



Training Course on Conformity and Interoperability,
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Speed up your compliance

The new Radio Equipments Directive

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Summary

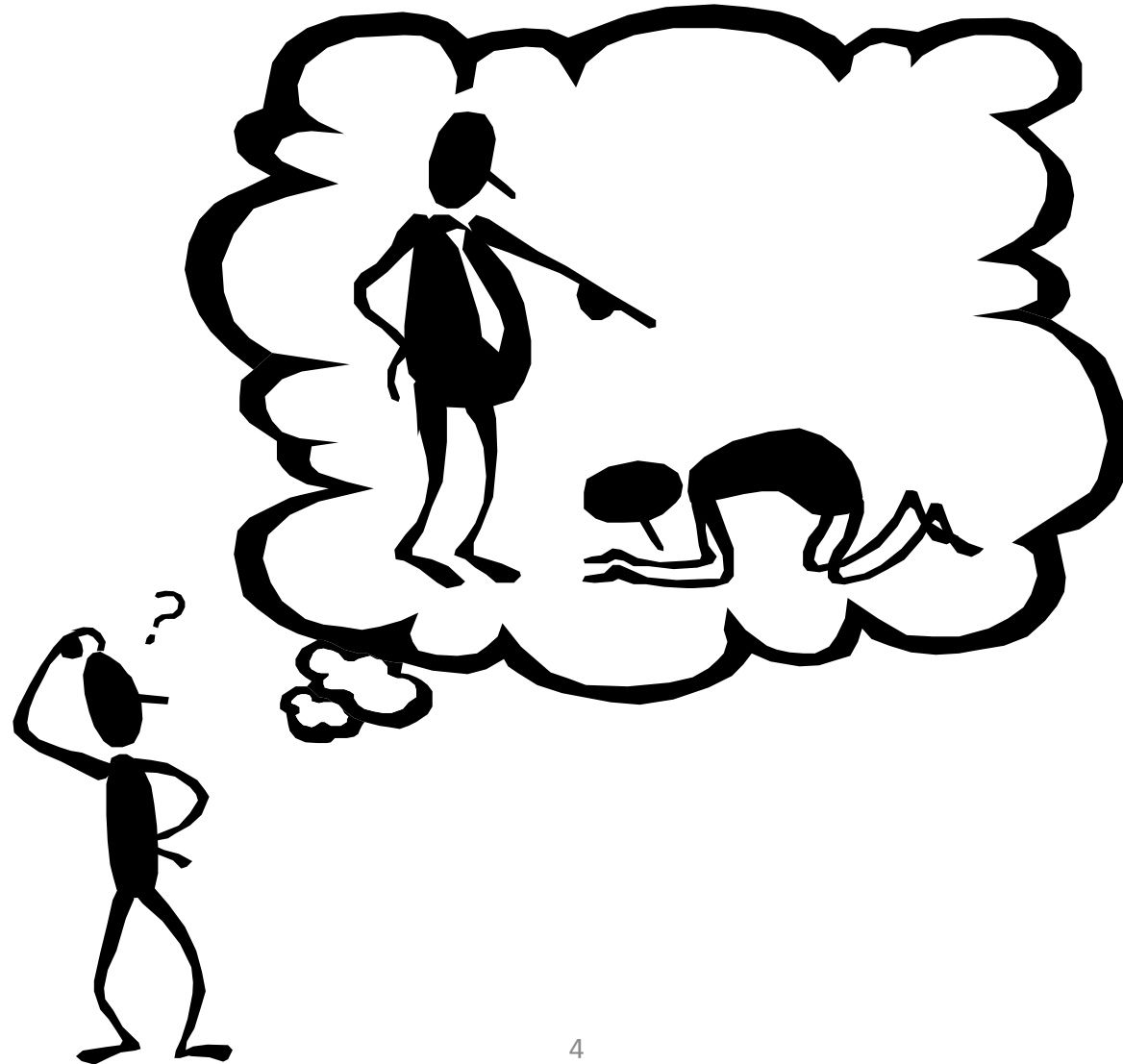
- Three new Directives adopted in 2014
- Existing legislation
 - What did it intend to achieve?
- What has changed?
 - Why?
- What will be the effect on ETSI activities?
 - When?

New EU Legislation in 2014

- Electromagnetic Compatibility (EMC) Directive 2014/30/EU
 - OJ L96 29 March 2014
 - Replaces 2004/108/EC
- Low Voltage Directive 2014/35/EU
 - OJ L96 29 March 2014
 - Replaces 2006/95/EC
- Radio Equipment Directive 2014/53/EU
 - OJ L153 22 May 2014
 - Replaces Radio & Telecommunication Terminal Equipment Directive (RTTED) 1999/5/EC

1999/5/EC (RTTED)

What was its purpose?



