5GINED – Inclusive and Immersive Education Enabled by 5G in Naples and Matera

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MEDITECH
COMPETENCE CENTER

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5GINED Snapshot

- ***75%*** *CEF co-funding rate*
- ***Infrastructure*** *Type of project*
- ***€5 m*** *Budget 2024-2027*

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EU countries
Associated countries
Flanders Smart Fields
Healthcare, emergency, education
ED5GE
Transport, agriculture, logistics, emergency, security
Connectow
Emergency, energy
5GMHI
Healthcare, energy
CAREWINGS-5G
Healthcare, transport
HospitalSG
Healthcare
SmartSpires
Research, education, transport
5GENIUS
Education
5G4LIVES
Emergency, security, energy, aviation
5G4UH
Healthcare
TUKE 5GSC
Education, logistics, energy
O5G
Water management
5G-PHINGE
Healthcare
5G-CRESCA
Education, healthcare
PPDR 5G
Security, disaster relief
CC5G
Research, business
SmartMountainSG
Agriculture, energy, tourism
5GFORVIE
Transport
5GAGRIHUB
Agriculture
5G-ENRICH
Research, education, security
5G-CDD
Healthcare, education, tourism
41 Awarded Projects
5G Healthcare
Healthcare
5GEDGE4HEALTH
Healthcare, emergency, education
EUGENIA
Transport, emergency, healthcare
5G Metro
Education
5GINED
Education
5G.RURAL
Healthcare, education, energy, agriculture
5G VALENCIAPORT
Transport, logistics
5G4ASSAC
Research, healthcare
5G-TRACE
Healthcare, energy
5G-TERRA
Healthcare

5GINED Consortium

MEDITECH 4.0 COMPETENCE CENTER

FASTWEB + vodafone

COMUNE DI NAPOLI

Centro Servizi Metrologici e Tecnologici Avanzati S.M.A.

Centro Regionale Information Communication Technology CeRICT SCRL

Consiglio Nazionale delle Ricerche

hypex the hyper experience

fifth ingenium

FABBRICA ITALIANA DELL' INNOVAZIONE l'incubatore green & blue

FOQUS FONDAZIONE QUARTIERI SPAGNOLI

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The challenge

Naples

Social challenges rooted in diverse socioeconomic conditions.

Matera

Logistical and geographical isolation impacting access to education.

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The solution

*To implement a **5G Hybrid Mobile Private Network (MPN)***

- *Large network capacity for widespread connectivity*
- *Ultra-low latency enabling real-time collaboration*
- *Robust cybersecurity ensuring safe learning environments*

