



Conference & Exhibition

# Future Network & MobileSummit 2011 Advance Programme

*Warsaw - Poland*

15 - 17 June 2011

Supported by

European Commission  
Information Society and Media



Net!Works

Bronze Sponsor



Technical Co-Sponsor



# Introduction

**Future Network & MobileSummit 2011** Conference & Exhibition takes place 15 - 17 June 2011 in Warsaw, Poland. This is the nineteenth in a series of Annual Conferences supported by the European Commission, which regularly attracts over 500 delegates from industry and research to share experiences and research results, identify future trends, discuss business opportunities and identify opportunities for international research collaboration under the ICT Theme of Framework Programme 7 (FP7). It will thus contribute to showcasing European research in the field, and position it within the multiplicity of related initiatives supported in other regions of the world.

**Future Network & MobileSummit 2011** will address all the challenges of building the Future Internet, which will be based on mobile, wireless and fixed broadband communications infrastructures.

The Scientific Programme incorporates all the key constituents of future communication networks including the themes Radio Access and Spectrum, Converged and Optical Networks, and Future Internet Technologies.

Supported by the European Commission and eMobility, the **Future Network & MobileSummit's** reputation is based on high quality networking, plenary sessions that discuss strategic issues in core thematic areas and paper sessions that showcase original results in all areas of mobile, wireless and fixed broadband communications systems and networks.

The goals of the **Future Network & MobileSummit** are Community Building to facilitate research cooperation and successful exploitation of research results, to stimulate take-up of RTD results by industry, to promote knowledge sharing between commercial and research organisations and to exchange experiences about the current state of the art at a sectoral, national or regional level.

## Who will you meet?

**Future Network & MobileSummit 2011** Conference & Exhibition attracts practitioners and researchers from leading commercial and research organisations around the world. Unlike many research conferences, **Future Network & MobileSummit 2010** provides an opportunity to meet with senior managers, practitioners, project managers, software engineers and researchers. Delegates and speakers attend to share knowledge, experience and lessons learnt, and network with their peers from around the world.

**Future Network & MobileSummit 2011** Conference & Exhibition also provides the unique opportunity to identify partners and opportunities to co-operate in international research projects co-funded by the European Commission under Framework Programme 7 (FP7) and in particular, the FP7-ICT Theme.

## The Venue

**Future Network & MobileSummit** Conference & Exhibition takes place in the Marriott Warsaw, which is located at Al. Jerozolimskie 65/79, Warsaw, which is close to the central train station.

## The Programme

The 3-day programme features an invigorating mix of case studies and technical papers. As well as three plenary sessions and panel sessions focused on Future Internet and Spectrum Regulation, delegates may participate in 28 thematically focused parallel sessions featuring different aspects of Radio Access and Spectrum, Converged and Optical Networks, and Future Internet Technologies.

The Conference Programme is complemented by a demonstration and technology exploitation focused Exhibition, a Net!Works Reception which will take place on Wednesday 15 June 2011 and a Conference Dinner on Thursday 16 June 2011.

The Conference Programme is subject to change and the **Future Network & MobileSummit 2011** Organising Committee reserves the right to alter the contents, venue and/or speakers. The Final Programme will be published in April. Please view the Online Programme for the most up-to-date information.

## Networking

Networking is a key feature of the **Future Network & MobileSummit** Conference Series. Paper sessions are designed to maximise knowledge sharing by providing time for interactive discussions during the conference programme itself. Coffee breaks will take place in the Exhibition area to maximise exposure for technology demonstrations and posters and to facilitate informal one-on-one and small group discussions following paper or poster sessions. Social events are designed to facilitate informal discussion.

There are a number of dedicated networking areas around the venue with tables and chairs to facilitate short informal meetings.

The Delegate Showcase on the Conference Portal allows registered delegates, speakers and exhibitors to publish their own short profile and research interests to facilitate networking before, during and after the conference. Leverage this functionality to contact potential partners in advance and arrange to meet during the conference.

## Conference Proceedings

The **Future Network & MobileSummit 2011** Conference Proceedings will be published on CD-ROM and the Conference Portal. Each delegate will receive a free copy of the conference proceedings at Registration.

Full papers accepted in the Proceedings will also have the option to be published in IEEE Xplore.

Following the conference, registered delegates will have access to all PowerPoint presentations, which will be published on the Conference Portal.

## Security, Health and Safety

Please wear your name badge for all activities during **Future Network & MobileSummit 2011**, as it is your identification and allows access to the facilities offered. While the Conference and Exhibition is not open to the general public, it is still necessary to take care of bags, personal computers and other personal belongings.

While security staff will be present at the conference venue, the Organising Committee cannot accept any responsibility for any losses incurred or personal health and safety. Delegates should ensure they have personal health insurance and take due care when exploring Warsaw. Any special needs or requirements should be notified to the Conference Secretariat as far in advance of the event as possible.

## Hotel Accommodation

Conference rates have been negotiated for delegates and accompanying persons in the Marriott Warsaw (Conference venue).

Conference hotel accommodation should be booked online on the **Future Network & MobileSummit 2011** Conference portal as part of conference registration.

Delegates are strongly recommended to book their accommodation early as it will be allocated on a first-come, first-served basis. Hotel accommodation can only be confirmed upon receipt of payment. For further information, please visit:

[www.FutureNetworkSummit.eu/2011](http://www.FutureNetworkSummit.eu/2011)

## Net!Works Reception - 15 June

The Organising Committee is pleased to announce that Net!Works will host a Networking Cocktail Reception on Wednesday 15 June from 18:30 - 20:00 in the Exhibition area. Delegates should indicate participation in this event as part of online registration.

## Conference Dinner - 16 June

The Organising Committee is pleased to announce that the Conference Dinner will be held on Thursday 16 June at 20:00.

