
Broadcast at the Crossroads

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BMSB 2015 Ghent

DVB's Mission : Create TV Standards



ATSC



DVB



ISDB-T

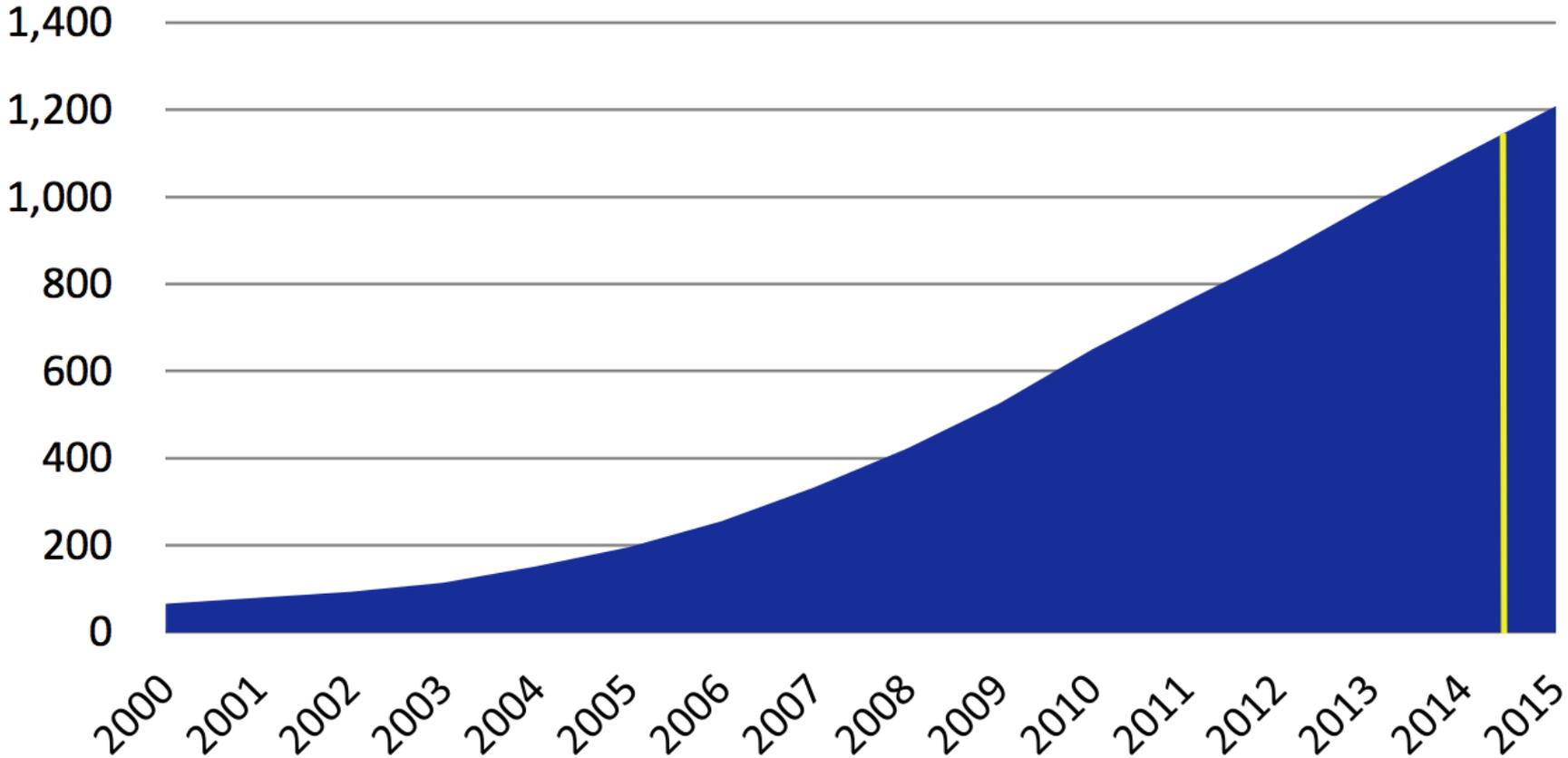


DTMB



Over 1.1 Billion DVB Receivers In Use – 63% Market Share

Total DVB receivers in use (m)



© 2014 IHS Electronics & Media

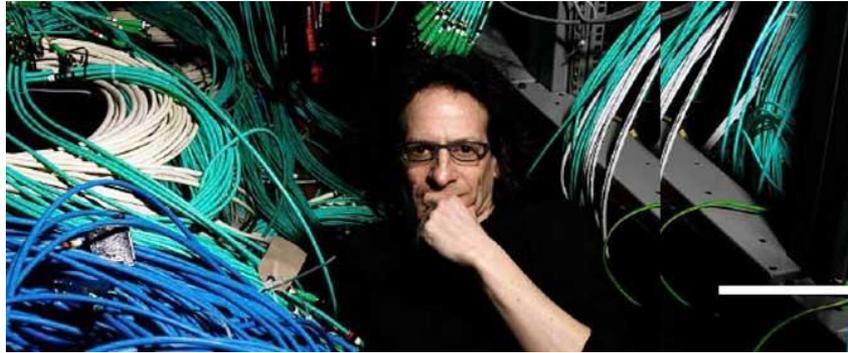


The Death of TV



How to Define TV

- For the purpose of this presentation the definition TV is:
- Transmission of linear content
- Via a broadcast/Multicast capable network such as :
 - Cable
 - Satellite
 - Terrestrial
 - IPTV

