

CCMA HbbTV

Towards an interactive and innovative TV



Corporació Catalana
de **Mitjans Audiovisuals**, SA



About the CCMA

- **Corporació Catalana de Mitjans Audiovisuals (CCMA) is the Catalan public Broadcaster.**
- **Its audiovisual offer includes:**
 - TV: TV3, 33, Super3, 3/24, Esport3 and TV3Cat.



- Radio: Catalunya Ràdio, Catalunya Informació, CatMusica & iCat.cat



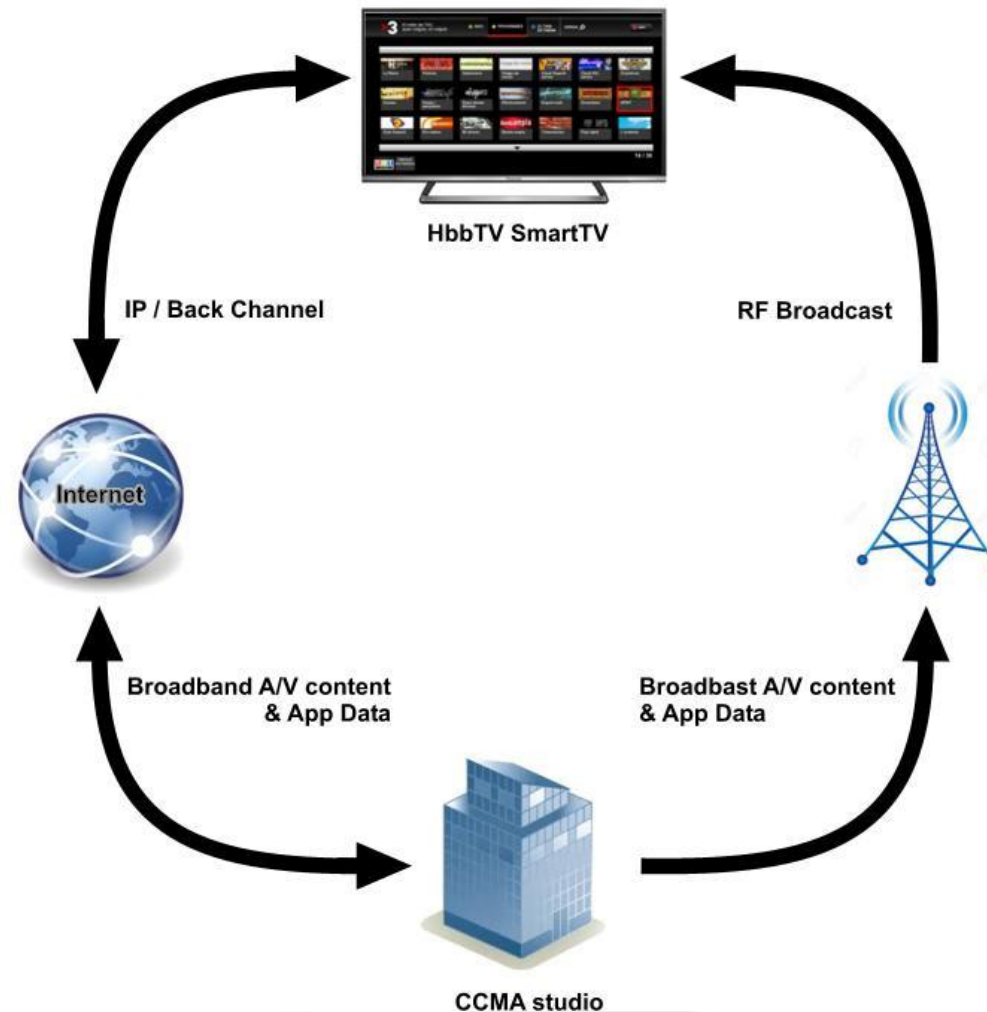
- Digital Media: website, mobile apps, Connected and Hybrid TV, social networks, etc...



