**Enhancing and Re-Purposing TV Content
for Trans-Vector Engagement**

Deliverable 6.1
Requirements for Consumer Use Case
Version 1.0

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Statement of Originality

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EXECUTIVE SUMMARY

This deliverable presents the process of the definition of the requirements for the Consumer Use Case. It describes the creation of the relevant ReTV consumer target group, persona types and personas. It also describes the four scenarios from the consumer perspective and defines their technical requirements.

Results are reported in tables to provide a more efficient overview for technical partners.

1 INTRODUCTION

The deliverable 6.1 is linked to task 6.1, which is concerned with the creation of a list of requirements for the consumer use case. This deliverable explores the ReTV focus group, the consumer personas and the requirements for the consumer use case. Steps undertaken were:

- the definition of the ReTV target group, based upon the existing target groups of the content owners,
- building personas for the users of various ReTV vectors,
- setting up an initial requirements list aligned with the four defined scenarios - Content Wizard, Content sWitch, Topics Compass and 4u2.

This initial requirements collection was completed during a workshop in July 2018, together with content partners RBB, NISV and ZATTOO and technical partner MODUL. The full two-day workshop was hosted by RBB in Potsdam. Following the workshop, the content partners created an online survey using the tool LamaPoll to test requirements against real consumer needs. The survey was conducted during the IFA 2018 in Berlin with 47 participants.

Using the outcome of the surveys, we updated the personas and requirements, and we report them in this deliverable as well as provide insights about associated technology requirements to WP1, WP2, WP3 and WP4.

2 APPROACH AND METHODOLOGY

The project makes use of the User-Centered Design methodology (see Fig. 1), which requires developers and designers to analyze and predict how users are likely to use the ReTV developed applications, and to test the validity of their assumptions with regard to user behavior in real world tests. The first phase is to understand the context of use. ReTV invests ample time for the team to become familiar with the community and its needs, via interviews, self-documentation, and user observations within the community. We are currently in phase 1. Further details on User-Centered Design are described in the deliverable D8.3 - Innovation Plan.
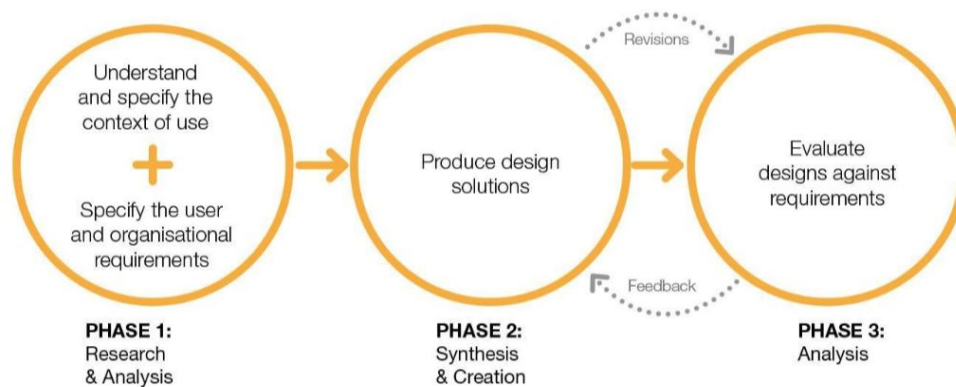

Figure 1: *User-Centered Design approach pursued by ReTV (O'Grady, 2008)[1]*

For the creation and definition of requirements for the Consumer Use Case, we undertook the following steps:

- Compare the ReTV consumer target group with content partners' existing target groups
- Create persona types
- Create personas for each persona type
- Set up requirements from consumer perspective for each consumer scenario
- Creation and execution of consumer user test according to the above
- Analyze the outcome of consumer test
- Update persona types and requirements after consumer test
- Feedback and report results to WPs 1-4

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[1] Visocky O'Grady, J. & Visocky O'Grady, K. (2008). The information design handbook. Mies: RotoVision.

3 PERSONAS PRIOR TO USER TESTING

3.1 TARGET GROUP

A target group is a particular group of people that a product or advertising intends to reach. For ReTV we first reviewed existing content partner target groups, considering the perspectives of a public broadcaster (RBB), a media archive/museum (NISV) and a streaming platform (ZATTOO).

3.1.1 RBB

As part of (German public broadcasting network) the ARD[2], RBB uses the study on Media User Typology[3] developed by ARD and ZDF[4]. Media User Typology is a study developed in 1997/98, and updated in 2006 and 2015 by ARD and ZDF to reflect changes in society. Individual media user types differ sharply in their programme and genre interests as well as in their various intensities of media use. The study defines 10 user groups, with RBB targeting three of them:

1. Modern Established user

2. Family-Oriented user

3. Traditional user

The Modern Established user is particularly interesting for ReTV. This user group has a very high online usage, but has little interest in TV and radio.

The average age of the Modern Established user is 37. In addition, they are predominantly male (57%) and are graduates. They have a broad interest profile and are more interested in global content than in local content. The use of new technologies is particularly easy for this user group.

The Family-Oriented user and the Traditional user belong to RBB's user groups but, as these two groups do not use online services, their media behaviour does not represent the target group which ReTV would like to address.

3.1.2 NISV

The Netherlands Institute for Sound and Vision defines various target groups, ranging from media professionals, researchers, creative industries to teachers and students. For the museum with a visitor exhibition attracting on average 250.000 people a year, the institute has defined characteristics for four main groups; youngsters, millennials, families and seniors. The families group shared the most characteristics with the ReTV web channel/site user persona. The characteristics include: 35-49 years of age, with kids of school age, and having a higher education; interests are family outings or library visits; in a museum they want to be able to participate (e.g. interactivity, sharing experiences) and to generally enjoy their day out; they use the internet, are active on social media and use media to enhance their world.

