

# Mobile TV – UK regulatory approach











Peter Bury  
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## Topics

- Mobile TV current position
- Spectrum for mobile TV
- Harmonisation

# Many ways to deliver mobile TV

## Transmission Networks

		Cellular	Fixed	Broadcast
Service Types	Multicast		 <i>(DVB-H repeater attached to cable)</i>	 <small>La prima vera TV Digitale Mobile</small>  <b>Vivere senza confini</b>
	Unicast			
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## Many different standards

- Different technologies designed for different frequencies and channel widths
  - 1.7 MHz channels in Band III and 1452-1492 MHz
    - Worldwide: DAB-IP, T-DMB
  - 5 to 8 MHz channels in UHF and higher frequencies
    - Europe: DVB-H, DVB-SH, TDtv
    - US: MediaFLO, DVB-H
    - Japan: ISDB-T
  - Different vendor commercial interests and intellectual property rights



**ISDB-T**



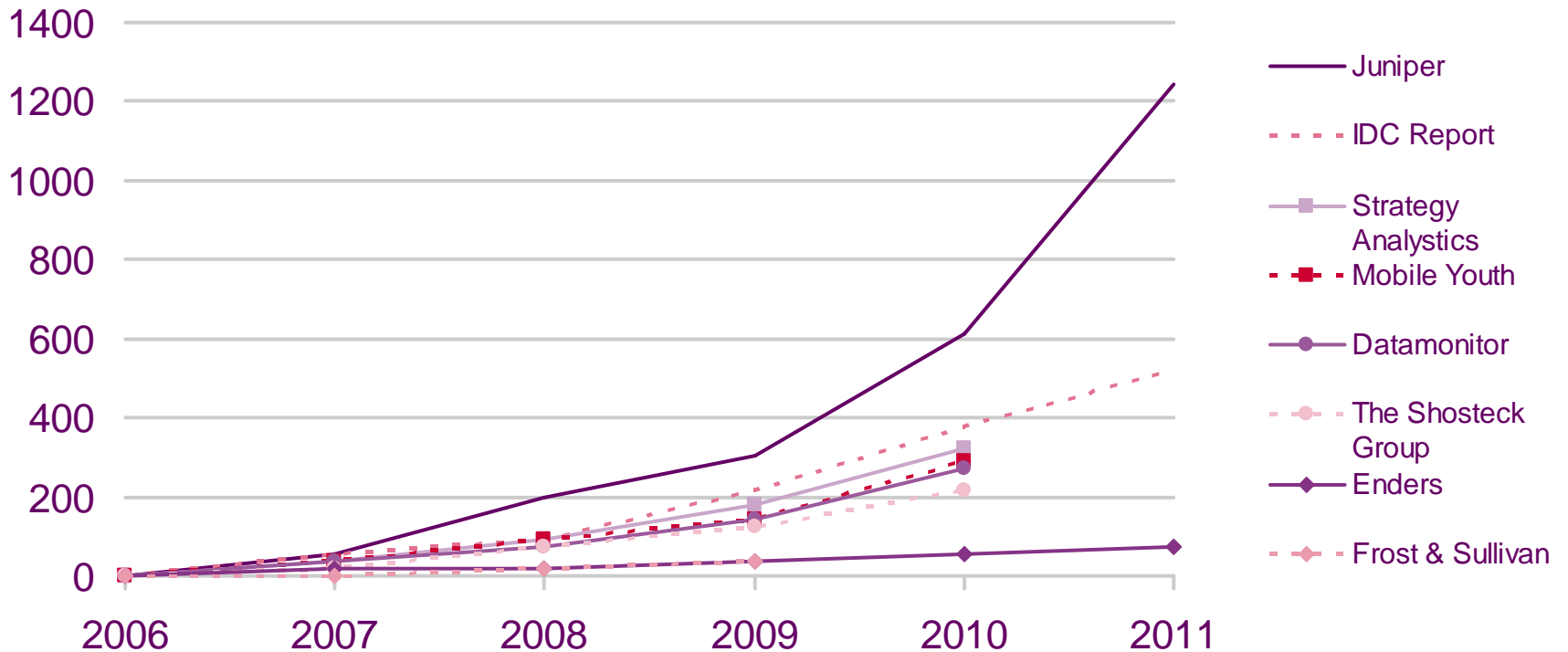
## Mixed experience in initial adoption rate

- Trials and some research suggests consumer demand and willingness to pay (€10-15 per month acceptable)
- But launched services have been more disappointing
- Usage on 3G networks suggests it is an opportunity for customer retention rather than increased ARPU

