

# Deliverable

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## D5.3-Content Production

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**Authors:** Zora Schärer Kalkandjiev (RBB)

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Dissemination Level

P	Public	P
C	Confidential, only for members of the consortium and the Commission Services	

### Abstract:

This document is a documentation of all contents used during the course of the project for demos, pre-pilots and pilot activities.

## REVISION HISTORY

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Name	Institution	Email	Revision
Sonali Rai	RNIB	<a href="mailto:sonali.rai@rnib.org.uk">sonali.rai@rnib.org.uk</a>	

Revision	Date	Author	Organisation	Description
0.1	18-05-2018	Zora Schärer Kalkandjiev	RBB	Structure, ToC and Introduction
0.2	05-06-2018	Zora Schärer Kalkandjiev	RBB	First example for content description
0.3	03-08-2018	Francesc Mas	CCMA	Added content
0.4	21-08-2018	Zora Schärer Kalkandjiev	RBB	Included feedback of reviewer
0.5	18-09-2018	Zora Schärer Kalkandjiev	RBB	Restructuring and refining
1.0	04-10-2018	Zora Schärer Kalkandjiev	RBB	Final version of first iteration
1.1	05.10.2019	Doreen Ritter	RBB	Draft for second iteration
1.2	29.11.2019	Zora Schärer Kalkandjiev	RBB	Final version of second iteration

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### Statement of originality:

This document contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.

## **EXECUTIVE SUMMARY**

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ImAc follows a user centered design approach. The project developments must be driven by real user needs, continuously involving these users in every step of the design and implementation. The solutions developed in the project are piloted and validated in trials, ensuring market relevance and user acceptance.

D5.3 is the delivery of the content needed for these demonstration pilots. This document lists all content that will be used in the tests and for demo purposes. In the second iteration of this document, the content used for the cross-national pilot and the pilot phase 2 will be added.

## CONTRIBUTORS

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First Name	Last Name	Company	e-Mail
Zora	Schärer Kalkandjiev	RBB	zora.schaerer@rbb- onlin.de
Francesc	Mas	CCMA	fmas.z@ccma.ccat
Doreen	Ritter	RBB	doreen.ritter@rbb- online.de

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## LIST OF ACRONYMS

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Acronym	Description
AD	Audio description
AST	Audio subtitles
D	Deliverable
E2R	Easy-to-read
FOV	Field of view
GUI	Graphical User Interface
HMD	Head-mounted display
HUR	Home User Requirements
HQ	High quality
ImAc	Immersive Accessibility
LQ	Low quality
M	Month
MS	Milestone
PUR	Professional User Requirements
SL	Sign Language
T	Task
VR	Virtual Reality

# 1. INTRODUCTION

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## 1.1. Purpose of this document

This document describes the content produced for the demonstration pilots (for each of its two iterations). It is essentially linked to the content itself, which is part of MS13 that foresees the edition tools and content ready for pilot 2.

This document describes the content to be developed under WP5 and used in demonstration pilots. Pilot actions are understood as any test in which ImAc services and products are demonstrated and feedback from users is gathered.

The main aim of WP5 is to test the ImAc services and products (many of them in two iterations) by using suitable content that is similar to the content consumed in typical use cases and that meets the technical requirements of the ImAc framework. The production of content is thus essential, since the outcome of WP5 feeds into several other project WPs (Figure 1).

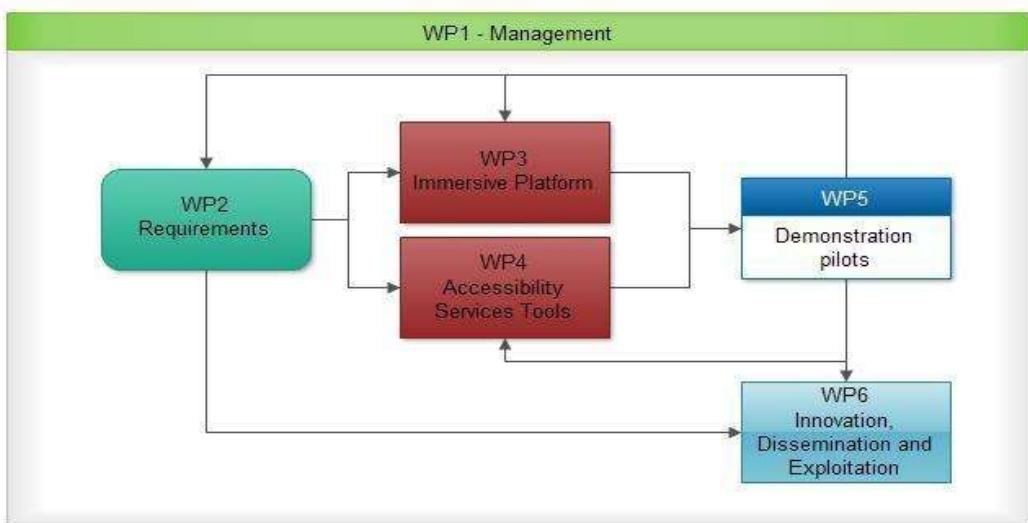


Figure 1: Diagram of relation between work packages, and its cycles (iterations).

## 1.2. Scope of this document

ImAc follows a user-centric design, which means that technological components, services and tools are developed based on user requirements. These developments are evaluated where appropriate in different iterations, guaranteeing the participation of end users at different stages in the process.

This deliverable describes the content used for the demonstration pilots. The requirements for the content are described in section 2. A short overview of all content is given in section 3, while the properties of all media files are listed in detail in section 4.

## 1.3. Status of this document

This is the second version of D5.3 with delivery foreseen in M25.

This document presents the content for all the pre-pilot and pilot phases: pre-pilot 1, Spanish and German pilots (phase 1), pre-pilot 2, Spanish and German pilots (phase 2) as well as cross-national pilot.

## 1.4. Relation with other ImAc activities

D5. has been compiled from the feedback gathered in 'T2.2 User Requirements'. The deliverable also feeds into 'T5.1 Execution and Evaluation Plan', and impacts on all WP5 tasks, as shown in Figure 2.

D5.3 is the basis for 'T5.3 German Pilot', 'T5.4 Spanish Pilot' and 'T5.5 Cross-national Pilot', which will feed into 'T5.6 Evaluation' and result in 'D5.4 Pilot evaluation report'.

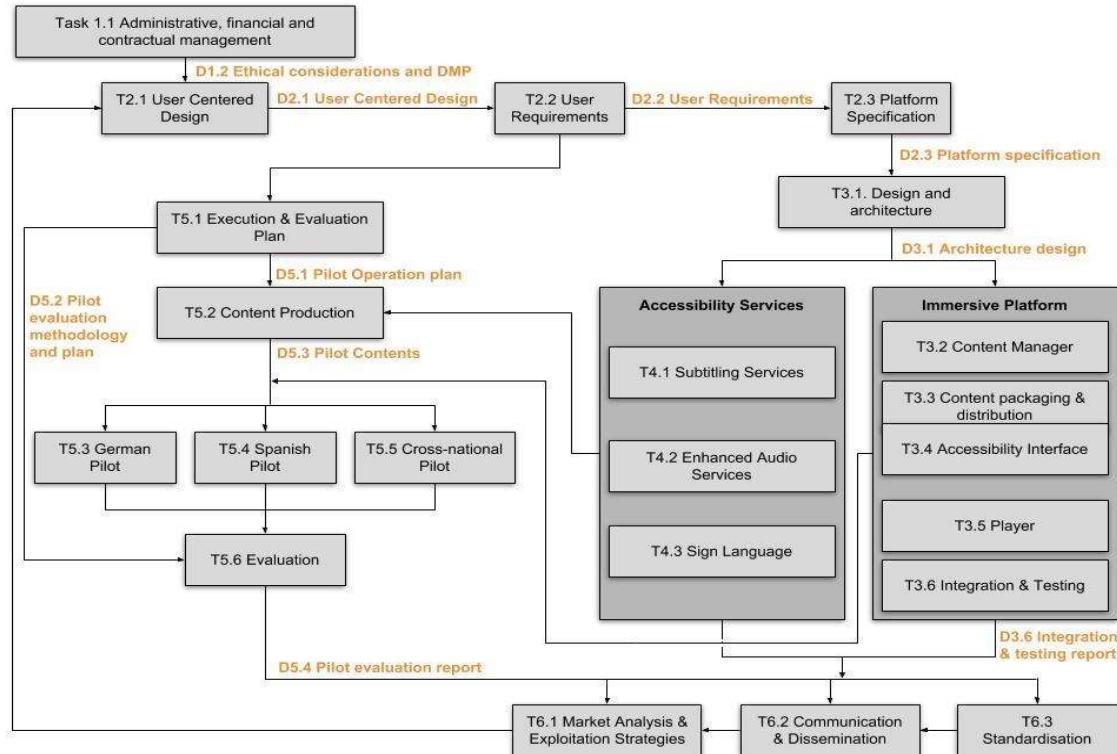


Figure 2: Diagram of tasks and outcomes (deliverables)

## 2. GUIDELINES FOR CONTENT PRODUCTION

As a first step, guidelines for the production of content used for the demonstration pilots were developed.

