

HbbTV Roadmap

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What is HbbTV® – and what is it not?



HbbTV® → Hybrid bbroadcast bbroadband TV

- » *Business neutral technology platform*
- » *Applicable to all kinds of broadcast and broadband networks*
- » *Broadcast only mode possible*
- » *Specifies terminal behavior only*
- » *Maintains integrity of broadcast services*

Addresses mass markets:

by using mature and standardized technical components

HbbTV® is NOT

- » *A completely specified ECO-System, e.g. including implementation rules*
- » *Solely applicable to broadcasters*

What makes HbbTV unique?



- » *Mature technology*
- » *Well established services*
- » *Widely trained usage pattern*
- » *Simplicity of user actions*

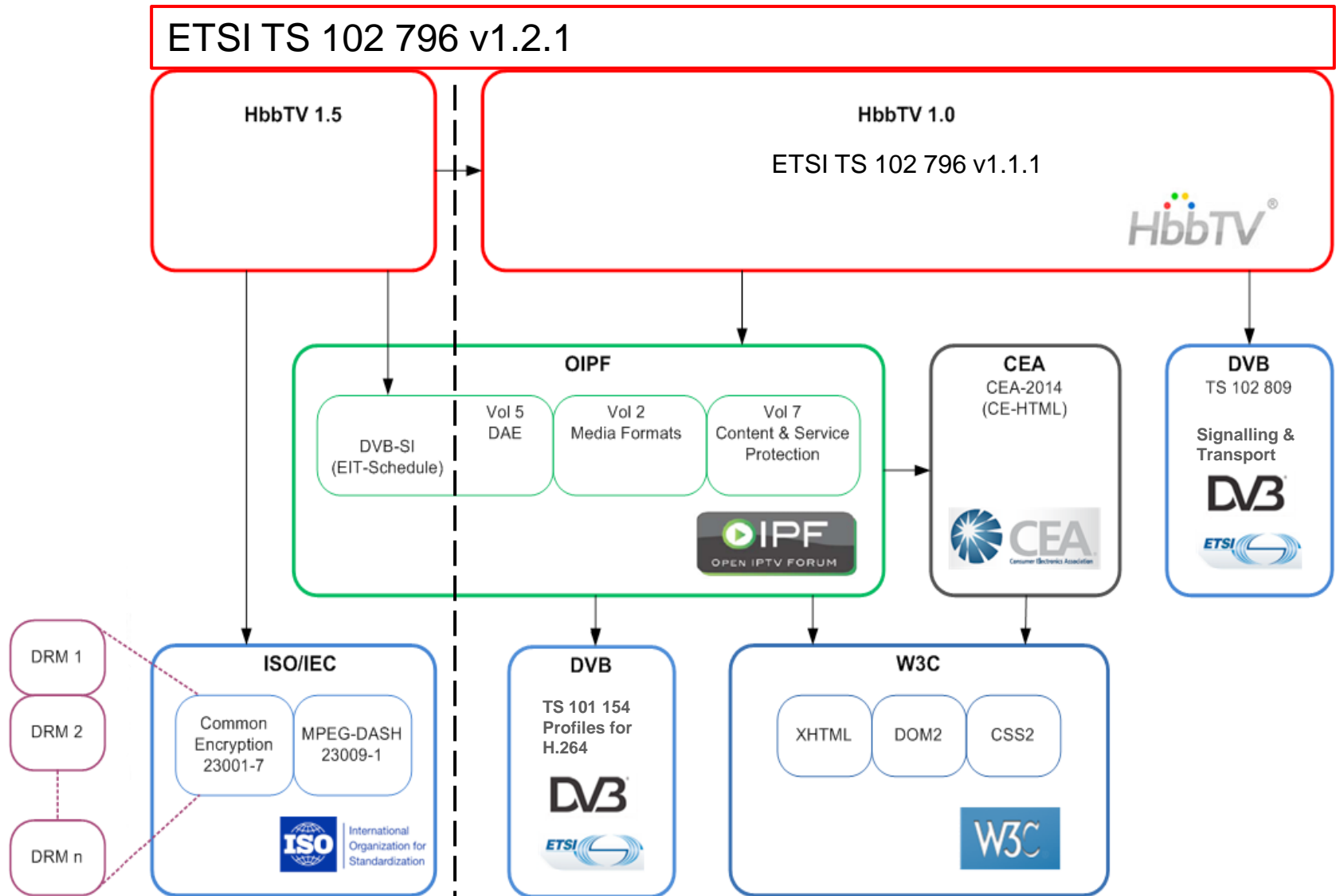
- » *Mature technology*
- » *Well established services*
- » *Widely trained usage pattern*

