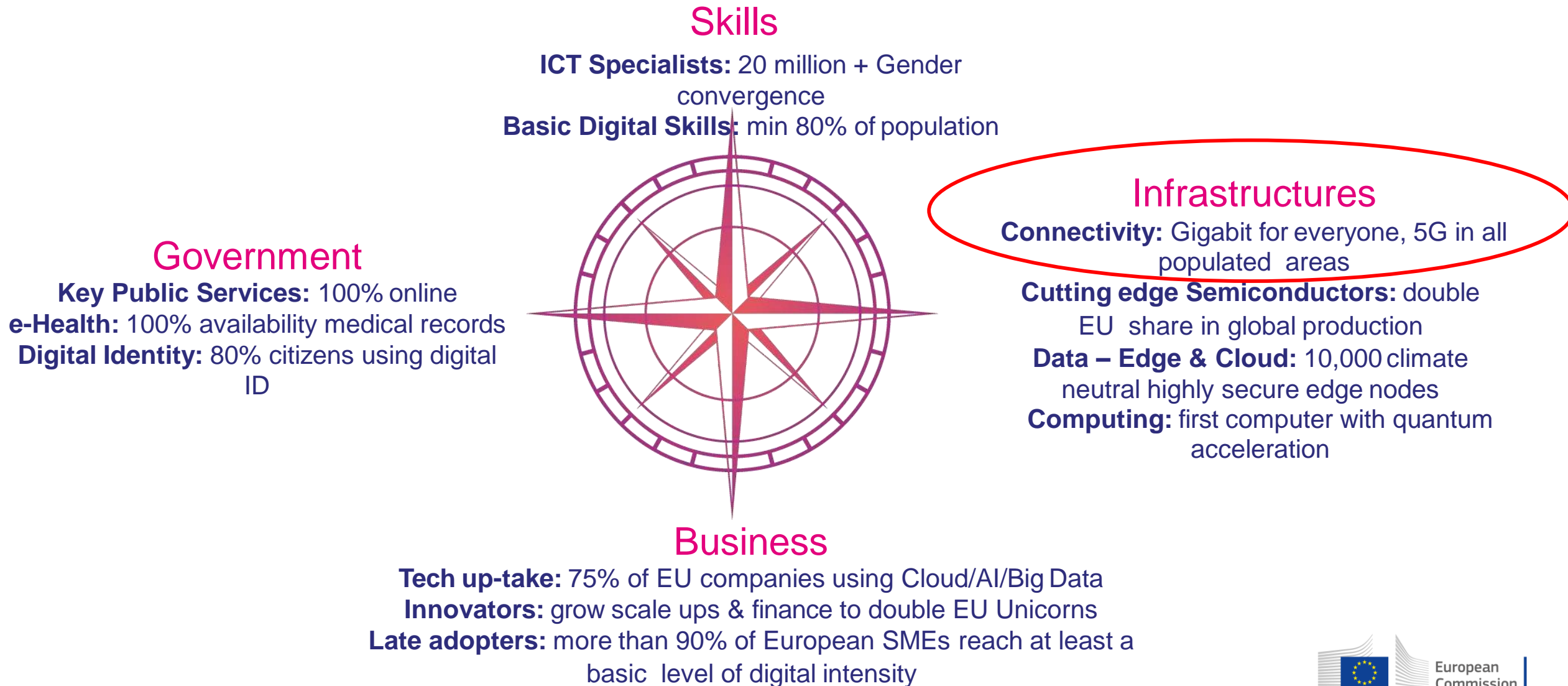**5G for Smart Communities capacity building:**
Why uses cases? How they matter in the CEF2 Digital Smart Communities calls

Eric Gaudillat & Bernadett Koteles-Degrendele
Investment in High-capacity Networks Unit (B.5)
DG CONNECT – European Commission

5G in Europe's Digital Compass towards 2030

Skills

ICT Specialists: 20 million + Gender convergence
Basic Digital Skills: min 80% of population

Government

Key Public Services: 100% online
e-Health: 100% availability medical records
Digital Identity: 80% citizens using digital ID

Infrastructures

Connectivity: Gigabit for everyone, 5G in all populated areas
Cutting edge Semiconductors: double EU share in global production
Data – Edge & Cloud: 10,000 climate neutral highly secure edge nodes
Computing: first computer with quantum acceleration

Business

Tech up-take: 75% of EU companies using Cloud/AI/Big Data
Innovators: grow scale ups & finance to double EU Unicorns
Late adopters: more than 90% of European SMEs reach at least a basic level of digital intensity

European Commission

5G & 5G4SC

5G is a new technology offering **faster, reliable & secure connectivity** for many devices

5G contributes to the development of **Smart Communities** that aim to provide **digital innovative services** for its citizens

ADVANTAGES OF 5G4SC: Some examples

Stable & efficient connectivity	➤	Teleworking in remote areas
More reliable network	➤	Remote patient monitoring
Greater network capacity	➤	Immersive learning & virtual reality in classrooms
Device interconnection	➤	Sharing of electronic health records in emergency situations
Secure networks	➤	Easily identifying users & flows to prevent cyber risks & threats

