

# Deliverable

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## D5.1 Pilot operation plan - First Phase

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**Abstract:** Summarize the objectives.

This document will define the pilot operation plan to be followed, based on the gathered requirements.

## REVISION HISTORY

Revision	Date	Author	Organisation	Description
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0.2	11-04-2018	Francesc Mas	CCMA	Updated ToC
0.3	12-04-2018	Jordi Arraez	ANG	Contributions
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0.6	18-04-2018	Sven Glaser	RBB	Contributions
0.7	20-04-2018	Francesc Mas	CCMA	First merged version
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0.9	27-04-2018	Themistoklis K.	I2CAT	Reviewed and Improved
1.0	30-04-2018	Francesc Mas	CCMA	Final Version

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### Statement of originality:

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## EXECUTIVE SUMMARY

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This document describes the strategy for the operational phase of the platform, tools and access services developed in the Immersive Accessibility (ImAc) project during its associated WP3 and WP4 tasks. It defines which service components will be implemented, integrated and tested at the pilots, and for this purpose an execution plan is produced with the details of the different trials that are going to take place in Spain, Germany and England (T5.3, T5.4 and T5.5). Appropriate immersive content to feed these pilots will be produced according to T5.2, which will be enriched with accessible content using the accessibility editor tools developed in the project. The context of these tasks is to prepare the use of the tools and training of collaborators and editors. It will also be the time to prepare tests and establish strategies for participation in tests and services.

CCMA, RBB and RNIB will participate in defining the pilot scenarios, the pilot objectives, the needed evaluation methodology in conjunction with UAB, and an integrated roadmap for setting up the needed pilot execution and evaluation infrastructure.

The pilot will be executed in two phases. The present document defines the first phase (M10) that will test and evaluate the project results with a reduced panel of users. The demonstration pilots of the first phase are divided into:

- **German Pilot:** RBB in cooperation with IRT will execute this pilot focused on subtitling presentation modes, but also interface personalisation and interaction are expected to be tested in this phase, if it is technically feasible.
- **Spanish Pilot:** CCMA in cooperation with i2Cat and UAB will execute this pilot focused on subtitling presentation modes, but also interface personalisation as well as interaction, are expected to be tested in this phase, if it is technically feasible.
- **Cross-national Pilot:** RNIB in cooperation with USAL, UAB and CCMA will execute this pilot focused in audio description and audio-subtitling. This pilot will be conducted both in Spain and in the UK in a single phase after the national pilots first phase.

The setup and conduct of user tests and the subsequent evaluation of results will be performed according to the methodology defined in the deliverable 'D5.2 *Pilot evaluation methodology and Plan*'. This evaluation plan will include the organisation of user validation tests which involve both the validation of end-user applications (performance, usability and usefulness) and the functional aspects of the ImAc services to be deployed. This will allow for a first evaluation of the tools, platform and accessibility services, as well as gathering new requirements that will allow implementing improvements for the second phase.

UAB will test the ImAc subtitling web editor and the AD web editor with professional users during pilot phase 1. This will allow gathering feedback and improving the tools for the second phase pilot, where a new application will be developed including improvements and new tools to ease the creation of immersive accessible content.

The second phase (M28) will test and evaluate the project results in an open environment, extending the German and the Spanish pilot by deploying accessibility services publicly. The services to be tested on the second phase are the subtitling improved interface and personalisation in both German and the Spanish Pilot, as well as the sign language presentation modes, interface personalisation and interaction just in the German Pilot. The details of the second phase will be included in the updated version of the present document during the second iteration at M28.

