



# Welcome to the World of Standards



## **THE RADIO EQUIPMENT DIRECTIVE IS COMING IN JUNE 2016 – WILL YOU BE READY?**

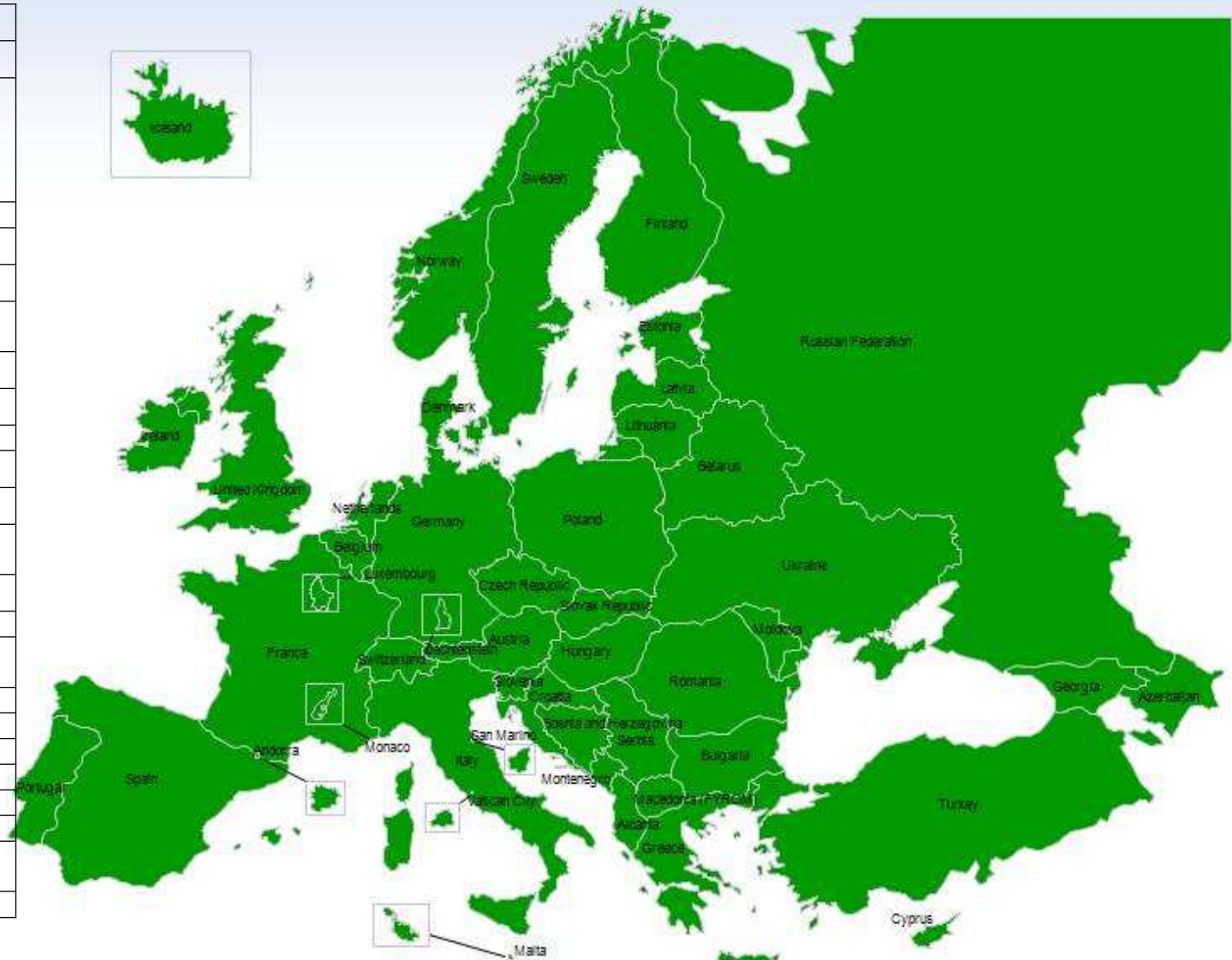
Presented by Dr Michael Sharpe on 7 September 2015 – 15:00 CEST

