



## STREAMING OF THEATRE AND ARTS FOR OLD AGE ENTERTAINMENT

### D1.1 REPORT ON USERS INVOLVEMENT AND PREFERENCES

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## 0. Note on post-MTR update

This deliverable was updated to reflect comments and indications found in the Mid-Term Review report.

The table below details the updates:

MTR Comment	Addressed in
"It is not clear from the documents what exactly is stopping the end users from getting to the cultural events. They are active, fairly healthy and go out regularly. There is no conclusion which explains why the end users can't get to the events, it is likely that there may be a variety of reasons but these aren't presented."	✓ Section 4.2.4, page 18 ✓ Section 5, page 26
"It does state that it will be configured for use on either a desktop or tablet, and then the Smart TV, which is not in line with the user requirements, where TV was the most popular and tablet the least popular."	✓ Section 4.3.2, page 24 ✓ Section 5, page 26
"The prototype platform currently runs on a PC and it was not clearly stated when it will be on a Smart TV"	
"Functional testing [...] should be considered for the Smart TV at least, as this will be the preferred choice for end users."	

## Executive summary

The purpose of this document is to present the procedure for users' involvement in the STAGE project, and a first definition of users profile and preferences, in relation to the pilot trial scheduled for 2017. This is part of the process that feeds information from WP1 – "Definition of user requirements, preparation of user settings and ethical issues" into WP2 – "Development and implementation of the ICT platform", and 3 - "Testing, evaluation and validation in user environment settings".

The adopted methodology for users' involvement is described here, with details concerning selection criteria and the development of a specific questionnaire to gather relevant data.

The information collected through this questionnaire concerns the following areas:

- a. personal and housing details;
- b. social participation and leisure activities;
- c. cultural preferences related to the STAGE platform;
- d. computer literacy and device preferences.

Points a. and b. were used to define a general user profile, as a picture of the average STAGE user, while c. and d. aimed at collecting dedicated information for the implementation of the project, which means, for example, understanding which type of cultural contents users are more interested in, which access modalities (both regarding the external context and the tools) could be more likely or which aspects could influence users' interest and effective deployment of the service.



A specific analysis was performed for each of the points above, and its results are also presented hereafter following the same structure. The data used in the analysis was anonymized, in compliance with privacy guidelines.

The findings reported in this deliverable, along with those of D1.2 "User requirements definition and analysis" to be released in M6, will form the main basis for ICT development activities.

Specifically, they will be used by technical partners to define and implement software requirements to meet user preferences, as a first step into the co-design process. This will lead to the release of the first working prototype of the STAGE ICT platform by M12. This prototype will be used to conduct the pilot trial with users in the second year of project activities.

The user profile described here will also be central in outlining use case scenarios for the platform, as well as in defining the market analysis process involving end users.

The conclusions drawn from the data reported here are summarised in Chapter 5.

## 1. User involvement procedure

Users were involved in this first phase of the project by selecting a sample of adults aged more than 60 on a voluntary basis, and on the grounds of informed consent.

End user organisations, i.e. ANCS in Italy, MATERIA in Cyprus, and PBN in Hungary, carried out the preliminary phase of recruiting adults in their networks, in line with the fixed age target, by presenting the general aims of the project to them.

The objectives were clearly explained, as well as the extent of their involvement in the pilot trial. In particular, they were told that participation would be completely voluntary and that they could withdraw at any time for any reason. They were also told that if some of them do not own a suitable technological device (e.g. a tablet or a PC) to use the STAGE platform, the project would provide them with one.

Finally, they were assured that all their personal and sensitive data would remain anonymous, and no information would be divulged by the project.

Only those who expressed their interest and their willingness in participating were later involved in a further series of meetings, where questionnaires were administered (see below).

The group of people that were presented with the possibility to join STAGE was selected according to the criteria described in the following section.

### 1.1. Selection criteria

The selection criteria were based on those mentioned in the Description of Work (DoW), namely:

- ✓ being 65+ years old;
- ✓ not having serious cognitive diseases;
- ✓ coming from varied social and cultural backgrounds;
- ✓ being gender balanced.



The reason for choosing people over 65 years-old, is due to the fact that this figure is considered by the majority of Western countries (including Europe), as an accepted starting point to define old age (as stated by the World Health Organization<sup>1</sup>).

However, some participants in the final selected sample are less than 65 years-old. This is not considered to be inconsistent with the project goals, since its ultimate results can be extended to other population groups as well.

The exclusion of persons with serious cognitive impairment is motivated by the fact that they would probably experience major difficulties in accessing the content provided by the project, given its nature.

Mild cognitive impairment, however, as well as motor and sensory disabilities, were not excluded. One of the aims of the project is indeed to design an accessible ICT platform, in accordance with computer accessibility principles.

Finally, gender balance and varied social and cultural background were chosen to ensure a certain statistical significance of the sample, as well as to avoid discrimination.

The minimum target number set before recruitment was 20 persons per country, therefore 60 people overall - the countries involved being Cyprus, Hungary and Italy.

Approval of these criteria was agreed upon by end user organisations, as well as CNR-ITC, before starting the recruitment phase.

## 1.2. Meetings with users and administration of the questionnaire

The sample of people who agreed to participate in the first phase of the project were invited by end user organisations to attend meetings. These meetings were held both at the organisations' premises and in social centres or other locations. They had the purpose of further introducing the project scope, as well as administering a specifically developed questionnaire. This latter is described in detail in section 3.1 (see also the Annex to this deliverable for the questionnaire template).

### 1.2.1. Meetings in Cyprus

Materia Group held two initial information sessions with older prospective participants in Nicosia, Cyprus. The first session was held at Materia Day Care Unit, Latsia, Nicosia, on April 19<sup>th</sup> 2016 at 5 pm, where the project was presented to 31 older adults from senior groups in the community.

A short Power Point presentation of the project objectives and Materia's role as end-user organisation took place, followed by a discussion, where it was emphasised that those interested in participating would do so strictly voluntarily and could withdraw anytime during the project (including the initial info session), with no obligation to explain the reason. They were also reassured of the anonymous and confidential nature of their personal data.

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<sup>1</sup> <http://www.who.int/healthinfo/survey/ageingdefnolder/en/>

Those who felt they wished to become initially involved, were then requested to answer the end user questionnaire. 64% of them completed the Greek translated version, and 36% the English version (due to Cyprus being a British Colony until 1960, many older adults speak English). Both versions of the questionnaire were available at the session, and participants could choose which language they preferred.

From this first session 17 completed questionnaires were gathered.

The second presentation took place in a much similar format in Meniko Community Center on April 22<sup>nd</sup> 2016 at 10 am (Fig. 1 shows a picture from the meeting).

This is a small local community centre where many active older adults gather to socialize, have coffee, and play card games. The presentation was of the same type as previously described for Materia Unit, 9 valid questionnaires were collected from this session.

