

Frequency Management and Standardisation in Europe



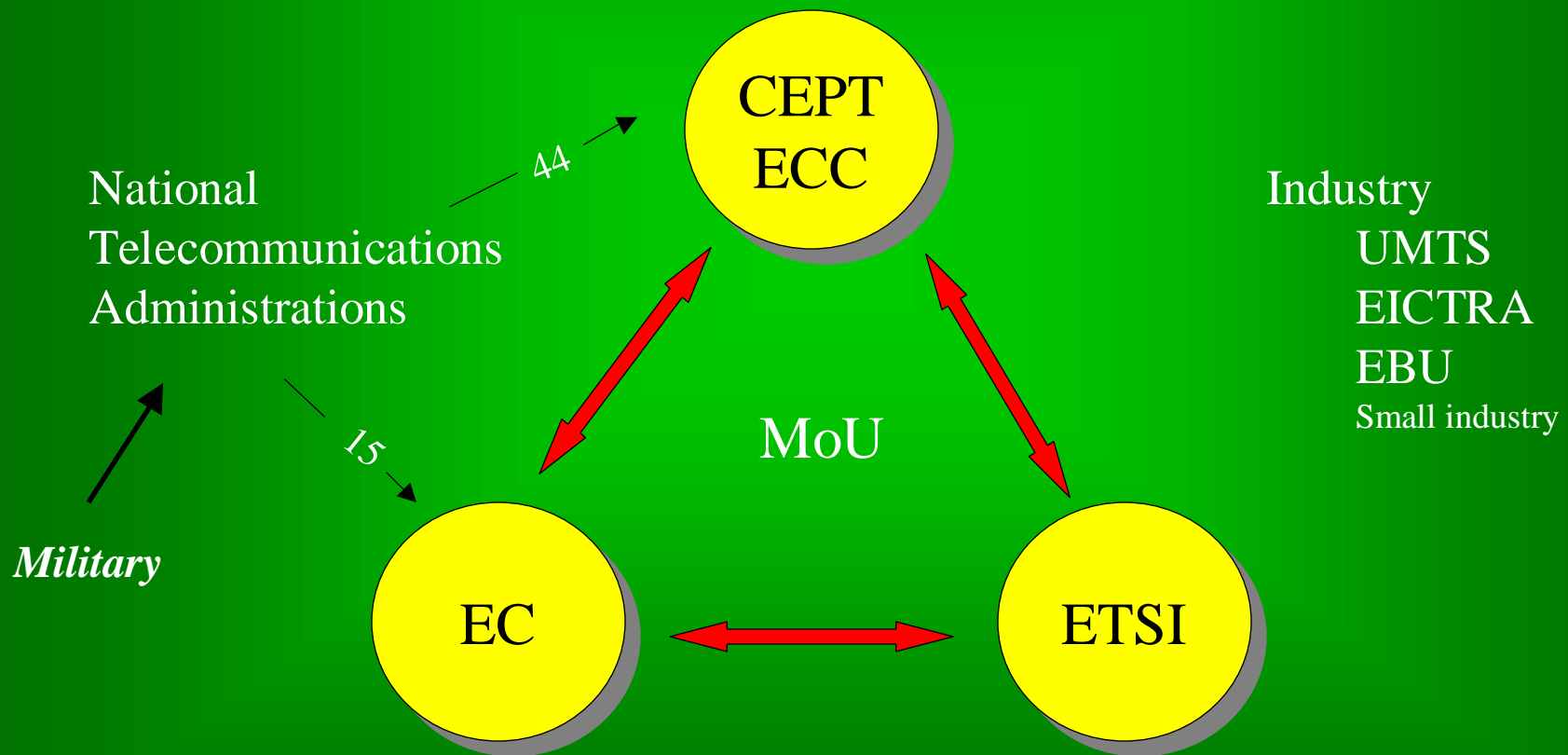
ISART

4 - 6 March 2002

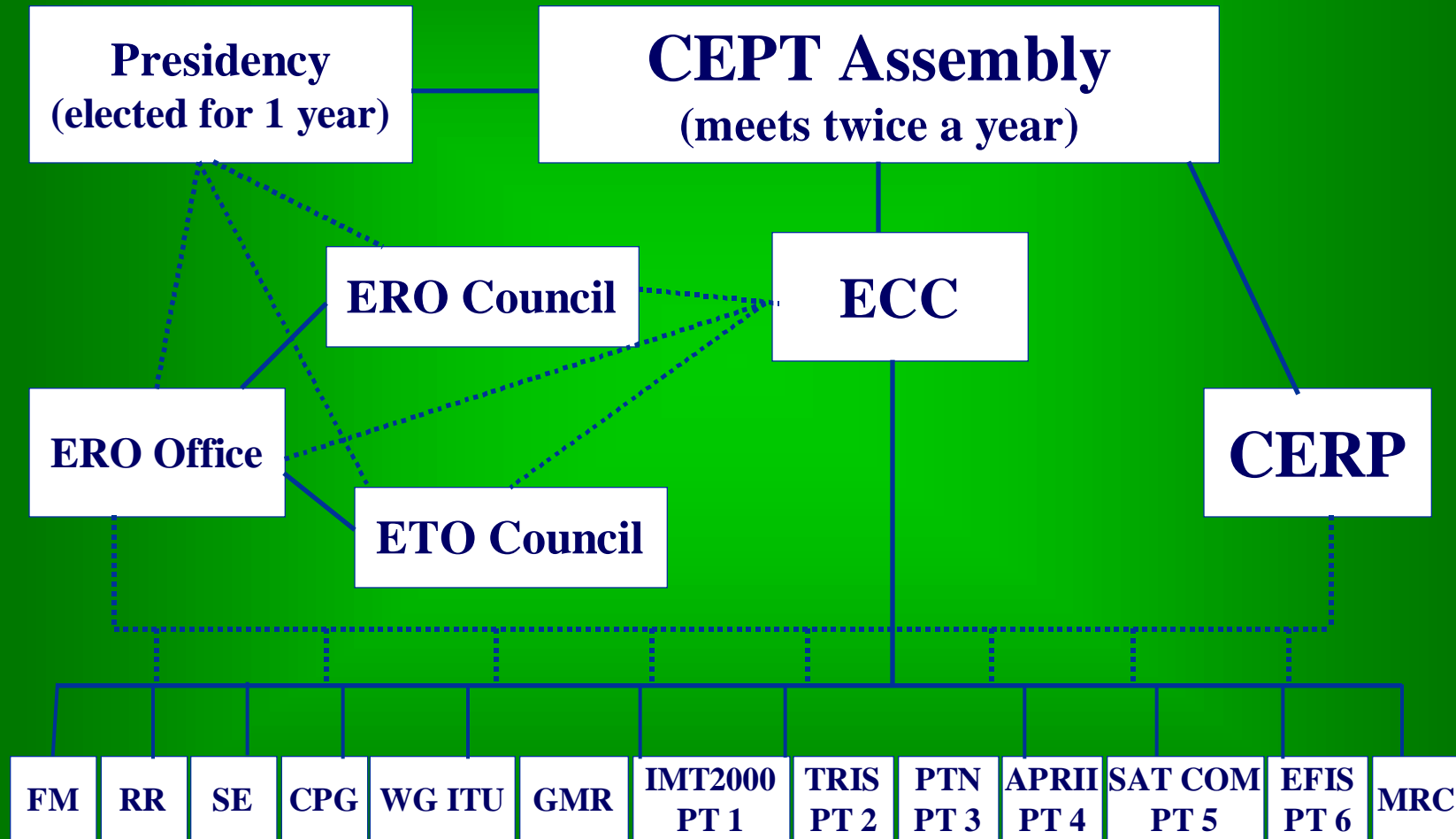
Søren Hess - ERO

European Radiocommunications Office

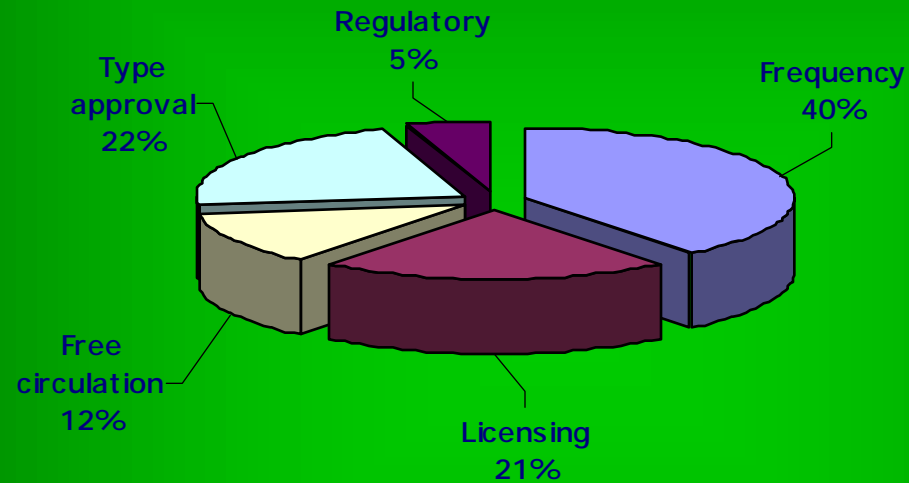
The main players in Europe on Frequency Management



Organisation of CEPT



ERC/ECC Decisions