- Electromagnetic Compatibility (EMC) Directive 2014/30/EU
  - OJ L96 29 March 2014
    - To be applied from April 2016
  - Replaces 2004/108/EC (originally 89/336/EEC)
- Low Voltage Directive 2014/35/EU
  - OJ L96 29 March 2014
    - To be applied from April 2016
  - Replaces 2006/95/EC (originally 73/23/EEC)
- Radio Equipment Directive 2014/53/EU
  - OJ L153 22 May 2014
  - To be applied from 13 June 2016 (+ 1 year for manufacturers to comply)
  - Replaces Radio & Telecommunication Terminal Equipment Directive (RTTED) 1999/5/EC, repealed with effect from 13 June 2016

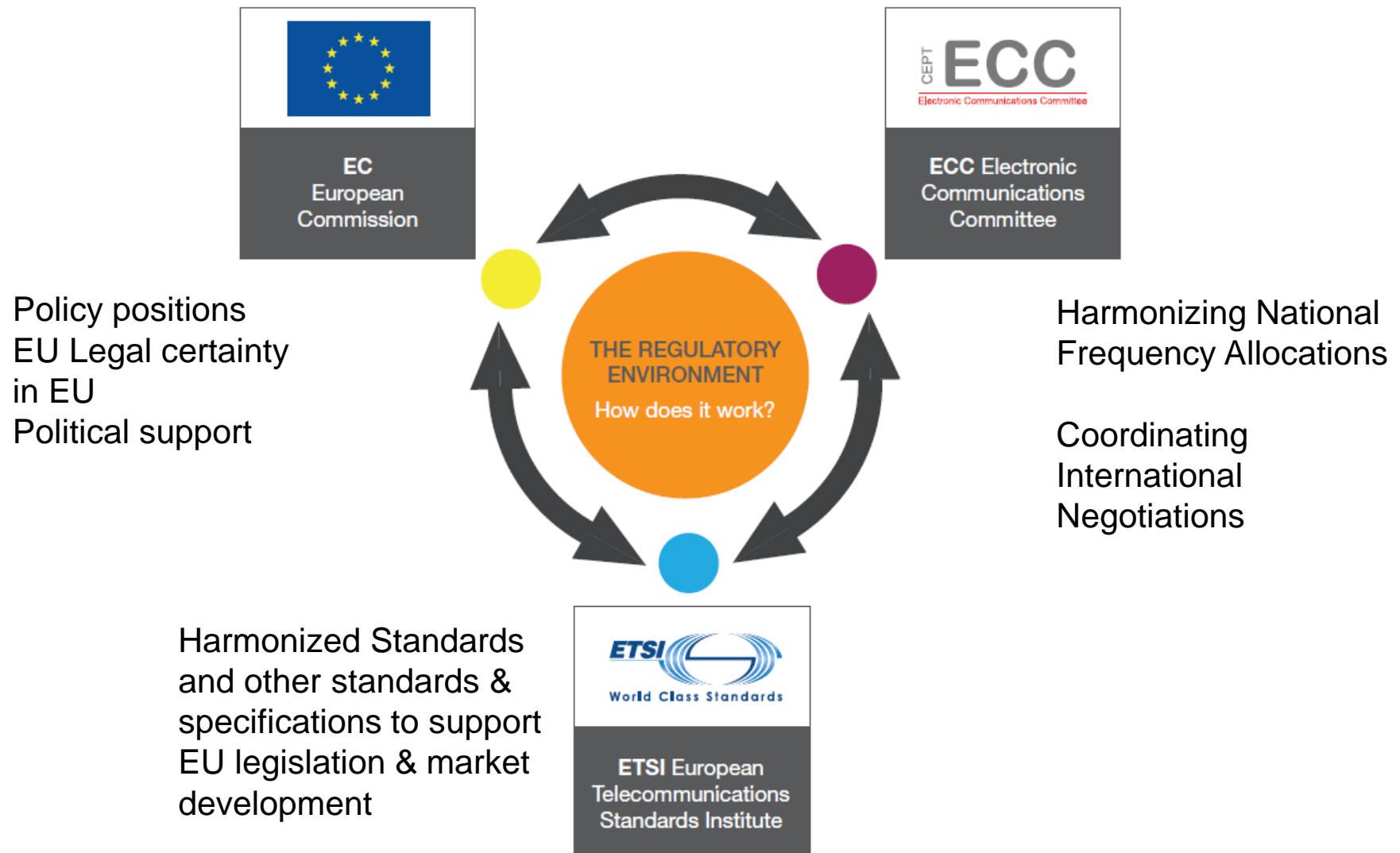
# ETSI in Europe



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Belgium	Monaco
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Bulgaria	Netherlands
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Czech Republic	Portugal
Denmark	Romania
Estonia	Russian Federation
Finland	San Marino
France	Serbia
Georgia	Slovak Republic
Germany	Slovenia
Greece	Spain
Hungary	Sweden
Iceland	Switzerland
Ireland	Turkey
Italy	Ukraine
Latvia	United Kingdom
Liechtenstein	Vatican City



# European Radio Regulatory System



# ETSI's "one table"



**ETSI is a recognised European Standards Organisation**

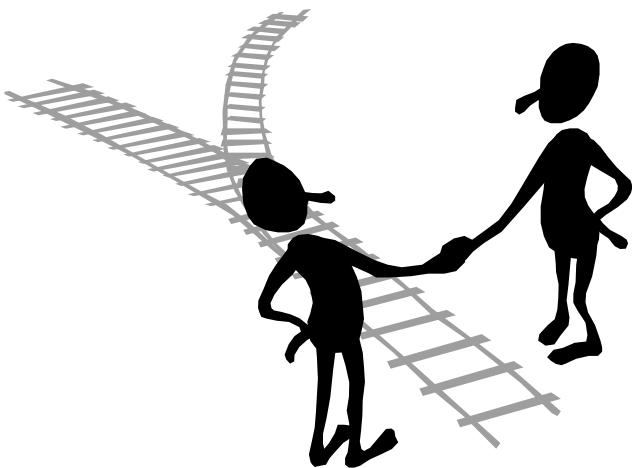
**Association of industry players and government bodies...**

**...manufacturers, network operators, service providers, administrations, users, industry associations, universities, research bodies...**

**... with direct participation...**

**... members from all round the world**

**ETSI standards applied globally**



# Access to EU market via Harmonised Standards (Radio Equipment Directive)



- 🌐 Art 7: “Member States shall allow the putting into service and use of radio equipment if it complies with this Directive ...”