The two sessions lasted for 1.5 hours each, and people were overall positive about the concept of STAGE and about the collective decision to use hardcopy questionnaires.

Project staff was present throughout both sessions, and assisted participants with any questions they had, then collected all completed questionnaires and proceeded with data entry in the special template sent to Materia by CNR-ITC.



*Figure 1. A meeting in Cyprus*



### 1.2.2. Meetings in Italy

Meetings in Italy were held in Rome, at a social centre for older adults located in the suburban area "Giardinetti". They were organised by ANCS (*Accademia Nazionale di Cultura Sportiva*), with the support of CNR-ITC.

Two meetings with users were held: the first on April 13<sup>th</sup> 2016, from about 3 pm to 5 pm, the second on May 30<sup>th</sup> 2016, in the same time range. They involved a total of 26 volunteers. Staff members from both ANCS and CNR-ITC attended the meetings and provided support to participants.

Both meetings were divided into two main sessions: an oral presentation of the objectives of the project and the role of end users – where it was also clarified that they could freely withdraw at any time; and a workgroup where participants filled in the questionnaires.

These were provided in the Italian translation and were distributed as paper copies.

Participants were asked to form groups of 4 or 5 people and each group was assigned to a project staff member, who provided support to fill the questionnaire.

Project staff also explained that where someone felt uncomfortable or unwilling to provide answers, they could obviously decline.

It emerged that some participants felt the purpose of the questions was not always clear, or they could be interpreted in different ways.

Therefore, project staff answered their doubts and explained how the questions should be intended.

They also made sure that each participant did not leave any applicable question unanswered.

At the end of the workgroup sessions, filled questionnaires were gathered to be later digitized, as well as screened for possible inconsistencies or lack of information.

### 1.2.3. Meetings in Hungary

Four staff members of the Pannon Business Network Association participated in the administration of questionnaires to older people. In order to make the procedure easier, all the questionnaires were kept in the English version, and filled by the staff. However, questions and answers, just as the whole communication with the elderly, were obviously in Hungarian.

Both sessions of questioning were held by the staff individually. After contacting the prospective participants, they were invited to PBN's office in Szombathely to have a personal contact with them, and, as long as possible, to avoid lack of willingness to participate in the survey.

Although the project was introduced earlier (via the first contact), in all cases the STAGE project was presented to the participating person: what is the main idea of the project, what are its main goals etc. After this part, the filling of the questionnaire was done during a chat with them, where PBN staff asked the questions, and they had an opportunity not only to answer the questions, but also to provide a short feedback or idea about their impression.

It can be said that all participants understood the goal of the interview and were happy with the idea of watching cultural events live, from home, though not all of them are ready to pay for this service when it will be commercially distributed.



All the filled questionnaires were then manually inserted into the joint Excel data sheet provided by CNR-ITC.

## 2. Methodology

The involvement of users is based primarily on both the expression of interest on their part and the application of an informed consent procedure. This is meant to ensure that privacy and ethical requirements are met.

The approach implemented to explore preferences and needs, as mentioned above, was based on the development of a dedicated questionnaire. The decision to use such a tool was first included in the DoW and later ratified by partners at the project Kick-off Meeting.

It was agreed to first distribute the questionnaire as a hard copy (paper) document, and later collect data by means of specific software tools.

The decision to use hard copies was based on the assumption that these would be easier to fill for involved participants. A digital form (e.g. PDF) could have in fact posed problems to those who are not familiar with the type of user interaction required.

### 2.1. User questionnaire

The questionnaire was prepared as a Microsoft Word document by CNR-ITC and later distributed to all partners for comments and changes.

The final version was agreed upon in April 11<sup>th</sup> 2016, in time for the first session of meetings to start.

The questions were drafted considering three main areas of investigation:

- ✓ general user information, including health status and social participation level;
- ✓ interest in cultural activities and events;
- ✓ computer literacy and device preferences.

The total number of questions is 36, distributed by topic as follows:

- ✓ Section 1 (4 questions): residence information;
- ✓ Section 2 (6 questions): personal information;
- ✓ Section 3 (15 questions): social participation and recreational activities;
- ✓ Section 4 (6 questions): preferences related to the STAGE platform;
- ✓ Section 5 (5 questions): technical information.

In addition to these, a preliminary “zero” section was included for identification information, to be compiled by the end user organisation coordinating the survey.

These questions were conceived with the purpose of defining a general user profile that would be the basis for the project use cases and scenarios. For this reason, users' personal information and data on their level of social participation and engagement were collected.



Specific questions on STAGE platform preferences were drafted to probe the average interest on cultural activities, as well as users' preferences regarding the type of cultural content to be provided by the project.

Technical information gathered by means of the questionnaire, instead, will be central in the development of the first prototype of the software platform.

Its design, in fact, will have to take into account users' requirements concerning technological devices and their average ability and confidence when using them.

A privacy statement was also included in the first page of the questionnaire; it reads as follows:

"We assure you that all the data gathered by this survey will remain confidential and will only be used for achieving the project goals in an anonymous statistical way (for general conclusions).

Anonymized data may also be used for academic and dissemination publication of project results."

This is a preliminary short version of a more detailed informed consent document that will be prepared by PBN before the beginning of the experimentation. It will be drafted with the support and professional counsel of legal advisors.

## 2.2. Database

Collected filled questionnaires were scanned and archived as PDF documents, and the data were inserted into a Microsoft Excel file, that was used as a database.

This file was prepared as an empty template reflecting the structure of the questionnaire by CNR-ITC. It was then made available to MATERIA and PBN, so that they could use it to insert data related to Cyprus and Hungary participants, respectively. Data from the three countries were all merged into a single file.

Before populating the database, questionnaires were anonymized by associating an identifier to each participant's name. The convened style for IDs was to use an abbreviation representing the user's country, followed by a consecutive number. For example: IT1 for a user in Italy, CY3 for one in Cyprus etc.

A file with such associations is kept confidentially by partners, in order to ensure that it is used properly throughout the project. This is necessary to compare user data at baseline and end-line, so as to draw appropriate conclusions about the progress shown by users and the quality and fitness of the project's results and solutions.

IDs formed the primary key of the database, where each row of a table represents a single user questionnaire.



### 3. Data analysis

The analysis on the data was performed directly in the Excel database, by using combinations of the software's native formulas.

The main approach was based on performing fairly basic statistical analyses, according to the nature of the data itself. In most cases, percentage ratios were extracted to build tables or column and pie charts.

For some data, averages were calculated by applying a numeric conversion of textual values (see for example figures 8 and 10). In this case, a conversion table was established for reference; decimal numbers were rounded to integers. Percentages are generally given with a precision of 2 decimal digits, except for charts, where they were rounded to integers.

It should be noted that some questions were not answered by all users (either because they did not apply or because they chose not to provide an answer). Therefore, averages and percentages were calculated on the actual set of available answers for each question.

