

The logo for the Radio Spectrum Policy Group (RSPG) features the acronym 'RSPG' in a bold, orange, sans-serif font. The letters are contained within a white, rounded rectangular shape that has a subtle gradient and a slight shadow, giving it a three-dimensional appearance. This logo is positioned in the upper left corner of the slide, overlapping a decorative background of horizontal lines in shades of blue and white.

RSPG

RADIO
SPECTRUM
POLICY GROUP

RSPG Second Stakeholder Workshop: Update on the Work Programme for 2016 and beyond

Brussels, 3 October 2016

The logo for the Radio Spectrum Policy Group (RSPG) features the acronym "RSPG" in a bold, orange, sans-serif font. The letters are contained within a white, rounded rectangular shape that has a subtle gradient and a slight shadow, giving it a three-dimensional appearance. The background of the slide is a horizontal band with a red and orange flame-like pattern at the top, transitioning into a blue and white wavy pattern below.

RSPG

RADIO
SPECTRUM
POLICY GROUP

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

- This aims to address issues of current 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

Work areas and rapporteurs

Framework Review	Emília Ulelay (Hungary) Didier Chauveau (France)
Digital Single Market: spectrum strategy	Christiane Seifert (Germany) Aleksander Sołtysik (Poland) Chris Woolford (UK)
5G	Bo Andersson (Sweden) Tassos Lyratzis (Greece)
Intelligent Transport Systems	Erika Forsberg (UK)
Internet of Things	Oli Bird (UK) Fokko Bos (NL)
PMSE	Franz Ziegelwanger (Austria)
WRC-19	Alexander Kühn (Germany)
Good Offices	Eric Fournier (France) Mindaugas Zilinskas (Lithuania)

Agenda

1. 5G – spectrum roadmap and next steps
2. Framework Review proposals
3. RSPG Peer Review of spectrum awards
4. Internet of Things and Intelligent Transport
5. PMSE
6. Good Offices

Agenda

1. 5G – spectrum roadmap and next steps
2. Framework Review proposals
3. RSPG Peer Review of spectrum awards
4. Internet of Things and Intelligent Transport
5. PMSE
6. Good Offices

5G – spectrum roadmap and next steps

Bo Andersson

RSPG co-rapporteur (Sweden)

Tassos Lyratzis

RSPG co-rapporteur (Greece)

5G: scope

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

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: process

A priority area for RSPG: expedited timetable

An early opinion will be input to European Commission and guide industry generally

Public consultation –open for six weeks during the summer

Second more detailed opinion to follow

Early Opinion of RSPG on strategic roadmap for 5G in Europe

3.4-3.8 GHz primary band: ready for use now and can put Europe at the forefront of 5G deployment

5G will need to be deployed below 1 GHz, particularly in 700 MHz, to enable nationwide and indoor 5G coverage

