safety, city recycling, city traffic, precision agriculture)
  - Multiple verticals (health, education, energy, transport)
  - Positive impact in environmental transition and energy consumption

European Commission

Call-3 in a **snapshot**

- **What's new**
  - Bundling 5G with **Edge Cloud** deployment.
  - Reimbursement of the Edge Cloud computing infra as an option (if deployed at the same location to take advantage of energy and time efficiencies).

- **What remains unchanged**
  - At least 2 partners: the owner of the 5G infra & the provider of the SGI use-case.
  - Up to 75% reimbursement of the infra cost (passive & active).
    - Fibre backhaul (up to 10%).
  - Total funding: €51 million.
  - Procurements should be in line with 5G cybersecurity toolbox (high-risk suppliers).
  - Duration 36 months (extensions are possible).

European Commission

5GSC Community Support Platform

- **Make sure to join the 5GSC Community Support Platform: 5GSC.eu**

- The platform is a networking & knowledge-exchange online platform where you can:

  - Meet like-minded stakeholders & project partners
  - Share good practices
  - Stay up to date with 5G events
 - Get information on call openings

European Commission

Call 3: 5G and Edge Cloud for Smart Communities

Useful tips and Guidelines for Applicants of Call 3

Mr. Xavier DERREY,

Head of Sector of Unit "Connecting Europe Facility – Digital", Health and Digital Executive Agency (HaDEA)

European Commission

HaDEA – the European Health and Digital Executive Agency

Programme sectors
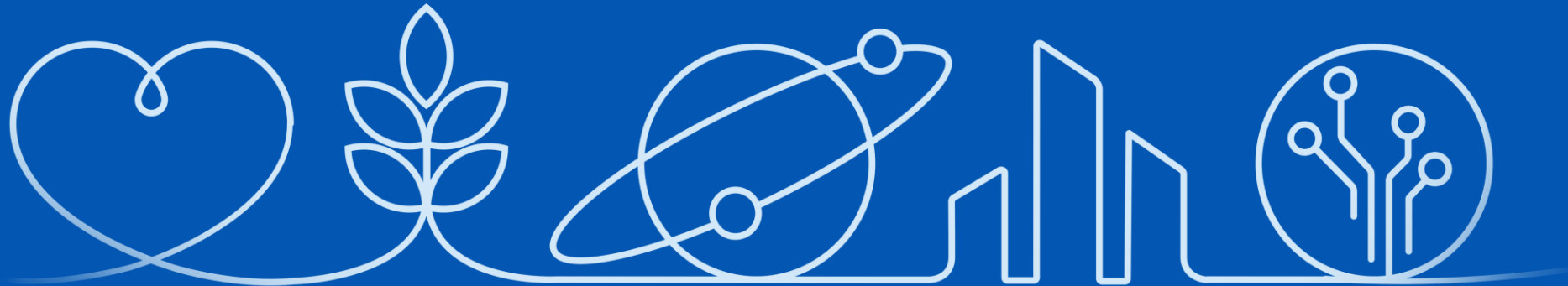
Health   Food safety   Space   Industry   Digital

Budget managed by HaDEA

(2021-2027)

Expected total budget managed by HaDEA will amount to over **€20 billion**

Single Market Programme
Food safety
€1.3 billion

CEF Digital
€1.6 billion

Digital Europe
€0.8 billion

Horizon Europe
Digital, Industry & Space cluster

€6.1 billion

Including €500 million under Next Generation EU

Horizon Europe
Health cluster
€5.4 billion

Out of the total budget of €8.2 billion, including €1.3 billion under Next Generation EU

EU4Health
€4.7 billion*
Out of total budget of €5.3 billion

in current prices

European Commission

CEF-Digital programme 2021-27

5G coverage along transport corridors

5G and Edge for Smart Communities
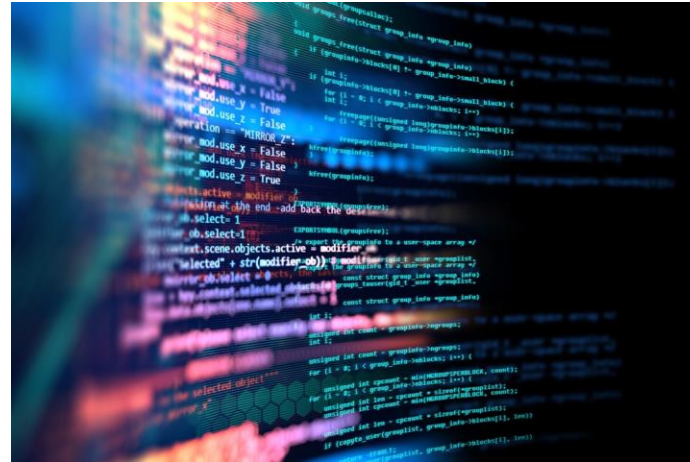
Backbone connectivity for Digital Global Gateways

Backbone networks for pan-European cloud federations

Quantum Communication Infrastructure

Operational Digital Platforms

€142 millions (Work Programme 2021-27)

European Commission

1st wave of 5G for Smart Community (5GSC) projects

Connectow
- Smart City
- Emergency response
- Tourism

Flanders Smart Fields
- Healthcare
- Emergency response
- Education

5G4UH
- Healthcare

PPDR 5G
- Security
- Disaster relief

5GAGRIHUB
- Agriculture

Hi5
- Smart city
- Mobility
- Education

5G4ASSAC
- Research
- Healthcare

7 projects funded in a first wave

Total investment **€28 M**

EU grants **€21,4 M**

Replicable 5G use cases for socio-economic drivers

Learn more

European Commission

CEF Digital: Calls-3 are open!

