

IMMERSIATV

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EBU @ IBC 2016 – Innovation Theatre
11th of September 2016

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**European
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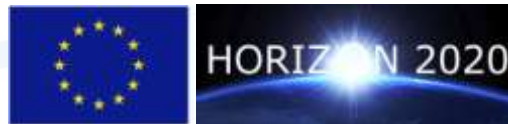
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IMMERSIATV

Immersive Experiences around TV, an integrated toolset for the production and distribution of immersive and interactive content across devices.

Call: H2020-ICT-19-2015-IA

Start January 2016
30 Months
Budget 3.8M€



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virtual reality documentary | 360 video

Ryad's War Oil



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Exploring VR is exploding

- VR content
 - NextVR
 - LiveNation, Fox & NBC Sports, CNN
 - “virtual seat” concept
 - BBC Taster: 360° Rio 2016 Olympics



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Main VR challenges

- good storytelling
- interaction
- new (pre)production tools
 - VR storyboard, instant preview, adding interactivity, ...
 - simplify the production flow
 - how does VR fit in a broadcast workflow?
- distribution and reaching the audience

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Consortium

Research institutions

Broadcaster

Tooling SMEs



Production SME



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ImmersiaTV: challenges



OBJ1.

Create a new cinematographic language where the specificities of immersive displays are taken into account, and which conciliates immersive paradigms with traditional storytelling techniques.



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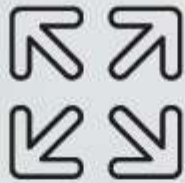
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ImmersiaTV: challenges



OBJ2.

Extend the production pipeline to create omnidirectional content for a multi-platform environment.



Broadcast quality rigs

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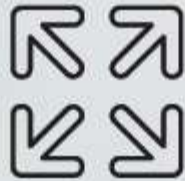


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ImmersiaTV: challenges



OBJ2.

Extend the production pipeline to create omnidirectional content for a multi-platform environment.



Sticking Edition tool

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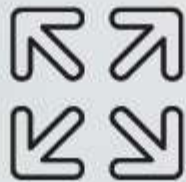


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ImmersiaTV: challenges



OBJ2.

Extend the production pipeline to create omnidirectional content for a multi-platform environment.



Multiplatform Edition Tool

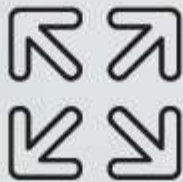
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ImmersiaTV: challenges



OBJ2.

Extend the production pipeline to create omnidirectional content for a multi-platform environment.



Multiplatform live production tool

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OBJ3.

Re-design the distribution chain to address the specific technical challenges that omnidirectional content imposes in terms of capture, compression, distribution, reception, and rendering.



Codification. Extending JPEG XS scope to Omnidirectional video

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ImmersiaTV: challenges



OBJ3.

Re-design the distribution chain to address the specific technical challenges that omnidirectional content imposes in terms of capture, compression, distribution, reception, and rendering.



Adaptive streaming. Reducing latencies, ensuring highest video quality, enabling video interaction.

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ImmersiaTV: challenges

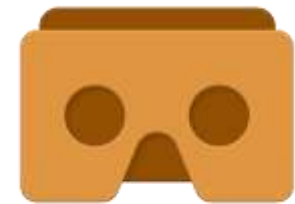


OBJ3.

Re-design the distribution chain to address the specific technical challenges that omnidirectional content imposes in terms of capture, compression, distribution, reception, and rendering.

HbbTV

androidtv



oculus

Samsung Gear VR

Multiplatform synchronization and other interoperability problems

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ImmersiaTV: challenges



OBJ4.

Maximize the quality of the end-user experience, across devices, and within the technical limitations of existing production structures, distribution facilities and reception devices to create an optimal immersive experience.



Professional users & Content creation

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ImmersiaTV: challenges



OBJ4.

Maximize the quality of the end-user experience, across devices, and within the technical limitations of existing production structures, distribution facilities and reception devices to create an optimal immersive experience.



Professional users & Content creation

_Partners:



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ImmersiaTV: challenges



OBJ5.

Maximize the impact of
the ImmersiaTV solutions
within the ecosystem of
content creators,
broadcasters, and
consumers.