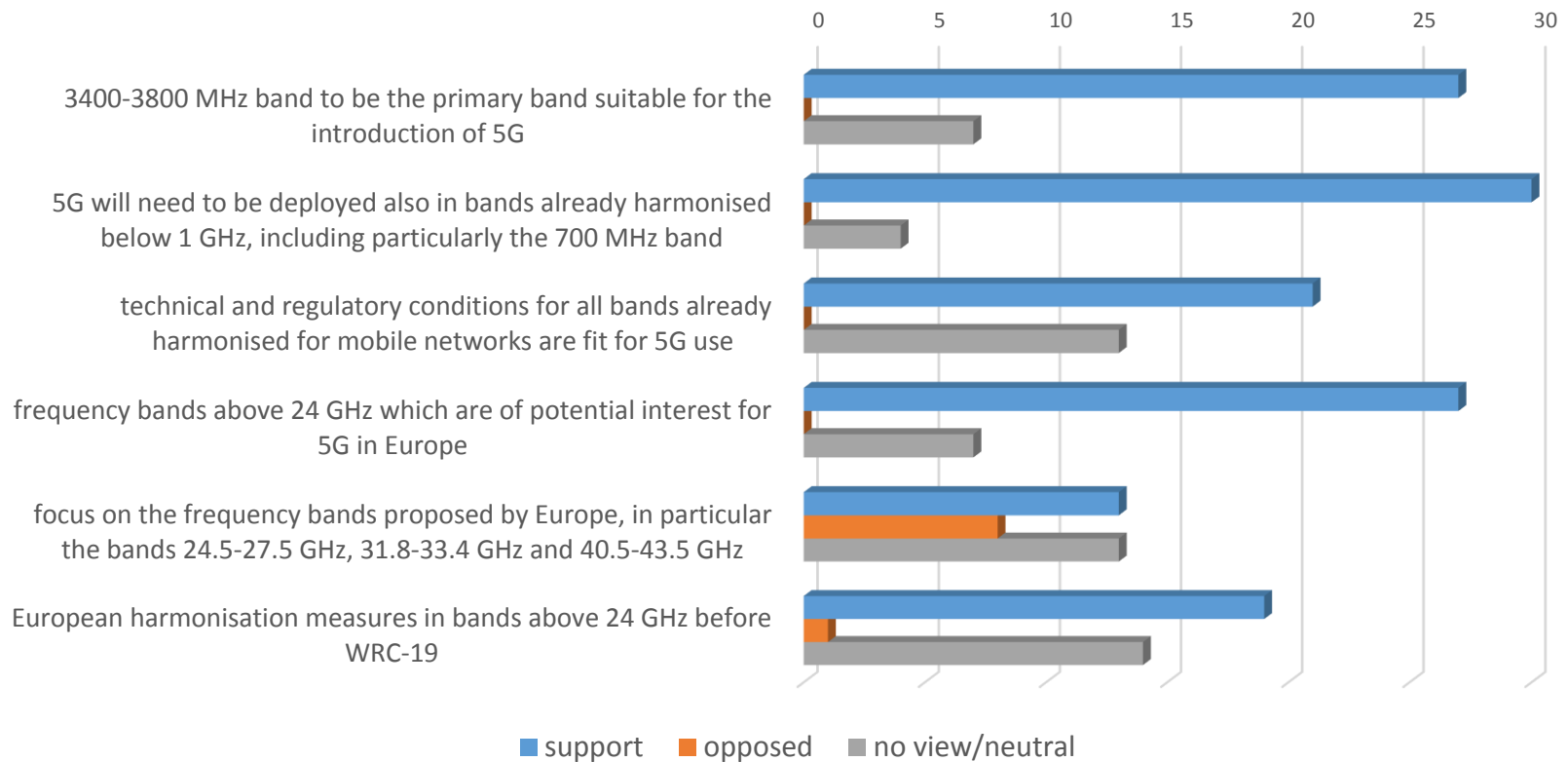
Ensure all mobile bands ready for 5G

Early Opinion of RSPG on strategic roadmap for 5G in Europe

Identify bands above 24 GHz – and narrow this down

The work has focused on bands proposed by Europe, in particular the bands 24.5-27.5 GHz, 31.8-33.4 GHz and 40.5-43.5 GHz