The dinner venue has a fixed capacity and delegates

are requested to confirm their participation no later than 28 May as part of online registration.

## Proposers' Networking Day - FP7-ICT Call 8 & Celtic-Plus Call

The Proposers' Networking Day, which will take place on Tuesday 14 June as a pre-conference event, will focus on FP7-ICT Call 8 and Celtic-Plus Calls for Proposals. This workshop will be co-organised by Net!Works (previously eMobility), ISI Technology Platforms and Celtic Plus, with support from the European Commission to provide an indepth overview of these Calls. The afternoon session will be focused on project idea presentations that will be submitted in advance. It is envisaged that the afternoon session will be restricted to those participants who have submitted ideas to be shared focused on preparing proposals. It is necessary to pre-register online.

## Pre-Conference Workshops

A number of pre-conference workshops will take place on Tuesday 14 June at the **Future Network & MobileSummit 2011** venue: Marriott Warsaw.

- European Workshop on Broadband Femtocell Networks (Full Day)
- Putting Mobile Services into Context (Half Day)
- Next Generation Converged Access Network, Opportunities, Achievements and Challenges (Tuesday afternoon)

It is necessary for all participants (presenters and delegates) in the Proposers Day and workshops to pre-register in advance as part of online registration.

Summit participants will pay a contribution of 75 euro towards the cost of two coffee breaks, lunch and name badge. Participants only attending the workshops will make a contribution of 100 euro. Delegates can attend multiple workshops during the day.

More information is available at

[www.FutureNetworkSummit.eu/2010](http://www.FutureNetworkSummit.eu/2010)

## Organisers & Conference Secretariat

- Miriam Cunningham, IIMC Ltd, Ireland
- Paul Cunningham, IIMC Ltd, Ireland



IIMC Ltd  
13 Docklands Innovation Park, 128 East Wall Road,  
Dublin 3, Ireland  
Tel: +353 (0) 1 8170607  
Fax: +353 (0) 1 8170606  
e-mail: [secretariat@FutureNetworkSummit.eu](mailto:secretariat@FutureNetworkSummit.eu)

## Plenary Session Speakers



Prof. Maria Orlowska  
Secretary of State



Zoran Stancic  
European Commission



Prof. Andrzej Jajszczyk  
Director NSC, Krakow



Matthew Finnie  
Interoute



Thierry Van Landegem  
Alcatel Lucent



Lauri Oksanen  
Nokia



Jan Faerjh  
Ericsson

Plenary Speakers confirmed as at 21 February include:

- **Prof. Maria Elzbieta Orlowska**, Secretary of State, Ministry of Science and Higher Education, Poland
- **Dr Zoran Stancic**, Deputy Director General, DG Information Society & Media, European Commission
- **Prof. Andrzej Jajszczyk**, Director, National Science Centre, Krakow, Poland
- **Matthew Finnie**, Chief Technical Officer, Interoute
- **Dr. Peter Meissner**, Operating Officer, NGMN Next Generation Mobile Networks
- **Thierry Van Landegem**, Vice President Global Operations Bell Labs, Alcatel-Lucent Bell Labs
- **Lauri Oksanen**, Head of Research, Nokia Siemens Networks
- **Jan Faerjh**, Vice President, Head of Research, Ericsson
- **Nicolas Le Sauze**, Alcatel-Lucent Bell Labs France, France
- **Sergi Figuerola**, i2CAT Foundation, Spain
- **Thomas Edwall**, Ericsson AB, Sweden
- **Jose Jimenez**, Telefonica I+D, Spain
- **Dimitri Papadimitriou**, Alcatel-Lucent Bell, Belgium
- **Werner Mohr**, Nokia Siemens Networks GmbH & Co. KG, Germany
- **Dr Cezary Mazurek**, Poznań Supercomputing and Networking Center, Poland

## Technical Committees

The **Future Network & MobileSummit 2011** Scientific Steering Committee includes

- **Didier Bourse**, Alcatel Lucent, France
- **Prof. Franco Callegati**, University of Bologna, Italy
- **Nicolas Chuberre**, Thales Alenia Space, France
- **Prof. Klaus David**, Kassel University, Germany
- **Admela Jukan**, Technical University of Braunschweig, Germany
- **David Kennedy**, Eurescom, Germany
- **Sławomir Kukliński**, FEIT, Warsaw University of Technology, Poland
- **Prof. Marco Luise**, University of Pisa, Italy
- **Jacques Magen**, Interinnov, Germany
- **Dr. Werner Mohr**, Nokia Siemens Networks, Germany
- **Prof. Luis Muñoz**, University of Cantabria, Spain
- **Prof. M. Muraszkwicz**, FEIT, Warsaw University of Technology, Poland
- **Prof. George Polyzos**, Athens University of Economics and Business, Greece
- **Radosław Piesiewicz**, EIT+ Wrocław, Poland
- **Dr. Jossy Sayir**, University of Cambridge, UK
- **Miroslaw Słomiński**, FEIT, Warsaw University of Technology
- **Dr Fiona Williams**, Ericsson, Germany
- **Dr Josep Vidal**, UPC, Spain

The **Future Network & MobileSummit 2011** Technical Programme Committee includes

