

Connected TV in the UK: State of play and forecast

**Richard Lindsay-Davies, Director General, Digital TV
Group**

EPRA – Cullen International Workshop

Brussels: 3rd May 2012



About the DTG

- **Independent, not-for-profit** industry association for UK digital TV
- **A focal point** for the industry
- Over 150 members: consumer electronics brands, consumer electronics designers, manufacturers, broadcasters, platform operators, technology providers and other stakeholders
- Publish and maintains the **UK profile of international specifications** for digital terrestrial television (D-Book 7)
- Test centre **tests products for conformance** to the 'digital tick' mark and Freeview and Freeview HD logos

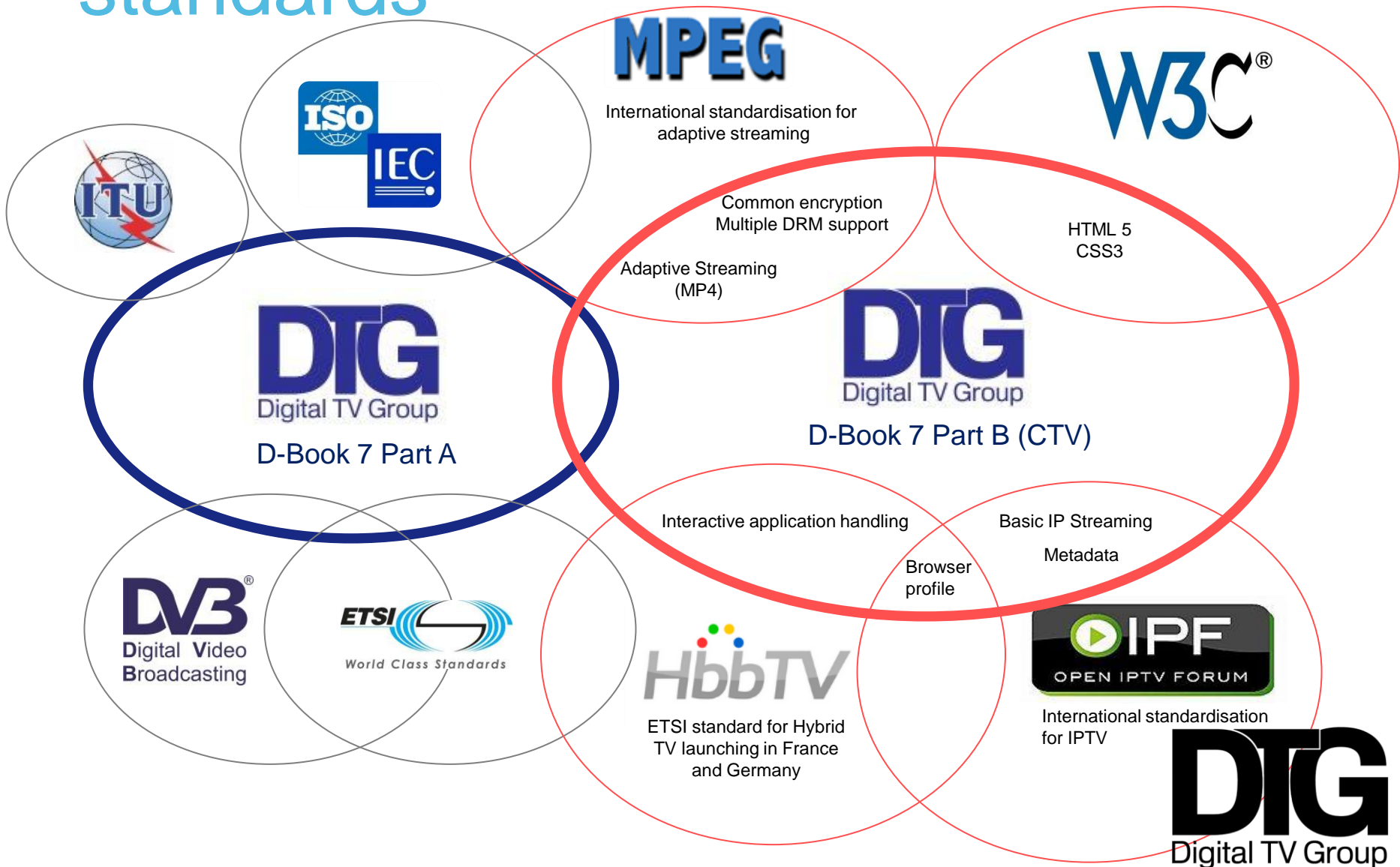
Broad-based membership

Access Systems	DCMS	Humax Electronics	Opera Software	Strategy & Technology
Age UK	DigiTAG	IABM	Pace	Sumitomo Electric
Ali Corporation	Digital TV Labs	Imagination Technologies	Panasonic	Sunplus
Altech UEC Technologies	Digital UK	Intellect	Pixsan	SureSoft Systems
Altobeam	Dixons Stores Group Plc	iPlus Technology	QVC	
	DMOL	Irdeto Access BV	Red Bee Media	TAG
Amino Communications	Dolby Laboratories Inc	ITV	Renesas Electronics	Tata Elxsi
ANT Software Limited	Easel TV	iWedia	retra	Technicolor
Arqiva	EchoStar Europe	Labwise	RNIB	Television Broadcast
ARÇELIK A.S.	E-TV	LG Electronics (UK)	RNID	Tesco Stores Limited
Asia Pacific Broadcasting Union	Fen Technology	Loewe	Rohde and Schwarz	Talk Talk
Atos (Siemens)	Filmflex Movies	Lovefilm UK Limited	Rovi	The Moving Image Society
ATS	Foxconn	Marvell International Ltd	Royal Television Society	TiVo
Availink	Freesat	Mediatek	SAGEM SA	TopUp TV
BARB	Free TV Australia	Microsoft Inc	Samsung Electronics	Toshiba
BBC	Freeview	Mirics	Sapura Secured Technologies	TP Vision (Philips)
BFE DTU	Freeview Australia	Motorola Ltd	SeaChange (EventIS)	Tribune Media Services
