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# Mobile TV – Technology and Information of the Future

## "Finding the right business model to make Mobile TV a success story!“


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**Joint UMTS Forum/GSMA Working Group Chair**



ANACOM DIGITAG
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# Content

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- **Empowered User- The Market Trend**
- **Macro Environment- TV meets Telecoms**
- **Barriers to be removed-Towards the successful story**
- **Conclusion**

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# Market emergence

**Connected devices**

**Unconnected devices**

Content driving to convergence between connected and unconnected commercial electronic devices.

# Mobile TV worldwide Uptake

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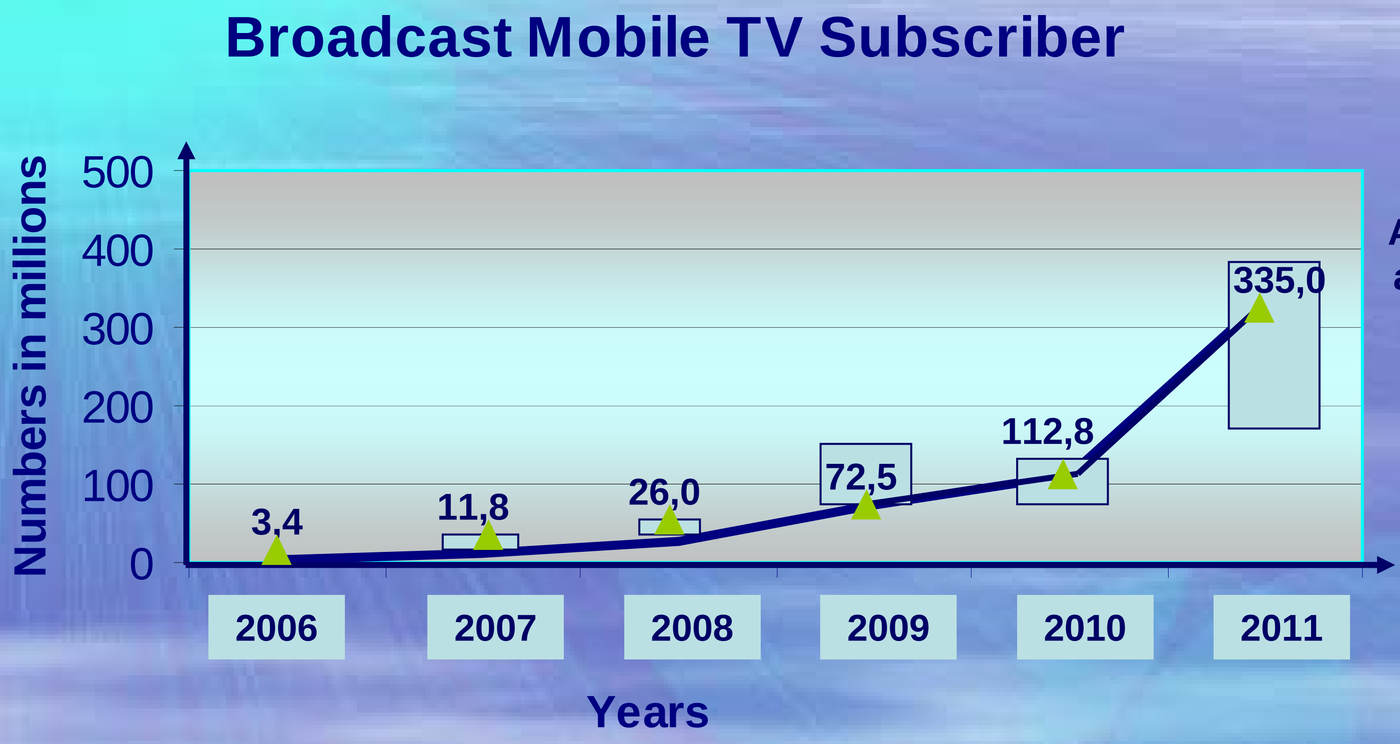


**Expected revenues**

**7-9 billion €**

**Around 2010-11 and 20 billion € at turnover of 2015**

**Estimates by: In-Stat, ABI, NSR, Datamonitor, Informa Telecoms&Media, eMarketer, Strategy Analytics, Gartner, Yankee Grp.**

**Source: European Commission**

# No shortage of options !

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there are 16 mobile TV broadcast technologies and increasing…

