

HbbTV Symposium: Asia

Interoperability & Quality Standard, Certification & Logos

Standard, Certification & Logos

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BroadcastAsia2014

CommunicAsia2014



Media & Device Testing Specialists

Certification – Interoperability – Conformance - Quality

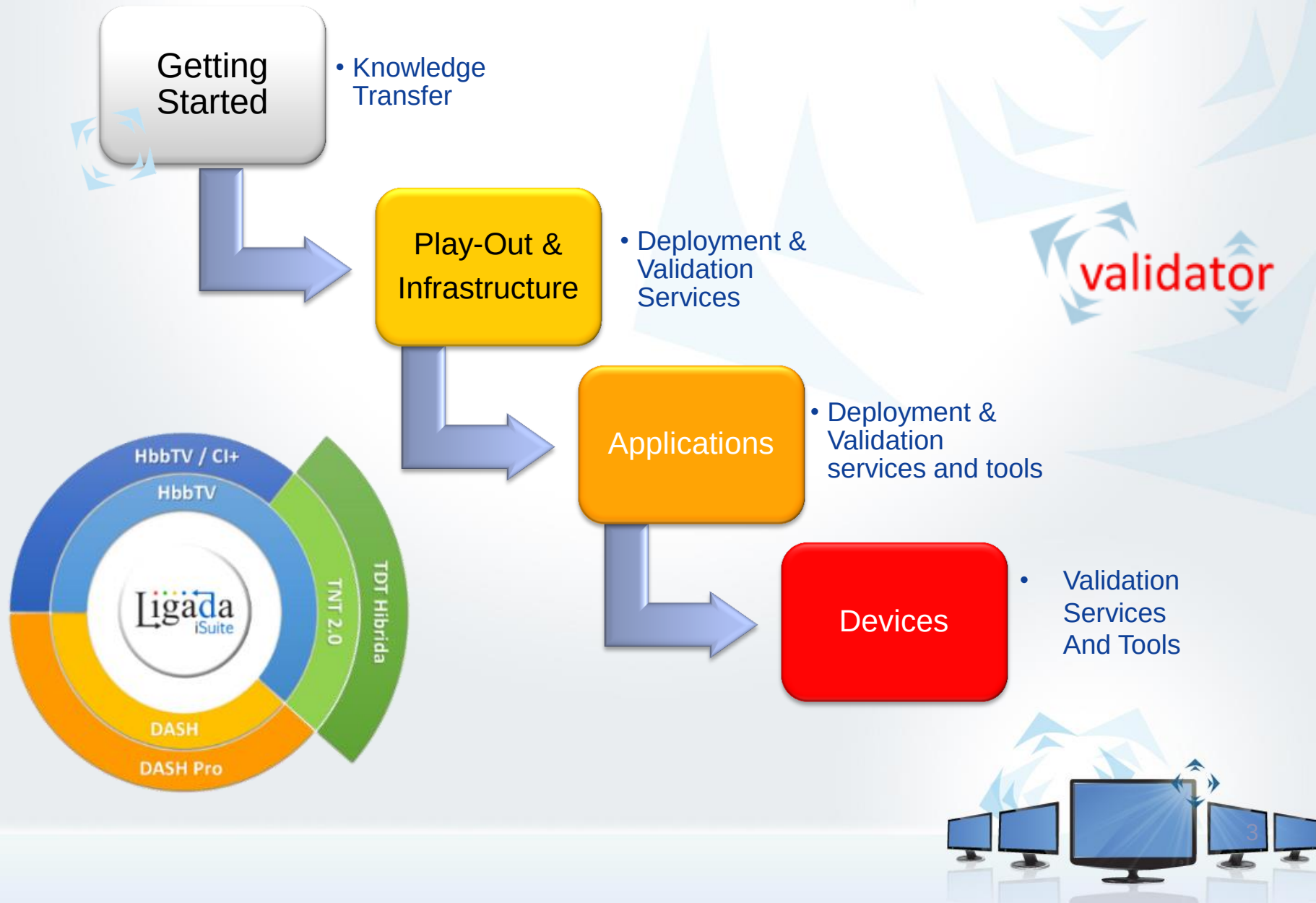


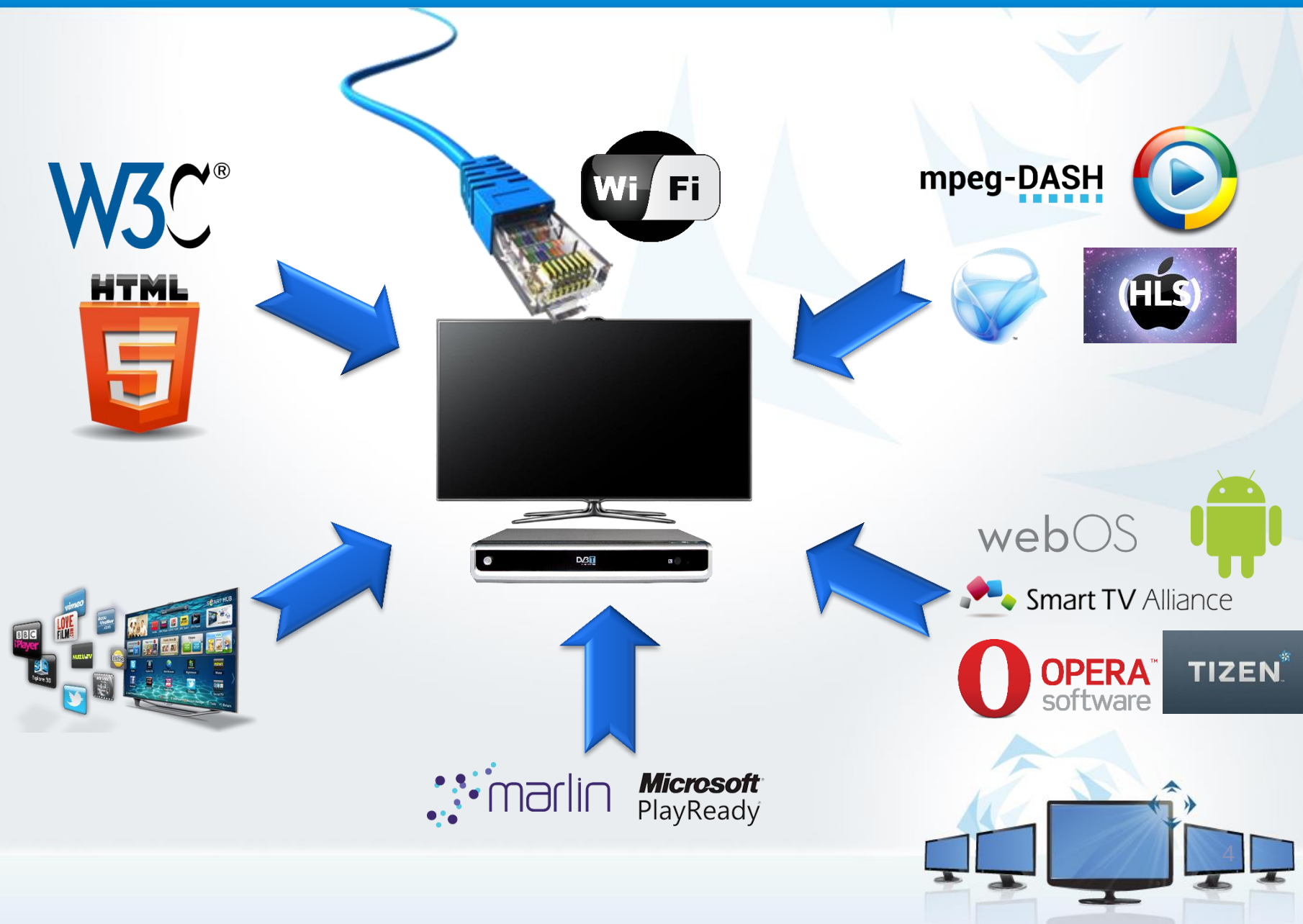
UKAS accredited
Testing Laboratory
No.8159 to ISO/IEC
17025:2005



