PortoVecchio 5G – Innovation and better life in Trieste **PV5G**

project:
GA No. -101181228 – PV5G - CEF-DIG-2023-5GSMARTCOM-EDGE

The context of «Porto Vecchio»

The Old Port of Trieste is a historic area located on the Adriatic coast, it was originally designed to support freight activities. Over time, changes in global trade and transportation methods led to its decline, leaving much of its infrastructure underutilized and unsuitable for modern logistics. Currently, **the Old Port is undergoing a revitalization effort.** The redevelopment plan divides the area into four key zones: mixed-use spaces, piers, museum-scientific-congress facilities, and recreational-sports areas.

PV5G - Project

The PortoVecchio 5G project aims to transform the historic Old Port of Trieste into a vibrant hub for **digital education and technological innovation**.

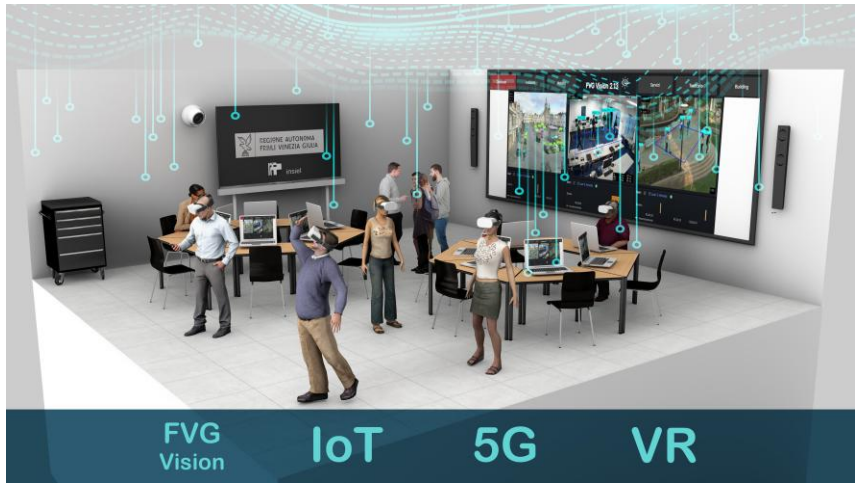
Deploy Public and Private 5G Networks: Including outdoor nodes, edge computing, and private indoor networks.

Establish a Digital Education Hub 4.0: Featuring immersive technologies like AR/VR/MR for enhanced learning experiences

Create a Quantum Communication Lab integrated with 5G networks – this research and development facility will focus on advancing quantum communication technologies and integrating them with 5G infrastructure.

The project benefits from a maximum EU grant of €2,572,413.75, which covers 75% of the total eligible costs (€3,429,885.00) for most activities.

PV5G – Use cases definition

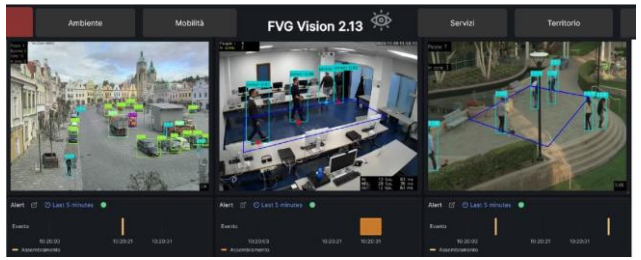


The Education Hub will serve as a hub for experimentation with **advanced digital technologies**, promoting innovation and lifelong learning.

→ Use case 2 on: **Quantum Communication**

Use case 1: will leverage 5G technology to explore cutting edge technologies for education, such as **Immersive Learning Experiences**, and host an **IoT Laboratory**

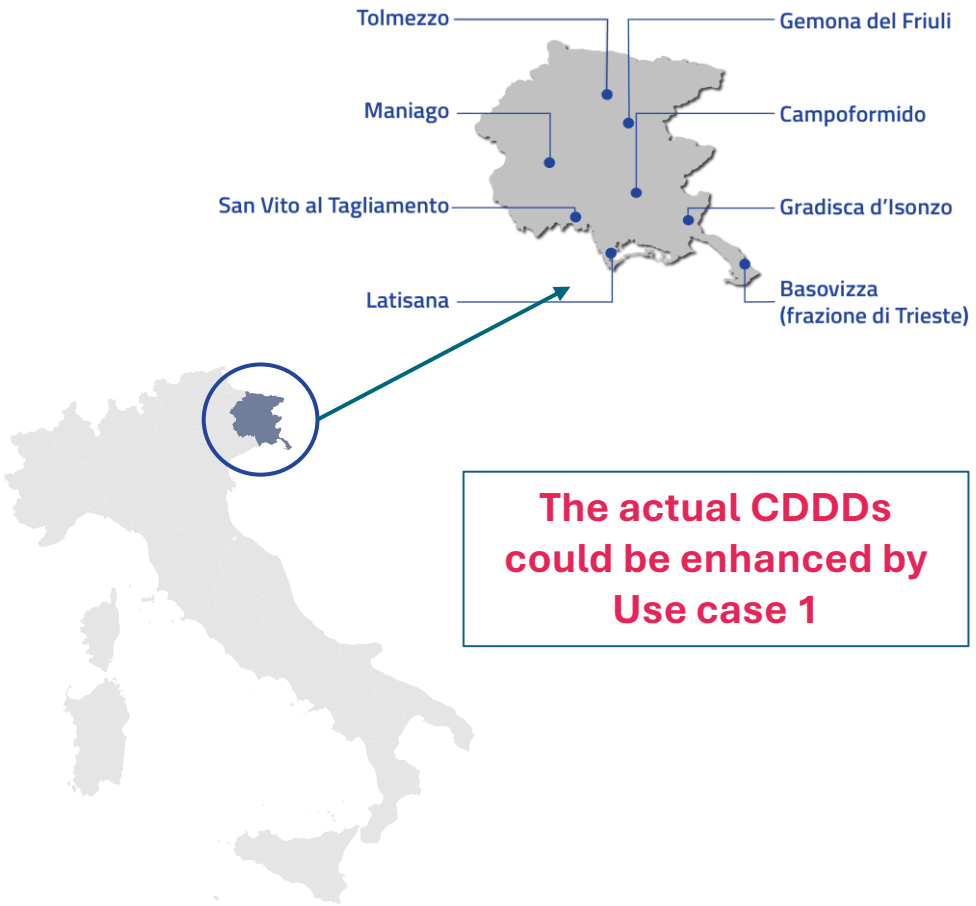
Hands On Lab on IoT Sensor Ecosystem using **FVG Vision platform**



Design of courses using **Virtual Reality**.

CDDD Network – scalability&replicability

CDDD – Centro Didattico Digitale Diffuso
(Distributed Digital Education Center)



The actual CDDDs could be enhanced by Use case 1

The Education Lab will also act as a reference point for the local community and a **replicable model for other digital urban regeneration initiatives**.

Digital classroom
PC
Tablet
Interactive Whiteboard
Printer
Upgrade: VR- IoT facilities

Conference room

Audio-visual system
Webinar/Streaming system

Connectivity

Fiber Network
Upgrade: 5G coverage

CDDD LAYOUT

PV5G PORTOVECCHIO

Co-funded by the European Union

insiel

REGIONE AUTONOMA FRIULI VENEZIA GIULIA

TIM ENTERPRISE

QTI Quantum Telecommunications Italy

UNIVERSITÀ DEGLI STUDI DI TRIESTE