ECC Strategic Plan

ECC Strategic Plan for the period 2015-2020

Montreux, 28 November 2014

TABLE OF CONTENTS

Annex 1: List of Abbreviations

1 PREAMBLE

The ECC, with nearly 50 member Administrations, is in a unique position to develop and propose common policies for Europe in the field of electronic communications. Thanks to the commitment of its members, the ECC:

- considers and develops policies, including a strategic approach and a forward looking work programme, on spectrum, numbering and network matters in a European context, taking account of European and international legislation and regulations;
- brings together a huge expertise in managing scarce resources;
- offers a wide forum for the preparation of the work in ITU;
- acts as recognised spectrum and numbering expert for CEPT Administrations and for the European Commission;
- is a focal point in Europe for providing, maintaining and exchanging information on electronic communication; and,
- endeavours to foster a spirit of cooperation and collaboration with all stakeholders.

2   POLICY AND ACTIONS

To be an essential partner in the field of electronic communication in the mid- and long-term, the ECC should develop and promote the following skills and actions.

2.1   EXPERTISE IN MANAGING SCARCE RESOURCES

The dominant strength of the ECC relates to the planning and harmonisation of intrinsically scarce resources in the electronic communications sector, notably the radio spectrum, satellite orbit positions and numbering/naming/addressing resources.

2.1.1   Spectrum management

To develop this strength further the ECC should:

- develop its own multiannual strategic plan;
- enhance its role in spectrum management and in fulfilling spectrum demands management. In order to do so the ECC should, apart from its ongoing activities, concentrate on trends in spectrum use, investigate the spectrum requirements in certain spectrum bands or for certain services/applications and maintain an appropriately updated ECA (European Common Allocation) Table;
- conduct studies in relation to cross-border coordination in an environment of flexible harmonisation of spectrum;
- monitor new technological developments closely, and study how to regulate the spectrum requirements of such technologies;
- explore new frequency management approaches;
- maintain a core expertise in spectrum regulation, management, sharing, coordination, and compatibility studies;
- further develop methodologies for compatibility studies and promote the use of a common spectrum engineering analysis tool (i.e. SEAMCAT);
- explore new and innovative sharing solutions to increase sharing and reduce spectrum scarcity;
- improve awareness of the users about the environment for radio connections, including risk of interference, degradation or failure and the consequences this might have for critical applications;
- continue to develop spectrum harmonisation measures while avoiding duplication of work and develop technical and regulatory parameters in close cooperation with ETSI;
- ensure regular updates of spectrum utilisation information in EFIS. Maintain EFIS as a key tool for providing information on actual spectrum utilisation and extend the scope of the information, when appropriate; and,
- maintain and develop its expertise in monitoring and enforcement issues.

2.1.2   Numbering and Networks

Technological innovation, increased competition and evolving consumer preferences continue to drive the strategy for numbering and networks. Consumers have access to a large variety of electronic communications services using numbering and network resources. Different technologies and protocols are used to support these services. Operators use these resources for billing and routing, emergency services authorities for locating citizens seeking help and law enforcement agencies for preventing and detecting crime.

Therefore the ECC should:

- study, develop and promote the harmonisation of numbering and network resources policies to the benefit of end-users, in support of innovation and to facilitate the migration from legacy networks to next generation network architectures;
- study relevant aspects of emergency services communications and provide support and advice to European emergency services stakeholders where appropriate;
- support and inform, through active participation, the work of other relevant policy and standards bodies in Europe; and,
- consider a possible future role in the development of common measures against the fraudulent use of numbering and network resources and their role, if any, in data retention and lawful interception.