- 🌐 Art 9: “Member States shall not impede... the making available on the market if radio equipment which complies...”
- 🌐 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



# Radio Equipment Directive (RED)

## 2014/53/EU: OJ L153 22 May 2014



- Replaces Radio & Telecommunication Terminal Equipment Directive (RTTED) 1999/5/EC, repealed with effect from 13 June 2016
- RED to be applied from 13 June 2016 (+ 1 year for manufacturers to comply)
- Covers equipment which intentionally transmits or receives radio waves for communications or radiodetermination, regardless of primary function
  - Operating up to 3000 GHz (NB: no lower frequency limit)
  - LVD & EMCDD will no longer apply to RED equipment
  - Many products under the scope of RED: e.g. anything with a GPS, Bluetooth, RFID, RLAN, NFC....

# 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)
  - Minimum 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
  - RTTED did NOT attempt to harmonise use of radio spectrum



“Regulation by market forces where possible”



- Specifically included:
  - Broadcast receivers
  - Equipment operating below 9 kHz
  - Radiodetermination (radar) equipment
- Increased emphasis on efficient use of spectrum, in particular by improving radio receiver requirements
- Improved provisions for market surveillance & enforcement
  - Product registration can be introduced in cases of extensive non-compliance
- Clear link with Radio Spectrum Decision (2002/676/EC (OJ L108 24.4.2002))
  - Legally binding EU measures to harmonise use of certain radio frequencies
- New provisions for software-configurable radio, universal charger

- **Wired telecommunication terminal equipment**
  - Product requirements covered by LVD & EMCD
  - 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 exclusively for other purposes (e.g. RF heating, medical imagery...)**

