

Radio Spectrum Policy in the EU

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** Disclaimer: the views expressed are those of the author and cannot be regarded as stating an official position of the European Commission.*

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Economy Context

- **EU: ~500 million consumers**
- **EU ICT turnover: bn € 660**
- **Radio related electronic communications services (ECS): >250 bn € or 2.2% of EU GDP**
- **ICT sector contributes typically to 20% of overall GDP growth and to ~30% of the productivity growth.**
- **Radio sector is an important growth factor and offers a significant opportunity for recovery**
- **Radio applications are pervasive to all areas of modern information society and contribute to quality of life and efficiency**



Historical Context

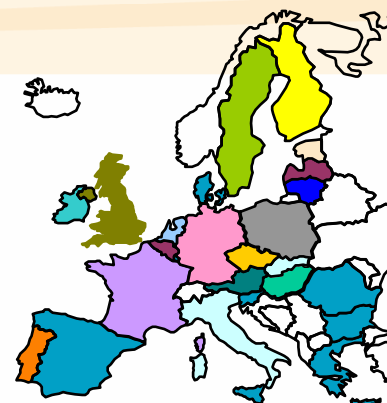
- **Long history of European coordination of spectrum management**
 - since 50 years: CEPT coordination on technical aspects
 - European spectrum plans for broadcasting
 - Coordination of positions at international level (ITU)
 - Defence usage of spectrum (NATO)
- **Essentially technical coordination**
 - interference management
 - classical public uses (broadcasting, defence)



Political context

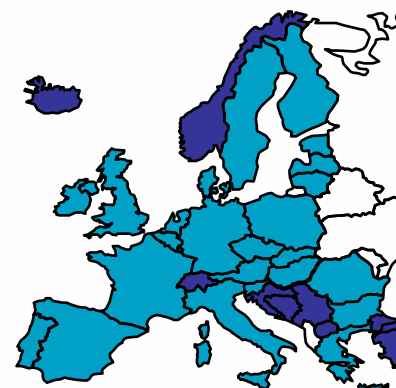
Individual EU countries ...

- own and regulate spectrum individually
- have different spectrum legacies
- issue spectrum national usage rights
- national conditions:
economic development; cultural background;
geography / demography; wireless service
needs; markets; etc



... but European Union as *political and economic entity*

- integrated economies (growth, competitiveness, jobs,...); internal market →
- **enabling frame:**
 - **coordination of spectrum policy**
 - **(radio) equipment regulation**



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EU Context

Internal market

- compatible equipment
economies of scale
- EU-wide services
mobility, roaming
- coherent regulatory
environment
- efficient use of
resource

EU policy objectives

- communications
- broadcasting
- transport
(aeronautical / maritime
/ road/ rail)
- space
Galileo,
earth observation
- "public uses"
defence, security,
disaster relief)
- others
medical sector,
logistics,
environment, etc.

EU synergy effect

- innovation
critical mass for
leveraging new
technology
- international
competitiveness
- collaborative R&D
- attracting investments



Policy Context

3 key change drivers:

- “surging demand for spectrum creates **scarcity**”
- “**technological progress** changes the way we use and manage spectrum”
- “**new spectrum uses** changes demand for spectrum”



Main lines of EU spectrum policy

Maximising socio-economic / cultural potential of spectrum

- Supporting other EU policies
- balancing **coordination at EU level vs national flexibility**
- **empowering spectrum user** (less “command and control”)
- no dogmatic approach, **mix of management paradigms**:
market based assignment for exclusive usage rights / licence exempt approach non-exclusive rights / “command & control”
- **facilitating access** to spectrum resources for innovation
- promoting **efficient spectrum use**
- **technology and service neutrality** for electronic communications services
- **synergy of research efforts and spectrum policy**