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## LIST OF ACRONYMS

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Acronym	Description
AD	Audio description
AV	Audio-Visual
AST	Audio subtitles
CCMA	Corporació Catalana de Mitjans Audiovisuals
D	Deliverable
DMP	Data Management Plan
GUI	Graphical User Interface
HMD	Head-mounted display
HUR	Home User Requirements
ImAc	Immersive Accessibility
IPQ	Igroup Presence Questionnaire
M	Month
OTT	Over The Top
PUR	Professional User Requirements
QoE	Quality of Experience
RNIB	Royal National Institute of Blind People
SL	Sign Language
SUS	System Usability Scale
T	Task
UAB	Universitat Autònoma de Barcelona
USAL	University of Salford
VR	Virtual Reality
WP	Work package

## 1. INTRODUCTION

This introduction describes the purpose of this document, its scope, status and relationship with other ImAc activities.

### 1.1. Purpose of this document

This document defines how pilots will be organised in order to test the tools and access services developed in the ImAc project. This definition includes details like the immersive contents to be used, the number of users, or the execution plan, among other important aspects.

Pilots will include two phases which will take place in Spain and Germany. Between the two phases, a semi-open Cross-National Pilot will be launched, focusing on audio description and audio subtitles.

Evaluation results gathered from the first phase of the pilots in WP5, will be described in 'D5.4 Pilot Evaluation Report' and will allow to further refine the requirements, functionalities and architecture in the second iteration of the ImAc platform.

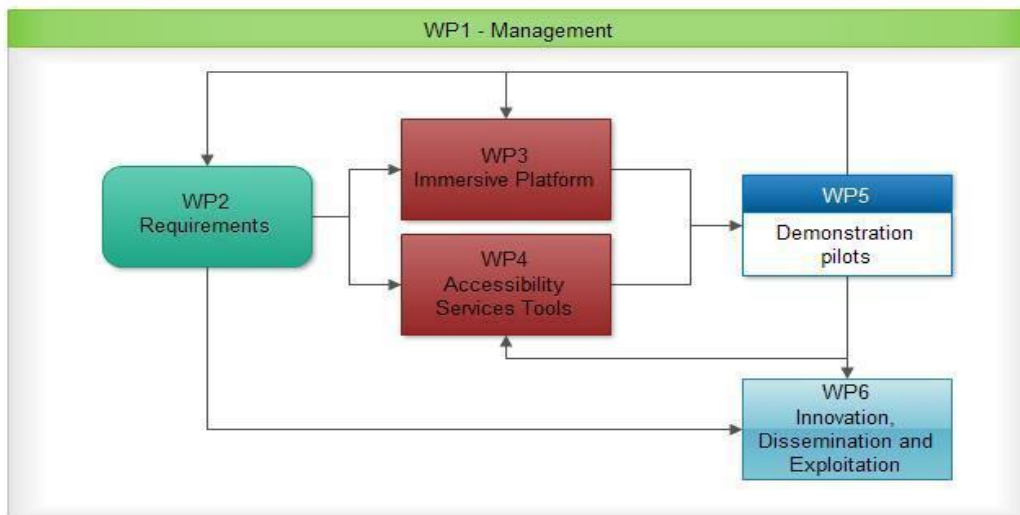


Figure 1 – Diagram of relationships between work packages and its cycles (iterations).

### 1.2. Scope of this document

This deliverable has the objective of providing the initial information about the planning and execution of the pilots. Therefore, it has been chosen to define it at a global level, and then proceed by adding particular details for each pilot.

Each pilot is described as follows:

- **Pilot Definition and Preparation:** enumeration of needed actions in order to prepare and enable the execution of the pilot. This will be mainly focused on the generation of contents and the setup of the infrastructure (from a logistical perspective).
- **Description of activities:** this section explains for each sub-pilot the available contents, the encapsulation process of these contents, how they will be published and distributed, and finally, what applications and services will be considered in each pilot.
- **Calendar of execution:** even if sub-pilots can be susceptible to suffer changes, there is an initial schedule, which is presented in this section. It is important to establish this calendar in order to make sure that the overall project execution will be timely.