1999/5/EC (RTTE Directive)

What was its purpose?

- To allow new equipment onto the market quickly
 - Type approval (ex-ante) -> Market surveillance (ex-post)
 - Minimal technical requirements (e.g. radio receivers)
- Horizontal market for terminals
 - Operators to publish interfaces
- Encourage openness / harmonisation of spectrum use
 - National regulations to be notified
 - Equivalence identified & published at EU level



“Regulation by market forces where possible”

What does a manufacturer need to do? (RTTE Directive)

- Meet “essential requirements”
 - Health & safety (as LVD (*))
 - Electromagnetic compatibility (as EMC Directive)
 - Avoidance of harmful interference (Radio equipment only)
 - Possibly others, if invoked by the EC
- Carry out “essential radio test suites”
 - Identified by Notified Body or in Harmonised Standards
 - Test reports included in technical documentation to be retained at the disposal of National authorities of any Member State
- Meet National radio interface regulations
- Administrative requirements
 - Inform member state 4 weeks before marketing equipment using non-harmonised spectrum
 - Inform the user of National Restrictions
 - CE mark, “alert symbol”, Notified Body number etc etc.



Other Legislative developments since 1999

- Radio Spectrum Decision
 - Legally binding EU measures to harmonise use of certain radio frequencies
 - Decision 2002/676/EC (OJ L108 24.4.2002)
- "New Legislative Framework"
 - Harmonised framework of obligations on manufacturers, importers, enforcement and accreditation authorities
 - Replaced "New Approach" & "Global Approach"
 - Regulations 764/2008 & 765/2008; Decision 768/2008/EC (OJ L218 13.8.2008)
- Control of Commission's implementing powers
 - Procedures for "delegated acts" and "implementing acts"
 - Regulation 182/2011 (OJ L55 28.2.2011)
- European Standardisation
 - Replaced 98/34/EC: basic instrument for European Standardisation
 - New processes for Harmonised Standards & Mandates
 - Regulation 1025/2012 (OJ L316: 24.11.2012)

European Radio Regulatory System

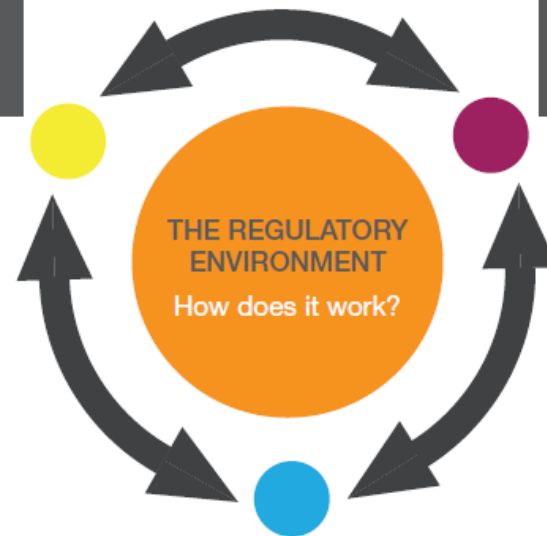


Policy positions
Legal certainty
Political support



Harmonizing National
Frequency Allocations

Coordinating
International Negotiations



Harmonized Standards
and other standards &
specifications to support
EU legislation & market
development



2014/53/EU: New elements

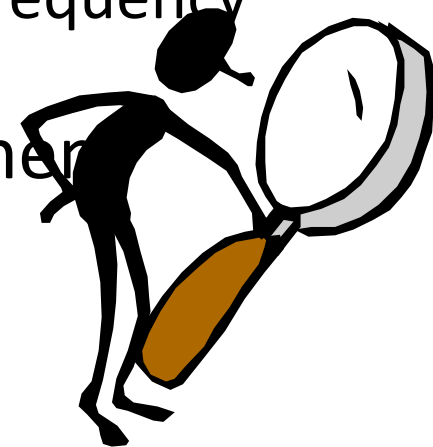


- No need to cover wired terminal equipment, concentrate on radio equipment
- Provisions for Universal Charger
- Increased emphasis on efficient use of spectrum, in particular by improving radio receiver requirements
- Clear scope (but still some boundaries re: purpose of spectrum use)
- Improved provisions for market surveillance & enforcement (in particular between Member States)
 - Simplified marking requirements
 - Product registration can be introduced in cases of extensive non-compliance
- Clear link with Radio Spectrum Decision
- New provisions for software-defined radio

