

The Future of TV Broadcasting in Ubiquitous Network Societies (UNS)

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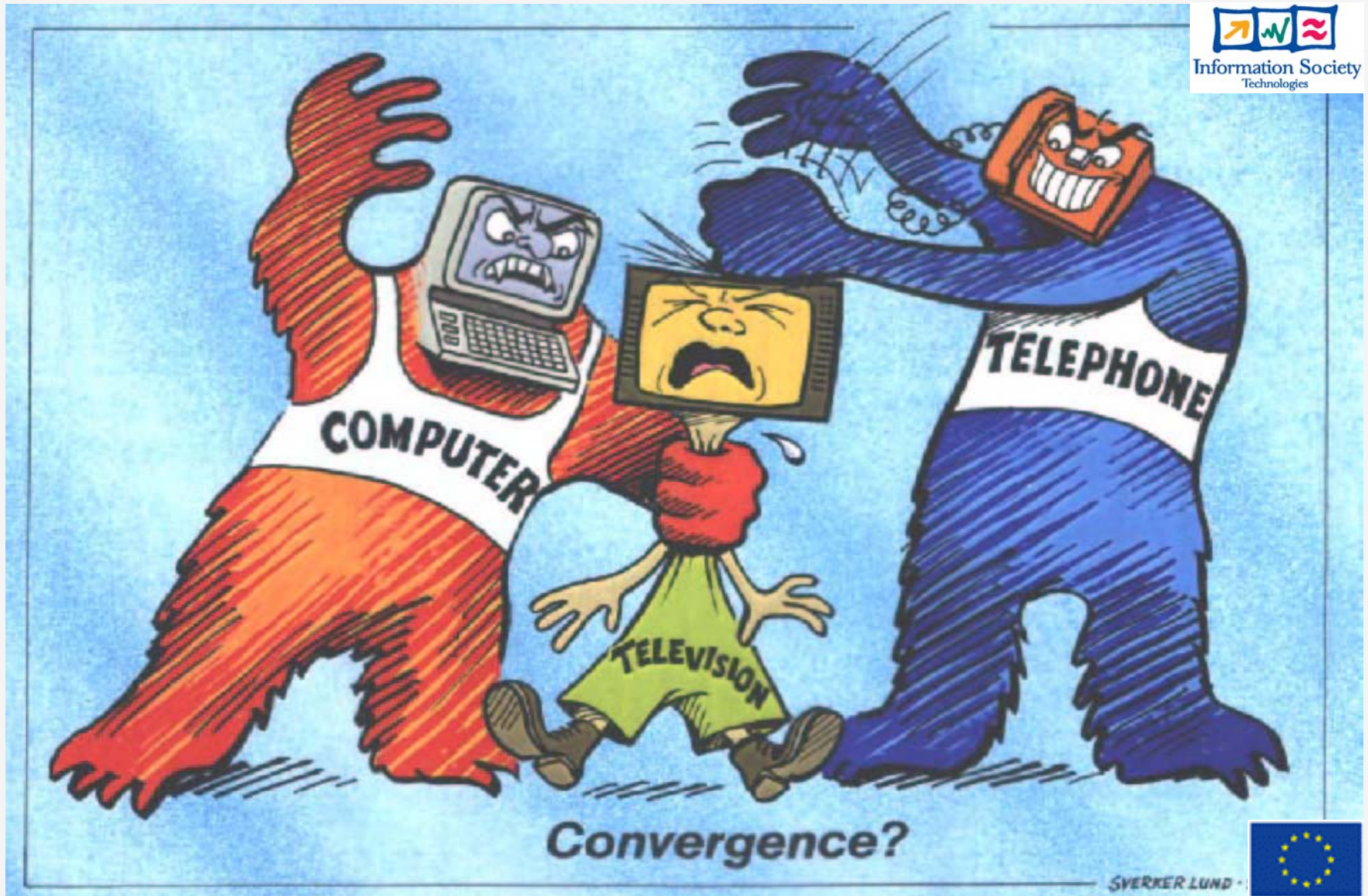
- Introduction
- Status quo: TV versus TC&IT?
- Opportunities of DTV in UNS
- DTV business issues
- Mobile and portable DTV
- Future mobile multicasting in UNS
- Conclusion

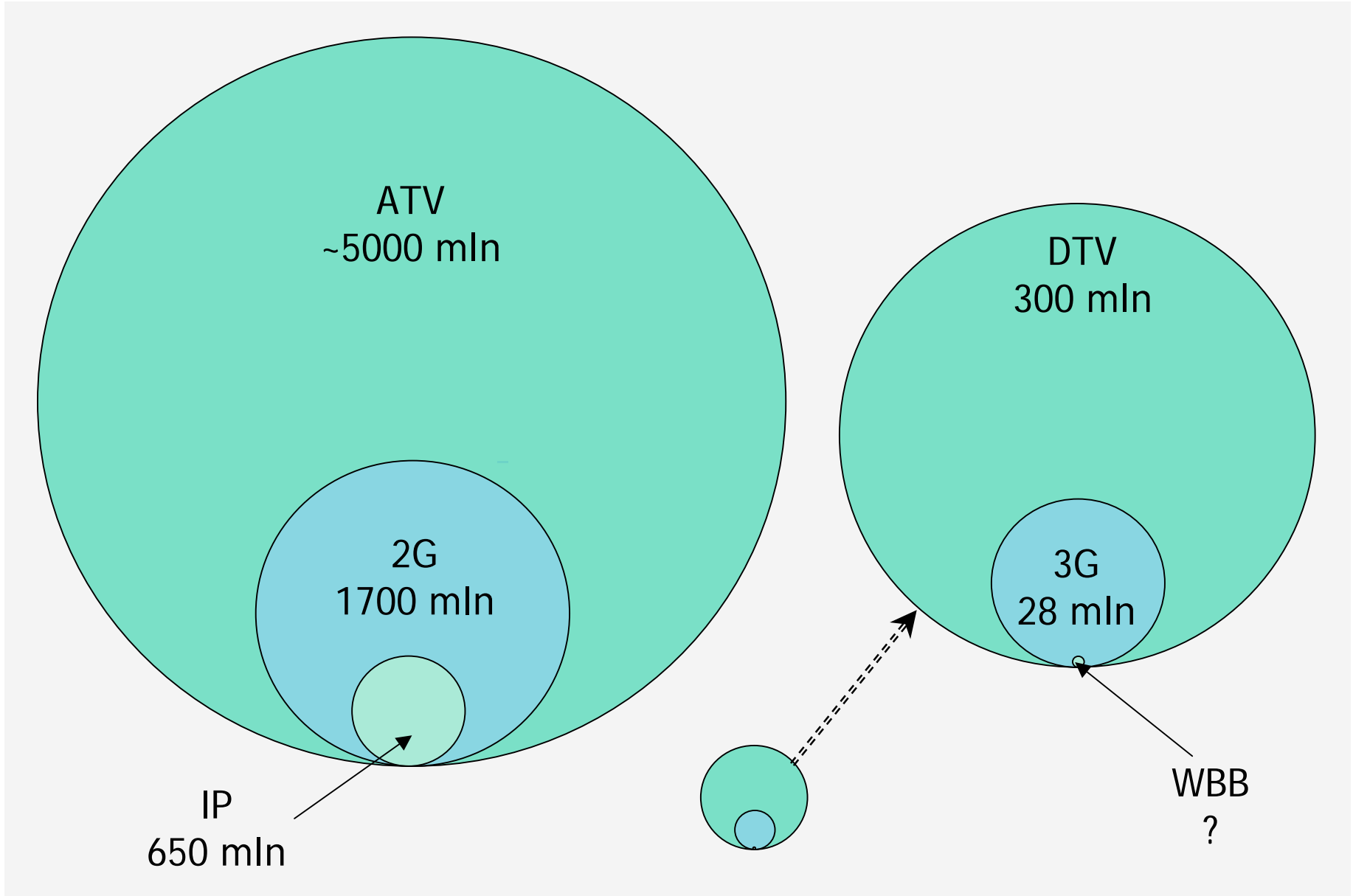
Status quo: TV versus TelCo & IT (one to many versus one to one)

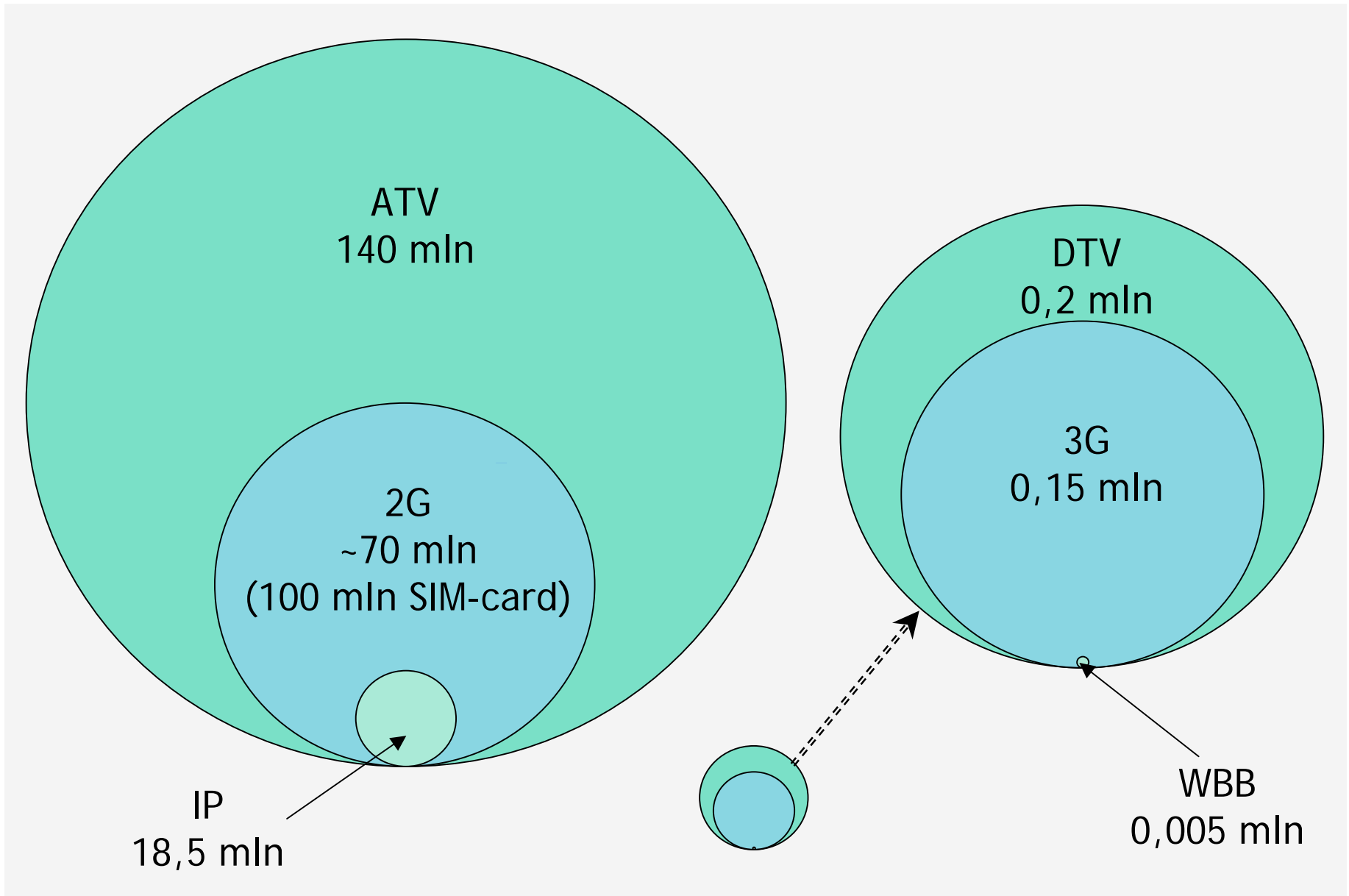
1. TV- The greatest audience of users (viewers).
2. TV- The greatest share of the market.
3. TV- The greatest share in the budget of user (viewer) time.
4. TV- Opportunity of simultaneous delivery of the content to the most mass audience.
5. TV- Multi purpose: not only the way of needs satisfaction, but also serious tool to formation of needs and the general values.
6. TV- High cost of the content creation and low cost of its delivery.
7. TV - Shorter history, than at Telco and IT (IT - the oldest if to consider telegraph (1837) as the "Victorian" Internet).
8. TV- The highest reliability and quality of services.
9. TV- Higher cost of interactivity.
10. Features:
 - Regulation (in some countries BC need two licenses)
 - Economy and the business organization
 - Type of connection (point - multipoint and point - point)
 - Content and media culture; Indicators (covering, ratings, etc.)

