## Europe Radio Regulatory Environment

By: CRAF FM: Waleed Madkour



**IUCAF 5th School on Spectrum Management for Radio Astronomy** 

EUROPEI POUNDAT CRAF
Committee on Radio Astronomy Frequencies



• 27 EU Member states

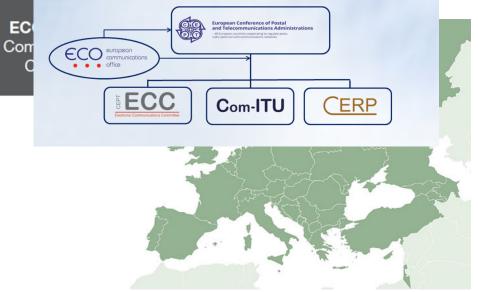






- A division of the European Conference of Postal and Telecommunications (CEPT)
- Founded 1959





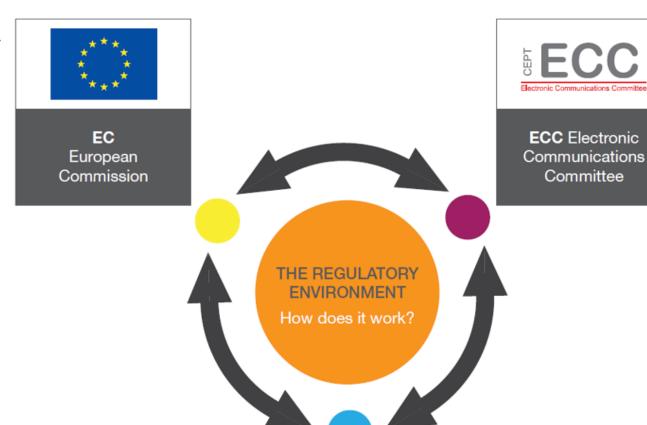


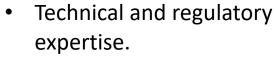
Founded by CEPT in 1988



- General spectrum policy and strategy for the EU member states.
- Single market, fair spectrum use, harmonization, availability, economic growth...etc
- <u>EC Decisions are</u>
   <u>mandatory for the EU</u>

   member states





- Compatibility studies for spectrum allocation or sharing.
- Decisions not mandatory, but binding if implemented.





**ETSI** 

World Class Standards

- Telecommunication equipment harmonized standards.
- Only standardized products and services can be put on the market in Europe.
- Ex: Transmission protocols, antenna requirements, modulation, receiver parameters ...etc

**DG Connect :** Directorate General for Communications Networks, Content & Technology:

Develops the strategic plan.





EC European Commission

Brussels, 30 January 2019 RSPG19-007 FINAL

SPG Opinion on 5G implementation challenges (RSPG 3rd opinion on 5G)