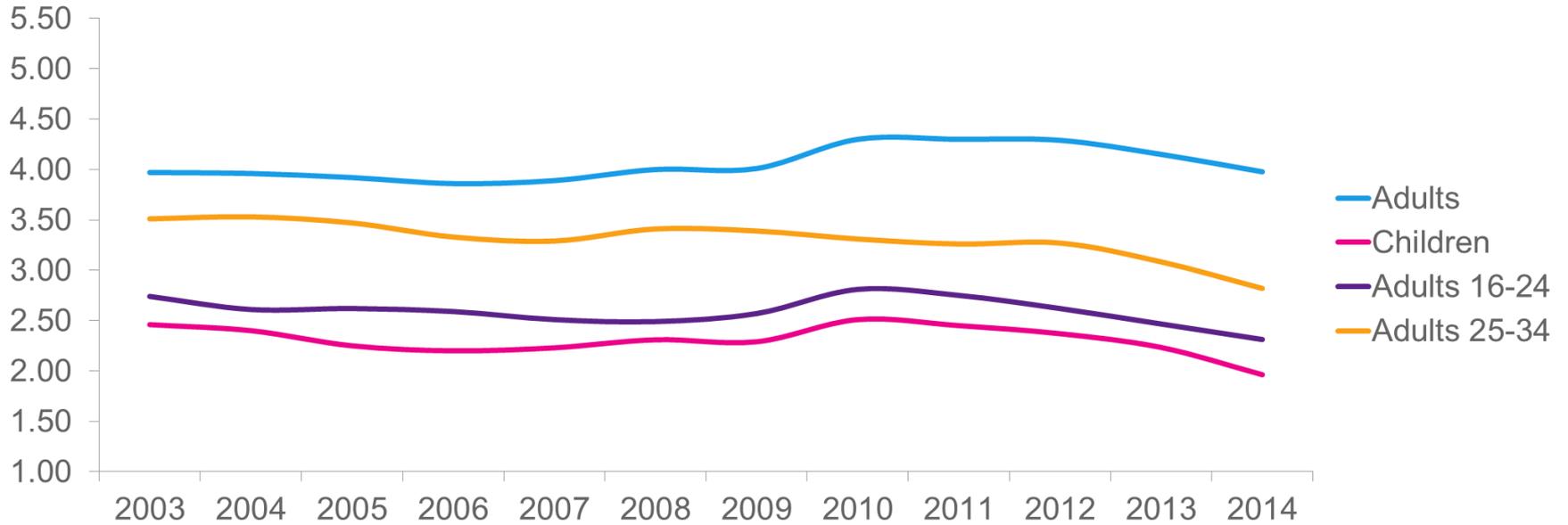


“by 2012 broadcast will be dead and we'll all curate our own TV experience using on-demand archives as our resource”

Anthony Rose (2007)

«Reports about my death have been greatly exaggerated» Mark Twain 1897

UK Daily TV viewing hours by age, 2003 - 2014



Source: Freesat

What about Youtube

- From Youtube Statistics:
 - 1 Billion User
 - 6 Billion hours watched per month
- **6 Hours/User/Month = 12 Min/User/Day**
- However, there are Youtube stars like Bibi with more than a Million views and 2 Million followers

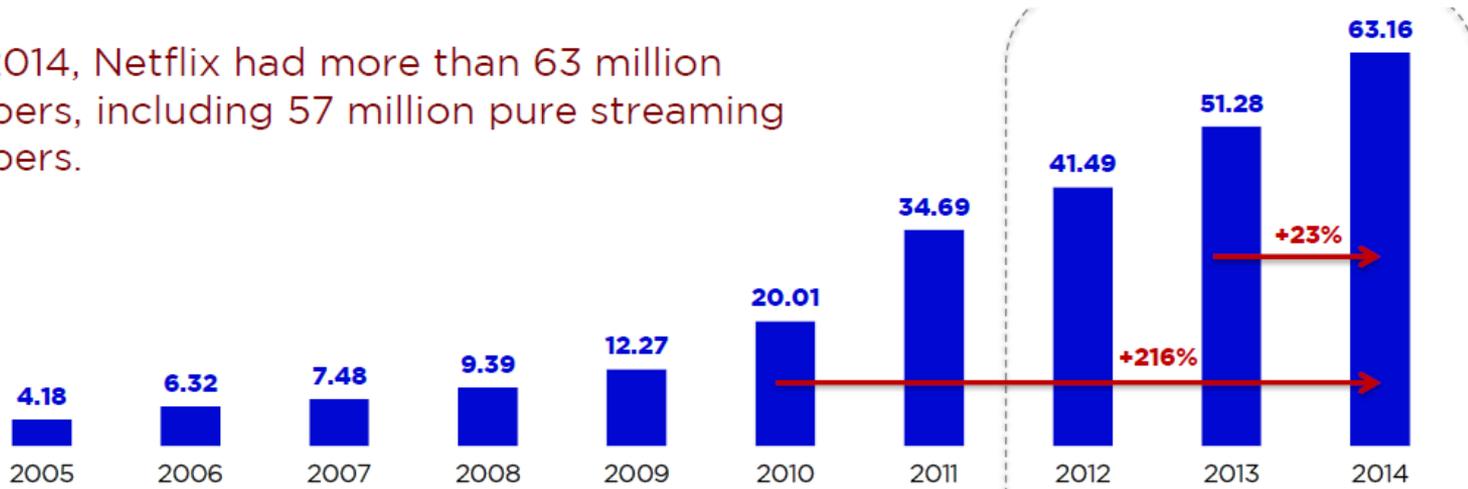


And Then There is Netflix

- Reed Hasting: Broadcast extinct by 2030!
- High growth rates of customers!
- Monthly consumption 2 Billion viewing hours, which is about 1 hour per day per user



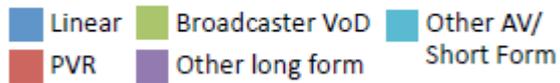
End 2014, Netflix had more than 63 million members, including 57 million pure streaming members.