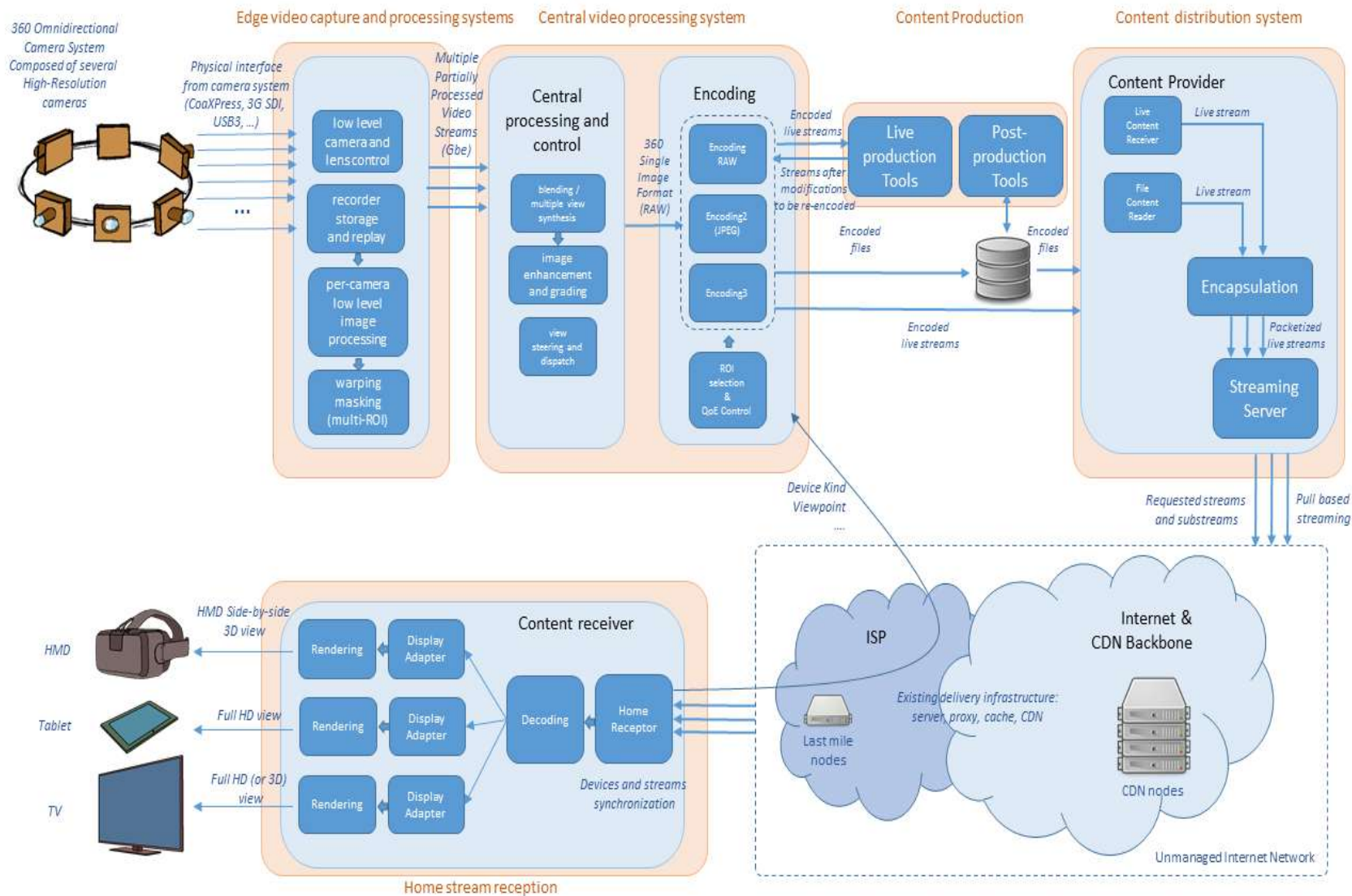
Content Creators.
Tooling companies.
Broadcasters.
Content agregators.
TV/STB Manufacturers.