122 Decisions adopted



Within the EU/EEA countries the R&TTE Directive regulates type approval specifications and free circulation

Long Term Planning in Europe

- DSI Phase I 3400 - 105 GHz 1992/93
- DSI Phase II 29.7 - 960 MHz 1994/95
- DSI Phase III 862 - 3400 MHz 1998/2000

European Table of Frequency
Allocations and Utilisations
(ERC Report 25)

< year 2008



European Common Allocations

ERC Report 25



10 kHz

30 MHz

960 MHz

3400 MHz

275 GHz

- Detailed Spectrum Investigations (DSI)
- Harmonisation of frequency use
- Copied in national tables
- Meet requirements of industry and users



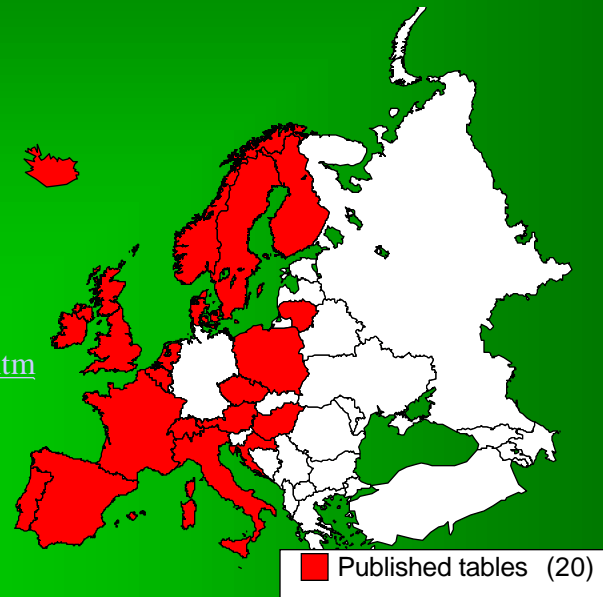
RR Region 1 Allocation and RR footnotes relevant to CEPT and frequency band

