CEPS Digital Forum
Wireless Broadband and Broadcasting: New Business Models and Challenges for Spectrum Policy
Brussels, 12 May, 2016

Perspectives on the new multi-device audiovisual world

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European Broadcasting Union

Professional association of public service media

73 Members in 56 countries (Europe, North Africa, and Middle East)

- 780 TV services provided by EBU Members
- 1040 radio services
- broadcasting in 123 languages
- audience reach: > 1 billion people

34 Associates in Africa, the Americas, and Asia

The EBU operates Eurovision and Euroradio.

I will speak about

- Audiovisual media services and user devices
- Consumption of audiovisual content
- Distribution platforms for AV content and services
- European audiovisual sector
- The importance of free-to-air TV
- The impact of spectrum decisions on the AV sector
- Some final thoughts

Audiovisual media services

Provision of the curated audiovisual media content to the public

- With a purpose to inform, educate, and entertain
- Editorial responsibility of the service provider
- Subject to regulation (AV content regulation, telecom regulation, law on public service media, copyright law, consumer protection, e-commerce, net neutrality, privacy and data protection, …)

Examples of AV services:

- radio and TV channels
- catch-up TV (Mediathek, BBC iPlayer)
- video on demand (VoD)
- podcast

Video content but not *AV services*:

- user generated content
- computer games
- teleconference
- video surveillance

Some definitions

linear viewing on–demand viewing 'binging'	→	user ***behaviour***
TV set smartphone tablet	→	user ***devices***
broadcast unicast multicast	→	content distribution ***techniques***
DVB-T /T2 GSM, 3G, 4G/LTE, WiFi fibre, DSL	→	***technologies***
terrestrial broadcasting fixed broadband wireless broadband	→	***networks / infrastructure***
fixed / stationary portable mobile	→	***user situation***

Devices, devices …

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Distribution of AV media services

AV media services

The audience

linear radio & TV
on-demand
time shifted
hybrid
interactive
second screen
data
personalised
social media
cross-platform
multi-view
. . .

Broadcast

- **Terrestrial**
- **Satellite**
- **Cable**

Broadband

- **Fixed networks**
  - * IPTV
  - * OTT
- **Mobile networks**
  - * 3G, 4G

Some facts about AV media consumption

- Linear TV viewing still dwarfs other AV media consumption
  - Average around 3-4 hours a day per person, and stable
- On-demand viewing is steadily growing
  - Largely additive to linear, leading to an increase in overall consumption
  - Long-term impact of SVOD services (e.g. Netflix, Amazon) is unclear
- Media is mostly consumed indoors
  - This is also reflected in traffic patterns on the Internet
- More than 95% of TV viewing hours are delivered over broadcast networks
  - The vast majority of the rest travels over fixed broadband and Wi-Fi
  - This may be different for other types of media content
- Audience uses multiple devices and access networks
  - Depending on the context, preferences, intentions, and type of service
  - No substitution of one type of device for another
- Better quality of experience drives user engagement
  - QoE is determined by technical performance, content choice, convenience, and costs

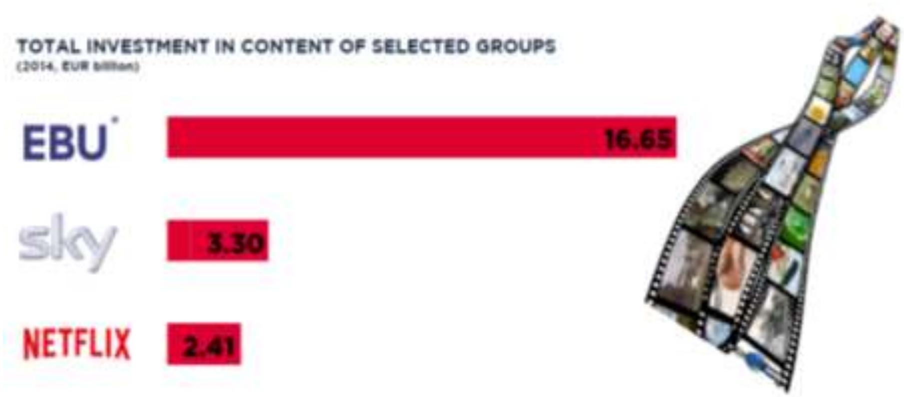
European cultural, creative and media industries - key economic sector

- 25% of the global AV market
- 6.8% of GDP (€860 billion in 2014)
- 6.5% of Europe’s employment (approx. 14 million jobs, highly-skilled)
- Rooted in local territories, economies, and cultures
- Companies of all sizes (more than 1 million SMEs)

