Lisbon, Centro Cultural de Belém

CONFERENCE ON SPECTRUM MANAGEMENT: PERSPECTIVES, CHALLENGES AND STRATEGIES

Spectrum Management in a changing environment

Luísa Mendes

Lisbon, 20 september 2013

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KEY ELEMENTS: Radio Spectrum in the spotlight

- Need for mobility
- Radio spectrum in a key enabler for many European policies
- Convergence
- The increase in the demand for radio spectrum requires more efficient use and inventive sharing techniques
- New technologies and services

Spectrum Management in a changing environment:
New approaches

Command and Control: Administrations decide how to allocate and assign spectrum

Commons: Users decide the applications to be used

Market based: secondary trading and/or change of use is permitted

- trading
- Liberalization

Spectrum Management in a changing environment

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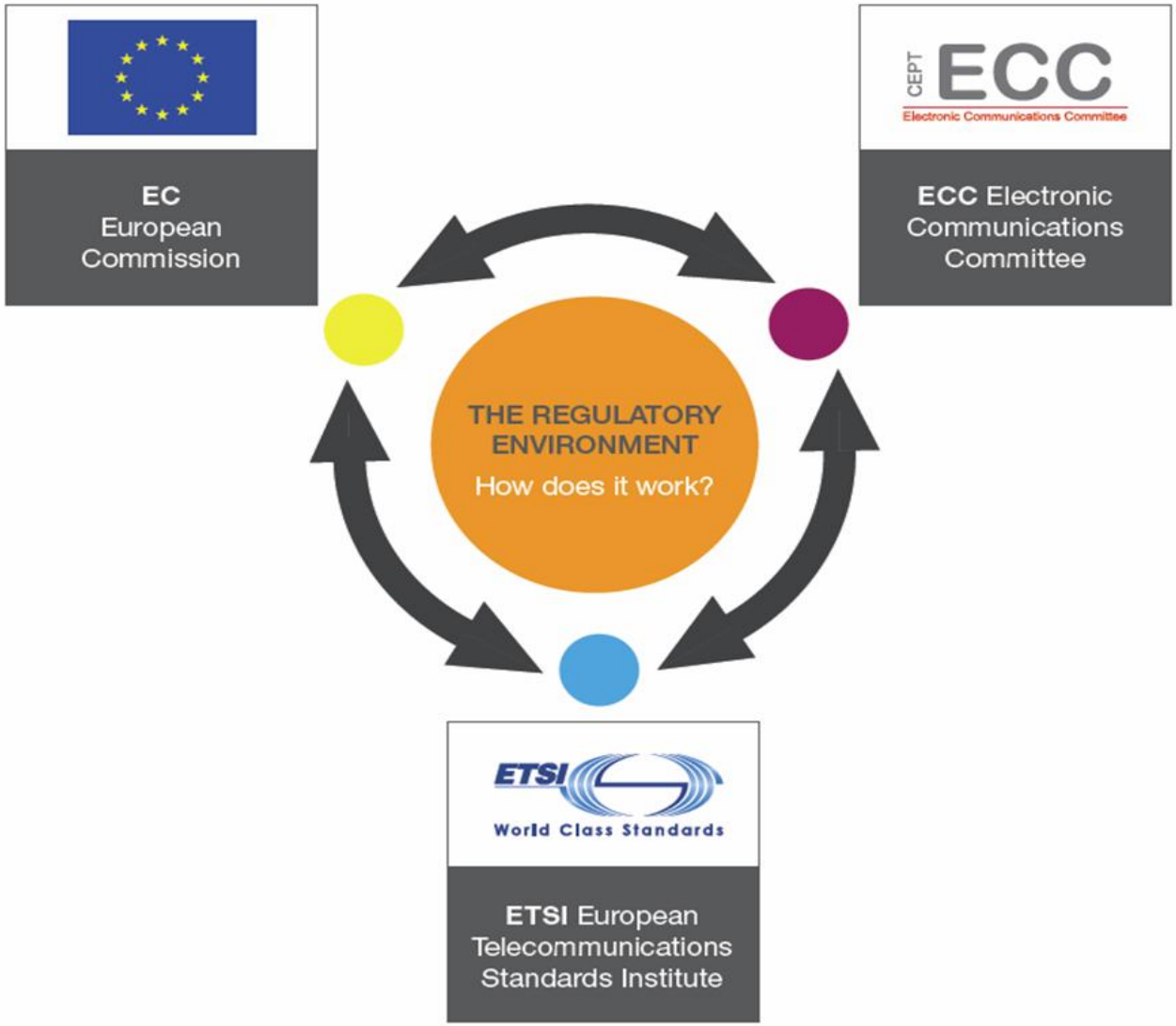

