



Conference & Exhibition

# Future Network & MobileSummit 2012 Final Programme Berlin - Germany



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04 - 06 July 2012

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# Introduction

**Future Network & MobileSummit 2012** Conference & Exhibition takes place 04 - 06 July 2012 in the Estrel Berlin, Germany. This is the twenty-first 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 2012** 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, Integrated Satellite Communications 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 2012** Conference & Exhibition attracts practitioners and researchers from leading commercial and research organisations around the world. Unlike many research conferences, **Future Network & MobileSummit 2012** 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 2012** 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 Estrel Hotel, Sonnenallee 225, 12057 Berlin.

## 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 30 thematically focused parallel sessions featuring different aspects of Radio Access and Spectrum, Converged and Optical Networks, Integrated Satellite Communications and Future Internet Technologies.

The Conference Programme is complemented by a demonstration and technology exploitation focused Exhibition, a Reception which will take place on Wednesday 04 July 2012 and a Conference Dinner on Thursday 05 July 2012.

The Conference Programme is subject to change and the **Future Network & MobileSummit 2012** Organising Committee reserves the right to alter the contents, venue and/or speakers. 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 2012** 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 2012**, 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.

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 Berlin. 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 Estrel Hotel (Conference venue).

Conference hotel accommodation should be booked online on the **Future Network & MobileSummit 2012** 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/2012](http://www.FutureNetworkSummit.eu/2012)

## Net!Works Reception - 04 July

The Organising Committee is pleased to announce that Net!Works will host a Networking Cocktail Reception on Wednesday 04 July from 18:30 - 20:00 in the Exhibition area. Delegates should indicate participation in this event as part of online registration.

## Conference Dinner - 05 July

The Organising Committee is pleased to announce that the Conference Dinner will be held on Thursday 05 July at 20:00.

The dinner venue has a fixed capacity and delegates are requested to confirm their participation no later

than 08 June as part of online registration.

## Organisers & Conference Secretariat

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



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## Plenary Session Speakers



Mario Campolargo  
European Commission



Hossein Moini  
Nokia Siemens Network



Reiner Liebler  
BnetZA, Germany



Dr. Peter Meissner  
NGMN



Ruprecht Niepold  
European Commission



Prof H.J. Grallert  
Fraunhofer, Germany



Dr. Lutz Stobbe  
IZM, Germany



Mark Daly  
ESB, Ireland



Thierry Van Landegem  
Alcatel Lucent



Prof. Klaus David  
University of Kassel



Prof. Paul Müller  
TU Kaiserslautern



Dai Davies  
Dante, UK

Plenary Speakers confirmed as at 12 June include:

- **Mario Campolargo**, Net Futures, DG Communications Networks, Content and Technology, European Commission
- **Hossein Moini**, Chief Technology and Strategy Officer, Nokia Siemens Networks
- **Prof Hans-Joachim Grallert**, Director, Fraunhofer Heinrich-Hertz Institut, Germany
- **Reiner Liebler**, BnetZA, Germany
- **Dr. Peter Meissner**, Operating Officer, NGMN Next Generation Mobile Networks Alliance
- **Ruprecht Niepold**, Adviser Radio Spectrum Policy, DG Information Society and Media, European Commission
- **Dr Lutz Stobbe**, Fraunhofer-Institut für Zuverlässigkeit und Mikrointegration IZM, Germany
- **Mark Daly**, ESB, Ireland
- **Thierry Van Landegem**, Vice President Global Operations Bell Labs, Alcatel-Lucent Bell Labs
- **Prof. Klaus David**, University of Kassel, Germany
- **Prof. Paul Müller**, University of Kaiserslautern, Germany
- **Radoslaw Krzywania**, Poznan Supercomputing and Networking Center, Poland
- **Dai Davies**, Dante, UK
- **Rolf Sperber**, Alcatel-Lucent

## Technical Committees

The **Future Network & MobileSummit 2012**

Technical Programme Committee includes

- **Prof. Klaus David**, Kassel University, Germany (TPC Chair 2012)
- **Henrik Abramowicz**, Ericsson, Sweden
- **Dr. Rui Luis Aguiar**, Universidade de Aveiro, Portugal
- **Maurice Bellanger**, CNAM, France
- **Dr. Friebert Berens**, FBConsulting 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. 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
- **Alexandre Gouraud**, France Telecom, France
- **Uwe Herzog**, EURESCOM, Germany
- **Dr. Jacek Izydorczyk**, Institute of Electronics, Silesian University of Technology, Poland
- **Jean-Philippe Javaudin**, France Telecom, France
- **Nigel Jefferies**, 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 Slawomir Kuklinski**, Warsaw University of Technology, Poland
- **Konstantinos P. Liolis**, SPACE HELLAS S.A., Greece
- **Dr. Roberto Llorente**, UPV, Spain
- **Prof. Marco Luise**, University of Pisa, Italy
- **Dr. Paulo Marques**, Instituto de Telecomunicações, Portugal
- **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
- **Pirabakaran Navaratnam**, University of Surrey, United Kingdom
- **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
- **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
- **Dr Anna Tzanakaki**, AIT, Greece
- **Bogdan Uscumlic**, Institute Mihailo Pupin, Serbia
- **Dr Hans van den Berg**, TNO ICT, Netherlands
- **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