- **Henrik Abramowicz**, Ericsson, Sweden
- **Dr. Rui Luis Aguiar**, Universidade de Aveiro, Portugal
- **Prof. Nigel Baker**, UWE Bristol, United Kingdom
- **Maurice Bellanger**, CNAM, France
- **Dr. Friebert Berens**, FBC Consulting Sarl, Luxembourg
- **Prof. Nicola Blefari Melazzi**, Università degli Studi di Roma - Tor Vergata, Italy
- **Prof Raffaele Bolla**, CNIT - C.o. DIST University of Genoa Italy
- **Dr. Sergio Bovelli**, EADS Innovation Works, Germany
- **Marcus Brunner**, NEC Europe Ltd, UK
- **Prof. Wojciech Burakowski**, Institute of Telecommunications, Warsaw University of Technology Poland
- **Jose M<sup>a</sup> Cabero Lopez**, ROBOTIKER-Tecnalia, Spain
- **Prof. Franco Callegati**, University of Bologna, Italy
- **Nicolas Chuberre**, Thales Alenia Space, France
- **Laurent Ciavaglia**, Alcatel-Lucent, France
- **Alberto Conte**, Alcatel Bell-Labs
- **Prof. Luis Correia**, Instituto Superior Technico Portugal
- **Prof. Klaus David**, Kassel University, Germany
- **Prof. Panagiotis Demestichas**, University of Piraeus, Greece
- **Prof. Bart Dhoedt**, Ghent University - IBBT, Belgium
- **Dr. Ralf Eickhoff**, Dresden University of Technology, Germany
- **Markus Fiedler**, BTH, Sweden
- **Tomasz Gerszberg**, Polska Telefonia Cyfrowa, Poland
- **Dr. Ing. Andreas Gladisch**, Deutsche Telekom AG. T-Labs, Germany
- **Uwe Herzog**, EURESCOM, Germany
- **Dr. Jacek Izydorczyk**, Institute of Electronics, Silesian University of Technology, Poland
- **Jean-Philippe Javaudin**, France Telecom, France
- **Nigel Jefferies**, Vodafone, UK
- **Prof. Peter Jung**, Universität Duisburg-Essen, Germany
- **Dr. Stefan Kaiser**, DoCoMo Euro-Labs, Germany
- **James Kempf**, Ericsson Research
- **David Kennedy**, Eurescom, Germany
- **Dr Vinay Kolar**, RWTH Aachen University, Germany
- **Dr. Ibrahim Korpeoglu**, Bilkent University, Turkey
- **Dr Sławomir Kukliński**, Warsaw University of Technology, Poland
- **Erik G Larsson**, Linköping University, Sweden
- **Matti Latva-aho**, University of Oulu, Finland
- **Konstantinos P. Lolis**, SPACE HELLAS S.A., Greece
- **Dr. Roberto Llorente**, UPV, Spain
- **Prof. Marco Luise**, University of Pisa, Italy
- **Dr. Paulo Marques**, Instituto de Telecomunicações, Portugal
- **Prof. Józef Modelski**, Institute of Radioelectronics, Warsaw University of Technology, Poland
- **Dr. Klaus Moessner**, CSSR, University of Surrey, UK
- **Dr. Werner Mohr**, Nokia Siemens Networks, Germany
- **Prof. Paul Müller**, University of Kaiserslautern, Germany
- **Prof. Luis Muñoz**, University of Cantabria, Spain
- **Prof. M. Muraszkwicz**, FEIT, Warsaw University of Technology, Poland
- **Pirabakaran Navaratnam**, University of Surrey, United Kingdom
- **Mario Pickavet**, Ghent University - IBBT Belgium
- **Prof. Andrzej R. Pach**, AGH University of Science and Technology, Poland
- **Mario Pickavet**, University of Gent, Belgium
- **Jean-Charles Point**, JCP-Consult, France
- **Miguel Ponce de Leon**, Waterford Institute of Technology (TSSG), Ireland
- **Prof. George Polyzos**, Athens University of Economics and Business, Greece
- **Dr Mikhail Popov**, Acreo AB, Sweden
- **Ronald Raulefs**, DLR, Germany
- **Francisco Javier Ramón Salguero**, Telefónica I+D, Spain
- **Dr Oriol Sallent**, Universitat Politècnica de Catalunya, Spain
- **Reijo Savola**, VTT, Finland
- **Hans Schotten**, University of Kaiserslautern, Germany
- **Pablo Serrano**, Univ. Carlos III de Madrid, Spain
- **Prof. Vasilios Siris**, FORTH-ICS, Greece
- **Rute Sofia**, University Lusofona, Portugal
- **Daniele Tarchi**, Italy
- **Dr Ilenia Tinnirello**, CNIT, Italy
- **Prof. Ralf Tönjes**, University of Applied Sciences Osnabrück, Germany
- **Bogdan Uscumlic**, Institute Mihailo Pupin, Serbia
- **Dr Hans van den Berg**, TNO ICT, Netherlands
- **Dr Liesbet Van der Perre**, IMEC, Belgium
- **Alessandro Vanelli-Coralli**, University of Bologna, Italy
- **Dr Fiona Williams**, Ericsson, Germany
- **Dr Lena Wosinska**, KTH, Sweden
- **Prof Sven Zeisberg**, University of Applied Sciences, Germany
- **Shuang Zhang**, TNO, Netherlands



# Wednesday, June 15, 2011

## 08:00 Registration

09:00 Opening Plenary 1a

Chair: Megan Richards, European Commission, Belgium

Panel participants include

Dr Zoran Stancic, Deputy Director General, DG Information Society & Media, European Commission

Prof. Maria Elbieta Orowska, Secretary of State, Ministry of Science and Higher Education, Poland

Prof. Andrzej Jajszczyk, Director, National Science Centre, Krakow, Poland

## 11:00 Coffee Break

11:30 Session 2a: [Physical Layer Techniques](#)

**Computational Complexity Analysis of Advanced Physical Layers based on Multicarrier Modulation**

Leonardo Gomes Baltar, Technische Universität München, Germany

**Physical layer amendments for MIMO features in 802.11a**

Michael Wickert, Dresden University of Technology, Germany

**Effect of Imperfect Channel Estimation on LTE MU-MIMO Performance**

Albert Mráz, Budapest University of Technology and Economics, Hungary

**Pilot Design for Multi-Cell MU-MIMO-OFDM with Beamforming**

Giovanni Chiorco, University of Bologna, Italy

**Multi-beam Assisted MIMO - A Novel Approach to Fixed Beamforming**

Agisilaos Papadogiannis, University of York, United Kingdom

11:30 Session 2b: [Fixed Mobile Convergence](#)