- Panel of Users: as it is one of the most important parts of the project, this separate section will explain who the users of each pilot are, how they will be engaged and what is their role in the activities that they will be involved in.
- Introduction to the Second Phase Pilot: the last section will be dedicated to briefly summarize what is foreseen to be tested in the second phase pilot.

### 1.3. Status of this document

This is the first version of D5.1 with delivery foreseen in M07. A revised version of this document will be delivered in M21. Modifications of the document are expected from the results of the first pilot evaluations and future technological development.

### 1.4. Relation to other ImAc activities

D5.1. originates from ‘T2.2. User Requirements’, which feeds into ‘T5.1. Execution and Evaluation Plan’, and impacts on all WP5 tasks, as shown in Figure 2.

D5.1. is closely related to ‘D5.2. Pilot evaluation methodology and plan’ and is the basis for the future ‘T5.2. Content Production’, which will result in ‘D5.3. Pilot Contents’.

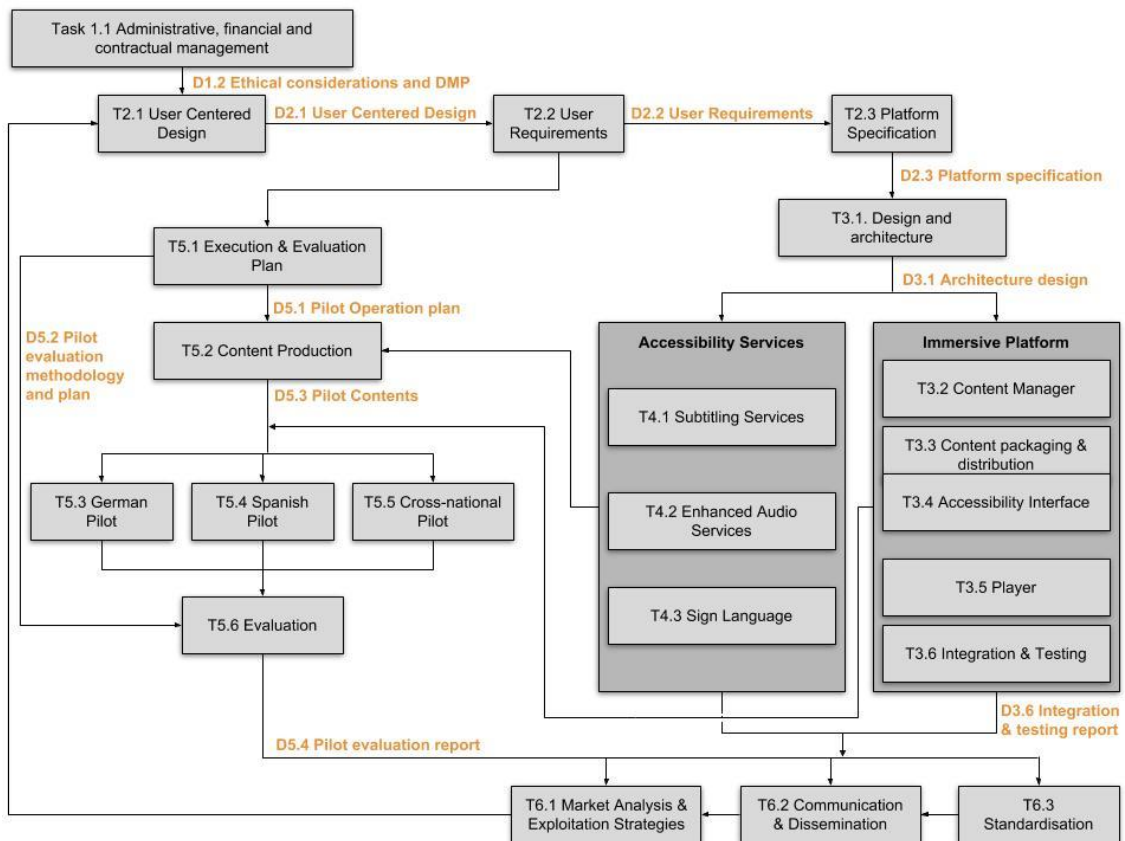


Figure 2 – Diagram of tasks and its outcomes (deliverables).

