



Value Creation with HbbTV

Real Life Case Examples

Mika Kanerva, Sofia Digital Ltd.



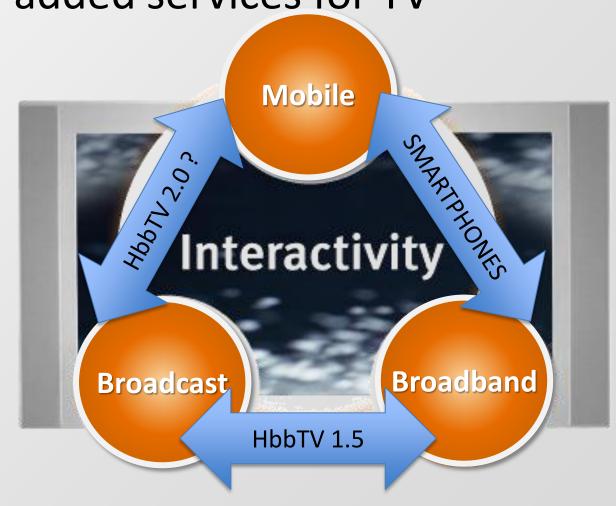
About Sofia Digital Ltd.



Sofia Digital - 15 years history of value-added services for TV

- DVB-MHP (in the past)
- Mobile TV (in the past)
- Current: DVB-Products:EPG systems, PSI-SI, HbbTV Inserter
- And HbbTV and Smart Screens Apps

HbbTV Market activity: Finland (and Nordic), Estonia, Hungary, Turkey, Netherlands, Spain, Malaysia ...

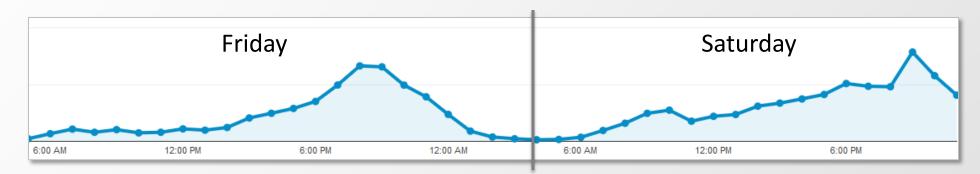


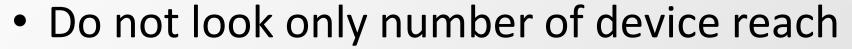


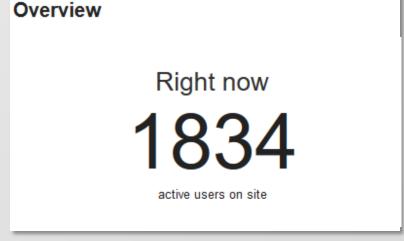
What is The Value in TV business?



- Numbers are always needed to measure it
 - How to measure.... How to get the numbers? Must make TVs to be connected! Simple Formula: More receivers out means more potential, more business!







i.e. Google Analytics

 Most valuable are viewers who are spend more time with the services

Smart Devices viewing times: TV(HbbTV)=3 hours, PC=30 min, mobiles=6 min

Source: Australian Multi-Screen Report Q4 2014, daily average for 2014



HbbTV Core services

MOST

IMPORTANT



"Must have" services must be included with The Red Button

- Rich TV-Guide (EPG)
 - All Linear content in one UI
- VOD & Catch-up (or network PVR for operator)
 - All online video content
- All other apps
 - News, Weather, Sports, Social Media, etc.

Result: 100% of linear TV content + 100% of VOD content

> TV + EPG + VOD = HbbTV experience!



Broadcasters view



HbbTV brigns OTT video models with Broadcasted TV

- Playback starts with pre-roll Forced ads can shown in brodcast also!
- Every user/usage is measured Let's do this now also in the broadcast!
- Personalized OSD and pop-up offer people more selections (to participate)
- Personal communication But this is not very good for broadcast TV!

How to do personal transactions?