BIS	Fujitsu	Mstar Semiconductors	Sense	Trident Digital Media
Broadband Wireless	Funai Electronics Co Ltd	NCA Ghana	Sentech	TVNZ
Broadcom Corp	Funke Digital TV	NDS Limited	Sharp	TVonics Limited
BT	Futarque A/S	Newport Media	Shenzhen Cultraview Digital Technology	TW Electronics
Cabot Communications			Sigma Designs	
	Get Co (Electra)	Novatek	Silicon Integrated Systems (SIS)	UC Connect
CAI	GK Ware	NXP Semiconductors	Silicon Laboratories France	United for Local Television
Channel 4 Television	Harmonic	O2 UK Ltd	SimpleStream	Verimatrix Inc
Channel 5 Broadcasting Ltd	Harvard International	Ocean Blue Software		Virgin Media
Cisco	Hearing Concern	Ofcom		VLV
Citizens Advice	Hitachi Home Electronics	Office of Telecoms (HK)	Sky	Walt Disney Television
	Homecast	Orbicom	Sony UK	Wipro
CBA			South Africa Broadcasting Corporation	
Consumers association	Huawei	Orion Electric	STMicroelectronics Ltd	
Danish Broadcasting Corp				

List correct at 27 April 2012 and subject to change



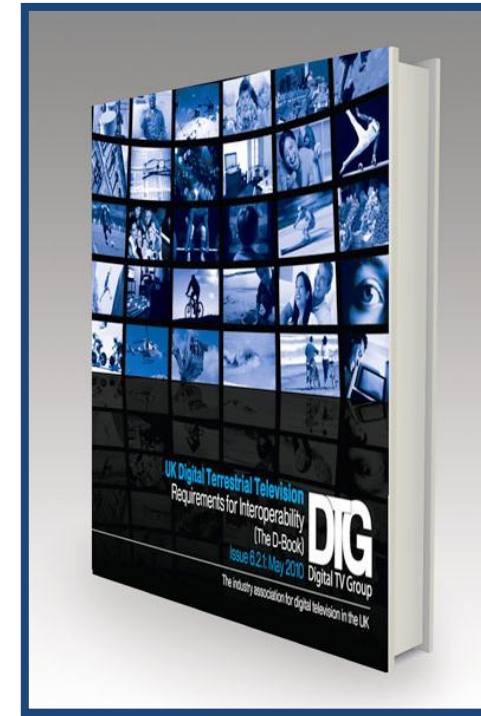
DTG profile of international standards



DTG profile of international standards

➤ D-Book 7: DTG interoperability **profile** for:

- Service **discovery** (SI, PSI, LCN)
- **Audio / Video**
- **Distribution** (Broadcast & IP)
- **Interactive TV** (MHEG / Red Button)
- **RF**
- **Access services**
- **Network changes / software update mechanisms** (Subtitles, Audio Description)
- **Connected TV** (HTML, HbbTV)



D-Book 7 development

Broadcast specification based on DVB-T and DVB-T2 standards

1996: 'Core' D-Book 1 published

1998: Interactive TV (MHEG) added to D-Book 2

2006: Digital Television Recorder (DTR) specification added

2009: D-Book 6: DVB-T2 High Definition and enhanced interaction channel

2010: D-Book 6.2.1: IP Streaming

2011: D-Book 7: Advanced features include:

Enhanced EPG (Reverse EPG)

