

Presentation to ATU Digital Migration and Spectrum Policy Summit

# Digital Dividend harmonisation in Europe

Nairobi, 30 November 2011 • Robert Schumann

# Analysys Mason has conducted two major European studies on DTT and digital dividend



[Link to study](#)



[Link to study](#)

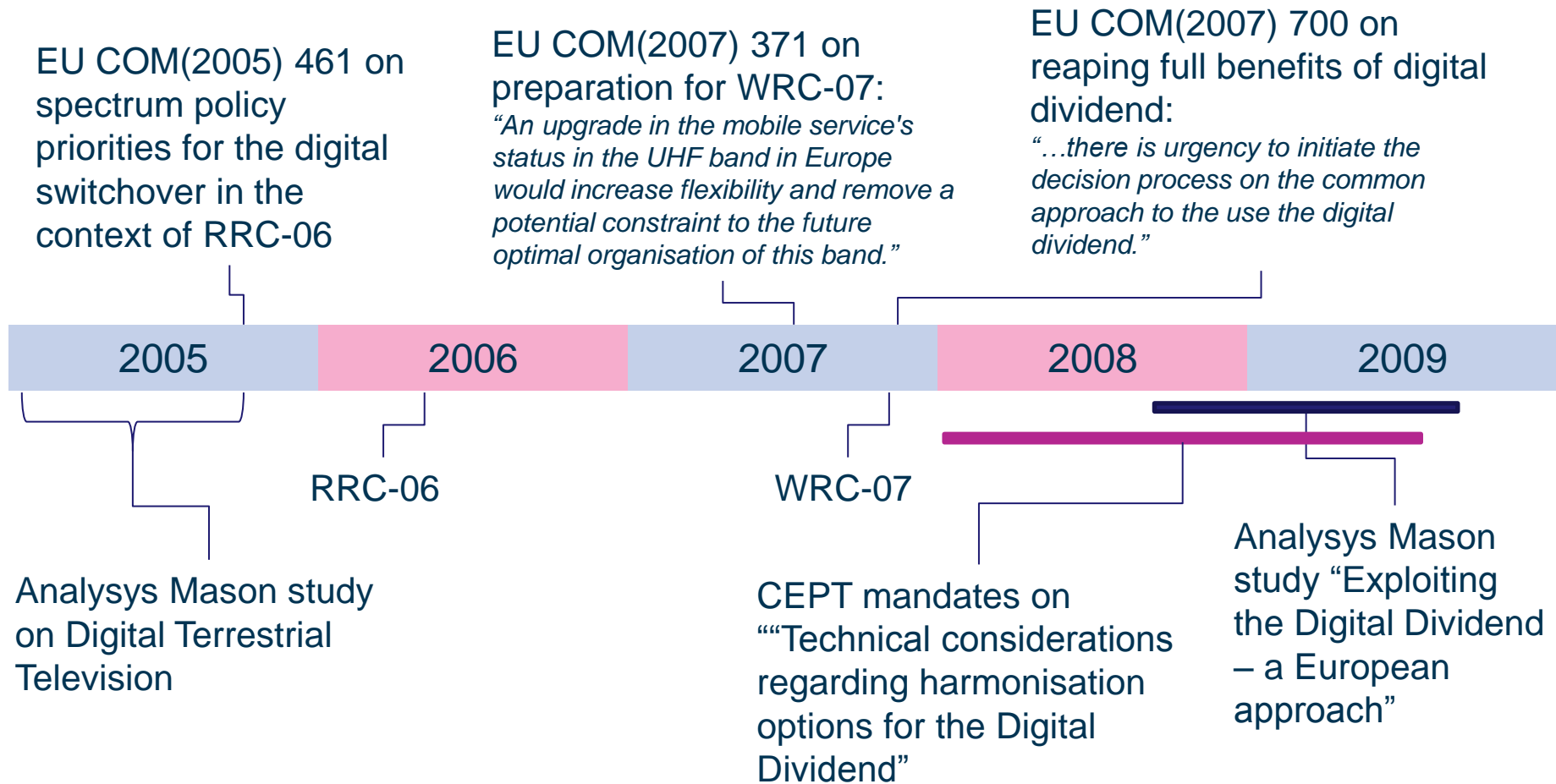
# Future use of 800MHz band in Europe was still uncertain in 2008

- Fixed, mobile, broadcasting (and in some places radionavigation) were all co-primary in the 2008 Radio Regulations
- Mobile had been primary in some countries for several years