TV+TelCo+IT = Electronic Communications (EC)

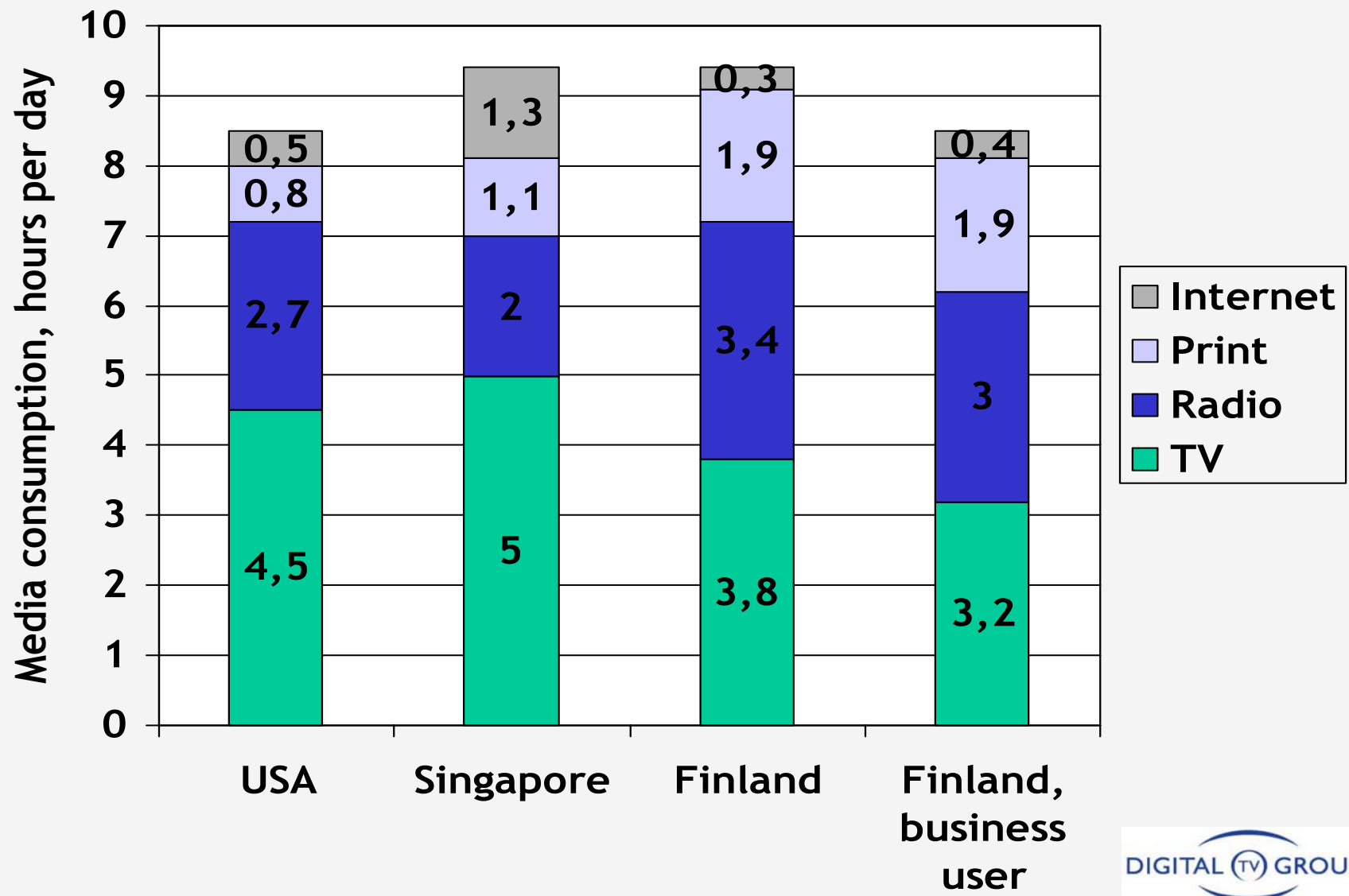
Co-existence Instead of Convergence

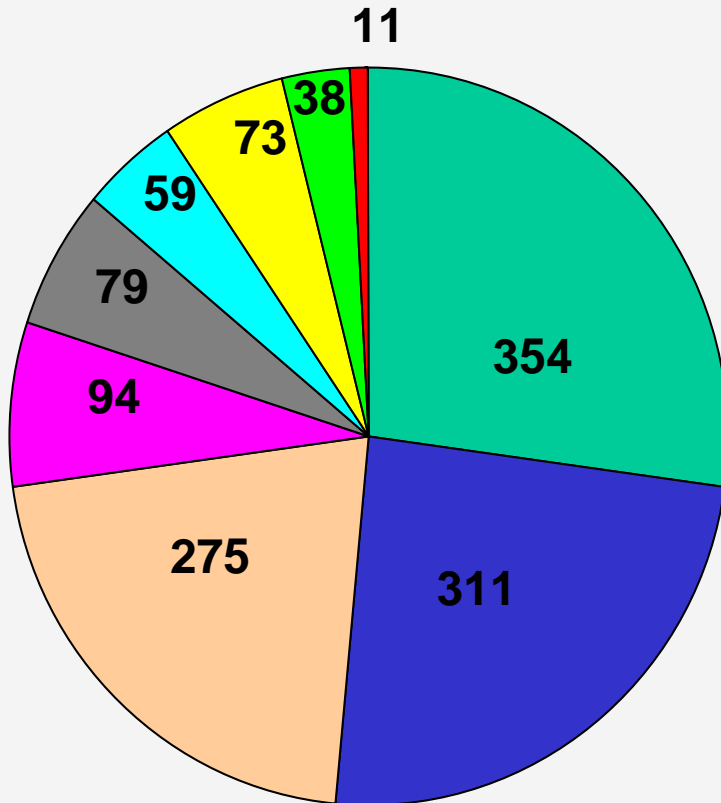






Information Budget of Media Consumption





- Television
- Books
- Newspaper & magazines
- Internet Adv.
- Filmed Entertainment
- Radio Adv.
- Special Events
- Recorded Music
- Mobile Content

- Media market 1300 billion in 2006
- Mobile content ~1-2 % of overall media
- TV is the largest segment
- Physically distributed media 700 billion
 - 40 - 60% of costs in physical production & distribution
 - significant cost savings with digital distribution

***Price Waterhouse Coopers
Analysys for Mobile Content**

Key: digital (technology + content) + regulation + business model



Processes: convergence + cooperation + competition = interoperability



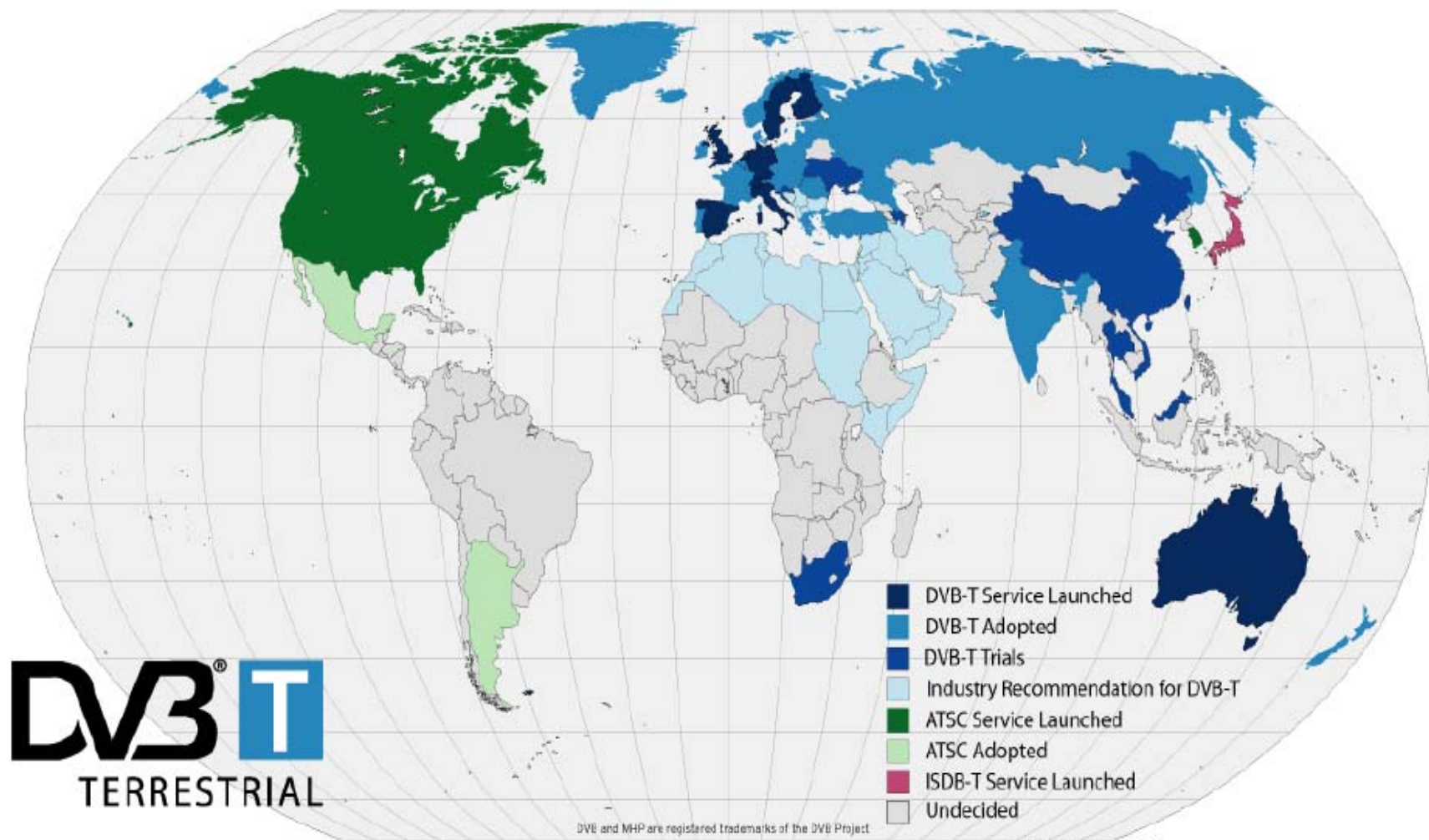
Results: New opportunities and multimedia services:
BROADCASTING \implies BROAD(MULTI)CASTING:
Status quo + mobility (portability) + interactivity + personalization = ubiquity;
Ubiquity + HDTV = high competitiveness broad(multi)casting