Remote booking / record

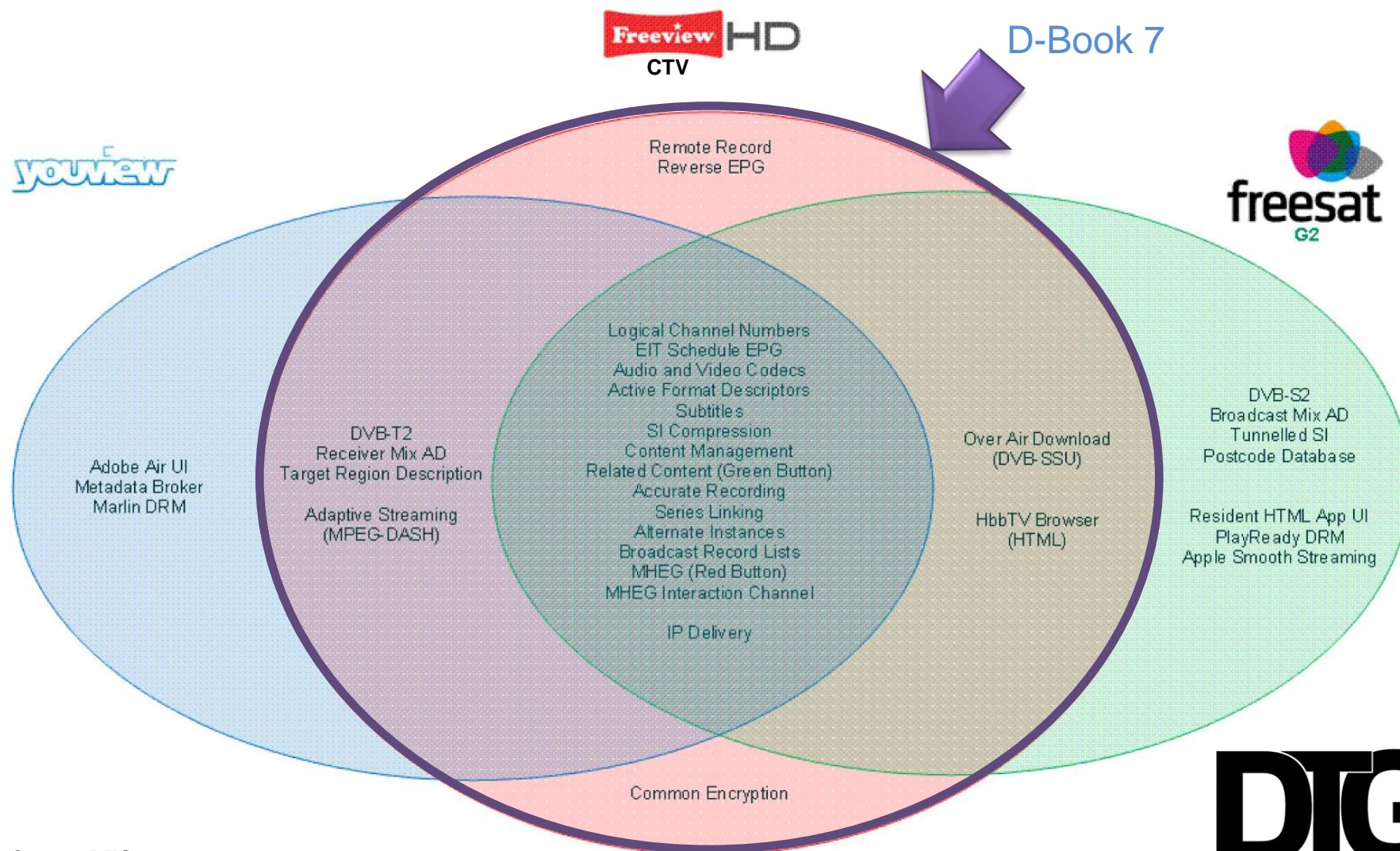
D-Book 7 evolution



Business Requirements and Consumer Expectations

- Meets the requirements of the BBC's HTML applications, including the latest version of the BBC iPlayer, and other broadcaster's catch-up TV players
- Builds upon international standards from OIPF, ETSI (inc. HbbTV) and ISO/IEC (MPEG-DASH), with extensions to cater for UK **business** and **consumer requirements**
- **Enhancements fed back into international standards**

UK Free-to-air platform alignment



Source: DTG

NB: The size of the overlaps is not representative of scale and is a high-level summary where some details may be platform specific

DTG objectives (extract)

*SO1) Take a **practical** and **active role** in the development of a managed deployment plan for:*

