Horizon 2020 and Horizon Europe 5G Research Projects Update

5G Tests and Trials across Europe

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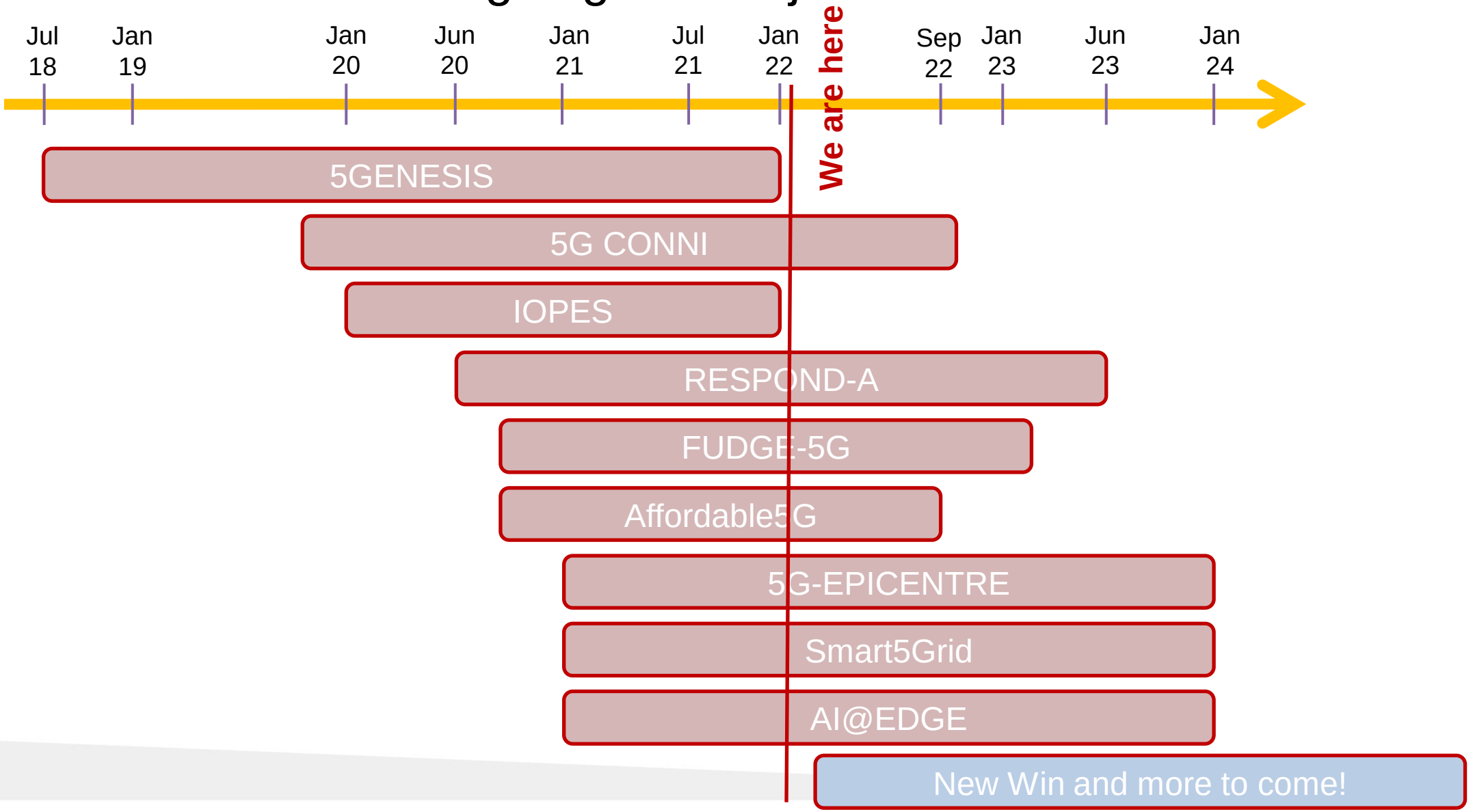
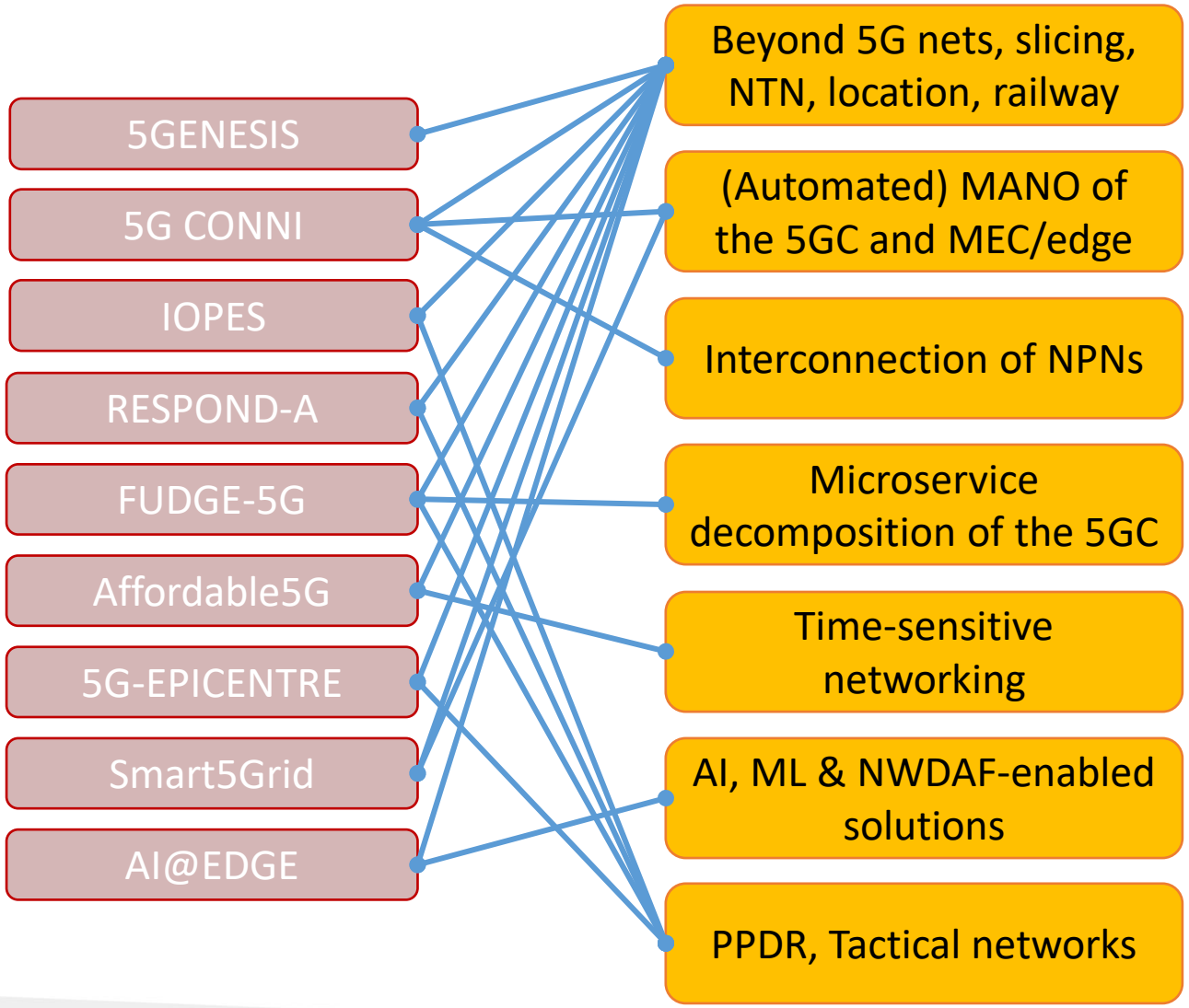
Intelligence Everywhere. For the Internet of Everything.