#### 3.1. General user profile

The first two parts of the survey were conceived to investigate, on one hand, the average housing solution of the target users and, on the other hand, their biographical data and family type. This kind of information helps to know whether it is possible to "share" STAGE contents by streaming them inside common spaces (i.e. a common TV room), whether users are likely to see contents alone or in company and which types of contents are best suited according to their education level and their age.

##### 3.1.1. Housing information

The end users who took part to the survey come from three different Countries – Italy, Cyprus and Hungary. While all Italian and Cypriot users claimed they live in the state capital – respectively Rome and Nicosia – Hungarian users live in different cities (Tab. 1).

Hometowns	N° of users
Rome	26
Nicosia	25
Galambok	1
Gérce	1
Nagykanizsa	1
Sárvár	5
Sitke	1
Szombathely	9
Vasvár	1
Zalaegerszeg	1

*Table 1. Users' hometowns*

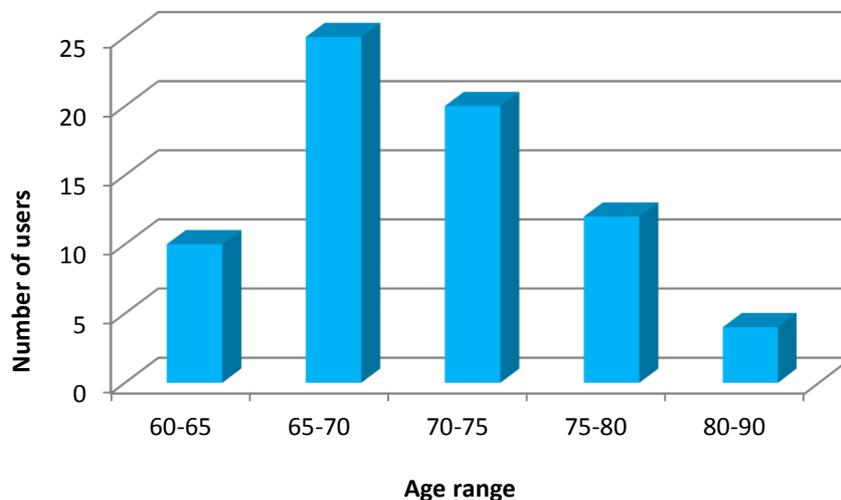
35.20 % of total users declared their housing solution includes common social spaces and/or services. The word “services” covers five options: laundry, gym, hobby room, TV room, others (Tab. 2).

Common service	N° of users
Laundry	11
Gym	9
Hobby room	7
TV room	11
Others	8

*Table 2. Claimed common services*

### 3.1.2. Personal information – health status and education level

Users were also asked about their biographical data such as age and sex. They are on average 71.37 years old; the majority of them are between 65 and 70 years old, whereas the smallest group ranges from 80 to 90 years old (Fig. 2).

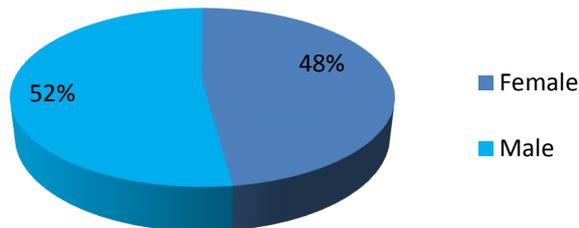


*Figure 2. Users' age distribution*

As regards the gender of the users, they are almost evenly split: 34 users (47.89%) are female and 37 (52.11%) are male (Fig. 3).

By investigating the educational background of the volunteer end users it resulted that they have achieved on average a lower-to-middle education level. The majority of them has attended primary school. Whereas a large percentage of the users has either attended high school or got a trade/ technical/ vocational training, just a small minority achieved a professional or doctorate degree (Tab. 3).

Since living with someone means the possibility to experience the STAGE platform in company, end users have also been asked about the makeup of their family. It came out that the majority of them - 59.42% - live in a two-member family, which basically means with a partner; the remaining 40.58% are distributed in a range that goes from one to six family members (Tab. 4).



*Figure 3. Users' gender distribution*

Education level	Percentage
Primary school	30%
High school (intermediate)	25.71%
High school	14.29%
Trade/ technical/ vocational training	15.71%
Bachelor's or Master's Degree	11.43%
Professional or Doctorate degree	2.86%
Others	0%

*Table 3. Users' education level*

Number of family members	Percentage
One-member family	18.84%
Two-members family	59.42%
Three-members family	13.04%
Four-members family	2.90%
Five-members family	1.45%
Six-members family	4.35%

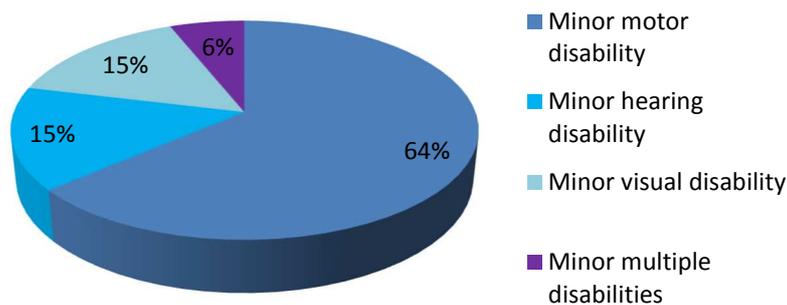
*Table 4. Users' family makeup*

As regards users' health status, about half of them (50.70%) claim to be in good health. The rest declared to be affected either by minor (46.48%) or major (2.82%) disabilities (Tab. 5).

Health status	Percentage
Healthy users	50.70%
Users with minor disabilities	46.48%
<ul style="list-style-type: none"> <li>• Minor motor disability</li> </ul>	63.64%
<ul style="list-style-type: none"> <li>• Minor hearing disability</li> </ul>	15.15%
<ul style="list-style-type: none"> <li>• Minor visual disability</li> </ul>	15.15%
<ul style="list-style-type: none"> <li>• Minor multiple disabilities</li> </ul>	6.06%
Users with major disabilities	2.82%

**Table 5. Users' health status**

As it can be seen in table 5, users who claimed to suffer from minor disabilities were subsequently divided into four different categories: motor, hearing, visual and multiple disability (Fig. 4).



**Figure 4. Users' minor disability distribution by type**

Data show indeed that the average STAGE end user is mostly in good health and, in the event they are limited from some kind of physical issue, they are usually dealing with minor ones. However, the high percentage of motor problems among users affected by minor disabilities could be a reason for a potential lack of incentives to go out.

### 3.2. Social participation and leisure activities

The analysis concerning social relationships and leisure activities forms the largest part of the survey, since it aims at identifying crucial aspects for the development of the STAGE platform and for the evaluation of results after the experimentation.