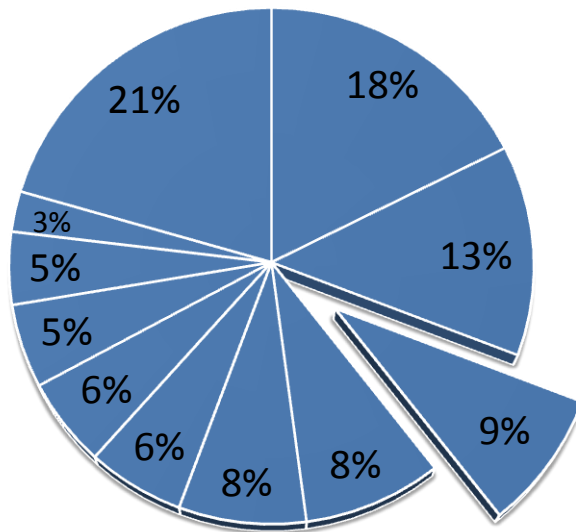
- TV White Spaces*
- LTE (Long Term Evolution, also called 4F, covering co-existence with TV and new mobile networks)*
- UHF future plan/platform development*

*SO2) Continue to lead **the development of hybrid TV standards** to meet **the requirements of service providers** and match the UK's high market expectations while **promoting international harmonisation** through a framework of appropriate liaisons to enhance the UK's global reputation in television.*

European TV: market share

TOTAL EUROPE

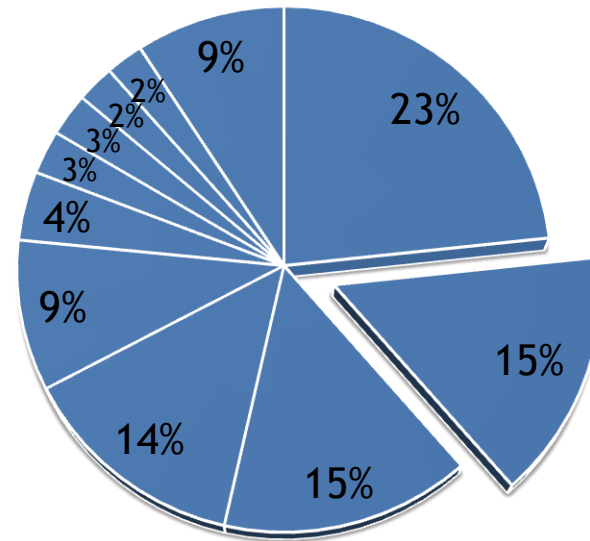
2011 TV Households: 303.7m



- Russia
- Germany
- UK
- France
- Italy
- Ukraine
- Turkey
- Spain
- Poland
- Romania
- Other

WESTERN EUROPE

2011 TV Households: 171.5m



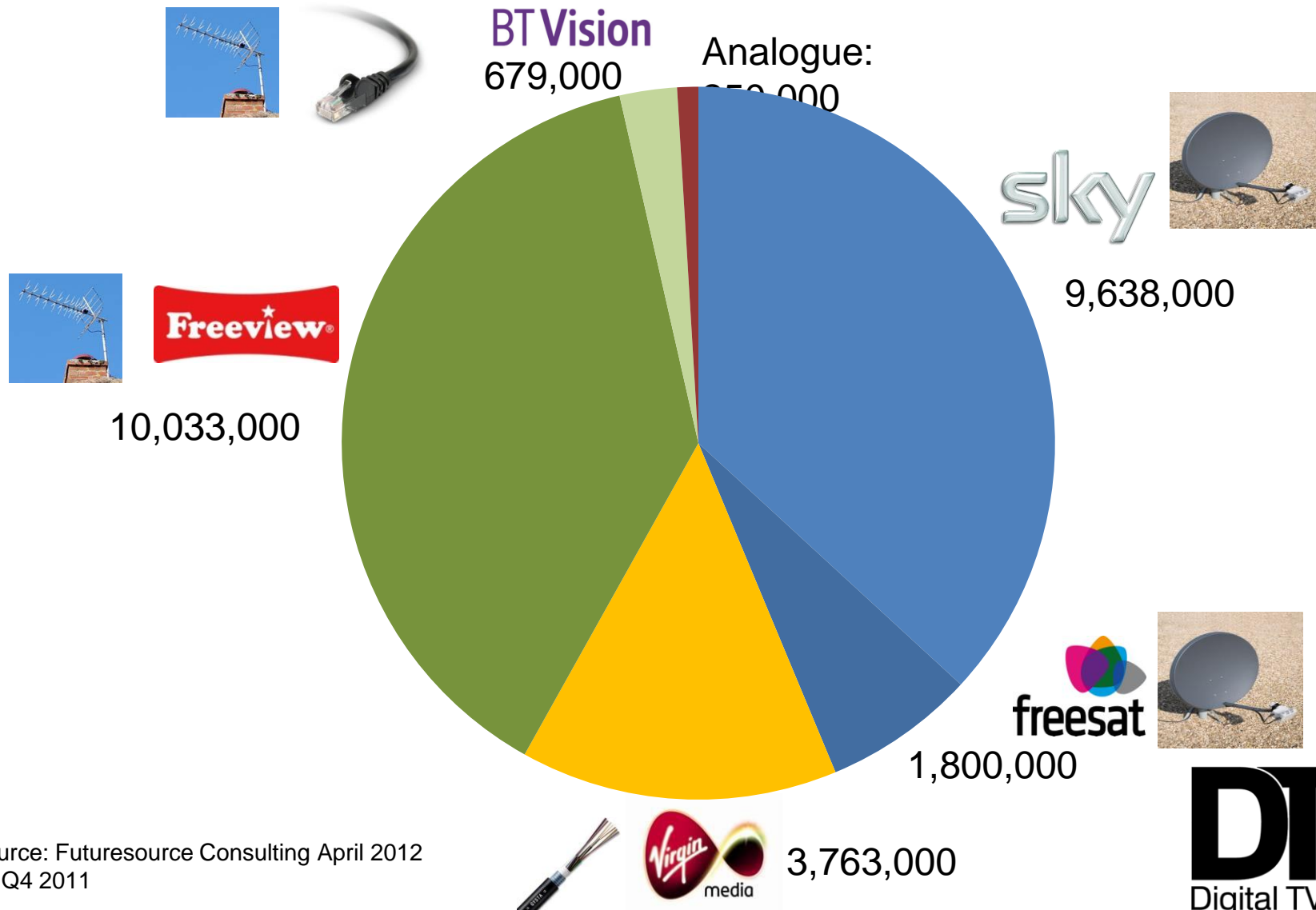
- Germany
- UK
- France
- Italy
- Spain
- Netherlands
- Sweden
- Belgium
- Portugal
- Greece
- Other