*Announcement and plans regarding the use of the digital dividend in 2008*

Allocate to mobile broadband	Considering mobile or fixed broadband	Broadcasting	Not decided or disclosed
Finland, France, Sweden	Belgium, Bulgaria, Ireland, Netherlands, Poland, Spain, UK	Austria, Denmark	Cyprus, Czech, Estonia, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Luxembourg, Malta, Portugal, Romania, Slovakia, Slovenia

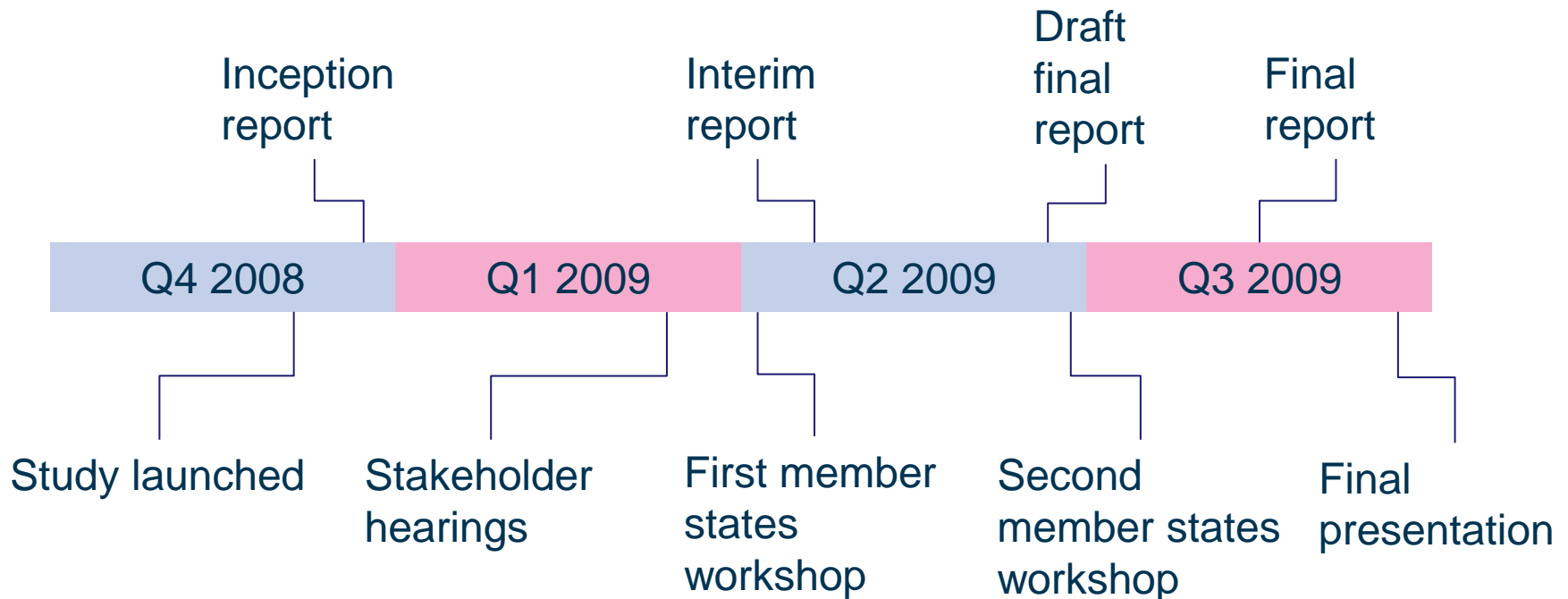
# Harmonisation was not dictated as EU policy – it developed over time