2.2 EUROPE WIDE FORUM FOR THE WORK IN ITU

Worldwide, the ITU is of great importance. The Radiocommunication Sector of the ITU (ITU-R) and the Telecommunication Standardisation and Development Sectors (ITU-T and ITU-D) consolidate all of ITU's work in the field of radiocommunications and telecommunications. In this global environment, good results are only achievable if CEPT countries prepare themselves in a well-structured way. The ECC shall:

- develop European Common Proposals (ECPs) for ITU World and Regional Radio Conferences and Radiocommunication Assemblies. The ECC will strive for more support for its ECPs and should continue to evaluate its procedures for developing ECPs and for coordination with other regional organisations, recognising the requirement for Administrations of EU Member States to take into account EU policy objectives;
- co-ordinate positions in order to assist CEPT Administrations that are Members of the ITU Council in presenting a European position in respect of conference agendas and timing;
- raise awareness of related ECC activities;
- inform and promote CEPT positions on spectrum, numbering and network policies in the relevant study groups of the ITU-R and ITU-T sectors, where appropriate; and,
- consult with various bodies and organisations inside and outside CEPT to broaden support for CEPT positions.

2.3 COOPERATION WITH THE EUROPEAN COMMISSION

An MoU between the European Commission and CEPT defines the basis of their cooperation. A policy and legal framework has been established in the European Union, through the EU Radio Spectrum Decision (676/2002/EC), to ensure coordination of policy approaches and, where appropriate, harmonised conditions with regard to the availability and efficient use of radio spectrum, necessary for the establishment of the internal market in community policy areas, such as electronic communications, transport and R&D.

The European Commission also develops policy instruments on EU-wide numbers for certain services and other network-related aspects including a harmonised approach to the implementation of EU-wide emergency services. The ECC shall be active in contributing to this work and cooperating on the development of common implementation measures.

CEPT has a clearly defined role within the EU's Radio Spectrum Decision, and many of its members are EU Member States which are bound by Community law. In order to fulfil these requirements, and to serve the interests of its membership, the ECC shall:

- work closely with the European Commission in order to give timely advice on bands that have been harmonised in the EU;
- improve and strengthen the cooperation with the European Union, in particular the Radio Spectrum Committee, the Communications Committee and the European Commission as well as with the Radio Spectrum Policy Group, to achieve greater economy, efficiency and quality of the work;
- provide in a timely manner CEPT reports and proposals in response to mandates from the European Commission; and,

- provide relevant inputs in response to the Radio Spectrum Inventory objectives, including in relation to EFIS.

The consistency and coordination of the work programmes for EU bodies and the ECC is ensured through participation of EC Counsellors at ECC meetings including the ECC Steering Group and of the ECC Chairman at the RSC and RSPG. For the RSC, the consistency is additionally safeguarded through the mandates from the European Commission to the ECC, which are agreed by the RSC. The EC and the ECC conduct twice a year coordination meetings in which all aspects of common interest and mutual cooperation are considered. Moreover, the participation of Administrations in various groups (RSPG, RSC, ECC) ensures coherence between EC and ECC work and spectrum policies.

2.4 FOCAL POINT IN EUROPE FOR PROVIDING, MAINTAINING AND EXCHANGING INFORMATION ON ELECTRONIC COMMUNICATIONS

Access to relevant information is a key element for all stakeholders in electronic communications for the development of their respective business models and for the development of new regulatory mechanisms. A permanent flow and exchange of information enables a level-playing field for all interested parties, and is a key component for the efficient operation of any market. EFIS constitutes an important element of the EC and ECC regulatory framework showing the level of spectrum harmonisation achieved in Europe as well as one promoting its further harmonisation. To achieve these objectives the ECC should:

- encourage the exchanges of information with, e.g. SME (small and medium enterprises), scientific and academic organisations, through the development and the use of e.g. new communication tools;
- encourage CEPT Administrations to update regularly their spectrum related information in EFIS;
- develop − with support of the ECO − close relations with industry and other external organisations and hold regular exchanges of views (where feasible, using electronic means) with these organisations in order that the ECC develops into an organisation where industry puts its trust and to which it turns in the first instance with their requirements;
- develop communications on ongoing activities and results reached by promoting ECC achievements towards all stakeholders (e.g. CEPT website, EFIS, ECC Newsletter, ECO Annual Report, Twitter);
- strengthen its relations with other regional organisations not only in relation to WRC preparations but also with regard to other spectrum management and regulatory issues in order to promote global harmonisation where necessary;
- organise on a regular basis workshops with the support of ECO on thematic issues in order to involve industry and others in the work;
- encourage the implementation of ECC deliverables by a large number of CEPT Administrations and encourage that the state of implementation shall be regularly updated. Industry should embed them in their respective R&D programmes; and,
- conduct public consultation of all deliverables: all deliverables shall be the result of a transparent process involving all concerned parties leading to a high level of acceptance.