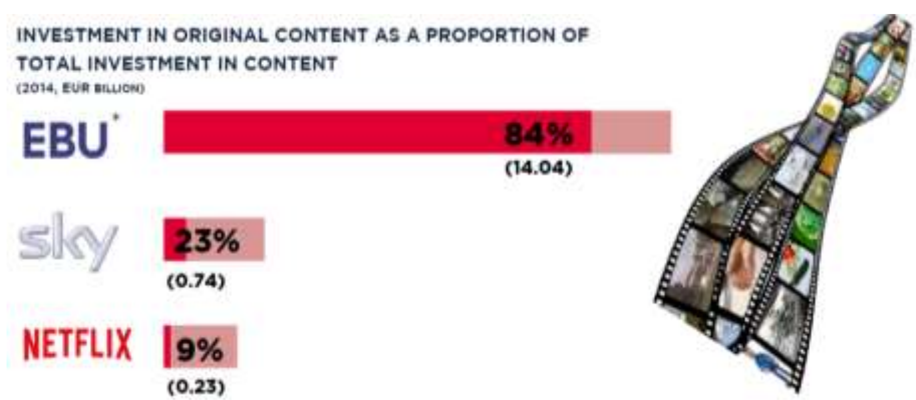
The European audiovisual media ecosystem is rich and diverse

- Co-existence of commercial and publicly funded providers
- Co-existence of international, national, regional, and local services

Public service media providers are a major source of funding of the original European content



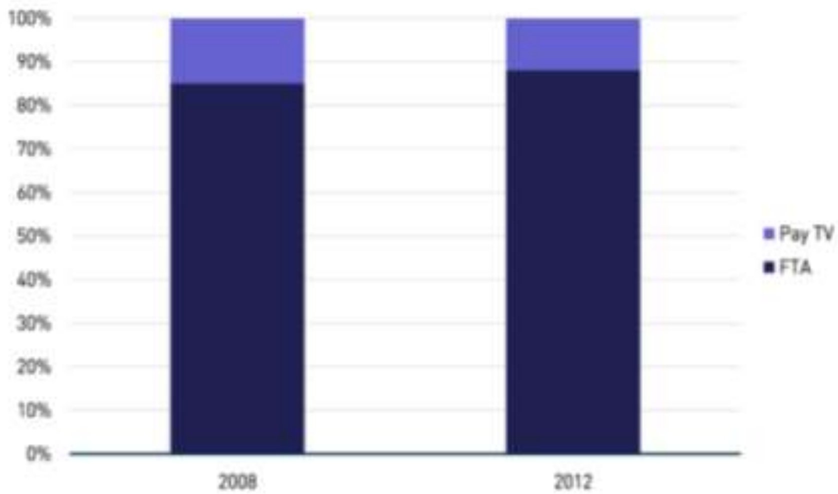
Together, European Public Service Media still represent the most important investors in content among the various European markets

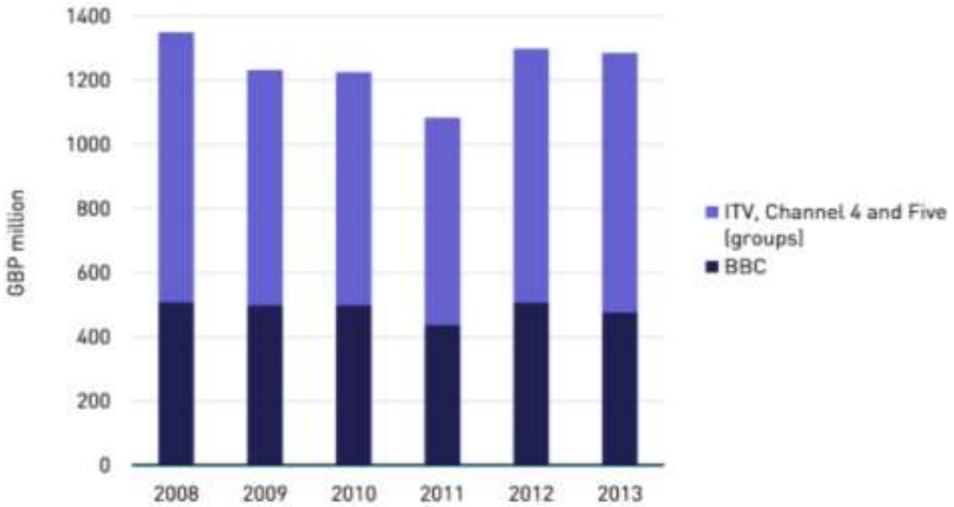


European Public Service Media invest 84% of their programming expenditure in original content, significantly more than their commercial counterparts

Why is terrestrial TV important for Europe?

Terrestrial is the only platform that provides free-to-air TV services in all countries and FTA sustains the European AV content industry





