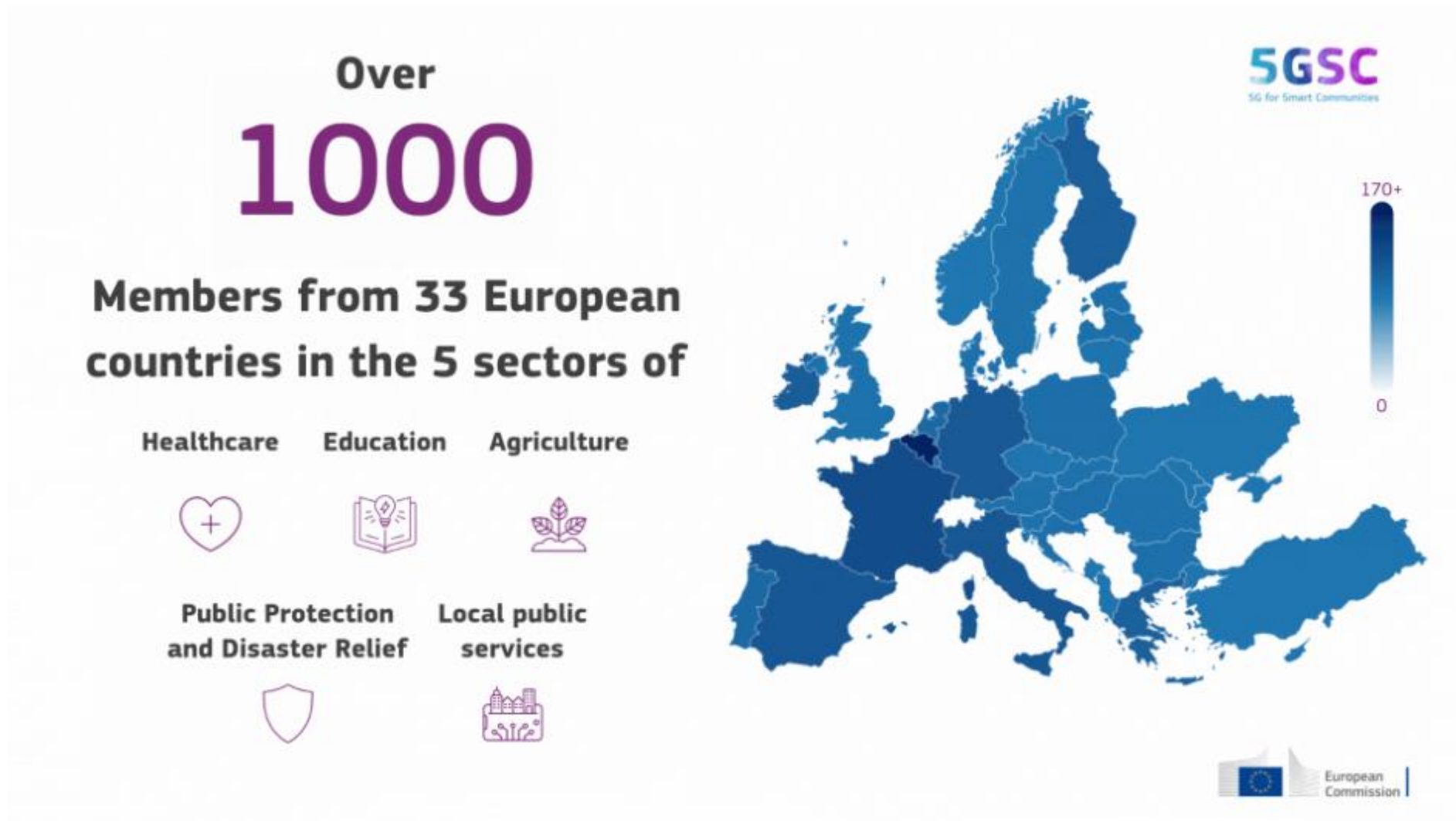


3d 5G for Smart Communities Working Group

Business and Investment models for 5G pilots

18.09.2025

Visit our online networking and knowledge-exchange community for '5G for Smart Communities'