Principles under discussion

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- The role of European Commision
- Single Market
- Economic value of spectrum

Multi-band auction in Portugal

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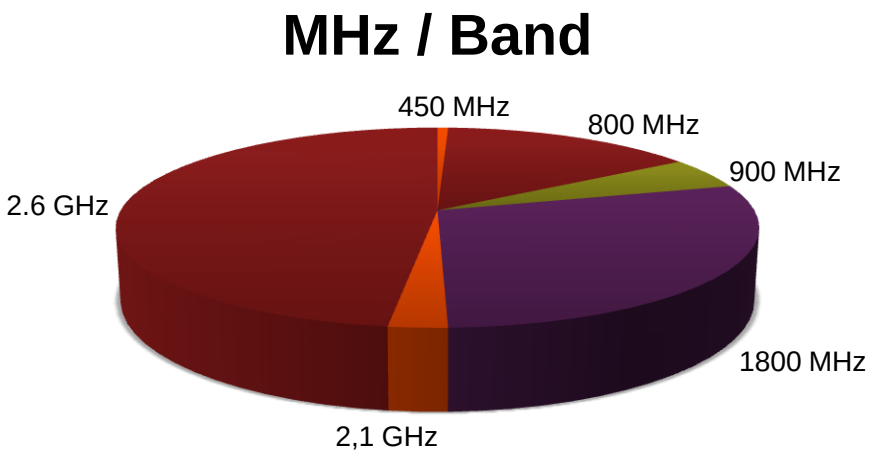
About 400 MHz of spectrum

Band	Number of lots
450 MHz	1 lot of 2 × 1.25 MHz
800 MHz	6 lots of 2 × 5 MHz
900 MHz	2 lots of 2 × 5 MHz
1800 MHz	9 lots of 2 × 5 MHz
1800 MHz	3 lots of 2 × 4 MHz
2.1 GHz	2 lots of 5 MHz
2.6 GHz	14 lots of 2 × 5 MHz
2.6 GHz	2 lots of 25 MHz



- About 75 % of spectrum was assigned

Challenges

Simplification of legal instruments

Stable concepts

- Spectral masks
- Light licensing
- Licensed shared access

Timely Standards

Interference management

Safeguard efficient use of spectrum by minimize interference probability

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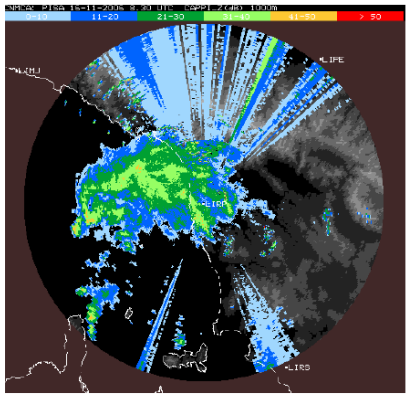
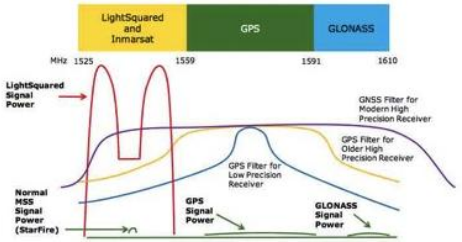
How to manage interference ?

