



# De-regulation challenges for broadcasters

super-regulator combined with de-regulation  
or pure market-based mechanism for spectrum



Discussion paper TDF  
UER seminar, Genève, 3 June 2008

# Disclaimer

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This presentation is only a discussion paper contributing to a global reflection of the EBU members, and does not necessarily reflect the opinions of TDF.

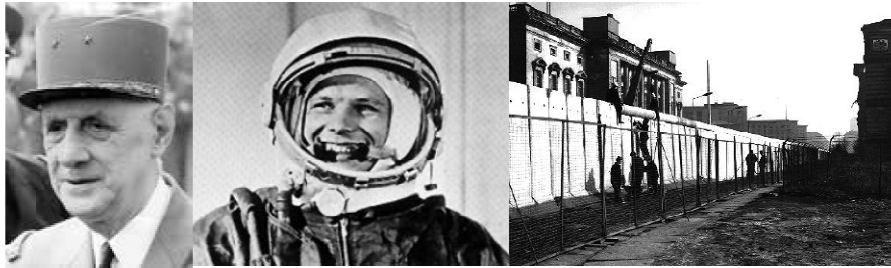
# De-regulation challenges for broadcasters

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- I. **Market-based approach for spectrum: theory and methodologies**
- II. Today's fulfilment of social goals in a dual content-spectrum regulation
- III. A content regulation with a market-based management of spectrum

# A market-based approach for spectrum management

framework for current use dates back to 1961



→ Spectrum = specific public good  
Sp. management = tool for public policies

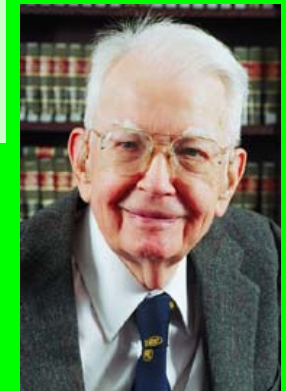
Spectrum = regular commercial good  
Spectrum regulation = market  
Public policies = independent regulation



We proposed a predominantly market-led approach

We have significant concerns about an administrative approach to the allocation of spectrum

The theory of market-based approach dates back to 1959 (Ronald Coase, article about the Federal Communication Commission)



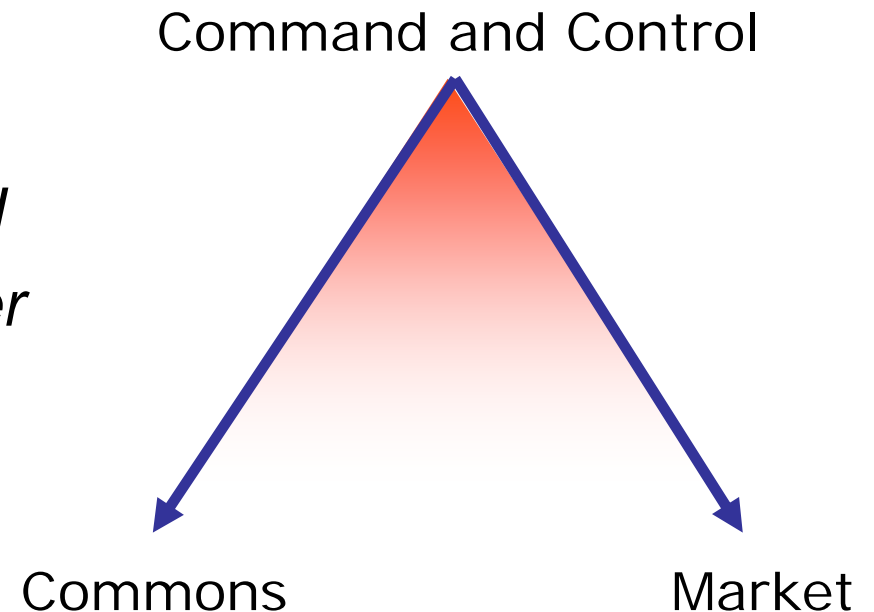
**Ofcom**  
OFFICE OF COMMUNICATIONS



# Why switching to a market-based approach ? <sup>1</sup>

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- *“Administrative methods to allocate a vital input are out of place in a market economy*
- *They are unable to keep up with technical change and growing demand*
- *They also tend to sustain market power*
- *Having **an input market is quite compatible with maintaining public services***
- *The way forward is to define (commercial and technical) spectrum **user rights and allow trading**”*



