

Digital dividend: challenges and opportunities in the new digital era

# Awarding the UK's digital dividend

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February 24, 2009

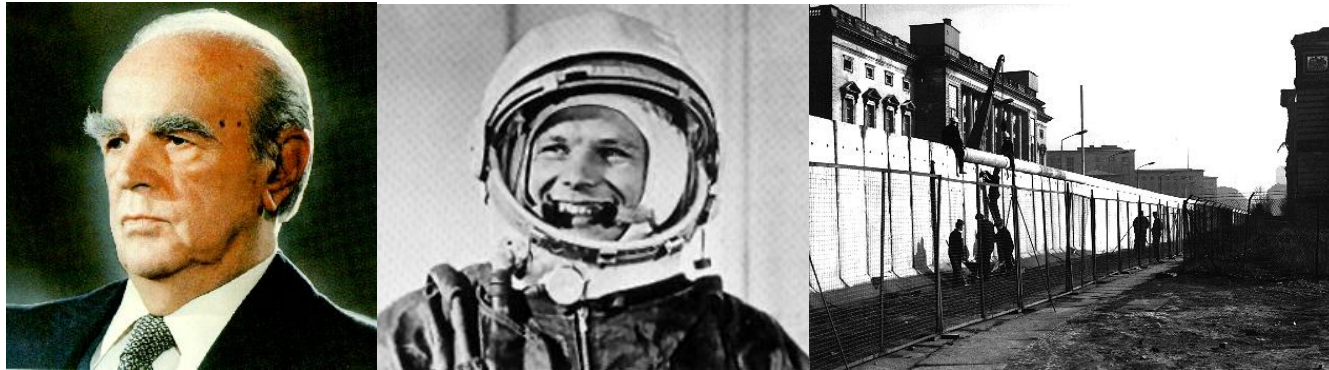
# What is the UK's digital dividend?

- 368 MHz of spectrum in UHF Bands IV and V (470-862 MHz) is currently used by analogue terrestrial television in the UK
- This could be carried in 40 MHz by digital terrestrial television (DTT)
- But the UK Government decided in 2003 to reserve **256 MHz** for six DTT multiplexes, expanding the coverage and capacity of DTT after digital switchover
- The UK's core digital dividend is the remaining **112 MHz**, available for new uses following switchover
- With the release of 16 MHz currently used by aeronautic radar and radioastronomy, the UK's digital dividend comes to **128 MHz**

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45	46	47	48	49	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64	65	66	67	68
69											

## Why is the digital dividend so important?

- Value to the economy very uncertain but estimated to be **€6-11 billion** (net present value over 20 years)
  - Excludes broader social value – also potentially significant
- Spectrum below 1 GHz so rarely becomes available. Existing framework dates to 1961



