



Orange and the CAMPUS Research Institute of UPB open the first 5G laboratory in Romania

Bucharest, April 20th – Orange, in partnership with the CAMPUS Research Institute of the University Polytechnica of Bucharest (UPB), has opened the first 5G laboratory in Romania, a hub where researchers, startups and companies can innovate and test their solutions based on 5G technology. The 5G Lab is part of an international initiative by Orange that aims to support economic players and researchers in discovering the value, benefits and opportunities brought by 5G and to develop solutions that will make a difference in a digital economy.

[The 5G Lab](#), hosted in the [CAMPUS Research Institute](#), is equipped with technologies that will be available in the commercial network in the future, but currently can only be tested in a laboratory environment:

- **5G Standalone Private Mobile Radio** - a core component of the 5G infrastructure;
- **5G New Radio** - the radio access component of the 5G infrastructure;
- **Open RAN and Open CORE** components based on the separation of the software from the hardware equipment allowing the virtualization of the functionality of the radio network or the core network and have the ability to run the system on CoTS (Commercial-of-the-Shelf) equipment and open interfaces;
- **Edge Computing** plays a key role as a technology that reduces the distance between users (applications) and services (data) and facilitates guaranteed latencies and throughputs, as required by services and applications.

The advanced telecommunications architecture available in the 5G Lab supports the digitization of several economic sectors with the help of 5G, such as agritech, smart cities, autonomous cars, transport and logistics, e-health, cyber security, green technology, and many others. Several Romanian companies, startups and researchers are already carrying out 5G projects with a focus on the safety and health of citizens, remote coordinated river and maritime transport, urban mobility, precision agriculture and the future of collaboration in Industry 4.0.

On the laboratory's website, 5glab.orange.ro, several calls for projects and collaborations will be opened, encouraging all interested parties to take advantage of the open infrastructure and the expertise of the laboratory team. There will be 3 types of calls for projects: for companies, for startups and for research.

The launch in Romania of the 5G Lab is part of a bigger initiative developed by Orange Group, and involves launching [9 Orange 5G laboratories across Europe](#). These labs aim to help economic players to better understand the opportunities, value and benefits of 5G. Companies and start-ups are able to test their current solutions and services and think about new uses



while taking advantage of an ecosystem to co-innovate and start changing their business model and processes.

"Today, Orange offers the best commercial connectivity services, but we know that in order to maintain the highest standards we must be one step ahead. Through the 5G Lab, we are bringing to the present, in a laboratory environment, a network architecture unique in Romania, that is open for testing. The innovation and research projects we carry out allow us to discover together with our customers and partners how the networks of the future can contribute to the creation of advanced digital services and enhanced user experience, the improvement of processes, a better management of resources and green efficiency."- Emmanuel Chautard, Chief Technology Officer Orange Romania.

"The mission of University Polytechnica of Bucharest was conceived as a blend between education, research and innovation, which is key to a society and a knowledge economy. The CAMPUS research institute was established so that researchers can develop their solutions and products in an environment where research can be quickly brought to market. Research in the field of 5G is essential to develop new solutions for the networks of the future, but also to accelerate the digitization process. Teams at the CAMPUS Research Institute are involved in the 5G network and beyond 5G networks research process, therefore the development of the 5G Lab together with Orange will lead to the validation and testing of research solutions so that they can be transferred to the market as soon as possible. „ Prof. Dr. Ing Tudor Prisecaru, President of the Senate in University Polytechnica Bucharest

Currently, the Orange 5G network is available in Bucharest, with 100% 5G coverage, and in 14 other cities: Bragadiru, Braşov, Chitila, Cluj-Napoca, Constanţa, Iaşi, Măgurele, Otopeni, Ovidiu, Pantelimon, Popeşti-Leordeni, Predeal, Timisoara and Voluntari.

More details about the 5G Lab in Romania are available on 5glab.orange.ro and futurenetworks.upb.ro.

More details about the Orange Group initiative <https://5glab.orange.com>

About the CAMPUS Research Institute of the University Polytechnica of Bucharest

The Research Institute for Advanced Research for Innovative Materials, Products and Processes is part of the University Polytechnica of Bucharest and aims to promote an intelligent environment of control, integration and coordination of multi and interdisciplinary research groups within UPB. Through this objective, the Institute aims to increase and diversify the innovative offer of UPB, as well as to stimulate the access of enterprises to the products of the research, development and innovation activity of the university. The institute has a number of 42 research laboratories from Nanomaterials and Nanostructures to Artificial Intelligence, Communications or Green Energy.