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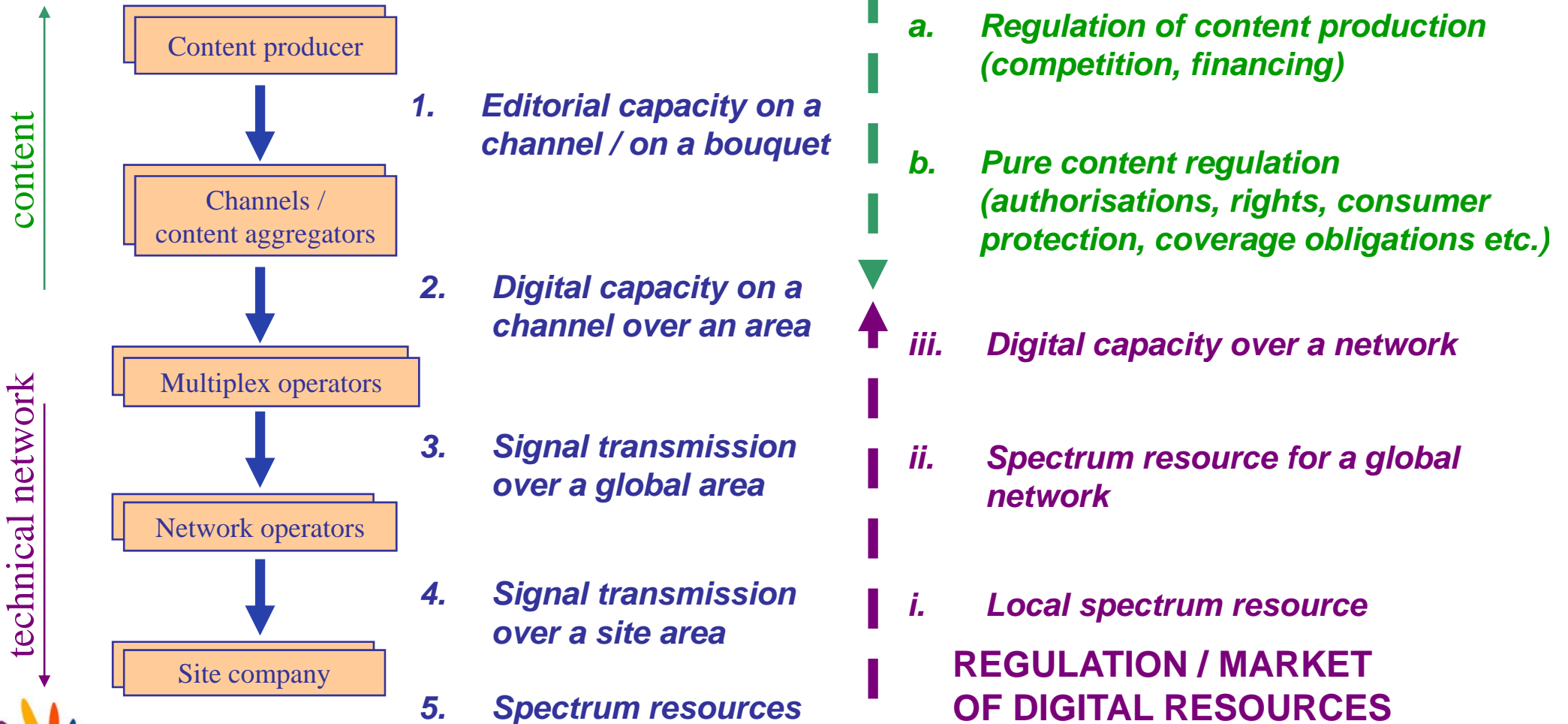
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# Spectrum and content regulations in terrestrial broadcasting

