

D.1.2 User Requirements and Game Proposals (Use Case Scenarios)



Gamified Collaborative Platform for the Promotion of Sustainable Care and Independent Assisted Living

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Abstract	This deliverable will detail the outcome of the user consultation process and will include a comprehensive description of the game proposal and related story board agreed with the secondary and tertiary users and used as a base for the design of the Gamification process in WP2 and field trials in WP3.
Version	Final



EXECUTIVE SUMMARY

The purpose of this deliverable is report on the outcomes of the user consultation process, the tools for which were defined in deliverable D1.1. This process initially involved engagements with primary, secondary and tertiary users in the user centres in Spain and in Romania. The consultations were due to take place in The Netherlands as well but due to issues with the Dutch partners (now resolved) this first phase of engagements – which was designed to feed into the initial plans for development – was not undertaken in The Netherlands.

The second part of this deliverable reflects the first of three planned user consultation events to be held at Month 12, 18 and 23. The consultation at Month 12 was undertaken in all three participating countries and focused on gathering feedback on the 'mission' ideas that we will implement in the pilot phase. Each of those consultation efforts produced a report which is included here. We have also included amalgamated results from those engagements that will feed into further iterations of the MyMate technology as it is developed.

This deliverable will be further updated as the results of the user consultation activities at Month 18 and Month 23 are completed. Those results, as well as being reported here, will form the basis of further updates and recommendations for the development phase of the project (which is currently ongoing).

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1 SUMMARY RESULTS OF THE USER CONSULTATION PROCESS

1.1 Main points regarding primary end users

The results of the focus groups and questionnaires from the primary end users were fairly consistent over all the areas covered and showed a largely positive response to the concept. More specifically, in terms of understanding the concept, the user centres in both Spain and Romania generally understood the purpose, although some initial clarification was required that MyMate is not a healthcare solution. There was initially some negative reaction from the Spanish focus group but once further explanation was provided the primary users expressed their appreciation of the potential positive impact. The Romanian focus group and questionnaire responses highlighted a level of caution around volunteers entering the home and were keen to ensure safeguards were in place.

In summary, the response to the MyMate concept was positive and primary users understood the social and psychological benefits for their long-term wellbeing.

In terms of the proposed tasks that MyMate will offer, across both user centres the results were very positive in relation to engaging in social activities such as having a conversation. Primary users were less keen on watching TV, using the internet, household tasks, cooking, playing sport and going for a drive. Romanian users again highlighted the level of trust required for certain tasks and would not be comfortable with sharing financial activities with a volunteer. Although the users understood that MyMate would not be a healthcare solution, they were comfortable with concept of volunteers accompanying them to medical appointments.

The results in relation to the profile of the volunteers were generally consistent, showing a preference for the same gender and language. Spanish primary users showed an interest in meeting people from other cultures. Discussions in the focus groups again highlighted the level of trust required and suggestions around processes to get to know volunteers were made, including group activities organised by the user centres, and interviews with potential partners.

1.2 Main points regarding secondary end users

The results from the focus groups and questionnaires carried out with the secondary users were consistently positive regarding the overall concept of MyMate. The volunteers clearly understood the concept and the potential benefits of reducing isolation and feelings of loneliness in older people. In Romania, the users pointed out that nothing similar currently exists and that MyMate would therefore be very welcome.

In general, volunteers were happy with all the proposed activities. The Spanish users were very positive regarding any tasks that encourage physical activity and engagement in cultural events and felt these would be beneficial to the primary users. The Romanian volunteers were slightly more cautious and in particular highlighted the legal position in relation to medical assistance, and that MyMate volunteers would not be qualified to administer medication or carry out other medical activities. It was also noted the risks

involved in some physical activity with the elderly and the necessary precautions would need to be in place.

The discussion around rewards was generally positive. Most volunteers agreed that some sort of gift or other incentive would be appreciated as a bonus. Although consistently the responses showed that this was not their primary motivation for volunteering.

Secondary users offered varying levels of time commitment but the largest group were those suggesting that they would be happy to give 2-4 hours per week. The Romanian volunteers highlighted time commitment as a potential challenge and it was evident from the results that they did not want to feel overwhelmed or overburdened by their commitment to MyMate activities.