Regarding the 360°-video content (see section 2.1) there are minimum technical specifications as well as content- and production-related requirements that need to be met. The definition of the technical properties is a result of the specifications in D3.1 Architecture and Design. The definition of the content- and production-related properties is a result of general guidelines for 360° videos. Furthermore, the defined properties are based on requirements which have to be met in order to follow the pilot evaluation plan specified in D5.2. For example, if guiding mechanisms are to be tested for the subtitle and sign language services, there need to be speakers in different fields of view (FOVs).

Regarding the ImAc content (see section 2.2), i.e. the accessibility content, there are again technical specifications resulting from D3.1 as well as editorial properties resulting from the user requirements presented in D2.2.

## 2.1. Properties of 360° video content

Technical properties	
HQ resolution (minimum)	2160x1280 for the equirectangular frame
LQ resolution	FullHD (1280x720) for the equirectangular frame
Duration (minimum)	divers for pilot activities according to methodology reported in D5.2
File format	Video: H264 / Audio: AAC

Table 1: Technical properties of video content

Content-/ Production-related properties	
Relevant for...	Property
All	Movement of the camera is avoided
All	Cameras are centred on main action to avoid stitching errors in the area of the main action
SUB / SL	There is more than one speaker
SUB / SL	At least two speakers are spatially wide apart (different FOVs) or at least one speaker moves into different FOVs
SUB / SL	Camera position is preferably at eye level of speakers (natural position)
SUB / SL	Close-ups of speakers are avoided
SUB / SL	Lip movements of speakers are visible
AD	Activity/sound comes from different directions
AD	Audio track is available in 3D-formats (ambisonics, binaural), see HUR.03.06.0

Table 2: Content- and production related properties of video content

## 2.2. Properties of ImAc content

Technical		
Service	Property	Reference
SUB	File format of subtitle file is TTML	D3.1
SL	File format of signer video is H264	D3.1
SL	Ratio of signer video is 1:1	Recommendation from HBB4ALL
SL	Resolution of signer video is 500x500	Recommendation from HBB4ALL
AD	File format for AD files is AAC	D3.1
AD	AD tracks are available in different spatial formats (stereo, ambisonics, binaural)	HUR.03.40.01 / HUR.03.42.01

Table 3: Technical properties of ImAc content

Editorial		
Service	Property	Requirement
SUB	Subtitles are available as an alternative stream in simple language	HUR.03.04.0 (priority: COULD)
SUB	Colour coding is introduced for all new speakers	PUR.03.11.0 (priority: MUST)
SUB	Non-speech information is presented with icons	HUR.02.32.0 / HUR.03.03.0 (priority: COULD)
SL	The body shift traditionally used to indicate different speakers by SL interpreters is avoided	outcome of pre-pilot test
SUB/SL	Angle information for each speaker is defined	PUR.01.08.00 / PUR.01.09.00 (priority: SHOULD)
SUB/SL	Guiding mechanism can be omitted, e.g. for very short speech phrases	PUR.01.08.01 / PUR.01.09.01 (priority: MUST)
AD	Angle information is provided for the content being described	HUR.02.40.01 / HUR.03.07.01 / HUR.02.45.01 (priority: SHOULD)
AD	Main and secondary actions are described by two different voices	HUR.03.07.01 (priority: COULD)

Table 4: Editorial properties of ImAc content

## 2. LIST OF CONTENT DATA SETS

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The following table lists the content data sets that were created to be used for demo purposes or pilot actions. Six data sets (C11-C15, C20) are the result of a cooperation with the American company RYOT (part of Yahoo), giving the ImAc project the opportunity to widen its horizon of dissemination.

Name	Description	Used / planned for	Content owner	Content type
C01	Recording of an interview during a radio show in the studio of Radio Fritz (RBB)	Demo, Pre-pilot 1	RBB	<ul style="list-style-type: none"> <li>• 360° video</li> <li>• Subtitles</li> <li>• Signer</li> </ul>
C02	Documentary: Making-of video of the RBB news show "Abendschau"	Demo, Pilot 2	RBB	<ul style="list-style-type: none"> <li>• 360° video</li> <li>• Subtitles</li> <li>• Signer</li> </ul>
C03	Opera: "Romeo & Juliet" Scene 1	Demo, Pre-pilot 2	CCMA	<ul style="list-style-type: none"> <li>• 360° video</li> <li>• 2D video</li> <li>• Subtitles</li> <li>• E2R subtitles</li> <li>• Signer</li> <li>• AD</li> <li>• AST</li> <li>• Immersive audio</li> </ul>
C04	Opera: "Romeo & Juliet" Scene 2	Demo	CCMA	<ul style="list-style-type: none"> <li>• 360° video</li> <li>• Subtitles</li> <li>• Immersive audio</li> </ul>
C05	Music Concert: ICat Desconcert Theme 1	Demo	CCMA	<ul style="list-style-type: none"> <li>• 360° 3D video</li> <li>• Subtitles</li> <li>• Immersive audio</li> </ul>
C06	Music Concert: ICat Desconcert Theme 2	Demo, Pilot 1, Pre-pilot 2	CCMA	<ul style="list-style-type: none"> <li>• 360° 3D video</li> <li>• Subtitles</li> <li>• Immersive audio</li> </ul>
C07	Fiction: Short film about an AI-robot created after the sci-fi writer Philip K. Dick	Demo, Pilot 1, Pre-pilot 2, Pilot 2	ARTE	<ul style="list-style-type: none"> <li>• 360° video</li> <li>• Subtitles</li> <li>• Signer</li> </ul>

C08	Documentary: Making-of video of the News daily program at TV3	Pilot 2	CCMA	<ul style="list-style-type: none"> <li>• 360° video</li> <li>• 2D video</li> <li>• Subtitles</li> <li>• Immersive audio</li> </ul>
C09	Documentary: Making-of video of the FAQS ("Preguntes Freqüents") debate programme at TV3	Pilot 2	CCMA	<ul style="list-style-type: none"> <li>• 360° video</li> <li>• 2D video</li> <li>• Subtitles</li> <li>• Immersive audio</li> </ul>
C10	Comedy: Polonia – Political satire programme at TV3	Focus groups	CCMA	<ul style="list-style-type: none"> <li>• 360° video</li> <li>• Subtitles</li> </ul>
C11	Documentary: Holy Land – Episode 1: Jerusalem – Earth's Holy Intersection	UAB intermediate tests, Pre-pilot 2	RYOT	<ul style="list-style-type: none"> <li>• 360° video</li> <li>• Subtitles</li> <li>• AD</li> </ul>
C12	Documentary: Holy Land – Episode 2: The Walls of Jerusalem	UAB intermediate tests, Pre-pilot 2	RYOT	<ul style="list-style-type: none"> <li>• 360° video</li> <li>• Subtitles</li> <li>• AD</li> </ul>
C13	Documentary: Holy Land – Episode 3: The birth of Christ	Pre-pilot 2	RYOT	<ul style="list-style-type: none"> <li>• 360° video</li> <li>• AD</li> </ul>
C14	Documentary: Holy Land – Episode 4: Modernity in Conflict	Pre-pilot 2	RYOT	<ul style="list-style-type: none"> <li>• 360° video</li> <li>• AD</li> </ul>
C15	Fiction: Crime Scene Investigation about a murder in a carpark	Demo, Pilot 2	RBB	<ul style="list-style-type: none"> <li>• 360° video</li> <li>• Subtitles</li> <li>• Signer</li> <li>• Immersive audio</li> </ul>
C16	Foxfinder	Demo	IRT	<ul style="list-style-type: none"> <li>• 360° video</li> <li>• Subtitles</li> </ul>
C17	Diada St Jordi 2019	Pilot 2	CCMA	<ul style="list-style-type: none"> <li>• 360° video</li> <li>• 2D video</li> <li>• Subtitles</li> <li>• Immersive audio</li> </ul>
C18	Cuines	Pilot 2	CCMA	<ul style="list-style-type: none"> <li>• 360° video</li> <li>• 2D video</li> <li>• Subtitles</li> <li>• Immersive audio</li> </ul>
C19	American Guelaguetza	UAB intermediate tests	RYOT	<ul style="list-style-type: none"> <li>• 360° video</li> <li>• Subtitles</li> </ul>

Table 5: Content data sets used for demo purposes and pilot actions

### 3. CONTENT DESCRIPTION

The following tables describe in detail each content data set. All the files of a data set are listed together with their technical properties.