# Wednesday, July 4, 2012

08:00 Registration

09:00 Opening Plenary 1a

Chair: [Luis Rodrigues-Rosello, European Commission, Belgium](#)

Panel participants include

- Welcome - Prof Klaus David, University of Kassel, Germany (TPC Chair)
- Mario Campolargo, Director, Net Futures, DG Communications Networks, Content and Technology, European Commission
- Hossein Moiin, Chief Technology and Strategy Officer, Nokia Siemens Networks
- Prof Hans-Joachim Grallert, Director, Fraunhofer Heinrich-Hertz Institut

11:00 Coffee Break

11:30 Session 2a: [Next-generation Radio System Architectures and Protocols](#)

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

**Colony-RAN Architecture for Future Cellular Network**

Shinobu Nanba, KDDI R&D Laboratories, Japan

**On designing next generation MAC for cellular networks using the FLAVIA paradigm**

Vincenzo Mancuso, Institute IMDEA Networks, Spain

**Joint User Scheduling, Power Control and Beam-forming for Multi-Cell Distributed Antenna Systems with Imperfect CSI**

Ramiro Samano, Institute of Telecommunications, Portugal

**Wireless Card Virtualization: From Virtual NICs to Virtual MAC Machines**

Yan Grunenberger, Telefonica Research, Spain

**Decentralized phase synchronization scheme for Distributed Beamforming in WSN with Quantized Phase Feedback**

Lazar Berbakov, Centre Tecnologic de Telecomunicacions de Catalunya (CTTC), Spain

11:30 Workshop 2b: [Cognitive Radio/Cognitive Networks](#)

Chair: [Jorge Pereira, European Commission, Belgium](#)

**CONSERN: Empowering Network Agility with Self-growing Capabilities - From Concept to Validation**

Nancy Alonistioti, University of Athens, Greece

**FLAVIA: Fostering Cognitive Radio Deployment: A New Architecture for Real-time Wireless Stack Reconfiguration**

Giuseppe Bianchi, CNIT - University of Roma Tor Vergata, Italy

**CREW: Shape-Shifting Wireless Networks: The Role of TV Spectrum in Future Network Architectures**

Luiz DaSilva, Trinity College Dublin, Ireland

**How to Access and Use the CREW Open Federated Test Platform for Wireless Experimentation of Advanced Cognitive Radio / Cognitive Networking Solutions**

Ingrid Moerman, IBBT - Ghent University, Belgium

**Panel Discussion on Cognitive Radio/Cognitive Networks and the role of Experimentation**

11:30 Workshop 2c: [Optical Networks Standardization in FP7 projects](#)

Chair: [Juan Pedro Fernandez-Palacios, TELEFONICA R&D, Spain](#)

**ACCORDANCE Standardization Activities on NGPON2**

Thomas Pfeiffer, Alcatel-Lucent

**On the IETF Standardization Opportunities for Sub-wavelength Optical Networks**

Juan Pedro Fernandez-Palacios, TELEFONICA R&D, Spain

**Multilayer and Multidomain Interworking Architectures based on PCE**

Oscar Gonzalez de Dios, Telefonica I+D, Spain

**Standardization Opportunities on Optical network and IT Convergence**

Nicola Ciulli, Nextworks, Italy

**Challenges of Cognitive Networks Standardization - CHRON**

Andrzej Tymecki, Telekomunikacja Polska SA, Poland

**Inter-project Standardization Strategies on Optical Networking - Panel Discussion**

11:30 Session 2d: [Future Internet Architecture](#)

Chair: [David Kennedy, Eurescom, Germany](#)

**A New Inter-networking Architecture for Mobile Oriented Internet Environment**

Heeyoung JUNG, Electronics and Telecommunications Research Institute (ETRI), Republic of Korea

**On Converged Multidomain Management of Connectivity in Heterogeneous Networks**

Michael Soellner, Alcatel-Lucent Deutschland AG, Germany

**Research and Experimentation With the HIMALIS Network Architecture for Future Internet**

Pedro Martinez-Julia, University of Murcia, Spain

**Socioeconomic Tussles Analysis of the ETICS Approach for Providing QoS-enabled Inter-domain Services**

Costas Kalogiros, AUEB, Greece

11:30 Session 2e: [Quality in Future Internet](#)