## Potential actors

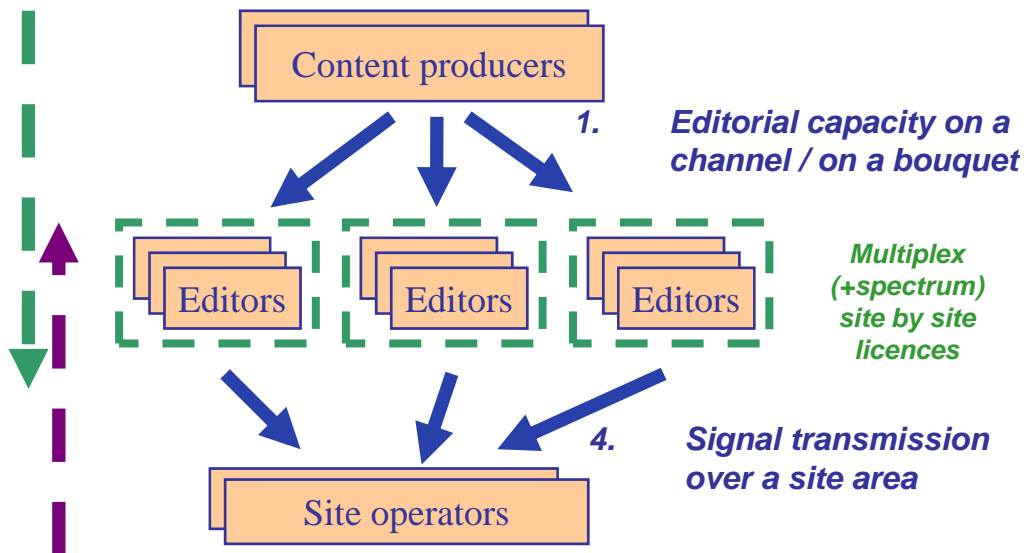
## Potential markets

## CONTENT REGULATION



# Example 1 : regulation by local spectrum regulation

## Market structure



## Where are the markets

- Market 1. of content aggregation
- Market 4. of signal transmission over a site area

How many authorities : **one (content + spectrum)**

## How content policies and plurality are ensured

- Content licence are granted on beauty contests
- Multiplex are composed by the regulator
  - no market 2
  - multiplex entities have no economic role

## How universal service obligations are ensured

- "Spectrum" licences are linked to the content licences on site-by-site basis
- Coverage is ensured by a very fine technical management of the spectrum planning (in time and in geography)

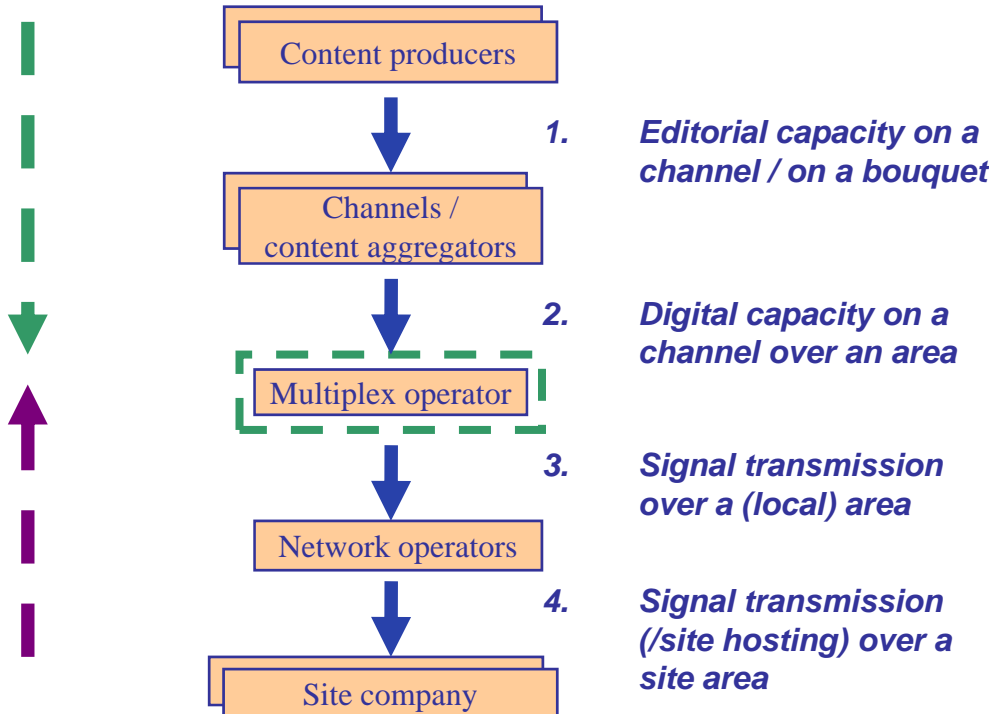
→ Objectives of general interests are ensured by a unique content and spectrum regulator

