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## **RSPG Fourth Stakeholder Workshop: Update on the Work Programme for 2016 and beyond**

Warsaw, 4 October 2017

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**Marek Zagórski**  
Secretary of State  
Polish Ministry of Digital Affairs

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**Philip Marnick**

Chair, Radio Spectrum Policy Group

## **What is RSPG?**

The Radio Spectrum Policy Group brings together all Europe's national spectrum managers

It has been Europe's expert on spectrum policy for over ten years

## **Purpose of today's event**

To update on RSPG's current Work Programme

- Aims to address issues of current and future concern at a crucial time when spectrum policy is increasingly important to society

With this workshop, we are seeking to increase visibility of RSPG's work and to get stakeholder input into our process

## Recent outputs

RSPG 43<sup>rd</sup> Plenary in June agreed Key Messages on 5G:

- Flexibility for spectrum regulators in authorisation, including at different local levels
- A progressive approach to authorisation at higher frequencies, responsive to demand
- The importance of spectrum sharing
- National assessments of the need to facilitate installation of ‘small cells’

## Work areas and rapporteurs

Framework Review	Emília Ulelay (Hungary) Didier Chauveau (France)	Common Vision (Feb 17)
Digital Single Market: (inc. Peer Review, Coverage)	Christiane Seifert (Germany) Aleksander Sołtysik (Poland) Chris Woolford (UK)	
5G	Bo Andersson (Sweden) Tassos Lyratzis (Greece)	First Opinion (Nov 16)
Intelligent Transport Systems	Erika Forsberg (UK)	Opinion (Feb 17)
Internet of Things	Oli Bird (UK) Fokko Bos (NL)	Opinion (Feb 17)
PMSE	Franz Ziegelwanger (Austria)	
WRC-19	Alexander Kühn (Germany)	Interim Opinion (Feb 17)
Good Offices	Eric Fournier (France) Mindaugas Zilinskas (Lithuania)	

## Agenda

1. Strategic vision for PMSE
2. WRC-19
3. DSM Strategy: Peer Review
4. DSM Strategy: Coverage (w/ BEREC)
5. Good Offices and 700 MHz clearance
6. 5G Second Opinion and next steps
7. Next Work Programme



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## **Strategic vision for PMSE**

**Franz Ziegelwanger**  
RSPG rapporteur (Austria)

## **PMSE: scope**

Long-term strategy with regard to future PMSE spectrum requirements

Scope:

- evolution of existing use
- growing need for sharing of spectrum
- strategic options
- audio and video PMSE

## **PMSE: RSPG Opinion – background (1/2)**

- Enabler for content creation
- Wide range of tuning range bands, sharing
- Harmonised baseline in EU defined by 2014/641/EU and 2016/339/EU
- In addition tuning ranges for PMSE in CEPT in REC 25-10 and REC 70-03
- Key topics: Meeting peak demand, Quality of Service, time and location specific

## **PMSE: RSPG Opinion – background (2/2)**

- National differences in PMSE demand
- Term “PMSE” specified by CEPT (ECC Report 204)
- Technological advances
- Cognitive PMSE
- Role of 5G
- Working practices
- New tuning range bands added if needed

## **PMSE: RSPG Opinion – audio**

Mass market equipment also uses frequency bands defined for ISM, SRD and RLAN/WAS

Number of events and used devices grows – but not necessarily growth of spectrum demand

Changes in UHF band:

- loss partly by introduction of 700 MHz ECS
- DTT re-planning and resulting usability
- further review and change after/by 2025?

