

Spectrum Update

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1. SRD context
2. Organization scheme in Europe
3. Principles and Strategy in Europe to define the SRD regulatory framework
4. Current activities in CEPT

The SRD regulatory framework...

- SRD application does not operate under a radio service as defined in ITU;
- SRDs operate in shared bands and are not permitted to cause harmful interference to radio services;
- SRDs cannot claim protection from radio services.
- SRDs are most usually authorized under a general authorizations regime

Regulatory challenges dealing with SRDs

- *Shared used of the spectrum*
 - ✓ Multiple devices, multiple application and potentially multiple technologies may have to coexist in a same frequency band ...
 - ✓ Equal access to the spectrum for all SRD applications...
 - ✓ Efficient use of the spectrum...Absolute or group efficiency ?

- *Impact of the general authorization regime*
 - ✓ no exact information about the precise locations of use and real usage densities of SRDs
 - ✓ mass-market and/or portable products which can easily be taken and used across borders
 - ✓ No limit in the number of users.

Consequences

- *Importance of compatibility studies before defining a regulation*
 - a full picture of the existing applications in the targeted spectrum is necessary;
 - a detailed descriptions of the new SRD applications is highly recommended (technical parameters, usage scenario, deployment figures...)
- *Importance for Industry when defining the technical specification of a new system*
 - In particular, to grant sufficient certainty to the future application with regard to the operating frequency environment (e.g. receiving parameters may be taken into account in compatibility studies)

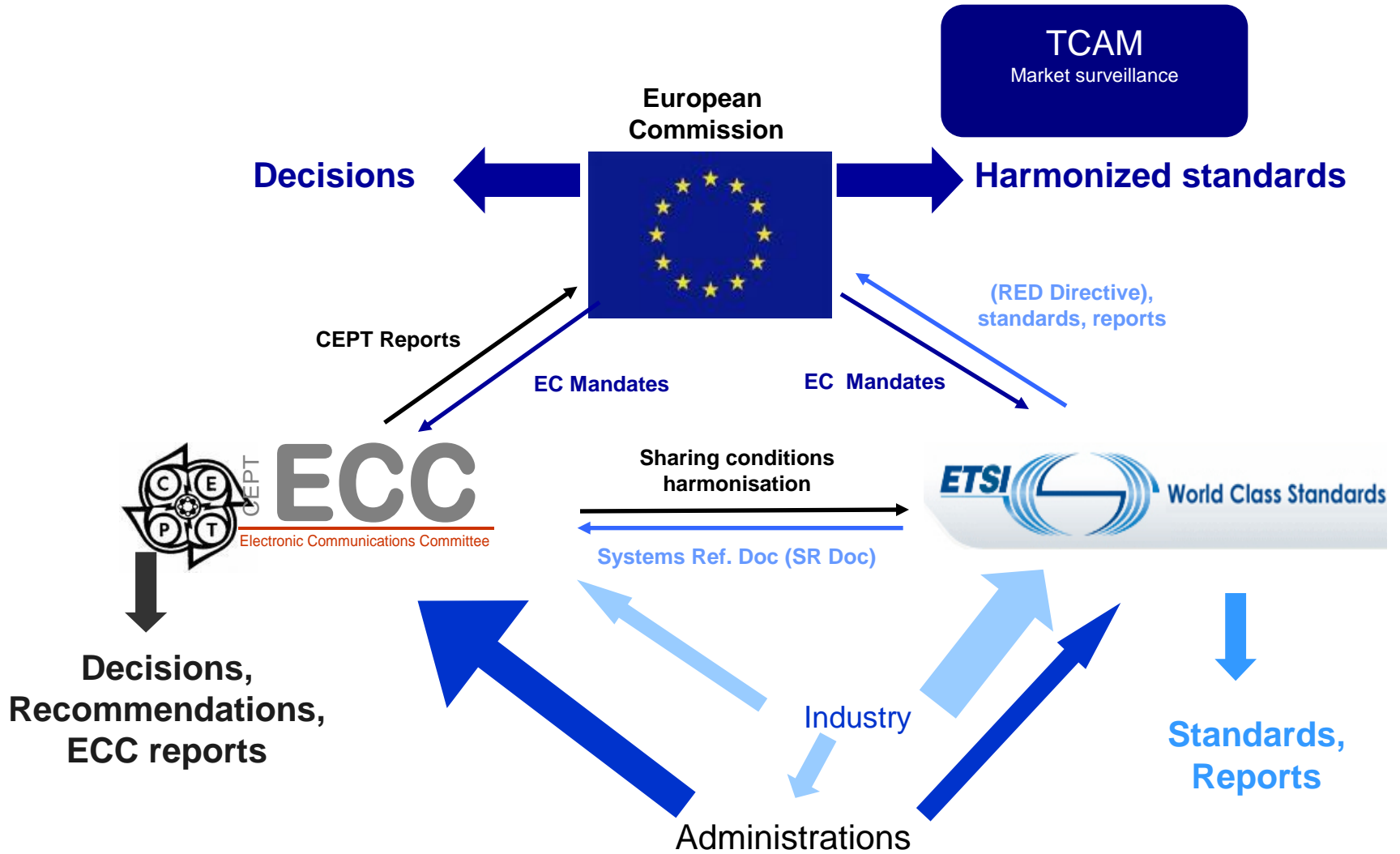
To provide certainty in defining a stable regulatory framework in Europe, all actors are implied and a clear procedure is defined

- **All interested parties are involved**

The European Commission, ETSI and the Electronic Communications Committee (ECC) of CEPT are involved in the cooperation process dealing with spectrum management decisions by setting standards as well as regulatory decisions.