Ongoing EU Projects



Relation between Projects and R&I Topics



Smart5Grid

Demonstration of 5G solutions for SMART energy GRIDs of the future

Served vertical: **Smart grids**

The project will showcase 5G-enabled scenarios related to the electric grids of the future including, e.g., monitoring distribution grids to detect faults and assisting remote inspection of power plants

GENERAL INFORMATION

THE CONSORTIUM	DURATION	TOTAL BUDGET
24 EUROPEAN PARTNERS COVERING 7 EU STATES	3 YEARS	8M€

Coordinator

enel

TELCOs

WINDTRE

OTE GROUP OF COMPANIES

NETISSAT

Tech Companies

ENGINEERING

Atos

Universities/Research institutions

i2cat

HELLENIC REPUBLIC National and Kapodistrian University of Athens

University of Cyprus KOLOS

DSOs

e-distribuzione
e-distribución

TSOs

ECO ЕАД

ադմηε

SMEs

EIGHTBELLS Independent Research & Consultancy

INFOLYSIS

SC

NBYCOMP NearbyComputing

axon logic

ubiwhere SUITING THE FUTURE

ATHONET

SETECHCO

SIDROCO

ENTRA ENERGY

UBITECH digitizing energy

nosia - SEÑALIZACIÓN INDUSTRIAL - EQUIPAMIENTO PARA LA INDUSTRIA

STAM MASTERING EXCELLENCE

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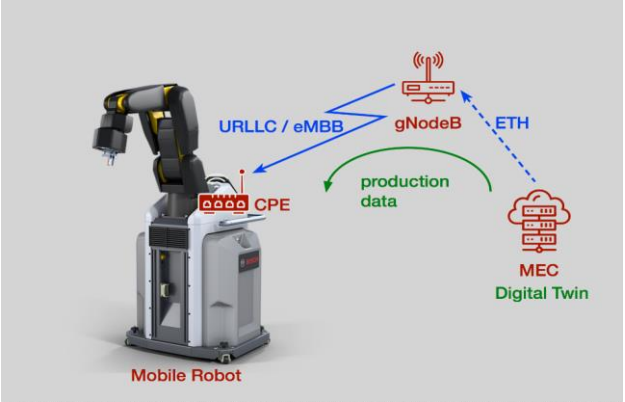
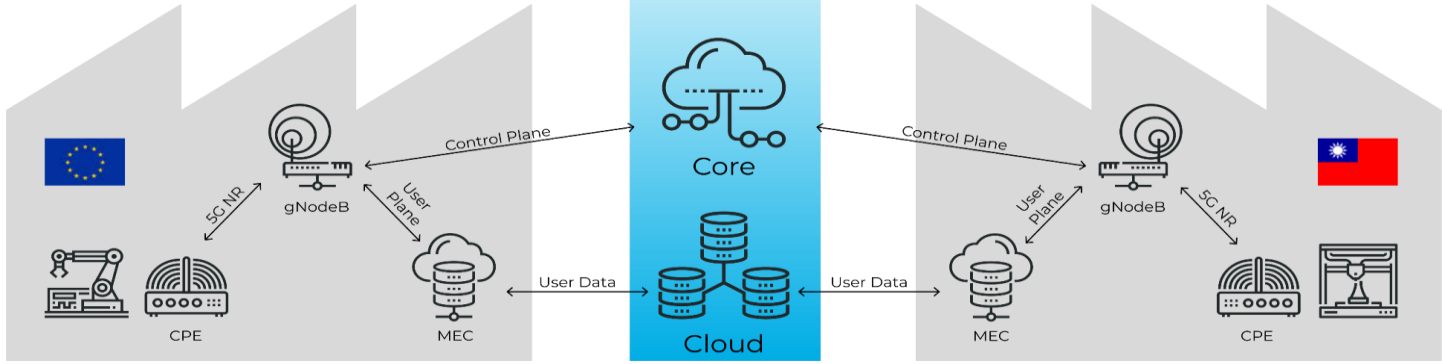
5G CONNI

Served vertical: **Industry 4.0**

Development of 2 interconnected industrial trial sites for a 5G smart factory demonstrator that incorporates one manufacturing facility of Bosch (Germany) and the Intelligent Machine Tools Center (IMTC) of ITRI (Taiwan).
Selected use cases will be integrated into an E2E industrial Private 5G Network demonstrator.



