

38<sup>th</sup> EPRA meeting, Vilnius, October 2013

# ***The 700 MHz Band***

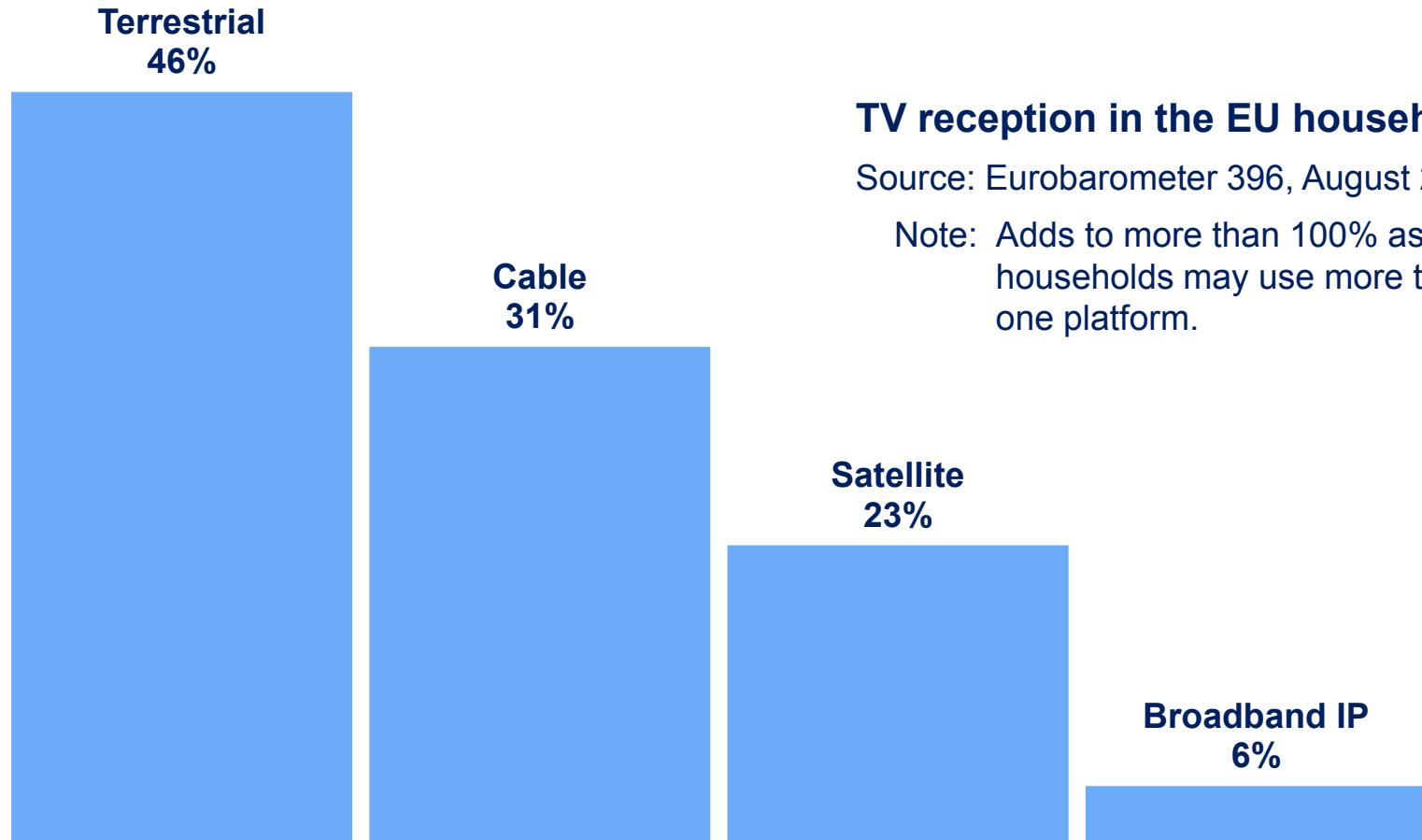
Impact of the UHF spectrum reallocation  
on TV markets in Europe

**Darko Ratkaj**

European Broadcasting Union



# ***FOUR WAYS TO RECEIVE TV SERVICES***



The mix of TV platforms is different in different countries.

# ***EBU VIEWS ON TERRESTRIAL BROADCASTING***

EBU – Recommendation R 131



Terrestrial Broadcasting  
in Europe

Technical Report 013

The Future of Terrestrial Broadcasting

[tech.ebu.ch](http://tech.ebu.ch)