Consequences:

1. Realization of the digital dividend
2. Everyviewer will have an opportunity to be a broadcaster
3. Changing of the population lifestyle

Status of Terrestrial Digital Television Standards Around the World



DVB[®]T
TERRESTRIAL

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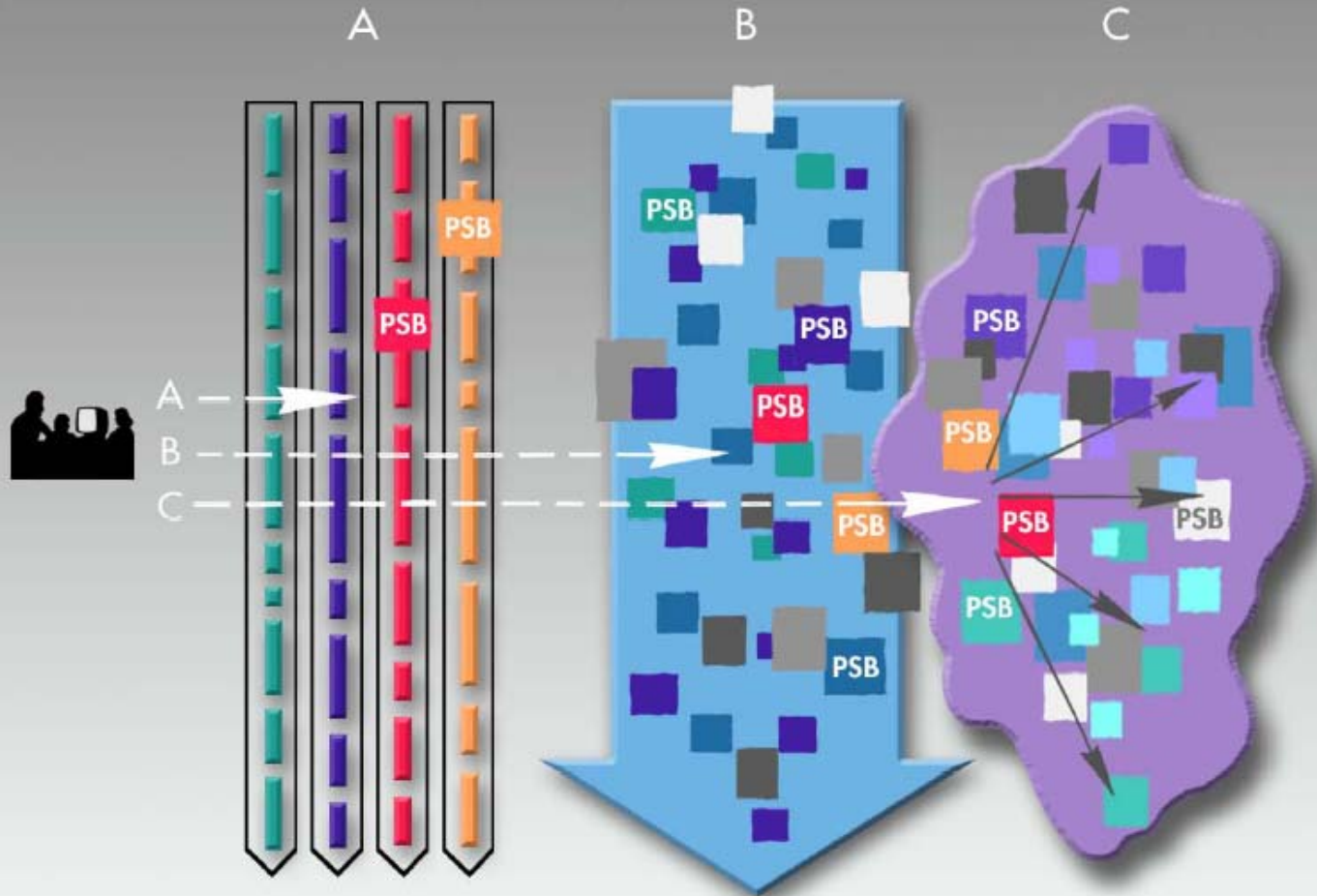
Updated September 2004

The Multiple Media Consumption Pattern - Three Parallel Methods of Choosing Content

A: Programme choice determined by the traditional channel-flow.

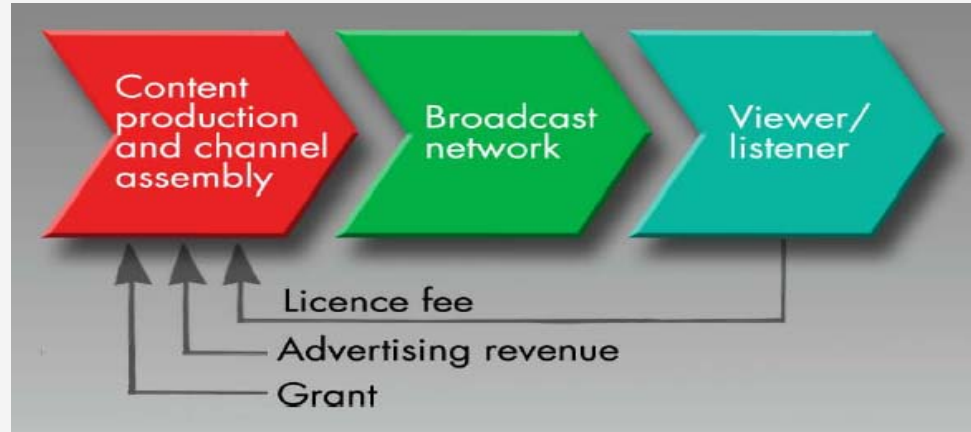
B: Choice of programmes using an electronic programme guide (EPG) in a multichannel-flow.

C: Neither channels nor flow: Programmes and services on demand. (eg. the Internet).

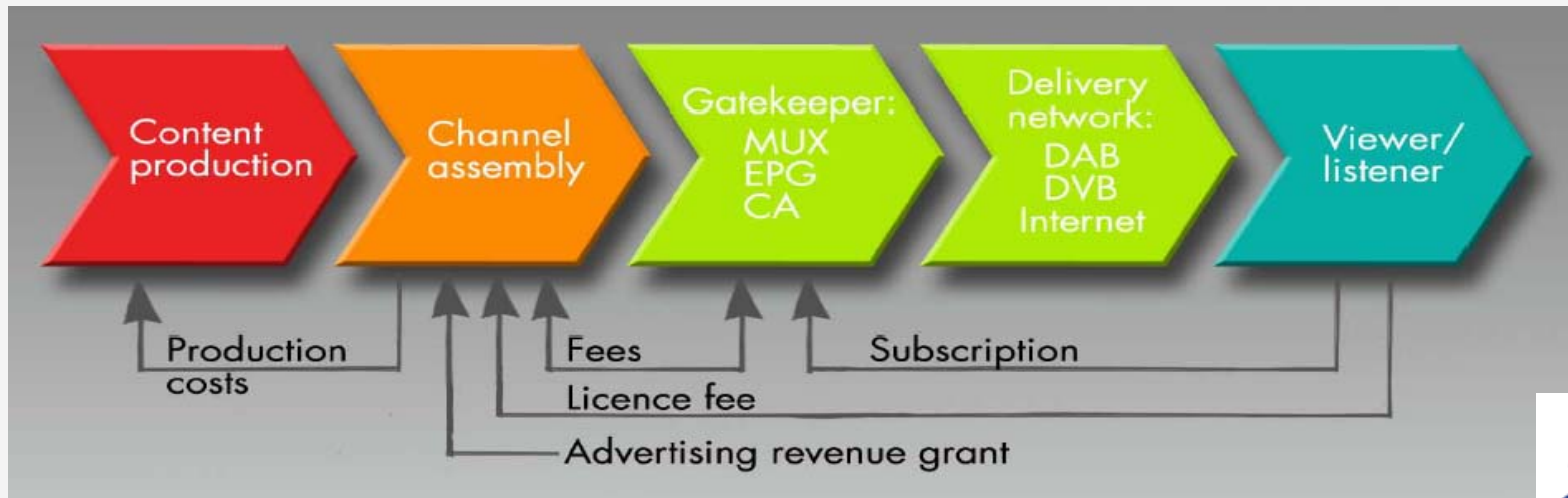


PSBs need to reconsider programming policy, production processes, organisation and financing to accommodate the changing pattern.