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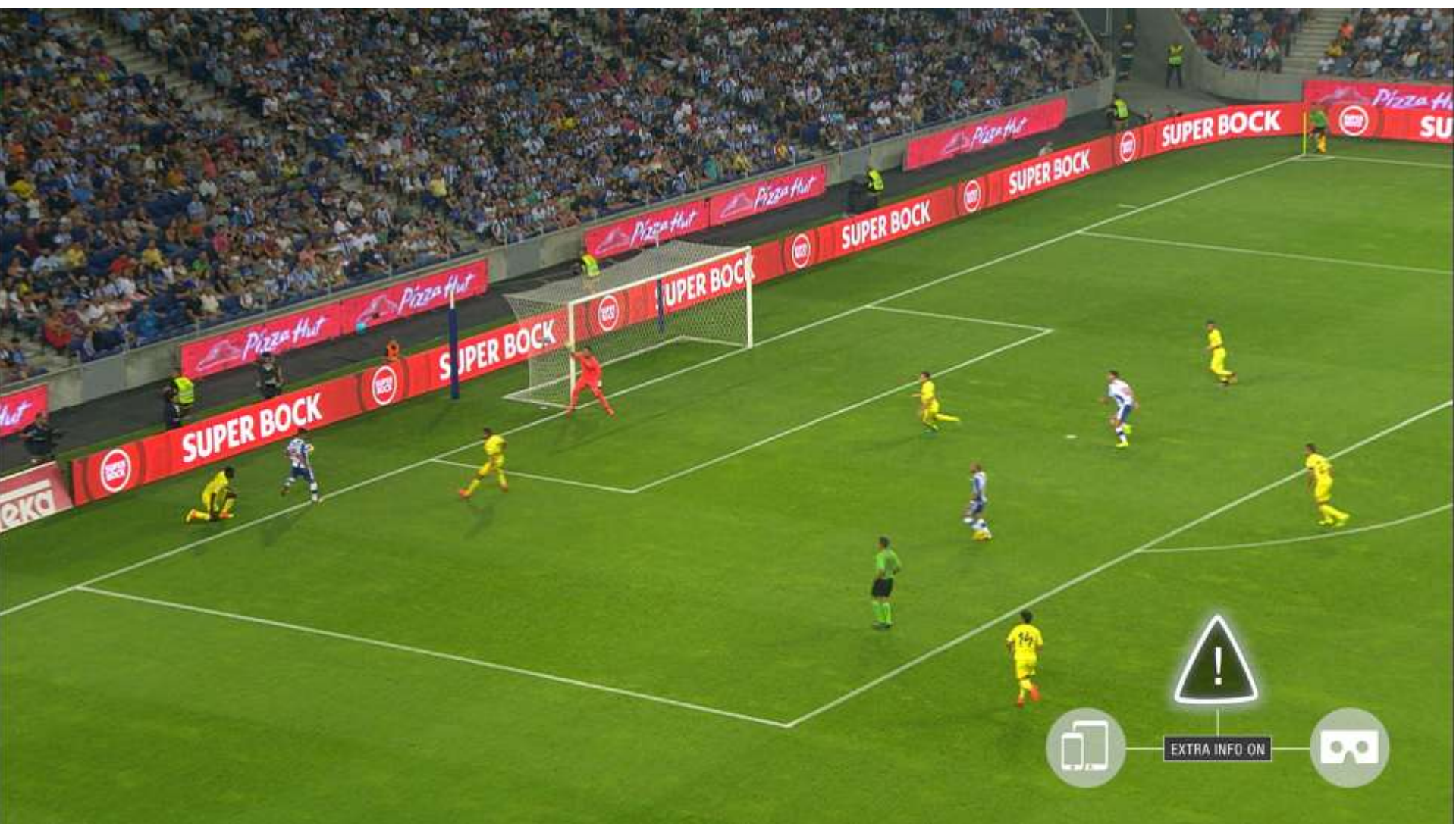