**EBU TECHNOLOGY AND DEVELOPMENT**

*Your reference in media technology and innovation*

# ***KEY FEATURES OF THE TERRESTRIAL PLATFORM***



**Availability**



**Free to air**



**Flexibility**



**Efficiency**



**Quality of service**



**Market success**

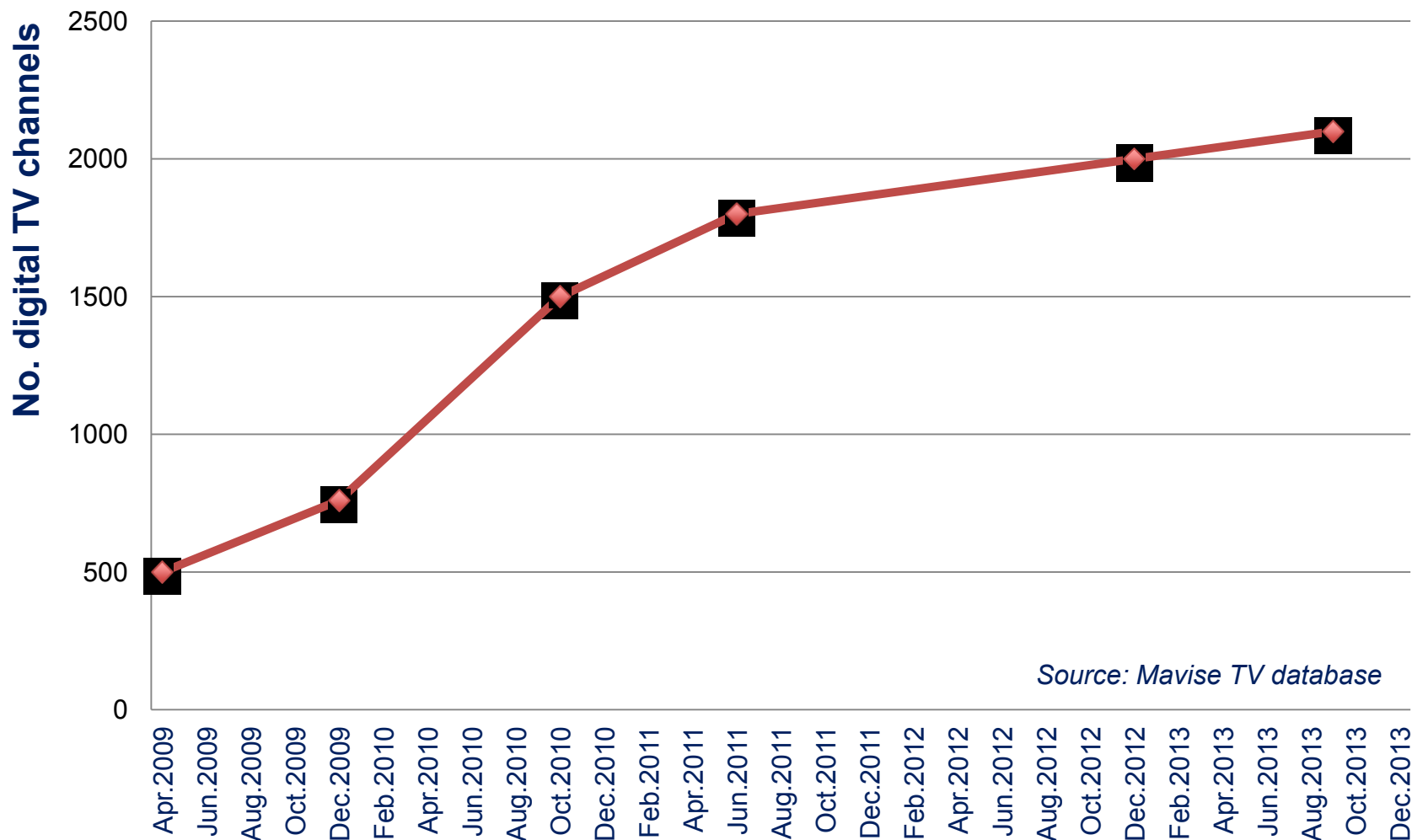


**Development**

- No other delivery platform combines all these features to the same degree as the digital terrestrial TV.
- DTT is the key platform to deliver the public value in Europe.
- These benefits shall be preserved.

# MARKET DEMAND FOR DTT

## Channels on DTT networks across the EU area

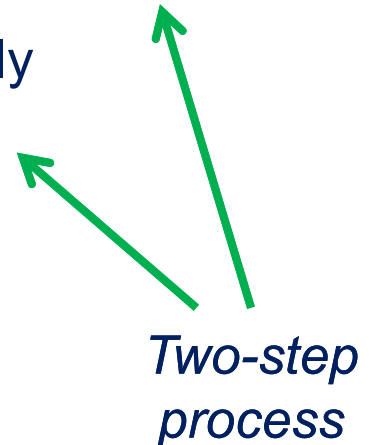


Source: Mavise TV database

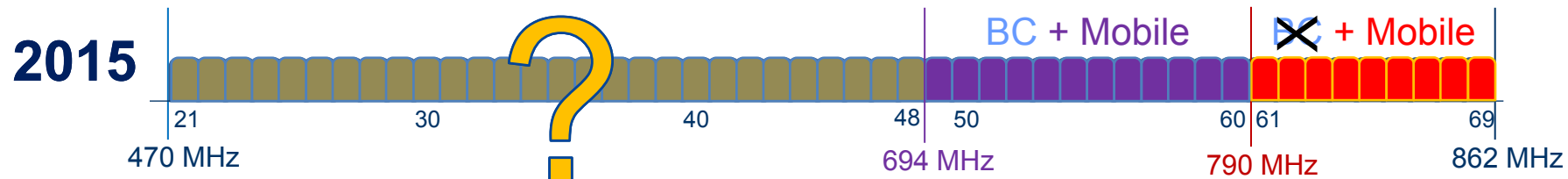
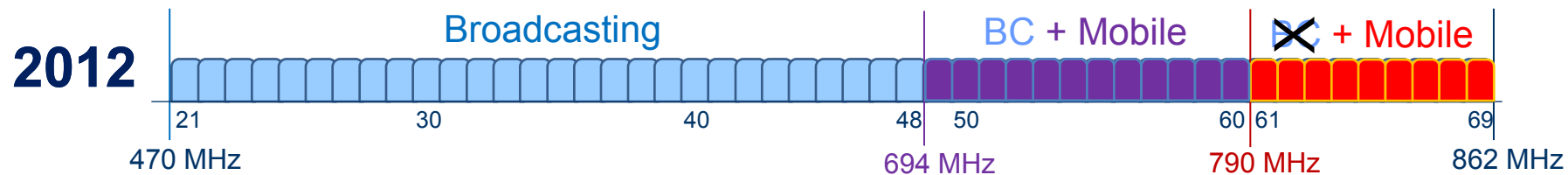
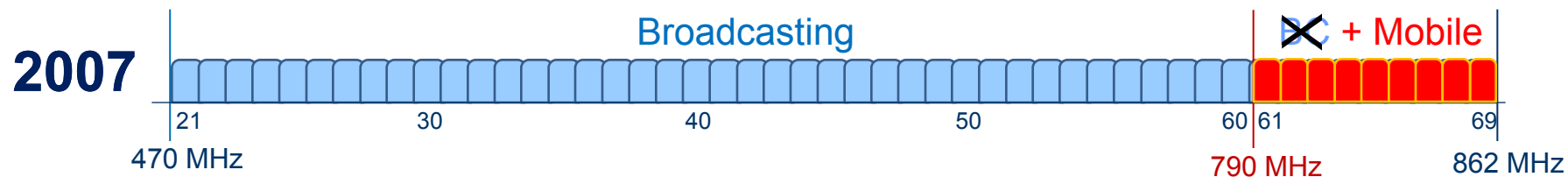
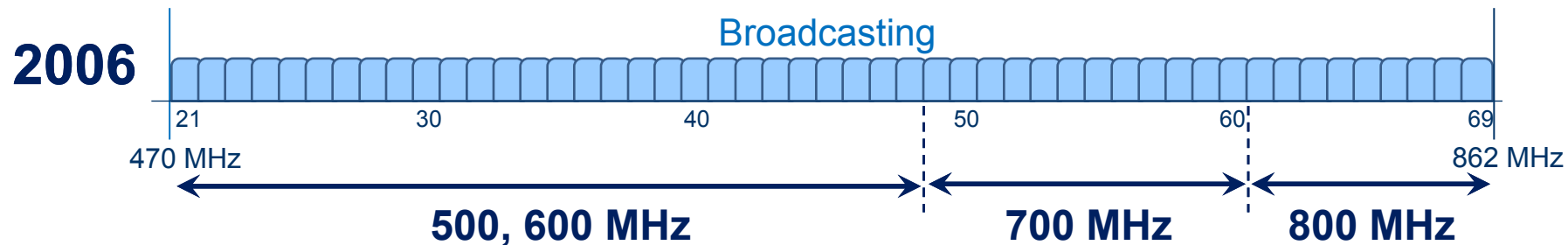
***Why is the 700 MHz important?***

# ON SPECTRUM MANAGEMENT

- Spectrum **allocations** are a result of international negotiations (e.g. within the ITU and the CEPT)
  - Frequency bands are divided amongst different radio communication services (e.g. broadcasting, mobile, aeronautical, satellite, ...)
- The **actual use** of the spectrum is decided nationally
  - It must be in accordance with the allocations in a given frequency band
  - In some cases bilateral coordination is required before the frequencies can be assigned to users
- **Harmonisation** of the spectrum use is beneficial
  - easier coordination and cross- border operation
  - easier interference management
  - economies of scale
  - ...



