

Mobile TV and IPTV: key regulatory issues for new platforms

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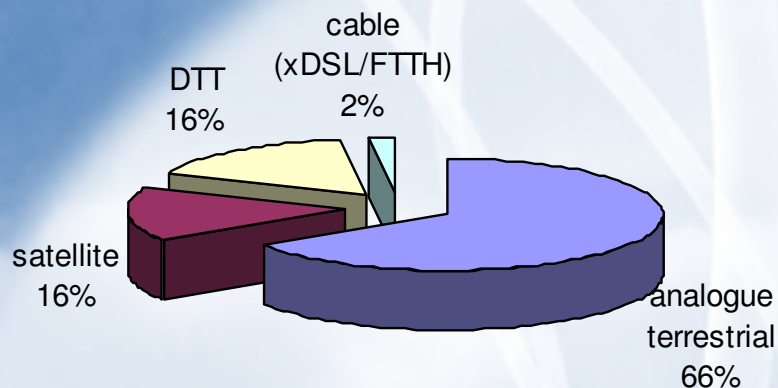


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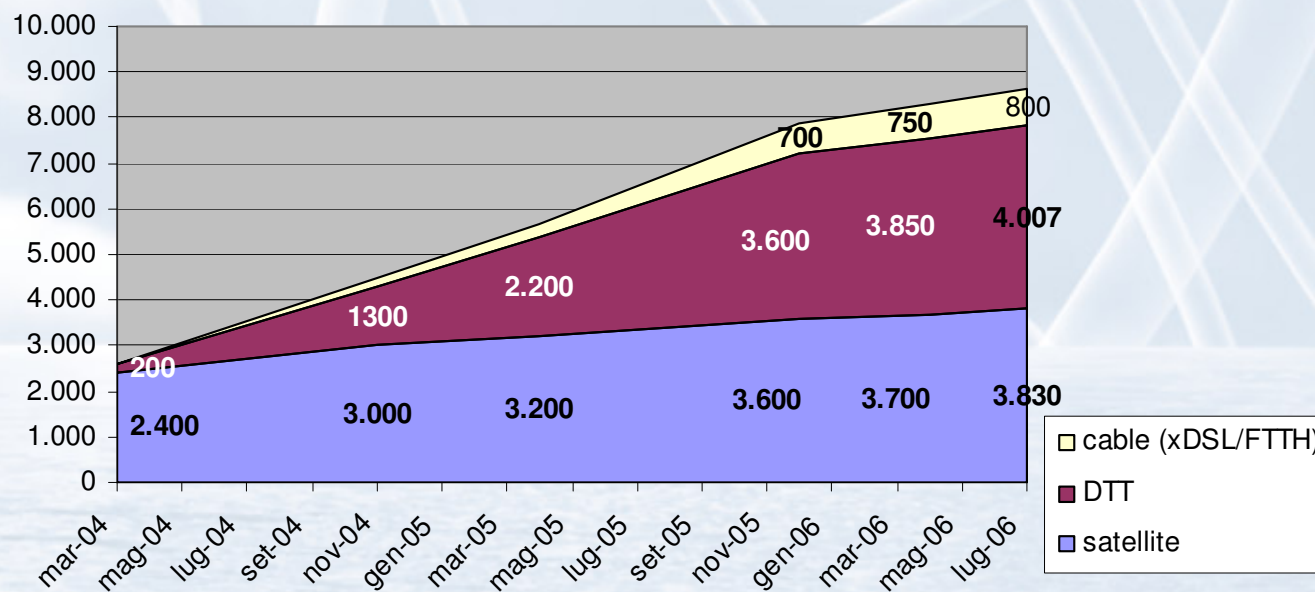
- **Roll-out of convergence services in Italy and impact on sector regulation**
- Content and bottleneck regulation: some critical issues
- DVB-H services in Italy: a case study of convergent regulation



Roll out and development of alternative digital platforms



growth of digital market 2004 - 2006





Telecom/broadcasting market value (2005)

Telecom

Total revenues: 36,1 B€
Fixed (incl. internet): 16,5B€
Mobile: 19,6B€
Internet: 3,3B€
Avg +4,3% vs 2004

Value of fixed voice services decreasing (-0,3%) due to competitive pressure from VoIP and mobile services

n. of PSTN and ISDN lines are decreasing

7,5 mln broadband lines 2Q 2006 (12% penetration) of which 82% is xDSL lines (and growing...)