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[2] Arbeitsgemeinschaft der öffentlich-rechtlichen Rundfunkanstalten der Bundesrepublik Deutschland (German public broadcasting network)
[3] http://www.ard-zdf-mnt.de/
[4] Zweites Deutsches Fernsehen (German public broadcasting network)

3.1.3 ZATTOO

ZATTOO has two main target groups. The first one is the users that use ZATTOO to watch TV content. They generate revenue by either paying for a subscription or by the advertising they see when switching channels. The average age of ZATTOO viewers is about 37 and they tend to live in cities and have an above average education level.

The second target group is advertisers that want to use ZATTOO to show their advertising in between channel switches.

3.1.4 ReTV target group

The target groups of the content partner are very similar to each other. They are in their mid-teens and they like cultural events (museums, concerts). The ReTV target group generally corresponds to the RBB's "**Modern Established user**".

ReTV users do not have time to watch content on linear TV; they watch videos on demand, get summaries on social media or through websites. The internet is a large component of their everyday life. When on the move, they use their smartphones to find quick and quality information, and in the evening they watch videos on a bigger screen, such as their PC.

The ReTV user also has a family and is very social. Their tech knowledge is on a middle level, but they are open to new technologies.

3.2 Personas

The ReTV Consumer Personas were defined during the Creative Workshop in Potsdam in July 2018 in cooperation between RBB, NISV and ZATTOO. The personas were created in respect to the ReTV target group and they represent the ReTV relevant target platforms.

The content partners created personas for four different users:

1. Web channel/sites user

   The web channel/sites user interacts with classic web sites and web channels. Here s/he can find useful and interesting articles enriched with video or audio. The web channel/sites user spends more time on specific topics than random surfing thru the web. S/he is also more willing to use bigger screens, such as a laptop and also watches videos in fullscreen mode.

2. Targeted advertising/content user

   The targeted advertising/content user is someone who is watching TV content. This means that their viewing experience will be interrupted by advertising,trailers or other channel specific inserts(depending on the platform). S/he only has time to watch TV in the late evening, increasing the probability that the content consumed will be time-shifted.

3. Social media user

   The social media user is present in at least one social media platform. S/he is mostly active on social media via a smartphone and while on the go. S/he checks social media activities on a daily basis and gets push notifications for

every message. The social media user uses the native applications on the smartphone to access each social media platform.

4. Hybrid TV user

The hybrid TV user wants to have the best quality of video content, both in terms of video resolution and of the actual content itself. S/he watches on the largest available screen and is also willing to spend more time on particular topics. S/he watches videos with the family in the evening. Sometimes this user wants to find out more about a specific topic and looks for further information on the web.
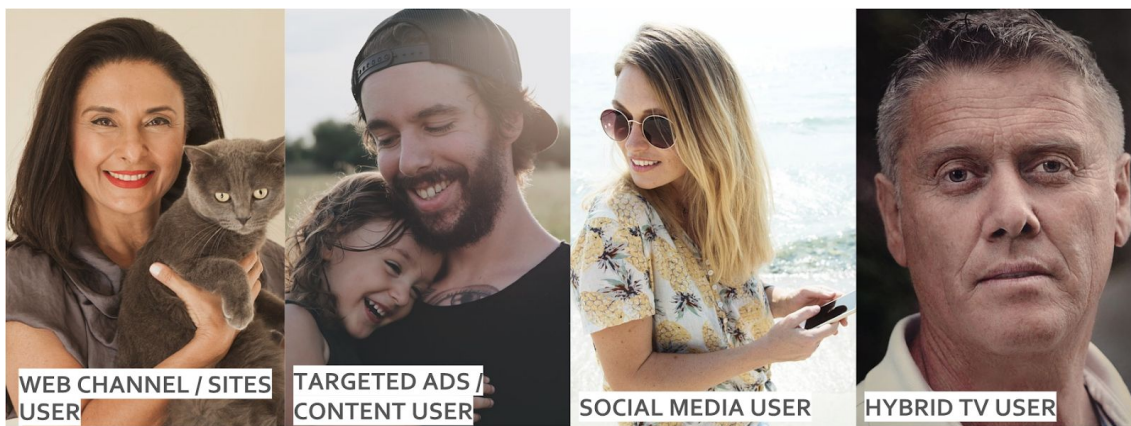

Figure 2*: The four persona types before user testing*

The personas were defined following the elaboration of the target group, and the results were incorporated into the creation of the consumer personas. Personas help during the progress of defining requirements for a product or tool. They present the possible users in the real world with their needs and wishes. The personas will also help the project to focus on the consumer view in the development of specific ReTV features and tools.

For each persona we used the DIY [5]scheme to visualise the key characteristics of each persona:

- Name, age, sex
- Interests
- Personality
- Needs
- Social environment
- Skills
- Reasons not to engage
- Reasons to engage

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[5] https://diytoolkit.org/tools/personas/

3.2.1 Web channel/sites user

Inka, 45 Years, Female
Web channel/sites user

INTERESTS
Music, museums, local events, family, books

PERSONALITY
Warm, social

REASONS NOT TO ENGAGE
Afraid of distractions, bad connectivity on tablet

NEEDS
To share with friends, to be entertained. to feel informed

SOCIAL ENVIRONMENT
Married, house owne, 2 children, pet owner

REASONS TO ENGAGE
Content is relevant, she is technically competent, feels in **control of her content** experience, is not willing to watch full shows

SKILLS
Tech knowledge: **low-middle**, organised

3.2.2 Targeted advertising/content user

John, 37 Years, Male
Targeted advertising/content user

INTERESTS
Gaming, sports, beer, outdoors

PERSONALITY
Relaxed, determined

REASONS NOT TO ENGAGE
No variety, impatient, uncomfortable with targeted advertising

NEEDS
Entertainment

SOCIAL ENVIRONMENT
Single father, suburbs

REASONS TO ENGAGE
User experience is good (due to advertising-timer); advertising & content is relevant.
Replay: receives single personalised advertising