The traditional media value chain in PSB



The evolving new media value chain (DTV)



Players on the Whole Value Chain



Broadcas-
ters

Creators

Broadcas-
ters

Network
operators

Broadcas-
ters

Network
operators

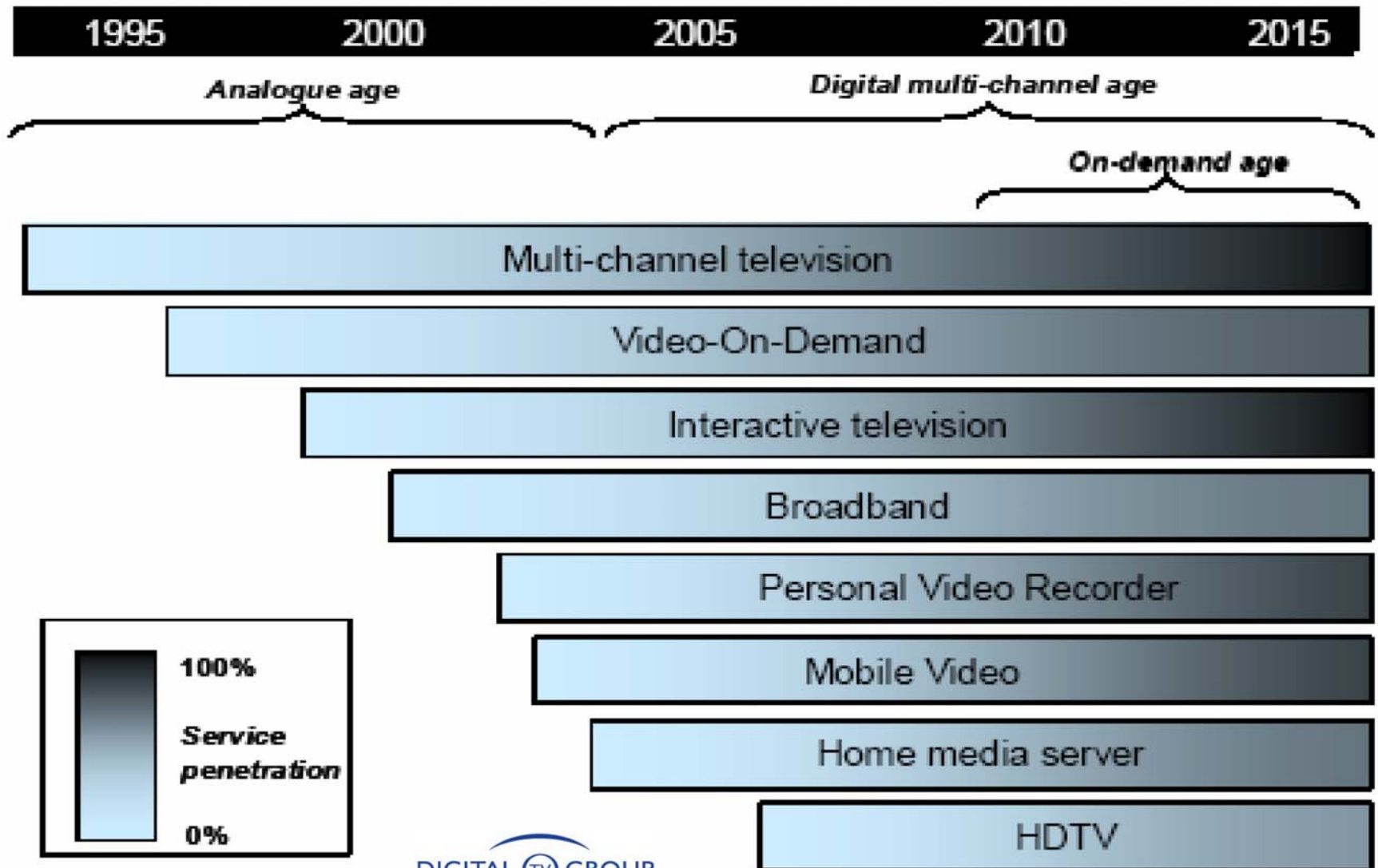
Mobile
operators