## 2. PILOT EXECUTION PLAN

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### 2.1. Global Pilots Execution Plan

The pilot will be executed in two phases. The present document defines the first phase (M10) that will test and evaluate the project results with a reduced panel of users.

Appropriate immersive content to feed these pilots will be produced according to T5.2, which will be enriched with accessible content using the accessibility editor tools developed during the project. The objective of these tasks is to prepare the use of the tools and training of collaborators and editors. It will also be the time to prepare tests and establish strategies for participation in tests and services.

The demonstration pilots of the first phase are divided into:

- **German Pilot:** RBB in cooperation with IRT will execute this pilot focused on subtitling presentation modes, but also interface personalisation and interaction are expected to be tested in this phase, if it is technically feasible.
- **Spanish Pilot:** CCMA in cooperation with i2Cat and UAB will execute this pilot, which is also focused on subtitling presentation modes, but additionally interface personalisation and interaction are expected to be tested in this phase, if it is technically feasible.
- **Cross-national Pilot:** RNIB in cooperation with USAL, UAB and CCMA will execute this pilot focused in audio description and audio-subtitling. This pilot will be conducted both in Spain and in the UK in a single phase after the national pilots first phase.

CCMA, RBB and RNIB will participate in defining the pilot scenarios, the pilot objectives, the needed evaluation methodology in conjunction with the UAB, and an integrated roadmap for setting up the needed pilot execution and evaluation infrastructure.

The setup and conduction of user tests and the subsequent evaluation of results will be performed according to the methodology defined in the deliverable '*D5.2 Pilot evaluation methodology and Plan*'. This evaluation plan will include the organisation of user validation tests which involve both the validation of end-user applications (performance, usability and usefulness) and the functional aspects of the ImAc services to be deployed. This will allow a first evaluation of tools, platform and accessibility services, as well as gathering new requirements that will allow to implement improvements for the second phase.

UAB will test the ImAc subtitling web editor and the AD web editor with professional users during pilot phase 1. This will allow gathering feedback and improving the tools for the second phase pilot, where a new application will be developed including improvements and new tools to ease the creation of immersive accessible content.

The second phase (M28) will test and evaluate the project results in an open environment, extending the German and the Spanish pilot by deploying accessibility services publicly. The services to be tested on the second phase are the subtitling improved interface and personalisation in both German and the Spanish Pilot, as well as the sign language presentation modes, interface personalisation and interaction just in the German Pilot. The details of the second phase will be included in the updated version of the present document during the second iteration at M28.

Pilot contents may also be used, subject to copyright issues, to gather the feedback of professional and end users at special related events where it is intended to have a booth, like:

- IBC 2018 - International Broadcasting Convention in Amsterdam, Sept. 2018
- Languages & the Media 2018 - 12th International Conference on Language Transfer in Audiovisual Media in Berlin, Oct. 2018
- VR Days - VR specialized conference in Amsterdam, Oct. 2018.

## 2.2. Content Production

For the ImAc project and its pilots it is essential to produce adequate contents that will allow demonstrating the quality and relevance of the project's tools, as well as obtaining the general results of the evaluations. As omnidirectional media contents are quite new in the media consumption domain, ImAc must ensure to choose AV contents that demonstrate the key characteristics of 360° productions. This should preferably include a narrative suitable for 360° exploration, as well as spherically well distributed elements carrying speech and other audio-related informations. These characteristics can then be enriched with the help of ImAc tools, which will add perfectly matching subtitles, sign language translation and audio description elements. The result should support the users from the target group in finding themselves well immersed and in enjoying every information bit natively included in the 360° video.

Document '*D5.3 Pilot Content*' will extensively describe the pilot content production for every pilot in the project.

