





# ECC Strategic Plan

ECC Strategic Plan for the period 2020-2025

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# 1 MISSION OF THE ECC

The primary objective of the ECC is to enable the efficient, effective and harmonised use of the radio spectrum, satellite orbits and numbering resources across Europe. To achieve its mission, the ECC develops common policies and regulations for Europe in the field of electronic communications, taking into account European and International legislation, and prepares European common proposals to represent European interests in international organisations, especially in the ITU.

<sup>&</sup>lt;sup>1</sup> applied on a voluntary basis by CEPT countries

#### 2 MAJOR OPPORTUNITIES AND CHALLENGES FOR THE ECC OVER THE NEXT 5 YEARS

Radio spectrum, satellite orbits and numbering resources are major assets, critical to providing a wide range of services, including telecommunications, television and radio broadcasting services, emergency services, aeronautical communications and many more. They deliver substantial and fundamental benefits to citizens, consumers and businesses.

The task of developing international frameworks for the electronic communications sector is becoming ever more complex. There is continuing pressure on the scarce spectrum, satellite orbit and numbering resource as electronic communications are increasingly embedded in our everyday lives and represent a fundamental aspect of society. Demand for electronic communications services continues to increase rapidly and new and diverse applications are constantly being developed which require spectrum capacity for networks and non-discriminatory access to one or more of the scarce resources managed under the guidance of ECC policies and regulatory measures.

At the same time new technologies – including Artificial Intelligence and Blockchain – are emerging which may offer solutions to enable more efficient use of these scarce resources. The ECC is also aware that there are a wide range of factors, outside the scope of our traditional remit, which may influence how we manage the spectrum and numbering resource in the future. This includes issues related to global connectivity, cyber security, end-user protection, public safety and environmental considerations, including climate change.

Over the next five years the ECC will develop policies and regulatory measures¹ that will help administrations to address current key issues, while at the same time monitoring and considering longer-term developments in regulation, technology and usage which may influence how we work in future. We will do this by following cross-cutting strategic "principles" which inform our approach to work within the ECC and through the identification of high-level "topics" which describe the most significant themes that the ECC will address. The ECC will work closely with ETSI, the body responsible for the development of harmonised standards for radio equipment, and the European Commission, as well as other bodies as appropriate, to take forward this work.

This ECC Strategic Plan sets out our strategic principles and topics for the period 2020-2025. It will be subject to a mid-term review which will provide an opportunity to track the progress made against the plan and to consider any amendments which may be necessary to ensure its continued relevance.

The actions we take to achieve our strategic objectives are developed according to the <u>ECC Rules of Procedure</u> and <u>Working Methods</u>. They are described in the <u>ECC Work Programme</u> which provides a comprehensive description of, and progress on, specific work items.

#### 3 STRATEGIC PRINCIPLES FOR THE PERIOD 2020-2025

#### 3.1 SPECTRUM SHARING

Spectrum sharing, where technically feasible, can facilitate effective and efficient use of spectrum in both licensed and unlicensed bands. It can promote innovation by enabling easier and more rapid access to spectrum than some traditional models of making spectrum available (such as clearance). Moreover, the emergence of new technologies such as cognitive radio and geolocation databases may enable the implementation of licensing frameworks based on the licensed or unlicensed shared use of spectrum. The increasing demand for higher frequency bands, taking into account propagation characteristics, may also promote interest in spectrum sharing. The ECC will consider opportunities to promote spectrum sharing through its technical and regulatory work, including when undertaking compatibility analyses and defining coexistence conditions.

