



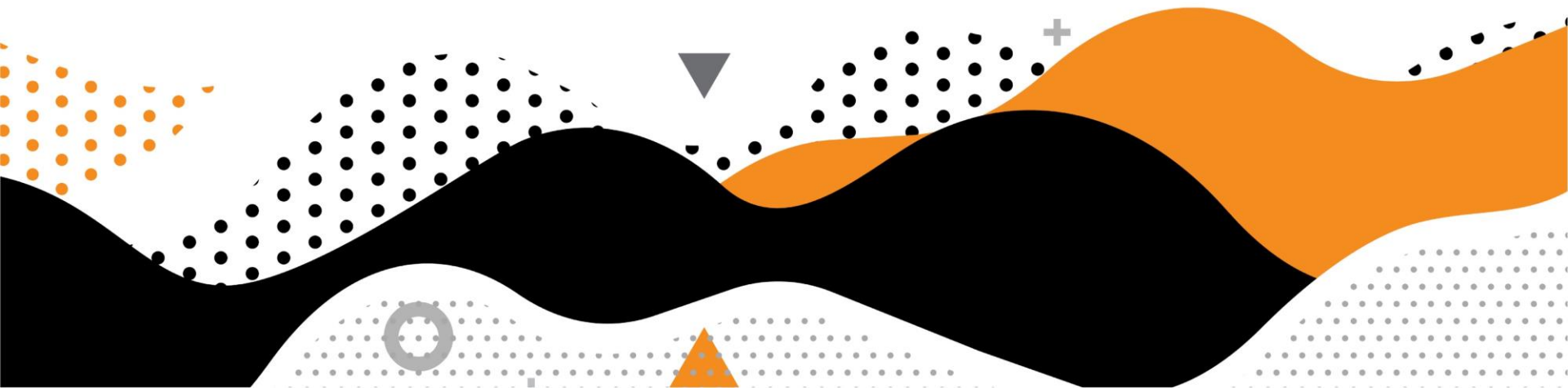
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Innovation, Science and Economic Development Canada **Updates**

Presentation to RABC Quarterly Meeting
June 9, 2022





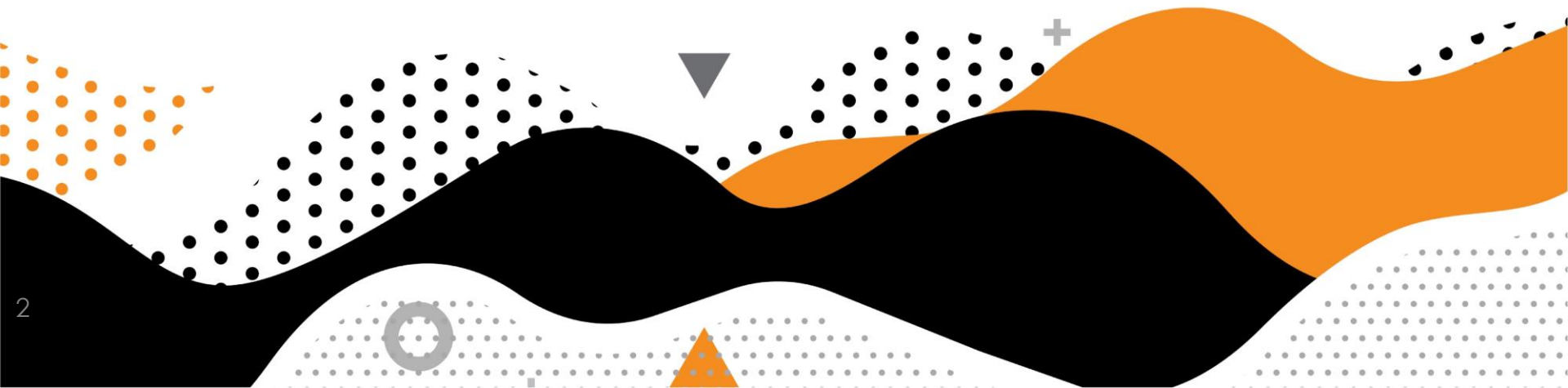
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ISED Spectrum Policy Update

Mark Saunders



New Access Licensing Consultation

- On August 4, 2021, ISED launched the [Consultation on New Access Licensing Framework, Changes to Subordinate Licensing and White Space to Support Rural and Remote Deployment](#)
- Key proposals include:
 - A new supplementary licensing process (Access Licensing framework) for unused spectrum
 - Clarifications to ISED's framework to streamline subordinate licensing approvals, and encourage greater use of these licences to increase use of spectrum
 - Improvements to white space rules
 - Changes to the rural remote broadband system (RRBS) policy framework
- Comment period closed on December 7th, 2021