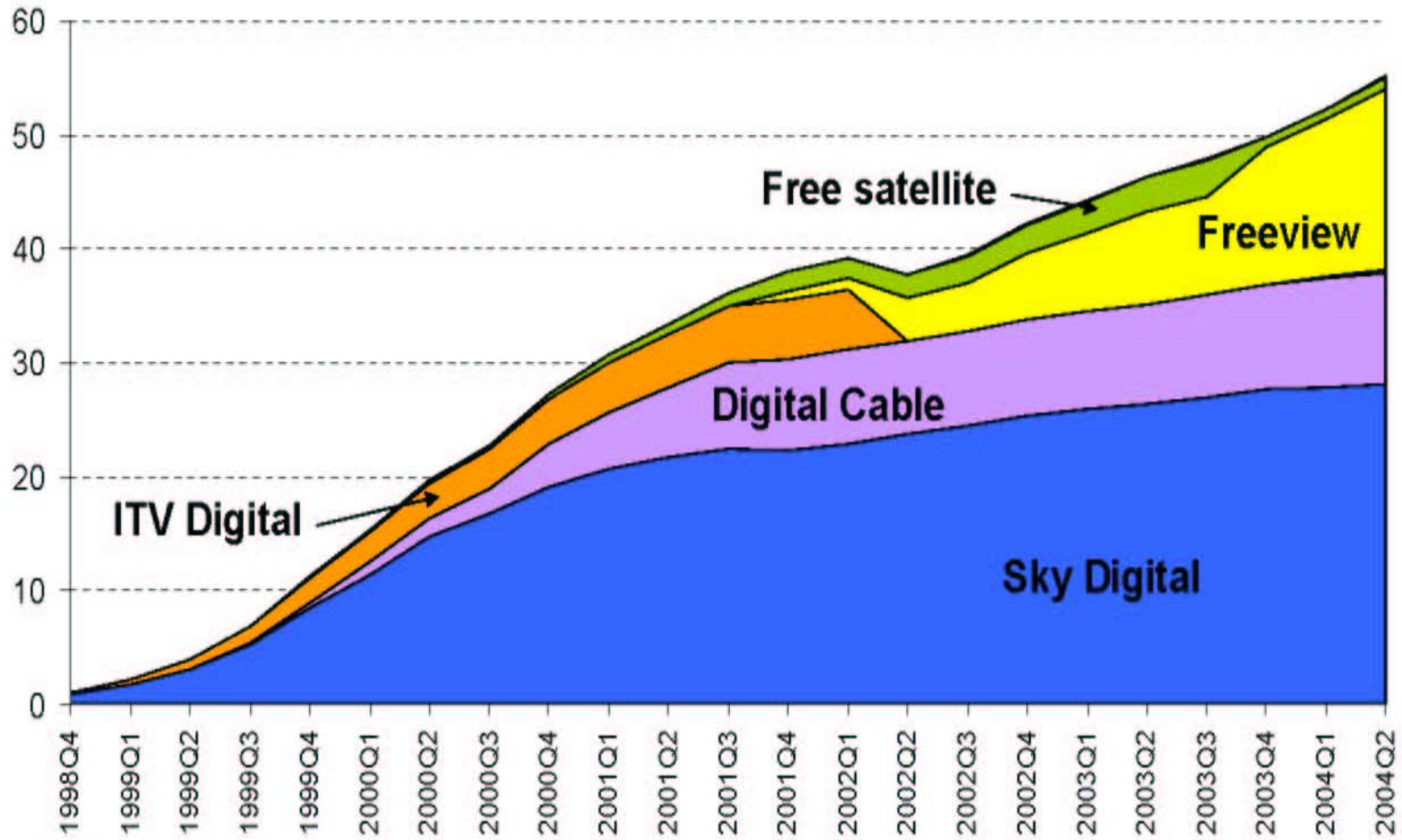
Broadcas-
ters

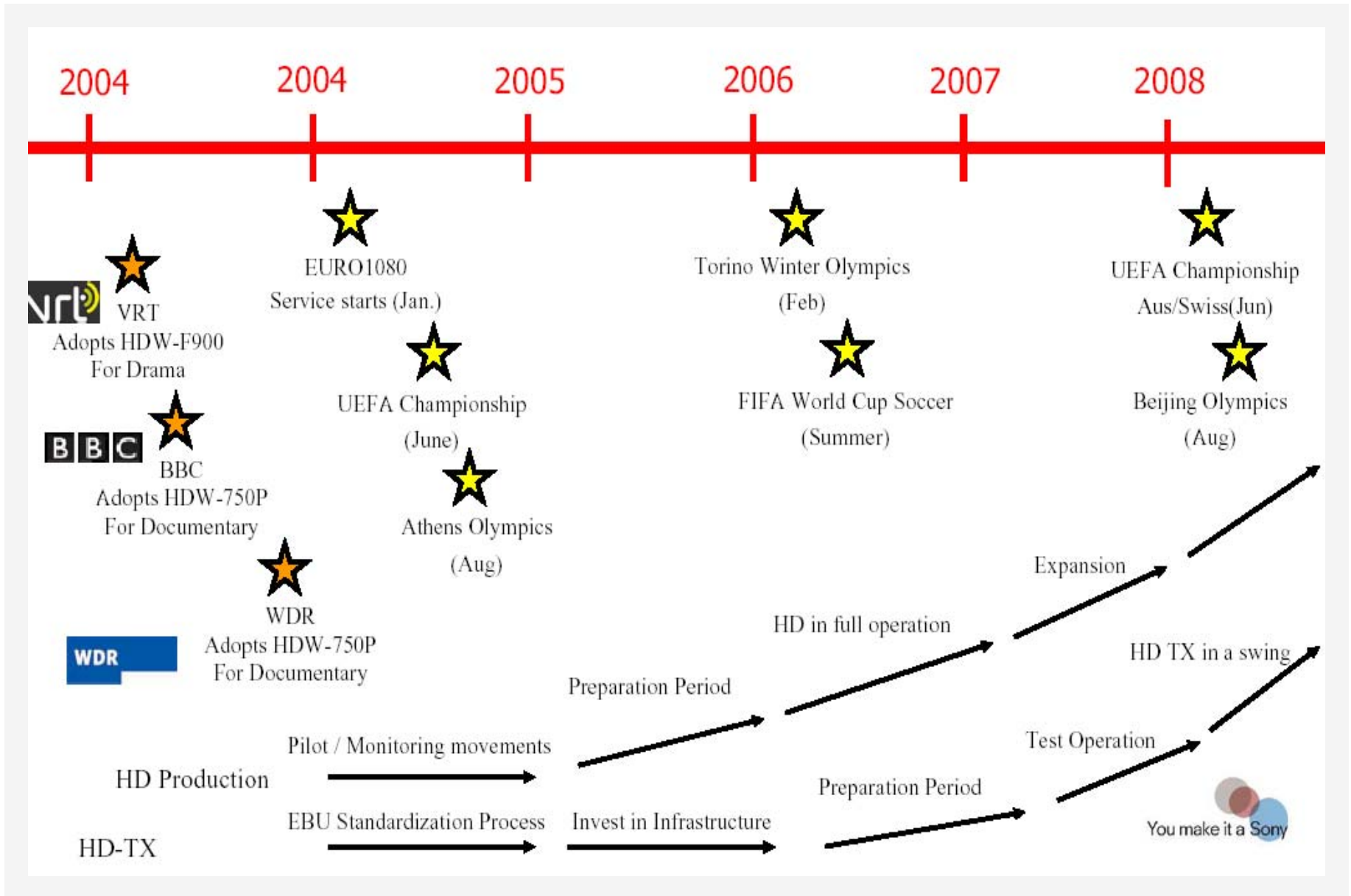
Network
operators

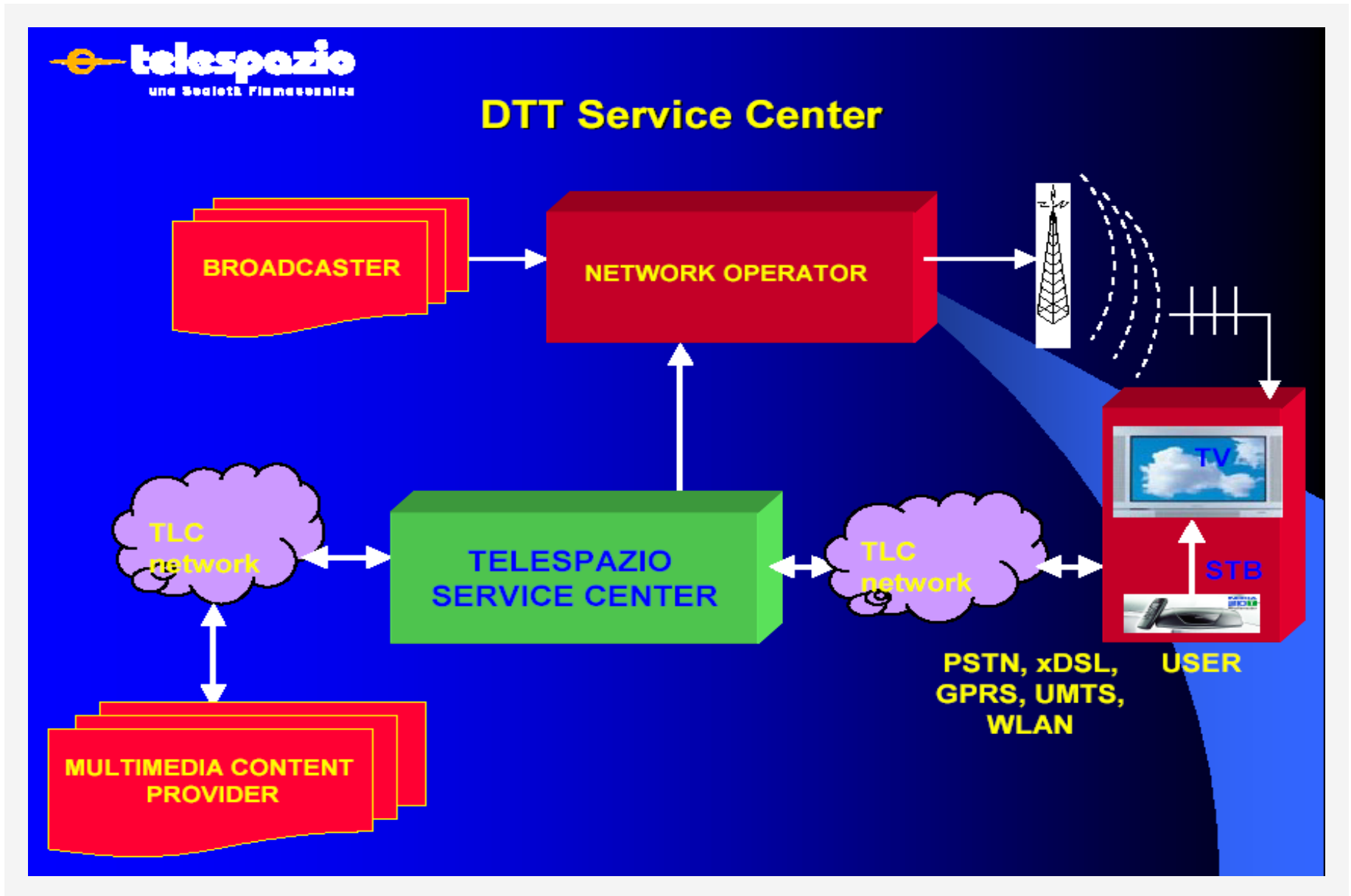
Vendors

Vendors









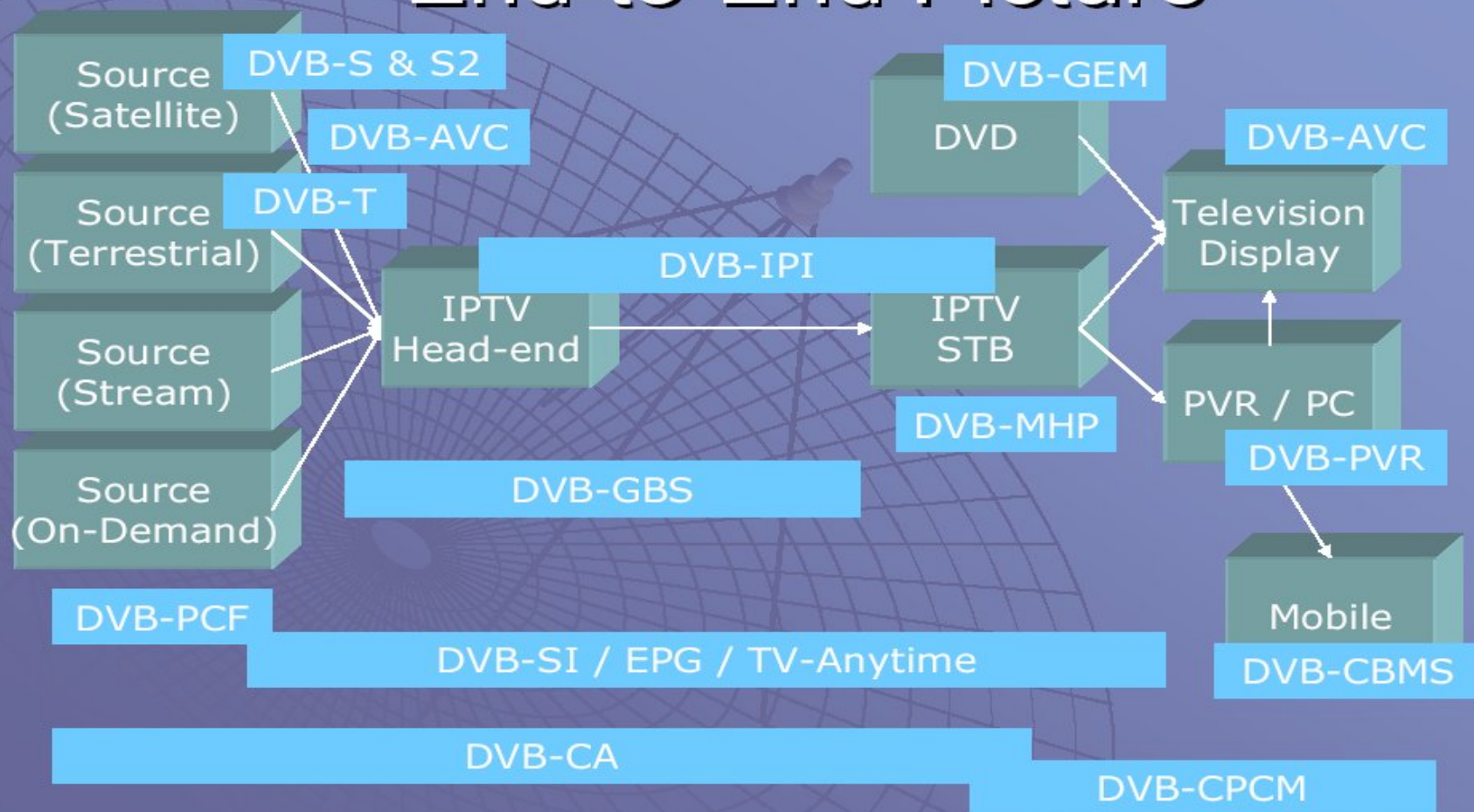
% of digital satellite TV subscribers who are interested in using ...