Five subgroups were considered for the analysis, as described in the following.

#### 3.2.1. Social relationships

The aim of this section is to identify the approximate number of people who make up the social group (family and friends) of the user, and the proximity of this group to the user's residence. These results showed that in most cases the number of social contacts varies in a range between 0 and

25 people, mainly made up of persons who live at a distance of less than 1 km from the user, as highlighted in the chart below (Fig. 5).

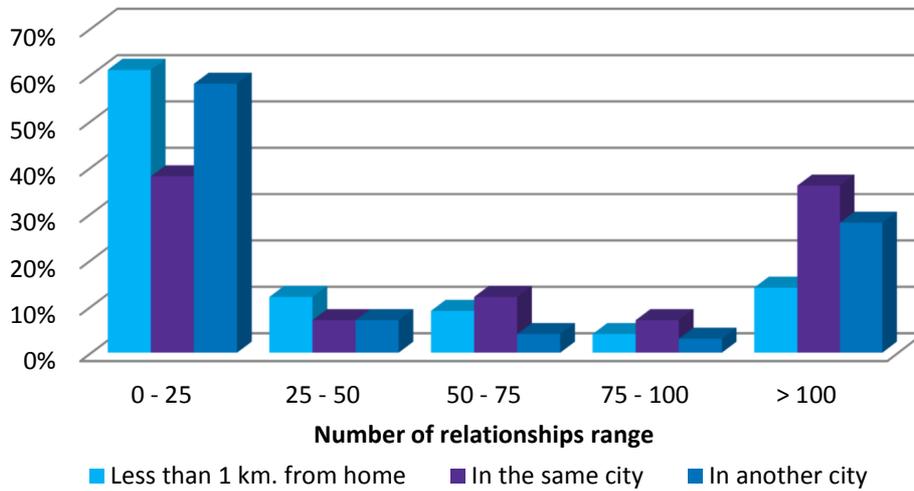


Figure 5. Users' social relations proximity

The next step concerned the frequency of meetings between users and their relatives or friends and where they take place. The result of this analysis, presented in the charts below (Figures 6 and 7), shows that for ranges from 5 or more times a week to at least twice a month, the meetings take place mainly at home, while when the frequency is less than twice a month, meetings take place mainly outside the home environment.

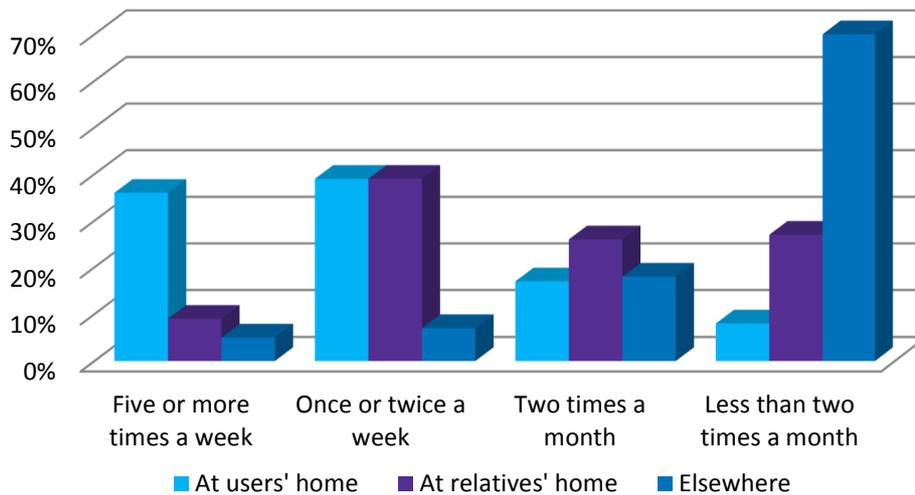
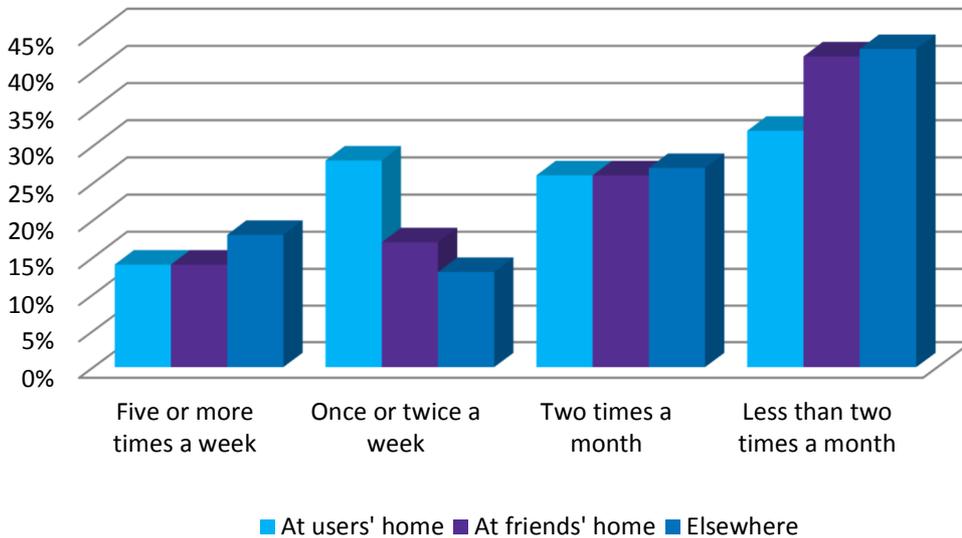


Figure 6. Frequency percentage of meetings with relatives by location

By comparing the two charts, it appears that where the frequency is 5 or more times a week and once or twice a week, meetings with family members are more frequent than those with friends, while for the group ranging from 2 times a month to less the situation is reversed.

Answers to a question concerning the level of satisfaction with actual social relationship life, confirm what emerged so far: 84% of respondents said they are satisfied of their level of social life, while 13% said they were partially satisfied and only 3% are dissatisfied.

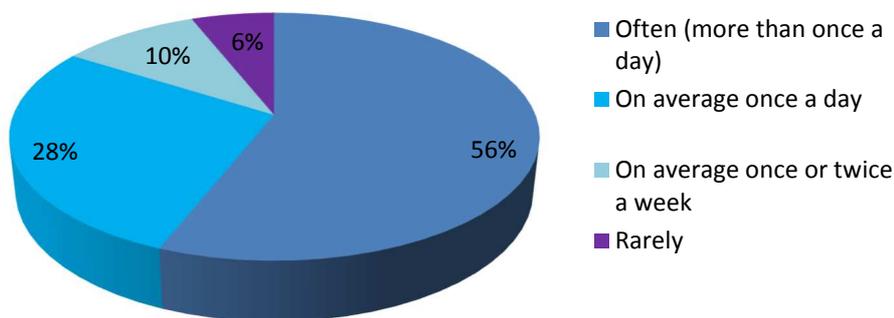


*Figure 7. Frequency percentage of meetings with friends by location*

This means that the user sample is on average socially active and is satisfied with the level of interaction and contact with the group of people forming their network of relationships.