by freely combine service elements from broadcast and Internet

$$1 + 1 > 2$$

- » ***Completely new formats and services***
- » ***New business models***

The Key Building Blocks



- » *HbbTV consortium formally established in 2010*
- » *Borne out of a cooperation between French and German initiatives*
- » *Today over 60 members*
- » *Broad international market coverage*
 - » *manufacturers, broadcasters, network operators, technology & research*

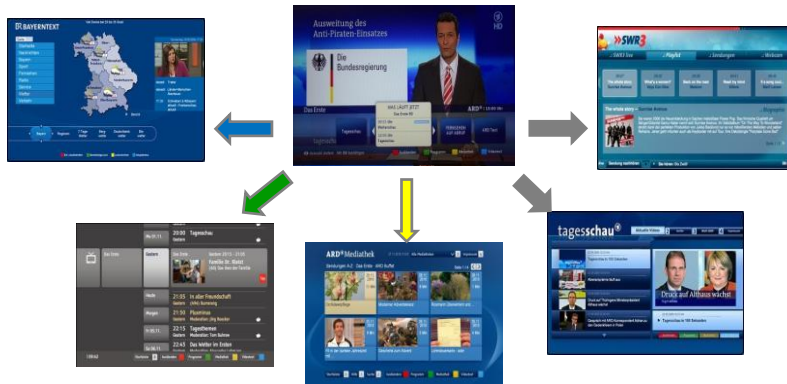
Achievements so far:

- *ETSI specification TS 102 796 v1.1.1 (June 2010)*
- *Release of test suite v0.9 (August 2012)*
- *ETSI specification TS 102 796 v1.2.1 (November 2012)*

Upcoming:

work on v2.0 has started

HbbTV provides Benefits for the Entire Ecosystem



Broadcasters & Content Providers



Network operator / Service provider portals



Manufacturer Portals



Device independent and open HbbTV TV App Portal for unbound applications

Portal for local Content Providers / Broadcasters



Lokal-TV-Portal

Hier finden Sie Informationen zu den über Satellit verbreiteten Lokal-TV-Programmen.

Mit Smart-TV tauglichen Geräten (HbbTV) können Sie weitere Lokal-TV-Programme sehen.

