

The background of the slide features a large, stylized globe centered on Europe. A bright red sphere is positioned in the upper left quadrant. The entire scene is set against a dark blue space background with stars and a bright light source on the right. A curved, metallic-looking band wraps around the globe, showing reflections of the globe and the space background. The word "FINCONS" is written in a bold, red, italicized sans-serif font across the center of the globe.

# *FINCONS*

A wide-angle photograph of a Prague cityscape, showing the Vltava River, several bridges, and historic buildings with red-tiled roofs. The text is overlaid on the right side of the image.

10th HbbTV Symposium and Awards

9 – 10 November 2022 | Prague

US Market Review

## **Enabling DVB-I on HbbTV TV Sets**

Oliver Botti – SVP Sales & Innovation Executive Director at Fincons



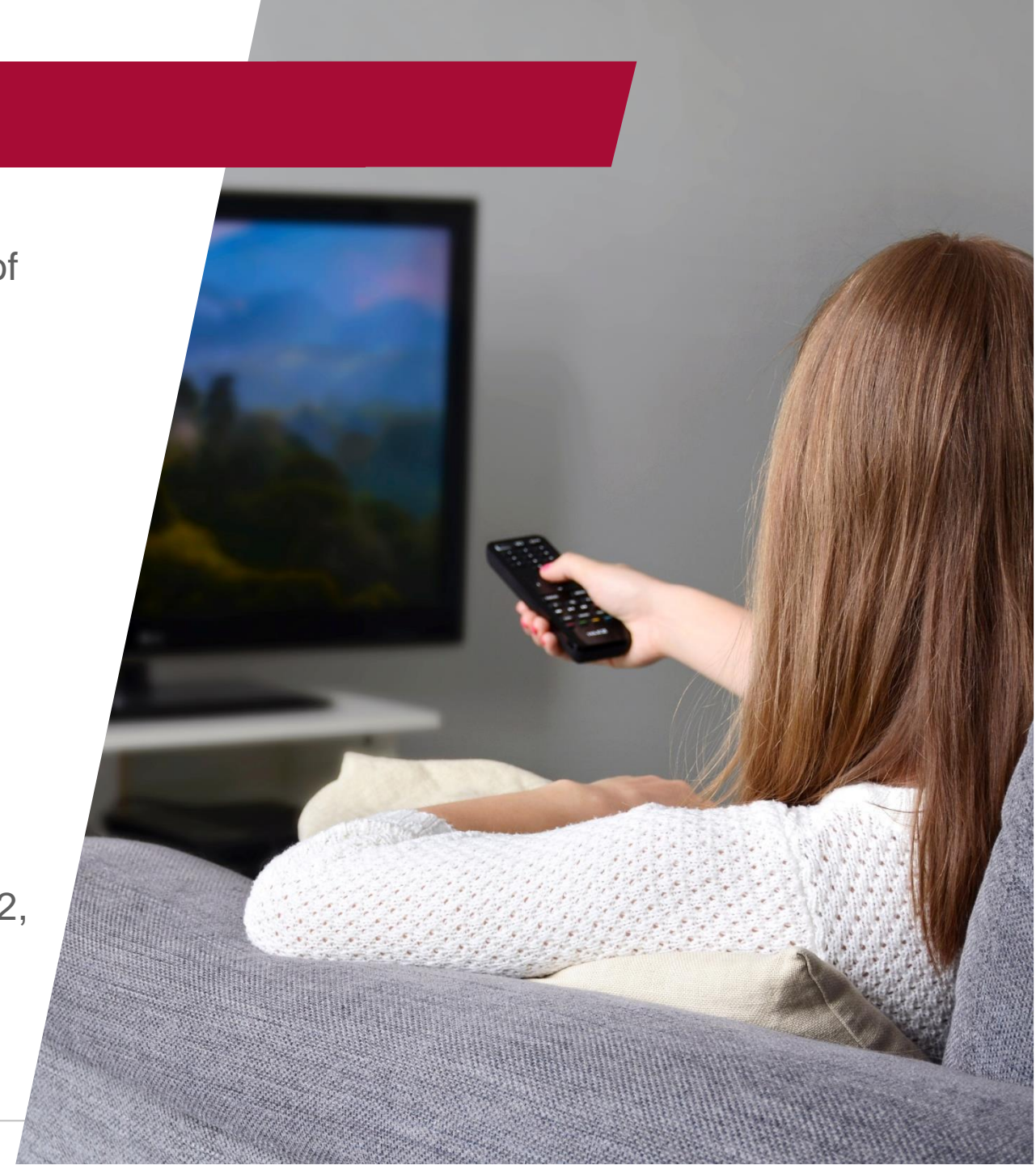
# NextGen TV: the TV Re-volution

We are assisting to a global move towards a new form of Television: **interactive, participative, personalized, addressable.**