**Broadcast technologies**

- DAB
- DAB-IP

No capacity

- DVB-H Italy, Finland, USA
- ISDB-T Japan, Brazil
- MediaFLO USA
- T-DMB Korea; Germany
- A-VSB USA only
- T-MMB China Only

**Satellite technologies**

DVB-SH

S-DMB Korea only

CMMB China only

S-TiMi China only

**Telecoms based technologies**

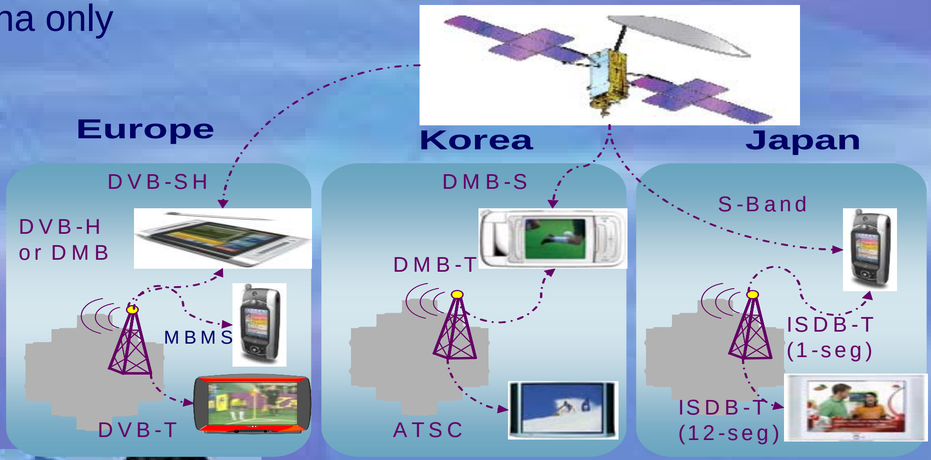
FDD-MBMS

TDD-MBMS (TDtv)

BCMCS CDMA2000 version of MBMS

TD-SCDMA the wildcard

FDD-MBMS in TDD spectrum




# From Unicast to Broadcast

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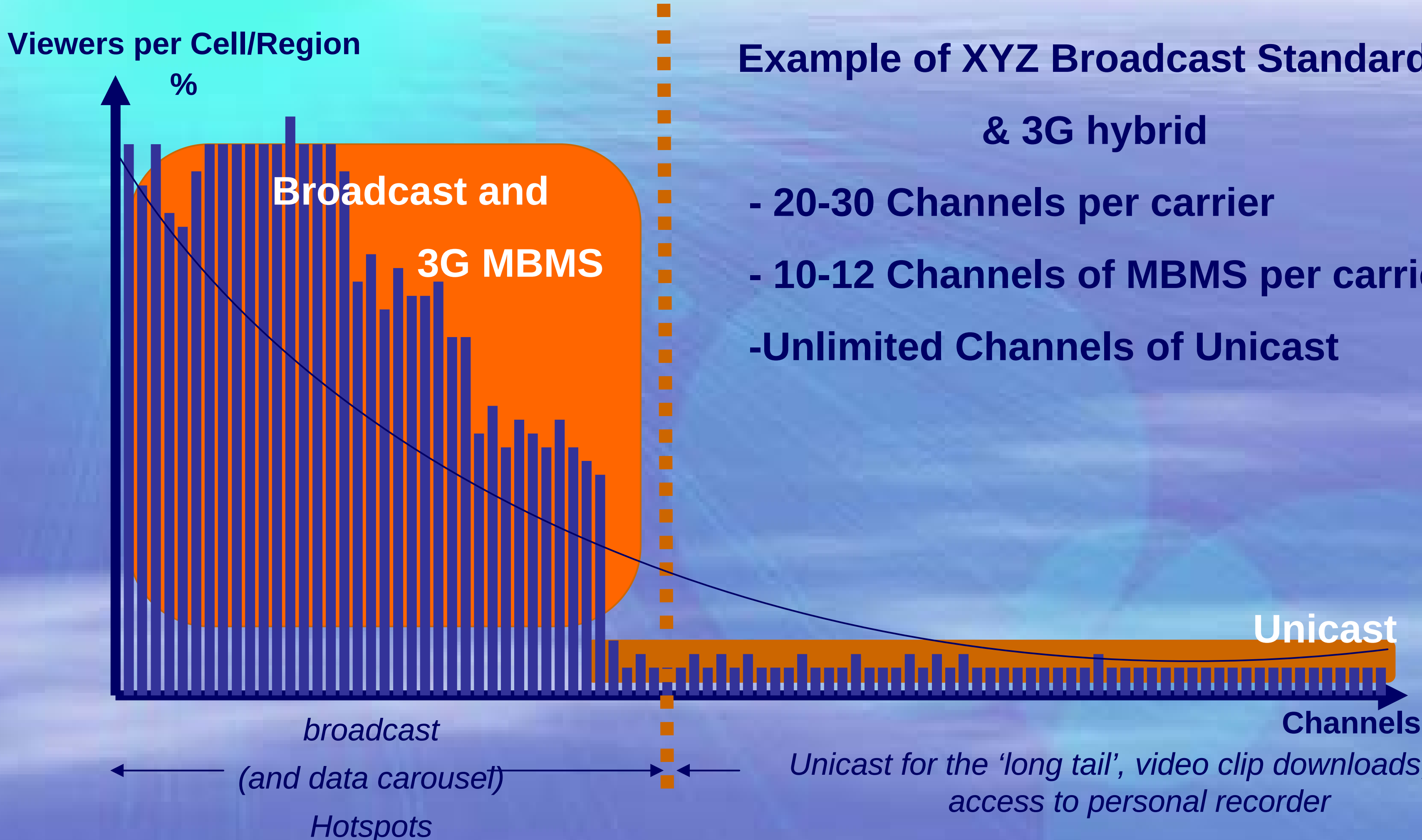
## Network efficiency profile