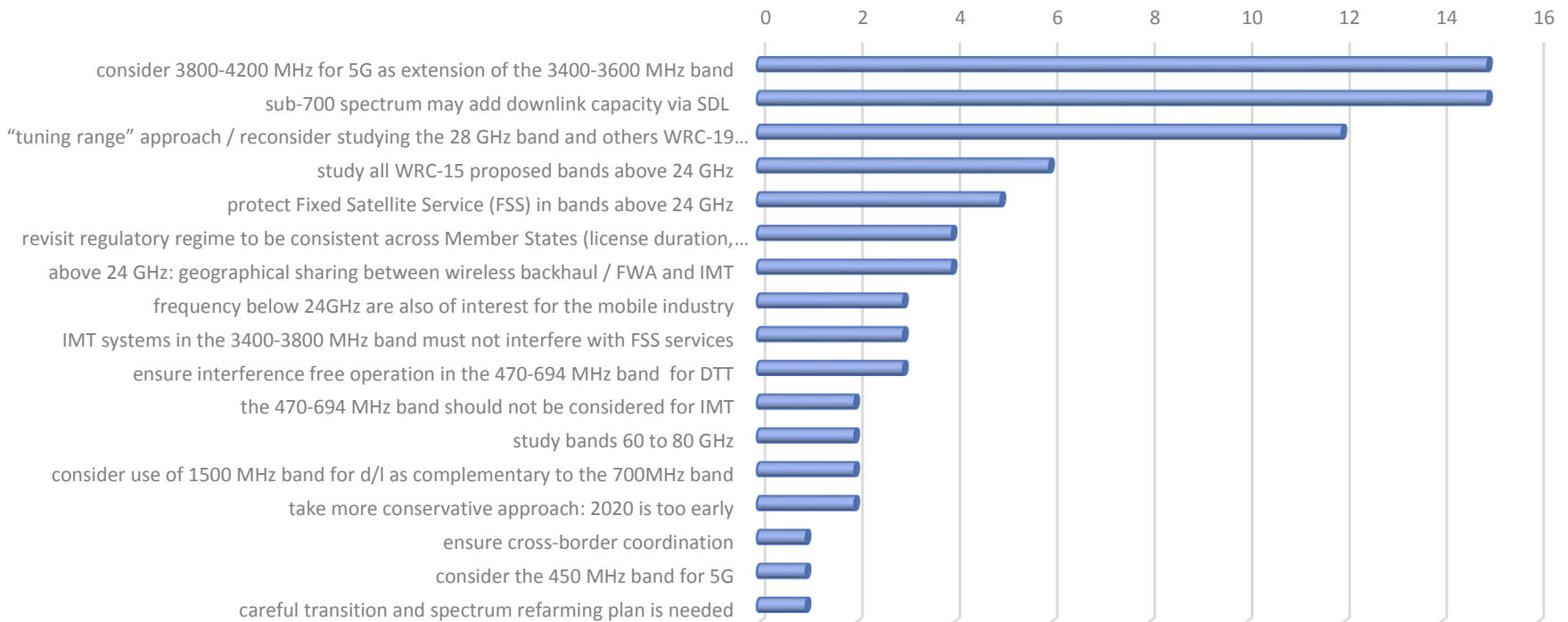
Consultation Responses Summary



Industry support expressed in public consultation regarding bands above 24 GHz

26 GHz		32 GHz		42 GHz	
<i>Mobile/Telecom Operators</i>	Support by 5 answers	<i>Mobile/Telecom Operators</i>	Support by 4 answers	<i>Mobile/Telecom Operators</i>	Support by 2 answers
<i>Vendors</i>	Support by 7 answers	<i>Vendors</i>	Support by 2 answers	<i>Vendors</i>	Support by 4 answers
<i>Satellite Operators</i>	-	<i>Satellite Operators</i>	Support by 3 answers	<i>Satellite Operators</i>	-
Total Support	12		9		6

Consultation further proposals



Way forward

Finalise and publish the early opinion

Continue the work on a strategic roadmap towards 5G for Europe by focusing on a subsequent detailed opinion and elaborating on the implementation of the early opinion

Agenda

1. 5G – spectrum roadmap and next steps
2. **Framework Review proposals**
3. RSPG Peer Review of spectrum awards
4. Internet of Things and Intelligent Transport
5. PMSE
6. Good Offices

Framework Review proposals

Emília Ulelay

RSPG co-rapporteur (Hungary)

Didier Chauveau

RSPG co-rapporteur (France)

Framework Review proposals

RSPG report on results of EC public consultation
(RSPG 16-022 June 16)

- Spectrum Policy: also beyond ECS
- Current regime for technical harmonisation
- Wireless connectivity and broadband
- Cross border coordination and “good offices”
- ETSI and CEPT: a key asset for Europe
- RSPG’s Role and increased cooperation

Framework Review proposals

The package of proposals focused on 5G and connectivity has many ramifications for spectrum policy and management.

Not just the Framework, but a new BEREC regulation, and 5G and WiFi proposals.

RSPG has welcomed the Digital Single Market initiatives and will support the spectrum discussions with expert advice, now that proposals are published.

Framework Review: next steps

Initial meeting last week examining the spectrum related aspects, in particular:

- Scope
- General Authorisation / Spectrum rights of use
- Sharing
- Cross-border co-ordination
- International negotiations
- Peer review process
- Role of RSPG

Q&A to continue; next steps to be defined.

Agenda

1. 5G – spectrum roadmap and next steps
2. Framework Review proposals
3. **RSPG Peer Review of spectrum awards**
4. Internet of Things and Intelligent Transport
5. PMSE
6. Good Offices

RSPG Peer Review of spectrum awards

Chris Woolford

RSPG co-rapporteur (UK)

Chris Seifert

RSPG co-rapporteur (Germany)

RSPG Peer Review of spectrum awards

RSPG establishing a peer review mechanism for spectrum awards

- library mechanism allowing Member States to post and share relevant information
- peer review function to facilitate collaboration between experts

Mechanism to be developed in line with plans for future awards

Agenda

1. 5G – spectrum roadmap and next steps
2. Framework Review proposals
3. RSPG Peer Review of spectrum awards
4. **Internet of Things and Intelligent Transport**
5. PMSE
6. Good Offices

Internet of Things and Intelligent Transport

Oli Bird

RSPG co-rapporteur for IoT (UK)

Internet of things

For the foreseeable future there is no scarcity of spectrum for IoT; growth of IoT will create increased demand depending on use cases.