- Must recognize the user!
- Use of companion devices!
- Linking online accounts with TV
- TV is NOT very personal device



IMAGE: Sofia Backstage HbbTV Starter Kit
Easy way to develop and showcase HbbTV services in real TV



Markets are still developing

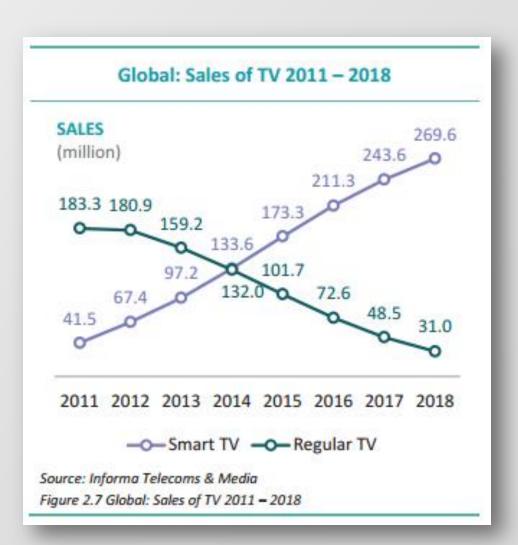


One Scenario for launching HbbTV technology

- 1. Just monitor the audience (i.e. hidden app)
 - How many "lost opportunities"
- 2. Waith while receiver base growing organically
 - New SmartTVs are purchased every day
- 3. Critical mass for HbbTV comes sooner or later!

For 2015 some estimates (how many units delivered):

- 10 Mil Connected-TV devices (Chromecast, etc.)
- 140 Mil Connectable STB
- 170 Mil SmartTVs (> 50% of all TV) going up
- 1500 Mil Smartphones





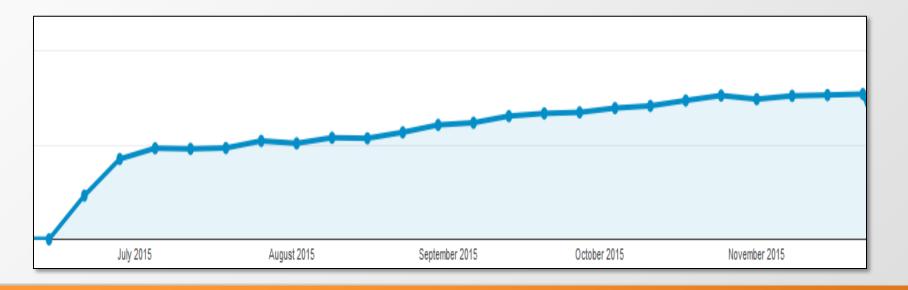
About the deployments

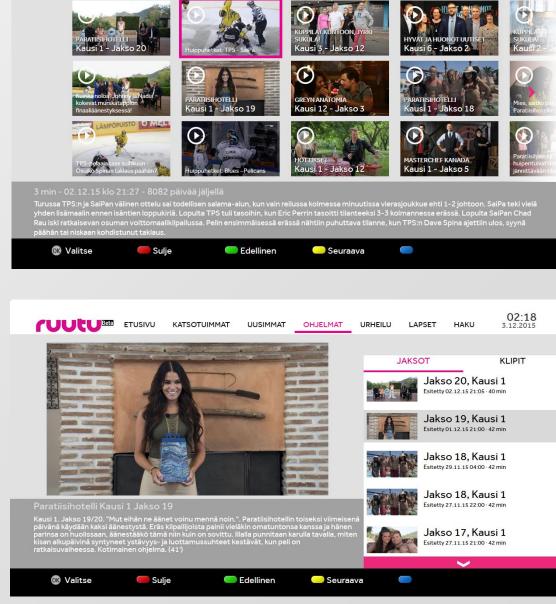


Case Ruutu: Sanoma (Nelonen Media) – Finland

Technical requirement, MPEG-DASH support working fluently in HbbTV 1.5 receivers (and in back-end)

- Ruutu HbbTV service reach all major smart TVs (except one)
- About 40.000 HbbTV viewers in 6 month
- Most important to see how fast the user base grow at launch almost instantly 30.000 users after launch
- Red-Button as "restart this program" using OTT content





FTUSIVU KATSOTUIMMAT

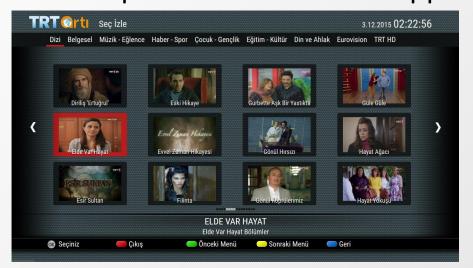


About the deployments



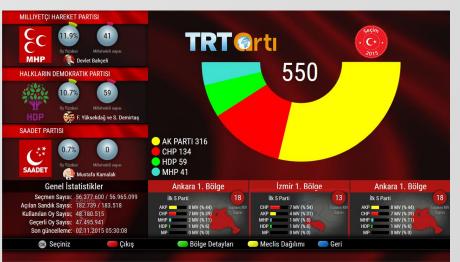
Just launch it: The Red Button does marketing itself CASE TRT-Turkey, TRT ARTI: >500.000 HbbTV viewers without marketing or terminal investment!