### 3.2.2. Mobility

This section had the purpose of assessing the sample's level of active participation in social life. The first question concerned the going out frequency. It appears clearly that users have a very active life: most of them go out more than once a day (56%) and many go out on average once a day (28%), as shown in Fig. 8.



*Figure 8. Going out frequency of users*

### 3.2.3. Service access

Proximity is one of the aspects that have a very important effect on the use of services, so the next step in the survey was to identify the distance of services from the user's house.

These services were grouped into three categories, deemed relevant:

1. mobility services (bus stops or subway stations);
2. services useful for socialization and for daily activities (mall, gardens, community services, social centre for older adults etc.);
3. services related to cultural activities.

For each service, if available, users were asked to specify its distance, choosing between less or more than 500 m from home. The data showed that mobility with public transportation is quite well provided, in fact 94% of users have at least one bus stop or subway station within 500 m from home. For socialising-related services the results are good as well: 89% of users can find such services within 500 m from their house.

However, as regards facilities providing cultural events, 27% of the sample find one at less than 500 m from home, while the remaining 73% have to cover a larger distance to reach them.

This is relevant to the project, since one of the problems that it intends to solve are the difficulties for older people related to mobility when trying to access cultural events.

### 3.2.4. Participation in social and recreational activities

This section aimed at identifying what users do in their spare time and how often. The level of participation to cultural activities, related to the contents that STAGE will offer, was also assessed.

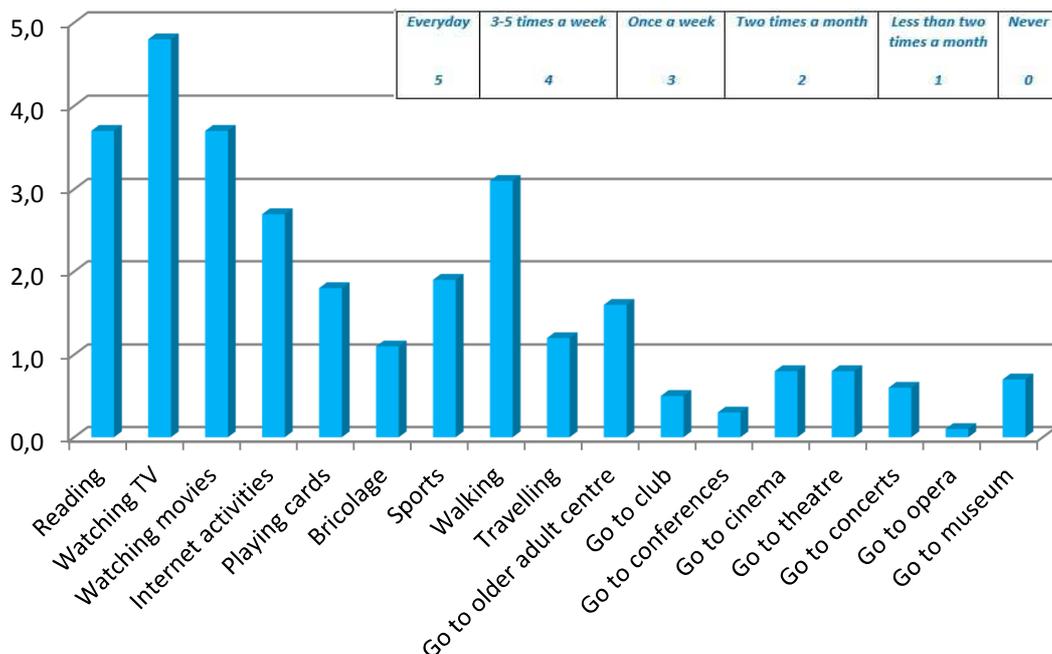


Figure 9. Average frequency of leisure activities users do during their spare time

Fig. 9 indicates the frequency distribution of a selection of activities that users could choose from (other options could be specified as well).

From this chart it appears that participation in cultural activities is consistently less frequent than for the other activities (with the exclusion of going to club).

This level of participation, however, was not severely affected - in the opinion of respondents - by limitations related to aging. In fact, when asked directly, 59% of the sample answered that aging does not limit participation in cultural events, while 29% believe that advancing age involves effective limitations, and 12% do not know.

A subsequent analysis, aimed at identifying the habit and familiarity in using ticket reservation for cultural events, showed that 30% of the sample use such services, mainly for cinema and theatre plays, as reported in Tab. 6.

Usage of tickets reservation services	
Percentage of users using ticket reservation services	30%
• n° of users using cinema reservation	13
• n° of users using theatre reservation	17
• n° of users using concerts reservation	10
• n° of users using opera reservation	7
• n° of users using museums reservation	8

*Table 6. Usage of tickets reservation services*

The subsequent analysis was meant to identify the interest and the participation in each of the cultural activities that will be provided by the STAGE platform as streamed video events.

Data showed that, despite the low attendance, users are very interested in such events, especially for theatre plays and concerts (Fig. 10). However, although interested, 35% of users **stated they** could not attend events due to financial reasons (e.g. **tickets are too expensive**), 29% to mobility problems (e.g. **help needed when going out**), and 18% to personal and/ or health problems (e.g. **arthritis**). The remaining 18% cannot participate for other reasons. **In addition, as mentioned in section 4.2.3, from the survey it resulted that proximity (which, thanks to STAGE, will be reconsidered by bringing cultural shows taking place in foreign countries directly at users' home) has a very important effect on the use of the services, including those related to cultural activities (73% of the user sample stated they have to cover more than 500m distance to reach a facility providing cultural events.**

**It stands to reason that all these elements lie behind the low rates of participation in cultural activities as compared to other social and recreational activities such as watching TV, walking or going to older adult centres (See Fig. 9).**

This shows the usefulness of the STAGE platform in providing an alternative means for older adults to keep their cultural interest alive, while overcoming obstacles and limitations. **In fact, the platform will provide the following reliefs:**

- as for financial reasons, STAGE virtual tickets will be sold at a lower price than the on-site-attendance ticket;
- as for mobility and personal/ health problems, users will have the possibility to watch events from home in company, thus reducing social isolation as well (59.42% of the users live in a two-members family - see Table4 – and usually meet their relatives or friends at home, especially if the meetings frequency ranges from 5+ times a week to >2/months – see Fig. 6);
- cultural interest will be kept alive thanks to a new and engaging way to attend events.

Furthermore, this analysis provides indications on the type of content that should be offered for the platform pilot. In fact, it emerged that both active participation (7%) and interest (59%) are greater for theatre performances, while opera performances show the lowest interest level (50% of the sample are not interested at all).