#### 2.1. C01: Rapzember

No.	File name	Type	Used / planned for			
1	RBB_Rapzember_H264_1140x720_audio strereo.mp4	360° video	Pre-pilot 1: <a href="http://84.88.32.46/imac2/">http://84.88.32.46/imac2/</a> Demo: <a href="http://imac.i2cat.net/player/playe">http://imac.i2cat.net/player/playe</a> <a href="#">r/#6</a>			
2	RBB_Rapzember_subtitles_DE.xml	SUB				
3	RBB_Rapzember_subtitles_CAT.xml	SUB				
4	RBB_Rapzember_signer_DE.mp4	SL video				
<b>Duration</b>		00:03:10				
<b>Restrictions for usage</b>		No restrictions, but always must be referenced as RBB content.				
<b>Link</b>						
<b>Example frames</b>						
<b>360° video</b>						
<b>Content description</b>	Recording of an interview with the Musician Young Hurn in the studio of Radio Fritz / RBB. Two speakers sitting opposite each other.					
<b>Content language(s)</b>	German					
<b>File size</b>	31.7 MB					
<b>File format</b>	MP4					
<b>Video codec</b>	H264/AVC					
<b>Coding profile</b>	Main@L3					

<b>Bit rate</b>	1.3 MB/s	
<b>Frame rate</b>	30 fps	
<b>Frame rate mode</b>	Constant	
<b>Chroma subsampling</b>	4:2:0	
<b>Bit depth</b>	8 bits	
<b>Resolution</b>	1440x720	
<b>Projection</b>	Equirectangular	
<b>Audio codec</b>	AAC	
<b>Sound reproduction</b>	Stereo	
<b>Audio sampling rate</b>	48 kHz	
<b>Subtitles</b>		
<b>File size</b>	2) 17 KB	3) 14 KB
<b>File format</b>	EBU-TT-D	
<b>Language(s)</b>	2) German	3) Catalan
<b>Signer video</b>		
<b>File size</b>	52 MB	
<b>File format</b>	MP4	
<b>Codec</b>	H264/AVC	
<b>Coding profile</b>	High@L3.1	
<b>Bit rate</b>	1.9 MB/s	
<b>Frame rate</b>	50 fps	
<b>Frame rate mode</b>	Constant	
<b>Chroma subsampling</b>	4:2:0	
<b>Bit depth</b>	8 bits	
<b>Resolution</b>	720x720	

## 2.2. C02: 360° Abendschau

No.	File name	Type	Used / planned for
1	RBB_Abendschau_short_H264_4K_audio_stereo.mp4	360° video	Demo: <a href="http://imac.i2cat.net/player/playrer/#2">http://imac.i2cat.net/player/playrer/#2</a>
2	RBB_Abendschau_short_DE.xml	SUB	Pilot 2: <a href="http://imac.i2cat.net/player_de/player/#2">http://imac.i2cat.net/player_de/player/#2</a> <a href="https://www.rbb-online.de/unternehmen/der_rbb/profil/innovationsprojekte/projekt_e/imac/demoseite.html">https://www.rbb-online.de/unternehmen/der_rbb/profil/innovationsprojekte/projekt_e/imac/demoseite.html</a>
<b>Duration</b>		00:01:46	
<b>Restrictions for usage</b>		Request permission for public usage.	
<b>Link</b>			
<b>Example frames</b>		 	
<b>360° video</b>			
<b>Content description</b>		Making-of video of the RBB news show "Abendschau", several shots in different places (studio, outside, production room etc.), one main on-screen speaker, few short additional on-screen speakers	

<b>Content language(s)</b>	German
<b>File size</b>	130 MB
<b>File format</b>	MP4
<b>Video codec</b>	H264/AVC
<b>Coding profile</b>	Main@L5.1
<b>Bit rate</b>	10.3 MB/s
<b>Frame rate</b>	30 fps
<b>Frame rate mode</b>	Constant
<b>Chroma subsampling</b>	4:2:0
<b>Bit depth</b>	8 bits
<b>Resolution</b>	4096 x 2048
<b>Projection</b>	Equirectangular
<b>Audio code</b>	AAC
<b>Sound reproduction</b>	Stereo
<b>Audio sampling rate</b>	48 kHz
<b>Subtitles</b>	
<b>File size</b>	13 KB
<b>File format</b>	EBU-TT-D
<b>Language(s)</b>	German
<b>Signer video</b>	
<b>Language(s)</b>	German
<b>File size</b>	126 MB
<b>File format</b>	MP4
<b>Video codec</b>	H264/AVC
<b>Coding profile</b>	Main@L3.1
<b>Bit rate</b>	10 MB/s

<b>Frame rate mode</b>	Constant
<b>Chroma subsampling</b>	4:2:0
<b>Bit depth</b>	8 bits
<b>Resolution</b>	600x600

### 2.3. C03: Romeo and Juliet - Theme 1

No.	File name	Type	Used / planned for
1	CCMA_OPERALICEU01_H264_6400x3200_A_MBIX1ST.mp4	360° video	See specifications in lines below
2	CCMA_OPERALICEU01_H264_1920x1080_2_D_AMBIX1ST.mp4	2D video	Pilot 2: <a href="https://imac.gpac-licensing.com/playertest/player/#9">https://imac.gpac-licensing.com/playertest/player/#9</a>
3	CCMA_OPERALICEU01_subtitles_EN.xml	SUB	Demo: <a href="http://imac.i2cat.net/player/player/#0">http://imac.i2cat.net/player/player/#0</a> Pre-pilot 2: <a href="http://84.88.32.46/UAB-test5b/">http://84.88.32.46/UAB-test5b/</a>
4	CCMA_OPERALICEU01_subtitles_CAT.xml	SUB	Demo: <a href="http://imac.i2cat.net/player/player/#0">http://imac.i2cat.net/player/player/#0</a>
5	CCMA_OPERALICEU01_subtitles_CAST.xml	SUB	Demo: <a href="http://imac.i2cat.net/player/player/#0">http://imac.i2cat.net/player/player/#0</a> Pre-pilot 2: <a href="http://84.88.32.46/UAB-test5b/">http://84.88.32.46/UAB-test5b/</a>
6	CCMA_OPERALICEU01_subtitles_DE.xml	SUB	Demo: <a href="http://imac.i2cat.net/player/player/#0">http://imac.i2cat.net/player/player/#0</a> Pre-pilot 2: <a href="https://imac.gpac-licensing.com/pilot-test2/">https://imac.gpac-licensing.com/pilot-test2/</a>
7	CCMA_OPERALICEU01_E2R_CAST.xml	SUB	Pre-pilot 2: <a href="http://84.88.32.46/UAB-test5b/">http://84.88.32.46/UAB-test5b/</a>
8	CCMA_OPERALICEU01_E2R_EN.xml	SUB	
9	CCMA_OPERALICEU01_signer_EN.mov	SL video	
10	CCMA_OPERALICEU01_signer_CAT.mov	SL video	
11	CCMA_OPERALICEU01_signer_CAST.mov	SL video	Demo: <a href="http://imac.i2cat.net/player/player/#0">http://imac.i2cat.net/player/player/#0</a>

12	CCMA_OPERALICEU01_signer_DE.mp4	SL video	Demo: <a href="http://imac.i2cat.net/player/player/#0">http://imac.i2cat.net/player/player/#0</a> Pre-pilot 2: <a href="https://imac.gpac-licensing.com/pilot-test2/">https://imac.gpac-licensing.com/pilot-test2/</a>
13	CCMA_OPERALICEU01_AD-Classic_AMBIX1ST_EN.aac	AD	
14	CCMA_OPERALICEU01_AD-Classic_AMBIX1ST_CAST.aac	AD	
15	CCMA_OPERALICEU01_AD-Static_AMBIX1ST_EN.aac	AD	
16	CCMA_OPERALICEU01_AD-Static_AMBIX1ST_CAST.aac	AD	
17	CCMA_OPERALICEU01_AD-Dynamic_AMBIX1ST_EN.aac	AD	
18	CCMA_OPERALICEU01_AD-Dynamic_AMBIX1ST_CAST.aac	AD	
19	CCMA_OPERALICEU01_AST-Classic_AMBIX1ST_EN.mp4	360° video & AST	
20	CCMA_OPERALICEU01_AST-Classic_AMBIX1ST_CAST.mp4	360° video & AST	
21	CCMA_OPERALICEU01_AST-Dynamic_AMBIX1ST_EN.mp4	360° video & AST	Pre-pilot 2: <a href="https://imac.gpac-licensing.com/test-ast-eng/">https://imac.gpac-licensing.com/test-ast-eng/</a> <a href="https://imac.gpac-licensing.com/test-ast-cat/">https://imac.gpac-licensing.com/test-ast-cat/</a>
22	CCMA_OPERALICEU01_AST-Dynamic_AMBIX1ST_CAST.mp4	360° video & AST	
23	CCMA_OPERALICEU01_AudioIntro_AMBIX1_ST_EN.mp4	Audiointro-duction	
24	CCMA_OPERALICEU01_AudioIntro_AMBIX1_ST_CAST.mp4	Audiointro-duction	
<b>Duration</b>	00:08:29		
<b>Restrictions for usage</b>	Request permission for public usage		
<b>Link</b>			

<b>Example frames</b>	
<b>360° video</b>	
<b>Content description</b>	Opera "Romeo & Julietta" at Liceu Theatre (Barcelona) with 360° video content and Ambisonic audio.
<b>Content language(s)</b>	French
<b>File size</b>	3.08 GB
<b>File format</b>	MP4
<b>Video codec</b>	H264/AVC
<b>Coding profile</b>	Main@L6
<b>Bit rate</b>	48.4 MB/s
<b>Frame rate</b>	25 fps
<b>Frame rate mode</b>	Constant

