



**sofiadigital**

## **HbbTV - with examples**

**18 Jun 2014**

**HbbTV Symposium, Singapore**

### Sofia Digital – Some of the Company Milestones in Digital TV

- ◆ 1998 Finnish digital-TV operators started a research project to bring interactive digital TV to Finland.
- ◆ 17.5.2000 Company was established as a spin-off from the research project.
- ◆ 8/2001 World's first **MHP services** started in Finland based on Sofia Digital's MHP products.
- ◆ 1/2002 First set-top box **user interface project**. Customer Nokia.
- ◆ 7/2003 First major **MHP product delivery** to Italy. Customer Mediaset.
- ◆ 11/2004 **Merger** with the Finnish mobile technology company Outer Rim Ltd.
- ◆ 4/2005 First major **set-top box testing platform** delivery. Customer Italian Ministry of Communications.
- ◆ 3/2006 DVB-H **mobile TV product portfolio** released and presented together with Nokia.
- ◆ 12/2006 Selected as a **Cable Ready test service** custodian in Finland
- ◆ 09/2007 “Best of IBC” **Industry Award** for Sofia Backstage® Mobile Television product
- ◆ 03/2008 First major **mobile TV product delivery** to Digita in Finland
- ◆ 11/2008 **TV broadcast automation** system to SBS Voice
- ◆ 10/2009 **Mobile Teletext** consumer application in OVI Store
- ◆ 6/2010 Selected as an **Antenna Ready test service** custodian in Finland
- ◆ 10/2011 First **Digital Signage system** delivery to Citymarket retail stores in Finland
- ◆ 6/2012 Finland's **first HbbTV services** started and powered by Sofia Backstage®
- ◆ 9/2013 First **international HbbTV product delivery** to Antenna Hungaria
- ◆ 5/2014 **STB delivery project to Vodafone Iceland** with Middleware localization

## Sofia Digital – International deliveries and projects

- ◆ 1998 Fin interact
- ◆ 17.5.2001 project.
- ◆ 8/2001 Digital's
- ◆ 1/2002
- ◆ 7/2003 Medias
- ◆ 11/2004 Rim Ltd
- ◆ 4/2005 Italian M
- ◆ 3/2006 together