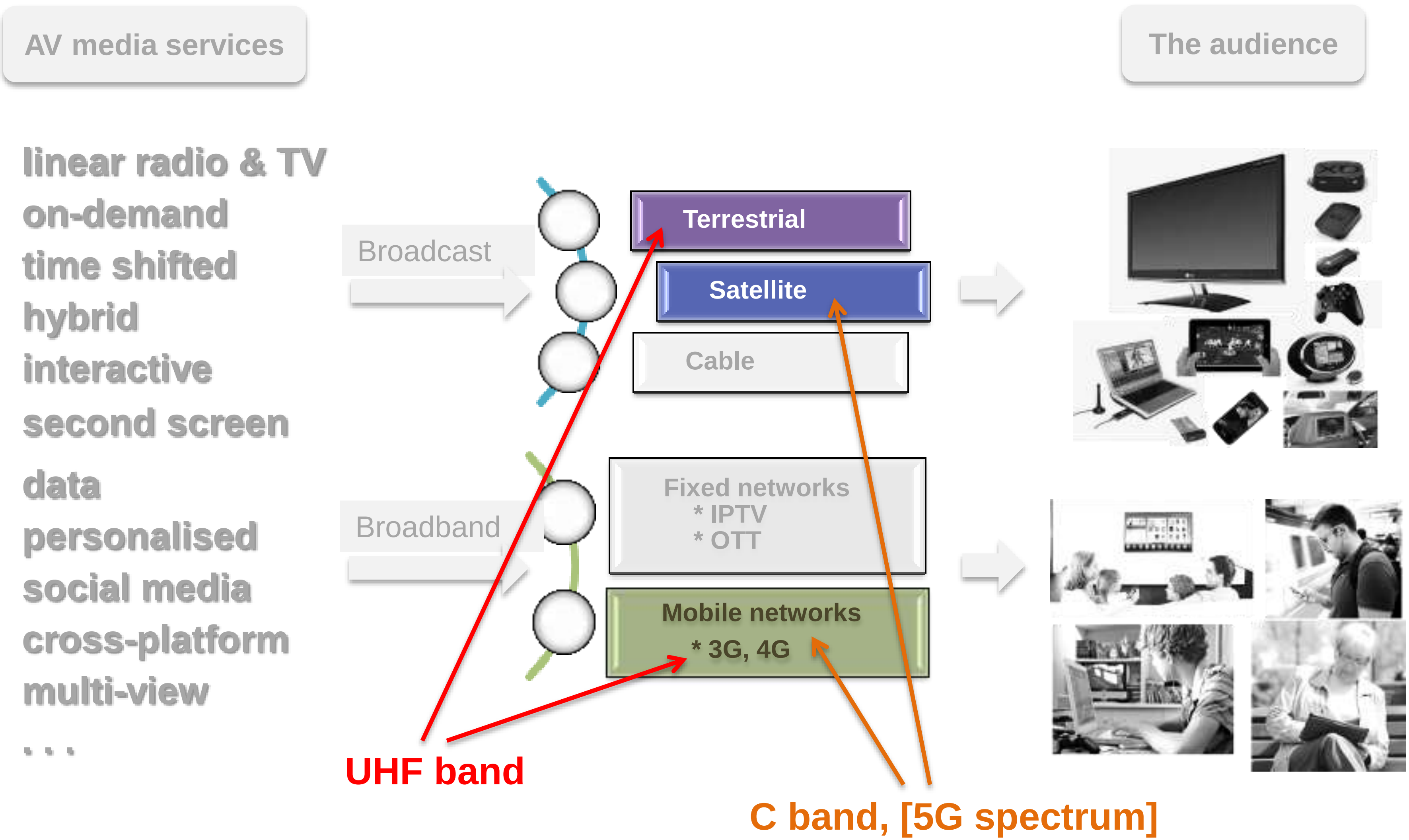
Investments in original audiovisual production in France and UK (Source: Analysys Mason)

*'FTA still attracts a **viewing share of around 80%** in Europe, even in countries with pay-TV penetration of more than 50% (like the UK), or even over 80% (like the Netherlands or Denmark). The majority of programmes broadcast on the main FTA channels are original productions, which may be commissioned as independent productions: the main FTA groups in the UK account for 80% of the value of independent UK production commissioning. The situation is similar elsewhere in the EU, arguably as a result of comparable audiovisual histories and policies imposing content obligations on FTA channels. In France, for example, the FTA channels (mainly France Televisions, TF1 and M6 groups) account for more than 85% of the investment in original French production.'*

Source: Analysys Mason: *The sustainability of funding for original TV content in Europe is at risk,* January 2015, http://www.analysysmason.com/About-Us/News/Insight/TV-content-in-Europe-Jan2015