#HaDEA #DigitalEU #CEFDigital

hadea.ec.europa.eu

HaDEA – European Health and Digital Executive Agency

@EU_HaDEA

HADEA-CEF-DIGITAL-CALLS@ec.europa.eu

5GSC Consortium Composition

At least 2 partners:

The owners of the funded 5G infrastructure:

the company (MNO) that will operate the network infrastructure (possibly a private network and with unlicensed 5G spectrum)

The end-users:

public authorities or providers of services of general interest *(during the lifetime of the project)*

European Commission

Scope

Scope	MNO	End-User	Out of scope
5G active infrastructure (5G radio equipment)	✓		
5G passive infrastructure (additional base stations necessary)	✓		
Licenses and software for 5G connectivity	✓		
Connectivity elements of mobile or fixed devices (antenna equipment, transceivers and connected sensors)	✓	✓	
Fibre backhaul	✓ (< 10%)		
Upgrade of existing infrastructure	✓		
Edge computing infrastructure, including hardware and software	✓		
Internet & software services			✓
Development of the 5G use case			✓
Use case design	✓	✓	

European Commission

Quality of proposal
What is the reader looking for?

1. Simple language

   ➢ Avoid jargon and do not take any background knowledge for granted

2. Information easy to find

   ➢ It is your responsibility to demonstrate how your proposal addresses the award criteria as indicated in the call text. The evaluation of your proposal is based on the content you provide in the application form; be as specific and clear as possible. <u>No assumptions or requests for additional information will be made.</u>

3. Mandatory annexes

4. Relevant maps, graphs, etc. (optional annexes)

European Commission

Mandatory annexes - Requirements

✓ **Digital security declarations** signed by the participating entities

✓ **Digital security guarantees** signed by the participating entities & approved by Member States

✓ **End-user declaration** - no (sufficient) 5G connectivity service available

✓ **MNO declaration** - beyond coverage obligations

✓ **Member States agreement** - Letters of support

✓ **Local/regional authorities'** letter - no other support/roll-out planned

European Commission

DO'S

DON'TS

- Read carefully the Work Programme & Call document;

- Always use the application forms and templates provided in the Submission System;

- Read the evaluation criteria and convincingly demonstrate the need for EU funds;

- Complete all sections and submit mandatory supporting documents (security declaration & guarantee etc.)

- Submit as many times as you wish, updating your application, before the call deadline.

- Don't forget to describe the technical architecture of the 5G use cases;

- Don't include activities which are out of scope;

- Do not forget to register all beneficiaries, affiliated entities and associated partners in the Participant Register;

- Don't forget to put both the 2 minimum applicants in the system;

- Don't wait until the last minute to submit your application.

European Commission

Applicant's checklist

☑ Did you…

> ➤ Contact external stakeholders (administrations, MS), as early as possible in order to get support letters, security guarantees approvals, in time
>
> > ➤ Check the [National Contact Points (europa.eu)](europa.eu)

☑ **Deadline** by 20 February 2024 at 17:00 CET (Brussels time)

- *Complete your application sufficiently in advance to avoid any last-minute technical problems. Don't leave submission to the last day!*

European Commission

Be well prepared for your applications!

➢ **Digital Security** – Read carefully the new [Communication from the Commission on the Implementation of the 5G cybersecurity Toolbox](#) by Member States

➢ **Benefit from the [5GSC Support Platform](#)** – capacity building sessions (available recordings/material), community network, **cooperation** and 5G use-case replicability across Europe

➢ **Check regularly the Frequently Asked Questions** in the [Funding & tender opportunities portal](#)

➢ **CEF-Digital Info day of 26 October** [Recording and presentations available](#)

European Commission

Useful links

Guidance documents

- How to participate
- Participant Register
- Detailed guidance for applicants and beneficiaries

Reference documents

- Horizon Europe
- Digital Europe Programme
- Connecting Europe Facility

Funding opportunities

- Funding & tender opportunities

Helpdesk & Support

- Helpdesk & Support Services
- Support Videos

HaDEA at your service
Thank you!

#CEFDigital
#DigitalEU

hadea.ec.europa.eu

HaDEA – European Health and Digital Executive Agency

@EU_HaDEA

HADEA-CEF-DIGITAL-CALLS@ec.europa.eu

European Commission

Call 3: 5G coverage along transport corridors

Ms. Bianca JITEA,
Policy Officer, Unit E.1 - Future Connectivity Systems,
DG CONNECT, European Commission

European Commission

5G Corridors: driving the EU Green and Digital Transition

- Multi-Country Project (MCP) Vision: Pan-EU 5G corridors for Connected and Automated Mobility

- Private investment with public funding of cross-border and "challenge" areas

- CEF Digital
  - Objective: 26.000km transport paths along TEN-T intra-EU borders; Investment required: ~EUR 5,4 bn   49
  - Planned EC funding ~€800M for 5G Corridors
  - Call-1: projects launched in 2023
  - Call-2: closed, evaluation results in Q4 2023
  - **Call-3: 17 October 2023 - 20 February 2024**

- Blending or coordination with RRF, InvestEU and national programmes

- Smart Networks and Services Joint Undertaking formally tasked to coordinate Strategic Deployment Agendas (Road & Rail)