The CCMA and Interactive Services

- Since the beginning of DTT broadcasting, the CCMA has been very aware to latest technologies to offer interactive services.
- CCMA has developed and progressively deployed interactive services, since firsts **mhp** TV applications to nowadays “TV3alacarta” service on proprietary platforms such as PS4 or proprietary SmartTV markets.
- Thanks to the introduction of **HbbTV**, CCMA has deployed new innovative services including VOD and accessibility services to the TV audience. Nowadays CCMA is working in a new multicamera service project.

HbbTV opportunities on CCMA services

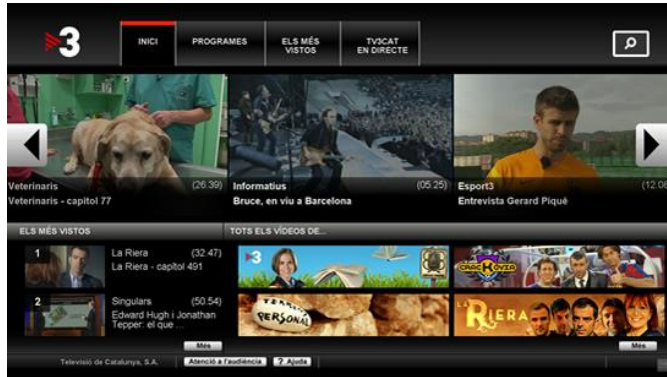


CCMA HbbTV

HbbTV opportunities on CCMA services

- **HbbTV is an industry standard, an open platform, non proprietary**
 - HbbTV allows broadcasters direct access to their audience to offer new and enhanced services
- **Flexibility and Dynamism**
 - Time to publish new apps and updates dramatically reduced
- **Broadcast/Broadband Synchronization**
 - Allows the activation of interactive services scheduled and synchronised with broadcast events.
- **Innovation**
 - Allows deployment of improved services like VOD, EPG, voting, interactive advertising , etc.
- **Accessibility**
 - Allows too development of accessibility services (captions, AD...)

CCMA's deployments since HbbTV 1.0



- 2011 - Catchup service “TV3alacarta”
- 2014 – Access Services
- 2015 – Multicamera Project

CCMA “TV3alacarta” Catchup service

- 2011 - “TV3alacarta”
 - VOD service with alphabetical content searcher and direct access to “most seen” & “last week” programs and special contents.
 - Accessible from channels TV3, 33, 324, Esports3 and Super3



CCMA “TV3alacarta” Access services

- **2014 – Improved service with Access Services**
 - EBU-TT-D Subtitling and Audiodescription