# What does a manufacturer need to do? (Radio Equipment Directive)



- Meet “essential requirements”
  - Health & safety (art 3.1(a)) (as LVD, but with no lower voltage limits)
  - Electromagnetic compatibility (art 3.1 (b)) (as EMC Directive)
  - Efficient and Effective use of the radio spectrum (art 3.2)
  - Possibly others, if invoked by the EC (art 3.3)
- Article 3.3 EC may invoke certain additional requirements
  - Access to emergency services (3.3g : was art 3.3e – RTTED)
  - COSPAS-SARSAT locator beacons (EC Decision 2005/631/EC)
  - Automatic Identification System (AIS) (EC Decision 2005/53/EC)
  - GMDSS Marine distress & safety equipment used on non-SOLAS vessels (EC Decision 2013/638/EC)
  - Avalanche beacons (EC Decision 2001/148/EC)
  - Radiotelephone equipment on ships using inland waterways (EC Decision 2000/637/EC)
- EC may invoke others by “delegated act”

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# Standardisation M/536 request to CENELEC and ETSI (RED)



- Harmonised Standards covering new areas:
  - Sound and TV Broadcast Receivers and other receive-only and non-receive-only equipment regarding receiver characteristics and receiver performance parameters
  - Radio equipment operating below 9 kHz
  - Radio-determination equipment
- Standards already cited under RTTE Directive
  - To be reviewed & published under RED according to CENELEC & ETSI internal planning schedule
- Standards under development under repealed mandates
  - According to schedule of original mandates
- ETSI & CENELEC to provide an initial work programme to the Commission
- ETSI currently has 162 active work items, with a further 18 under active consideration

- Receiver requirements emphasised in the context of harmonised conditions for availability & effective use adopted under the Radio Spectrum Decision (676/2002/EC)
- HS to include sharing mechanisms & mitigation techniques
- Antenna performance emphasised for mobile terminals and communication equipment used in safety of life applications

# New standardisation areas under RED (some examples)



## 🌐 Sound & TV Broadcast Receivers:

- Digital Terrestrial TV Broadcast Receivers: **EN 303 340**
- Sound Broadcast Receivers: **EN 303 345**

## 🌐 Equipment operating below 9 kHz

- Inductive loop / Telecoil
  - Technical Report (DTR/ERM-TG17WG3-17) being developed
  - Harmonised Standard being drafted **EN 303 348**
- General radio below 9 kHz: **EN 303 660**
  - Initial Technical Report (DTR/ERM-TG28-506) being developed

## 🌐 Radar

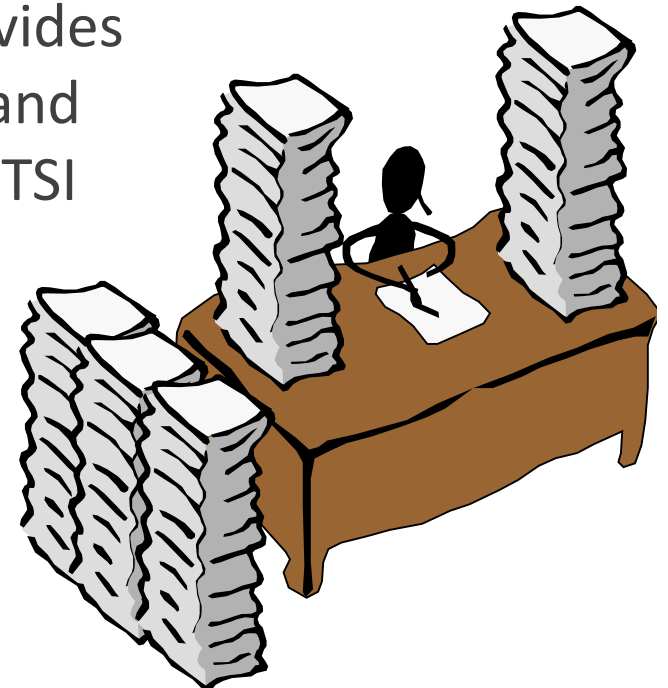
- Marine radar (ERM TG26): **EN 302 194, EN 302 248, EN 302 752, EN 303 135**
- Aeronautical radar (ERM JTFEA): **EN 303 346, EN 303 363, EN 303 364**
- Automotive Radar (ERM TG SRR): **EN 301 091, EN 302 264, EN 302 858**
- Meteorological Radar (ERM JTFEA): **EN 303 347**