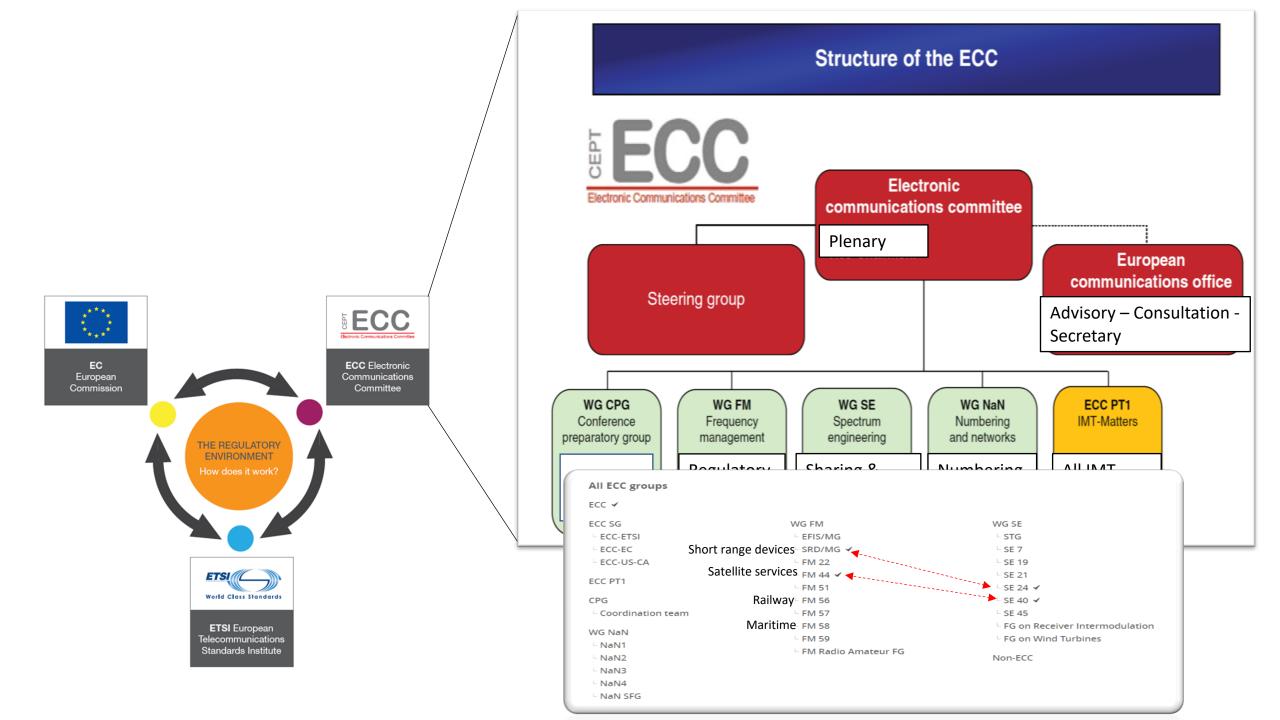


**ECC** Electronic Communications Committee





**ETSI** European **Telecommunications** Standards Institute







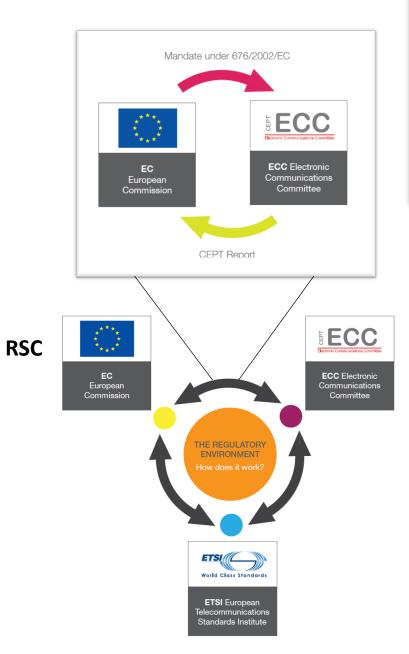
ECC Electronic Communications Committee







TC - ERM: Technical Committee – EMC and Radio Spectrum Matters



#### DECISION No 676/2002/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

#### on a regulatory framework for radio spectrum policy in the European Community (Radio Spectrum Decision)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 95 thereof,

Having regard to the proposal from the Commission (1), Having regard to the opinion of the Economic and Social Committee (2),

Acting in accordance with the procedure laid down in Article 251 of the Treaty (3).

Whereas:

Whereas

(1) On 10 November 1999 the Commission presented a communication to the European Parlament, the Council, the Economic and Social Committee and the Council, the Economic and Social Committee and the Committee of the Regions proposing the next steps in radio spectrum polley on the basis of the results of the properties of the p

v and legal framework therefore needs to be the Community in order to ensure

communications, transport and R & D. The polecy approach with regard to the use of radio spectrum should be coordinated and, where appropriate, laarmonisted as Community level, in order to falfill coordinated and the configuration of the second coordination and harmonisation many also help achieving harmonisation and coordination of the use of the radio spectrum at global level in certain cases. At the same time, appropriate technical support can be provided as radional level.