ice custodian in Finland  
 fia Backstage® Mobile

ery to Digita in Finland  
 SBS Voice  
 on in OVI Store

ervice custodian in

y to Citymarket retail

land powered by Sofia

ivery to Antenna

and with Middleware

# HbbTV system high-level diagram of “ecosystem”

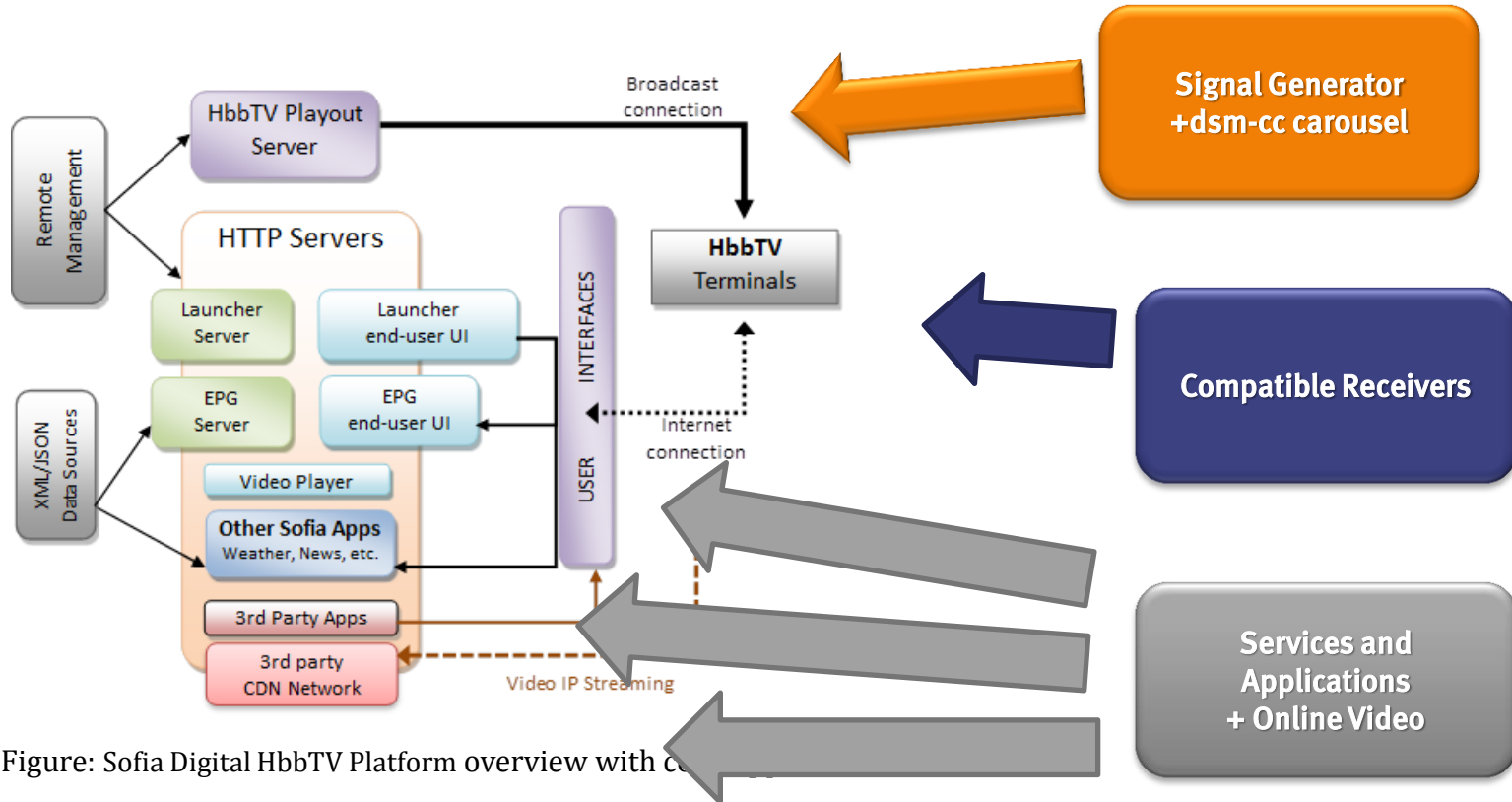


Figure: Sofia Digital HbbTV Platform overview with c

# Why HbbTV is needed, isn't it just one more HTML Browser ?

Need for specialized apps for support TV-business purposes

- HbbTV enables to control the TV-signal and Internet content in the same screen