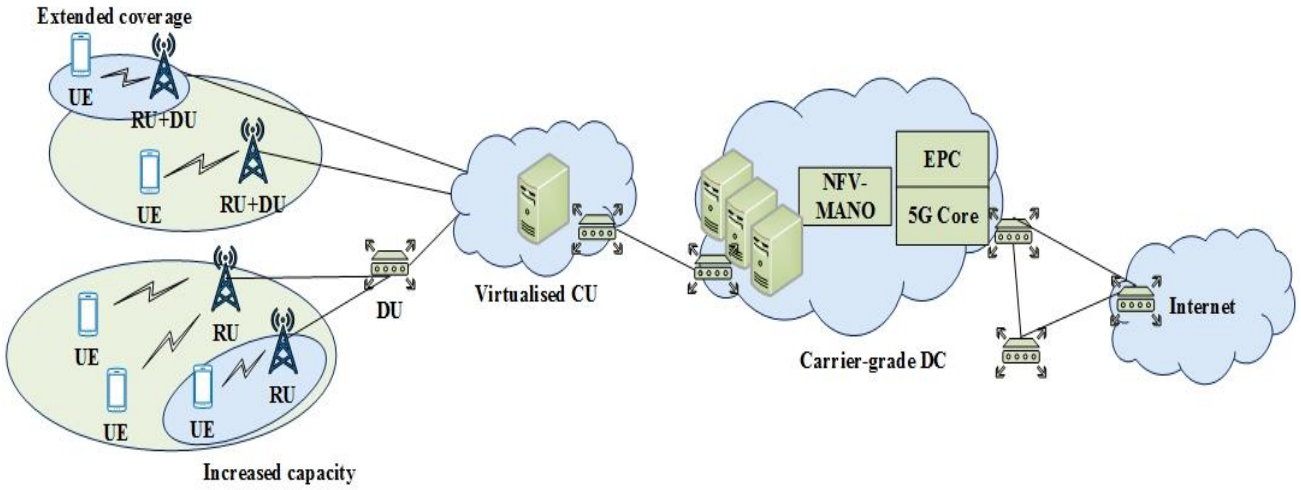
5G CONNI EU/TW
Joint Testbed Architecture



Affordable5G

Served verticals: **Public Safety,**
Smart city – IoT,
Smart industry – Private Networks

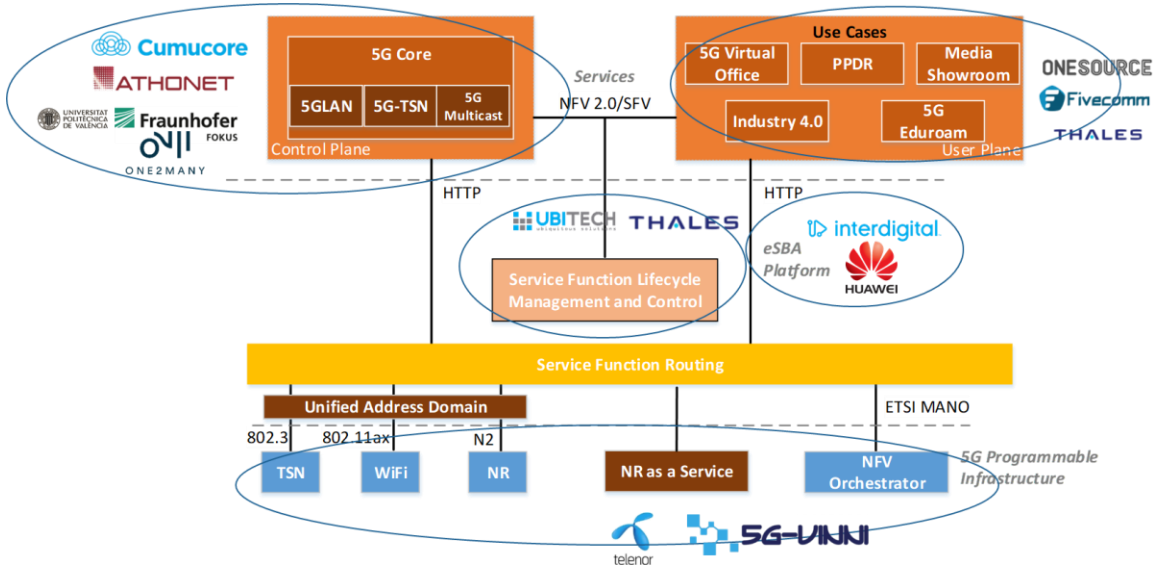
The project's outcomes will be evaluated in heterogeneous environments, comprising diverse RAN units, network resources, edge hardware and user requirements, as well as virtualized networks elements to demonstrate their wide applicability in 5G commercial and hybrid infrastructures.
The added-value and effectiveness of the project's outcomes will be demonstrated in three 5G pilots promoting cost efficient roll-outs of private networks