- CEPT-ETSI Memorandum of Understanding
  - Ensuring that spectrum regulations and standards are aligned in scope and timing
- CEN-CENELEC-ETSI co-operation
  - (art 3.1 (a)): Safety standards are developed by CENELEC
  - (art 3.1(b)): EMC for communications network equipment and other radio equipment by ETSI;  
EMC Standards for broadcast receivers by CENELEC
  - (art 3.2 & art 3.3) : Radio spectrum standards by ETSI
- Continuing need for close co-operation with:
  - RTTE Compliance Association (renamed REDCA)
  - Administrations Co-operation group (ADCO)
  - European Commission (TCAM & RSCOM)
  - Radio Spectrum Policy Group (RSPG)





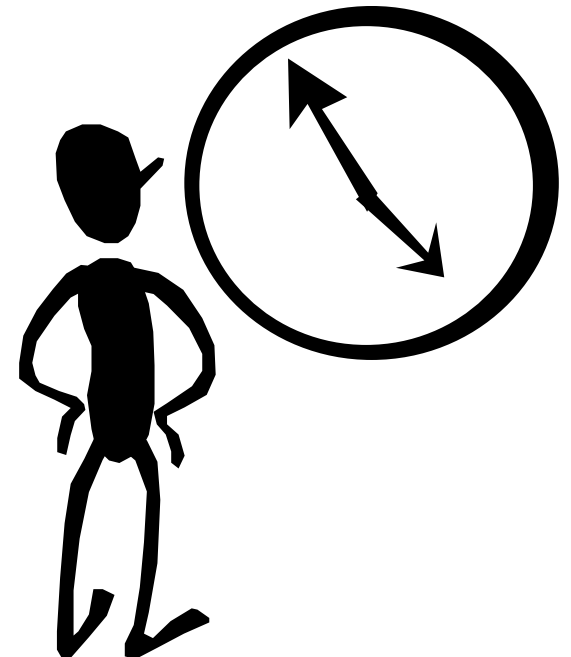
- Harmonised standards need to be fit for purpose to provide presumption of conformity with these Directives, and be compatible with CEPT & Commission spectrum harmonisation measures
- ETSI Secretariat attends key meetings in the Commission (TCAM, RSC, RSPG) and CEPT, monitors developments in spectrum policy and regulatory issues, provides support and guidance to Technical Bodies and advice to authorities on developments in ETSI
- ETSI Secretariat co-ordinates with the Commission for timely and accurate listing of HS in the OJEU
- RADIO\_BRIEFING list for members to brief the Secretariat before key meetings



- Opportunity to take part in technical committees that set the requirements for market access (ETSI Harmonized Standards under Radio Equipment Directive & EMCDD)
- Possibility to contribute to requests for new spectrum (ETSI System Reference Documents)
- Possibility to take part in defining technical spectrum regulations (representing an ETSI member in CEPT/ECC)
- Possibility to contribute to ETSI input to CEPT Decision making process
- Opportunity to contribute to ETSI work in partnership with the European Commission (TCAM, RSCOM, RSPG)
- Visibility of developing regulatory policy (ETSI RADIO\_BRIEFING list)



- Member states shall transpose the RED into National law before 13 June 2016 and apply its provisions from that date..
- Radio equipment which was compliant to legislation in force before 13 June 2016 may continue to be placed on the market until 13 June 2017
- Equipment subject to new requirements under RED (e.g. broadcast receivers) may apply previous legislation (e.g. LVD/EMCD) until 16 June 2017
  - Existing Harmonised Standards will still be available & applicable



The race is on. Ready?



# ETSI workshop on RED: 4 November 2015



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## 53 shades of RE-D: how to place compliant radio equipment on the European market

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EXPAND

ETSI, R&TTE CA and ADCO R&TTE are pleased to announce the workshop "53 shades of RE-D: how to place compliant radio equipment on the European market". The event will take place on 4 November 2015, in ETSI Headquarters, Sophia Antipolis, France.

### More Info

Venue and accomodation

Visa invitation letter



Should you have any queries,

<http://www.etsi.org/RE-D-WORKSHOP>

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Thank you!