

ANNOUNCEMENT LETTER

The **MAMMOET project** has officially started on 1st January 2014 with a set duration of 36 months. It has received funding from the European Union's Seventh Framework Programme (FP7/2007-2013) under grant agreement n° 619086.

EU PROJECT MAMMOET: MASSIVE MIMO FOR EFFICIENT TRANSMISSION

The Internet of the future will rely, to a large extent, on mobile networks. Mobile data grew by 70% in 2012 and is predicted to grow 13-fold over the next 5 years. This puts a very high demand on the development of mobile access technology. MAMMOET will advance the development of Massive MIMO (MaMi), a new and most promising trend in mobile access. MaMi makes a clean break with current technology by using several hundreds of base station antennas that operate phase-coherently together, simultaneously serving many tens of low-complexity single-antenna terminals in the same time-frequency resource.

The goals of the MAMMOET project are:

- To demonstrate that MaMi can increase both data rates and the overall spectral efficiency by up to ten times, while decreasing the transmitted radiofrequency (RF) power by many orders of magnitude;
- The extensive use of inexpensive low-power components, reduced latency, simplification of the multiple-access layer and robustness to interference;
- To drastically reduce emitted RF power so that the total energy consumption of a mobile network is lowered when implemented with simple, low power hardware developed in MAMMOET.

As a result, MaMi can, with a proper system design, facilitate entirely new deployment scenarios, with wind or solar powered base stations. MAMMOET will substantially contribute to the development of practical MaMi systems and secure a leading position for European industry in its exploitation.

Specifically, MAMMOET will

- investigate the practical limitations of MaMi;
- develop complete technological solutions leveraging on innovative low-cost and drastically more efficient and flexible hardware.

The academic and research institute partners in MAMMOET include pioneers in MaMi and groups with extensive experience in circuit design for wireless communications. The industrial partners are leaders in their fields and cover the entire chain from component manufacturing to systems development and service provisioning.

This means the MAMMOET consortium is well-positioned to achieve its objectives by bringing together a European team with 8 project partners from 4 different countries. The MAMMOET partners are:

- Technikon Forschungs- und Planungsgesellschaft mbH, Austria
- Interuniversitair Micro-Electronica Centrum VZW, Belgium
- Ericsson AB, Sweden
- Infineon Technologies Austria AG, Austria
- Katholieke Universiteit Leuven, Belgium
- Lunds Universitet, Sweden
- Linköpings Universitet, Sweden
- Telefónica Investigación y Desarrollo SA, Spain

For more information visit <http://www.mammoet-project.eu> (coming soon)

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