Chair: [Uwe Herzog, EURESCOM, Germany](#)

**Internet Interconnection Assured Quality Services: Issues and Strategic Impact**

Manos Dramitinos, Athens University of Economics and Business, Greece

**A Global Customer Experience Management Architecture**

Jukka-Pekka Laulajainen, VTT Technical Research Centre, Finland

**Service Level Management Convergence for Future Network Enterprise Platforms**

Philip Robinson, SAP UK Ltd, United Kingdom

**Modelling Quality of Experience in Future Internet networks**

Vincenzo Suraci, Università degli Studi e-Campus, Italy

11:30 Poster Session 2f: [FI Poster Session](#)

Chair: [Rui Aguiar, Instituto de Telecomunicacoes, Portugal](#)

**Supporting an Architecture for Cross-layer Optimization**

Gianmarco Panza, CEFRIEL, Italy

**Design and implementation of a service discovery and composition framework for security, privacy and dependability control**

Vincenzo Suraci, Università degli Studi e-Campus, Italy

**Evaluating Secure Identification in the Mobile Oriented Future Internet (MOFI) Architecture**

Pedro Martinez-Julia, University of Murcia, Spain

**Virtualization of Real-world Objects for a full realization of the Internet of Things**

Vera Stavroulaki, University of Piraeus, Greece

**Managing Customer Experience through Service Quality Monitoring**

Anderson Morais, Telecom SudParis, France

**Network architectures for end-to-end business and traffic collaborations among carriers**

Nicolas Le Sauze, Alcatel-Lucent, Italy

13:15 Lunch

14:15 Workshop 3a: [IC1004 Cooperative Radio Communications I](#)

Chair: [Narcis Cardona, Universidad Politecnica de Valencia, Spain](#)

**Keynote - Cooperation: A Key Feature of Oncoming Cellular Systems**

Halim Yanikomeroglu, Carleton University, Canada

**Measurement-based Stochastic Modeling for Co-existing Propagation Channels in Cooperative Relay Scenarios**

Jinyi Liang, Tongji University, China

**Cooperative Radio Communications over Correlated Shadowing: Outage Analysis**

Athanasios D. Panagopoulos, National Technical University of Athens, Greece

**A Wireless Transceiver Power Consumption Model and Two-hop vs. Single-hop Energy Efficiency Ratio**

Goran Dimic, Institute Mihajlo Pupin, Univ. of Belgrade, Serbia

**Dynamic Management of Cooperative Communication in Body Area Networks**

Raffaele D'Errico, CEA-Leti, Minattec Campus, France

14:15 Session 3b: [LTE Advanced Systems: PHY Layer Issues](#)

Chair: [Werner Mohr, Nokia Siemens Networks GmbH & Co. KG, Germany](#)

**Advanced Relaying Concepts for Future Wireless Networks**

Agisilaos Papadogiannis, Chalmers University of Technology, Sweden

**Data Aggregation Schemes for Machine-to-Machine Gateways: Interplay with MAC Protocols**

Carles Anton-Haro, CTTC, Spain

**Interference Avoidance Techniques for Improving Ubiquitous User Experience**

Nicolas Gresset, Mitsubishi Electric R&D Centre Europe, France

**Interference Control in LTE-Advanced: An ARTIST4G Overview**

Michael Grieger, TU Dresden, Germany

**Experiments on Downlink 4-by-2 MU-MIMO with Quantized CSI**

**Feedback for LTE-Advanced Deployment Scenarios**

Yuichi Kakishima, NTT DOCOMO, INC., Japan

14:15 Session 3c: [Optical Access Networks](#)

Chair: [Jean-Charles Point, JCP-Consult, France](#)

**First Experimental Demonstrations of Real-time Optical OFDMA PONs with Adaptive Dynamic Bandwidth Allocation and Colorless ONUs**

Jianming Tang, Bangor University, United Kingdom

**Power Consumption Measurements of Access Networks in a Wide Geographical Area Test Bed and Economic Perspectives**

Alessandro Valenti, Fondazione Ugo Bordoni, Italy

**Optical Wireless Communication - Jump on a new Experience**

Frank Deicke, Fraunhofer IPMS, Germany

**Adding Mobile Base Station Support to PONs**

Evangelos Kosmatos, University of Peloponnese, Greece

**Impairment Compensation in Long-reach Integrated Optical-Wireless PON**

Roberto Llorente, Universidad Politécnica de Valencia, Spain

14:15 Workshop 3d: [Cloud Networking – Technical and Business Challenges I](#)