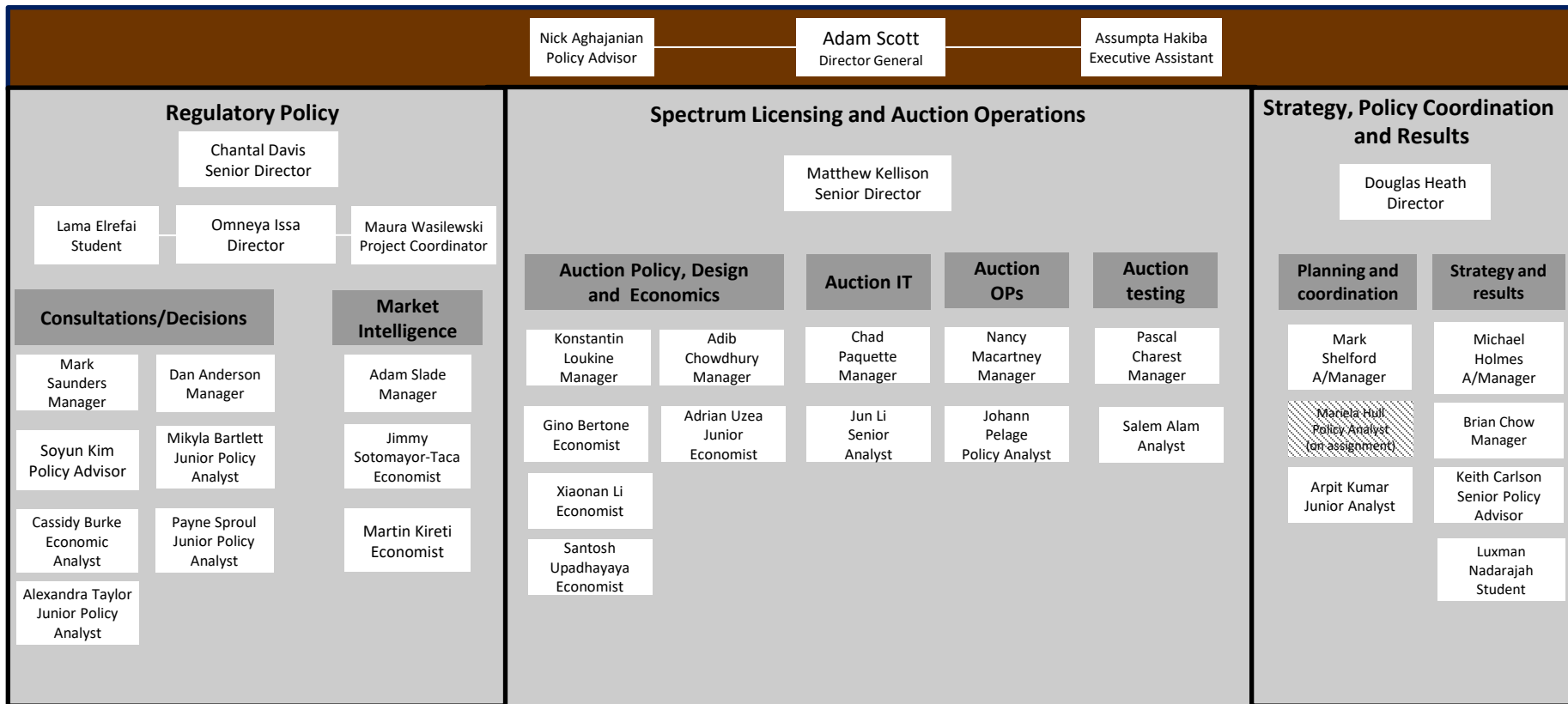
3800 MHz Band Licensing Consultation

- On December 17, 2021, ISED released the [Consultation on a Policy and Licensing Framework for Spectrum in the 3800 MHz Band](#)
- Key proposals include:
 - Options for pro-competitive measures: set-aside, cap, or hybrid
 - Tier 4 licence areas and 20-year licence term
 - Deployment requirements: similar to those from 3500 MHz
 - Auction format and opening bid prices: similar to 3500 MHz
- Comment period closed on February 15, 2022

mmWave

- On June 6th, ISED published its [**Consultation on a Policy and Licensing Framework for Spectrum in the 26, 28 and 38 GHz Bands**](#)
 - Initial comments are due **September 6th, 2022** and reply comments are due **October 7th**
- Key proposals include:
 - Auction 1.6 GHz in the 26/28 GHz bands and 1.6 in the 38 GHz band
 - Additional 200 MHz in 26 GHz band, 50 MHz in the 28 GHz band and 800 MHz in 38 GHz band for future non-competitive licencing process
 - Use of Tier 5 service areas for auction process
 - Also seeking comments on whether some areas should be excluded (e.g. rural or remote)
 - Deployment requirements based on number of stations, as opposed to population
 - Two options, one more ambitious than the other
 - Two options for competitive measures, with request for additional proposals:
 - 1)800 MHz set-aside across 26/28 GHz and 38 GHz bands
 - 2)800 MHz cross-band cap across 26/28 GHz and 38 GHz bands
 - 10 year licence term
 - Refinements on the sharing between satellite and flexible use operations

Spectrum Policy Branch – Organizational Chart





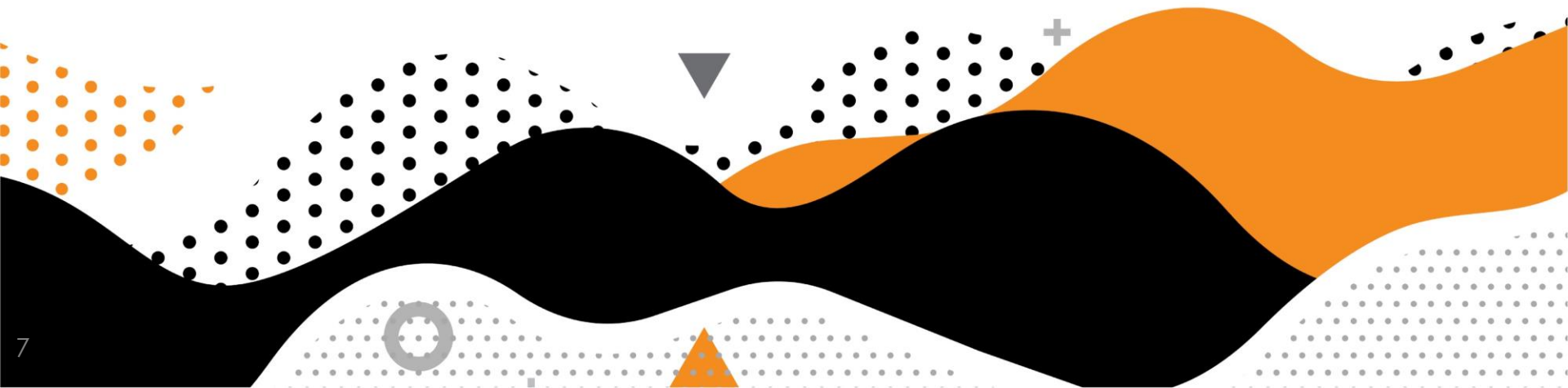
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ISED Operational Update

