HbbTV SYMPOSIUM & AWARDS Prague 2022

NOVEMBER 9th - 10th

National House of Vinohrady

The State of the (HbbTV) Nation



AKTV

Agenda



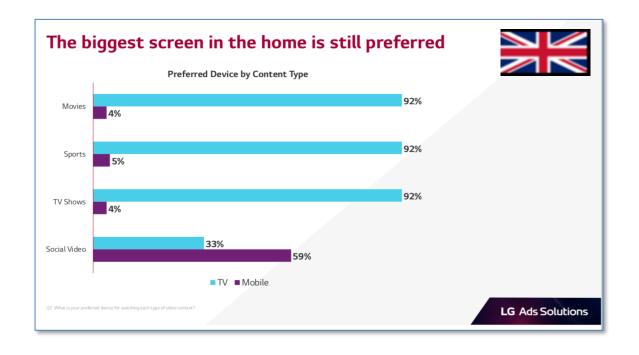
- I. Worth noting in our surrounding TV market
- II. Some Highlights of 2022 at HbbTV
- III. Looking forward : what to expect in 2023, and may be beyond



I. Worth noting in our surrounding TV market in 2022

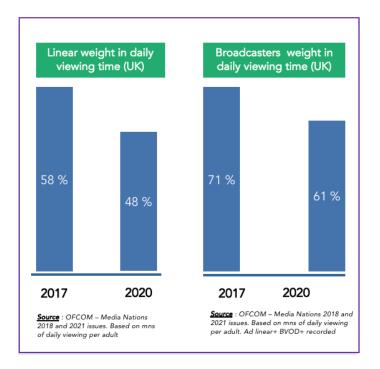
TV screen really matters

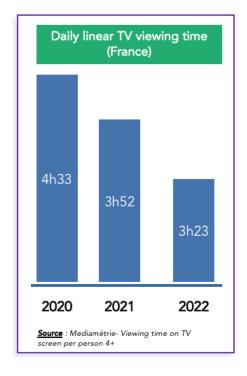




TV watching continues to change (1)







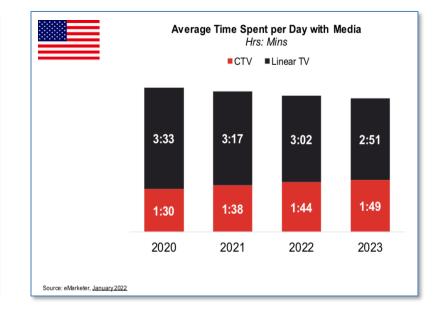
TV watching continues to change (2)



1. Netflix, 1.334 trillion minutes viewed



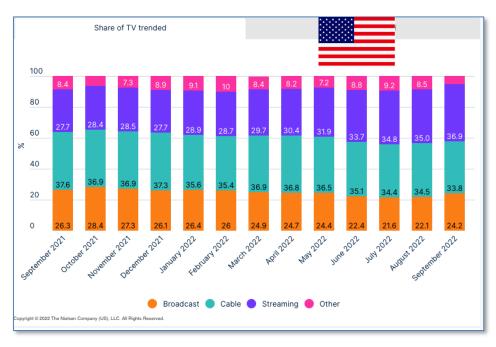
- 2. CBS, 752.8 billion
- 3. NBC, 596.7 billion
- 4. ABC, 471.9 billion
- 5. Fox, 323.1 billion
- 6. Disney+, 245.4 billion
- 7. Prime Video, 173.7 billion
- 8. Hulu, 128.1 billion
- 9. Apple TV+, 21.7 billion



Source: Hollywood reporter - May 2022

The rise of streaming continues





	July 2021	July 2022	YoY % Change
Broadcast	23.8 %	21.6 %	-9.8 %
Cable	37.7 %	34.4 %	-8.9 %
Streaming	28.3 %	34.8 %	+22.6 %

