An introduction to the European regulatory environment for radio equipment and spectrum

Scope
This brochure provides an introduction to the regulatory environment in Europe for radio equipment and spectrum and some key information for newcomers.

Radio Regulatory Environment
At national level, radio spectrum is managed by National Administrations, which adopt a national table of radio spectrum allocations, define a framework for use of the radio spectrum and assign radio spectrum to the different users via individual or via general authorizations.

At European level, the European Commission (EC), ETSI, and the Electronic Communications Committee (ECC) of the European Conference of Postal and Telecommunications Administrations (CEPT) cooperate on aspects related to the regulatory environment for radio equipment and spectrum both at the EU level and at a wider intergovernmental level across Europe.

Figure 1: European regulatory environment for radio equipment and spectrum

HISTORY

<table>
<thead>
<tr>
<th>Date</th>
<th>Version</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 2011</td>
<td>Version 1</td>
<td>Initial version</td>
</tr>
<tr>
<td>July 2016</td>
<td>Version 2.1</td>
<td>Amendments to reflect the update of the relevant European regulatory framework</td>
</tr>
<tr>
<td>November 2017</td>
<td>Version 2.2</td>
<td>Minor editorial update</td>
</tr>
</tbody>
</table>

1. This brochure has been jointly produced by the Electronic Communications Committee and ETSI with support from the European Commission. It is an informative document, which does not replace the provisions of the Radio Equipment Directive.
European Union Radio Spectrum Regulatory Framework

EU radio spectrum policy aims to coordinate spectrum management approaches across the Union. The overarching objective is to support the internal market for wireless services and to foster innovation in electronic communications and other sectors covered by EU policies and the Radio Spectrum Policy Programme (RSPP) by providing recommendations and strategic analysis to the European Spectrum Policy Programme (RSPP) by providing more flexibility through the principles of technology and service neutrality and the possibility for users to transfer and lease rights to use spectrum under certain conditions. EU Decisions and regulations take precedence in the EU over ECC decisions, which are non-binding, in cases where both measures exist in relation to the same issue. The European Commission embodies and upholds the law; and to negotiate international agreements relating to trade and cooperation.

The Commission may also, under the Radio Spectrum Decision 676/2002/EC, harmonize the technical conditions for the use of spectrum with the technical assistance of CEPT, on the basis of specific mandates.

The Directorate General for Communications Networks, Content & Technology (DG Connect) is assisted in its work by the Radio Spectrum Committee (RSC) which was established in 2002 under the Radio Spectrum Decision 676/2002/EC and is composed of Member States experts and chaired by the Commissioner.

This Committee exercises its functions through advisory and regulatory procedures that are set out in the Regulation (EU) No 162/2011. More information on the EU radio spectrum policy and on the RSPG can be found at: http://ec.europa.eu/digital-agenda/en/what-radio-spectrum-policy

http://rspg-spectrum.eu

The essential requirements for radio equipment, which include constructing radio equipment to both effectively use and support the efficient use of radio spectrum in order to avoid harmful interference, are harmonized via the Radio Equipment Directive (RED), Directive 2014/53/EU, which repeals the R&TTE Directive (as of 13 June 2016), subject to one year transition period. The RED regulates the requirements that products, within its scope, must meet in order to be placed on the market and put into service (without prejudice to conditions attached to authorizations for the use of radio spectrum or other applicable EU legislation). The common way for manufacturers to comply with these requirements is to apply the voluntary Harmonised Standards developed by ETSI under the standardization request contained in the M/536 Commission Implementing Decision of the EC (if voluntary harmonised standards whose references are published in the OJEU are applied, they provide a presumption of conformity, therefore a manufacturer may apply other equivalent practices or specifications). The Directive is enforced at national level by Member States, in particular by Market Surveillance Authorities.

The EC (DG Growth) is assisted by the Telecommunications Conformity Assessment and Market Surveillance (TCAM) Committee in its work related to the operation of the Directive. More information on EU policy for radio equipment can be found at: https://ec.europa.eu/growth/sectors/electrical-engineering/red-directive_en.

ECC of CEPT and its role in the European Radio Regulatory Environment

The CEPT is a cooperative body in Europe of 46 national regulatory administrations in the field of posts and telecommunications. It is a recognized regional organization acting in accordance with pan-European goals set up by CEPT. More information can be found at https://cept.org/

The Electronic Communications Committee (ECC) brings together 46 countries to develop common policies and non-binding regulations in electronic communications and related applications for Europe, and to provide the focal point for information on spectrum use. Its primary objective is to harmonise the efficient use of the radio spectrum, satellite orbits and numbering resources across Europe. It takes an active role at the international level, preparing common European proposals to represent European interests in the ITU and other international organisations. The ECC’s approach is strategic, open and forward-looking, and based on consensus between the member countries. It applies its expertise in partnership with all stakeholders, the European Commission and ETSI to facilitate the delivery of technologies and services for the benefit of society.