Welcome

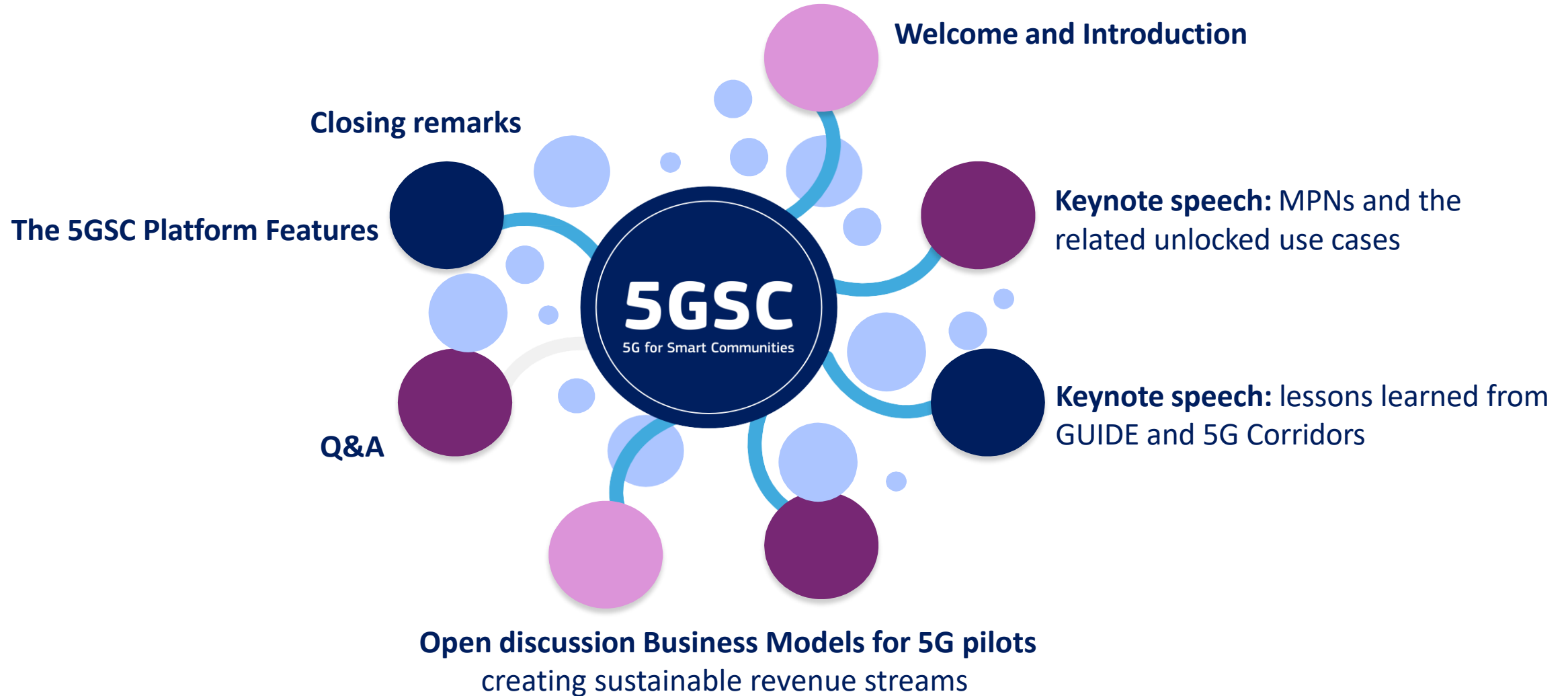
5GSC

5G for Smart Communities

www.5GSC.eu



Agenda



Welcome Remarks

Dimitra Vasilis, Project Leader, 5G for Smart Communities

Save the dates



Tuesday October 7, 2025 - Brussels

CEF Digital Conference and EDC Awards – please register [here](#)



Wednesday October 8, 2025 - Brussels

2025 5G Community Conference – please register [here](#)*

****Please note:*** even if you register via the platform, it is mandatory to also fill in this [form](#) for security clearance purposes. Without this information, you will not be allowed to enter the European Commission building.

Keynote speech

MPNs and the related unlocked use cases

Francesco MACRI', 5G MPN Product Manager, Fastweb & Vodafone

5G MOBILE PRIVATE NETWORKS

FRANCESCO MACRI'

MPN Product Manager, Fastweb+Vodafone

IoT

Robotics

AI

Digital Twins

Drones

**Fast, reliable and secure
Connectivity**

MAIN TYPES OF CONNECTIVITY



WIRED

through a physical cable

Ethernet
Fiber
...

Low flexibility
High costs
High installation time



WIRELESS

via radio frequency

Bluetooth
Lora
Satellite
...

Wi-Fi
4/5G

*(high nominal
performances)*

Variable performances
Perceived security concerns

MAIN TYPES OF CONNECTIVITY



WIRED

through a physical cable

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WIRELESS

via radio frequency

Bluetooth
Lora
Satellite
...

Wi-Fi
4/5G

5G MPNs

(high nominal
performances)

~~Variable performances~~
~~Perceived security concerns~~

5G MOBILE PRIVATE NETWORKS

MPNs are **dedicated** to a **specific customer** and are capable of providing and **guaranteeing** mobile connectivity with high:

PERFORMANCES

CONTROL

SECURITY

AVAILABILITY

FLEXIBILITY

5G MPN-ENABLED USE CASES

MANUFACTURING & ENERGY

Push to Talk for
operations

Safe Worker

Video Analysis

Predictive Maintenance

AR/VR to improve
maintenance processes

Remote control of
Robots, AGV, drones

LOGISTICS

Push to Talk
for operations

Safe Worker

Video Analysis

Track & Trace

Remote control of AGVs,
cranes, ships, drones

HEALTHCARE

AR/VR to Enhance
Learning Experiences

Remote surgery and
surgical support

Remote control of AGVs,
AMRs & drones for
medicines delivery

Video Analysis

SMART CAMPUSES & CITIES

Push to Talk for
emergencies & security

Real-time HD/4K
streaming

Video Analysis

5G MPNs: HIGHLIGHTS & CHALLENGES

*Long delivery & permits
from regulatory agencies*

*Spectrum access &
international scalability*

*Business
model*

*Indoor and limited
use cases*

*E2E collaboration
& integration*

*Perceived
security*

*High
Costs*

FASTWEB +  **vodafone**

Keynote speech

Lessons learned from GUIDE and 5G Corridors

Pierre-Yves DANET, Smart Connectivity Senior Consultant



GUIDE

Supporting the Strategic
Deployment Agendas for
The EU Corridors

CEF Digital projects Lessons learned from GUIDE and 5G Corridors

September 2025

Pierre-Yves Danet (Eurescom)



Funded by the European Union



Introducing the GUIDE project

The ambition of the GUIDE Project is to bring together the relevant stakeholders from the ecosystem of 5G Corridors across the European Union (EU) and to help them get the maximum value from the CEF Digital programme.

The GUIDE Project aims to create a diaspora that:

- supports the stakeholders;
- stimulates interest in CEF projects that improve the rollout and uptake of 5G and near 5G services across European transport paths;
- builds a knowledge hub with best practices, performance achievements and legal and regulatory solutions.