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**





**Broadcast
Services**

HbbTV

**Mixing TV
Broadcast with
the Internet
Power**

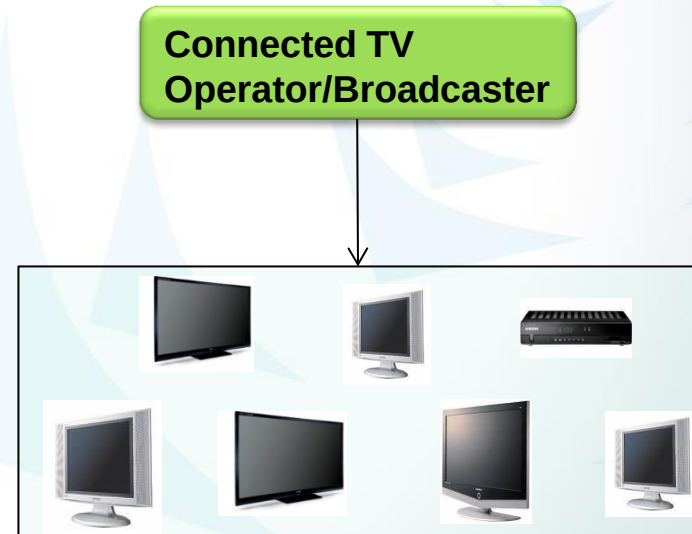
**Internet
Services
(Portals /
TV Apps)**





