

How much Digital Dividend? - How countries tackle the question?

ITU BDT Seminar
Transition from Analogue to Digital Broadcasting: correlation between technical, economic and social costs and advantages»
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What is Digital Dividend?

- Benefits that arise from the conversion of analogue to digital broadcasting
 - NOT clear picture, better sound
 - Freed-up spectrum that can be used by broadcasting or other services

Is there any dividend?

- GE06 digital Plan
 - VHF: 1 DVB-T layer and 2 T-DAB
 - UHF: 7 to 8 DVB-T layers
 - Each channel may carry up to 12 programs (MPEG4&DVB-T2)
- Yes, there is dividend!

WRC 07 Decision

- 790-862 MHz – Region 1
 - Broadcasting and Mobile co-primary
 - Come into effect 17 June 2015
 - Subject to agreement with respect to aeronautical radionavigation service

The real question! Who gets the dividend?

- Which players?
 - New mobile services.
 - Wireless broadband services
 - Wider coverage for advanced services in remote and rural areas
 - Advanced business and broadcasting services.
 - Additional television channels including possible High Definition (HD) channels.

The real question! Who gets the dividend?

- What criteria?
 - maximising economic benefits
 - maximising social value
 - Universal service - bridging the digital divide
 - promoting innovation and competition

Broadcasters' perspective by the European Broadcasting Union

- Huge investment in Digital switchover by **broadcasters and viewers**
- Free-to-air
- Universal access
- Improved quality and coverage
- Mobile and portable reception

Important of Public service broadcasting

- Broadcasters invest **€19 billion** in original European TV programming annually
- EBU Members invest **€10 billion** annually in new European TV productions
 - 87% of all investment in original European programming (excluding news programmes)
- Broadcasters employ **2.2 million people** directly or indirectly

Wireless broadband in UHF

- **Limited capacity**, insufficient to meet the growing demand
- **NOT** solution for rural broadband
 - Business case unclear / weak (relies on government subsidies?)
 - What kind of broadband services will users get and for which cost? Digital divide?
 - Alternative systems and competition already exist in the market

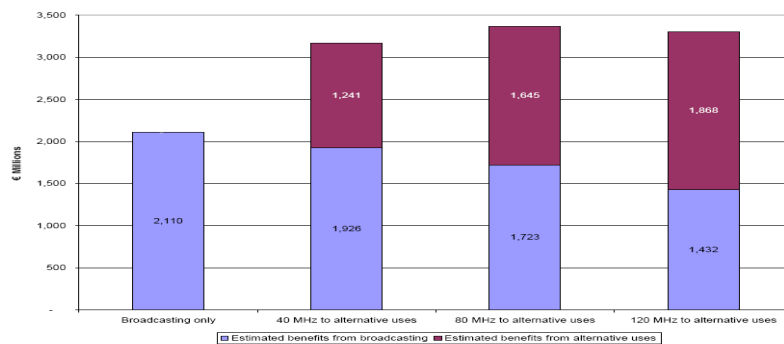
Mobile's perspective by GSM Association

- Mobile operators need UHF spectrum
 - it can be harmonised – lower terminal costs
 - the propagation characteristics make it ideal for rural cells (and in-building coverage)

Benefit of mobile broadband at UHF

- Last mile broadband access
- Allow citizens to participate in “knowledge economy”
 - encourages more people to move from low paid industries (mining, lumber, fishing etc) to high paid professional jobs (engineer etc)

Economic benefit – Ireland study



80 MHz for Mobile = 60% increase in economic benefit

<http://www.comreg.ie/fileupload/publications/CP50e.pdf>

How countries tackle the question?

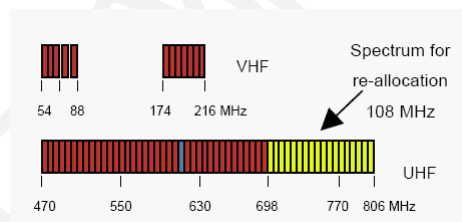


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The USA



- Early identification
- Sold even before ASO – June 2009
- $18 \times 6 \text{ MHz} = 108 \text{ MHz}$

700 MHz Auction – Mar 2008

(Source: GSMA)

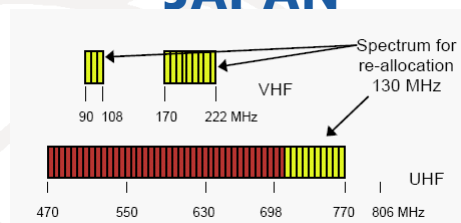
Verizon A, B and C \$9.4 Billion Launch of an already announced Long Term Evolution (LTE) network in the 2010 timeframe.

AT&T Mobility B \$6.6 Billion Deploy LTE technology

Frontier Wireless (Echostar) E \$711 million Perhaps a MediaFlo-like portable or mobile video system or a terrestrial mechanism for providing standard definition local-into-local programming.

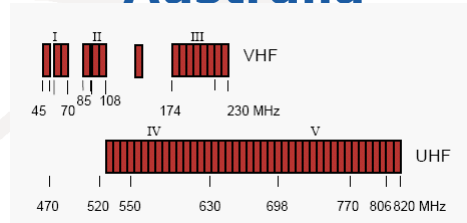
Qualcomm B and E \$558 million Deploy MediaFLO mobile TV technology across its E block winnings and will use its B block winnings for research and development?

JAPAN



- 10 UHF channels = 60 MHz
- VHF = 70 MHz
- A total of 130 MHz

Australia



- No decision yet!
- Likely Yes but how much?
- Studies being carried out

Europe – “supporters”

- France
- Finland
- **Spain**
- Sweden
- United Kingdom

Europe - considering

- Czech Republic
- Hungary
- Ireland
- Luxembourg
- Latvia
- Slovakia

Europe - Undecided

- Austria
- Belgium
- Bulgaria
- Estonia
- Italy
- Netherlands
- Poland, Romania, Slovenia

Europe – “NO”

- Germany
- Lithuania
- Malta

European Union

- Commission work ongoing looking at the issue of a harmonised sub-band
- EU Report on Digital Dividend sub-band due August 2009

Viviane Reding

EU Commissioner

- Digital dividend optimised for Europe's long-term future
 - sufficiently large blocks of spectrum should be released to allow high speed internet services over wireless.
 - dividend spectrum should be released in a way promotes new competitors to enter and shake up the market, this will encourage an early shift from legacy and closed voice mobile to new and open wireless web services
 - to be allocated in a coordinated way across the EU so that the scale economies are quickly realised for equipment providers and operators, thus allowing users to benefit quickly from low prices.
- "Spectrum policy should become open, market based and pro-competition and now is the time to do it, because now the window of opportunity is open."

for Information Society and Media, November 2008

Difficult decision!

- Must **make it soon!**
 - Clear signals for the industry
- **Harmonisation** is important
 - Efficient use of spectrum
 - Lower equipment costs
 - Less potential for interference
 - More valuable for mobile operators
- **Talk with your neighbours!**

**Thank you for you
attention!**



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