The ECC, in particular on request of its members, among others, undertakes compatibility studies and establishes conditions and parameters under which the sharing between the different users of the spectrum may take place. This may result in the development of an ECC Decision. Other ECC deliverables are ECC Recommendations, CEPT Reports (responses to mandates from the EC) and ECC Reports. ECC documents can be found at https://cept.org/ecn or in the database at http://www.ecodocdb.dk.

Attendance at ECC meetings includes representatives of the EC and of the European Free Trade Association (EFTA) Secretariat, representatives of ETSI, possibly representatives of relevant inter-governmental organisations as well as other organisations or non-CEPT Administrations concerned with electronic communications. In addition, industry representatives may also include Observers by the Chairman.

In 1988, ETSI was created under the auspices of CEPT, which transferred all of its telecommunication standardization activities to ETSI. The ECC has a strong cooperation with ETSI in order to ensure coherence between ECC Decisions and ETSI Harmonised Standards.

ETSI and its role in the European Radio Regulatory Environment

ETSI produces globally-applicable standards for Information and Communications Technologies (ICT), including fixed, mobile, radio, broadcast and internet technologies.

ETSI is officially recognised by the European Union as a European Standards Organization under the Regulation (EU) No 1025/2012. ETSI is an independent, not-for-profit association with more than 800 members (including national administrations, companies and international organizations), drawn from 66 countries across 5 continents worldwide, participating directly in its work. ETSI currently has more than 100 collaboration agreements with other organizations throughout the world.

ETSI’s purpose is to produce and maintain the technical standards and other deliverables which are required by its members. Much of the work is carried out in committees and working groups composed of technical experts from ETSI’s member companies and organizations.

ETSI accepted the EC standardization request (mandate M536, which is addressed to CENELEC and ETSI, to develop their part of Harmonised Standards for radio equipment under the RED (2014/53/EU). Applying Harmonised Standards referenced in the Official Journal of the European Union, enables manufacturers and service providers to benefit from a presumption of conformity with the requirements of the Directive, and thus be able to sell, deploy and put into service (without prejudice to conditions attached to authorizations for the use of frequencies or other applicable EU legislation) the radio equipment within the European Union.

ETSI also develops Technical Reports (named System Reference documents, SRef) providing technical, legal and economic background on new radio systems under standardization and informs the ECC accordingly.

The Electronic Communications Directive (ECD) of 2002 (1999/5/EC), which is subject to amendment by the R&TTE Directive (as of 13 June 2016), subject to one year transition period, includes the essential requirements for radio equipment, which include constructing radio equipment to both effectively use and support the efficient use of radio spectrum in order to avoid harmful interference, are harmonized via the Radio Equipment Directive (RED), Directive 2014/53/EU, which repeals the R&TTE Directive (as of 13 June 2016), subject to one year transition period. The RED regulates the requirements that products, within its scope, must meet in order to be placed on the market and put into service (without prejudice to conditions attached to authorizations for the use of radio spectrum or other applicable EU legislation). The common way for manufacturers to comply with these requirements is to apply the voluntary Harmonised Standards developed by ETSI under the standardization request contained in the M/536 Commission Implementing Decision of the EC (if voluntary harmonised standards whose references are published in the OJEU are applied, they provide a presumption of conformity, therefore a manufacturer may apply other equivalent practices or specifications). The Directive is enforced at national level by Member States, in particular by Market Surveillance Authorities.

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Cooperation between CEPT/ECC and ETSI

The ECC develops regulations for the effective use and Europe-wide harmonisation of the radio frequency spectrum, and the efficient use of satellite orbits and, therefore, provides for decisions regarding the allocation/designation of frequencies for radio communications services and applications within the 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 which relate to both effectively use and support the 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 CEPT Electronic Communications Committee (ECC), for co-operation. In the development of Harmonised Standards for radio equipment as well as in relevant ECC deliverables, the provisions of the ETSI-CEPT MoU are applied, as depicted in Figure 2.

Cooperation between the EC and CEPT/ECC

EC/ECC develops CEPT Reports in response to mandates issued by the EC, as shown in Figure 3.

Cooperation between the EC and ETSI

The TCAM (Telecommunications Conformity Assessment and Market Surveillance) Committee assists the Commission in the management of the RED (2014/53/EU).

The RED (2014/53/EU) regulates the requirements that radio equipment must meet in order to be placed on the market and to be put into service (without prejudice to authorizations for the use of frequencies, see Article 7 of the RED). It harmonizes the requirements for radio equipment to both effectively use and support the efficient use of radio spectrum in order to avoid harmful interference, with the objective of ensuring the good functioning of the internal market of the European Union.

The EC, after consultation with TCAM, prepares standardization requests for development of Harmonised Standards, see Figure 4. These requests are subject to approval of the Committee on Standards under Regulation (EU) No 1025/2012; see also http://ec.europa.eu/growth/ single-market/european-standards/requests.

Market surveillance and enforcement

Member States are required to take all appropriate measures to ensure that equipment that is placed on the market and/or put into service complies with the requirements of the RED and technical conditions to use the spectrum. A list of the Member State surveillance authorities can be found at: http://ec.europa.eu/growth/sectors/electrical-engineering/rtte-directive.