Matthew Messer, Mylène Quesnel



Spectrum Licensing

- Licence verifications in 2022-2023: FWA, BWA, WCS, and AWS-3.
- Spectrum transitions for 3500 MHz continue with upcoming Round 2:
 - June 17th – Call out for intentions
 - July 18th - Deadline to submit intentions to trigger transitions
 - Aug 1st – Call out for affected licensee intentions
 - Aug 17th – Deadline for affected licensee intentions
 - Sept 2nd – Application call out
 - Oct 17th - Deadline to submit transition applications
 - Dec 16th – End round 2



Broadcasting

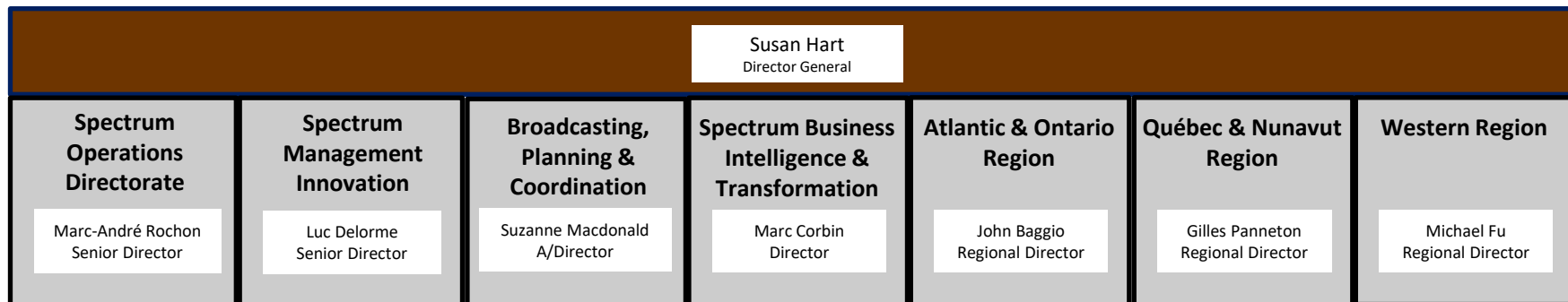
Application submissions for new or modified broadcasting certificates

- We encourage applicants to submit their applications (new and modify) online via our Spectrum Management System (SMS)
- The priority will be given to applications submitted via SMS

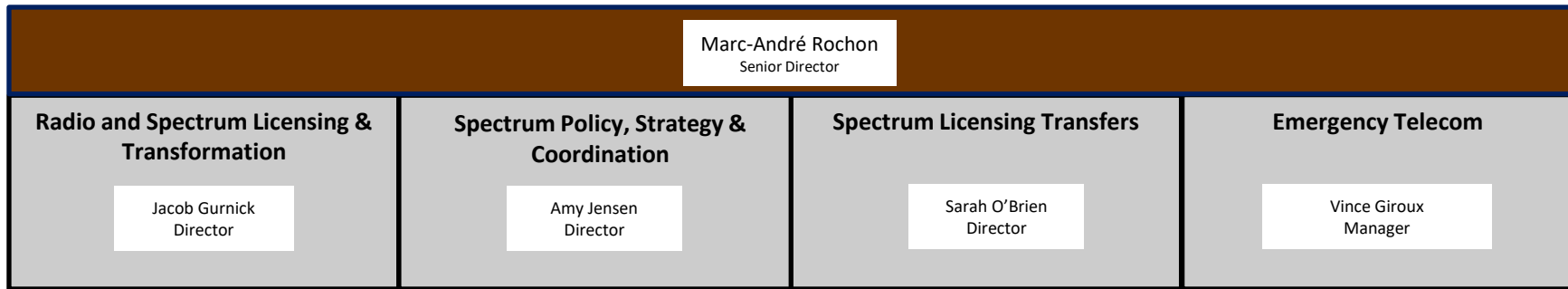
Expiry of Broadcasting Certificates

- Reminder to broadcasters to submit the required information to continue operating for another term.

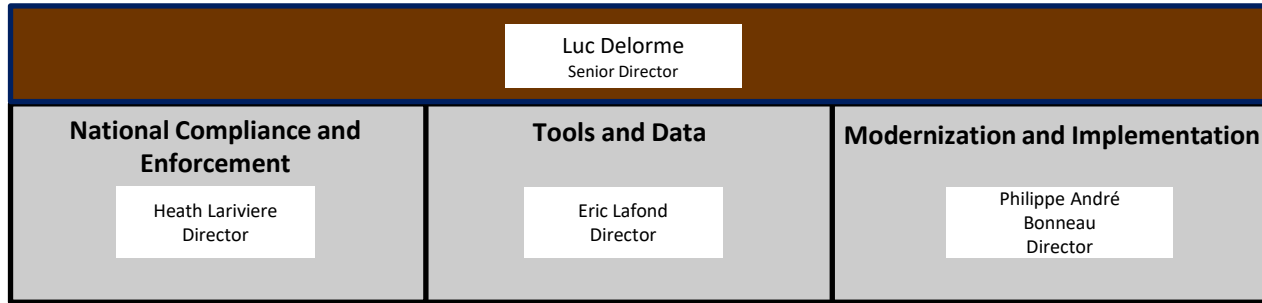
Spectrum Operations Branch (DGSO)