- (3) Radio spectrum policy in the Community should contribute to freedom of expression, including freedom of opinion and freedom to receive and disseminate information and ideas, irrespective of borders, as well as freedom and plurality of the media.
- This Decision is based on the principle that, where the European Parliament and the Council have agreed on a Community policy which depends on radio spectrum, committee procedures should be used for the adoption of accompanying technical implementing measures, and the state of the control of the companying the control address harmonised conditions with regard to the availability and efficient use of radio spectrum, as well as the availability of information related to the use of radio spectrum. The measures necessary for the implementation of this Decision should be adopted in June 1999 Junig down the procedures for the exercise of implementing powers conferred on the Commission (\*).
- (5) Any new Community policy initiative depending on radio spectrum should be agreed by the European Parliament and the Council as appropriate, on the basis







#### CEPT Report 68

Report B from CEPT to the European Commission in response to the Mandate

"to develop harmonised technical conditions for spectrum use in support of the introduction of next-generation (5G) terrestrial wireless systems in the Union"

Harmonised technical conditions for the 24.25-27.5 GHz ('26 GHz') frequency band

Report approved on 6 July 2018 by the ECC

DIRECTIVE 2014/DOEU OF THE EUROPEAN PARLIAMENT AND OF THE COU

on the harmonisation of the laws of the Member States relating to the making available on market of radio equipment and repealing Directive 1999/5/EC

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 114 thereof.

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments

Having regard to the opinion of the Economic and Social Committee (1),

Acting in accordance with the ordinary legislative procedure (\*),

- Directive 1999/5/EC of the European Parliament and of the Council (\*) has been substantially amended several
  times. Since further amendments are to be made, it should be replaced in the interests of clarity.
- (2) Regulation (EC) No 765/2008 of the European Parliament and of the Council (\*) lays down rules on the accredita-tion of conformity assessment bodies, provides a framework for the market surveillance of products and for controls on products from third countries, and lays down the general principles of the CE marking.
- (3) Decision No 768/2008/EC of the European Parliament and of the Council (\*) lays down common principles and reference provisions intended to apply across sectoral legislation in order to provide a coherent basis for revision or recasts of that legislation. Directive 1999/5/EC should therefore be adapted to that Decision.

sential requirements laid down in Directive 1999/5/EC which are relevant to fixed-line terminal equipment, sure the protection of health and safety of persons and of domestic animals and the protection of prop-





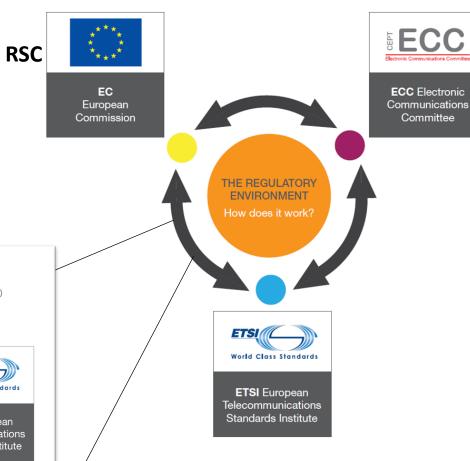
#### ETSI TR 103 314 V1.1.1 (2017-05)



System Reference document (SRdoc); Short Range Devices (SRD) using Ultra Wide Band (UWB); Technical characteristics for SRD equipment using Ultra Wide Band Sensor technology (UWB) based on amended mitigation techniques for UWB

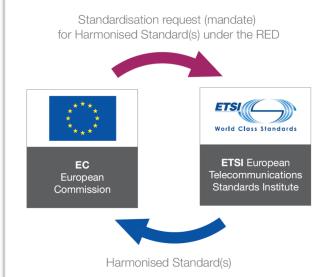
#### **RED: Radio Equipment Directive:**

- Requirements that products must meet in order to be placed in the market & put into service.
- No prejudice to regulations for the use of radio spectrum



**ECC** Electronic

Committee



**ETSI SR-Doc** 



**ECC** Electronic Communications Committee

THE REGULATORY **ENVIRONMENT** 





**ETSI** European **Telecommunications** Standards Institute



Recommendation

or Decision on

ETS! World Class Standards

Harmonised Standard **Spectrum Allocation** 

In the development of Harmonized Standards for radio equipment as well as in relevant ECC deliverables, the provisions of the ETSI-CEPT Memorandum of Understanding MoU are applied.