Mehr Informationen unter www.Lokal-TV-Portal.de

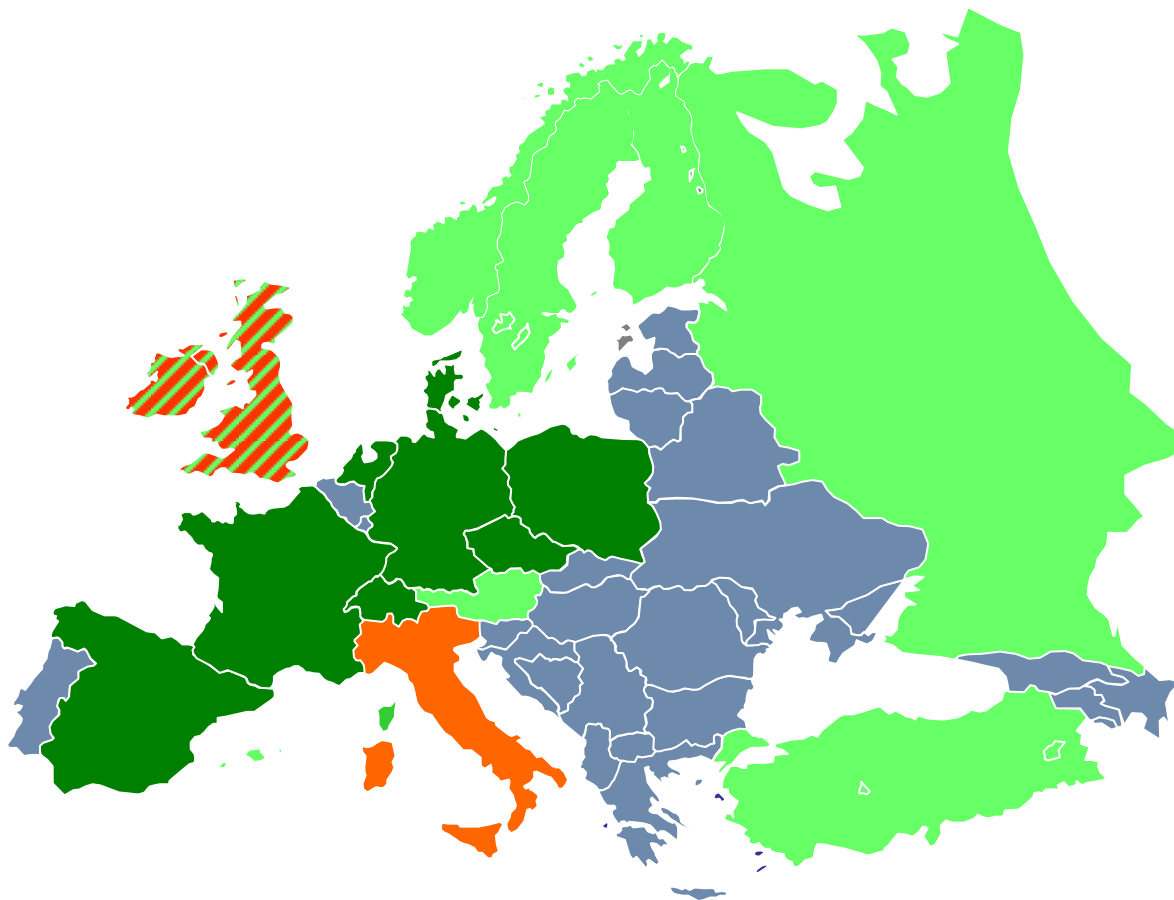
Bitte wählen Sie Ihr Lokal-TV-Programm

Baden-Württemberg	a.tv
Bayern	Donau TV
Berlin	Franken Fernsehen
Brandenburg	intv
Hamburg	mainTV
Hessen	Oberpfalz TV
Mecklenburg-Vorpommern	Regio TV

Beenden Impressum

*Broadcast channel launches local TV portal
(with broadcast and live-streaming channels)*