Source: Nielsen - The Gauge - September 2022

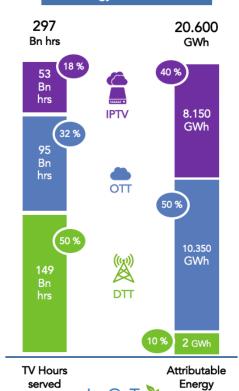
There are different ways to bring streaming content to a TV screen





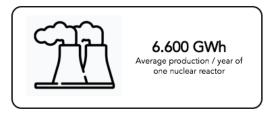


Energy & TV Hours

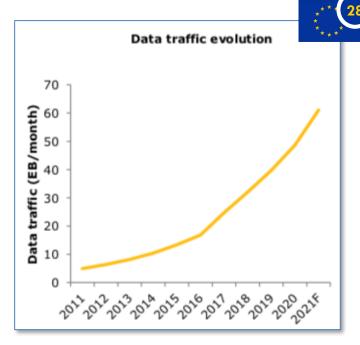


Growth of streaming may raise or face significant environmental challenges









Source: AXON for ETNO

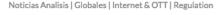
... as well as network capacity and economic challenges



3 minute read · October 13, 2021 12:44 PM GMT+2 · Last Updated a year ago

S.Korea broadband firm sues Netflix after traffic surge from 'Squid Game'

By Joyce Lee



Wednesday, May 04, 2022

European operators claim € 20 billion per year from big tech companies to use networks

They presented a study proposing that Amazon, Google, Meta and Netflix contribute to

a direct fund that will be used to pay part of network updatraffic caused by these technologies costs them up to € 28

EU to consult on making Big Tech contribute to telco network costs

By Mathieu Rosemain and Foo Yun Chee













Carr Joins European Officials to Promote Shared Infrastructure, National Security Goals
Meeting with E.U. Officials on Big Tech Contributing a Fair Share, TikTok's Data Flows

* REUTERS

BRUSSELS, BELGIUM, September 26, 2022—FCC Commissioner Brendan Carr is joining European regulators and leaders in Brussels today and tomorrow. This morning, at a technology forum, Carr delivered keynote remarks on, one, the need for Big Tech to start contributing a fair share toward network builds and, two, the national security threats posed by TikTok. Carr's visit comes as E.U. officials are closely examining both of these issues. Over the next two days, Carr will be meeting with regulators from the European Commission, European Parliament, and state regulatory bodies, as well as other stakeholders.

Streaming growth is not infinite either



Swedish SVOD growth stalls

MAY 18, 2022 19.16 EUROPE/LONDON BY JULIAN CLOVER





After years of strong growth the number of Swedish households subscribing to at least one paid video streaming service is static on 60%.

Stockholm-based consultancy Mediavision says the number of subscribing households has remained unchanged in the last 12 months. Growth in stacking – where subscribers take two or more streaming services - is also diminishing.

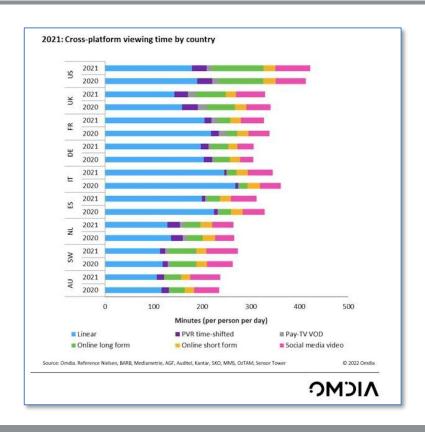
Mediavision analysis of the first quarter of 2022 shows that paid video streaming services, SVOD, was modest at just 4 per cent when comparing year over year and guarter over quarter. An average Swedish consumer is paying approximately SEK 220 per month, a modest increase on the year.

"For some time now, we have seen the Swedish market for SVOD services approaching maturity and during Q1 2022, the signs have become increasingly obvious, says Marie Nilsson, CEO of Mediavision. "Several players are now speaking about shifting strategies, and adfunded services are expected to boost in the coming years."

Nilsson cites plans by both Disney and Netflix to add paid tiers as the next potential disruption to the market, adding that this week's launch of Pluto TV in the Nordics will also spur development.

