



Press release

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LEXNET Project – Low EMF Exposure Future Networks

Leading European communications companies and research organisations have launched an EU project to reduce Electromagnetic Fields (EMF) exposure.

A group of 17 leading telecommunications operators, vendors, research centres and academic institutions have launched “LEXNET” (Low EMF Exposure Future Networks), a European project whose goal is to develop effective mechanisms to reduce by 50% (at least) our EMF exposure, without compromising the quality of service.

Over the past 30 years, wireless communications systems that are using electromagnetic fields (EMF), have been increasingly used, at home or in mobility. To date, no adverse health effects have been established but questions still exist. A public concern has risen. In the 2010 Eurobarometer on EMF, 67 % of the respondents think that mobile phones affect citizens' health. Some national or local authorities have recommended practices and measures to minimise EMF exposure. But these actions focus mainly on cellular network base stations and access points. Since the exposure is induced by the down- and the uplinks, these actions do not fully respond to the relevant questions, and they even can induce a rise of exposure.

Dr. Joe Wiart, LEXNET project manager, explains that “it is important to study innovative low RF exposure solutions at many levels, ranging from the radio devices to the network architecture, topologies, management and the provision of services”. He also indicates that “Index of Exposure should be built to assess human exposure and enable consistent and fair comparisons between solutions”.

The strategic goal of LEXNET is to take into account the public concern about possible health effects of electromagnetic fields and to improve the acceptability of existing and future wireless systems through low exposure systems without compromising the user's perceived quality.

The project will: define a global index of exposure assessing the averaged exposure of the population over space and time, composed of up- and downlink sources; identify future network mechanisms, technologies, architectures and parameters, allowing the reduction of human exposure in the frequency bands from 0.4 to 6 GHz; build a “cost function” related to this exposure index, which can be used to optimise network architecture and operation, as well as the related technologies; experiment the proposed solutions.

The LEXNET project is partially funded by the European Commission's Seventh Framework Program (FP7), within the Work Programme for Information and Communication Technologies under the objective “Network of the Future”. This objective supports the development of future network infrastructures that allow the convergence and interoperability of heterogeneous mobile, wired and wireless broadband network technologies as enablers of the future Internet.

The LEXNET consortium relies on the diverse and complementary expertise of its members: France Telecom (FR), Telekom Srbija (RS), Fujitsu Laboratories of Europe (UK), Sagemcom (FR), SIRADEL (FR), SATIMO (FR), Commissariat à l'Energie Atomique et aux Energies Alternatives – LETI (FR), TTI

Norte (ES), Telecom ParisTech (FR), University of Surrey (UK), iMinds (BE), Karlsruhe Institute for Technology (DE), University of Cantabria (ES), University of Montenegro (ME), INOV-INESC (PT), University Politehnica of Bucharest (RO) and ALMAcg (FR). The city of Santander will also take part to the project during field trial validation.

The LEXNET project was launched at the beginning of November 2012, and will last for 3 years.

Project Website: <http://www.lexnet-project.eu>



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