



Tendencias del mercado de la TV móvil en DVB-H



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New Digital age

📶 **Yesterday** : *SD-TV, Broadband Internet, 2.5G, WiFi*

📶 **Today** : *DTT/ HDTV, IPTV-SD, 3G, S/T-DMB, WiMax, DVB-H*

📶 **Tomorrow** : *CMMB, IPTV-HD on VDSL2, 4G-OWA ?*

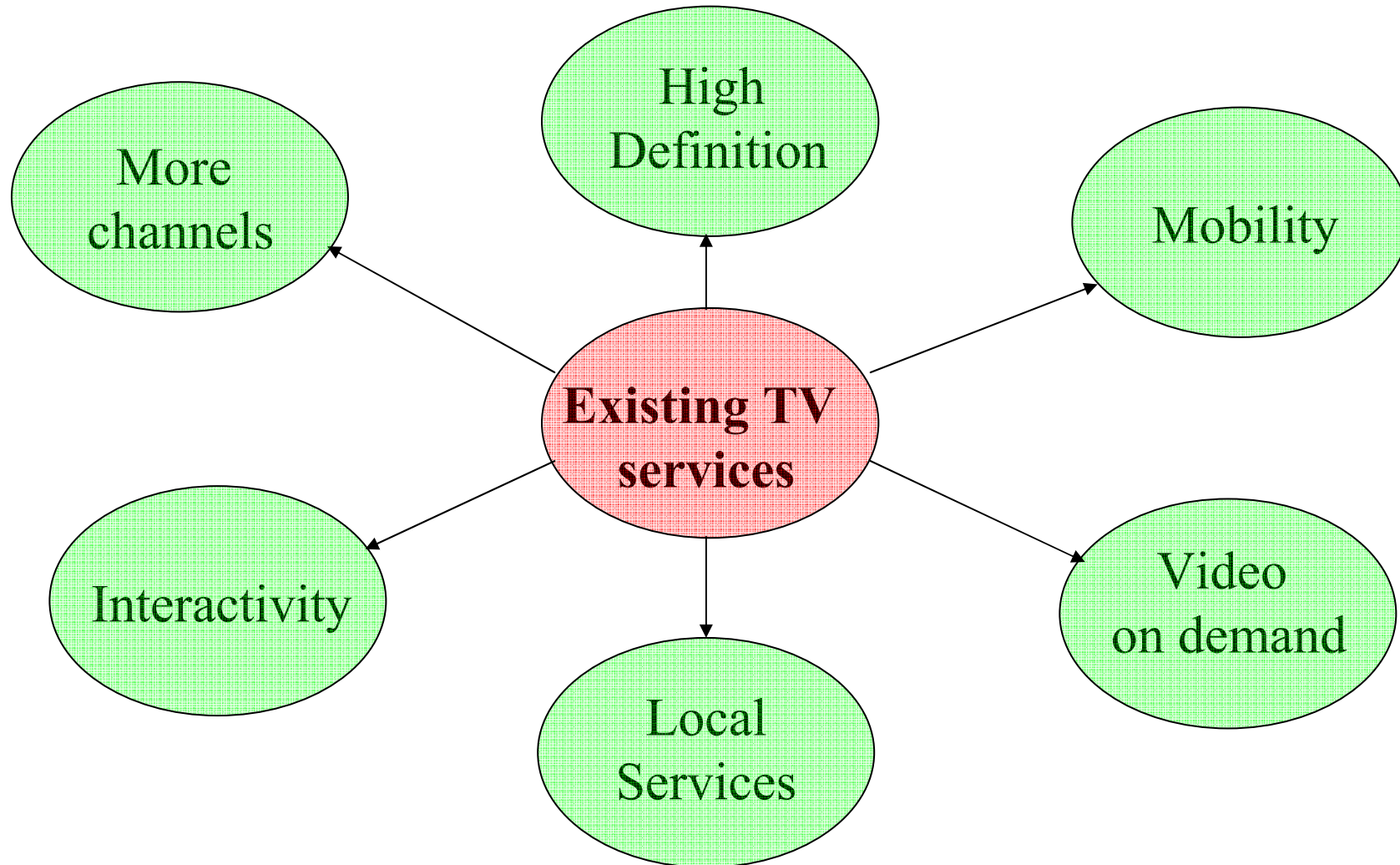
📶 **New Digital Age** : Mature Digital TV and IP Technologies: *Multi-platforms (horizontal) and multi-qualities (vertical) for the viewers*