	European Common Allocation	Utilisation	EU footnote	ECC/ERC document	Standard	Note
862 - 870 MHz						
BROADCASTING 5.322	MOBILE	Cordless Telephones		ERC DEC (01)02		To be phased out in accordance with ERC Decision (01)02
FIXED		Define systems				
MOBILE except aeronautical mobile 5.317A		Radio microphones		ERC REC 70-03	EN300 422 EN 301 357	Within the band 843-845 MHz
5.319	5.323					
5.323		Social Alarms		ERC DEC (97)04 ERC REC 70-03	EN300 220	Within the band 849.2-849.25 MHz
		SRD in 848-870 MHz		ERC REC 70-03	EN300 220	Strategic Plan for the use of SRD within the band 842-870 MHz adopted
				ERC DEC (01)04		
		Windows Audio		ERC DEC (01)08 ERC REC 70-03	EN301 357	Within the band 843-845 MHz
870 - 876 MHz						
BROADCASTING 5.322	MOBILE	Define systems				Candidate for harmonised military band for tactical radio relay
FIXED		Digital land mobile PMR/PAMR		ERC DEC (94)04	EN303 033	ML paired with 913-921 MHz The use to be reviewed by end 2002
MOBILE except aeronautical mobile 5.317A						
5.319	5.323			ERC REC TR 25-08		
5.323						
876 - 880 MHz						
BROADCASTING 5.322	MOBILE	Define systems				Sharing on a national basis
FIXED		Digital land mobile				
MOBILE except aeronautical mobile 5.317A		UIC Railway systems		ERC REC TR 25-09	EN301 419	ML paired with 921-925 MHz
5.319	5.323					
5.323						
880 - 890 MHz						
BROADCASTING 5.322	MOBILE	Define systems				Sharing on a national basis
FIXED		EGSM		ERC DEC (97)02	EN301 419 EN 301 311	ML paired with 923-933 MHz
MOBILE except aeronautical mobile 5.317A						
5.319	5.317A					
5.323	5.323					



National Frequency Allocation Tables published on the ERO web site

Austria	www.bmv.gv.at/tk/2ofb/frequenz/fnv.pdf
Belgium	www.bipt.be
Croatia	www.telekom.hr/Namjena.htm
Czech Republic	Download the table in PDF format
Denmark	www.tst.dk/uk/frequencies/table.htm
Finland	www.ficora.fi/englanti/radio/taulu.htm
France	www.art-telecom.fr/interactive/frequences/index-d.htm
Hungary	www.hif.hu/english/fnft-new/fnfte.htm
Iceland	www.pta.is/English/ntfa.htm
Ireland	www.odtr.ie/docs/odtr0123.pdf
Italy	National Frequency Table from Italy
Lithuania	www.radio.lt/frequency_table.htm
Netherlands	www.rdr.nl/nfr
Norway	www.npt.no/english/E_fagomraader/frekvensforvaltning/frequency_plan.html
Poland	Download
Portugal	www.icp.pt/publicacoes/freq/indexuk.html
Spain	www.sgc.mfom.es/espectro/cnaf.htm
Sweden	www.pts.se/radio
Switzerland	www.bakom.ch/eng/subpage/category_53.html#topic85
UK	www.radio.gov.uk/publication/ra_info/ra365.htm



[General](#) | [Allocations](#) | **Applications** | [Documents](#) | [Allocations](#) | [Applications](#)

Search for Spectrum Utilisation Applications

Frequency Range: to

Application:

Frequency Table:

Sorted Column:

Results from the ERO Frequency Database:

Lower Frequency	Higher Frequency	Application	Short Comments	NTFA	Activity	R&TTE	Other
863.0 MHz	865.0 MHz	Wireless Audio Applications					
868.0 MHz	870.0 MHz	Non-specific SRDs					
868.6 MHz	868.7 MHz	Alarms					
869.2 MHz	869.25 MHz	Social Alarms					
869.25 MHz	869.3 MHz	Alarms					
869.65 MHz	869.7 MHz	Alarms					
881.7 MHz	882.7 MHz	Railway applications					
926.7 MHz	927.7 MHz	Railway applications					
1785.0 MHz	1800.0 MHz	Radio Microphones					
2400.0 MHz	2483.5 MHz	Non-specific SRDs					
2400.0 MHz	2483.5 MHz	Radio LANs					
2446.0 MHz	2454.0 MHz	AVI					