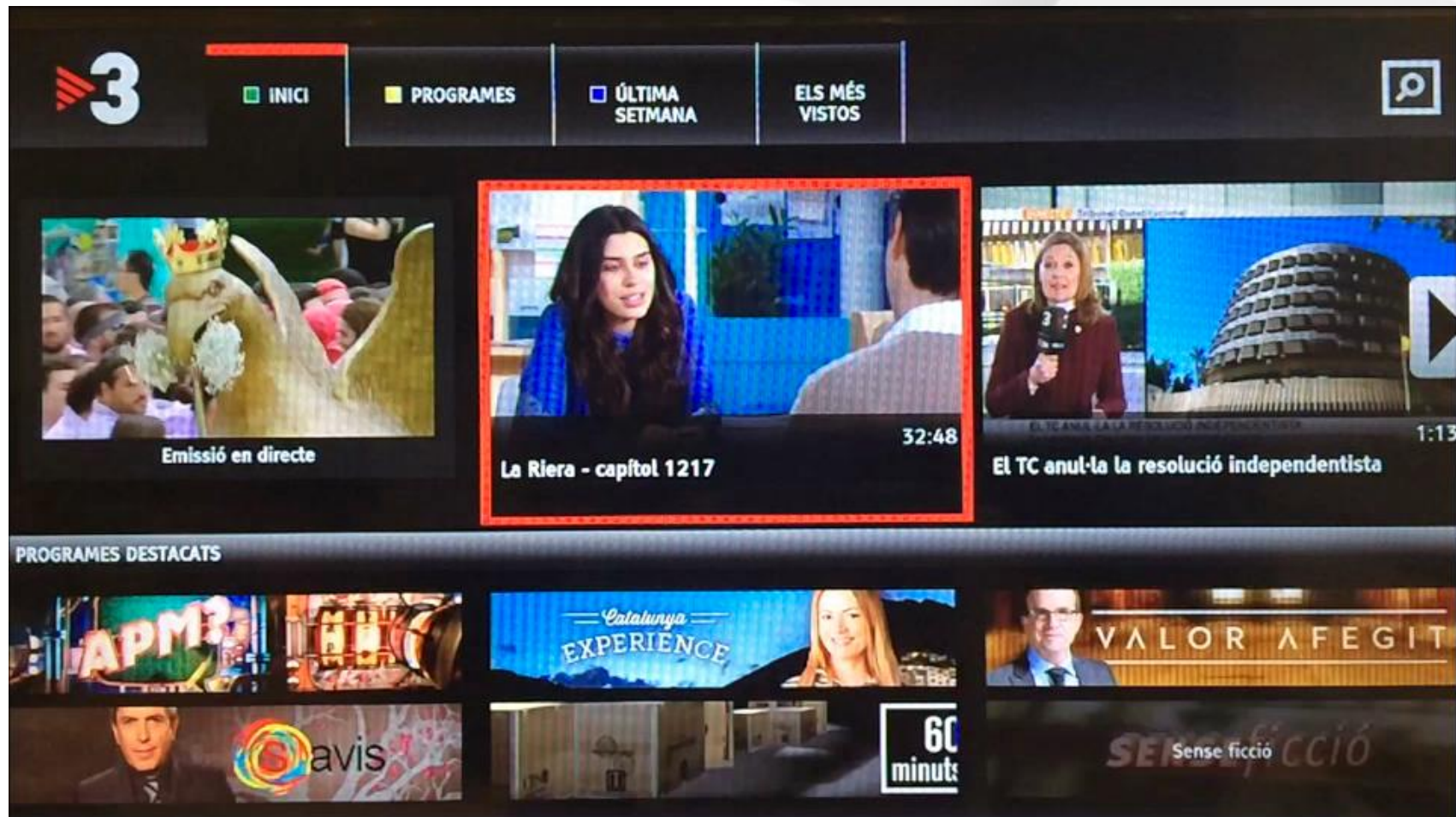


- CCMA participates in the European project Hbb4All that addresses media accessibility possibilities in the new hybrid broadcast-broadband TV(HbbTV) environment.

CCMA “TV3alacarta”