Fincons Group actively contributed to spread both HbbTV in Europe and ATSC 3.0 in the US

And invested since the early time on DVB-I supporting a concrete pilot with Mediaset and some HDFI partners

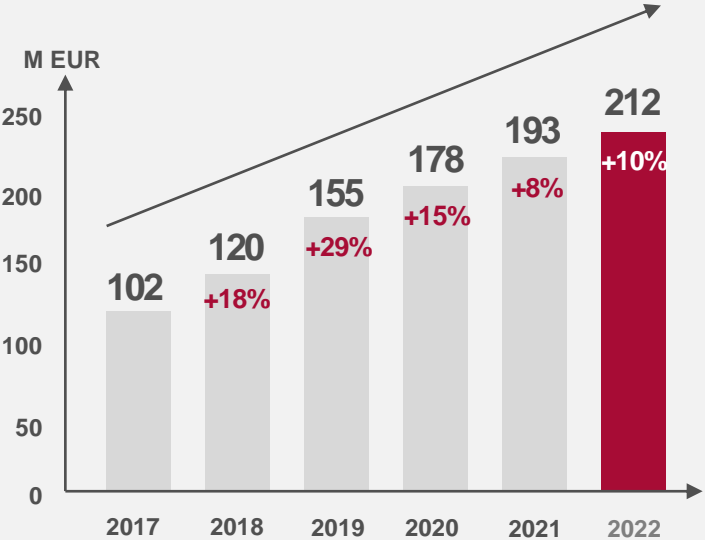
This presentation reports the experience of design and implementation of the DVB-I pilot presented at IBC 2022, in preparation of the Market Trial planned for 2023.



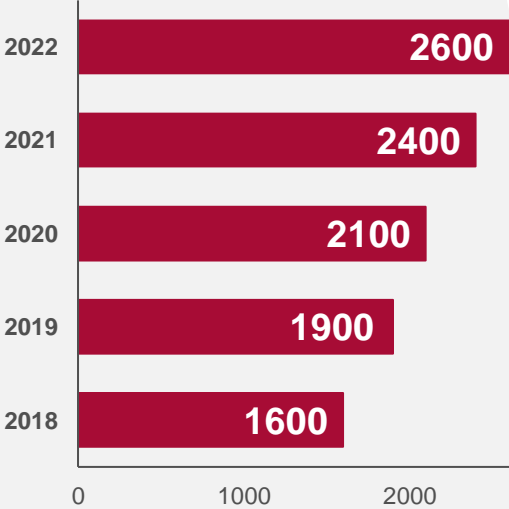
# Fincons Group Highlights

## A significant growth

From 39 years on the market, Fincons Group is a **reliable partner** to design, implement and maintain the Information Technology to enable business competitive advantage



## Headcount



## Locations



## What we do

Consulting  
and System  
Integration

System  
Building and  
Operation

Product  
Development

# Industry Recognition and Influential Organizations

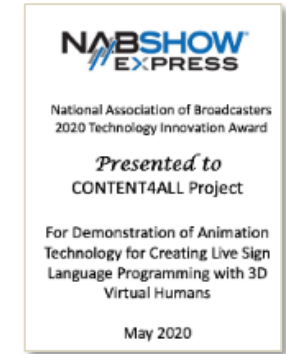
## Innovation Investments and Industry Recognition