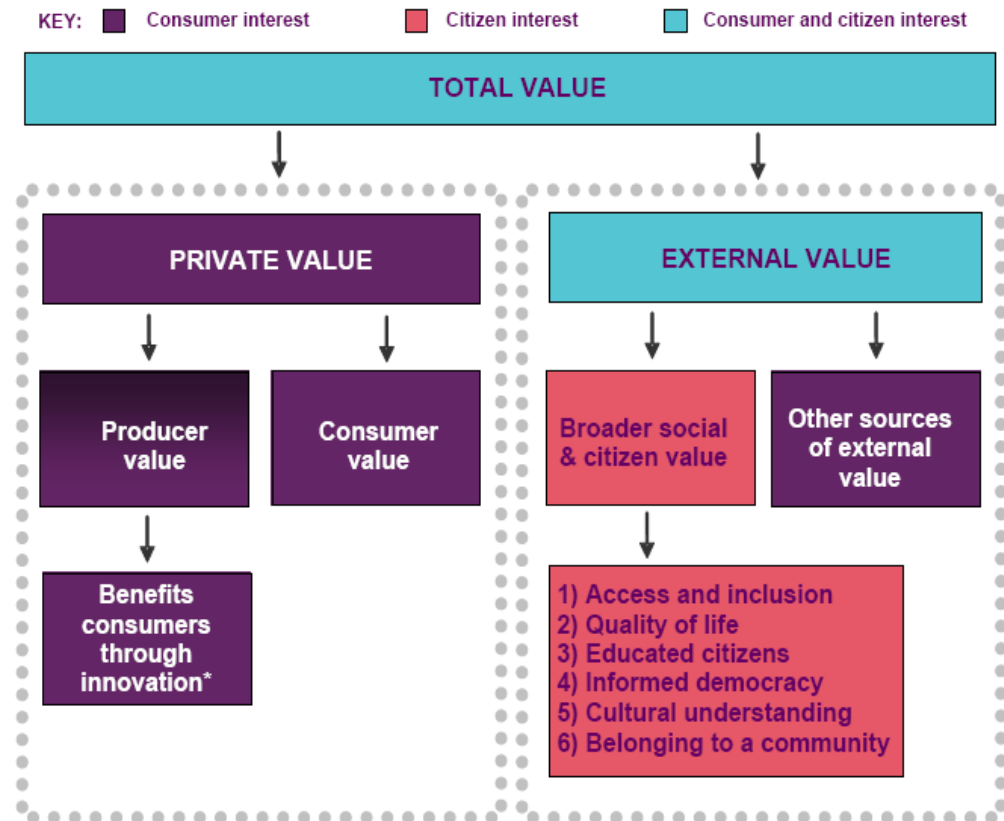
## Potential uses of the digital dividend

- Major opportunities e.g. for mobile broadband, more DTT (standard or high definition), mobile television
- Wireless microphones and other applications for programme-making and special events
- Other low-power applications, like hubs to distribute content around the home or using ultra-wideband technologies
- Fixed broadband wireless applications
- Public protection and disaster relief
- Cognitive radio
- Community radio
- Digital radio
- Communication with medical professionals and educational institutions
- New services for people with disabilities
- Amateur and/or university use
- International and cross-border uses (e.g. an international public-protection channel)
- A nationwide broadband wireless network
- Digital public-service teletext to match the analogue service
- User-created networks (e.g. employing mesh technology)
- Home networks, including automation and control
- Business networks
- Community and campus networks
- Municipal Wi-Fi
- Internet-connection sharing by multiple households
- Industrial monitoring and automation
- Agricultural monitoring and automation
- Rural broadband provision
- Ubiquitous wireless networks
- Sensor-based networks
- Remote patient monitoring and healthcare



# Our approach to awarding the UK's digital dividend

- Objective to maximise the total value to society that using the digital dividend is likely to generate over time
  - Not revenue for the Government
- Market-led approach – minimum constraints on uses within international framework
- Clear benefits
  - Allows use to change with technology and demand
  - Gives innovative services the chance to use the spectrum
  - Promotes competition, choice and lower prices
- Do not believe in trying to pick winners