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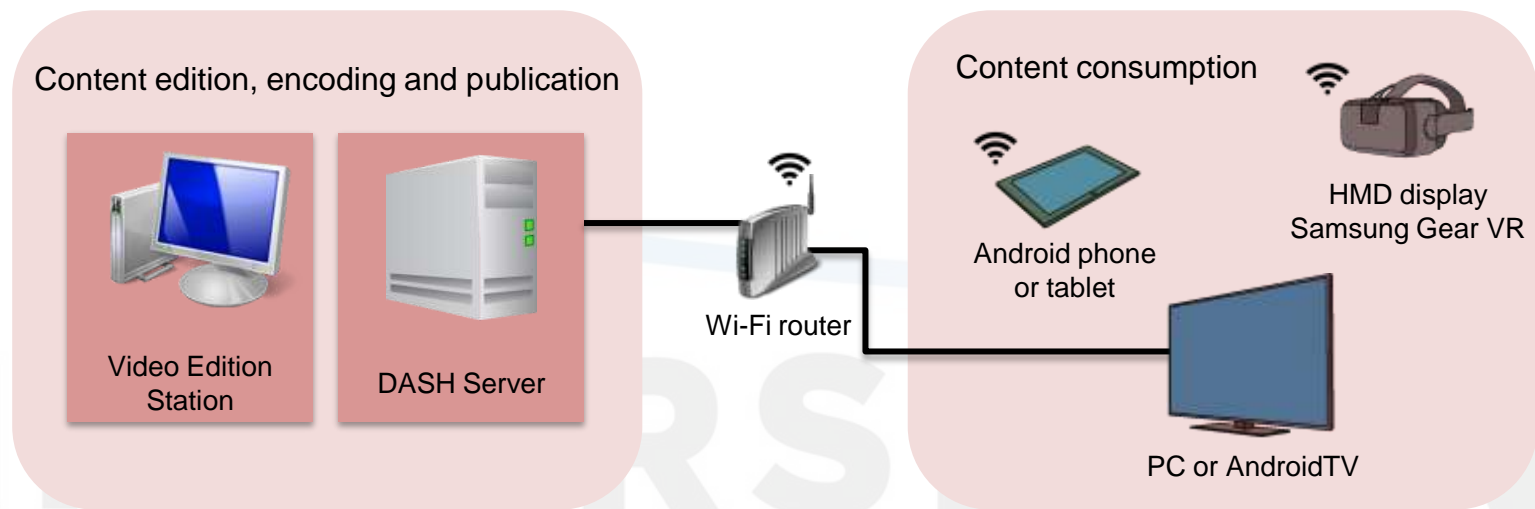
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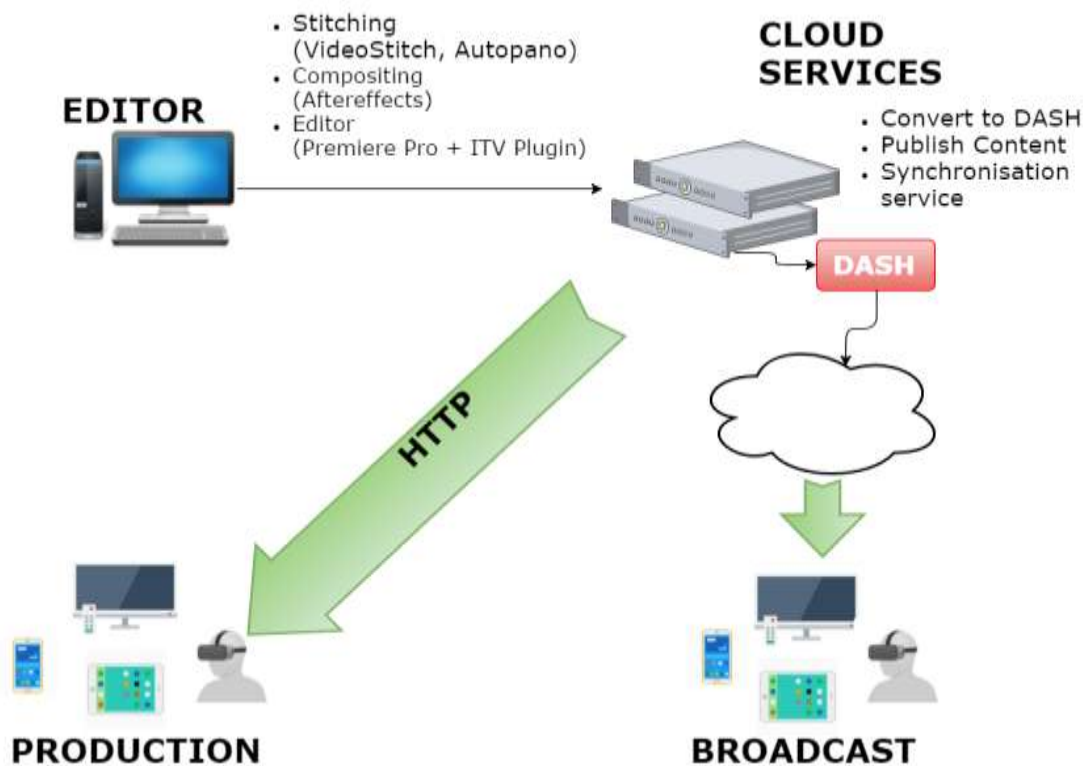
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General production workflow