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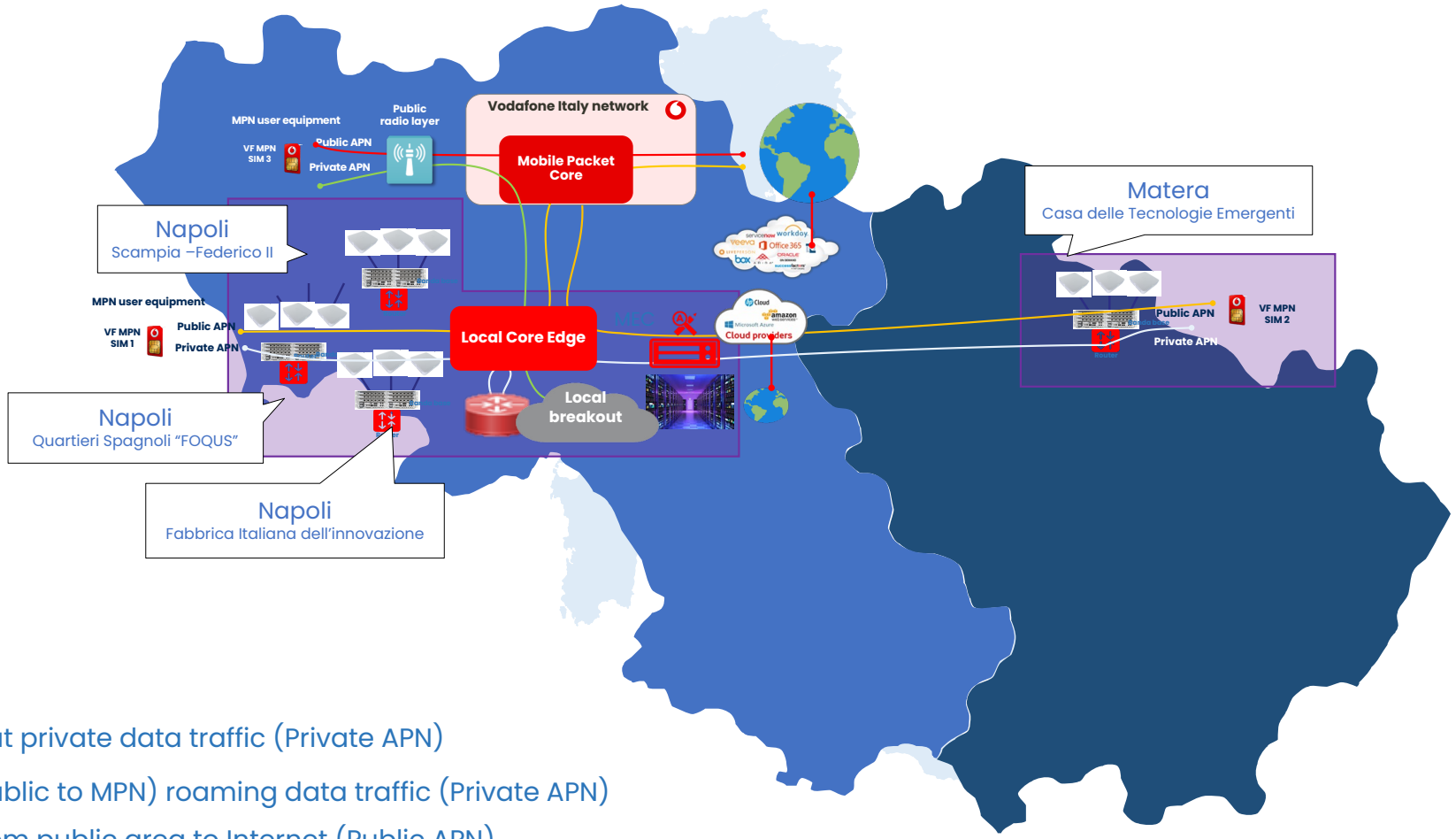
The innovation



Local breakout private data traffic (Private APN)

Outbound (Public to MPN) roaming data traffic (Private APN)

Data traffic from public area to Internet (Public APN)

Data traffic from MPN area to Internet (Public APN)

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5GINED Use Cases

Smart Agriculture Learning Hub

To create a connected garden leveraging Internet of Things (IoT), 5G, and Artificial Intelligence (AI) technologies

Health Training Centre

To develop an immersive environment for specialized medical training

Immersive Education

To create lessons that incorporate 3D models, quizzes, and interactive activities

Interactive Didactics

To develop a high-quality educational solution that is accessible through an interactive and cooperative real-time human-machine interface

LV8 Digital Skill Certificate

To develop digital skills through engaging quizzes and puzzles, allowing users to challenge each other

Robotics 4 Learning

To implement robotic arms and gamification models to support young people in learning science, technology, engineering and mathematics (STEM) subjects, coding, and robotics