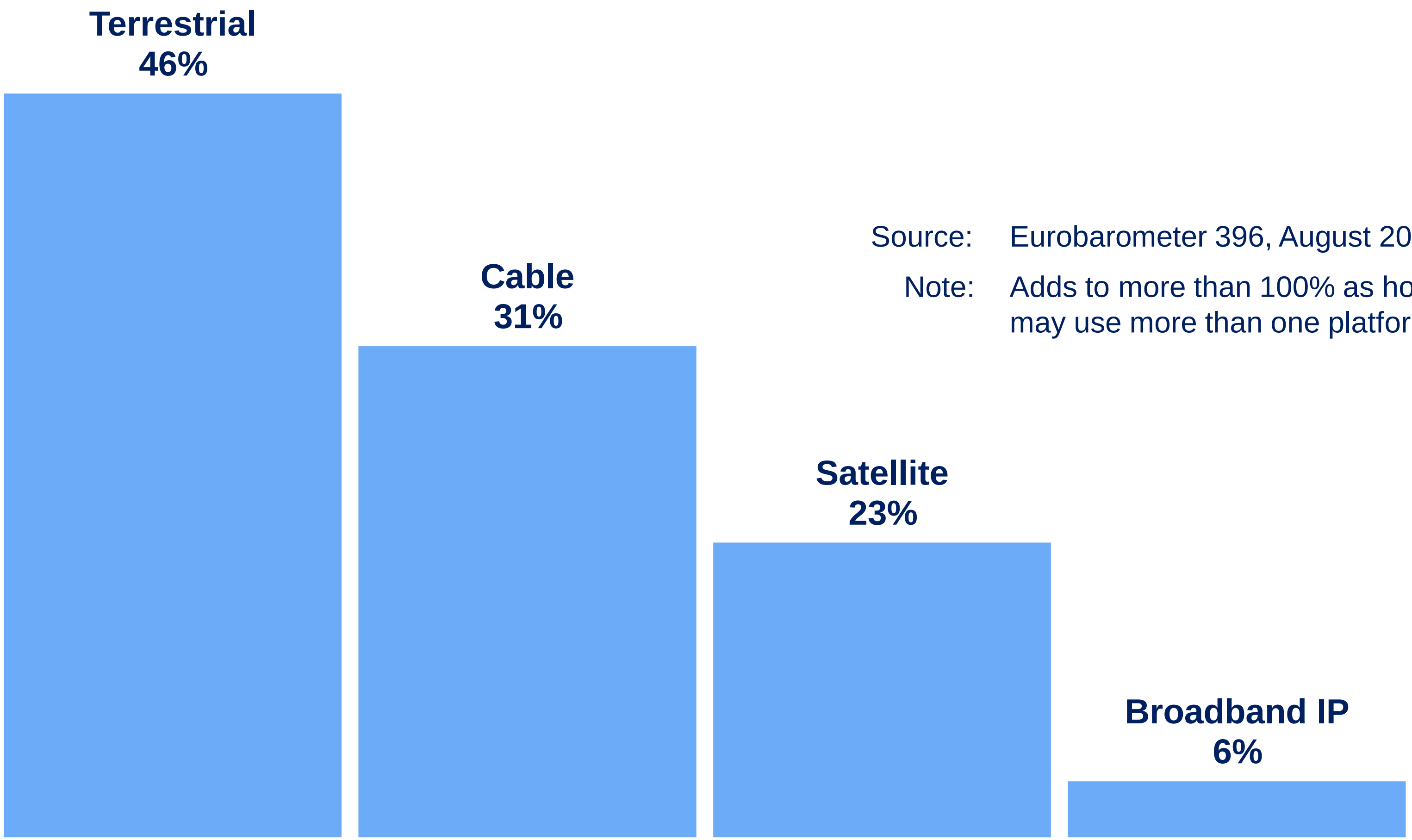
The implications of spectrum decisions for the audiovisual sector

Who uses the radio spectrum?



How the European citizens receive TV services?

Terrestrial reception in the most popular way of receiving TV services



Source: Eurobarometer 396, August 2013

Note: Adds to more than 100% as households may use more than one platform.

The mix of TV platforms is different in different countries.

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Questions for the policy makers and regulators

How important is DTT in your country? And satellite TV?

- How many households are receiving TV terrestrially or via satellite?
- How much national, regional, and local content relies on DTT?

Public value of free-to-air reception.

- Is there awareness about the importance of FTA amongst decision makers?
- How is the public value protected and promoted?

What are the national audiovisual media policies?

- Commitment to public service media? Prominence and universality of PSM?
- Commitment to free-to-air TV?
- Which infrastructure will support these public policy objectives in the future?
- What is the development roadmap for this infrastructure?

Are there any alternatives to the current TV infrastructure being considered?

- What are they and 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 DTT or satellite TV spectrum are taken!

The impact of the loss of the UHF spectrum on terrestrial broadcasting

Direct impact:

- Transitional issues to free the band from DTT
  - costs for broadcasters and the viewers
  - risk of disruption of services and loss of audience
- Loss of 43% of the bandwidth capacity
  - reduced platform capacity
  - reduced scope for future developments

The impact will not be the same in all countries!

Indirect impact:

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

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

Mobile broadband is not an alternative to terrestrial TV

- Insufficient network capacity and coverage
- Prohibitively high costs for both content providers and consumers
- No predictable quality (only best effort)
- No free-to-air reception
- No safeguards for public service media
- No models to sustain the original content production

But they are highly complementary

	Broadcast platforms	Broadband platforms
Strengths	• Near-universal coverage • Guaranteed, predictable quality of service to large screens • Optimised for delivery of linear services to very large audiences • Every user has access to the total capacity of the network	• Bi-directional • Delivery to portable and mobile devices • Potentially unlimited choice of services • Good for on-demand and personalised services • Well suited to serve small audiences • Fast growing population of user devices
Weaknesses	• One-way only, no return channel • The number of channels is limited by the network capacity • No access to IP-only user devices, only dedicated broadcast receivers • Limited mobile and portable coverage	• Limited coverage (with sufficient quality) • Best effort, no guaranteed QoS • Only unicast; multicast and mobile broadcast not implemented • Total capacity is shared between users • Inadequate for a large-scale delivery of linear services

Final thoughts

Europe benefits from the world-class excellence in both ***content creation*** and ***technological innovation***