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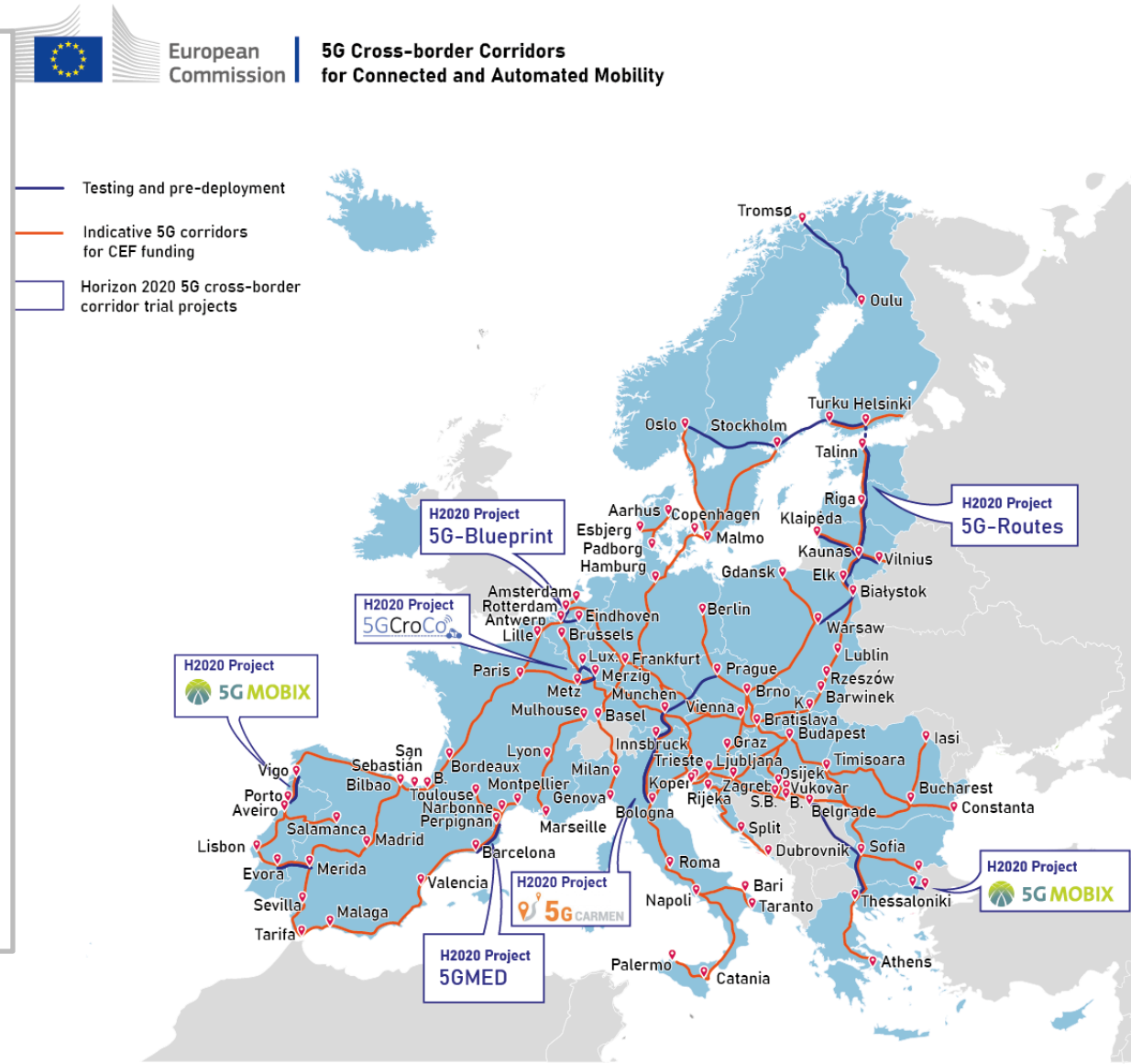
5G Corridor Projects: CEF Digital Call 1 2022

WORKS

1 5G SEAGUL
Sofia (BG) to Velestino (EL)
~ 475 km

2 EVOCAM5G
Evora (PT) to Merida (ES)
~ 155 km

3 IBERIANL5G
Vigo (ES) to Aveiro (PT)
to Salamanca (ES)
~ 600 km

4 MEDCOR5G
Barcelona (ES) to Montpellier (FR)
~ 550 km

5 NATCOR5G
Bilbao (ES) to Bordeaux (FR)
~ 515 km

6 5G DeLux
Frisange (LU) to Güdingen (DE)
~ 100 km

7 5G NETC
Malmö (SE) to Helsinki (FI)
to Riga (LV)
~ 2000 km

STUDIES

8 5G Brno – Bratislava
Brno (CZ) to Bratislava (SK)
~ 140 km

9 5G MELUSINA
Luxembourg (LU) to Metz (FR)
~ 70 km

10 5G on Track
Mulhouse (FR) to Karlsruhe (DE)
~ 200 km

11 5GCarolina
Prague (CZ) to Munich (DE)
~ 70 km

12 5G Gail
Udine (IT) to Salzburg (AT)
~ 200 km

13 5G Estuary
Antwerp (BE) to Vlissingen (NL)
~ 260 km

14 Latest 5GS
Tallin (EE) to Vilnius (LT)
~ 670 km

15 EUMOB
Bordeaux (FR) to Bilbao (ES)
Perpignan (FR) to Barcelona (ES)
~ 500 km

Road
Rail
Rail and road

Road and rail network based on the list of 5G corridors and cross-border backbone
connections identified in Part V of the Annex of CEF Regulation (EU) 2021/1153.

