

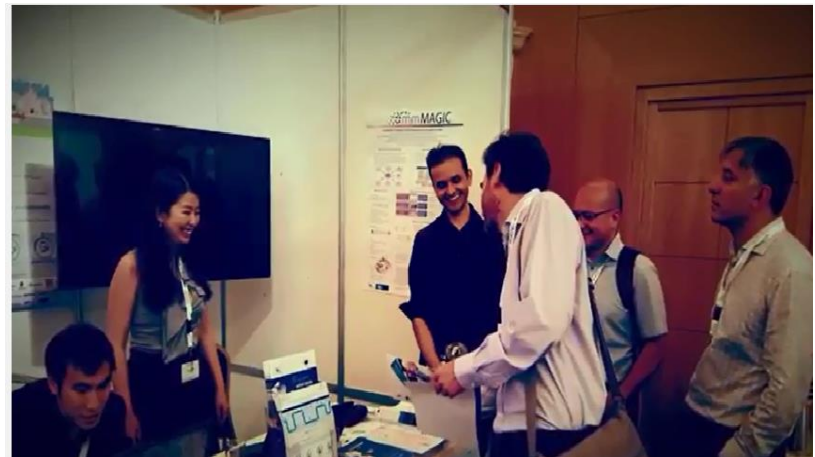


Overview of the mmMAGIC EU Project

5G Emerging Technologies workshop –Panel session
4th December 2016, Washington DC



A great collaboration, driven by a passion for research at the frontiers of 5G, co-funded by the EC





mmMAGIC Project Structure

Co-funded by Horizon 2020, part of 5G PPP Portfolio

Project coordinator: Samsung

Technical manager: Ericsson

Project runtime: July 2015 – July 2017 + 6 pro-bono months

Vendors: Samsung, Ericsson, (Alcatel-Lucent), Huawei, Intel, Nokia

Operators: Orange, Telefonica

Research institutions: CEA-LETI, Fraunhofer HHI, IMDEA Networks

Universities: Aalto University, University of Bristol, Chalmers University of Technology, TU Dresden

SME: Qamcom

Test equipment manufacturers: Keysight Technologies, Rohde & Schwarz

Advisory Board: ETSI, ANFR, BNetZa, OFCOM, PTS, FICORA, BMW, U. Illemedenau

The main objective is to deliver key concepts and components for mobile radio access technology (RAT) in the 6-100 GHz range

- Spectrum, Use Cases. KPI
- massive channel measurements and channel model
- Architecture components and integration
- Air interface for access and self-backhaul
- Multi-node and Multi-antenna

mmMAGIC's Achievements

- ✓ **European Commission:** 7 high quality technical deliverables submitted on time to EC
- ✓ **Standards:** 15 contributions to 3GPP Study Item on 5G and counting
- ✓ **Spectrum:** 3 contributions to ITU-R SG3 and ramping up
- ✓ **Software:** 3D channel model (6-100 GHz), open source software, downloadable from mmMAGIC website
- ✓ **Hardware:** HW demos of 5G candidate waveforms. phased-array antenna beam-forming. channel sounders for 6-100 GHz
- ✓ **White Papers:** 2 white papers on mm-wave channel and 5G architecture
- ✓ **5G PPP:** WG Architecture, Spectrum, Evaluation, Vision contributor, Contributed to 5G PPP KPI achievement. Joint public workshops /panels with several other 5G PPP projects (METIS-II, F5G, 5G-NORMA, Flexware-5G), Co-editor of 5G SRIA
- ✓ **Scientific publications:** 40+ research publications (accepted /submitted) including best paper award PIMRC
- ✓ **Dissemination:** 15+ keynote/panels/workshops at IEEE and European flagship conferences; Strong presence at ICT 2015, EUCNC, MWC'15, Net future 2015, 5G Global Event 2016
- ✓ **International Dimension /Visibility:** Brooklyn 5G Summit (USA), IEEE 5G Summit (Europe), Global 5G Technology Summit (China), WWRF (China), NGMN (Canada), European partner of NSF industry-academia collaboration on 5G mm-wave (USA); Brazil, Australia, Canada collaboration requests
- ✓ **mmMAGIC website:** Over 21000 hits (peaks at deliverable releases) and growing
- ✓ **Wider community:** presentations to ECC Plenary, Ofcom, 2 Workshops with Advisory Board NGMN, DigiWorld 2016, RAN World 2016, ...



FierceWireless

A FierceMarkets Publication

WIRELESS TECH EUROPE DEVELOPER 5G IOT

mmMAGIC consortium sets sights on spectrum above 6 GHz for 5G

by Anne Morris | Jul 15, 2015 5:36am



mmMAGIC, one of the newest consortia to be co-funded by the European Commission's 5G PPP programme, said it plans to develop new technologies that can operate in frequency bands between 6 GHz and 100 GHz and accelerate the standardisation of millimeter wave technologies for 5G as part of a two-year research programme.

Led by South Korea-based equipment manufacturer Samsung and also backed by Ericsson, Alcatel-Lucent, Huawei, Intel and Mobile WorldWide, the European

<http://goo.gl/sgd...>