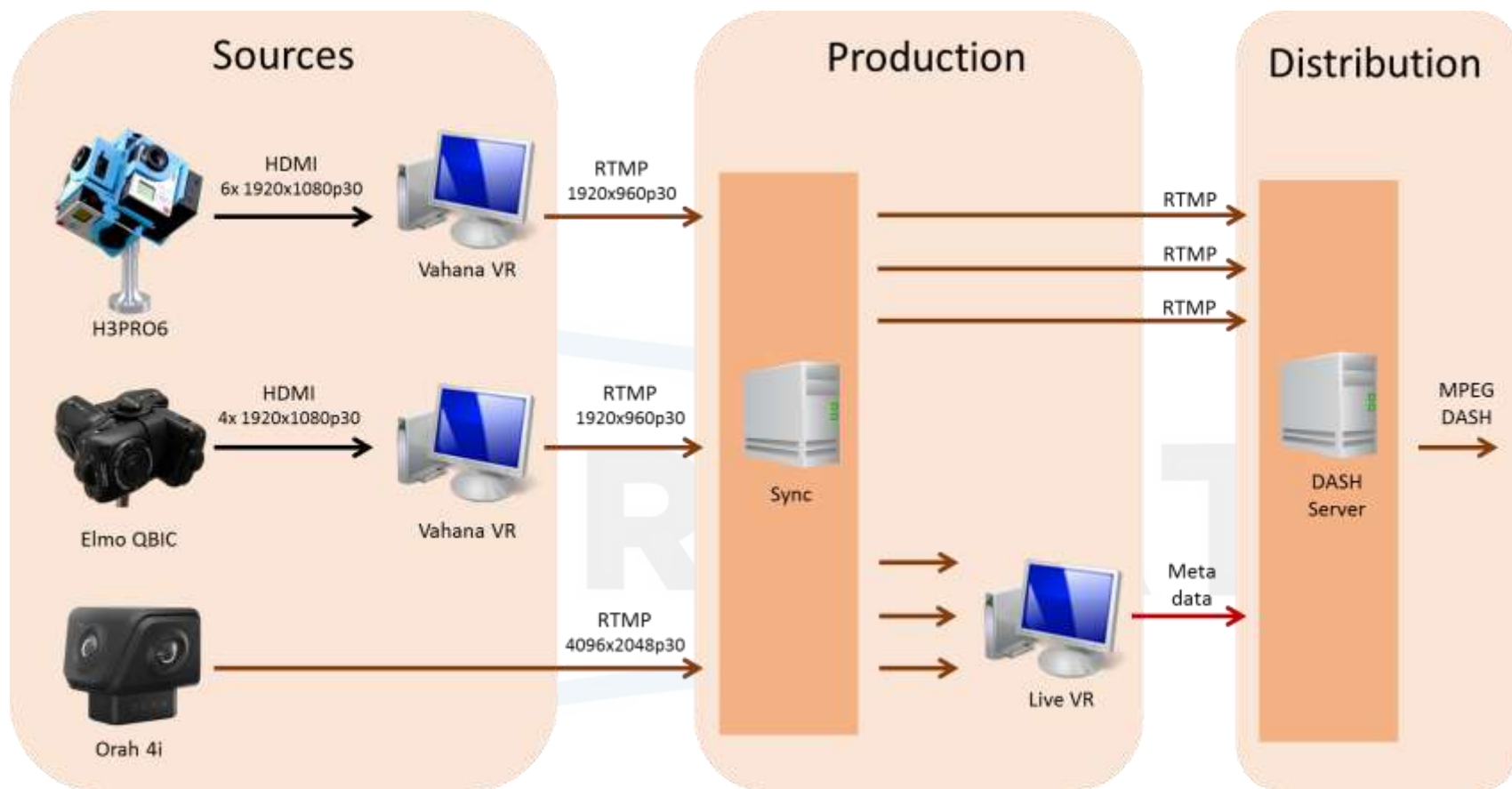


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