[External Link](#)

ERO Frequency Information System

SEARCH

COMPARE

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Compare Applications

Frequency Range: to

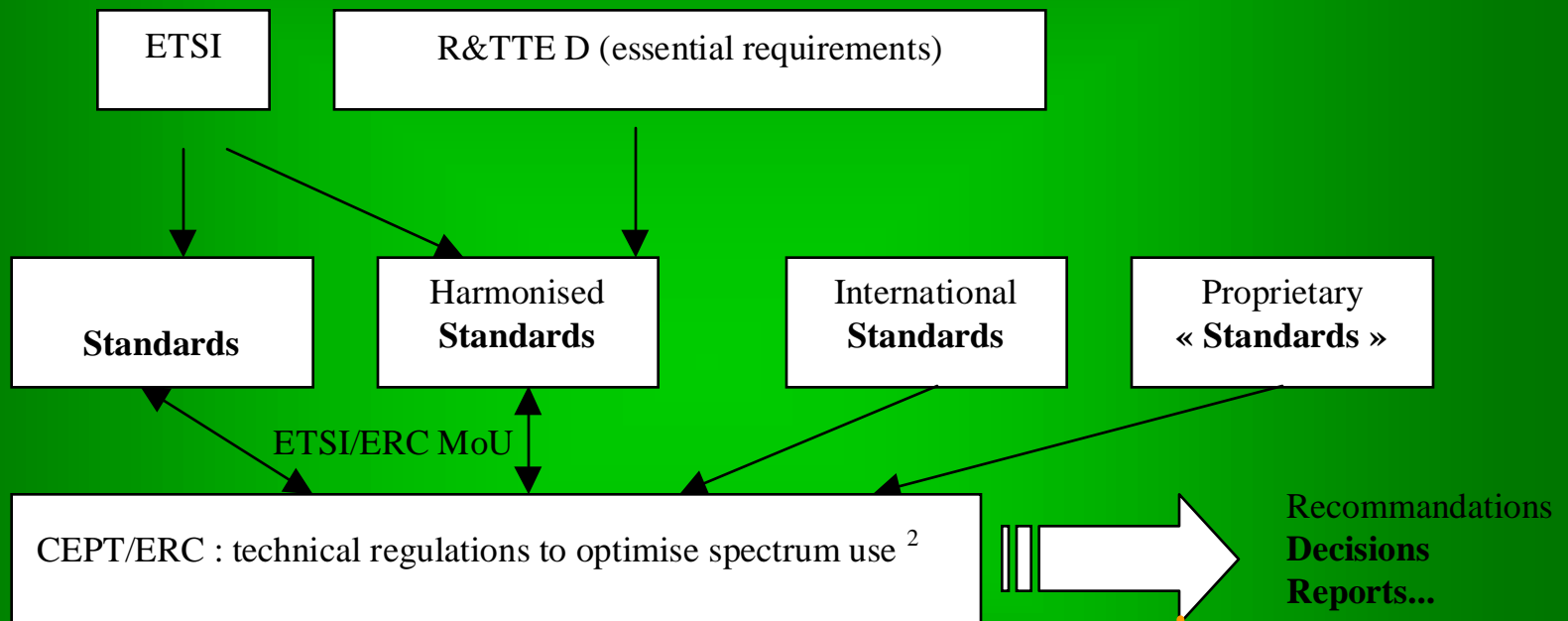
Application:

Frequency Tables:

Results from the ERO Frequency Database:

	B E L	C Z E	D N K	E C A	F I N	N L	P O R
1350.0 - 1362.5 MHz	█	█		█			█
1362.5 - 1375.0 MHz		█		█			█
1375.0 - 1375.75 MHz	█	█		█			█
1375.75 - 1376.75 MHz	█	█		█	█		█
1376.75 - 1378.75 MHz	█	█		█			█
1378.75 - 1387.499999 MHz	█	█		█	█		█
1387.499999 - 1387.5 MHz	█	█		█	█	█	█
1387.5 - 1400.0 MHz		█		█			█
1427.0 - 1427.75 MHz	█	█		█			
1427.75 - 1428.75 MHz	█	█		█	█		
1428.75 - 1429.0 MHz	█	█		█			

Role of ECC/ERC and other organisations under the R&TTE Directive



² Referring to Radio Regulatory Requirements



The R&TTE Directive

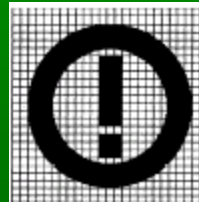
Market Access...