**Example of XYZ Broadcast Standards**

**& 3G hybrid**

**- 20-30 Channels per carrier**

**- 10-12 Channels of MBMS per carrier**

**-Unlimited Channels of Unicast**

# 3G Broadband Access

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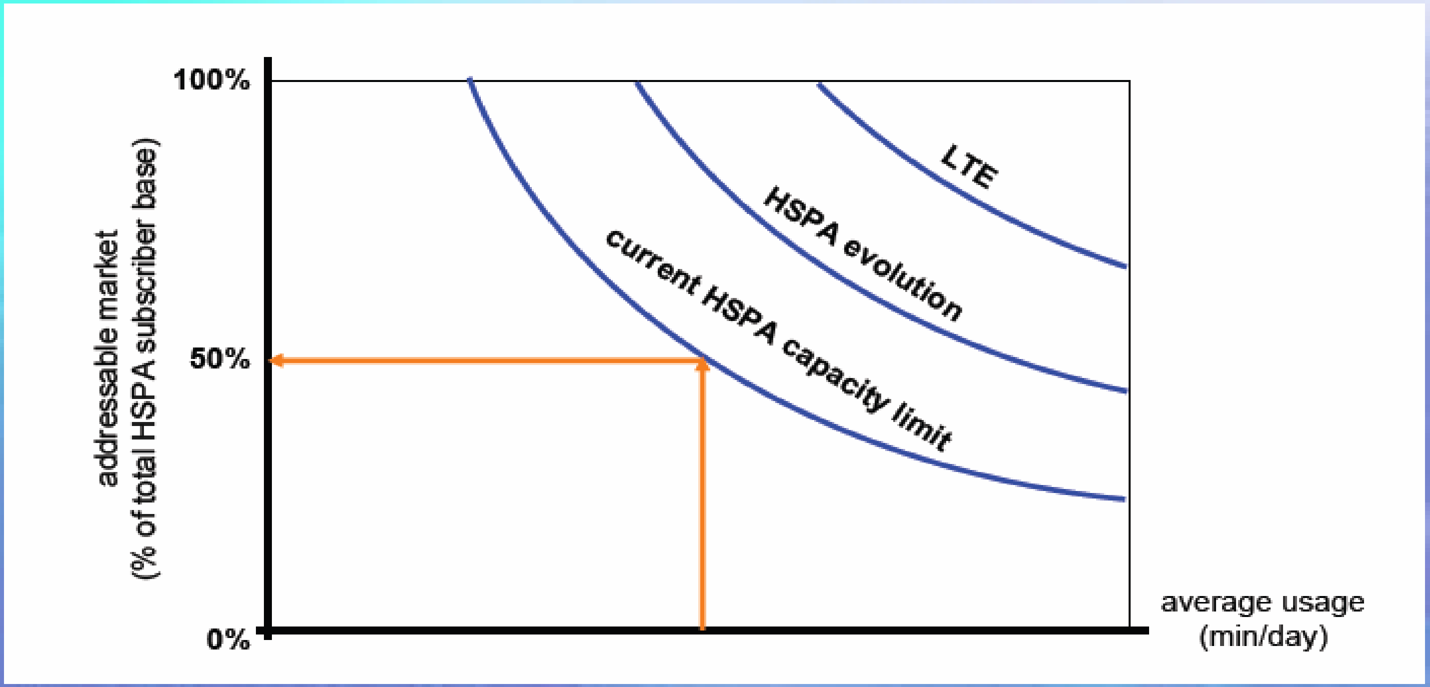
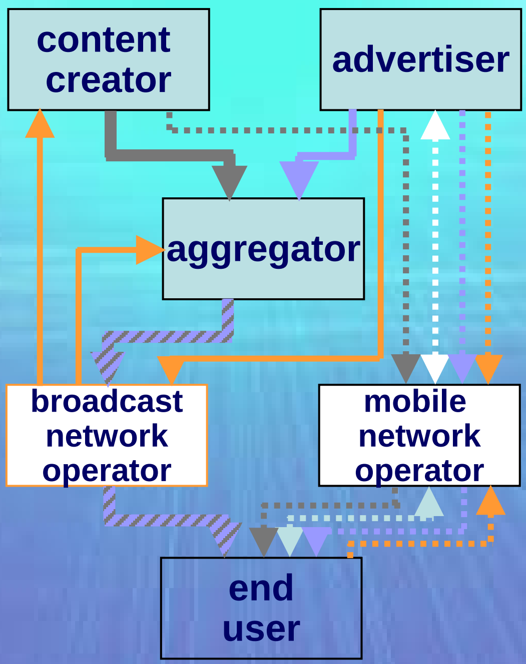