## 2.3. German Pilot

### 2.3.1. Pilot Definition and Preparation

For the German pilot phase 1 RBB and IRT aim at testing ImAc-enabled subtitles for a small user group. The objective here is to allow for two basic presentation modes (comfort viewing field), two types of displaying speaker position information, as well as an overall personalisation and interaction evaluation of the common GUI. The German pilot partners will also have a look at the ImAc production tools for 360° subtitles, although the actual qualitative test will be conducted in phase 2.

### 2.3.2. Description of activities

For phase 1 of the German pilot the next preparation and execution activities are required:

**1 - Meetings** - To discuss and prepare the acquisition of a 360° short documentary, that explains all advantages of 360° video, as well as the future production of subtitles for this material.

**2 - Immersive content recording** - As the material in consideration is already recorded, no recording is necessary.

**3 - Post-production of immersive content** - As the material in consideration is already recorded, no editing or post-production is necessary.

**4 - Production of accessibility content** - The production of subtitles will be conducted, if possible, with ImAc production tools. If this is not possible, the task will be carried out with the help of conventional subtitling tools, so that spatial information can be manually added later.

**5 - Publication of final immersive content** - Immersive subtitles will be encapsulated within the immersive content, published and distributed through a dedicated instance of the ImAc web player on a special web site.

**6 - Pilot** - There are two potential variants of the pilot deployment and evaluation, which are considered to be realised: 1) an in-house test at RBB, involving a number of users from the target group or 2) a test conducted at premises of a user organisation premises.

**7 - Pilot Evaluation** - The pilot evaluation will be shaped along the evaluation methodology defined in D5.2.

### 2.3.3. Calendar of execution

The following steps must be taken, in order to successfully deploy and evaluate the pilot in its first phase, although the exact timeframe and duration of these activities will depend on the number of gathered users and the overall setup chosen (see section 3.3.2).

**1 - Meetings** - from March 2018 to May 2018

**2 - Immersive content recording** - already produced, step will be skipped

**3 - Post-production of immersive content** - already produced, step will be skipped

**4 - Production of accessibility content** - June 2018

**5 - Publication of final immersive content** - June and July 2018

**6 - Pilot** - 3rd week September 2018

**7 - Pilot evaluation** - October 2018

### 2.3.4. Panel of Users

For a qualitative validation the user tests will be done with the help of members of the target group of deaf or hearing impaired people. The sample will vary depending on the nature of the experiment, but it will presumably not exceed 10 participants. RBB and IRT will work closely with organisations for the deaf and hearing impaired in Berlin and Brandenburg, regarding the user acquisition and the overall setup.

### 2.3.5. Introduction to Second Phase

For pilot phase 2 an additional type of access service will be trialled: sign language translation. On top of that, RBB and IRT are planning to evaluate the production tools for ImAc subtitling and signing services. More details about the possible methodologies to be applied in phase 2 will be layered out in D5.2.

## 2.4. Spanish Pilot

### 2.4.1. Pilot Definition and Preparation

In the same way as German pilot, the Spanish pilot aims to test immersive subtitling using two basic presentation modes that will cover different area sizes of the user's field of view (defined as the comfort viewing field). The objective of this test is to evaluate and identify the limits of the viewing field for the end user in reading subtitles comfortably. The Spanish pilot will also test two types of displaying speaker position information, overall personalisation and interaction evaluation of the common GUI.

CCMA will also test the Imac production tools for 360° subtitles, giving their feedback with the aim to improve it for the second iteration of the platform.

#### Test material

During the pilot definition and preparation, CCMA had the opportunity of recording the "Romeo & Juliette" Opera at Liceu Theatre in Barcelona on 10<sup>th</sup> February 2018, jointly with the project ImAc and ImmersiaTV (<http://www.immersiatv.eu/>) and the collaboration of Liceu, UAB, I2Cat and AzilPix.