The GUIDE project runs from January 2023 to June 2025



Funded by the European Union



13 Studies
12 Works Projects



CEF-Digital funded 5G corridor projects: Call 1 & 2 & 3



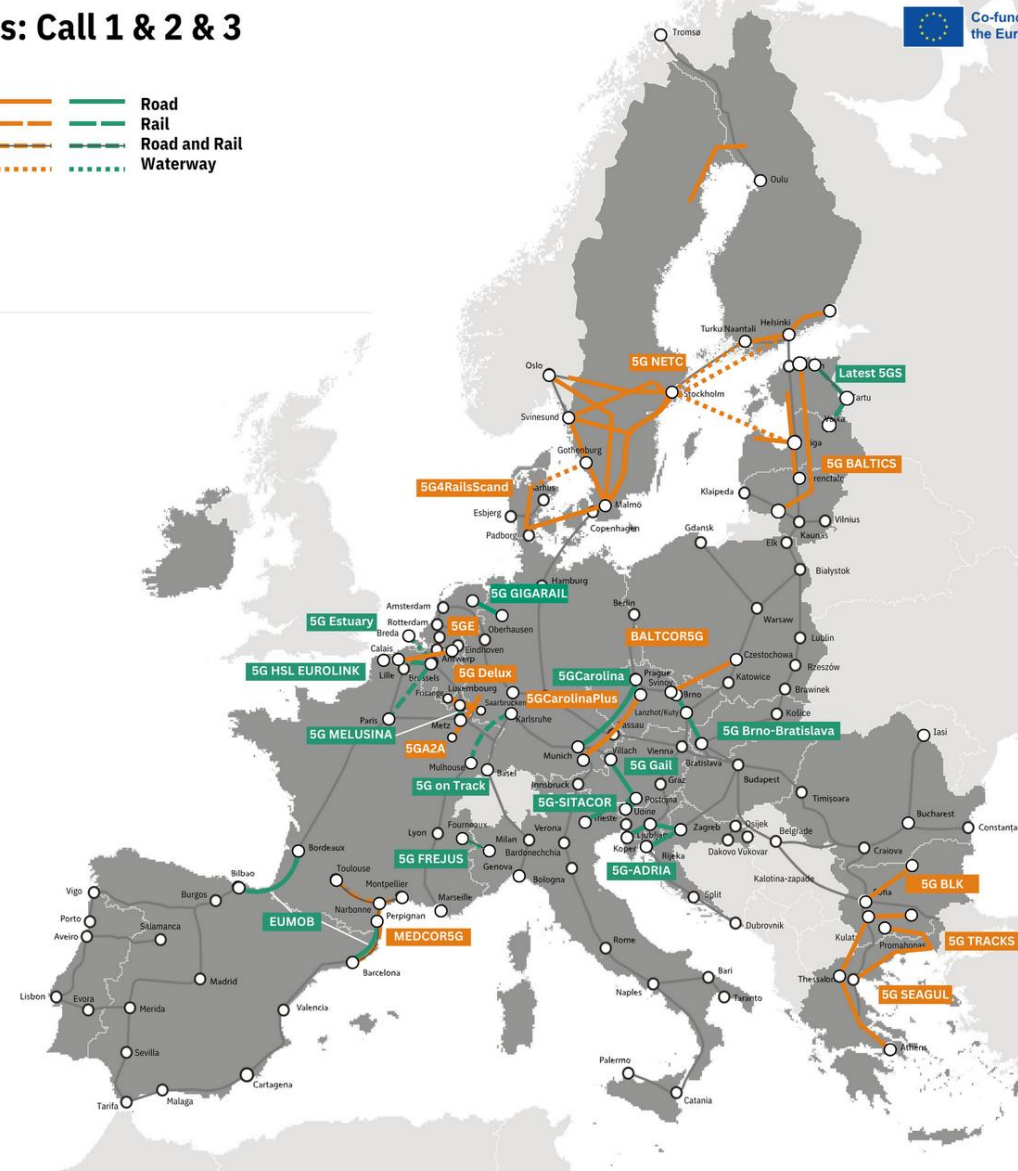
Study projects

~ 30Km

Works projects

Liège (BE) to Antwerp (BE)
~ 157Km

 Road
 Rail
 Road and Rail
  Waterway



3 surveys have been conducted during the project life to capture practices

The objective is to better understand the purpose and objectives of the studies and works projects, and the solutions put in place, the 5G corridor deployment process(es) and the ability to replicate it in other locations.

The questionnaire is addressing 6 domains:

- 1/ Technical (12 questions)
- 2/ Replicability (5 questions)
- 3/ Deployment (8 questions)
- 4/ Regulation (2 questions)
- 5/ Operation (3 questions)
- 6/ Best practices (4 questions)

Detailed information will be available soon in the
D3.2: CEF Best Practices Handbook 2024/25



Funded by the European Union



What are the good practices? (Studies)

- To involve key stakeholders regularly through the whole project for open and transparent discussions to have a common understanding on the situation.
- Social Impact analysis
- Agreement with mobile operators and communication with operators
- Use of the theoretical, concept & deployment best practice from other 5G highway corridors.
- The pooling of infrastructure between MNOs and railway companies is an experiment. This mutualisation is experimental because we could share construction costs.
- Cross-industry collaboration, the ability to innovate & support by political agenda (green deal, modal change , CO2 reduction)
- Standard Framework already in place for working for safety and working procedure working in rail and road tunnels
- Create and review network plans, Ensure the network is adaptable to support new technologies, Collaborate to continuously improve and stay updated with the latest tech



What are the good practices? (Works)