In this context ECO should under the guidance of the ECC SG:

- develop relations with universities and relevant scientific institutes that would be willing to do research in spectrum management, give advice to research institutes on issues to investigate or on specific research, explore relationships with European research programmes and be a focal point of research carried out within CEPT Administrations in order to:
  - monitor upcoming developments and trends in radio;
  - inform the research community about the spectrum and regulation environment;
- ensure proper maintenance and development of EFIS, including upgrading the software when necessary, in order to respond to the needs of various stakeholders, and also provide the necessary support to Administrations in uploading their national data into the system;
- assist Administrations in making proposals for studies within the ECC;
- promote ECC deliverables and activity towards internal and external parties;

- develop a communications programme and publish electronic newsletters under the guidance and with the support of the ECC SG, to promote ECC achievements: towards R&D, potential newcomers and the general public;
- intensify contacts to known press representatives to increase the visibility of CEPT deliverables and achievements; and,
- develop training sessions and materials for newcomers (Administrations, representatives of LoUs) focusing on various aspects of the ECC: RoP, WM, deliverables, internal expertise: SEAMCAT®, compatibility studies.

2.5 COOPERATION WITH OTHER BODIES

In the context of spectrum management in the European Union, which is set out in the Radio Spectrum Decision, the ECC undertakes compatibility studies to establish conditions and parameters for sharing between the different users of the spectrum. ETSI respects these spectrum sharing conditions and parameters in the Harmonised Standards which it establishes. The MoU between ETSI and CEPT is a key element to ensure that sharing conditions of spectrum use are defined, agreed and can evolve in a consistent manner between the two organisations. The ECC undertakes compatibility studies to establish conditions and parameters for sharing between the different users of the spectrum. ECC Decisions contain sharing conditions which are respected in ETSI Harmonised Standards. Consequently, the ECC should:

- continue to identify clearly the spectrum sharing conditions in appropriate ECC deliverable(s) and respected in ETSI Harmonised Standard(s);
- continue the effort to ensure the consistency of ECC and Commission Decisions, recognising that ECC Decisions also contain sharing conditions which are respected in ETSI Harmonised Standards rather than specified in Commission spectrum Decisions;
- establish a stronger relationship between ETSI/CEPT and notified bodies (R&TTE CA) in order to ensure that notified bodies are familiar with the sharing conditions and the objectives for which they have been developed;
- endeavour to achieve a more active approach to identifying possible LoU partners noting the mutual beneficial effects of access to meetings and documentation of the respective organisations; and,
- respond to LoU opportunities with EU or otherwise funded research bodies to support validation of ECC assumptions on compatibility studies and with European organisations which are representing current or future spectrum users;
- in the context of numbering and network resources policies, strengthen its support and cooperation with BEREC on work items where the economic and technical regulatory aspects of numbering and networks are relevant.

3   MAJOR CHALLENGES FOR THE NEXT FIVE YEARS

3.1   PRINCIPLES UNDER WHICH THE ECC SHOULD ADDRESS MAJOR CHALLENGES

3.1.1 Spectrum sharing

Spectrum harmonisation at a European level has the potential to enhance economies of scale for network deployment and device manufacturing. Where technically feasible, shared use across both licensed and unlicensed spectrum could promote effective spectrum use.

The emergence of new technologies such as cognitive radio and geolocation databases may enable the implementation of spectrum licensing frameworks based on the licensed or unlicensed shared use of spectrum. Access to licensed spectrum on a shared spectrum basis may be beneficial to many applications in that it offers legal certainty and stability for long term investments.