Chair: [Thomas Edwall, Ericsson AB, Sweden](#)

**Opening**

Benoit Tremblay, Ericsson AB, Sweden

**Libnetvirt: The Network Virtualization Library**

Daniel Turull, KTH Royal Institute of Technology, Sweden

**Performance of Virtualized Routers: Isolation Properties on Different Time Scales**

Markus Fiedler, Blekinge Institute of Technology (BTH), Sweden

**Planning Optimized Virtual Infrastructures over Converged Optical Network and IT Physical Infrastructures**

Anna Tzanakaki, AIT, Greece

14:15 Workshop 3e: [Green Communications and Networks I](#)

Chair: [Stefano Buzzi, CNIT / University of Cassino, Italy](#)

**Network evolution steps towards power efficiency**

Juan Pedro Fernandez-Palacios, TELEFONICA R&D, Spain

**Power consumption in future ultra broadband networks**

Alessandro Valenti, Fondazione Ugo Bordoni, Italy

**ECONET Green Abstraction Layer: A Common Interface Proposal for Controlling the Power Management Capabilities of Networking Devices**

Leonardo Fialho, Dublin City University, Ireland

**A Smart Proxy Architecture for Power Consumption Reduction in the Home Environment**

Roberto Bruschi, CNIT, Italy

**How to deploy and operate mobile networks in an energy efficient manner?**

István Gódor, Ericsson, Hungary

14:15 Poster Session 3e: [RAS Poster Session](#)

Chair: [Jorge Carvalho, European Commission, Belgium](#)

**System Architecture for LTE-based Coverage Solution using UE Relays**

Ravikumar Pragada, InterDigital Communications, United States

**Future Networks to Enable Wireless Broadband Technologies and Services for the Next Billion Users**

Fisseha Mekuria, CSIR Meraka Institute, South Africa

**Network Coded Assisted Data Collection over RPL-based Wireless Sensor Networks**

Monica Navarro, CTTC, Spain

**Slow and fast beamforming as energy saving enablers towards C-RAN**

Sven Petersson, Ericsson, Sweden

16:00 [Coffee Break](#)

16:45 Session 4b: [LTE Advanced Systems - Future Challenges and Way ahead](#)

Chair: [Petru Ciudin, European Commission, Belgium](#)

**Operator-governed SON Coordination in downlink LTE Networks**

Panagiotis Vlacheas, University of Piraeus, Greece

**Adaptive energy efficient scheduling algorithm for LTE pico base stations**

Björn Debaillie, IMEC, Belgium

**Network Monitoring Challenges in the Evolved Packet Core**

Bachar Wehbi, Montimage, France

**Field Experiments on Throughput Performance of Carrier**

**Aggregation with Asymmetric Bandwidth in LTE-Advanced**

Keisuke Saito, NTT DOCOMO, Japan

**Intrinsic challenges (and opportunities) to deploy LTE in Europe's TV white spaces**

Jaap van de Beek, Huawei Technologies, Sweden

16:45 Session 4c: [Optical Technologies and Networking](#)

Chair: [Anna Tzanakaki, AIT, Greece](#)

**Real-Time 11.25Gb/s Optical OFDM Signal Transmission Over 2000m Legacy MMFs Using Centre Launching**

Jianming Tang, Bangor University, United Kingdom

**Routing in medium term optical networks in ICT STRONGEST**

Alexandros Stavdas, University of Peloponnese, Greece

**Beyond 100G - High-Capacity Transport Technologies for Next Generation Optical Core Networks**

Johannes Karl Fischer, Fraunhofer Institute for Telecommunications

Heinrich Hertz Institute, Germany

**E2E-OAM in convergent Sub-wavelength-MPLS environments**

Juan Pedro Fernandez-Palacios, TELEFONICA R&D, Spain

16:45 Workshop 4d: [Cloud Networking – Technical and Business Challenges II](#)

Chair: [Thomas Edwall, Ericsson AB, Sweden](#)

**Business aspects of Cloud Networking**

João Soares, PT Inovação, SA, Portugal

**Cloud Computing - Challenges and Risks**

Burkhard Stiller, University of Zurich, Switzerland

**Panel Discussion including**

Thomas Edwall, Ericsson, Sweden (SAIL Project)

Pascale Vicat-Blanc, Lyatiss, France (GEYSERS Project)

Burkhard Stiller, University of Zurich, Switzerland, (SESERV Project)

Markus Fiedler, Blekinge Institute of Technology, Sweden (EURO-NF Project)

Azimeh Sefidcon, Ericsson, Sweden (SAIL Project)

16:45 Workshop 4e: [Green Communications and Networks II](#)

Chair: [Stefano Buzzi, CNIT / University of Cassino, Italy](#)