📶 **Challenge** : Maximize ROI (savings, revenue) / business value

General trends

- 📶 Ubiquitous: anywhere, anytime, any support
- 📶 Mobility increases
- 📶 Threshold of acceptable quality dropping
- 📶 Networked environment eg office, home
- 📶 Time-shifted viewing/ listening eg PVR, ipod
- 📶 Interactive

TV evolution



Tendencias del mercado de la TV móvil

The nature of broadcast mobile TV

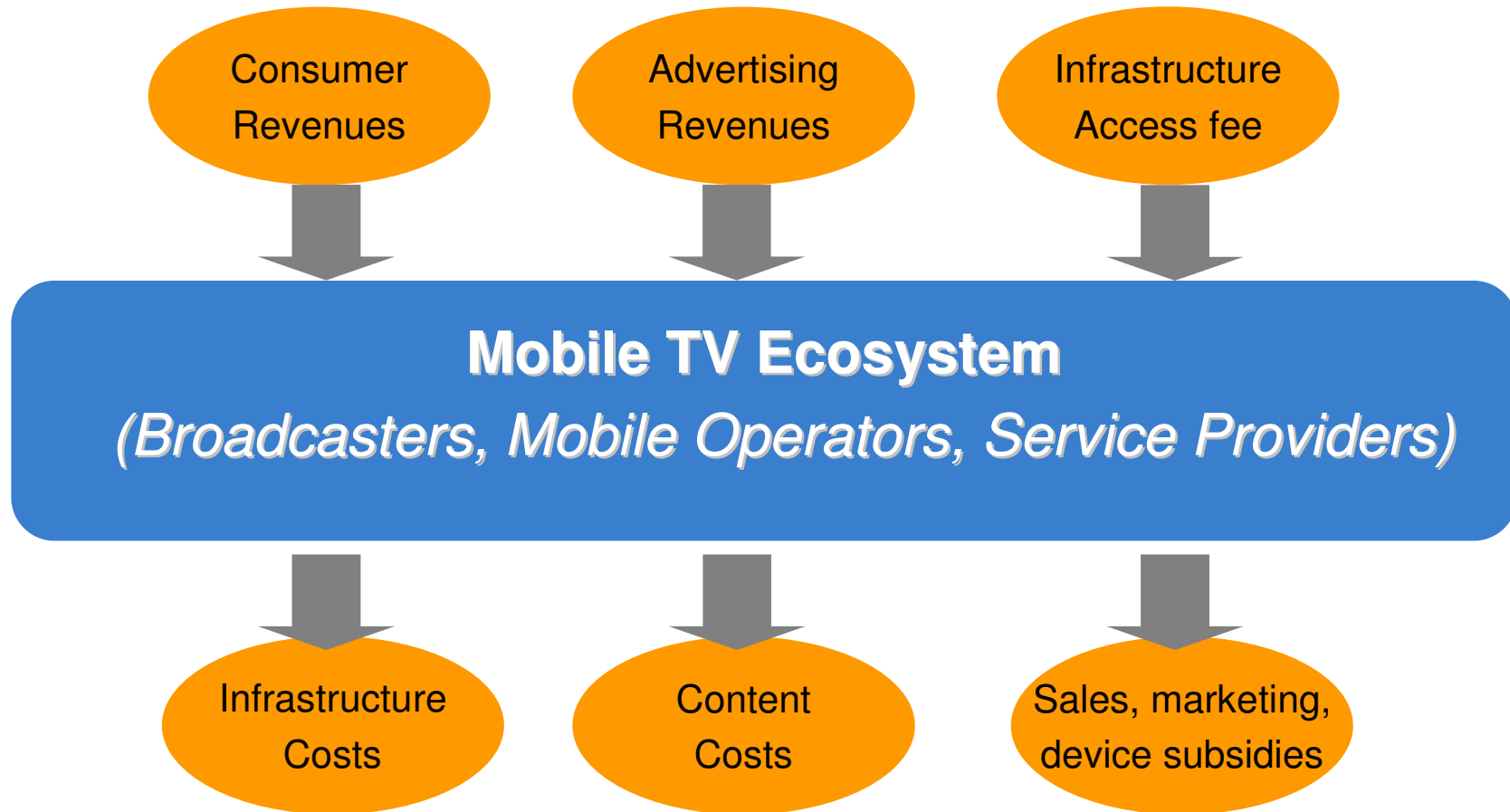
- 📶 Small device that is always with you
 - Place-shifting and unplanned viewing
 - Prime time different to regular TV
- 📶 Personal device with return channel
 - Integrated authentication and billing
 - Interactivity and on-demand services
- 📶 Not just simulcast or “made-for-mobile”
 - Digital radio
 - Filecasting