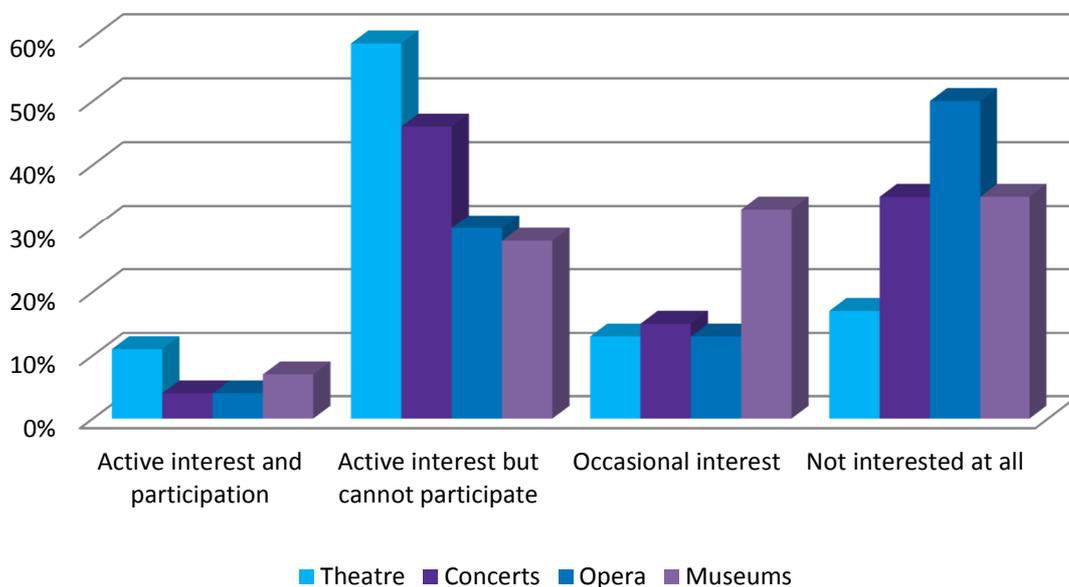


Figure 10. Level of interest and participation in cultural activities

### 3.3. Preferences and computer literacy

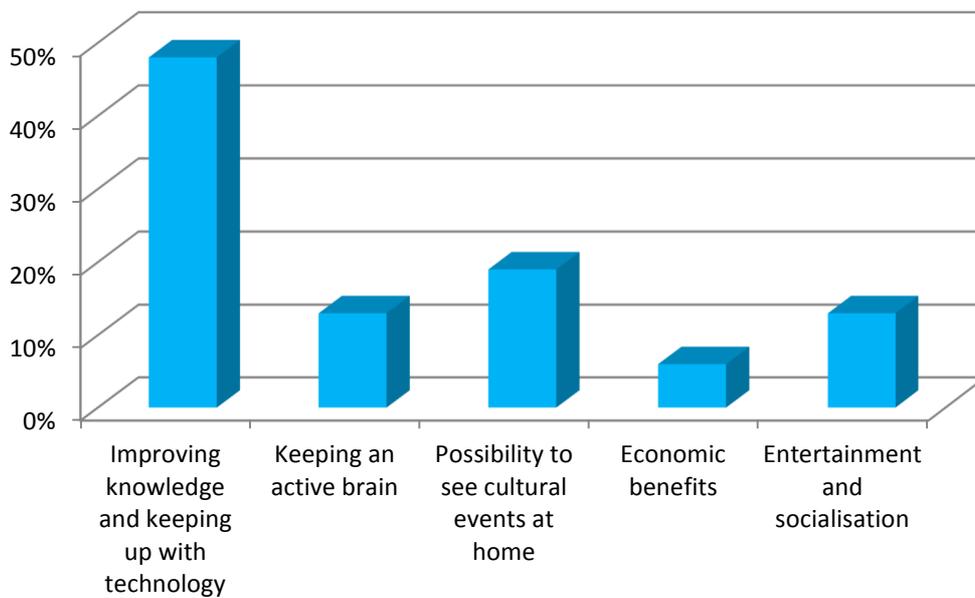
This section of the questionnaire explored the preferences of users regarding the contents potentially offered by the STAGE platform, and the level of computer literacy of the sample.

#### 3.3.1. STAGE specific preferences

The fourth part of the survey was dedicated to gathering preferences for the STAGE platform through general questions about users' potential interest in an online environment made to collect - and thus stream - cultural contents. 85% of the users who took part to the survey claimed to be potentially interested in such an application (Tab. 7) and they also explained the reasons for this (Fig. 11).

Are you potentially interested to use application addressed to older adults which allow you to watch several types of cultural events?	
Yes	85%
No	15%

*Table 7. Potential users' interest in using a dedicated application to watch cultural events*



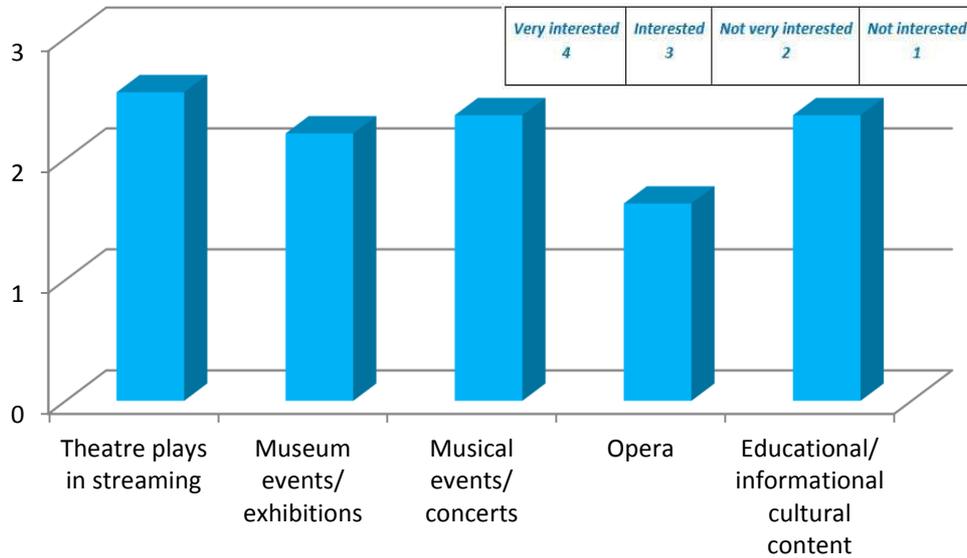
*Figure 11. Reasons why users are potentially interested in using a dedicated application to watch cultural events*

49.12% of users perceive indeed that engaging in an online community of cultural activities can affect positively the status of their social relationship (Tab. 8).