#### 3.2 TRANSMITTER AND RECEIVER PARAMETERS

To support efficient use of spectrum and sharing, the ECC identifies the need to define the appropriate set of parameters for both transmitters and receivers in co-channel bandwidth and in adjacent frequency bands. The ECC will develop or update ECC Recommendations on appropriate characterisations of both transmitters and receivers and will also monitor implications of increases in the general noise floor. In undertaking this work, the ECC will seek to intensify its co-operation with ETSI in order to foster the development of efficient sharing conditions in the future

### 3.3 BALANCING THE INTERESTS OF ALL SPECTRUM USERS

The ECC facilitates innovation by establishing technical co-existence conditions for access to spectrum for new technologies and services. A constant challenge for any spectrum manager is to balance the diverse interests of all the different users of spectrum. This includes balancing the interest of incumbents, who will tend to seek stability and regulatory certainty, and the needs of new entrants who will often seek rapid and straightforward access to spectrum. The ECC will endeavour to balance the needs of all spectrum users and facilitate optimal use of the spectrum and orbital resource.

#### 3.4 ENSURING NON-DISCRIMINATORY ACCESS TO NUMBERING AND NETWORK RESOURCES

Effective numbering plan management balances the need to promote competition, foster innovation and ensure consumer protection with the task of administering a scarce resource efficiently. New and innovative electronic communications services and applications, by both traditional operators and by new entrants, will continue to emerge requiring numbering and network resources. The ECC will strive to develop harmonised policies that will continue to promote non-discriminatory and technology neutral access to numbering resources and facilitate the continued evolution to the high capacity networks of the future.

#### 4 MAJOR TOPICS FOR THE PERIOD 2020-2025

The ECC has identified the following major topics which should be addressed over the next 5 years:

- 1 To review, in line with Agenda Item 1.5 of WRC-23, the UHF band (470-960 MHz), taking into account the current use by PMSE in this band<sup>2</sup>. In undertaking this review, the ECC should consider future spectrum needs to support audio-visual media distribution over the longer term, taking into account expected developments in broadcast distribution technologies.
- Wireless broadband and connectivity, including mobile broadband, WAS/RLAN, backhaul, PMSE, verticals and use of higher frequency bands
- 3 Issues relating to general authorisations and licence exempt use of spectrum (e.g. SRDs, including for IoT/M2M, and other similar uses of spectrum).
- 4 Next generation satellite systems (including mega NGSO constellations and short duration satellites) and other initiatives (such as HAPS/HIBS) which may require technical and/or regulatory conditions.
- New business models and applications will emerge based on the latest advances in network technologies. For example, smaller cell sizes for 5G will require many new antennas and masts to be deployed which means that appropriate backhaul infrastructure will be required and neutral host network infrastructure models may emerge. The ECC will develop deliverables aimed at ensuring that sufficient numbering resources are made available for addressing a large number of new network nodes, devices and services.
- 6 Number portability, ease of switching, end-user protection and public safety remain important areas of focus for the ECC. These end-user rights will be taken into account in the ECC's work on increasing trust in electronic communications (protection from fraud and misuse), promoting over-the-air provisioning and facilitating the next generation of emergency communications.

<sup>&</sup>lt;sup>2</sup> The ECC notes that there is also PMSE outside of the UHF range that is treated within existing work item(s).

# 5 CO-OPERATION WITH OTHER BODIES

The ECC has a long-established tradition of working collaboratively with a wide range of partners and sharing best practice and knowledge. In some cases these relationships with external partners are formalised, either through a Memorandum of Understanding (MoU) or a Letter of Understanding (LoU). Further information on the ECC's MoUs and LoUs is available <a href="here">here</a> and more details on our co-operation with ETSI, the European Commission and ITU are contained in Annex 1.

#### **6 PROMOTING OUR DELIVERABLES AND ACHIEVEMENTS**

It is essential that the ECC's ongoing activities and achievements are communicated to all of our stakeholders. The ECC, under the guidance of the ECC Steering Group and with support from the ECO, will:

- Develop communications on ongoing activities and achievements;
- Organise workshops on thematic issues in order to involve industry and others in the work;
- Conduct public consultations on all draft deliverables to fully inform our decisions;
- Develop and explore relationships with universities, scientific institutes and European research programmes and be a point of contact for relevant research carried out within CEPT Administrations;
- Ensure proper maintenance and development of EFIS in order to respond to the needs of various stakeholders and provide the necessary support to Administrations in maintaining their national data in the system; and
- Encourage the implementation of ECC deliverables by CEPT Administrations and assist Administrations in making proposals for studies within the ECC.