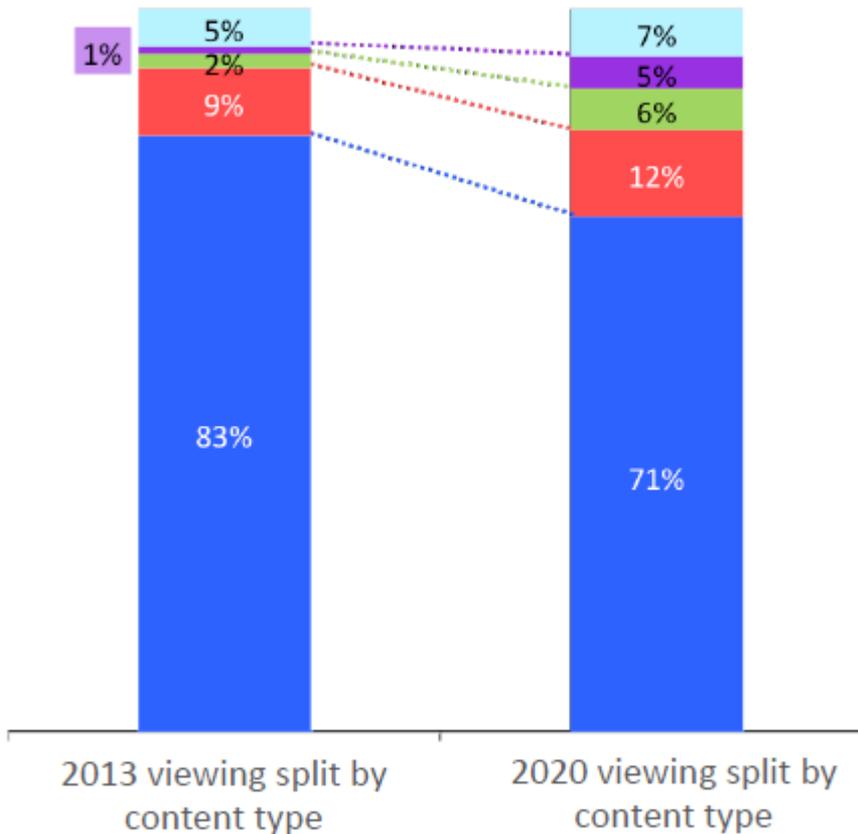
Source: EBU/MIS

Linear Viewing Will Continue to be Dominant

Content type

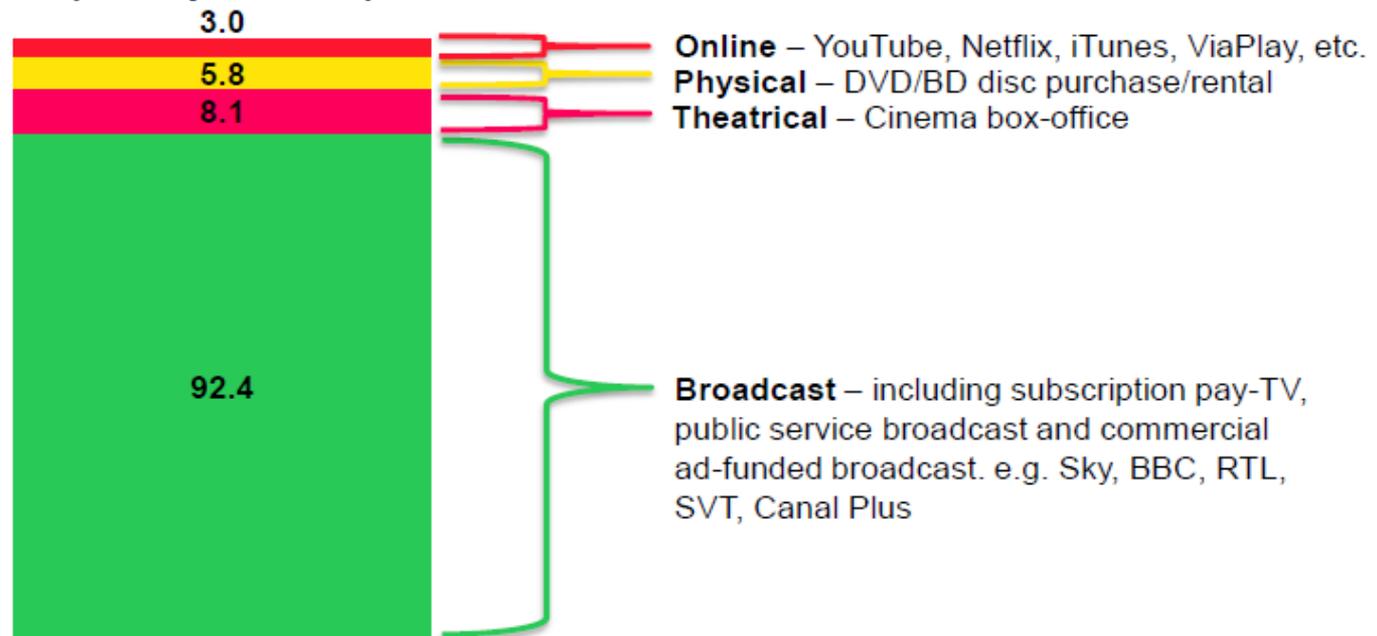


Proportion of total viewing time, split by content type



The European film and television industry remains a broadcast-led sector

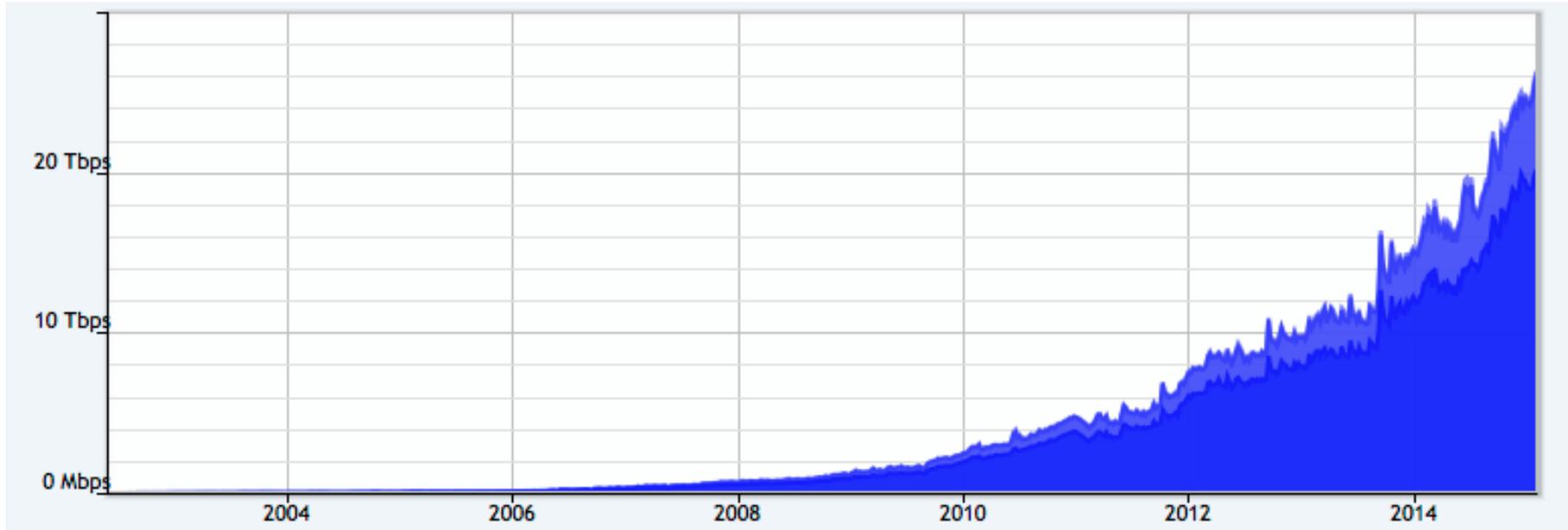