Directive (RED)

What has changed since

- Scope:
- RED covers equipment which intentionally transmits or receives radio waves:
 - Including broadcast receivers
 - Commission may refine the definition via an implementing act (Art 2.2)
- RED covers equipment for Radio communications and/or Radio determination
 - Operating up to 3000 GHz (Note: no lower frequency limit)
- LVD & EMCD do not apply to RED equipment
 - Definition & provisions in RED



major changes (1)

- Some major changes of the new Radio Equipment Directive (RED) compared to the old R&TTE directive are:
- RED only applies to wireless/radio products; wired Telecom Terminal Equipment (TTE) is not covered anymore
- RED scope includes radio communication and also radio determination (RFID, radar, movement detect, etc.)
equipment radio equipment not for communication or determination is not within the scope of the RED
- Broadcast receivers now fall into the scope (actually they weren't in R&TTE)

major changes (2)

- RX only (like GPS) devices remain in scope
- No lower limit of the covered frequency range (for R&TTE lower limit was 9 kHz), upper limit remains at 3000GHz
- Safety requirements now explicitly apply also for animal related equipment (was in R&TTE but not clear to many readers)
- Evaluation kits are now excluded (no approval required under RED)

major changes (3)

- RED requires common / universal chargers
- No more equipment class 2 notifications to national FSA
- No more class 2 labelling (Alert Sign)
- No more Notified Body number with CE mark for single product approvals
- (Notified Body number only applies if the Quality System of the manufacturer was assessed against RED requirements (Full Quality Assurance – Module H))
- No more CE mark in the user manual
- Notified Body Opinion will be replaced by “Type Examination Certificate”

specific requirements

- **The new directive also introduces some new specific requirements:**
- ensure that **software** can only be used with radio equipment after the compliance of that particular combination of software and the radio equipment has been demonstrated;
- the Commission will have the possibility to require that mobile phones and other portable devices are compatible with a common charger.

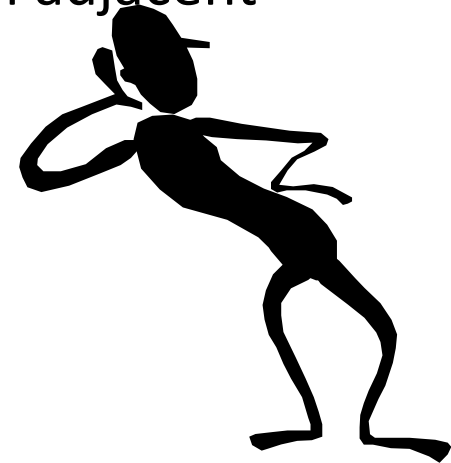
2014/53/EU RED does not cover



- **Wired telecommunication terminal equipment**
 - Product requirements under LVD & EMC Directive
 - Interfaces covered by Directive 2008/63/EC (OJ L162 21.6.2008)
- **Equipment exclusively for public security, defence etc.**
- **Equipment for radio amateurs**
 - Unless made available on the market
- **Marine equipment falling under 96/98/EC (Marine Equipment Directive)**
- **Airborne Products falling under Regulation 216/2008 (EASA Regulation)**
- **Equipment using radio waves for other purposes (e.g. RF heating, medical imagery...)**

Essential requirements for all radio equipment

- Art. 3.1(a): Safety requirements as LVD, but with no lower voltage limit
- Art 3.1(b): EMC requirements as EMCD
- Art 3.2: effective and efficient use of radio spectrum to avoid harmful interference
 - See recitals (10) & (11): aim to increase the resilience of receivers to ensure efficient use of spectrum in adjacent bands.



Art 3.3: Requirements to be invoked necessary


- a) Interworking with accessories, in particular common chargers
- b) Interworking via networks
- c) May be connected to interfaces of the appropriate type
- d) Shall not harm the network or misuse network resources
- e) Safeguards personal data & privacy
- f) Protection from fraud
- g) Access to emergency services
- h) Facilitates use by a person with a disability
- i) Can only load compliant software

Commission may invoke the above requirements for certain equipment where via a delegated act