<b>Chroma subsampling</b>	4:2:0
<b>Bit depth</b>	8 bits
<b>Resolution</b>	6400x3200
<b>Projection</b>	Equirectangular
<b>Audio codec</b>	AAC
<b>Sound reproduction</b>	1 <sup>st</sup> order ambisonics
<b>Audio sampling rate</b>	48 kHz
<b>2D video</b>	
<b>Content description</b>	Opera “Romeo & Julietta” at Liceu Theatre (Barcelona) 2D video content and ambisonic audio
<b>Content language(s)</b>	French
<b>File size</b>	635 MB
<b>File format</b>	MP4
<b>Video codec</b>	H264/AVC
<b>Coding profile</b>	High@L4.1
<b>Bit rate</b>	10.1 MB/s
<b>Frame rate</b>	25 fps
<b>Frame rate mode</b>	Constant
<b>Chroma subsampling</b>	4:2:0
<b>Bit depth</b>	8 bits
<b>Resolution</b>	1920x1080
<b>Audio codec</b>	AAC
<b>Sound reproduction</b>	1 <sup>st</sup> order ambisonics
<b>Audio sampling rate</b>	48 kHz
<b>Subtitles</b>	

<b>File size</b>	3) 18 KB	4) 17 KB	5) 17 KB	6) 18 KB	7) 18 KB	8) 18 KB				
<b>File format</b>	EBU-TT-D									
<b>Language(s)</b>	3) English	4) Catalan	5) Spanish	6) German	7) Easy-to-read Spanish	8) Easy-to-read English				
<b>Signer video</b>										
<b>Language(s)</b>	9) English		10) Catalan		11) Spanish					
<b>File size</b>	9) 3.95 GB		10) 3.21 GB		11) 3.83					
<b>File format</b>	9) MOV		10) MOV		11) MOV					
<b>Video codec</b>	9) ProRes		10) ProRes		11) ProRes					
<b>Coding profile</b>	9) ProRes 422 HQ		10) ProRes 422 HQ		11) ProRes 422 HQ					
<b>Bit rate</b>	9) 68.1 MB/s		10) 55.4 MB/s		11) 66.1 MB/s					
<b>Frame rate</b>	9) 30 fps		10) 24 fps		11) 30 fps					
<b>Frame rate mode</b>	Constant									
<b>Chroma subsampling</b>	4:2:2									
<b>Bit depth</b>	8 bits									
<b>Resolution</b>	9) 1080x720		10) 1080x720		11) 1080x720					
<b>Audio Description</b>										
<b>Language(s)</b>	13) English	14) Spanish	15) English	16) Spanish	17) English	18) Spanish				
<b>File size</b>	13) 15.6 MB	14) 15.6 MB	15) 15.6 MB	16) 15.6 MB	17) 15.6 MB	18) 15.6 MB				
<b>Audio codec</b>	AAC									
<b>Sound reproduction</b>	1 <sup>st</sup> order ambisonics									
<b>Audio sampling rate</b>	48 kHz									
<b>Audio Subtitling</b>										
<b>Language(s)</b>	19) English	20) Spanish	21) English	22) Spanish	23) English	24) Spanish				

<b>File size</b>	19) 23.8 GB	20) 23.8 GB	21) 23.8 GB	22) 23.8 GB	23) 11.6 MB	24) 10.3 MB
<b>Audio codec</b>	AAC					
<b>Sound reproduction</b>	1 <sup>st</sup> order ambisonics					
<b>Audio sampling rate</b>	44.1 kHz					

## 2.4. C04: Romeo and Juliet - Theme 2

No.	File name	Type	Used / planned for	
1	CCMA_OPERALICEU02_PRORES_6400x3200_AMBIX1STWAV.mov	360° video	Demo: <a href="http://imac.i2cat.net/player//player/#1">http://imac.i2cat.net/player//player/#1</a>	
2	CCMA_OPERALICEU02_subtitles_CAT.xml	SUB		
3	CCMA_OPERALICEU02_subtitles_DE.xml	SUB		
<b>Duration</b>		00:08:15		
<b>Restrictions for usage</b>		Request permission for public usage		
<b>Link</b>				
<b>Example frames</b>				

	
<b>360° video</b>	
<b>Content description</b>	Opera “Romeo & Julietta” at Liceu Theater (Barcelona) with 360° video content and Ambisonic audio.
<b>Content language(s)</b>	French
<b>File size</b>	52.48 GB
<b>File format</b>	MOV
<b>Video codec</b>	ProRes
<b>Coding profile</b>	ProRes 422 HQ
<b>Bit rate</b>	848 MB/s
<b>Frame rate</b>	25 fps
<b>Frame rate mode</b>	Constant
<b>Chroma subsampling</b>	4:2:2
<b>Bit depth</b>	8 bits
<b>Resolution</b>	6400x3200
<b>Projection</b>	Equirectangular
<b>Audio codec</b>	AAC
<b>Sound reproduction</b>	1 <sup>st</sup> order ambisonics
<b>Audio sampling rate</b>	48 kHz

Subtitles		
<b>File size</b>	2) 8 KB	3) 8 KB
<b>File format</b>	EBU-TT-D	
<b>Language(s)</b>	2) Catalan	3) German

## 2.5. C05: Desconcert - Marion Harrier

No.	File name	Type	Used / planned for	
1	Havanna_PRORES422HQ_4096x4096_AMBIX 1STORDERWAV.mov	360° video	Demo: <a href="http://imac.i2cat.net/player//player/#4/player/#4">http://imac.i2cat.net/player//player/#4/player/#4</a>	
2	CCMA_Desconcert Marion Harrier Havanna_subtitles_CAT.xml	SUB		
3	CCMA_Desconcert Marion Harrier Havanna_subtitles_EN.xml	SUB		
4	CCMA_Desconcert Marion Harrier Havanna_subtitles_DE.xml	SUB		
<b>Duration</b>	00:04:13			
<b>Restrictions for usage</b>	No restrictions, but always must be referenced as CCMA content.			
<b>Link</b>				
<b>Example frames</b>				

	
<b>360° video</b>	
<b>Content description</b>	Musical Concert at Sala Apolo (Barcelona, Spain) with 360 3D video content and Ambisonic audio
<b>Content language(s)</b>	Catalan
<b>File size</b>	51.2 GB
<b>File format</b>	MOV
<b>Video codec</b>	ProRes
<b>Coding profile</b>	ProRes 422 HQ
<b>Bit rate</b>	1621 MB/s
<b>Frame rate</b>	30 fps
<b>Frame rate mode</b>	Constant
<b>Chroma subsampling</b>	4:2:2
<b>Bit depth</b>	8 bits
<b>Resolution</b>	4096x4096
<b>Projection</b>	Equirectangular
<b>Audio codec</b>	AAC
<b>Sound reproduction</b>	1 <sup>st</sup> order ambisonics
<b>Audio sampling rate</b>	48 kHz

Subtitles			
<b>File size</b>	2) 15 KB	3) 16 KB	4) 16 KB
<b>File format</b>	EBU-TT-D		
<b>Language(s)</b>	2) Catalan	3) English	4) German

## 2.6. C06: Desconcert - Halldor Mar

No.	File name	Type	Used / planned for
1	CCMA_Desconcert Halldor Mar Leyre_PRORES422HQ_4096x4096_AMIBX1S TORDERWAV.mov	360° video	Demo: <a href="http://imac.i2cat.net/player//player/#3/player/#3">http://imac.i2cat.net/player//player/#3/player/#3</a>
2	CCMA_Desconcert Halldor Mar Leyre_subtitles_CAT.xml	SUB	Pilot 1: <a href="http://84.88.32.46/imacpilot1_pilot2/">http://84.88.32.46/imacpilot1_pilot2/</a>
3	CCMA_Desconcert Halldor Mar Leyre_subtitles_EN.xml	SUB	Pre-pilot 2: <a href="https://imac.gpac-licensing.com/test-ui-ger/">https://imac.gpac-licensing.com/test-ui-ger/</a>
4	CCMA_Desconcert Halldor Mar Leyre_subtitles_DE.xml	SUB	<a href="https://imac.gpac-licensing.com/test-ui-cat/">https://imac.gpac-licensing.com/test-ui-cat/</a>
<b>Duration</b>	00:04:33		
<b>Restrictions for usage</b>	No restrictions, but always must be referenced as CCMA content		
<b>Link</b>			
<b>Example frames</b>			



### 360° video

<b>Content description</b>	Musical Concert at Sala Apolo (Barcelona, Spain) with 360° 3D video content and Ambisonic audio
<b>Content language(s)</b>	Catalan
<b>File size</b>	52.5 GB
<b>File format</b>	MOV
<b>Video codec</b>	ProRes
<b>Coding profile</b>	ProRes 422 HQ
<b>Bit rate</b>	1535 MB/s
<b>Frame rate</b>	30 fps
<b>Frame rate mode</b>	Constant
<b>Chroma subsampling</b>	4:2:2
<b>Bit depth</b>	8 bits
<b>Resolution</b>	4096x4096
<b>Projection</b>	Equirectangular
<b>Audio codec</b>	AAC
<b>Sound reproduction</b>	1 <sup>st</sup> order ambisonics
<b>Audio sampling rate</b>	48 kHz

<b>Subtitles</b>			
<b>File size</b>	2) 17 KB	3) 17 KB	4) 17 KB
<b>File format</b>	EBU-TT-D		
<b>Language(s)</b>	2) Catalan	3) English	4) German