Spectrum Operations (DOS)



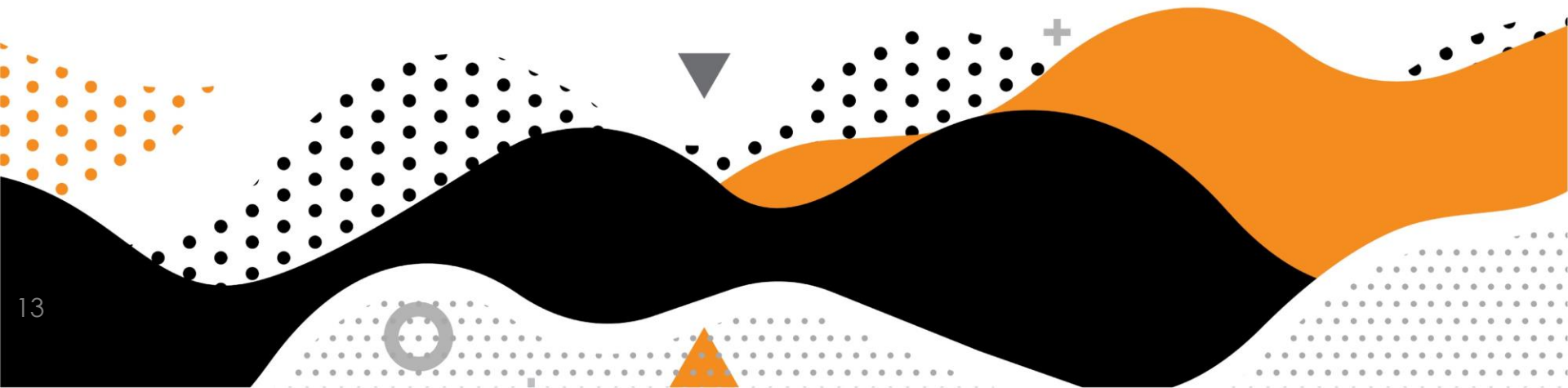
Spectrum Management Innovation





ISED Fixed and Land-Mobile Services Update

Aymen Ben Salem



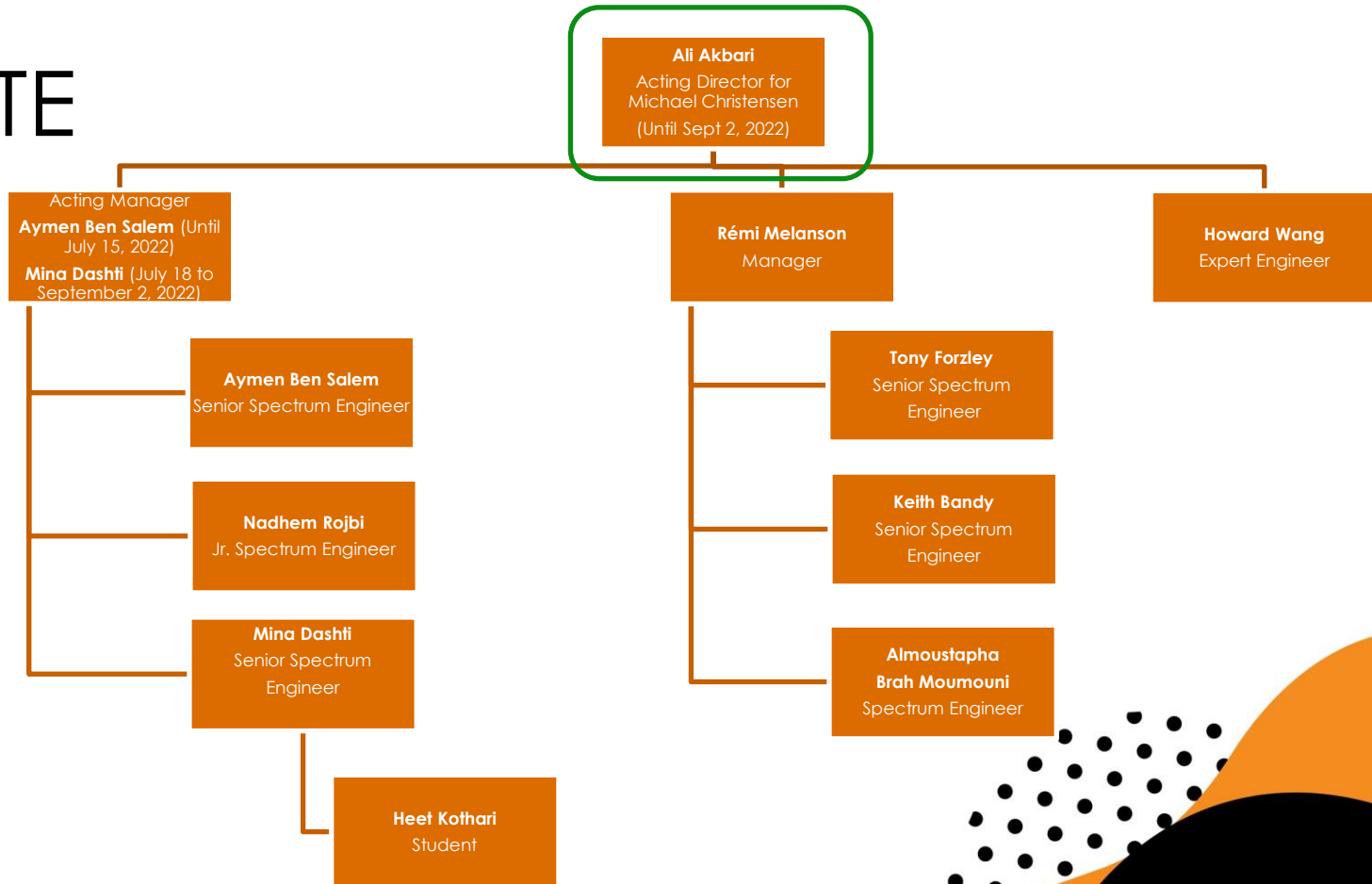
Dynamic Spectrum Access (DSA)