Specific provisions

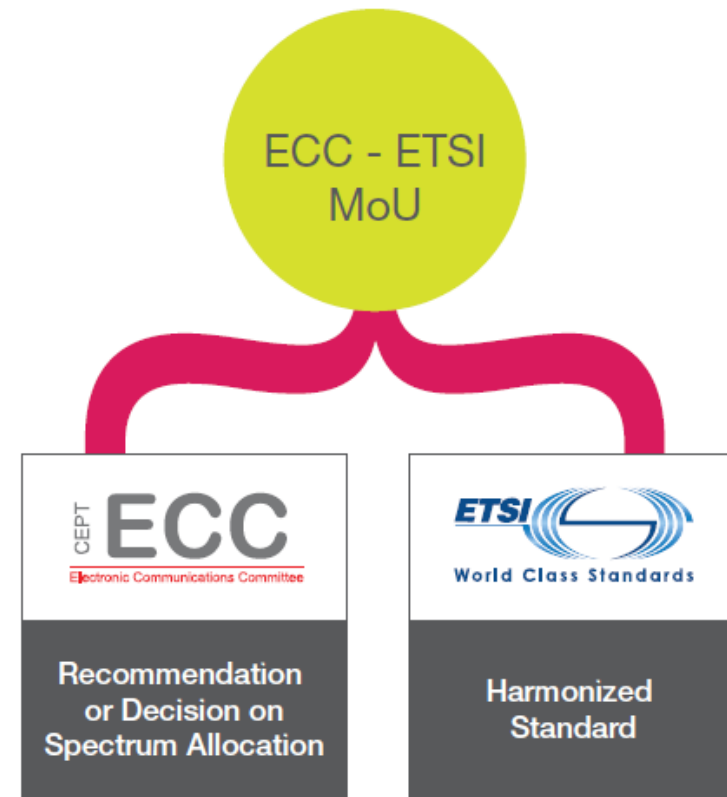
- Software-defined radio:
 - Equipment classes to be defined by delegated act
 - Operational rules by implementing act
- Registration
 - If a high level of non-compliance is identified, the Commission may specify categories of equipment (by delegated act) which need to be registered
- Cumulative effect of a population of devices
 - See recital (60)

Use of radio frequencies: notified interfaces

- Member states no longer required to notify interfaces which:
 - a) Are covered by a Commission Decision under 676/2002/EC (Radio Spectrum Decision), or
 - b) Correspond to a class of equivalent interfaces that can be used anywhere in the Union (specified via implementing act)
- Manufacturers no longer required to inform Member State before placing on the market equipment that uses non-harmonised spectrum
 - Manufacturer to check in EFIS if frequencies are available
 - Frequency & power to be included in user instructions
- No 'Alert symbol': 

What about radio spectrum?

- Like the RTTED, the RED does not harmonise use of Spectrum
- ETSI will continue to co-ordinate with European Radio Regulators to develop and align National frequency regulations
- [OCG\(34\)10 – SRDoc spectrum procedures](#)
- EG 201 788 - Guide for drafting an ETSI System Reference document (SRdoc)

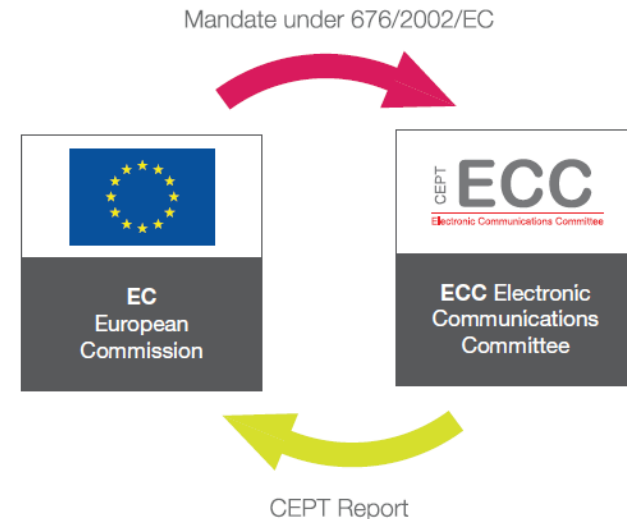


CEPT-ETSI Memorandum of Understanding

- ETSI develops “System Reference Documents” to accompany requests for aligned radio frequencies in CEPT countries
- CEPT/ECC studies compatibility and develops conditions for spectrum sharing
- ETSI members may participate in studies and the drafting of spectrum measures
- ETSI is a permanent observer in CEPT/ECC groups that adopt Decisions & Recommendations on spectrum allocations
- Individual National Administrations may commit themselves to implement CEPT/ECC Decisions