The results showed that in terms of partnering volunteers with primary users, the most important criteria would be matching gender. It was also highlighted that caution should apply when considering primary users with more acute physical needs.

With regard to the technology for MyMate, although the majority of respondents do not use apps, only a very small number do not have mobile phones at all. The focus groups highlighted the requirement for adequate training on the MyMate app and although some users saw this as a challenge, it was not overwhelmingly perceived as a barrier to performing the role. There was a consensus that all devices would need to be provided to the volunteers for use of the MyMate solution.

1.3 Main points regarding tertiary end users

The tertiary users focus groups provided further insight into the practical arrangements for implementing the MyMate solution and highlighted numerous areas for consideration. Nevertheless the overall response to the concept was clearly understood and generally very positive.

It was evident from the responses that the tertiary users felt that the volunteer role would need to be clearly defined, specifically that MyMate would not be providing a healthcare solution but a complimentary activity based concept. There was also some sentiment that the technology would provide challenges to users. Another key point raised particularly by the Romanian user centres related to the relationship of trust required, which corresponded with the cautious approach shown in the primary and secondary user survey results.

The profile of the primary user was generally proposed on quite a broad basis, although both Spanish and Romanian user centres commented that those with severe physical needs, neurological conditions or acute medical problems should be excluded. It was also generally agreed that primary users could engage with more than one volunteer.

The respondents agreed that all the suggested aspects of monitoring the MyMate experience should be monitored; including the health and wellbeing of the primary user, the time spent completing the task and additional activities, perception of the relationship between the users and the level of satisfaction of the primary user. And although the

interface would be used to obtain this data and feedback from the primary users, the results showed that some face to face contact between tertiary and primary users would be preferential.

In terms of secondary user profiles, the response from the primary users was consistent with the other groups that matching gender would be preferred. The expectations of a time commitment of 2-4 hours per week were also consistent with the other user group results.

The Romanian user group highlighted the formal framework for volunteers entering the home of the elderly user. The law in Romania provides that volunteers hold certain training and qualifications and that they enter into a contract with the care provider. There are also certain reporting requirements in place that would need to work alongside the MyMate solution. It was clear from all the user groups that adequate training with the new interface will be required and this will need to be taken into account.

The response to the range of proposed activities was generally positive and it was overwhelmingly agreed that these would be effective in improving the social and psychological wellbeing of the primary users. Specifically the benefit was felt to be more positive for social activities, rather than household tasks, sport, going for a drive and help with financial matters. The results also highlighted that the MyMate role should not overlap with that of the healthcare assistant, however accompanying primary users to medical appointments would be a beneficial activity. The Romanian results specifically outlined the legal parameters for volunteer activities which are limited to social and entertainment, and cannot include medical assistance or help with household tasks unless specifically agreed with the users.

The responses showed a very positive response to the rewards based system for volunteers and as well as points earning material rewards or treats, it was suggested that users could earn a certificate to demonstrate their contribution.

One of the main challenges highlighted by the tertiary users was the use of technology. The responses showed that adequate training would be a key consideration due to the lack of familiarity with smartphone technology and apps amongst the volunteers who are likely to be of retirement age.

1.4 Notable differences between participating countries

The responses from the Spanish and Romanian users were generally consistent in all areas with an overall positive reaction to the MyMate concept from primary, secondary and tertiary users.

It was evident that the Romanian user groups were more cautious in their approach and highlighted the requirement for adequate safeguards and processes to be adhered to. The relationship of trust was a key consideration for the primary users allowing volunteers into their home.

2 RECOMMENDATIONS FOR THE PROJECT

2.1 Key Recommendations for the design & implementation of the MyMate solution

Across the engagements held with different types of users from the various participant countries, a number of key messages emerged that we need to take account of during our design and development phase. Many of these relate not specifically to the technology itself but to the way in which the technology will be used and how the concept should be implemented. These recommendations will be taken into account when we are designing the process of evaluating the technology within our user centres.

Main recommendations are as follows:

We need to recognise the need to explain the concept of MyMate clearly as many of those involved in the consultations were not initially clear on the nature of the solution or of their role within it. MyMate is a novel technology and therefore must be introduced to all types of end users with clarity and care.