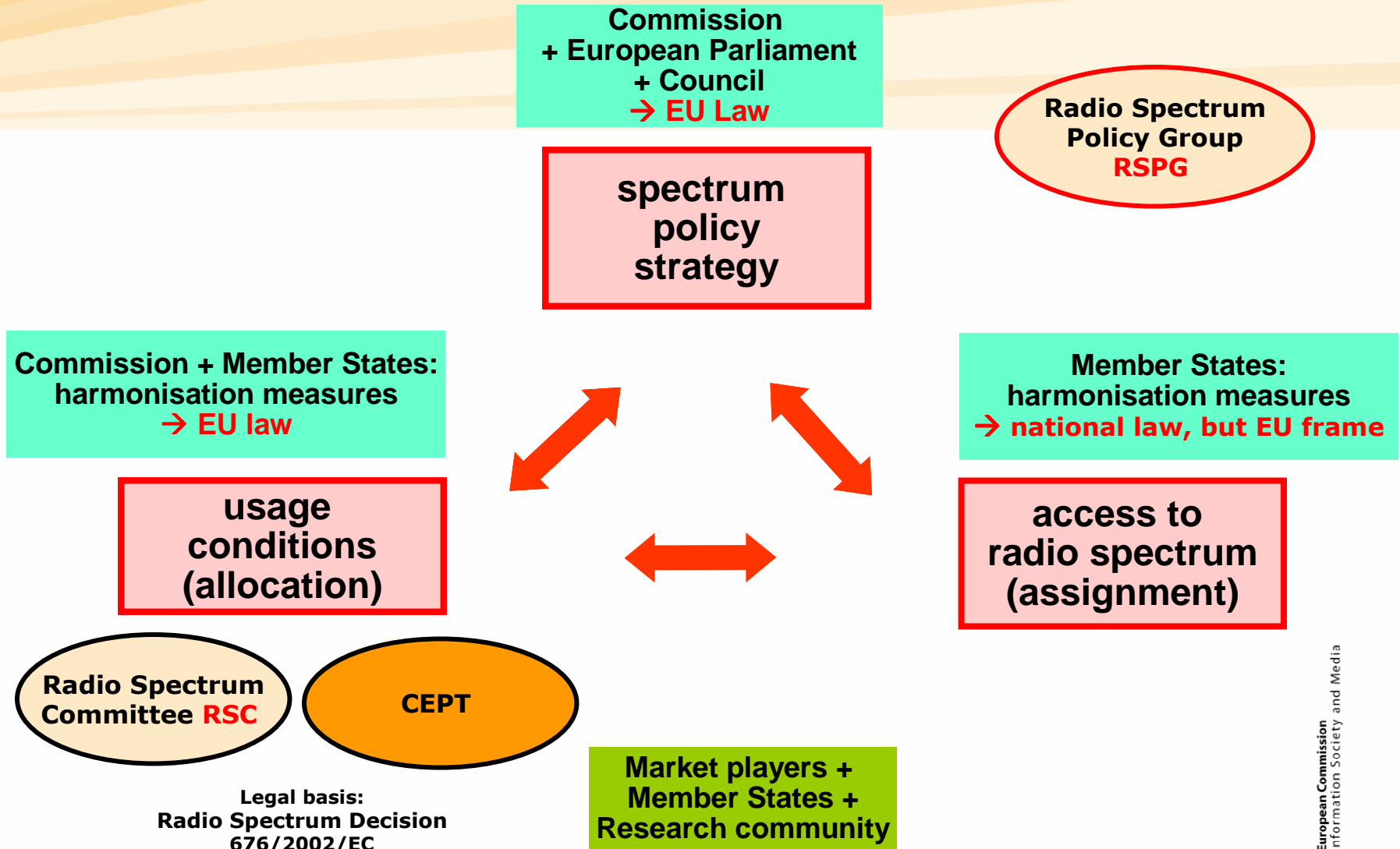
Spectrum policy: EU action

Layers of activity:

- **Spectrum usage harmonisation measures** (allocation)
- **Spectrum rights management** (assignment)
 - **general rules**
 - **best practices**
- **Information on spectrum usage**
- **R&D**
- **International coordination**
 - **EU positions in international spectrum negotiations**
 - **cross border coordination**



Spectrum policy at EU level: organisation



Legal basis:
Radio Spectrum Decision
676/2002/EC

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Spectrum policy: EU action

General spectrum management approach:

- **liberalisation of spectrum use**
 - technology neutrality / service neutrality for ECS
- **exclusive usage right management**
 - **primary assignment: no binding rule at EU level** (auctions/beauty contest)
 - **secondary trading: foreseen in ECS regulatory framework** (new: possibility to make tradability of specific bands mandatory at EU level.)
 - **administrative incentive pricing: no common rule at EU level** (administrative charges / fees)
- **general authorisations of spectrum usage**
 - **anchored in ECS regulatory framework**
 - **collective use of spectrum**



Spectrum policy: EU action

Spectrum usage rights (assignment)

- **assignment *execution* not under EU competence**
EU Member States issue rights of usage
- ***general rules* anchored in ECS regulatory framework**
(binding to EU Member States)
 - **transparency, proportionality, non-discrimination etc.**
 - **competition aspects**
 - **efficiency of spectrum usage**
- ***assignment coordination* at EU level: exceptional cases**
(to be decided jointly EU / Member States)



EU Spectrum Harmonisation

<i>area</i>	<i>application</i>	<i>assignment mode</i>
Short range devices	large variety of applications	<i>unlicensed</i>
RFID	object tagging	<i>unlicensed</i>
SRR 24 GHz and 79 GHz	road safety	<i>unlicensed</i>
ITS	road safety	<i>unlicensed</i>
Ultra wide band (UWB)	high bit-rate communication; specific applications	<i>unlicensed</i>
5GHz RLAN	ECS	<i>unlicensed</i>
Mobile communications on planes and vessels*	ECS	<i>licensed</i> <i>[mutual recognition]</i>
MSS*	ECS	<i>licensed</i>
800 MHz , 900 MHz, 1800 MHz, 2 GHz, 2.6 GHz, 3.4 GHz	ECS	<i>licensed</i>

*** : incl. EU coordination of assignment**



Spectrum in the Review of EU ECS Regulatory Framework

Main results for EU spectrum policy:

- **maintaining mechanism for harmonisation measures**
- **neutrality principle** reinforced
- **“Radio Spectrum Policy Programme”**
 - > strategic frame for EU action on spectrum
 - > **new institutional dimension (EP/Council, RSPG)**
- **introducing tools to allow for extended coordination, using comitology approach**
 - > trading (tradability, trading conditions)
- **international aspects**
 - > policy objectives can be adopted by EP / Council to **ensure effective coordination of EU interests**



Current priorities

- **Digital Dividend:**

- o best usage of fresh spectrum
- o convergence of networks and services
- o *debate*: future of broadcasting, needs for wireless broadband

- **Broadband communications:**

- o role of broadband for efficient society
- o next generation networks incl. wireless broadband
- o overcoming the digital divide: coverage, services quality
- o economic revival
- o *debate*: TN/SN, legacy/competition, relation wireless/fixed

- **Short range devices:**

- o uses rapidly expanding
- o technology progress
- o *debate*: licensing paradigm (GA)



Current Activities

- Spectrum Summit
- Spectrum Policy Multi-annual Programme:
 - Public consultation
 - RSPG Opinion
 - Proposal Q2 2010; Adoption by EP and Council



Conclusion

- **Reform of Radio spectrum is** a huge opportunity and a challenge at the same time.
- **EU dimension of spectrum dossiers** increasingly recognised as self-evident, but neither “central spectrum management” nor “one-size-fit-all” aimed at.
- **Collaborative decisions Member States / EU, with legal basis for implementation** of coordination results.
- Achievement of >10 years of political effort and learning in the EU: Dealing with **spectrum is increasingly on the political agenda**, basic **mechanisms for technical coordination** are in place.
- **Reform of regulatory framework** for ECS paves the way for further development at EU level.



Thank you for your attention !

references:

- **General information DG Information Society and Media**
(overview activities)
http://ec.europa.eu/information_society/index_en.htm
- **Spectrum policy**
(reference documents , on-going activities etc.)
http://ec.europa.eu/information_society/policy/radio_spectrum/index_en.htm
- **Radio Spectrum Policy Group - (RSPG)**
(reference documents RSPG, on-going activities etc.;)
<http://rspg.groups.eu.int>
- **Radio Spectrum Committee - (RSC)**
(reference documents RSC, on-going activities)
http://ec.europa.eu/information_society/policy/ecomm/radio_spectrum/eu_policy/rsc/index_en.htm