**"Greening" Mobile Communication via Mitigation of Traffic Growth**

Adam Wolisz, Technische Universität Berlin, Germany

**Energy efficiency of vertical handovers under different traffic profiles**

Jacek Kibilda, Wrocławskie Centrum Badań EIT+, Poland

**Energy efficient wireless radio networks: The Greenet approach**

Angelos Antonopoulos, CTTC, Spain

**Energy Savings with new BS Hardware Solutions**

Dieter Ferling, Alcatel-Lucent Deutschland AG, Germany

**Holistic energy consumption evaluation of wireless networks using efficient components and systems**

Björn Debaillie, imec, Belgium

16:45 Poster Session 4f: [Poster Session 3](#)

Chair: [Rudiger Martin, European Commission, Belgium](#)

**Context-Awareness and Self-Localization in Wireless Networks: The WHERE2 Proposals**

Ronald Raulefs, CEA, France

**Mobility control in cognitive radio system**

Janos Bito, Budapest University of Technology and Economics, Hungary

**A Statistical Moment Deviation Approach to Identify Outliers in Collaborative Spectrum Sensing for Cognitive Radio**

Klaus Moessner, University of Surrey, United Kingdom

**Real-time Ultra-wideband Spectrum Management in Critical Civil Infrastructures: UCELLS project**

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

18:15 End of Parallel Sessions



Thursday,  
July 5, 2012

9:00 Session 5a: **Plenary II - Radio Access Spectrum**

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

Panel participants include

Reiner Liebler, BnetzA, Germany

Peter Meissner, NGMN Alliance

Ruprecht Niepold, Adviser Radio Spectrum Policy, DG Information Society and Media, European Commission

11:00 Coffee Break

11:30 Session 6a: **Enabling technologies for flexible spectrum usage**

Chair: **Ralf Tönjes, Uni. Appl. Sci. Osnabrück, Germany**

**Environment aware spectrum shaping for cognitive radio systems**  
Pawel Kryszkiewicz, Poznan University of Technology, Poland

**Towards spectrum micro-trading**

Pål Grønsund, Telenor, Norway

**Low ACLR communication systems for TVWS operation**

Rohit Datta, TU Dresden, Germany

**Testbed for coexistence evaluation in TV White Spaces**

Juergen Lauterjung, Rohde & Schwarz, Germany

**Cross-platform Demonstrator Combining Spectrum Sensing and a Geo-location Database**

Paulo Marques, Instituto de Telecomunicações, Portugal

11:30 Session 6b: **Integrated Satellite Communications**

Chair: **tbc**

**SatCom Research Trends**

Sandro Scalise, German Aerospace Center, Germany

**Optical GEO Feeder Link Design**

Nicolas Perlot, Deutsches Zentrum für Luft- und Raumfahrt, Germany

**Using Cognitive Radio Interference Mitigation Technique to Enhance Coexistence and Sharing Between DVB-T and LTE System**