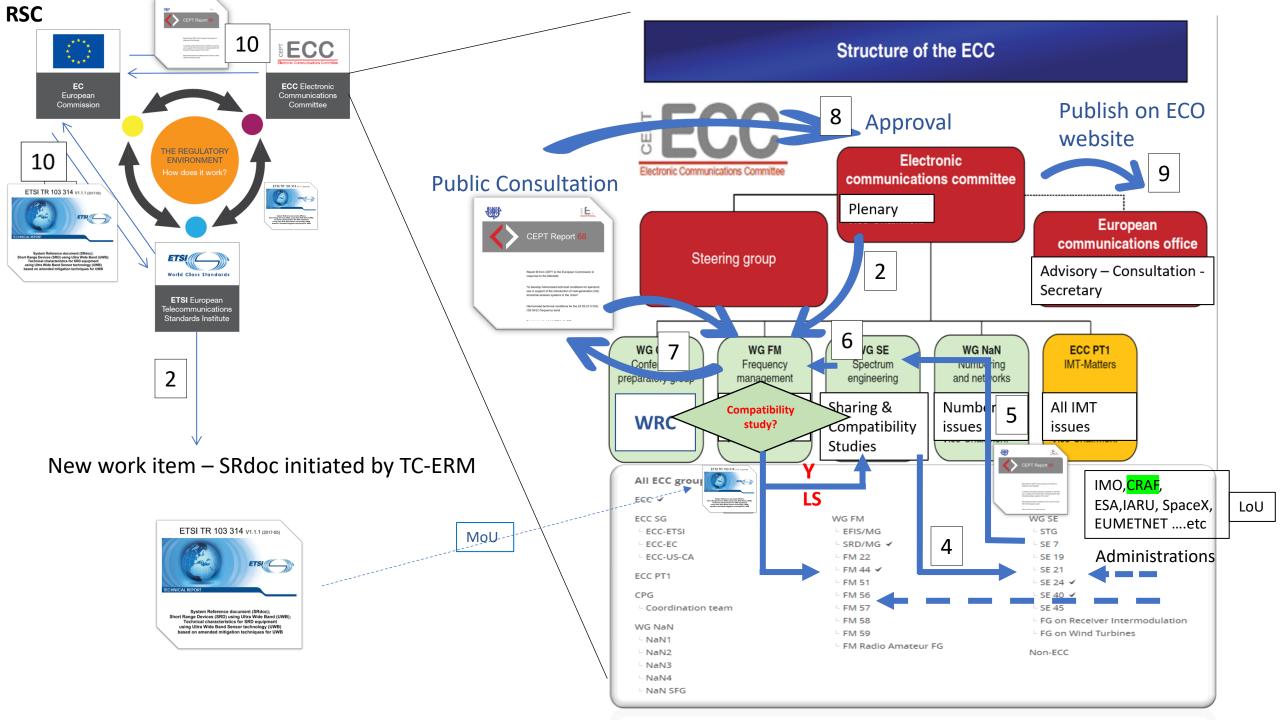
#### taking into account:

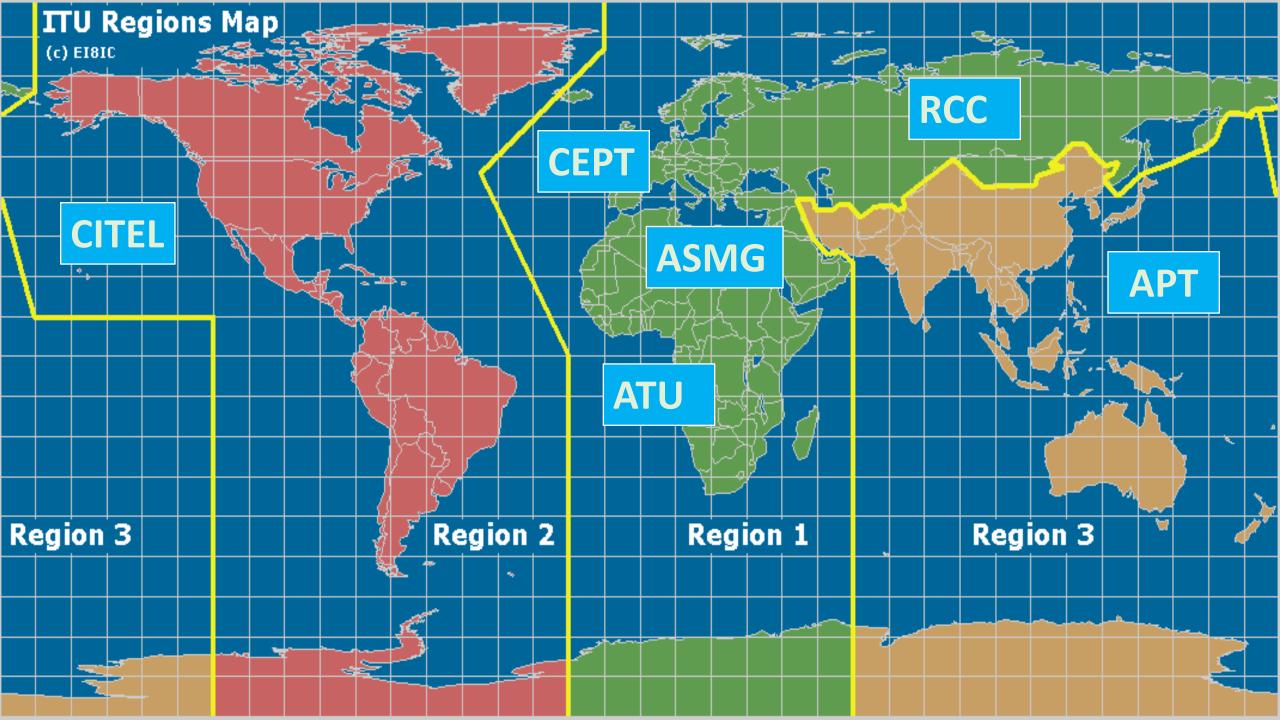
- m) that there are differences in the membership of the EU, EFTA, CEPT and ETSI;
- n) that the ECC has the policy of making technologically neutral regulations, neither imposing nor discriminating in favour of the use of a particular type of technology, unless technically and clearly justified, also taking into account EU legislation as relevant (1,2) and obligations with respect to the World Trade Organisation (WTO), for example due to spectrum sharing issues;

#### agree:

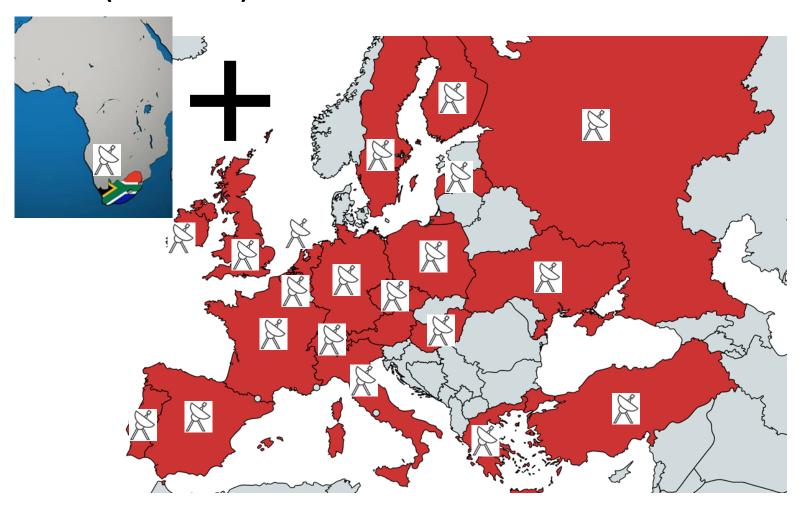
- that ETSI takes into consideration the responsibilities of the ECC, when developing Harmonised Standards or other relevant ETSI deliverables:
- that the ECC takes into consideration the deliverables of ETSI when developing ECC Decisions, ECC Recommendations or other ECC deliverables;
- that therefore a close liaison, flow of information and a process of consultation between the two organisations is essential;
- that consequently there is a need for mutual representation of the organisations in each others' meetings:
- to adopt and use the "Procedures for Co-operation between ETSI and the ECC", annexed to
- that this Memorandum of Understanding is open to review at the request of either party.