- Same application may control OTT and linear DVB-content
  - *The "red button" functionalities are missing in TV-apps or www-browsers*

## - HbbTV is designed to enrich the "TV experience"

- Push dynamic content over TV-screen
- **Same content** can be viewed in ALL HbbTV devices
- Seamless integration between Broadcast and **Broadband video delivery**

## - Since 2013 the HbbTV is available for every well-known new Smart TV units in European market!



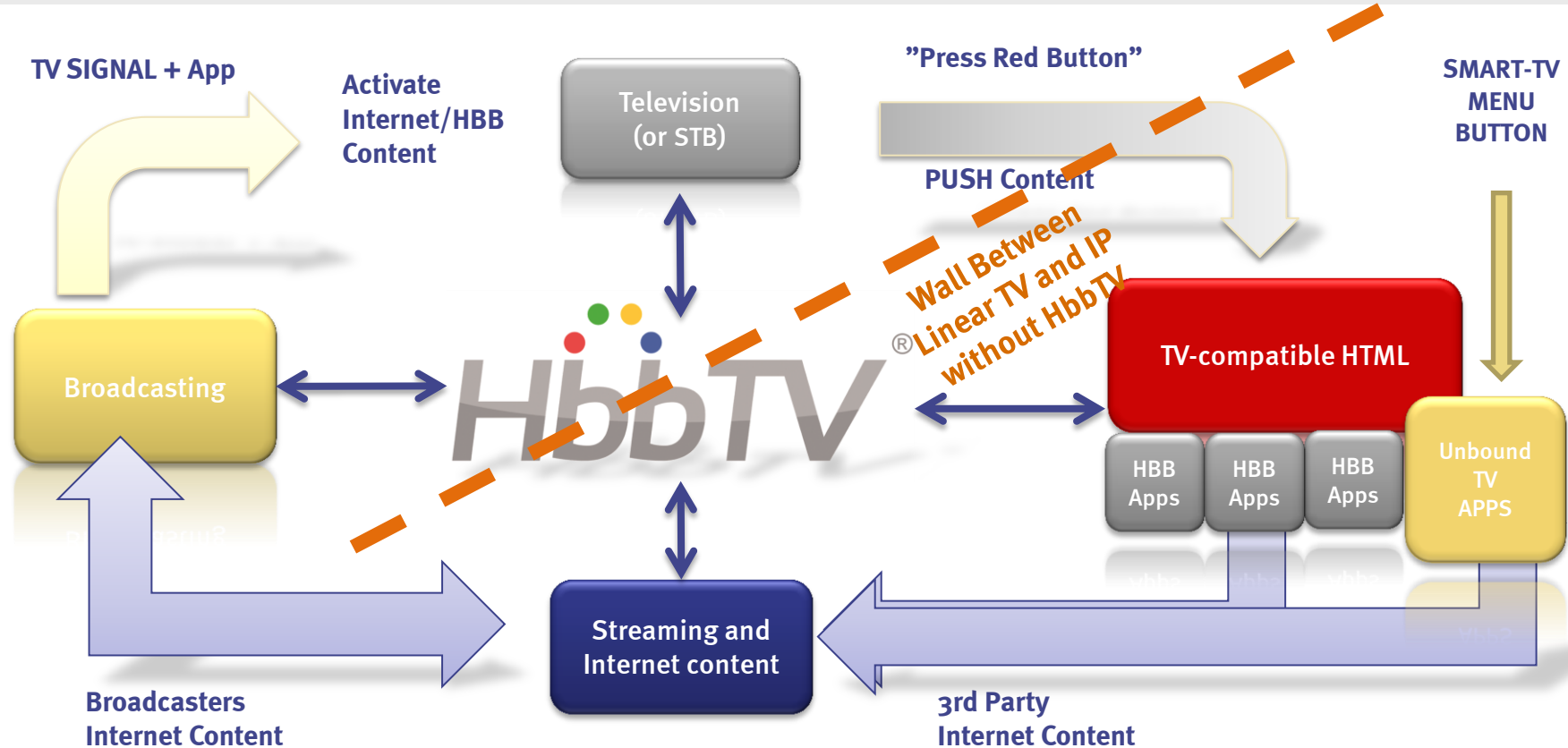
## What HbbTV can enable?