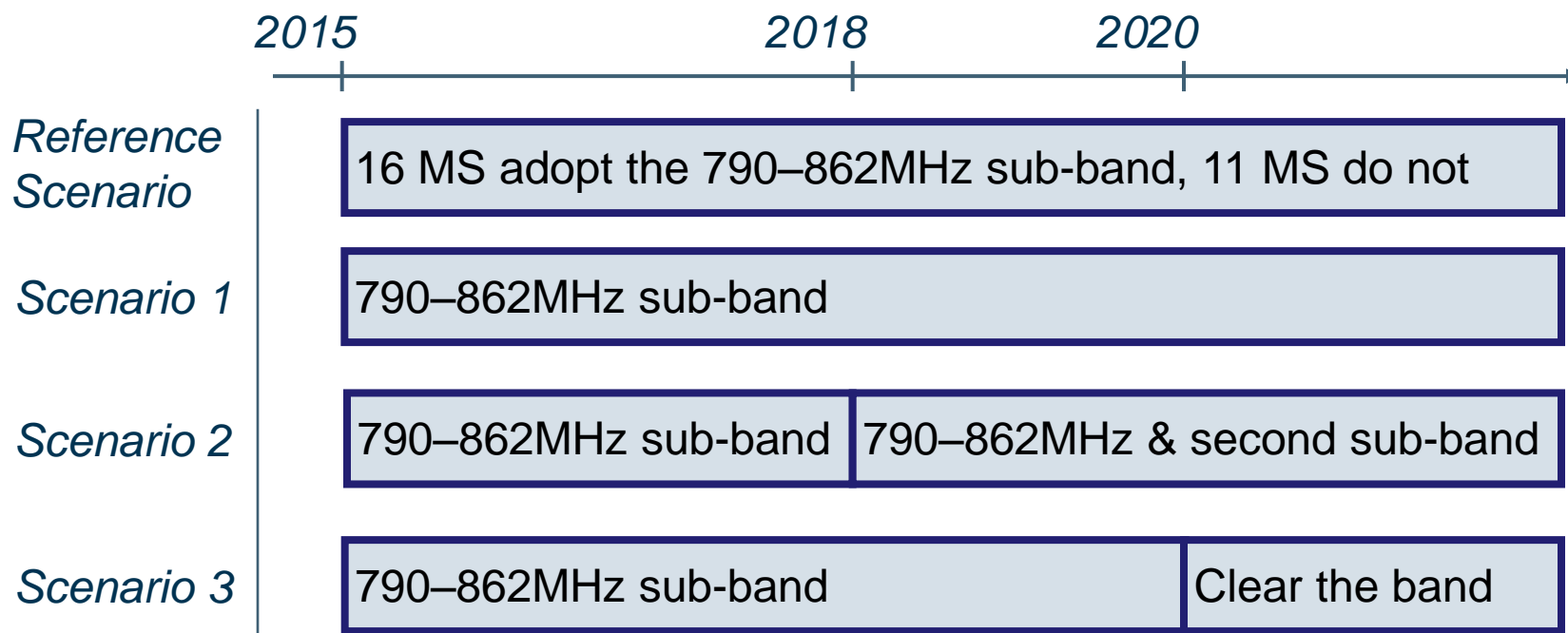
# The Commission requested a study to consider policy aspects of harmonisation

<i>Objective</i>	<i>Summary of key activities</i>
<b>A</b> <b>Inventory of national situations</b>	<ul style="list-style-type: none"><li>• Desk-based research</li><li>• Questionnaire and telephone interview programme</li><li>• Research on international markets</li></ul>
<b>B</b> <b>Socio-economic analysis</b>	<ul style="list-style-type: none"><li>• Review of existing economic studies</li><li>• Stakeholders' hearings/Member States' workshop</li><li>• Quantitative and qualitative study of demand for alternative uses</li></ul>
<b>C</b> <b>Key constraints modelled</b>	<ul style="list-style-type: none"><li>• Technology trends</li><li>• Interference management constraints and constraints linked to treaties</li><li>• Constraints linked to content</li></ul>
<b>D</b> <b>Scenarios for an EU co-ordinated approach</b>	<ul style="list-style-type: none"><li>• Identification of alternative approaches, considering national situations</li><li>• Cost/benefit and impact assessment of approaches</li><li>• Review and refinement of proposed options with Member States</li></ul>
<b>E</b> <b>Final recommendation and proposed roadmap</b>	<ul style="list-style-type: none"><li>• Detailed impact assessment</li><li>• Identification of key legal instruments</li><li>• Implementation plan including timeline and additional technical work</li></ul>

