

# Optimising the Use of the Radio Spectrum by the Public Sector in the European Union: Public Policy Aspects

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# Objectives for public policy recommendations

- Delivering greater economic and societal value per unit of spectrum used
  - Release spectrum for new uses and users
  - Reallocate/reassign spectrum to higher value uses/users
  - Achieve outcomes in a timely and cost effective manner
  - Better public sector service delivery from more effective spectrum use
- Achieving EU-wide objectives in respect of
  - Public sector service delivery
  - Harmonisation of frequency use for public and non-public sectors

New policies have the potential to deliver a “win-win” for all users

- Growing demand for spectrum from both public and non-public sector users
- Public sector operational requirements
  - Security applications - immediate access on an intermittent basis
  - Safety applications - reliable and often ubiquitous coverage
  - International harmonisation especially aeronautical and maritime
  - EU wide interoperability in some cases
  - Inter-service interoperability in some cases
- National, EU and international institutional factors
  - Current policies and organisation of spectrum management
  - Decision making processes
  - Budget processes and constraints

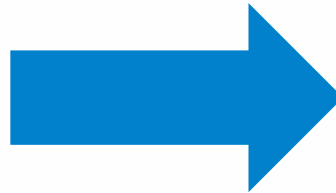
## Policy context

- Reviews of public sector use in some countries e.g. Netherlands, Sweden, UK, US, Australia (soon)
  - Show scope for improving public sector spectrum use
  - Mix of administrative and market policies recommended
- Developments in spectrum management for commercial use
  - Greater flexibility in allocations though tension with harmonisation objectives
  - Greater transparency in decision making, information and spectrum usage rights
  - Market mechanisms – auctions, pricing, trading
  - Some expansion in unlicensed use – underlays and dedicated bands

# Administrative options

## Administrative approaches

- Audits & spectrum plans
- Information on use and benefits from use
- Use IT more effectively
- Improve/integrate institutions
- Better defined and/or more flexible access & management rights
- Mandate sharing, new technologies, use of commercial systems etc.
- Spectrum accounted for in procurement decisions



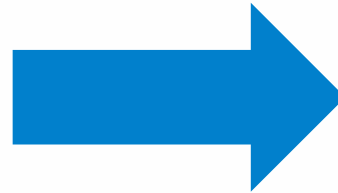
## Issues

- Competence to vet plans, usage, technologies and make choices
- Confidentiality of information
- Time to achieve changes
- Incentives to change
- Legal impediments
- Need for more technology research
- Budget constraints
- Valuing spectrum in procurement decisions

# Market options

## Market approaches

- Prices for spectrum use
- Trading and leasing
- Acquisition through auctions
- Payments to incumbents to refarm spectrum



## Issues

- Access to information on use
- Getting well defined access & management rights
- Markets for commercial users a pre-condition?
- Change public sector budgeting to give user incentives
- Uncertainty over future outputs, spectrum prices and budgets
- International constraints
- Physical constraints (esp. for passive applications)

## Achieving EU-wide objectives- issues

- Impact of administrative and market options to be assessed
- Consider nature of institutional arrangements for engagement at national level over best practice and EU harmonisation
- Harmonised allocations for public sector uses
  - Could reduce spectrum demand but has a cost
  - Non-harmonised or legacy public sector allocations may hinder other harmonisation measures (e.g. new IMT bands)
  - EU wide procurement policies may enable this (e.g. Defence)
  - Identify where co-operation between national public sector users is required?
- Harmonised spectrum release for other uses – may be most valuable from harmonised bands but these allocations may be hardest to change

## Issues for discussion

- Are there other options we should be considering?
- Are there important issues in applying options that we have overlooked?
- What countries provide examples of good practice?
- What areas of spectrum use should be the initial focus for policy change?