Mobile market + 7,8% (with VAS growing at a faster pace than voice)

Broadcasting

Total revenues: 6,8 B€
Advertising: 3,8
License fee: 1.4
Subscription: 1.4
Other: 0,1
Avg + 7,7% vs 2004

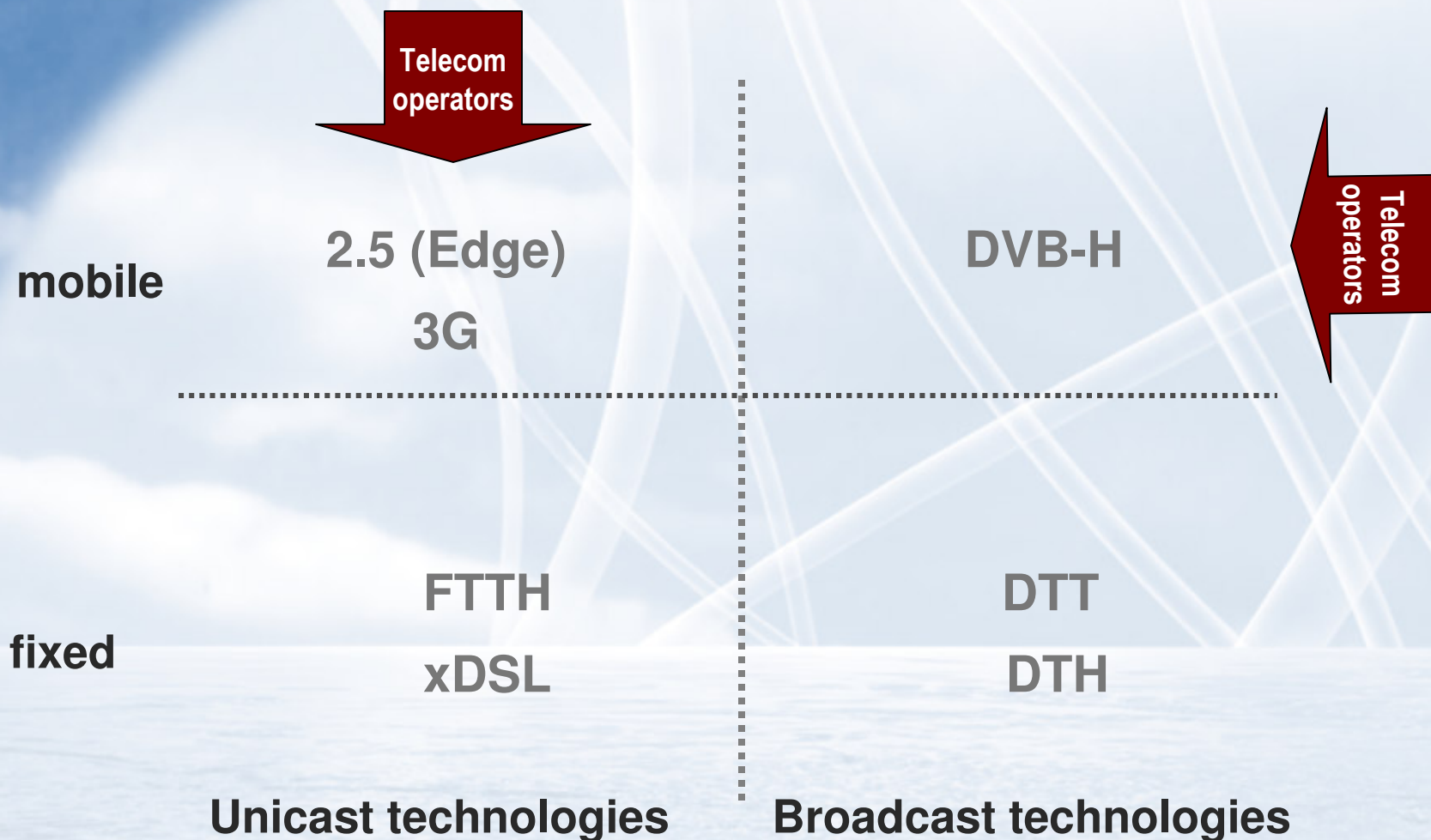
20,9 mln TV households

11 national terrestrial TV broadcasters and 500 local TV broadcasters

Around 4 mln pay TV households.