**High data rates, Low latency and better than best effort quality of service (QoS)**

150 Million Global UMTS/HSDPA Customers; 160 Commercial UMTS Networks; 100 Commercial HSDPA Networks. "HSDPA is now commercially available in 55 countries, including 25 of the 27 EC countries, as well as in Africa, the Americas, Asia, Australia and the Middle East. At least 29 of these support speeds up to 3.6Mbps and some up to 7.2Mbps,"

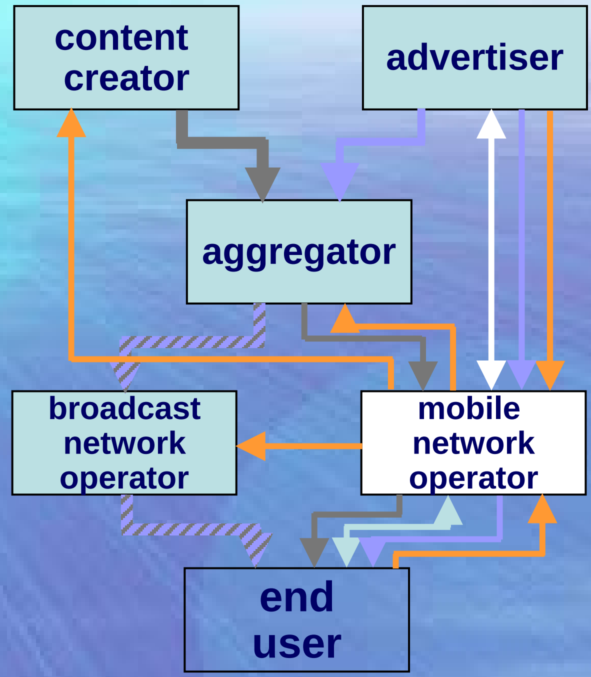
# One obviously doesn't fit all!