#### **ANNEX 1: COOPERATION WITH EU, ETSI AND ITU**

#### A1.1 COOPERATION BETWEEN THE ECC AND THE EU

Under the EU Radio Spectrum Decision (676/2002/EC), the ECC operates under a policy and legal framework to respond to mandates issued by the EC. This is done through CEPT Reports which provide information to inform the development of Commission Decisions, including technical parameters and sharing conditions identified by the ECC. Commission Decisions provide mandatory harmonisation measures within the EU which must be implemented by all EU Member States, EEA countries, bilaterally "associated" countries and accession countries. The ECC also assists the Commission in the publication of sub classes for equipment in accordance with the RED by contributing to TCAM. The ECC can also provide specific technical assistance to the EC, as appropriate, on other issues relating to spectrum use.

The CEPT member administrations, which are also EU member states, cooperate further in the Radio Spectrum Policy Group (RSPG) and in the Body of European Regulators for Electronic Communications (BEREC).

#### A1.2 COOPERATION BETWEEN ECC AND ETSI

The ECC develops regulatory conditions to support the effective use and Europe-wide harmonisation of the radio frequency spectrum, and the efficient use of satellite orbits. It provides for ECC decisions regarding the allocation and designation of frequencies for radio communications services and applications within CEPT countries, as well as for related requirements relevant to the use of spectrum by radio equipment. ETSI develops standards for radiocommunication systems and equipment. Radio standards, and in particular those under article 3.2 of the RED, contain various requirements that relate to the effective and efficient use of radio spectrum in order to avoid harmful interference, including compatibility between different radio services. A Memorandum of Understanding (MoU) has been agreed between ETSI and the ECC to support effective cooperation. The MoU covers both the development of Harmonised Standards for radio equipment as well as contributions to the development of relevant ECC deliverables. Under this MoU the ECC provides regulatory input to ETSI during the preparation of Harmonised standards.

The ECC and ETSI also maintain close co-operation on numbering and networks matters through technical liaison and participation by representatives of both parties in relevant working group, project team and technical committee meetings in accordance with the MoU.

# A1.3 COOPERATION AT A GLOBAL LEVEL (ITU)

The Radiocommunication Sector of the ITU (ITU-R) and the Telecommunication Standardisation and Development Sectors (ITU-T and ITU-D) consolidate all of the ITU's work in the field of radiocommunications and telecommunications. ECC is responsible for disseminating and promoting CEPT positions on spectrum, numbering and network policies in ITU, including to develop European Common Proposals (ECPs) for ITU World and Regional Radiocommunication Conferences and Radiocommunication Assemblies.

In addition, the ECC is keen to strengthen co-operation in the field of radiocommunications and telecommunications with other regions outside of Europe. The ECC will do this by continuing to co-operate and work with other regional groups to address common issues relating to spectrum and numbering policy at a global and/or regional level

# **ANNEX 2: LIST OF ABBREVIATIONS**

BEREC Body of European Regulators for Electronic Communications

**CEPT** European Conference of Postal and Telecommunications Administrations

European Commission

**ECC** Electronic Communications Committee

**ECO** European Communications Office

**ECP** European Common Proposals

**EFIS** ECO Frequency Information System

ETSI European Telecommunications Standards Institute

**EU** European Union

Internet of Things

ITU International Telecommunication Union

ITU-D ITU Telecommunication Development Sector

ITU-R ITU Radiocommunication Sector

ITU-T ITU Telecommunication Standardisation Sector

LoU Letters of Understanding

M2M Machine-to-machine communications

MoU Memorandum of Understanding

RED Radio Equipment Directive (2014/53/EU)

RSPG Radio Spectrum Policy Group

WRC-23 World Radiocommunication Conference 2023

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