- The learning and insights gained from work in terms of challenges/obstacles,
 - necessary processes and licensing,
 - timetables for roll-out and configuration,
 - best practices for network interconnection and roaming configurations, etc., .
- Good architecture definition.
- Stakeholders value chain definition
- Preparation of requirements and contracts, involving all parties from the start
- Efficient RFQ execution and inclusive stakeholder involvement are crucial. Strong planning, reporting, and monitoring of subcontractors ensure timely, quality outcomes
- Cross-border cooperation between Partners of the Consortium



Summary Conclusions

- Results from running and completed projects can show what is possible for 5G Corridors
- Projects contain some generic approaches that are reusable, but also have specific implementation details that are not inherently suitable for sharing.
- Half of Studies felt they had achieved enough to go forward with a Works proposal
- Business models remain an issue
- Common partners seem to be the most efficient method of bringing forward best practice
- Common scenarios are obviously the most suitable for reusing lessons learnt.
- 5G Corridors program is making the opportunities and possible solutions more visible





GUIDE

Supporting the Strategic
Deployment Agendas for
The EU Corridors

Thanks !

Pierre-Yves DANET (Eurescom)



Funded by the European Union



Open discussion

Business Models for 5G pilots

creating sustainable revenue streams



Christophe Bodin

DIRECTOR,
CBO CONSULTING

CHAIR



Micaela Bassani

SENIOR MANAGER,
VODAFONE



Colm Browning

TELECOMS RESEARCH AND
INNOVATION LEAD,
SMART DOCKLANDS

5G pilots in Education, Health and Smart cities

Micaela BASSANI, Senior Manager, Vodafone

5G pilots in Education, Health and Smart cities

Micaela Bassani

17/09/2025

CEF projects:

Education and Health

5G Hybrid Mobile Private Network (MPN)

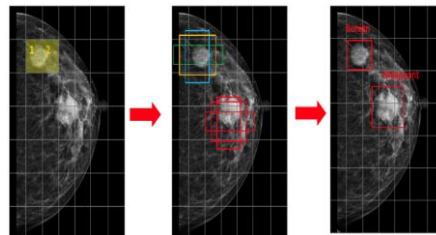
Education



Smart campus

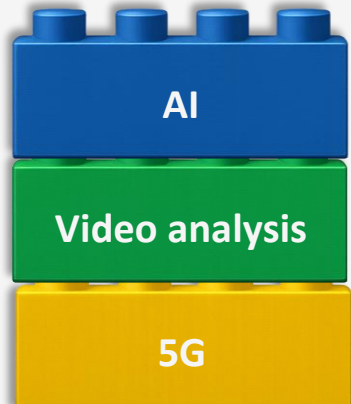


Digital Health

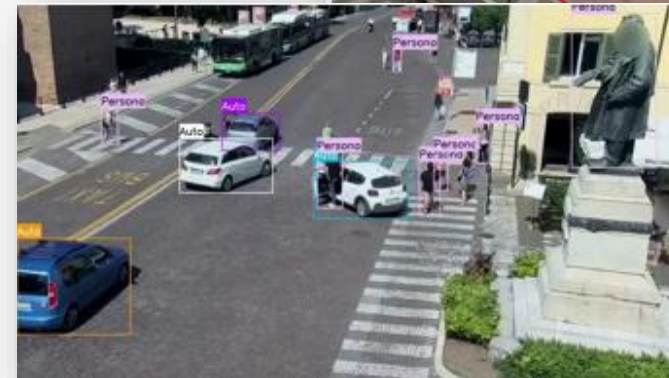


Additional 5G pilots:

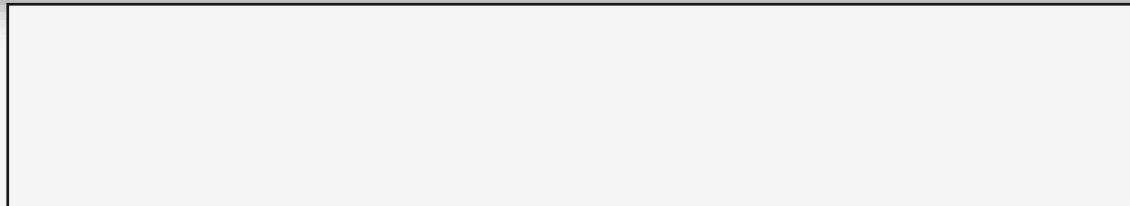
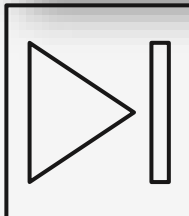
Smart Cities



5G is giving the possibility to provide “new eyes” to vehicles and infrastructures —moving beyond the traditional, vehicle-based sensors to a broader, city-wide perspective that improves **road safety and mobility**.