Following on from this, given the challenges that the use of new technology may present, in particular to secondary users, it will be important that the training provided is comprehensive and thorough. A large proportion of secondary users will not be at all familiar with this type of interface and the time spent in training will be key to ensure the benefits of MyMate are maximised.

We must be mindful of any formal frameworks that are in place in the participant countries to ensure that MyMate is used within current guidelines. This will cover the area of suggested activities, as well as procedures around the selection of candidates.

2.2 Key Recommendations for Secondary User Interface

Our engagement activities have shown that in all likelihood, secondary users will have limited experience of using this type of technology, and it will therefore be important to ensure a simple and straightforward interface.

The ease of use of MyMate will also be key to ensure that secondary users do not feel overburdened. Taking into account our survey results around time commitment and the challenges of managing other commitments, the interface must be relatively quick and easy to complete.

A wide variety of suggested activities can be included in the concept, and these should be focused mainly on entertainment and social engagement. Activities involving household tasks are likely to be less popular.

When proposing activities to the secondary and primary users, we should be mindful of any formal arrangements around provision of healthcare to ensure that MyMate does not cross any boundaries into regulated areas of activity.

2.3 Key Recommendations for Tertiary User Interface

One of the main functions of MyMate will be to provide a monitoring tool for the tertiary user. We should recognise that it is important for a relationship of trust between the secondary and primary users to be established. MyMate and the tertiary users should offer a framework to support this and within which the users can operate securely and comfortably. Careful and regular monitoring by the tertiary users is key.

Taking into account the expectations of tertiary users that were shown in the surveys and focus groups, it is recommended that MyMate is used to monitor the type of activity and time spent by the secondary users.

MyMate will also allow tertiary users to obtain feedback both from and about the primary user. Any involvement of the primary user with the technology should be minimal and should work alongside direct face to face contact between the primary and tertiary user.

3 GAME SCENARIOS, MISSIONS AND GAME MECHANICS

3.1 Introduction

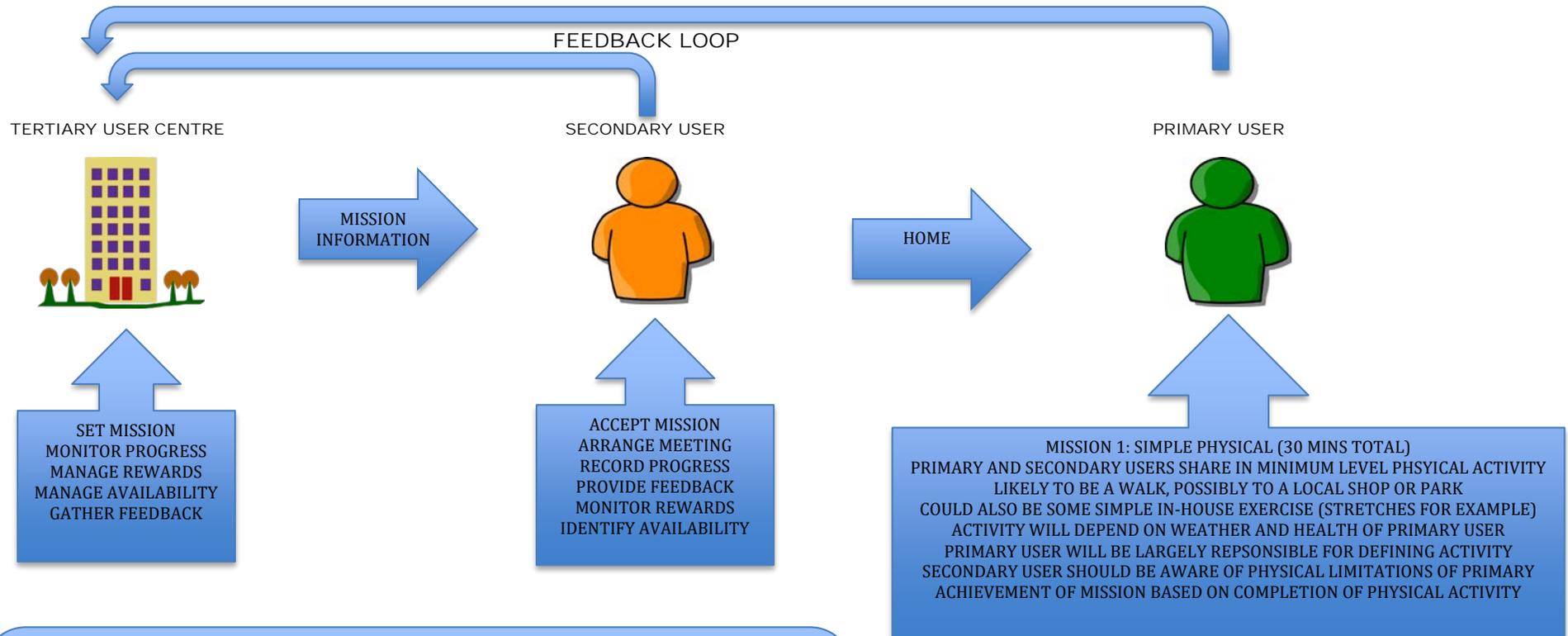
Through our initial engagements – and through the subsequent consultations within the consortium and with our advisory organisations – we were able to generate a set of game scenarios – or ‘missions’ as we choose to call them – that would guide us in terms of our development. In the first instance, these missions should be seen as ‘draft’ – that is we have amalgamated ideas from our consultation efforts and produced a set of 10 missions that we will further explore.