Why develop national profiles?

- To meet **business requirements** and **consumer expectations**
- **Legacy** interoperability / coexistence issues (UK: >80 million DTT receivers sold)
- **International standards** are **deliberately broad**
- **Good interoperability** results from a more **precise subset**
- Enables **specification refinement** to overcome **deployment problems**

Note: All refinements / enhancements are re-contributed to the original standard

UK market overview: primary set



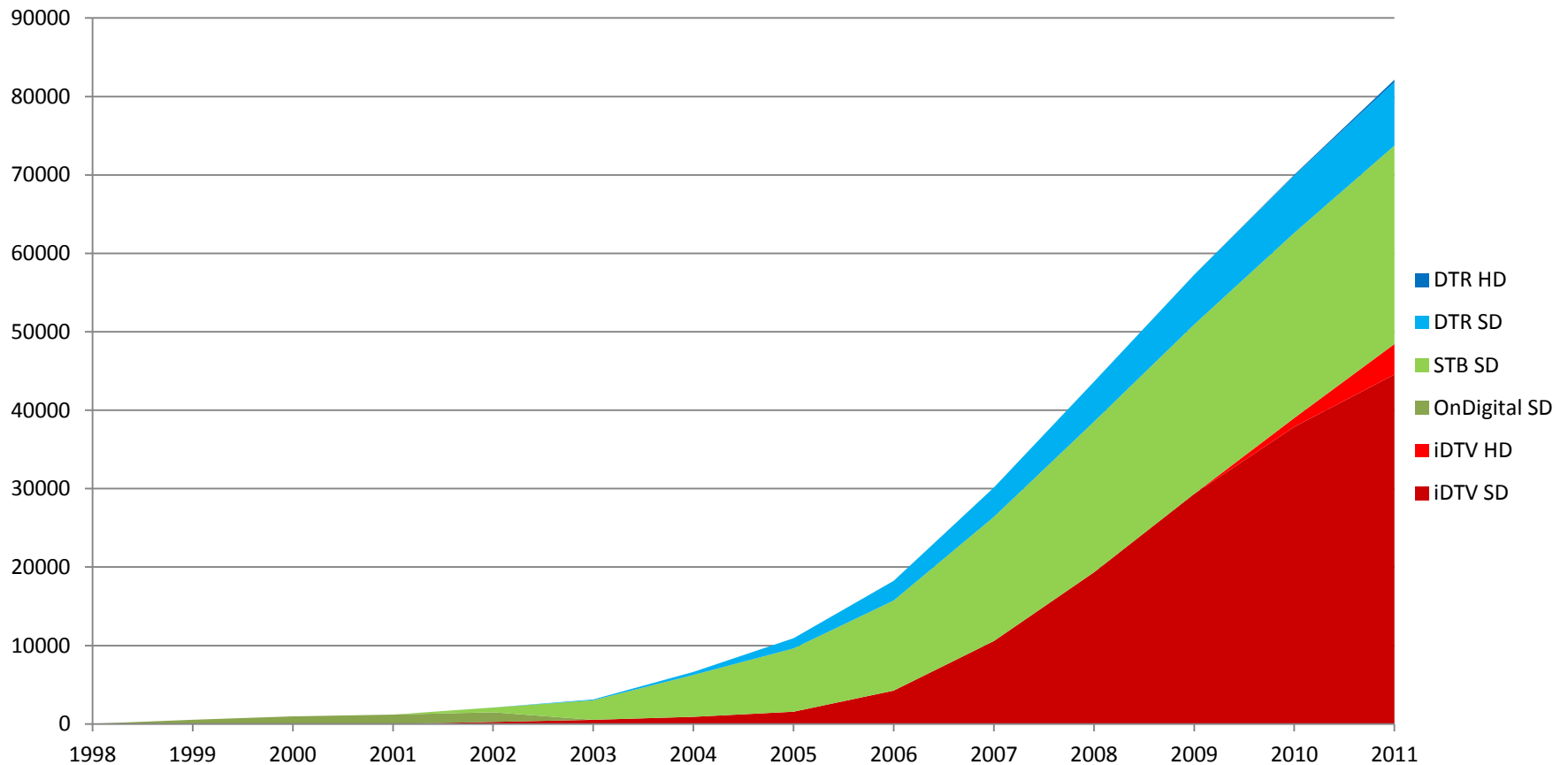
Source: Futuresource Consulting April 2012
To Q4 2011

