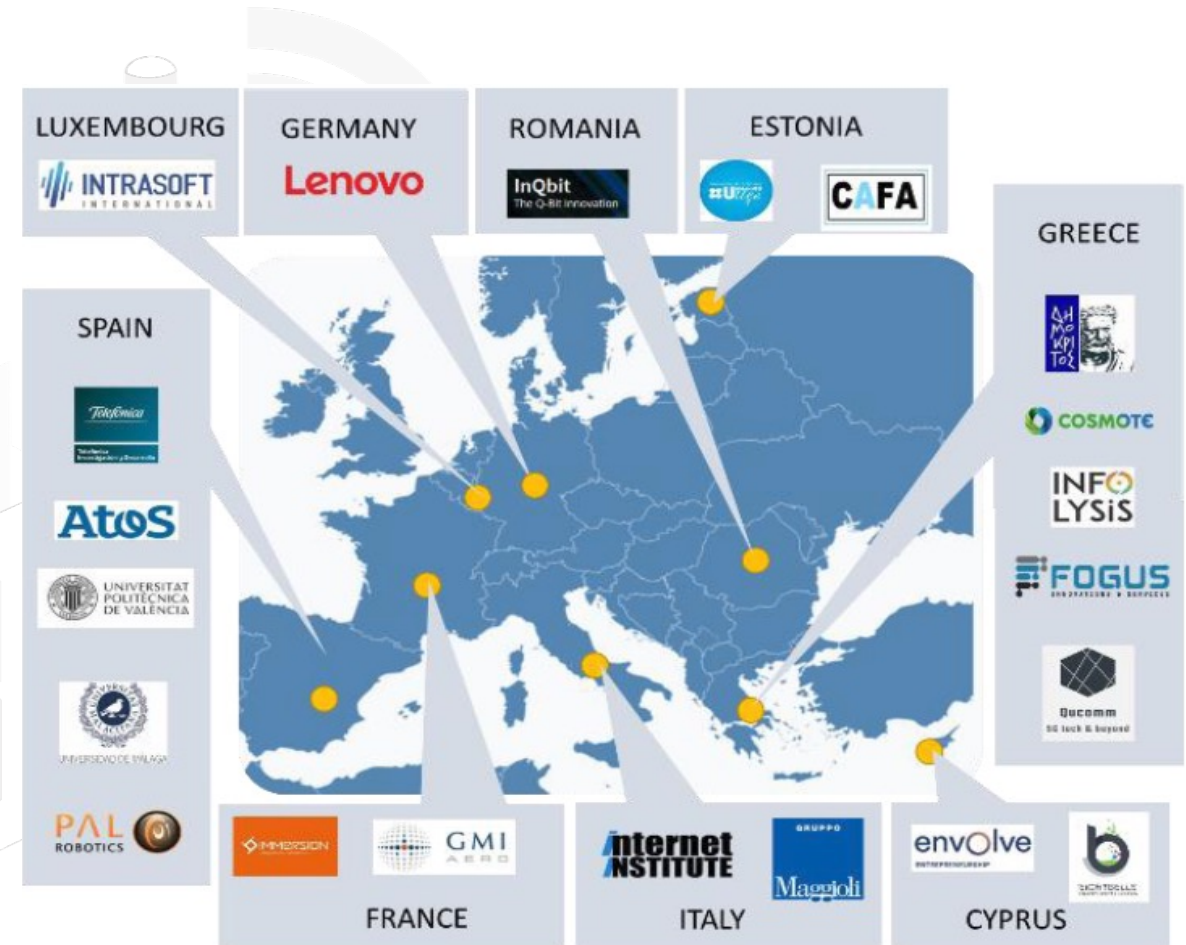# EVOLVED-5G

Experimentation and Validation Openness for Long-term evolution of Vertical industries in 5G era and beyond

The Consortium

21 Partners from 9 countries

- 11 SMEs/Verticals (GMI, ININ, CAF, IQBT, FOGUS, INF, 8BELLS, PAL, QCOM, IMM & UNM)

- 3 Research Institutions (NCSRD, UMA & UPV)

- 6 companies (INTRA, LNV, MAG, ATOS, COS, TID)

- 1 Startup Accelerator (IEA)

- Coordinator: Javier García Rodrigo (Telefónica)
- Technical Coordinator: Harilaos G. Koumaras (NCSRD)

Call: H2020-ICT-2018-2020
Topic: ICT-41-2020
Type of action: R&I
Duration: 30 months
Start date: 1 January 2021

Main Goals

EVOLVED-5G embraces the potential of the emerging NetApp ecosystem under a two-fold scope:

- To build an open experimentation facility for NetApp creation, validation, and certification. Developed NetApps will be validated in the EVOLVE-5G Pilots -Athens & Malaga 5G Platforms-, built upon 5G-PPP ICT-17 experimentation infrastructure from H2020 5GENESIS project.

- To provide the means and the tools for long term evolution of 5G-enabled vertical industries.