2007 : Drivers for mobile TV

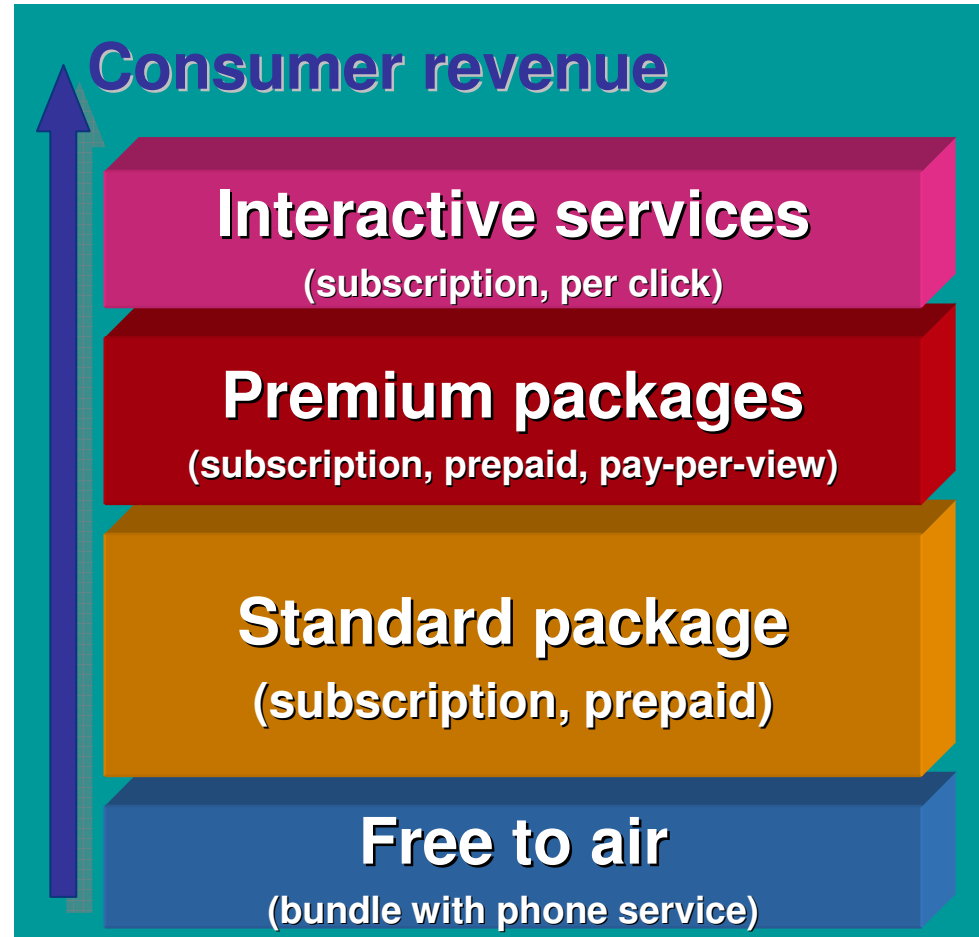
- ❶ Technology
 - High quality color LCD screens
 - Highly integrated circuits
 - Digital media technologies (MPEG4, OFDM, IP, FEC)
 - Energy optimization techniques
- ❷ Market
 - TV is the biggest multimedia application (**2 billion** TV sets world-wide)
 - The average daily consumption of TV is **4h30 hours** in US (source Nielsen), and 3h40 world-wide (Eurodata)
 - There are over **3 billion** mobile users world-wide
- ❸ Business
 - The TV, internet and phone services are converging (**triple play**) for technical and business reasons
 - Mobile operators need to increase **ARPU**



