The EU initiative METIS paves the way for the mobile and wireless communications system for 2020 & beyond

METIS, Mobile and wireless communications Enablers for the Twenty-twenty (2020) Information Society, is a large EU co-funded research project starting in November 2012. The project objective is to respond to societal challenges for the year 2020 and beyond by laying the foundation for the next generation of the mobile and wireless communications system. METIS is a consortium of 29 partners spanning telecommunications manufacturers, network operators, the automotive industry and academia.

European Union, November 27th 2012: Societal development will lead to changes in the way mobile and wireless communication systems are used. Essential services such as e-banking, e-learning and e-health will continue to proliferate and become more mobile. The societal development will lead to an avalanche of mobile and wireless traffic volume, which is predicted to increase a thousand-fold over the next decade. Traffic will be driven by a mix of communication between humans and machines, that need to access and share information efficiently, comfortably and safely. The advent of the Internet of Things, as well as other new and innovative applications, will see tens of billions of connected devices and an unprecedented diversity of requirements and use cases associated with wireless connectivity.

METIS will have to respond to the increase in traffic volume, by increasing capacity and by improving efficiency in energy, cost and spectrum utilization. Further, the numbers of devices and varieties of use cases and requirements will necessitate mobile and wireless communication solutions with significantly increased versatility and improved scalability. METIS will lay the foundation for the future "5G" mobile and wireless communications system, consisting of the evolution of currently-existing wireless technology and any new wireless technology needed to fully enable the networked society. METIS will develop a system concept that delivers the necessary efficiency, versatility and scalability. The project will investigate key technology components supporting the system, and will also evaluate and demonstrate key functionalities. Furthermore, METIS will provide a proof-of-concept by means of simulations and test-beds. In particular, METIS will demonstrate through hardware test-beds key technology components developed in the project.

METIS intends to enable European lead on the development of the future mobile and wireless communications system, and ensure an early global consensus on these systems. METIS will play an important role of building consensus among other external major stakeholders prior to global standardization activities. This will be done by initiating and addressing work in relevant global fora (e.g. ITU-R), as well as in national and regional regulatory bodies.

METIS will help the mobile and wireless communications industry to expand markets and to create new business opportunities for the mobile communications industry, and
also lever opportunities in other industries that can benefit from a vastly-increased mobile connectivity. European industry will benefit from METIS on the economic front by gaining prime-mover status due to the innovation generated by the project. METIS will offer new wireless technology concepts and novel topics (e.g. massive-machine communications, ultra-dense networks, and ultra-reliable communication). These novel topics will support services and application areas and open new business opportunities.

METIS is co-funded by the European Commission as an Integrated Project under the Seventh Framework Programme for research and development (FP7). The project will receive from the EU nearly €16 million of its €27 million budget.

Contact
For any questions regarding METIS, please contact the project co-ordinator:
Dr. Afif Osseiran, Ericsson
E-mail: contact@metis2020.com
twitter.com/metis2020
http://www.facebook.com/metis2020

Partners
**Additional Information**
Approximately 80 persons will be dedicated full time to METIS during its 30-month duration. The strong consortium includes telecommunications manufacturers, network operators, the automotive industry and the academic sector: Ericsson, Aalborg University, Aalto University, Alcatel-Lucent, BMW Group Research and Technology, Chalmers University of Technology, Deutsche Telekom, NTT DOCOMO, Elektrobit, France Telecom-Orange, Fraunhofer-Gesellschaft, Huawei Technologies GmbH, KTH - Royal Institute of Technology, National and Kapodistrian University of Athens, Nokia Corporation, Nokia Siemens Networks, University of Oulu, Poznan University of Technology, RWTH Aachen, Institut Mines-Télécom, Telecom Italia, Telefónica, University of Bremen, University of Kaiserslautern, and Universitat Politècnica de València.

**Useful Links**
- EU commission DG Connect [http://ec.europa.eu/dgs/connect/](http://ec.europa.eu/dgs/connect/)