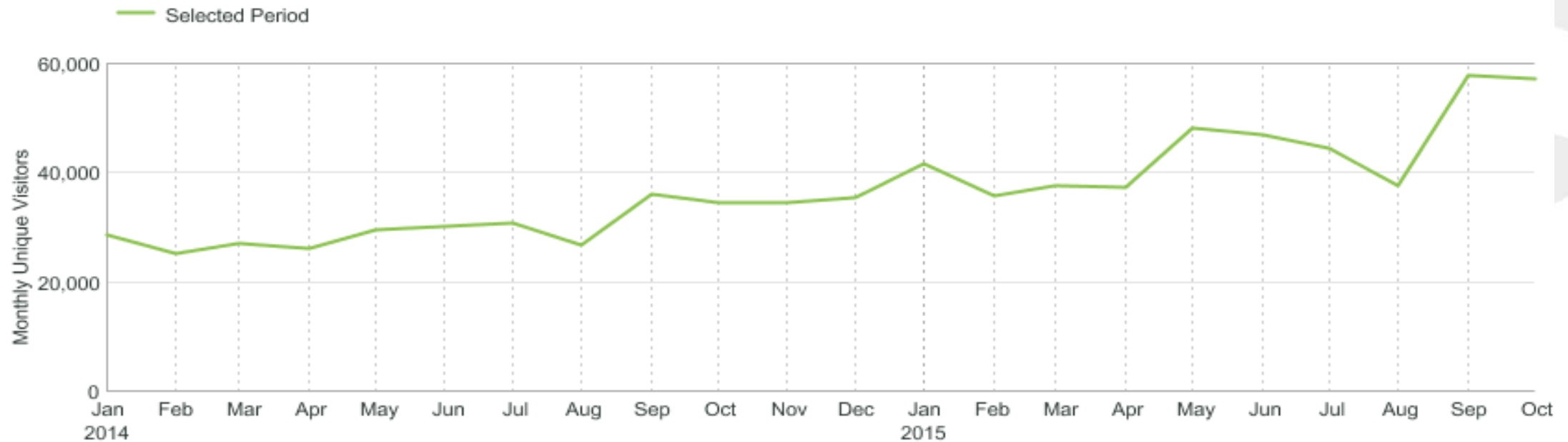


CCMA “TV3alacarta”



CCMA “TV3alacarta” Catchup service

- **Growing Audience due to**
 - Increase number of Connected HbbTV SmartTV's
 - Changes in the behaviour of the audience watching TV
 - TV3 leadership in the catalan audiovisual market

