



About ETSI

ETSI is one of the world's leading standards development organizations for Information and Communication Technologies (ICT). Founded initially to serve European needs, ETSI has grown rapidly to become highly-respected as a producer of technical standards for worldwide use. In addition to our global focus, ETSI is formally recognized by the European Union as a European Standardization Organization.

ETSI membership is composed of manufacturers and network operators – all the “big names” and many smaller companies too – plus ANSPs, national administrations, ministries, regulators, universities, research groups, consultancies and user organizations. A powerful and dynamic mix of skills, resources and ambitions, all working together to bring the very best ICT solutions to the global marketplace. Geographically, our membership of over 700 companies and organizations is drawn from more than 60 countries on 5 continents.

ETSI is independent of all other organizations and structures, a key feature for ensuring neutrality and trustworthiness. That brings benefits not only in the acceptance of our standards and other publications, but also in our growing range of ancillary services, such as interoperability testing. And because standardization inevitably draws upon the bright ideas of our members, we have an Intellectual Property Rights (IPR) policy in place that has become the model for many other organizations.

ETSI's standardization activities are open to all interested companies and organizations. Your company can be part of this dynamic organization. For more information about how *you* can be involved, please visit

<http://www.etsi.org/membership>

For details about ETSI's current activities in support of the Single European Sky, please visit

<http://portal.etsi.org/Aero>

or contact

aerosupport@etsi.org

ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex, France
info@etsi.org - www.etsi.org

Harmonized Standards for Air Traffic Management



The European R&TTE Directive

The European Radio equipment and Telecommunications Terminal Equipment (R&TTE) Directive (1999/5/EC) was published in the Official Journal of the European Union on 7 April 1999. It covers all radio equipment and all equipment intended to be connected to public telecommunications networks. It is considered to be a 'New Approach' Directive, although the 'New Approach' was, in fact, introduced in the mid-1980s. However, it continues to be a key policy for European regulation and relies heavily on standardization. It establishes a regulatory framework for placing goods and services on the European market, their free movement, and their putting into service.

The principles of the New Approach are:

- Legislative harmonization is limited to **essential requirements** that products placed on the Community market must meet in order to benefit from free movement within the Community;
- The technical specifications of products meeting the essential requirements set out in the directives are laid down in "**Harmonized Standards**";
- Application of harmonized or other standards remains voluntary, and the manufacturer may apply other technical specifications to meet the requirements;
- Products manufactured in compliance with Harmonized Standards benefit from a **presumption of conformity** with the corresponding essential requirements.

Harmonized Standards

Harmonized Standards define technical characteristics which can be used to meet the essential requirements of the Directive, which are:

- protection of health and safety of the user and any other person (article 3.1a of the Directive);
- the essential requirements of the Electromagnetic Compatibility Directive (article 3.1b);
- effective use of the radio spectrum/orbital resource so as to avoid harmful interference (article 3.2).

The Commission may invoke certain other requirements for particular classes of equipment (article 3.3).

Harmonized Standards are a particular form of European Standard (EN) and can only be produced by the three recognized European Standards Organizations (CEN, CENELEC and ETSI). The work is consensus based and the Harmonized Standards are adopted through a public approval process. Their application is voluntary. Harmonized Standards are distinct from other ENs in that:

- They are produced under a formally issued standardization mandate from the European Commission;
- They take due account of the essential requirements stated in the relevant Directive;
- When the standard has been adopted, a reference to it is placed in the **Official Journal of the European Union (OJEU)** with an indication of the Directive for which the presumption of conformity should apply.

Harmonized Standards and ATM equipment

At a global level, civil aviation is governed by the ICAO convention which has been signed (among others) by all member states of the European Union. Annex 10 to this convention (sometimes augmented by other types of ICAO documents) provides the necessary provisions for the global interoperability between the radio equipment installed on-board aircraft and ground-based air traffic management (ATM) related radio equipment.

The European Union's "Single European Sky" (SES) legislation is based on a framework of four regulations, including the Interoperability Regulation, the objective of which is to ensure interoperability of the European Air Traffic Management Network (EATMN) consistent with air navigation services, including ground-based, air-borne and space-based constituents. Under this regulation, the use of a European Standard referenced in the OJEU as a **Community Specification (CS)** is a means of compliance to the essential requirements of the Regulation and/or the relevant implementing rules for interoperability. Equipment may also have to comply with international treaties and other regulations, such as those from the European Aviation Safety Agency (EASA).

Initially, radio equipment on-board aircraft and air traffic management equipment were exempted from application of the R&TTE Directive. The exemption for ground-based radio equipment was subsequently removed and the European Commission issued CEN, CENELEC and ETSI with a mandate (M/405) to produce Harmonized Standards covering the Essential Requirements of the R&TTE Directive for ATM radio equipment, as well as other mandates to produce Community Specifications related to the Interoperability Regulation and the implementing rules.

ETSI Technical Report TR 103 065 summarizes the rationale on which ETSI's current development of European Standards (EN) for ground-based air traffic management radio equipment and constituents has been based, to allocate Radio Frequency (RF) parameters either to Harmonized Standards covering essential requirements under the R&TTE Directive or to Community Specifications. Like all ETSI standards and reports, this is available free of charge from the publications download area of the ETSI website (<http://pda.etsi.org>).

Creation of Harmonized Standards in ETSI

ETSI (as an European Standards Organization) is responsible for the drafting of European Standards (ENs) that are formally adopted following a public approval process. After approval by the responsible Technical Committee (in the case of ATM equipment, both the ETSI ERM and AERO Technical Committees), a draft EN is submitted to the European National Standards Organizations (NSOs) for a "public enquiry". The NSOs submit their comments to ETSI. After resolution of comments received, the revised draft is returned to the NSOs for national vote. Following adoption and publication, the EN is notified to the European Commission which, if all the conditions are fulfilled, will reference the EN as a Harmonized Standard in a listing in the OJEU.

A very similar process is followed for the production of Community Specifications, as described in a separate leaflet.