



## ***ENABLING-5G***

*“ENABLING INNOVATIVE RADIO TECHNOLOGIES FOR 5G NETWORKS”*

**Enabling-5G**

is an applied research project in the field of telecommunications that is develop

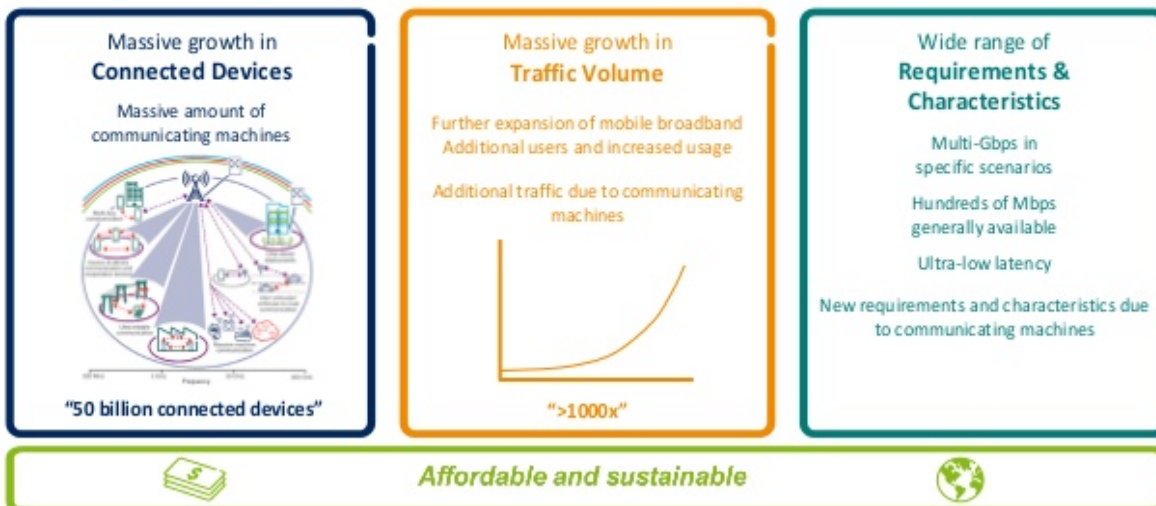
The Spanish Government, Ministry of Economy, National Program of Research, Development support this project and Innovation oriented to Challenges of the Society (project number TEC2014-55735-C3-R).

## 5G Networks

The fast increase in the number of terminals makes a continuous growth in the data of the cellular networks. Each day new sensors, actuators, and other elements are connected to the networks. According to ETSI, 5G networks will require connectivity with very high speed, low cost and everywhere. UMTS Forum estimates more than 9.5 billions of mobile networks' subscribers in 2020, including M2M services. Also, the daily traffic per subscriber will reach the 294MB, with a total traffic of 351 EB in 2025. Moreover, this increase will happen everywhere in the world.

The definition of 5G is still unclear, although the experts have identified the key challenges shown in the below figure.

## 5G KEY POINTS



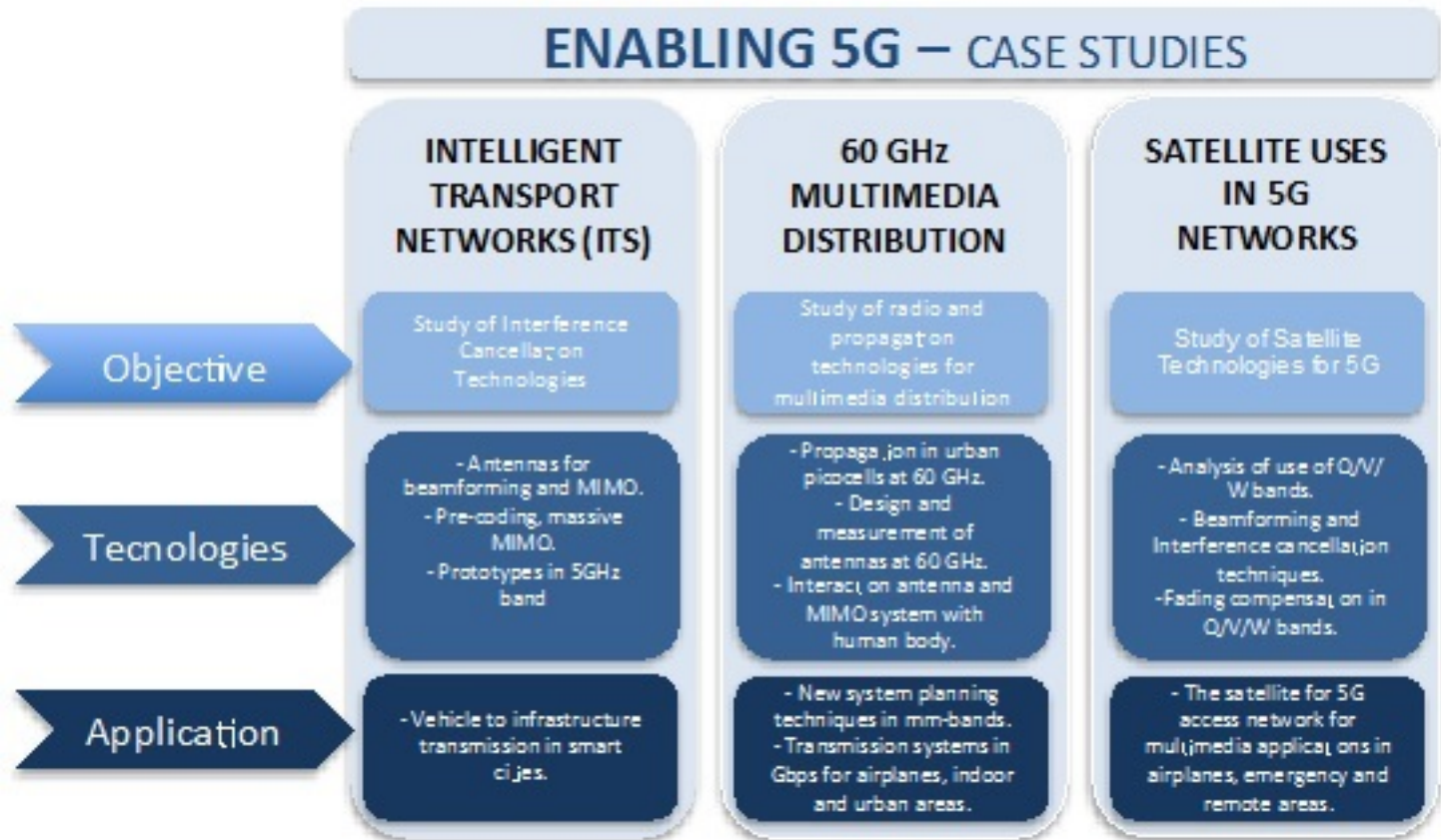
*Key challenges for future radio access [Source: Ericsson]*

All these facts make that manufacturers, providers of services, developers and regulation and standards agencies begin to study different network technologies and architectures, to make all these challenges real 2020.

## **The Project: ENABLING-5G**

The following chart shows the cases of study, challenges, technologies to be studied with some of the applications and services. The project will evaluate each case of study under different aspects and offer particular solutions for each one.

The expected result of the ENABLING-5G will pursue a significant impact in both a technological and business levels. The development of the 5G networks will be global phenomena and multiple new services and applications will appear, linked to some of the technologies investigated in this project. New business opportunities will be open to different stakeholders of the telecommunication and information society sectors.



Some of the most innovative technologies and applications under analysis in ENABLING 5G projects,



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