# THE UHF BAND ALLOCATIONS





# ***THE IMPACT OF THE LOSS OF THE 700 MHZ BAND ON TERRESTRIAL BROADCASTING***

Direct impact:

- Transitional issues to free the band from DTT
  - costs for broadcasters and the viewers
  - risk of disruption of services
- Loss of 30% of the bandwidth capacity (43% if the 800 MHz band is taken into account )
  - reduced platform capacity
  - reduced scope for future development

*None of this is  
in the interest  
of the European  
audiovisual industry  
or the consumers!*

Indirect impact:

- Weakened DTT platform; less competition
- Negative signal about the future of DTT
  - lack of certainty for future investments
  - no innovation; risk of decline, end of DTT
  - loss of the only free-to-air platform with potentially universal reach

*Not the same  
in all countries!*

# ***RECOMMENDED APPROACH TO DECIDE ON THE 700 MHz BAND***

- De-couple the decision on the use of the 700 MHz band in Europe from the ITU process leading to mobile allocation
- Scrutinise the mobile spectrum requirements before considering any additional spectrum allocation
  - Verify the assumptions about future demand; the forecast methodology
  - How much traffic growth is economically viable?
  - The use of the already allocated spectrum
- Cost / benefit analysis to be done before taking a decision
  - Overall social and economic impact of the change
  - *Incremental* benefits of using the 700 MHz band for mobile services
- Take the necessary time to prepare the decision, there is no real urgency
  - Mobile industry is busy deploying networks in the 800 MHz band
  - Lack of demonstrated market demand for more UHF spectrum
  - There are number of other ways to increase network capacity without additional UHF spectrum

# ***DECISIONS ON THE UHF SPECTRUM***

Should ...

- be made in the interest of European citizens,
- respond to the specific national circumstances and needs which may be different in different countries
- enhance the benefits delivered by terrestrial broadcasting including the universal availability and free-to-air access to services
- be based on a sound cost / benefit analysis, taking into account the social and economic impact of any proposed change
- promote the national and European audiovisual policies as well as other policies (e.g. efficient use of the spectrum, public safety, broadband targets, ...)
- respect the investments made by the European broadcasting industry, including public service media and the public
- provide a stable regulatory environment and long-term certainty for investments and innovation

# ***IN THE EVENT OF RE-ALLOCATION OF THE 700 MHz BAND TO MOBILE***

Ensure ...

- a planned and well managed transition process
- realistic time frame for freeing the band from DTT transmissions
- recovery of the costs incurred by broadcasters and the viewers
- replacement capacity for the affected DTT services
- replacement capacity for the affected PMSE services  
(e.g. wireless microphones currently operating in the band)
- protection of DTT and PMSE services below the 700 MHz band  
from the mobile interference
- long-term availability of the remaining part of the UHF spectrum  
for broadcasting services to facilitate future development
- continuation of free-to-air TV services
- access to the new mobile broadband platform for public service media

