

HbbTV Country Review

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HbbTV Deployments



IN OPERATION

- Australia
- Austria
- Bosnia/Herzegovina
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Hungary
- Luxembourg
- Mauritius
- Namibia
- Netherlands
- New Zealand
- Poland
- Saudi Arabia
- Senegal
- Singapore
- Slovakia
- Spain

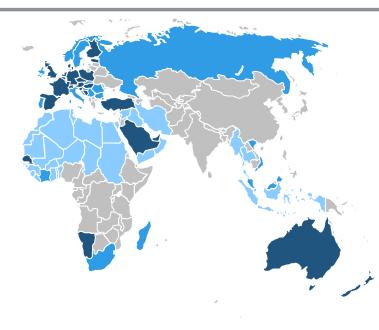
- Switzerland
- Turkey
- UAE
- UK

Announced / Trial

- Bulgaria
- Croatia
- Gambia
- Ireland
- Italy
- **Ivory Coast**
- Madagascar
- Malaysia
- Norway
- Romania
- Russia
- Serbia
- Slovenia
- South Africa
- Sweden
- Vietnam



- Middle Fast countries
- Myanmar
- Portugal
- Sumatra
- Thailand



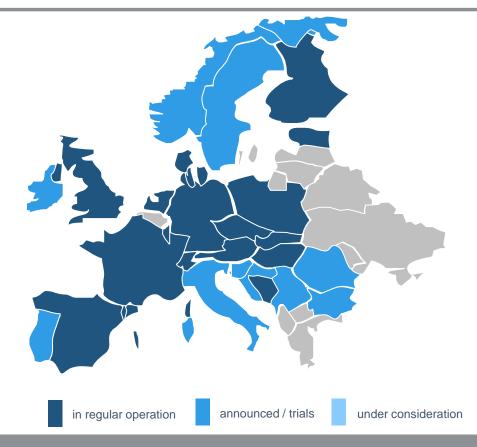
- 25 DEPLOYED COUNTRIES
- 43 MILLIONS DEPLOYED TVS *
- HUNDREDS DEPLOYED SERVICES





HbbTV deployments in Europe



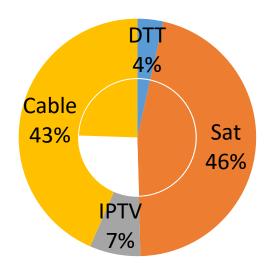




Germany



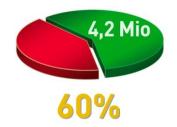
38 M TV Households



HbbTV Market Reach Over 70%

Source: Courtesy datasis

Smart-TV share 2015



HbbTV devices share 2015



Source Content: (03/2016)

Total HbbTV devices vs all connected devices



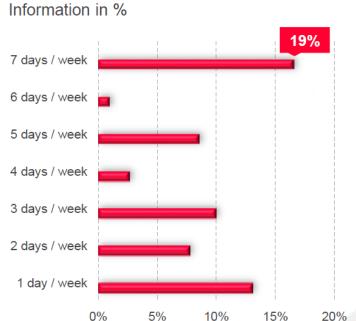
Source Graphics: DEUTSCHE TV-PLATTFORM





62% use the Red Button at least once per week Ø 2,6 persons per HH' **Devices** (Unique Devices) Audience potential in HH 9,9 m 26 m persons per HH x number HH Connected TVs / month 9,9 m 9,4 m 9 7,8 m **JIXX** 4.0 m Source: SevenOne Media (New Media Research), July 2016 *Base: Users HbbTV Plattform, July 2016