Harmonised Standards
essential requirements

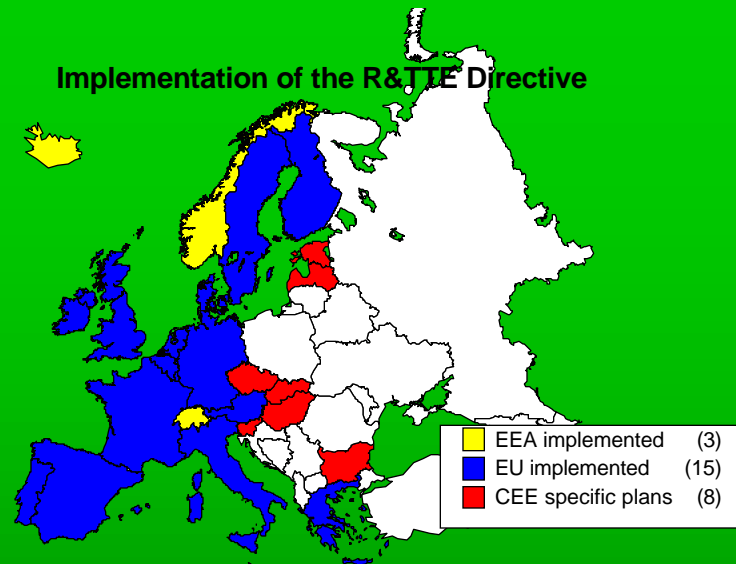
Self declaration of
conformity

National Radio interface
specification

Classification of
equipment

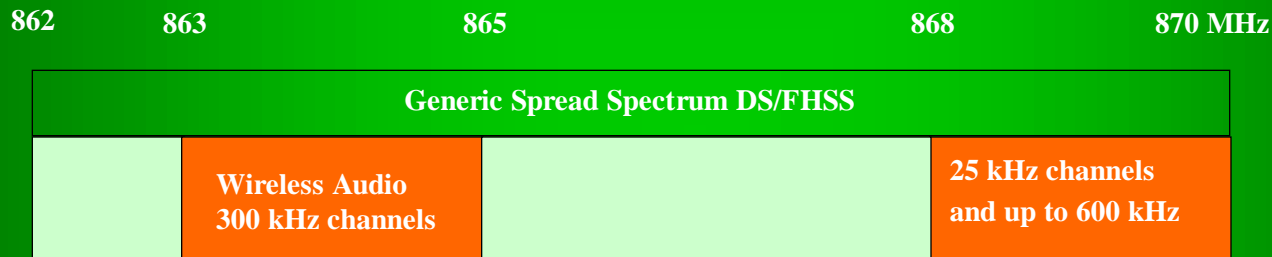


Implementation of the R&TTE Directive



Strategic plan for 862-870 MHz

Outline of the future use for SRD