HbbTV Symposium 2021  
**Best Technology Innovation**  
First ADB2 Implementation



SportsPro OTT 2020  
**Innovation of the Year**  
SDP – Smart Digital Platform



NAB Show 2021  
**Product of the Year**  
Univision ATSC3.0 Broadcast App



TV of Tomorrow 2020  
**Awards for Leadership**  
SDP – Smart Digital Platform

NAB Show 2020  
**Technology Innovation Award - Content4All**

## Membership and Proactive participation in International Influential Organizations



DEUTSCHE  
TV-PLATTFORM



# The HbbTV and DVB-I Journey

## Cross-Channel TV



### 2017

- Interactive and Addressable TV Advertising



### 2018

- EPG, VOD, Catchup
- Restart and Real-Time Highlights
- Virtual Channels, Multi-camera
- Voting and Participation
- Cross-platform user login

### 2019

- Dynamic AD Replacement
- TV – Mobile pairing
- AVOD



### 2020

- Geo-behavioral Advertising
- Cross-channel Incremental Reach and Additional Frequency
- Drive-to-Store, Drive-to-Site
- Cross-channel attribution



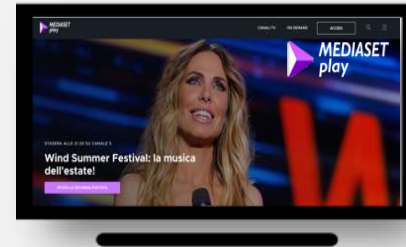
### 2021-2023

- TVOD
- SVOD

- **HbbTV-TA / DVB-TA**
- **DVB-I**



<https://www.mediasetplay.mediaset.it/>



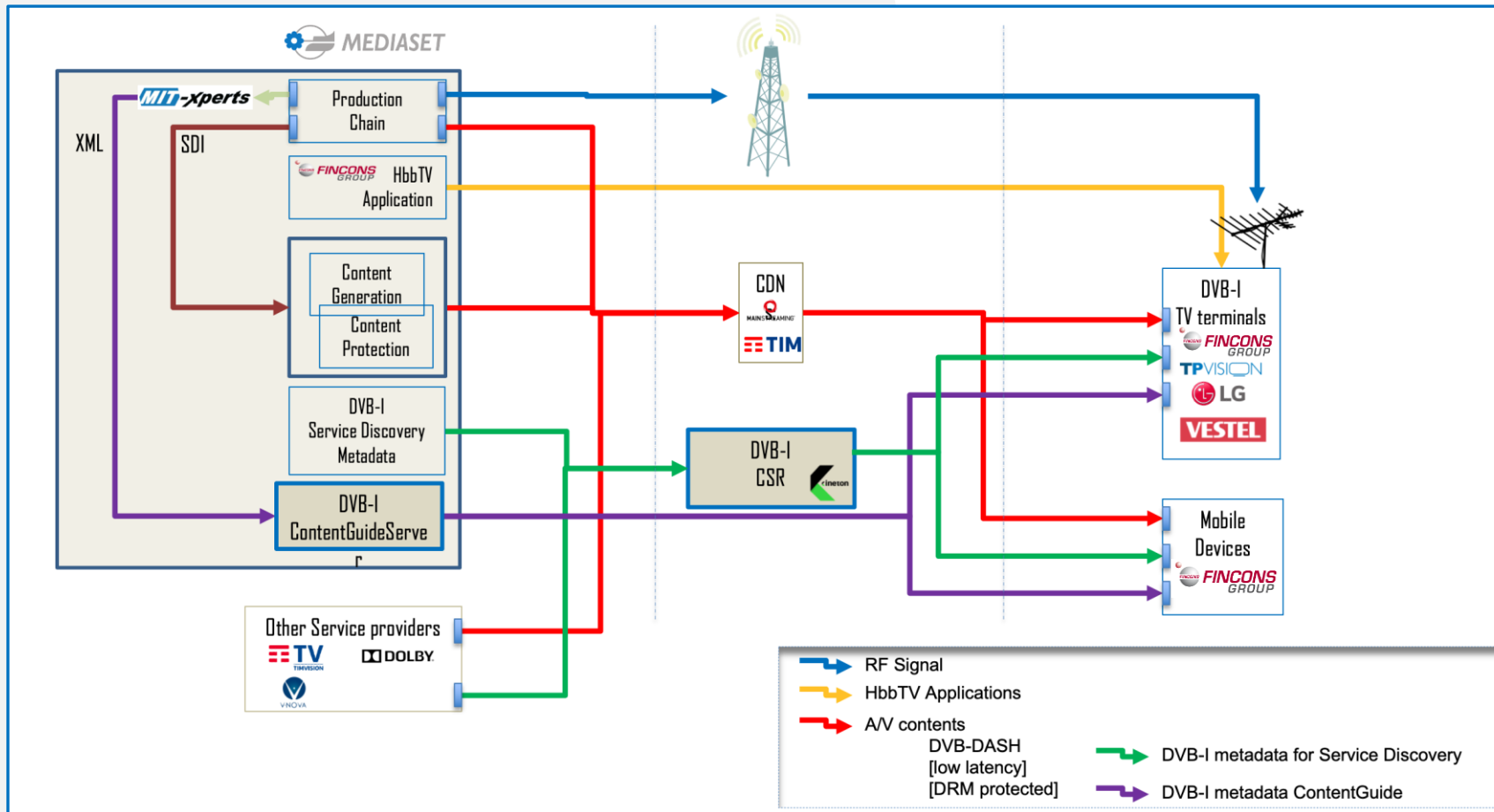


# The DVB-I Opportunity

## DVB-I and HbbTV

- The DVB-I standard enables the delivery of DVB services over the Internet introducing clear benefits for users, broadcasters and manufacturers.
- Thanks to DVB-I, services that are already broadcasted through Terrestrial/Satellite/Cable can be distributed also through the Internet in a standardized manner and made available to the HbbTV layer by means of the incoming HbbTV Core 2.0.4.
- Fincons joined Mediaset PoC to show the potential benefits of joining DVB-I and HbbTV standards to support a set of core use cases.

# DVB-I: Pilot Architecture



- The use-cases have been implemented and demonstrated running on Vestel, TPVision and LG TV sets.
- As a test of the HbbTV Core 2.0.4, an HbbTV application has been developed managing content protection, mABR and QoS measurement.

