



HbbTV



Singapore June 18th 2014

with the sponsorship of



Infrastructure Panel



- Régis SAINT GIRONS, HTTV:
 - Welcome and HbbTV introduction

- Keith POTTER, Digital TV labs:
 - HbbTV Interoperability

- Kenny HUANG, Marlin founder group:
 - Marlin Security for HbbTV

- Panel Moderator: Gordon MAYNARD, S&T

Application Panel



- Mika KANERVA, Sofia Digital:
 - HbbTV live applications from Europe
- Gordon MAYNARD, S&T:
 - HbbTV and multi-screen strategy
- Panel Moderator: Régis SAINT GIRONS, HTTV

***Coffee Break
&
Networking***

New Service Panel



- Gianluca FERREMI, Motive Television
 - Experience in revenue generation with HbbTV

- Jean Philippe PLANTEVIN, Quadrille
 - Push Technology and HbbTV – Enabling new services

- Chem ASSAYAG, Viaccess-Orca
 - Rule of engagement: An operator guide to providing a compelling TV user experience

- Panel Moderator: Jean Christophe JUBIN, HTTV

Broadcaster Panel



- Markus FRITZ, Eutelsat
 - Facilitating global HbbTV deployments

- Liz ROSS, Freeview
 - HbbTV in Australia

- David COURET, France24
 - Application deployments

- Panel Moderator: Phil SANDBERG, Content+Technology

***Cocktail
&
Networking***



HbbTV: Introduction

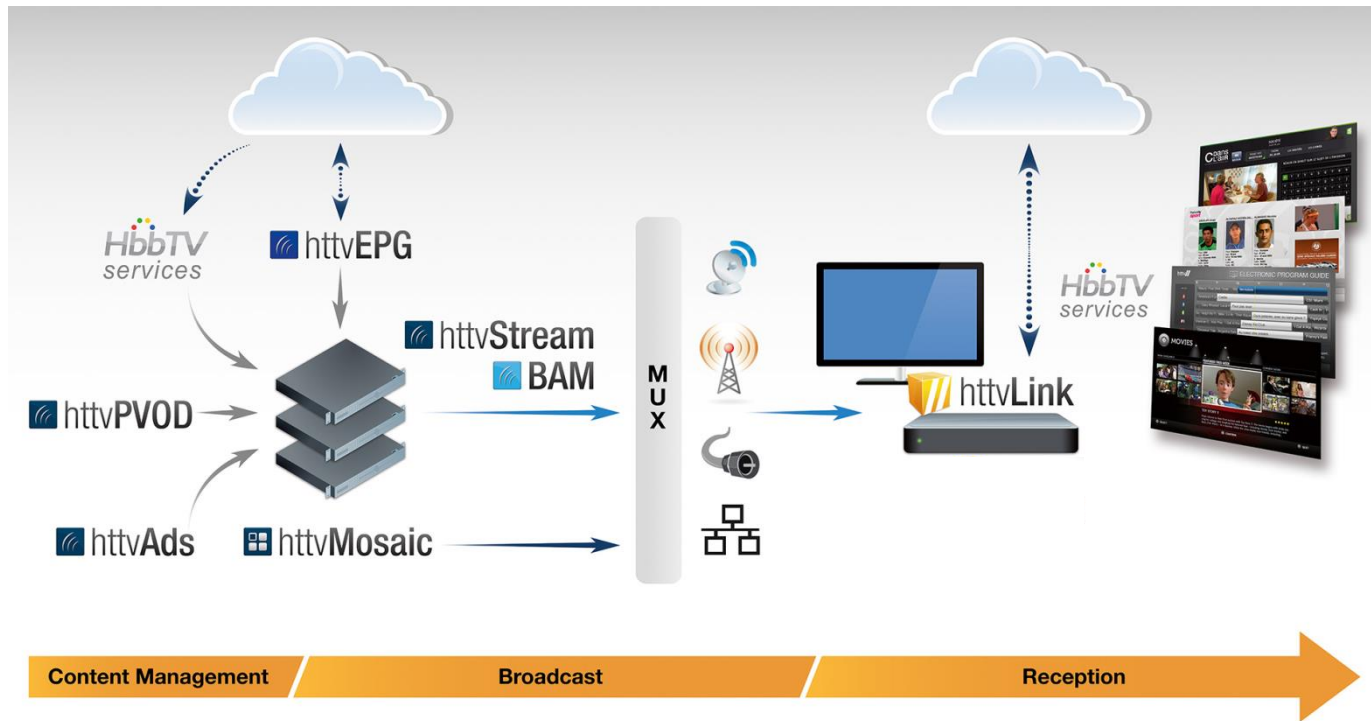
Régis Saint Giron

HTTV CEO
Vice-Chairman HbbTV Marketing Group

HTTV – High Tech TV



- **Technology provider for interactive Digital TV**
 - Connected TV solutions based on **HTML5** and **HbbTV**
 - Hybrid TV OS and Head End Play Out Server



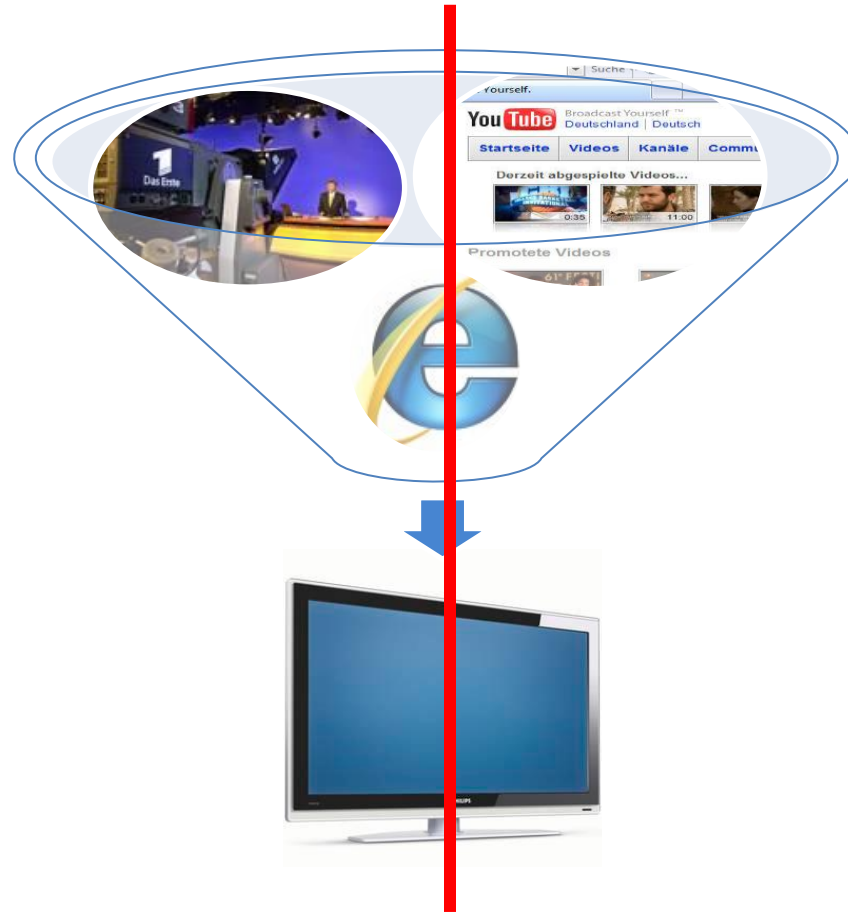
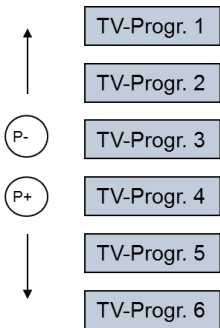
■ International implementation

- French Headquarter since 1999, Singapore office since 2011

Connected TV, two separated worlds

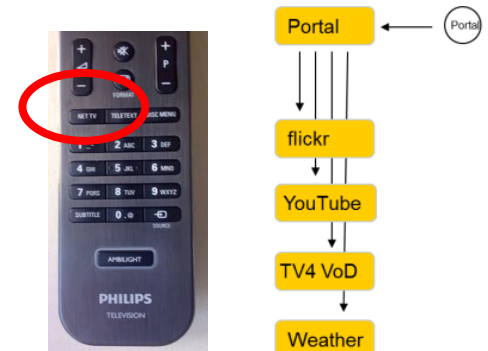
Broadcast Context

- Program lists
- linear TV
- broadcast links



Internet context

- Portals, TV Apps
- On demand
- Broadband links



“Smart TV” – Just an Example



- VOD
- App Store
- Recommendations
- advertisement
- Access to „media“
- TV

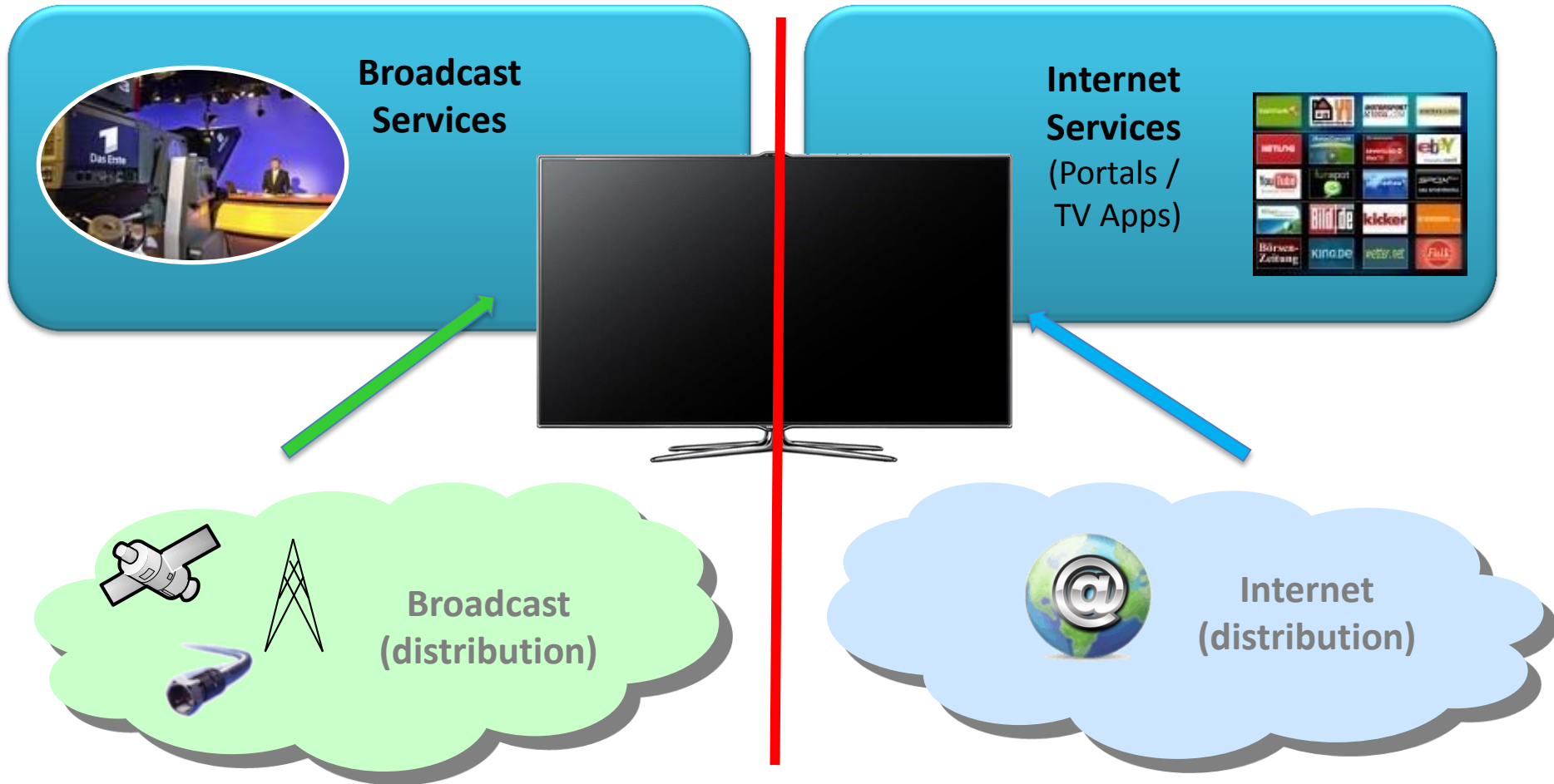
Challenges for Broadcasters



How to get onto the portals?
How to get found in the portals?
How to adapt service for each portal technology
How to connect linear broadcast to non-linear services?



From Connected TV to



... HbbTV – a new paradigm



Broadcast Services

HbbTV

**Internet Services
(Portals /
TV Apps)**



**Mixing
TV Entertainment
with
the Internet Power**



(distribution)

**Internet
(distribution)**

- **Broadcaster & TV Manufacturer initiative**
 - Moving to Pay TV
- **Combines the best of Television and the Internet**
 - Gives the broadcasters control over the internet
 - Gives the user the best service access through TV channels
 - Provides service interoperability over any HbbTV devices
- **The most deployed open interactive TV standard**

HbbTV key goals



Broadcast remain anchor for service usage



No portal needed, No central gatekeeper



Independently maintain brand and UI design



Fast application development by using a web browser



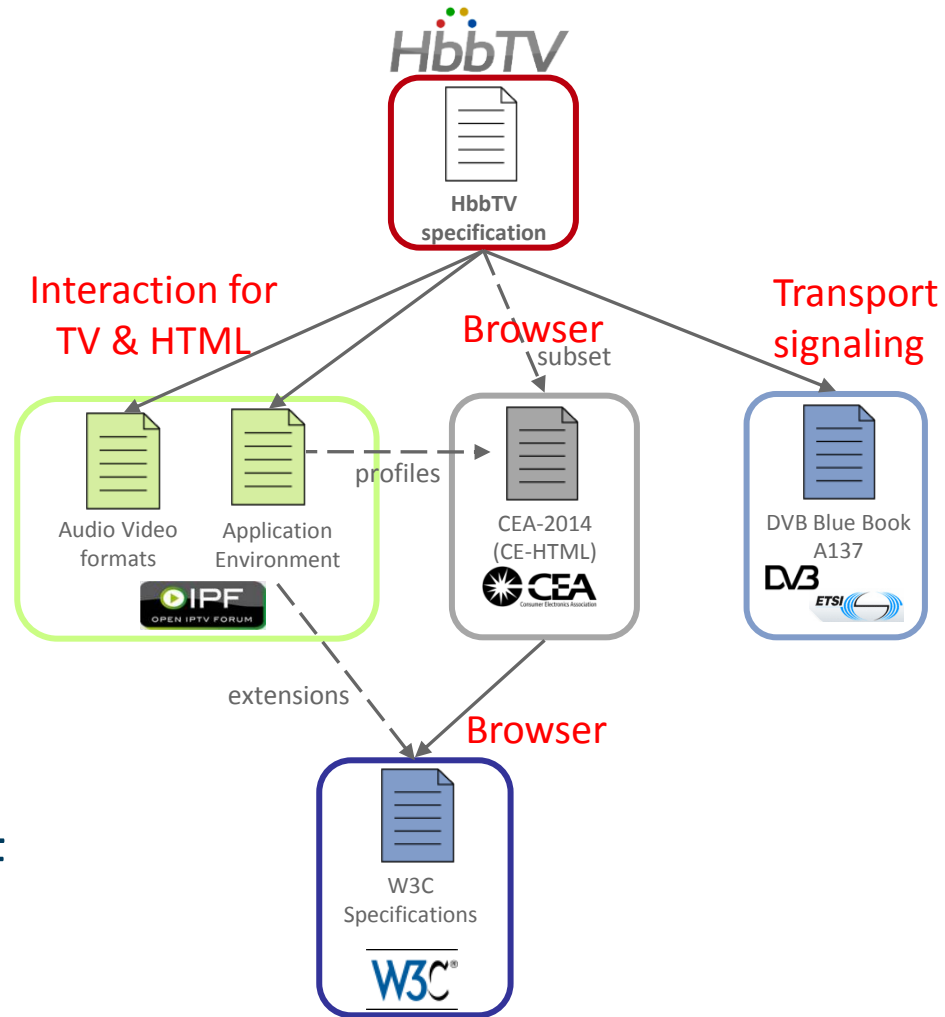
Data transmission in broadcast, Broadband not essential



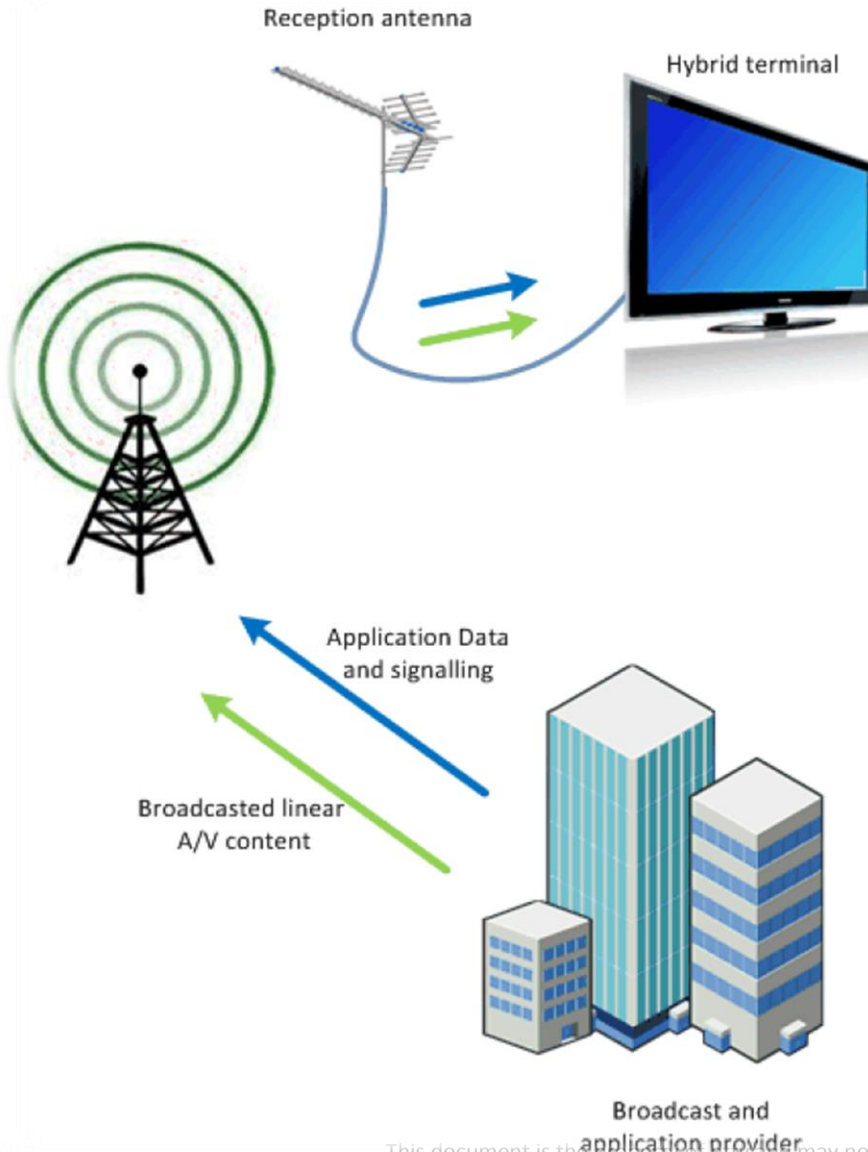
Limited receiver extra cost compared to basic HDTV STB

The Key Building Blocks

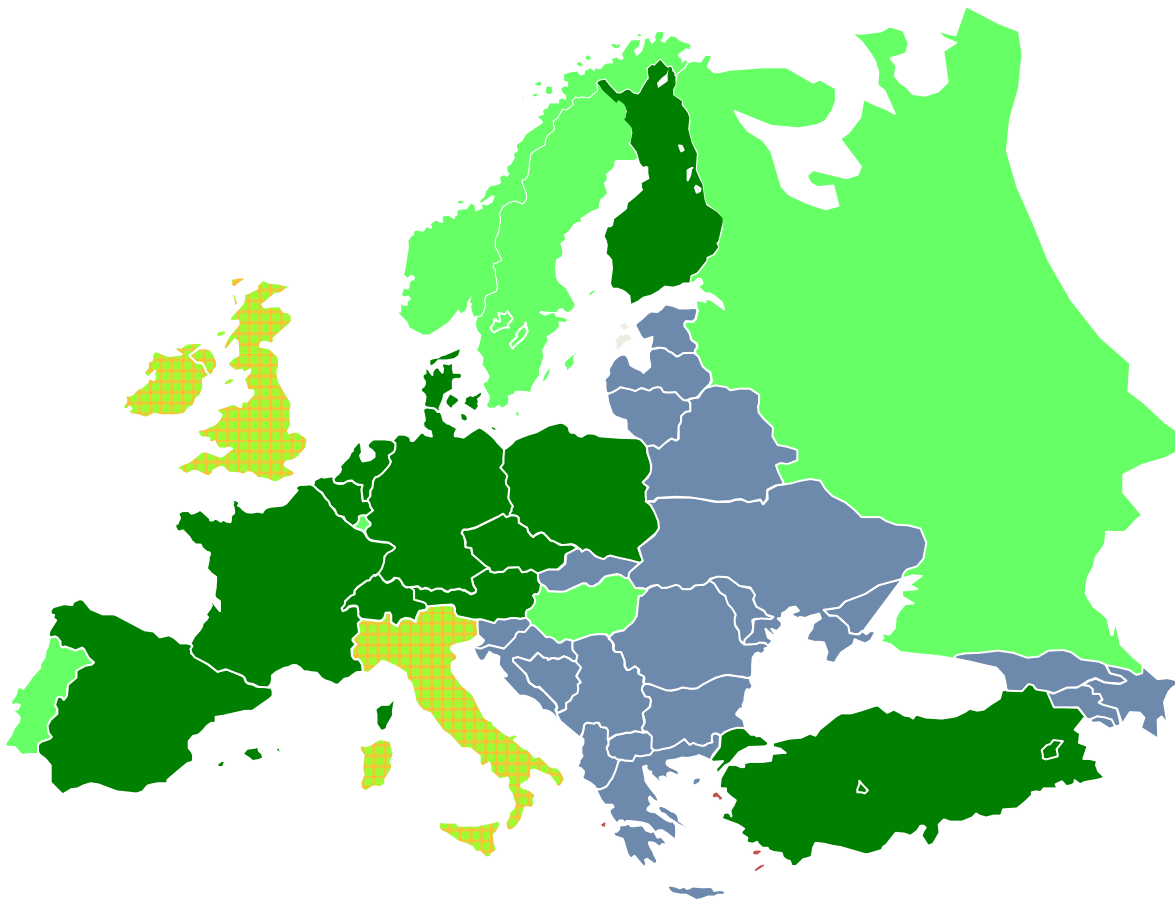
- Start from mature & stable technology
 - HTML Web standards
 - DVB DSM-CC object carousel
- Mix in elements from other work where necessary
 - Application signaling & lifecycle management as used in MHP
 - JavaScript APIs for TV from OIPF
 - MPEG-Dash Profile