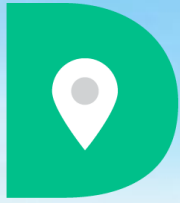


Additional 5G pilots: Smart Cities



The Smart Docklands Project

Colm BROWNING, Telecoms Research and Innovation Lead, Smart Docklands



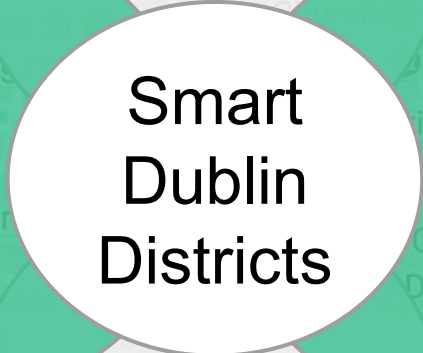
SMART DOCKLANDS

A Smart Dublin District



Comhairle Cathrach
Bhaile Átha Cliath
Dublin City Council

CONNECT
Centre for Future Networks

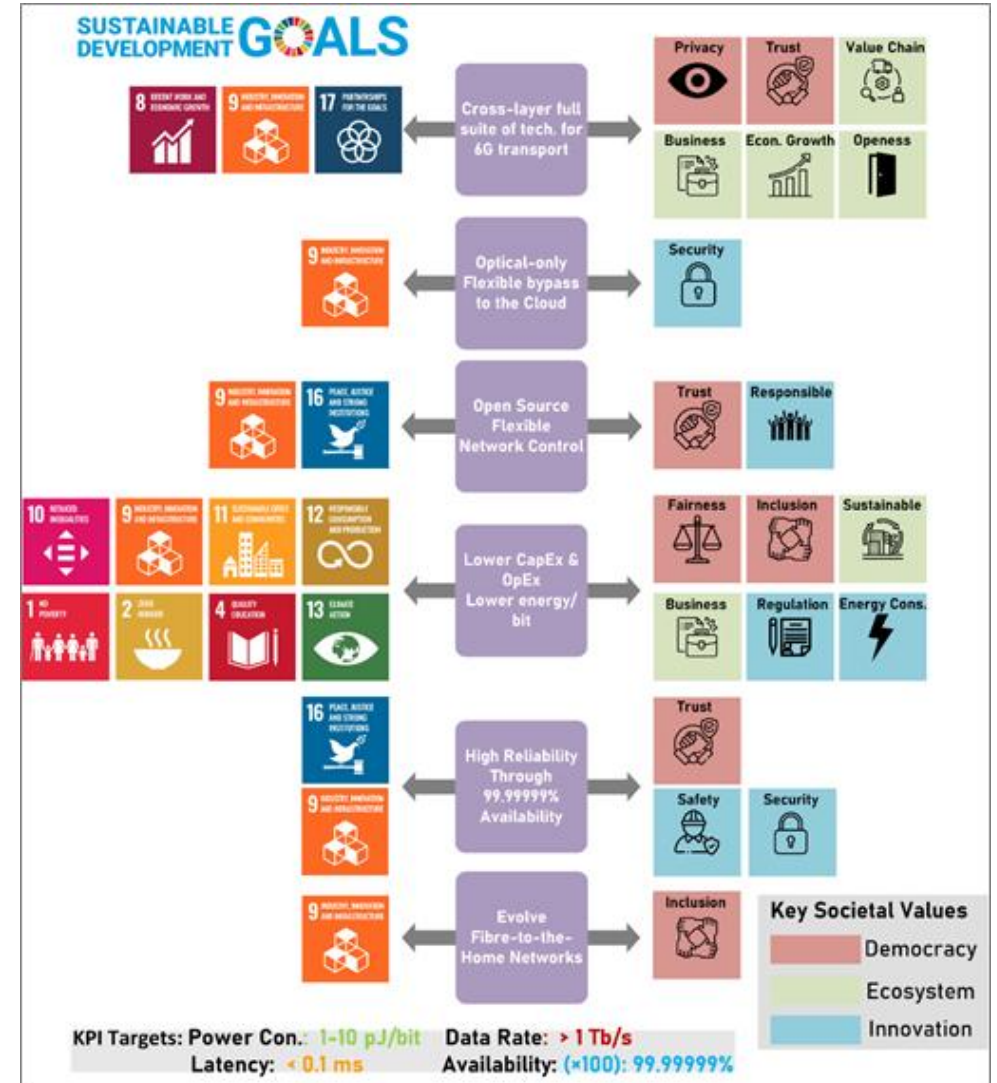


- Fixed and mobile network performance has real and direct impact on society and sustainability
- CONNECT and DCC have come together to address telecommunication challenges for a connected society
- Smart Docklands - Telecoms Research and Innovation

Council of the EU | Press release | 29 April 2024 12:45

Gigabit infrastructure act: Council gives final green light to faster deployment of high-speed networks in the EU

To ensure faster deployment of digital network infrastructure across Europe, today the Council adopted the **gigabit infrastructure act**, which will replace the 2014 broadband cost reduction directive (BCRD). The new law aims to simplify and accelerate the roll-out of **high-speed networks**, such as fibre and 5G, with a view to achieving Europe's connectivity objectives and targets set out in the digital compass for this decade.