Sara Sangtarash, Victoria University, Australia

**MONET - From Optimised Mechanisms Definition to Lab and Real Field Tests of an Hybrid Satellite / Ad-hoc Network**

Michael Crosnier, Astrium, France

**Broadband Access via Integrated Terrestrial & Satellite Systems**

Graham Peters, Avanti Communications, United Kingdom

11:30 Session 6c: **Optical Network Control**

Chair: **Anna Tzanakaki, AIT, Greece**

**Benefits of Optical Packet Switching for Router By-pass in Metro Networks**

Oscar Gonzalez de Dios, Telefonica I+D, Spain

**A Cognitive Decision System for Heterogeneous Reconfigurable Optical Networks**

Ignacio de Miguel, University of Valladolid, Spain

**Control and Transport of Time Shared Optical Networks (TSON) in Metro Areas**

Bijan Rahimzadeh Rofee, University of Essex, United Kingdom

**A Network Control Plane architecture for on-demand co-provisioning of optical network and IT services**

Nicola Ciulli, Nextworks, Italy

11:00 Session 6d: **Self Management**

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

**Network Management without Payload Inspection: Application Classification via Statistical Analysis of Bulk Flow Data**

Baris Kurt, Bogazici University, Turkey

**On Accomplishing Context Awareness for Autonomic Network Management**

Beatriz Fuentes, TID, Spain

**Formal Verification of the Cooperative Behaviour of Network Nodes for Routing and Context Dissemination**

Stylianios Georgoulas, University of Surrey, United Kingdom

**Designing the core components of an operator-driven framework for unifying autonomic network and service management**

Kostas Tsagkaris, University of Piraeus Research Center (UPRC), Greece

**On the role of learning in autonomic network management: the UniverSelf project approach**

Panagiotis Spapis, National And Kapodistrian University of Athens, Greece

11:00 Session 6e: **Future Internet Experimental Facilities**

Chairs: **Klaus David, University of Kassel, Germany**

**Benchmarking the Encoding Efficiency of H.265/HEVC and H.264/AVC**

Harilaos Koumaras, NCSR Demokritos, Greece

**A five year perspective of traffic pattern evolution in a residential broadband access network**

Manxing Du, Acreo AB, Sweden

**An OpenFlow-based Testbed for Information Centric Networking**

Stefano Salsano, Univ. of Rome "Tor Vergata", Italy

**AAA-based Infrastructure for Industrial Wireless Sensor Networks**

Nouha Oualha, CEA, France

13:15 Lunch

14:15 Plenary 7a: **Plenary III - Sustainability**

Chair: **Fiona Williams, Ericsson GmbH, Germany**

Panel participants include

Dr Lutz Stobbe, Fraunhofer-Institut für Zuverlässigkeit und Mikrointegration IZM, Germany