End to end architecture



HbbTV deployments in Europe



in regular operation

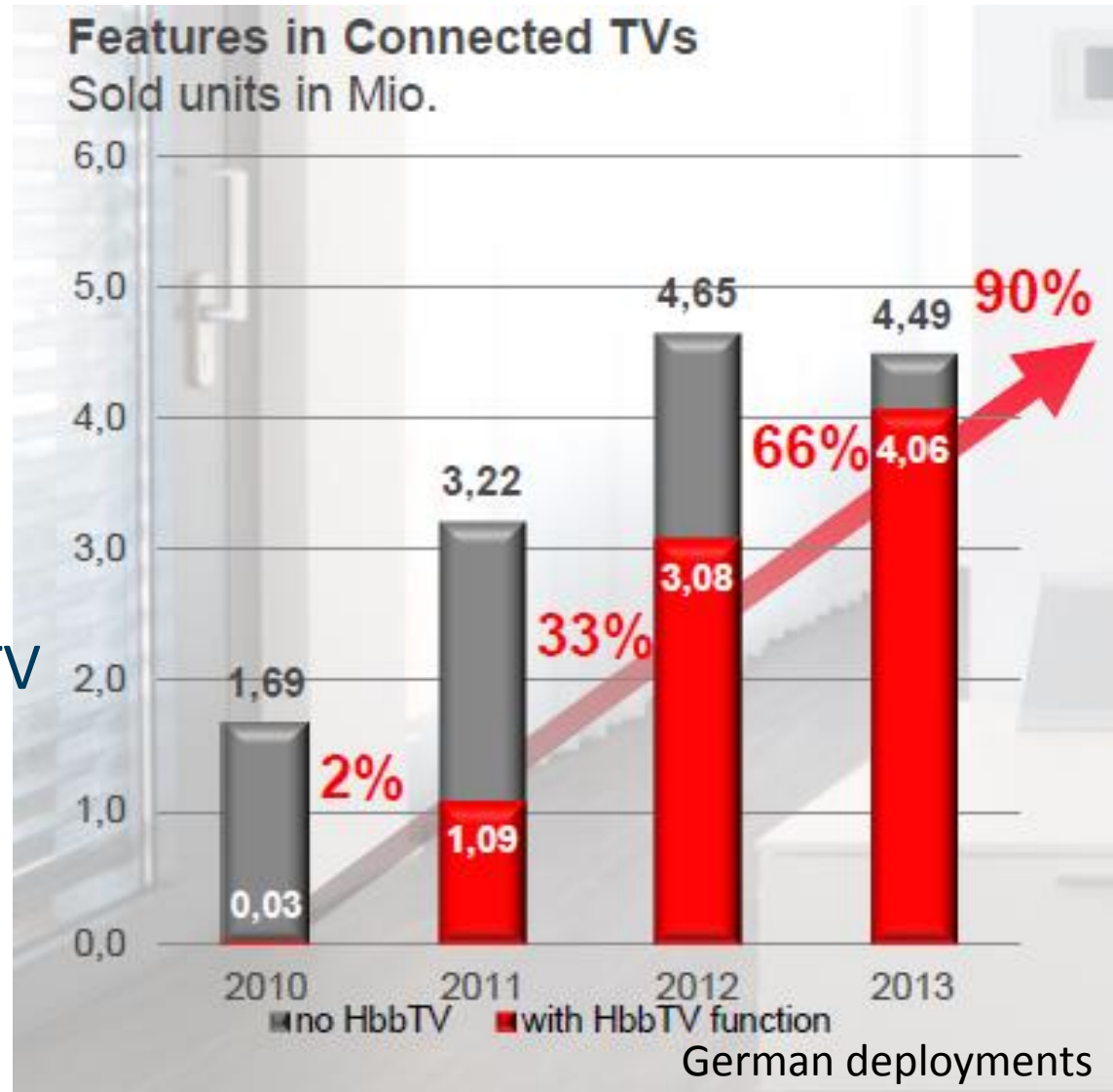
announced / trials

no information

other plans

Fast HbbTV device deployments

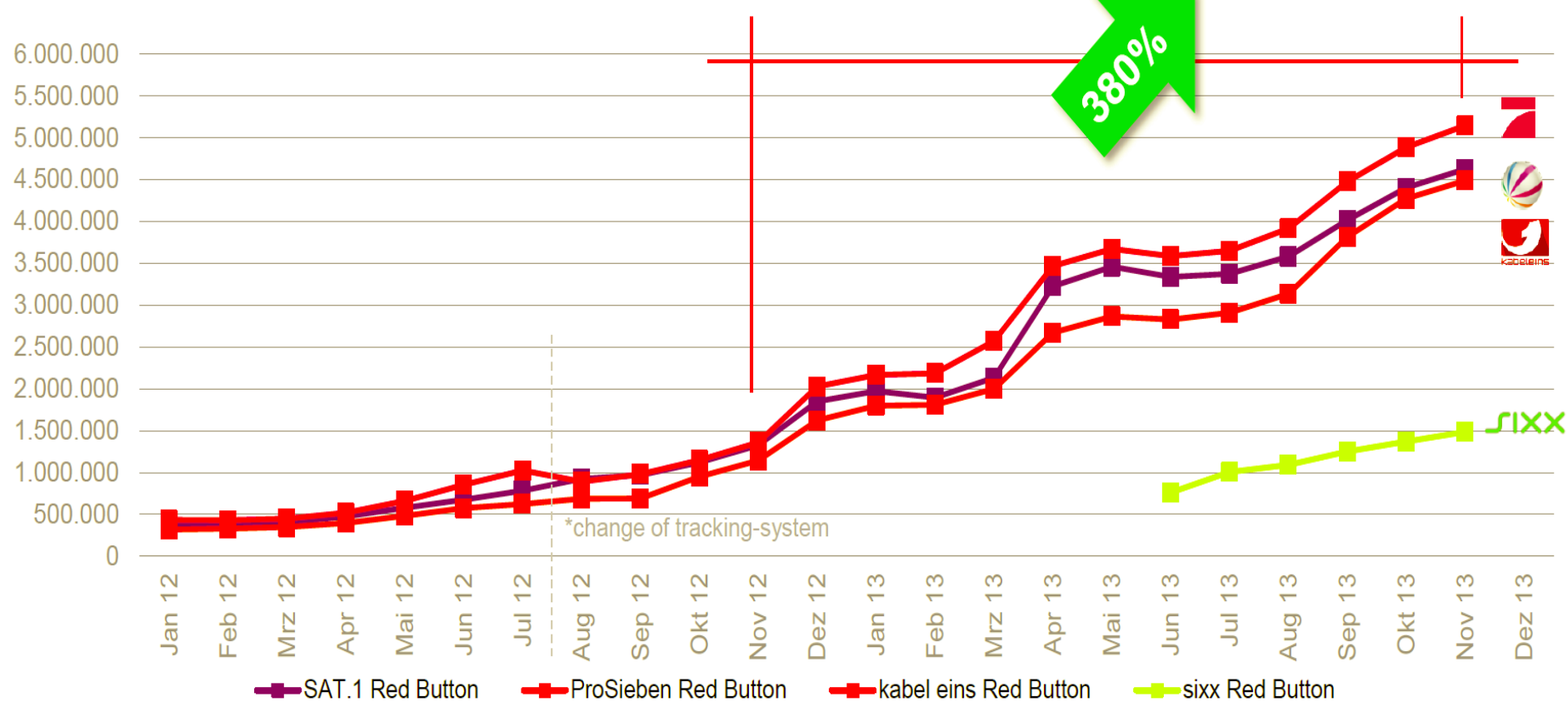
- Over 20 Million devices
 - 10 Million devices sold in Germany
- Mix of TVs and STBs
- Technology established in 3 years only
- 90% of Connected TV sold in Europe are HbbTV



Source SevenOne media

HbbTV usage figures (Germany)

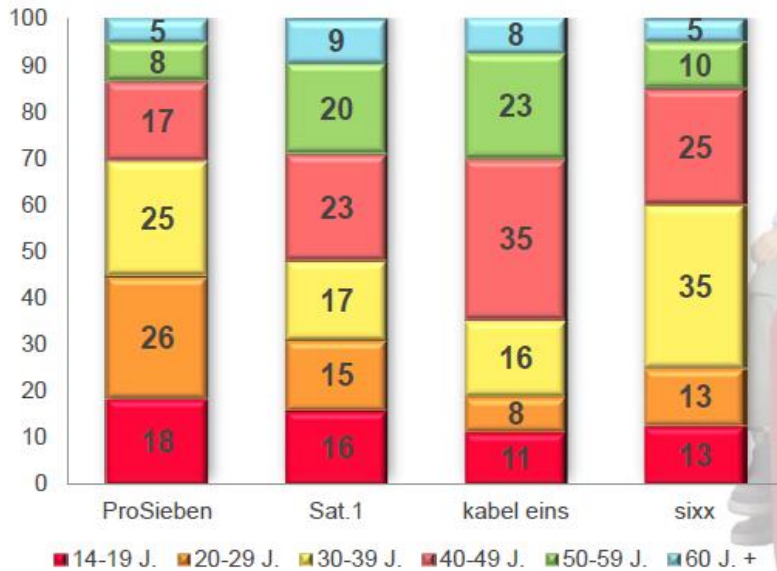
Unique Devices - SAT.1, ProSieben, kabel eins
 Number of Clients (=Devices) reached monthly



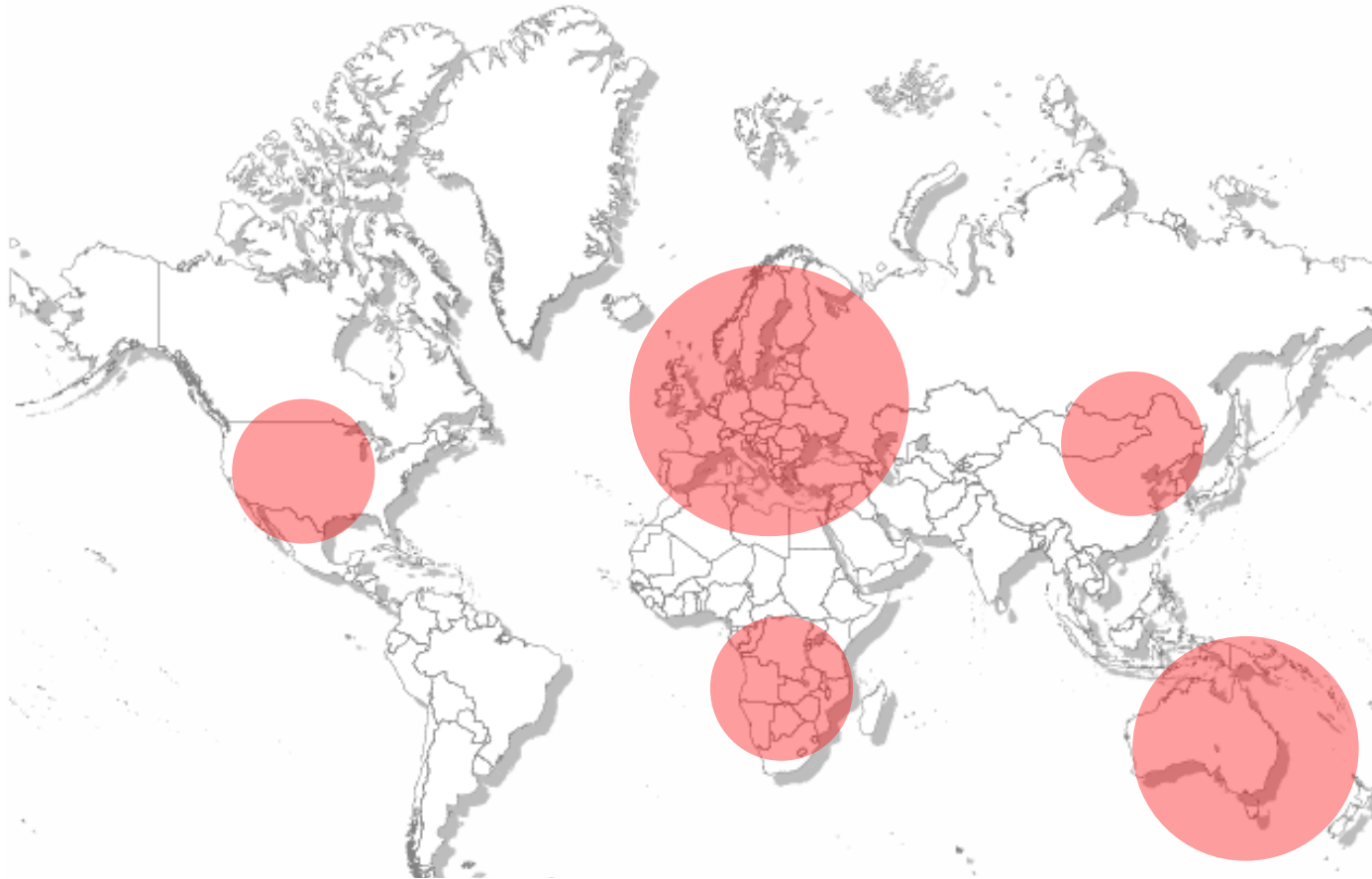
Source:
 Internal Tracking SevenOne Media

HbbTV is used by people from any Age

Ages
Data in percent



Source: 730 respondents
Question: „And how old are you: ...“
SevenOne Media, July 2013



2011-2013: Europe, Middle East

2014-2015: Asia Pacific

Next: Africa, USA, China

Deployments outside Europe



■ Australia and New Zealand



- Freeview in Australia and in New Zealand have announced to move from MHEG5 to HbbTV in 2014 on Terrestrial and Satellite

■ USA



- ATSC is in active liaison with HbbTV to use the technology as part of ATSC3.0.

■ ASEAN



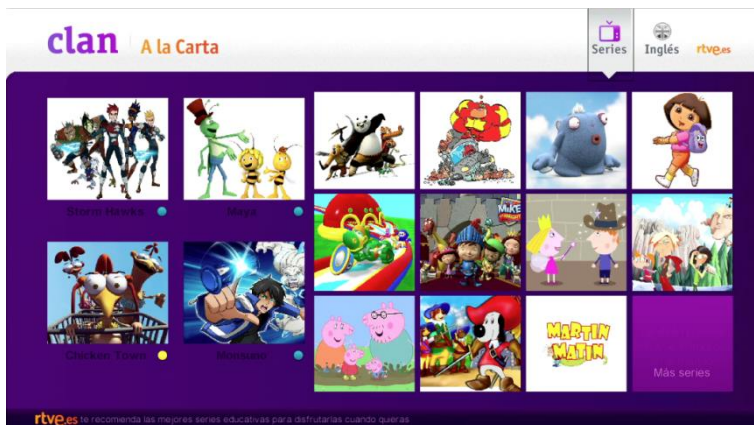
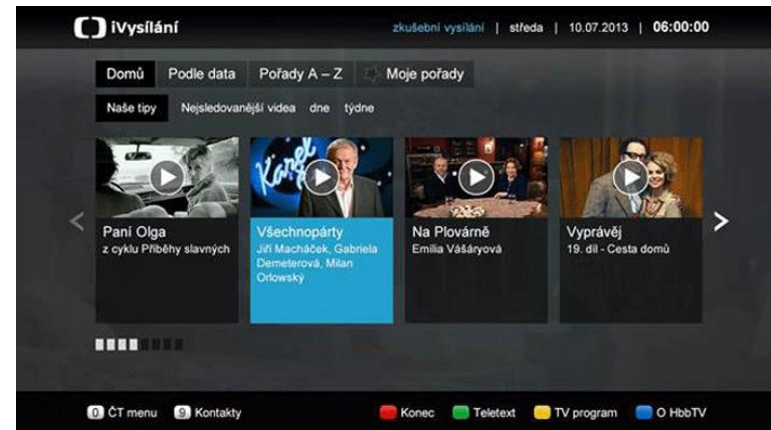
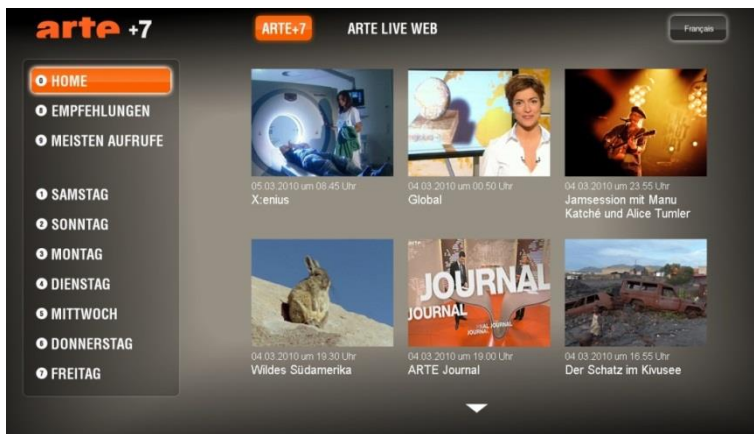
- Malaysia and Vietnam are specifying HbbTV as part of their DVB-T2 launches
- Other countries... are actively considering HbbTV for their Terrestrial Analog Switch Off

■ Africa

- ASBU (Arabic States Broadcast Union) has specified HbbTV for their Analog Switch Off
- CEDEAO (West African French speaking countries) has also specified HBBTV for their ASO
- Sentech (South Africa) is testing HbbTV over satellite

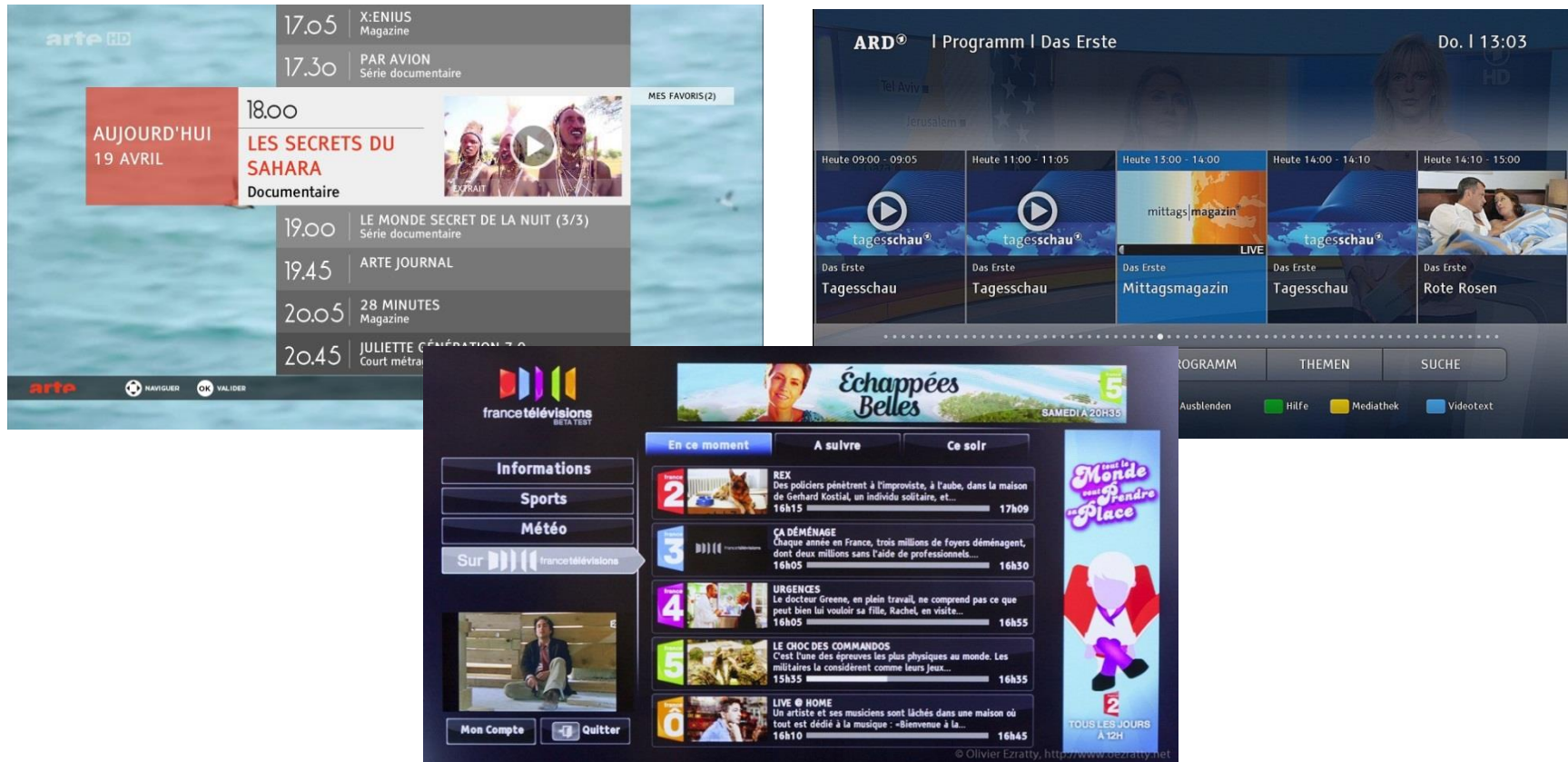
Catch-up, Start-over, VOD services

- 7 days catch-up (ReplayTV) into the past
- Start-over the most used service in France
- Available on both free and premium channels



EPG

- Entire program offering: linear and on-demand
- 7 days into the past
- Can be shared across all channels from the same broadcaster



The image displays three different EPG (Electronic Program Guide) interfaces:

- ARTE HD (top left):** Shows a program grid for '19 AVRIL'. The main feature is 'LES SECRETS DU SAHARA' (Documentaire) at 18:00. Other programs include 'X:ENIUS Magazine' at 17:05, 'PAR AVION' at 17:30, 'LE MONDE SECRET DE LA NUIT (3/3)' at 19:00, 'ARTE JOURNAL' at 19:45, '28 MINUTES Magazine' at 20:05, and 'JULIETTE GÉNÉRATION 70' at 20:45.
- ARD (top right):** Shows a program grid for 'Das Erste' on 'Do. | 13:03'. Programs include 'tagesschau' at 09:00, 11:05, and 14:00, 'mittagsmagazin' at 13:00, and 'Rote Rosen' at 14:10.
- France Télévisions (bottom):** Shows a program grid for 'francetélévisions BETA TEST'. The main feature is 'Échappées Belles' (SAMEDI A 20H35). Other programs include 'REX' at 16h15, 'ÇA DÉMÉNAGE' at 16h05, 'URGENCES' at 16h05, 'LE CHOC DES COMMANDOS' at 16h35, and 'LIVE @ HOME' at 16h10.