- ◆ **Production houses and content owners**
  - ◆ Way to make new interactive TV formats
  - ◆ On-screen promotions of new productions
- ◆ **TV Broadcasters**
  - ◆ New revenue models (Internet models adapted to TV environment)
  - ◆ Alternative secondary content delivery network (on-demand and linear delivery)
  - ◆ Interactive TV-overlays and "Red Button"
- ◆ **Network operators**
  - ◆ Virtual channels in DVB & OTT
  - ◆ Data broadcasting
- ◆ **PayTV operators**
  - ◆ Promotional content with on-demand purchases
  - ◆ Customer self-care (transactions)

### HBBTV NOTE BOARD:

- **Local Smart-tv Ecosystems**
- **OTT without STB**
- **No supplier lock-down**
- **Compatibility with existing Internet infrastructure**
- **Freedom to select receiver from open market**
- **Cost savings**

# HbbTV relation in TV apps

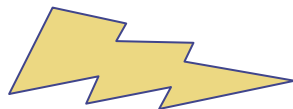


## HbbTV and Internet

- Linear TV

(TV receiver with tuner)

- Teletext
- Pay-TV
- Ad breaks
- Local PVR



Fight between delivery platforms



- Networked Services

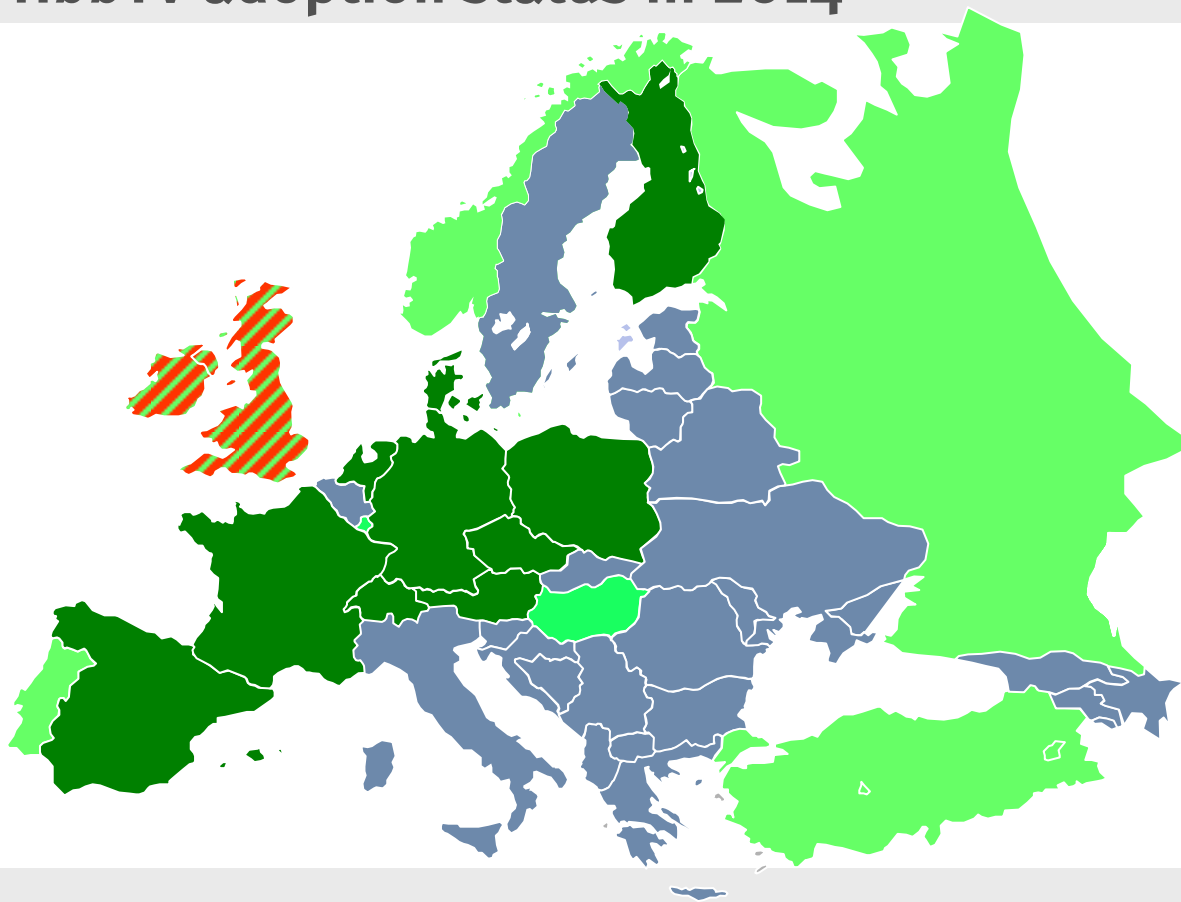
(Internet devices)