Pay tv market is growing at a much faster pace than the other segments

Audiovisual/data content increasingly available on several digital platforms



New market and competitive scenario

Analogue scenario

Limited number of channels

Exclusivity of terrestrial platform and of traditional broadcasters

Business model: advertising/PSB fee

Vertical integration of traditional broadcasters



**Regulation of spectrum
Regulation of content**

Digital scenario

Multichannel context

Increasing multiplatform environment

Business model: new forms of advertising; pay-tv; VOD...

Disintegration of the tv value chain



Several bottlenecks can hinder the development of a pluralistic and competitive scenario

Priorities of audiovisual regulators

Regulation of content

to protect consumers and other stakeholders interest in the new convergent environment

Regulation of bottlenecks

to encourage the development of a fully multiplatform and multi-channel environment

Regulation of media diversity

to ensure media diversity and the access of consumer to a wide range of services

warning

Trade off between the need to introduce regulation to achieve a fully competitive multiplatform market and consumer protection and the need to protect investments and competitiveness of the industries involved.

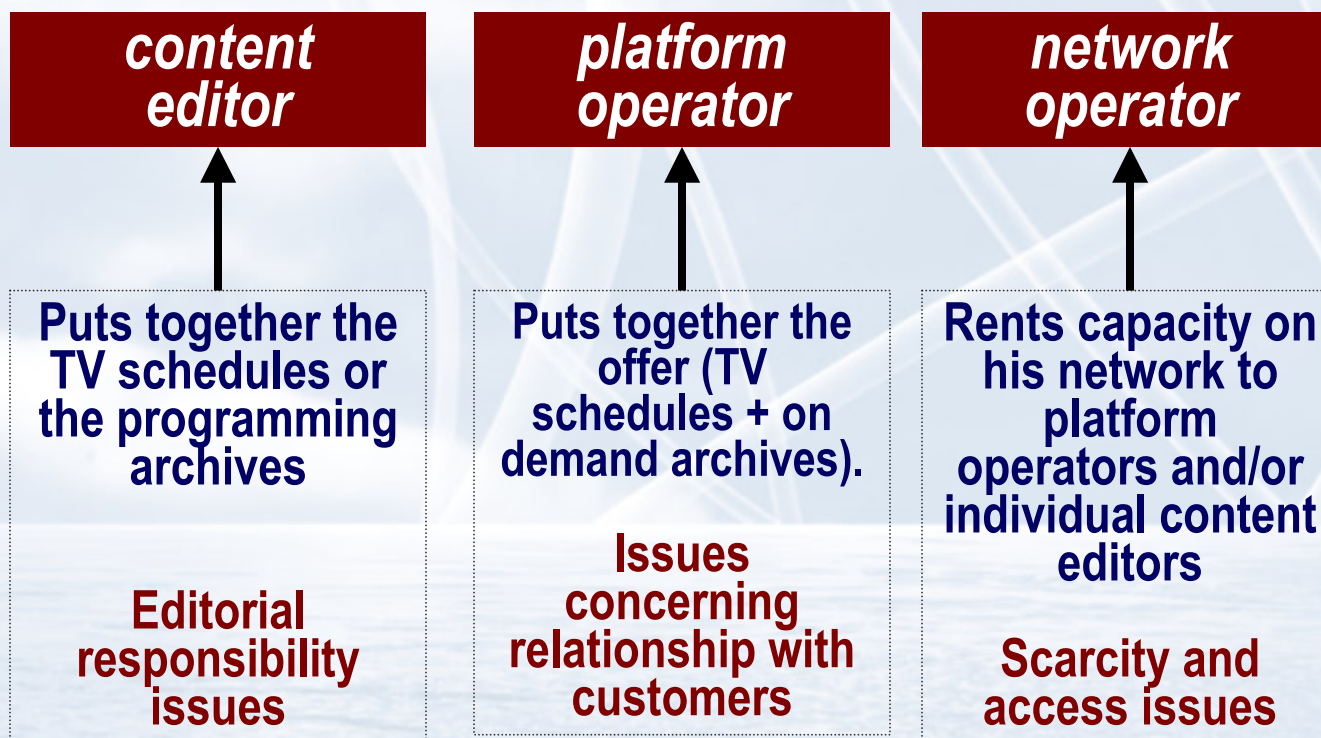
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Content regulation in the new environment: identify the new value chain