- TV White Space:
 - ISED is currently completing the evaluation of the updated white space database from Red Technologies to assess compliance to DBS-01 Issue 3 rules
 - The approval status of white space databases is shown on our web site: <https://www.ic.gc.ca/eic/site/ceb-bhst.nsf/eng/tt00150.html>
- 6 GHz Licence-Exempt:
 - Current ongoing consultation on DBS-06 Issue 1- Automated Frequency Coordination (AFC) System Specifications for the 6 GHz band
 - DBS-06 provides the rules for AFC systems determining channel availability for licence-exempt standard power RLAN devices, while ensuring the protection of incumbent licenced services
 - Comment deadline is July 15th 2022
 - Daily 6 GHz Data Extract available: https://sms-sgs.ic.gc.ca/eic/site/sms-sgs-prod.nsf/eng/h_00010.html
 - Stations Data Extract
 - Antenna Patterns
 - Passive Reflectors and Repeaters

Standards & Consultations

- Upcoming Consultation:
 - SRSP-300-Gen for backhaul systems to incorporate current informal documentation

DCTE



ISED Space Services Update

Angela Chuang



Consultations/Decisions

- Decision on Updates to the Licensing and Fee Framework for Earth Stations and Space Stations in Canada published May 6, 2022
 - ISED intends to have all necessary documentation and systems ready to issue new spectrum licences and new associated fees take effect by April 1, 2023. If time frame is not possible, licensees will be notified.
- We continue work to support the development of technical rules for 3800 MHz.
- We continue to work towards the development of technical rules for mmWave bands.

Consultations/Decisions (cont'd)

- Radio Altimeters: On Nov 18, we published a Decision on Amendments to SRSP-520, as well as the corresponding SRSP-520 to limit the potential for interference to Radio Altimeters from 5G operation in the 3500 MHz band.
 - Internal studies, lab testing, and discussions with other regulators continue;
 - Obtained information from RA manufacturers/aviation stakeholders and Telcos re operations, and currently developing scenarios for computational analysis;
 - OTA testing completed at the end of May – currently analyzing results;
 - To follow up with RABC WG with updates.

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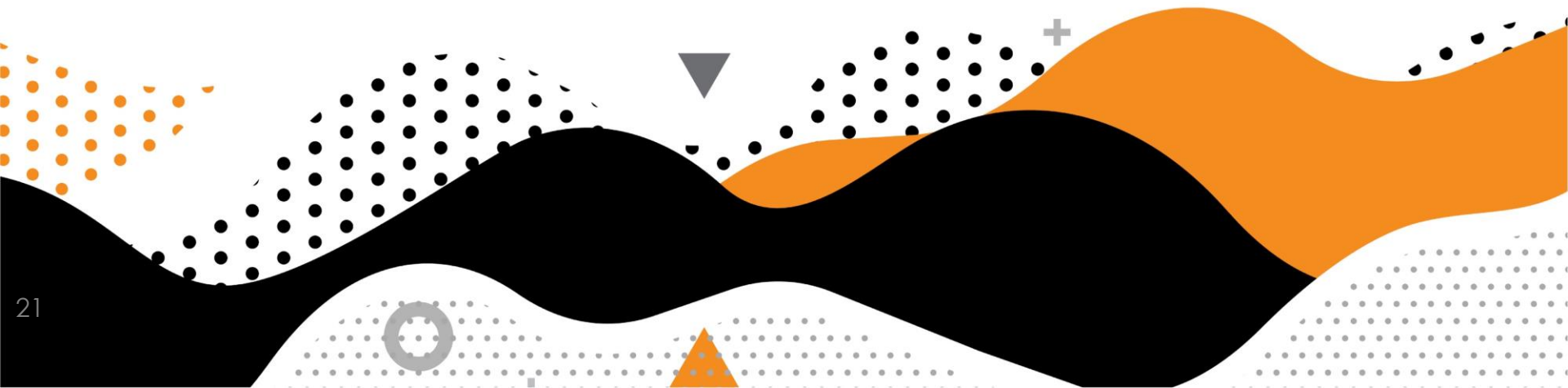
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Satellite
Coordination
Officer

Michel Olivier Ndi
Director,
International
Regulation



ISED Commercial Mobile Service Update

Christine Hsu



Standards – commercial mobile services

- Work continues for changes to sub-6 GHz commercial mobile band SRSPs to include provision for AAS MIMO
 - RABC consultation complete on standards related to the AWS bands (1710-1780 MHz / 2110-2200 MHz). Currently, in the publication process.
- Continue work to support the development of technical rules for the 3800 MHz
- Work on evaluating the compatibility of 3500 MHz / 3800 MHz flexible use systems on 4200-4400 MHz radio altimeters continues
- Work continues on developing standards and rules related to mmWave satellite earth stations (ES) and commercial mobile systems