Connecting Europe Facility - CEF DIGITAL

Actions supporting 5G infrastructure deployments

- 5G corridors along transport paths

- **5G for Smart Communities: 5G connectivity for socio-economic drivers**

Actions supporting pan-EU backbone infrastructures

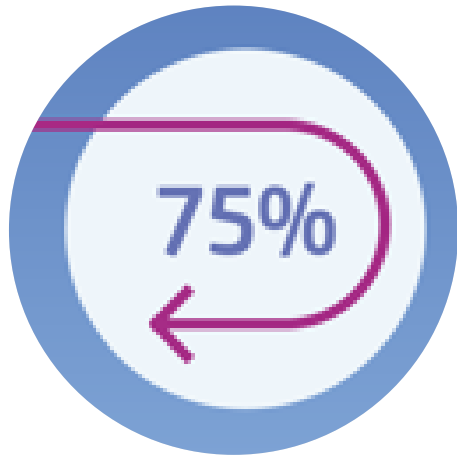- Connectivity for Digital Global Gateways

- Pan-European cloud federation

- Quantum Communication Infrastructure

- Terabit connectivity for HPC

- Operational Digital Platforms

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CEF DIGITAL & 5G4SC
How can the Commission support the development of 5G4SC?

75%

1. Reimbursing **up to 75%** of the infrastructure costs

2. Facilitating an online **community for stakeholders 5GSC.eu** (CSA, workshops, *capacity building*)

3. Organising webinars to promote **matchmaking** between service providers & end-users

European Commission

Reimbursing infrastructure costs
5G4SC calls for proposals

Call 1: *Results*

- 7 projects

- EUR 21 million

- BE, DE, FR, HU, IT

- Health, Education, Agriculture, PPDR, smart cities

Call 2: *Closed, waiting for results*

- Call 2 closed on 21 March 2023

- EUR 50 million

- 75% co-funding

- End-user eligible costs: antennas, connected sensors, use-case definition

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Scope of the calls
What can (& cannot) be funded under 5G4SC?

Eligible Costs

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

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

✗ Internet & software services

End-User

During the lifetime of the project, the end-user must be:

✓ Public authority

✓ Provider of SGI/SGEI

Security Requirements

✓ A **self-declaration** must be submitted by all participating legal entities & **approved by the Member State** in which they are established, on the basis of national law

(See call text)

European Commission

Participants

Who can participate in the call for proposals?

2 requested participants *(ok if from one Member State):*

The owners of the funded 5G infrastructure: the company that will operate the network infrastructure (possibly a private network and with unlicensed 5G spectrum

The providers of the use cases: public authorities or providers of services of general interest (during the lifetime of the project)

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CEF CALL 1 - 5G FOR SMART COMMUNITIES PROJECTS

≈ € 4.00 M

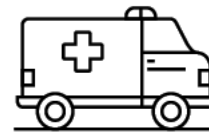5G for a Smart Academic Campus in Sicily

≈ € 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

Smart city example 1:Hi5: High Connectivity via 5G (France)

Toulouse Métropole together with Alsatis (MNO) will deliver leading-edge connectivity to public services, building on the existing fibre-optic network and data centres, in the Toulouse metropolitan area

5 use cases enabled:

✓ "City Services" – traffic management and supervision of public space

✓ "Event Connectivity" – recording and communication equipment during outdoor events

✓ "Mobility Lab" – net-based ultra high-speed services for start-ups and small enterprises

✓ "Education" - teaching and academic research at the University of Blagnac

✓ "High-speed video data offloading" for more safe and user-friendly public transport

European Commission

SmartCity example 2: CONNECTOW: 5G Connectivity for Wavre (Belgium)

Citymesh (MNO) and the City of Wavre will build a city-wide state-of-the-art 5G private network

6 use cases enabled for:

✓ Amusement park (Walibi)

✓ Police department

✓ Fire department

✓ Business parks on the edges of the city

✓ University research

✓ Public transportation

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Faciliting an online community & organising Capacity Building meetings

Purpose

➢Share good practices and examples among the community

➢Empower potential applicants in the project plan and application writing process

Target audience

➢Examples: operators, end users, industry, public authorities and service providers

➢Open to all

Registration and information

➢ www.5GSC.eu

Capacity building sessions (online)

Nr	Date	Time slot	Topics/ Titles
1	1 June	10-11:30	5G use cases
2	22 June	10-11:30	Health
3	6 July	10-11:30	Education
4	7 Sept	10-11:30	5G infrastructure sharing
5	5 Oct	10-11:30	Consortium planning and project management
6	19 Oct	10-11:30	Co-funding and procurement
7	7 Dec	10-11:30	Bid writing (CEF)

More Information

- Check the **5G4SC webpage** for regular updates and past calls

- Contact HADEA-CEF-DIGITAL-CALLS@ec.europa.eu for questions related to implementation

- Join our **5GSC online community**: 5GSC.eu (to get updates on the future calls, benefit from matchmaking, get to know the projects and attend capacity building sessions)

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THANK YOU!