Neutral Host Test-bed

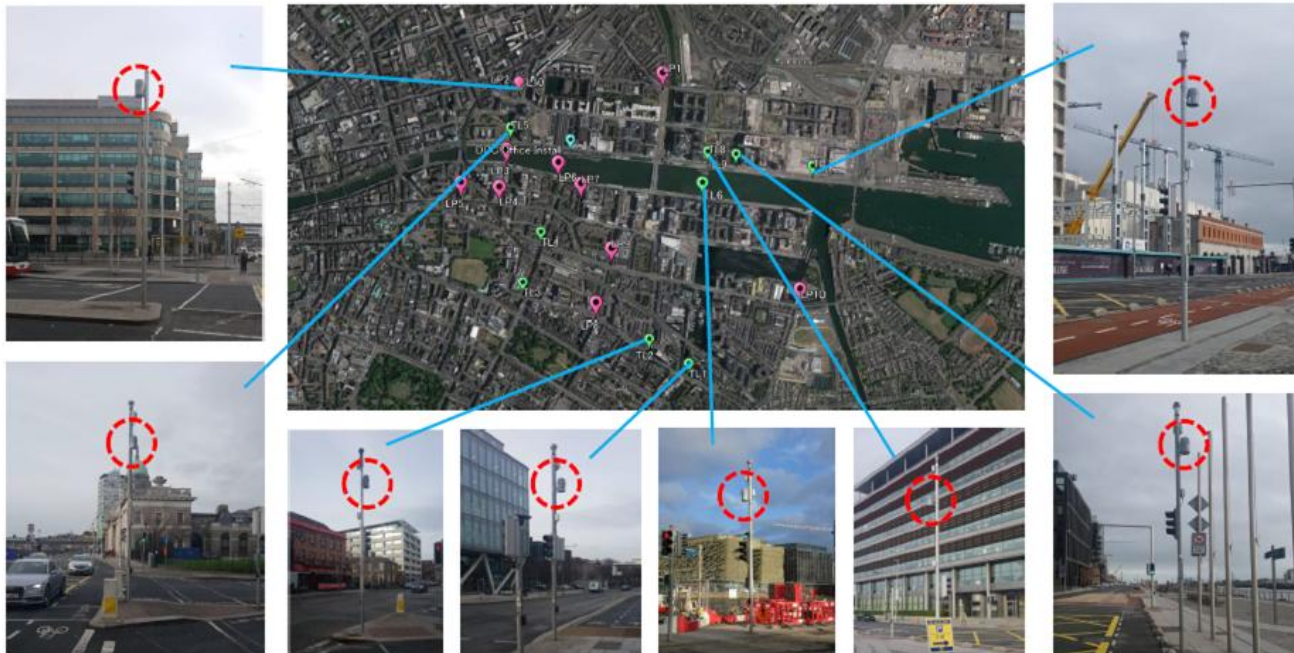
- Neutral host, small cell
- Former Dense-Air deployment for DCC
- 18 sites, mostly 4G LTE
- Key: Networking equipment remain in place on Dublin City Council assets
- Now in CONNECT/Smart Docklands ownership
- Upgrade and re-activate
- Private 5G -> 6G test-bed
 - Mobile network research
 - Citizen engagement
 - Urban use cases



What do we want to do?

Vision: Create a national open test-bed for 5G advanced and 6G technologies with a specific focus on urban and citizen impact

DUET: Dublin Urban Evaluation Test-bed



Technical

- Test network in operational environment
- Trial for city private/small cell mobile network deployments
- Open and shared network technologies
- AI enabling networks
- Open and Virtualized RAN
- AI RAN
- Advanced front/mid/back-haul technologies
- THz, Mm-wave, FR3
- Wireless and optical sensing

