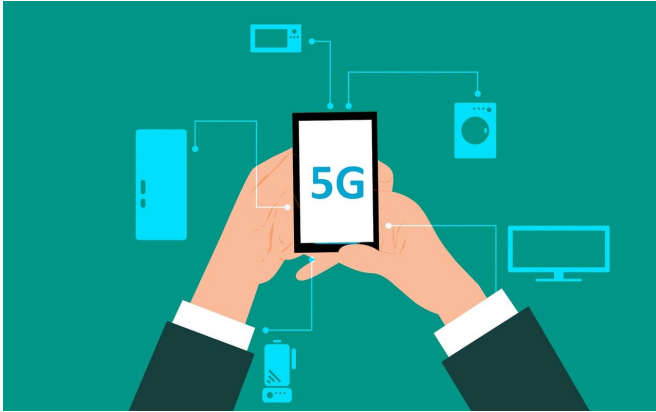


Europe prepares four 5G pilots in industrial applications

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A European research project coordinated by the Universidad Carlos III de Madrid (UC3M), named 5Growth, will implant 5G technology in four working environments on the continent to validate the functioning of these new telecommunication networks. In Spain, this test will be carried out in the Basque Country, in one of the Innovalia headquarters.

The 5G technology that will be implanted in the framework of this project will enable communications to run at ten times the speed of the current 4G [network](#), and also decreases the latency (the delay in the propagation of information packages within a network) and increases communication reliability. All this allows applications, such as the autonomous car, augmented reality or the connection of numerous devices to the Internet a reality, into what is called the Internet of Things, explains the lead researcher on the project, Carlos J. Bernardos from the UC3M's department of Telematic Engineering.

The objective of this project is to test and validate the real performance of 5G systems in vertical

industries, as can be Industry 4.0 (highly connected and automated), the eHealth environment (which employs Information and Communication Technologies—ICTs—in terms of diagnoses, prevention and monitoring of patients) or the audiovisual entertainment sector (which uses network technologies to facilitate different types of streaming at events). In addition, "we will try to optimise the performance of these networks using automation and artificial intelligence (AI) solutions through the [field tests](#)," adds Bernardos.

An example of automation and AI solutions that they will evaluate is the deployment of applications that allow the facilitation of maintenance and remote operation of a set production process in a factory. This can require algorithms that are capable of deploying the necessary resources automatically using AI, explain the researchers.

5G pilot test

In this way, nine use cases of 5G will be tested in four vertical industry settings in Spain, Italy and Portugal in the fields of Energy, 4.0 Industry and Transport. In the case of Spain particularly, the tests will be carried out in one of the Innovalia headquarters and the 5TONIC infrastructure will be used, a laboratory jointly founded by IMDEA Networks and Telefónica for research and innovation in 5G networks, in which the UC3M also participates. 5TONIC will also be used in the evaluation phases and pre-tests.

The 5Growth project forms part of the third phase of the H2020 5G Infrastructure Public Private Partnership (5G-PPP) initiative, a joint initiative with the European Commission and European industry in the field of ICT, the objective of which is to offer solutions, architecture, technology and standards to the next generation of communication infrastructures, known as 5G.

Provided by Carlos III University of Madrid

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