SKILLS
Tech knowledge: **medium-high**

3.2.3 Social media user

Taya, 19 Years, Female
Social Media user

INTERESTS
Fashion, celebrities, make-up

PERSONALITY
Self-aware, shares everything

REASONS NOT TO ENGAGE
boring, too long

NEEDS
Attention; #likes

SOCIAL ENVIRONMENT
Parents; Student; lot of friends

REASONS TO ENGAGE
To be entertained, to feel part of discussion

SKILLS
Tech knowledge: **High**;
Spontaneous, creating content on mobile devices, skimming

3.2.4 Hybrid TV user

Frank, 52 Years, Male

Hybrid TV user

INTERESTS
News, museums, local events, cars

PERSONALITY
Patient, loyal

REASONS NOT TO ENGAGE
Lack of long-form content, too complicated

NEEDS
To be informed, to consume good quality content

SOCIAL ENVIRONMENT
Married, house owner, rural

REASONS TO ENGAGE
To relax, for entertainment, no changes required to established routine

SKILLS
Tech knowledge: **Low**; uses program guide

4 END USER REQUIREMENTS BEFORE USER TESTING

To define the End User Requirements we first need to have a look into the ReTV scenarios for the Consumer Use Case. During the Workshop in July 2018 in Potsdam with the content partner (RBB, NISV, ZATTOO) four scenarios were improved. The concept of the scenarios grew from the ideas of the content partners, who had previously developed them with professional users, which is documented in D5.1 – 4 User Requirements prior to user testing & interviews.

1. **Content Wizard**
2. **Content sWitch**
3. **Topics Compass**
4. **4u2**

From the consumer perspective, only three of the scenarios are relevant. The following section describes the scenarios Content Wizard, Content sWitch and 4u2 which address the consumer experience. The scenario **Topics Compass** is relevant only to professional end users and is considered in ReTV deliverable *D5.1 - Requirements for Content Owner Use Case*.

The **Content Wizard** consists of two main features: the publication and distribution of video content on different ReTV vectors - i.e. websites, Facebook, Twitter, Instagram, YouTube and Vimeo - at the optimal recommended time and the automatic generation of video summaries.

Social networks (e.g. Facebook, Twitter, and Instagram) were initially defined as vectors for the Content Wizard. Since these vectors are responsible for the design of the respective video players, there are no ReTV-specific requirements necessary from a consumer point of view.

However, the situation is different with video summaries. Video summaries are not only generated for social networks, but also for services such as a website or hybrid TV applications. For this a special video player has to be developed, which is described in detail in the Content sWitch scenario.

The **Content sWitch** replaces parts of a linear TV stream with personalised content. This content can be personalised trailers or targeted advertising. Different internal and external databases will be used for this purpose. The content sWitch could be used by consumers via web services, but could be also developed for hybrid TV applications.

Many Content Management Systems (CMS) publish sections beneath articles which are automatically filled with links to related content. The linked content here is mostly pointing to other articles, which either create area/keyword-based contribution lists or, in the best case, are manually edited. The **4u2** plugin could make significantly better contextual recommendations based on content analysis.

The following recommendations could be displayed next to the website articles:

- Recommendations for the current broadcast program
- Recommendations for social media platforms
- Recommendations for other articles within the website
- Summary video of the article
- Recommendations for videos in the media library
- Recommendations for the upcoming program
- Using Mouseover Video Summaries for recommended articles with videos

Table 1 "End User requirements before user testing" describes the requirements for the three scenarios from the consumer perspective before the first end user tests. The following excerpt from the (created in the tool Airtable[6]) table by the content partners shows the consumer requirements in a non prioritized order, also not in order by scenario or technical work package. The final requirements list can be found in chapter 7.

Requirement	Use Case	Description
Share videos	Content Wizard	Share Videos/Video Summaries on a Social Media Platform
See personalised trailers	Content sWitch	When a trailer for future content is shown in a TV stream it is replaced with the optimal version for that user.
See dynamically inserted advertising	Content sWitch	When an advertising is shown in a TV stream it gets replaced with an optimal advertising for that user.
Play Video/ Video Summary	4u2, Content Wizard, Content sWitch	The user is able to play, pause, fast forward, fast rewind and stop the Video / Video Summary
Fullscreen/ Minimize Video/ Video Summary	4u2, Content Wizard, Content sWitch	The user is able to play the Video/ Video Summary in fullscreen mode, and minimize it
Mouseover Summary	4u2, Content Wizard	The user can navigate over a thumbnail of a video and a short frame-based mouseover summary will play
Daily Summary	4u2, Content Wizard	A video summary is created based on personal interests
Target Group optimized Video summary	4u2, Content Wizard	A video summary can be different for each target group i.e. young radio station Fritz needs a different video as news formats like rbb|24
Automatic categorisation of content	4u2, Content sWitch	Fine-grained, automatically detected categories. ReTV would look at the content and decide that this is about "Global Warming", "Middle East", "China" etc. Important input for the personalisation aspects, but also really useful for search Keeps professional users from having to tag everything by hand

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[6] https://airtable.com/tbluh4GhP9iJohg27/viwfmIgokeopi1bvP

		Interesting for advertisers to target certain topics
"this could interest you as well" Recommendations	4u2	- For a trending topic - For optimal posting time - For Topics for editorial pieces that may include one or more videos (e.g. recommendation based on what's in the archive and what is trending)
Personalized Teaser	4u2	Teasers could be personalized for - Vector IP (location) - Daytime trendig topics - (Age | info not available to RBB) - (Male/Female | info not available to RBB) - Favourite topics In case of TV: Show context
iCalendar from EPG	4u2	The consumer should be able to download an iCalendar file, e.g. .ics, .ical, for her/his calender of an upcoming recommended program from EPG/Mediathek data

Table 1: *End User requirements before end user testing*

5 END USER TESTING

The aim of the first end user tests was to validate the previously defined requirements with real users. For this purpose, a questionnaire was created consisting of four content sections:

- General questions about participants and their video usage
- Video usage in social networks
- Videos on demand and targeted advertising/content
- Recommendations

The survey took place during IFA[7] 2018 in Berlin (31st August - 5th September 2018) and was created with the LamaPoll[8] tool. Visitors to IFA were asked to participate in the questionnaire. At the same time, the questionnaire was sent online to testers. A total of 50 questionnaires were undertaken: three were aborted and 47 responses were included in the evaluation.