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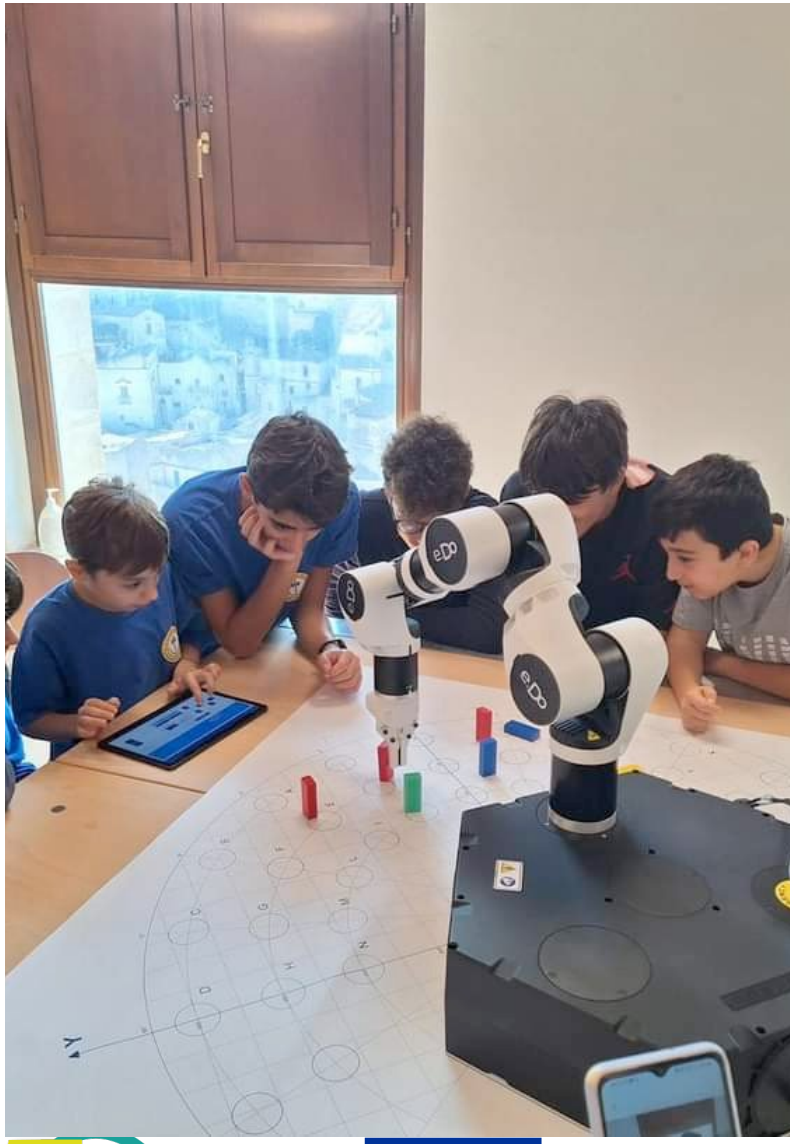
Education & Social Inclusion KPIs

- *Engagement of at least 200 students in immersive education activities.*
- *Collaboration with at least four educational stakeholders, including universities, high schools, middle schools, and primary schools.*



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5GINED Impacts

*A catalyst for **sustainable digital transformation***

- *Energy efficiency and reduced carbon footprint*
- *Social inclusion and innovation*
- *Economic and business growth*
- *Technological innovation in education, healthcare, and cultural heritage*

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Thank you!

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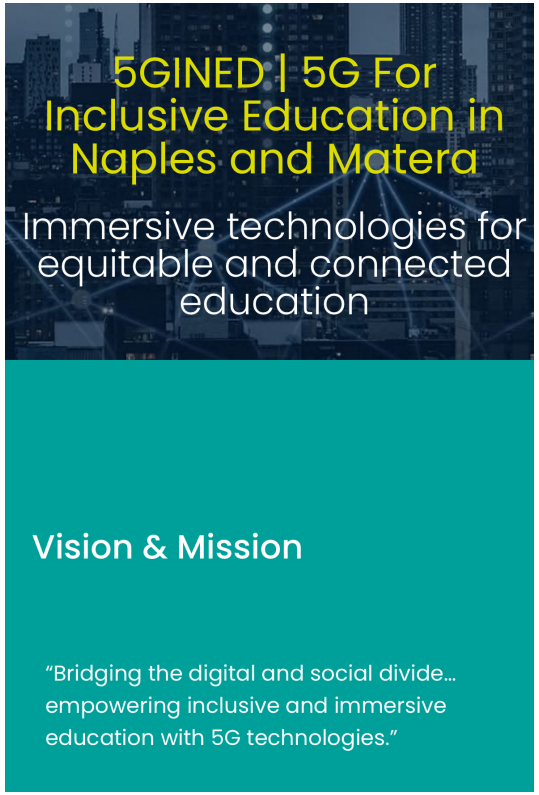

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