Information services

- High usage in Europe (several million users per day)
- Keeps the established and well known UI (numbered pages)
- Web-based technology offers lots of Internet features

rbbtext[®] HD
02.09.2010 | 10:43 Uhr

Nachrichten
50. Funkausstellung startet
Weiter Probleme bei der S-Bahn
Karstadt: Tag der Entscheidung
Berliner gewinnt 14 Millionen
Behinderungen auf Autobahn A 2
Friedrichstadtpalast: Neue Revue
Daimler bleibt in Berlin
Auftritt zum Berliner Musikfest

Wetter heute
Vorhersage heute (MeteoGroup)
Aussichten (5 Tage)

Startseite
Nachrichten regional
tagesschau
Wetter
Sport
Fußball
Verkehr
Untertitelte Sendungen
Alles auf einen Blick

Jetzt im Programm
10.30 QUIVIVE
11.15 Brisant
12.00 nano

Temperaturen
Frankfurt bedeckt 15°C

Starleiste 0 Hilfe 1 Ausblenden Programm Mediathek

Uusin uutislähetyt **MTV3**

Sää lauantai jopa 20 astetta vuorokaudessa, kuumat jatkuvat
Sää vaihtelee tällä viikolla nopeasti. Aikeli on tänään ilmapäivä ja illalla huono maan länsi- ja eteläosissa lumisateen takia. Heikkoa lumsateita.

Vapaehtoiseen asepalvelukseen haki 650 naista
Naisten vapaaehtoiseen asepalvelukseen hakijoita oli tänä vuonna yhteensä 650. Määrä on pienempi kuin kahtena edellisvuonna, mutta selvästi suurempi.

Viestintävirasto kehottaa poistamaan turhat jävat
Java-ohjelmiston käyttö voi yhä vaarantaa kotikoneesi. Viestintäviraston mukaan Javaa hyödynnetään haittaohjelmien levittämisessä.

Polisi neuvoi isää väärin – äiti vei lapset
Polisi pitäisi parantaa ohjeitaan lapsikaappausten ehkäisemiseksi, vaati apulaiskoetusasiamies Jussi Pajuoja.
Pajuoja ottaa kantaa tapaukseen, jossa Lappeenrannan poliisin toiminta.

Salainen
Salattujen elämien nuoret ja vanhat mikkiläkonkissa Tuulirannassa.
Senaa jännittävää kättä! 12. elokuuta.

Helsinki klo 18:00 +1 +1 -3

2 Dernier JT France 2
20 heures - 29 août 2011

1 Dernier JT régional
Retrouver le dernier JT régional des chaînes France 3 et 1ère

3 Dernier JT national France 3
19:20 - 29 août 2011

Les JT 1ère
Les JT France 2
Les JT France 3

SOIR 3

DER NEUE RENAULT CLIO
SERIENMÄSSIG MIT GOLDENEM LENKRAD

ID-Text	Videocenter	Programm	Sendungen	Applikationen
Übersicht	News	Sport	V.I.P	Service
NEWS	Petraeus: Frauen oft im Weißen Haus	Zentrales Waffenregister kommt	AFG-Bundeswehr will Mio investieren	1:11 1:12 1:21
SPORT	Kopfbäll von Stefan Picht	2. Liga: Schaffl Hertha den Sprung?	Formel 1: Pressesstimmen zum USA-GP	2:11 2:12 2:02
V.I.P.	American Music Award für Bleber	Stone & Garfield kaufen ein Haus	Wird Russel Brand Yoga-Lehrer?	1:51 1:52 1:55
Exklusive Videos & Bilder	20:15 Trailer ansehen: The Voice of Germany	Videocenter Clp: Liebes-Blender		13:00 BritT 13:30 The Hole

AUSBLENDEN STARTLISTE IMPRESSUM

Advertising campaigns

- Microsites user experience
- Improved Brand Awareness



H&M



H&M



Hyundai



Disney (Thor 2)



Yourfone



BMW



Meßmer (OTG)



EDEKA



L'Oréal



Schöfferhofer



Renault



OTTO

Improved Accessibility

- Change font sizes for readability
- Sign language via additional stream



- Enhanced Live TV Programs with interactive education service
- On demand education programs (VOD or Push VOD)



Tafakari

Sharing fairly into halves, quarters and eights

Patterns in fractions

Sharing fairly into thirds and ninths

Equivalent fractions

Comparing fractions



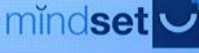
Acknowledgements



Sharing fairly into halves, quarters and eights

Sharing fairly into thirds and ninths

Comparing fractions

Acknowledgements

HbbTV Moving to Pay TV networks

- Deployed on satellite with embedded CAS
 - HD+ SmartTV, Fransat
- Deployed on Pay TV Cable
 - KabelKiosk (Germany)
- On going deployments to replace legacy PayTV middleware with HbbTV
 - Digiturk and more to come in 2014 including Cable and IPTV networks
- Moving to IPTV
 - KabelKiosk and DT (trial)
 - Considered by PayTV operators to access Free To Air HbbTV services (IPTV Telco operators in France)

Network Operator HbbTV services



- Making Network operator's HbbTV services coexisting with the Broadcast HbbTV services
 - Kabelkiosk, Fransat example



Live demonstration





Thank You

regis.saintgiron@httpv.fr

INFRASTRUCTURE PANEL

Régis Saint Girons



and ACTV, the US HDTV standard.

Régis Saint Girons is a key figure of the digital TV industry with more than 20 years of experience. Régis Saint Girons is today the CEO of High Tech TV (httv), a leading international technology and solution provider for interactive digital TV, Régis is also the President of the French HD Forum, as well as the Vice Marketing Chairman of the HbbTV Association. He has previously served as Senior Vice President OpenTV for NAGRA, a Kudelski group company. Prior to NAGRA, Régis Saint Girons was one of the OpenTV co-founder, a joint-venture between Thomson Consumer Electronics and Sun Microsystems. As its European General Manager, Régis was instrumental in positioning OpenTV as a Digital TV middleware world leader. Before that, Régis Saint Girons lead Thomson Research & Development laboratory in Los Angeles during 8 years. He positioned MPEG as the Digital TV solution for DirectTV

Kenny Huang



Tufts University and a BS degree from National Taiwan University.

VP/GM Greater China, S. Korea and ASEAN Region

Kenny Huang is responsible for Intertrust's growing East Asia business and technology activities. His regional responsibilities include Greater China, South Korea and South East Asia. Huang has over 20 years of experience at pioneering Internet companies, with substantial experience in the digital media and Internet security markets. Mr. Huang first joined Intertrust in 2000 to run our Professional Services business unit. He led the opening of our regional HQ in Beijing in 2008, where he currently resides. In the past, Mr. Huang has held a variety of engineering and business management positions at major Internet companies including Trend Micro, HelloAsia, Netscape and Silicon Graphics. Mr. Huang holds a MS Degree in Computer Science from

Keith POTTER,



Keith Potter is the CEO and founder of Digital TV Labs, a media device testing company. Keith was previously CEO of Cabot Software, part of Vestel Group. Prior to this Keith was European sales Director of Espial. Keith has an MBA and Bsc in Electronics from Bristol University.

APPLICATION PANEL

Mika Kanerva (Sofia Digital Ltd.)



Co-Founder and Chief Operating Officer at Sofia Digital Ltd.
Chairman of Finnish HDTV-Forum HbbTV working group

Mr. Mika Kanerva has over 10 years of experience in development of added-value services for television. He has extensive knowledge about service development for HbbTV and Connected devices. Mr. Kanerva has been closely involved in interactive TV standards development in Europe and the Nordic region in a position where he followed closely and provided insight for the television digitalization process. He graduated in 2008 as Master of Computer Sciences in the University of Tampere, Finland. He has been one of the

key persons in Sofia Digital since 2000 - company specializing in Digital TV services and software development for smart devices.

Gordon Maynard, S&T



Gordon Maynard has been working in interactive app development since the early days of digital television when he was technical Director of Teletext in the UK and led the creation of new services on satellite, cable and DTT.

Gordon developed a multi-screen publishing system called OnScreen Publisher and has now joined S&T to lead their new initiative to move beyond their traditional territory of MHEG5 to deliver content to smart TVs, tablets, mobile and, of course, HbbTV

NEW SERVICE PANEL

Chem ASSAYAG .

Executive Vice President of Sales at Viaccess-Orca



Chem graduated in management from EM Lyon, and holds a postgraduate degree in media management from ESCP Europe. He is responsible for global sales strategy and business development, driving business in new markets, managing the expansion of the sales force, and feeding into the product development process. He has strong experience in the world of digital television and content services. During his tenure at OpenTV, the worldwide leader in interactive television, he managed operations in Europe and the Middle East, growing revenues in the company's largest business region. He also led the worldwide sales, marketing, and business development functions for the MediaHighway® product line at NDS (now part of Cisco Systems). In the late 2000s he was also a key figure in Europe's mobile TV and mobile broadcast industry, leading Qualcomm's MediaFLO division in the region. Aside from his corporate sales and business experience, Assayag is an entrepreneur who founded, managed, and sold his own company, and has also driven a number of business startups.

Gianluca FERREMI



Gianluca Ferremi is currently VP Business Development at Motive Television since January 2014. He began working for Motive Television in January 2011 as VP of Sales and Marketing and held the post until December 2013. Before that he held the position of VP of Sales and Marketing at Adecq Digital S.A., owner of the brand Bestv®, since he joined the company in October 2009. Adecq Digital was acquired by Motive Television in October 2010. Since January 2008, Mr. Ferremi is also an independent strategic consultant at WaterJug, the company he founded with the objective to provide strategic sales and marketing services to companies active in the media, entertainment, and technology space. Before 2008, Mr Ferremi was responsible for developing the worldwide media and entertainment markets for Sun Microsystems, a hardware and technology company based in the United States now part of Oracle. His career at Sun started in 1998 covering a numbers of management positions in the sales and marketing organizations until 2004 when he became Head of Video and Media Business Worldwide. Mr. Ferremi received a Bachelor Degree from the Universita' degli Studi di Torino and a Master Degree from the Politecnico di Torino. A member of the Society of Industry Leaders, and of Gerson Lehrman Group.

Jean-Philippe PLANTEVIN



Jean-Philippe has been working in the Pay TV and Digital TV industry for over twenty years. He is currently Chief Commercial Officer of Quadrille a French company providing multimedia Push solutions. He previously held key management positions at SagemCom, a STB and Gateway supplier, Nagravis, a conditional access supplier and Harmonic.

BROADCASTER PANEL

Liz Ross



General Manager, Freeview

Liz's career in media has come full circle since her first role at Network 10. She pursued a media strategy career, and spent 18 years in a number of local media agencies including Bray Media, Mitchell Media and Carat as well as Leo Burnett, London. More recently Liz headed up national media marketing at News Limited and moved across to Fairfax in the role Director of Trade Marketing and Insights. Liz joined Freeview towards the end of 2011 with a primary focus on promoting FTA television through marketing and technology innovation.

David COURET



David COURET is Director of Technical Solutions for Distribution within FRANCE 24. After 5 years at BT Media & Broadcast, he joined the channel at the early stage of the project and started to set-up the EMEA satellite distribution network. Then, he's been working on the mobile distribution project, notably in collaboration with a technical partner, which allows FRANCE 24 to be the 1stTV channel live on the iPhone in February 2009. Early 2011, in addition to usual distribution, he worked on the harmonisation of the multimedia application for FRANCE 24 across the different devices (mobiles, tabs and connected TV/ OTT). Since 2011, he also worked on the worldwide distribution network to provide global footprint coverage to

FRANCE 24

Markus Fritz



BIO: With 20+ years of experience in the satellite, ICT and consumer electronics sectors, Markus Fritz spent more than 10 years with SES ASTRA before joining Eutelsat as Director of Commercial Development and Marketing. He also developed strategic and commercial services in Europe, the Middle-East, Africa and South-East Asia and held several senior managerial positions within ZVEI, which brings together in Germany the manufacturers of electric and electronic products, and within Digital Europe, a Brussels-based association representing the digital technology industry.

A satellite with two long solar panel arrays is shown in space. The Earth is visible in the background, partially obscured by a blue horizontal band. The satellite has a central body with various instruments and antennas.

HbbTV Symposium Asia 2014

Global deployment of Hybrid TV Services via Eutelsat
Singapore, 18th June 2014

Markus Fritz,
Director Commercial Development
& Marketing
Eutelsat

EUTELSAT AT A GLANCE



Taking you above and beyond

- Over 30 years experience in satellite operations
- 37 satellites in geostationary orbit providing reach of Europe, the Middle East, Africa, **Asia**, the Americas
- 6 satellites* for high-growth markets to launch by mid 2016
- Strong mix of video, data and broadband services
- An international company uniting 1,000 skilled professionals from 32 countries
- Driving Innovation and best practice
 - In satellite technology
 - In Broadcast and Data
 - In reception equipment
 - In customer service

** 5 fully owned, 1 in partnership with RSCC **Eutelsat Communications financial year ends June 30*

EUTELSAT – A GLOBAL LEADER IN SATELLITE COMMUNICATION

Global fleet of 37 high performance satellites covering every continent of the world

Partner of choice for most of the leading broadcasters and telecommunication companies, system integrators and governmental institutions in EMEA and beyond



EUTELSAT FLEET
MAY 2014

- stable orbit
- inclined orbit
- * capacity on third-party satellites

FUTURE SATELLITES

EUTELSAT 9B
EUTELSAT 8 West B
EUTELSAT 36C*

EUTELSAT 115 West B (ex. SATMEX 7)
EUTELSAT 117 West B (ex. SATMEX 9)
EUTELSAT 65 West A

SATELLITES UNDER DEPLOYMENT

EXPRESS-AT2*
EUTELSAT 3B

OFFICES AND TELEPORTS CLOSE TO CUSTOMERS ACROSS THE GLOBE



- Global end-to-end service provisioning combined with local, market specific expertise and customer service
- Proven capability to support development and role-out of satellite centric Hybrid-TV services globally

EUTELSAT IN THE WORLD

JANUARY 2014

- Office
- ▲ Teleport / Control centre
- ★ Group Headquarters

GROUP HEADQUARTERS
PARIS

OFFICES

BEIJING	MADRID	ROME
COLOGNE	MALTA	SINGAPORE
DUBAI	MEXICO CITY	TAMPA
ISTANBUL	MIAMI	WARSAW
JOHANNESBURG	MOSCOW	WASHINGTON DC
LONDON	RIO DE JANEIRO	

TELEPORTS / CONTROL CENTRES

CAGLIARI
HERMOSILLO
MADEIRA
MEXICO CITY
RAMBOUILLET
TURIN

VIDEO : A STRONG AND GROWING CORE BUSINESS



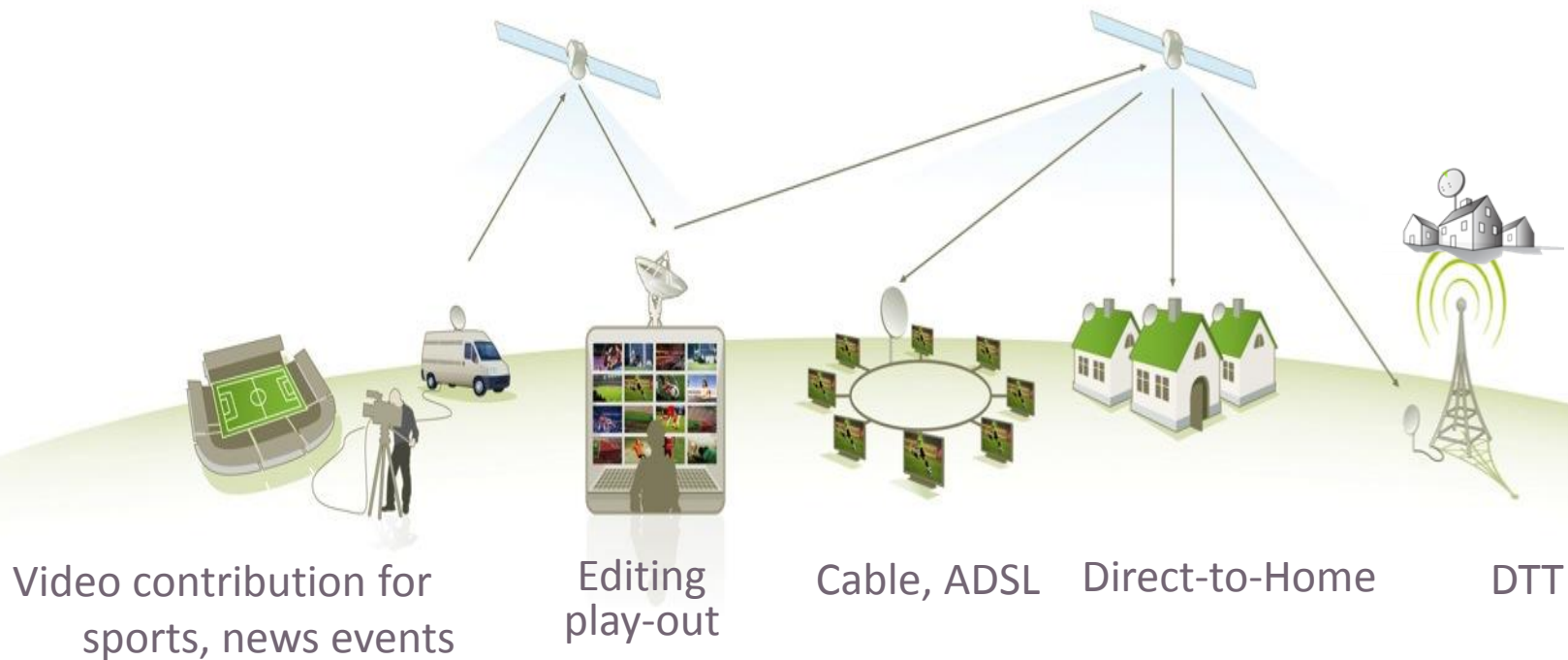
Our satellites sit at the heart of the video chain, from live outside broadcasting to viewing in the home

- ✓ 30 years of experience in Direct-to-Home (DTH) broadcasting & content delivery to terrestrial networks : cable, DTT, IP
- ✓ Long-term relationships with key players (pay-TV platforms, telcos, video service providers)
- ✓ Strong exposure to emerging markets
- ✓ Steady channel growth. Broadcasting 5,000 free-to-air and pay-TV channels
- ✓ Solid video neighbourhoods developed for targeted video markets
- ✓ Benefiting from trends in broadcasting: Digital switch-over, HD, OTT, Ultra HD ...

EUTELSAT IS ACTIVE IN EVERY STEP OF THE BROADCASTING CHAIN – EITHER DIRECTLY AND / OR THROUGH PARTNERS

Professional video links

Broadcasting



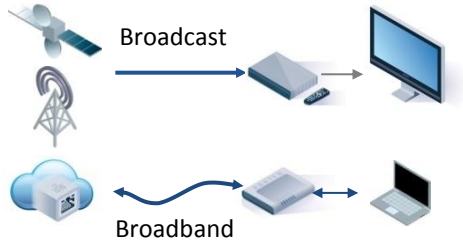
Plus additional Value-Added-Services

THE BEST OF BOTH WORLDS: HIGH QUALITY LINEAR TV AND BEST IN CLASS ON DEMAND TV SERVICES

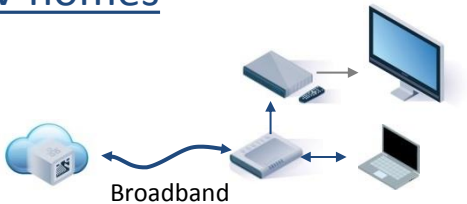
Hybrid Broadcast Broadband TV framework

Historical situation with stand alone broadcast and broadband

Broadcast homes

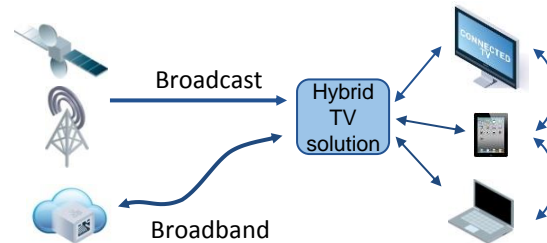


IPTV homes

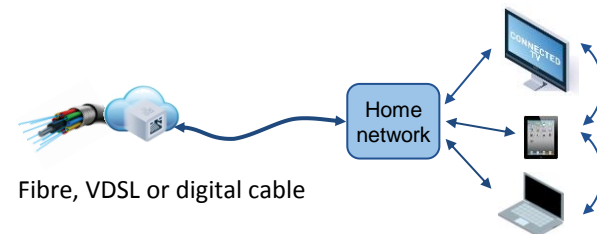


New situation with converged hybrid solutions on top of pure broadband solutions

Hybrid solutions



Pure broadband solutions



HYBRID TV IS A REALITY: DOZENS OF TV PLATFORMS WORLDWIDE HAVE LAUNCHED HYBRID SERVICES

Examples of bundled Terrestrial and Satellite TV Broadcast Broadband services



... AS WELL AS TELCOS, TO INCREASE THEIR REACH OR OPTIMISING THEIR VIDEO SERVICE OFFERING AND DISTRIBUTION

Examples of Telcos Hybrid Broadcast Broadband TV - 2013



What is Eutelsat's role and position with regards to HbbTV ?

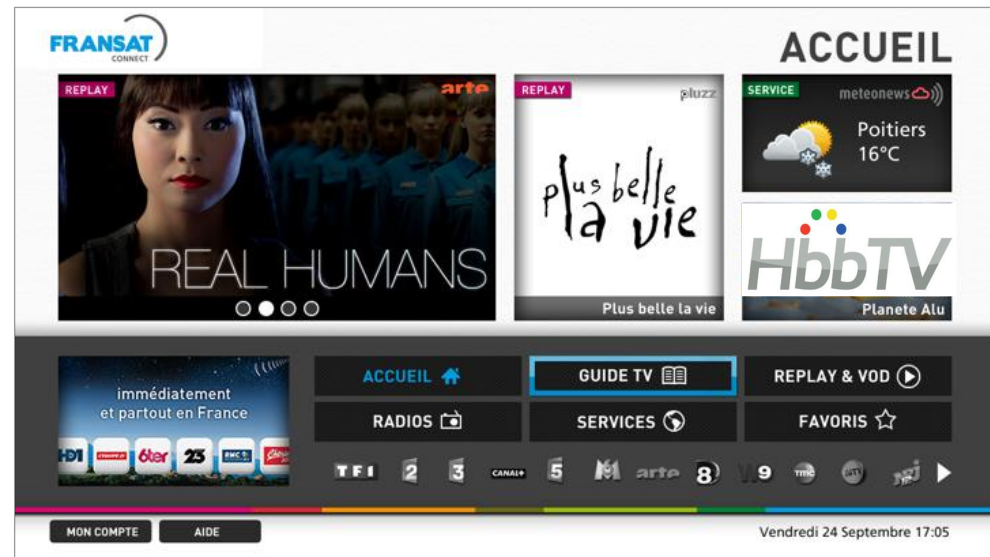
- ✓ Eutelsat is an active supporter of HbbTV
- ✓ In coordination with its customers Eutelsat is committed to drive best practice HbbTV applications and user experience
- ✓ Eutelsat supports the development and roll-out of HbbTV globally (Europe, MENA, etc.)
- ✓ Eutelsat supports its customers in HbbTV tests and implementations locally and globally
Test-case: with France24 at Cabsat 2014, Dubai
- ✓ France: Fransat a fully owned Eutelsat video platform in France is continuously improving its HbbTV based platform services



FRANSAT PROVIDES AN OPERATOR PORTAL TO PRESENT THE LINEAR AND NON LINEAR CONTENT OF ITS TV CHANNELS

Fransat HbbTV

- Operator portal, mixing broadcast channels and broadband video services
- A wholly owned subsidiary of Eutelsat; launched back in 2009 in France
- Compiling connected TV services of the different broadcaster through a common user interface
- > 2 million subscribers



- Program guide (incl. backward EPG)
- Direct access to catch-up and VoD services
- Radio portal
- Companion device (on tablet)



Fransat Connect

- FRANSAT Connect,
 - an interactive TV Portal for STBs, connected TV sets and companion devices (tablet etc.) – offers “red button” functionality
 - offers linear TV, live radio channels, plus
 - access to interactive TV and other service
 - Using the HbbTV standard 1.5
 - with Dash streaming and DRM support (Marlin and PlayReady) - Direct access to interactive services

FRANSAT Connect is acting as a blueprint satellite TV platform to globally support Eutelsat customers in order to launch HbbTV type services within their own respective national markets.



