

FORUM EUROPE

THE 6TH ANNUAL EUROPEAN SPECTRUM MANAGEMENT CONFERENCE

EVENT OVERVIEW

THE MANAGEMENT CENTRE EUROPE, BRUSSELS
14–15 JUNE 2011

Inside

Introduction	p2
Conference day 1	p4
Conference day 2	p6
Summary	p8
Contact us	p10



INTRODUCTION

Forum Europe's sixth annual *European Spectrum Management Conference* was held in Brussels during June 2011, bringing together a worldwide audience of regulators and industry stakeholders to debate the major issues in European spectrum policy.

Over 200 delegates from more than 30 countries attended this year's conference, highlighting the increasingly global nature of spectrum use and the importance of timely access to suitable spectrum to support the continued development and success of the wireless industry worldwide. This year's conference sponsors included Alcatel-Lucent, Ericsson and RIM, as well as Adaptrum, Huawei, SES, Computech, the TETRA Association and Qualcomm, with Analysys Mason and NERA as knowledge partners.

Conference Day 1



“The morning of the first day of the conference focused on priorities raised within the EC’s first Radio Spectrum Policy Programme (RSPP).”

With implementation of the Digital Agenda being a key priority in Europe, spectrum needed for the delivery of wireless broadband services was a central theme of this year’s event. In particular, the release of 800MHz spectrum in Europe and its role in meeting the European Commission’s (EC’s) ‘broadband for all’ target was a key point of discussion. Spectrum assignment methods were also debated in detail, as well as ways to balance the spectrum needs of diverse industry sectors.

The morning of the first day of the conference focused on priorities raised within the EC’s first Radio Spectrum Policy Programme (RSPP) – which received European Parliament endorsement earlier in 2011 – as well as industry reaction to the RSPP, and views from other world regions on key issues of spectrum policy.

Following introductory remarks from Gérard Pogorel, Professor of Economics at Telecoms ParisTech (ENST), a series of four keynote presentations were made.

The first keynote speech was provided by Commissioner Neelie Kroes, Vice President of the EC and European Digital Agenda Commissioner. She reinforced the needs for spectrum access to achieve Digital Agenda targets, as well as commenting on the key objectives of the RSPP and the need for greater international co-operation on spectrum policy. This was followed by a keynote speech from Gunnar Hökmark MEP, European Parliament Rapporteur for the RSPP, who commented that Europe has the potential to be a global leader in delivery of mobile broadband capacity and services by working tougher to define and achieve ambitious targets. This will involve opening up new frequency bands for wireless broadband services across Europe by 2015, however, which will require co-ordinated action.

Keynote presentations on key spectrum issues outside Europe were then made by William E Kennard (US Ambassador to the EU), who provided a view on strategic spectrum policy issues from the perspective of achieving broadband objectives in the USA and John Lewis (Chairman of the Working Group on Spectrum Aspects for the Asia Pacific Telecommunity (APT) Wireless Group) who looked at the steps that APT countries are taking to identify and release new spectrum for wireless broadband services.

A series of short presentations were then made by various European wireless industry representatives responding to the keynote themes, in a session entitled ‘To what extent will the RSPP help to ensure Europe’s global competitiveness?’. Representatives from mobile equipment vendors Qualcomm and Huawei, the Association of Professional Wireless Production Technology, Association of Commercial Television in Europe, SES and the Public Safety Radiocommunication Group joined the panel. Messages from this session included the risk that spectrum fragmentation poses for provision of globally competitive wireless broadband services, the need for increasing global co-operation via forthcoming WRCs to identify new spectrum for wireless broadband services, the risks to continued development of wireless microphone and terrestrial broadcasting industries posed by further UHF spectrum re-farming, the role of satellite in the broadband market, as well as the need to ensure sufficient spectrum to support critical national infrastructure and services, such as for public safety.

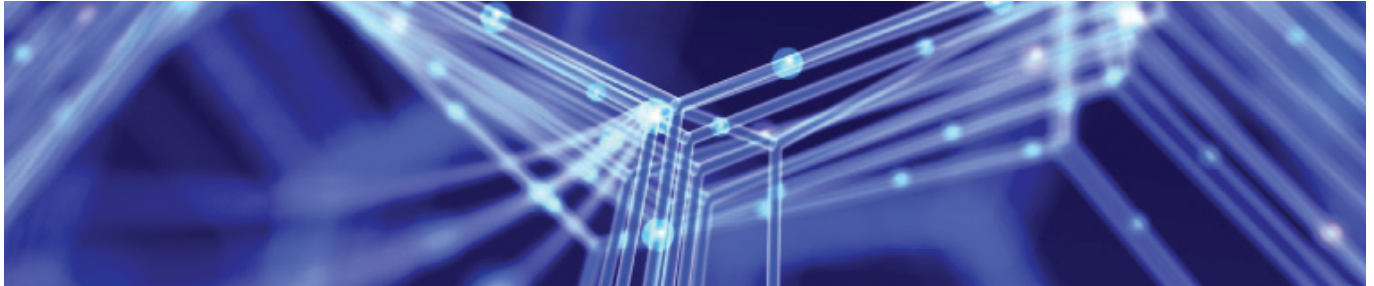
“The first keynote speech was provided by Commissioner Neelie Kroes, Vice President of the EC and European Digital Agenda Commissioner. She reinforced the needs for spectrum access to achieve Digital Agenda targets, as well as commenting on the key objectives of the RSPP and the need for greater international co-operation on spectrum policy.”