5.1 GENERAL VIDEO USAGE

The first section deals with general questions regarding gender, age and consumption of video content. No individual identifying data was collected or stored after the survey was finished. Here we asked how often and with whom videos were viewed, but also on which end devices they were primarily viewed. Responders were also asked why they watched particular video content and of which genre.

The outcome of the first section was in correspondence with our defined personas. The average age of 30-39 years was within the previously defined range and corresponded to the target group of content partners. In contrast to the target groups, the gender distribution was relatively balanced, with a slight tendency towards the female (see Fig. 3).
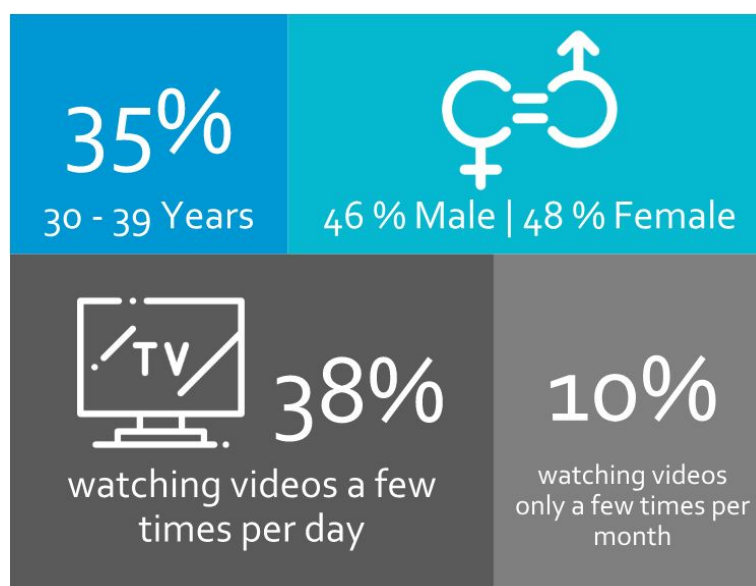

Figure 3: *Outcome of the general questions section*

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[7] The world's leading trade fair for consumer electronics and home appliances.
[8] https://www.lamapoll.de/

However, the survey also clearly showed that the majority of respondents watch video content several times a day. This happens mostly on smartphones, followed by laptops and TV. The tablet and the desktop PC are used by a few as a medium for watching video (see Fig. 4).
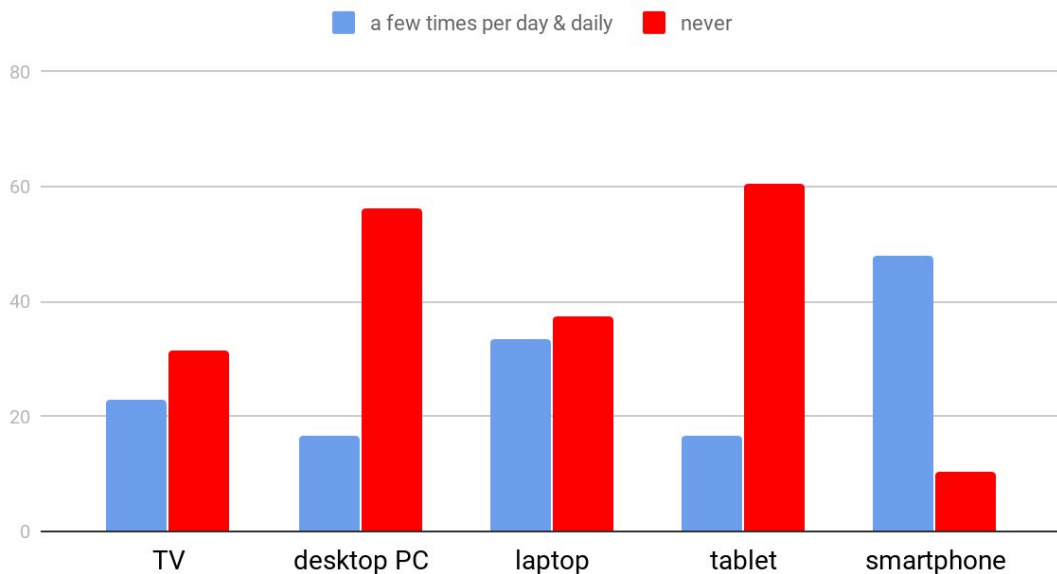
Where do the users watch video content?

Figure 4*: Device usage for video content*

Video content is also mostly viewed alone, at home and in the afternoon. Those respondents with the lowest consumption of video watched videos during breaks. In addition, 39% said they do not watch videos when travelling (see Fig. 5). Various factors could contribute to this, including:

- high consumption of data volume
- not enough time to see long content
- bad internet connection