## Broadcaster model (free to air)



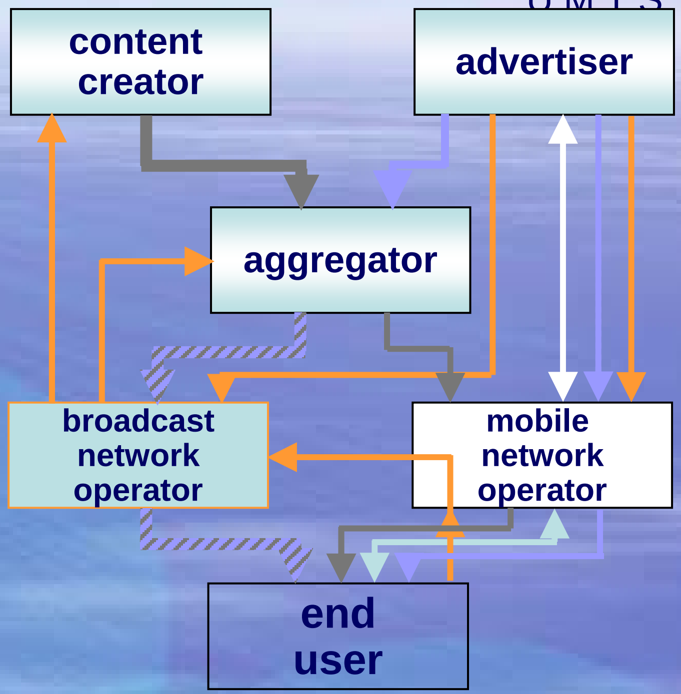

- broadcasted TV channels
  - are free for the end user
  - fully financed by advertisers
- mobile operators
  - subsidise mobile device including TV receiver capability
  - could offer supplementary TV channels via 3G for a premium
  - could offer 'TV synchronised' interactive services
  - device based integration of user experience

## Telco model




- wholesale operator broadcasts top TV channels
- unicast for long tail TV channels
- personalised adverts
- direct user interaction for advertisers
- sales of premium content through operator portal

## Collaborative Model




- integrated end user experience
- independent party operates mobile TV broadcast infra
- mobile operators:
  - manage customer relationship
  - collects money from end-user
  - could complement the TV offer with TV via 3G as well as interactive services

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# Consortium for a Application Service Provider Licence

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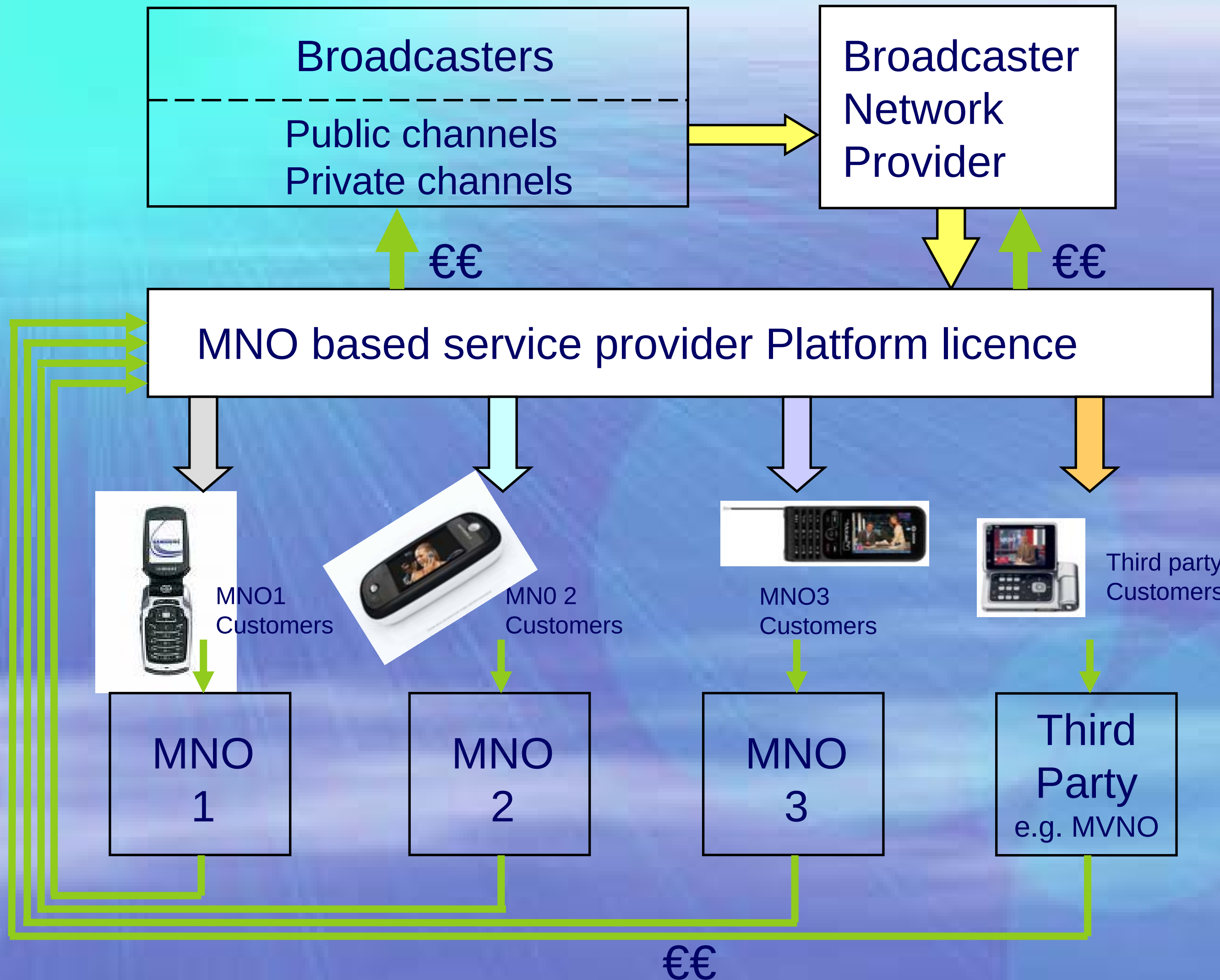