Total number of households at Nov 2011: **26,163,000**

DTG
Digital TV Group

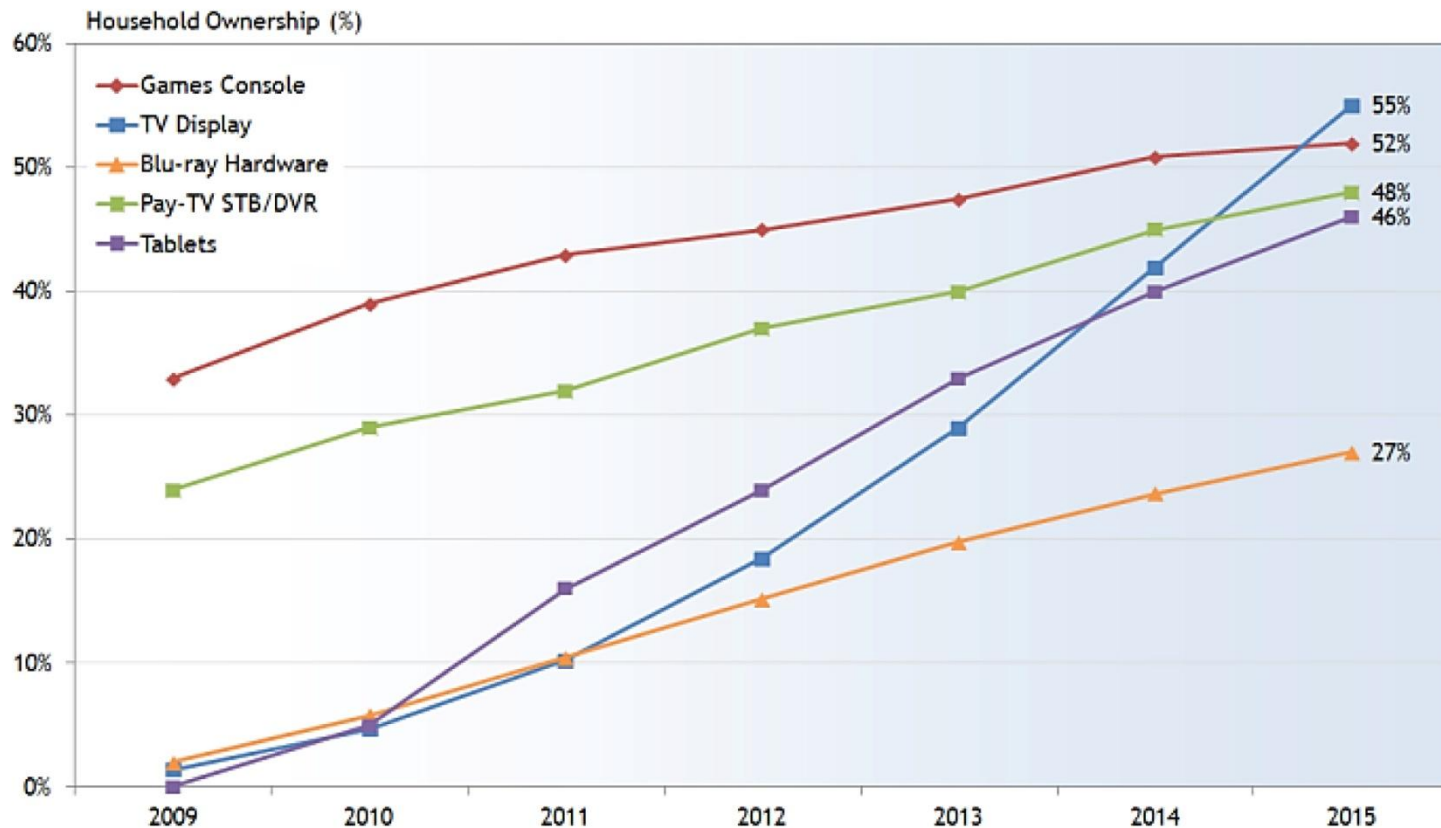
UK DTT cumulative receiver sales

Cumulative sales (000s)