Mark Daly, ESB, Ireland

Thierry Van Landegem, VP Alcatel Lucent Bell Labs

Prof. Klaus David, University of Kassel, Germany

16:15 Coffee Break

16:45 Session 8a: **Cognitive and Reconfigurable Radio Systems I**

Chair: **Reijo Savola, VTT Technical Research Centre of Finland**

**A Spectrum Selection Framework for Opportunistic Networks**

Jordi Perez-Romero, Universitat Politècnica de Catalunya (UPC), Spain

**Resource Management of Centrally Controlled Cognitive Radio Networks**

Genevieve Mange, Alcatel Lucent Bell Labs, Germany

**Spectrum aware routing in ad-hoc cognitive radio networks**

Athina Bourdena, University of the Aegean, Greece

**Probabilities for opportunistic networking in different scenarios**

Jens Gebert, Alcatel-Lucent Deutschland, Bell Labs, Germany

**Multi-Antenna Cyclostationarity Feature Detection for Parallel Sensing in Cognitive Radio**

David Depierre, Thales Communications and Security, France

16:45 Session 8b: **Content Distribution**

Chair: **Nigel Jefferies, HUAWEL, United Kingdom**

**Publish/Subscribe over Information Centric Networks: a Standardized Approach in CONVERGENCE**

Nicola Blefari Melazzi, University of Rome Tor Vergata, Italy

**Architecture for Adaptable QoE-Centric Mobile Video Delivery**

Michelle Wetterwald, EURECOM, France

**SVC Multicast Video Mobility Support in MEDIEVAL Project**

Rui Aguiar, Instituto de Telecomunicações, Portugal

**Realistic Media Streaming over BitTorrent**

George Xylomenos, Athens University of Economics and Business, Greece

16:45 Workshop 8c: **FINSENY**

Chair: **tbc**

**Future Internet for the Smart Grid**

Fiona Williams, Ericsson GmbH, Germany

**Future Internet Requirements for Microgrid Development**

Juergen Goetz, Siemens AG, Germany

**Future Internet for Electric Mobility in the Smart Grid**

Fiona Williams, Ericsson GmbH, Germany

16:45 Session 8d: **Scalable Architectures for the Real World Internet**

Chair: **Markus Fiedler, Blekinge Institute of Technology (BTH), Sweden**

**A Test-driven Approach for Life Cycle Management of Internet of Things enabled Services**

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

**Experience on the demonstration of the ETSI M2M architecture Release 1**

Claudio Cicconetti, Intecs SpA, Italy

**An overview of project COMPOUND: Cooperative Communications and Positioning in Mobile Underwater Networks**

Joao Gomes, ISR - Instituto Superior Tecnico, Portugal

**Concept for a M2M Communications Infrastructure via Airliners**

Simon Plass, DLR, Germany

**Power control and management in the NetFPGA Gigabit Router**

Diego Reforgiato, University of Catania, Italy

16:45 Session 8e: **Network Overlay, Virtualization and Federation**

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

**From Softrouter to Current SDNs**

Krishan Sabnani, Alcatel-Lucent, United States

**Cloud Networking: An Infrastructure Service Architecture for the Wide Area**

Paul Murray, HP, United Kingdom

**Virtual Infrastructure Planning: The GEYSERS Approach**

Markos Anastasopoulos, Athens Information Technology, Greece

**A modular, flexible and virtualizable framework for IEEE 802.11**

Pablo Salvador, Institute IMDEA Networks, Spain

**An experimental investigation of indoor localization by unsupervised Wi-Fi signal clustering**

Yaqian Xu, University of Kassel, Germany

18:30 End of Parallel Sessions



Friday,  
July 6, 2012

**DAY**

09:00 Session 9a: **Cognitive and Reconfigurable Radio Systems II**

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

**Femtocell-based capacity extension of wireless access infrastructures**

Dimitrios Karvounas, University of Piraeus, Greece

**Experimental assessment of WLAN performance in a fiber supported fiber-radio network**

Luis Pessoa, Inesc Porto, Portugal

**Robust distributed sensing with heterogeneous devices**

Peter Van Wesemael, imec, Belgium

**Detection of Jointly Active Primary Systems**

Serhat Erkucuk, Kadir Has University, Turkey

**Secure Broadcasting in Cooperative Cognitive Radio Networks**

Maksym Girnyk, KTH Royal Institute of Technology, Sweden

09:00 Workshop 9b: **Network Federation I**

Chair: **Klaus Moessner, University of Surrey, United Kingdom**

**Opening Keynote - Standardising Autonomous Networks: ETSI AFI**

Ranganai Chaparadza, Fraunhofer Institute for Open Communication, Germany

**UniverSelf: UMF - A Unified Management Framework**

Gerard Nguengang Fanmegne, THALES COMMUNICATIONS SA, France

**OneFIT: An Architecture for operator governed opportunistic networking**

Jens Gebert, Alcatel-Lucent Deutschland, Bell Labs, Germany

**GEYSERS: An architecture and a Service Delivery Framework for operating and offering services over Virtual Infrastructures**

Sergi Figuerola, i2CAT, Spain

09:00 Workshop 9c: **Machine to Machine Communications: Maintaining User Capacity and Pursuing Energy Efficiency in the Internet of Things I**

Chair: **Angeliki Alexiou, University of Piraeus, Greece**

**Current Developments in IoT Forum & IoT Week – Shaping Europe's Impact on the IoT**

Sebastian Lange, VDI/VDE-IT, Germany

**Presentation title to be confirmed**

Martin Beale, IPWireless, United Kingdom

**The Role of Standards in M2M – Targets, Challenges and Outlook**

Joerg Swetina, NEC Laboratories Europe, Germany

09:30 Session 9d: **Future Network Stability: Threats and Challenges I**

Chair: **Antonio Manzalini, Telecom Italia, Italy**

**Utility Functionals for Optimization and Stability of Future Networks**

Antonio Manzalini, Telecom Italia, Italy

**Knowledge in Support of Congestion Control Mechanisms**

Giorgos Poullos, University of Piraeus Research Center, Greece

**Coordination of self-optimizing functionalities in LTE networks**

Zwi Altman, Orange Labs, France

**An Efficient Load balancing Scheme for Network Stability in Future Networks**

Eleni Patouni, University of Athens, Greece

09:00 Workshop 9e: **Fostering Programmability of Wireless Networks I**

Chair: **Xavier Perez Costa, NEC, Germany**

**FLAVIA - Technology Development Update in the Wireless Programmability Area**

Xavier Perez Costa, NEC, Germany

**FIGARO – Project Overview and Potential Benefits of Wireless Programmability**

Henrik Lundgren, Technicolor, France

**MEDIEVAL - Project Overview and Potential Benefits of Wireless Programmability**

Telemaco Melia, Alcatel-Lucent, France

**10:45 Coffee Break**11:15 Session 10a: **Novel radio network technologies, including energy-efficiency**Chair: **Didier Bourse, Alcatel-Lucent, France****A Tight Closed-Form Approximation of the SISO Energy Efficiency-Spectral Efficiency Trade-Off**

Fabien Heliot, University of Surrey, United Kingdom

**Energy-Aware Non-Cooperative Resource Allocation in Relay-Assisted MIMO IC Considering Circuit Dissipated Power**

Stefano Buzzi, CNIT / University of Cassino, Italy

**Mu-MaxWeight Queueing Network Control With Application To In-Flight Entertainment Systems**

Gerhard Wunder, Fraunhofer Heinrich Hertz Institute, HHI, Germany

**Analysis of energy saving using cooperation Use-case: WiFi and WiMedia**

Ayman Radwan, Instituto de Telecomunicações, Portugal

**Energy efficient cooperative data relaying in Future Networks**

Jacek Kibilda, Wrocławskie Centrum Badań EIT+, Poland

**Integration Strategy of EARTH Energy Efficiency Enablers**

Magnus Olsson, Ericsson AB, Sweden

11:15 Workshop 10b: **Network Federation II**Chair: **Klaus Moessner, University of Surrey, United Kingdom****UniverSelf: Bringing UMF to Reality: a Network and Service Governance Use Case**