- MobileTV
- Participation TV
- On-demand Videos
- Cloud PVR





## HbbTV adoption status in 2014



in regular operation

announced / trials

no information

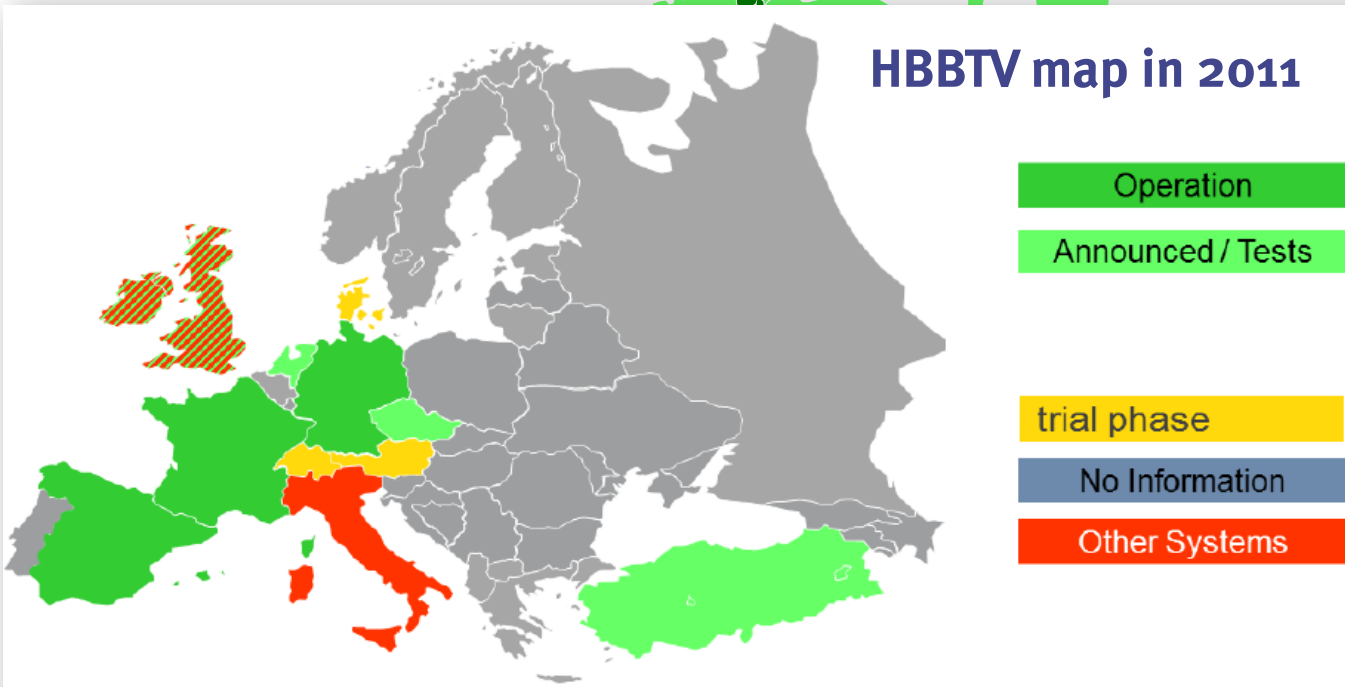
other plans

**More countries are about to decide...**

**HbbTV caught interest also outside Europe  
Australia; South-East Asia; Africa; America**

# HbbTV adoption status

## HBBTV map in 2011



Operation

Announced / Tests

trial phase

No Information

Other Systems

in regular operation

announced / trials

no information

other plans

More countries are about to decide...

HbbTV caught interest also outside Europe  
 Australia; South-East Asia; Africa; America

# HBBTV APP SCREENSHOTS

The screenshot displays the HBBTV app interface. On the left, a program guide is shown for channels 5, 6, and FOX. Channel 5 shows programs like 'Pulmuset' and 'Elokuva: Talladega Nights - Bersaa suonissa'. Channel 6 shows 'Me Rakastamme Musiikki!' and 'Star Trek: The Next Generation'. FOX shows 'Supertehtaat: Dodge Viper' and 'Grillimaisteri Hans Välimäki'. Below the guide, there is a detailed description for 'Elokuva: Talladega Nights - Bersaa suonissa', including the title, genre, cast, and director. A 'Sulje lisätiedot' button is visible. At the bottom, there are navigation buttons: 'OK Valitse toiminto', 'Poistu', 'Tietoja', and a blue button.

On the right, a live broadcast screen is shown for 'YLE TV1: Eduskunnan kyselytunti'. The screen displays a dark background with the text 'Estrodi' and 'FireTV'. Below the broadcast, there is a thumbnail image of a man in a racing suit holding a trophy, surrounded by people.

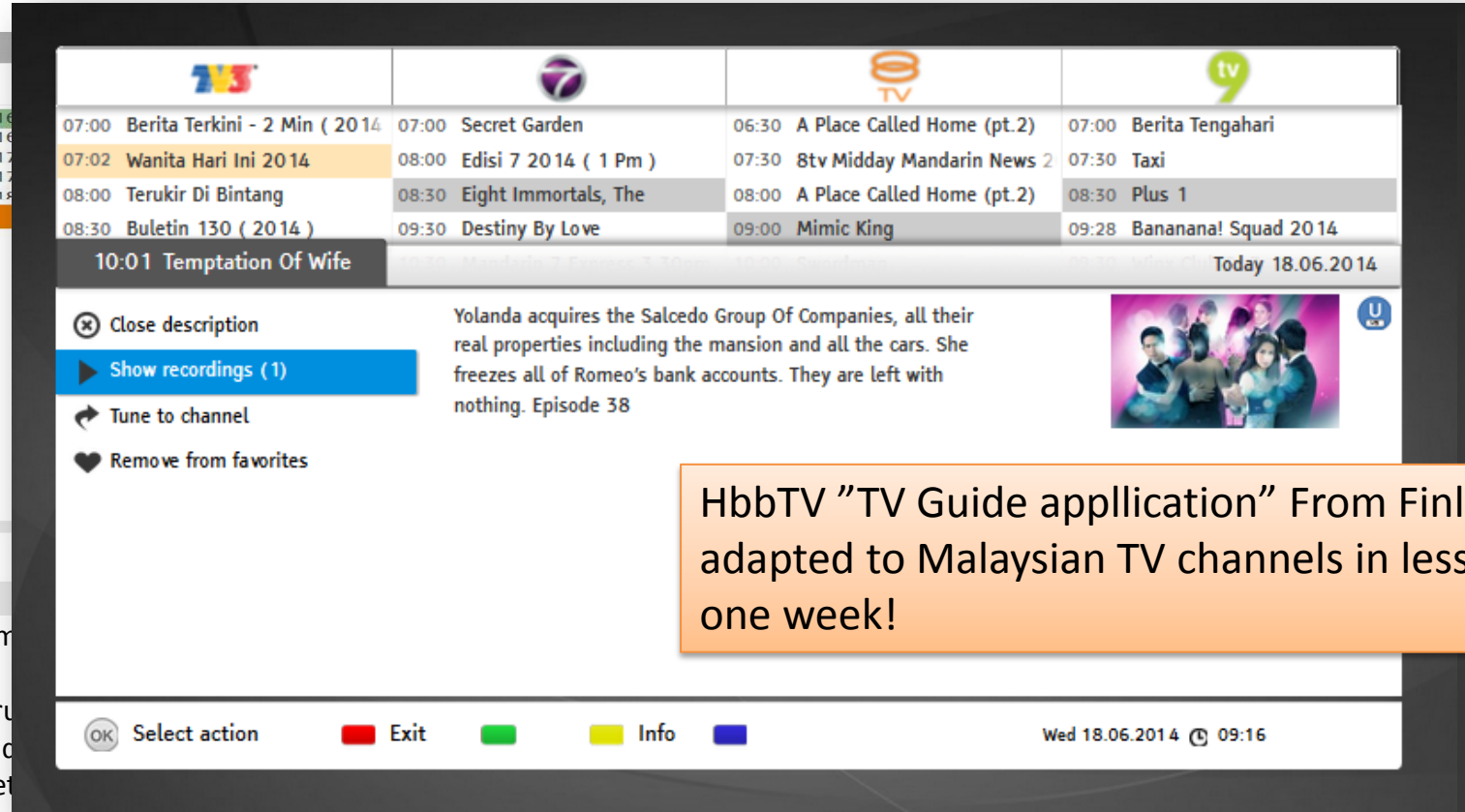
All Finnish Free-to-Air Channels listed with rich event information, text, images, videos.