Mobile TV : revenues and costs streams

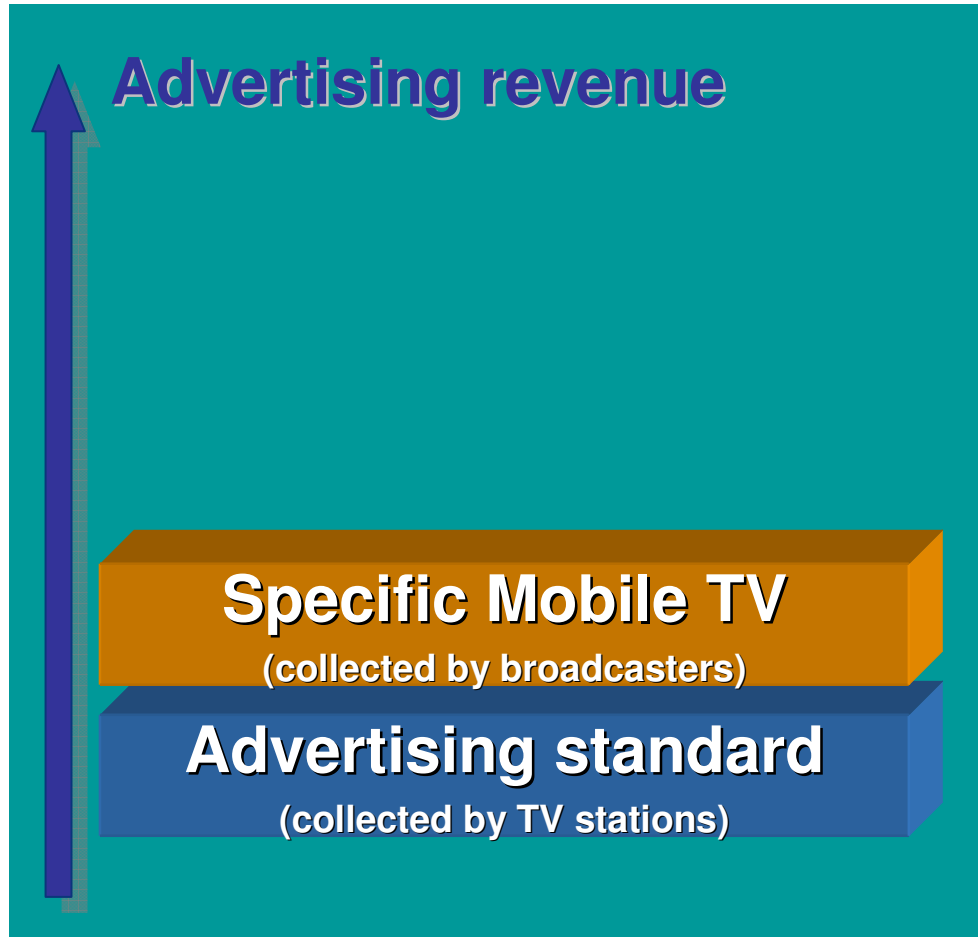


Consumer revenues



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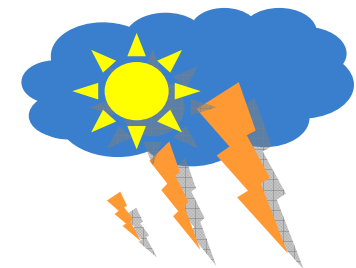
Advertising revenues



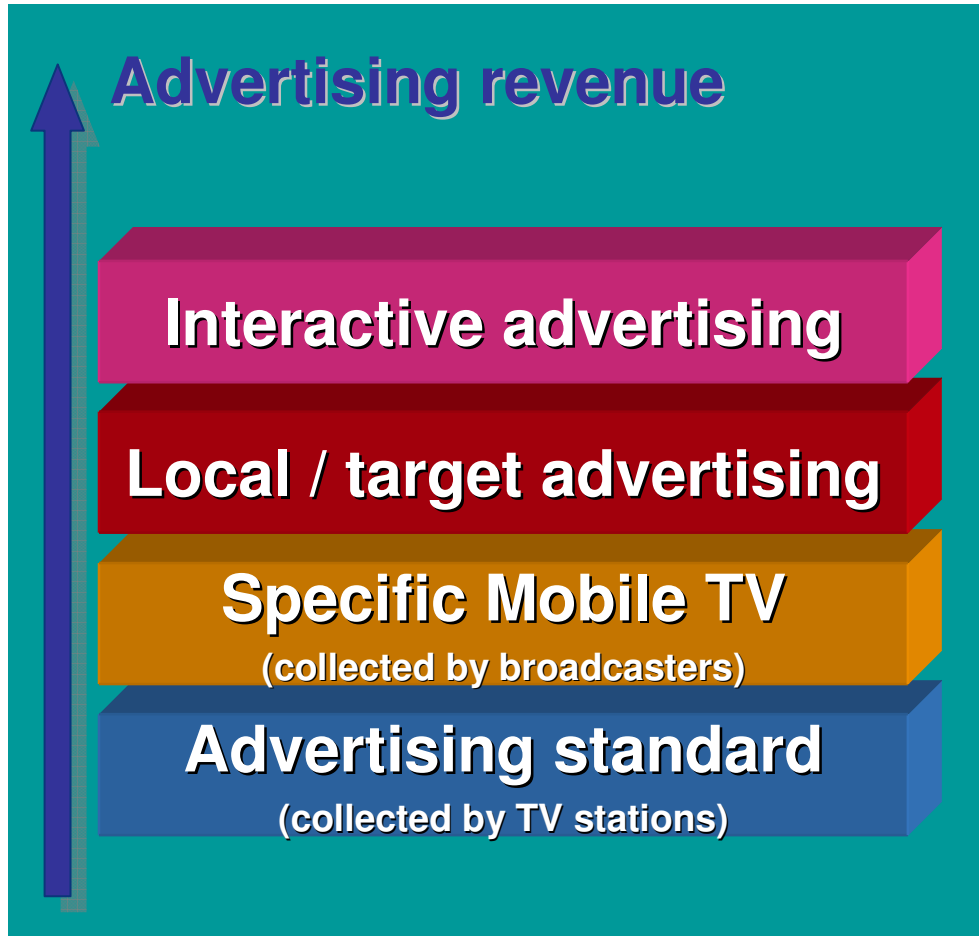
Global TV advertising market tops \$160M, and about 50% of stations budgets.