Beatriz Fuentes, TID, Spain

**OneFIT: Algorithms for Opportunistic Network Management and Infrastructure Coordination**

Oriol Sallent, Universitat Politècnica de Catalunya, Spain

**ONE: Prototyping the ONE: Architecture and Implementation**

Mohit Chamania, TU Braunschweig, Germany

**GEYSERS: The LiCL: a prototype for the composition of Logical Infrastructures**

Joan A. García-Espín, i2CAT, Spain

**Wrap up Panel – Standardising Challenges for Future Networks**11:15 Workshop 10c: **Machine to Machine Communications: Maintaining User Capacity and Pursuing Energy Efficiency in the Internet of Things II**Chair: **Angeliki Alexiou, University of Piraeus, Greece****From Open IMS and OpenEPC to OpenMTC: An Extensible Control Platform for the Efficient Enablement of M2M Applications in the Future Internet and Emerging Smart Cities**

Thomas Magedanz, Fraunhofer FOKUS, Germany

**Network Assisted D2D Communications: Challenges and Solution Approaches**

Gabor Fodor, Ericsson Research, Sweden

**M2M Communications - Technology Trends and Research Challenges**

Angeliki Alexiou, University of Piraeus, Greece

11:15 Workshop 10d: **Future Network Stability: Threats and Challenges II**Chair: **Antonio Manzalini, Telecom Italia, Italy****Stability in Dynamic Networks**

Stuart Clayman, University College London, United Kingdom

**Distributed control loops: towards a cooperative autonomous management framework for the Future Internet**

Steven Latre, Ghent University - IBBT, Belgium

**Network Stability based on Distributed Constraints Systems**

Septimiu Nechifor, Siemens Program and System Engineering SRL, Romania

11:15 Workshop 10d: **Fostering Programmability of Wireless Networks II**Chair: **Xavier Perez Costa, NEC, Germany****ECONET - Network programmability for green networking**

Roberto Bruschi, CNIT, Italy

**Operator Business View on Wireless Network Programmability Solutions**

Yan Grunenberger, Telefonica Research, Spain

**Operator Business View on Wireless Network Programmability Solutions**

Hans Joachim Einsiedler, Deutsche Telekom Laboratories, Germany

**Wireless Processor - Technology Overview and Demonstration**

Ilenia Tinnirello, University of Palermo, Italy

**13:00 Lunch**14:00 Plenary Session 11a: **Plenary IV**Chair: **Jacques Magen, InterInnov, France**

Prof. Paul Müller, University of Kaiserslautern, Germany

Radoslaw Krzywania, Poznan Supercomputing and Networking Center, Poland

Dai Davies, Dante, UK

Rolf Sperber, Alcatel-Lucent

16:00 Closing Plenary 12: **Closing Plenary**Chair: **Andrew Houghton, European Commission, Belgium****16:30**

End of Conference

**Programme as at 12 June 2012. Please check online Programme for most up to date information**

## Registration Information

It is necessary for all **Future Network & MobileSummit 2012** delegates to register online. Each delegate should be registered separately.

## Conference Fees

### Authors Fees (Due by 31 March)

- Authors **€550**

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 Delegate Fee **€600**

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

- Delegate Full Price **€700**

### 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

## Terms & Conditions

1. All authors who are presenting a paper at **Future Network & MobileSummit 2012** 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.
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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**

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



## Exhibition

**Future Network & MobileSummit 2012** 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                             | IRT GmbH                    | Germany  |
| CONSERN FP7 Project: COoperative aNd Self growing Energy awaRe Networks | University of Athens        | Greece   |
| Cognitive Radio Experimentation World                                   | Technical University Berlin | Germany  |
| CROWN   | Eurecom                     | France   |
| EARTH: Energy Aware Radio and neTwork techNologies                      | Bell Labs, Alcatel-Lucent   | Germany  |
| EXALTED   | Sagemcom                    | France   |
| Fraunhofer HHI  | Fraunhofer                  | Germany  |
| Geysers   | Lyatiss                     | France   |
| iCore   | University of Piraeus       | Greece   |
| IPNQSIS (IP Network Monitoring for QoS Intelligent Support)             | VTT                         | Finland  |
| OneFIT  | University of Piraeus       | Greece   |
| QoS MOS FP7 Project   | BT                          | UK       |
| Rohde & Schwarz   | Rohde & Schwarz             | Germany  |
| SAMURAI and LOLA  | Agilent Technologies        | France   |
| SAIL - Cloud Networking   | Ericsson AB                 | Sweden   |
| SAPHYRE – Sharing Physical Resources in Wireless Networks               | TU Dresden                  | Germany  |
| STRONGEST   | Telecom Italia              | Italy    |
| UNIVERSELF UMF DEMO   | University of Piraeus       | Greece   |
| WHERE 2   | DLR e.V.                    | Germany  |