In general, this establishes a process of co-regulation in which administrations, industries and operators/users participate to find the best suitable regulatory approach for SRD applications.

Organization scheme in Europe



- **The benefits of this regulatory process include:**
 1. Defined entry points into the process for industry;
 2. Following neutral studies:
 - a) compatibility with existing users;
 - b) maximum/efficient use of the spectrum;
 - c) reliable operation of new applications by defining appropriate operating conditions;
 - d) Ensure an equal access to the spectrum
 3. Public consultation intended to ease the process of national implementation.

ECC Policy Goal aims to increase the efficiency of the regulatory process, particularly the compatibility studies, to provide a long-term visibility and to give a higher degree of certainty for industry.

European mandates . . . 2 GHz unpaired bands

- *Request*

This mandate focuses on frequency bands 1900-1920 MHz and 2010-2025 MHz which have been identified as under used frequency bands.

CEPT was tasked to undertake studies on the harmonized technical conditions for 1900-1920 MHz and 2010-2025 MHz frequency bands (“Unpaired terrestrial 2 GHz band”) in the EU.

- *Findings*

CEPT Identified different candidate applications such as DA2GC, PMSE, SRD, DECT and PPDR. Results are included in CEPT Report 52

- *Opportunities*

20 MHz for SRD applications within the frequency band 1900-920 MHz.

Preliminary operational parameters (similar to DECT specifications) are defined but will be subject to refining.

European mandates . . . Permanent mandate for the revision of EC Decision on SRD

- *Request*
 - a) consider making the bands recently added in ERC Recommendation 70-03 available to SRD usage and eventual inclusion in the next update of the SRD decision;
 - b) start investigations on assessing the requirements for cognitive radio enabled SRDs and any potential implications in terms of SRD harmonized technical conditions, taking into account the on-going work in ETSI under mandate M/512;
 - c) re-assess, on a demand basis from stakeholders, the relevance and appropriateness of 'other usage restrictions' for the relevant SRD categories;
 - d) consider merging the existent decisions pertaining to SRDs into one encompassing decision.

European mandates . . . Permanent mandate for the revision of EC Decision on SRD

- *Initial investigation on Item a)*

“consider making the bands recently added in ERC Recommendation 70-03 available to SRD usage and eventual inclusion in the next update of the SRD decision”

1. MBANS (2483.5-2500 MHz), ECC Report 201
2. Short- and Long-range RFID (13.56 MHz), ECC Report 208
3. Investigation on frequencies below 9 kHz
4. 870-876 MHz / 915-921 MHz, ECC Report 200
5. Helicopter radar applications operating within 76-79 GHz, ECC Report 222
6. Wireless Industrial Application (5725-5875 MHz), ECC Report 206

European mandates . . . Permanent mandate for the revision of EC Decision on SRD

- *Initial investigation on item b)*

“start investigations on assessing the requirements for cognitive radio enabled SRDs and any potential implications in terms of SRD harmonized technical conditions, taking into account the on-going work in ETSI under mandate M/512”

A questionnaire is now available in order to collect information from Industry side on how a cognitive approach can be beneficial in the context of an SRD approach
<http://www.cept.org/files/1051/Tools%20and%20Services/ECC%20Questionnaires/2015/WGFM%20Questionnaire%20on%20cognitive%20enabled%20SRDs.doc>

- *Initial investigation on item c)*

“re-assess, on a demand basis from stakeholders, the relevance and appropriateness of 'other usage restrictions' for the relevant SRD categories; ”

1. **122-123 GHz** : aligning EC Decision with findings from CEPT included in ECC Report 190
2. **6.8 MHz and 27 MHz** : investigations on improving these entries which include several notches
3. **57-66 GHz** : possible review of the existing regulation taking into account a growing demand for this band for different application such as backhauling

European mandates . . . Permanent mandate for the revision of EC Decision on SRD

- *Initial investigation on item d)*

“consider merging the existent decisions pertaining to SRDs into one encompassing decision”

The purpose of this item is, in particular, to investigate the possibility of merging SRD (2013/752/EU) , RFID (2006/804/EC) and UWB (2014/702/EU) decisions.

- *Time plan*

1. *ECC (August 2014):* launch of the sixth update cycle
2. *RSC (March 2016):* CEPT to submit its report (subject to public consultation)
3. *RSC (July 2016):* CEPT submits final CEPT report and the Commission services present a draft Commission Decision updating the technical annex to the SRD Decision. If agreement is reached swiftly on the draft text, publication can be envisaged for early 2017

Specific requests from ETSI

The following work item has been triggered directly by means of System Reference document from ETSI

1. *ALD in 174-216 MHz* : ECC Report 230 in public consultation
2. *TRS in 1656.5 – 1660 MHz* : compatibility studies are ongoing in SE24
3. *Roadmap UHF* : further investigation are ongoing to investigate the possibility to relax the duty cycle restriction in 870-876 MHz for low power SRD
4. *862-868 MHz* : investigation for a new SRD opportunity in 862-863 MHz and further investigation to introduce high power SRD within the frequency band 863-868 MHz

*Thank you ...
Any questions ?!*