Figure 5: *How and where*

With the help of the questionnaire, we also wanted to better understand why participants watch video content. The main reason given was they want to be entertained, followed by receiving information. The selection "I want to join in" had received the least approval. One

reason could be, that "joining in" is more important to younger respondents, since they are also spending more time on social networks (see Fig. 6).
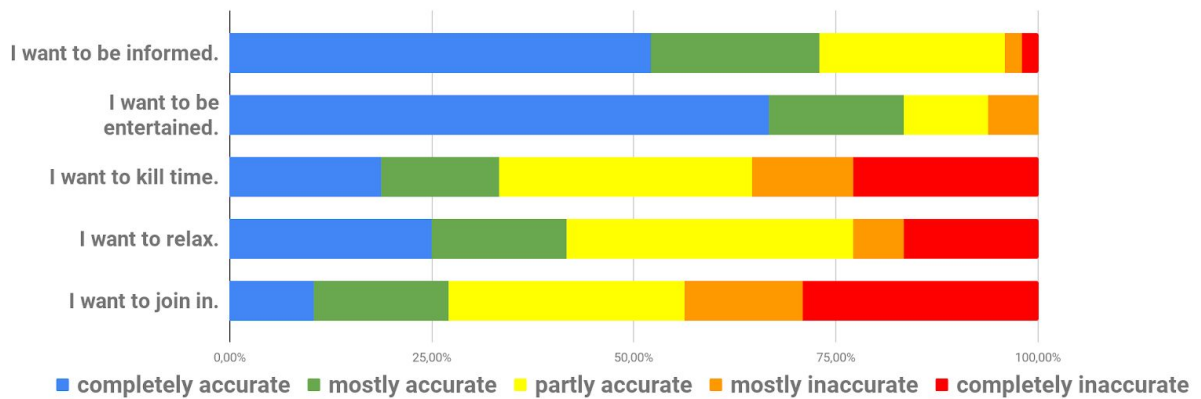

Figure 6: *Why people watch videos*

5.2 VIDEO USAGE IN SOCIAL NETWORKS

The next section of the questionnaire dealt with the use of social networks and how the participants use videos there. Special attention was paid to the ReTV relevant vectors:

- Facebook
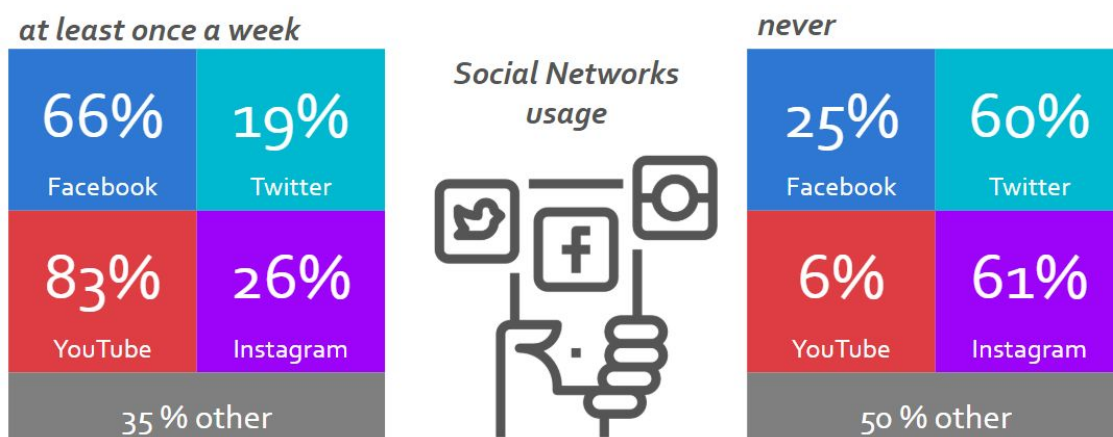- Twitter
- Instagram
- Youtube

Figure 7*: Social networks usage*

The most popular social network for watching videos is of course YouTube. 83% of the participants said that they use the platform at least once a week. Only 6% indicated that they never use YouTube. The second most used platform is Facebook, with 66% percent using it at least once a week. 25% never use Facebook. The two least-used platforms were Instagram

(61%) and Twitter (60%). Next to the four requested platforms, 35% said that they also use other social networks on a weekly basis, identifying Pinterest, Google+ and other platforms (see Fig. 7).

Messaging apps came up when we explained the questions to participants in a face2face interview. Whatsapp and Telegram were the most requested messengers during the testing.
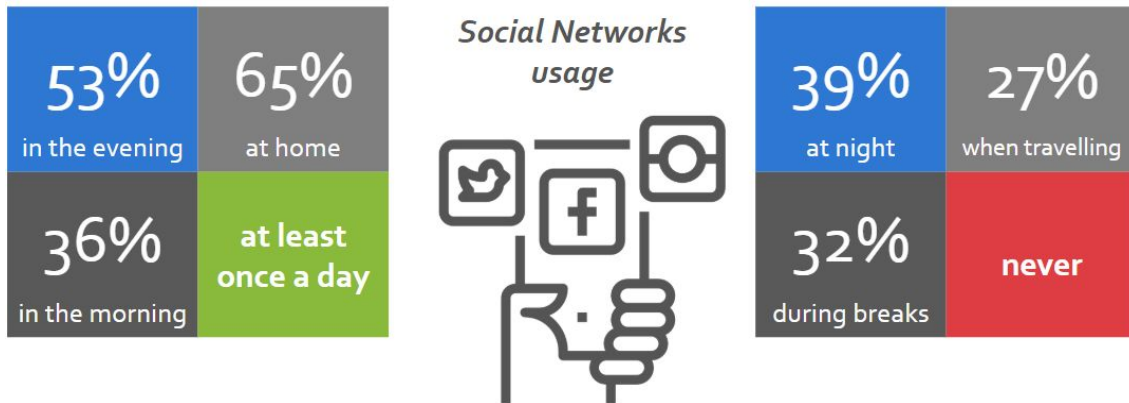

Figure 8: *How and where - Social networks*

Next we wanted to figure out when, how and where the testers use social networks. Similar to the outcome of the results of the question regarding the video watching behavior, 53% of the participants are using social networks at least once a day in the evening and 65% at home. Different to the answers of the first section, social networks are also be used in the morning (see Fig. 8).

Figure 9: *Behavior of video usage in social networks*

Regarding to the core idea of ReTV we also asked if participants watch videos on social networks. 64% of the testers answered this questions with yes, but also 48% said that they never share videos on social networks. Videos in social networks are also watched by 68% with sound, and also 86% read subtitles when they are in a video (see Fig. 9).

Videos are also more popular then text, 89% of the participants said that they are more willing to watch a video than read a text.

