5G EVE project consortium

The project consortium consists of 28 partners from 7 countries:

- TIM S.p.A. (Italy) – Coordinator
- Orange SA (France)
- Orange Romania SA (Romania)
- Orange Polska Spolka Akcyjna (Poland)
- Telefónica Investigación y Desarrollo (Spain)
- Hellenic Telecommunications Organization S.A. (Greece)
- Ericsson España S.A. (Spain) – Technical Management
- Ericsson Hellas S.A. (Greece)
- Ericsson Telecomunicazioni S.p.A. (Italy)
- NOKIA BELL LABS France (France)
- NOKIA SPAIN S.A. (Spain)
- Nokia Solutions and Networks Hellas S.A. (Greece)
- WINGS ICT SOLUTIONS PC (Greece)
- B-COM (France)
- NEXTWORKS S.r.l. (Italy)
- Comune di Torino (Italy)
- ASTI MOBILE ROBOTICS S.A.U (Spain)
- Trenitalia S.p.A. (Italy)
- Applied Research to Technologies S.R.L. (Italy)
- Telcaria Ideas S.L. (Spain)
- IDC Italia srl (Italy)
- Eurescom GmbH (Germany)
- Promozione per l'Innovazione fra Industria e Università Associazione PIIU (Italy)
- EURECOM (France)
- Universidad Carlos III de Madrid (Spain)
- Consorzio Nazionale Interuniversitario per le Telecomunicazioni (Italy)
- Sociedad Estatal para la Gestión de Innovación y las Tecnologías Turísticas S.A. (Spain)
- Electricité de France (France)

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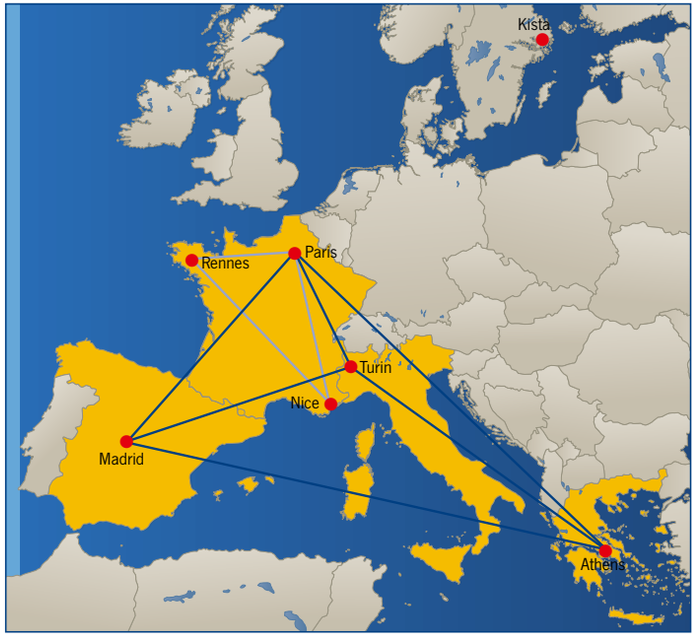
5G European Validation platform for Extensive trials

Creating the foundations for 5G end-to-end networks in Europe

The 5G EVE end-to-end facility

The 5G-EVE concept is based on further developing and interconnecting 4 existing European sites to form a unique 5G end-to-end facility.

The four interworking sites are located in **France, Greece, Italy and Spain** (see figure) and provide both **indoor and outdoor facilities**. They are complemented by advanced labs, e.g. the Ericsson lab in Kista, Sweden. The French site is composed of a cluster of sites located in Paris, Nice, and Rennes.

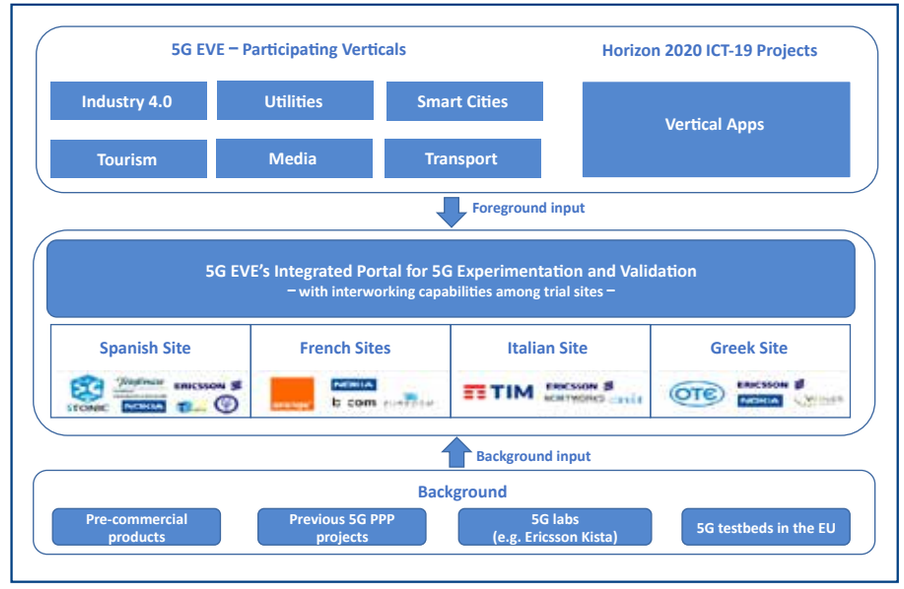


Technical objectives

The facility will be offered to vertical industries through a unified functional and operational API for execution and validation of pilots. The 5G EVE end-to-end facility will enable experimentation and validation with full sets of 5G capabilities – initially Release 15 compliant and by the end of the project Release 16 compliant.

Specifically, the technical objectives include:

- Implementing **Release 16 compatible technologies** in the four sites, starting from the evolutions of current Release 15. Specific pilots will validate that 5G KPIs can be achieved.
- Creating **intent-based interfaces** to simplify access to the 5G end-to-end facility.
- Designing and implementing **site interworking and multi-x slicing/ orchestration mechanisms.** The intention is to effectively manage multiple site facilities, dramatically improve efficiency, prevent overload, and easily manage migration of networks components.
- Implementing a **vertical-oriented open framework.** It includes new intent-based networking concepts applied to the interfaces towards verticals and to the management of end-to-end network slices.
- Creating **advanced 5G testing and measurement mechanisms** to validate advanced 5G features and KPIs.
- **Advanced data analytics** on the output of monitoring processes for anticipating network operations.



5G EVE end-to-end facility – functional architecture

Expected impact of 5G EVE

The 5G EVE results are expected to significantly contribute to the following technological and economic impacts:

- Contribution to the implementation of cross-industry 5G standards and to a common architecture definition.
- Demonstration of the implementation of real vertical sector requirements.
- Accelerated development of the European innovation ecosystem for 5G with a full set of capabilities.
- Timely development and launch of compelling 5G services and applications by European industry.
- Improved positioning of European industry in the global 5G market.

5G EVE

About 5G EVE

5G EVE, the '5G European Validation platform for Extensive trials', is a European infrastructure research project within phase 3 of the 5G Infrastructure Public-Private Partnership (5G PPP). The project ambition is to be instrumental towards the pervasive roll-out of 5G end-to-end networks in Europe.

5G EVE started on 1st July 2018 and runs for 36 months. The 15.7 million euro project is coordinated by TIM and is co-funded by the European Commission under the EU's Horizon 2020 programme.