## **PMSE: RSPG Opinion – video**

Number of events and used devices grows –  
but also technology improves

Televised Sport events and new formats of  
entertainment shows are the main drivers

UAS / UAV video impact on spectrum demand  
– analyses ongoing in CEPT

UHD, 4k, or higher are required within the  
foreseeable timeframe

## **PMSE: RSPG Recommendations (1/3)**

Tuning range concept – reflects different requirements and national solutions: Efforts on CEPT website, EFIS to promote usable frequency bands

Technological advances:

- Increase spectral efficiency and effective use of available spectrum
- Incentivize migration to more advanced technologies



## **PMSE: RSPG Recommendations (2/3)**

Improvement in working practices:

- Meeting peak demand events often needs solutions for on-site coordination at national/geographical basis
- Sharing best practices on CEPT level

Cognitive PMSE:

- Could help in pre-coordination, visibility of usable spectrum and effective use

## **PMSE: RSPG Recommendations (3/3)**

Greater utilization of alternative bands  
(like VHF, 1800 MHz, mobile guard bands, ...)

PMSE in 5G:

- Technical possibilities (QoS, low latency)
- Realistic business case?
- Standardisation should reflect the development to create possibilities

## **PMSE: RSPG Recommendations audio**

More spectrum efficiency through:

- Digitalization and improvement of analogue use cases (i.e. IEM)
- New harmonised standards (like WMAS)

UHF: 2017/899/EU -> monitor developments – if changes result in further loss then, if justified, identification of new bands with a potential for:

- Widespread adoption
- Long term stability and regulatory certainty
- block of shared spectrum below 2 GHz

## **PMSE: RSPG Recommendations video**

- No modification of existing EC decision and no further mandatory harmonization
- Peak demand may also require sharing (borrowing) of non PMSE spectrum in special cases
- Core bands today around 2 GHz – flexibility for continued use needed
- Increasing spectral efficiency and wider tuning ranges
- MS should enable utilization of higher frequency bands (from 7 GHz and above)

## **PMSE: work plan**

Draft Opinion to be reviewed in the light of public consultation

Draft Final Opinion for RSPG Plenary  
November 2017

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**Chris Woolford**  
**on behalf of Alexander Kühn**  
Rapporteur, WRC-19

Electronic  
communications  
connectivity

Space

Transport

Science

Single Market

Security and  
defence

## Opinion on common policy objectives for WRC-19

Baseline: Interim Opinion from Feb. 2017

- Identified 6 Agenda items related to EU policies (left)
- One Agenda item with relation to specific EU harmonisation measures (RLAN 5GHz)

Task: Unified objectives for EU members

Challenge: Align work with WRC preparation



## **WRC-19 Working Group next steps**

Three meetings of WG WRC planned  
(Dec 17; Jan 18; Jun 18)

Public consultation on final Opinion (Q2 2018)

Final Opinion on WRC-19 (Q3 2018)

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**Aleksander Soltysik**  
Rapporteur, DSM Strategy

## Peer Review Platform

RSPG established the Peer Review Platform for spectrum awards and national assignment regulations of ECS spectrum.

Peer Review function to facilitate collaboration between experts.

- Library mechanism allowing Member States to post and share relevant information
- Contact point(s)

The Platform will be developed in line with plans for future awards.

## Peer Review Platform

### ➤ Library

- Awards which consists of individual tabs for specific bands e.g. 450 MHz, 700 MHz, 1800 MHz etc.
- Strategic documents referring to spectrum issues (national spectrum strategies, broadband plans etc.)

### ➤ Contact points

- The Peer Review Platform consists of 51 members from 25 countries.

## **RSPG workshops on spectrum awards**

RSPG encouraging more sharing of experience and expertise between Member States experts

- First workshop held in Prague in September 2017. Focus on recent 3.5 GHz awards in Czech Republic and Slovakia
  - Workshop just for Member State experts
  - Opportunity for detailed exchange of views on complex issue of awards

Further workshops planned including a workshop focusing on 700 MHz in November

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**Oli Bird**

Joint work between RSPG and BEREC



## **Cooperation with BEREC during 2017**

RSPG input into BEREC workshop on IoT

RSPG input into BEREC's work on monitoring of mobile network coverage

Joint RSPG/BEREC Report on mobile coverage policy

## **Joint RSPG/BEREC Report**

### *Facilitating Mobile Connectivity in “Challenge Areas”*

- A survey of solutions to coverage challenges, drafted in collaboration between RSPG and BEREC
- Will be considered in parallel by BEREC and RSPG Plenaries
- Public consultation will follow

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**Coffee break!**

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## **Good Offices**

**Eric Fournier**

RSPG co-rapporteur (France)

**Mindaugas Zilinskas**

RSPG co-rapporteur (Lithuania)

## Interference from Italy

Italy made significant efforts to reduce TV interference

Outstanding issue with FM interference.