# The Analysys Mason study took around 9 months

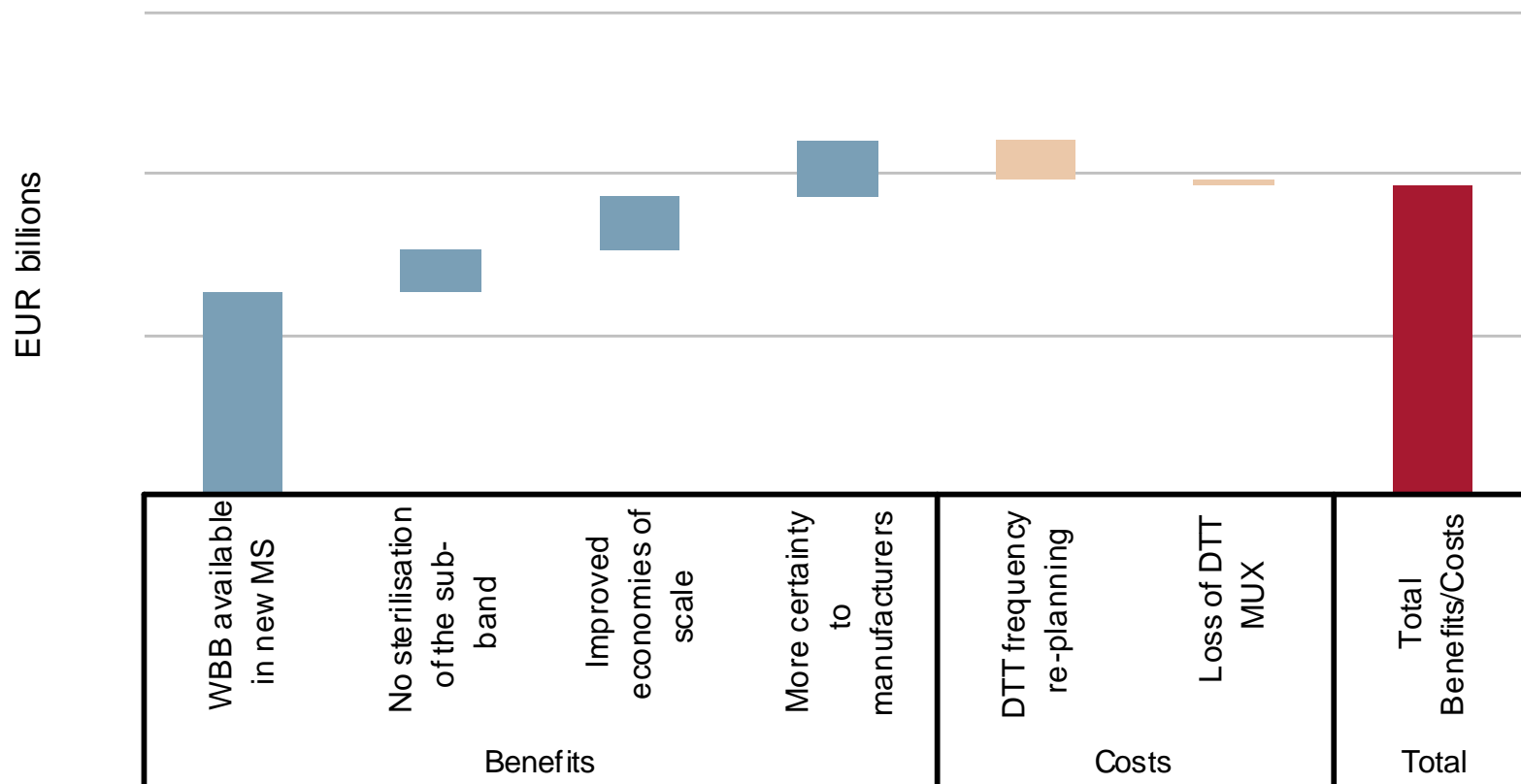


# Spectrum supply scenarios considered



We have calculated the incremental benefits and costs of realising each of the scenarios versus the Reference Scenario

# An example of the outcome of cost-benefit modelling





# First recommendation: use for broadband

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## ***Recommended action 1: The 790–862MHz sub-band***

All Member States are required to clear and award the 790–862MHz sub-band by 2015 in a format that enables it to be used for wireless broadband. Member States are encouraged to award the sub-band on a service- and technology-neutral basis, in accordance with the Commission's WAPECS principle. To support these actions, technical restrictions should be in place to prevent emissions at borders exceeding medium-power thresholds.

Member States are free to design their own award processes, but these should not preclude the possibility of spectrum being used for wireless broadband using paired spectrum channels in line with the CEPT FDD band plan.