Utilization intensity HbbTV platform

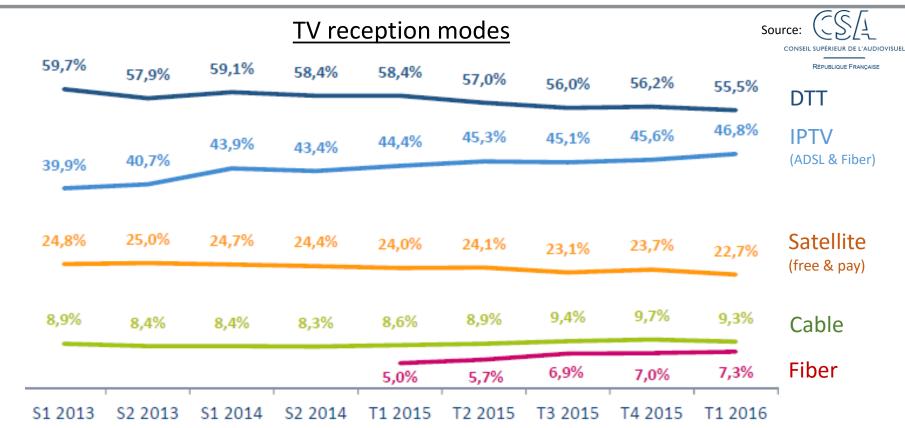


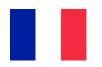
Source:

SevenOne Media



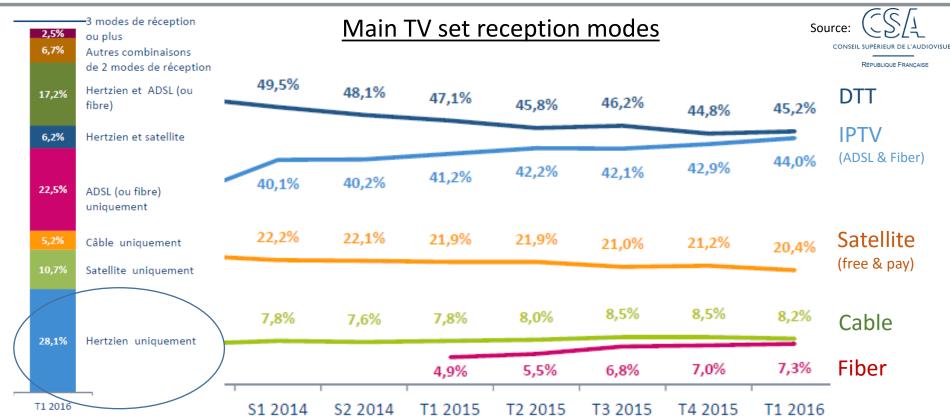






France







bouygues

Bbox: Offres Internet + TV + Téléphonie

France

Forfalts mobile | Téléphones | Internet | Bons Plans | Assistance | Pro/Entreprises

Appels illimités

vers les fixes

et mobiles

Accès au

Google Play™

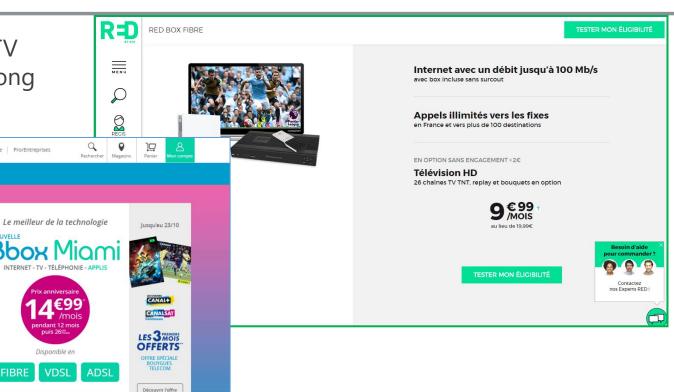
et ses applis TV

Tester votre logement

Découvrir la Bbox Miami



French consumers get IPTV almost for free due to strong fixed line competition



Internet Très Haut Débit

iusqu'à 1 Gb/s

+ de 170 chaînes

en direct, à la carte

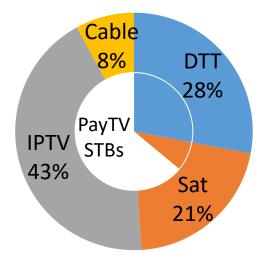
ou à la demande



France



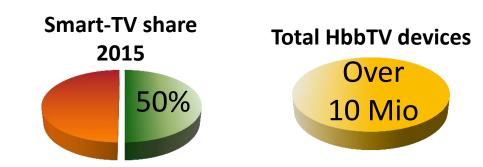
28M TV Households



HbbTV Market Reach 36%

Source: Courtesy datasis

- France Télévision has decided to focus on Pay TV platforms
 - They have stopped their HbbTV services