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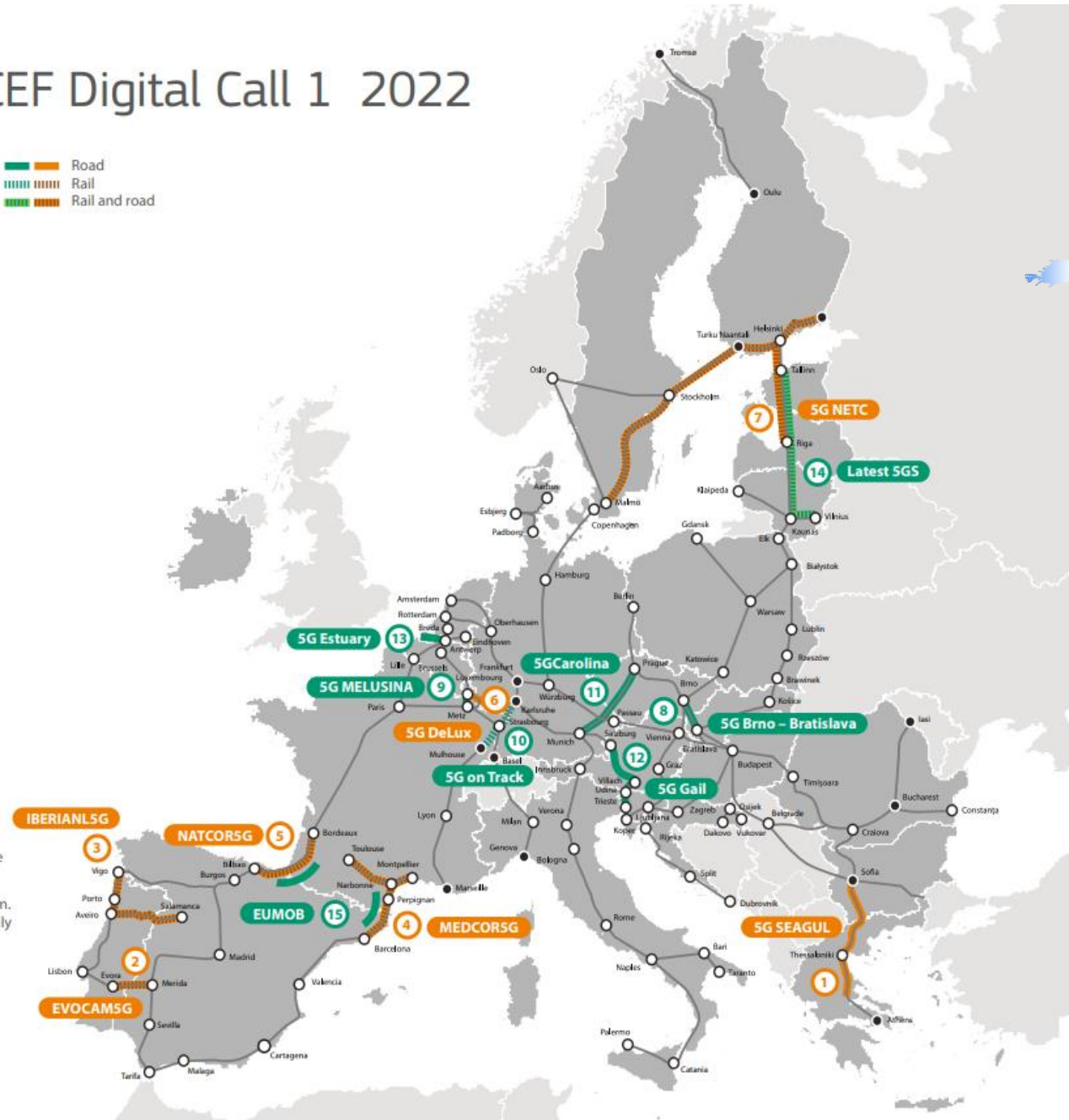
5G Corridor Planning

CEF Digital 5G corridor deployment calendar & planning											
Year		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	EU Budget
Early Wave Call 1		Call Q4-Q1		Studies								
		Call Q4-Q1		Deployment (CEF/RRF)								42 MM €
Call 2			Call Q4-Q1		Studies							
			Call Q4-Q1		Deployment (CEF/RRF)							28 MM €
1st big Wave (Call-3)				Call Q4-Q1	Studies							
				Call Q4-Q1		Deployment (CEF/RRF)						100 MM €
2nd big Wave (TBC)						Call Q1-Q2	Studies					
						Call Q1-Q2	Deployment (tbc)					
Last Wave (TBC)												TBC

5G Corridor CEF Budget: 170 MM € for 2021-23

- Call-1 Studies and Projects launched in 2023 (8 studies & 7 works)
- Call-2 Studies & Projects will launch in 2024: winning projects to be announced shortly
- Call-3 : Published on 17/10/23, EU budget 100 MM € (50% co-financing)

European Commission

Call 3 Objectives

✓ **Leverage the needed private investment** to establish a full pan-European network of 5G corridors, for road, rail and waterways, with a focus on cross-border sections

✓ **Deploy paths** following the TEN-T corridors (indicative list in Part V of CEF Regulation Annex), but not limited to

✓ **Attain uninterrupted coverage across borders** and along national sections of transport paths, thus enabling **service continuity** for vehicles, trains, barges etc., **on the move**

✓ **Provide 5G connectivity that meets stringent QoS** requirements for CAM, FRMCS, RIS and multi-service application of 5G services, including non-safety related services

✓ Transport modes covered: **rail, road, inland waterways and/**or a **multimodal** combination thereof (i.e., smart logistics use cases in multimodal logistics platforms and ports, etc.)

European Commission

Call 3: What to expect?

- Proposals for **deployment works** based on the 8 CEF-funded inception studies conducted as part of Call 1

- **New deployment work** proposals based on preparatory work done outside of the CEF-Digital Work Programme

- **Inception studies** to prepare the groundwork for deployment projects to be submitted in upcoming calls under the 2nd big wave in 2025

CEF Digital Budget EUR 100 million

Up to 50% co-financing for Works & Studies

Scope – 5G deployment works

✓ **Investing in challenging areas** where market forces alone will not deliver needed quality of service

✓ Deployment/installation of

    ✓ **Passive network elements** including civil works: dark fibre, 5G radio stations, towers, masts and/or pylons, etc.

    ✓ **Active network elements**: antennae, storage and computing capabilities such as network controllers, routers, switches, exchanges, edge MEC/node, etc.

    ✓ **Specific track side devices** (road, rail) for CAM use cases, such as sensors, cameras to monitor traffic, including connected road-side units

✓ **Studies for preparatory works**, such as network planning, to be deployed as part of proposed works **within the same application**

European Commission

Consortium Composition

✓ Minimum 2 applicants (beneficiaries; not affiliated entities) from at least 2 Member States or a Member State & an associated/3rd country

✓ Exception: minimum 2 applicants (beneficiaries, not affiliated entities) from **at least one Member State** - when there is no terrestrial border with another Member State - 5G corridor deployment projects crossing the border into a 3rd country or terminating at a port with maritime connections to other EU Member States

Possible Consortium Members

✓ 5G spectrum band owners / telecom operators

✓ Tower companies

✓ Public authorities/agencies in charge of traffic and infrastructure management

✓ Road operators

✓ Rail infrastructure managers

✓ Original equipment manufacturers (OEM)

✓ Mobility service providers (such as innovative solutions providers for traffic management and intelligent transport systems)