TV advertising challenges

1. Fragmentation – over 500 channels available on cable and satellite feeds (US)
2. Competition – from console gaming, video-on-demand, Internet, DVDs...
3. Saturation – over 30 advertisements per hour
4. Elimination – channel surfing, Personal Video Recording (PVR) technology and non-commercial channels



Advertising revenues



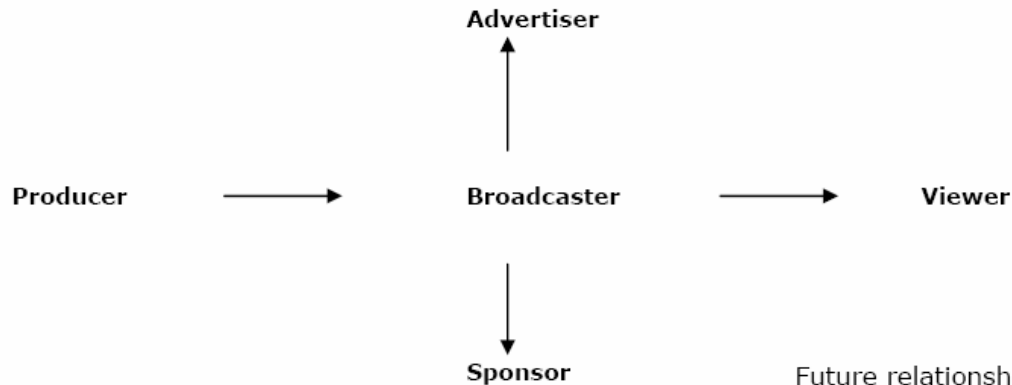
Global TV advertising market tops \$160M, and about 50% of stations budgets.

Local advertising =
40% advertising revenues
in US

ROI solutions:
Flexible Distribution
for local content
(up to 80% OPEX reduction)

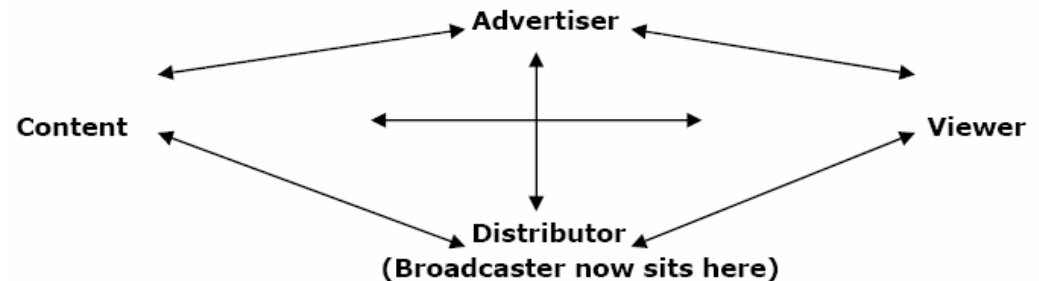
New advertising – landscape change

Current relationship with advertisers/viewers:



All industry players
adapt their
business models
⇒ Disruptive opportunity
to capture