In the afternoon session on Day 1, discussions focused on spectrum auction formats and their impacts on bidders and outcomes. Different formats used in European spectrum auctions to date were reviewed, including the rationale behind the various approaches used. The German mobile auction in 2010 to award frequencies in the 800MHz, 1800MHz, 2GHz and 2.6GHz bands was discussed. This used a simultaneous multi-round (SMA) type of auction, in contrast to the UK regulator’s experience of using a combinatorial clock auction (CCA) format, which is also the approach being proposed for the upcoming award of 800MHz and 2.6GHz spectrum in the UK. Auction design requirements were also discussed from the perspective of European mobile operators. A presentation from Hutchison 3G UK emphasised the need to preserve competition in the mobile sector in Europe, highlighting the benefits of competition in terms of increasing mobile penetration and significantly reducing mobile broadband prices. This was followed by a presentation from Orange Group highlighting the challenge for mobile operators in being able to obtain sufficient spectrum in the right frequency bands given the increasingly complex auction formats.

Day 1 concluded with break-out sessions to discuss approaches to the re-farming of spectrum, and methods to encourage competition and participation in spectrum awards. The re-farming discussion considered the challenges posed by moving spectrum use from one band to another, compared to the drivers for doing this (particularly the benefits of gaining access to spectrum below 1GHz for wireless broadband and other services). The session on competition in spectrum awards began by considering the strategic objectives of spectrum allocation, such as promotion of spectrum efficiency, competition, revenue generation and other specific aims such as rural roll-out. It then considered some of the tools available to governments to encourage participation in awards, such as defining smaller lot sizes, the use of spectrum caps, reserve prices or setting aside specific spectrum for specific entrants, and the relative benefits of different approaches.

Day 1 concluded with break-out sessions to discuss approaches to the re-farming of spectrum, and methods to encourage competition and participation in spectrum awards.

Conference Day 2



“Andy Hudson, Head of Spectrum Policy at Vodafone Group, gave an operator’s perspective on mapping future needs for spectrum.”

Day 2 began with a keynote presentation from the Deputy Director of the Radiocommunication Bureau of the ITU, Fabio Leite, who described the agenda for next year’s ITU World Radio Conference (WRC-12), and the studies completed within the ITU-R in preparation for that conference. Mr Leite echoed the views expressed on Day 1 by Commissioner Kroes regarding the need for greater international co-operation to meet increasing spectrum needs from a diverse range of wireless industries. Recognising the challenges in ensuring that international regulatory processes keep pace with market developments, Mr Leite also referred to a review of the international regulatory framework that will be considered at the upcoming WRC-12.

Andy Hudson, Head of Spectrum Policy at Vodafone Group, then gave an operator’s perspective on mapping future needs for spectrum. His presentation referred to the rapid increase in data being carried on mobile networks (with an estimate that mobile networks will need to support between 7 and 30 times more data traffic by 2015 than they did in 2010), and described various approaches for accommodating this – including migration to newer technologies, use of more sites, and access to additional spectrum. Mr Hudson concluded by stressing the importance to mobile operators of having access to sufficient spectrum in various bands (below and above 1GHz) as well as the benefits offered by the rapid release of new bands below 1GHz, a key example being the roll-out of mobile broadband services to rural areas of Germany following its 800MHz auction in 2010.

A panel session then discussed challenges in meeting the increasing market needs for wireless broadband services. Catherine Trautmann, MEP and Shadow Rapporteur for the RSPP in the European Parliament, referred to the priorities of spectrum efficiency, technology innovation and allocation flexibility within the RSPP, and the need for ‘smarter use’ of radio spectrum to meet future spectrum needs, such as increased spectrum sharing and greater use of white spaces. Various panellists representing Alcatel-Lucent, Ofcom, RIM, EBU and Plum Consulting then discussed the impact of mobile handset design on spectrum capacity, the drivers for mobile data growth, the importance of timely, flexible and evidence-based regulatory decisions to meet future spectrum demands, and the benefits of using under-utilised 1.5GHz spectrum to provide additional mobile broadband downlink capacity.

“The penultimate session of the conference considered various approaches to maximise the supply and use of spectrum, including the potential for use of white spaces, plans in the USA for recovery of broadcast spectrum for broadband use, and the impact of convergence between broadcasting and mobile services in terms of network deployment and emerging technologies.”