"Banner mode" access from any channel



SMART LNB – ENABLES A COST EFFICIENT RETURN LINK DIRECTLY VIA SATELLITE

Smart LNB

Key principle of the Smart LNB

- Return link by satellite
- Messaging type of application
- Low cost home equipment, compatible with DTH installation
- Very low OPEX thanks to high spectrum efficiency

TV platform/channel benefits (examples)

Track viewer usage

Audience intelligence

- churner behavior detection
- Delinearized content monetization¹⁾
- Push content efficiency

Allow transaction

Payments

- Access to DRM protected content

Allow interactive & social TV

New interactive experience (voting, Twitter, Like ...)

Access to customer STB

Call-center monitoring the STB

- Anti-piracy / CA improvement
- Terrestrial link back-up

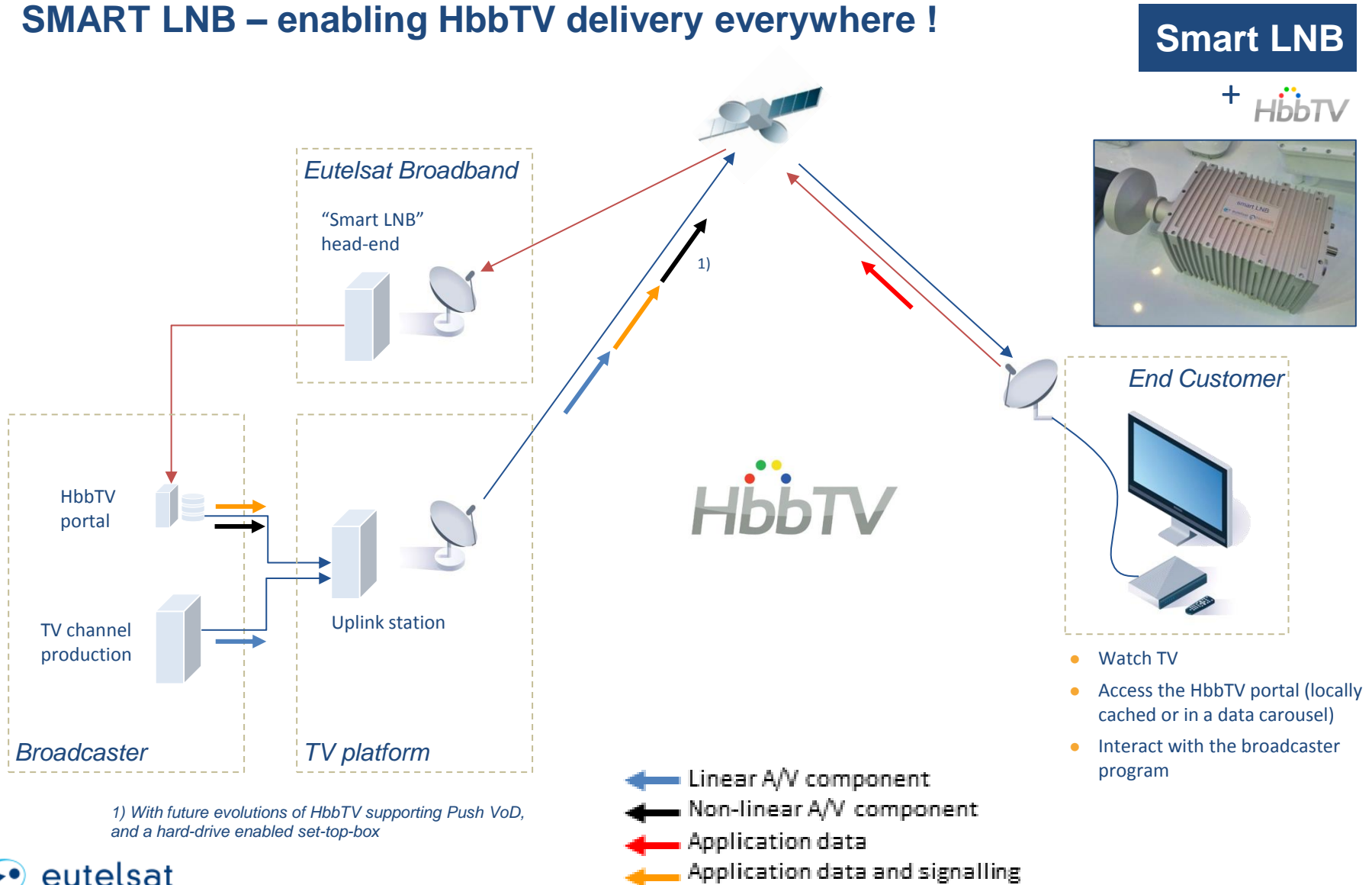
HbbTV

- Monetize content
- Offer new services

- Manage customer
- Reduce costs

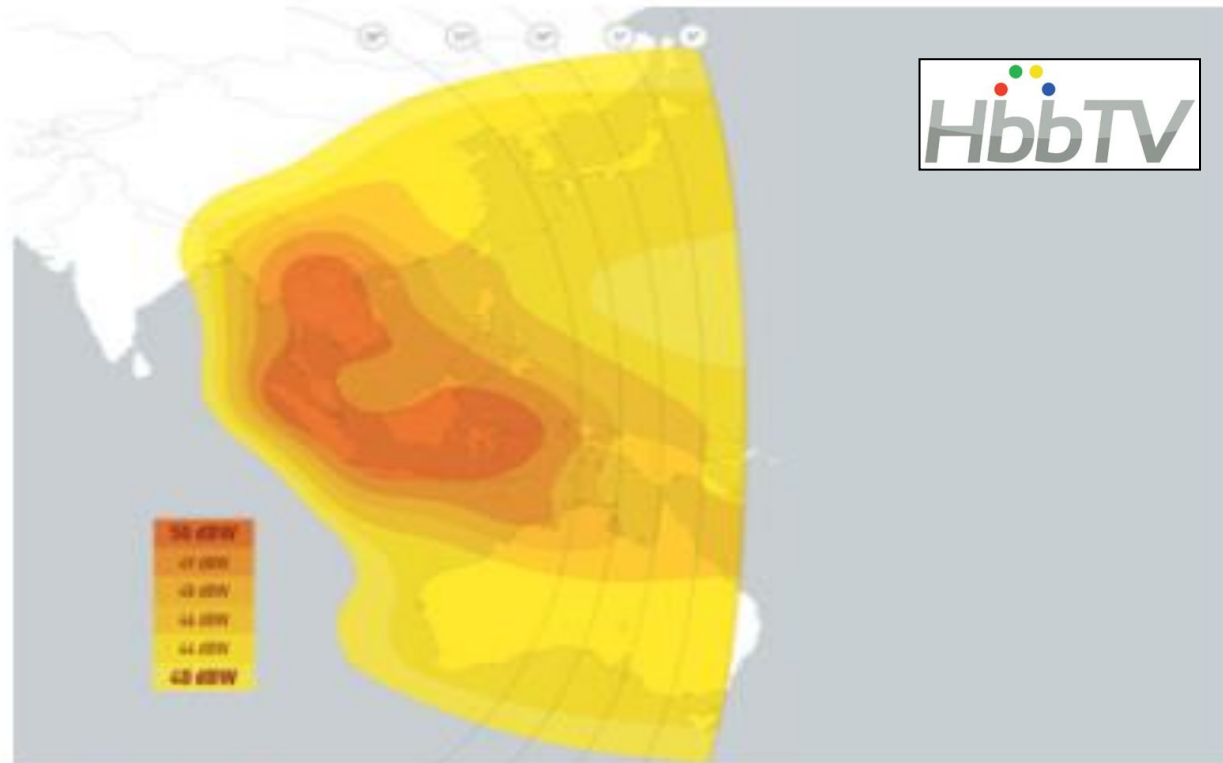
WITH SMART LNB THE HbbTV EXPERIENCE CAN BE PROVIDED TO HOMES OUTSIDE TERRESTRIAL NETWORK COVERAGE

SMART LNB – enabling HbbTV delivery everywhere !



Eutelsat supporting HbbTV in ASIA

- ✓ Eutelsat is committed to support its customers in the deployment of Hbbtv type services for APAC region via E70B
- ✓ E70B satellite at 70.5E with high power DTH capacity



EUTELSAT 70B South-East Asia downlink coverage

THANK YOU FOR YOUR ATTENTION !

Interested ? – Please talk to us!



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INTERNATIONAL NEWS 24/7





FRANCE 24 :

PART OF 'FRANCE MEDIAS MONDE'



TV

41.7 million
weekly viewers⁽¹⁾



RADIO RFI

34.5 million
weekly listeners⁽¹⁾



RADIO MCD

6.7 million
weekly listeners⁽¹⁾



NEW
MEDIA

24 million
visits per month ⁽²⁾

1703 employees

1069 journalists

Nearly 1000 correspondents

Sources: (1) Media research department – weekly audience, 15 yrs +, (calculation method used without extrapolation in 55 of the 177 countries where the channel is broadcast) (2) « Digital Analytix, ComScore





FRANCE 24 :

A DIFFERENT LOOK AT WORLD NEWS



In English

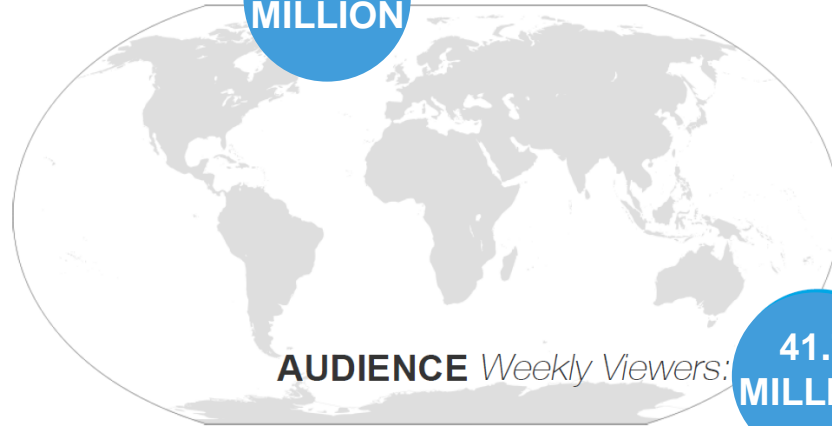


In Arabic



In French

FRANCE 24 reaches **250 MILLION** households worldwide 24/7



AUDIENCE Weekly Viewers:

41.7 MILLION



FRANCE
MÉDIAS
MONDE



FRANCE 24 : Why HbbTV ?

More **Contents**

More **Reach**

More **Interactivity**

More **Innovation**



FRANCE
MÉDIAS
MONDE



FRANCE 24 : a 1st HbbTV F.U.T.

Objectives : test a HbbTV live in DTH environment

- technology
- user experience : usage and perception
- statistics

Partners :

- FRANCE 24 for content and application
- Globecast / Orange for HbbTV inserter and Origin server
- SES Astra and Arabsat for space capacity

Planning :

- press announcement : January 2012 (40 + agencies took the PR)
- test implementation : April 2012
- on air test : April - December 2012



FRANCE
MÉDIAS
MONDE



FRANCE 24 : a 1st HbbTV F.U.T.

What's in the application ?





FRANCE 24 : a 1st HbbTV F.U.T.

Main player (resized live at 1st launch)



Navigation menu

Related content

Language selection



FRANCE 24 : a 1st HbbTV F.U.T.

Latest episode of « Culture » show

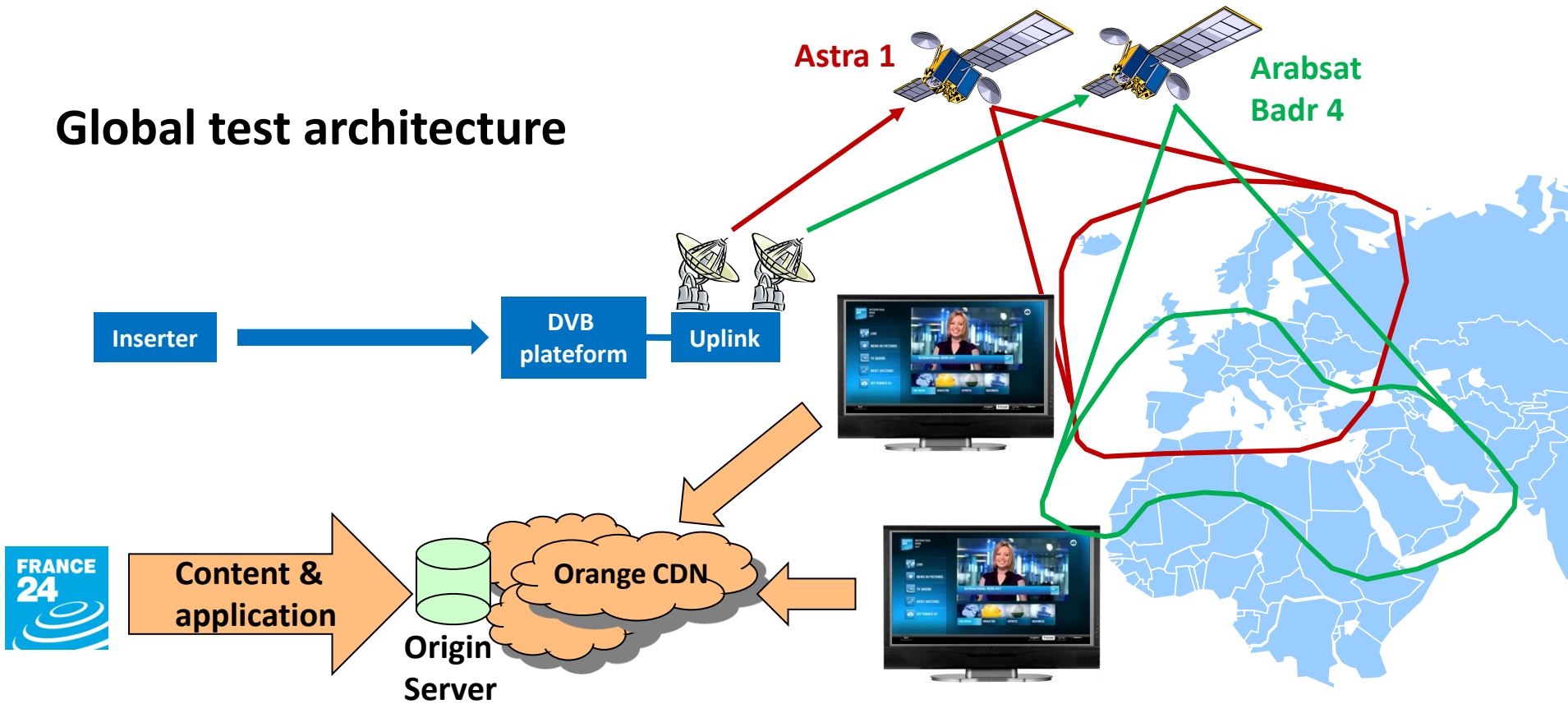
Add this show to MyFrance24 list

TV Shows



Previous « Culture » show episodes available

Global test architecture

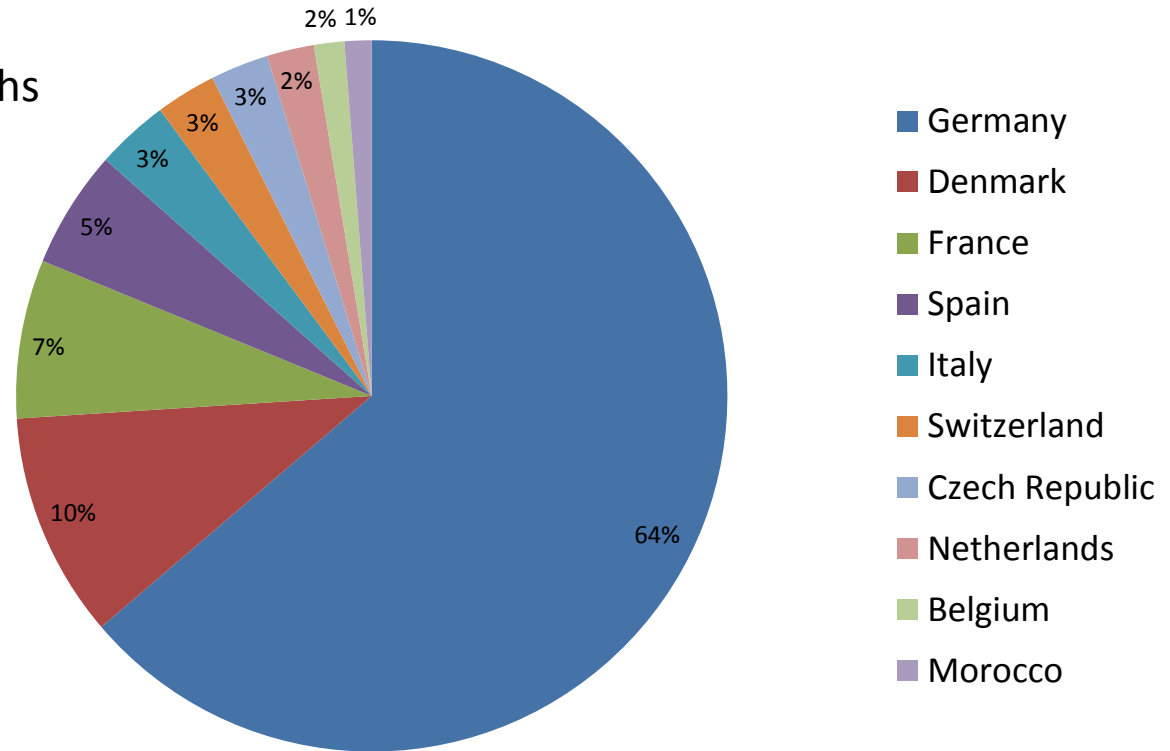




FRANCE 24 : a 1st HbbTV F.U.T.

Results of the test :

78.600 connections in 5 months

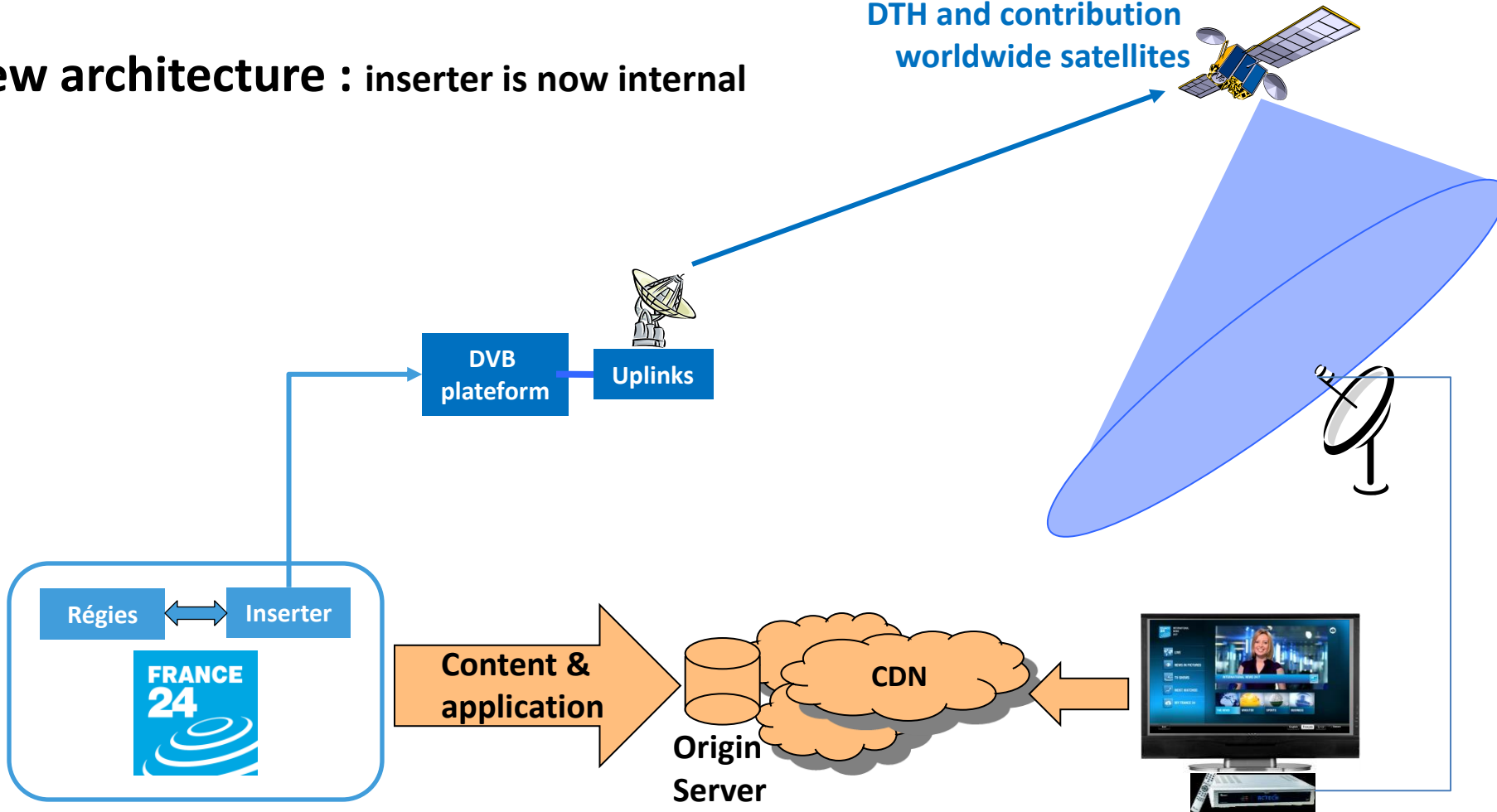




FRANCE 24 : Next steps

New architecture : inserter is now internal

DTH and contribution
worldwide satellites





FRANCE 24 : Next steps

Link the application and the Live

- polling
- additional content (longer video, bibliography, etc..)
- statistics

Issues to sort out

- Editorial Team to use it
- Top Management to believe in it
- Make easy to use



FRANCE
MÉDIAS
MONDE



FRANCE 24 : THANK YOU !