HbbTV® in the international market



in regular operation

announced / trials

no information

other plans

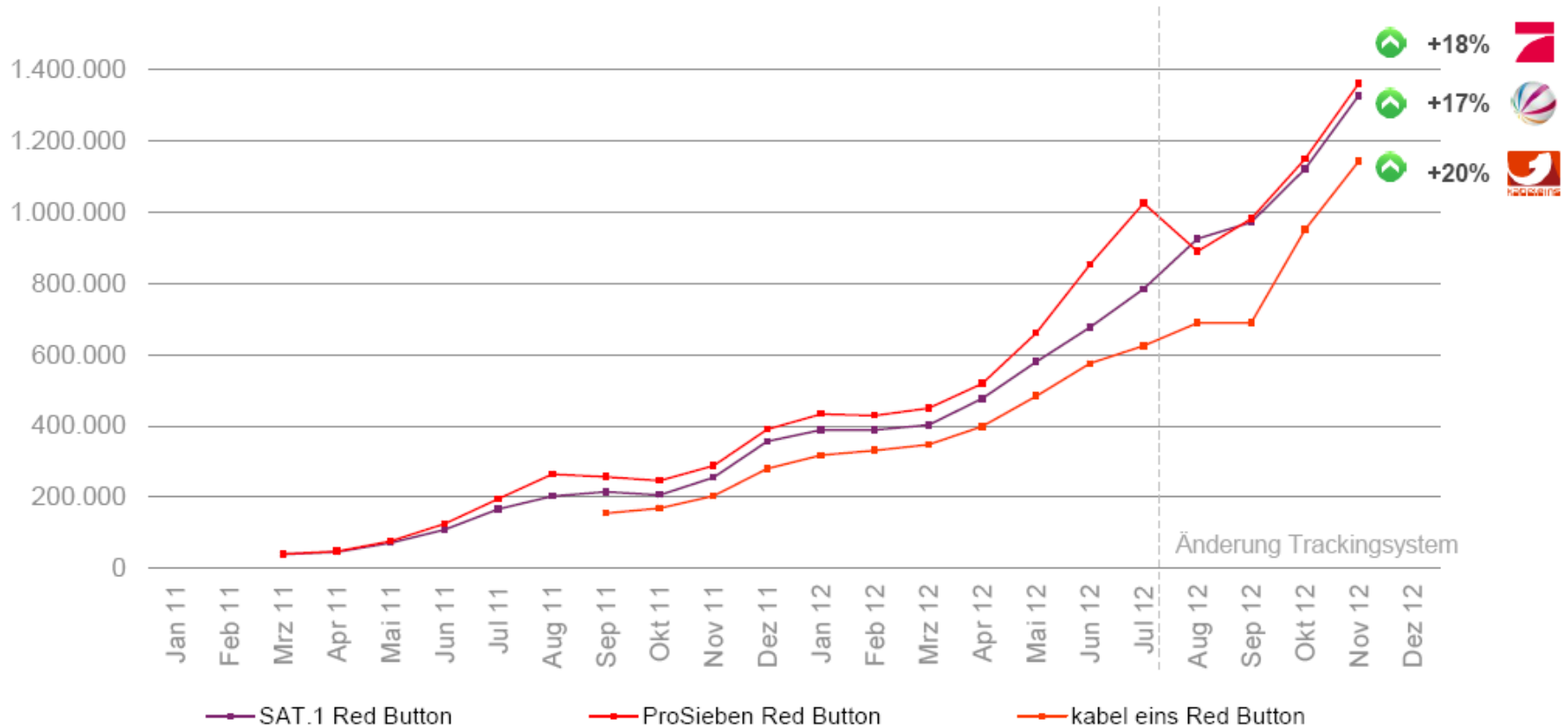
HbbTV caught interest
also outside Europe
e.g. US, Japan, Australia;
South-East Asia, China
(HbbTV trials)

More countries are about
to decide

HbbTV® usage figures (example)



Unique Devices - SAT.1, ProSieben, kabel eins
Anzahl Benutzer (=Devices) nach Monaten



Quelle: SevenOne Media

Support Political Demand: Using HbbTV[®] for barrierfree TV



*Adapting the
Text Services*

in colour

ARD[®]Text

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Wirtschaft	700
Kultur	400
Ratgeber	530
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Hilfe	
Einstellungen	

Einstellungen

Hier haben Sie die Möglichkeit, die Darstellung des ARD Textes Ihren Wünschen anzupassen. Sie können unter verschiedenen Ansichten, Farbkombinationen und Schriftgrößen wählen. Bestätigen Sie Ihre Auswahl mit OK. Die Auswahl wird sofort wirksam. Änderungen können Sie jederzeit im Menüpunkt "Einstellungen" vornehmen.

Schriftgröße:

Normal ☐

Größer ☒

Darstellung

Transparent / TV-Bild im Hintergrund ☒

Vollbild / TV-Bild als Mini-Ansicht ☐

Mini-Ansicht / TV-Bild im Hintergrund ☐

▲ 1 von 4 nächste Seite ▼

Ausblenden Programm Mediathek Einstellungen ARD Start: 0

in size

ARD[®]Text

Seite 401

Nachrichten Kultur 09.09.2010, 10:40 Das Erste

Deutscher Buchpreis: Sechs Bewerber

Die Jury hat sich entschieden: Die sechs Finalisten für den Deutschen Buchpreis 2010 stehen fest. Es sind Jan Faktor, Thomas Lehr, Melinda Nadj Abonji, Doron Rabinovici, Peter Wawerzinek und Judith Zander.