In Section 4.2 below, we set out the detail for each of these missions. Then, in Section 5, we provide the subsequent feedback we received from the user consultation events held at Month 12 with all types of user. The focus for this was on testing the validity of these missions and creating recommendations for alterations.

3.2 The Game Scenarios and Missions

The 10 game scenarios – or missions – are set out below. Included here is the nature of the missions – the specific type of activities that each mission will involve – and the questions that we asked of our three user groups in relation to each mission. The responses to these questions can be seen in Section 5 of this deliverable:

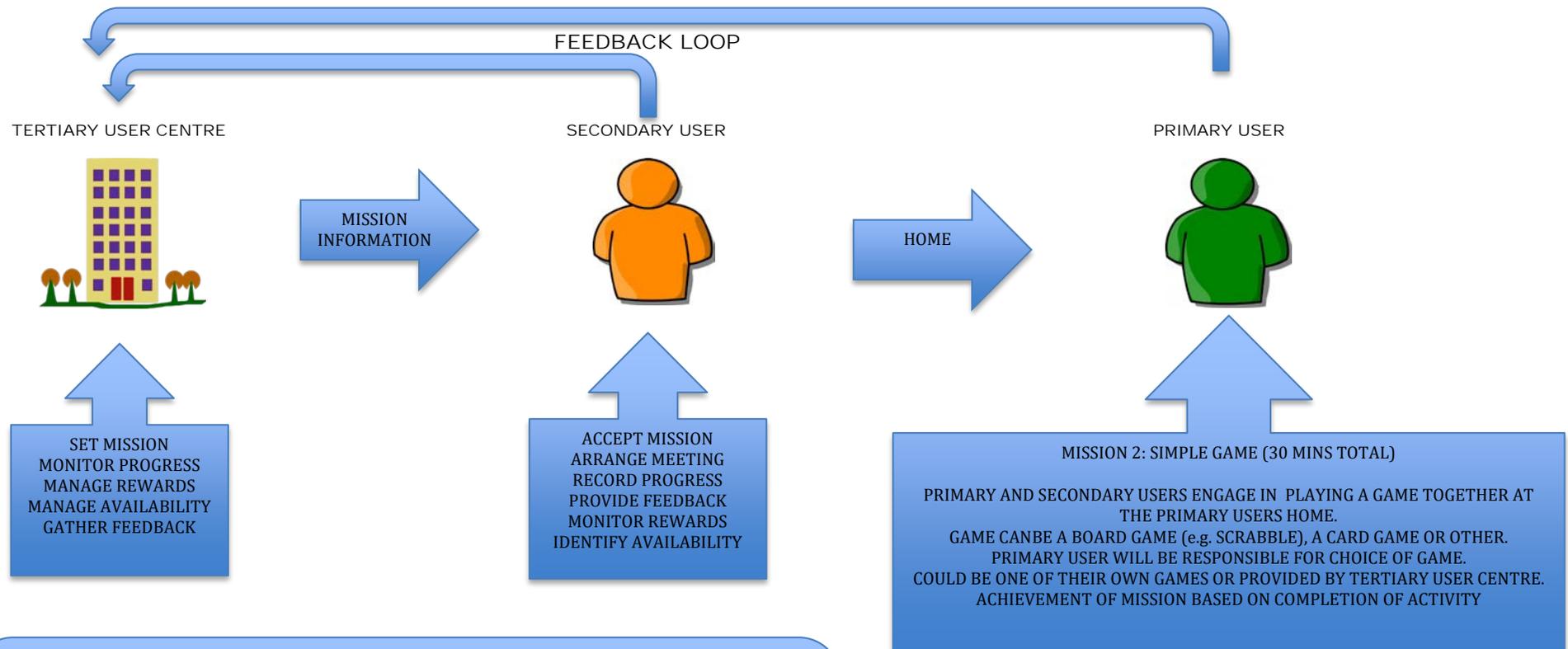
USER SCENARIO 1: SIMPLE PHYSICAL MISSION



SCENARIO 1 QUESTIONS:

- What types of physical activity would be possible/desirable beyond walking?
- How much information do you need to know about the primary user to organise physical missions like this?
- What happens if the primary user is not able to complete the physical mission due to ill health or any other factors? Can there be an alternative mission that is not physical?
- What sort of feedback would be required/useful in regard of physical missions?
- Are there any risks for any parties in completing physical missions?