→ Very few markets and many administrative control



# Example 2 : concessions of a licence for a digital network

## Market structure



## Where are the markets

- Market 1. of content aggregation
- Market 2. of digital capacity
- Market 3 and 4 potentially, for technical network design

How many authorities : **one / two**

How content policies and plurality are ensured

- Content licences are granted by content authorities
- Multiplex composition is let to the market
  - Public channels can have a must carry right

How universal service obligations are ensured

- Coverage obligations in the multiplex licence
- Multiplex licence is linked with a necessary amount of spectrum to ensure the coverage

→ Some objectives of general interests are ensured by the definition of a multiplex licence with enough spectrum resources

→ Other objectives can be let to the market

→ This model globally allow more market freedom

# De-regulation challenges for broadcasters

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## Methodology or ensuring social goals in a market-based approach

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If markets fail to achieve themselves the objectives of general interest, there are rules for State intervention in a EU

1. Clear **definition** of targeted objectives of general interest
2. Intervention only in case of a real **market failure**, on the strict above-defined objectives
3. Intervention with **minimum distortion** of competition
4. Potential subsidy of the **net cost** induced by the obligations
  - and not subsidy of the vital input

As an exception to a general rule, any intervention must be strictly justified by the Member States

# Example of the market-compatible universal service in Telecom

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Existing EU framework for the universal service in telecommunications (2002)

## 1. Objectives



## 2. Generic obligations for all operators

- Consumer protection
- Integrity of networks
- Etc.

→ Generic obligations induce few market distortion on the market

→ Their cost can be recovered by the services

## 3. Specific obligations for at least one voluntary/designated operators

- Universal access of a minimum set of services
- Affordable tariffs

→ Specific obligations may have a net cost that could call for an appropriate compensation



## 4. Financing the net cost of the obligations

# Example of social goals in audiovisual

Governments will have to define which social goals they want to achieve and how

Goal	What type of regulation?	At what level?
Support to content production	Generic obligation/tax	a. content producers b. network operators
Rules on the content for protecting the consumers, promoting social diversity, etc.	Generic obligation	Channels
At least one “universally available” service composed of “basic social” content	Specific obligation by designation / call for tender	a. Channels: public/voluntary broadcasters b. Platform operator
Plurality of opinion	Generic obligation / Administrative selection / competition control	Channels

# Scenario 1 : full market-based approach

## General assumptions

- Spectrum is a full tradable good
- Full techno and service neutrality

## Consequence on the spectrum usage

- Spectrum is exchanged on the market
- Usage rights initially defined
- Possible negotiations with “neighbours”
- Brokers are expected to appear
  - Spectrum
  - Digital capacity

## Consequences on institutions

- **The spectrum authority must be a neutral competition authority**

Support to content production	Must be disconnected from spectrum management
Consumer protection	Content regulation (probably <i>ex post</i> control)
Plurality of opinion Cultural diversity	Basic content regulation + achieved by the market
<b>Universality of access</b>	<b>Depends on the opportunity cost of telco spectrum</b>
Equal share of long-range spectrum between countries	Ensured by initial distribution of spectrum; can evolve with spectrum trading
Efficiently use of spectrum	Encouraged by spectrum value

# Scenario 1 : what possible State intervention?

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## Universality of access and plurality

- No longer possible to subsidize spectrum for all broadcasters
- No longer possible to require/enable universal coverage for all broadcasters

## Possible remedy

- ***minimum set of audiovisual*** content (= public broadcasters?)
  - with an obligation of universal coverage
  - with potential subsidy of net cost of this obligation
- Probably put at the level of the multiplex/network
- Possibility to adjust quality and capacity with the cost of local spectrum
  - Possibility to mix spectrum bands

## Problems

- How to ensure plurality?
- How not to distort competition between public/private broadcasters?
- How to avoid potential inefficient choices created by the existence of a public subsidy?
- How to compute the net cost of the universal service obligation?
  - Problems of externalities, platform economies, advertisement, possibility to link revenues with network coverage, etc.