Man sei sich nicht immer einig gewesen, sagte Jurysprecherin Julia Encke von der Frankfurter Allgemeinen. Die Gemeinsamkeit

▲ vorige Meldung weiter ▼

Startleiste 0

Ausblenden Programm Mediathek Einstellungen

Support Political Demand: Using HbbTV[®] for barrierfree TV



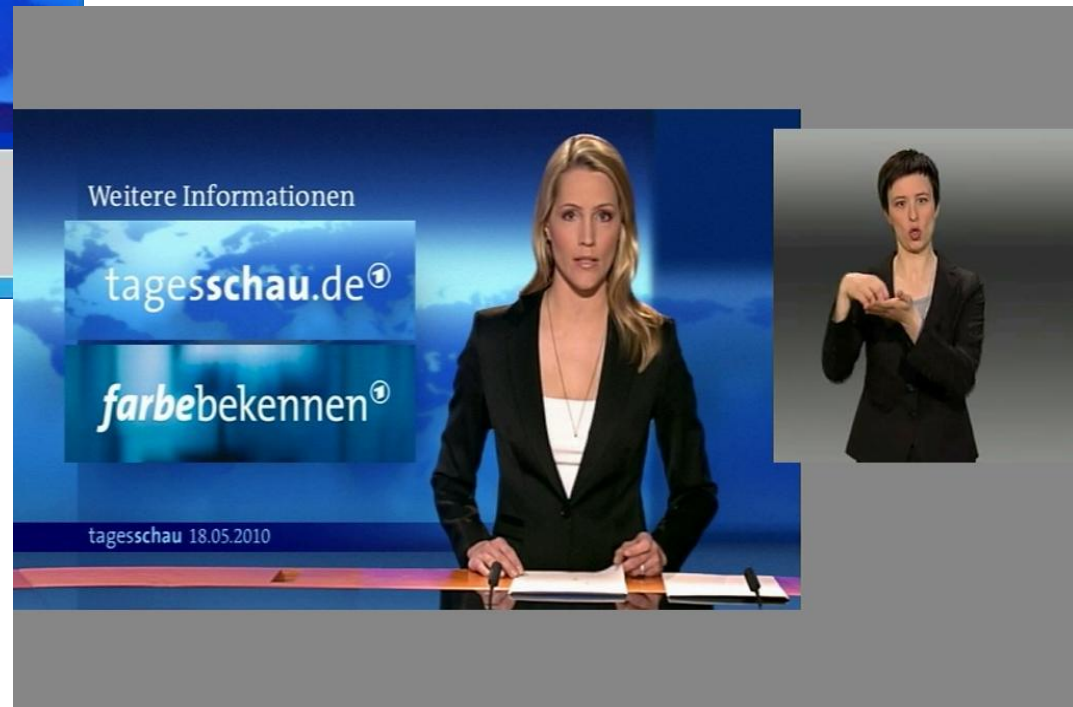
Sign language on Command

*Demo at IFA-10 – could be applied in practice
(synchronization still to be implemented in the specification)*

News via broadcast –
signer via Internet



Announcement of sign
language service



National Ecosystems may have specific Needs

Interoperability
Not guaranteed

HbbTV is referenced **AS IS** by

- DTG D-Book 7 (UK)
- TNT 2.0 (France)
- AEDETI (Spain)
- NorDig
- ATSC 2.0 (US)

Country specific elements added on top

- Specifying open issues (e.g. DRM)
- Adding service related elements (e.g. EPG)

National B

National C

National A

Interoperability
Guaranteed

**HbbTV applications work on
each HbbTV compliant devices
everywhere (across borders)!**

HbbTV v1.5

Country
X, Y, Z

HbbTV v1.0



Possibilities to increase harmonization? → DRM as an example?

- *DRM essential for commercial offers on basis of HbbTV*
- *Requires agreements in the eco-system*
 - which DRM-system to support
 - how to do AAA (Authentication, Authorization, Accounting)?
- *Integral part of*
 - TNT 2.0
 - Spain
 - Nordic
 - Others to come soon?