ANY QUESTIONS ?

David Couret

Director Technical Solutions – Distribution

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Mobile : +33 6 33 69 52 24

E-mail : dcouret@france24.com



FRANCE
MÉDIAS
MONDE

HbbTV Symposium: Asia

Interoperability & Quality Standard, Certification & Logos

Keith Potter, CEO

18th June 2014

BroadcastAsia2014

CommunicAsia2014



Media & Device Testing Specialists

Certification – Interoperability – Conformance - Quality

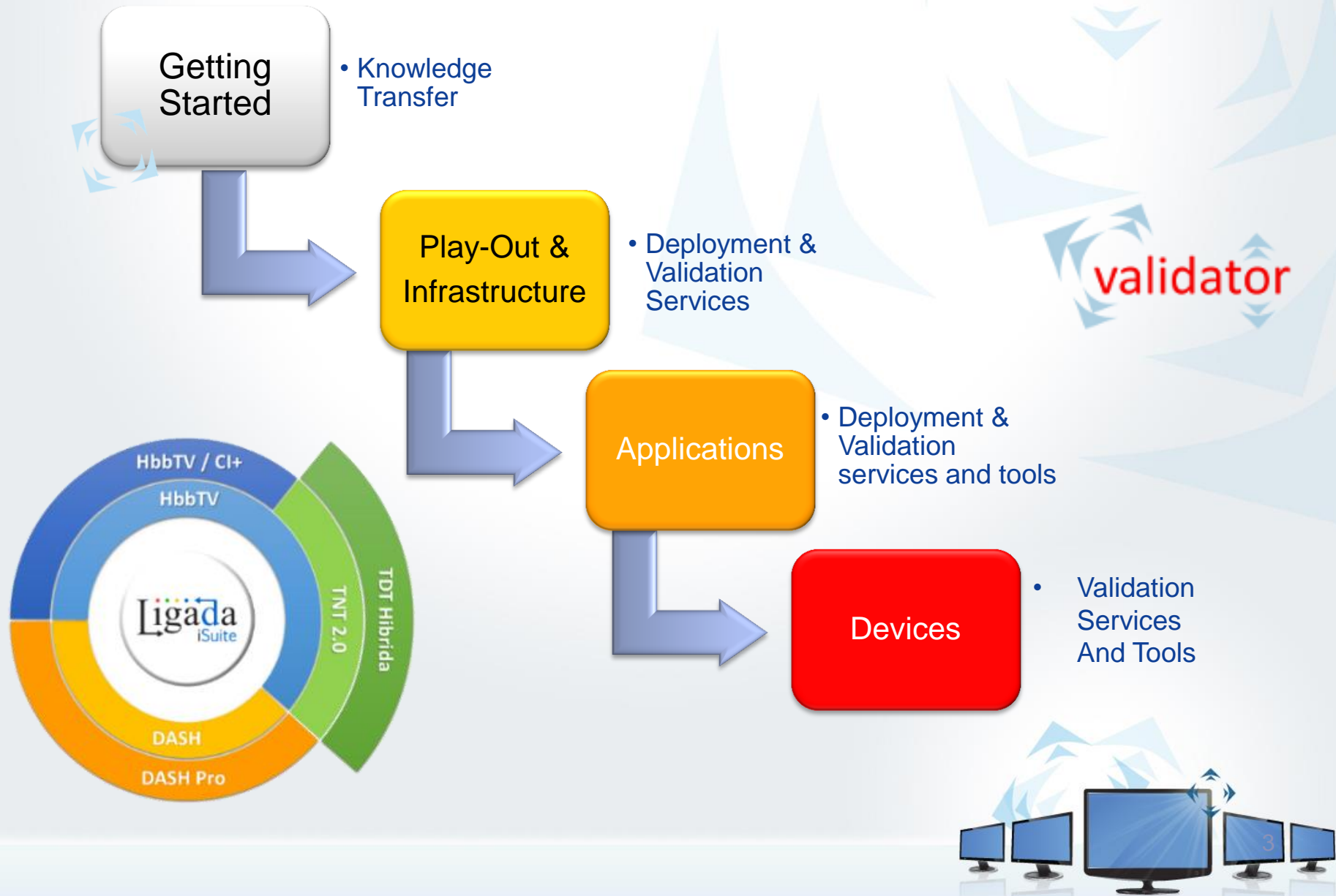


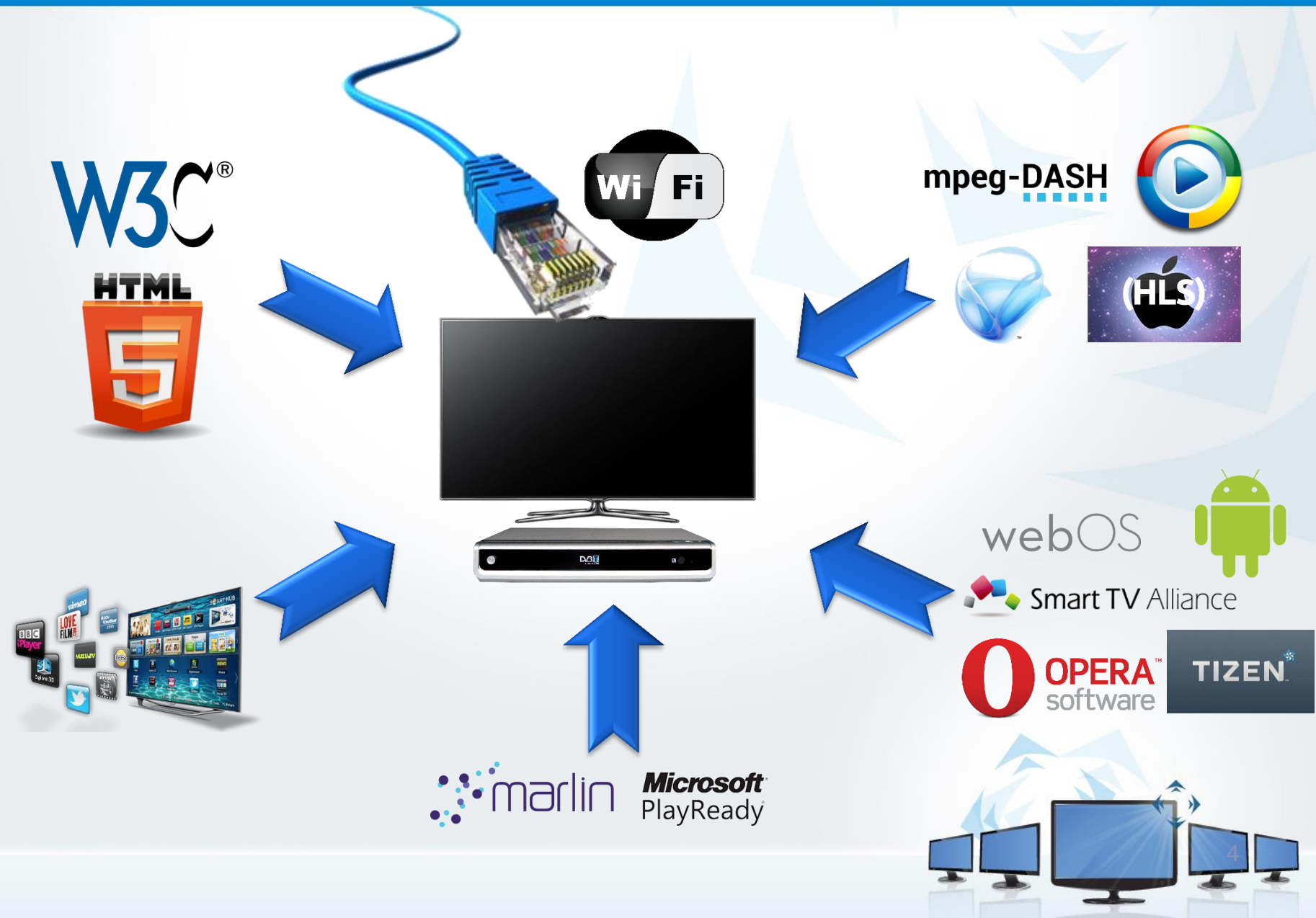
UKAS accredited
Testing Laboratory
No.8159 to ISO/IEC
17025:2005



Testing and Certification Services for over 40 Platforms Globally







- Fragmented
- Deployment is not easily scalable
 - Across platforms
 - Within single manufacturer
- Expensive for broadcaster, content providers
- No connection with broadcast experience
- Overall poor quality experience
 - UI / UX
 - Video Quality
 - Security / DRM
- **Low adoption by consumer**





Mixing TV
Broadcast with
the Internet
Power

Broadcast
Services



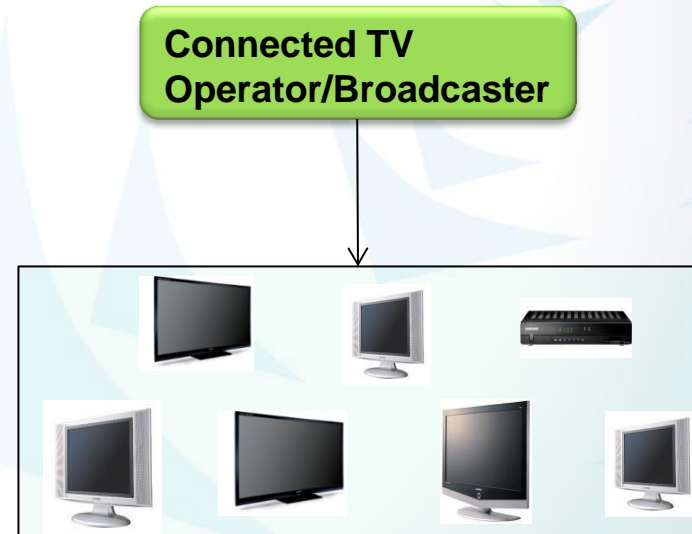
Internet
Services
(Portals /
TV Apps)





“OLD WORLD”

Proprietary Middleware
Operator owns STB
Interoperability by heavy testing
Head-end “camping”



“NEW WORLD”

Multiple platforms
Horizontal market
No control of platform
Interoperability regime



HbbTV Standards

There are 3 main versions of the standards

HbbTV V1.0

First version



TS 102 796 V1.1.1

HbbTV V1.5

MPEG-DASH



TS 102 796 V1.2.1

HbbTV V2.0

HTML5, Second Screen...



To be finalised



HbbTV Test Suites

HbbTV V1.0

First version



V0.95

HbbTV V1.5

MPEG-DASH



To be finalised

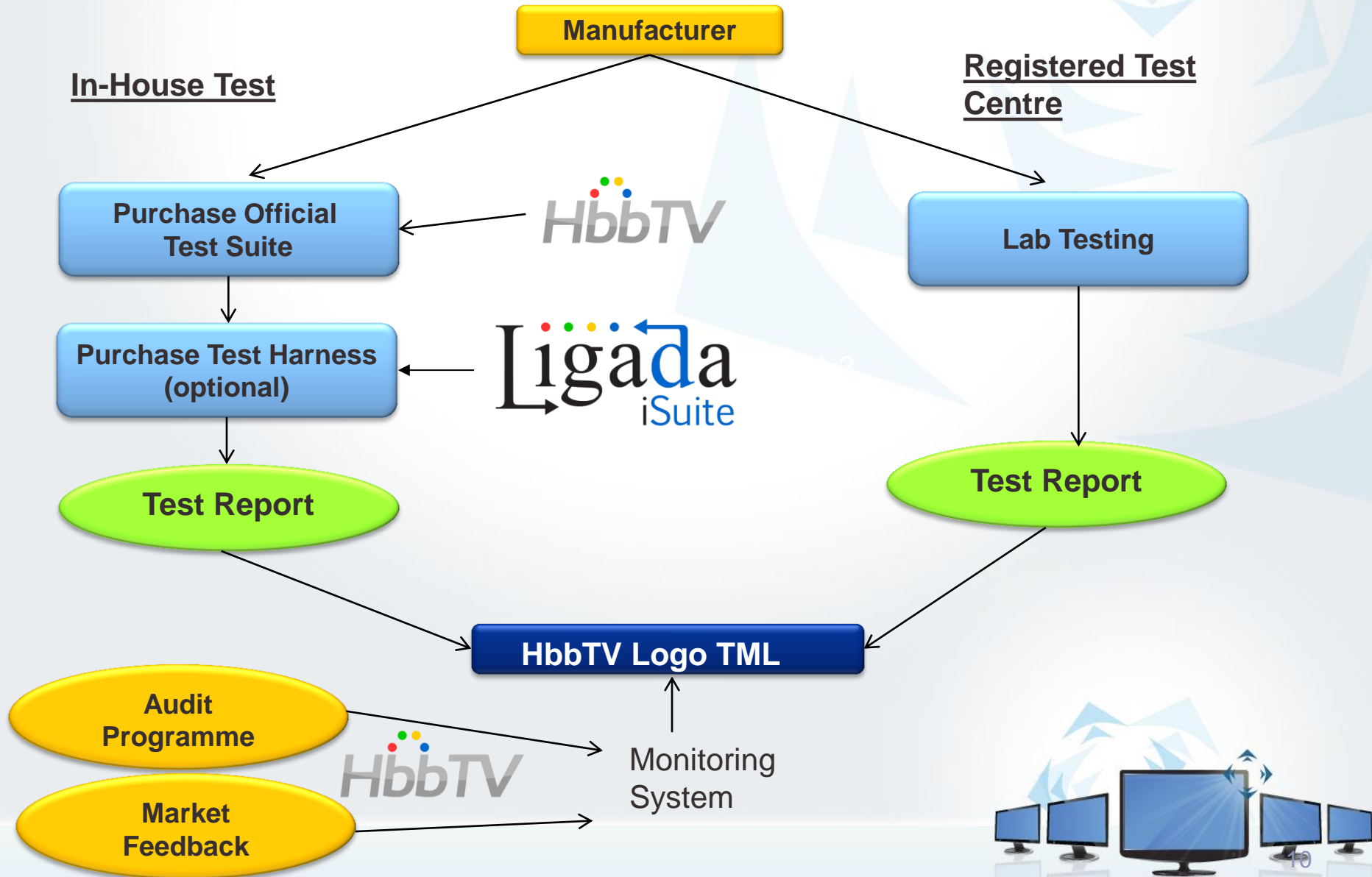
HbbTV V2.0

HTML5, Second Screen, Ad-Insertion, HEVC



To be finalised





Stakeholders for Quality Assurance

Apps
Developer

Regulator

Broadcaster

Manufacturer

 **HbbTV Stakeholders**



End User



Stakeholder Considerations

Apps Developer

- Specific and limited W3C technology implementation
- Cannot re-use standard Web debug tools
- UI / UX
- Interoperability across devices

Regulator

- Author and publish specification
- Test Material and test laboratory
- Guidance to manufacturers
- Consumer awareness and information

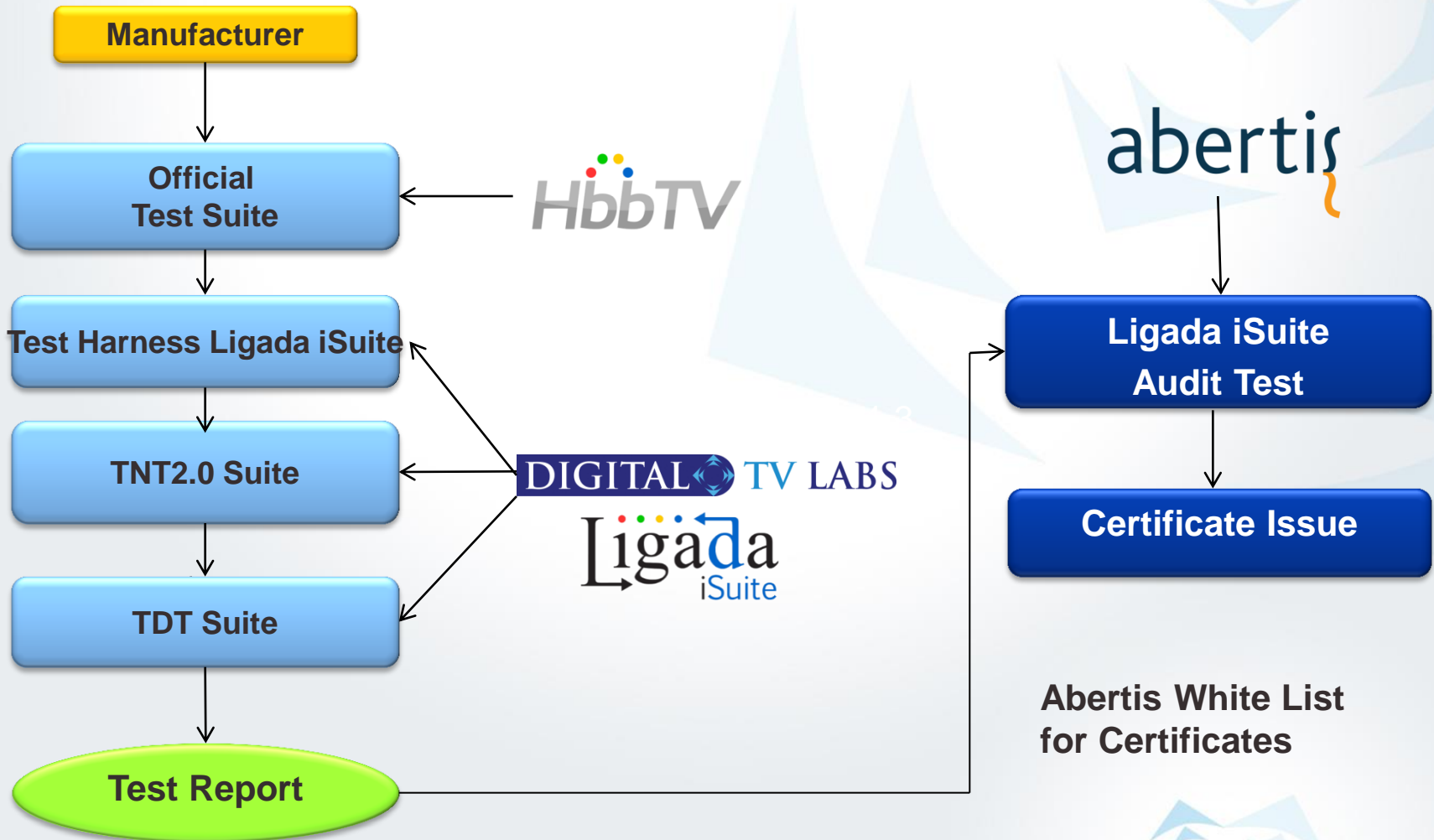
Broadcaster

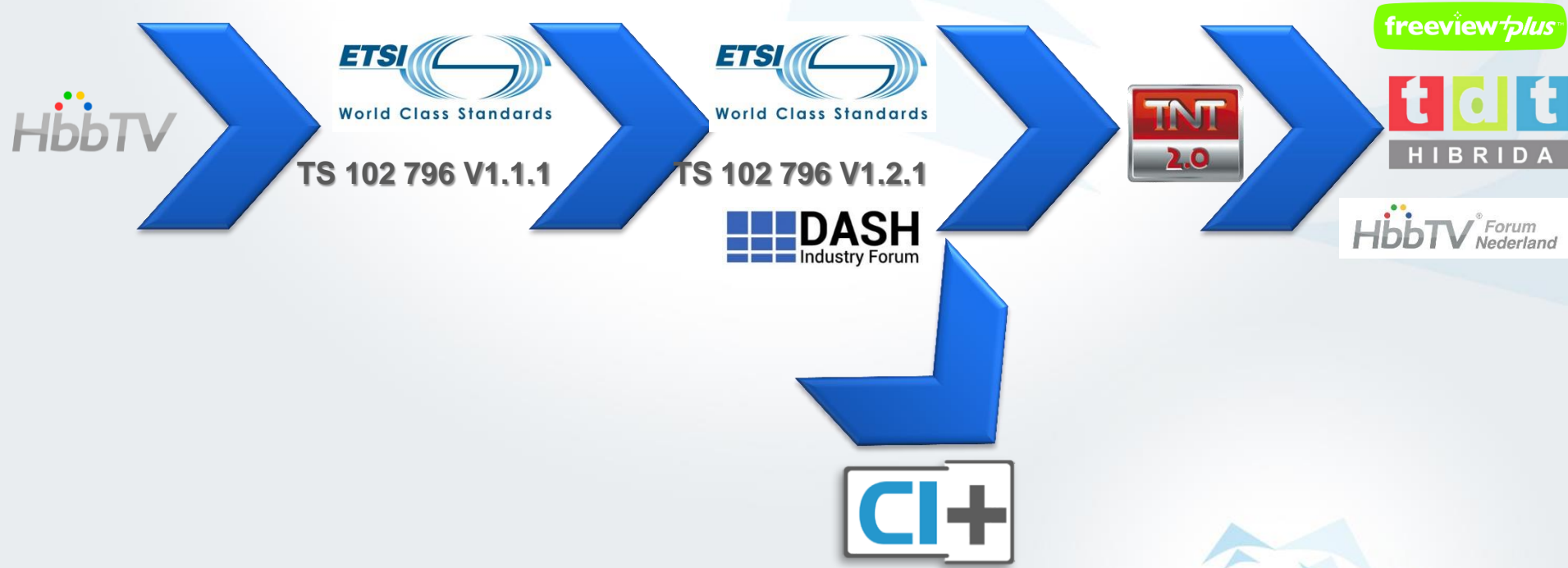
- Integration to Head End Systems (EPG-Synchronisation)
- Use of Adaptive and MPEG-DASH (HbbTV has a DASH Profile)
- Scalable Infrastructure / Availability
- Cost Effective application development

Manufacturer

- Standards conformance / Certification
- Application rendering capability
- Support for streaming, DRM technologies









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8 Science Park West Avenue,
Phase 2, Hong Kong Science Park,
Shatin. Hong Kong.
+852 3426 9695



www.digitaltv-labs.com



info@digitaltv-labs.com



<http://www.linkedin.com/company/digital-tv-labs>



<http://twitter.com/DigitalTVLabs>

Broadcast Asia 2014
Communic Asia 2014

Booth 1D3-07





Marlin For HbbTV Content Protection

Kenny Huang
June 2014





OPEN

PROVEN

COMPETITIVE





Marlin

- Open DRM standard created in 2005 by Intertrust, Panasonic, Philips, Samsung, and Sony
- The most widely deployed DRM platforms for OTT video services and devices today
- Supports several use cases
 - Premium Content VOD
 - Catch-up/Replay TV
 - Second Screen
- Robust and Hollywood endorsed