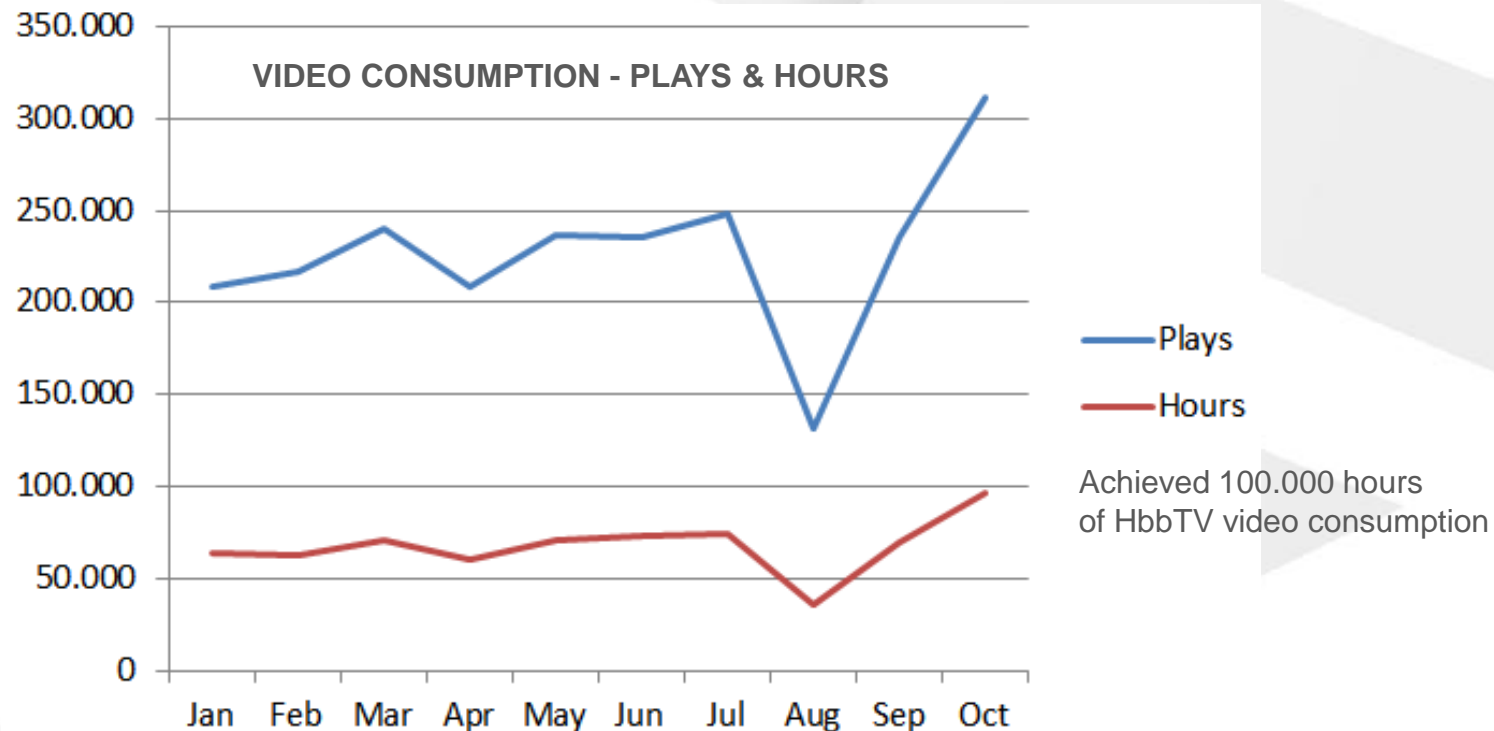


Monthly Unique Visitors Report | HbbTV No Hook | Wed. 1 Jan. 2014 - Sat. 31 Oct. 2015 | Graph generated by Adobe Analytics at 12:14 PM FWT, 21 Nov 2015

CCMA “TV3alacarta” Catchup service

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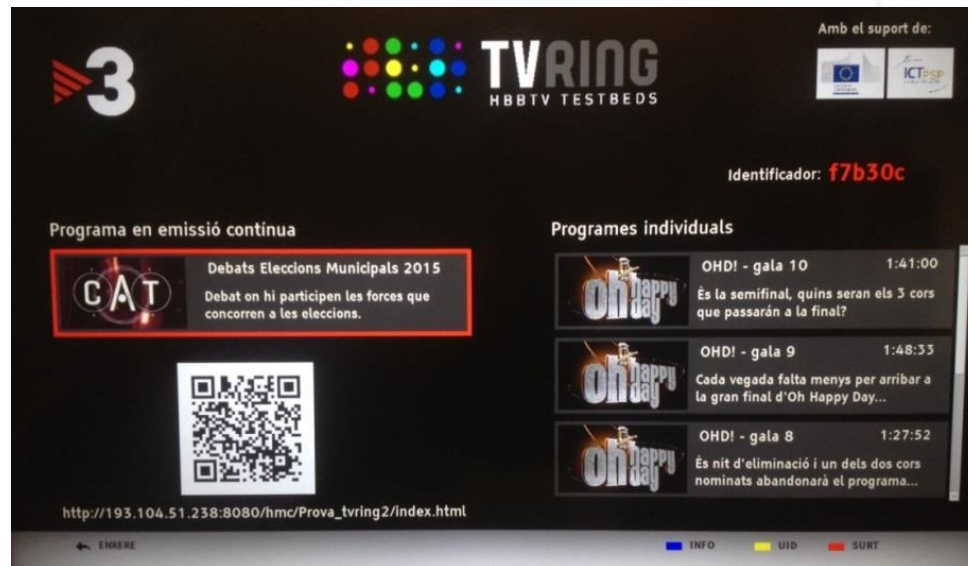
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CCMA HbbTV