***THANK YOU***

***FOR YOUR ATTENTION !***

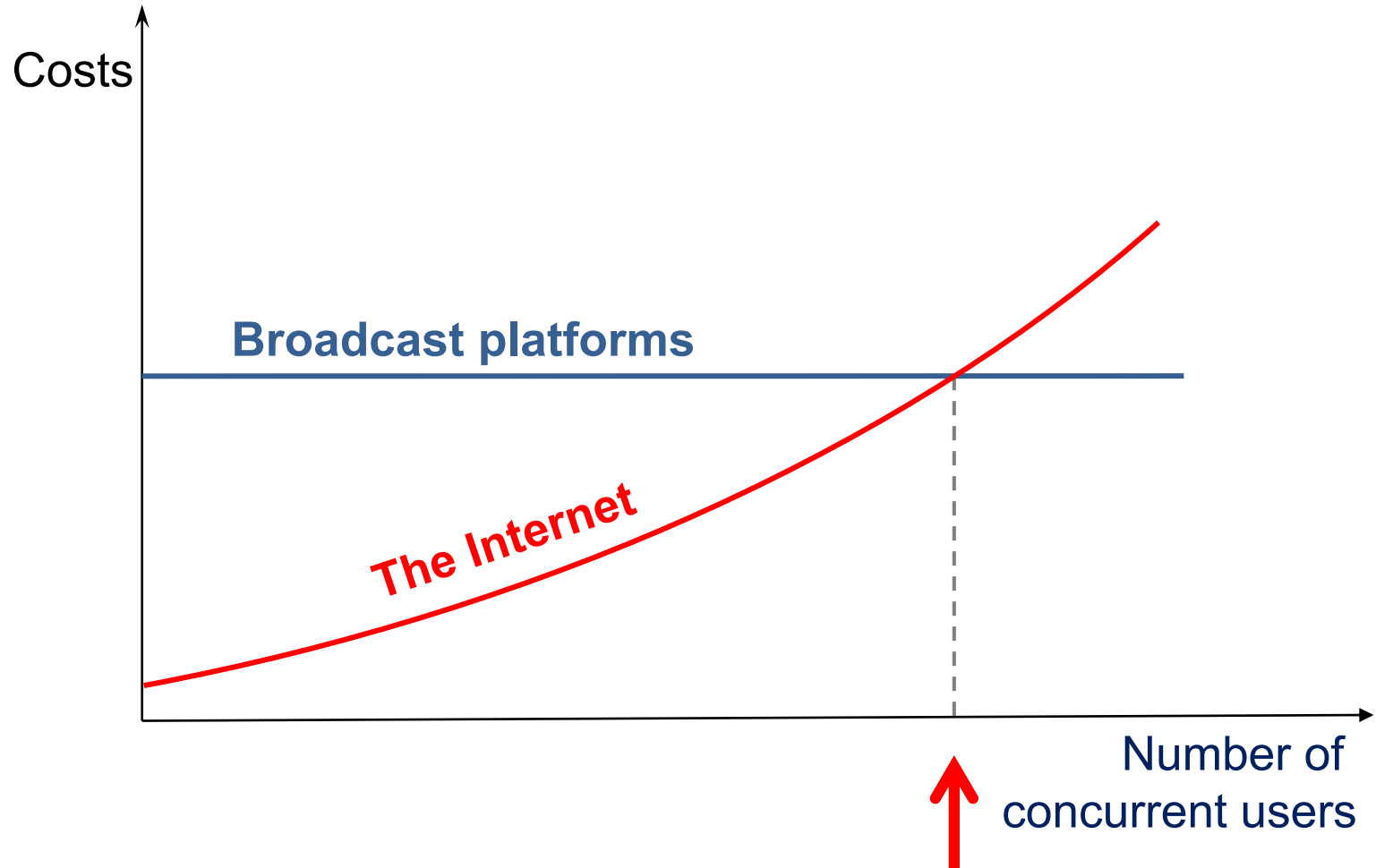
***QUESTIONS?***

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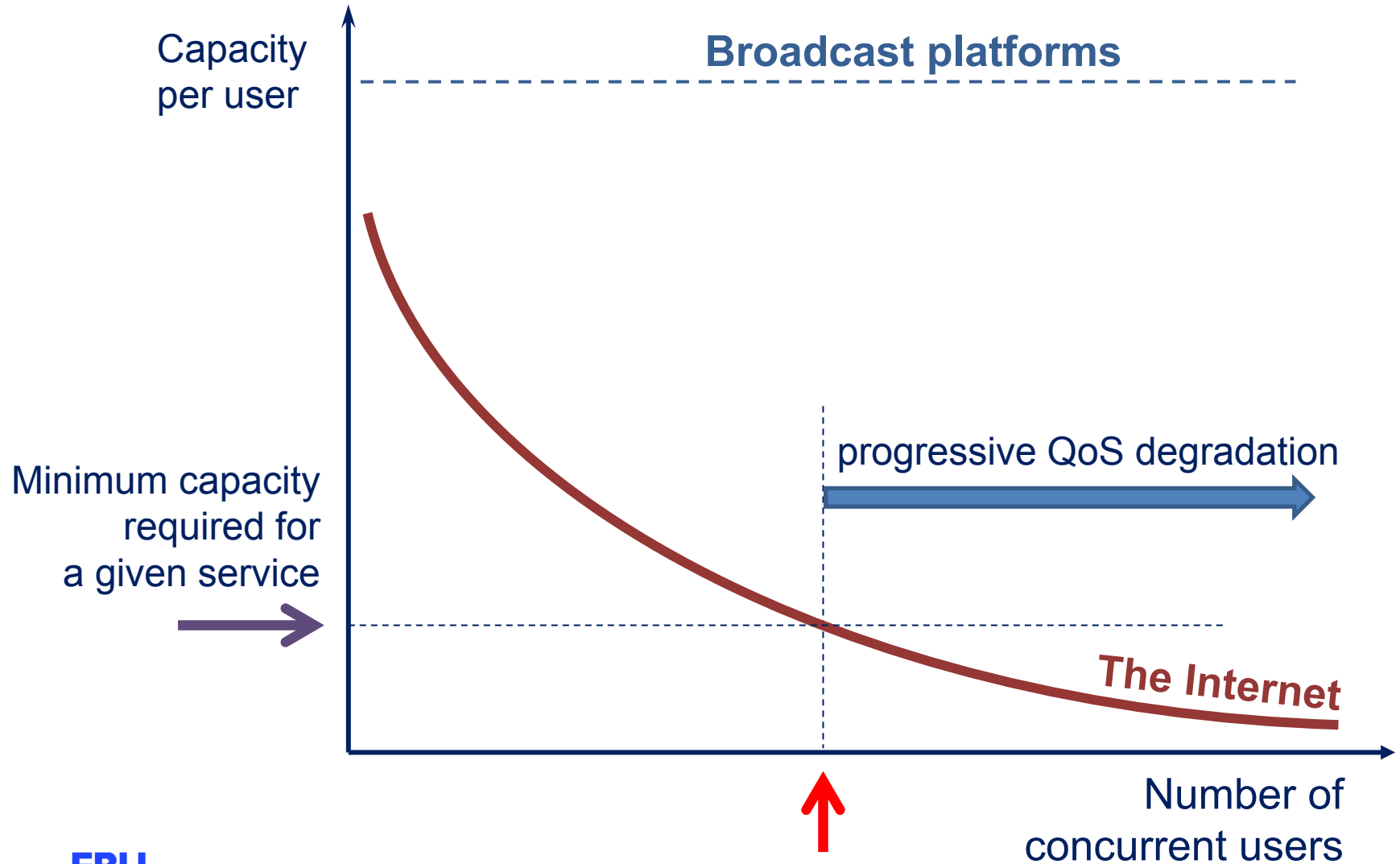