➢ **A broad range of cooperation models**

European Commission

Call requirements: deployment works

✓ Cross border areas – Threshold 15%, more if market failure

✓ Make use of 5G pioneer bands

✓ FRMCS 900MGhz and 1900MHz also in scope

✓ If C-ITS using 5.9 GHz is covered by the project, compatibility/analysis to be addressed

✓ Go beyond coverage obligations (self-declaration MNO required)

✓ Digital security requirements! declarations and guarantees

✓ "Market failure declaration" from coordinator – no other 5G infrastructure present or credibly planned

European Commission

Efficiencies and Synergies

- Sharing Network infrastructure (passive/active) is encouraged to reduce costs and speed-up deployment, e.g., where road and rail transport paths run in parallel

    o Passive: Civil works, backhauling, mast, pylons, co-location
    o Active: Secure Radio Access Network (RAN) slicing for different use cases

- Integrating 5G corridors with edge nodes and cloud infrastructure to develop innovative mobility ecosystems and to also meet the needs of local communities on the way

- Synergies with CEF Transport could be foreseen

- Complementarity with national deployment projects covered by different instruments, such as the RRF, ESIF, or Invest EU

European Commission

Slovenia in call 2: 5G ADRIA

- Inception study submitted by Slovenia & Croatia focused on defining the needed 5G infrastructure to support future traffic-related services to be used along TEN-T transport corridors

- The addressed transport route will span from Slovenian Port Koper via Ljubljana to Bregana border crossing, continuing in Croatia to Zagreb and further to Port Rijeka

- Will deliver common steps and results that could be transferable to other corridors in both countries

- Consortium: Telemach Slovenija, sirokopasovne komunikacije, d.o.o., together with its partners Druzba za Avtoceste v Republiki Sloveniji D.D, Transmitters and Communications Ltd, and Univerza v Ljubljani

Results of call 2 with successful proposals to be published shortly

European Commission

Slovenia in call 3?

5G ADRIA to prepare the groundwork for future deployment work, namely to

(1) match the existing passive and active infrastructure along the corridor against current traffic information and management services. The study will represent the foundation for the evolution of future networks and services;

(2) introduce initial standardised CAM services with improved traffic information and management, requiring improved 5G coverage with higher data demands and vehicle density;

(3) introduce advanced CAM services with cooperative safety and real-time international traffic information exchange and traffic management, putting pressure on dense 5G coverage, high-data throughput, low-service latency and high-service reliability;

(4) prepare the basis for next-generation networks with outstanding performances that might not be achievable in the near future, e.g. services requiring extremely high data throughput and low latencies.

Deployment works foreseen?

European Commission

Call 3: Backbone connectivity for Digital Global Gateways

Mr. Thomas KÜPPER

Policy Officer Broadband and Submarine Cables

Unit B.5 - Investment in High-Capacity Networks
DG CONNECT, European Commission

European Commission

"We will build __Global Gateway__ partnerships with countries around the world. We want investments in quality infrastructure, connecting goods, people and services around the world.

We will take a values-based approach, offering transparency and good governance to our partners.

We want to create links and not dependencies!

And we know how this can work. Since the summer, a new underwater fibre optic cable has connected Brazil to Portugal.
[…]
In an unprecedented manner, we will invest in 5G and fibre."

President European Commission, Ursula von der Leyen

**State of the Union speech to the European Parliament, Strasbourg,
15 September 2021**

Connectivity Ambition

2025 Gigabit Society Objectives

- 100 Mbps to all households, upgradable to 1Gbps

- 1Gbps to all main socio-economic drivers (schools, businesses, etc.)

- Uninterrupted 5G coverage in all urban areas and all major terrestrial transport paths

2030 Digital Compass Targets

- All European households will be covered by a Gigabit network
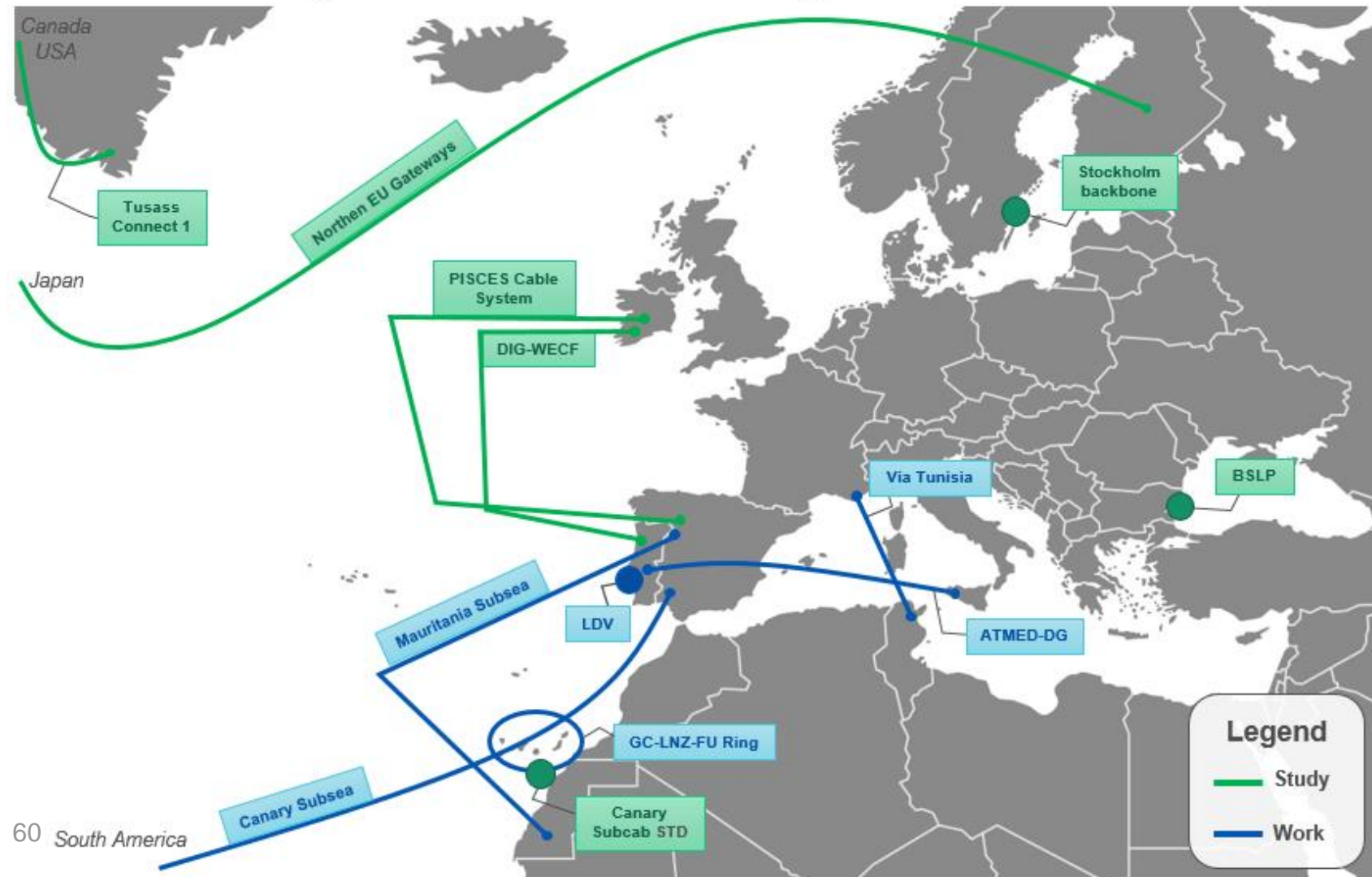
- All populated areas covered by 5G

