

UK SPF PLENARY

Wednesday 24 July 2024

14:00 – 16:00

Housekeeping

- This session is held under Chatham House rule – please do not record this session
- Slides will be shared with speakers' permission
- Unless you are a speaker, please keep yourself on mute and your camera off

Plenary Agenda

14:00 – 14:10	Intro & keynote speakers	Abhaya Sumanasena, UK SPF & Real Wireless
14:10 – 14:40	Report Launch: Exploring a new framework for defence spectrum sharing in the UK	Manuel Rascado-Marti, LS telcom
14:40 – 15:30	Panel session: Requirements for sharing Public Spectrum	Abhaya Sumanasena, UK SPF Chairperson (CHAIR) Manuel Rascado-Marti, LS telcom Venkatesh Ramaswamy, MITRE Martin Brock, Shure Ian Taft, MoD
15:30 – 15:35	Steering Board update	Luigi Ardito, Steering Board Chair and Qualcomm
15:35 – 15:55	Cluster Chair updates	UK SPF Cluster Chairs
16:55 – 16:00	AOB and Close	Abhaya Sumanasena, UK SPF & Real Wireless

Intro & Welcome

Dr Abhaya Sumanasena, Real Wireless & UK
SPF Chair

UK SPF Steering Board update

Luigi Ardito, UK SPF Steering Board Chair and
Qualcomm

UK SPF Steering Board update – Luigi Ardito, SB Chair

- Update on research projects
 - Upcoming study on AI for spectrum management
- Suggestions for possible research projects
 - Currently on file:
 - Sharing between satellites and terrestrial systems
 - International developments in spectrum for 6G
 - Future of TV distribution
 - Co-channel operations in MSS bands
- Discounted Membership fee
 - New large members joining the Steering Board will be able to take advantage of the one-off reduced member's fee of £7,500 p.a.
 - The annual membership fee for SMEs is £3,000 p.a.

Update from Cluster 1

Manuel Rascado-Marti, UK SPF Cluster 1 and LS telcom

UK SPF Cluster 1 Update

Future Demand for indoor connectivity–17 September

- Holistic approach: WiFi, cellular and broader landscape of wireless technologies

Future Demand for Critical Comms– Date TBC (November/December)

Update from Cluster 2

Bob Stewart, UK SPF Cluster 2 & University of Strathclyde

- Event Report from “6G Futures”
- Next Event Update

4th July 2024

Inter-Academy International Workshop on Future Communications and 6G

Inter-Academy International Workshop on **FUTURE & 6G** COMMUNICATIONS

24-25 JUNE 2024



SCAN FOR PROGRAMME

HOSTED BY:



University of
Strathclyde
Glasgow

Technology and Innovation Centre
University of Strathclyde,
Glasgow, Scotland

Co-Sponsors & Supporters



- SPF
- ScotGov
- UKRI
- IEEE Futures
- City Council
- Univ of Strath
- Univ of Glasgow
- Scotland 5G

International Academies Supporting



Supporting internationalisation:

- Indian Academy of Engineering
- US National Academy of Engineering
- Royal Swedish Academy of Eng Sciences
- Canadian Academy of Engineering
- Korean Academy of Engineering
- Royal Society of Edinburgh
- Royal Academy of Engineering

Presentation and Event Format

- Two day event at Technology and Innovation Centre, Glasgow
- 10 Panel and Review Sessions, over 2 full days
- Co-Sponsored by SPF, with SPF Hosted Panel Session
- 64 invited panelists presenters & 58 additional invites and sign-ups
- Attendees from 14 countries
- SPF/TechUK shared all session live on Teams
 - Peak Audience 75 on-line
 - Average Audience around 40-50
- 8 x Univ (local) R&D Teams Popup Exhibits at Coffee/Lunch Areas
 - Univ of Strathclyde, Univ of Glasgow, Heriot-Watt University, Fraunhofer, Univ of West of Scotland



General Workshop Objectives:

- To identify future directions of growth in future wireless systems
- To explore new network architectures, protocols and technologies relevant to the next generation of mobile communication systems
- To document opportunities for international R&D collaboration.

Workshop Sessions:

Monday 24th June 2024

10:00-10:05	Welcome – and Opening Comments
10:10-10:45	Session 1: Messages from Academy Presidents
10:45-11:45	Session 2: UK Telecom Activities and Strategies for 6G
11:45-13:00	Session 3: International 6G Strategies and Use Cases
14:15-15:30	Session 4: Industry Influencers Forum I
16:00-17:15	Session 5: SPF: Future Policies Framework and Spectrum Requirements Panel

Tuesday 25th June 2024

9:15-10:30	Session 6: Engineering Academic Influencers Panel
11:00-12:15	Session 7: Standards Forum
12:15-13:00	Session 8: Industry Influencers Forum II
14:00-15:30	Session 9: International Research Funding Agencies Panel
16:00-16:30	Session 10: Wrap Up Roundtable

SPF Session: Future Policies Framework and Spectrum Requirements

Session 5: Future Policies Framework and Spectrum Requirements Panel

Panelists:	David Willis	<i>Group Director for Spectrum OFCOM (UK)</i>
	Robert Stewart	<i>University of Strathclyde (UK)</i>
	Monisha Ghosh	<i>University of Notre Dame (USA), Former CTO FCC</i>
	Mark Waddell	<i>Lead R&D Engineer, BBC R&D (UK)</i>
	David Lister	<i>6G Research Lead Vodafone Group (UK)</i>
	Ed Tiedemann Jr	<i>Senior VP Engineering and Qualcomm Fellow, Qualcomm Technologies, Inc (USA)</i>
Moderators:	Abhaya Sumanasena	<i>UK Spectrum Policy Forum (UK)</i>
	Ashutosh Dutta	<i>Johns Hopkins University (USA)</i>

In a Session organised by the UK Spectrum Policy Forum (SPF), the panelists will consider the spectrum requirements of 6G and consider some of the future policies and frameworks that could support the needs of this next generation. Although 6G will use many of the higher bands including mmWave, and THz and LiFi, the low and mid bands (from 450MHz to 6GHz) will also remain essential for wide area coverage in licensed and unlicensed bands. Further the evolution and growth of shared spectrum strategies will bring new opportunities and opportunities for international collaboration.