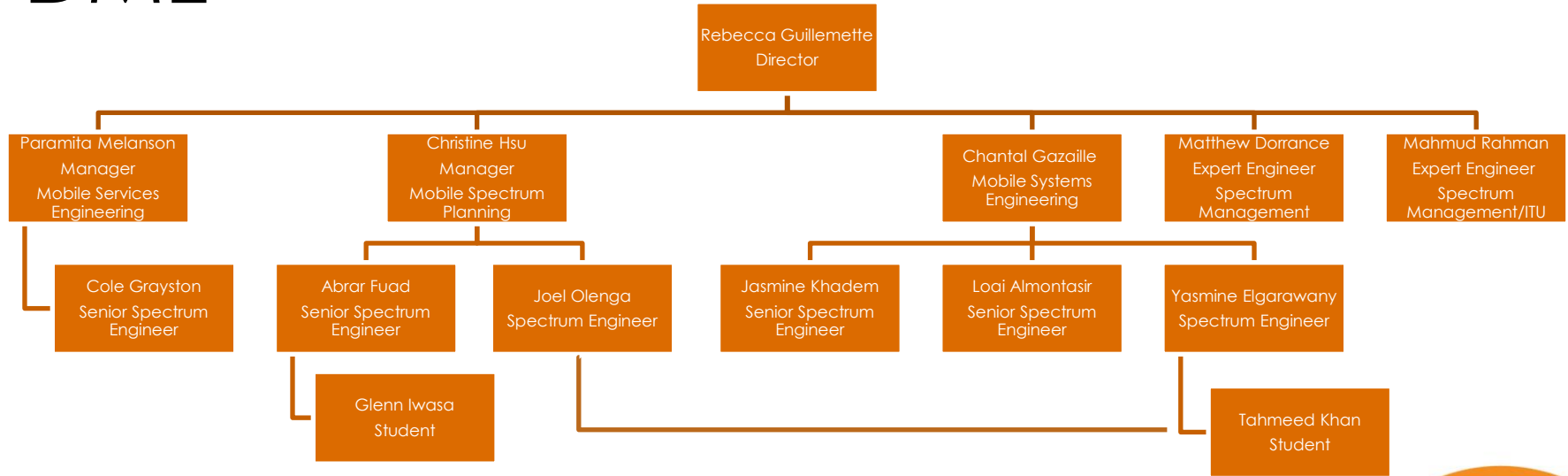
5.9 GHz Public Consultation

- On February 24, 2022, ISED launched the [Consultation on the Technical and Policy Framework for Radio Local Area Network Devices in the 5850-5895 MHz Frequency Band and for Intelligent Transportation Systems in the 5895-5925 MHz Frequency Band](#)
- **ISED sought comments on proposals related to:**
 - i. introduction of RLANs/Wi-Fi in the 5850-5895 MHz range, while retaining 30MHz (5895-5925 MHz) for ITS
 - ii. adoption of C-V2X technology for ITS
 - iii. licensing regime for ITS
- **Comment and Reply Comment periods are now closed**

Next steps

- ISED is reviewing all submissions and will be working towards the publication of its policy decision for the 5.9 GHz band and will be determining other next steps

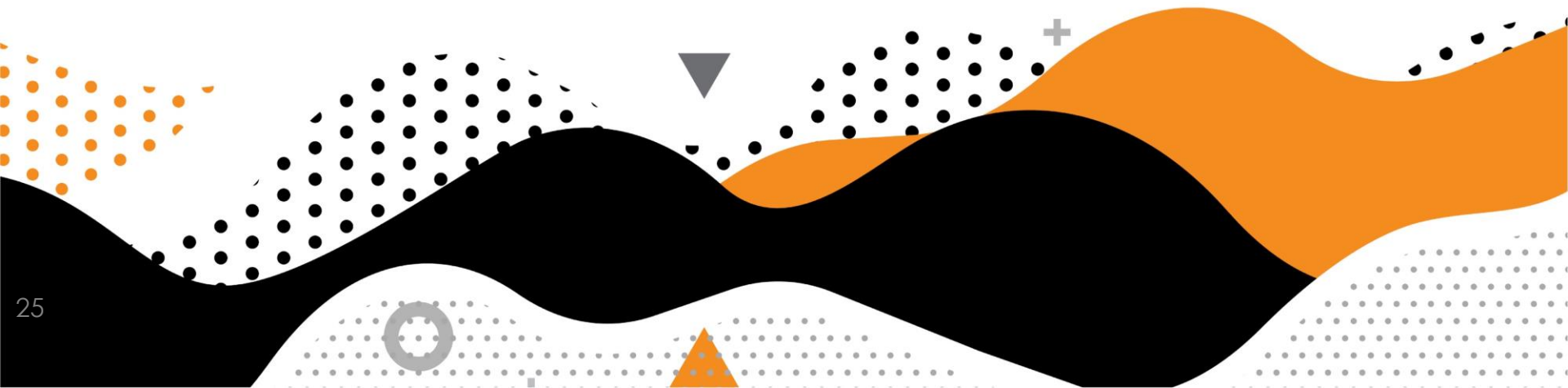
DME





ISED Broadcasting Update

Aymen Ben Salem



Broadcasting

- ATSC 3.0
 - Broadcasting Circular (**BC-22**) will soon be published on ISED's website.
- Technical Standards and Requirements for Radio Apparatus Capable of Receiving Television Broadcasting (**BETS-7**)
 - Work started to modernize the certification procedure and update references with latest international standards
 - Following step will be to initiate consultation with RABC

