

VERANCE



# HbbTV ADB2 Watermarking

*November 2022*

# Verance: Setting The Standard

25 years of delivering industry solutions



*Aspect™ / ADB2*

Connected  
Broadcast TV



*Cinavia®*

Anti-piracy Technology  
for Movies



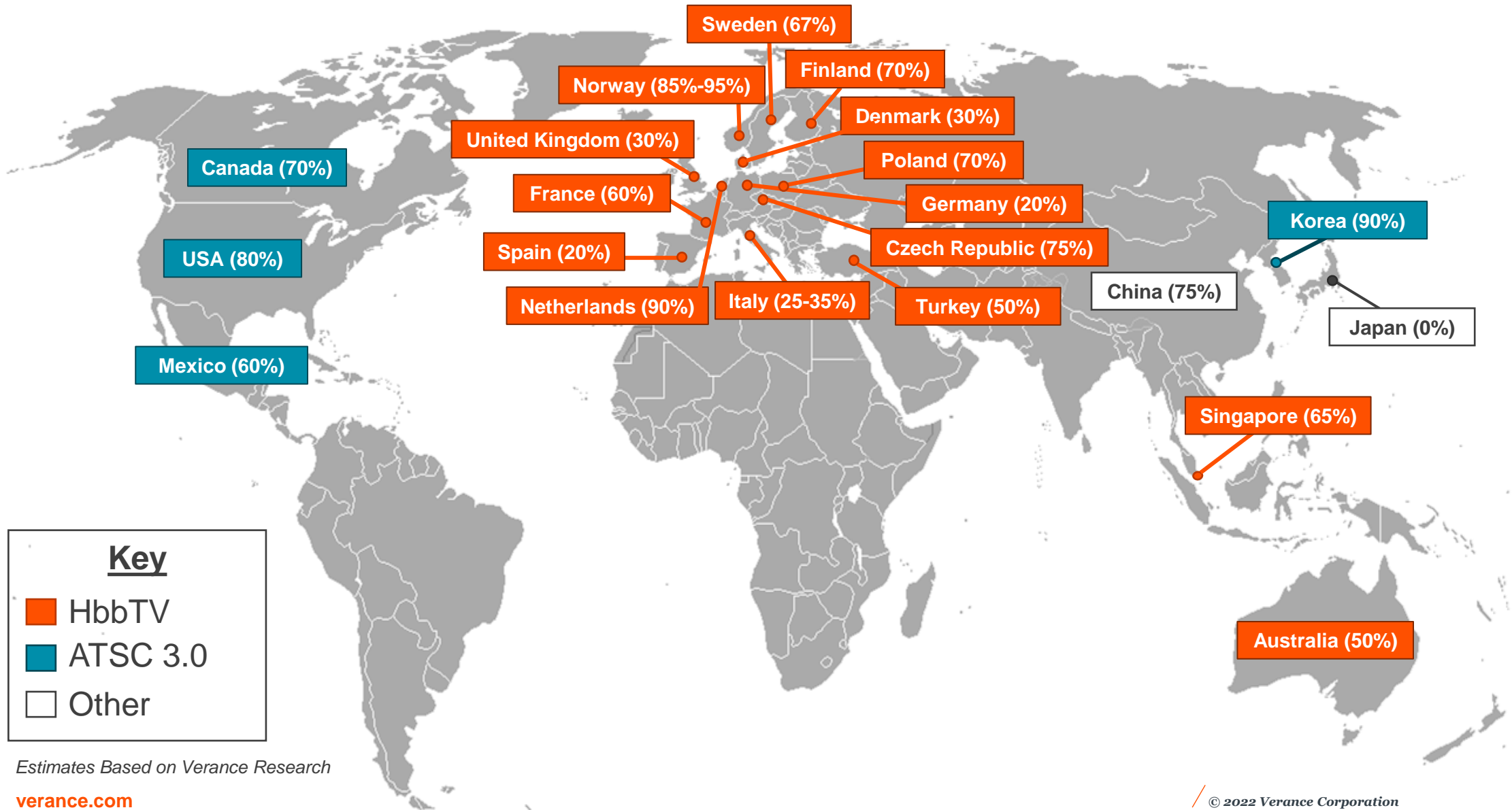
*VCMS/A™*

Anti-piracy Technology  
for Music



**SINCLAIR**

# Percent of Households Needing Watermark (HDMI)



Estimates Based on Verance Research

[verance.com](http://verance.com)

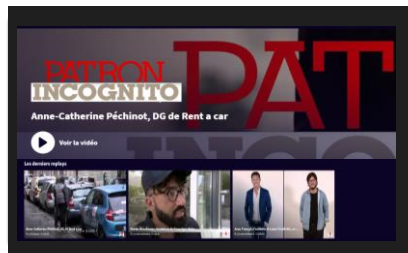
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# ADB2 Makes HbbTV Available to All of Europe/World