SDK
Open Software Development Kit for verticals to exploit 5G functionality and 5G performance gains through 3GPP standard APIs

VERIFICATION & VALIDATION
Test complete network services in multi-domain environments, automation in the validation process, and vertical-to network-level measurement campaigns
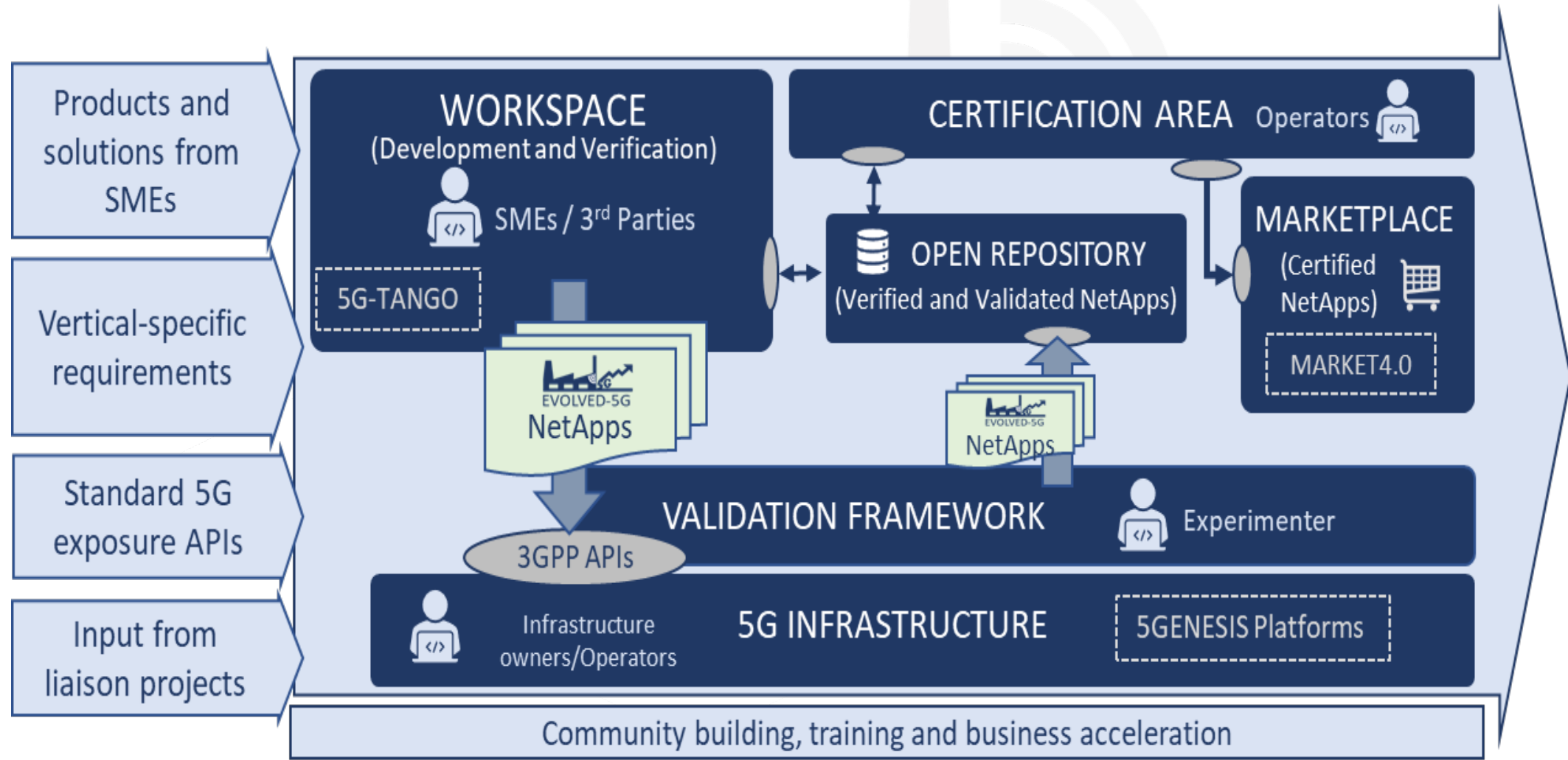
CERTIFICATION
Individual ecosystem with a set of certification programs to securely isolate the operator's tools and allow a wider openness of the workspace and the validation facility to third parties

PUBLICATION
Active online NetAPP store where verticals can interact with, publish, search, discover, acquire and deploy Data Services

Overall Architecture Development
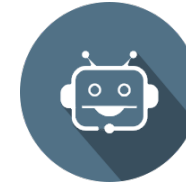
Netapps & Factory of future Apps

EVOLVED-5G framework is expected to lead to solutions in the following areas:

Mixed Reality assisted manufacturing (IMM)

Haptic-driven console for industrial Surface repairing (GMI)

Intent-driven chatbots for precise maintenance (INF)

IoT/M2M-based remote monitoring platform (ININ)

AI-based video analyzer for industrial and robotics (CAF)

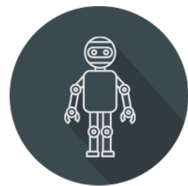ML-driven anomaly detection system for industrial processes (QCOM)

L7-aware whitebox switch with dynamic SFC & TSN support (8BELLS)

Security information and event management system (FOGUS)

Blockchain data brokerage engine (IQBT)

AI-drive humanoid robot (PAL)

AI-driven logistics robotic fleets (UNM)

Thank you