2013 Film and TV revenues (Europe - €bn)



Revenues include: consumer-level revenues (spend less VAT) for paid-for media, net advertising revenues and public (e.g. licence/tax funding) for public service broadcasting.

Source: IHS

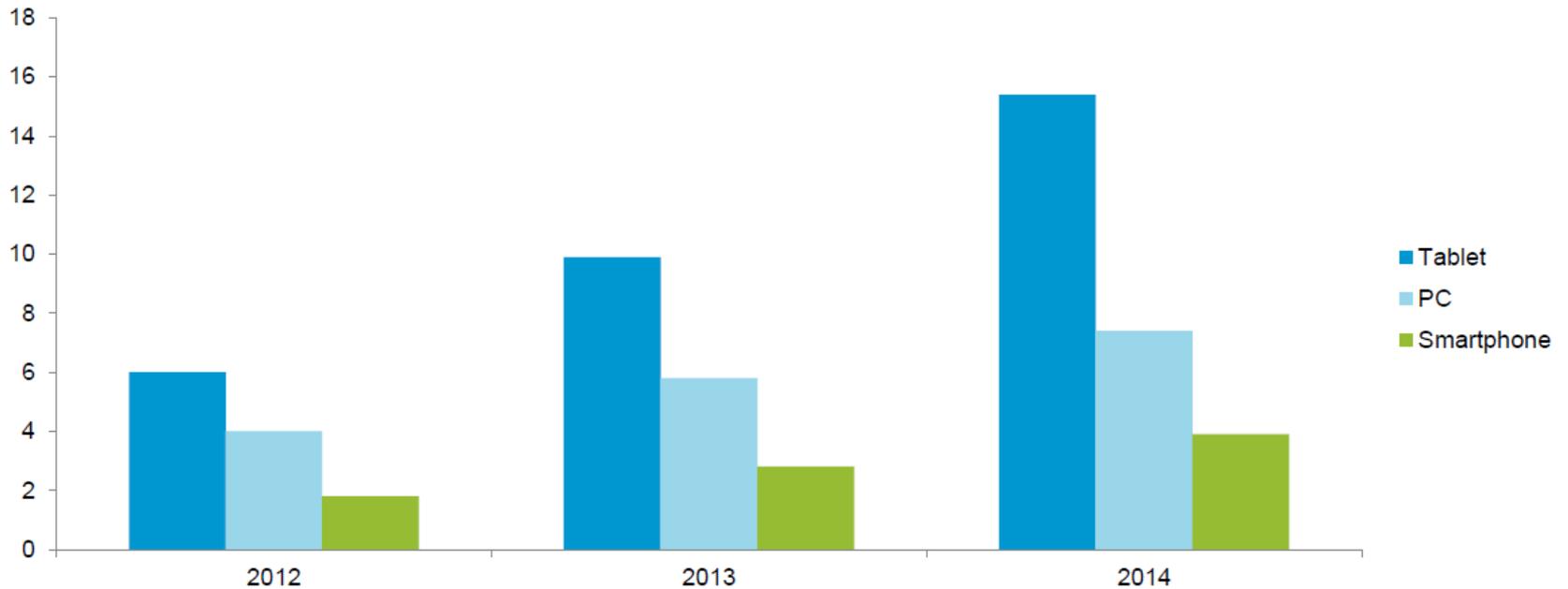
Broadband Traffic is and will grow exponentially