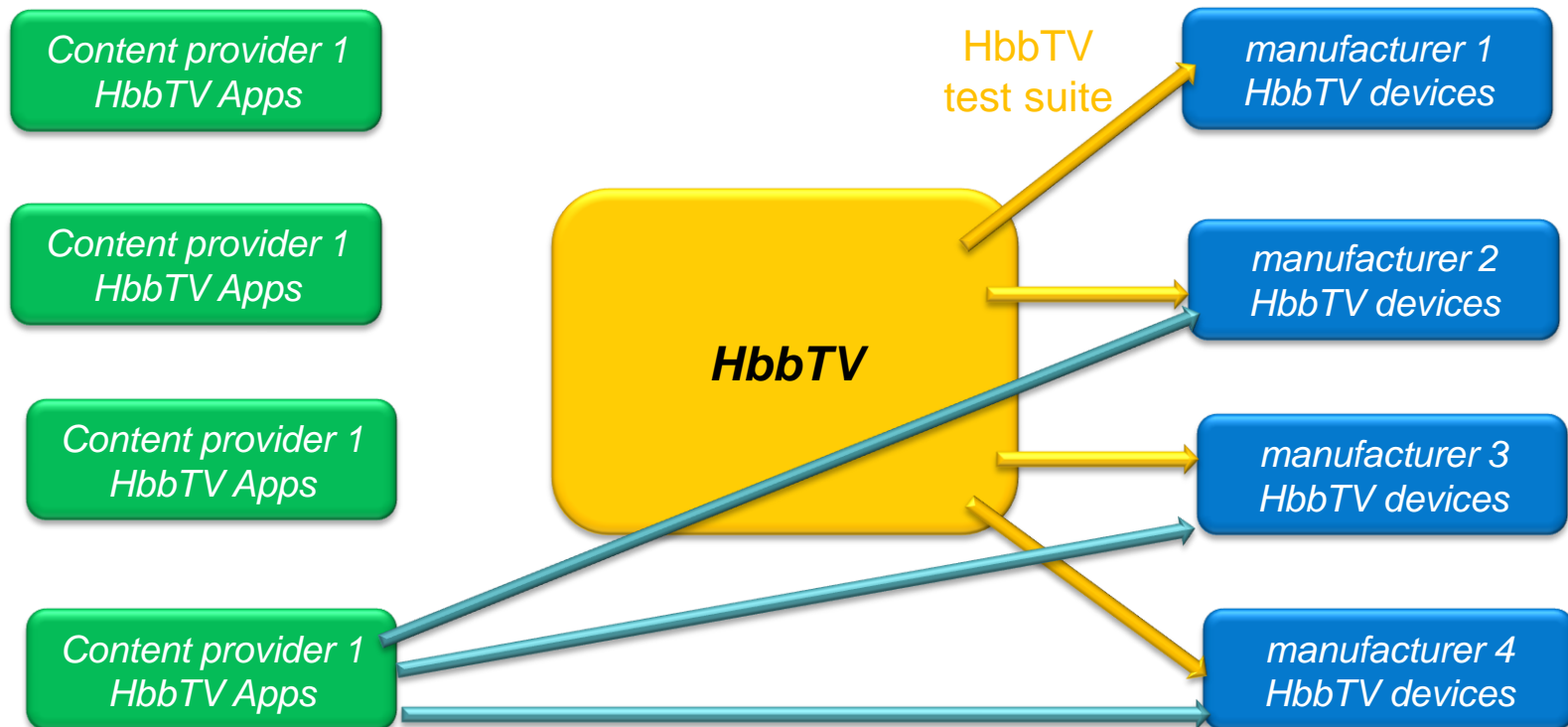
- *Currently working on requirements*
- *Topics being discussed / raised as a topic HbbTV should address*
 - HTML5
 - Companion screen / 2nd Screen
 - Synchronizing Broadcast & Broadband
 -
- *Design paradigm identical to phase 1*
 - HbbTV has to address immediate market needs
 - Leverage mature existing technical components / specifications
- *Aspects relevant to time line:*
 - Quick technology development in Internet domain
 - Content providers must be able to address rapidly growing legacy customer base