Co-ordination with EC on spectrum mandates

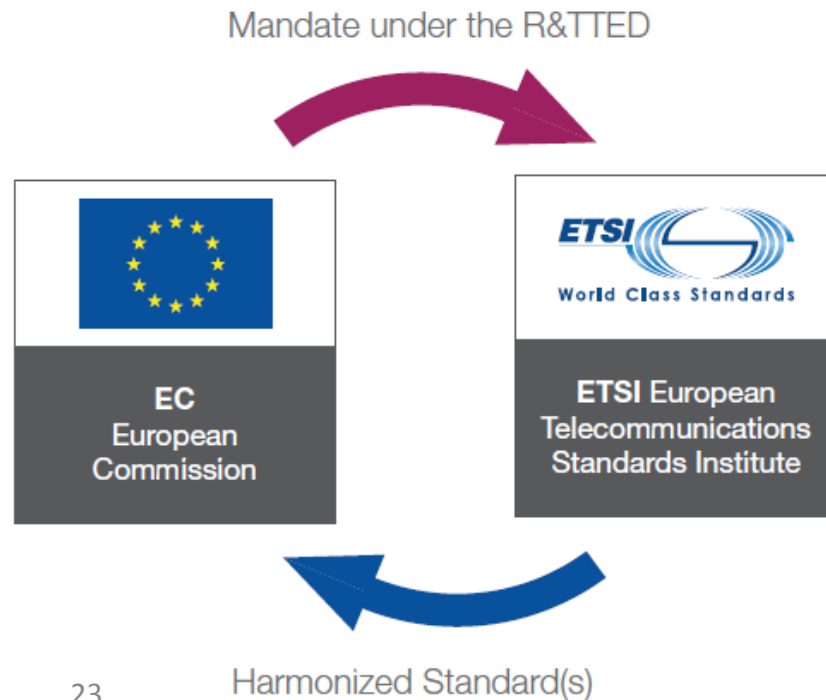
- European Commission consults Member States in the Radio Spectrum Committee (RSCOM):
 - Before sending mandates to CEPT
 - Before enacting binding Commission Decisions on spectrum
 - ETSI and CEPT/ECC are permanent observers



ETSI Harmonized Standards

- A manufacturer can show that he meets essential requirements by applying ETSI Harmonized Standards

Standardisation request
(Regulation 1025/2012)



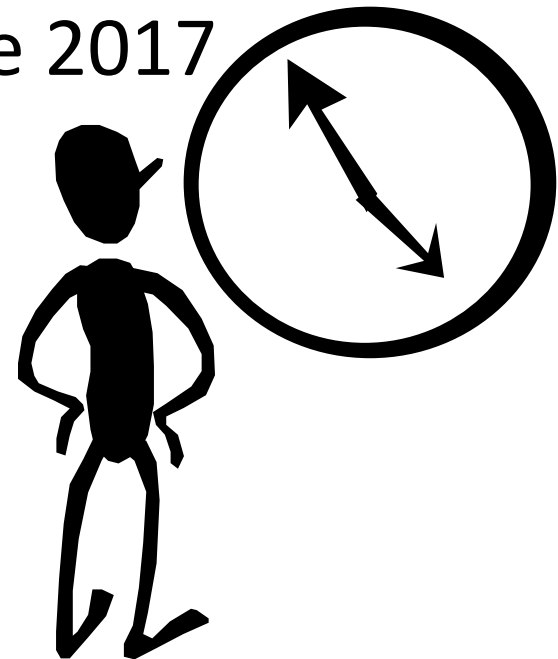
Access to market

- Art 7: “Member States shall allow the putting into service and use of radio equipment if it complies with this Directive ...”
- Art 16: “Radio equipment which is in conformity with harmonised standards ... shall be presumed to be in conformity with the essential requirements”
- Art 17.3 allows the manufacturer to self-declare conformity (“Internal production control”) if he has applied harmonised standards.
- Alternatives are available: “EU-type examination” or “conformity based on full quality assurance” both require use of a Notified Body
- No specific provisions for “essential radio test suites”



Entry into force & transition

- Member states shall transpose the RED into National law before 13 June 2016.
- Equipment which was compliant to RTTED before 13 June 2016 may continue to be placed on the market until 13 June 2017



Impact on ETSI – initial assessment

- Transform existing Harmonised Standards under RTTED to Harmonised Standards under RED
 - 223 Harmonised Standards currently listed in OJEU (Oct 2013)
 - Need to add requirements on receivers in many cases
 - Need to remove essential radio test suites
 - Co-ordinated by OCG RTTED (renamed?)
 - Will need new mandates from EC
- New mandates expected for:
 - Receiver performance
 - Chargers
 - Software-Defined Radio
 - Access to Galileo
- Further mandates as needed