Common EPG offer access to programs data 2 weeks ahead and 1 week history.

Thru the EPG is possible to see all the channels in same app:

- Video trailers
- Set Favorite Programs and
- Access to Catch-UP TV !

# HBBTV APP SCREENSHOTS



HbbTV "TV Guide application" From Finland adapted to Malaysian TV channels in less than one week!

innish  
to-Air  
annels listed  
rich event  
mation,  
images,  
OS.

Com

Thru

- Vid

- Set

- Access to Cach-UP TV !

# HBBTV APP SCREENSHOTS

The image displays two screenshots of the HBBTV app interface. The top screenshot shows the main program details for '16:00 Summari' on 'Tänään 11.06.2014'. It includes a 'Sulje lisätiedot' button, a 'Näytä tallennukset (7)' button, and a 'Vaihda kanavalle' button. A large orange arrow points from the 'Näytä tallennukset (7)' button to the second screenshot. The second screenshot shows a list of past episodes under the heading '< Paluu'. The list includes dates and times for various episodes, with the episode from '06.06.2014 16:00' highlighted in orange. Below the list is a 'Toista tallenne' button and a 'Poistu' button. The right side of the app shows a 'Vie TV1' button and a 'YLE TV1: Monroe' program card with a description of a raviurheilua (horse racing) event.

16:00 Summari Tänään 11.06.2014

Sulje lisätiedot

Näytä tallennukset (7)

Vaihda kanavalle

Lisää suosikkeihin (max 20)

Tuome sa...  
kauneus...  
Taran lav...

16:00 Summari Tänään 11.06.2014

< Paluu

10.06.2014 16:00	Saatavilla 19 päivää
09.06.2014 16:00	Saatavilla 29 päivää
06.06.2014 16:00	Saatavilla 26 päivää
05.06.2014 16:00	Saatavilla 25 päivää
04.06.2014 16:00	Saatavilla 24 päivää
03.06.2014 16:00	Saatavilla 23 päivää
02.06.2014 16:00	Saatavilla 22 päivää

Toista tallenne Poistu Ohje Poistu

Ke 11.06.2014 21:46

Vie TV1

YLE TV1: Monroe

22:21 Keskiviikon raviuora

Vermossa nähdään tasokasta raviurheilua. Selostus Marko...