Panasonic

PHILIPS

intertrust®



SONY




















OPEN STANDARD

- Not limited to a single vendor's implementation
- Technology specifications are publicly available at: www.marlin-community.com
- Any company can join as a solution partner or to further develop the specifications



EXAMPLE SOLUTION PROVIDERS



OPEN

PROVEN

COMPETITIVE



Marlin Embedded Devices

Over 200 million+ devices deployed globally



Marlin Enabled Services



KDDI



NTT



Sony
Entertainment
Network

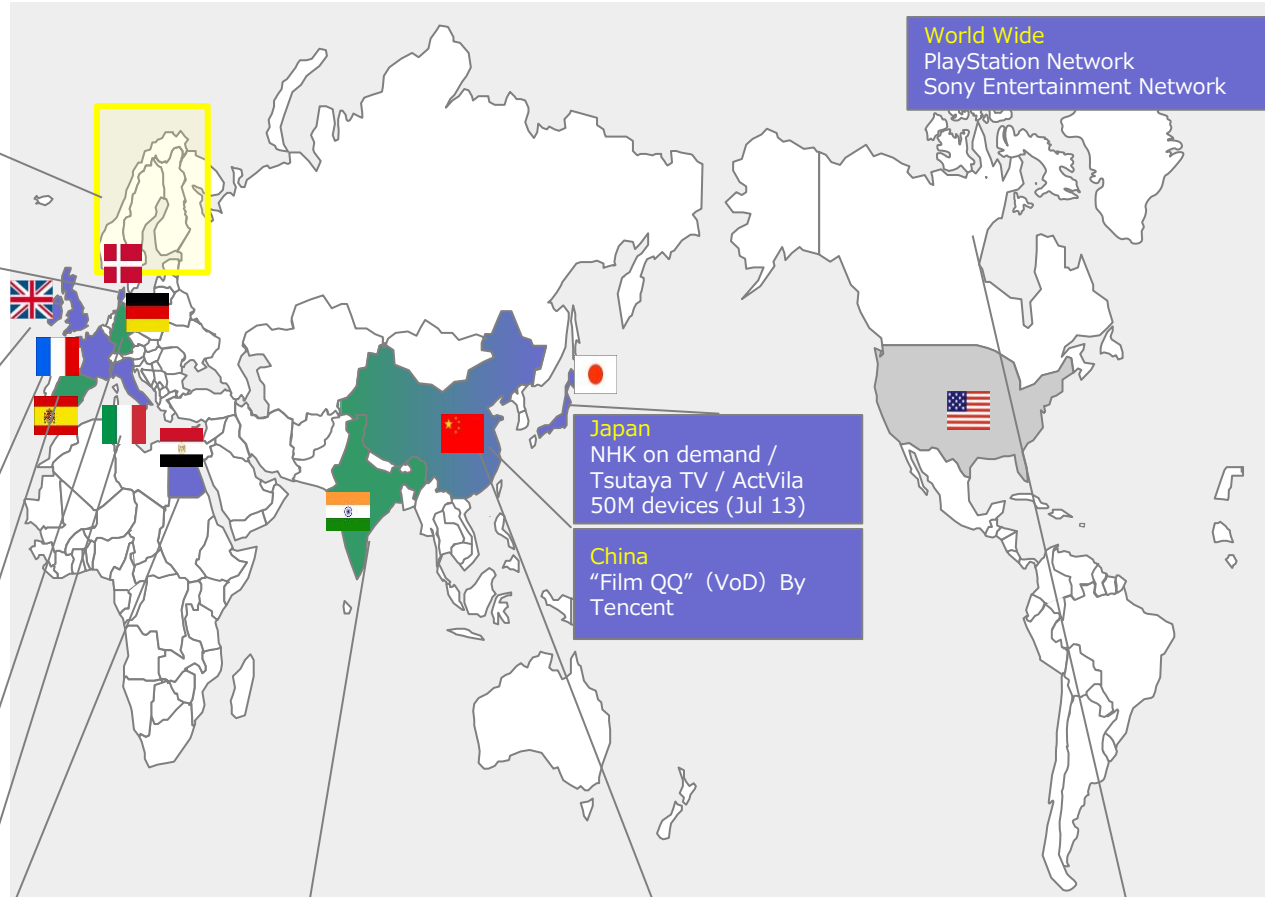


Supported by major studios

All major studios have supported Marlin since 2008 to protect content for rental, subscription and electronic sell through of their digital assets, including of HD & premium content.



Supports HbbTV/OTT Platforms World-Wide



Nordic countries
"NorDig" (common platform for DTV)

Denmark
"OTT live TV" By mediathand

England
"Youview"

France
"My TF1"

Spain
Adopted by AEDITI

Germany
KabelKiosk

Italy
Tivu

Egypt
Vodafone

India
Hungama (VoD for tablet / smartphone)

Japan
NHK on demand / Tsutaya TV / ActVila 50M devices (Jul 13)

China
"Film QQ" (VoD) By Tencent

China
"iQIYI" (VoD) By Baidu
"Wasu" (VoD) By Wasu
Future TV (iCNTV) PPTV

US
Approved for tru2way (by CableLabs)

World Wide
PlayStation Network
Sony Entertainment Network

Deployed

Launching soon





France



- France among the earliest HbbTV deployment
- Most popular multi platform VOD & SVOD service in France
- Sony, LG connected TV and Xbox
- Second screen support on iOS and Android mobile devices as well
- Premium content from major studios and European content providers
- Marlin & PlayReady dual DRM support





youview

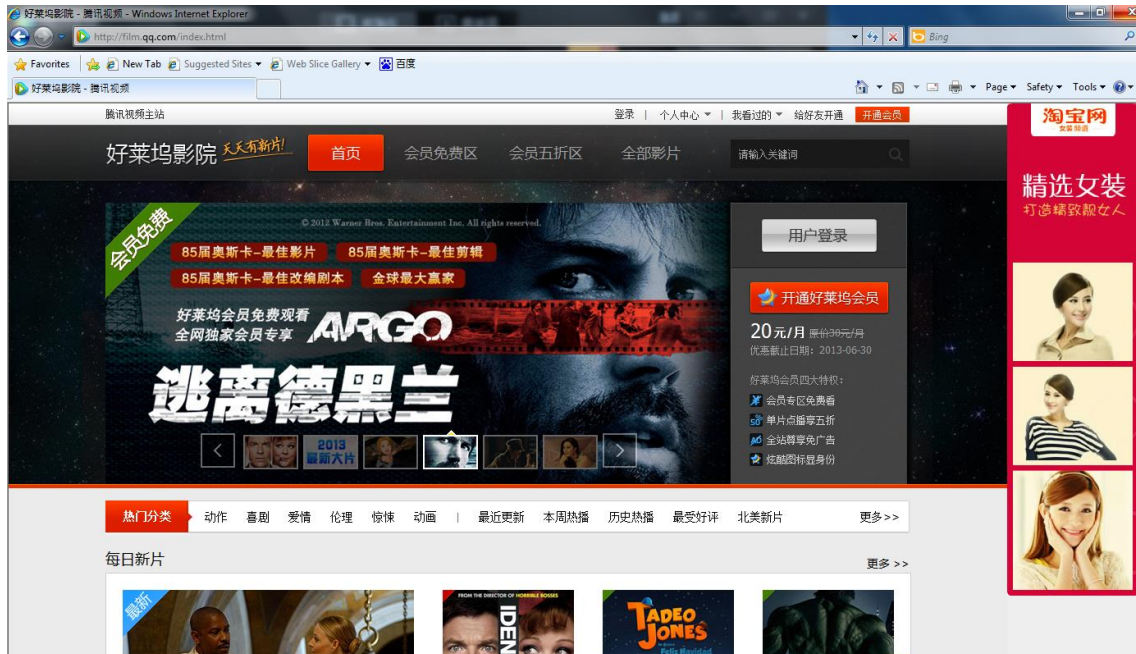
UK



- Premium sports contents on BT Sports channel
- Movies and television shows from all the major studios and content partners (BBC)
- Service partners: BT, Channel 4, Five, ITV...
- National Initiative in UK
- Target devices including STB (Huawei, Humax, Technicolor) and Connected TV



China



- Tencent one of the largest internet video service providers in China has over 120M users
- Movies from all the major studios, including close to theatrical releases such as Argo, Gangster Squad
- PC, Mac, iOS and Android tablets and smartphones





OPEN
PROVEN
COMPETITIVE





EXPRESSPLAY

END TO END MARLIN DRM SOLUTION
DEPLOYED IN THE CLOUD

Easy To Deploy



TAMPER RESISTANT

- root-detection
- anti-debug
- code diversity
- white box crypto
- superior protection

PROTECTED WITH

C R Y P T A N I U M [™]

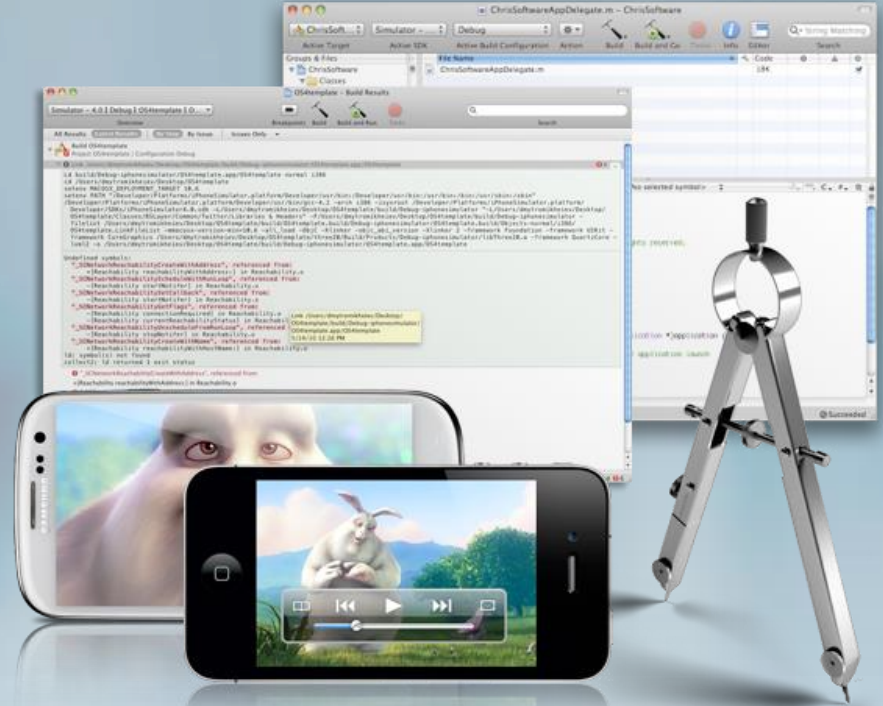


MULTI-PLATFORM

SDK available for iOS, Android, Windows, Mac OSX and Embedded SoC platforms.

iOS

ANDROID



Mstar
semiconductor

MEDIATEK



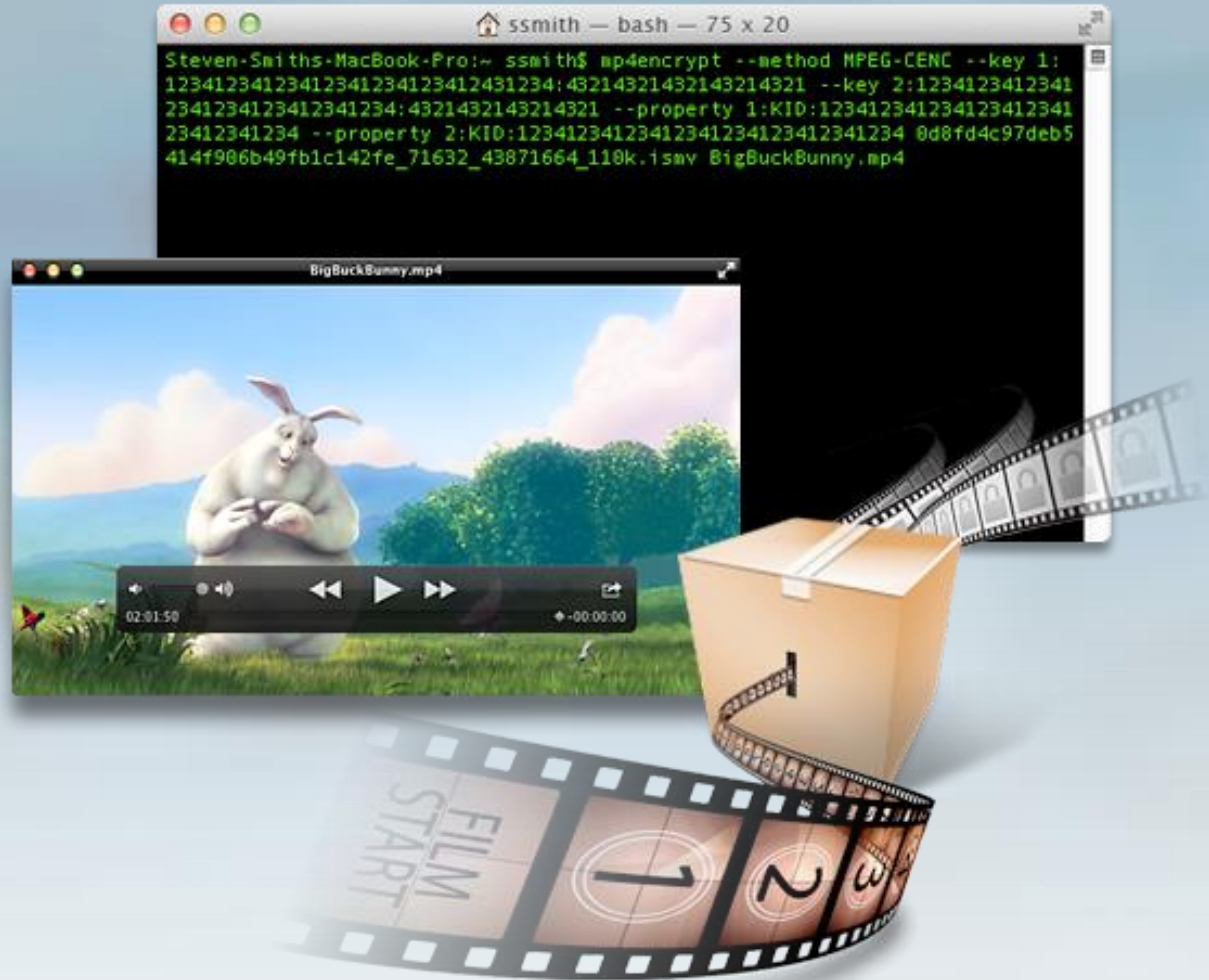
EXPRESSPLAY PACKAGER

Workflow tools for

- DASH
- HLS
- SMOOTH
- MP4
- eBooks

Available on

- Linux
- Windows
- Mac OSX



Try ExpressPlay for Free

- ✓ No Setup Fees
- ✓ FREE Test SDK*
- ✓ Unlimited Test Tokens

Start FREE trial

(No credit card required)

When you're ready to deploy, choose a plan that best fits your needs.

1,000 tokens	8,000 tokens	40,000 tokens	200,000 tokens	1,000,000 tokens
\$10 /mo.	\$60 /mo.	\$200 /mo.	\$600 /mo.	\$2,000 /mo.
 \$0.01 per token	 \$0.0075 per token	 \$0.005 per token	 \$0.003 per token	 \$0.002 per token

Additional fees



ExpressPlay SDK

SDK fee is measured based upon token usage.



+\$0.005
per token used



24-hour Premium Support

Contact sales for premium support options.

Ask sales

*Test SDK is for iOS and Android evaluation and testing purposes only. Not for use in a production environment. Production SDK is \$99 (one time fee).



Complete Media Stack

Available Now



HbbTV

mpeg-DASH

HTTP-based Adaptive Streaming



marlin

License/Key Delivery





www.marlin-community.com

For more information, send your questions to:

khuang@intertrust.com



Experiences in revenue generation

Hbbtv and the integration of Internet with Broadcast



motivetelevision.co.uk

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About Motive Television

- Publicly listed on the LSE with offices in London, New York, and Barcelona
- Global provider of software and services to the Broadcast and Satellite industries for the cost effective distribution of digital content and assets to audiences
- Management team with many years of experience in the content production and distribution as well as in the technology market
- Customers in operation in Europe and Africa
- Currently expanding in North and South America



About Content Express™

- The most widely used Push VOD solution with more than 5 years of commercial operation in multiple countries it enables the delivery of non-linear content to any screen via any network
- The engine behind a wide variety of solutions such as
 - Video on demand for broadcasters and Pay TV operators
 - Tablet TV in the US and Europe
- Content Express™ turnkey solutions include product planning, system integration, VOD platform operation and content (through partners if required)



Our customers



3 key points to generate revenue from Pay TV

- **Control capital expenditure**
 - Above all STB or viewer's device costs
- **Understand your target audience**
 - Define the optimal combination of entertainment and information services that makes the product affordable for consumers while ensuring healthy margin
- **Maximize reach to ensure volumes**
 - Ensure your product gets to as many people as possible by distributing it cost effectively through the network that reaches the biggest share of the target market

Case study 1: Mediaset (Italy)

- Biggest commercial broadcaster in Italy (60M people, 40M HH)
- 2M linear Pay TV subscribers
- 500K subscription VOD subscribers with Content Express™
- VOD platform operational since 2010 (5 years)

- **Strategy**
 - Compete against Sky Italia with linear Pay TV and VOD targeting the high-end market through a high-performance STB
- **Lesson learned: it is critical to select the proper platform**
 - Stuck with MHP
 - STBs from multiple vendors need to be available through retail chain
 - No need to compete with existing established players to be successful

Case study 2: Siyaya (South Africa)

- New satellite and broadcast Pay TV operator in South Africa (60M people, 13.5M HH)
- Content Express™ for linear and on-demand Pay TV
- Service to be launched in Winter 2014

- **Strategy**
 - Compete against MultiChoice (incumbent service provider with 4.9M subscribers) with linear Pay TV and VOD targeting the low-end mass market through a low-cost STB
- **Lesson learned: if done properly, the mass market is a huge opportunity**
 - Cost effective viewer's device are possible (below \$50 wholesale price)
 - Cost-effective devices + cost effective services can generate significant revenue and profit through high volumes (Google advertising model), especially in countries where end-user prices are under pressure
 - Hbbtv support for phase 2

Case study 3: Tablet TV (U.S.)

- New linear FTA + subscription VOD broadcast Pay TV operator in U.S.
- 140M tablets initial potential market
- Content Express™ for Pay TV (Virtual Channels) and subscription VOD
- Service to be launched end 2014

- **Strategy**
 - Create a complementary low-cost Pay TV service targeted at connected devices (tablets and smart-phones) that leverages the existing broadcast networks and existing FTA content
 - It uses an external device (T-Pod) for the reception of TV signals sold through retail
- **Lesson learned: there are great opportunities beyond the STB**
 - The broadcast network remains the most cost-effective content distribution network ideal to reach the mass audience especially when consumers are looking for low-cost and targeted Pay TV services

Hbbtv allows you to control capital expenditure

- **Cost effective, open, and future proof MiddleWare solution**
 - Allows you to reach the highest distribution volumes with the capital you have available
 - Uses Internet standards therefore ensuring long-term service viability
- **Hybrid**
 - Integrates broadcast and Internet distribution networks
 - Broadcast gives you reach, Internet gives you 2-way relationship with the audience
- **Horizontal devices distribution model**
 - By being an open standard it ensures a multi-vendor device market which guarantees cost effective products through competition
 - Products can be available on retail, i.e. lower operational costs for the service provider



Hbbtv: competitive prices AND compelling services

- **Linear Pay TV subscriptions revenue**
 - Through traditional linear Pay TV channels (if bandwidth is available)
 - Through Virtual Channels (if bandwidth is a constrain)
- **On-Demand subscriptions revenue**
 - Through Internet-based streaming (if consumers have enough bandwidth)
 - Through broadcast Push-VOD (if consumers' bandwidth is limited)
- **Catch-Up TV**
 - Through Internet-based streaming (if consumers have enough bandwidth)
 - Through broadcast network (if consumers' bandwidth is limited)
- **Additional Internet applications and services**

Hbbtv in summary

Right cost for the platform

Right price for the service

Best distribution network

television.
anytime.
anywhere.



motivetelevision.co.uk

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Push Technology & HbbTV Enabling new Services

Singapore - June 18th 2014





Quadrille was founded in 1998 and is based in Paris.