5.3 Videos On Demand And Targeted Advertising/Content

The third section dealt with the Content sWitch scenario, which provides separate advertising and content sections. 67% of the participants liked the functionality of having one personalized advertising in a video on demand context instead of the whole advertising block. But also 51% did not want to have the functionality to rate advertising to get more personalized advertisements (see Fig. 10).
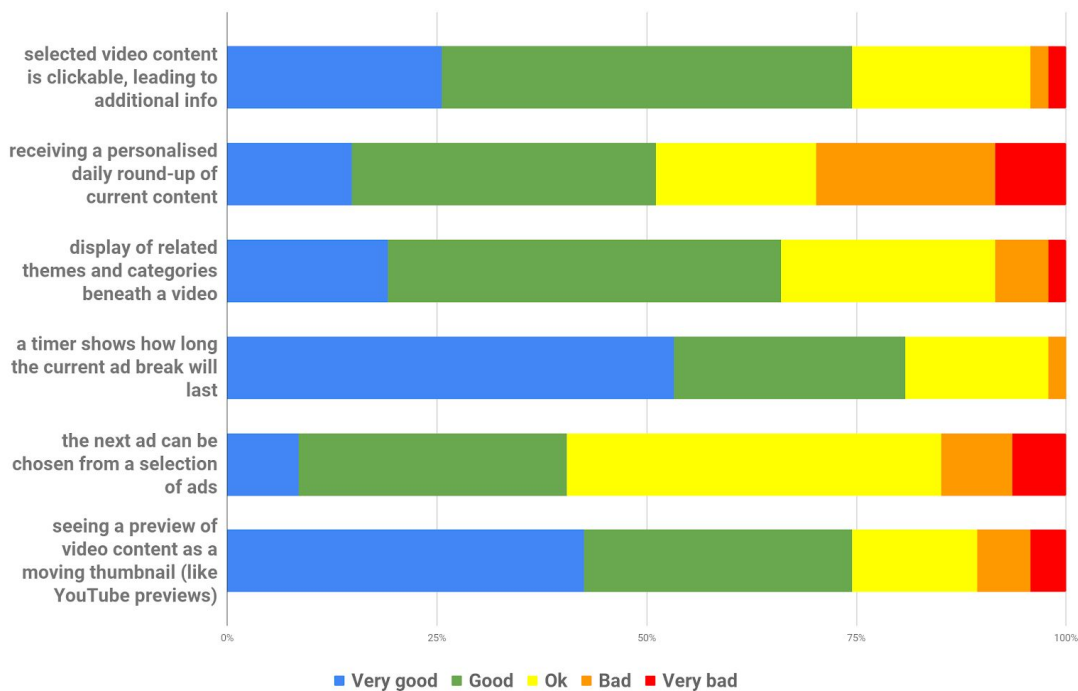

Figure 10: - ReTV features acceptance

We also asked if users would like to receive a personalized program hint. Here the opinions were very neutral. 32% responded that they were in favor of such a feature, but 23% did not like it.

5.4 Recommendations

The last section of the survey dealt with recommendations and the 4u2 scenario. A current dissatisfaction of existing personalized recommendation systems was shown, especially since the users feel that they always get the same recommendations displayed (27%), they feel that they are recommended the wrong thing (20%), but also that they generally have no trust in such functions (20%).

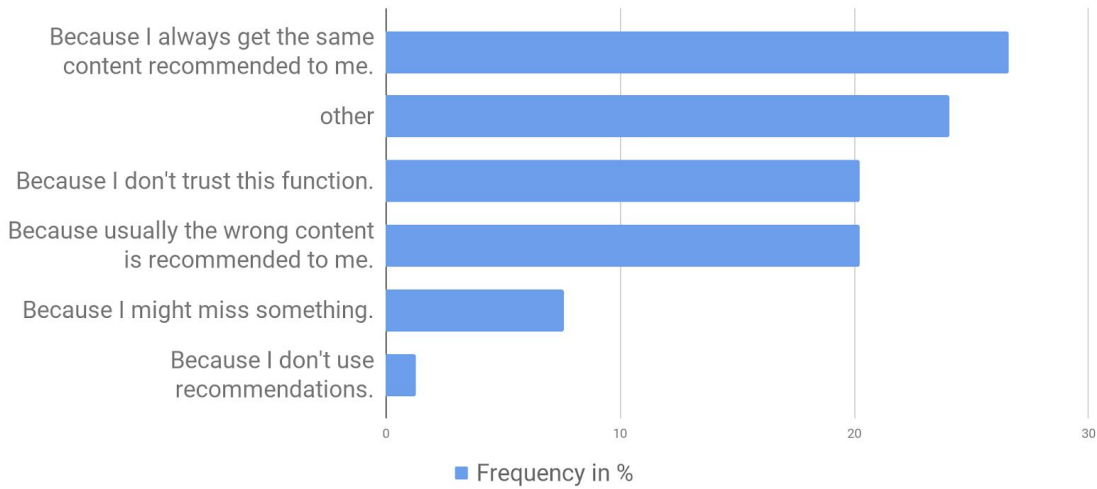Why would you not want to see personalised content?

Figure 11: *Recommendations worries*

The outcome also shows that only 2% of the participants do not use recommendations at all. The 4u2 scenario should help to make the recommendations much smarter to the users so that the current concerns are alleviated.

Next to the classic recommendations giving additional information about a topic, 28% want to find also additional audio and video material following a recommendation (see Fig. 12).

