

Press Release

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Defining the backbone of future mobile internet access

IHP coordinates large EU-Project on the development of the 5th Generation of Mobile Networks (5G)



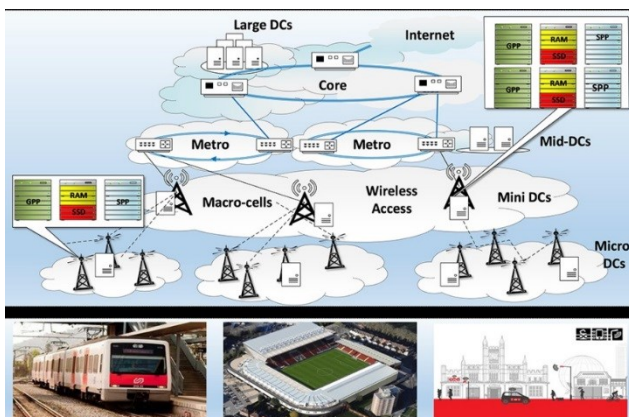
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Frankfurt (Oder). The world becomes more mobile and the requirements for transmitting pictures, videos, music and cloud data are increasing. To cope with the growing mobile data traffic, the fifth generation of mobile networks, termed 5G, is being defined and developed. IHP - Innovations for High Performance Microelectronics in Frankfurt (Oder) is coordinating an EU funded project in this field. "Within 5G-PICTURE, the aim is to develop an integrated transport network involving optical and wireless communications, to allow a dynamic adaptation to changing requirements. Together with distributed compute and storage resources, this will be the backbone for our future mobile internet access", explains Prof. Eckhard Grass, coordinator and Team Leader at IHP.

The project consortium, consisting of nineteen European partners, has a vision of an integrated, scalable and open 5G infrastructure aiming to support operational and end-user services for both information and communications technologies (ICT) and 'vertical' industries. "This infrastructure will rely on a converged fronthaul and backhaul solution, integrating advanced wireless access and novel optical network domains", adds Dr. Jesús Gutiérrez Terán, who is Project Leader at IHP's department "System Design".

5G is considered to significantly enhance former mobile radio platforms. It will allow a speed of several Gigabit per second - at least ten times faster than current 4G technology. The EU is funding "5G-PICTURE" with about eight million Euro as part of the Horizon 2020 program. The work at IHP will be funded with about 600.000 Euro. "The joint work of experts from many different countries across Europe in a project like 5G-PICTURE not only accelerates the development of the 5G technology but also supports mutually beneficial cooperation in science, technology and industries within the European Union at a larger scale", points out Prof. Eckhard Grass.

The project kick-off meeting takes place on 24.-26.07.2017 at IHP in Frankfurt (Oder), Germany.



5G-PICTURE proposes to integrate network and compute/storage resources in a common infrastructure.

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About IHP:

The IHP is an institute of the Leibniz Association and conducts research and development of silicon-based systems and ultra high-frequency circuits and technologies including new materials. It develops innovative solutions for application areas such as wireless and broadband communication, security, medical technology, industry 4.0, automotive industry, and aerospace. The IHP employs approximately 300 people. It operates a pilot line for technological developments and the preparation of high-speed circuits with 0.13/0.25 μm BiCMOS technologies, located in a 1000 m² class 1 cleanroom.

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