We started our activity as a **consulting** company providing services to the **digital television and telecommunication industry** :

- Technical consulting
- Broadcast engineering
- Systems integration
- Project management



Since 2010, Quadrille has developed **QuadriFast™**, a **Content Delivery Solution** :

- Push VOD over DVB network
- Push over IP network
- Digital Signage
- Education
- Narrowcasting and VSAT



VOD services on hybrid set-top boxes and NAS (Multi-media storage device)

- DRM & satellite return channel



VOD on satellite and terrestrial (Albania)

- Launched July 2013
- 300 000 subscribers
- Transactional VOD



Interactive services in buses (France)

- Data broadcast over DVB-T2
- Wifi rebroadcast



VOD services on hybrid satellite STBs (France)

- Deployment end 2014
- Replay service



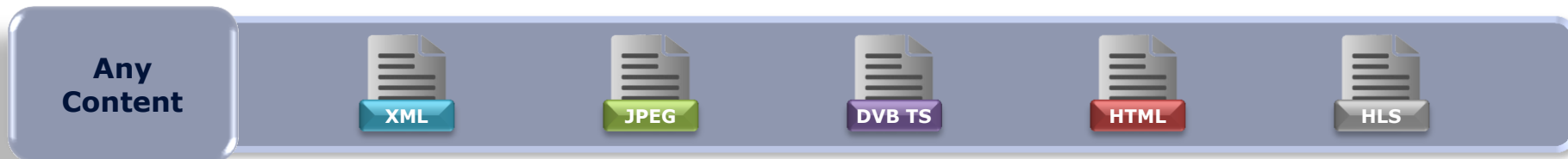
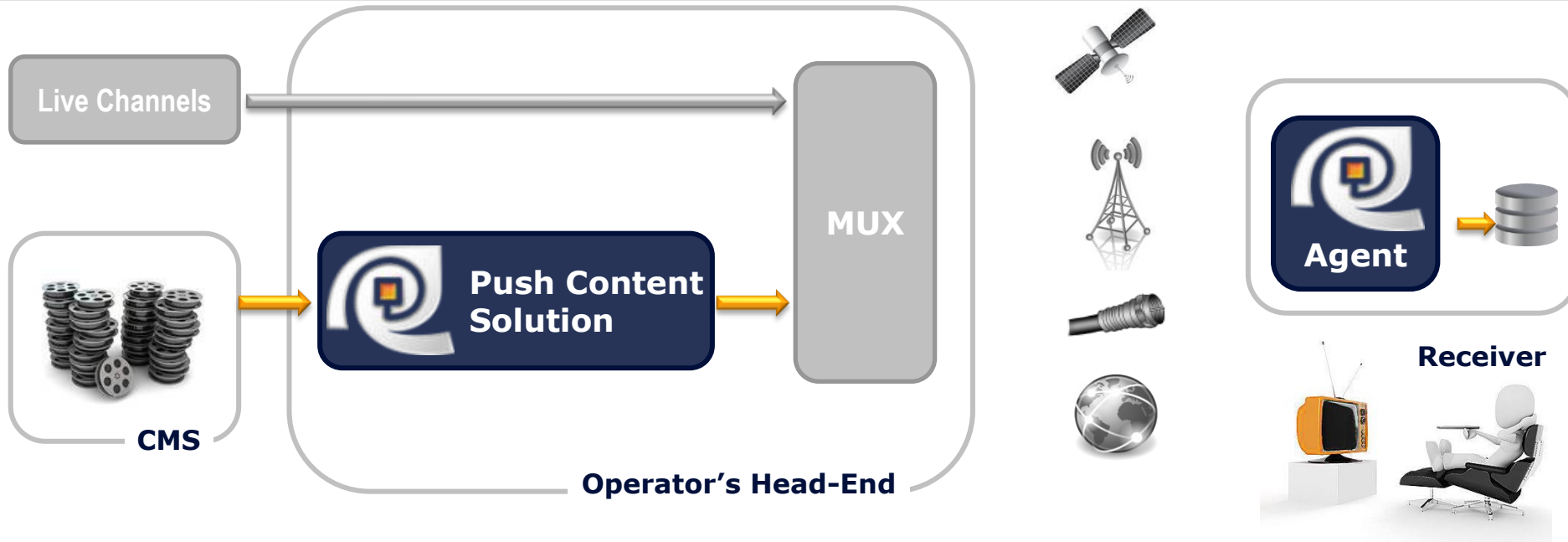
Digital Signage solution (IP based) (France)

- Operational since 2010
- 60 000 Sales Points fed daily



QuadriFast™ - Multimedia Push Technology

Solution Overview





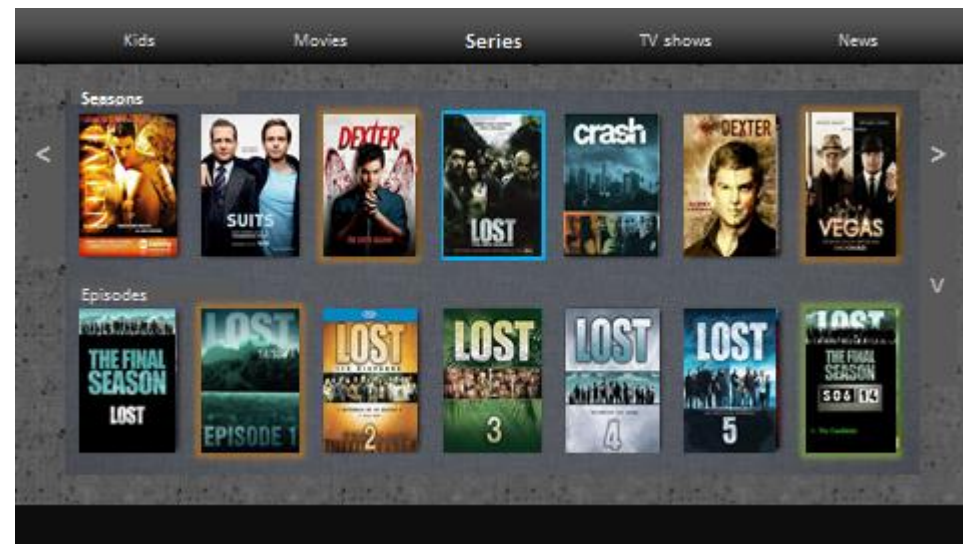
- The HbbTV 2.0 standard integrates a video file transfer mechanism (« Push »)
- Quadrille contributed the protocol to the HbbTV standard
- Broadcast schedules for the video (or other files) are provided through a HbbTV application
- Metadata are managed through a HbbTV application in the receiver
- The HbbTV Push Standard is compatible with most CAS & DRM implementations
- Possibility of additional Forward Error Correction (FEC)
- Eutelsat and Quadrille are implementing a full end to end demonstrator



Typical Applications for Push Technology



- Standard approach to video content
 - S-VOD services (Subscription VOD)
 - Movies
 - Series
 - Education
 - Advertisement financed VOD
 - Replay (Catch-up services)
 - T-VOD services (Transactional VOD, « Pay Per View »)
- Lots of content
 - A 500 Gbyte hard disk connected to a single tuner sub-\$30 zapper can offer for immediate consumption:
 - 100 Movies (1/3 HD)
 - 160 Series Episodes (1/5 HD)
 - 320 education programs of 15mn (SD)
 - 14 hours of replay services (SD)
- using only **4.7 Mbit/s** of bandwidth capacity
- With a Wifi connexion the STB can also offer VOD content for consumption on a tablet and smart phone

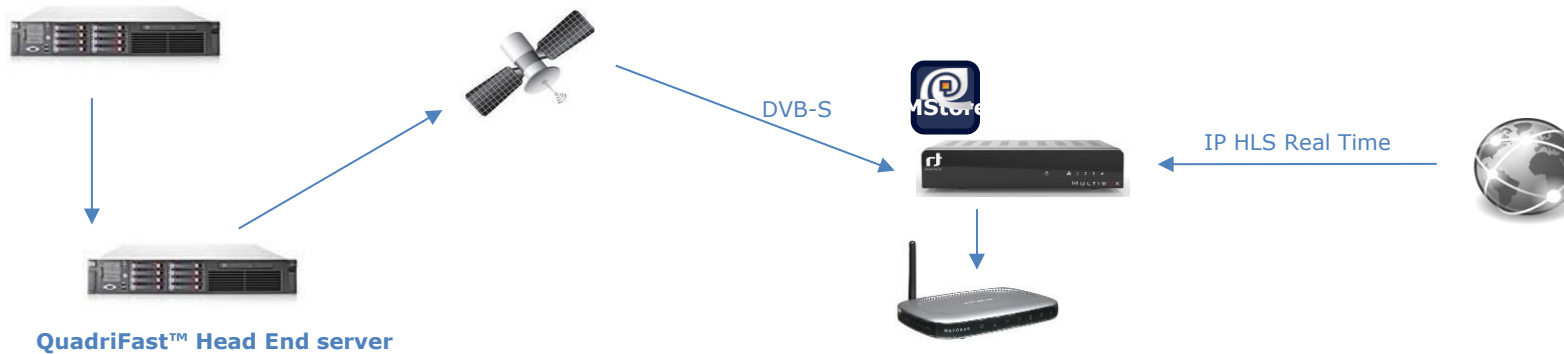




Push as Broadband extension



- Push Technology is not only about Pushing video content. It is about providing using a limited bandwidth return channel (3G/4G or satellite return) broadband services by caching locally the most viewed content (« edge CDN »).
- The same HbbTV broadband OTT applications can therefore be made available to viewers with limited bandwidth.
- The return channel is used for reporting and rights management
- Example: Offering a Replay service on tablets in areas with limited bandwidth

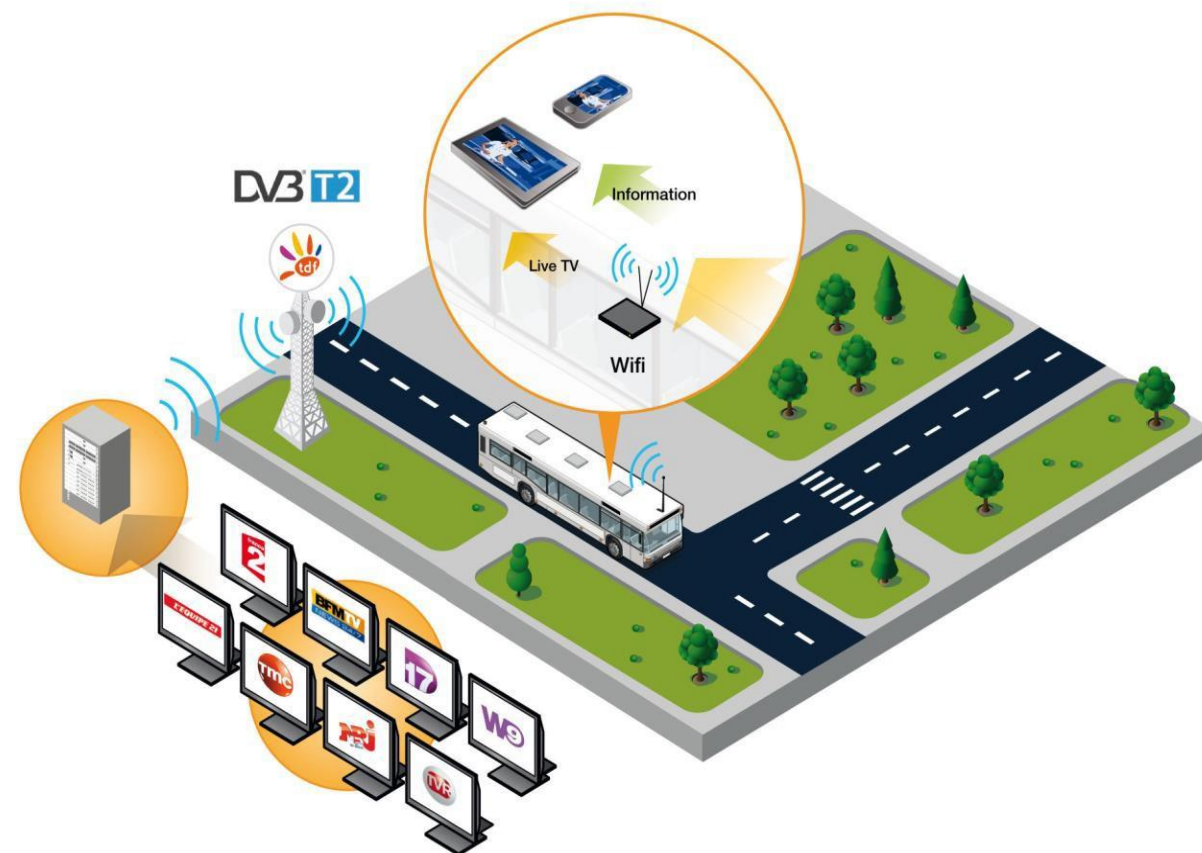




An example: Offering mobility services to customers in buses and trains

The French Terrestrial Broadcast Network Operator (TDF) launched a service in the city of Rennes in France providing video streaming services and multimedia applications (local news, weather, traffic information) on local and regional buses.

Multimedia content and live video (HLS) is pushed using the DVB-T2 signal to a box in the bus which then provides a point to point wifi local link to smart phones and tablets through a specific application.





Thank you!



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Chief Commercial Officer

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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 togethe



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
 and powered by Sofia
 ivery to Antenna
 and with Middleware

HbbTV system high-level diagram of “ecosystem”

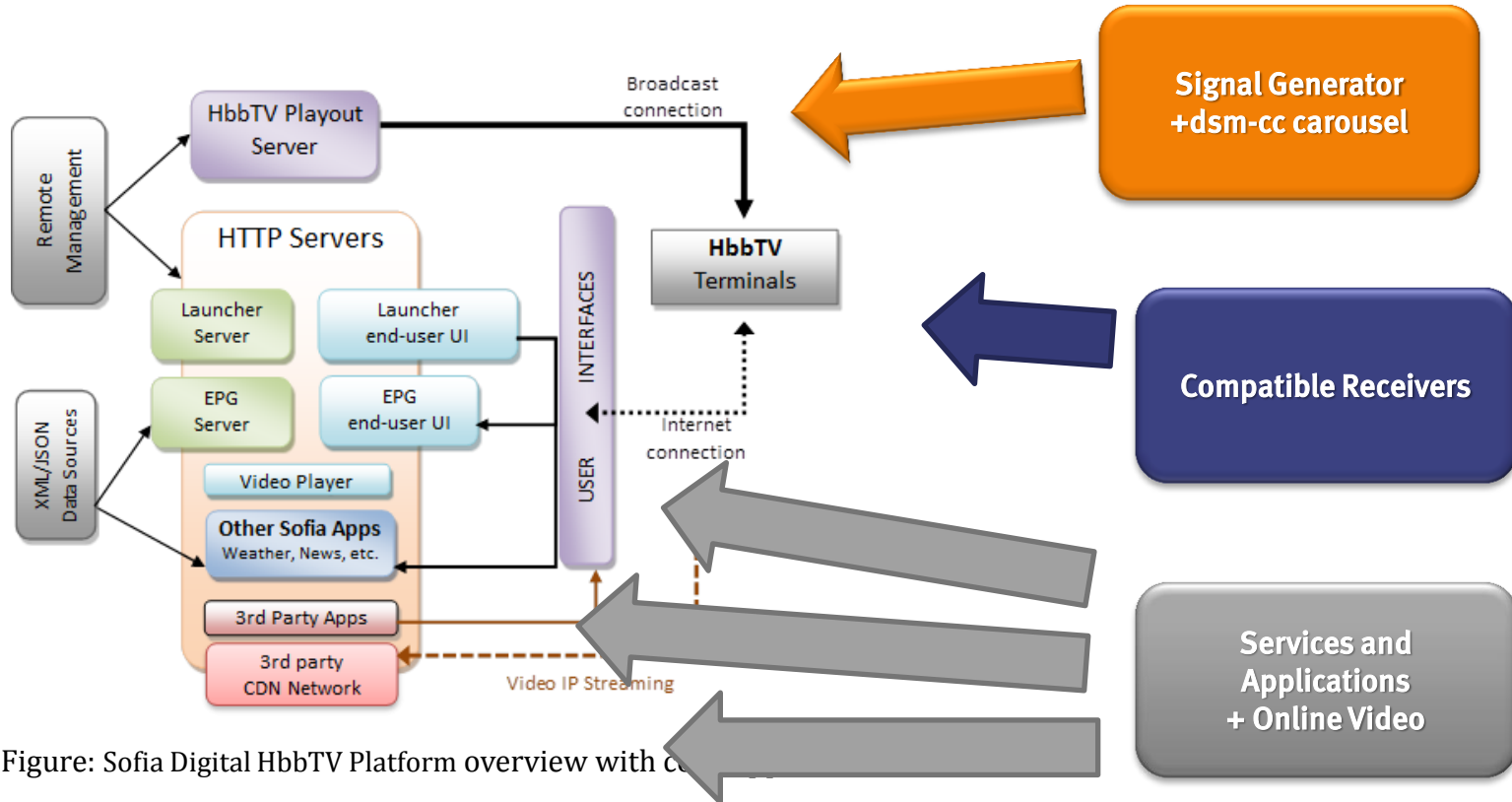


Figure: Sofia Digital HbbTV Platform overview with c

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!



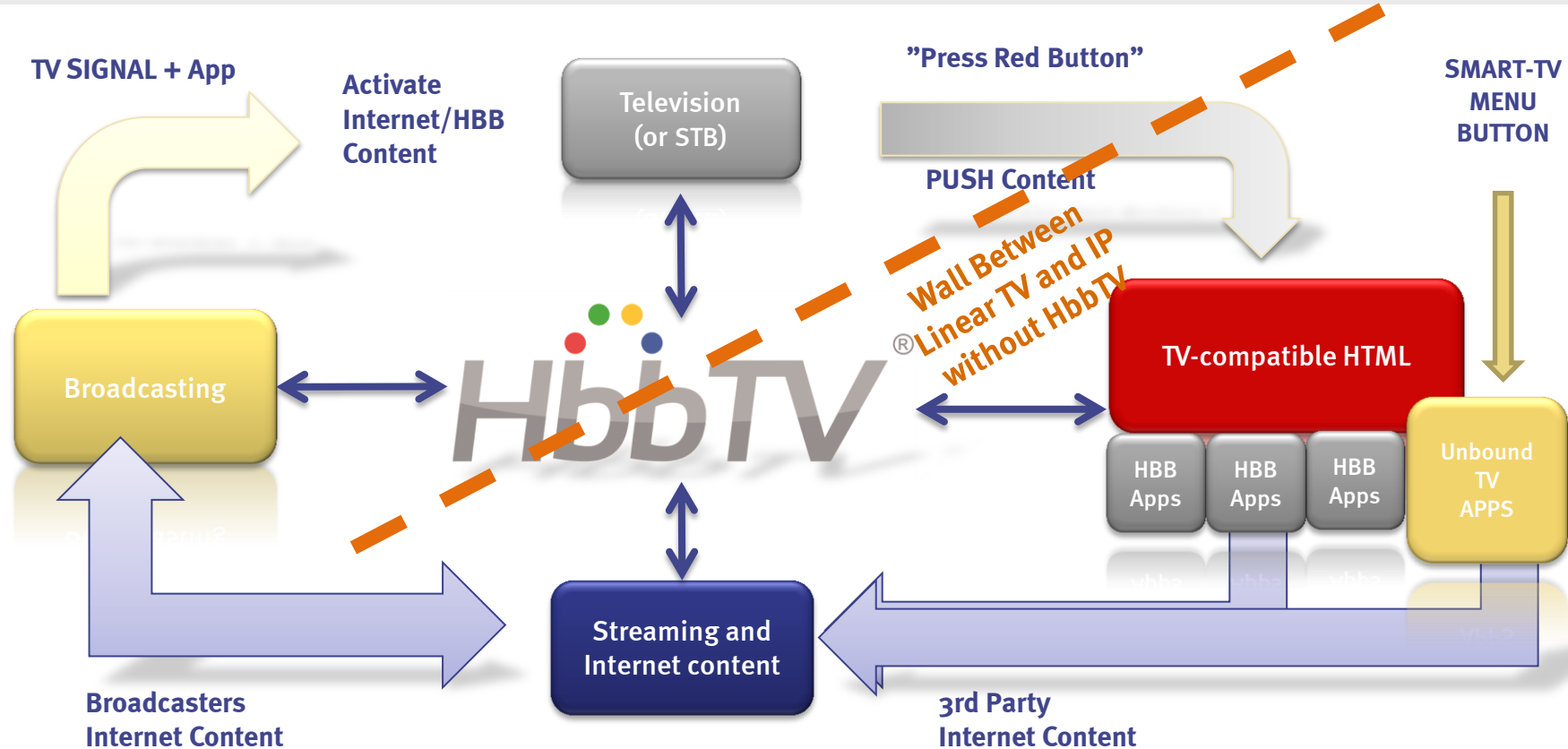
What HbbTV can enable?

- ◆ **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

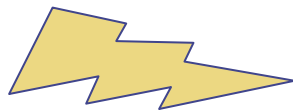


HbbTV and Internet

- Linear TV

(TV receiver with tuner)

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



Fight between delivery platforms



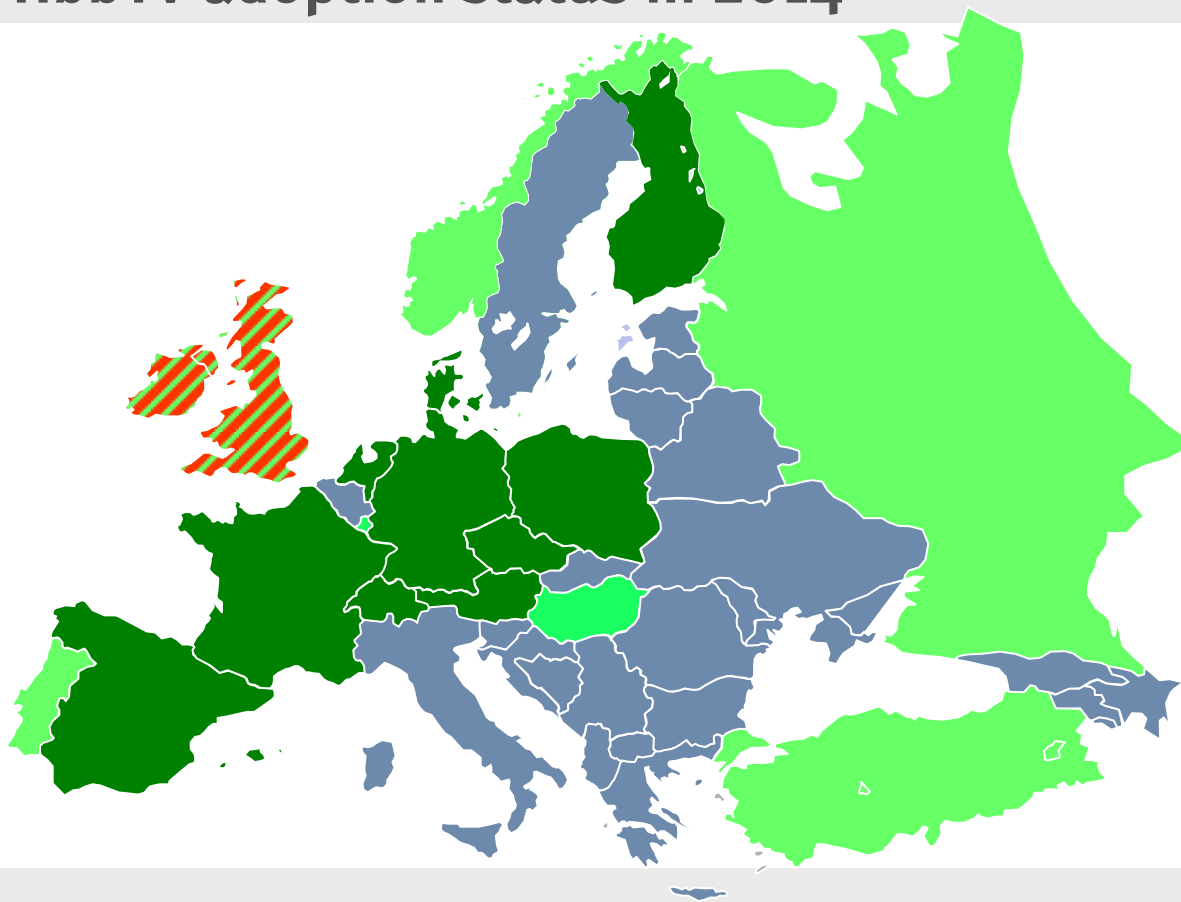
- Networked Services

(Internet devices)

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



HbbTV adoption status in 2014



in regular operation

announced / trials

no information

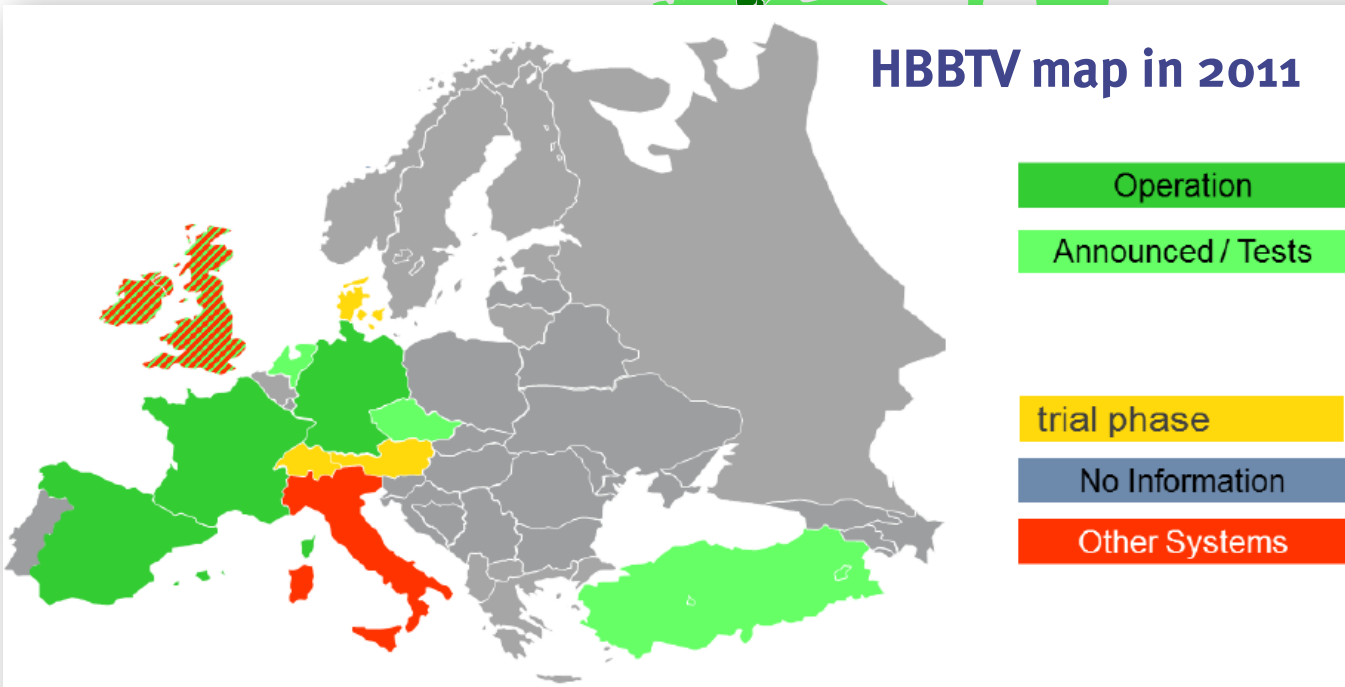
other plans

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



in regular operation

announced / trials

no information

other plans

Operation

Announced / Tests

trial phase

No Information

Other Systems

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 for channels 5, 6, and FOX is shown. Channel 5 programs include Pulmuset, Kolmas kivi auringosta, Kellarin kunkku, and Poliisikelaat. Channel 6 programs include Me Rakastamme Musiikki!, 100% Rock, Star Trek: The Next Generation, Ihmemies MacGyver, and Seinfeld. FOX programs include Supertehtaat: Dodge Viper, Grillimaisteri Hans Välimäki, STT Uutiset, Samun salainen keittiö, and Huutokaupan meteästäjät. A movie 'Talladega Nights - Bersaa suonissa' is highlighted at 21:00. Below the guide, there is a description for the movie and a 'Sulje lisätiedot' button. On the right, a live broadcast from YLE TV1 is shown, featuring a NASCAR driver holding a trophy. The interface includes a navigation bar at the bottom with buttons for 'Valitse toiminto', 'Poistu', 'Tietoja', and a blue button.