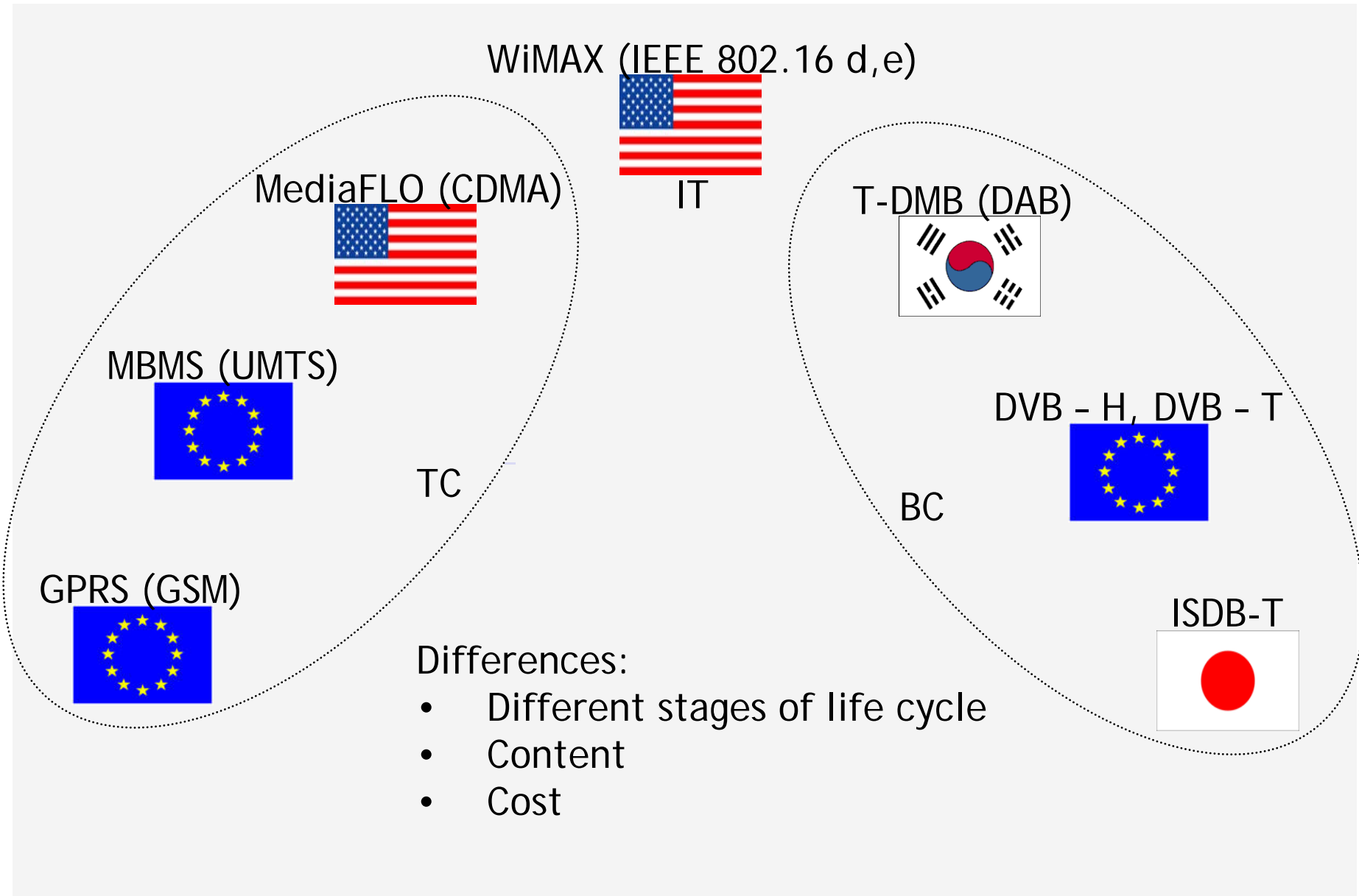


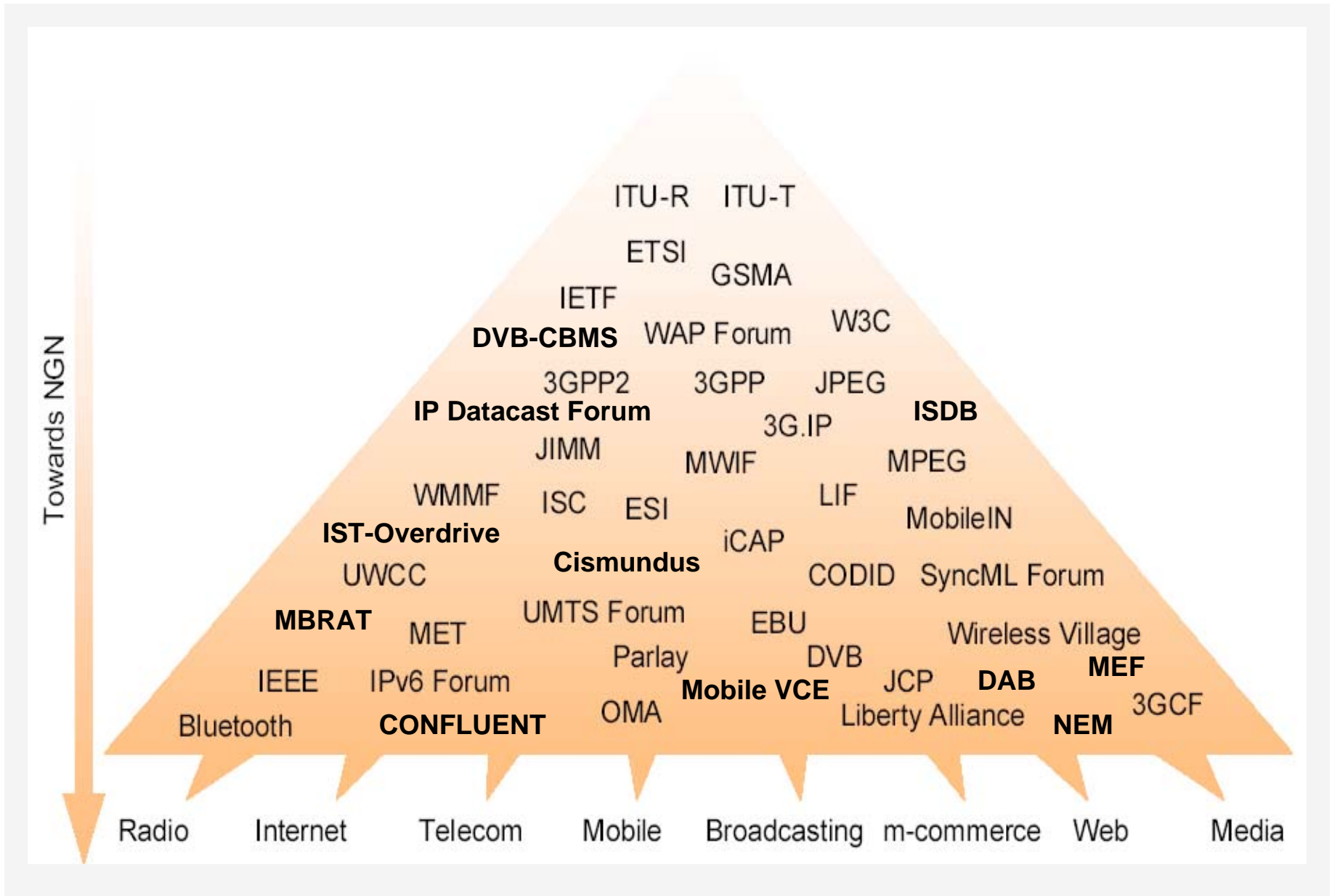
Base: All adults in households that subscribe to digital satellite TV in Italy, Q2-2001