CCMA Multicamera Project

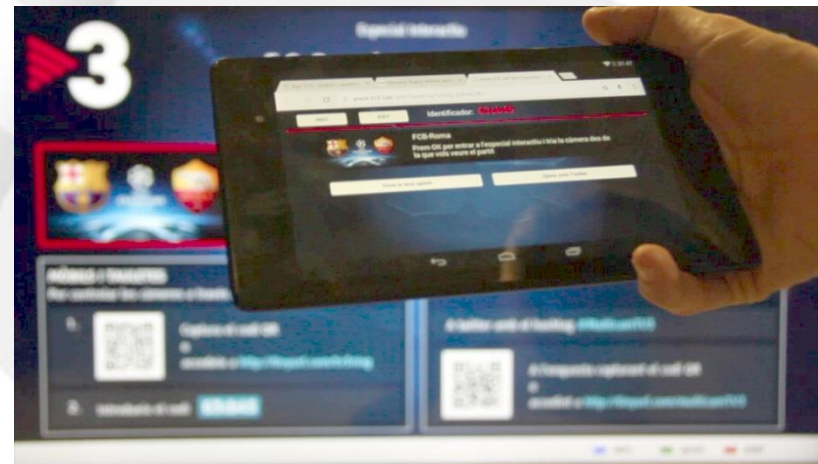
- **2015 – Live and VOD Multicamera Service**
 - Objective: deployment of multicamera TV programs for SmartTV's based on HbbTV V1.5.
 - Developed within the scope of European TV-Ring Project that involves 3 different pilots in three countries: Germany, the Netherlands and Spain.



CCMA Multicamera Project

- **2015 – Live and VOD Multicamera Service**

- Objective: deployment of multicamera TV programs for SmartTV's based on HbbTV V1.5.
- Developed within the scope of European TV-Ring Project that involves 3 different pilots in three countries: Germany, the Netherlands and Spain.



- **Improved Multicamera Service**

- Multicamera monitoring and control through 2nd Screen

CCMA Multicamera Project

- **Deployed pilots:**
 - Cultural events (Castellers, folklore music concerts)
 - Entertainment programs (Oh! Happy Day)
 - Sports programs (Champions League)
 - Parliamentary Elections
 - Debates



CCMA Multicamera Project

- 24N Champions League – FC Barcelona vs AS Roma football match

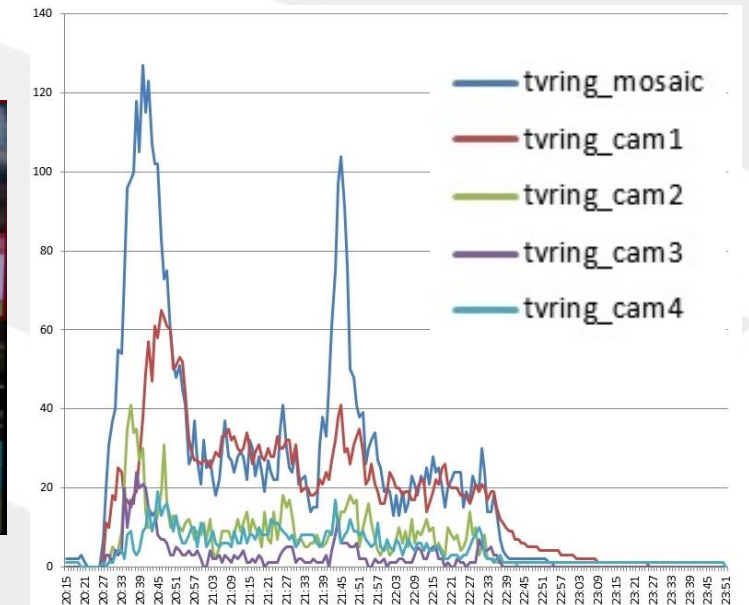


- CAM 1 – Live program
- CAM 2 – Messi, Neymar, Suárez camera
- CAM 3 – Luís Enrique
- CAM 4 – Attack camera

CCMA Multicamera Project

- 24N Champions League – FC Barcelona vs AS Roma football match

Fabricant TV	Unique Visitors	
LG	2.341	37,7%
Sony	1.428	23,0%
Panasonic	1.298	20,9%
Samsung	922	14,9%
Philips	69	1,1%
Toshiba	55	0,9%
Altres	37	0,6%
Total	6.203	



CCMA Multicamera Project



CCMA Multicamera Project



CCMA Multicamera Project

- **Analisis Multicamera Pilot - FC Barcelona vs AS Roma**
 - Positive feedback from users through social networks

Marc Melillas @marcmeillas · Nov 24
Intessant projecte per tv amb Hbbtv de @tv3cat per seguir la #ChampionsTV3 amb #MulticamTV3 pilot @tv_ring



Albert Urga @urga7 · Nov 24
Genial el #MulticamTV3!!