# ***Additional information***

# Costs of distribution of media services

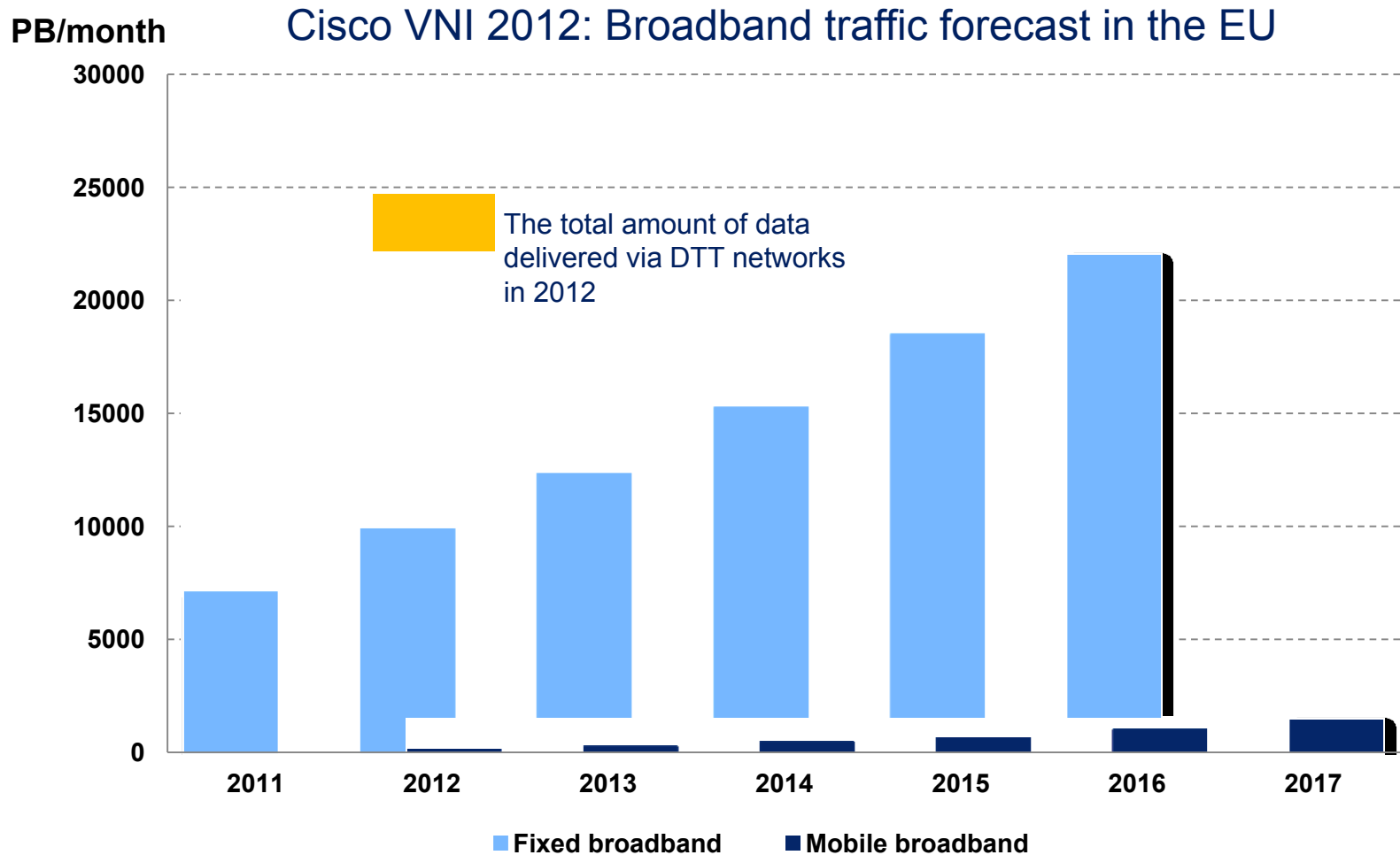


# Capacity available to individual users





# Data volumes delivered via DTT compared to the Internet.

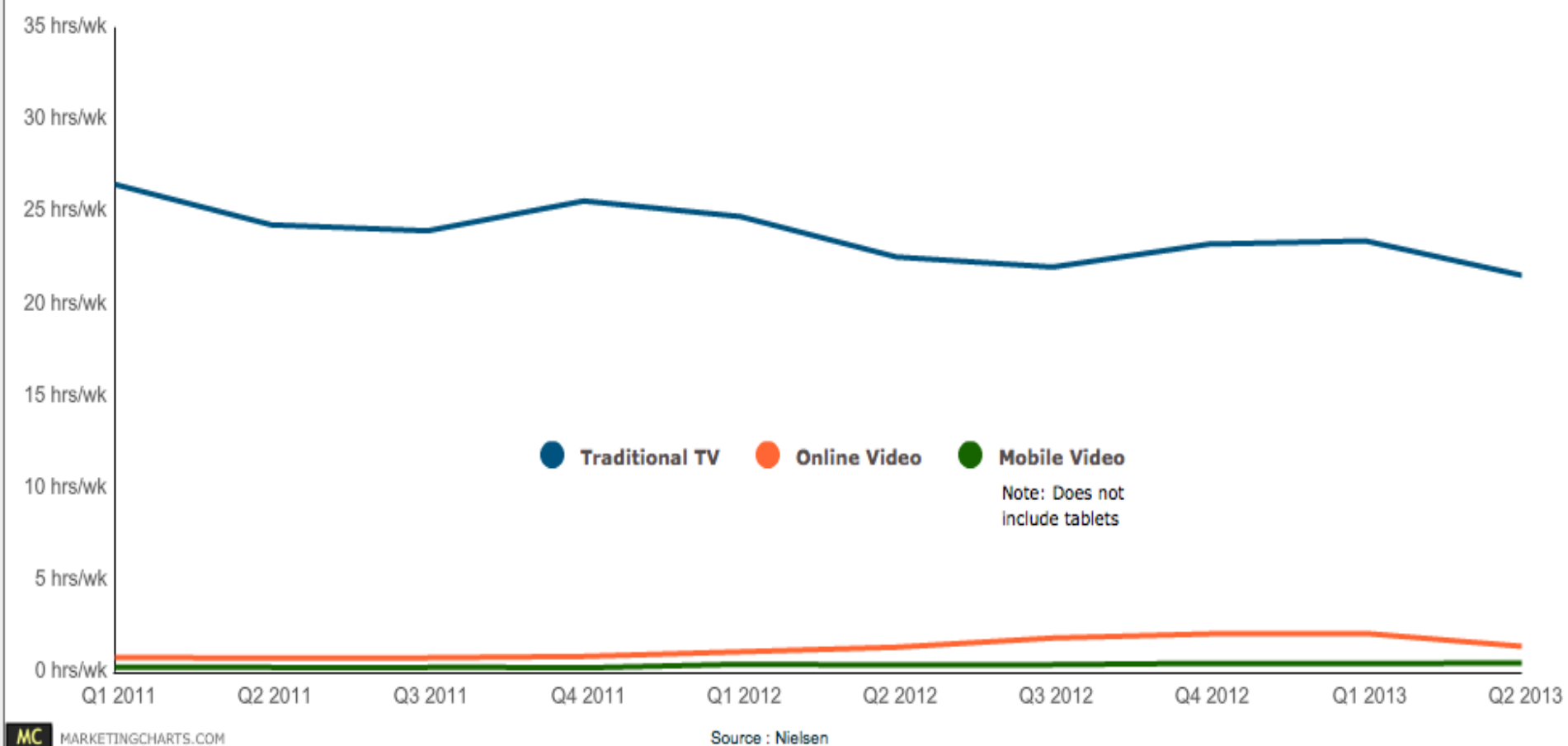


# How much video content is delivered over broadcast networks compared to the Internet?

## Traditional TV vs. Online Video Consumption, Among 18-24-Year-Olds