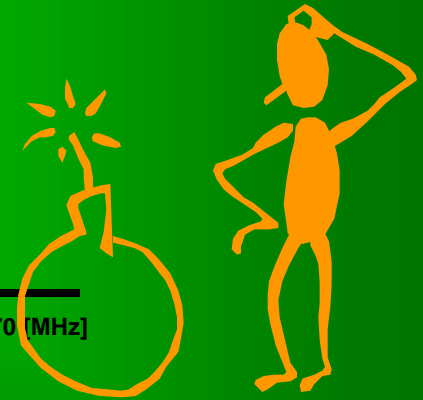
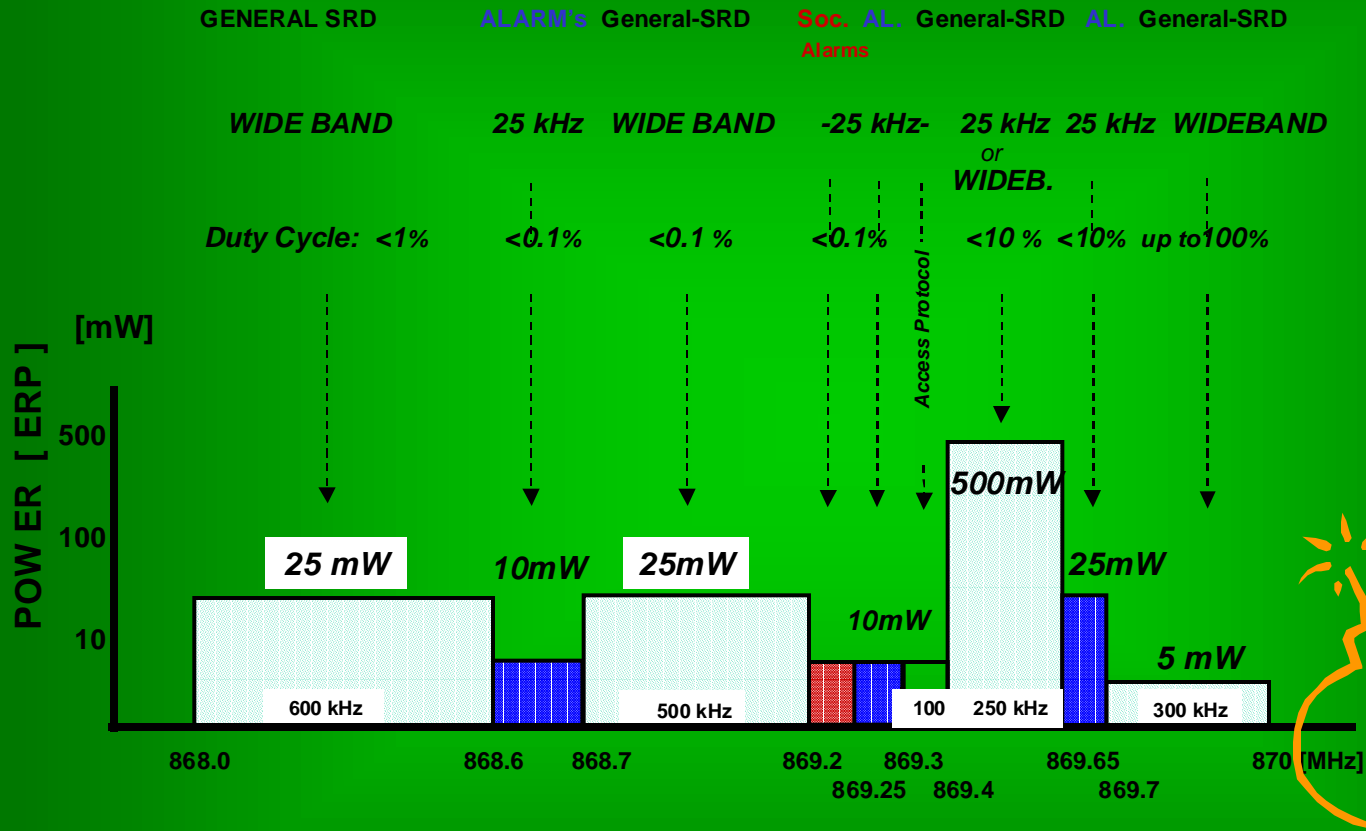


- Phase out of CT2
- General use of Spread spectrum 863-870 MHz 25 mW e.i.r.p.
- Frequency agility, DCA, access protocols
- Further intensive sharing

Harmonised Standards

- EN 300 220 Generic SRD
- EN 300 422 Radio microphones
- EN 301 357 Wireless Audio