Engaging in an online community of cultural activities would improve the quality of your social relations?	
Yes	49.12%
No	12.28%
Maybe	17.54%
I don't know	21.05%

*Table 8. Users' perception on the effects of engaging in an online community of cultural activities on the quality of their social lives*

Users have also expressed their opinion on which types of cultural contents they are interested in and on how they would like to access them. The genre they are more interested in are theatre plays, followed by musical events and concerts and educational/ informational cultural contents, museum events/ exhibitions and finally opera shows (Fig. 12).



**Figure 12. Users' average interest level in cultural activities**

In general, volunteer interviewees claimed to be interested in learning resources for culture as well (Tab. 9), and that they would like to access educational information about cultural events provided by the platform (Tab. 10).

Are you interested in learning resources for culture?	
Yes	59.42%
No	13.04%
Maybe	21.74%
I don't know	5.80%

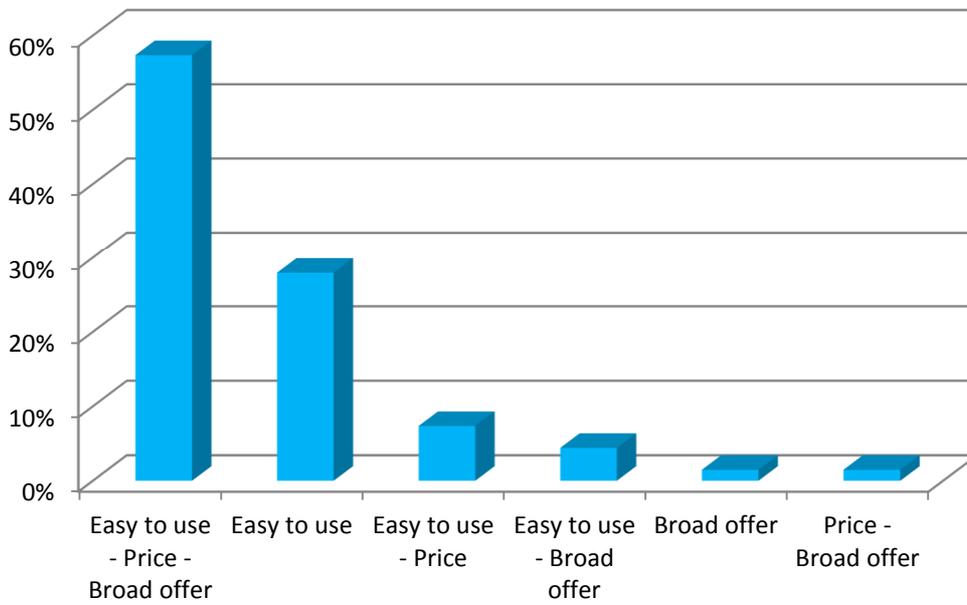
**Table 9. Users' interest in learning resources for culture**

Would you like to access educational information about cultural events provided by the STAGE platform?	
Yes	63.49%
No	6.35%
Maybe	22.22%
I don't know	7.94%

**Table 10. Users' interest in accessing educational information about cultural events provided**



During the survey users have also been asked to point out which are the most important aspects that could influence their interest in the STAGE service among three options – “easy to use”, “price” and “broad offer”. In general, they all resulted to be highly relevant: 57% of users pointed out all three as “very important” or “important” (Fig. 13).



**Figure 13. Sets of effective factors influencing users' interest in STAGE**

In this fourth section of the survey users had to explain in which company they would prefer to attend cultural activities offered by STAGE: whereas for 50% of them “it makes no difference”, the other half chose either friends or relatives, or even the option “better alone” (Tab. 11).

Would you like to attend cultural activities in company?	
With friends	15.74%
With relatives	15.43%
With relatives and friends	6.17%
It makes no difference	50.00%
No, better alone	12.65%

**Table 11. Company preferences when attending STAGE cultural events**

### 3.3.2. Computer literacy and IT skills

The last part of the survey is concerned with assessing the level of computer literacy of the user sample, as well as their preferences regarding technological devices.

The first question of this section is related to the general acquaintance of users with social networks and Web applications (“Do you use social networks and/or other Web applications?”).

Positive and negative answers were equally distributed, since 39.13% answered “yes”, and 39.13% answered “no”. The remaining 21.74% stated they are not familiar with these applications (meaning they do not know what they are or are unsure about it).

Those who replied “yes” were asked then to indicate the frequency level with which they use each of the applications out of a provided list of common ones (other not listed applications could be specified as well).

This list was compiled following a research on the Internet about the most popular and used social networks and Web applications in Europe.

Fig. 14 illustrates the results (the meaning of the numeric frequency scale is also shown in the figure).

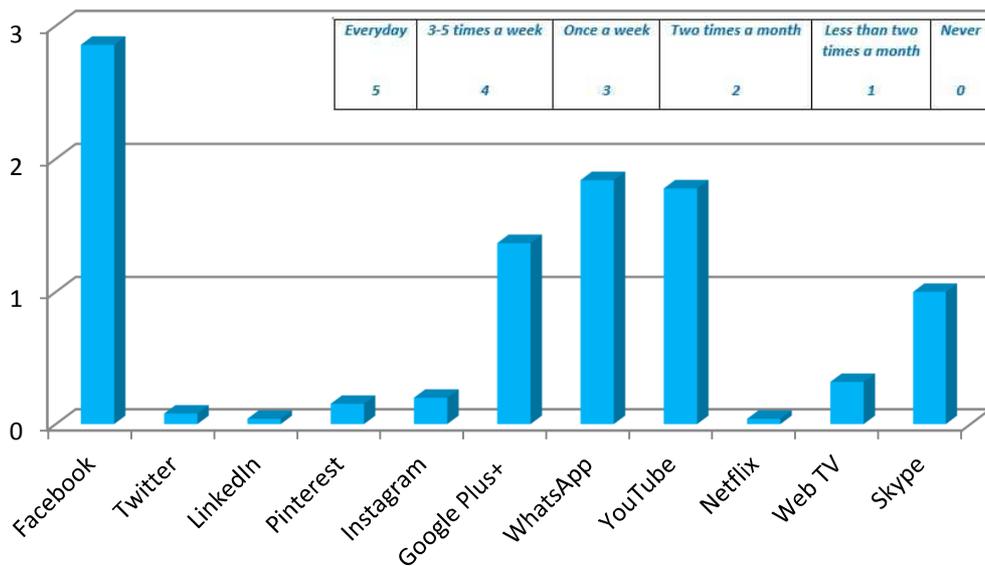


Figure 14. Average frequency of social networks and Web applications usage

As it can be seen, the most frequently used application is by far *Facebook* (on average once a week), followed by *WhatsApp* and *YouTube*.

This is relevant in the scope of the project due to two main reasons: 1) the dedicated social network that is to be embedded in the STAGE platform could be shaped to be similar to or reminiscent of these applications, so that users will feel more confident using it; 2) it shows that a fair percentage of the sample is already acquainted with Web-based tools, which can help in the early stages of the experimentation.