Linear TV still dominates, in all markets





OTT is a growing big business, but still half of classical TV





OTT TV, films to generate \$224BN by 2027

Editor | 23 May 2022

Jumping \$89 billion in the forecast period, with about \$21 billion to be added in 2022 alone, global revenues from OTT TV episode and movies are set to grow from \$135 billion at the end of 2021 to reach \$224 billion in 2027 says a study from Digital TV Research.





<u>Source</u>: Global figures - TV market estimate by BMV based on IDATE 2019 figures for Europe, NA and Asia

The TV Disrupter is now itself disrupted?



Après la télé, les jeunes délaissent déjà Netflix, Disney+ et autres Amazon Prime

Par Caroline Sallé

Publié le 16/10/2022 à 19:29, mis à jour le 17/10/2022 à 09:24

British Teenagers Prefer TikTok Over TV, While YouTube Dominates American Teenage Users

Streaming is changing



FINANCIAL TIMES

Netflix to launch ad-supported streaming option in November

Cheaper \$6.99 monthly price marks reversal of longstanding opposition to advertising



2022 : Different streaming



Home > News > Business

Nielsen: YouTube Becomes Top Streaming Platform, Beating Netflix for the First Time

By George Winslow published 13 days ago

Sports boosted the broadcast share of TV viewing in September, according to Nielsen's latest report from The Gauge









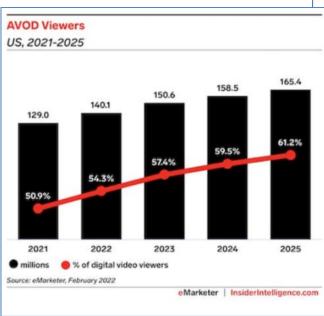
Streaming: from SVOD to FAST







Source: LG Ads solution - Oct 2022



Global AVOD spend to more than double over next five years

Joseph O'Halloran | 09 May 2022

Advertising video-on-demand (AVOD) revenues for TV series and movies are set to reach \$70 billion in 2027, up from \$33 billion in 2021, says a study from Digital TV Research, with 13 of 138 countries surveyed set to generate more than \$1 billion in 2027, up from only five



terms of territories, the Global AVOD Forecasts report forecast that the US would grow by \$19 billion to 31 billion by 2027 remaining the largest country by far. Digital TV Research added that the US had the orld's most sophisticated advertising industry by some distance, plus AVOD choice was greater in the US ian anywhere else. In all, the US was projected to account for 46% of the global total by 2027, up from

Markets aspires for open ecosystems









2022 : proposed take-aways



- 1. Watching TV on a TV screen remains important
- 2. TV watching is changing, with always more and more streaming
- 3. More than one way to bring streaming content to a TV screen
- 4. Linear / broadcast TV is not dead and remains bigger than streaming in usage and in value
- Growth of streaming may be close to face significant economic and energy/environment questions
- 6. Streaming is changing
- 7. Aspiration of markets for openness, avoiding closed gatekeeping situations

So What?



- Confirmation of hybrid TV landscape
 - On-demand mixed with linear on the TV set (and in OTT offers)
 - Streaming delivery (even for live) mixed with broadcast delivery
- Co-leadership of classical broadcast TV and OTT/streaming
- Fragmentation of streaming
- -> HbbTV is the right technology to navigate this hybrid world
 - Bring OTT-style experiences on TV sets
 - Seamless end-user experience, which ever the source/network
 - Keep the (green) broadcast option alive and leverage it
 - Open standard aligns with market aspirations for open ecosystems

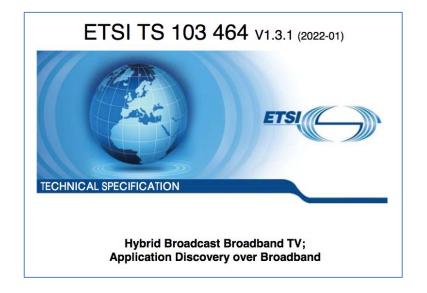


II. Some Highlights of 2022 at HbbTV

Specifications



ADB + TA (indep.) : January 2022



Tests & Interoperability



New Ref App with enhanced DRM support

HbbTV expands DASH DRM Reference Application with multiperiod DASH and SL3000 tests