Live interaction



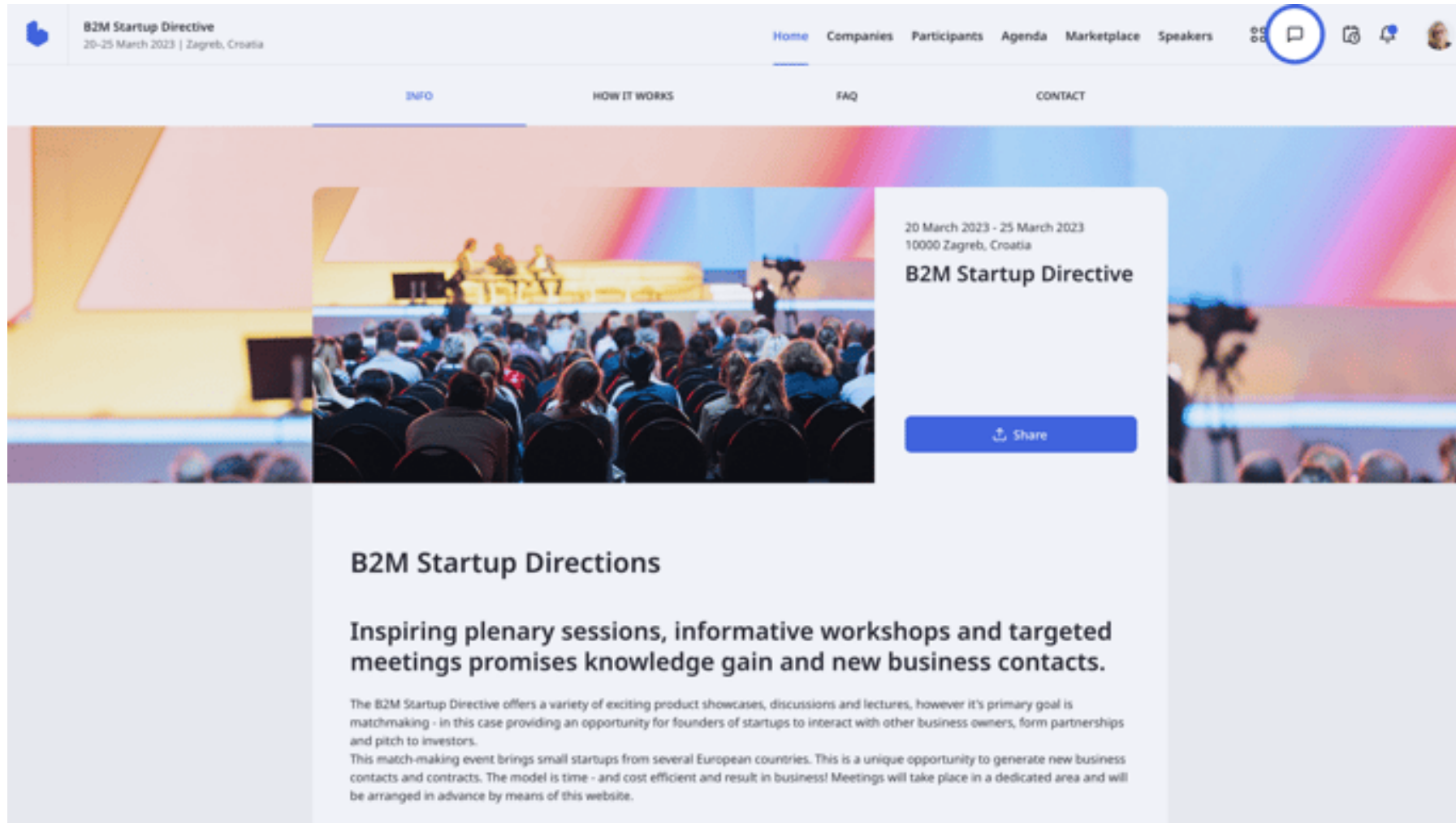
slido

OR

A screenshot of the Slido web interface for a session titled "Working Group 3 - Business and investment models for 5G pilots". The main area is a purple rectangle with a play button icon and the text "The session hasn't started yet. You can join the video conference 10 minutes before the session starts." Below this, the date and time "Thursday 18 September 2025 | 10:00 - 12:00" are shown. The session title is repeated. At the bottom, there are tags for "Video conferencing" and "Capacity Buildings / Working Groups", and a list of topics: "CEF Digital", "5G for Smart Communities", "Connectivity", and "Funding for Digital". On the right side, there is a "Discussion" panel with a search bar, tabs for "Q&A" and "Polls", and a list of questions. The first question is from "Sofia Profico" and says "Welcome to the forum of Working Group III - Business and investment models for 5G pilots. Share ideas, solutions & challenges on deploying 5G across Europe, and connect with other participants ahead of the session. For any information or to share useful material, reach out to: [community@5GSC.eu](\"mailto:community@5GSC.eu\")". At the bottom right of the discussion panel, there is a green "Ask" button circled in black.

The 5GSC Support Platform Features

5GSC Platform: Conversations



Conversations

- ✓ Add up to 8 people
- ✓ Direct message participants
- ✓ By clicking the staple icon attach images and documents to the conversation
- ✓ All conversations are private

5GSC Platform: Meetings

B2M Startup Directive
10-25 March 2023 | Zagreb, Croatia

Home Organizations Participants Agenda Marketplace Speakers **Meetings** Calendar Notifications Profile

Upcoming Canceled Past

My meetings Availability

Today

Tuesday, 21 March 2023

Show less

Time	Participants	Meeting Type	Status
11:50 - 12:00	Peter O'Brien (Armunt Design Co.), Tomas Doyce (Urbyg Inc.)	On-site meeting	Pending, Received invitation, 1 Accepted, 2 Pending
12:00 - 12:10	Ruben Devlin (Molynsea Inc.), Peter O'Brien (Armunt Design Co.), Sasha Pollar (Molynsea Inc.)	On-site meeting, Table 1	Starts in 22 minutes, Request sent, 3 Accepted, 1 Canceled

Thursday, 23 March 2023

Show less

Time	Participants	Meeting Type	Status
11:20 - 11:30	Amy Withen (Pexels Mag GmbH)	Online video meeting	Pending, Request sent, 1 Accepted, 1 Pending

Meetings

- ✓ Up to 8 people
- ✓ Online video meetings & onsite 5G Community Conference October
- ✓ Check meeting status: upcoming, cancelled, past
- ✓ Request meetings

5GSC Platform: Meetings

B2M Startup Directive
10-25 March 2023 | Zagreb, Croatia

Home Organizations Participants Agenda Marketplace Speakers

Upcoming Canceled Past

My meetings Availability

Today
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On-site meeting Table 1
Starts in 22 minutes Request sent 3 Accepted, 1 Canceled

Thursday, 23 March 2023

11:20 - 11:30
Amy Withen (Pexels Mag GmbH)
Online video meeting
Pending Request sent 1 Accepted, 1 Pending

Show less

Accept

Meetings

- ✓ Indicate your meeting availability
- ✓ Click on the slots you prefer
- ✓ Save your availabilities settings

Available for meetings?

Indicate your meeting availability by selecting the time slots below. You will only be able to send and receive meeting requests in those time slots.

Wednesday 8 October 2025

Mark all free time slots as available

09:00
Overlaps with a session

09:10
Overlaps with a session

09:20
Overlaps with a session

12:20
Overlaps with a session

12:30
Overlaps with a session

Save

5GSC Platform Meetings

The screenshot displays the 5GSC Platform Meetings interface. At the top, the navigation bar includes '5G for Smart Communities Support Platform', '5GSC Support Platform', 'Participants' (circled in blue), and '5G Community Conferences'. Below the navigation bar, the 'Participants' tab is active, showing a list of participants. The first participant, 'Participant 1', has a blue '+' button circled in blue. A modal titled 'Request a meeting' is open, showing fields for 'Add meeting partners', 'Meeting date*' (Wed, 8 Oct 2025), 'Available meeting time*' (09:00 - 09:10, circled in blue), 'Location' (Automatic (Recommended)), and 'Meeting description'. The 'Send request' button is circled in blue.

5G for Smart Communities Support Platform

Participants

ALL TOP MATCHES

Participant 1

Participant 2

Request a meeting

Add meeting partners

Search by name or organisation

You can add 6 more meeting partners.