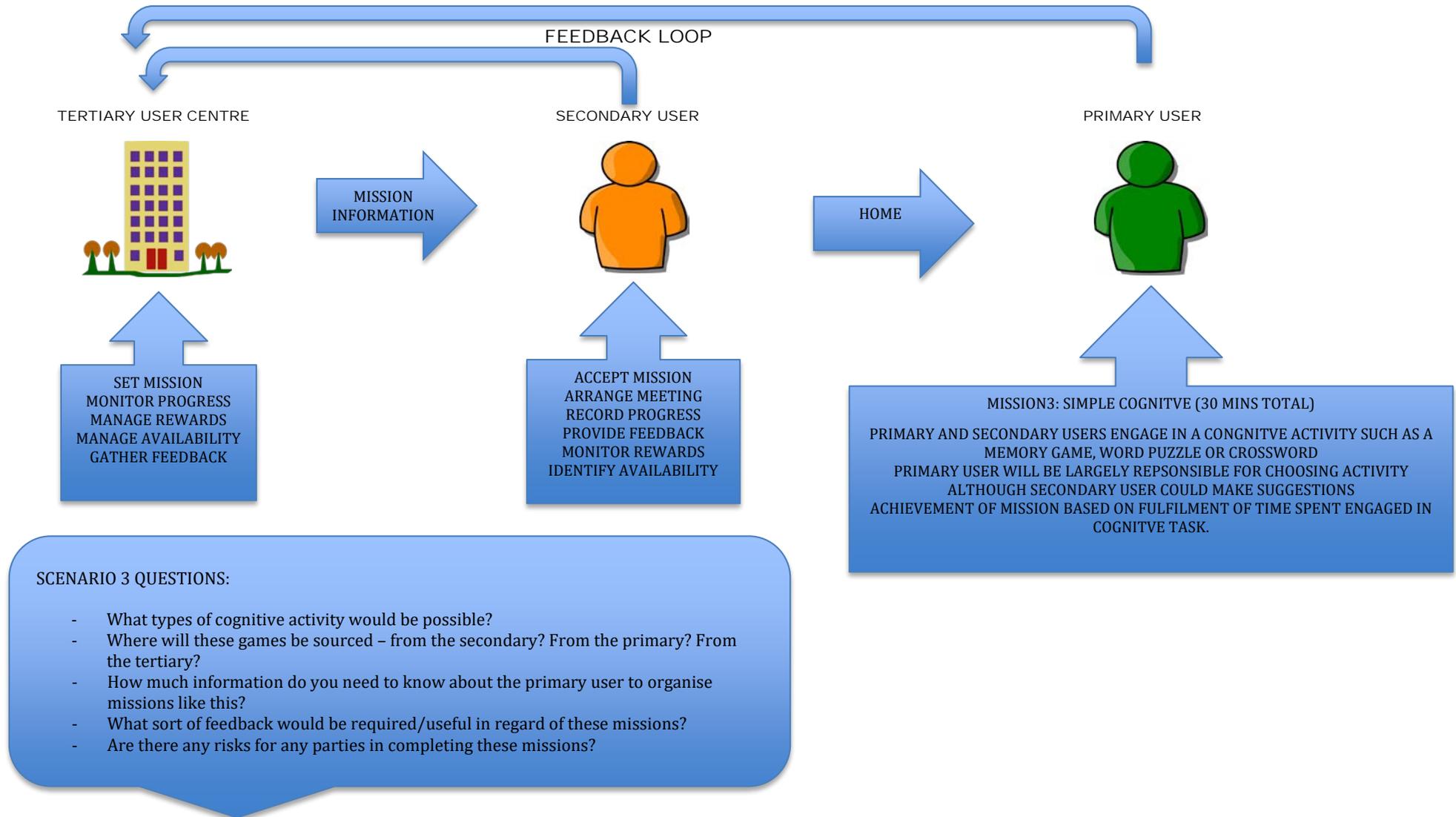
USER SCENARIO 2: SIMPLE GAME MISSION