- Substantial potential for further growth in both domains
- Sustainable solutions need to be found that will meet future needs of both AV media content providers and their audiences
- Leverage on European diversity
- This requires collaboration between creative sectors and the telecom industry

Alignment is needed between spectrum policies and audiovisual polices (and other policies)

- Create new opportunities for the European audiovisual sector
- AV media services are driving adoption of new technologies
- Virtuous circle between content creation, technology, and business development

Broadcast and broadband are complementary

- Both are important and will coexist for a long time
- Innovative approaches could bring substantial synergies
  - Integration of different infrastructure both broadband and broadcast
  - Service requirements to guide technical developments
  - Market-related and regulatory issues will need to be addressed (e.g. gatekeeping)
- Cost-efficiency will be the key

Thank you

for listening!

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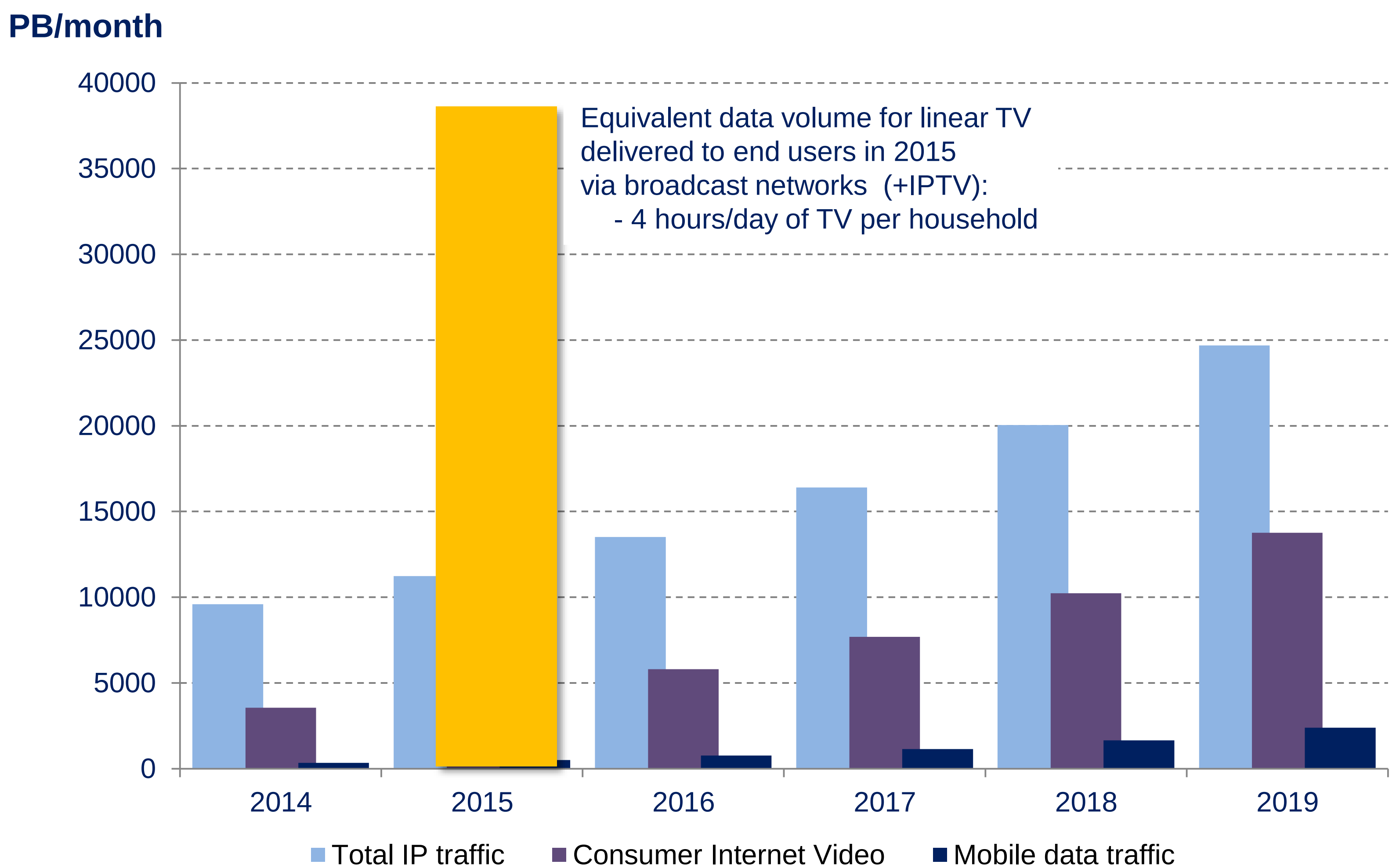
Data volumes delivered over broadcast networks compared to the IP traffic in Western Europe