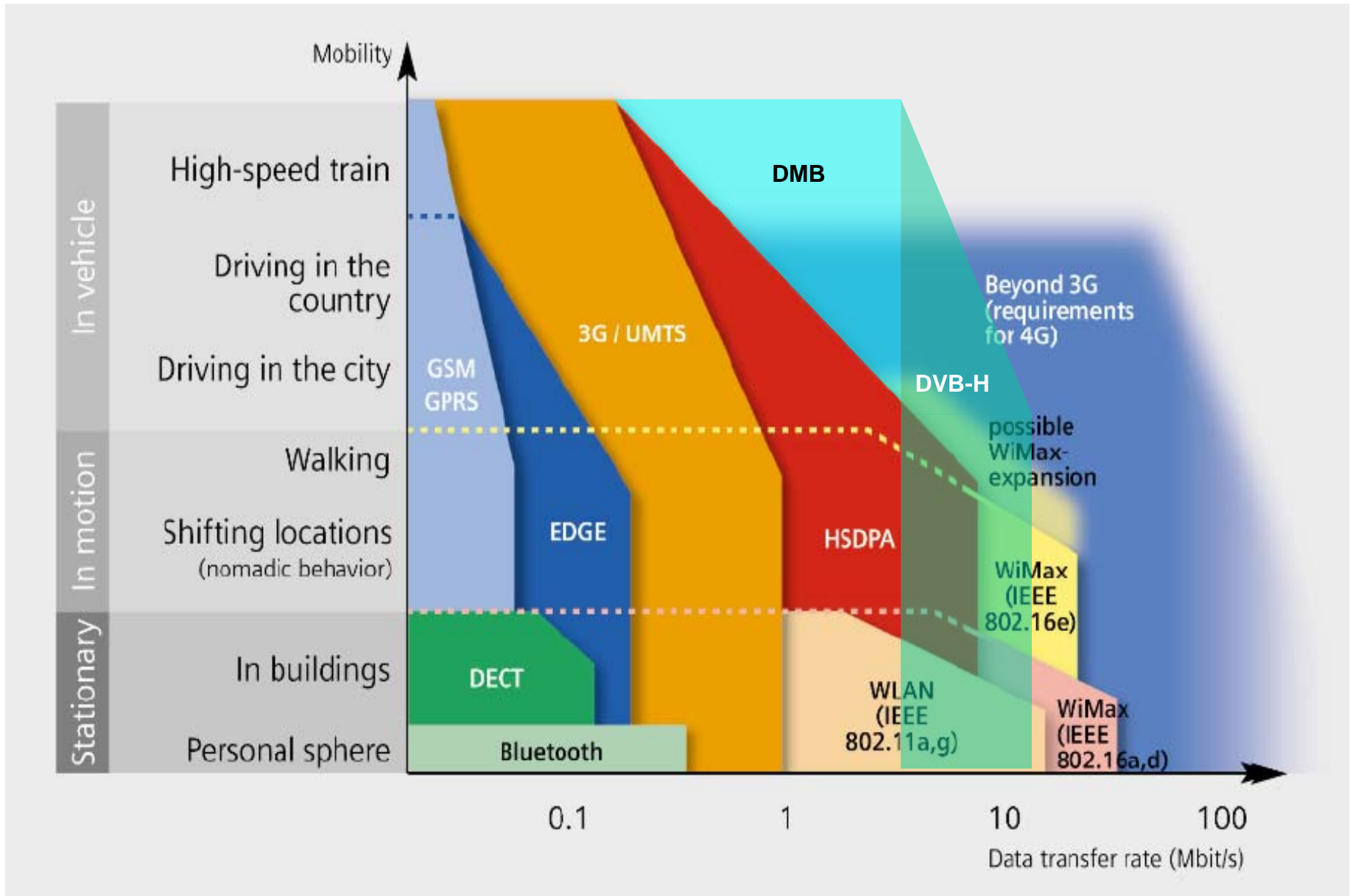
End-to-End Picture



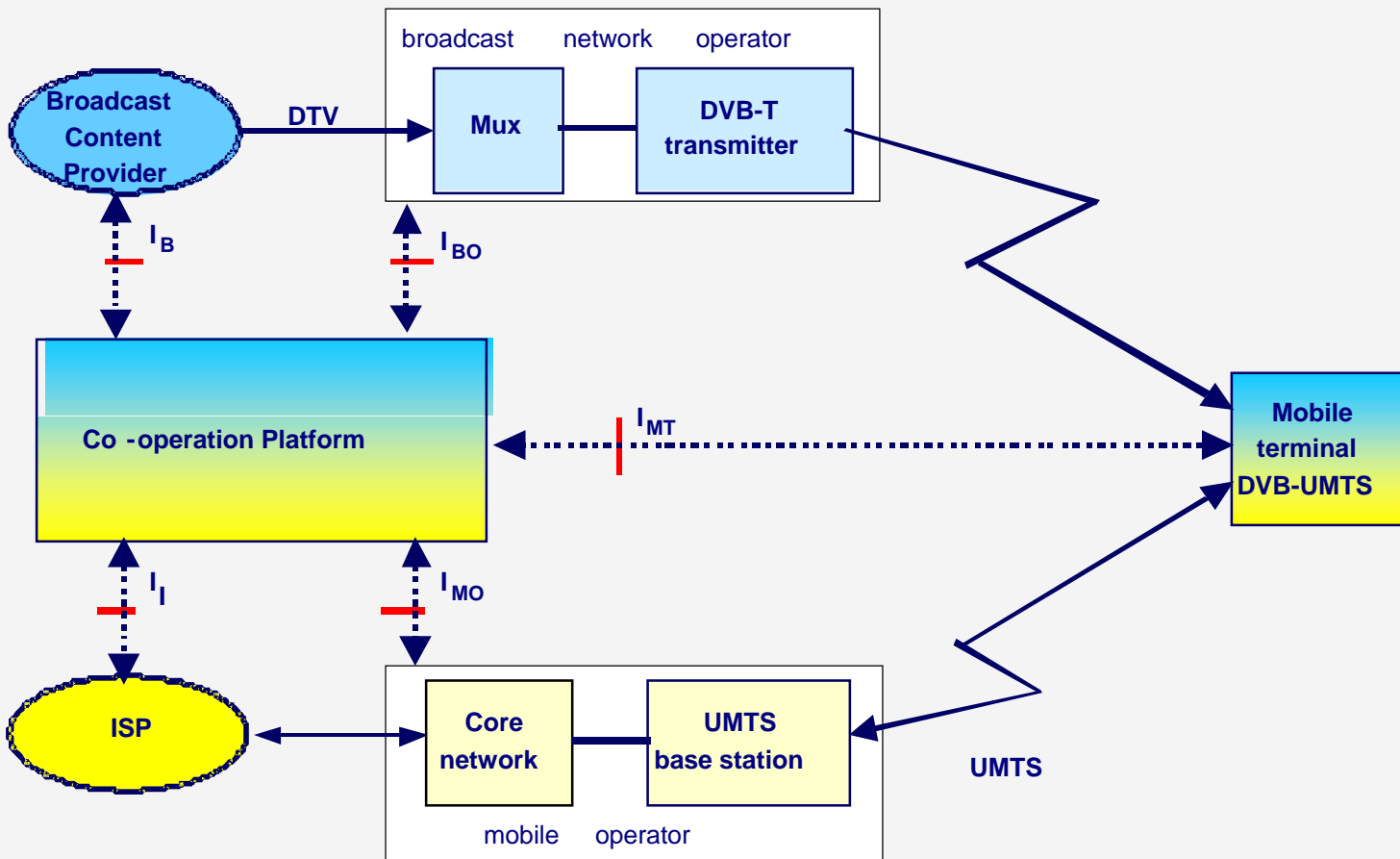




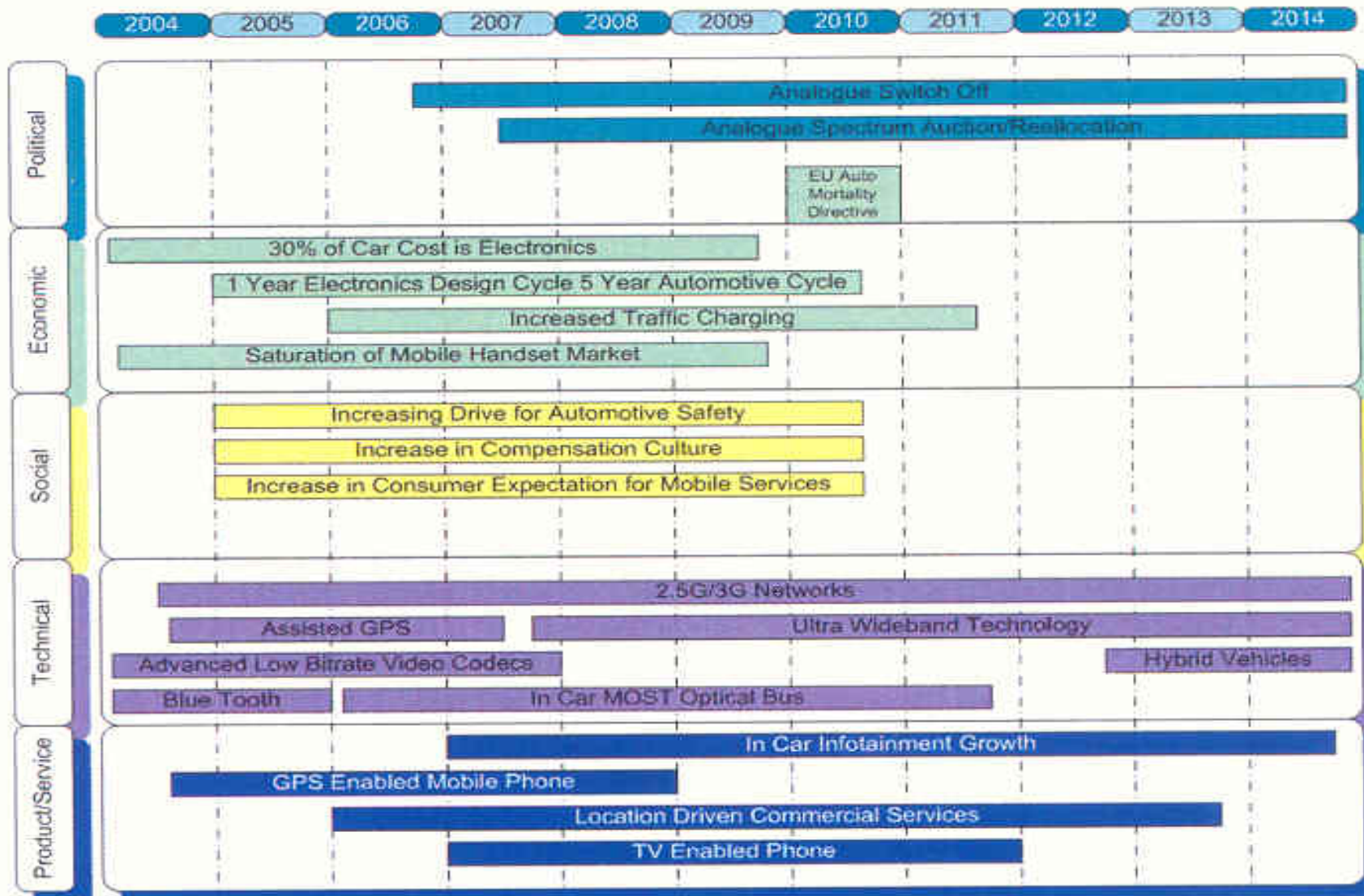
Many Roads to the Mobile Multimedia



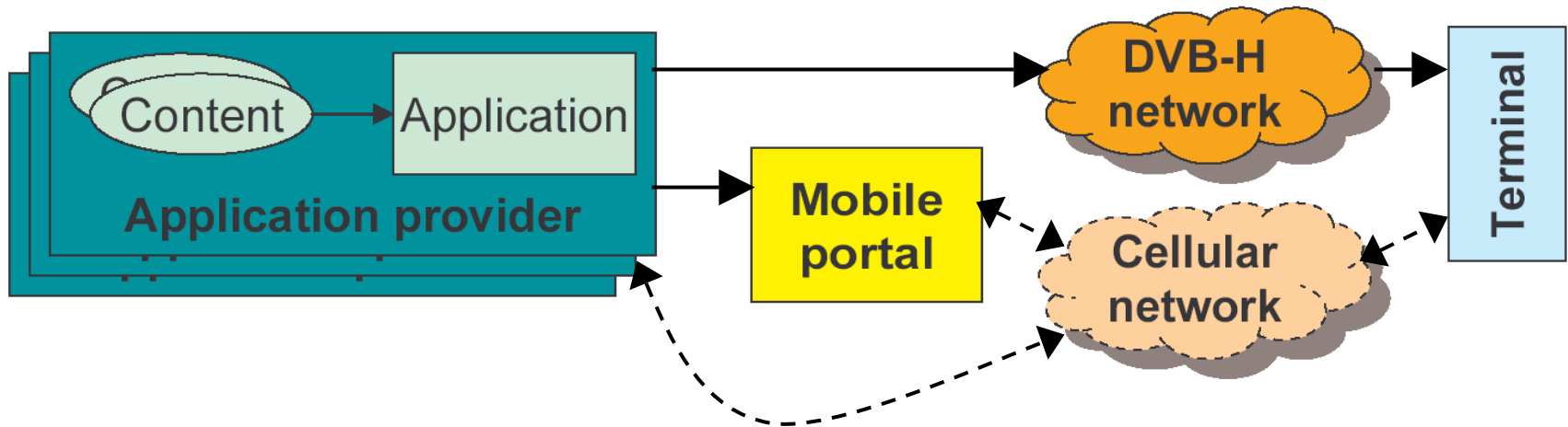
DVB-UMTS
Architectural
Model



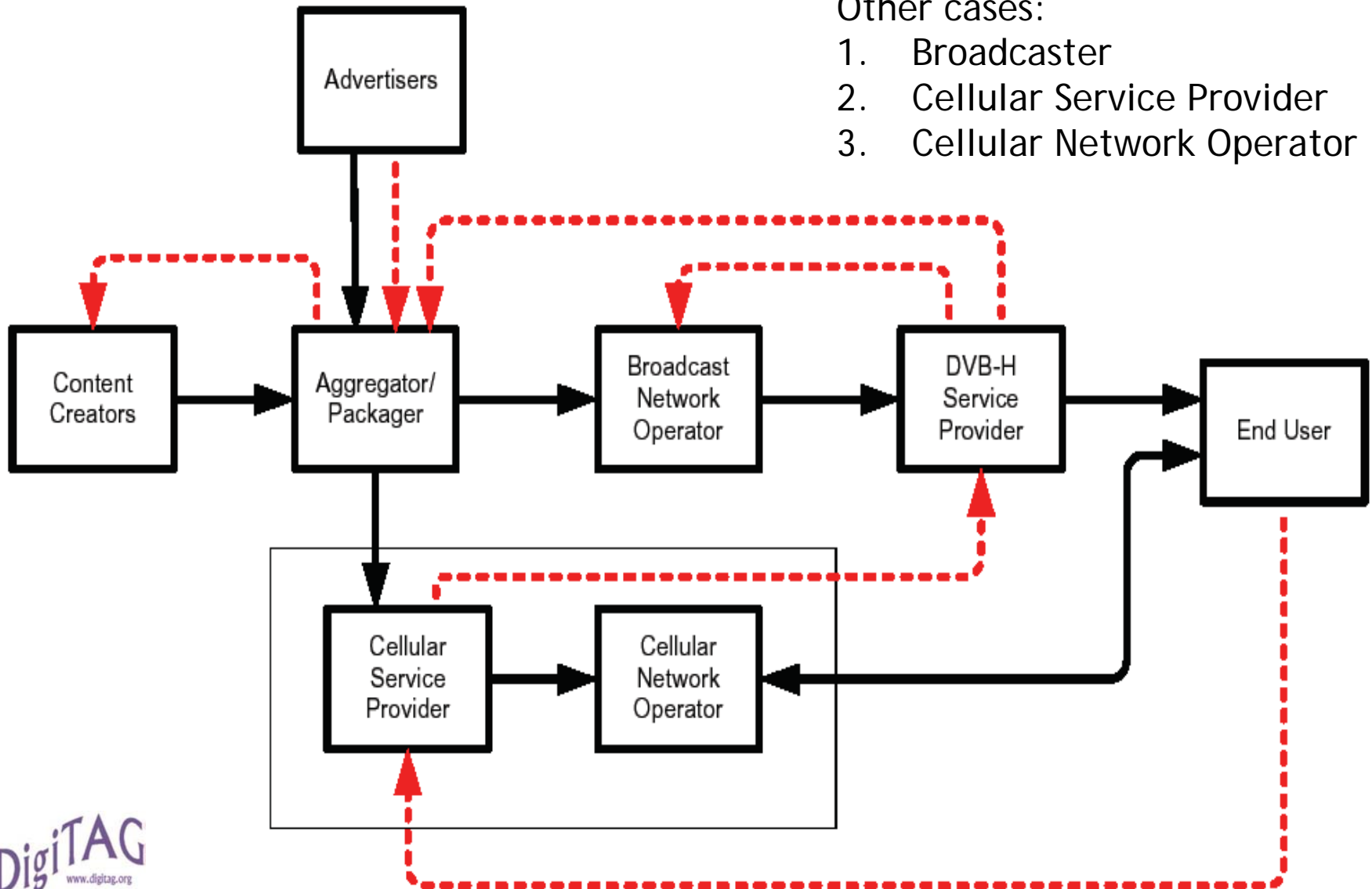
PEST Analysis for DVB-H



1. Clear / Free-to-air
2. Mobile pay TV
3. Mobile portal



(Case of Independent DVB-H Service Provider)



Other cases:

1. Broadcaster
2. Cellular Service Provider
3. Cellular Network Operator

Commercial projects

3G - Some countries

2G (GPRS) - Some cities, including Moscow

DVB - T

Singapore: 1200 buses

Moscow: 2000 cars - premium service

Shanghai 8000 buses

ISDB - T - Japan

Pilots

DVB - H

2003-2004 - Berlin (Germany)