Live TV



HTML Browser



ADB2 Standard: Application Discovery Over Broadband Phase 2

ADB2 Watermark Enables HbbTV to 100% of TVs

Full Hybrid Broadcast Broadband



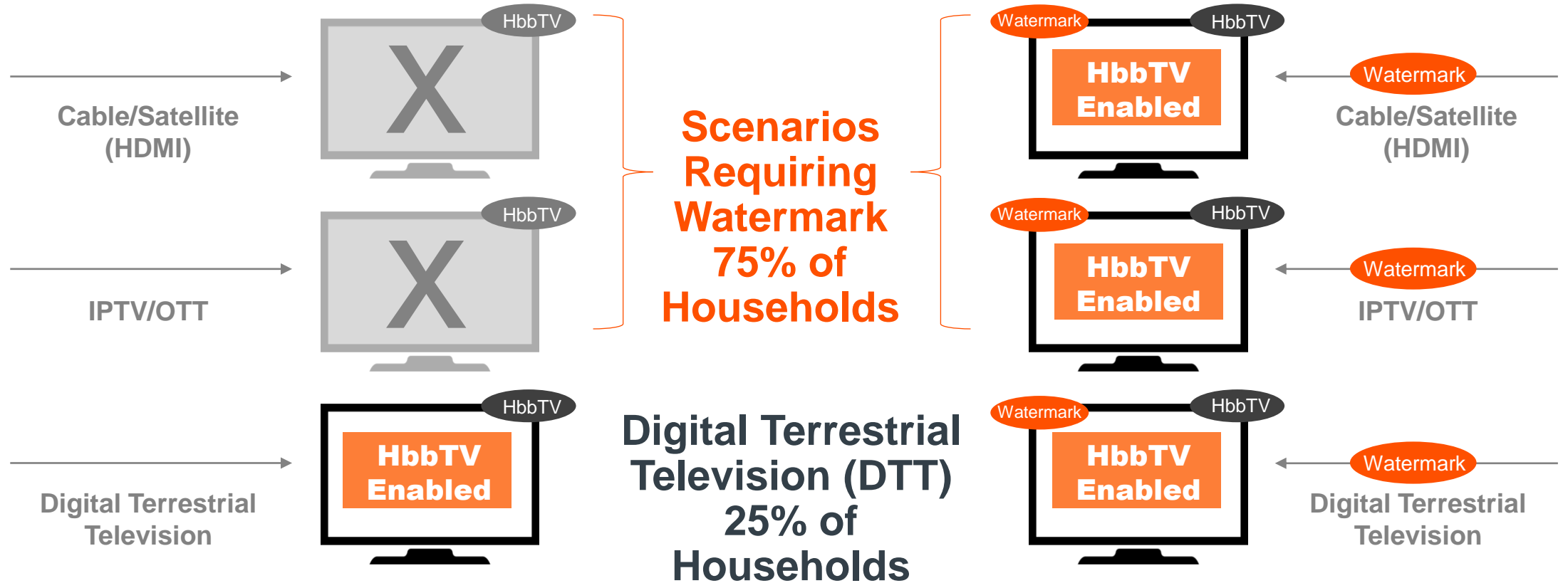
HTML Browser layered on top of Live TV  
new digital experiences, interactivity  
and Targeted Advertising (TA)

# ADB2 Helps Deliver HbbTV Services to 100% of TVs

*Enables delivery of HbbTV services across all distribution paths*

**25% Reach in Czech Republic**  
without the watermark

**75% Reach in Czech Republic**  
with the watermark



# ADB2 Solves HbbTV Delivery Problem

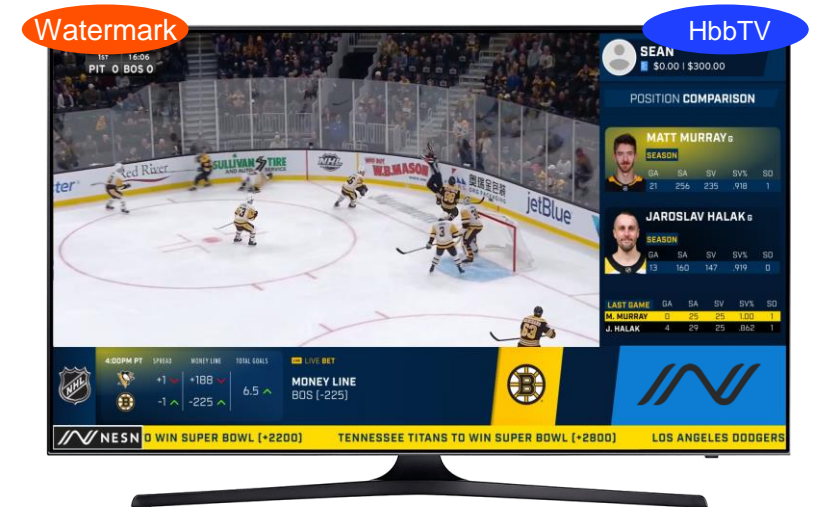
- ▶ ADB2 is a **digital audio/video watermark** applied to video assets and detected by TVs.
- ▶ Watermark is **inaudible / not viewable** and delivers a **URL + time code** to televisions.
  - Can also carry stream events including SCTE 35 ad insertion messages.

*IPTV/satellite/cable/OTT  
(HDMI Port)*

*Without the ADB2 watermark,  
metadata & triggers are blocked*



*With the ADB2 watermark,  
metadata & triggers reach  
the end consumer*





# *Europe Moving Forward with Targeted Advertising*

## *Verance Watermarking included by HbbTV & DVB*

- ▶ DVB and HbbTV released companion specifications for signaling and insertion of Targeted Advertisements in 2019
  - DVB A178 Specification defines signaling based on SCTE 35
  - HbbTV Targeted Advertisement Specification defines APIs for “Fast Switching”
- ▶ In July 2021, HbbTV updated the Targeted Advertising specification to extend Targeted Advertising features to support Application Discovery Over Broadband Phase 2 (ADB2) use cases
  - ADB2 uses watermarking to enable delivery of interactive services and targeted advertising across all distribution paths, including those blocked by set-top boxes



# *HbbTV & DVB Specifications / Resources*

DVB Blue Book



Dynamic substitution  
of content in  
linear broadcast

DVB A178-1 Rev.1

February 2021



HbbTV Application  
Discovery over  
Broadband Spec v1.3.1

ADB2+TA July 2021

HbbTV Association

ETSI TS 103 736-1 V1.1.1  
(2020-06)



Hybrid  
Broadcast  
Broadband TV:  
Targeted Advertising

**EBU**





**VERANCE**

*Thank You*