Meeting date* Wed, 8 Oct 2025

Available meeting time* 09:00 - 09:10

Location Automatic (Recommended)

Meeting description

Add a meeting description or introduction

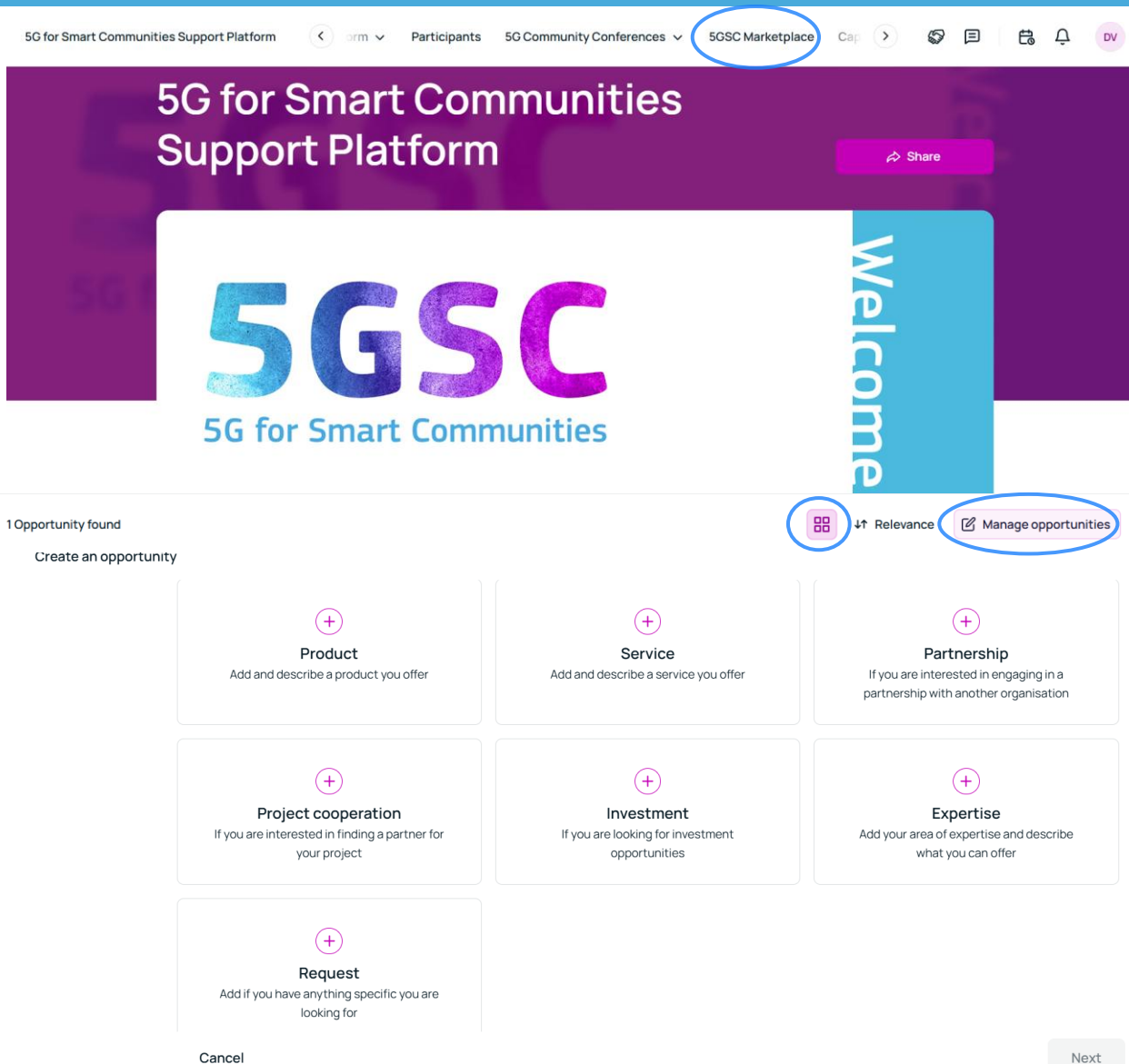
Also send the meeting description as a message

Cancel Send request

Meetings

- ✓ Go to Participants>Top Matches
- ✓ Click on “+” to check availabilities
- ✓ Send the request

5GSC Marketplace



5GSC Marketplace

- ✓ Login to the platform
- ✓ Go to 5GSC Marketplace
- ✓ Choose to view opportunities in a list or grid view or filter them by relevance or creation date.
- ✓ Manage opportunities & create an opportunity – add images, files and videos.

5GSC Marketplace

■ Expertise

Unlock the Future of Connectivity with Proven 5G Leadership

I deliver strategic expertise in 5G Standalone networks, campus network solutions, and connected innovation.



Jaroslav Mracek

Head of 5G and Innovation at Deutsche Telekom Europe
Prague, Czech Republic



■ Request

Participate: 5G MEC Socio-Economic Impact Survey

Work with 5G or Edge? Join our Survey to help shape the future of 5G & Multi-Access Edge Computing (MEC).



Edgar Tamaliunas

5GMEC4EU
Germany



■ Expertise

RFI for a Private 5G RAN Solution

VAHTA d.o.o. is publishing a Request for Information (RFI) for a Private 5G RAN Solution as part of the 5G WAT-ERR-IB project.

ICT Industry and Services



Nina Segal

EUDACE
Ljubljana, Slovenia



5GSC Marketplace

9 RESULTS

Reset

Search opportunities



OPPORTUNITY TYPE

Product (4)



Looking for

☐ Distribution Partner (4)

☐ Wholesaler (2)

☐ Importer (2)

Applies to

☐ ICT (3)

Expertise (2)



Field

☐ ICT Industry and Services (1)

Project cooperation (1)



Stage

☐ Early (1)

☐ Planning (1)

☐ Execution (1)

Type

☐ Research (1)

☐ Technical (1)

☐ Sales/Distribution (1)

☐ Financing (1)

Request (1)



Service (1)



Closing Remarks

Dimitra Vasilia, Project Leader, 5G for Smart Communities