6G-IA Brokerage event
Fivecomm overview

25/01/2024
Dr. Manuel Fuentes   **manuel.fuentes@fivecomm.eu**
R&D Manager

1. About us

- **SME** based in Valencia (Spain). Our offices are at UPV campus.
- Currently 25 employees
- We develop and integrate 5G solutions for verticals.
- We enable 5G B2B market opportunities answering real industry needs.

Stream B

Stream D

Our offices

Experience in 5 EU H2020 projects

National and regional projects

Horizon Europe involvement

Fivecomm

5G Rel-16 SA validation

Outdoor scenarios

Indoor scenarios

Light version

✓ **5G modem** connecting user devices to 5G networks through **Ethernet/USB**.

✓ Open OS based on **OpenWRT**.

✓ Developed and integrated in **H2020** projects.
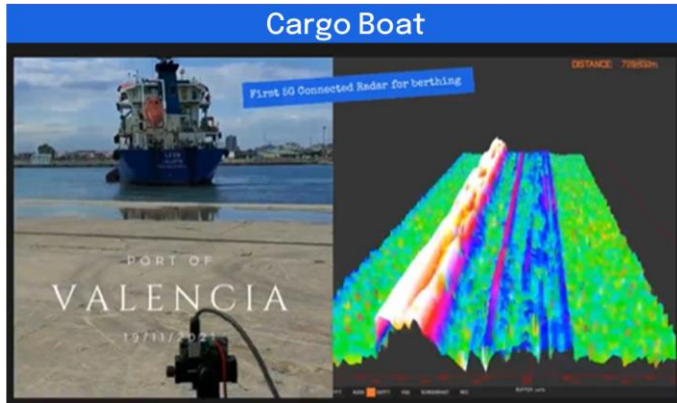
✓ Improved in TARGET-X, 6GSANDBOX

Ports 4.0

Energy

Industry 4.0

Fivecomm

5G-connected radars:

- ✓ 5G module + radar technology + AI algorithms
- ✓ Application scenarios:
  - • Data-driven smart mobility solutions
  - • Ports 4.0
  - • Water solutions (tank level – flow volume)

Cargo Boat

DISTANCE 7.98/02m

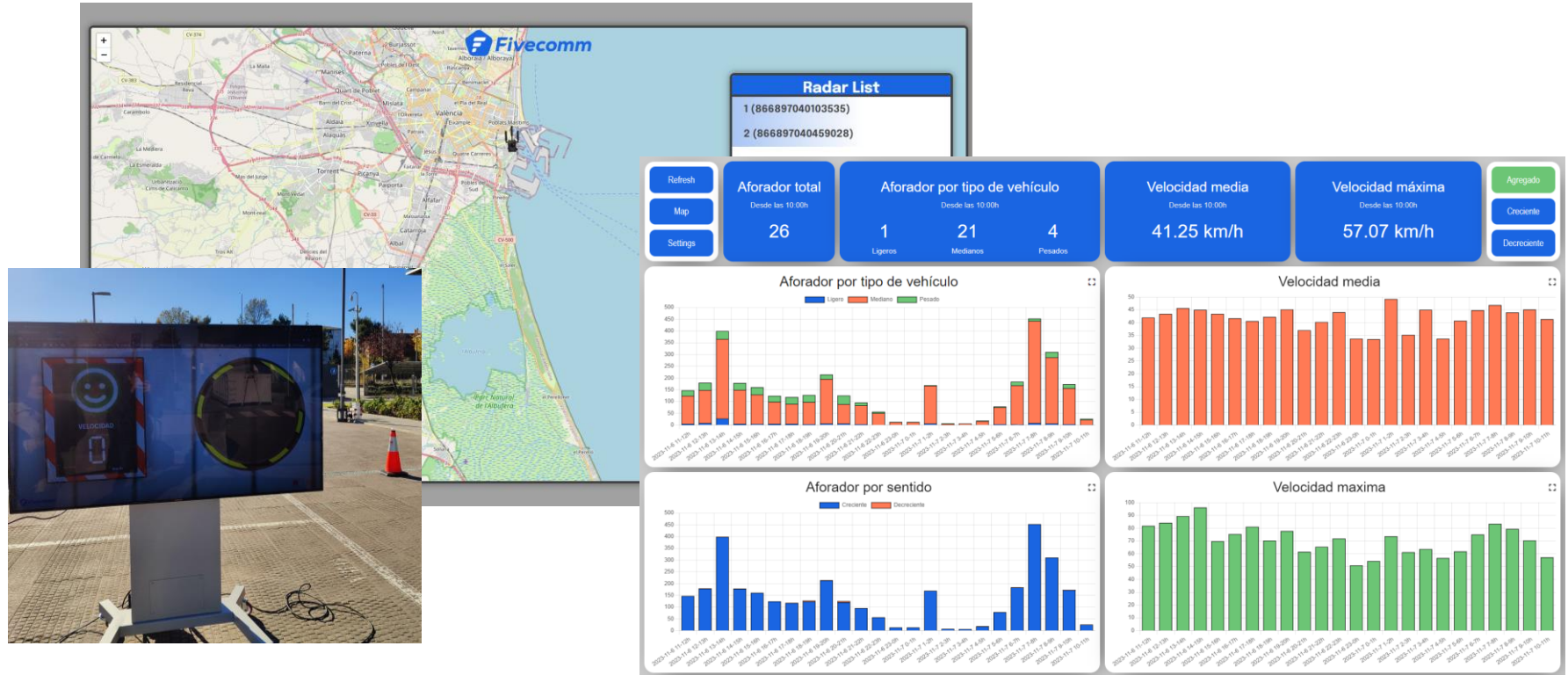First 5G Connected Radar for berthing

PORT OF VALENCIA

The connected Radar requires only power for its installation.