# Unparalleled User Empowerment

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**User Revenues**
- Depending on tariffs and charging concepts
- Interactive services
- Quality of Experience

**Marketing**
- Change in market demands
- Unprecedented Connectivity – Voice, Data, Video, Mobility
- New Generation of Digital Content and Social Networking

**Infrastructure**
- Network rollout based on quality and coverage requirements
- Platforms
- Cost of back office and enabling systems including conditional.
- Access systems, content hosting and aggregation, device clients
- Interactivity and technical facilities.


**Device**
- More intelligent and variety
- Non-Cellular Wireless Device's
- Support of a number of clients

**Advertising**
- Additional source of income
- Branding
- Personalised advertising through interactivity
- Opt-in Vs Opt-out advertising
- Mobile specific advertising
- Content aggregation and advertising

**Content Costs**
- Content creation and provision
- Content re-purposing
- Content rights / licensing
- Content specially created for mobile devices
- 3rd Party Licences

**New Services**
- Interactivity
- Enhanced services by use of EPG/ESG..Etc.

**Infrastructure Access**
- Regional and local broadcaster access  fees
- 3rd Party involved in interactive services access fees
- Network sharing

# Impact on Business Models

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- The Unknown process for Licenses.
  - The number of licenses and what kind?
  - License conditions for mobile broadcast.
  - Minimum coverage expectations in licenses
  - Spectrum availability
- Rights to carry Content and Copy right licenses
- DRM, IPR, and Billing solutions
- Variety of affordable quality handsets
- Cannibalization through non-cellular wireless Devices
- Can the industry accommodate for both connected and unconnected devices?
- Constant changes in the value chain
- Which security profile/scheme to use?
- Roaming

sling MEDIA

# Changing shape of the Industry

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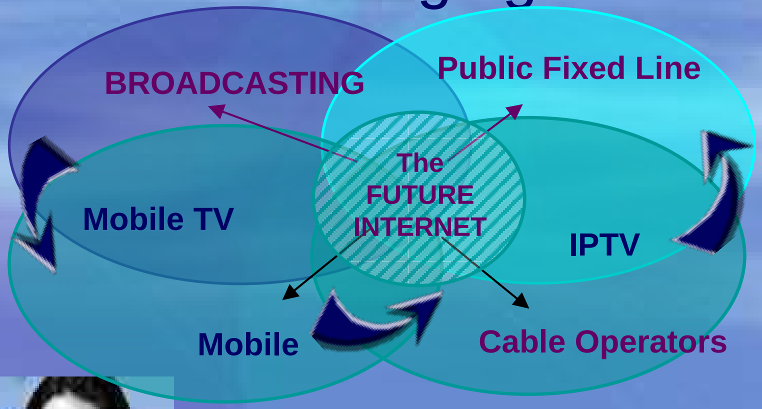
- Mobile TV represents a multiplicity of business models for mobile operators, broadcasters or combinations of both.
- Key roles in the Mobile TV value chain could be occupied by new and existing players in new collaborative ventures with Mobile Operators.
- Existing terrestrial and satellite wholesale and retail broadcasters, new Pay-TV service providers and new content aggregators could be part of the emerging Mobile TV proposition.