→ Defining a policy objective of universal coverage + plurality is very difficult in the pure service-neutral market-based approach

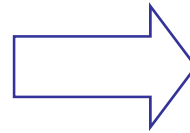
→ Exporting the “telecom model” for universal service for computing the net cost of such obligation is going to face the high complexity of the economy of broadcasting

## Alternative approach : the analytic guideline of the French school <sup>2</sup>

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Because of technologic constraints, spectrum management is not that simple: four dimensions of spectrum management

1. Service harmonisation
2. Technology harmonisation (standardisation)
3. Usage rights definition
4. Assignment modes of spectrum usage rights



Roughly 9 different types of spectrum managements

- Including full “commons”, full “market”, and full “command and control”

**Spectrum management should be based on clusters**

- each cluster correspond to a different spectrum management regime
- this approach could allow transitional regimes

Whilst the full market-based approach seems to inspire the WAPECS, the clustering method seems to have inspired the Communication on Digital Dividend

→ Could alternative market-based models emerge for broadcasting?



<sup>2</sup> see for example Gérard Pogorel, *Nine Regimes of Radio Spectrum Management: A 4-Step Decision Guide*, [http://econpapers.repec.org/paper/halpapers/hal-00269888\\_5Fv1.htm](http://econpapers.repec.org/paper/halpapers/hal-00269888_5Fv1.htm)



# Scenario 2 : a “clustered” spectrum market for broadcasters

## General assumptions

- Scenario 1 except :
- **No service neutrality**

## Consequence on the spectrum usage

- Spectrum is exchanged on the market **between broadcasters**
- Usage rights are limited by an initial set of technical rules (power of transmission, etc.)
- Any extension of these rights must be negotiated with “neighbours”
- Brokers are expected to appear in the following markets
  - Spectrum licences
  - Digital capacity on a network

## Consequences on institutions

- **All possible organisations (one/two regulators)**

Support to content production	Can be disconnected from spectrum management
Consumer protection	<i>Ex post</i> control
Plurality of opinion Cultural diversity	True <i>ex post</i> control
<b>Universality of access</b>	<b>Globally ensured by initial distribution</b>
Equal share of long-range spectrum between countries	Ensured by initial distribution of spectrum; can evolve with spectrum trading
Efficiently use of spectrum	Encouraged by spectrum value

→ ensuring the universality and plurality is mainly a question of *ex post* control

# Are there real examples of full market-based approach?

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The market will decide for the best usage, and the best way to achieve social goals

But Ofcom's way to let the market decide:

**"We propose** to allow licence exempt use of interleaved spectrum for cognitive devices  
**We have decided** not to set aside any of the digital dividend exclusively for licence exempt use  
**We have decided** not to hold back spectrum as an innovation reserve  
**We have decided** to reserve most of the available interleaved spectrum to meet the needs of PMSE users  
**We have decided** that channel 69 should continue to be available for PMSE use throughout the UK on a licensed basis  
**We have decided** to award geographic packages of interleaved spectrum suitable for local television, but we will not restrict their use to this service  
**We have decided** not to reserve spectrum to provide more DTT services in SD  
**We have decided** not to reserve spectrum for DTT services in HD  
**We have decided** not to reserve any of the digital dividend for other services, such as mobile broadband and mobile television  
**We have decided** to auction cleared spectrum  
**We have decided** to auction channel 36 alongside cleared spectrum  
**We have decided** to auction the packages of interleaved spectrum, except for the package with PMSE obligations, which we will award by beauty contest  
**We have decided** to award the digital dividend as soon as possible  
etc."

# The risks of a pure market-based approach

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## In theory

- It is not impossible to define obligations of universal service in a market
- Market principles would radically change the landscape of broadcasting (actors, chain of value, competition, geographic availability).
- In the best cases, another acceptable balance could be reached and other forms of organisation would appear (brokers for spectrum, digital capacities on networks, etc.)

## In practice

- It is probably difficult to transpose all existing obligations in a new approach of spectrum management
- In particular, it would be a challenge for public authorities to conciliate goals of universality, plurality and competition in a market-based management for spectrum
- There could be as many national “market-based” spectrum management systems as there are today national administrative management systems
- There is no example of a real implementation of a market-based approach without strong intervention of regulators
- One key factor for the economy of broadcasting seems to be the potential service neutrality of spectrum

**The large uncertainty attached to the current proposals is the main issue**