It can also be installed with an autonomous and sustainable system based on photovoltaic panels and batteries.
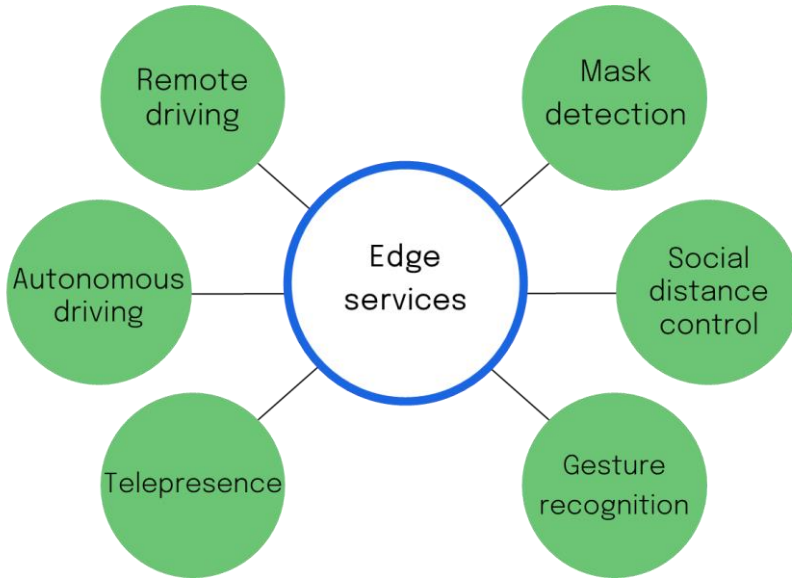
3. SW platform

IoT platforms that integrate and manage our devices

3. SW platform – Network Apps

Network Application end-to-end integration: successful stories

4. Network planner / digital twin

- 3D tool based on Unity to capture the changes in a planned area in real-time.
- Digital twin with a 3D model used to perform detailed ray tracing channel modelling.
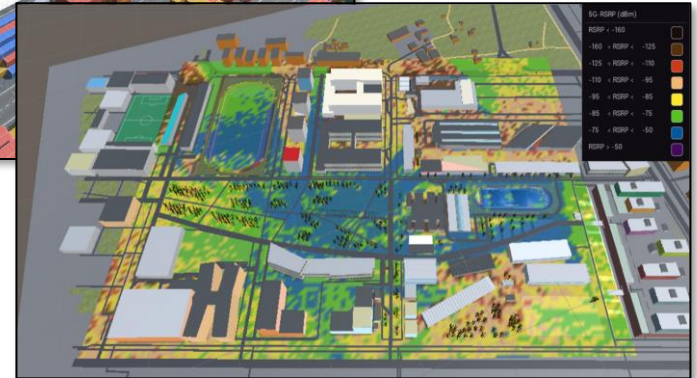- Coverage studies in several scenarios: smart port, water treatment plant…

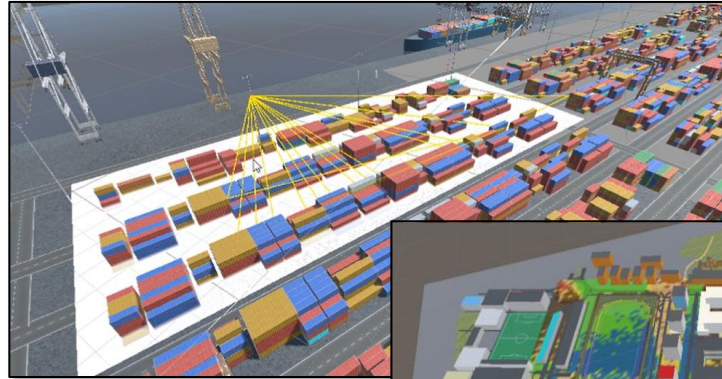Main benefits:

Dynamicity	Network performance
Real scenarios	End-to-end integration

✓ Fivecomm is conducting research in:

- Integrated Sensing and Communication
  - with special focus on vehicular communications
  - signal processing and radio resource management
- Channel modeling and implementation
- Cell-free massive MIMO
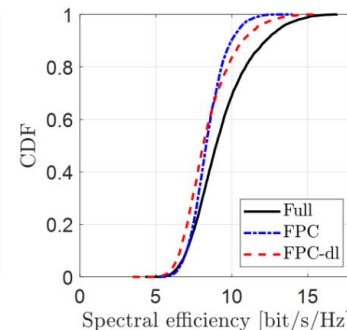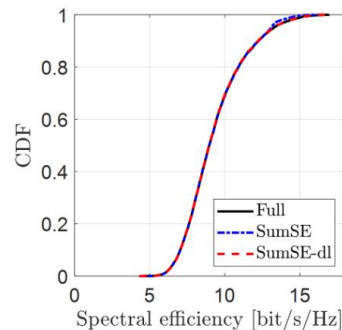 - with special focus on ML for RRM
- Energy efficiency studios on devices

✓ Topics approached via:

Simulations	Analysis	Prototypes	Trials

Fivecomm

Thank you!

manuel.fuentes@fivecomm.eu