### Next steps

- Ensuring “no interference” solution in current TV cross border negotiation for the 700 MHz band
- Actions from Italy is needed to plan FM and to control interference in this band

## **Good offices for the 700 MHz band**

Survey of national plans and cross-border coordination shows good progress overall ... but deadline of 31<sup>st</sup> December is approaching

Next steps:

- 3<sup>rd</sup> Questionnaire results
- Cyprus has requested EU assistance regarding coordination with Turkey
- Hot areas” with countries outside EU : Albania, Russia, South of Mediterranean ...
- Need in some cases for a transition plan to reduce interference





## Proactive identification of coordination issues



Q7status of coordination

a .....>

b .....>

c ~~~~~

d .....>

e <.....>

f <====>

g <====>

objection —|

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## **5G Second Opinion and next steps**

**Bo Andersson**

RSPG co-rapporteur

**Tassos Lyratzis**

RSPG co-rapporteur

## **5G: scope of activity**

Develop a strategic roadmap towards 5G for Europe, focused on the services and goals.

Including:

- Making the benefits of 5G available to all
- System architecture and technologies
- Spectrum related challenges (e.g. sharing)
- Assessing frequency bands for 5G

## **A strategic roadmap towards 5G for Europe**

The strategic roadmap aims to facilitate the launch of 5G on large scale by 2020

Ensuring that the benefits of 5G-based services are available to all European citizens

The vision being that 5G will drive industrial and societal transformation and economic growth in Europe from 2020 and beyond

## **Early Opinion on 5G adopted in late 2016**

An early opinion to guide European Commission and industry on 5G bands:

- 3.4-3.8 GHz the first primary band for 5G (capacity for new services in urban areas)
- 5G can use existing EU harmonised mobile bands, in particular 700 MHz (enabling coverage)
- 26 GHz the pioneer mm band in Europe (enabling innovative new services)

## **Opinion on strategic regulatory issues**

Supplementary Opinion will focus on strategic issues related to spectrum regulation of 5G networks. We considered:

- Areas set out in first Opinion
- Relevant issues brought up in the public consultation
- Other relevant areas from an RSPG perspective

## **Opinion on strategic regulatory issues**

- Sharing issues
- Authorisation models
- The challenge of 5G coverage
- Relevance of 5G to IoT, ITS and verticals
- Ultra-dense networks considerations
- Long term 5G mm-wave frequency bands



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**Philip Marnick**

Chair, Radio Spectrum Policy Group

**Jonas Wessel**

Vice-Chair, Radio Spectrum Policy Group

## **RSPG Work Programme**

Work Programme for 2016-18 is near conclusion; new Work Programme for 2018-20 will be developed in the coming months

An opportunity to look forward beyond current policy initiatives:

- Further work on current areas e.g. 5G
- New work items: what are the key strategic questions for spectrum policy in the next 5-10 years?

## **RSPG Work Programme**

Next steps:

- Draft to be prepared by Chair and Vice-Chair
- Discussion at RSPG Plenary
- Public consultation towards the end of the year
- Adoption in February 2018

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## **Wrap up**

**Philip Marnick**

Chair, Radio Spectrum Policy Group

**Thank you for coming today**

Next steps:

Rapporteurs to reflect on today's input

Further written submissions welcome (but not required) to [cnect-rspg@ec.europa.eu](mailto:cnect-rspg@ec.europa.eu)

RSPG news <http://rspg-spectrum.eu/>