"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

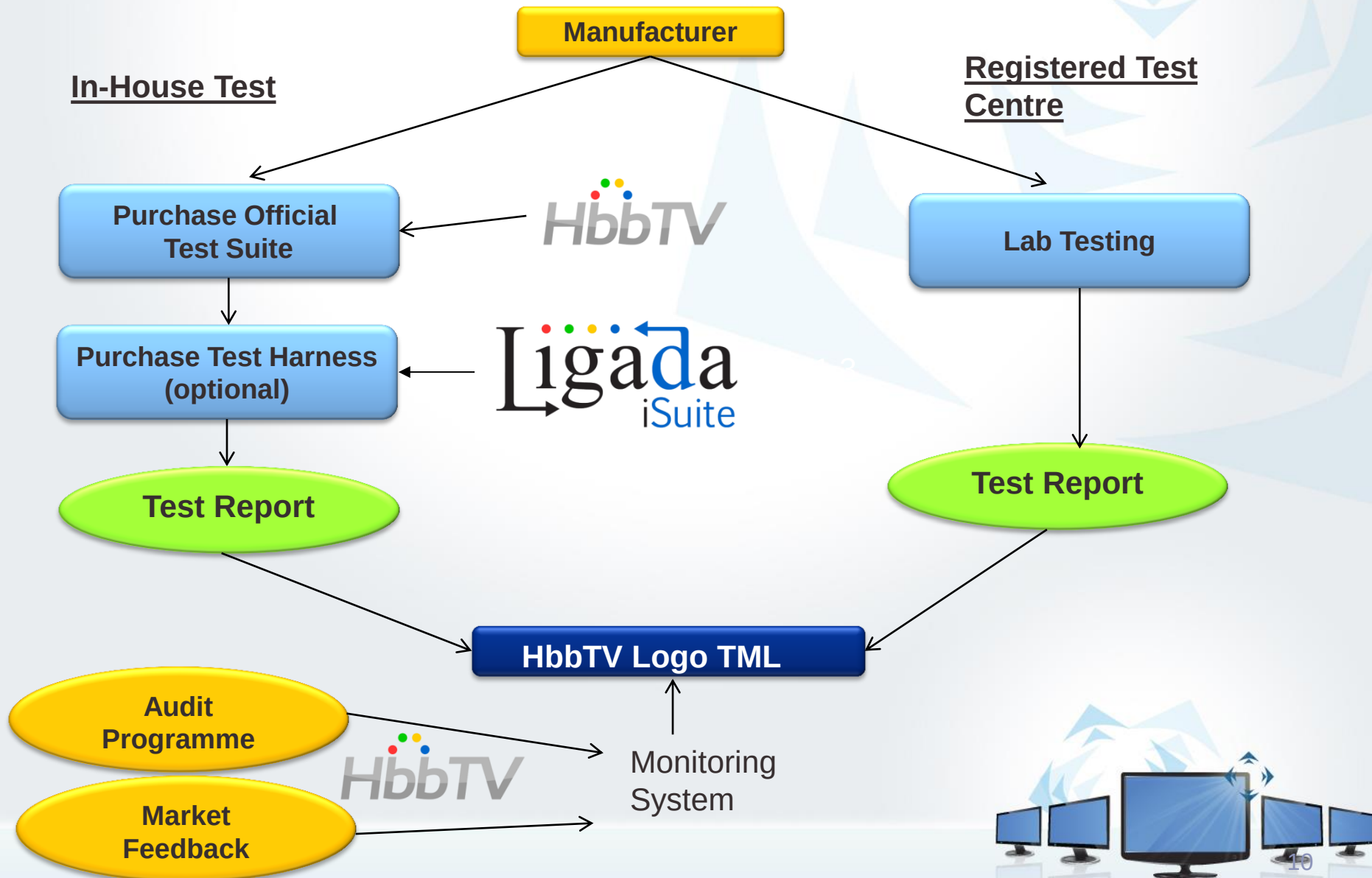
HbbTV V2.0

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

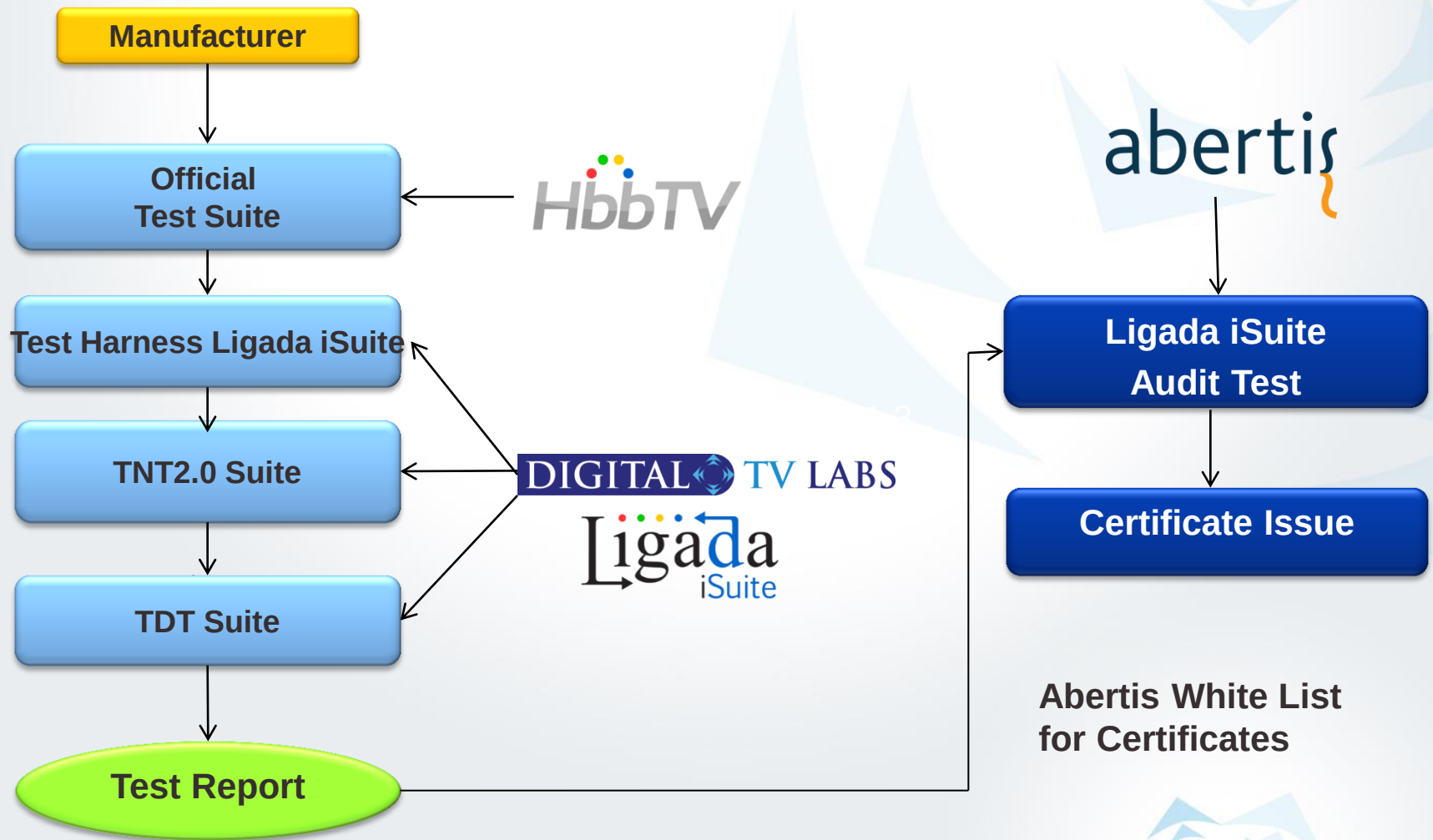
Broadcaster

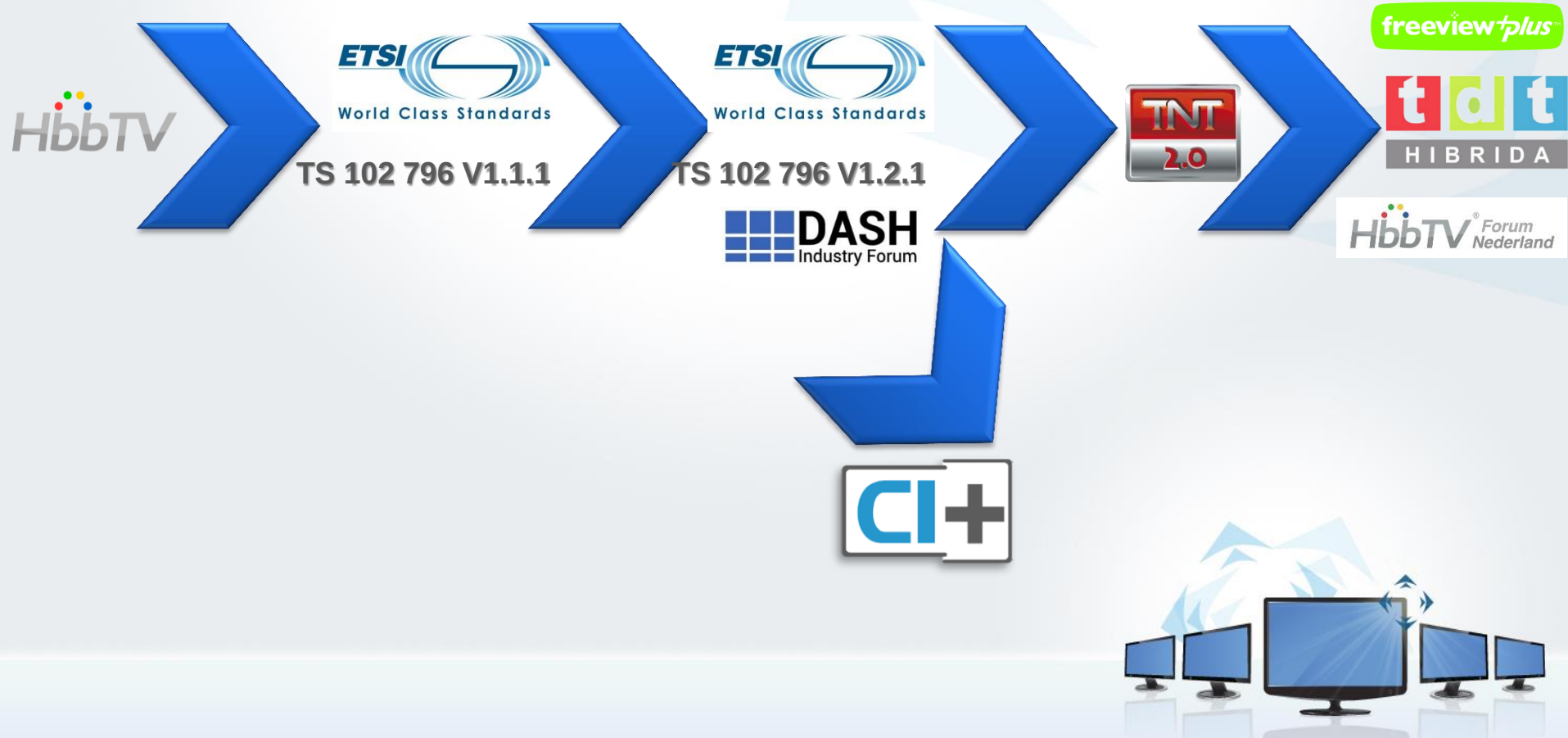
- Integration to Head End Systems (EPG-Synchronisation)
- Use of Adaptive and MPEG-DASH (HbbTV has a DASH Profile)
- Scalable Infrastructure / Availability
- Cost Effective application development

Manufacturer

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









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