The Directive enables the surveillance authorities to gain access to information on equipment. In particular, it requires the declaration of conformity and technical documentation to be made available for inspection by them. This information must be made available by the manufacturer, by his authorized representative established within the European Union, or where neither is in the European Union, by the importer or person responsible for placing the apparatus on the market.

Surveillance authorities may also, in accordance with their national laws, check and test products sampled in the market. Surveillance activities may arise as a result of a complaint or random check or as part of a systematic programme. Where problems are found, the follow-up will depend on the seriousness of any non-compliance but there should first be an attempt to resolve matters nationally through direct dialogue with the manufacturer or his authorized representative.

In serious cases or where there is a failure to implement adequate remedial measures in a timely manner, withdrawal from the market may be imposed and the surveillance authority concerned will trigger the formal “safeguard” procedure under Chapter V of the RED. Under this procedure, formal notification of the action taken and the reasons for it is made to the Commission and the other Member States. The Commission, if needed, will consult the Member States and the relevant economic operators (see Article 41 of the RED).

The surveillance authorities collaborate in the ADCO RED (Administrative Cooperation Group).

Those CEPT Reports provide input for the development of Commission Decisions which may also reflect the technical parameters and sharing conditions identified by ECC/CEPT. Commission Decisions are mandatory harmonization measures within the EU. The implementation of EC Decisions is mandatory for EU Member States. EEA countries, bilaterally “associated” countries as well as any accession country before it can join the EU.

The ECC also assists the Commission in the publication of sub classes for equipment in accordance to the RED by contributing to TCAM.

Cooperation between the EC and ETSI

Cooperation between the EC and CEPT/ECC

Figure 3: Cooperation between EC and ECC

Figure 4: Cooperation between EC and ETSI
Annex: Practical guidance for newcomers to the regulatory environment in Europe for radio equipment and spectrum

This annex provides practical information for newcomers to the regulatory environment in Europe for radio equipment and spectrum.

Key European legal documents

Examples of key European legal documents, as available at the time of publication of this brochure, for manufacturers, services providers and other market players are given in Table 1.

<table>
<thead>
<tr>
<th>DIRECTIVES AND REGULATIONS</th>
<th>Examples of key European legal documents for manufacturers, services providers and other market players</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equipment - Horizontal legal acts</strong></td>
<td>anyone who wants to place equipment on the European market and operate it by using the radio spectrum must meet requirements of relevant directives and regulations on equipment. In the EU, the manufacturer and/or distributor of the equipment bear full responsibility for placing equipment on the market.</td>
</tr>
</tbody>
</table>

Networks and Services

Framework Directive (2002/21/EC)* | A new service provider needs to meet requirements of relevant directives and regulations on network and services. |
| Authorisation Directive (2002/20/EC)* | (* These Directives have been amended in 2009) |
| Access Directive (2002/19/EC)* | |
| Universal Service Directive (2002/22/EC)* | |
| Privacy Directive (2002/58/EC)* | |

**Sector Specific**

Marine Equipment Directive (2014/90/EU) | Sector specific legislation has to be followed. Whilst horizontal legal acts (applying for all sectors) for equipment, network and services set the minimum required provisions, sector-specific regulation may be more stringent. |
| Motor vehicles (Regulation (EC) 661/2009) | |
| Medical Devices | |

Electronic Fee Collection | |

... and many more

In addition, guides are available to assist with the common application of various Directives. It has no weight in law but deals with a number of practical issues that will be of interest to manufacturers and other stakeholders. In particular, the RED guide (19 May 2017) aims to help with the common application of the Radio Equipment Directive 2014/53/EU. The guide will be continuously updated, following the discussions and the opinion of the TCAM.
Checklist for a newcomer

The RED provides the means of ensuring free movement of radio products within the EEA countries (and Turkey).

At least, these two things have to be checked:

• the availability of an EC Decision on harmonisation of the radio spectrum and/or ECC Decision – subject to precedence of EC Decisions over ECC Decisions in the EU, EEA and accession country – (searchable via: http://www.ecodocdb.dk)


For the pan-European CEPT area, a relevant ECC Decision may be published on the ECO web site with full information on its implementation by CEPT member countries: http://www.ecodocdb.dk/doks/doccategoryECC.aspx?doccatid=1

The geographical application and national validity for the different decisions on harmonization of radio spectrum are summarised in Table 3.

<table>
<thead>
<tr>
<th>TYPE OF DECISION</th>
<th>GEOGRAPHICAL APPLICATION</th>
<th>NATIONAL VALIDITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC Decision on harmonization of the radio spectrum</td>
<td>EEA and accession countries</td>
<td>Legally binding under EU law</td>
</tr>
<tr>
<td>ECC Decision</td>
<td>CEPT</td>
<td>According to national commitment (subject to check of national implementation status)</td>
</tr>
</tbody>
</table>

ETSI Harmonised Standards are adopted and transposed in the CEPT countries and can be applicable globally.
AN INTRODUCTION

The European regulatory environment
for radio equipment and spectrum

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