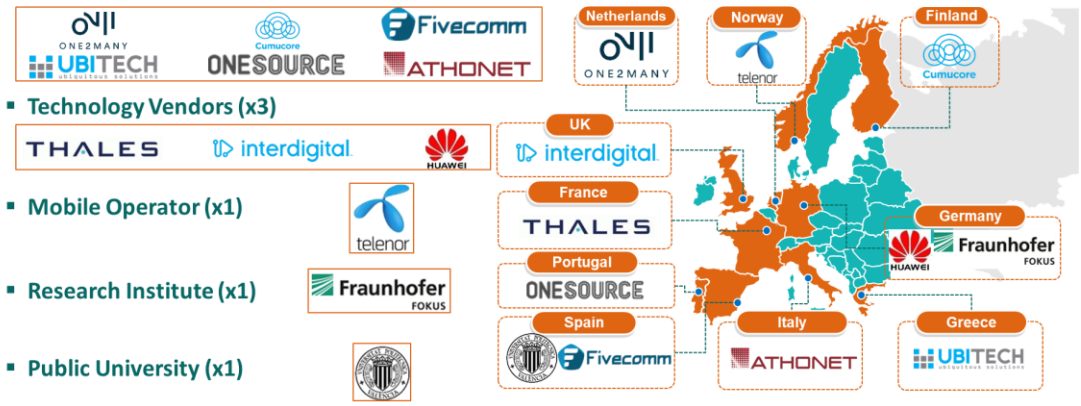
FUDGE-5G

Served verticals: **Media, PPDR, Industry 4.0,**
5G Virtual Office (Hospital), Interconnected NPNs

The project's outcomes will be evaluated in several pilots by interconnecting Non-Public 5G Networks, integrating between Public and Non-Public 5G Networks, exploring 5GC deployments on Public/Private Clouds, Multi-vendor 5GC deployments



- High-Tech SMEs (x6)
- Technology Vendors (x3)
- Mobile Operator (x1)
- Research Institute (x1)
- Public University (x1)



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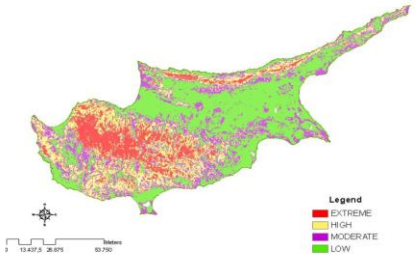
RESPOND-A

Served verticals: **Public Safety for Fire, Earthquake and Maritime operations**

The main aim of RESPOND-A is to leverage First Responders efficiency and safety by introducing a joint technological and conceptual framework for maximal Situational Awareness in terms of boosting:

✓Early Assessment
✓Safety Assessment
✓Risk Mitigation capabilities
✓Clear Common Operational Picture
✓Optimal management of operations at any scaling and complexity of disasters.

CYPRUS FIRE RISK INDEX



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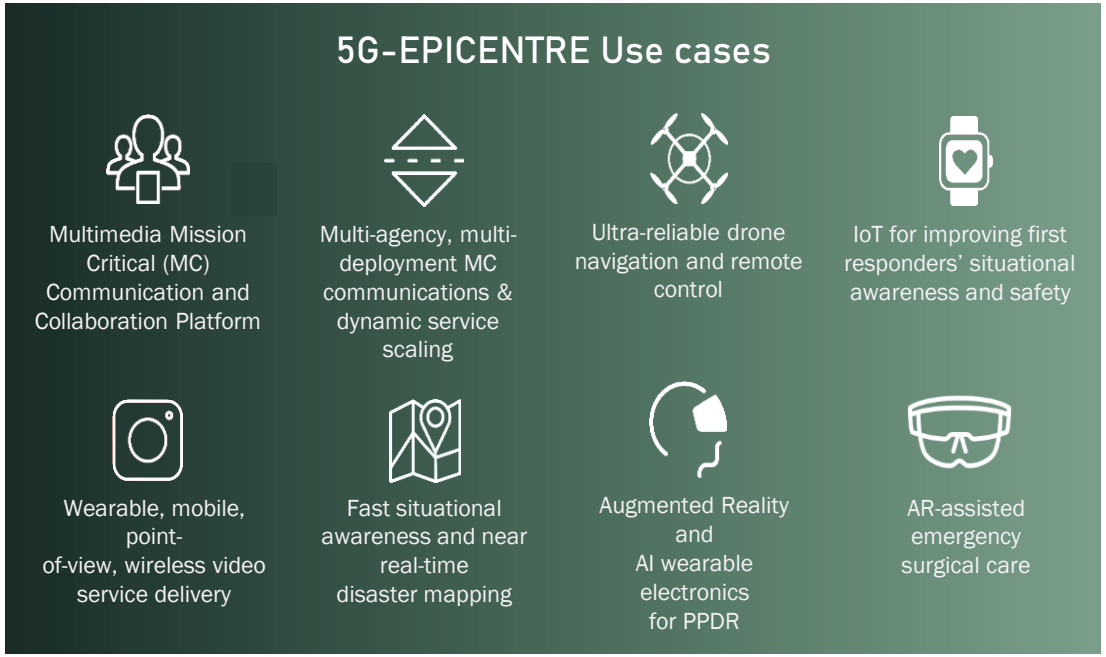
5G-EPICENTRE