## 2.7. C07: I, Philip

No.	File name	Type	Used / planned for
1	RBB_I Philip_H264_2160x1080_audio stereo.mp4	360° video	Used for all purposes stated in lines below
2	RBB_I Philip_subtitles_EN.xml	SUB	Demo: <a href="http://imac.i2cat.net/playertest/player/#3">http://imac.i2cat.net/playertest/player/#3</a> Pilot 2: <a href="http://imac.i2cat.net/player_de/player/#3">http://imac.i2cat.net/player_de/player/#3</a> <a href="https://www.rbb-online.de/unternehmen/der_rbb/profil/innovationsprojekte/projekte/imac/demoseite.html">https://www.rbb-online.de/unternehmen/der_rbb/profil/innovationsprojekte/projekte/imac/demoseite.html</a>
3	RBB_I Philip_subtitles_DE.xml	SUB	Demo: <a href="http://imac.i2cat.net/playertest/">http://imac.i2cat.net/playertest/</a> Pilot 1: <a href="http://84.88.32.46/imacpilot1/">http://84.88.32.46/imacpilot1/</a> Pre-pilot 2: <a href="https://imac.gpac-licensing.com/pilot-test1/">https://imac.gpac-licensing.com/pilot-test1/</a> <a href="https://imac.gpac-licensing.com/pilot-test2/">https://imac.gpac-licensing.com/pilot-test2/</a> Pilot 2: <a href="http://imac.i2cat.net/player_de/player/#3">http://imac.i2cat.net/player_de/player/#3</a> <a href="https://www.rbb-online.de/unternehmen/der_rbb/profil/innovationsprojekte/projekte/imac/demoseite.html">https://www.rbb-online.de/unternehmen/der_rbb/profil/innovationsprojekte/projekte/imac/demoseite.html</a>
4	RBB_I Philip_subtitles_CAT.xml	SUB	Demo: <a href="http://imac.i2cat.net/playertest/">http://imac.i2cat.net/playertest/</a> Pre-pilot 2: <a href="https://imac.gpac-licensing.com/pilot-test1cat/">https://imac.gpac-licensing.com/pilot-test1cat/</a> Pilot 2: <a href="http://imac.i2cat.net/player_de/player/#3">http://imac.i2cat.net/player_de/player/#3</a> <a href="https://www.rbb-online.de/unternehmen/der_rbb/profil/innovationsprojekte/projekte/imac/demoseite.html">https://www.rbb-online.de/unternehmen/der_rbb/profil/innovationsprojekte/projekte/imac/demoseite.html</a>

			<a href="http://www.rbb-online.de/unternehmen/der_rbb/profil/innovationsprojekte/projekte/imac/demoseite.html">innovationsprojekte/projekte/imac/demoseite.html</a>	
5	RBB_I Philip_subtitles_CAST.xml	SUB	UAB intermediate tests: <a href="http://84.88.32.46/UAB-test4">http://84.88.32.46/UAB-test4</a>	
6	RBB_IPhilip_text-emoji_DE.xml	SUB	Pre-pilot 2: <a href="https://imac.gpac-licensing.com/pilot-test1/">https://imac.gpac-licensing.com/pilot-test1/</a>	
7	RBB_IPhilip_text-emoji_CAT.xml	SUB	Pre-pilot 2: <a href="https://imac.gpac-licensing.com/pilot-test1cat/">https://imac.gpac-licensing.com/pilot-test1cat/</a>	
8	RBB_I Philip_signer_DE.mp4	SL video	Demo: <a href="http://imac.i2cat.net/playertest/">http://imac.i2cat.net/playertest/</a> Pre-pilot 2: <a href="https://imac.gpac-licensing.com/pilot-test2/">https://imac.gpac-licensing.com/pilot-test2/</a> Pilot 2: <a href="http://imac.i2cat.net/player_de/player/#3">http://imac.i2cat.net/player_de/player/#3</a> <a href="https://www.rbb-online.de/unternehmen/der_rbb/profil/innovationsprojekte/projekte/imac/demoseite.html">https://www.rbb-online.de/unternehmen/der_rbb/profil/innovationsprojekte/projekte/imac/demoseite.html</a>	
9	RBB_IPhilip_ST4SL_emoji.xml	SUB	Pre-pilot 2: <a href="https://imac.gpac-licensing.com/pilot-test2/">https://imac.gpac-licensing.com/pilot-test2/</a>	
10	RBB_IPhilip_ST4SL_text.xml	SUB		
<b>Duration</b>	00:14:44			
<b>Restrictions for usage</b>	Do not show publicly			
<b>Link</b>				
<b>Example frames</b>				



### 360° video

<b>Content description</b>	Fictional story about an AI-robot that is created after the sci-fi writer Philip K. Dick and that becomes more and more independent of his programmers. Different scenes with several speakers in different field of views. The viewer has the perspective of the robot.
<b>Content language(s)</b>	English
<b>File size</b>	1.01 GB
<b>File format</b>	MP4
<b>Video codec</b>	H264/AVC
<b>Coding profile</b>	Main@L5
<b>Bit rate</b>	9.8 MB/s
<b>Frame rate</b>	60 fps
<b>Frame rate mode</b>	Constant
<b>Chroma subsampling</b>	4:2:0
<b>Bit depth</b>	8 bits
<b>Resolution</b>	4096x2048
<b>Audio codec</b>	AAC
<b>Sound representation</b>	Stereo
<b>Audio sampling rate</b>	48 kHz
<b>Subtitles</b>	
<b>File size</b>	2) 37 KB 3) 38 KB 4) 37 KB 5) 39 KB

	6) 43 KB	7) 42 KB	9) 33 KB	10) 32 KB
<b>File format</b>	EBU-TT-D			
<b>Language(s)</b>	2) English	3) German	4) Catalan	5) Spanish
	6) German	7) Catalan	9) German	10) German
<b>Signer video</b>				
<b>Language(s)</b>	German sign language			
<b>File size</b>	1.03 GB			
<b>File format</b>	MP4			
<b>Video codec</b>	H264/AVC			
<b>Coding profile</b>	Main@L3.1			
<b>Bit rate</b>	9.9 MB/s			
<b>Frame rate</b>	25 fps			
<b>Frame rate mode</b>	Constant			
<b>Chroma subsampling</b>	4:2:0			
<b>Bit depth</b>	8 bits			
<b>Resolution</b>	600x600			

## 2.8. C08: Making of TN

No.	File name	Type	Used / planned for			
1	CCMA_MakingOfTN_H264_4096x2048_AMBIX1st_CAT.mp4	360° video	Pilot 2: <a href="https://www.ccma.cat/experiencia-immersiva-accessible/">https://www.ccma.cat/experiencia-immersiva-accessible/</a>			
2	CCMA_MakingOfTN_H264_4096x2048_2D_AMBIX1st_CAT.mov	2D video				
3	CCMA_MakingOfTN_subtitles_CAT.xml	SUB				
<b>Duration</b>		00:14:24				
<b>Restrictions for usage</b>	No restrictions, but always must be referenced as CCMA content.					
<b>Link</b>						

<b>Example frames</b>	 
<b>360° video</b>	
<b>Content description</b>	Documentary: Making-of video of the daily news programme at TV3
<b>Content language(s)</b>	Catalan
<b>File size</b>	1.56 GB
<b>File format</b>	MP4
<b>Video codec</b>	H264/AVC
<b>Coding profile</b>	Main@L5.1
<b>Bit rate</b>	15.3 MB/s
<b>Frame rate</b>	25 fps
<b>Frame rate mode</b>	Constant
<b>Chroma subsampling</b>	4:2:0

<b>Bit depth</b>	8 bits
<b>Resolution</b>	4096x2048
<b>Projection</b>	Equirectangular
<b>Audio codec</b>	AAC
<b>Sound reproduction</b>	1 <sup>st</sup> order ambisonics
<b>Audio sampling rate</b>	48 kHz
<b>2D video</b>	
<b>Content description</b>	Documentary: Making-of video of the daily news programme at TV3
<b>Content language(s)</b>	Catalan
<b>File size</b>	11.3 GB
<b>File format</b>	MP4
<b>Video codec</b>	ProRes
<b>Coding profile</b>	422
<b>Bit rate</b>	111 MB/s
<b>Frame rate</b>	25 fps
<b>Frame rate mode</b>	Constant
<b>Chroma subsampling</b>	4:2:2
<b>Bit depth</b>	8 bits
<b>Resolution</b>	1920x1080
<b>Audio codec</b>	AAC
<b>Sound reproduction</b>	1 <sup>st</sup> order ambisonics
<b>Audio sampling rate</b>	48 kHz
<b>Subtitles</b>	
<b>File size</b>	61 KB

<b>File format</b>	IMSC1
<b>Language(s)</b>	Catalan

## 2.9. C09: Making of FAQs

No.	File name	Type	Used / planned for	
1	CCMA_MakingOfFAQs_H264_4096x2048_A_MBIX1st.mp4	360° video	Pilot 2: <a href="https://www.ccma.cat/experiencia-immersiva-accessible/">https://www.ccma.cat/experiencia-immersiva-accessible/</a>	
2	CCMA_MakingOfFAQs_H264_4096x2048_2D_AMBIX1st.mp4	2D video		
3	CCMA_MakingOfFAQs_subtitles_CAT.xml	SUB		
<b>Duration</b>		00:10:06		
<b>Restrictions for usage</b>		No restrictions, but always must be referenced as CCMA content.		
<b>Link</b>				
<b>Example frames</b>		 		
<b>360° video</b>				