European Commission

Digital Global Gateways - CEF Call-1 Results

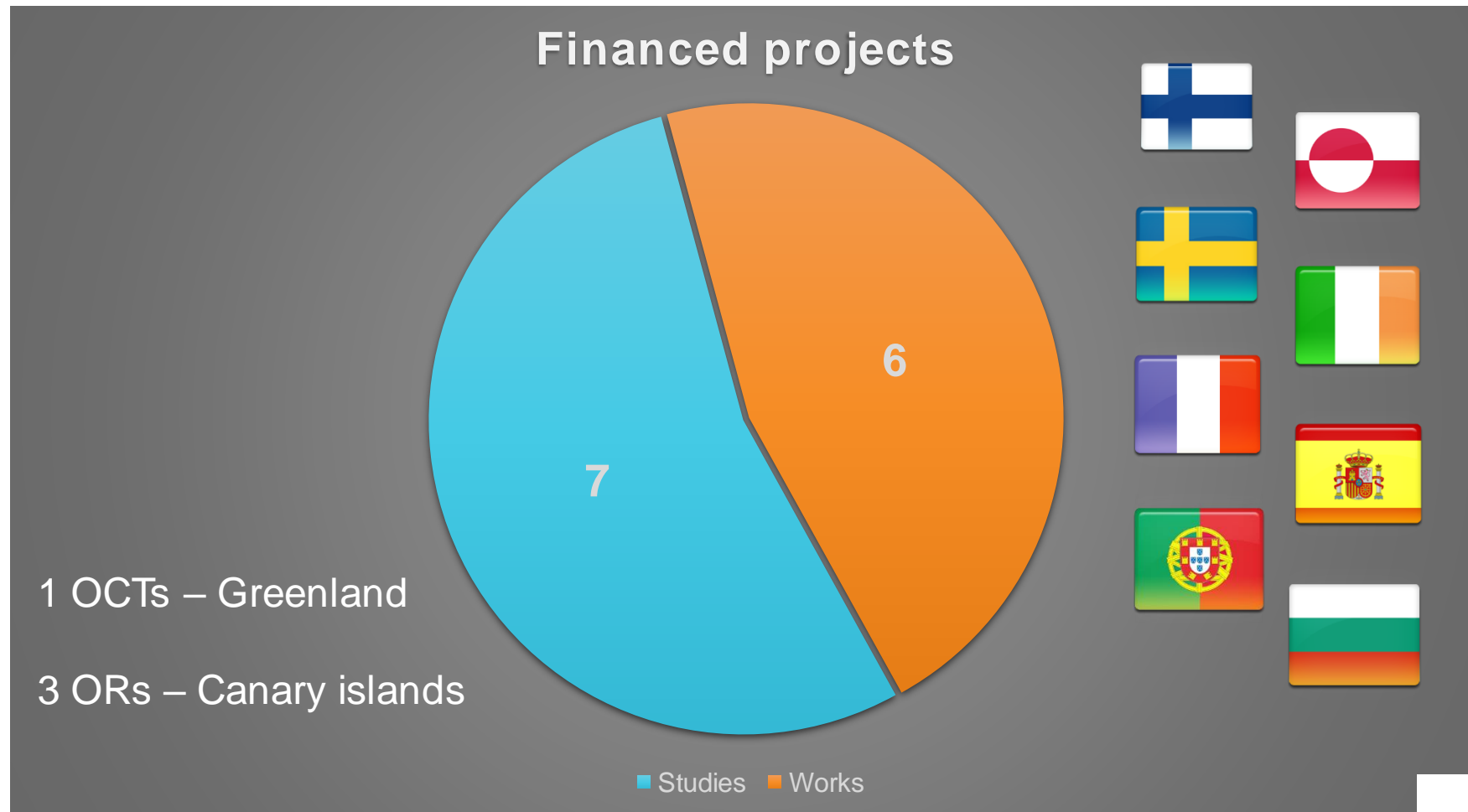|					
CEF-DIG-2021-GATEWAYS-STUDIES	21-GL-DIG-Tusass Connect 1	Tusass Connect 1	Tusass	GL	8.845.988,50 €
CEF-DIG-2021-GATEWAYS-STUDIES	21-EU-DIG-WECF	West European Coast Festoon	Orange	FR	423.267,00 €
CEF-DIG-2021-GATEWAYS-STUDIES	21-EU-DIG-NORTHERN EU GATEWAYS	Planning of development of the autonomous digital backbone and connecting Europe with global strategic partners	Cinia	FI	3.650.000,00 €
CEF-DIG-2021-GATEWAYS-STUDIES	21-SE-DIG-Stockholm Backbone	Resilient Stockholm Archipelago Backbone	Netonomics AB	SE	189.945,00 €
CEF-DIG-2021-GATEWAYS-STUDIES	21-IE-DIG-PISCES Cable System	Portugal Ireland Spain Connecting Europe Subsea	McMahon Design and Management	IE	4.000.214,00 €
CEF-DIG-2021-GATEWAYS-STUDIES	21-ES-DIG-CANARY-SUBCAB-STD	Study to deploy new submarine cables in Canary Islands	Canalink	ES	413.425,00 €
CEF-DIG-2021-GATEWAYS-STUDIES	21-BG-DIG-BSLP	Black Sea Landing Point	Varna Net Ltd	BG	57.500,00 €
CEF-DIG-2021-GATEWAYS-WORKS	21-IE-DIG-Mauritania Subsea	Submarine cable connecting Mauritania to Portugal and Europe	EllaLink	IE	9.570.811,20 €
CEF-DIG-2021-GATEWAYS-WORKS	21-ES-DIG-ATMED-DG	Digital Gateway between the Atlantic and the Mediterranean	AFR-IX Telecom	ES	7.792.411,50 €
CEF-DIG-2021-GATEWAYS-WORKS	21-ES-DIG-GC-LNZ-FU Ring	Submarine cable system between Gran Canaria, Lanzarote and Fuerteventura in Canary Islands	Canalink	ES	23.000.853,40 €
CEF-DIG-2021-GATEWAYS-WORKS	21-PT-DIG-LDV - ICC	LDV - Interconnection and Colocation Center	MEO	PT	717.984,00 €
CEF-DIG-2021-GATEWAYS-WORKS	21-FR-DIG-ViaTunisia	Submarine cable between Marseille (France) and Bizerte (Tunisia)	Orange	FR	10.000.000,00 €
CEF-DIG-2021-GATEWAYS-WORKS	21-IE-DIG-Canary Subsea	Build the future Canary Islands submarine cable connection	EllaLink	IE	13.691.173,40 €