Akamai's CDN traffic (Source Akamai)

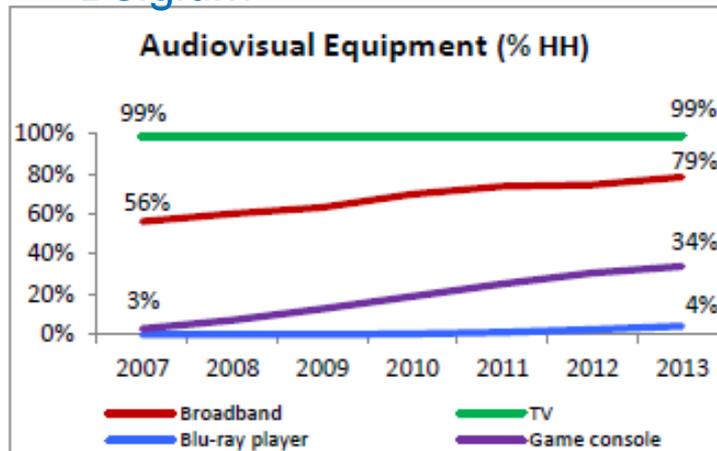
Video Consumption via unicast protocols

UK: average online video consumption per device, per day (mins)



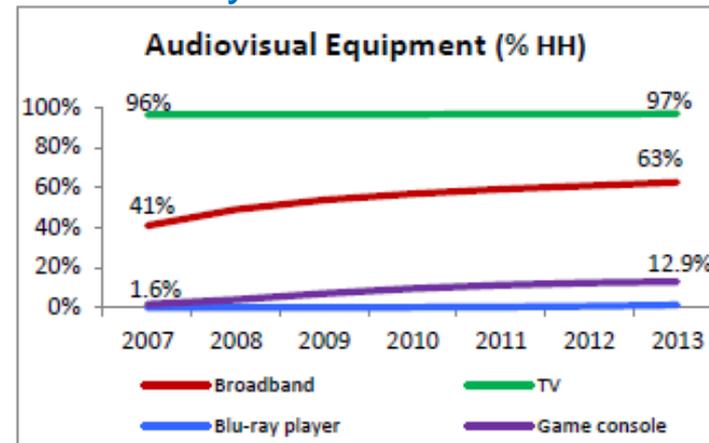
Broadband Penetration in Europe far from 100%