# Pilot use cases 1/2

## Hybrid & Unique channel list; Seamless Zapping

- The HbbTV terminal provides the user with a single channel list which contains both broadcast channels and IP services.
- Once the channel list is available, the user can navigate through it in the usual way, i.e. P+/P or channel number, accessing DVB-T and DVB-DASH channels seamlessly
- DVB-T / DVB-DASH time alignment has been pursued between BC and BB distribution of the same TV channel, allowing e.g. to disconnect the antenna and smoothly proceed online, and vice versa switch back to broadcast when the antenna is reconnected.





# Pilot use cases 2/2

## Low Latency; Content Protection; m-ABR

- By means of DVB DASH specification, terminal implements mechanism to reduce the latency over OTT services.
- Contents delivered over IP can be protected, e.g., for content rights enforcement or content upselling, using the HbbTV application to manage the DRM (*Playready*) protected contents and to support Free and Freemium business models.
- Increasing number of connection will require “network scalability” solution proof. The PoC HbbTV. App incorporates the multicast ABR libraries (*Broadpeak*) not natively supported by the TV Set.



# The Potential Impact

## DVB-I and HbbTV

- The introduction of DVB-I allows to create an unlimited number of TV channels, leveraging the broadband distribution in combination with the broadcast one and in a smooth way for the audience user experience.
- The new scenario will allow broadcasters to guarantee viewers the best transmission quality of their present and future linear channels by overcoming the limitations of the electromagnetic radio spectrum.
- Thanks to the available use-cases implementations, we are now in a position to move into a new implementation phase in the field, enabling verification of the entire DVB-I supply chain.

# Thank you!



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Italy | Switzerland | UK | US | Germany | France