The management of the recording was done from CCMA, who also contributed with human & technical resources, necessary for the recording of the event. I2Cat and AzilPix also contributed bringing a total of eight high quality immersive cameras and an innovating immersive video recording system.

This recording is the base to prepare an interactive program content where the end user will be able to enjoy the opera performance from 8 different immersive cameras installed in different interesting points of the Liceu Theatre, including Ambisonics immersive audio and, synchronously, will also enjoy the opera from the classic TV performance on a main TV.

During the first phase pilot, a closed group of end users will be selected to watch the interactive 360° content enriched with subtitles. The pilot will allow gathering feedback from end-users in terms of immersive subtitling presentation modes & user interface.

CCMA also foresees the possibility to test the consumption of subtitles in companion screens synchronously with an HbbTV 2.0.1 compatible SmartTV, but the execution of this specific test will depend on the evolution and implementation of the needed standards and technologies available in HbbTV2.0.1. compatible SmartTVs that will appear in the market in the coming months.

### 2.4.2. Description of activities

For the Spanish pilot preparation and execution, the next activities are required:

- 1 - Meetings** - Previous to the recording of immersive content, several meetings with Liceu, UAB, CCMA and I2CAT were necessary to coordinate and manage all the event details.
- 2 - Immersive content recording** - The recording job required two days for installation, testing and finally recording.
- 3 - Post-production of immersive content** - The preparation of the contents required long time to process and adjust the immersive audio and video for every one of the 8 recording points.

**4 - Production of accessibility content** - Professional users will need to work with ImAc subtitling tools to generate the new immersive subtitles.

**5 - Publication of final immersive content** - Immersive subtitles will be encapsulated within the immersive content, published and distributed through the broadcaster OTT web page, ready for the pilot.

**6 - Pilot** - A panel of users of subtitling services will test the consumption of fully accessible 360° contents. The pilot will allow to gather qualitative measurements and feedback about the user experience when consuming those services in an immersive environment.

**7 - Pilot Evaluation** - This activity is detailed in deliverable '*D5.2-Pilot evaluation methodology and plan*'.

Activities related with the production of immersive contents will be explained in detail in deliverable '*D5.3 Pilot Content*'.

### 2.4.3. Calendar of execution

The first phase pilot is scheduled around the third week in September, once all previous activities are completed:

- 1 - **Meetings** - from December 2017 to February 2018
- 2 - **Immersive content recording** - 9 & 10th February 2018
- 3 - **Post-production of immersive content** - from February to June 2018
- 4 - **Production of subtitles** - July 2018
- 5 - **Internet publication of immersive content** - August 2018
- 6 - **Pilot** - 3rd week September 2018
- 7 - **Pilot evaluation** - October 2018

### 2.4.4. Panel of Users

CCMA will engage end-users with varying degrees of deafness. Due to the still reduced use of HMDs, observed testing in a controlled environment is recommended for the first pilot in Spain. This way, CCMA could test with users who may otherwise be less inclined to explore this new format independently.

For Spain, a panel of testers will be recruited through several Spanish hearing impaired associations. The aim is to have at least 8 respondents for observed testing and completing the questionnaire after the tests to gather feedback.

### 2.4.5. Introduction to the Second Phase

A second phase pilot is foreseen to be executed from month 24 to 28 of the project, with a large-scale deployment of the services.

During pilot phase 2, the panel of users will be considerably opened to allow an open pilot, where a larger user group will have access to the contents and will enjoy the new full accessible immersive contents. Pilot phase 2 will allow not only to gather qualitative feedback, but also quantitative data about the user behaviour in front of the service. It is planned to test

the improved presentation modes and the player user interface, and the personalisation options narrowed down during the pre-pilot tests and pilot phase 1. Additionally, offering subtitles in foreign languages for users which are interested to use the subtitles for learning purposes will also be considered.