Future relationship with advertisers/viewers:



Source: Simon SPALDING, CEO - FremantleMedia Licensing Worldwide - UK

- New partnerships – building partnerships beyond sponsorship

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Market predictions

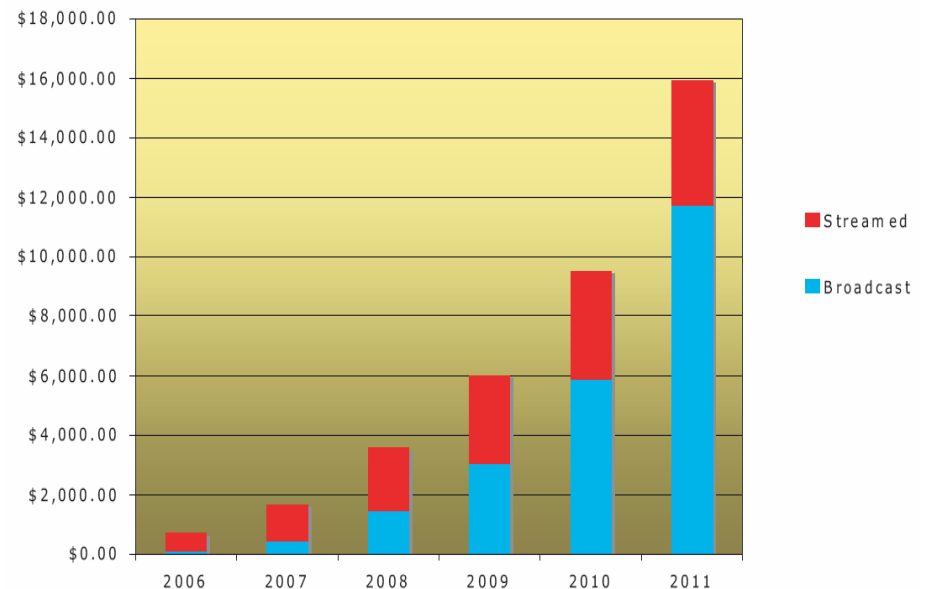
📶 Market size:

- 2009:
 - Datamonitor – **69m** broadcast mobile TV in 2009
 - eMarketer – 4.2m in 2006, 13.9 in 2007, **100m** by 2009 (2006)
- 2010:
 - In-Stat – **102 million** broadcast subscribers by 2010 (2006)
 - NSR – **107 million** subscribers by 2010
- 2011:
 - Informa – **210m**, by 2011 (APAC 95.1m, Eur 68.7)
 - IMS – **446m** users by 2011 (2006)
- 2012:
 - ABI Research – **514m** subscribers by 2012

📶 Solutions:

- **Broadcast** will be used in over 50% of mobile TV subscribers
- **DVB-H** will represent 60-80% of broadcasting mobile TV subscribers

Total Revenues for Streamed & Broadcast Mobile TV Services, 2006-11 (\$m)



Source MobTV 06, Juniper Research

Summary: DVB-H in a nutshell

- Based on DVB-T, **backwards fully compatible**
- Gives additional features to **support Handheld** reception
 - battery saving
 - mobility with high data rates, single antenna reception, SFN networks
 - increased general robustness, improved impulse noise tolerance
 - support for seamless handover
- The above have been achieved by adding options
 - Time-slicing for power saving
 - MPE-FEC for additional robustness and mobility
 - 4k mode for mobility and network design flexibility
 - enhanced TPS signaling
- DVB-H is meant for **IP-based services** via MPE insertion
- DVB-H **can share DVB-T multiplex** with MPEG2 services

Trial results – non technical

Sources: Trials of Helsinki, Paris Canal+, Telefonica, Vodafone Spain, O2, Orange

SATISFACTION

- **70%-83% satisfied** with service and content and would recommend it

CONTENT

- Mobile TV is used for killing time or to stay updated (gain time)
- **Large variety (11-20) of channels** needed to meet different markets' needs
- Most watched are: news, music videos, entertainment, sports
(Different to traditional terrestrial TV, mainly driven by films and sports)

PLACE

- **32-50% at home**, 14%-37% while commuting,
- 12-23% at workplace

TIME

- PER SESSION: 5min-30min
- DAILY: 16min-35min
- MONTHLY: 180min per month (Orange)
- PRIME-TIMES: **morning, midday, evening** – more periods than for traditional TV