Identify the structure of the value chain

Analyse interaction between players at different levels of the chain



Access to content

Acquisition of programming (channels) or premium events is essential for new platforms to compete

Access to platform

Access to EPG and CAS for content providers: essential to reach the final users

Access to network

Access to network may be critical, especially when scarce resources (terrestrial frequencies) are involved

**BOTTLENECKS AT
3 LEVELS!**

The network bottleneck

Access to broadband networks and broadcasting services (cable, xDSL, satellite, DTT) regulated according to the New Regulatory Framework (market 12 and 18)

Market analysis

Identification of SMP

Remedies

OPEN ISSUES

- **remedies foreseen by framework directive** (i.e. accounting separation, FTND conditions) **are not adequate when scarcity of resources is involved** (network capacity may be not enough for all content providers interested in providing broadcasting services)
- **access to infrastructure enabling video distribution and NGN?**

The content bottleneck

Access to content (premium rights and/or TV schedules) is critical for emerging platforms to be able to compete effectively

Market structure and main features

Acquisition of rights

Market players: Tv or platform operators acquire broadcasting rights to incorporate the program in the channel or distribute it as a standalone content

Acquisition of TV schedules

Market players and structure: deal between broadcasters and platform operators for distribution of the channels

Acquisition of TV schedules

■ Demand side

Platforms need to have a comprehensive bouquet with all kind of content:

- free-to-air mainstream channels
- thematic and specialist content channels
- Premium channels

■ Offer side

Broadcasters wish to extend the distribution of their content in order to: hanno bisogno di garantire una diffusione la più ampia possibile dei loro contenuti per:

- Maximise pay-tv revenues
- Maximise advertising revenues

No trade-off: this should lead to the distribution of all content trough all platforms

Acquisition of TV schedules

New platforms have some difficulties in acquiring content due to:
Different level of vertical integration
Market power of some platform



Platform approach (exclusivity) prevails over the channel approach (maximise distribution)

Acquisition of TV schedules : regulatory framework

- **Channels including premium content:**

SKY has an obligation to sell premium packages through a wholesale offer to competing platforms

- **Mainstream FTA channels and basic/thematic channels:**

no specific obligations

Broadcasting law states in principle (art.5 c.1 lett. f) the:

"obligation for content providers, should they sell broadcasting rights, to apply non discriminatory condition between different distributing platforms, at market conditions, subject to the respect of exclusivity rights, the existing laws on intellectual property and the rights of the parties to negotiate freely.

some market features

Long-term and exclusive deals
in place reduce the availability
of content

Commercial practices such as
output deals and minimum
guaranteed rates

know how of historic
broadcasting operators



**Strong competitive
advantages for existing
broadcasters to access
premium and attractive
content**

Access to premium TV rights: regulatory framework

Some obligations for SKY Italia as a result of the merger procedure

SKY has several limitations in the acquisition of premium rights: exclusive deals only for satellite platform
Limited duration of the deals



Goal: to facilitate the acquisition of rights for alternative platform operators



ISSUES

definition of premium rights
rules apply only to SKY but not to other operators

Open issues for regulators and legislators

Restrict the rights to acquire broadcasting rights for platform not managed by the operators

Introduction of a must-offer principle for generalist free-to-air channels?

Extension of premium content beyond movies and sports?