## 2.5. Cross-national Pilot

The Semi-Open Cross-National Pilot will be launched after the completion of National Pilots in Germany and Spain and will focus on establishing the preferences of blind visually impaired people in relation to audio description and audio subtitles while watching 360° content. Test material will include both scripted and non-scripted content at this stage, as it is likely that the perceived QoE, and therefore the obtained feedback, will have a correlation to the type of content being viewed.

The expected outcome of this semi-open test is an evaluation of the accessibility features of the ImAc Player and obtaining insights into how people with visual impairments respond to content in 360° when it is delivered with different types of audio description and also, audio subtitles if necessary.

### 2.5.1. Pilot Definition and Preparation

The purpose of the Semi-Open Pilot will be to introduce the target group, in this case people with visual impairment, to the proposed solutions for consuming fully accessible 360° content and gather feedback with demographic analysis by age, experience of using audio description and familiarity with technology.

It will draw on the experience of the focus groups in WP2 and aim to further understand user preferences in relation to:

- using the ImAc player to access, play and control content
- watching 360° content with audio description and audio subtitles

#### Test material

Audio described content from two genres – fiction and non-fiction - will be used as test material. Audio subtitles will also be provided if foreign language content is used for testing.

Examples: Music video/ documentary for scripted and interactive museum/ street walk through for non-scripted.

It must be noted here that the focus group sessions that will precede the semi-open pilot will be used to gather initial feedback on three versions of audio description out of which only two, the preferred alternatives, will be tested in the semi open pilot.

The versions that will be tested in the focus group include:

- AD placed on or in the direction of the action (AD on action)
- AD centred in the scene (Voice of God)
- AD anchored in the scene (First person narrative)

#### Target of the pilot

The semi-open Pilot will aim to answer the following research questions:

1. Does the ImAc player meet the functional user requirements of visually impaired audience?

2. How accessible is the player for people with varying degrees of sight loss with specific emphasis on independently accessing, consuming and controlling content through the ImAc player? In this context, gather feedback on the significance of audible menus, voice control, magnification, default settings, within the ImAc environment.
3. How do visually impaired testers evaluate the immersion of the test material in 360° content?
4. Which type of audio description in the two scenarios presented in the semi-open pilot is preferred to fully experience the 360° environment presented in the test material? In this context, explore level of enjoyment, understanding and usefulness of audio description and audio subtitles in the content.

As the semi-open Pilot will be conducted both in Spain and in the UK, the following testing procedure will be standardised across sites in order to achieve consistency in the final results.

- Potential users are given an overview of the project and the semi-open pilot.
- Those interested, agree to participate in semi-open pilot.
- They are requested to give their consent and agree to the terms of the research (digital consent).
- Participants complete a pre-test questionnaire.
- Participants watch content on a RNIB/ UAB device with HMD.
- Participants are requested to complete a questionnaire after watching the test material and share their experience of watching the content in 360° with audio description and audio subtitles.

The survey questions will include a short socio-demographic profile and feedback on the usability of the player, the content, preferences for receiving audio description and audio subtitles.

The questionnaire will use a series of closed questions with a number of predefined choices.

## 2.5.2. Description of activities

The following activities are required for the preparation and execution of the Cross-National Pilot:

**1 - Identify** – Identify immersive content that is available in public domain and secure necessary approvals and licenses to use the content in Pilot.

**2 – Audio description** – Production of the audio description tracks

**3 - Post-production** of immersive content with access tracks – Production of the immersive content with audio description in different presentation modes (at IRT)

**4 - Publication of final immersive content** - Immersive content published and ready for testing on the ImAc player

**6 - Pilot** – Panel of audio description users participate in the pilot and share feedback on the fully accessible 360° contents. This Pilot will aim to gather qualitative feedback on the user experience of consuming audio description in an immersive environment.

**7 - Pilot Evaluation** - This activity is detailed in deliverable '*D5.2-Pilot evaluation methodology and plan*'.

Activities related to the production of immersive contents will be explained in detail in the deliverable '*D5.3 Pilot Content*'.