European Commission

Digital Global Gateways - CEF Call-1 map

Canada USA

Japan

South America

Tusass Connect 1

Northen EU Gateways

PISCES Cable System

DIG-WECF

Stockholm backbone

Via Tunisia

BSLP

Mauritania Subsea

LDV

ATMED-DG

Canary Subsea

GC-LNZ-FU Ring

Canary Subcab STD

Legend

Study

Work

Please note that this map is a draft and may not reflect the real path of the cables.

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European Commission

Digital Global Gateways
CEF Call-1 financed project

Financed projects

7 — Studies
6 — Works

1 OCTs – Greenland
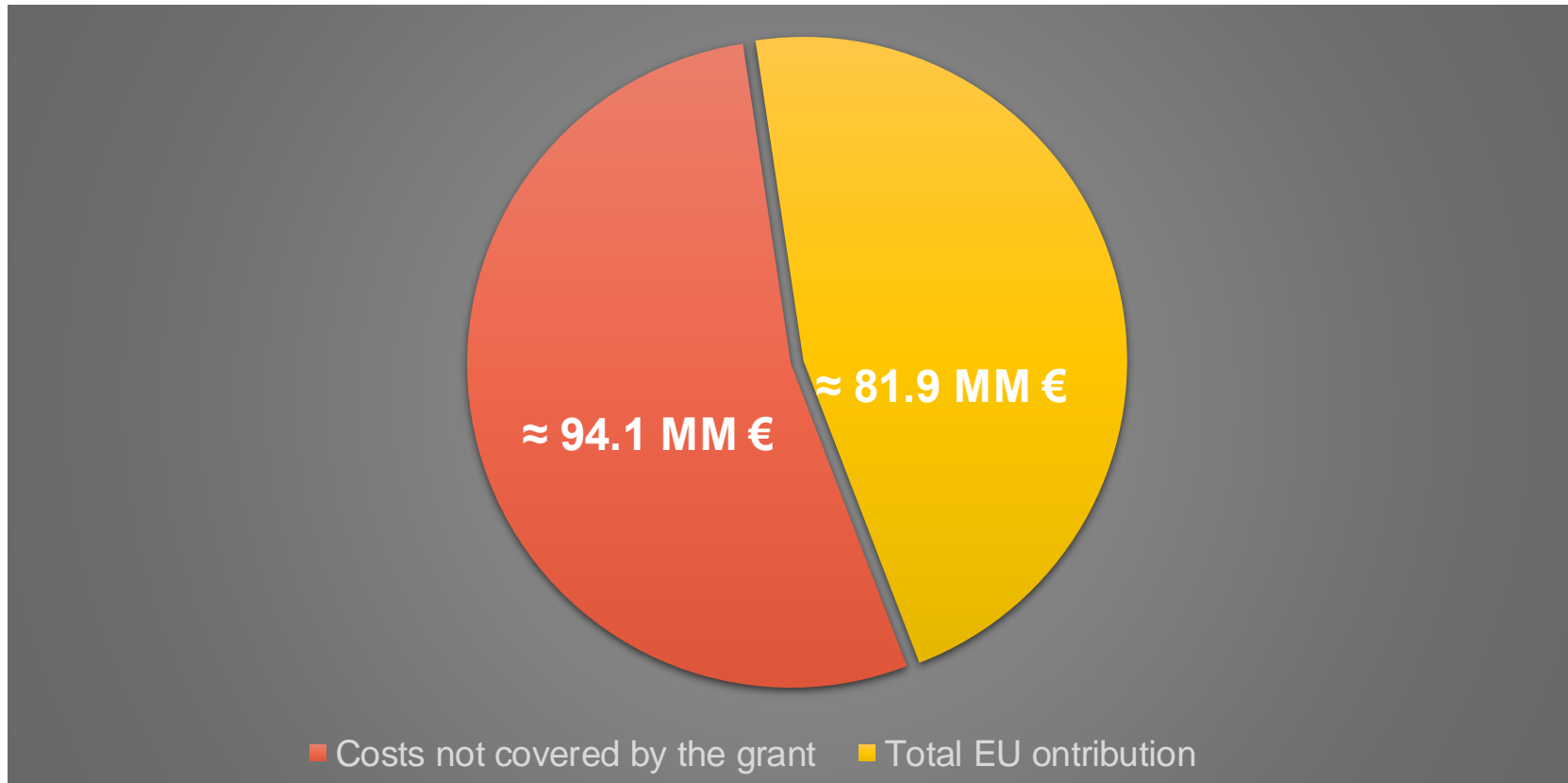
3 ORs – Canary islands

■ Studies ■ Works

Digital Global Gateways
Total volume of the GAs

The CEF-Digital Call-1 is enabling Digital Global Gateways projects (studies + works) with a total volume of **≈176 MM €**.

≈ 94.1 MM € ≈ 81.9 MM €

■ Costs not covered by the grant ■ Total EU ontribution

Backbone connectivity for Digital Global Gateways

CEF-DIG-2023-GATEWAYS-WORKS & STUDIES

1. Objective

Support the deployment of strategic networks as part of the Digital Global Gateway Strategy of the EU by addressing connectivity needs, such as:

(1) **Connecting territories of the EU** including its Outermost Regions.
(2) **Supporting the specific connectivity needs of the Member States**, which are islands themselves, or have islands as part of their territory.
(3) Intermeshing backbones to **interconnect major connectivity points in the EU**.
(4) Addressing the specific needs of Overseas Countries and Territories in the EU.
(5) **Ensuring international connectivity to EU partners** worldwide as a basis for European strategic autonomy.
(6) **Promoting synergy projects** addressing other objectives of CEF Digital, including sector specific considerations encompassing the connectivity of large-scale digital capacities such as HPC or cloud.

European Commission

Backbone connectivity for Digital Global Gateways

CEF-DIG-2023-GATEWAYS-WORKS & STUDIES

2. Scope

Support the deployment of backbone connectivity for routes within Member States, between Member States, and between the EU and third countries, including to remote territories where:

(1) there is a lack of **redundancy**, or
(2) existing infrastructure cannot satisfy **demand**, or
(3) the users in the territories suffer from suboptimal **services** and **prices**.

3. Security requirements

- **Exclusion of non-EU** controlled entities (art. 11.4 CEF regulation).
- **Exception** for infrastructure connecting EU with third countries: legal entities in that third country where their participation is indispensable for the achievement of the objectives can participate subject to security guarantees approved by the third country.
- Security declaration that no **security sensitive equipment** or **services** procured from third country suppliers.

European Commission

Backbone connectivity for Digital Global Gateways

4. Technology neutral call

Digital Global Gateways can make use of the technology best suited including e.g.:

- **Submarine Cable Systems**,
- **Satellite Infrastructure**,
- **Connectivity to internet exchange points**, and
- **Inter-Connection of Backbones** with networks within the supported territories

5. What will be co-financed