Future Policies framework and spectrum requirements, Inter-Academy International Workshop on Future Communications and 6G

Moderators

Dr. Abhaya Sumanasena
Chairman ,UK Spectrum Policy
Forum (UK)



Ashutosh Dutta
Johns Hopkins University
Applied Physics
Laboratory (JHU/APL),
Founding Co-Chair, IEEE
Future Networks



Panelists



David Willis,
Group Director
for Spectrum
OFCOM (UK)



David Lister,
6G Research Lead
Vodafone Group
(UK)



Ed Tiedemann Jr,
Senior VP Engineering,
Qualcomm
Technologies, Inc (USA)



Mark Waddell,
Lead R&D
Engineer, BBC R&D
(UK)



Monisha Ghosh,
University of Notre
Dame (USA), Former
CTO FCC



Robert Stewart,
University of
Strathclyde (UK)

SPF Session: Future Policies Framework and Spectrum Requirements



Next Steps

- All 10 Sessions were recorded on Teams and being transcribed
- An Event Digest will be written and 'published' based on
 - Edited content from the transcribe Teams Sessions
 - Additional input and edits from all session chairs
 - Additional input and approvals/comment from all panel members
- This "6G Futures" Digest planned for publication in Sept/Oct 2024
- Distribution/Publish portals of report proposed from TechUK/SPF & others (tbc)
- Plans for a followup event in 12-18 months ... in discussion!



Welcome from President of Royal Academy of Engineering

SPF Session



Opening Session



Session 4: Industry Influencers: Ericsson, BT, Qualcomm, Dell Microsoft Azure, Notre Dame



Scottish Govt Minister Visit





Cluster 2 Next Event

- University-Industry Collaborative Bridge 6G Spectrum Workshop
 - End of Q3 2024 Target Sept 2024
 - In person option at TechUK (London)
 - Also live on-line via Teams
 - 24 invited presentations
 - Open invitation for UK presentations
 - International keynote speakers (x2)
- 2025 – Support for IEEE DySpan in UK

Collaborative Bridge 6G Spectrum Workshops Objectives:

Platform for UK academic 'spectrum' R&D sector to engage/partner:

- Help link industry/academic collaborative work / partnerships
- Support internationalisation for collaborative activities
- Provide platform for policy makers & regulators to engage
- Spectrum (licensed, unlicensed, shared) always on the agenda

Scope and Objectives:

- Help UK univs make their research widely known to policy makers.
- Promote opportunities for collaboration between univs working on the same or similar problems, and between univs & industry
- To facilitate timely advice so universities can focus their research in areas where the results are more likely to bear fruit
- Endeavour to solve important problems facing the government, Ofcom and the industry (e.g. wireless infrastructure strategy)
- To help promote internationally the best of UK university research
- Be inclusive!

Update from Cluster 3

Tony Lavender, UK SPF Cluster 3 and Plum Consulting

Cluster 3 Plenary update July 2024

- SAL Forum

- The next SAL Forum is likely to run around end October / early November. Likely scope could be:
 - Interim outputs from Spectrum Sandbox activity
 - Ofcom output from Call for Inputs on evolution of the SAL framework

- Other Cluster 3 activity for 2024/25:

- Continue with work on aspects of spectrum sharing.
- Workshop on value of spectrum (after 26 GHz auction concludes).
- Value of shared spectrum.
- Collaborate on ideas on modernisation of spectrum management.

Update from Cluster 4

Kumar Singarajah, UK SPF Cluster 4 and Euroma

Cluster 4 Update

Kumar Singarajah

ITU-R activities in inter-alia ITU-R SG-4 (WP-4B/WP-4A on 'satcom') and SG-5 (WP-5D on mobile / IMT) in late April / May and late June 2024 respectively – including on relevant preparatory studies for ITU-R agenda items.

CEPT CPG KO meeting in late May 2024. Relevant CPG Project Teams to started work in Q2/Q3 2024.

It was not possible to obtain organise a Cluster 4 Workshop in June / early July 2024 on WRC-27 space / satellite telecom agenda items above 3 GHz. This was due to unavailability of relevant industry speakers.

Envisaged scope of workshops for 2024 / early 2025 as below.

- I. A late Q3 2024 (early September) workshop on WRC-27 space / satellite telecom related agenda items above 3 GHz – if feasible.
- II. [A late Q3 2024 workshop on emergent CEPT ECC / EU RSPC topics on spectrum identification / utilisation trends (including ? 6G)].
- III. A mid Q4 2024 (end October) workshop on WRC-27 sea surface temperature and space weather topics agenda items.
- IV. A late Q4 2024 (early December) event on WRC-27 space / satellite related agenda items below 3 GHz.
- V. A mid Q1 2025 workshop with 2-3 non European NRA or RTO representatives to provide perspectives on key topics for ITU WRC- 27.
- VI. A mid Q2 2025 workshop on WRC-27 AI 1.7 (IMT-2030 etc and 5G/6G including NTN).
- VII. A late Q2 2025 workshop on WRC-27 on space sustainability and lunar exploration items.

AOB & Close

Dr Abhaya Sumanasena, UK SPF Chair