### 2.5.3. Calendar of execution

The Semi-Open Pilot will be scheduled after a successful completion of the national pilots in Spain and Germany.

The Cross-National Pilot is scheduled to take place in September 2019.

Proposed schedule

- 1 – Meetings** with content producers, audio description providers, ImAc partners and end users - December 2017 to August 2019
- 2 – Identify content for the Cross-National pilot** – December 2018 – January 2019
- 3 - Production of audio description** - February 2019
- 4 - Production of immersive content** with audio description -March 2019
- 5 - Publication of immersive content** – July 2019
- 6 - Recruit participants for the pilot** – January – July 2019
- 7 - Pilot** - September 2019
- 8 - Pilot evaluation** - October 2019

### 2.5.4. Panel of Users

Observed testing in a controlled environment is recommended for the semi-open cross-national pilot in the UK and in Spain, since this will offer easy access to users to the needed equipment. This will allow to engage some potential users who may otherwise be less inclined to explore this new format independently, given their access needs.

In UK, a panel of testers will be recruited through RNIB Connect Channels on social media, radio and website. Our aim is to have at least 30 respondents for observed testing and completing the questionnaire after the tests to gather feedback. In Spain, users will also be contacted through user associations that regularly cooperate with UAB.

### 3. PILOT EVALUATION METHODOLOGY AND PLAN

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The evaluation methodology and plan for the demonstration pilots in WP5 is presented in D5.2. It departs from user requirements identified in WP2 and establishes a series of criteria to determine when testing is needed in WP5.

The evaluation methodology and plan are sustained on the following test categorisation:

- tests on services, addressed to home users, in which two aspects can be tested: presentation modes, and interface personalisation and interaction, and
- tests on professional editing tools, addressed to professionals, in which the usability and performance of the tools will be tested.

These broad categories are translated in the pilots as follows:

- Subtitling: presentation modes may be tested in both German and Spanish pilots (phase 1 and 2). Interface personalisation and interaction to be tested in pilot phase 1 (access to services) and in pilot phase 2 (improved interface and personalisation). Web editor tested as part of Spanish pilot phase 1, professional editing tool tested as part of pilot phase 2.
- Sign language: presentation modes and interface personalisation and interaction to be tested in German pilot phase 2.
- Audio description: presentation modes and interface personalisation and interaction to be tested in the cross-national pilot. Web editor tested as part of pilot phase 1, professional editing tool tested as part of pilot phase 2

The pilot evaluation methodology is based on an ethical approach to testing, where data protection is ensured. ImAc follows the guidelines (DMP) defined in '*D1.2. Ethical considerations and Data Management Plan*'. Ethical clearance for ImAc tests has been obtained from UAB's Ethical Committee, and specific forms have been designed and approved to gather informed consent from users. Communicating clearly to participants (taking into account the needs of the so-called vulnerable populations), guaranteeing their health and safety, and ensuring data are kept anonymous are priorities in ImAc tests.

The pilot evaluation methodology in D.5.2 presents a series of broad methodological criteria that will need to be implemented in each specific testing action. In this regard, it defines the three main measures that will be used in ImAc testing:

- Usability, in which the SUS (System Usability Scale) is suggested as a sound metric. This will be applied to tests related to professional tools and also to tests in which end users personalise or interact with an interface.
- Presence, in which the Igroup Presence Questionnaire (IPQ) is proposed. This is related to the concept of immersion in VR content and will be applied to tests dealing with services and their presentation modes.
- Preference/opinions, applicable in all types of testing in ImAc. This will be gathered through post-questionnaires created for each test, with a series of closed and open questions on user satisfaction, preferences and related attitudinal aspects.

The pilot evaluation methodology and plan also designs the demographic data that need to be gathered in the form of a pre-questionnaire, which includes personal items, behavioural categories, and attitudinal categories.