Marta Rosell @Martona · Nov 24
Provat el #MulticamTV3! Quatre maneres diferents de seguir el partit... @tv_ring



Mari@Jesús @Maria_JesusPG · Nov 24
#multicamtv3 genial m'agrada molt :-)



Raül Presseguer @raulpresseguer · Nov 24
M'agrada que #TV3 innovi retransmentent la Champions Barça-Roma per #MulticamTV3 en #SmartTV TV pública de qualitat!



jsenda @JSendarrubias · Nov 24
Seguint la retransmissió multicàmera del partit de Champions #MulticamTV3 #FCBarcelona @tv3cat @esport3 @LaTdP



Lluís Marcus @lluismarcus · Nov 24
Curios el tema de ...mooool! #multicamtv3

ricard terre @rterre · Nov 24
Brutal #MulticamTV3



CCMA Multicamera Project

- **Analisis Multicamera Pilot - FC Barcelona vs AS Roma**
 - Positive feedback from users through social networks



TV Ring @tv_ring · Nov 24

El Barça ja guanya 2 a 0. Us sembla útil la #MulticamTV3 ?



84%

Sí

16%

No



Castoola @castoola · Nov 25

Lots of positive responds on twitter for #MulticamTV3. Any plan to release a report on UX? @tv_ring

TV Ring @tv_ring

El partit del Barça ja s'acaba. Si no us ha funcionat la #MulticamTV3 ajudeu-nos a millorar responenent al qüestionari tinyurl.com/multicamTV3



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3 CATALUNYA
RÀDIO

CCMA Multicamera Project

- **Analisis Multicamera Pilot - FC Barcelona vs AS Roma**
 - Positive feedback from users through social networks
 - Some negative feedback from users with SmartTV problems
 - Camera switching was too slow
 - Nowadays developing a new solution with better switching time.
 - Blackscreen on some SmartTV's



Tremendo Boogaloo @joanmarsol · Nov 24
#MulticamTV3 imatge congelada, una pena.



Suport FCB-Catalunya @Catala1899 · Nov 24
No funciona a una TV Smart TV Samsung es veu tot negre y un quadrat vermell
#MulticamTV3



David @reusenc2 · Nov 24
#multicamTV3 Es veu però s'atura sovint la imatge. Per canviar de càmera triga en carregar-se uns 10/15 segons. Smart TV de LG



David Badia @DavidBadia · Nov 24
#multicamTV3 pantalla amb marc vermell i s'atura l'aplicació ... #fail



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CCMA Multicamera Project

- **Conclusions**

- TV-RING Multicam project has been a success:
 - Great audience acceptance.
 - CCMA has seen the project as an opportunity to offer new innovative services.
- But nowadays multicam based on HbbTV 1.5
 - is not 100% working on all HbbTV SmartTV's. Interoperability issues.
 - usability is still an issue that needs improvement
 - Camera switching is too slow
 - 2nd screen video synchronization is not possible

CCMA Multicamera Project

- **Conclusions**

- Next steps
 - Better camera time-to-switch
 - Testing a new streaming format
 - Better compatibility
 - Achieve more HbbTV SmartTV's models. Improve interoperability.
 - Capture user feedback
 - Social Networks real-time feedback, Living lab, Workshops...
 - Improvements based on user preferences & experience
- HbbTV 2.0 will allow great improvements
 - HbbTV and 2nd screen video synchronization
 - Improved synchronisation broadcast & broadband contents
 - Better video quality at low bitrates with HEVC

CCMA HbbTV

Thank you very much
Feedbacks, questions and comments are welcomed.
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