Cisco VNI2015: Internet traffic forecast in Western Europe

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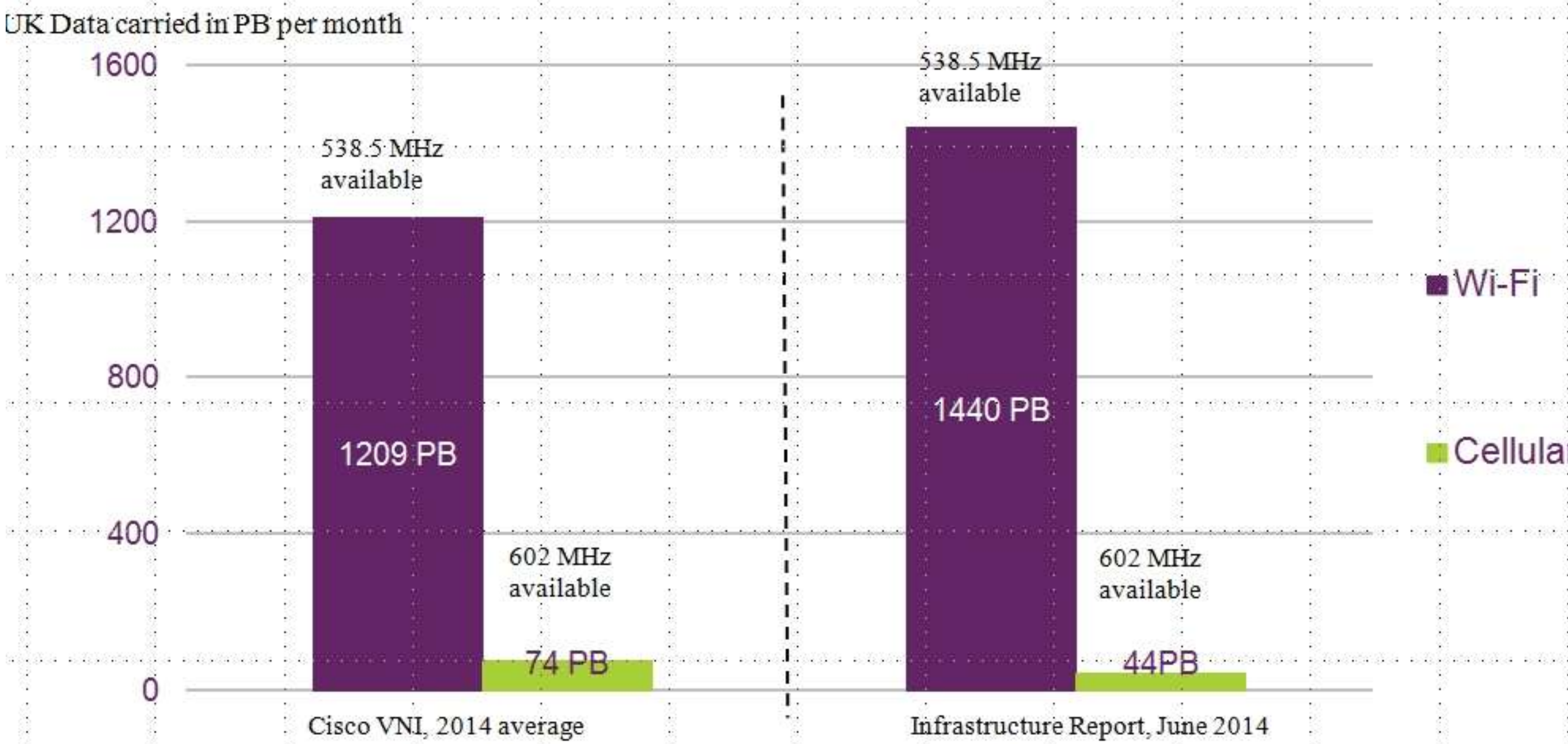
In 2014 Wi-Fi traffic was 16 times cellular one