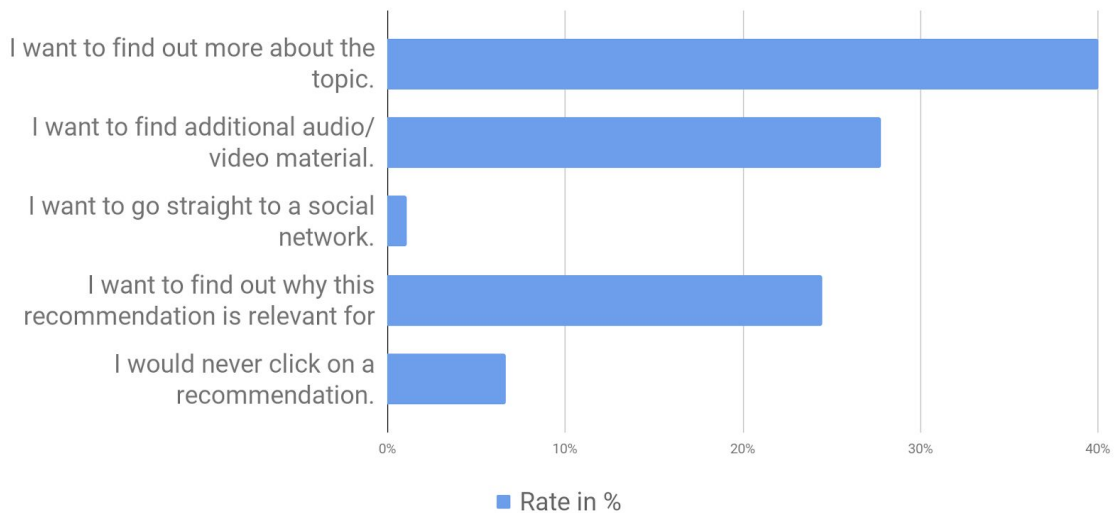What make you click on a recommendation?

Figure 12: *Recommendations and requirements*

Recommendations in the web are used on a daily basis by the users. They are using them, but feel bad if they don't have a good quality and also if the recommended content is the same again and again. With the 4u2 scenario ReTV should optimize the recommendations for video content.

6 PERSONAS AFTER USER TESTING

Before conducting end user tests, personas were divided into four categories, as discussed in Section 3:

1. Web channel/sites user
2. Targeted advertising/content user
3. Social media user
4. Messenger user

As a result of the end-user tests, it was found that, as a medium for viewing video content, TV does not seem as popular as, for example, a smartphone or laptop.

During End User testing it became clear that the characteristics of the Web channel/site user and the Targeted advertising/content user overlap in terms of devices used.

During End User testing, and also during the Professional User Interviews reported in D5.1, the topic of messaging came up. End users may not use the classic social networks like Facebook or Twitter, but they do regularly use messengers such as WhatsApp or Telegram. This was new information, and it became clear that ReTV chatbot for various messaging services could be used to send daily video summaries to the consumers. The hybrid TV user therefore was adapted to become the **Messenger user**.

The final Persona groups are:

1. **Web channel/sites user**

   From the interviews with the professional user, we discovered that this user would potentially also be interested in interactive video within e.g. a museum or exhibition setting. They could receive personalised videos, either on a big screen or on their smartphone.

2. **Targeted advertising/content user**

   From the outcome of the end user testing, the persona type description (as discussed in Section 3) will not be changed:

   The targeted advertising/content user is someone who is willing to watch more than one video in a viewing session. This 'binge watching' behavior will be interrupted by advertising or trailers (depending on the platform). S/he only has time to watch videos in the late evening, so has to watch videos on demand.

3. **Social media user**

   From the outcome of the end user testing, the persona type description (as discussed in Section 3) will not be changed:

   The social media user is present in at least one social media platform. S/he is mostly active on social media via a smartphone and while on the go. S/he checks social media activities on a daily basis and gets push notifications for every message. The social media user used the native applications on the smartphone to access each social media platform.

4.   **Messenger user**

The messenger user uses his/her smartphone for communication, mostly with family and friends. To reduced extra costs from his mobile provider s/he is using messenger services for text message and video calls. Unlike the social media user s/he is not into social networks and hasn't contact to people s/he does not know in person.

The updated personas follow below. Updates are marked as underlined.

6.1 Web channel/sites user

Inka, 45 Years, Female Web channel/sites User	
INTERESTS Music, museums, local events, family, books	**PERSONALITY** Warm, social
REASONS NOT TO ENGAGE Afraid of **missing** something; does not work on her **laptop**	**NEEDS** To be entertained, feel informed	**SOCIAL ENVIRONMENT** Married, house owner, 2 children, pet owner
REASONS TO ENGAGE Content is relevant, she is technically competent, feels in control of her content experience, is not willing to watch full shows, likes recommendations with additional video content	**SKILLS** Tech knowledge: **low-middle**; organised

6.2 Targeted ad/content user

John, 37 Years, Male
Targeted advertising/content user

INTERESTS
Gaming, sports, beer, outdoors

PERSONALITY
Relaxed, determined

REASONS NOT TO ENGAGE
No variety, impatient, uncomfortable with targeted advertising

NEEDS
Entertainment

SOCIAL ENVIRONMENT
Single father, suburbs

REASONS TO ENGAGE
User experience is good (due to advertising-timer); advertising & content is relevant.
Replay: receives single personalised advertising

SKILLS
Tech knowledge: **medium-high**

6.3 Social media user

Taya, 19 Years, Female
Social Media user

INTERESTS
Fashion, celebrities, make-up

PERSONALITY
Self-aware, shares everything

REASONS NOT TO ENGAGE
Boring; too long

NEEDS
Attention; #likes

SOCIAL ENVIRONMENT
Parents, student, lot of friends

REASONS TO ENGAGE
To be entertained,
to feel part of discussion, engages with every Social Network

SKILLS
Tech knowledge: **High**;
Spontaneous, creating content on mobile devices, skimming

6.4 Messenger user

Frank, 52 Years, Male

Messenger user

INTERESTS
News, museum, local events, cars

PERSONALITY
Patient, loyal

REASONS NOT TO ENGAGE
No long-form content, too complicated

NEEDS
To be informed, to consume good quality content

SOCIAL ENVIRONMENT
Married, house owner, rural

REASONS TO ENGAGE
To relax, for entertainment,, routine, more useful information in the morning, better control of his time, daily video round-up

SKILLS
Tech knowledge: **Low**, gets feedback from his kids about useful apps for his smartphone

7. FINAL END USER REQUIREMENTS AFTER USER TESTING

For the final end user requirements we added requirements for the new Messenger user persona and also redefined the priorities of each requirement regarding the outcomes of the end user testing.