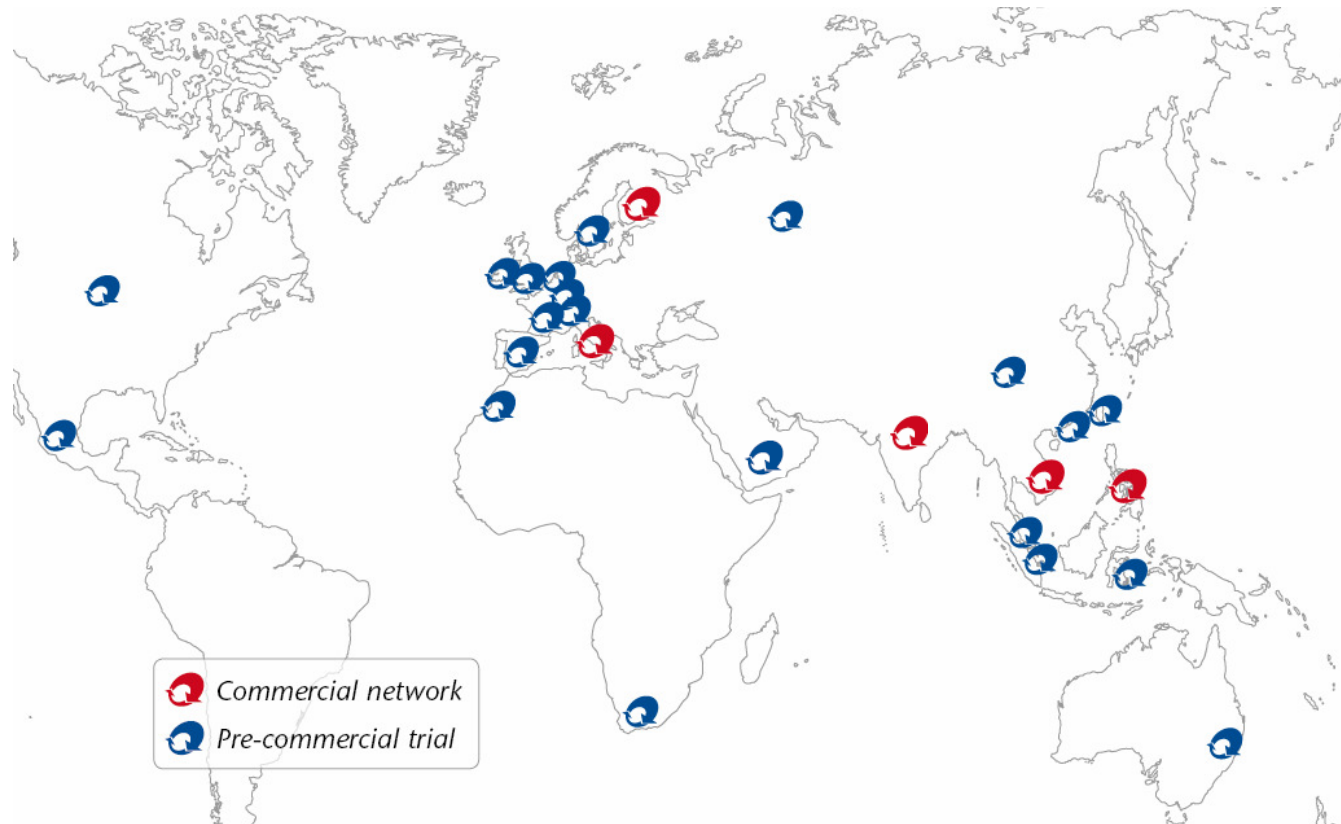
MONEY

- **41-76%** of trial participants would pay for the service between undefined-5-10 euro per month



DVB-H world map

- **5 commercial Mobile TV networks:** Italy, Finland, Vietnam, India and Philippines (+Nigeria +Albania)
- **Over 30 trials:** Finland, France, Germany, USA, South Africa, Italy, Switzerland, Spain, China, Australia, UK, Malaysia, Hong Kong...