Geneva, June 20, 2022 – The HbbTV Association, a global initiative dedicated to providing open standards for the delivery of advanced interactive TV services through broadcast and broadband networks for connected TV sets and set-top boxes, is pleased to announce a significant addition to its DASH DRM Reference Application – multiperiod DASH (as may result from server-side Ad Insertion (SSAI)) and PlayReady SL3000 as is being required more and more by US content providers.

Test Suite 2022-2

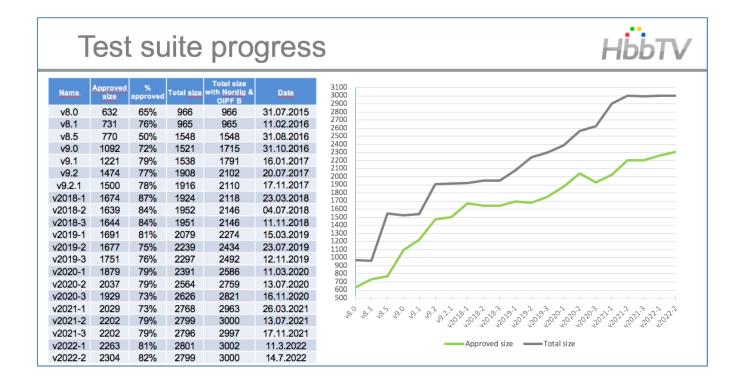
HbbTV releases Version 2022-2 of the HbbTV Conformance Test Suite

Geneva, August 25, 2022 – The HbbTV Association, a global initiative dedicated to providing open standards for the delivery of advanced interactive TV services through broadcast and broadband networks for connected TV sets and set-top boxes, is pleased to announce the release of a new version of the HbbTV Conformance Test Suite.

The new version, developed by the HbbTV Testing Group, is called v2022-2; it is the second major release of the Test Suite in 2022. The release contains a total of 3,000 test cases, including a mixture of tests that have been approved for the first time, and tests that were updated after feedback from users of the Test Suite.

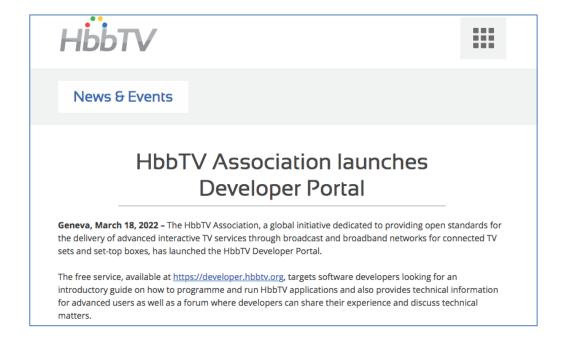
Test suite continues to grow





Supporting the developer community





A flow of new initiatives in the ecosystem to facilitate HbbTV deployments









OBS ANNOUNCES THE LAUNCH OF THE OPEN RED BUTTON PROJECT

Our Membership in 2022





New Steering Group elected with 3 new companies



The new SG was elected by the members of the HbbTV Association at the General Assembly on May 17, 2022. The new SG comprises the following members:

- BBC: Chris Poole
- Cellnex Telecom: Xavier Redon
- Digital UK: James Jackson
- EBU: Peter MacAvock
- Eutelsat: Vincent Grivet
- Kineton: Angelo Pettazzi
- LG Electronics: Stuart Savage
- Panasonic: Martin Faehnrich
- RAI: Luca Barboni
- RTI: Fabio Guarnaccia
- RTL: Frank Heineberg
- · Samsung: John Adam
- Sony Europe: Nigel Moore
- Tivù: Daniele Novaga
- TP Vision: Jon Piesing
- Vewd Software: Frode Hernes