Served verticals: **PPDR**

The objectives of the project are:
- To build an end-to-end 5G experimentation platform specifically tailored to the needs of the public safety and emergency response market players.
- To pilot 5G systems in PPDR-based trials, successfully demonstrating 5G-EPICENTRE onboarded apps as a crucial accompaniment to public safety MC communications technologies



Project partners

AIRBUS, Forthnet, altice labs, Fraunhofer HHI, FORTH Institute of Computer Science, Universidad de Málaga, CTTC, istella, ONESOURCE, iq, nemergent solutions, eBOS, ATHONET, RedZinc, Opto Precision, YOUBIQUO, ORama VR

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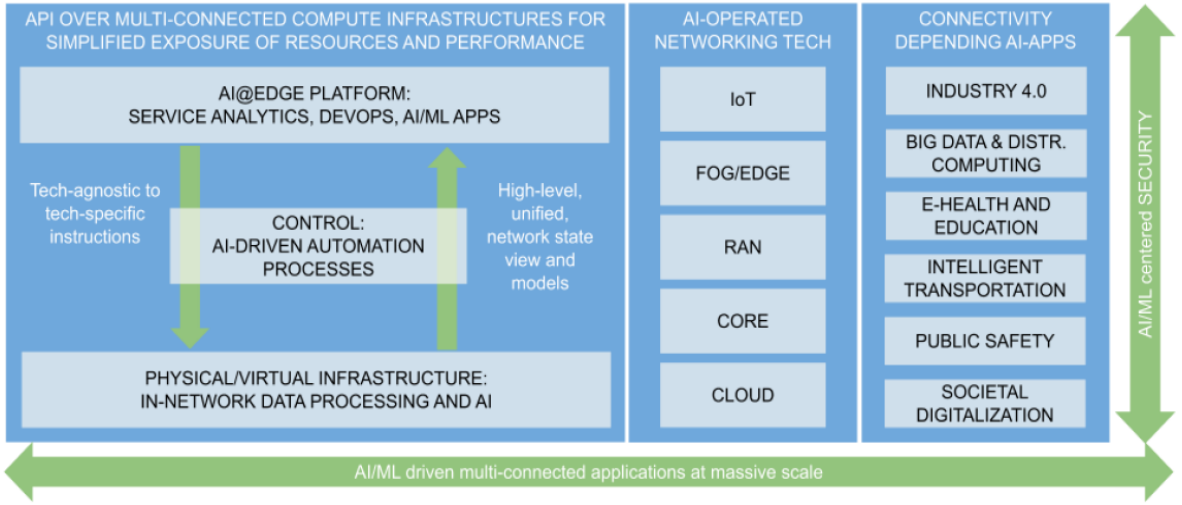
AI@EDGE

Served verticals:
Automotive,
Industrial IoT,
in-cabin entertainment

The AI@EDGE project will focus on six main breakthroughs:

1. AI/ML for closed-loop automation;
2. Privacy preserving, machine learning for multi-stakeholder environments;
3. Distributed and decentralized connect-compute platform;
4. Provisioning of AI-enabled applications;
5. Hardware-accelerated serverless platform for AI/ML;
6. Cross-layer, multi-connectivity and disaggregated radio access.



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5G-and-beyond-oriented Scopes of the Project Proposals

- Quick uptake of **advanced 5G technologies and beyond**
- Greater exploitation of **data,** increased resilience and cybersecurity by design of communications and industrial processes
- Focus on **5G private networks** and on innovative approaches to **simplify their deployment and operation**
- **New business models** for private 5G networks
- Sustainability, positive societal, environmental, and health impacts

Thank you!

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