weekly time spent in decimal hours, based on total 18-24-year-old population

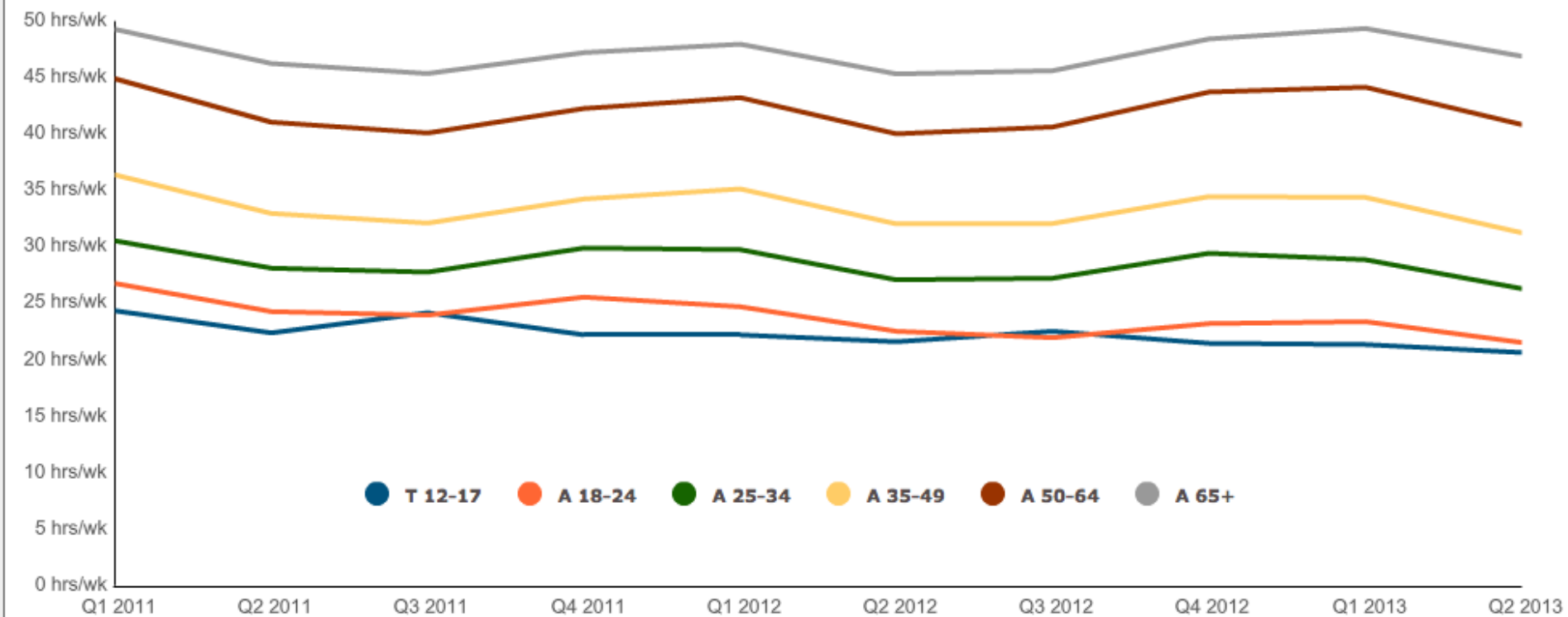
**Q1 2011-Q2 2013**



## Traditional TV Viewing, by Age

weekly time spent in decimal hours, based on total population

### Q1 2011-Q2 2013



Source : Nielsen

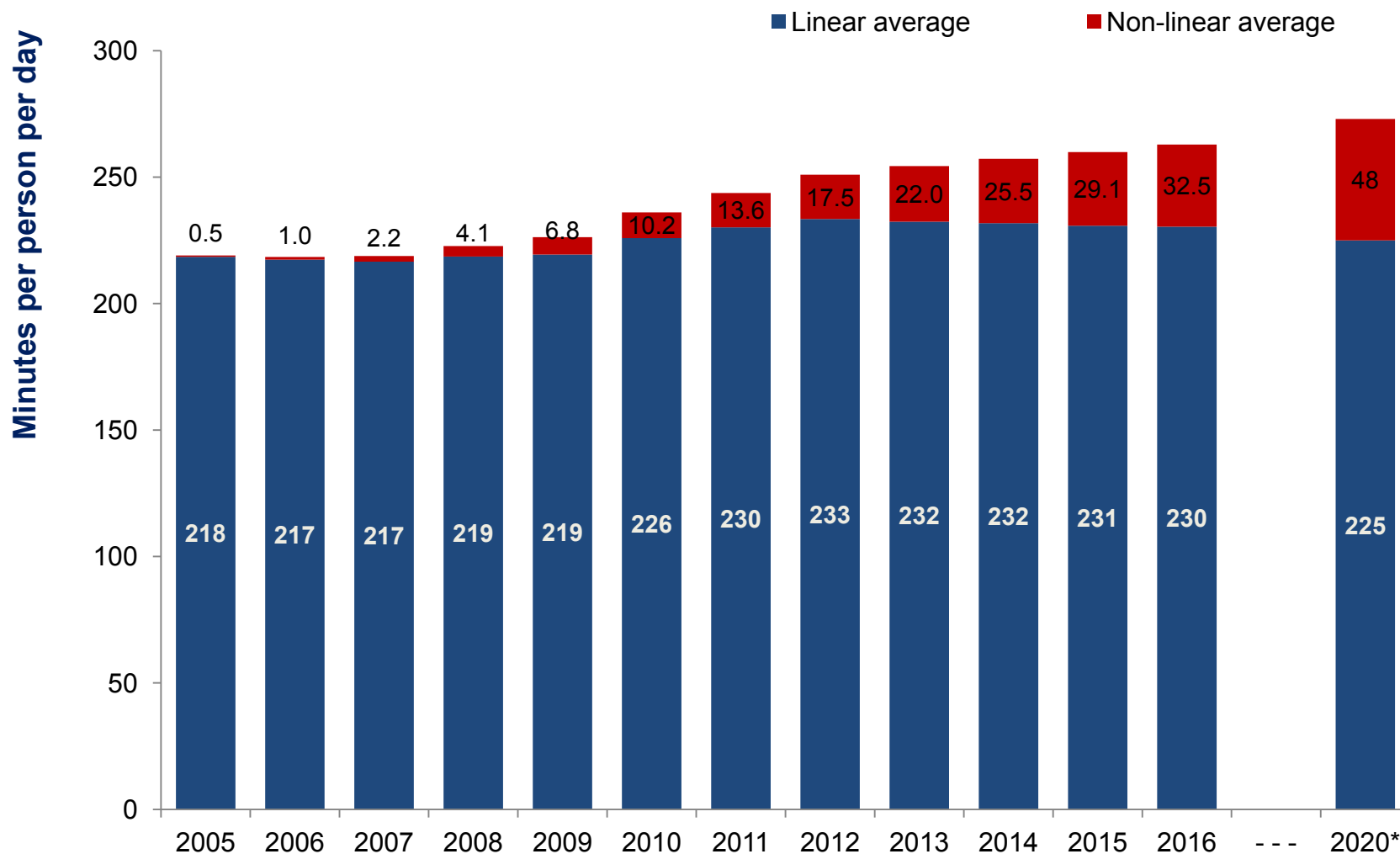
<http://www.marketingcharts.com/wp/television/are-young-people-watching-less-tv-24817/>