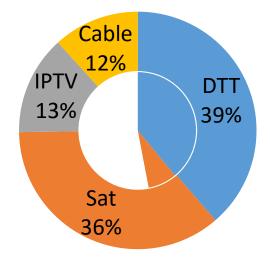
 B2B & B2C communication is needed to take advantage of the HbbTV platform



United Kingdom



27 M TV Households



HbbTV Market Reach Around 50%

DTT used in 73% Households

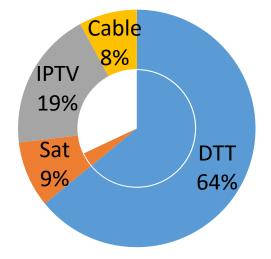
- Freeview Play "based on HbbTV 2" deployed in 2015 on TV and STBs
- HbbTV services: leading catch-up services from BBC, ITV, Channel 4 & 5
- BBC June 2016 announcement to accelerate HbbTV wide adoption
 - Drop MHEG requirement
 - Target for HbbTV 2.0.1 TVs in 2018
 - Collaboration with Freeview, Digital UK and DTG
- FreeSat has deployed "HbbTV like" OpApps services



Spain



18 M TV Households



HbbTV Market Reach Around 70%

DTT used in 79% Households

- tdt Hibrida certification
 - based on HbbTV 1.5
 - updating to HbbTV 2.0.1



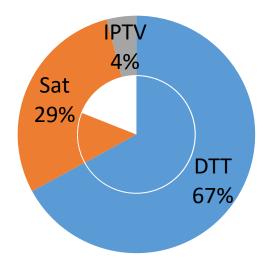
- Cellnex (DTT Network Operator): Official Certification Provider
- 1M HbbTV TV sold in 2015
- Total HbbTV TVs to date: 4,5M
 - 86% HbbTV 1.5
- 16 HbbTV channels
- Private Networks 57,5% share
 - Considering deploying HbbTV services







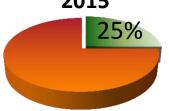
25 M TV Households



Potential Market Reach For HbbTV: Over 80%

Source: Courtesy datasis

Smart-TV share 2015







Total Smart TV deployed







 tivùon! certified devices with MHP & Marlin DRM





- Many catch-up services deployed with MHP
- Pay VOD services as well
 - Italy as more expertise in that field than most HbbTV deployed countries
- MHP OppAp services deployed in June 2016
- Italy has endorsed HbbTV 2.0.1 with the goal to deploy it in 2017
 - Mediaset has already broadcasted HbbTV applications to demonstrate that HbbTV signaling do not interfere with the MHP legacy



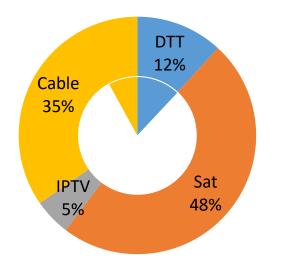




Poland



13 M TV Households



HbbTV Market Reach Around 20%

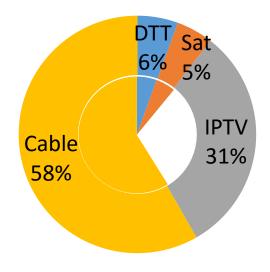
- Complicated year for Public Broadcaster due to political situation
- Status quo for HbbTV Broadcasters
 - All TV channels from TVP
 - TV channels from ZPR Group (8TV, Eska TV, Polo TV, Fokus TV, Music Vox TV
 - Stopklatka TV
 - TVS
- New DTT multiplex in 2017 with more HbbTV services.
- Estimate of 1.8M connected HbbTV TVs



The Netherlands



17M Households



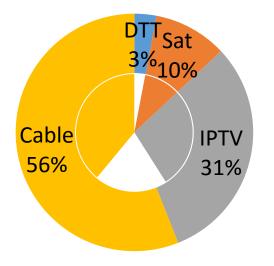
HbbTV Market Reach 70%

- Cable Operators are now carrying HbbTV services
- But over 90% of households are watching TV through proprietary STBs
- Estimation of around 10M HbbTV deployed
- B2B & B2C communication is needed to take advantage of the HbbTV platform





3.3M TV Households



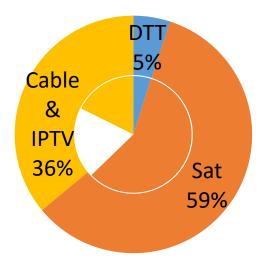
HbbTV Market Reach Around 80%

- Cable operators carry the HbbTV services
 - They provide their also their own HbbTV services
- HbbTV over IPTV with Swisscom
 - HbbTV built-in Android STB
- 2.5M HbbTV devices