Focus on sharing with SRD, mobile and WAS/RLAN in 5 GHz bands: Europe can benefit from economies of scale. Intervention not needed, but co-ordination is helpful.

A roadmap will be proposed to focus Member States on particularly useful bands.

Intelligent transport: Road

30 MHz (5875-5905 MHz) designated as core band for safety-related ITS: fundamentally important to continued development and deployment, but not exclusively for ITS

Keep option open for ITS in adjacent 2x20 MHz

Important to take account of potential ITS in these bands when considering introducing new services in adjacent bands

Intelligent transport: Rail

Support for the existing harmonised arrangements for GSM-R; longer term need for industry to consider spectrum

A wide range of options for the future, but suitability varies across Member States

It is for rail operators to take these forward with their relevant national administration, but Member States may want to cooperate in particular in relation to border areas

Agenda

1. 5G – spectrum roadmap and next steps
2. Framework Review proposals
3. RSPG Peer Review of spectrum awards
4. Internet of Things and Intelligent Transport
- 5. PMSE**
6. Good Offices

The logo for the Radio Spectrum Policy Group (RSPG) is located in the top left corner. It features the letters 'RSPG' in a bold, orange, sans-serif font. The text is set against a white, rounded rectangular background that has a subtle gradient and a slight shadow, giving it a three-dimensional appearance. The background of the slide is a vibrant, abstract composition of red and orange flames at the top, transitioning into a blue and white pattern of horizontal lines and a curved white shape on the left side.

RSPG

RADIO
SPECTRUM
POLICY GROUP

PMSE

Franz Ziegelwanger
RSPG rapporteur (Austria)

PMSE: scope

Long-term strategy with regard to future PMSE spectrum requirements.

In particular:

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

PMSE: specific points

Looking to 2020 and beyond, including 700 MHz developments and technical developments

Innovative sharing approaches (e.g. geo-location, higher frequency ranges)

“Roadmap” with principles and best practice approaches

PMSE: work plan

Audio and video PMSE separate items

Follow ongoing processes and possible steps towards LSA

Review in light of CEPT or LSA solutions; look into possible ETSI activities

Stakeholder involvement

Draft Opinion foreseen in June 2017

Agenda

1. 5G – spectrum roadmap and next steps
2. Framework Review proposals
3. RSPG Peer Review of spectrum awards
4. Internet of Things and Intelligent Transport
5. PMSE
6. **Good Offices**

The logo for the Radio Spectrum Policy Group (RSPG) features the acronym 'RSPG' in a bold, orange, sans-serif font. The letters are contained within a white, rounded rectangular shape that has a subtle gradient and a slight shadow, giving it a three-dimensional appearance. This logo is positioned in the upper left corner of the slide, overlapping a decorative background that includes a red and orange flame-like pattern at the top and a blue and white wavy pattern below.

RSPG

RADIO
SPECTRUM
POLICY GROUP

Good Offices

Eric Fournier

RSPG co-rapporteur (France)

Good Offices assisting in interference cases

Has been focused on Italy and its neighbours:

- broadcasting interference
- enforcement issue in Italy for broadcasting

Context of the Article 28 of the proposed EC code

Next steps

- RSPG Report on the application of the good offices since 2012
- To monitor the switch-off of Italian interfering transmitters. November?

Extending this work to the 700 MHz band

A more proactive role of Good Offices

Context of the draft EU Decision on the 700 MHz band:

- National roadmap
- Cross-border agreement

Next steps:

- Questionnaire to gather information needed to flag potential cross-border issues

The logo for the Radio Spectrum Policy Group (RSPG) features the acronym 'RSPG' in a bold, orange, sans-serif font. The letters are contained within a white, rounded rectangular shape that has a subtle gradient and a slight shadow, giving it a three-dimensional appearance. The background of the slide is a horizontal band with a red and orange flame-like pattern at the top, transitioning into a blue and white wavy pattern below.

RSPG

RADIO
SPECTRUM
POLICY GROUP

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

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