Participants were then asked to indicate the device or devices they most frequently use for online activities. The results are shown in table 12, with the desktop computer being the most used device, followed by the smartphone.

Devices used for online activities	
Computer	51.52%
Laptop	9.09%
Tablet	12.12%
Smartphone	27.27%

*Table 12. Devices users employ for online activities*

The platform will be able to run on all the devices listed above, but this is relevant for the selection of ICT tools to be used during the experimentation. The availability of an Internet connection to prospective users was also explored: 77.19% of the sample have an Internet connection, while the remaining 22.81% do not. They were then asked if they were able to use an Internet connection autonomously. It emerged that 40.85% are able to do so, while 30.98% are only partially able and 28.17% are unable. The following question had the purpose of establishing how many participants actually use the Internet. It was found that 53.52% of them use it regularly, while 39.44% do not use it at all and 7.04% use it only rarely. Those who said they use the Internet, were asked to specify how frequently they use it on a scale from “two times a month” to “at least once a day”. Table 13 shows the results.

Frequency	Ratio
At least once a day	52.39%
Once a week	11.90%
3-5 times a week	33.33%
Two times a month	2.38%

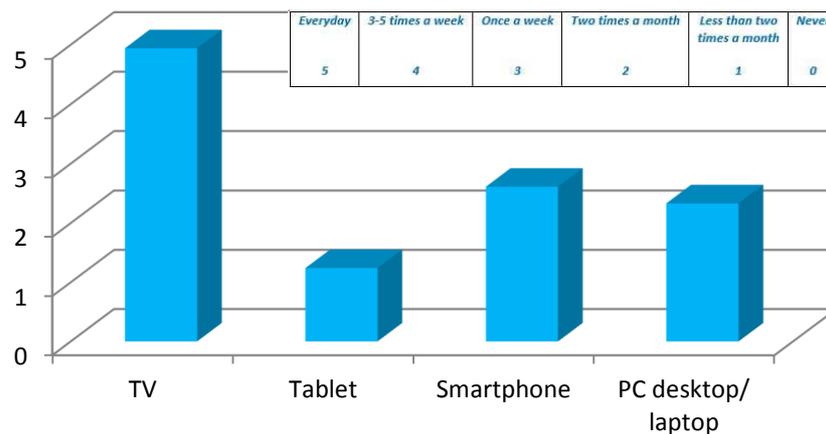
*Table 13. Users' frequency of online activity*

The confidence level of users with the most common devices was also explored. The results are reported in Table 14. It is apparent that they are largely more confident with **television** than with any other device.

Device	Very confident	Confident	Not very confident	Not confident
Television	85.71%	14.29%	0.00%	0.00%
Tablet	5.71%	15.71%	25.71%	52.87%
Smartphone	14.29%	14.29%	30.00%	41.42%
PC desktop/ laptop	15.71%	25.71%	17.14%	41.44%

*Table 14. Users' confidence level with most common technological devices*

Finally, the usage frequency of these technological devices was explored. The chart in figure 15 shows the results of the assessment, where average frequencies were calculated according to the already mentioned association of numeric values to time scales. **The most frequently used device is traditional TV, used on average every day**, followed by smartphones and desktop/laptop computers. It should be noted that users who own Smart TVs only use them with traditional functionalities, i.e. they do not use the 'smart' features (apps, browsing the internet etc.) because they do not know how. This is in accordance with the results for the confidence level described above.



*Figure 15. Average usage frequency of most common technological devices*

## 4. Conclusions

The general picture that can be drawn from the survey is encouraging in terms of the potential interest and benefits that prospective users could get from their involvement in the project.

It is in fact evident that STAGE's objectives respond well to the need of the user sample for an easier and facilitated access to cultural events. In fact, 85% of respondents answered "yes" to the question: "Are you potentially interested in using an application - addressed to older adults - allowing you to watch several types of cultural events?"

They felt that such an application would improve their knowledge level and help them keep up with the evolution of technology.

The average user profile, emerging from the data analysis, shows the following main user features:

- ✓ around 70 years old;
- ✓ in good general health, although with some minor disabilities, mostly related to motion;
- ✓ with a primary to intermediate education level, and living in couple;
- ✓ with a satisfactory social life, involving contact with relationships almost on a daily basis;
- ✓ generally interested in cultural events – theatre shows in particular - but finding impediments to active participation;
- ✓ basic knowledge of Web applications and technological devices.



While most users are generally interested in cultural events, they rarely attend them due mainly to the following reasons (ratios calculated out of the number of users who stated they were interested but could not attend):

- not being able to afford them (35%);
- mobility problems (29%);
- health and/or other personal problems (18%);
- other impediments (18%).

This suggests that users would benefit from the STAGE service, since it would help them overcome these difficulties and enable them to enjoy streamed cultural events from home at a reduced fee.

As regards the perceived potential benefits of engaging in an online community of cultural activities, 49% of the users consider it as positive for improving social relations. Moreover, almost 60% of them is interested in accessing learning resources for culture (provided via an eLearning-like feature of the STAGE platform).

The survey also provided information about the preferences of the volunteer participants regarding technological devices (in terms of confidence), and their familiarity with the most popular Web applications.

It emerged that **television** is by far the most used and familiar technological device, followed by desktop computers and smartphones.

As a consequence, carrying out the project experimentation with Smart TVs is not a viable option, since not all the users participating to the trials do own a Smart TV, but rather a traditional one. It should also be noted that users are not familiar with the 'smart' features of the Smart TV and those who do own it only use its traditional functionalities. Moreover, using other devices (mainly portable) could help participants reducing digital divide in this area, considering that users could operate the platform through a tablet, for example, and then use a Smart TV to watch videos on a larger screen, by means of a dongle like Chromecast. However, desktop computers and smartphones are the most commonly used devices for browsing the Internet and other online activities, which could be relevant for the pilot trial as well.

To this regard, it was found that more than half of respondents (54%) use the Internet regularly, the majority of them (52%) using it at least once a day.

Concerning Web applications, prospective users are very familiar with *Facebook*, followed by *WhatsApp* and *YouTube*. This can help in developing the ICT platform, specifically in terms of designing the social network and video player components. In fact, they could be shaped to recall these well-known apps, while adding specific accessibility features and generally improving the usability factor for older adults.

The survey also provided preliminary data for the market analysis and business development phase of the project. In fact, it was found that users value easiness of use, variety of cultural offer and affordability as the most important factors influencing their adoption of the STAGE platform as a commercial product.

In conclusion, it can be stated that the outcomes of this preliminary survey are promising and provide encouraging perspectives for the implementation of the pilot trial starting from M12.



## 5. References

World Health Organization, "Definition of an older or elderly person"  
<http://www.who.int/healthinfo/survey/ageingdefnolder/en/> [Accessed on 23-08-2016]