Belgium



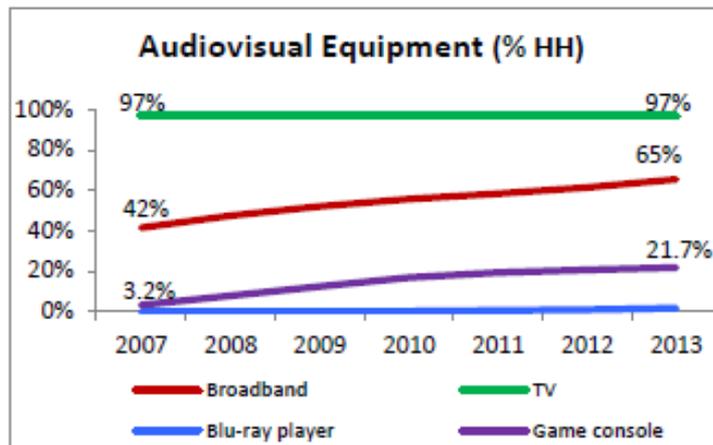
Source: EBU / IHS / European Commission

Germany



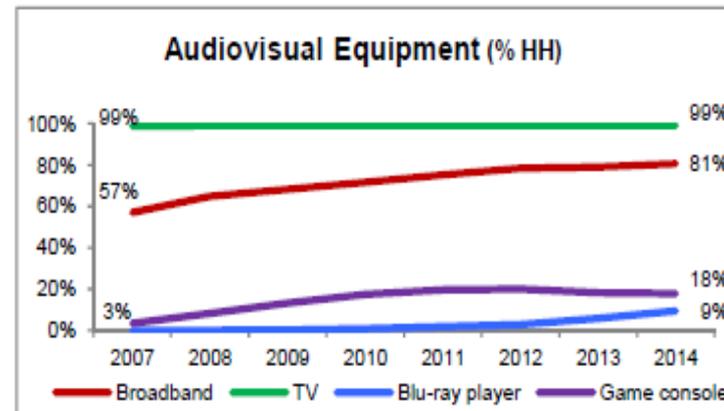
Source: EBU / IHS

France



Source: EBU / IHS

Netherlands



Source: EBU / IHS

Conclusions

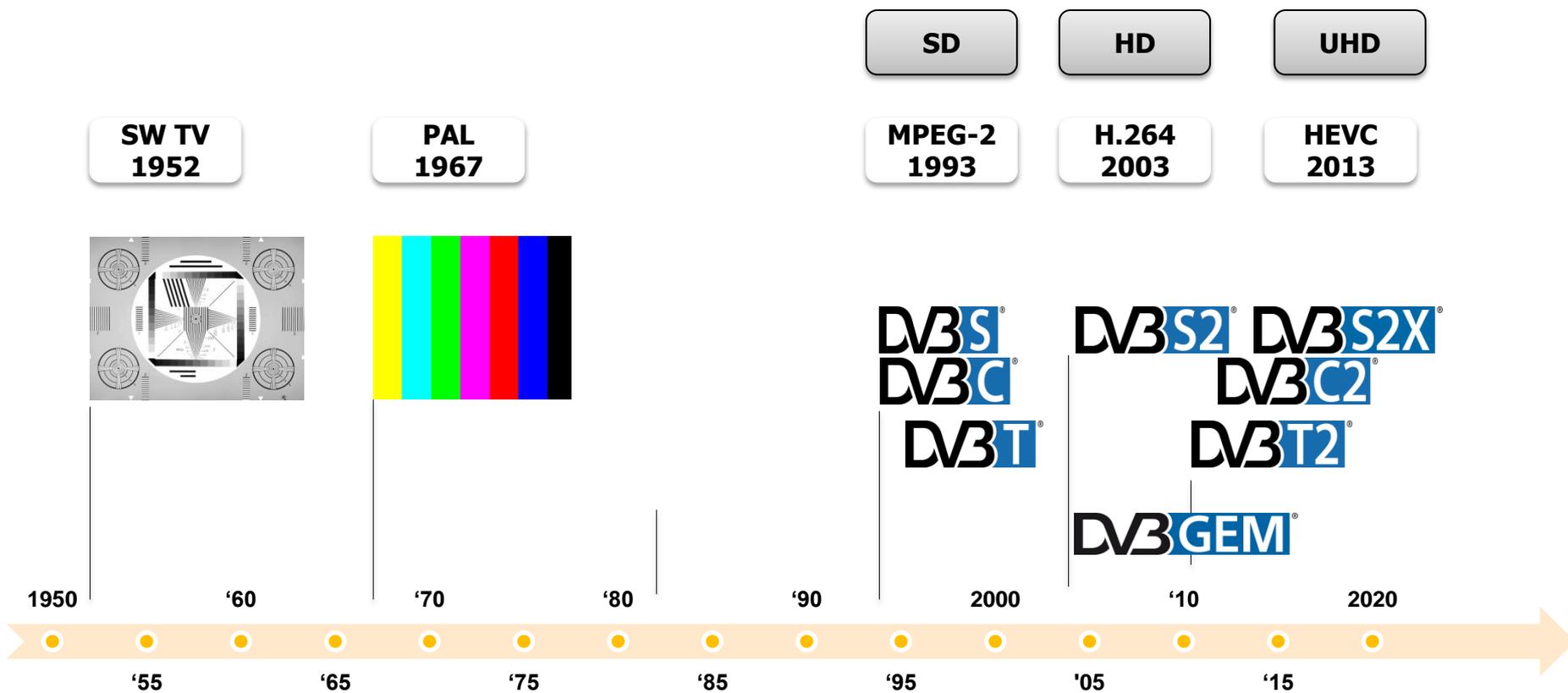
- All rumours about the death of broadcast TV are highly exaggerated!
- For the near and mid-term future TV will remain to be the predominant source for information and entertainment.
- The relevance of YouTube is overrated even when there are some very popular «YouTube Stars».
- SVOD services like Netflix are becoming more popular.
- In general OTT delivered content will continue to grow.
- Broadband penetration is still not yet reaching 100%.

- The long term future of TV will not be either «OTT» or «Broadcast». It will be complex interaction between these two aspects.