<b>Content description</b>	Documentary: Making-of video of the FAQS (“Preguntes Freqüents”) debate programme at TV3
<b>Content language(s)</b>	Catalan
<b>File size</b>	1.82 GB
<b>File format</b>	MP4
<b>Video codec</b>	H264/AVC
<b>Coding profile</b>	High@L5.1
<b>Bit rate</b>	25.5 MB/s
<b>Frame rate</b>	30 fps
<b>Frame rate mode</b>	Constant
<b>Chroma subsampling</b>	4:2:0
<b>Bit depth</b>	8 bits
<b>Resolution</b>	4096x2048
<b>Projection</b>	Equirectangular
<b>Audio codec</b>	AAC
<b>Sound reproduction</b>	1 <sup>st</sup> order ambisonics
<b>Audio sampling rate</b>	48 kHz
<b>2D video</b>	
<b>Content description</b>	Documentary: Making-of video of the FAQS (“Preguntes Freqüents”) debate programme at TV3
<b>Content language(s)</b>	Catalan
<b>File size</b>	902 MB
<b>File format</b>	MP4
<b>Video codec</b>	AVC
<b>Coding profile</b>	Main@L4.1
<b>Bit rate</b>	12.2 MB/s

<b>Frame rate</b>	25 fps
<b>Frame rate mode</b>	Constant
<b>Chroma subsampling</b>	4:2:0
<b>Bit depth</b>	8 bits
<b>Resolution</b>	1920x1080
<b>Audio codec</b>	AAC
<b>Sound reproduction</b>	1 <sup>st</sup> order ambisonics
<b>Audio sampling rate</b>	48 kHz
<b>Subtitles</b>	
<b>File size</b>	44 KB
<b>File format</b>	IMSC1
<b>Language(s)</b>	Catalan

## 2.10. C10: Polonia

No.	File name	Type	Used / planned for
1	CCMA_Polonia_H264_3840x1920_AMBIX1s.t.mp4	360° video	Focus groups: <a href="https://youtu.be/0KBk4BHIT70">https://youtu.be/0KBk4BHIT70</a> <a href="https://youtu.be/0KBk4BHIT70">https://youtu.be/0KBk4BHIT70</a>
2	CCMA_Polonia_subtitles_CAT.xml	SUB	
<b>Duration</b>		00:03:35	
<b>Restrictions for usage</b>		No restrictions, but always must be referenced as CCMA content.	
<b>Link</b>			
<b>Example frames</b>			

	
<b>360° video</b>	
<b>Content description</b>	Catalan comedy show with speakers at different positions.
<b>Content language(s)</b>	Catalan
<b>File size</b>	1.79 GB
<b>File format</b>	MP4
<b>Video codec</b>	H264/AVC
<b>Coding profile</b>	High@L5.1
<b>Bit rate</b>	71.2 MB/s
<b>Frame rate</b>	30 fps
<b>Frame rate mode</b>	Constant
<b>Chroma subsampling</b>	4:2:0
<b>Bit depth</b>	8 bits
<b>Resolution</b>	4096 x 4096
<b>Projection</b>	Equirectangular
<b>Audio code</b>	AAC
<b>Sound reproduction</b>	1 <sup>st</sup> order ambisonics
<b>Audio sampling rate</b>	44.1 kHz
<b>Subtitles</b>	
<b>File size</b>	8 KB
<b>File format</b>	EBU-TT-D

<b>Language(s)</b>	Catalan
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## 2.11. C11: Holy Land Episode 1

No.	File name	Type	Used / planned for		
1	RYOT_HolyLandE01_H264_3840x1920_AMIBX1st_EN.mp4	360° video	UAB intermediate tests: <a href="http://84.88.32.46/UAB-test2/">http://84.88.32.46/UAB-test2/</a> <a href="http://84.88.32.46/UAB-test4/">http://84.88.32.46/UAB-test4/</a> Pre-pilot 2: <a href="https://imac.gpac-licensing.com/test-ad-2-eng/">https://imac.gpac-licensing.com/test-ad-2-eng/</a>		
2	RYOT_HolyLandE01_AD-Classic_AMIBX1st_EN.mp4	360° video & AD	Pre-pilot 2: <a href="https://imac.gpac-licensing.com/test-ad-2-eng/">https://imac.gpac-licensing.com/test-ad-2-eng/</a>		
3	RYOT_HolyLandE01_AD-Static_AMIBX1st_EN.mp4	360° video & AD			
4	RYOT_HolyLandE01_AD-Dynamic_AMIBX1st_EN.mp4	360° video & AD			
5	RYOT_HolyLandE01_H264_3840x1920_AMIBX1st_CAT.mp4	360° video	Pre-pilot 2: <a href="https://imac.gpac-licensing.com/test-ad-2-cat/">https://imac.gpac-licensing.com/test-ad-2-cat/</a>		
6	RYOT_HolyLandE01_AD-Classic_AMIBX1st_CAT.mp4	360° video & AD			
7	RYOT_HolyLandE01_AD-Static_AMIBX1st_CAT.mp4	360° video & AD			
8	RYOT_HolyLandE01_AD-Dynamic_AMIBX1st_CAT.mp4	360° video & AD			
9	RYOT_HolyLandE01_subtitles_EN.xml	SUB	UAB intermediate tests: <a href="http://84.88.32.46/UAB-test2/">http://84.88.32.46/UAB-test2/</a> <a href="http://84.88.32.46/UAB-test4/">http://84.88.32.46/UAB-test4/</a>		
10	RYOT_HolyLandE01_subtitles_CAST.xml	SUB			
<b>Duration</b>		00:05:05			
<b>Restrictions for usage</b>	No restrictions, but always must be referenced as RYOT content.				
<b>Link</b>					
<b>Example frames</b>					

A wide-angle, 360-degree view of a bustling indoor market. The scene is filled with vibrant colors from various fabrics, beads, and ornaments hanging from the ceiling and displayed on shelves. In the foreground, there are large displays of fabrics and what appears to be dried goods or spices. The floor is made of light-colored tiles, and the overall atmosphere is one of a traditional, well-stocked shop.

### 360° video

<b>Content description</b>	Begin your journey into the Holy Land exploring the holiest sites in Jerusalem. Non-fiction: short travel documentary. Off-screen documentary who appears on screen sometimes.	
<b>Content language(s)</b>	1) German	5) Catalan
<b>File size</b>	735 MB	
<b>File format</b>	MP4	
<b>Video codec</b>	H264/AVC	
<b>Coding profile</b>	Main@L5.1	
<b>Bit rate</b>	19.7 MB/s	
<b>Frame rate</b>	30 fps	
<b>Frame rate mode</b>	Variable	
<b>Chroma subsampling</b>	4:2:0	
<b>Bit depth</b>	8 bits	
<b>Resolution</b>	3840x1920	
<b>Projection</b>	Equirectangular	
<b>Audio codec</b>	AAC	
<b>Sound reproduction</b>	1 <sup>st</sup> order ambisonics	
<b>Audio sampling rate</b>	48 kHz	
<b>Audio Description</b>		

<b>Language(s)</b>	2) English	3) English	4) English	6) Catalan	7) Catalan	8) Catalan
<b>File size</b>	735 MB					
<b>Audio codec</b>	AAC					
<b>Sound reproduction</b>	1 <sup>st</sup> order ambisonics					
<b>Audio sampling rate</b>	48 kHz					
<b>Subtitles</b>						
<b>File size</b>	9) 15 KB			10) 16 KB		
<b>File format</b>	EBU-TT-D					
<b>Language(s)</b>	9) English			10) Spanish		

## 2.12. C12: Holy Land Episode 2

No.	File name	Type	Used / planned for
1	RYOT_HolyLandE02_H264_4k_AMIBX1st_E N.mp4	360° video	UAB intermediate tests: <a href="http://84.88.32.46/UAB-test2/">http://84.88.32.46/UAB-test2/</a> <a href="http://84.88.32.46/UAB-test4/">http://84.88.32.46/UAB-test4/</a> Pre-pilot 2: <a href="https://imac.gpac-licensing.com/test-ad-2-eng/">https://imac.gpac-licensing.com/test-ad-2-eng/</a>
2	RYOT_HolyLandE02_AD- Classic_AMIBX1st_EN.mp4	360° video & AD	Pre-pilot 2: <a href="https://imac.gpac-licensing.com/test-ad-2-eng/">https://imac.gpac-licensing.com/test-ad-2-eng/</a>
3	RYOT_HolyLandE02_AD- Static_AMIBX1st_EN.mp4	360° video & AD	
4	RYOT_HolyLandE02_AD- Dynamic_AMIBX1st_EN.mp4	360° video & AD	
5	RYOT_HolyLandE02_H264_4k_AMIBX1st_C AT.mp4	360° video	Pre-pilot 2: <a href="https://imac.gpac-licensing.com/test-ad-2-cat/">https://imac.gpac-licensing.com/test-ad-2-cat/</a>
6	RYOT_HolyLandE02_AD- Classic_AMIBX1st_CAT.mp4	360° video & AD	
7	RYOT_HolyLandE02_AD- Static_AMIBX1st_CAT.mp4	360° video & AD	
8	RYOT_HolyLandE02_AD- Dynamic_AMIBX1st_CAT.mp4	360° video & AD	
9	RYOT_HolyLandE02_subtitles_EN.xml	SUB	UAB intermediate tests: <a href="http://84.88.32.46/UAB-test2/">http://84.88.32.46/UAB-test2/</a> <a href="http://84.88.32.46/UAB-test4/">http://84.88.32.46/UAB-test4/</a>
10	RYOT_HolyLandE02_subtitles_CAST.xml	SUB	
<b>Duration</b>		00:03:56	