- Usage numbers in period of 3 months on right
 - * 100 Million sessions = 100 Million opportunities to monetize
 - 1. Most popular is Seç İzle, catch-up application, linked with Rich EPG
 - 2. Featured programs, with trailers of coming shows, linked with Rich EPG
 - 3. In parliament elections app 14.000 simultaneous viewers in HbbTV











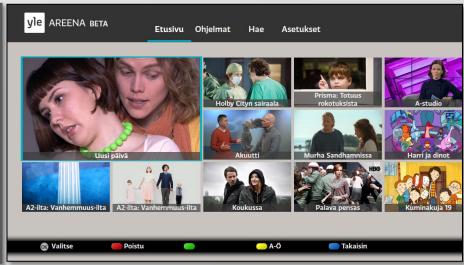
For Operators?



- DTTV Network operators are using HbbTV already in many countries
 - HbbTV is ideal for Free-to-Air terrestrial network
 - HbbTV brings DTTV operators portfolio unlimited number of TV services
 - Niche channels and Pay-TV thru OTT with MPEG-DASH live streaming
 - Network competitiveness against Cable, Satellite or IPTV
- Operator's HbbTV portal could be their own "AppStore" what local markets can control
 Examples below: Levira (Estonia) & Digita (Finland) offer local catch-up TV to DTTV houses









Consumers angle



- More TV content easily available in big screen
- No need to connect various external boxes to the TV
 ...But sometimes need to update the TV set...



- Then how to know what models are compatible with services?
 - Confusion of technologies must be avoided: DRM, HbbTV 1.5, 2.0, Live DASH, PlayReady, Marlin, HTML5, etc.
- -One solution In Finland "Smart HD" logo launched in 2015.

Target to collect all FTA catch-up services for all certified DVB-T2 HbbTV 1.5 receivers. Compatible with LIVE DASH with DRM.

HbbTV the only platform where consumer have easy access to premium online video without install any new applications into device?



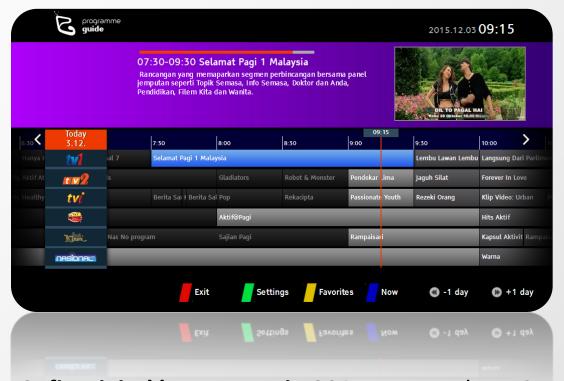
Thank you!

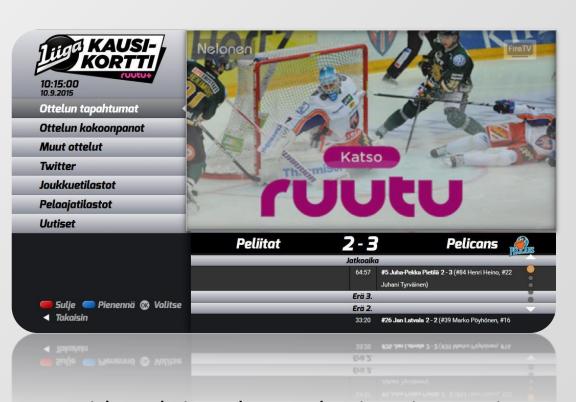


Mika Kanerva COO, Sofia Digital Ltd.

mika.kanerva@sofiadigital.com

www.sofiadigital.com





Sofia Digital latest apps in 2015: New style EPG and Sports app with real-time data and twitter integration