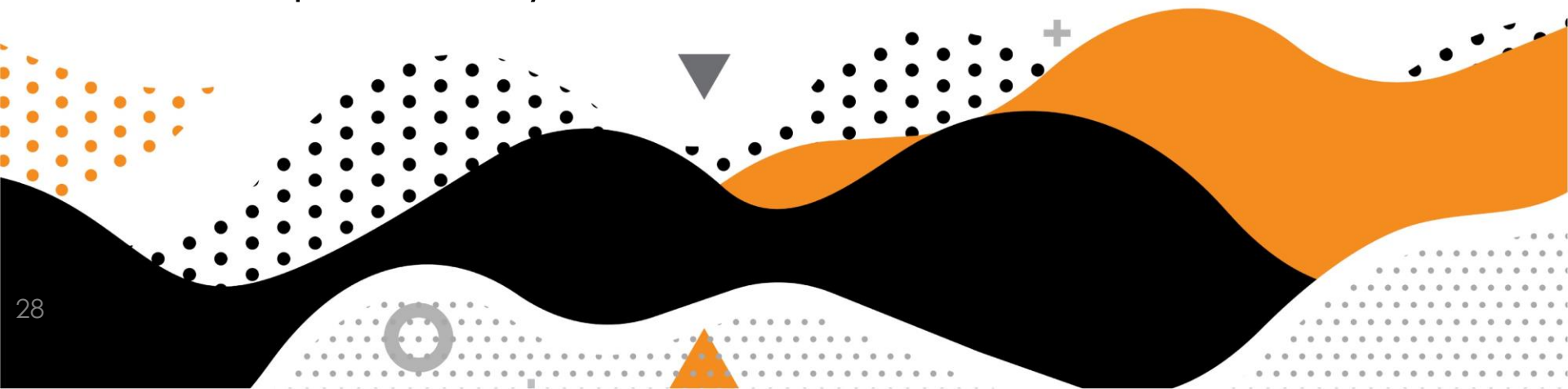
Broadcasting

- HD Radio
 - Draft update to **BPR-3** to regulate In-band on-channel (IBOC) use
 - ISED plans to initiate consultation at the most appropriate time based on RABC and stakeholder feedback
- Publication of broadcasting documents not on website
 - Planning to clean up some older broadcasting documents to meet accessibility and web publication requirements (BETS-4, BETS-5, BTS-1-2, BTS-3, AM agreement)



ISED Regulatory Standards Update

Stephan Meyer



DRS

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Director

Nicolas Gagnon
Manager

RSS-1xx, ICES, Stakeholder Engagement

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Horia Popovici
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Salman Ahmad
Senior Spectrum
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Alain Abou-Zeid
Spectrum Engineer

Nile Coleman-Jones
Student

Yan Losier
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RSS-2xx, Mutual Recognition Agreements

Denys Shumakov
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Nenad Jevtic
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Kelly Hamwi
Senior Spectrum
Engineer

Andrée-Ann Audette
Policy Analyst

Tait Richards
Student

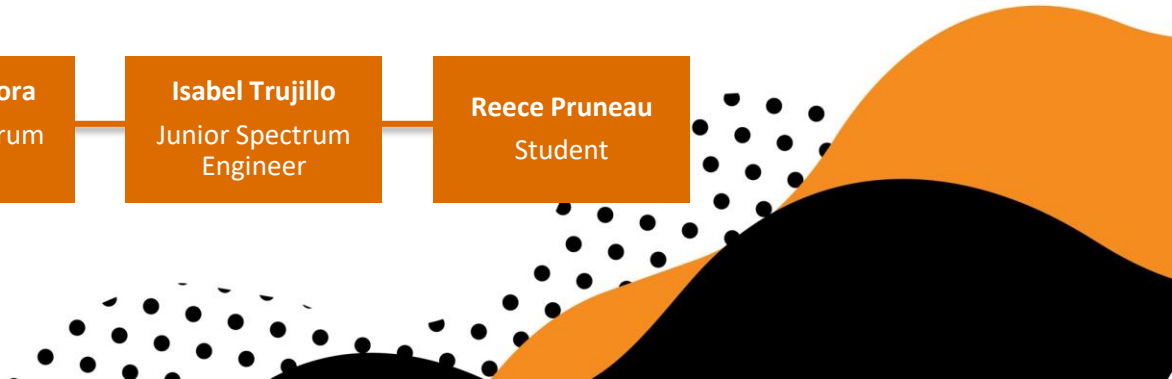
Gréguy Saint-Pierre
Manager

RF exposure compliance & Standards

Frédéric Goora
Senior Spectrum
Engineer

Isabel Trujillo
Junior Spectrum
Engineer

Reece Pruneau
Student



Recent Publications

Document	Notes
RSS-HAC Issue 2, RSS-119 Issue 12 (Amendment)	April 1st, 2022 • Hearing Aid Compatibility and Volume Control – updated references • Land Mobile and Fixed Equipment Operating in the Frequency Range 27.41-960 MHz – corrected / updated references
RSS-287 Issue 2 Amendment 2	May 27, 2022 • Beacons and emergency locators – this standard was modified to update a reference to a National Search and Rescue Secretariat document (NSS-PLB) in section 2.3.6. (at request of Public Safety Canada)
SPR-APD Issue 1	June 2nd, 2022 • Supplementary Procedure for Assessing Specific Absorption Rate (SAR) and Absorbed Power Density (APD) Compliance of Portable Devices in the 6 GHz Band (5925-7125 MHz)

Pending Publications

Document	Notes
SPR-002 Issue 2	Supplementary Procedure for Assessing Compliance with RSS-102 Nerve Stimulation Exposure Limits
RSS-139 Issue 4	Advanced Wireless Services (AWS) Equipment Operating in the Bands 1710-1780 MHz and 2110-2200 MHz – moving certain frequencies from RSS-170 to RSS-139 and introduction of mMIMO and AAS conditions
RSS-170 Issue 4	Mobile Earth Stations (MESs) and Ancillary Terrestrial Component (ATC) Equipment Operating in the Mobile-Satellite Service (MSS) Bands – move out of some frequencies and incorporating conditions from Globalstar decision