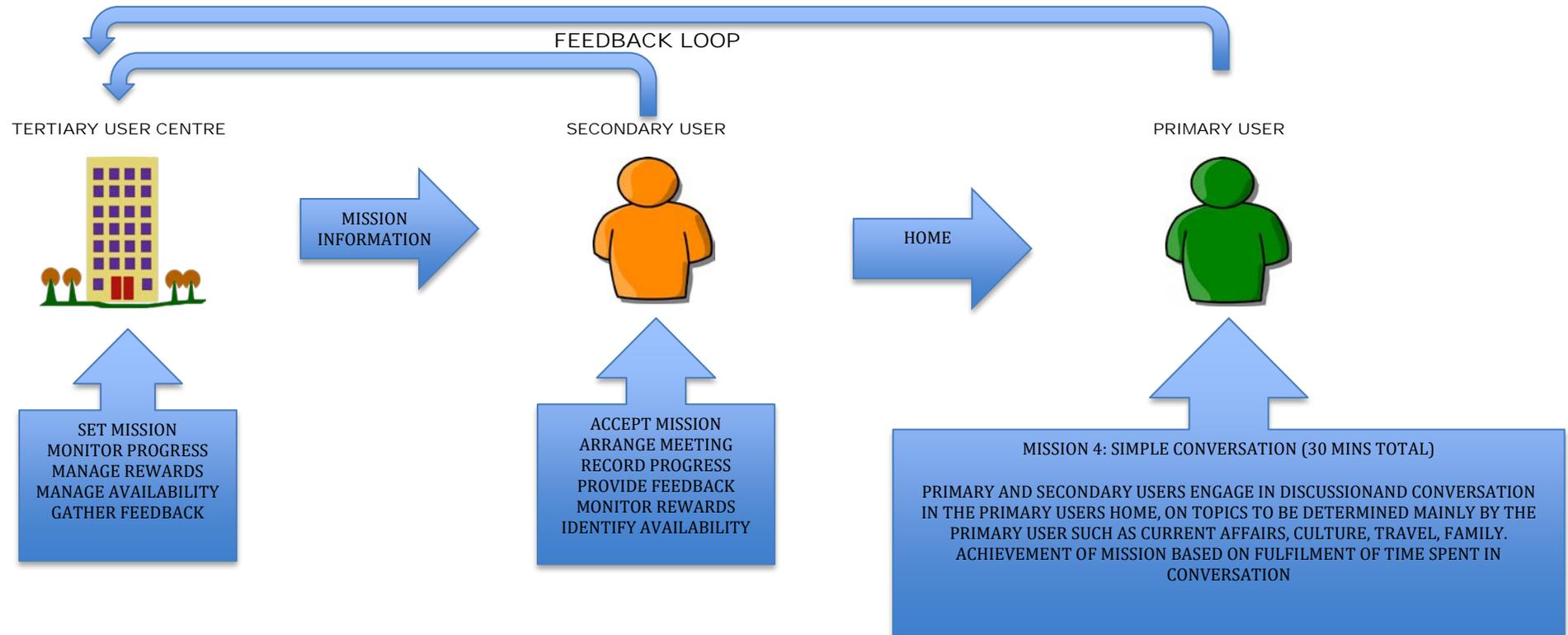
SCENARIO 2 QUESTIONS:

- What types of games are available and do the secondary users have to bring games?
- How much information do you need to know about the primary user to organise missions like this?
- What sort of feedback would be required/useful in regard of these missions?
- Are there any risks for any parties in completing these missions?

USER SCENARIO 3: SIMPLE COGNITIVE MISSION



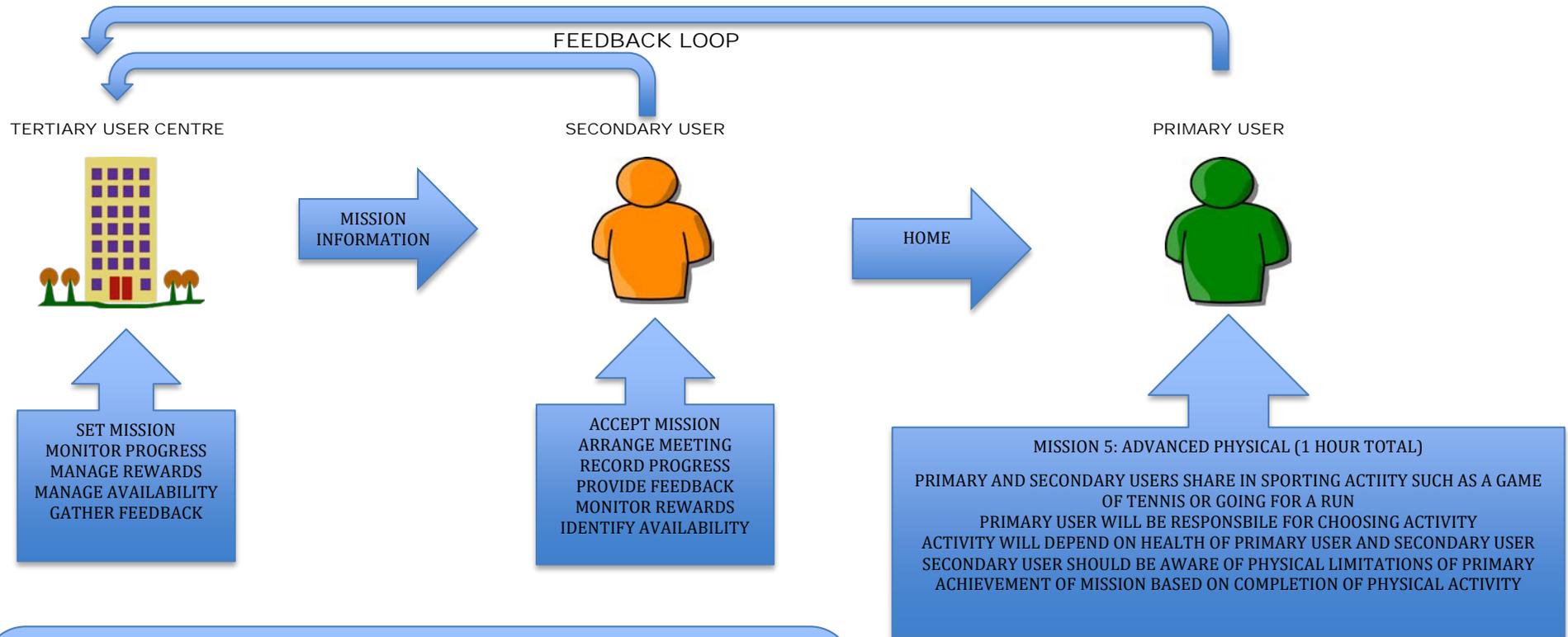
USER SCENARIO 4: SIMPLE CONVERSATION MISSION



SCENARIO 4 QUESTIONS:

- What topics would primary users like to discuss?
- Should the tertiary centre provide guidance on subjects/themes?
- How much information do you need to know about the primary user to organise missions like this?
- What sort of feedback would be required/useful in regard of these missions?
- Are there any risks for any parties in completing these missions?