2003-2005 - Pittsburg (USA)

2005 - Helsinki (Finland)

2005 - Oxford (UK)

2005 - Metz (France)

DMB

March 2005 - 6 companies authorized to provide services at the R. Korea national network

Forecast

DVB-H (2006) -Finland

MediaFlo (2006) - USA

Recent presentations

WiMAX - 22 January 2005 at the 2005 Sundance Film Festival, Utah (USA) Intel Corporation wireless premiere of film "*RIZE*"

DVB - H

October 2004 - Amsterdam (Netherlands), IBC 2004

February 2005 - Cannes (France), 3GSM 2005

March 2005 - Hanover (Germany), CeBIT 2005

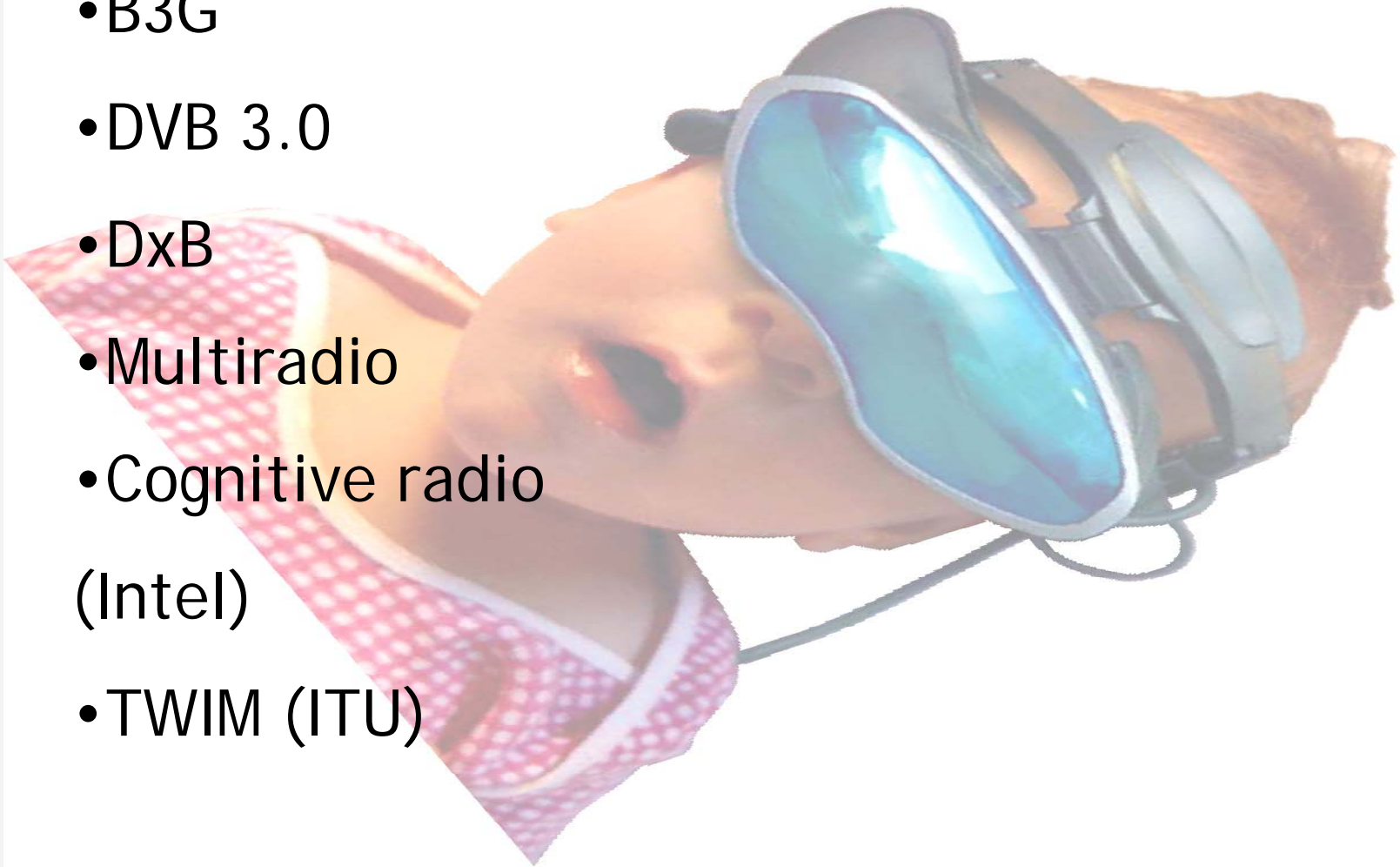
3G

February 2005 - Cannes (France), 3GSM 2005

MediaFlo

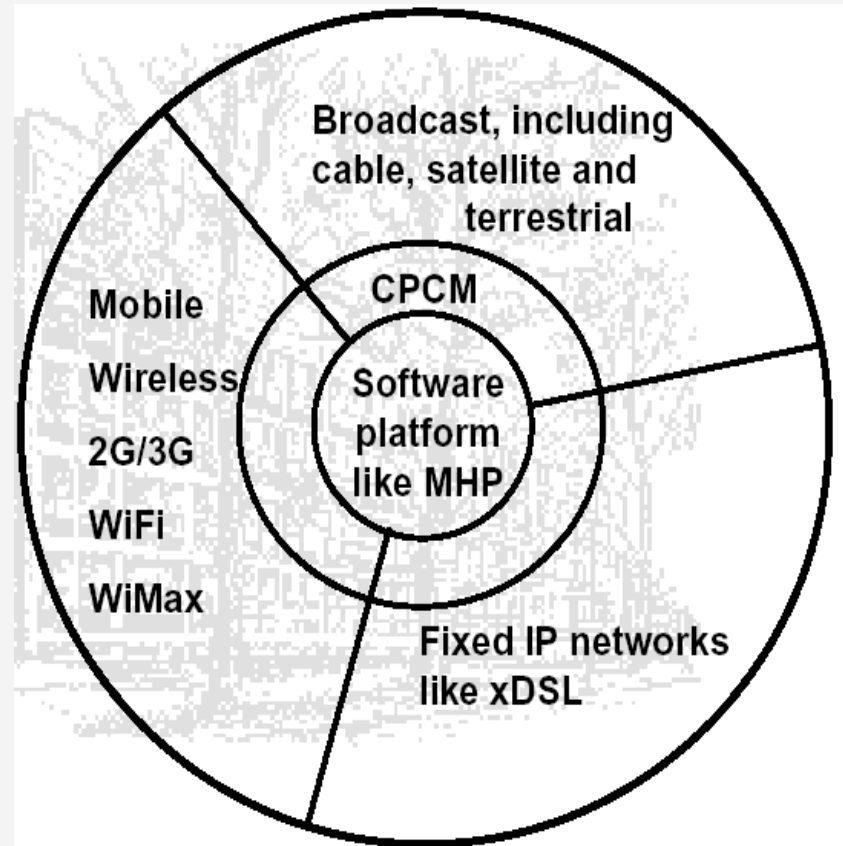
November 2004 - USA

- B3G
- DVB 3.0
- DxB
- Multiradio
- Cognitive radio
(Intel)
- TWIM (ITU)

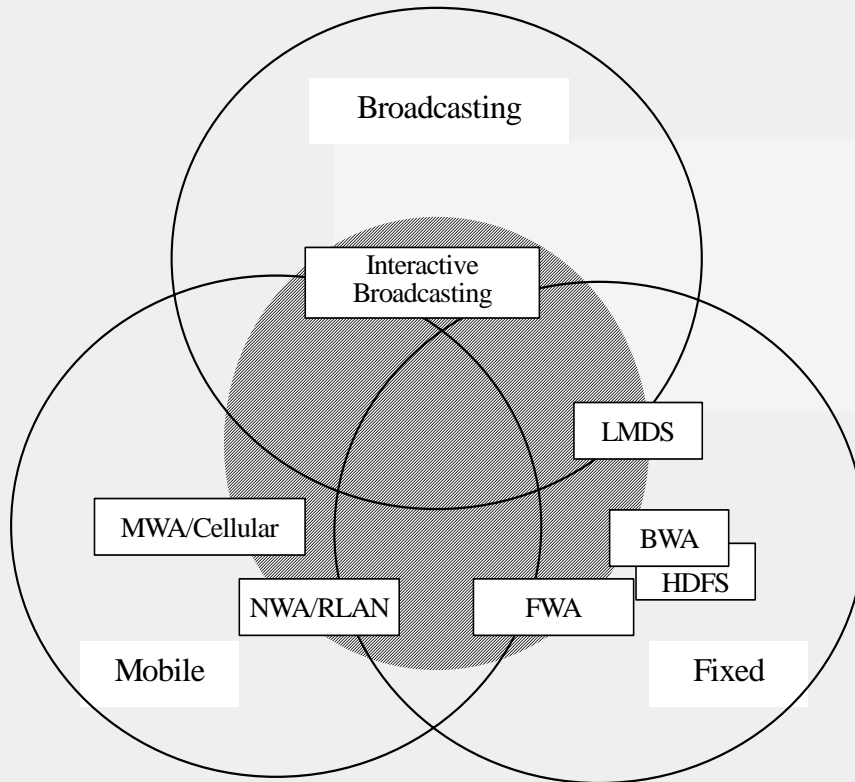


DVB 3.0, will incorporate the next work items:

1. Convergence of broadcast and mobile services (including WiFi, WiMax, 2G, 3G).
2. Convergence of broadcast and fixed IP network services (including topics like DSL, QoS management, local storage).
3. Solutions to support service interoperability across multiple networks and platforms (including: content coding, middleware, portable content format, in-home distribution).
4. Completeness study on HDTV.
5. Continuation of existing important work items:
 - a. Broadcast technology
 - b. Content Protection and Copy Management
 - c. Audio-visual coding guidelines
 - d. MHP support and possible extensions of GEM into new Businesses
 - e. IPR issues
 - f. Security.
6. IP for contribution of DVB services.



TWIM (Terrestrial Wireless Interactive Multimedia Systems) - area of sharing of the traditional services of broadcasting, fixed and mobile communication focused on the end user in which convergence of these services can be realized at functional and technical levels, including at sharing a frequency resource



LMDS: Local multipoint distribution system

RLAN: Radio local area network

FWA: Fixed wireless access

NWA: Nomadic wireless access

BWA: Broadband fixed wireless access

MWA: Mobile wireless access

HDFS: High density applications in the fixed service

The precondition of these services convergence is that all of them provide to the user a set of services identical or close on structure.

- Always it is difficult to speak about the future, especially during revolutions. Now there is a digital revolution. And electronic communications, including TV is in its epicentre.
- TV has strong positions and a good reserve of technological development.
- However it is insufficiently in UNS. Convergence, cooperation and a competition to other kinds of electronic communications are necessary. And that process is running.
- As a result broad (multi) casting, telco (multi) casting and broadband (multi) casting will appear, each of which will find the place in UNS by results of casting of different castings.
- People with their needs (content) and opportunities (incomes) will be judges.

Thank You for Your Attention

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