**Convergence has a major impact on the Communications Industry and Regulation**

# Factors that will determine the Success of this market

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- Availability of content is critical for the commercial success of mobile TV networks.
- Implementation of effective solutions for total content management and delivery across these networks is also key.
- A whole range of infrastructure needs to be developed and deployed to make mobile television as effective and as viewable as fixed terrestrial television systems.
- Continued control of distribution of consumers preferred STB
- Creativity and ease of use of EPG /ESG
- Delivery of a basic bouquet of channels that, at a minimum, matches customer expectations in the market
- Securing rights to premium content
- Securing rights to premium TV series and movie libraries
- Setting up dedicated advertising and marketing campaigns
- Fine-tune service processes to guarantee high-quality service delivery.

Mobile Devices

Home Desktop

# Advertising

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- The on-line and mobile advertising markets are seen as future sources of operator growth, however, they will remain relatively small and will rely on stealing share from other advertising channels, i.e. TV, Radio and Print (resulting in an potential price war).
- Targeted Advertising, specially made for the mobile world and is cross-network compatible is crucial.
- Recognition that it’s the right demographic.
- The Operator have assets that gives them the opportunity to add value to advertisers by helping them:
  - Target advertising more effectively as customers roam the web
  - Track advertising performance
  - Provide a response channel for customers (including payments)
  - Support customers post-purchase
- Many operators’ advertising aspirations are currently too narrow and need to provide an end-to-end solution via partnerships based on open standards.

# Regulatory Issues

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- Mobile TV requires **new** regulatory approaches to enable financial incentives, market growth, technological innovations, etc.
- Telecommunications and Broadcast applications under separate regulatory jurisdiction
  - Different ITU Regulations
  - Separate Regulatory Authorities
  - Different Spectrum licensing models
  - Variety of operator models: Free-To-Air, Pay-TV , Pre-paid subscription models, etc.
- Broadcast spectrum regulation is fragmented per country and per industry
  - Culture is a national good and part of history
  - Who owns it? Telecommunications authorities? Broadcasting authorities?
  - Technology and service convergence require regulatory attention

# Recommendations to the EU for Mobile TV success deployment

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**Create an environment in which Mobile TV can be successful with** emphasis on the need for interoperability and proper delivery of content information to the consumer by:

- **Advising** Member States to release a minimum of one MUX (i.e. 8 MHz) of UHF spectrum for Mobile TV broadcasting with immediate effect and set explicit goals for the release of additional UHF spectrum several years before analogue switch-off.
- **Insure** that a part of the digital dividend is made available for mobile services in all Member States.
- **Call** on Governments and regulators immediately to publish a roadmap for the allocation of spectrum and appropriate licensing procedures to enable the mass market commercialization of mobile TV services in the next few years.
- **Advise** Regulators that mobile TV as well as all other mobile multimedia services are exempted from specific broadcasting regulation.
- **Call** on Governments and regulators to look favorably on measures to utilise existing spectrum assets such as 1.9 GHz UMTS TDD spectrum and 2 GHz MSS spectrum where market actors desire to do this in support of mobile TV applications.

# Spectrum Analysis

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- **Sufficient amount of spectrum for broadcast and multicast would lead to success of mobile multimedia services**
  - This factor could determine the overall viability and economic success of the Mobile TV services.
  - ***It should be noted that the precise identification of the digital dividend spectrum is currently not achieved in Europe and it is difficult to evaluate the amount of spectrum that may finally be available to telecommunications applications.***
- **Spectrum has significant cost impact on handsets. If large number of small and fragmented bands are allocated to Mobile TV usage, then handset vendors will need to make handset that**
  - Either, are capable of operating on all these bands at an added complexity and cost, or
  - Are exclusively specified and developed for a single operator at a smaller quantity driving up the costs for consumers as the economics of scale would not be achieved.

# Conclusion

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- 3G mobile TV is breaking up traditional business models whereby mobile operators are establishing themselves as content aggregators and broadcasters. The media rights owners are licensing mobile rights directly to mobile operators. It is still uncertain as to what a viable model is for licensing rights to mobile operators.
- New spectrum opportunities such as UHF digital dividend will open the way for innovative mobile services.
- Mobile industry calls for harmonised spectrum to enable the development of mobile multimedia services.
- The future of mobile TV is advertiser-funded?
  - Public service content should be free to use, or at least included in the lowest tier subscription.
- Economies of scales are necessary to enable the production of innovative content and to drive the change of business models.

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*Thank You for your attention!!!!*

## Flow of the Business models

- interactivity
- content flow
- advertising flow
- content + adverts
- money flow

broadcasting flows