#### Signed:

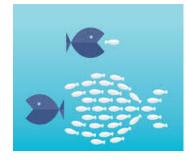




# Committee on Radio Astronomy Frequencies (CRAF)



- Expert Committee founded by the European Science Foundation (ESF) in 1988.
- 21 European member institutes + SKA South Africa.
- ITU sector member.
- CEPT observer.
- → Single European voice
- → Greater impact





## **CRAF Observers**







**European Space Agency** 



European Southern Observatory

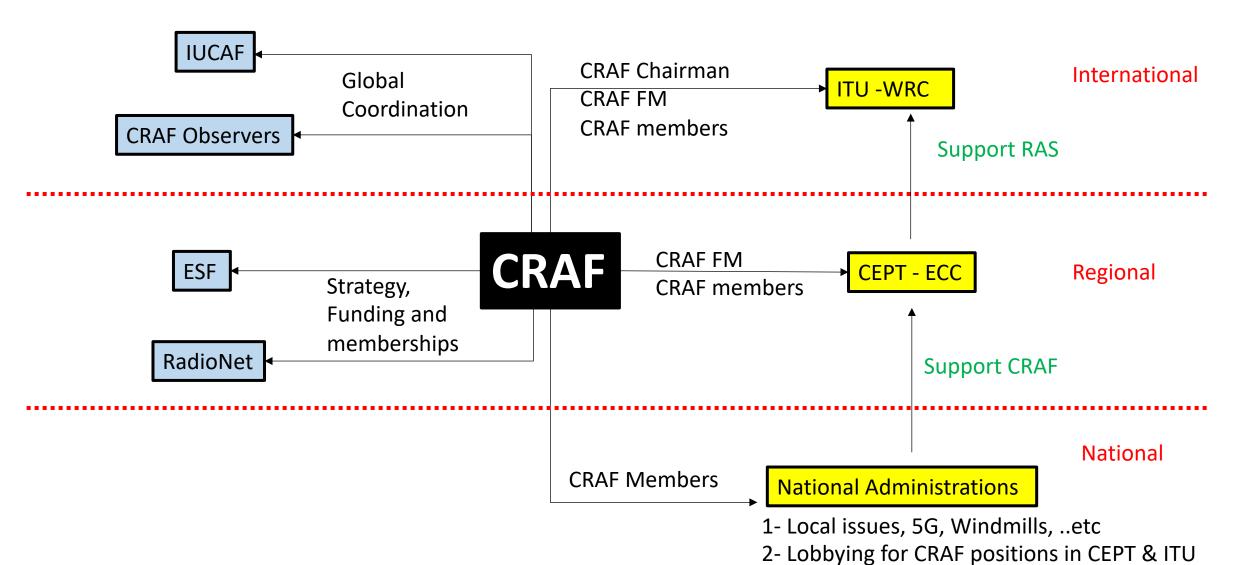


### **CRAF Mission**

• To argue the scientific needs of radio astronomy for continued access to and availability of the radio spectrum for radio astronomy within the European arena.

- To keep the frequency bands used for radio astronomical observations free from interference.
- To support related science communities in their needs of interference-free radio frequency bands for passive use. Ex: VGOS

## **CRAF Work**



## **CRAF** Publications

- CRAF Studies & Position papers for ITU-WRC.
- CRAF Compatibility Studies to CEPT ECC.





CRAF Handbook for Radio Astronomy

Committee on Radio Astronomy Frequencies (CRA An ESF Expert Committee