Regulatory trade off to be taken into considerations

- **Pros: Increase the possibility for new platform to access content**
- **Cons: if content is not a differentiation strategy, major operators may be discouraged from investing in quality content**

- Roll-out of convergence services in Italy and impact on sector regulation
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- **DVB-H services in Italy: a case study of convergent regulation**



Development of mobile services in Italy

Two nationwide DVB-H network developed between the end of 2005 and summer 2006

Summer 2005: "3" Italy merges with a terrestrial broadcasters and digitalise its network

Fall 2005: Mediaset acquires one of the national analogue terrestrial networks and turns into a digital DVBH network



Strategy: lease $\frac{3}{4}$ of the capacity of the DVB-H network to the three mobile operators (TIM, Vodafone and Wind) which have not developed their own DVB-H networks, while keeping the remaining capacity to broadcast its own channels.

AGCOM launches an extensive consultation and issues a regulatory framework to allow the roll out of services

Mobile broadcast technologies

	Terrestrial			Satellite	
	MBMS	DVB-H	DMB	DVB-S	S-DMB
Frequency band	UMTS	UHF	VHF - L	Ku-Ka	S
Technology	Broadcast extension of 3G	Extension of DVB-T	Extension of DAB	DVB-S (same used for DTH)	Evolution of S-DAB
Status	Available in 2007	Commercial service in Italy Trials across Europe	Available in Germany in 2006		Commercial service in Korea



DVB-H: network architecture

Same network as DTT integrated with additional repeaters (“gap fillers”) to ensure indoor coverage.

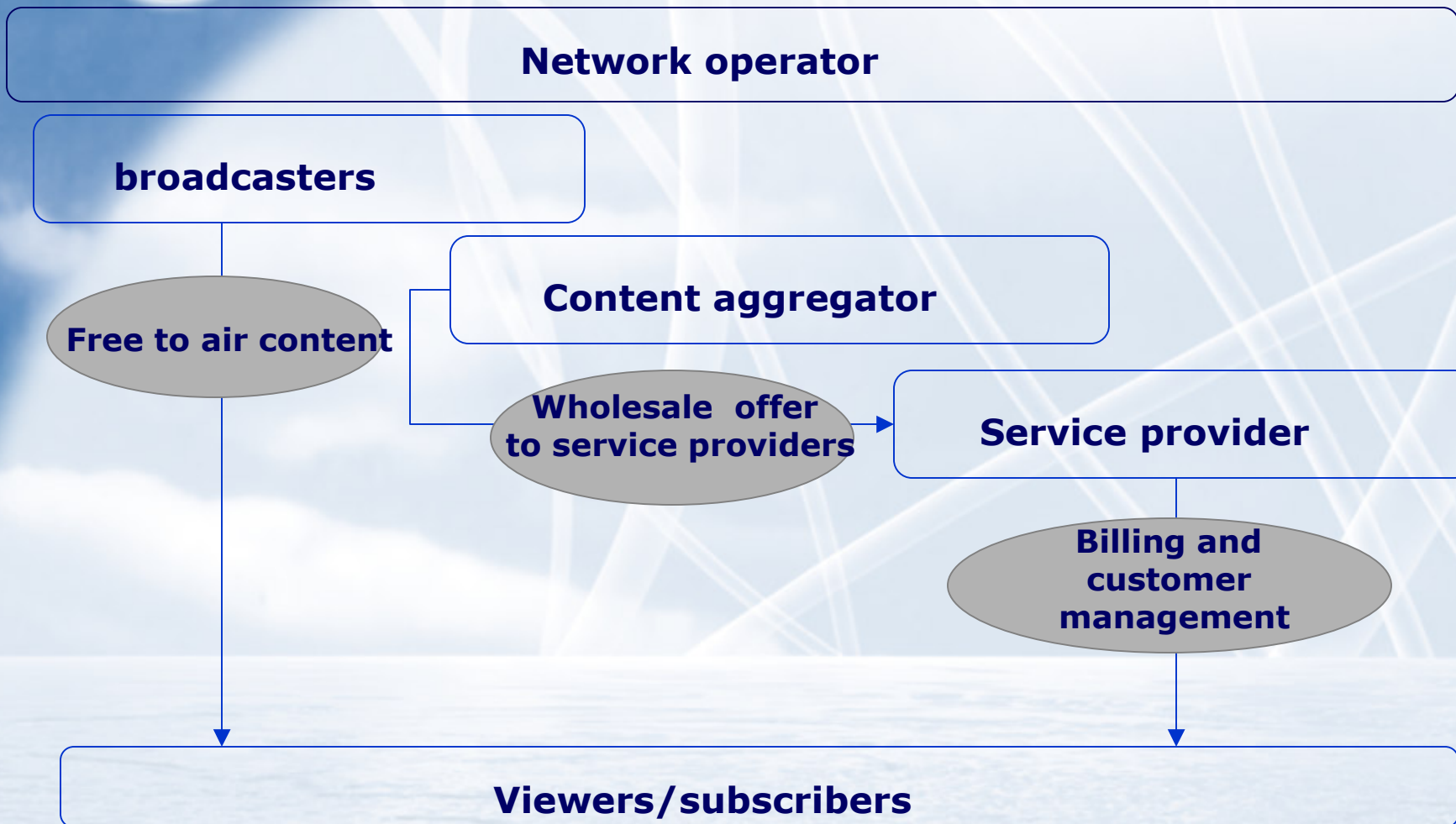
Two possible network configurations:

Multiplex exclusively dedicated to transmission of DVB-H programs

“Hierarchical” configuration: DVB-T and DVB-H programs within the same multiplex

Each configuration has different issues and regulatory implications

Mobile TV value chain



What content on mobile TV

Two alternative models

Simulcast of existing programs

Mobile TV as a complementary platform to home television



free-to-air/pay

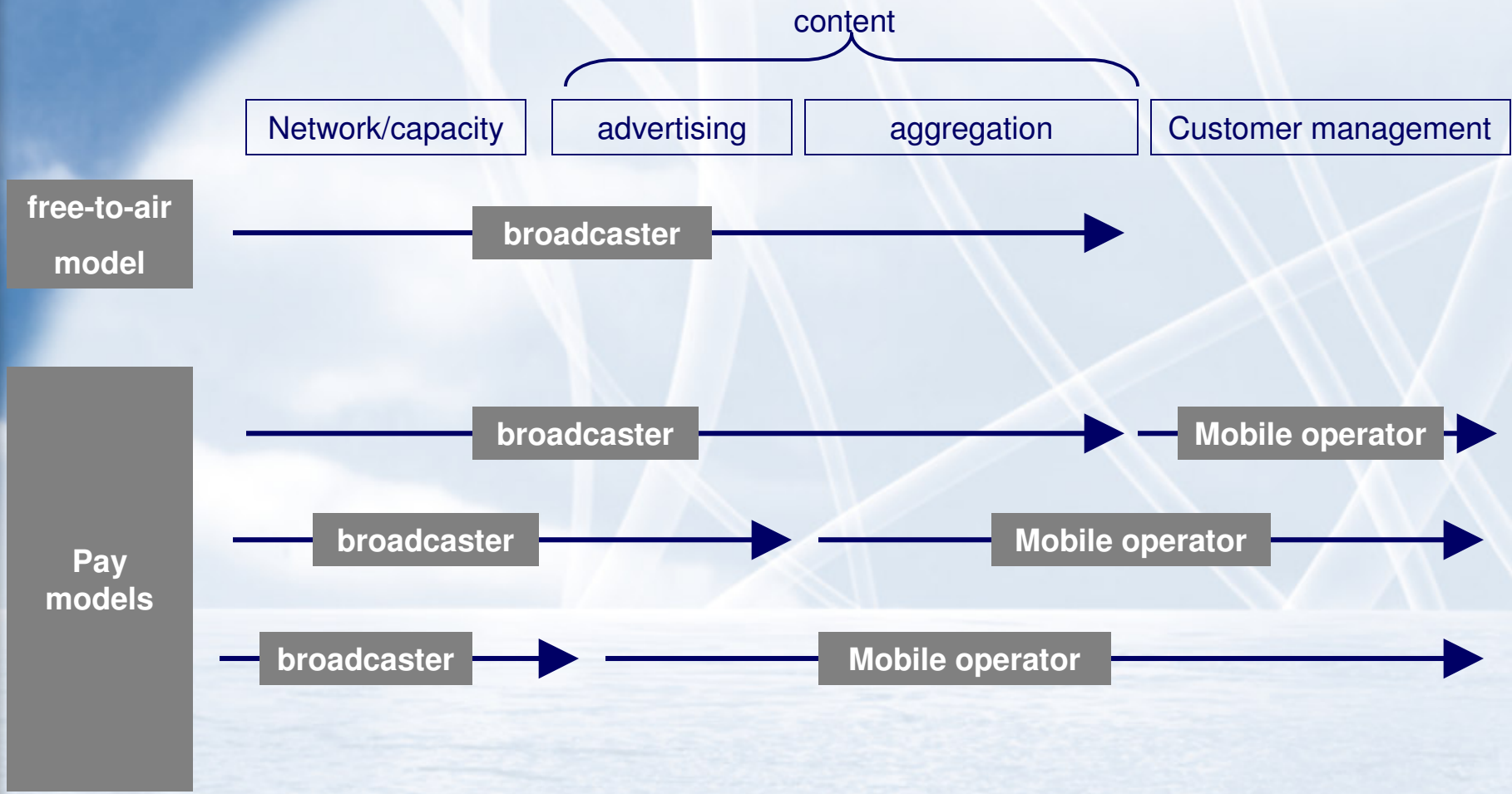
Ad hoc content specifically produced for mobile consumption