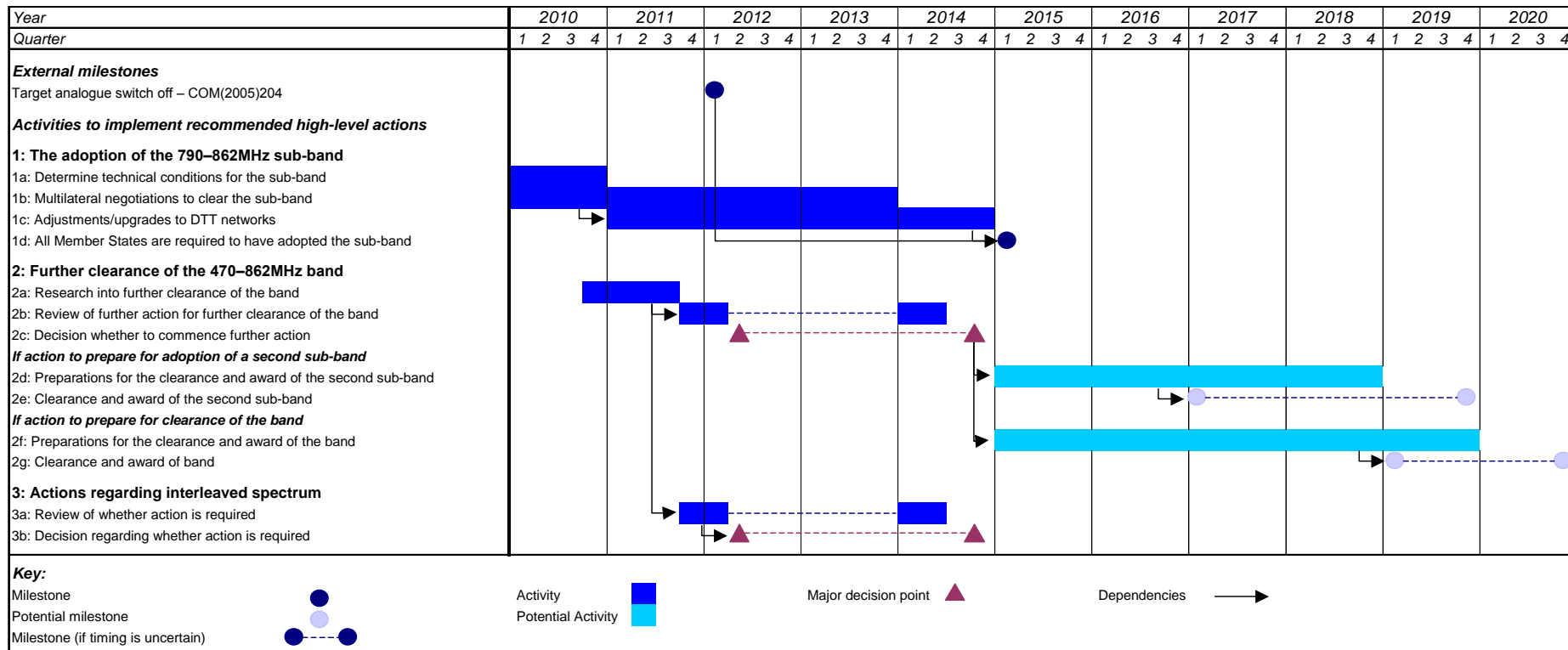
Where possible, Member States are encouraged to adopt the sub-band prior to 2015. To facilitate this action, Member States may be requested or obliged to share their plans publicly regarding the adoption of the sub-band.

## Other recommended actions

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- 2: Further band clearance *“to be reviewed again in short to mid term”*
- 3: Interleaved spectrum *“no action”*
- 4: Specifications for DTT receivers *“research to define minimum parameters”*
- 5: Adoption of advanced transmission technologies *“Non-obligatory guidelines”*
- 6: Brokering negotiations on DTT replanning *“Commission to make itself available”*
- 7: Frequency agility of wireless broadband technologies *“more research”*
- 8: Relocation of frequency channels for SAB/SAP *“share plans”*
- 9: Cognitive technologies *“common guidelines”*
- 10: Action to support possible further clearance of the 470–862MHz band *“preparatory actions”*

# Roadmap output of study



# The study led to coordinated EU action on harmonising the digital dividend

- A key conclusion of the study was that
  - “European coordination of the digital dividend spectrum as a whole, if achieved before 2015, would increase its potential economic impact by an additional EUR 20 to 50 billion over 15 years, depending principally on the actual level of future demand for services such as advanced terrestrial broadcasting and wireless broadband.”<sup>1</sup>
- The EC made a recommendation following the study
  - “That Member States should support regulatory efforts towards harmonised conditions of use in the Community of the 790-862 MHz sub-band for electronic communications services other than, and in addition to, broadcasting services, and refrain from any action that might hinder or impede the deployment of such communications services in that sub-band.”<sup>2</sup>

1. European Commission, “Transforming the digital dividend into social benefits and economic growth”, COM(2009) 586

2. European Commission, ‘Facilitating the release of the digital dividend in the European Union’ Recommendation 2009/848/EC

# Conclusions for African Digital Dividend

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- Africa has substantially different spectrum requirements than Europe, and should develop its own spectrum priorities
- Ongoing coordination and common policy development are key to this
- A wide range of options should be evaluated and a cost-benefit analysis conducted
- Stakeholder consultations increase the credibility of the outcomes

# Contact details

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