## Many different possible outcomes

### UK Mobile TV Revenue Predictions

£ millions



## Regulatory challenges

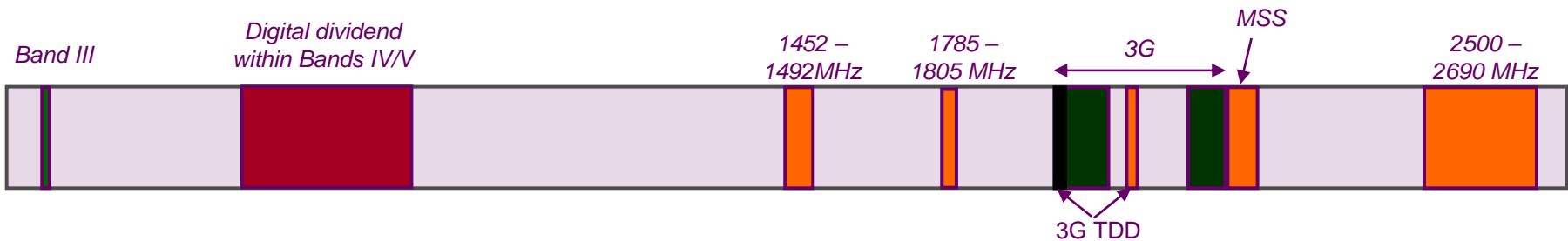
- Regulators seek to create conditions where innovative services can flourish. Significant issues for mobile TV include:
  - Availability of spectrum
  - The emergence of different standards
  - How to regulate content on the mobile platform
  - Do public service broadcasters have a special status on this platform?
  - Could there be uneven access between urban and rural areas?
  - What competitive bottlenecks might emerge?

Regulatory objective in the light of uncertainty: minimum intervention to allow this nascent market to develop with maximum flexibility

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## UK spectrum – bands targeted by mobile TV



- Now:** 3G (including 1900-1920MHz), Band III
- 1 to 3 yrs:** more in Band III, 1452 to 1492 MHz, MSS, 3G(TDD), 2500 to 2690 MHz
- 3 to 6 yrs:** UHF spectrum released from digital switchover

## Bands targeted by mobile TV – current status

- Band III
  - DAB-IP service launched in 2006 on the national radio mux
  - A further national DAB mux with up to 30% ‘data’ capacity will launch 2008
- UHF 470-862 MHz
  - Proposals published for the “digital dividend”
  - Planned award in 2008, including Channel 36
- 1452-1492 MHz (L-Band)
  - Proposals published for award in 2007/8
- 1900-1920 MHz TDD
  - Already licensed to 3G operators
- 1980-2010MHz/2170-2200MHz (S-Band)
  - Proposals for mobile satellite services with complementary ground component to be awarded through Europe-wide process 2008
- 2.6 GHz
  - Proposals published for award in early 2008

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## International harmonisation

- “Harmonisation” can mean a number of things:
  - Exclusive access to spectrum for a specific technology
  - A common timing of spectrum release
  - Industry standards led by the market
- Harmonisation can be highly beneficial, but does not require exclusive access to spectrum or “picking winners” among technical standards
- Examples:
  - **GSM**: successful because similar spectrum was released across Europe on a common timetable – the GSM Directive is now an obstacle to further development
  - **TFTS, ERMES**: European initiatives of the 1990s now long forgotten, but which sterilised spectrum for over a decade
  - **WiFi**: a market-led standard flourishing in unlicensed spectrum
  - **WiMAX**: a market-led standard which has identified target spectrum bands globally; and is about to be classified as part of the IMT-2000 family

## International harmonisation and mobile TV

- The substantial uncertainties around Mobile TV make it particularly risky to try to mandate a single technology choice
- A single technology choice stifles innovation and places European consumers at a disadvantage
- The UK considers that regulators are poorly placed to judge optimum technology and/or service; and there are large risks of regulatory errors in ‘picking winners’.
- The European Mobile Broadcasting Council, representing all relevant industry interests, recommends technology neutrality:
  - “there is no urgent need for specific new E.U. regulation to foster the introduction and development of mobile broadcasting.”
  - The Commission “should not favour any one technology over another.”

## International harmonisation – a better approach

- UK preferred approach is to create the conditions in which the market can find how best to make mobile TV succeed
- We aim to make a range of spectrum available which is suitable for mobile TV
- We are committed to the timing for UHF release co-ordinated across Europe by RRC-06
- We support international initiatives towards technology and application neutrality:
  - European agreement on WAPECS approach to UHF
  - European agreement on flexible interpretation of Maastricht special arrangement for L-Band
  - Agreement at WRC-07 for a ‘mobile’ designation in UHF

There is no evidence of market failure – and no need for regulators to decide which standard delivers most benefit to consumers

[peter.bury@ofcom.org.uk](mailto:peter.bury@ofcom.org.uk)  
[www.ofcom.org.uk](http://www.ofcom.org.uk)

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