Television

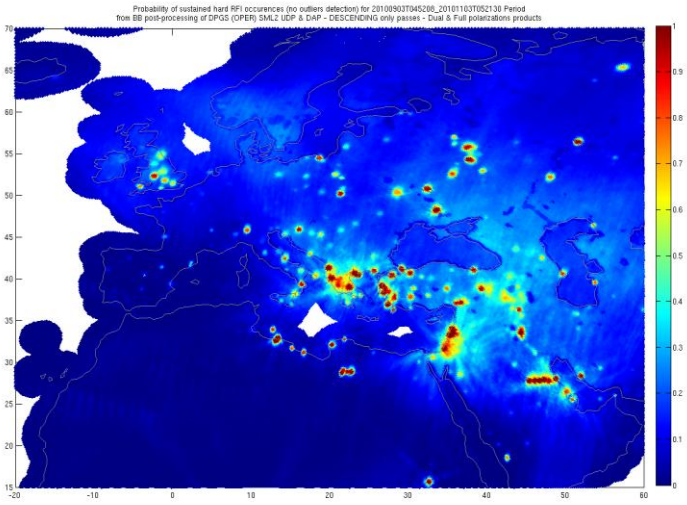
Weather Radar



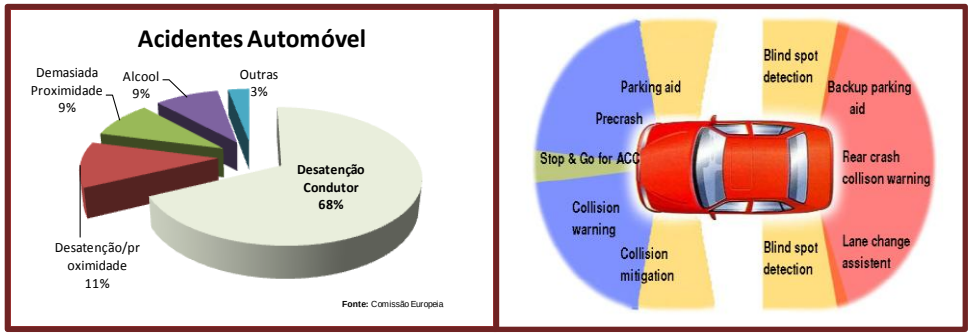
GPS



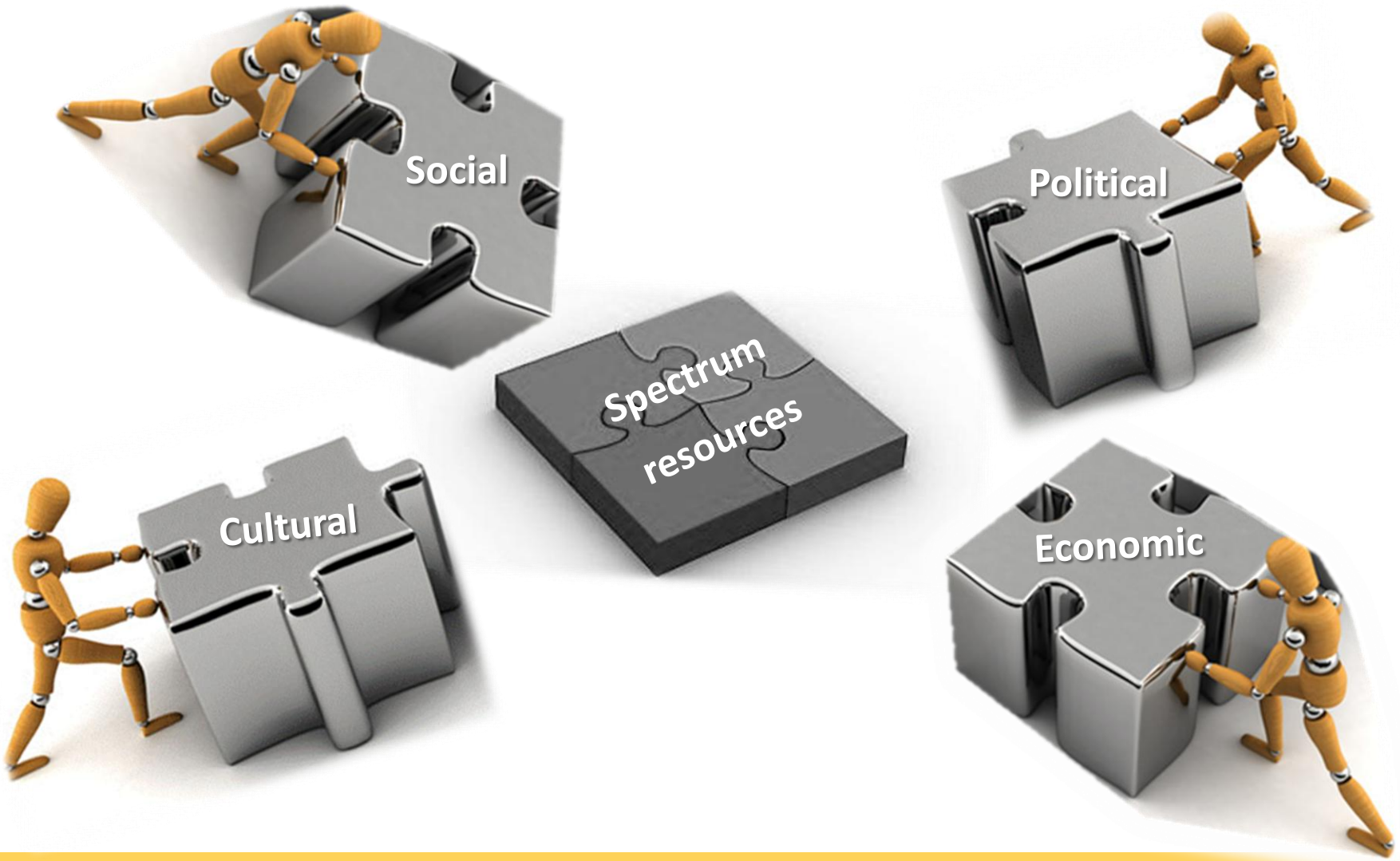
Satellite sensors



Automotive Radar



Spectrum Management in a changing environment:
Spectrum resources



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