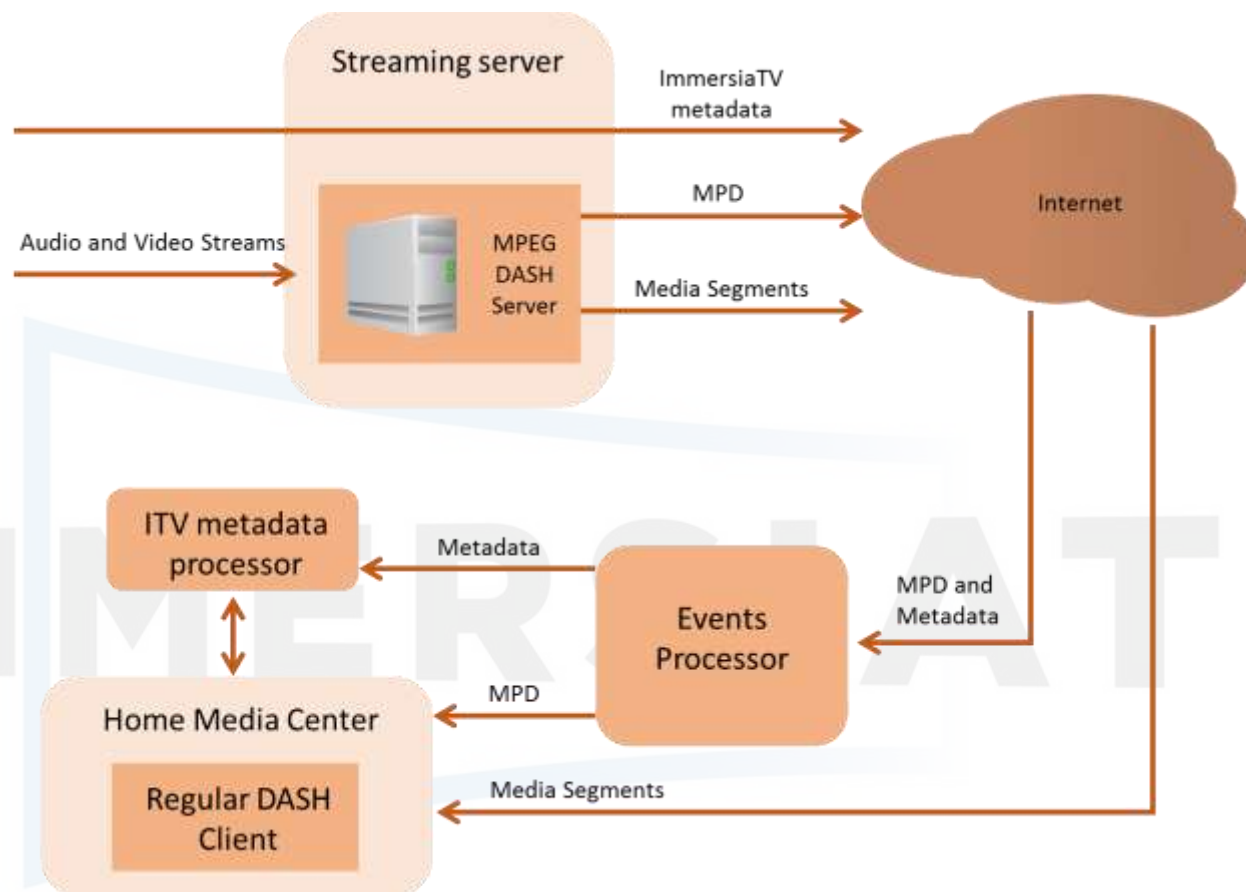


