

IMMERSIATV

A TOOLSET FOR THE PRODUCTION AND DISTRIBUTION OF IMMERSIVE CONTENT ACROSS DEVICES



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.



OBJ2.

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



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.



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.



OBJ5.

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

PROJECT WORKFLOW

CAPTURE → PRODUCTION → ENCODING → DISTRIBUTION → DISPLAY

1

Capture and stitching:
New models of omnidirectional camera shooting multiple 4K videos that are processed and stitched together by advanced VahanaVR software.

2

Off-line and live: Set of tools for off-line and live production of omnidirectional video content, combined with traditional 2D video portals and new features such as transitions and effects in 360° media content.

3

New lightweight and low-latency video codec with Regions of Interest and QoE evaluation enables efficient encoding basing on real-time user's viewport feedback

4

Adaptive MPEG-DASH streaming of omnidirectional video with multi-platform content synchronization (DVB-CSS) and metadata defining interactive video portals.

5

Multi-platform player based on Unity3D engine enables synchronized displaying of omnidirectional content with additional video portals on HMD, phones, tablets and TV sets.



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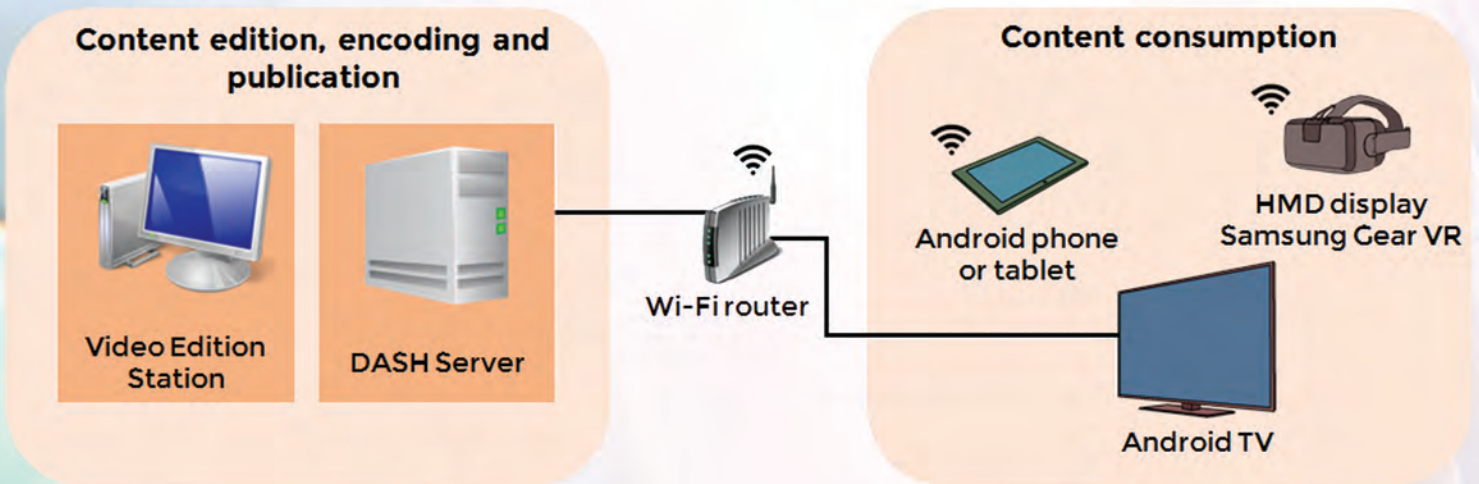
THE DEMO

ImmersiaTV is creating a novel form of omnidirectional video content production and delivery that offers viewers a coherent, simultaneous broadcast experience across head mounted displays, second screens and the traditional TV set.

In order to do this, we create an end-to-end toolset covering the entire audiovisual value chain: immersive production tools, support for omnidirectional cameras, adaptive content coding and delivery. We take advantage of the large field of view available in head mounted displays to create experiences where the user can navigate through and interact with video inserts. Besides this, we also explore the possibilities of synchronized content delivery to use second screens for the display of complementary aspects of the broadcast, in an attempt to reconcile second screen consumer habits with a more integrated and coherent multi-platform experience around the TV.

Our tools will be extensively piloted through two new formats: one pre-recorded documentary and one live event, both conceived and implemented by our media partners.

OFFLINE PILOT DEMO



THE PROJECT ARCHITECTURE