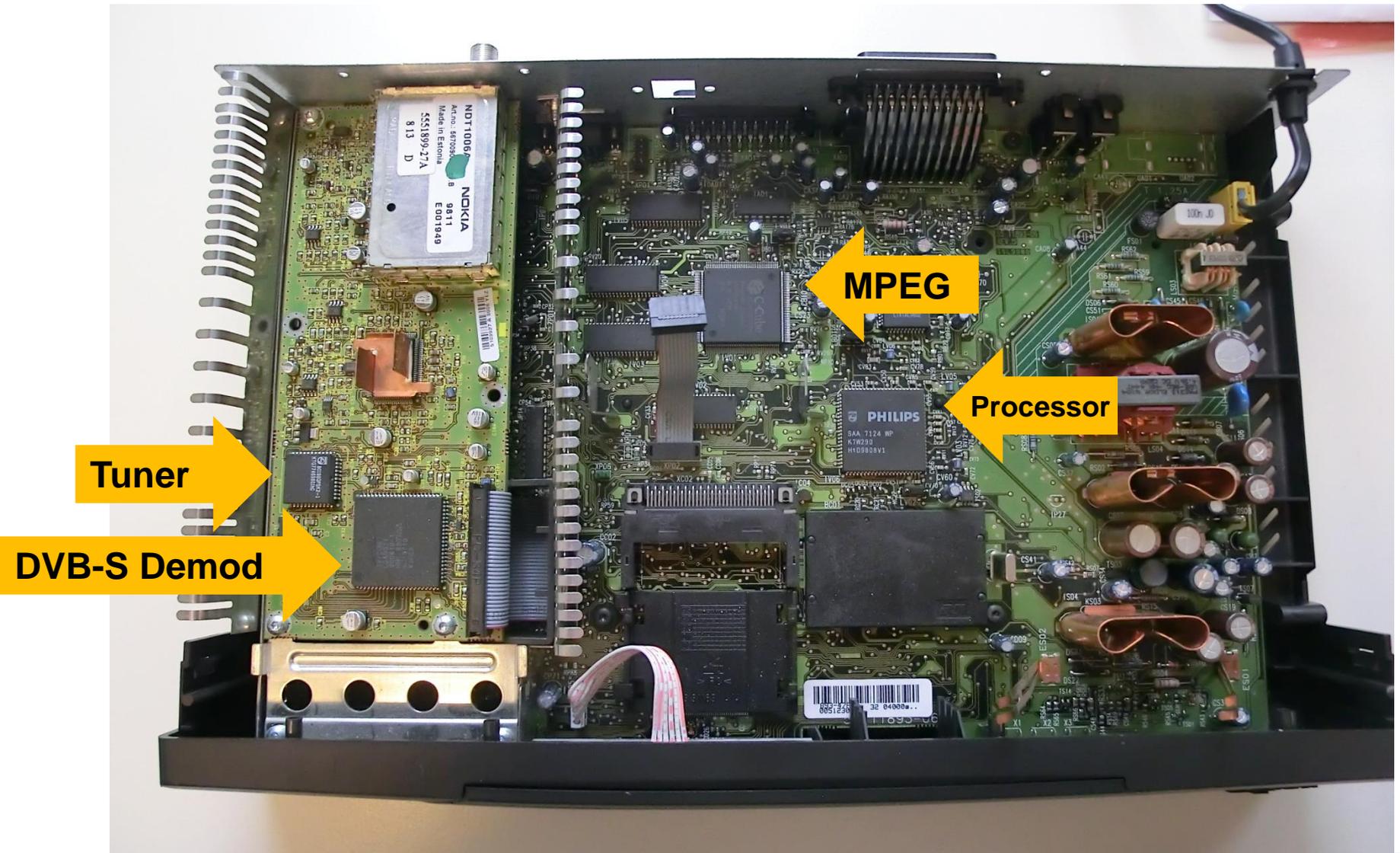
How will TV Technology Continue?



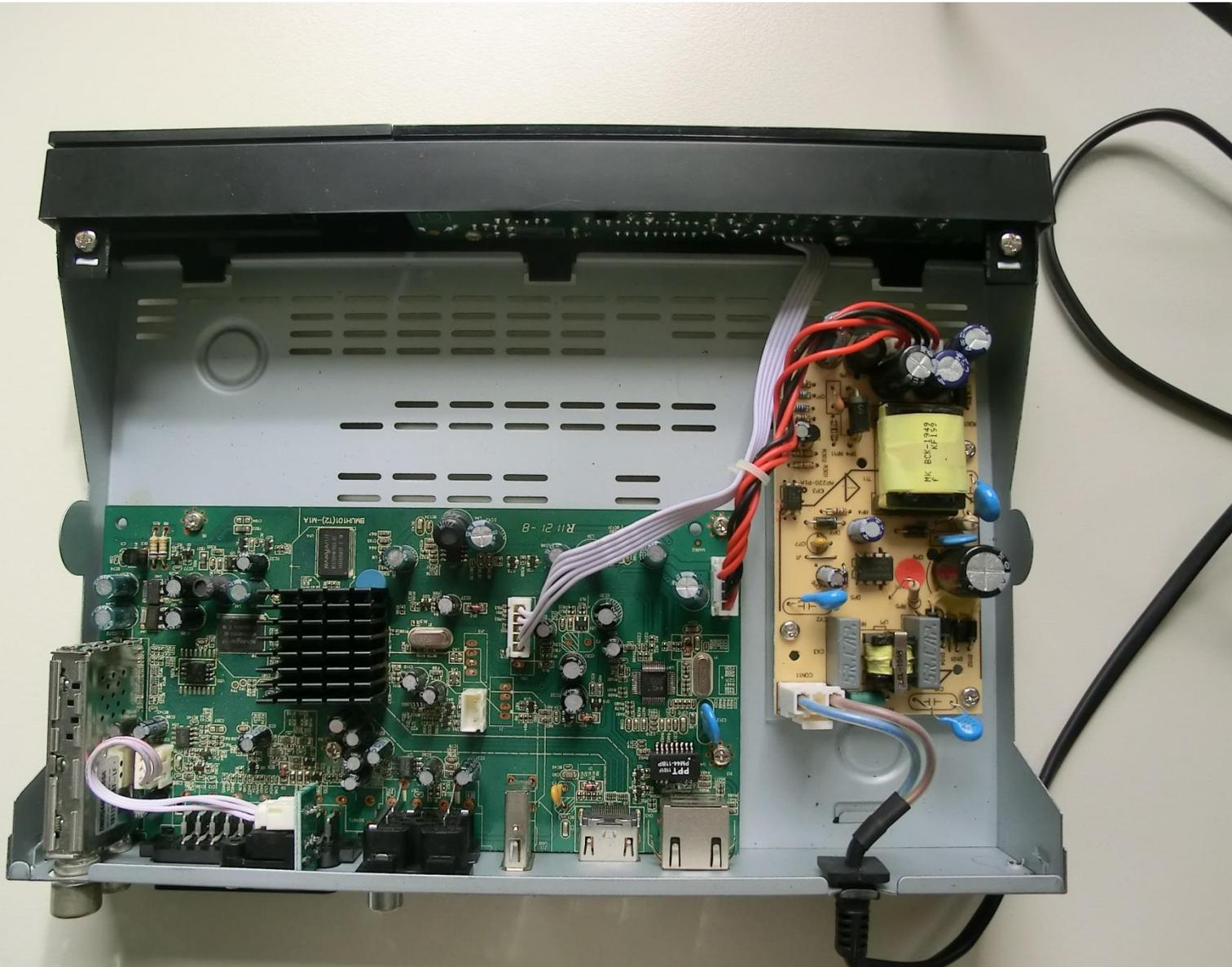
Major Milestones for the Broadcast Industry