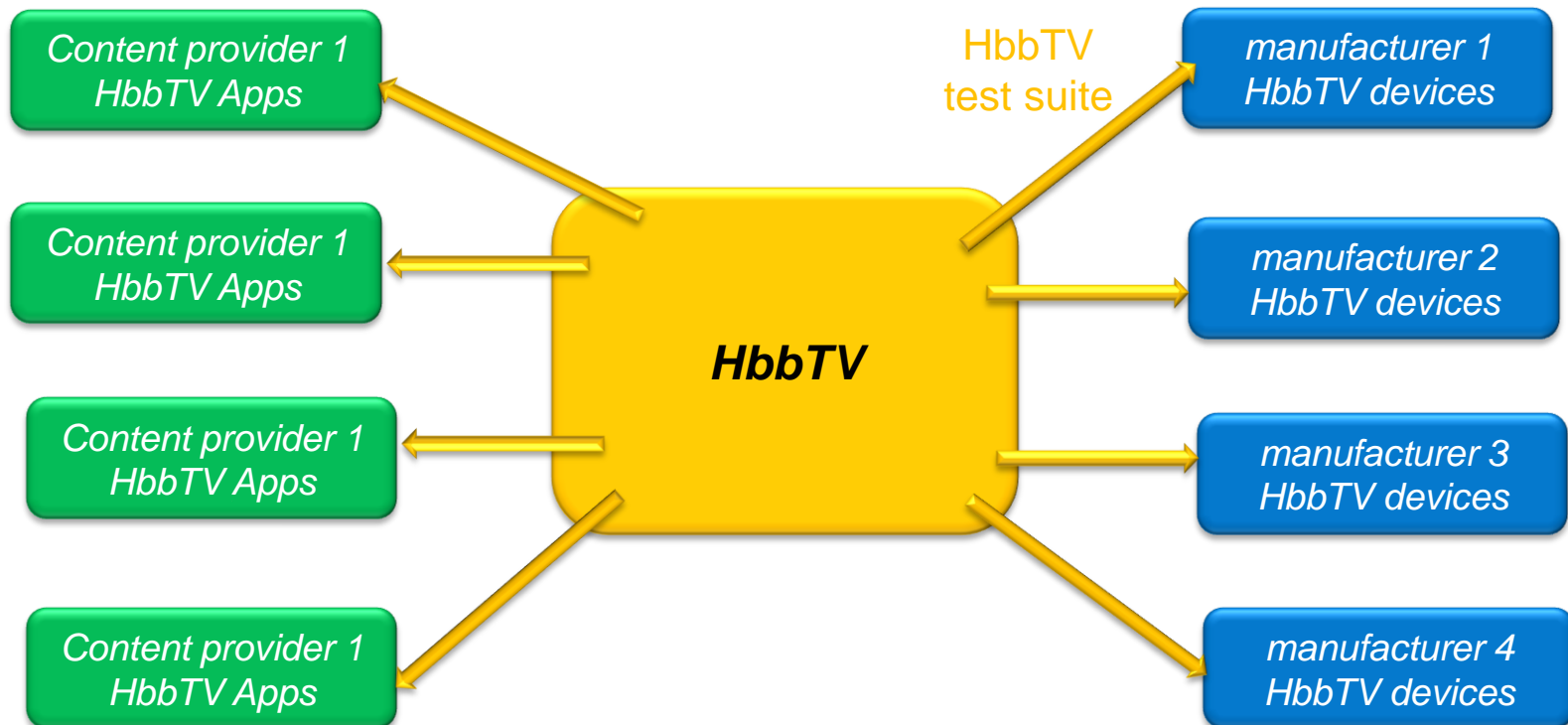
4 two-day interoperability workshops in 2012
workshop 22./23. Nov: 18 manufacturers / 24 content providers from 7 countries

Open Issues

Foster market confidence of application developers and manufacturers



Foster market confidence of application developers and manufacturers



Ability to test applications needed

Enable communication between manufacturers and app developers

HbbTV®'s standardized solution:

- only open and business neutral technical infrastructures enable mass markets
- Immediate win-win situation for along the value chain

HbbTV® gained european-wide significant market momentum

- Rapidly growing international support is about to make it the standard feature of TV

HbbTV® sparks off fast development of attractive applications

- Potential for applications and business opportunities leveraging broadcast & broadband is barely being exploited yet.

Thank you for your attention!

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