Ke 11.06.2014 21:47

Vie TV1

YLE TV1: Monroe

22:21 Keskiviikon raviuora

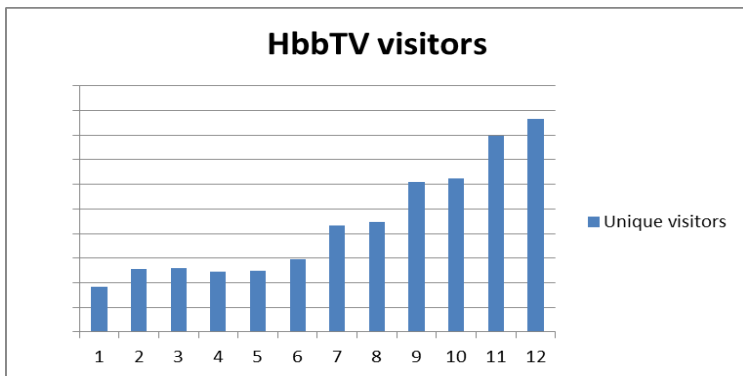
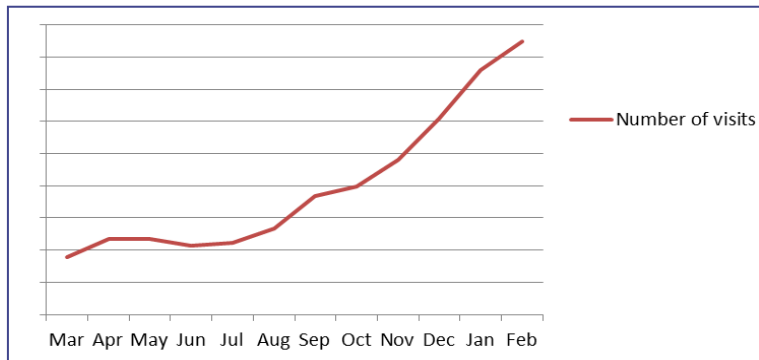
Vermossa nähdään tasokasta raviurheilua. Selostus Marko Lähteenmäki. Tuotanto Story Of Sports Oy.

22:25 Syyttäjä

Pyhä viha. Nuori nainen löydetään kylpylän puistosta raiskattuna ja sekavassa tilassa. Kuka hänen kimppuunsa oikein kävi? Reuther

List of available past episodes from TV-channel catch-up service

## HbbTV stats in Finland

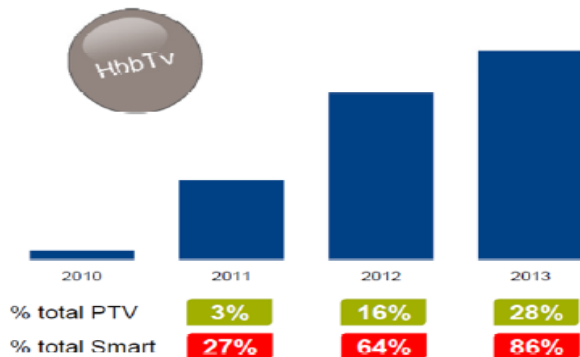
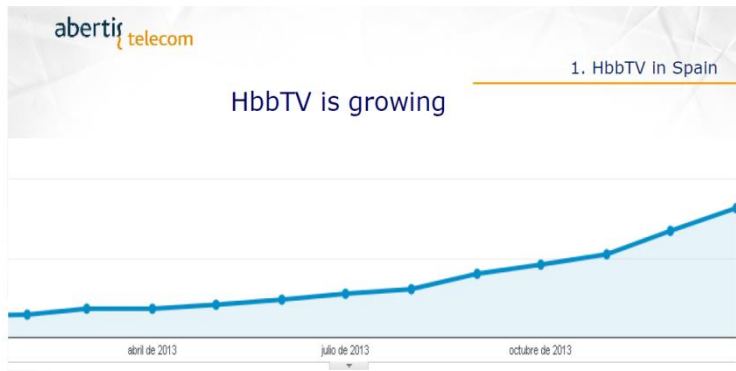


### Currently in Finland :

- ~2,2 M TV-households in total
- 50% reach with DVB-T network, with over 90% coverage
- HbbTV is not carried in most of DVB-C cable networks
- ~100.000 receivers with HbbTV capability
  - Est. more than 200.000 by end of 2014
- During 2014 most of the smart-tv products have HbbTV 1.5 enabled (est.)
- HbbTV services not yet marketed to the end-customers

In Nordic region more than 2M TV receivers are sold annually, more than 50% of those are Internet enabled in 2014

# HbbTV stats in Spain



- National reach of 80% with DVB-T network
- By end of 2013, over 500.000 HbbTV devices
- Now in 2014 June more than 700.000 households connect to HbbTV services
- During 2013 the figures have been multiplied with 10
- 1.6 Milj receivers with HbbTV capability
- In 2013 almost 90% of smart-tv products have HbbTV, in 2014 close to 100%
- National extra:
  - HbbTV DRM-requirements (Playready+Marlin)
  - HbbTV Conformance testing with Receiver Certificate