Recently Concluded Consultations

Document	Notes
RSS-236 Issue 2 Closed May 17th	General Radio Service Equipment Operating in the Band 26.960 to 27.410 MHz (Citizens Band) – addition of FM modulation
SMSE-005-22 Closed June 3rd	Consultation on the Technical and Policy Framework for the Frequency Bands Above 95 GHz

Documents Currently in Consultation

Document	Notes
ICES-004 Issue 5 Closing date: July 6th	AC High Voltage: Power Systems: Clarify various aspects of the measurement procedure.
RSS-248 Issue 2 Closing date: July 15th	Add new classes of RLAN devices in 6 GHz band: standard-power access points, fixed, and standard client with access requirements through AFC system

Upcoming Consultations

Document	Timeline	Notes (All timelines TENTATIVE)
RSS-131 Issue 4	Spring 2022	Zone enhancers: Improve language related to anti-oscillation requirements; revise noise measurement requirements for fibre connected remote/host DAS zone enhancer systems; revise scope
GL-08 Issue 3	Spring 2022	Guidelines (RF) Exposure Compliance Reports: Add requirements for radar installations and modernize requirements to sync with GL-01 Issue 4
RSS-102 Issue 6	Summer 2022	RF Exposure: Modernize compliance requirements, methods and clarify connection with associated SPRs.
SPR-001 Issue 2	Summer 2022	RF Exposure: Modernize and include procedures for SAR assessment
ICES-Gen Issue 2	Summer 2022	General Requirements for Compliance of Interference-Causing Equipment

Additional Notes

- **Refer to our latest [General Notices](#)**
 - Notices provide timely guidance to the industry and notification of all publications
- **Refer to our list of [Common Q&As](#)**
 - These questions and answers address the most recurrent questions pertaining to Standards and Certification
- **Make use of our [General Inquiry Form](#)**
 - To reach either the Directorate of Regulatory Standards or the Certification and Engineering Bureau



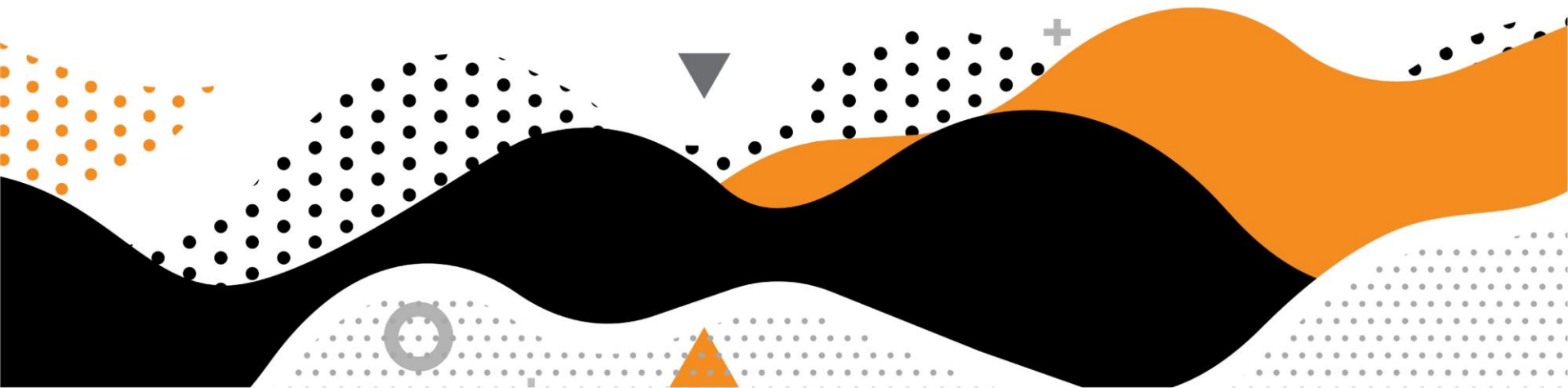
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International Updates

Mahmud Rahman



ITU-R Meetings

- ITU-R started “physical meetings with interactive remote participation” (hybrid format) in April
- ITU-R meetings held since last RABC meeting (WRC-23 related in bold):
 - **WP 5B** (Mar. 29–Apr. 8), RAG (Apr. 11-14), **WP 5D** (Apr. 19-22), **WPs 7A, 7B, 7C**, 7D (Apr. 25-May 6), **WPs 4A, 4B, 4C** (May 4-20), **WPs 5A, 5C** (May 23 – Jun. 3)
- Upcoming ITU-R meetings: **WP 5D** (Jun. 13-24), **WP 5B** (Jul. 11-22), **TG 6/1** (Sep. 5-16), **WPs 4A, 4B, 4C** (Sep 7-22), **WPs 7A, 7B, 7C**, 7D (Sep. 27-Oct. 6)
- Deadline for draft CPM text from ITU-R WPs is 21 October 2022 – most items are expected to be completed between June and early October
- CPM23-2 meeting now confirmed to be held in Geneva from 27 March – 6 April 2023

CITEL PCC.II

- CITEL PCC.II (hybrid) meeting held 25-29 April 2022
- Next CITEL PCC.II (hybrid) meeting will be held 31 Oct - 4 Nov 2022 in Trinidad and Tobago
 - CPC WRC-23 focus at this meeting will be submission of Canadian preliminary proposals for priority agenda items, based on the conclusions of ITU-R studies and/or methods in the draft CPM text.
 - For the following meeting, efforts will be focused on submission of additional and updated Canadian proposals based on finalized CPM text, and working with other CITEL administrations to develop IAPs that are aligned with Canadian positions.
 - CNO CITEL will continue to focus on advancing the work on draft recommendations in the terrestrial and satellite working groups and submitting responses to questionnaires