The conference then moved on to discuss the spectrum implications of Europe’s Digital Agenda, and in particular the EC’s target of ‘broadband for all’. A presentation by Pearse O’Donohue, Head of the EC’s Radio Spectrum Policy Unit, acknowledged the likelihood of a combined technology approach (wired, wireless and satellite) being required to achieve the Digital Agenda targets, and emphasised the benefits of mapping availability and demand for spectrum, such as via a European spectrum inventory (a key action proposed in the RSPP). A presentation by Inmarsat provided a viewpoint on the role of satellite networks in the wireless market, and the introduction of various satellite broadband services using the Ka-band. The session concluded with a presentation by Analysys Mason describing a study conducted for the GSM Association. The presentation highlighted problems created by device choices for embedded applications, given that 90% of currently deployed embedded modules are based on 2G (rather than 3G), triggering potentially significant costs when 2G networks are decommissioned and spectrum re-farmed, due to the need to replace legacy embedded modules. The study also contrasts the total cost of ownership (TCO) of 2G and 3G devices (rather than just the upfront costs), concluding that 3G embedded devices have a lower TCO, as well as being better equipped to meet future demands for higher throughput and lower latency.

The penultimate session of the conference considered various approaches to maximise the supply and use of spectrum, including the potential for use of white spaces, plans in the USA for recovery of broadcast spectrum for broadband use, and the impact of convergence between broadcasting and mobile services in terms of network deployment and emerging technologies. The final session of the conference then considered the role that spectrum reserved for public usage, including military spectrum, could play in meeting future demand for spectrum, with a presentation from the Ministry of Defence in the UK on its ‘Spectrum Preparation Project’.

The final session of the conference then considered the role that spectrum reserved for public usage, including military spectrum, could play in meeting future demand for spectrum.





SUMMARY

As in previous years, discussions at this year's event highlighted the wide range of industries that rely on access to radio spectrum within Europe for continued development and growth, as well as the need to find innovative ways to meet competing spectrum needs.

The conference also reiterated the need for careful consideration of spectrum policy in order to balance conflicting requirements, as well as the increasing importance of considering innovative spectrum supply alternatives – including sharing and use of white spaces – as well as re-farming of spectrum to meet future demand. Finally, it highlighted the importance of spectrum management issues being viewed internationally (including the need for greater international co-operation), as well as the implications of European ambitions to be a global leader, in terms of the need to open up new frequency bands to expanding wireless services.

Contact us

www.analysismason.com

Cambridge

Analysys Mason Limited
St Giles Court
24 Castle Street
Cambridge, CB3 0AJ
UK

Tel: +44 (0)845 600 5244
Fax: +44 (0)845 528 0760
cambridge@analysismason.com

Dubai

Al Shatha Tower, 3110
Dubai Internet City
P O Box 502064
Dubai
UAE

Tel: +971 4 446 7473
Fax: +971 4 446 9827
dubai@analysismason.com

Dublin

Analysys Mason Limited
Suite 242
The Capel Building
Mary's Abbey, Dublin 7
Ireland

Tel: +353 (0)1 602 4755
Fax: +353 (0)1 602 4777
dublin@analysismason.com

Edinburgh

Analysys Mason Limited
Apex 3
95 Haymarket Terrace
Edinburgh, EH12 5HD
Scotland
UK

Tel: +44 (0)845 600 5244
Fax: +44 (0)845 528 0760
edinburgh@analysismason.com

London

(Registered office)
Analysys Mason Limited
Bush House
North West Wing
Aldwych
London, WC2B 4PJ
UK

Tel: +44 (0)845 600 5244
Fax: +44 (0)845 528 0760
london@analysismason.com

Madrid

Analysys Mason Limited
Sucursal en España
José Abascal 44 4º
28003 Madrid
Spain

Tel: +34 91 399 5016
Fax: +34 91 451 8071
madrid@analysismason.com

Manchester

Analysys Mason Limited
5 Exchange Quay
Manchester, M5 3EF
UK

Tel: +44 (0)845 600 5244
Fax: +44 (0)845 528 0760
manchester@analysismason.com

Milan

Analysys Limited Italia
Via Durini 27
20122 Milan
Italy

Tel: +39 02 76 31 88 34
Fax: +39 02 36 50 41 09
milan@analysismason.com

New Delhi

Analysys Mason India
Private Limited
BD – 4th Floor
Big Jo's Tower
Netaji Subhash Place
Pitampura
New Delhi 110034
India

Tel: +91 11 4700 3100
Fax: +91 11 4700 3102
newdelhi@analysismason.com

Paris

Analysys Mason
66 avenue des Champs Elysées
75008 Paris
France

Tel: +33 (0)1 72 71 96 96
Fax: +33 (0)1 72 71 96 97
paris@analysismason.com

Singapore

Analysys Mason Pte Limited
#10-02 Robinson Centre
61 Robinson Road
Singapore 068893

Tel: +65 6493 6038
Fax: +65 6720 6038
singapore@analysismason.com

Washington DC

Analysys Mason Limited
818 Connecticut Avenue NW
Suite 300
Washington DC 20006
USA

Tel: (202) 331 3080
Fax: (202) 331 3083
washingtondc@analysismason.com

For general enquiries

enquiries@analysismason.com