<b>Restrictions for usage</b>	No restrictions, but always must be referenced as RYOT content.
<b>Link</b>	
<b>Example frames</b>	 
<b>360° video</b>	
<b>Content description</b>	Walk alongside the walls of Jerusalem as we pass through the gates of the Old City and end by visiting the holiest site in Judaism, the Western Wall. Off-screen documentary who appears on screen sometimes.
<b>Content language(s)</b>	1) German      5) Catalan
<b>File size</b>	306 MB
<b>File format</b>	MP4
<b>Video codec</b>	H264/AVC
<b>Coding profile</b>	Main@L5.1
<b>Bit rate</b>	10.3 MB/s
<b>Frame rate</b>	30 fps
<b>Frame rate mode</b>	Variable
<b>Chroma</b>	4:2:0

<b>subsampling</b>						
<b>Bit depth</b>	8 bits					
<b>Resolution</b>	4096x2048					
<b>Projection</b>	Equirectangular					
<b>Audio codec</b>	AAC					
<b>Sound reproduction</b>	1 <sup>st</sup> order ambisonics					
<b>Audio sampling rate</b>	48 kHz					
<b>Audio Description</b>						
<b>Language(s)</b>	2) English	3) English	4) English	6) Catalan	7) Catalan	8) Catalan
<b>File size</b>	306 MB					
<b>Audio codec</b>	AAC					
<b>Sound reproduction</b>	1 <sup>st</sup> order ambisonics					
<b>Audio sampling rate</b>	48 kHz					
<b>Subtitles</b>						
<b>File size</b>	9) 20 KB		10) 21 KB			
<b>File format</b>	EBU-TT-D					
<b>Language(s)</b>	9) English			10) Spanish		

## 2.13. C13: Holy Land Episode 3

No.	File name	Type	Used / planned for
1	RYOT_HolyLandE03_H264_3840x1920_AMIB_X1st_EN.mp4	360° video	Pre-pilot 2: <a href="https://imac.gpac-licensing.com/test-ad-2-eng/">https://imac.gpac-licensing.com/test-ad-2-eng/</a>
2	RYOT_HolyLandE03_AD-Classic_AMIBX1st_EN.mp4	360° video & AD	
3	RYOT_HolyLandE03_AD-Static_AMIBX1st_EN.mp4	360° video & AD	
4	RYOT_HolyLandE03_AD-Dynamic_AMIBX1st_EN.mp4	360° video & AD	
5	RYOT_HolyLandE02_H264_3840x1920_AMIB	360° video	Pre-pilot 2:

	X1st_CAT.mp4		<a href="https://imac.gpac-licensing.com/test-ad-2-cat/">https://imac.gpac-licensing.com/test-ad-2-cat/</a>
6	RYOT_HolyLandE03_AD-Classic_AMIBX1st_CAT.mp4	360° video & AD	
7	RYOT_HolyLandE03_AD-Static_AMIBX1st_CAT.mp4	360° video & AD	
8	RYOT_HolyLandE03_AD-Dynamic_AMIBX1st_CAT.mp4	360° video & AD	
<b>Duration</b>	00:04:02		
<b>Restrictions for usage</b>	No restrictions, but always must be referenced as RYOT content.		
<b>Link</b>			
<b>Example frames</b>	 		
<b>360° video</b>			
<b>Content description</b>	Come closer than ever before to the place where Jesus was born, and walk through the Church of the Nativity. Off-screen documentary who appears on screen sometimes.		
<b>Content language(s)</b>	1) German	5) Catalan	
<b>File size</b>	287 MB		
<b>File format</b>	MP4		

<b>Video codec</b>	H264/AVC						
<b>Coding profile</b>	Main@L5.1						
<b>Bit rate</b>	20 MB/s						
<b>Frame rate</b>	30 fps						
<b>Frame rate mode</b>	Variable						
<b>Chroma subsampling</b>	4:2:0						
<b>Bit depth</b>	8 bits						
<b>Resolution</b>	3840x1920						
<b>Projection</b>	Equirectangular						
<b>Audio codec</b>	AAC						
<b>Sound reproduction</b>	1 <sup>st</sup> order ambisonics						
<b>Audio sampling rate</b>	48 kHz						
<b>Audio Description</b>							
<b>Language(s)</b>	2) English	3) English	4) English	6) Catalan	7) Catalan	8) Catalan	
<b>File size</b>	287 MB						
<b>Audio codec</b>	AAC						
<b>Sound reproduction</b>	1 <sup>st</sup> order ambisonics						
<b>Audio sampling rate</b>	48 kHz						

## 2.14. C14: Holy Land Episode 4

No.	File name	Type	Used / planned for
1	RYOT_HolyLandE04_H264_3840x1920_AMIB_X1st_EN.mp4	360° video	Pre-pilot 2: <a href="https://imac.gpac-licensing.com/test-ad-2-eng/">https://imac.gpac-licensing.com/test-ad-2-eng/</a>
2	RYOT_HolyLandE04_AD-Classic_AMIBX1st_EN.mp4	360° video & AD	
3	RYOT_HolyLandE04_H264_3840x1920_AMIB_X1st_CAT.aac	360° video	Pre-pilot 2: <a href="https://imac.gpac-licensing.com/test-ad-2-eng/">https://imac.gpac-licensing.com/test-ad-2-eng/</a>

4	RYOT_HolyLandE04_AD-Classic_AMIBX1st_CAT.aac	360° video & AD	<a href="https://licensing.com/test-ad-2-cat/">licensing.com/test-ad-2-cat/</a>
<b>Duration</b>	00:04:13		
<b>Restrictions for usage</b>	No restrictions, but always must be referenced as RYOT content.		
<b>Link</b>			
<b>Example frames</b>	 		
<b>360° video</b>			
<b>Content description</b>	Witness the wall separating Israel and Palestine, then tour the modern cities of Tel Aviv and Jerusalem. Off-screen documentary who appears on screen sometimes.		
<b>Content language(s)</b>	1) German	3) Catalan	
<b>File size</b>	520 MB		
<b>File format</b>	MP4		
<b>Video codec</b>	H264/AVC		
<b>Coding profile</b>	Main@L5.1		
<b>Bit rate</b>	16.7 MB/s		
<b>Frame rate</b>	30 fps		

<b>Frame rate mode</b>	Variable	
<b>Chroma subsampling</b>	4:2:0	
<b>Bit depth</b>	8 bits	
<b>Resolution</b>	3840x1920	
<b>Projection</b>	Equirectangular	
<b>Audio codec</b>	AAC	
<b>Sound reproduction</b>	1 <sup>st</sup> order ambisonics	
<b>Audio sampling rate</b>	44.1 kHz	
<b>Audio Description</b>		
<b>Language(s)</b>	2) English	4) Catalan
<b>File size</b>	15.5 MB	
<b>Audio codec</b>	AAC	
<b>Sound reproduction</b>	1 <sup>st</sup> order ambisonics	
<b>Audio sampling rate</b>	44.1 kHz	

## 2.15. C15: Crime Scene Investigation

No.	File name	Type	Used / planned for
1	RBB_CrimeScene_H264_4K_AMBIX1.st.mp4	360° video	Demo: <a href="http://imac.i2cat.net/playertest/player/#8">http://imac.i2cat.net/playertest/player/#8</a>
2	RBB_CrimeScene_subtitles_EN.xml	SUB	Pilot 2: <a href="http://imac.i2cat.net/player_de/player/#8 https://www.rbb-online.de/unternehmen/der_rbb/profil_innovationsprojekte/projekte/imac/de_moseite.html">http://imac.i2cat.net/player_de/player/#8 https://www.rbb-online.de/unternehmen/der_rbb/profil_innovationsprojekte/projekte/imac/de_moseite.html</a>
3	RBB_CrimeScene_subtitles_DE.xml	SUB	
4	RBB_CrimeScene_ST4SL_DE.xml	SUB	
5	RBB_CrimeScene_scene1_OBA_complete_ADM_file.wav	Additional audio track	Show case for OBA production
<b>Duration</b>		00:29:15	

<b>Restrictions for usage</b>	Do not show publicly
<b>Link</b>	
<b>Example frames</b>	 
<b>360° video</b>	
<b>Content description</b>	Fictional crime scene investigation about a murder in a carpark and a robbery at a jeweller. Different scenes with several speakers in different field of views.
<b>Content language(s)</b>	German
<b>File size</b>	14.16 GB
<b>File format</b>	MP4
<b>Video codec</b>	H264/AVC
<b>Coding profile</b>	Main@L5.1
<b>Bit rate</b>	20.1 MB/s
<b>Frame rate</b>	30 fps
<b>Frame rate mode</b>	Constant
<b>Chroma subsampling</b>	4:2:0
<b>Bit depth</b>	8 bits