The ECC should continue to define conditions to support the concept of spectrum sharing in both unlicensed and licensed spectrum in order to meet the need for more sophisticated sharing, without prejudice to the need for protection from interference from other services or applications, whether in the same band or in adjacent bands.

3.1.2 Receiver parameters are part of the overall spectrum efficiency

The new Radio Equipment Directive goes further than the RTTE Directive for radio equipment and telecommunications terminal equipment it replaces by requiring that radio equipment supports the efficient use of radio spectrum. It is generally agreed that performance specifications for radio receivers will be formulated in new and revised harmonised standards to support this goal. However, harmonised standards will also need to specify other mechanisms to support spectrum sharing in the future.

Close cooperation between Administrations and industry in setting requirements will be the key to achieving greater spectrum efficiency as new and innovative technologies emerge to support spectrum sharing. The ECC should therefore, in line with the Radio Equipment Directive, endeavour to stress the importance of efficient use of spectrum in liaison with standardisation bodies.

The ECC should ensure that receiver parameters are defined so as to share the burden of sharing and compatibility.

3.1.3 Promoting the use of higher frequencies

Frequency spectrum is a finite resource and the most demanded spectrum is unlikely to meet every requirement for dedicated spectrum for each new application and service. There are several frequency bands with propagation characteristics that make them well suited for many different applications or market deployment.

Higher frequencies present less scarcity and the opportunities to use larger contiguous blocks of spectrum (i.e. less segmented spectrum). The ECC shall support innovation in the use of higher frequency bands and facilitate, through appropriate harmonisation measures, the implementation of new applications in relevant bands.

3.2   MAJOR TOPICS FOR THE NEXT FIVE YEARS

The ECC has identified the following strategic topics for the next five years:

3.2.1 Implementation of a new digital dividend in the 700 MHz band

The allocation of the frequency band 694-790 MHz to the mobile service on a co-primary basis will be effective after WRC-15. A number of CEPT countries have already decided to make this band available to mobile services.

This 'second digital dividend' could bring many advantages for CEPT Administrations and European industry. The ECC will define the harmonised technical conditions for MFCN and for other potential usage of this band taking into account the balance between national flexibility and harmonisation. The ECC is also investigating how to facilitate visibility in the process of cross border coordination in the band 470-790 MHz which will result from the migration of broadcasting below 694 MHz when the 700 MHz band is made available for mobile services.

The ECC shall support the development of harmonised conditions relevant for the 700 MHz band and its implementation and shall facilitate the introduction of mobile applications in this band.

3.2.2 Spectrum for wireless broadband (including 5G)

Adequate and timely availability of spectrum with appropriate regulatory provisions, as well as improved technologies, are essential to support the future growth of mobile broadband systems. WRC-15 will decide about the identification of additional frequencies for IMT.

The ECC should consider harmonisation of spectrum which would be identified at WRC-15 for wireless broadband.

High speed cellular networks require broad bandwidths to offer improved connectivity and speedier downloads. New adaptive technologies might offer viable solutions in higher frequency ranges than in the conventional frequency bands ranging from some hundred MHz to several GHz. The changes foreseen could be expected to evolve into a paradigm shift, 5G (including the 5th generation mobile system), meaning connectivity anytime and anywhere. Preferably 5G should be seen in a wider context involving other systems and infrastructure, e.g. numbering (M2M requirements, IoT) and backhaul systems.

The ECC should consider strategic initiatives to support the development of advanced technologies related to broadband needs in higher frequency ranges, and to obtain contiguous spectrum in substantial blocks.

3.2.3 Responding to the needs of short range devices including appropriate spectrum access for the Internet of Things

Short-range devices (SRD) have offered for many years a flourishing range of applications in frequency bands which have been subject to ongoing harmonisation within CEPT. Recently, the ECC has developed a plan for the band 870-876 MHz and 915-921 MHz aiming to enable Administrations to make more spectrum available for SRD in this frequency range. The impact of smart energy grids, smart meters, Intelligent Transport Systems (ITS), the Internet of Things (IoT) and Machine-to-Machine communications (M2M) on spectrum requirement for SRD remains unpredictable and will have to be carefully monitored to ensure regulations accommodate such developments appropriately. The ECC should continue to respond to industry demand by identifying common frequency bands for short range devices under appropriate sharing regimes.