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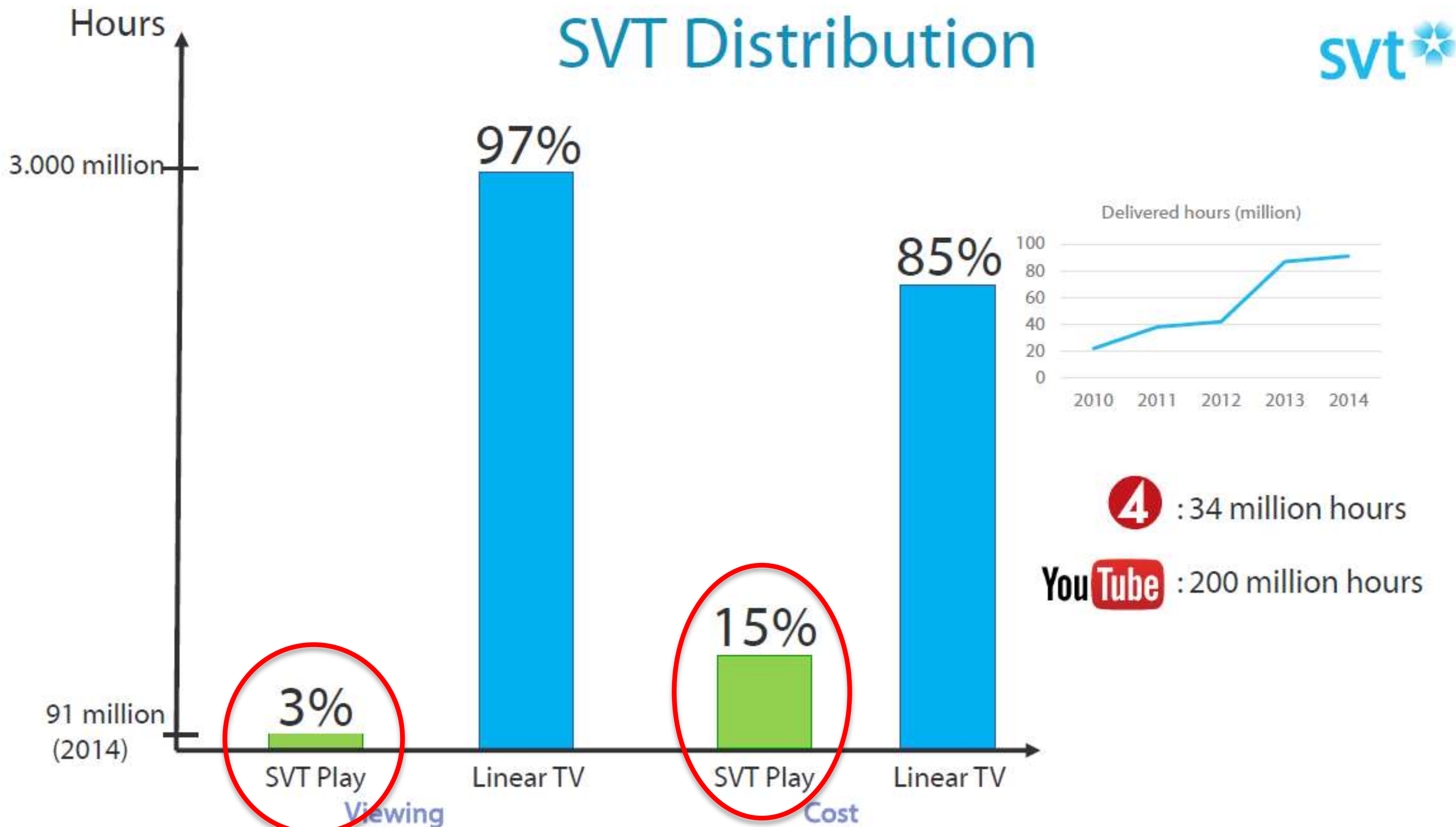
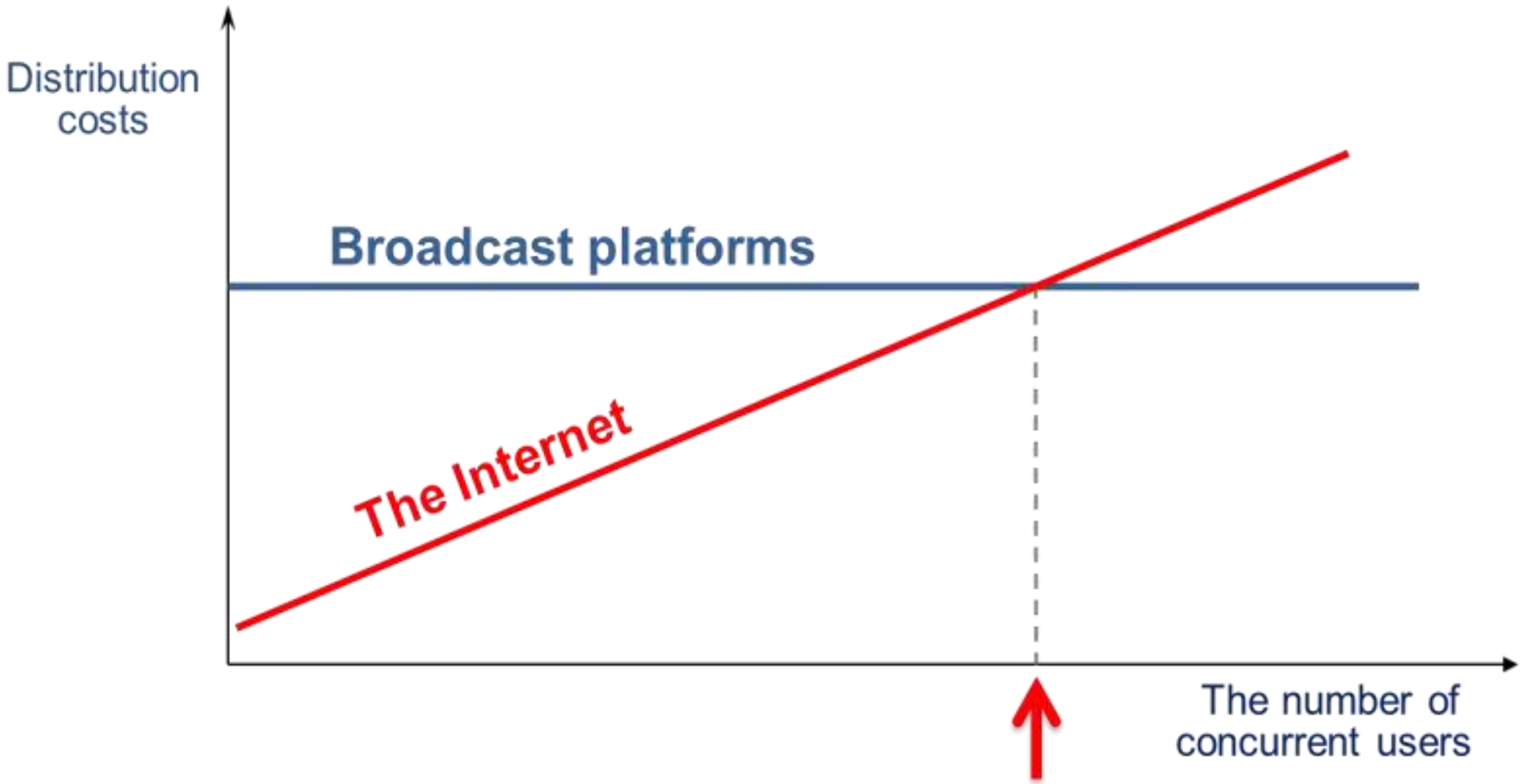
On demand delivery is expensive