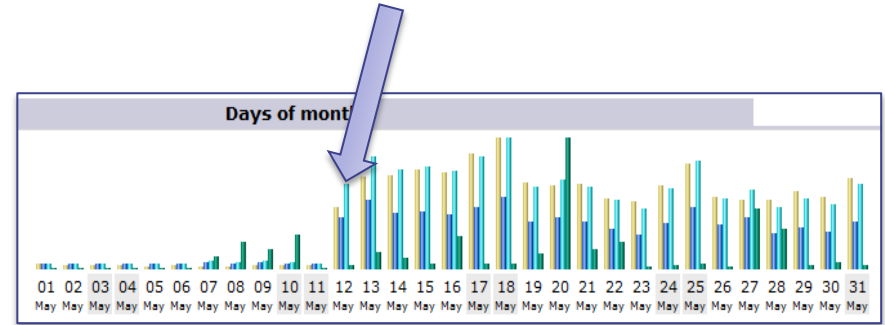
## HbbTV stats in Germany and Hungary

### TV Shopping channel QVC



The following figures represent the growth from 2012 to 2013:

number of inserted Red Button: +155%  
 number of activated Red Button: +73%  
 number of videos watched: +39%



### In Hungary:

The Red-Button services expanded to the public broadcaster MTVA channel at 12<sup>th</sup> May when it multiplies the usage of HbbTV.

Compared to HbbTV use from the Operator's own infochannel



## HbbTV Service types (Listed by HbbTV Forum Nederland)

- **Social and accessibility services**
  - Amber Alert, spoken subtitles, speech in other languages, synchronous, computer-generated sign language
- **Traditional teletext-like information**
  - with a much more attractive user interface,
  - "super text" with news, weather, traffic, sports scores, stock quotes, exchange rates, etc.
  - A digital newsstand for services by the (local, national) government
- **Advanced EPGs (Electronic Program Guides)**
  - Rich EPG over OTT
- **Enhanced TV**
  - additional information on TV programs
  - statistics in sports programs, extras with biographies, background, etc.
- **Voting and Polling**
  - Participate in TV programs, vote for candidates in talent shows, join programs like the National IQ test etc.
- **Additional video content**
  - "catch up TV" as well as new programs (previews)
  - restart to "rewind" a broadcast from the beginning to see it if you turn in too late ("Salto" in France)
  - Direct access to additional TV channels that do not have broadcast via live streaming
  - there are 15,000 worldwide channels)
- **Games via television (community, simple classical games, Content for kids)**
- **Home shopping (shopping channel add-on)**
- **Courses and education**

<http://hbbtv.nu/the-hbbtv-in-europe-report-in-english/>

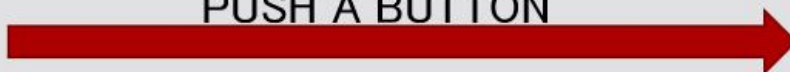
## HbbTV offers ultimate usability

### ◆ UX matters: How hard could it?

TV Sets:



PUSH A BUTTON



2<sup>nd</sup> Screens:  
and TV App stores



Access  
App store



Create account  
(optional)



Download  
&  
Install



Launch  
&  
(optional)  
Pairing

# HbbTV service discovery – TWO OPTIONS

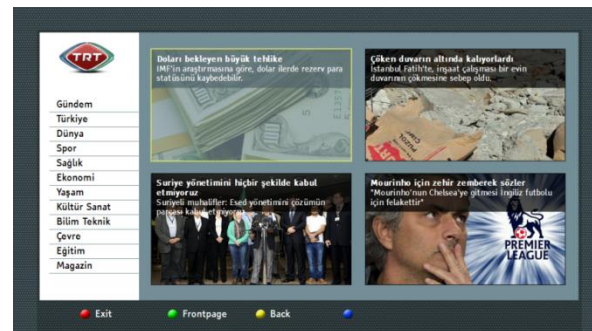
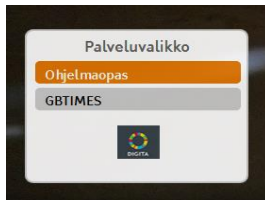
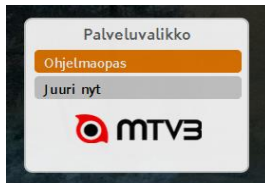
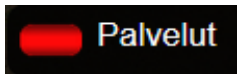
SIGNALING

MENU / LAUNCHER / PORTAL

APPLICATIONS

Option A  
Launch  
from  
TV Channel  
(Red button)

notifications



Option B  
Launch  
HbbTV as  
TV channel  
(autostart)



## Market Facts and estimations

- Connected TV market share is increasing
- New televisions are actually connected more often
- Smart TV processing power is higher than STB
- Consumers like to use one device – if possible
- All the services can be reach under same User Interface and one remote controller
- HbbTV enables implementing one single application to reach all well-known TV vendors!
- If LINEAR pay-tv operators cannot reach household using smart-TV then customers will be lost to multinational OTT operators



# Thank you !

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