DVB-S MPEG-2 SD STB 1996 500 Euro (D-Box)



DVB-T2 H.264 HD STB, 2012, 40 USD



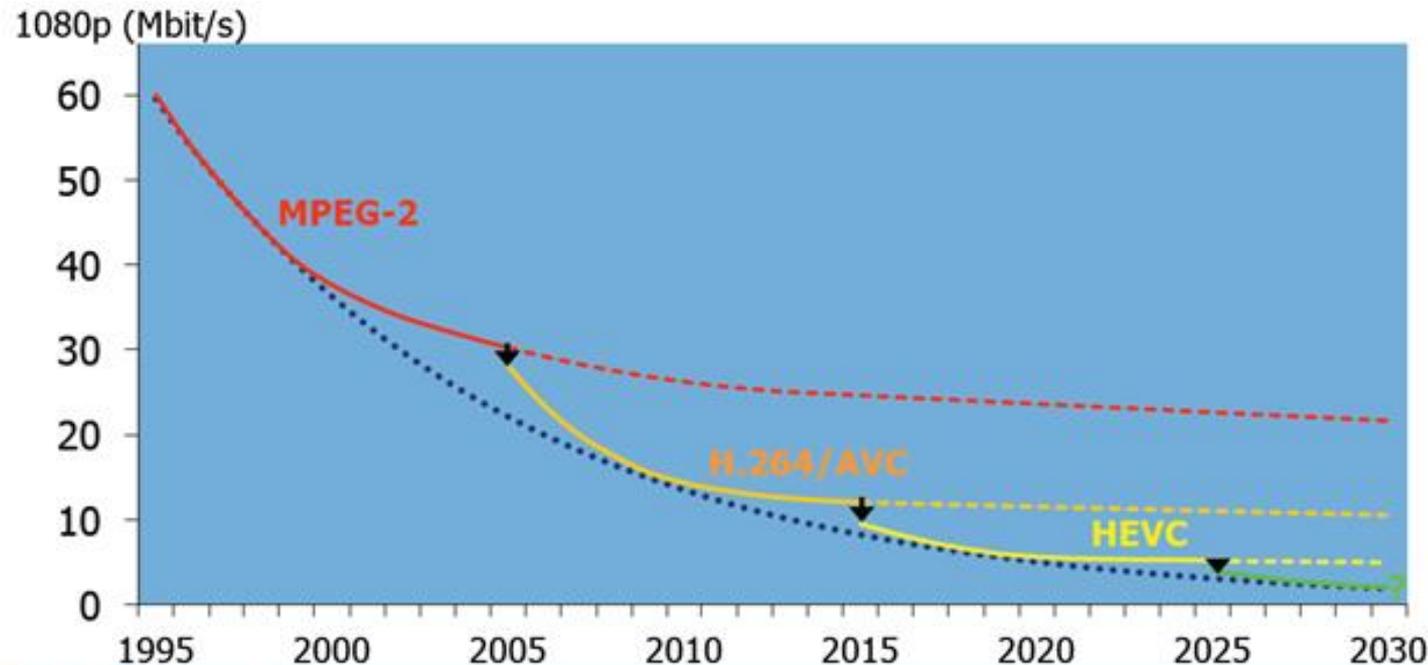
Moore's Law and the Broadcast Industry

- Our industry benefits from Moore's Law
- Mass deployment is achieved by **standards** and **low cost** equipment.
- There are indications that Moore's Law will slow down and may even come to an end.
- **This may have severe consequences for the industry!**

History of digital video coding standards

- 1993: MPEG-2 (digital broadcast TV)
- 2003: H.264 (IPTV, HDTV)
- 2013: H.265 (OTT, UHD TV, 3DTV)

Every 10 years the performance has doubled!



Ken's Law
Ken McCann
Zetacast

What Lies Ahead?

Prediction is very difficult, especially about the future!

Niels Bohr, Danish physicist



Moore's law: a very succesful prediction



Cramming more components onto integrated circuits

By Gordon E. Moore

1965