Distribution costs as a function of the size of audience



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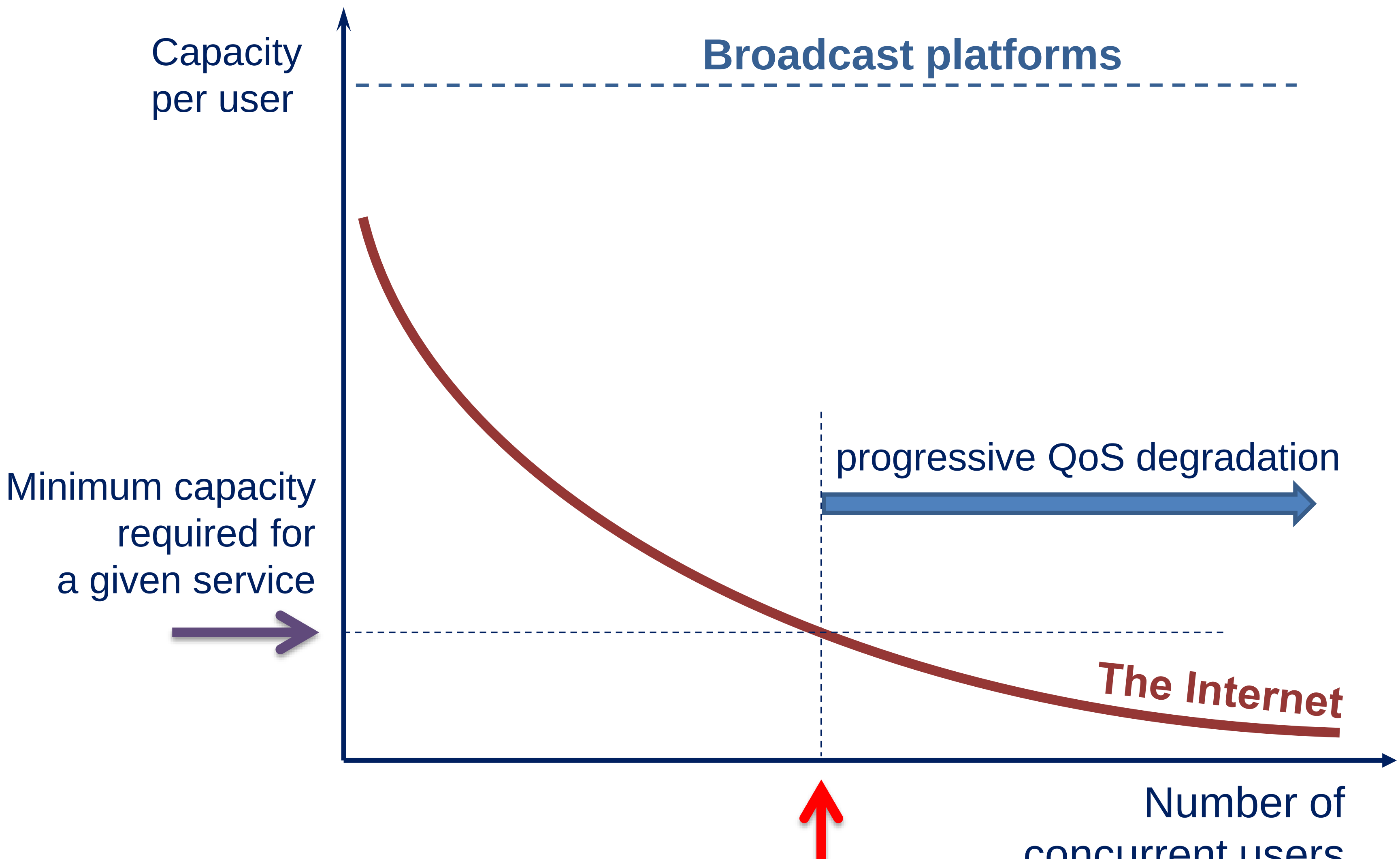
Internet capacity available to individual users



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