- For **works**: Costs required to construct and deliver the infrastructure for the foreseen lifetime, from end to end, including cable landing station and their connectivity. Operating costs, and costs for the land ownership excluded.
- For **studies:** All preparatory work required to design, deploy and deliver a backbone network, e.g., marine ground surveys for submarine cables, the application for required permits, technological solutions, including any step prior to signing a contract with a supplier, etc.

European Commission

Backbone connectivity for Digital Global Gateways

CEF-DIG-2023-GATEWAYS-WORKS & STUDIES

6. Changes in Call-3

Alignment with Digital Network Strategy

- **Focus on Global Gateway**

Reinforcement of sovereignty:

- **Where guarantees are requested (international gateways),
  no change of ownership/control imposed (10 years)**

- **Security provisions: additional reference to the Communication of 15 June 2023**

- **New template [Business plan financial spreadsheet](#) (works only)**

European Commission

Backbone connectivity for Digital Global Gateways

CEF-DIG-2023-GATEWAYS-WORKS & STUDIES

7. Maximum co-financing rates

- **Studies within a works proposal may also be financed up to 50%!**

- Smart Cables are in scope!

- Call-3 overall budget is 90 M€ (up from 40 M€ in Call-1, similar to 100 M€ in Call-2).

- Split 75M€ for works and 15M€ for studies

- Indicative grant size: up to 20 M€ for works and 5 M€ for studies.

Works: 30 %

Studies: 50%

Strong Cross-border Dimension: 50%

In Outermost Regions: 70%

European Commission

Business plan financial spreadsheet

CEF-DIG-2023-GATEWAYS-WORKS

New required document

- Submitting a Business plan financial spreadsheet is an admissibility condition only for Works proposals

- For a matter of proportionality, the requirement applies only to this priority because the requested grants are larger

- Its main purpose is to help applicants demonstrate the market failure and assess the effect of the EU financial assistance

European Commission

Business plan financial spreadsheet

CEF-DIG-2023-GATEWAYS-WORKS

- The Excel template is available in the Submission System and is password protected.

- Only the input cells/sheets can be modified.

- All instructions are detailed in the "Notice" sheet

- We have adopted the template that is used in the CEF-Energy sector. In future Calls we plan to adapt it to the Digital Global Gateways.

Business plan financial spreadsheet

CEF-DIG-2023-GATEWAYS-WORKS

Residual value

Does the residual value depend on the amount of CEF grant? **No**

Year	2038	Reference	Section/page
Amount			

Do the revenues depend on the amount of CEF grant? **No**

- The questions on **revenues/residual value depending on the CEF Grant** should be replied "No"

- This dependency happens often in the energy sector, where regulated asset bases (RAB) are common, but this is in principle not applicable to digital global gateways

- The **Financial Discount rate** (net of inflation) is prefilled at 5%

- If this hurdle rate is not adapted to the project at stake, it can be modified but the new rate must be justified (e.g., with a WACC calculation)

European Commission

Questions & Answers

European
Commission