The list is ordered in the following structure:

First, we listed the requirements that only fit one use case, then we listed the requirements that fit two of the use cases, and at last, we listed the requirements that handle all three consumer use cases.

We also added the consumer type to the final requirement list.

Nr.	Requirement	Use Case	Description	Consumer	Technical WP	Priority
1	Share videos	Content Wizard	● Share Videos/Video Summaries on Social Media Platform	Social Media User	WP3, WP4	LOW
2	See personalised trailers	Content sWitch	When a trailer for future content is shown in a TV stream it is replaced with the optimal version for that user.	Targeted ad/content User	WP1, WP3, WP4	HIGH
3	See dynamically inserted ads	Content sWitch	When an ad is shown in a TV stream it gets replaced with an optimal ad for that user.	Targeted ad/content User	WP1, WP3, WP4	HIGH
4	Timer, that displays the remaining ad/ trailer/ content time	Content sWitch	● Timer displays the remaining time in seconds ● Timer can be displayed the whole ad/trailer/content ● Timer can be displayed the last 10 seconds ● Timer can be switched on/off	Targeted ad/content User	WP4	HIGH
5	Single personalized ad/ trailer	Content sWitch	● Personalized content, instead of a non-personalized selection	Web channel/site User Targeted ad/content User	WP1, WP3, WP4	HIGH

6	"this could interest you as well" Recommendations	**4u2**	• For a trending topic • For posting time • For Topics for editorial pieces that may include one or more videos (e.g. recommendation based on what's in the archive and what is trending)	Web channel/site User Targeted ad/content User Messenger User	WP1, WP3, WP4	HIGH
7	Personalized Teaser	**4u2**	Teasers could be personalized for • Vector • IP (location) • Daytime • trending topics • (Age | info not available to rbb) • (Male/Female | info not available to rbb) • Favourite topics • In the case of TV: Show context	Web channel/site User Targeted ad/content User	WP1, WP3, WP4	MEDIUM
8	Mouseover Summary	**4u2** **Content Wizard**	The user can navigate over a thumbnail of a video and a short frame-based mouseover summary will play	Web channel/site User	WP3, WP4	HIGH
9	Daily Summary	**4u2** **Content Wizard**	• video summary based on personal interests	Web channel/site User Messenger User	WP3, WP4	HIGH
10	Target Group optimized Video summary	**4u2** **Content Wizard**	• video summary can be different for each target group • i.e. young radio station Fritz needs a different video as news formats like rbb|24	Web channel/site User Targeted ad/content User Social Media User	WP1, WP3, WP4	HIGH

		4u2		Messenger User		
11	Select topics from a collection to create personalized video summaries/ daily summaries/ weekly summaries	**4u2** **Content Wizard**	• choose one or more topics from a collection • choose a frequency (daily, weekly, monthly) • save the settings	Web channel/site User Messenger User	WP1, WP3, WP4	HIGH
12	Notification from chatbot	**4u2** **Content Wizard**	• depending on the frequency the user has chosen before	Messenger User	WP3, WP4	HIGH
13	Edit personalized video summary setting	**4u2** **Content Wizard**	• settings could be changed every time • notification, that the changes are successfully done	Web channel/site User Messenger User	WP3, WP4	HIGH
14	Unsubscribe from chatbot	**4u2** **Content Wizard**	• user can every time unsubscribe from the chatbot	Messenger User	WP3, WP4	HIGH
15		**4u2**	• fine-grained, automatically detected categories	Web channel/site User	WP1, WP4	MEDIUM

	Automatic categorisation of content	**Content sWitch**	• ReTV would look at the content and decide that this is about "Global Warming", "Middle East", "China" etc. • An important input for the personalisation aspects, but also really useful for search • Keeps professional users from having to tag everything by hand • Interesting for advertisers to target certain topics	Targeted ad/content User		
				Social Media User		
				Messenger User		
16	Play Video/ Video Summary	**4u2** **Content Wizard** **Content sWitch**	• play • pause • fast forward • fast rewind • stop	Web channel/site User	WP3, WP4	HIGH
				Targeted ad/content User		
				Messenger User		
17	Fullscreen/ Minimize Video/ Video Summary	**4u2** **Content Wizard** **Content sWitch**	The user is able to play the Video/Video Summary in fullscreen mode, and minimize it	Web channel/site User	WP3, WP4	HIGH
				Targeted ad/content User		
				Messenger User		

Table 2: End User requirements after end user testing

8 CONCLUSION AND OUTLOOK

The goal of this deliverable was to define a list of consumer requirements and report them to the technical work packages. To establish consumer requirements we developed four personas, which were based upon the real users of the three content partners. The personas were classified under four categories, according to the various vectors that ReTV will handle. These personas were first created during a workshop in July 2018, in cooperation with all content partners. After the personas were defined, WP6 worked on a draft requirements list.

With the first version of the requirements list, a survey was set up to compare the defined requirements with the feelings and opinions of the real consumers. The test was conducted during the IFA 2018. The survey was completed by 47 participants, and the requirements list and the personas were updated with the test results.

The final requirements list contains 17 requirements, ranked by priority, scenario and consumer category. This list will also be updated in Airtable and reported to WP1 - WP4.

The next steps will be to build prototypes of the scenarios in conjunction with the technical work packages. We have jointly decided with technical partners that the Content Wizard and Topics Compass scenarios will be developed first.

RBB will set up a tester group to test the scenario prototypes and will also update the requirements as necessary. This work will be done in tasks 6.2 and 6.3, and will be reported in D6.2 "Design of Content and Ad Personalization" and D6.3 "TVP Development and Testing with Consumers".