# Aligning with other European countries

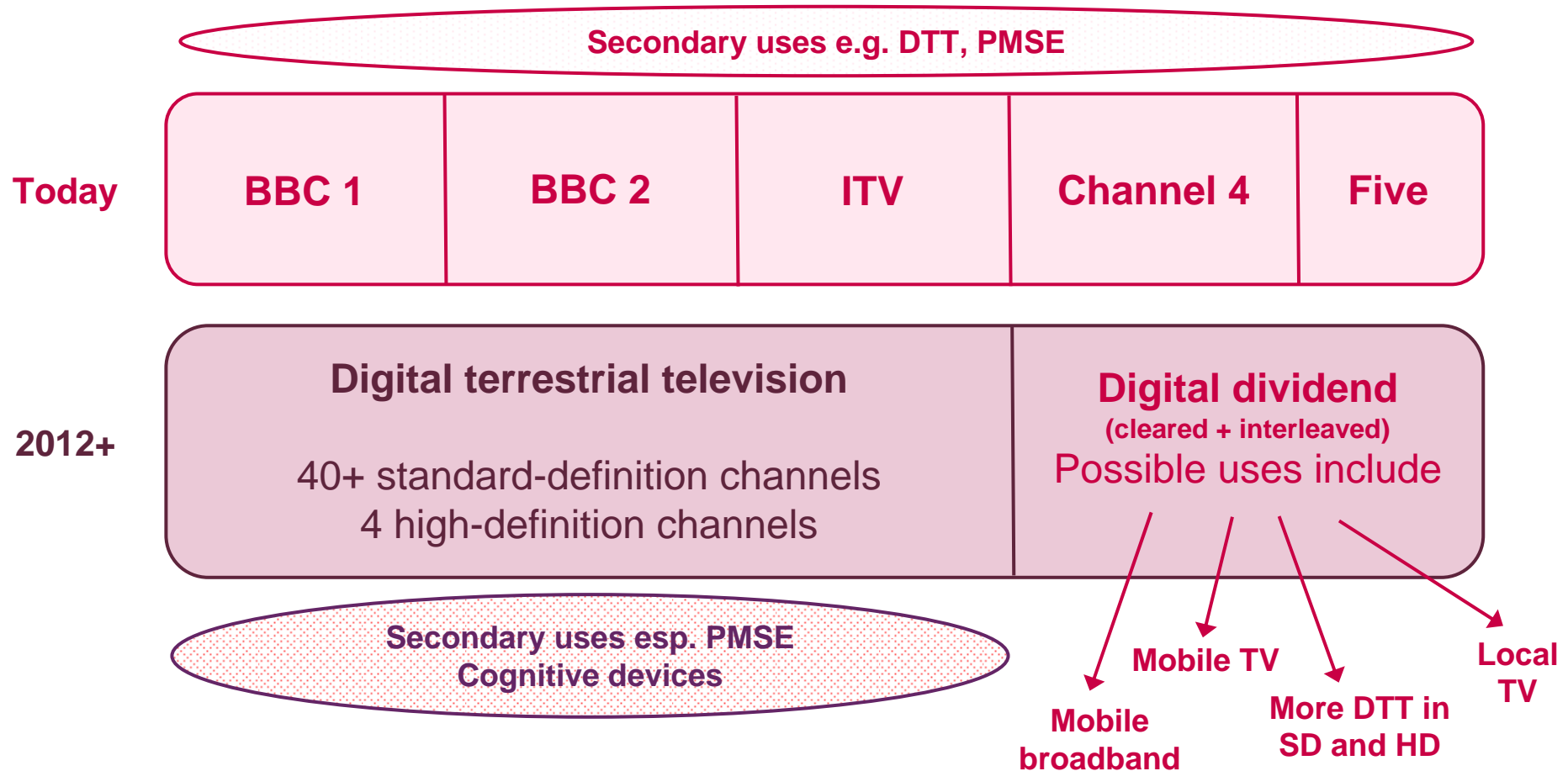
- Other European countries are now creating digital dividends of their own but releasing slightly different spectrum in UHF Band V
- We have proposed aligning the spectrum to be released in UK
- Very large potential benefits – conservatively **€-3½ billion** (NPV) – mainly because better mobile broadband services can be provided at lower cost
- Implementation complex but achievable
  - Move DTT and most wireless microphones
  - Ensure existing and planned users do not bear extra costs to clear the 800 MHz band
  - Avoid any disruption to digital switchover
  - Negotiate new coordination agreements with neighbouring countries

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## What next?

- Extensive work continues to prepare the UK's digital dividend for release, including policy and technical discussion in Europe, with a view to the auction taking place in 2010
  - This reflects the time required to conclude international negotiations and other technical discussions already under way in CEPT
- Also releasing packages of interleaved spectrum (shared with DTT) suitable but not reserved for local television
  - Manchester award just concluded
  - Cardiff award under way
- Awarding remaining interleaved spectrum to a band manager with obligations to programme-making and special events

# A brave new world





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