Mobile television as a specific entertainment experience



pay

Business models – who does what



State of the art in Europe

Debate on development of mobile television services very active in all EU countries

Strong pressure from mobile operators and other stakeholders to release spectrum to allow prompt roll-out of the services

Most countries have launched study groups or commissions to evaluate:

- available technologies
- capacity to allocate to such services
- regulatory issues linked to licensing and consumer protection

Where DVB-H has already been identified as the leading technology government and authorities are evaluating:

- whether or not to allow gerarchic use of existing DTT multiplex
- how to allocate capacity to operators

FRANCE

DVBH and DMB trials

Debate on how to allocate capacity: to mux operator or to content providers?

GERMANY

Trials and precommercial pilots in Berlin and Hannover during the World Cup using frequency freed-up after switch off

Full scale service expected to launch soon

Similar framework to the DTT one



UNITED KINGDOM

DVB-H trials by O2 and Nokia

Spectrum allocation: No capacity will be allocated in VHF/UHF before switch off

Capacity in L band available

BT will launch TV mobile services in DMB technology

ITALY

Commercial launch of DVBH services during World Cup 2006

What technology and what spectrum to allocate for the development of High Definition TV?

- Should a technology “encourage a standard” or should the market make the decision?
- Should UHF/VHF be allocated for DVB-H after complete switch off or as soon as it becomes available (on regional basis)?
- How to allocate the “digital dividend” among different services requiring the same bandwidth?
 - Need to identify priorities in bandwidth allocation v. a “first come first serve” approach without hindering development of new services by adopting a rigid approach
- Transition from MPEG2 to MPEG4: should the regulators/governments be involved to protect consumer interests?
 - What consumer interest should prevail?

Licensing and service regulation

- How to allocate capacity to operators interested in offering mobile TV services?
 - Should capacity be allocated to content providers or network multiplex operators?
 - At the moment Italian regulatory model allocate capacity to “multiplex/network” operators who are free to use as they see fit.

- Capacity available on DVB-H networks will allow the transmission of only few programs: should the policy makers be involved in the decision of which content should be made?
 - Flexibility v. general interest (e.g. pluralism)

Free-to-air content and consumer protection

- Need to ensure an adequate level of consumer protection in areas such as interoperability of terminals, sim lock policies:
 - Strike the right balance between company's interests in subsidizing the mobile phone in order to speed up the penetration and the consumers interest.
- Should the broadcasting of some free to air content be guaranteed on the DVB-H platform in order to allow reception of content without paying a subscription? Or should the "mobility premium" involve a fee for the reception of content on mobile for all kind of programming?

The regulatory framework

- **Technological neutrality: DTT network operators can devote portions of the capacity of existing multiplex to DVBH**
 - They have to inform the ministry
 - Same regulatory framework of DTT applies

- **Nationwide networks exclusively dedicated to DVBH**

operators must acquire/convert frequencies covering more than 50% of the population

Licence is issued for a 12 year period by the ministry

Threshold: each network operator can dedicate only one multiplex to DVBH programming.

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