Existing use of the band 868-870 MHz (ERC REC 70-03)



New services and technologies

Power levels without regulations

- -5 dBuA/m below 30 MHz

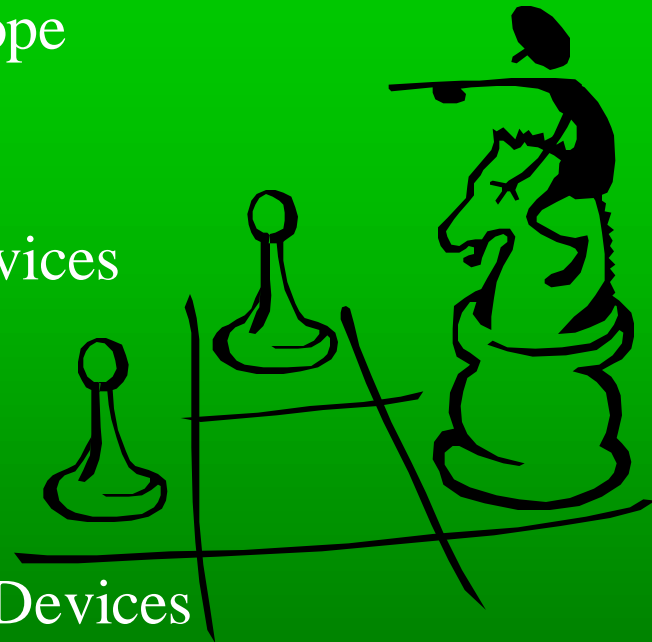
Ultra Wide Band

- Ongoing studies and tests Consultation and workshops
- Applications
 - Radars - High data rate transfer
 - 24 GHz SRR
- Protection of other services
- Harmonised standards



Frequency Management activities

- IMT-2000
- DVB-T implementation in Europe
- T-DAB planning
- MWS - High Density Fixed services
- Digital PMR/PAMR
- Harmonisation of SAP/SAB
- Harmonisation of Short Range Devices

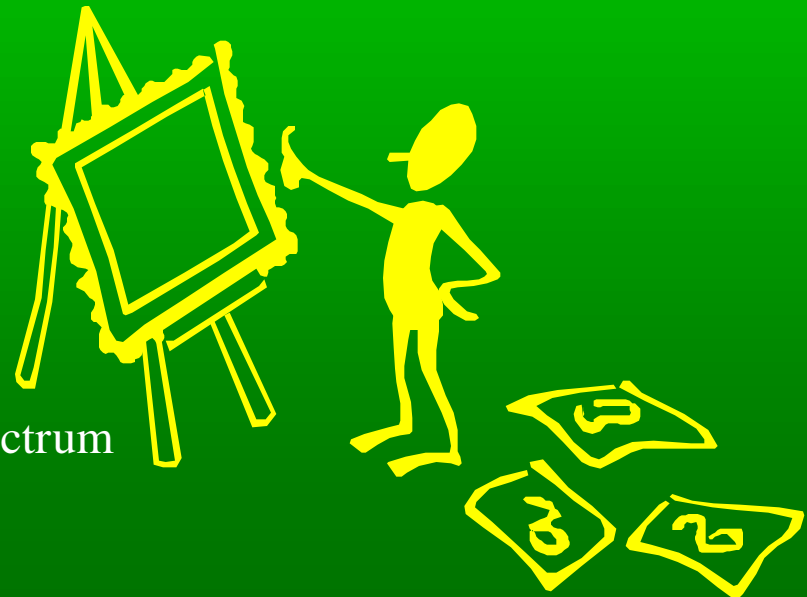


Future Regulation of spectrum

- Convergence require spectrum for services ?
- Are the ITU service definitions valid ?
- Software defined radio and similar technology
- New thinking - allowed spectrum pollution ?

More general, less specific allocations

Unregulated or Lightly regulated blocks of spectrum



Thank you
For your attention