3.6M Households



HbbTV Market Reach 80%

Source: Courtesy datasis

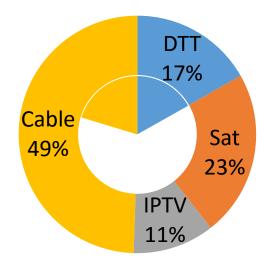
 In June 2016 ORF launched a "Start Over" service using HbbTV 1.5 with MPEG-DASH







4.2M Households



HbbTV Market Reach 40%

- 550K Active HbbTV TVs
 - From 200K last year
- New / improve services
 - Mindig Portal facelift with more content
 - Cross channel links
 - Sport Statistics
 - Voting
- Looking for tools to improve Consumer communication







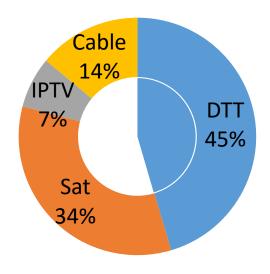




Czech Republik



4.5M Households



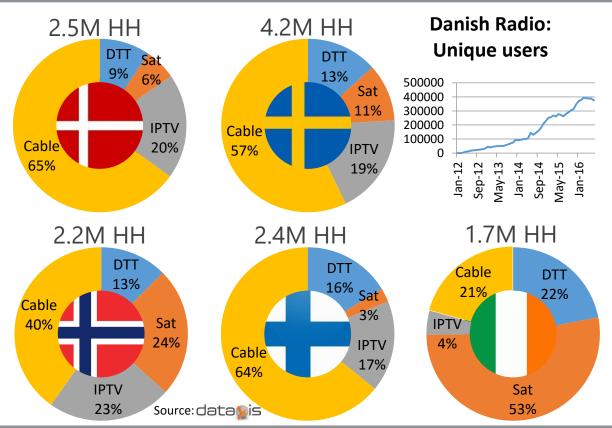
Nielsen Admosphere study for Ceske Radiokomunikace, June 2016

- SmartTV in 30% Czech househlods
- HbbTV services accessed by 36% of these homes
- Most beneficial feature was accessing archive programmes (76%), followed by catch-up or time shift (61%).
- when asked if and how they would be willing to pay for premium content
 - 22% via ad tracking
 - 21% for a monthly fee
 - 21% for a one-time fee
 - 35% not interested in viewing premium content



Nordig Region





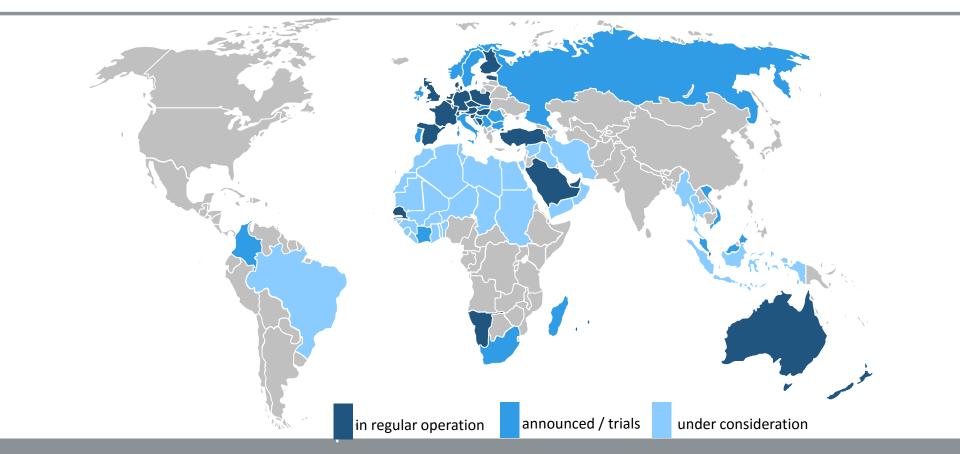
NorDig Unified IRD spec:

- Scandinavia & Ireland
- HbbTV 1.5
- HbbTV 2.0.1 spec > dec.16



Rest of the world

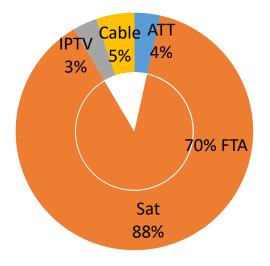








22 M Households



HbbTV Market Reach Over 88%

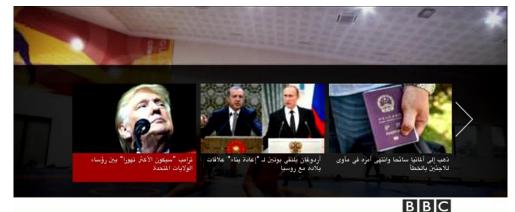
- Terrestrial TV is still analog
- DVB-T2 would be based on Nordig Spec
 - HbbTV 1.5
 - No certification
- HbbTV Services
 - TRT ARTI, available on satellite
 - Works ok in most of HbbTV 1.1 TVs
- HbbTV devices in satellite reception
 - 500.000 regular HbbTV devices
 - 20% of Turkish people living outside Turkey



Middle East



- Deployed in Middle East with Selevision
 - Satellite Pay TV platform (ArabSat)
 - Mainly Saudi Arabia and United Arab Emirates
- 200K HbbTV STB deployed
 - Mixing Android and HbbTV
- Deployed HbbTV services
 - BBC News Arabic
 - DW Arabic
 - Rotana
 - MBC
 - Citrus TV (TV shopping)
 - Al Arabiya







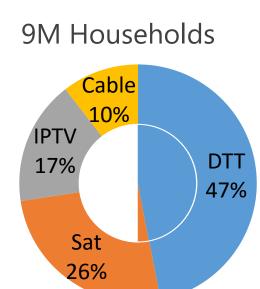
Africa



- Slower to deploy than expected
 - South Africa is still based on MHEG5
 - Nigeria is deploying a proprietary solution for their DTT
 - Senegal and Namibia have deployed HbbTV STBs but no services
 - Ivory Coast has postponed their DTT switchover by a year
- For most African countries Analog Switch Off is not expected to happen before 2020 (instead of 2015)

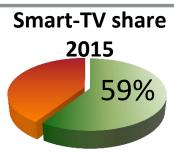






HbbTV Market Reach 50%

Source: Courtesy datasis



Total HbbTV devices

1.3 Mio

Connected HbbTV devices

1.1 Mio

- Freeview plus Certification
 - HbbTV 1.5 spec with DRM
 - Freeview Plus "Standard OpApp"
 - 6 x HbbTV services (5 x broadcasters + FV+)
 - FreeviewPlus brand
 - 56% brand awareness
 - 88% brand understanding

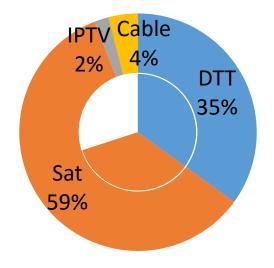




New Zealand



1.6M TV Households



HbbTV Market Reach 70%

- Freeview plus Certification
 - HbbTV 1.5 spec with DRM
- Freeview Plus "Standard OpApp"
 - Catch-up on 6 channels
 - VOD on 12 channels
 - VOD catalogue of over 10,000 shows
- Around 200K active HbbTV homes

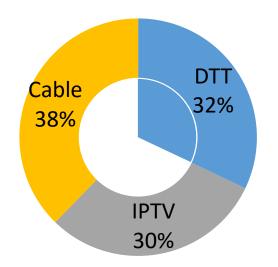




Singapore



1.4M TV Households



HbbTV Market Reach 32%





- HbbTV Services deployed in 2016
 - Full Toggle OTT catalogue via HbbTV (Toggle Red Button)
 - Catch up TV, premium & Toggle Original content
 - Integrated linear EPG & VoD program catalogue to create a seamless experience
 - Including integrated linear & VoD content offerings on programme pages
 - Linear channel streaming (free & premium)
 - Plans for startover, interactive advertising & transactions
 - Dynamic Marketing campaign

Other Asia Pacific





- Malaysia: Field trials
 - deployment postponed for over 2 years



· Vietnam: Field trials



Indonesia: Under consideration



Thailand: Under consideration



Thank you to local HbbTV contacts for their help:

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