III. Looking forward: what to expect in 2023, and may be beyond

Key stakes in 2023



- Continue the normal operations: tests, webinars,
- 2.0.4 publication;
- DRM indep. spec
- New PMO
- .. And more

A year ago in Paris



Some take-aways by the SG from Paris Symposium



- HbbTV very important to Broadcasters / Content providers transformation strategies: meet their desire for direct end-user relation; no gatekeeping; one app for all platforms
- 2. users (=Broadcasters + service providers) happy with the specification: no real "ask" to change the specification
- tech vendors start to invest and propose "development frameworks" or "ready made HbbTV building blocks"
- 4. targeted advertising (with or without TA) is now for real

BUT we heard some "frustration" or un-met expectations when it comes to

- 1. do we really need the country variations (profiles)? un-justified fragmentation
- industrial deployment: not as smooth as expected (dreamed?) because of significant compatibility/conformance / QA challenges

Improving HbbTV



- SG abundantly discussed the Paris 2021 findings in late 2021 early 2022
- the DRM topic was directly engaged and decided at Barcelona SG (April 2022): now has its own dynamic (Spec WG, leading to an indep spec)
- A stock of an other 12 possible change ideas was identified and discussed at SG
- During October SG, SG selected 5 potential change ideas which appeared as having a good relevance/feasibility profile
- SG decided to push these ideas, making sure the broader HbbTV membership could be involved to shape them (planning phase) and contribute to their implementation
- This will be achieved by starting 5 "Study Mission Groups" (SMGs) where interested members are welcome

The 5+1 SMGs to be started



SMG 1: Boosted Interop Process

[HbbTV Association would define and operate a boosted process to detect, list and proactively chase interop issues; likely to involve paid professional resources for management and / or issues spotting, away from traditional pure "voluntary work"]

SMG 2: Boosted Test Suite

[HbbTV Association would define substantially more ambitious targets for the test suite (e.g.; speed at which we can integrate reliable tests) and organize to meet them; likely to involve extra costs for management of tests QA etc.]

SMG 3: Ref App - Open Source library

[HbbTV Association would create and manage a library of relevant ref apps and open source code; could also involve a direct or crowd funding effort to continuously extend the library]

The 5+1 SMGs to be started



SMG 4: Pro-active European/International Alignment

[HbbTV Association would deploy pro-active action to better align future deployments of HbbTV apps and services in each national market. An ambition would be to avoid significant differences in the app and stream technologies utilised by new apps and services. This might be achieved via a combination of: simplification of the spec, explicit guidelines to app developers, or profiling of a future unification spec.]

SMG 5: The E-Zoo Program (TVs and Apps)

[HbbTV Association would facilitate the cataloguing of, and (remote) access to, the various "zoos" of TV and apps in Europe to enable easier (and remote) testing of Apps on TVs

SMG 6: New Funds

[HbbTV Association will explore ways to obtain new funds to secure an improved level of service to the ecosystem, including to implement the change ideas as shaped by the SMGs; may include EU and other subsidies, donations, members, ...

What's next?



- SMGs will soon be officially started (2 out of the 5 ideas have already an identified "formator")
- All Members invited to join in all SMGs
- If you are not a Member, become one!
- Bring your ideas and contributions
- SMGs are expected to bring conclusions = a plan to implement (or not) the idea in the first half of 2023
- Implementation(s) may start in second half of 2023

BUT: ability of Association to implement is totally dependant on

- Voluntary contributions (in labour) of members
- New financial resources = subsidies, donations or memberships

You are HbbTV and HbbTV is you!

Concluding Notes



- The world of TV remains a dynamic and attractive one
- Continues to change, with more streaming
- Towards a balanced co-leadership of classical broadcast TV and OTT streaming TV
- Market aspire to openness and to mitigate gatekeeping situations
- HbbTV specifications very fit to serve these requirements
- HbbTV Association continues to deliver specifications and tests meeting the needs of consumers, broadcasters and manufacturers
- A working and lively association with a sound balance of continuity and renewal
- Some areas of improvements identified, and work started to adapt

We will keep going with you and for you!



Thank you!