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LIGHTBOX
FILM & ADVERTISING

cinergy

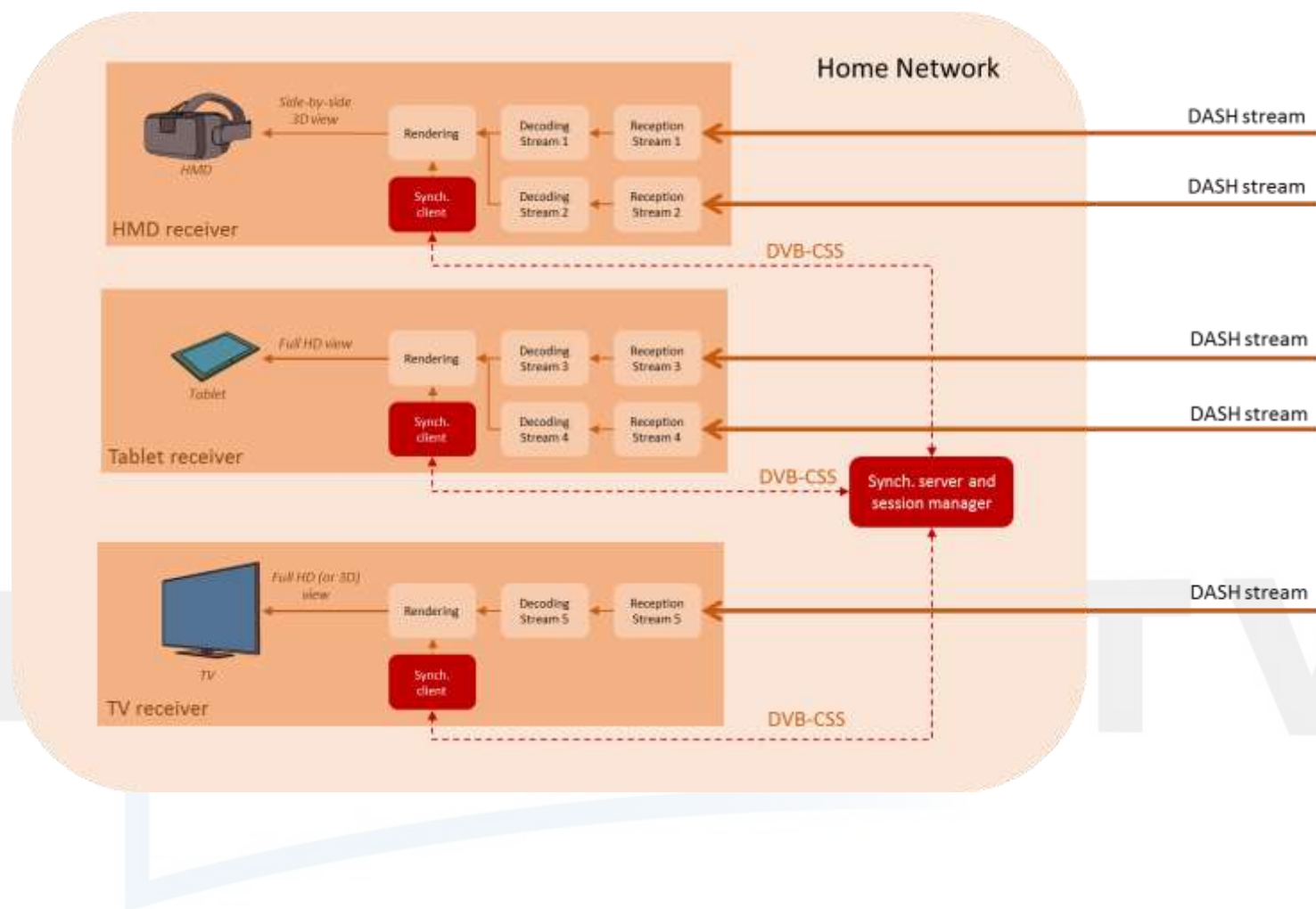


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Current challenges

- Image quality
- Sync
- Optimization of decoding and rendering
- HW bottlenecks (receive, decode and render multiple video streams)
- HMD isolation and features for social interaction
- Storytelling
- Audience feedback

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Pilot 1 – VR documentary



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360° IMAGE

WORKFLOW

new approaches



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Creative input

paradigm shift

Opportunities & restrictions

- Every take has to be fully synchronized between 2D and 360;
- Microphones, lights and other tools must be hiding in plain sight;
- Simultaneous storytelling allows for new points of view in terms of narrative;
- The user chooses what to see and discover within the world they are presented;

Novel way of storytelling

- The portals are a new organic way to present multi-platform content;
- Transitioning between 360° views has the potential to innovate even further;
- By using TV, HMD and Tablet for different types of narrative media, the user will choose the type of device they feel more comfortable with;

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Lessons learned

- Creating the narrative, one must think of multiple platforms which by nature will have **different types of storytelling**: what works well for tablet might not be suited for a TV;
- Producing content that mixes 2D images with 360° requires a **different approach to production** but most of all to **post-production** - editing becomes a whole different task;

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FUTURE WORK

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Pilot 2 – interactive live VR



Pilot 3 – Interactive docu



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Contact info



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