Chair: [Roberto Llorente, Universidad Politecnica de Valencia, Spain](#)

Krishan Sabnani, Alcatel-Lucent

**Radio-over-Fibre Networks: Developments from the BONE Virtual Centre of Excellence in Access**

John Mitchell, University College London, United Kingdom

**Quality of Service Management in Hybrid Optical-LTE Access Networks**

Marco Giuntini, University of Rome "Tor Vergata", Italy

**Performance Evaluation of a Multi-Layer Reconfigurable Optical-Wireless Network Architecture Employing Digitized RoF**

Bas Huiszoon, Genexis, Spain

**Green networking: Integration of Wireless Sensor Network with Home Gigabit Access**

Vincenzo Suraci, Università degli Studi e-Campus, Italy

11:30 Session 2c: [Architecture Approaches](#)

Chair: [Ralf Tönjes, Uni. Appl. Sci. Osnabrück, Germany](#)

**On the Applicability of Architecture Description Languages to Future Internet Networking Environments**

Stylianos Georgoulas, University of Surrey, United Kingdom

**Protecting Digital Identities in Future Networks**

Pedro Martinez-Julia, University of Murcia, Spain

**Key Concepts for the Future Internet Architecture**

Francesco Delli Priscoli, University of Rome "La Sapienza", Italy

**GEYSERS: A Novel Architecture for Virtualization and Coupled Provisioning of Dynamic Optical Networks and IT Services**

Eduard Escalona, University of Essex, United Kingdom

11:30 Poster Session 2d: [Physical Layer Design](#)

Chair: [tbc](#)

**Distributed Turbo Coding Techniques with HARQ Relays for Future Mobile Generations**

Dimitri Ktenas, CEA, LETI, MINATEC, France

**On the Effects of MUI on SVD-based MIMO System-Level Performance**

Nikos Pronios, Intracom S.A. Defense Electronic Systems, Greece

**Filter Concatenation Impairments Reduction by Adaptively Modulated Optical OFDM Signals for Metro/Regional Networks**  
ELIAS GIACOUMIDIS, ATHENS INFORMATION TECHNOLOGY, Greece

**Evaluation of Link Adaptation Methods in Multi-User OFDM Systems with Imperfect Channel State Information**

Yutao Sui, Chalmers University of Technology, Sweden

**Relay-Assisted Spectrum and Infrastructure Sharing between Multiple Operators**

Martin Haardt, Ilmenau University of Technology, Germany

## 13:15 Lunch

14:30 Session 3a: [Optimizing Physical Layer and Resources](#)

Chair: [Jacek Izydorczyk, Silesian University of Technology, Poland](#)

**Hierarchical Decode & Forward Strategy in IR-UWB Communication Systems**

Tomas Hynek, Czech Technical University in Prague, Faculty of Electrical Engineering, Czech Republic

**Integration of a GFDM Secondary System in an OFDM Primary System**

Nicola Michailow, Technische Universität Dresden, Germany

**A Flexible Hardware-In-the-Loop Test Platform for Physical Resource Sharing Mechanisms in Wireless Networks**

Jian Luo, Fraunhofer Heinrich-Hertz-Institute, Germany

14:30 Session 3b: [Future Architectures and Control Plane](#)

Chair: [Paul Mueller, TU Kaiserslautern, Germany](#)

**Research Approach towards the Profitability of Future FTTH Business Models**

Sofie Verbrugge, Ghent University/IBBT, Belgium

**An Open GMPLS-enabled Control Plane Testbed for Remote Development and Experimentation of PCE-based Path Computation Algorithms**

Raul Muñoz, CTTC, Spain

**Experimental Comparison of Impairment-Aware RWA Algorithms in a GMPLS-controlled Dynamic Optical Network**

Marianna Angelou, Universitat Politècnica de Catalunya, Spain

**Optical Architectures Evaluation for Triple-Play Distribution in FIVER Project**

Maria Morant, Nanophotonics Technology Center, Universidad Politécnica de Valencia, Spain

14:30 Session 3c: [Content Networking](#)

Chair: [Henrik Abramowicz, Ericsson, Sweden](#)

**A mixed CCN-MAS architecture to handle context-awareness in hybrid networks**

Gérald Arnould, CRP Henri Tudor, Luxembourg

**COMET: Content mediator architecture for content-aware networks**

Andrzej Beben, Warsaw University of technology, Poland

**A Content-Centric, Publish-Subscribe Architecture delivering Mobile Context-Aware Health Services**

Donato Battaglino, University of Roma "Tor Vergata", Italy

**VoPSI: Voice over a Publish-Subscribe Internetwork**

Charilaos Stais, AUEB-RC, Greece

14:30 Poster Session 3d: [Spectrum Sensing, Energy Efficiency and Cooperative Techniques](#)

Chair: [tbc](#)

**On Spectrum Sensing based Opportunistic Access for Cognitive Radio Networks**

Maurice Bellanger, CNAM, France

**Extension of LTE Operational Mode over TV White Spaces**

Carlos Silva, Instituto de Telecomunicações, Portugal

**Integration of LTE Home eNodeB and Macro eNodeB Handover Self-Optimisation**

Kristina Zetterberg, Ericsson AB, Sweden

**Energy Efficiency Metrics for Mobile Communication Networks**

Albrecht Fehske, Technische Universität Dresden, Germany

**System Level Energy Efficiency Analysis in Cellular Networks**

Magnus Olsson, Ericsson AB, Sweden

**Non-Cooperative Games Between Legitimate Nodes and Malicious Coalitions in MANETs**

Emmanouil Panaousis, Kingston University London, United Kingdom

**16:15 Coffee Break**

16:45 Session 4a:

**EUWB Session**

Chair: *tbc*

**UWB LDR-LT Platform - An Overview**

Manuel PEZZIN, CEA/LETI, MINATEC, France

**UWB HDR/VHDX Platform**

Kai Dombrowski, TES Electronic Solutions GmbH, Germany

**UWB Integrated in Future Mobile Networks**

Ana Sierra, Telefónica I+D, Spain

**UWB in Daily Life - UWB Application for Public Transport/Cars**

Sergio Bovelli, EADS, Germany

**UWB in Daily Life - UWB Application in the Home**

Pejman HAFEZI, Philips Consumer Lifestyle B.V., Netherlands

16:45 Session 4b:

**Emerging PON Solutions**

Chair: *Jean-Charles Point, JCP-Consult, France*

**Evaluation of UHDTV Signal Transmission in FTTH Networks Using Next Generation WiMedia UWB**

Maria Morant, Nanophotonics Technology Center, Universidad Politécnica de Valencia, Spain

**PROaccess: A Passive-Components-based Reconfigurable WDM-TDM Optical Access Network**

Nguyen-Cac Tran, Eindhoven University of Technology, Netherlands

**Performance Evaluation of Intensity Modulated and Direct Detected Electrical OFDM signals for Long Reach and Ultra-High Speed Access Networks**

Elias Giacomidis, Athens Information Technology, Greece

**Effects of Adaptive Subcarrier Modulation on MAC Operation in OFDMA-PONs**

Konstantinos Kanonakis, Athens Information Technology (AIT), Greece

**MAC Protocol Design for the Support of DBA in OFDMA-PON Networks**

Wansu Lim, University of Hertfordshire, United Kingdom

16:45 Session 4c:

**Future Internet - Management**

Chair: *Didier Bourse, Alcatel-Lucent, France*

**Realizing Autonomics for Future Networks**

Laurent Ciavaglia, Alcatel-Lucent France, France

**Understanding Brain for Future Networks**

Antonio Manzalini, Telecom Italia, Italy

**Cognitive Management of Protocol Composition Enhanced Future Internet Elements**

David Wagner, Fraunhofer FOKUS - Fraunhofer Institute for Open Communication Systems, Germany

**Bootstrapping a Publish/Subscribe Information Centric Network**

Christos Tsilopoulos, Athens University of Economics and Business, Greece

16:45 Poster Session 4d:

**Future Internet**

Chair: *Slawomir Kuklinski, Institute of Telecommunications, Warsaw University of Technology, Poland*

**Opportunistic Networks for Efficient Application Provisioning in the Future Internet: Business Scenarios and Technical Challenges**

Panagiotis Demestichas, University of Piraeus Research Center, Greece

**Home Network Equipment Virtualization: an overview on the architecture alternatives**

Enrique Izaguirre, Telefónica I+D, Spain

**Context Provisioning Middleware with Probabilistic Reasoning Support**

Ralf Tönjes, Uni. Appl. Sci. Osnabrück, Germany

**A Survey of the Future Internet Business Ecosystems**

Laurent Ciavaglia, Alcatel-Lucent France, France

**18:30 Net!Works Reception - Exhibition**

9:00 Session 5a:

**Spectrum Optimization and Cognitive Techniques**

Chair: *Paulo Marques, Instituto de Telecomunicacoes, Portugal*

**Spectrum Aggregation: initial outcomes from SAMURAI project**

Guillaume Vivier, Sequans communications, France

**Transmit Beamforming for Inter-Operator Spectrum Sharing**

Eleftherios Karipidis, Linköping University, Sweden



Thursday,  
June 16, 2011

**Robust Collaborative Spectrum Sensing based on Beta Reputation System**

Klaus Moessner, University of Surrey, United Kingdom

**TV White Spaces Maps Computation through Interference Analysis**

Rogério Dionísio, Instituto de Telecomunicações, Portugal

**A Simulation Study of Broadband Mobile Systems Interference on DVB-T Systems Operating in the UHF Frequency Band**

Lorenzo Pulcini, Fondazione Ugo Bordoni, Italy

09:00 Workshop 5b:

**Cognitive Radio: Technology, Regulation, and Quality of Service and Mobility**

Chairs: *Michael Fitch, BT, UK & Vincent Boutroux, Orange Labs, France*

**Welcome and Introduction**

Michael Fitch, BT

**Keynote – Operational Views on Cognitive Radio**

Wladimir Bocquet, Orange Group Spectrum Office

**Technical presentation 1**

Richard MacKenzie, BT

**Technical presentation 2**

Dominique Noguét, CEA

**Authorised Shared Access**

Wassim Chourbaji, Qualcomm

09:00 Session 5c:

**Location Services and Mobility**

Chair: *Uwe Herzog, EURESCOM, Germany*

**Novel Indoor Localisation Algorithm using Unsupervised Wi-Fi Signal Clustering Method**

Sian Lun Lau, University of Kassel, Germany

**HINLO: An ID/LOC Split Scheme for Mobile Oriented Future Internet**

Heeyoung Jung, Electronics and Telecommunication Research Institute (ETRI), Republic of Korea

**IEEE 802.21: A Shift in the Media Independence**

Lucas Eznarriaga, Institute IMDEA Networks, Spain

**Media-Independent Multicast Signalling for Enhanced Video Performance in the MEDIEVAL Project**

Rui Aguiar, Instituto de Telecomunicacoes, Portugal

09:00 Workshop 5d:

**Seamless Advanced Hybrid SatCom-terrestrial Networks Applied to Institutional Missions**

Chair: *Antonio Alfaro, Rose Vision, Spain*

Co-Chair: *Dimitris Vassiliadis, EXODUS S.A., Greece*

**Crisis Management and First Response in EU-2020: ICT**

Dimitris Vassiliadis, EXODUS S.A., Greece

**SatCom Capabilities to Support Institutional Demand**

Nicolas Chuberre, Thales Alenia Space, France

**Satellite Communication Research for Crisis Preparedness and Response**

Sandro Scalise, German Aerospace Center, Germany

**Discussion**

**10:45 Coffee Break**

11:15 Session 6a:

**Radio Resources Management**

Chair: *Panagiotis Demestichas, University of Piraeus Research Center, Greece*

**Identifying Scenarios with High Potential for Future Cognitive Radio Networks**

Richard MacKenzie, BT Innovate and Design, United Kingdom

**Fundamental Limits of Energy-Efficient Resource Sharing, Power Control and Discontinuous Transmission**

Hauke Holtkamp, DOCOMO Euro-Labs, Germany

**Cognitive Resource Management for QoS Support in Mobile Opportunistic Communications**

Genevieve Mange, Alcatel-Lucent Bell Labs, Germany

**Towards Practical REM-based Radio Resource Management**

Siva Subramani, Toshiba Research Europe Ltd, United Kingdom

11:15 Workshop 6b: **Cognitive Radio: Technology, Regulation, and Quality of Service and Mobility**

Chair: **Michael Fitch, British Telecom**

**Panel Session 1 – Regulation & cognitive radio**

Panel members

Matthias Fehr, APWPT

Andrew Gowans, Ofcom

Roland BEUTLER, SWR Germany

Jean-Jaques Guitot, ANFR

Shyamalie Thilakawardana, BBC

Ben SMITH, Agentschap

11:15 Session 6c: **Green Networks, QoS and Scalability**

Chair: **Markus Fiedler, BTH, Sweden**

**A Scalable Solution to provide Quality of Service in Next-Generation Networks**

Gianmarco Panza, CEFRIEL, Italy

**Energy-Efficient Sleeping Modes for Next-Generation Core Networks**

Roberto Bruschi, CNIT, Italy

**On the Scalability of Carrier-grade Mesh Network Architectures**

Cigdem Sengul, Deutsche Telekom Labs, Germany

**Business-driven PCE for Inter-Carrier QoS Connectivity Services**

Nabil Bachir Djarallah, Alcatel-Lucent Bell Labs France, France

11:00 Workshop 6d: **Seamless Advanced Hybrid SatCom-terrestrial Networks Applied to Institutional Missions**

Chair: **Antonio Alfaro, Rose Vision, Spain**

Co-Chair: **Dimitris Vassiliadis, EXODUS S.A., Greece**

**Network Architectural Issues in Emergency Networks**

Maurizio Casoni, University of Modena and Reggio Emilia, Italy

**Aspects of Autonomic and Cooperative Communications in Emergency Networks**

Michal Wodczak, Telcordia Poland, Poland

**Communications between User Equipment and the Telecommunications Network**

Andreas HUTTER, CSEM SA, Switzerland

**Standardization and Regulatory Challenges for SatCom**

Julian Sesena, ROSE Vision, Spain

13:00 Lunch

14:15 Session 7a: **Do We Still Need Research on Networks in Europe?**

Chair: **Andrew Houghton, European Commission, Belgium**

Panel participants include

Matthew Finnie, Chief Technical Officer, Interoute

Dr. Peter Meissner, Operating Officer, NGMN Next Generation Mobile Networks

Thierry Van Landegem, Vice President Global Operations Bell Labs, Alcatel-Lucent Bell Labs

Lauri Oksanen, Head of Research, Nokia Siemens Networks

Jan Faerj, Head of Research, Ericsson

16:15 Coffee Break

16:45 Session 8a: **Energy Efficiency**

Chair: **tbc**

**Maximising Average Energy Efficiency for Two-user AWGN Broadcast Channel**

Muhammad Ali Imran, University of Surrey, United Kingdom

**On the Energy Efficiency Gain of MIMO Communication under Various Power Consumption Models**

Rahim Tafazolli, CCSR, University of Surrey, United Kingdom

**Concepts for Energy Efficient LTE Transceiver Systems in Macro Base Stations**

Manuel J GONZALEZ, TTI (Technologies of Telecommunication and Information), Spain

**Opportunities for Energy Savings in Pico/Femto-cell Base-Stations**

Filip Louagie, IMEC, Belgium

**Multi Antenna Techniques to improve Energy Efficiency in LTE radio access network**

Mauro Boldi, Telecom Italia, Italy

16:45 Workshop 8b: **Cognitive Radio: Technology, Regulation, and Quality of Service and Mobility**