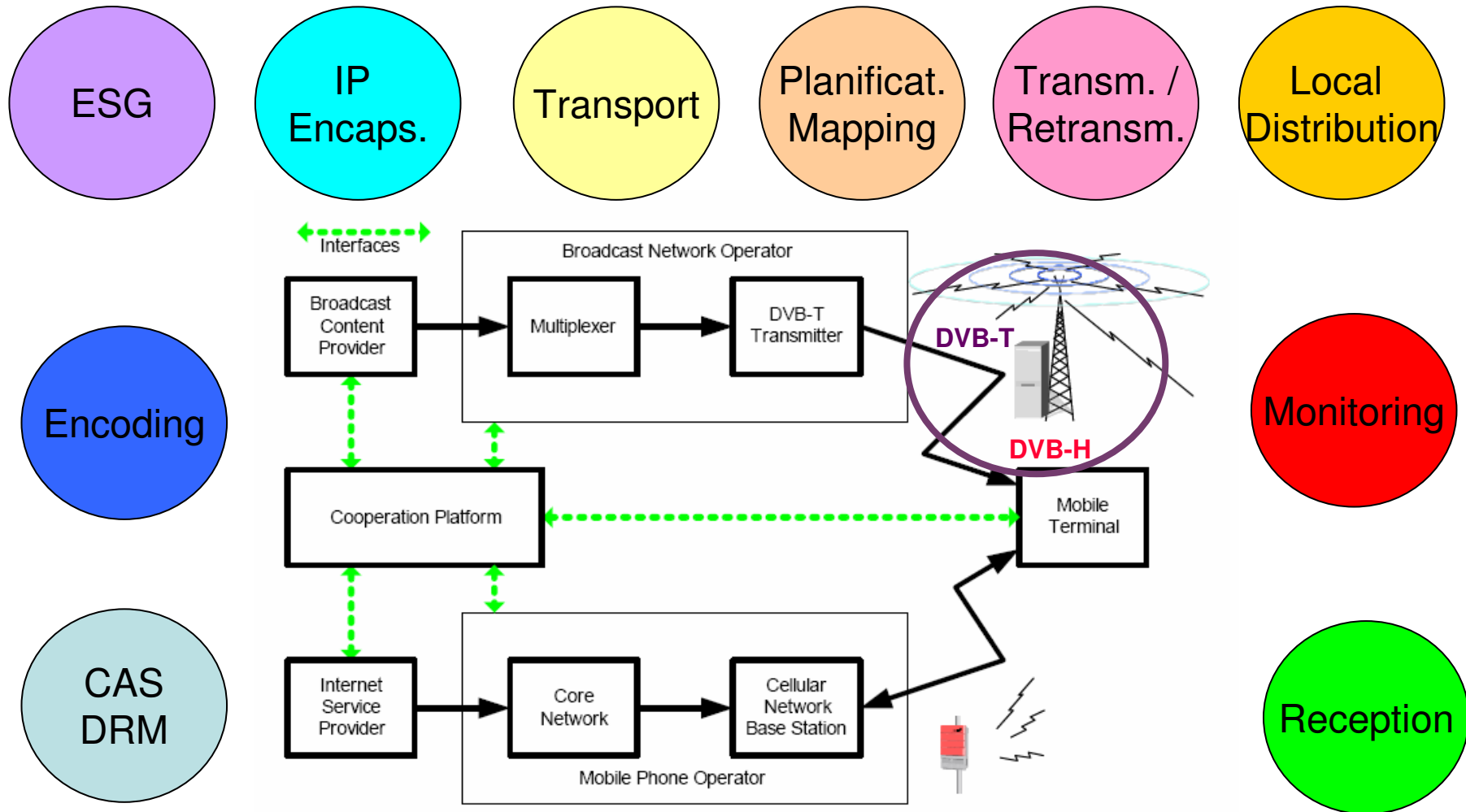


WWW.UDCAST.COM – September 2007

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DVB[®]H
HANDHELD

Overview of the system



System architecture for collaboration between mobile and broadcast operators

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For more information...



📶 **DigiTAG** aims to encourage and facilitate the implementation and introduction of digital terrestrial television services using the standards developed by Digital Video Broadcasting (DVB).



📶 The **EMBC** was established in July 2006 as a response to Commissioner Reding's invitation to industry to establish a roadmap for the deployment of mobile television services in Europe.



📶 The "Broadcast Mobile Convergence Forum" (**bmcoforum**) is an international organisation of companies targeting to shape an open market environment for mobile broadcast services.



📶 This is the official **DVB-H** website maintained by the DVB Project Office



📶 **Mobile DTV Alliance** is an open industry consortium. The alliance includes leading companies from across the mobile business system and entertainment value chain.



📶 The **World DAB Forum** is an international non-governmental organisation coordinating the implementation of DAB Digital Radio services based on the Eureka 147 DAB system.



📶 **FLO Forum** is to assemble wireless industry stakeholders to establishing FLO as an internationally-supported technology standard.

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Thank you.

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