Source: Futuresource Consulting April 2012

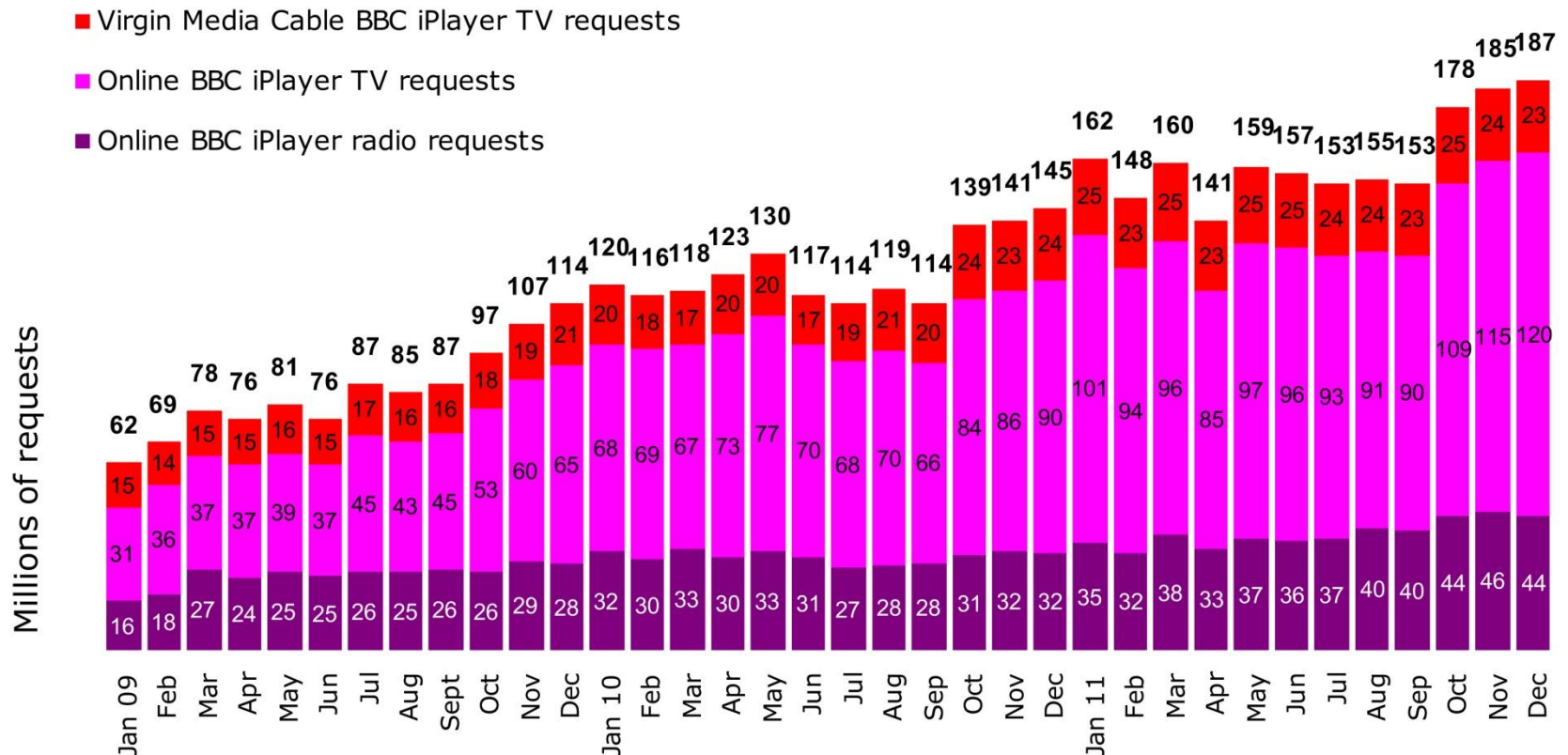
IP enabled devices: UK



Source: Futuresource Consulting Feb 2012

Note: 'IP enabled' devices may not be connected to the Internet in the viewer's home