Chair: **Per Lehne, Telenor**

**Technical presentation 4**

Rohit Datta, TUD

**Standards Presentation 1**

Pierre-Jean Muller, Huawei, ETSI

**Standards Presentation 2**

Bernd Bochow, Fraunhofer, IEEE

**Panel session 2: Use Cases for Cognitive Radio**

**Panel Members include**

Michael Fitch, BT

Bruno Cendon, TST

Wladimir Bocquet, France Telecom Orange Group

Michael Prytz, Ericsson

Richard MacKenzie, BT

Dominique Noguet, CEA

**Closing Remarks**

16:45 Session 8c: **Experimentation on Internet of Things**

Chair: **Luis Muñoz, University of Cantabria, Spain**

**An Experimental Platform for Large-scale Research Facing FI-IoT Scenarios**

Jesus Bernat Vercher, Telefonica Investigación y Desarrollo, Spain

**SmartSantander: The Meeting Point between Future Internet Research and Experimentation and Smart Cities**

Luis Sanchez, University of Cantabria, Spain

**Performance Evaluation of a Generic Driver for Medical Bluetooth Sensors**

Daniel Kümper, University of Applied Science Osnabrueck, Germany

**A Scalable Architecture for Geo-localized Service Access in Smart Cities**

Claudio Cicconetti, Intecs SpA, Italy

**Testbed Federation: An Approach for Experimentation-Driven Research in Cognitive Radios and Cognitive Networking**

Alejandro Sanchez, THALES Communications SA, France

16:45 Session 8d: **Future Internet/Networks Activities in Poland**

Chair: **Artur Binczewski, ICHB PAN - PCSS, Poland**

**Polish Optical Internet as a Component of e-Infrastructure for Future Services and Applications**

Krzysztof Kurowski, Poznan Supercomputing and Networking Center, Poland

**The IIP System: Architecture, Parallel Internets, Virtualization and Applications**

Wojciech Burakowski, Institute of Telecommunications, Poland

**Service Platforms in Future Networks - PLATON Project**

Cezary Mazurek, Poznan Supercomputing and Networking Center, Poland

18:30 End of Parallel Sessions

20:00 Conference Dinner



Friday,  
June 17, 2011

DAY

09:00 Session 9a: **Network Planning Optimization**

Chair: **Werner Mohr, Nokia Siemens Networks GmbH & Co. KG, Germany**

**UWB Integration into Heterogeneous Access Networks**

Ana Sierra, Telefónica I+D, Spain

**Planning and Network Management for Energy Efficiency in Wireless Systems**

István Törös, Budapest University of Technology and Economics, Hungary

**Enhanced Weighted Performance based Handover Optimization in LTE**

Irina Balan, Ghent University - IBBT, Belgium

**Performance Optimization of Pico Node Deployment in LTE Macro Cells**

Stanislaw Strzyz, Nokia Siemens Networks, Poland

**Improving Fairness by Carrier Load Balancing in Relay Enhanced Systems**

Jacek Gora, NSN-Research, Poland

09:00 Workshop 9b: **Federation Workshop - Session 1 - Management Challenge and Management Systems**

Chair: **Klaus Moessner**

**Part A "The Management Challenge": Overview of the Approaches**

**UniverSelf – A Unified Management Framework for Operator - Governed Networks and Services.**

Gerard Nguengang

**OneFIT - Opportunistic networks for efficient application delivery in the Future Internet**

Jens Gebert

**One - An IP and Transport Layer Management Ecosystem**

Admela Jukan

**Part B "Management Systems "**

**UniverSelf – "Network Empowerment - Finding the right key to the lock"**

Markus Gruber

**OneFIT - Algorithms for opportunistic network management and infrastructure coordination**

Oriol Salent

**ONE - Architecture and cooperation with external components and management systems**

Maciej Maciejewski

09:00 Workshop 9c: **Technologies for LTE-Advanced: from Theory to Practice**

Chair: **tbc**

**Welcome and Introduction**

**3GPP LTE / LTE-A standardization: status and overview of technologies**

Deepaknath Tandur, Agilent Technologies, Belgium

**Design and Challenges for UE with Carrier Aggregation Capability**

Guillaume Vivi, Sequans Communications, France & Deepak Tandur, Agilent Technologies, Belgium

**Carrier Aggregation: From Physical Layer to Upper Layers**

István Z. Kovács, Nokia Siemens Networks, Denmark & Hung T. Nguyen, Aalborg University, Denmark

10:45 Coffee Break

11:15 Session 10a: **Next Generation Architectures**

Chair: **Rui Aguiar, Inst. Telecomunicacoes, Portugal**

**On the Flexibility of the IEEE 802.11 Technology: Challenges and Directions**

Pierluigi Gallo, Università di Palermo, Italy

**Specification and assessment of a fitness function for the creation of opportunistic networks**

Andreas Georgakopoulos, University of Piraeus, Greece

**FLAVIA: Towards a Generic MAC for 4G Mobile Cellular Networks**

Andreas Maeder, NEC Network Laboratories Europe, Germany

**IEEE 802.21 and Proxy Mobile IPv6: A Network Controlled Mobility Solution**

Fabio Giust, Institute IMDEA Networks, Spain

**A Topic-based, Publish-subscribe Architecture for Intermittently Connected 802.15.4 Networks**

Nicola Blefari Melazzi, University of Rome Tor Vergata, Italy

11:15 Workshop 10b: **Federation Workshop - Session 2 – Federation Approaches and way forward**

Chair: **Antonio Manzalini, Telecom Italia**

**UniverSelf – Role and Impact of Autonomics in a Federated Ecosystem**

Laurent Ciavaglia

**OneFIT - Control Channels for the Cooperation of Cognitive Management Systems**

Marcin Filo

**ONE - Federation Use Cases**

Oscar Gonzales de Dios

**Panel "Network federation - Way Forward"**

Representative of EC, Panagiotis Demestichas, Admela Jukan, Laurent Ciavaglia

11:15 Workshop 10c: **Technologies for LTE-Advanced: from Theory to Practice II**

Chair: **tbc**

**Recent Advances in Relaying Technology**

Jacek Gora, Nokia Siemens Networks, Poland

**MU-MIMO in LTE/LTE-A: Performance Analysis**

Rizwan Ghaffar, Eurecom Institute, France & Biljana Badic, Infineon Technologies, Germany

**Wrap up and Conclusion**

13:00 Lunch

14:00 Plenary Session 11a: **Future Internet: Stairway To Heaven?**

Chair: **Bernard Barani, European Commission, Belgium**

**The vision of Future Internet - ETICS FP7 ICT project**

Nicolas Le Sauze, Alcatel-Lucent Bell Labs France, France

**The Vision of Future Internet - GEYSERS FP7 ICT project**

Sergi Figuerola, i2CAT Foundation, Spain

**The Vision of Future Internet - SAIL FP7 ICT project**

Thomas Edwall, Ericsson AB, Sweden

**The vision of Future Internet in the FI PPP Core Platform project**

Jose JIMENEZ, Telefonica I+D, Spain

**The Work on Internet Architecture from the Future Internet Architecture Group (FIArch)**

Dimitri Papadimitriou, Alcatel-Lucent Bell, Belgium

**Future Internet Usage in Other Sectors: Example from an FI PPP Use Case**

Werner Mohr, Nokia Siemens Networks GmbH & Co. KG, Germany

**Future Internet Week**

Cezary Mazurek, Poznań Supercomputing and Networking Center

16:00 Closing Plenary 12:

**Closing Plenary**

Chair: **Andrew Houghton, European Commission, Belgium**

16:30

End of Conference

## Registration Information

It is necessary for all **Future Network & MobileSummit 2011** delegates to register online. Each delegate should be registered separately.