<b>Resolution</b>	3840x1920		
<b>Audio codec</b>	AAC		
<b>Sound representation</b>	1 <sup>st</sup> order ambisonics		
<b>Audio sampling rate</b>	48 kHz		
<b>Subtitles</b>			
<b>File size</b>	2) 107 K	3) 71 KB	4) 12 KB
<b>File format</b>	EBU-TT-D		
<b>Language(s)</b>	2) English	3) German	4) German
<b>Signer video</b>			
<b>Language(s)</b>	German sign language		
<b>File size</b>	501 MB		
<b>File format</b>	MP4		
<b>Video codec</b>	H264/AVC		
<b>Coding profile</b>	Main@L3.1		
<b>Bit rate</b>	2.39 MB/s		
<b>Frame rate</b>	30 fps		
<b>Frame rate mode</b>	Constant		
<b>Chroma subsampling</b>	4:2:0		
<b>Bit depth</b>	8 bits		
<b>Resolution</b>	600x600		
<b>Additional audio content</b>			
<b>Language(s)</b>	German		
<b>File size</b>	329 MB		
<b>File format</b>	ADM		
<b>Audio sampling rate</b>	44.1 kHz		

## 2.16. C16: Foxfinder

No.	File name	Type	Used / planned for			
1	IRT_Foxfinder_H264_4K_ambix1st_order.mp4	360° video	Demo: <a href="http://subtitling.irt.de/vr_edit/foxfinder_sample/">http://subtitling.irt.de/vr_edit/foxfinder_sample/</a> <a href="http://subtitling.irt.de/vr_edit/subtitle_demo/">http://subtitling.irt.de/vr_edit/subtitle_demo/</a>			
2	IRT_Foxfinder_subtitles_EN.xml	SUB				
3	IRT_Foxfinder_subtitles_DE.xml	SUB				
<b>Duration</b>		00:00:53				
<b>Restrictions for usage</b>		Content may be used by IRT for research and demonstrations only				
<b>Link</b>						
<b>Example frames</b>						
<b>360° video</b>						
<b>Content description</b>	Shot from a theatre play. Only one shot, no cuts. Two people discussing, sitting on a wooden cone. A third person enters the scene, but stays in the dark.					
<b>Content language(s)</b>	German					
<b>File size</b>	1.58 GB					
<b>File format</b>	MP4					
<b>Video codec</b>	H264/AVC					
<b>Frame rate</b>	25 fps					
<b>Resolution</b>	4096x2048					
<b>Audio codec</b>	AAC					
<b>Sound representation</b>	1 <sup>st</sup> order ambisonics					

<b>Audio sampling rate</b>	48 kHz	
<b>Subtitles</b>		
<b>File size</b>	2) 11 KB	3) 11 KB
<b>File format</b>	IMSC	
<b>Language(s)</b>	2) German	4) English

## 2.17. C17: Diada Sant Jordi

No.	File name	Type	Used / planned for	
1	CCMA_StJordi_H264_4096x2048_AMBIX1st.mp4	360° video	Pilot 2: <a href="https://www.ccma.cat/experiencia-immersiva-accessible/">https://www.ccma.cat/experiencia-immersiva-accessible/</a>	
2	CCMA_StJordi_H264_4096x2048_2D_AMBIX1st.mp4	2D video		
3	CCMA_StJordi_subtitles_CAT.xml	SUB		
<b>Duration</b>		00:08:31		
<b>Restrictions for usage</b>		No restrictions, but always must be referenced as CCMA content.		
<b>Link</b>				
<b>Example frames</b>				

	
<b>360° video</b>	
<b>Content description</b>	News Documentary: Diada St Jordi 2019 special program at TV3
<b>Content language(s)</b>	Catalan
<b>File size</b>	1.59 GB
<b>File format</b>	MP4
<b>Video codec</b>	H264/AVC
<b>Coding profile</b>	High@L5.1
<b>Bit rate</b>	26.5 MB/s
<b>Frame rate</b>	30 fps
<b>Frame rate mode</b>	Constant
<b>Chroma subsampling</b>	4:2:0
<b>Bit depth</b>	8 bits
<b>Resolution</b>	4096x2048
<b>Projection</b>	Equirectangular
<b>Audio codec</b>	AAC
<b>Sound reproduction</b>	1 <sup>st</sup> order ambisonics
<b>Audio sampling rate</b>	48 kHz
<b>2D video</b>	

<b>Content description</b>	News Documentary: Diada St Jordi 2019 special program at TV3
<b>Content language(s)</b>	Catalan
<b>File size</b>	1.72 GB
<b>File format</b>	MP4
<b>Video codec</b>	AVC
<b>Coding profile</b>	High@L4.2
<b>Bit rate</b>	28.6 MB/s
<b>Frame rate</b>	25 fps
<b>Frame rate mode</b>	Constant
<b>Chroma subsampling</b>	4:2:0
<b>Bit depth</b>	8 bits
<b>Resolution</b>	1920x1080
<b>Audio codec</b>	AAC
<b>Sound reproduction</b>	1 <sup>st</sup> order ambisonics
<b>Audio sampling rate</b>	48 kHz
<b>Subtitles</b>	
<b>File size</b>	44 KB
<b>File format</b>	IMSC1
<b>Language(s)</b>	Catalan

## 2.18. C18: Cuines

No.	File name	Type	Used / planned for
1	CCMA_Cuines_H264_4096x2048_AMBI_X1st.mp4	360° video	Pilot 2: <a href="https://www.ccma.cat/experiencia-immersiva-accessible/">https://www.ccma.cat/experiencia-immersiva-accessible/</a>
2	CCMA_Cuines_H264_4096x2048_2D_A_MBIX1st.mp4	2D video	
3	CCMA_Cuines_subtitles_CAT.xml	SUB	

<b>Duration</b>	00:08:30
<b>Restrictions for usage</b>	No restrictions, but always must be referenced as CCMA content.
<b>Link</b>	
<b>Example frames</b>	
<b>360° video</b>	
<b>Content description</b>	Leisure: One episode of the cooking program 'Cuines' at TV3
<b>Content language(s)</b>	Catalan
<b>File size</b>	1.78 GB
<b>File format</b>	MP4
<b>Video codec</b>	H264/AVC
<b>Coding profile</b>	High@L5.1
<b>Bit rate</b>	30 MB/s
<b>Frame rate</b>	30 fps
<b>Frame rate mode</b>	Constant

<b>Chroma subsampling</b>	4:2:0
<b>Bit depth</b>	8 bits
<b>Resolution</b>	4096x2048
<b>Projection</b>	Equirectangular
<b>Audio codec</b>	AAC
<b>Sound reproduction</b>	1 <sup>st</sup> order ambisonics
<b>Audio sampling rate</b>	48 kHz
<b>2D video</b>	
<b>Content description</b>	Leisure: One episode of the cooking program 'Cuines' at TV3
<b>Content language(s)</b>	Catalan
<b>File size</b>	658 MB
<b>File format</b>	MP4
<b>Video codec</b>	AVC
<b>Coding profile</b>	High@L4
<b>Bit rate</b>	10.6 MB/s
<b>Frame rate</b>	25 fps
<b>Frame rate mode</b>	Constant
<b>Chroma subsampling</b>	4:2:0
<b>Bit depth</b>	8 bits
<b>Resolution</b>	1920x1080
<b>Audio codec</b>	AAC
<b>Sound reproduction</b>	1 <sup>st</sup> order ambisonics
<b>Audio sampling rate</b>	48 kHz
<b>Subtitles</b>	

<b>File size</b>	31 KB
<b>File format</b>	IMSC1
<b>Language(s)</b>	Catalan

## 2.19. C19: American Guelaguetza

No.	File name	Type	Used / planned for	
1	RYOT_Guelaguetza_H264_4k_stereo.mp4	360° video	UAB intermediate tests: <a href="http://84.88.32.46/UAB-test2">http://84.88.32.46/UAB-test2</a>	
2	RYOT_Guelaguetza_subtitles_EN.xml	SUB		
3	RYOT_Guelaguetza_subtitles_CAST.xml	SUB		
<b>Duration</b>		00:07:58		
<b>Restrictions for usage</b>		No restrictions, but always must be referenced as RYOT content.		
<b>Link</b>				
<b>Example frames</b>		 		
<b>360° video</b>				

<b>Content description</b>	Documentary, food, cooking, United States, immigration	
<b>Content language(s)</b>	English	
<b>File size</b>	1.29 GB	
<b>File format</b>	MP4	
<b>Video codec</b>	H264/AVC	
<b>Coding profile</b>	High@L5.2	
<b>Bit rate</b>	22.8 MB/s	
<b>Frame rate</b>	30 fps	
<b>Frame rate mode</b>	Constant	
<b>Chroma subsampling</b>	4:2:0	
<b>Bit depth</b>	8 bits	
<b>Resolution</b>	4096 x 4096	
<b>Projection</b>	Equirectangular	
<b>Audio code</b>	AAC	
<b>Sound reproduction</b>	Stereo	
<b>Audio sampling rate</b>	48 kHz	
<b>Subtitles</b>		
<b>File size</b>	29 KB	31 KB
<b>File format</b>	EBU-TT-D	
<b>Language(s)</b>	German	Spanish