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# Evolution of linear and non-linear TV viewing

Minutes per person per day – Average in the EU 'Big 5'

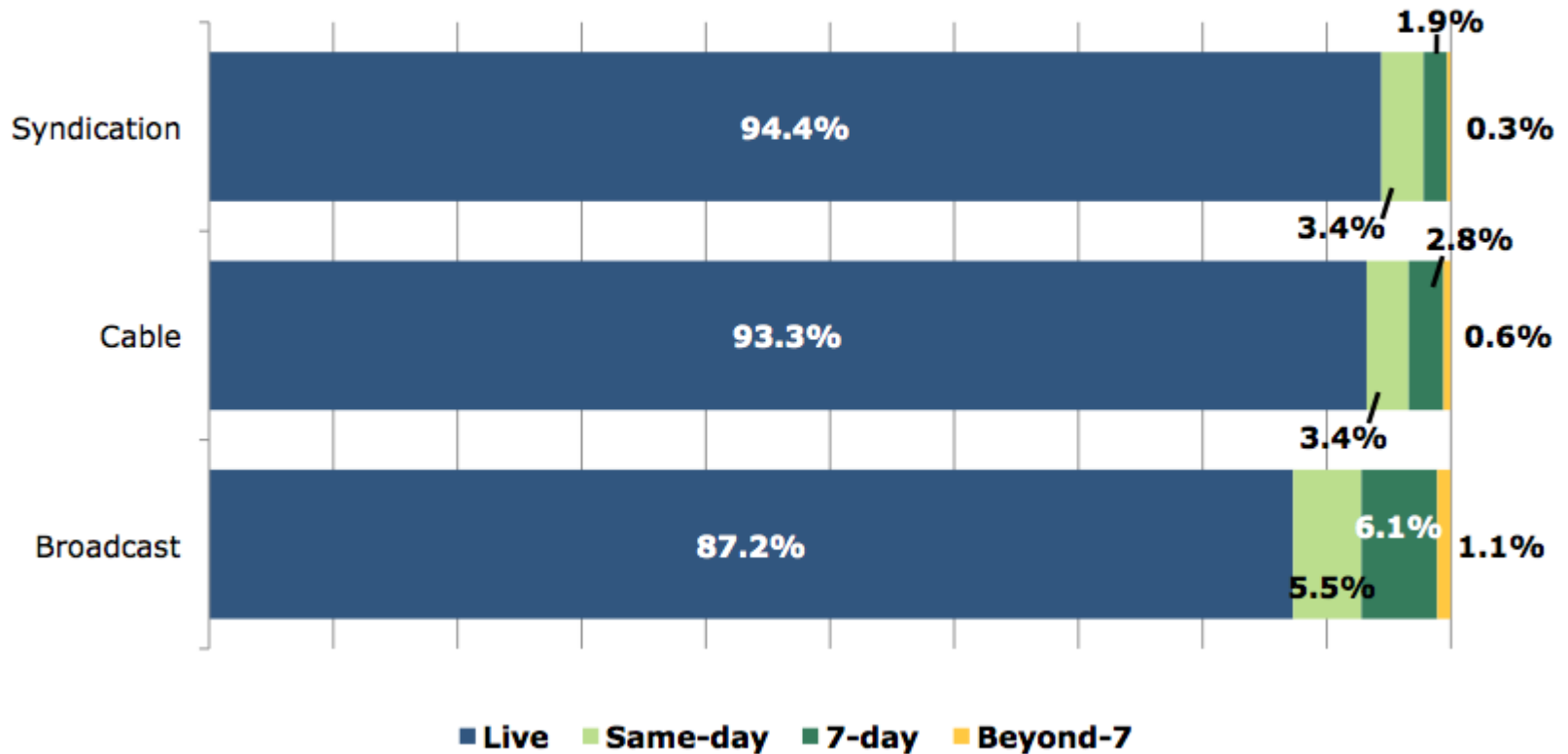


Source: IHS – ScreenDigest: Cross-platform Television Viewing Time FY 2012

Note: Forecast from 2012 / \* 2020 forecast by EBU

# Live and Time-Shifted TV Viewing

(% distribution of ratings)  
in Q3 2012



MC MARKETINGCHARTS.COM

Source: Nielsen

<http://www.marketingcharts.com/wp/television/how-much-tv-is-being-time-shifted-26229/>

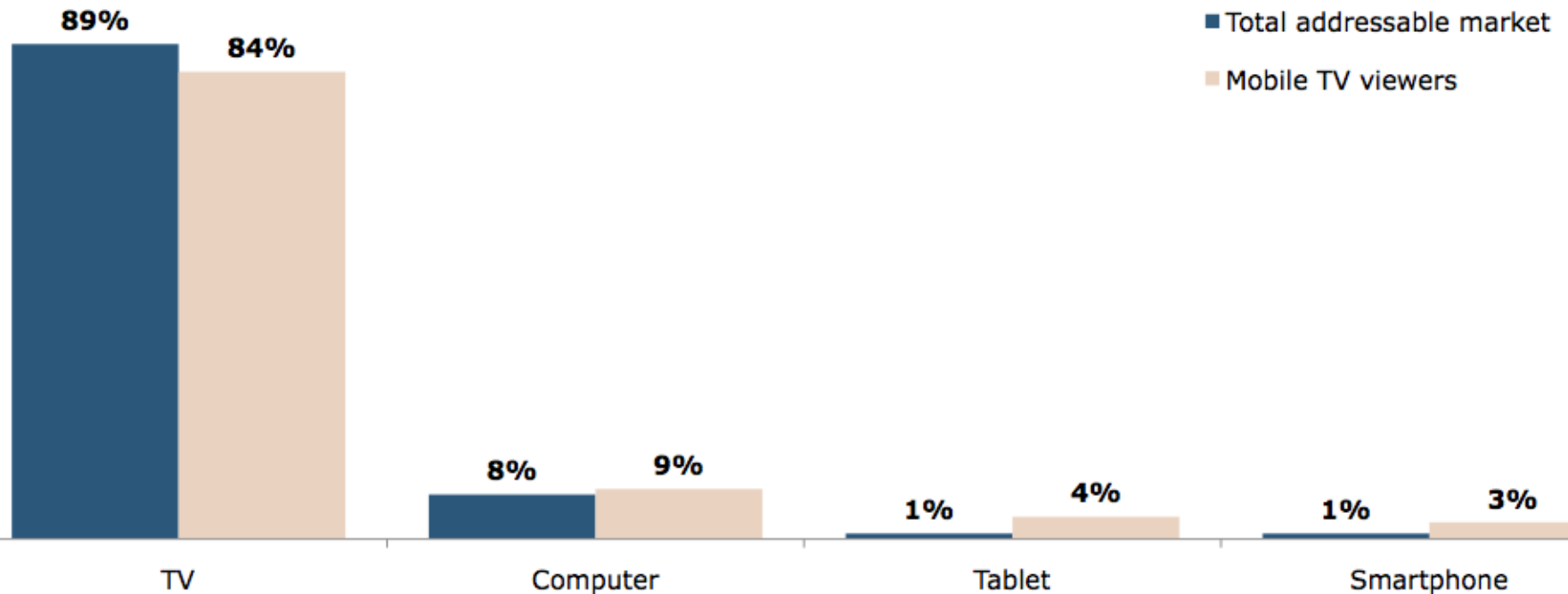
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## TV Consumption, by Device