The ECC should seek to address and respond to the frequency needs and demands from various short range device applications.

3.2.4 Programme Making and Special Event (PMSE)

Programme making and special event applications are key to supporting broadcasting, information and culture events. They include wireless microphones and relevant applications (talk backs, ear monitors) and wireless camera newsgathering operations. In recent years, available spectrum for this application has been reduced since some parts of the spectrum currently used by these applications have been targeted for other

usages as a consequence of the digital dividend, and of the increase of bands designated for mobile broadband.

The ECC will designate the necessary spectrum for PMSE, taking into account the recent evolutions in their spectrum, the possibility to use also higher frequencies and to implement digital technology and cognitive sharing solutions, as well as the need to maintain existing production quality.

3.2.5 Public Protection and Disaster Relief (PPDR)

The spectrum needs for Public Protection and Disaster Relief have been raised during the last few years and the ECC is investigating various solutions to meet such requirements. In particular, the safety and security community needs access to wideband and broadband services such as video, and has specific requirements in terms of priority, availability or security. Adequate levels of harmonisation will require a long term effort from the ECC and relevant CEPT Administrations at national level.

The ECC shall seek an appropriate response to spectrum requirement and harmonisation needs for PPDR.

3.2.6 Migration from legacy networks to Next Generation Networks

The transition from circuit-switched to packet switched communication and from electrical to optical transmission is ongoing and many operators around Europe will make this migration in both core and access networks during the next strategic cycle. These changes could have implications on how electronic communications networks and services will be provided in the future and new policies and guidelines will be required.

The ECC shall, through the development of appropriate deliverables, ensure that the regulatory principles of competition, consumer choice and innovation are protected when the transition to Next Generation Networks occurs

3.2.7 Numbering and Addressing Machine-to-Machine Communications (M2M)

The growth in M2M communications services in recent years has been dramatic and further exponential growth is foreseen in the next strategic cycle. Facilitating data exchange between objects, with or without human intervention, is the foundation on which it is possible to create many new applications and services that will have profound benefits for citizens (e.g. smart cities, smart cars, E-health services, smart metering, smart grids and eCall). E.212 and E.164 numbering resources will continue to be needed to address devices for these new and innovative services.

The ECC shall provide guidance to all relevant stakeholders on the most appropriate numbering resources to be used for M2M services. This will involve developing deliverables to remove existing barriers to providing access to these resources, to creating more capacity where necessary and to ensure that competition and innovation can thrive in this exciting new market segment.

4 SHORT-TERM GOALS

The short term goals are laid down in the work programme of the ECC and its working groups which needs to be updated from meeting to meeting. The actual work programme can be found under: http://eccwp.cept.org/

ANNEX 1: LIST OF ABBREVIATIONS

BEREC	Body of European Regulators for Electronic Communications
CEPT	European Conference of Postal and Telecommunications Administrations
EC	European Commission
ECA	European Common Allocation Table
ECC	Electronic Communications Committee
ECC SG	Electronic Communications Committee Steering Group
ECO	European Communications Office
ECP	European Common Proposals
EFIS	ECO Frequency Information System
ETSI	European Telecommunications Standards Institute
EU	European Union
IMT	International Mobile Telecommunications
IoT	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
MFCN	Mobile/fixed communications networks
MoU	Memorandum of Understanding
R&TTE CA	Radio and Telecommunications Terminal Equipment Compliance Association
RoP	Rules of Procedure

RSC	Radio Spectrum Committee
RSPG	Radio Spectrum Policy Group
WM	Working Methods
WRC	World Radiocommunication Conference
WRC-15	World Radiocommunication Conference 2015