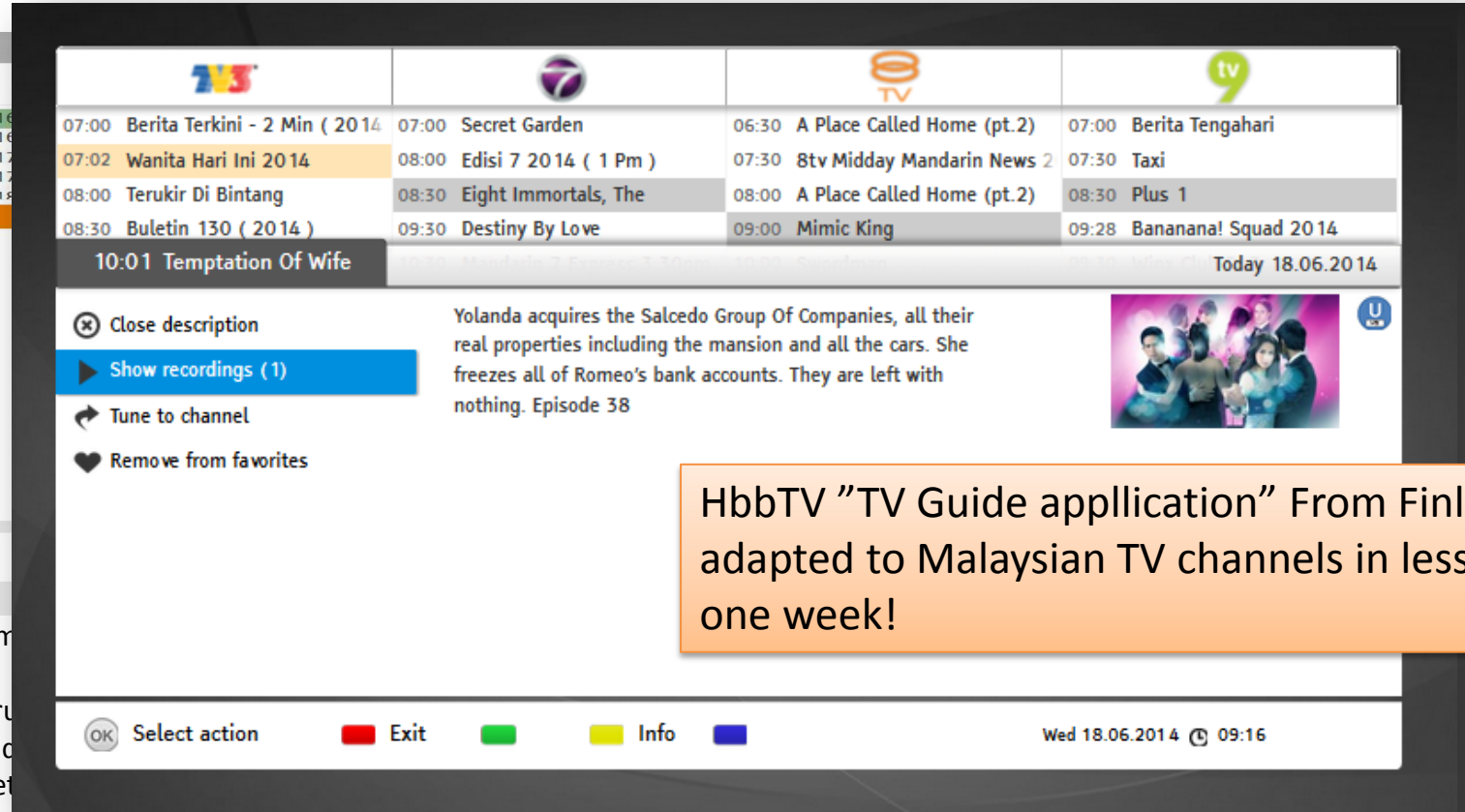
All Finnish Free-to-Air Channels listed with rich event information, text, images, videos.

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

16:00 Summari

Tänään 11.06.2014

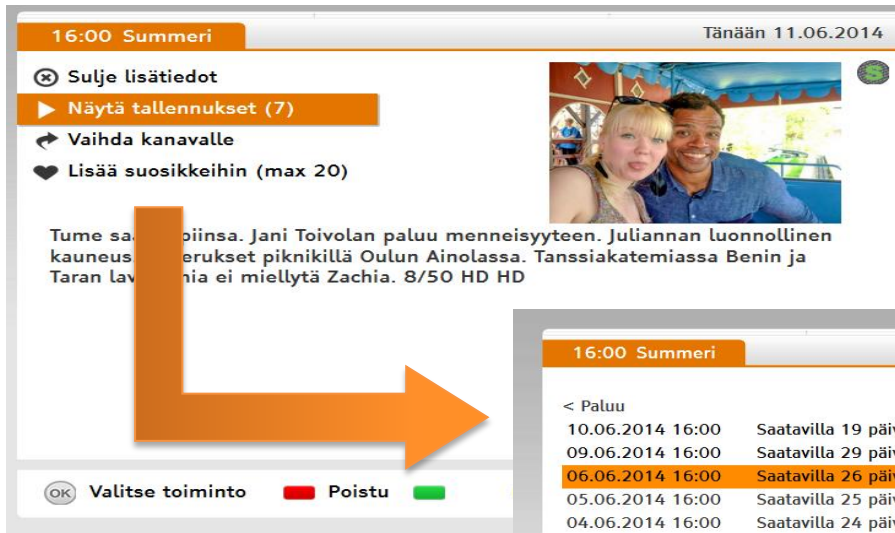
Sulje lisätiedot

Näytä tallennukset (7)

Vaihda kanavalle

Lisää suosikkeihin (max 20)

Tuome sa...
Jani Toivolan paluu menneisyyteen. Juliannan luonnollinen
kauneus...
erukset piknikillä Oulun Ainolassa. Tanssiakatemiassa Benin ja
Taran lav...
nia ei miellyttä Zachia. 8/50 HD HD



Ke 11.06.2014 21:46

Vie TV1



YLE TV1: Monroe

22:21 Keskiviikon raviuora

Vermossa nähdään tasokasta raviurheilua. Selostus Marko

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

OK Valitse toiminto Poistu

Ke 11.06.2014 21:47

Vie TV1



YLE TV1: Monroe

22:21 Keskiviikon raviuora

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

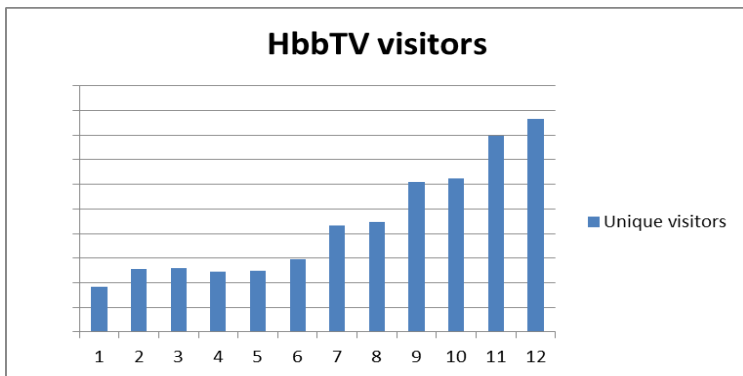
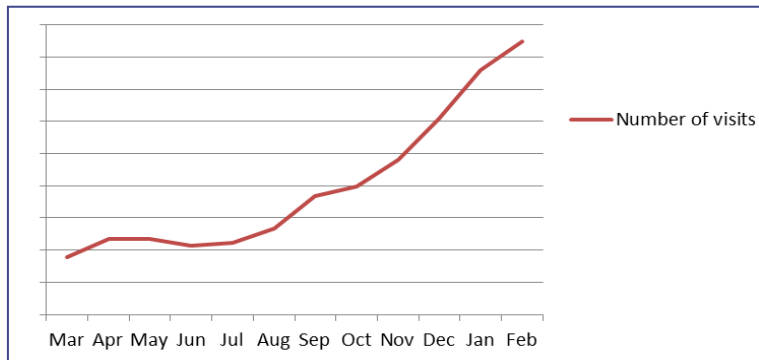
22:25 Syyttäjä

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

OK Toista tallenne Poistu Ohje

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

HbbTV stats in Finland

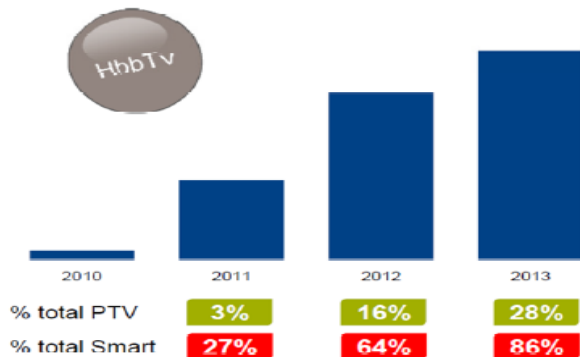
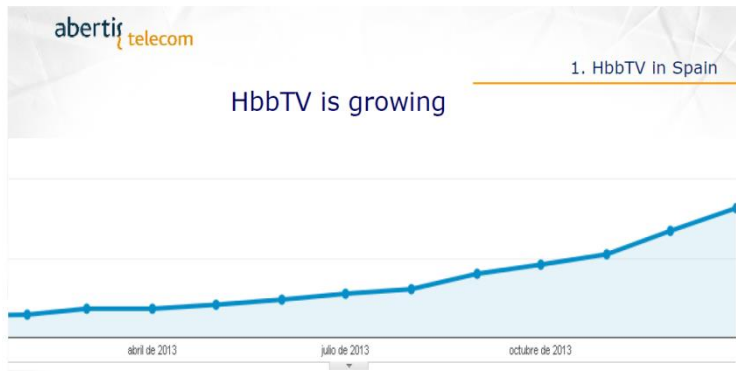


Currently in Finland :

- ~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

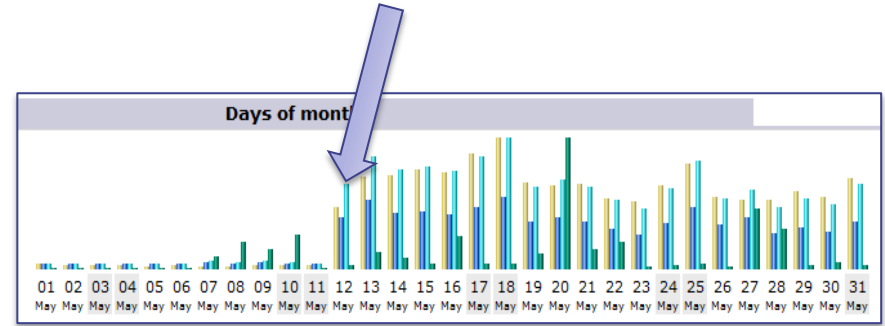
HbbTV stats in Germany and Hungary

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 12th 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://hbbtnu/the-hbbtnu-in-europe-report-in-english/>

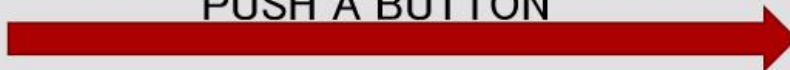
HbbTV offers ultimate usability

◆ UX matters: How hard could it?

TV Sets:



PUSH A BUTTON



2nd Screens:
and TV App stores



Access
App store



Create account
(optional)



Download
&
Install



Launch
&
(optional)
Pairing



HbbTV service discovery – TWO OPTIONS

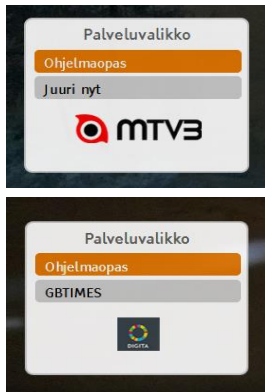
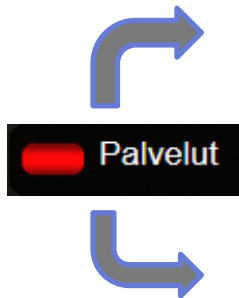
SIGNALING

MENU / LAUNCHER / PORTAL

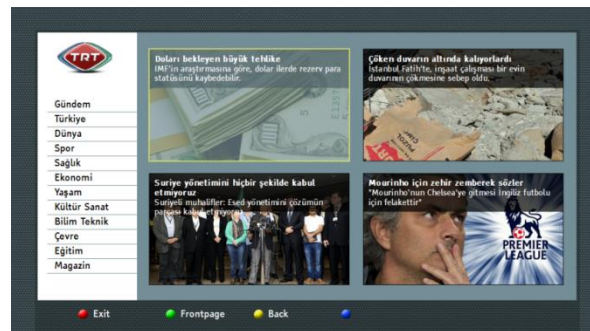
APPLICATIONS

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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[**www.sofiadigital.com**](http://www.sofiadigital.com)

Engagement and HbbTV Communicasia 2014

**Chem Assayag
EVP Sales and Business
Development**

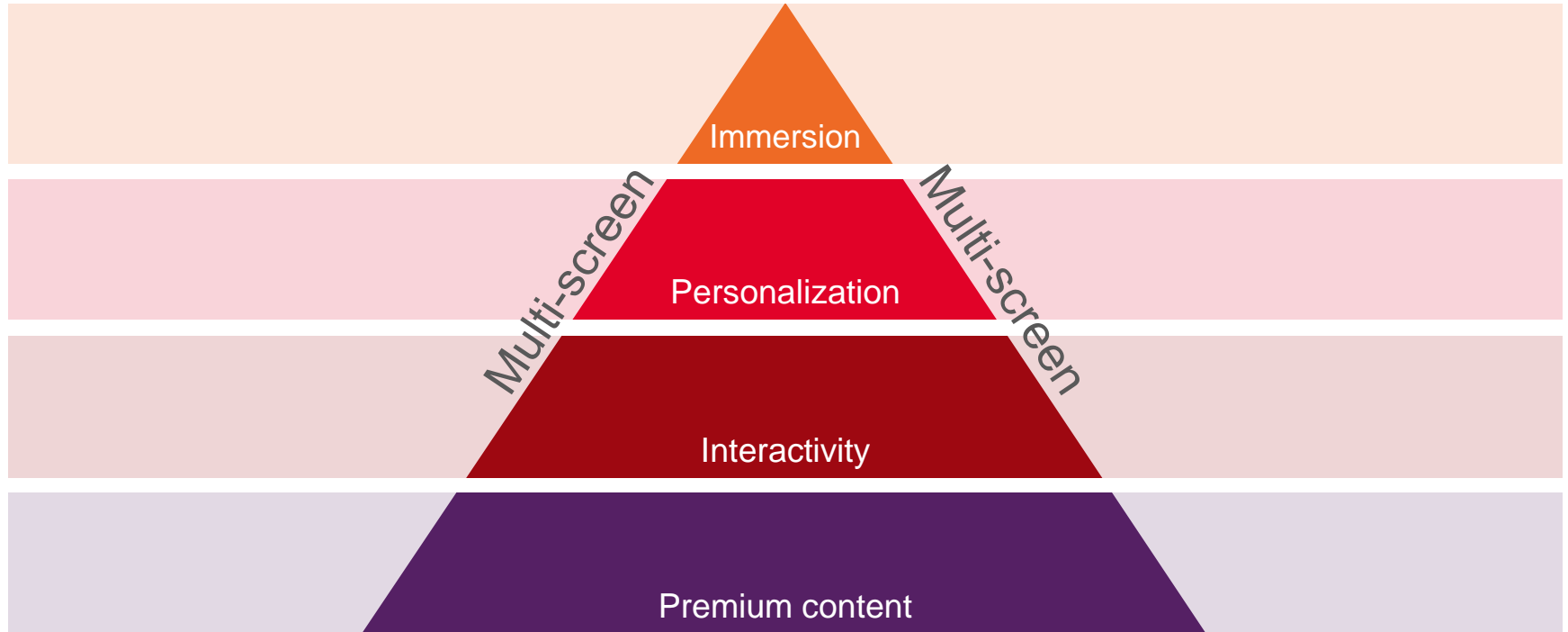
Viaccess-Orca



viaccess·orca

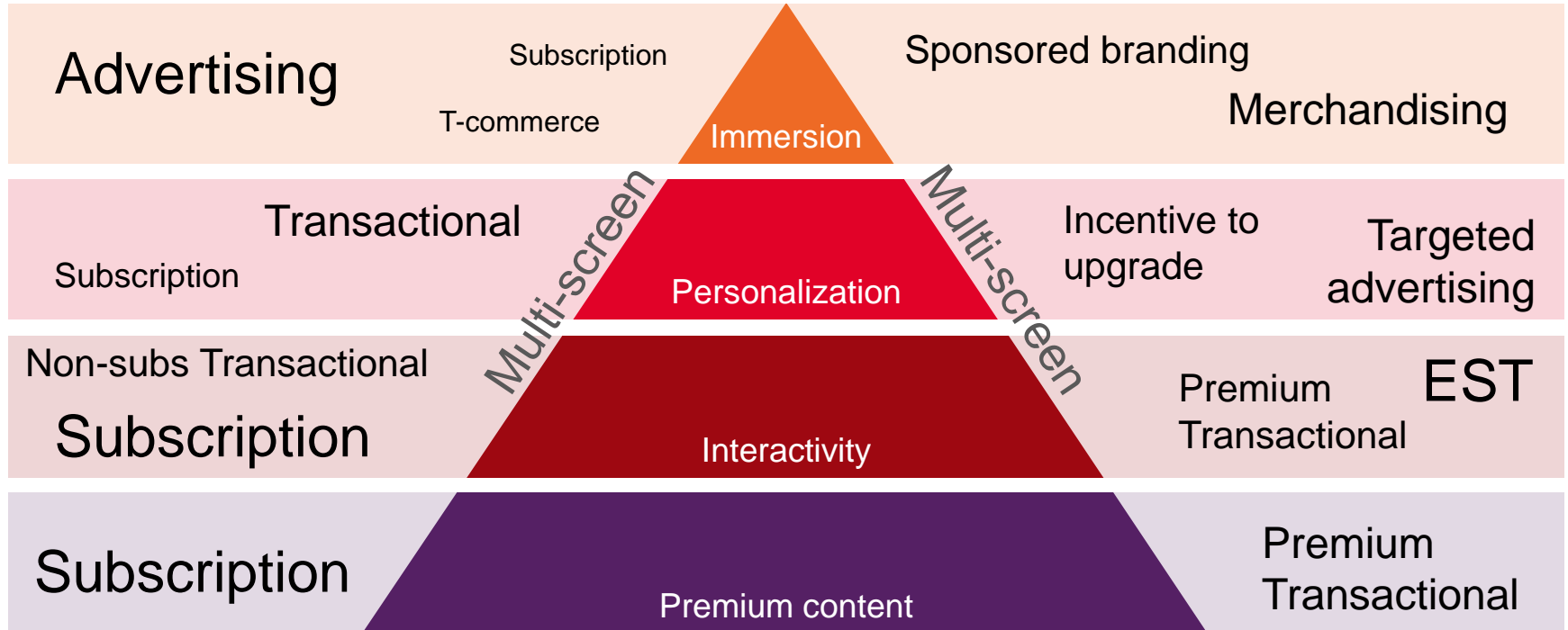
Past → Today → Power to the people → Tour guide → **Engagement model**

Engagement model



Past → Today → Power to the people → Tour guide → **Engagement model**

Monetization strategies



A new paradigm: from couch to rocking chair



Many
Lean back
One screen

One
Lean back/lean forward
Multiple screens



What does it mean for HbbTV ?

- Big screen is for video centric applications: forget about people doing TV banking on their 42” screen
- Proper interaction is about second screen
- Monetization is key

- Any technology including standards has to deal with this: standard matter when they make sense

- HbbTV:
 - Efficient and easy to deploy for video apps
 - Needs to be extended to second screen
 - Interfaces for monetization (ad serving, e-commerce...)

Thank you!



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