BBC iPlayer requests by month

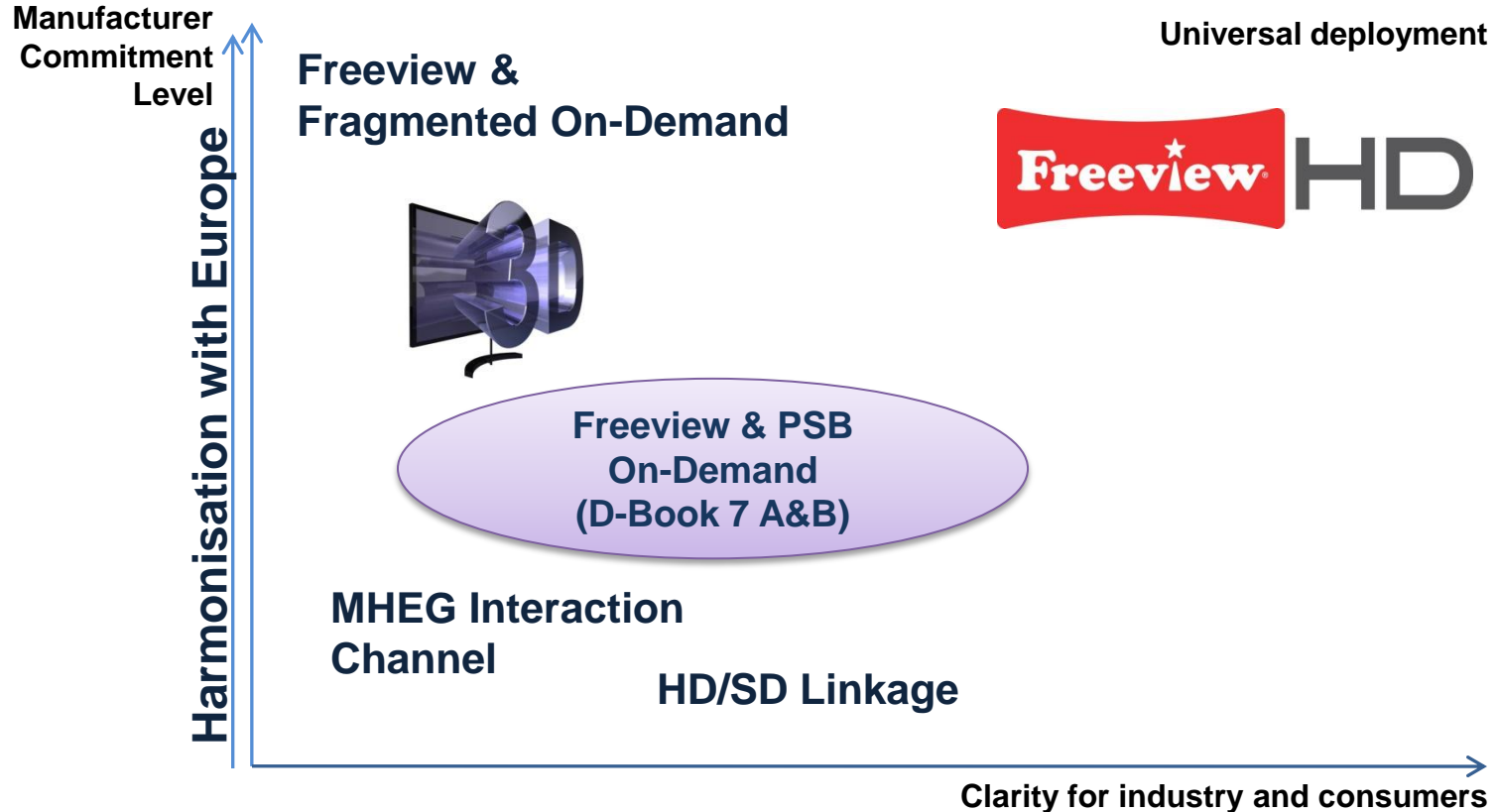


BBC iPlayer received a record **187 million requests** for TV and radio programmes across all platforms in December 2011.

Catch-up TV market update

	Freeview	FreeviewHD	Freesat	YouView	BT Vision	Virgin Media	Sky
BBC iPlayer	No	Manufacturer specific	Yes	Yes	Yes	Yes	Soon
ITV Player	No	No	Beta	Yes	Yes	Yes	Soon
Demand Five	No	Manufacturer specific	No	Yes	Yes	Yes	Maybe
4OD	No	Manufacturer Specific	No	Yes	Yes	Yes	Maybe
Sky Anytime	No	No	No	Maybe	No	No	Yes
Lovefilm	No	Manufacturer specific	No	Maybe	No	No	No
Netflix	No	Manufacturer specific	No	Maybe	No	No	No

Innovation management



HD: a success story

- Introduced HD, advanced interactive services to UK DTT
- **Backing of industry, Government, regulator**
- **Strong manufacturer commitment**
- High quality content
- Launch in run-up to major event (World Cup), during switchover in large metropolitan areas
- **Counteracted confusion** of 'HD Ready' logo
- March 2010 launch
- **Sales of 4.4 million units** by December 2011*

*Source: GfK Elektrak, Dec 2011

Conclusions

- UK has a **strong, competitive** horizontal digital TV market
- This market is based on a **DTG profile** of **international standards**
- The connected TV market appears to be organically **converging on international standards**
- These international standards are still **developing** and are still being market tested

Thank You

www.dtg.org.uk

office@dtg.org.uk



[@digitaltvgroup](https://twitter.com/digitaltvgroup)