% share of total TV hours

**June 2013**

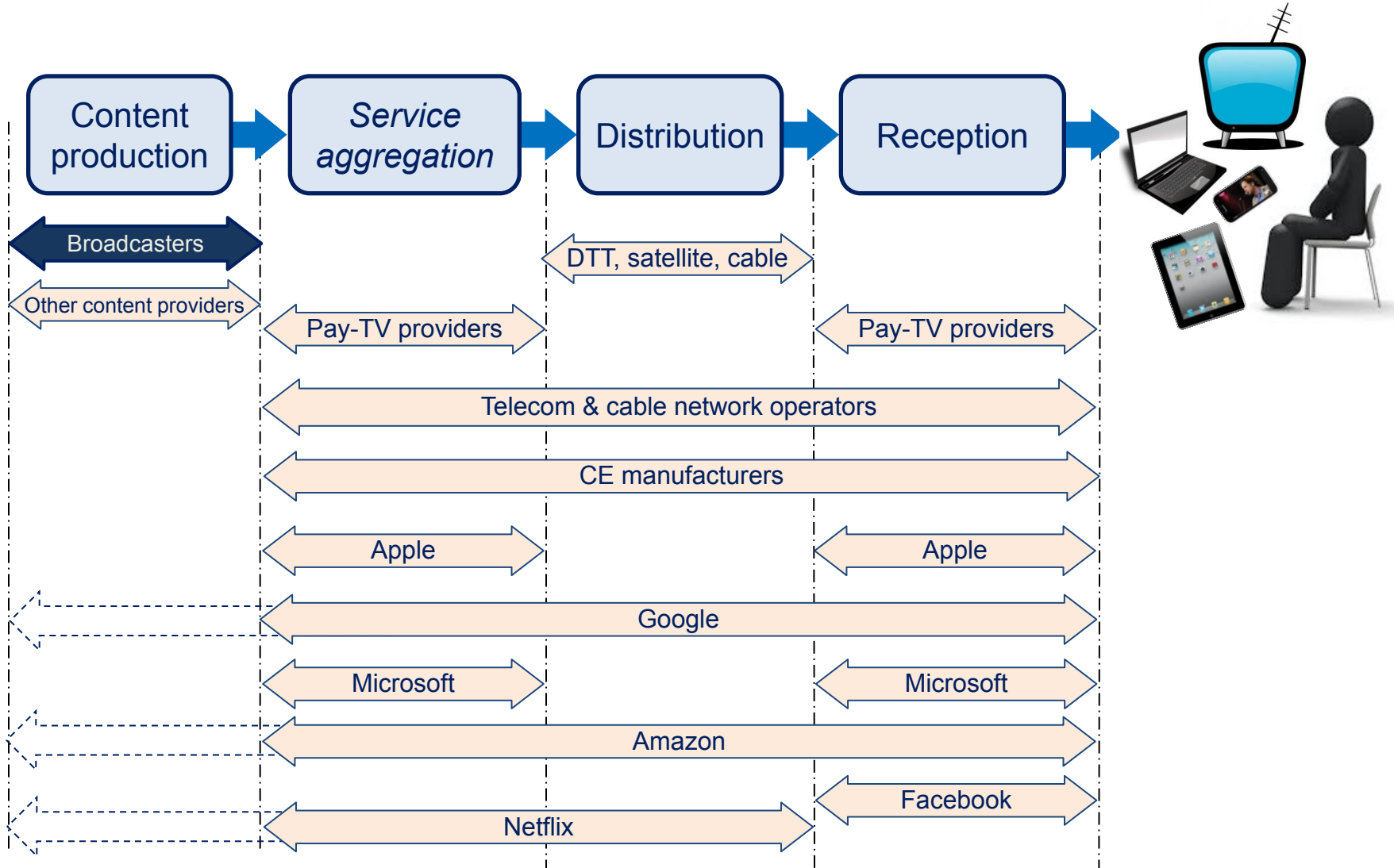


MC MARKETINGCHARTS.COM

Source: Council for Research Excellence

<http://www.marketingcharts.com/wp/television/mobile-viewing-remains-a-fraction-of-total-tv-hours-30058/>

# COMPETITION IN THE TV MARKET



# Key features of digital terrestrial TV (1)

- *Availability*
  - near-universal coverage (98+ % of the population)
  - most of the households equipped to receive terrestrially
  - most of the TV receivers come with a DTT tuner
- *Free-to-air*
  - no additional charges for the viewers
  - no gate keeping
- *Flexibility*
  - any reception mode (fixed, portable, mobile)
  - coverage can be adjusted as needed (national, regional, local)
  - various business models (free-to-air, pay-TV)
  - flexible use of the available capacity in a multiplex
  - supports a range of services
- *Cost efficient*
  - total delivery costs (for broadcasters) for all FTA channels in the order of a few € / month per household



# Key features of digital terrestrial TV (2)

- *Predictable and guaranteed quality of service*
  - continuously to all viewers, irrespective of their number
  - end-to-end
  - across the whole coverage area
  - optimised for the deliver to very large audiences
- *Successful*
  - the fastest growing digital broadcasting platform
  - widely supported by manufacturers, network operators, broadcasters, regulators and the public
  - about 46% of the EU population receives terrestrial TV
- *Potential for development*
  - new technologies
  - new services
  - new markets

# Questions for the regulators

How important is DTT in your country?

- penetration – how many households are receiving terrestrially
- market potential – how much content is needed for a viable DTT

Public value of DTT

- is there awareness amongst decision makers
- how is the public value protected and promoted

National audiovisual media policy

- is there a commitment to public service broadcasting
- which infrastructure will support the public policy objectives
- what is the development roadmap for this infrastructure

Are there any alternatives to DTT

- can they deliver the same benefits
- when will they be available
- at what costs
- how to migrate the audiences

These questions must be raised and answered before any decisions on the radio spectrum are taken!