




Importance of Digital Dividend harmonization

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International
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Lessons from history

- Three great consumer revolutions of the past 20 years
 - World Wide Web – 1.5 billion connected machines
 - Personal Computer = several billion
 - The GSM mobile phone – 4 billion.

The Questions

- Why have they become global?
- What do they have in common?



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Answers

- A common technical standard
- In case of GSM, harmonized frequency bands



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GSM

- Engagement by governments with the long term direction of national mobile infrastructures and a willingness to do this at the European level
- This led to the statement from the 1986 European Council. This political support gave the mandate to the European Commission to issue the GSM Directive



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GSM (2)

- Whilst this might be seen as governments imposing a technology on the market, the actual mechanism was that government's offers new spectrum "with strings attached" to support a public good of a harmonised system across Europe.



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Importance of harmonization

- Spectrum harmonization reduces the cost of mobile hardware
- Enables global roaming
- Reduces the complexity of the radio design
- Reduces interference with adjacent services and helps managing cross-border interference



Global international framework for the digital dividend

International Telecommunications Union (ITU):

- Timely adoption and/or update of the international regulations on the use of spectrum: Radio Regulations and Regional Agreements,
- Standardization of radiocommunication equipment
- Information and assistance to ITU membership



ITU decisions

- Frequency allocations (WRC-07)
 - 790-862 MHz band allocated worldwide and identified for IMT
 - WRC-12: sharing issues under study were resolved
 - 698-790 also allocated in Regions 2 and 3, and identified for IMT in Region 2 and some countries of Region 3
 - WRC-15: studies underway to increase these allocations/identifications.

- IMT-Advanced specifications adopted (RA-12)



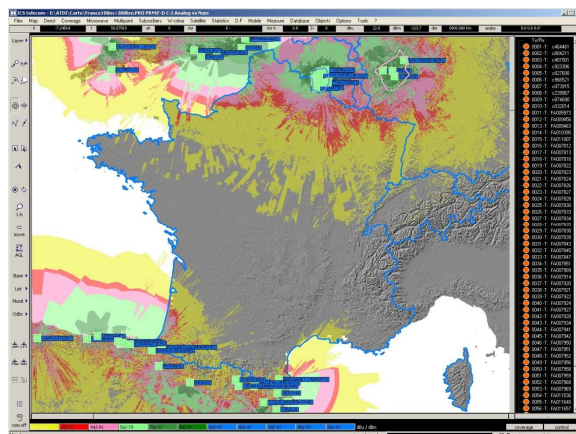
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Release of the digital dividend for mobile

- Release is not automatic. It requires:
 - Regional cooperation/coordination decisions
 - National Spectrum Allocation decisions
 - Frequency coordination and replanning with neighbouring countries
 - Refarming of existing services
 - Licensing



Importance of regional harmonisation of digital dividend to avoid harmful interference



(Example of Mobile service in France interfered by Broadcasting service of neighbouring countries)



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Digital Dividend - A national decision?

- To take the decision on Digital Dividend at the national level, it is important to take measures at the international level:
 - Agree on a common allocation to the mobile service as part of the digital dividend
 - Coordinate frequencies and technical characteristics of national television assignments in the band allocated to broadcasting, to enable transition to digital broadcasting and analog switch-off, hence release of digital dividend spectrum for both mobile and broadcasting. **This involves renegotiating the GE-06 Agreement**
 - Harmonize the timing of transition from analogue to digital
 - Resolve any remaining interference problems



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Thank you...

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Planning principles – Mobile services

- European administrations practice the recommendations given in the CEPT Report 29 “Guideline on cross border coordination issues between mobile services in one country and broadcasting services in another country”.

Planning principles – Mobile services (2)

- This report provides reference field strength trigger values for coordination. The values are derived from the GE06 Agreement.
- <http://www.erodocdb.dk/Docs/doc98/official/pdf/CEPTREP029.PDF>



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