## Conference Fees

### Authors Fees (Due by 31 March)

- Authors €550
- Authors - Poland €250

Please note that the author fee is only available to accepted presenters in the Programme (**only one presenter per paper/poster**). Each presenter will present one paper in the Programme. Co-authors who wish to participate should register as Delegates.

### Delegates' Fees - Early Bird (Due by 31 March)

- Early Bird €600
- Early Bird - Poland €350

### Delegates' Fees - Full Fee from 01 April

- Delegate Full Price €700
- Delegate Full Price - Poland €450

### The Conference Fee includes:

- Entrance to all Plenary and Parallel Sessions
- Entrance to Exhibition
- Documentation with Proceedings on CD-Rom
- Three luncheons and refreshments at morning and afternoon breaks
- Net!Works Reception - Wednesday 15 June
- Cyber Café facilities

## Terms & Conditions

1. All authors who are presenting a paper at **Future Network & MobileSummit 2011** must complete their payment registration and ensure payment is received by **31 March** at the latest, prior to publication of the Final Programme.
2. In the case where a paper is jointly authored, the presenter of the paper is considered to be the author/presenter from a payment registration point of view. All co-authors are considered to be delegates.
3. Each presenter may present one paper in the Programme. Additional accepted papers must be reassigned to a presenter not already in the Programme.
4. Accepted Exhibitors (other than accepted presenters) must complete payment registration by **31 March**.
5. Delegates' fees must be paid before admission to the Conference and Exhibition.
6. IEEE Members are entitled to apply for a 10% discount on the appropriate fee. Please provide Membership No. as part of online registration and fax a copy of valid Membership card to +353-1-8170606.
7. There are **no refunds for cancellations** but substitutions may be made at any time prior to the event by contacting the Conference Secretariat.
8. The Conference Organisers reserve the right not to accept any conference registration either online or onsite without providing a reason.
9. Each individual must be registered separately on the **Future Network Summit** Conference portal.

10. Payment may be made by bank transfer or credit card (with some restrictions). Payments made by bank transfer must be **net of any bank charges** and the payment instruction should refer to "**Future Network & MobileSummit 2011**", your name, organisation and invoice number (if relevant).

11. Receipts are automatically issued electronically upon receipt of payment. If your organisation requires an invoice to process payment registration by bank transfer, please contact the Conference Secretariat.

12. Conference registration or hotel accommodation is not confirmed until full payment is received.

13. Online registration facilities conference registration, participation in pre-conference event, booking of hotel accommodation, attendance at Welcome Networking Reception and Conference Dinner. It is possible to go back through online registration at any stage, book items not previously confirmed and make payment.

14. The registration desk will open on Tuesday 14 June from 14:30 to 17:00 and will remain open during normal conference hours from 08:00 on Wednesday.

## Warsaw

Warsaw is the capital of Poland and incorporates a wide range of culture events and entertainment. Delegates should endeavour to visit some of the many historical and cultural attractions in Warsaw during their stay including the Old Town, Palace of Culture and Science, Royal Castle, Ujazdowski Castle, National Museum, National Theatre and Warsaw Zoological Gardens.

## Sponsors

Net!Works is kindly hosting the Networking Reception on Wednesday 14 June in the Exhibition. Bronze Sponsors include Interroute SpA. **Technical Co-Sponsors** include IEEE Poland Communications Chapter Krakow, IEEE Poland Computer Chapter and IEEE UK/RI Computer Chapter.



## Exhibition

**Future Network & MobileSummit 2011** Exhibition showcases applied ICT research results and applications through technology demonstrations and posters, whether funded commercially, or at a national, regional or European level.

## Demonstration Stands

Stand Name	Organisation	Country
DG Information Society and Media	European Commission	Brussels
Net!Works	Ericsson	Germany
Advanced Radio Interface Technologies for 4G Systems (ARTIST4G)	TU Dresden	Germany
COGEU: Exploiting TV white spaces in Europe	Instituto de Telecomunicacoes	Portugal
CREW FP7 Project: Cognitive Radio Experimentation World	IBBT - Ghent University	Belgium
EARTH: Energy Aware Radio and neTwork techNologies	Bell Labs, Alcatel-Lucent	Germany
Enhanced video transport over heterogeneous multi-hop wireless networks (CARMEN - MEDIEVAL joint demonstrator)	IMDEA Networks	Spain
EUWB – The European UWB project	GWT-TUD GmbH	Germany
FP7 SAMURAI & LOLA demonstration	Agilent Technologies	Belgium
Generalized Architecture for Dynamic Infrastructure Services	LYaTiss	France
OMEGA	Orange Labs, France Telecom	France
OneFIT	University of Piraeus	Greece
Prediction Based Spectrum Management for Cognitive Radio Networks	University of Oulu	Finland
QoS MOS FP7 Project	BT	UK
SACRA - Spectrum and energy efficiency through multi-band cognitive radio	Thales Communications	France
SAIL - Scalable and Adaptive Internet Solutions	Ericsson AB	Sweden
SPARC: Proof of concept of carrier grade MPLS based on split architecture	Deutsche Telekom	Germany
User Centric Mobility Management: the PERIMETER project	Univ. of Rome "Tor Vergata"	Italy