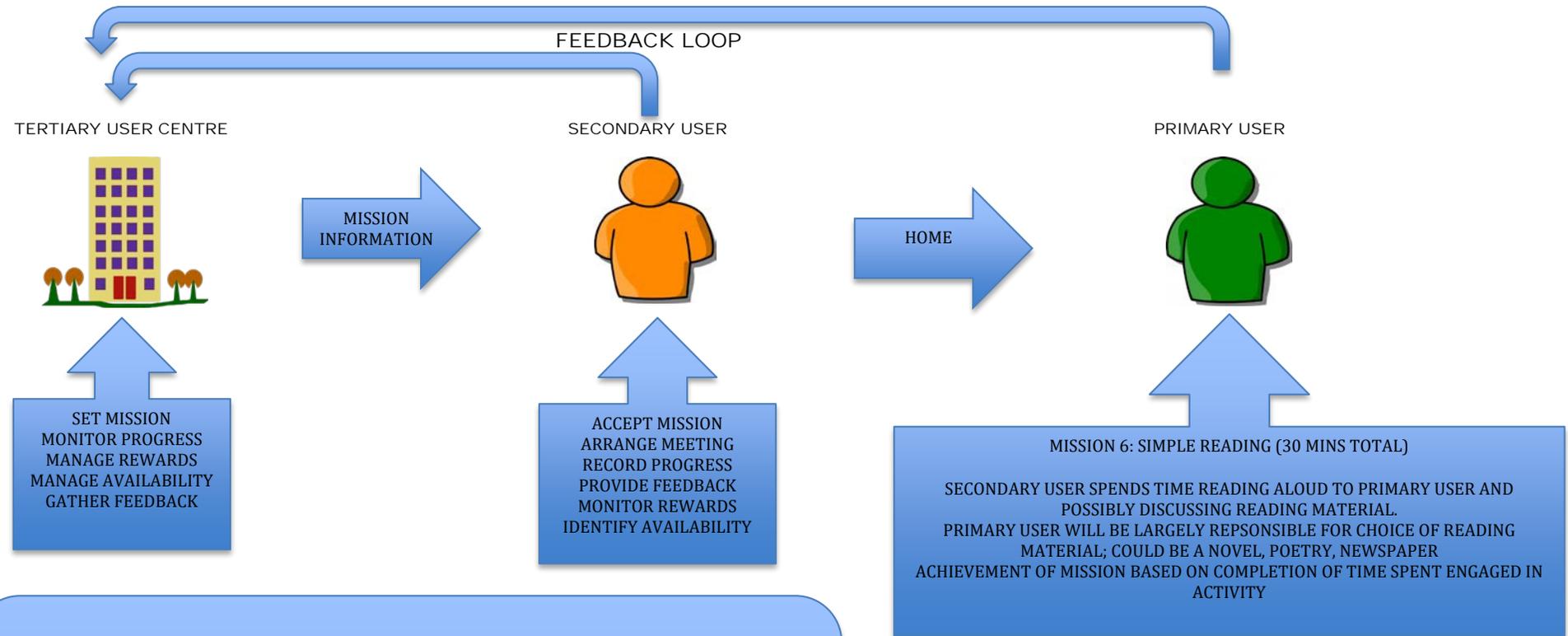
USER SCENARIO 5: ADVANCED PHYSICAL MISSION



SCENARIO 5 QUESTIONS:

- What types of physical activity would be possible/desirable?
- How much information do you need to know about the primary user to organise physical missions like this?
- What happens if the primary user is not able to complete the physical mission due to ill health or any other factors? Can there be an alternative mission that is not physical?
- What sort of feedback would be required/useful in regard of these missions?
- Are there any risks for any parties in completing these missions?

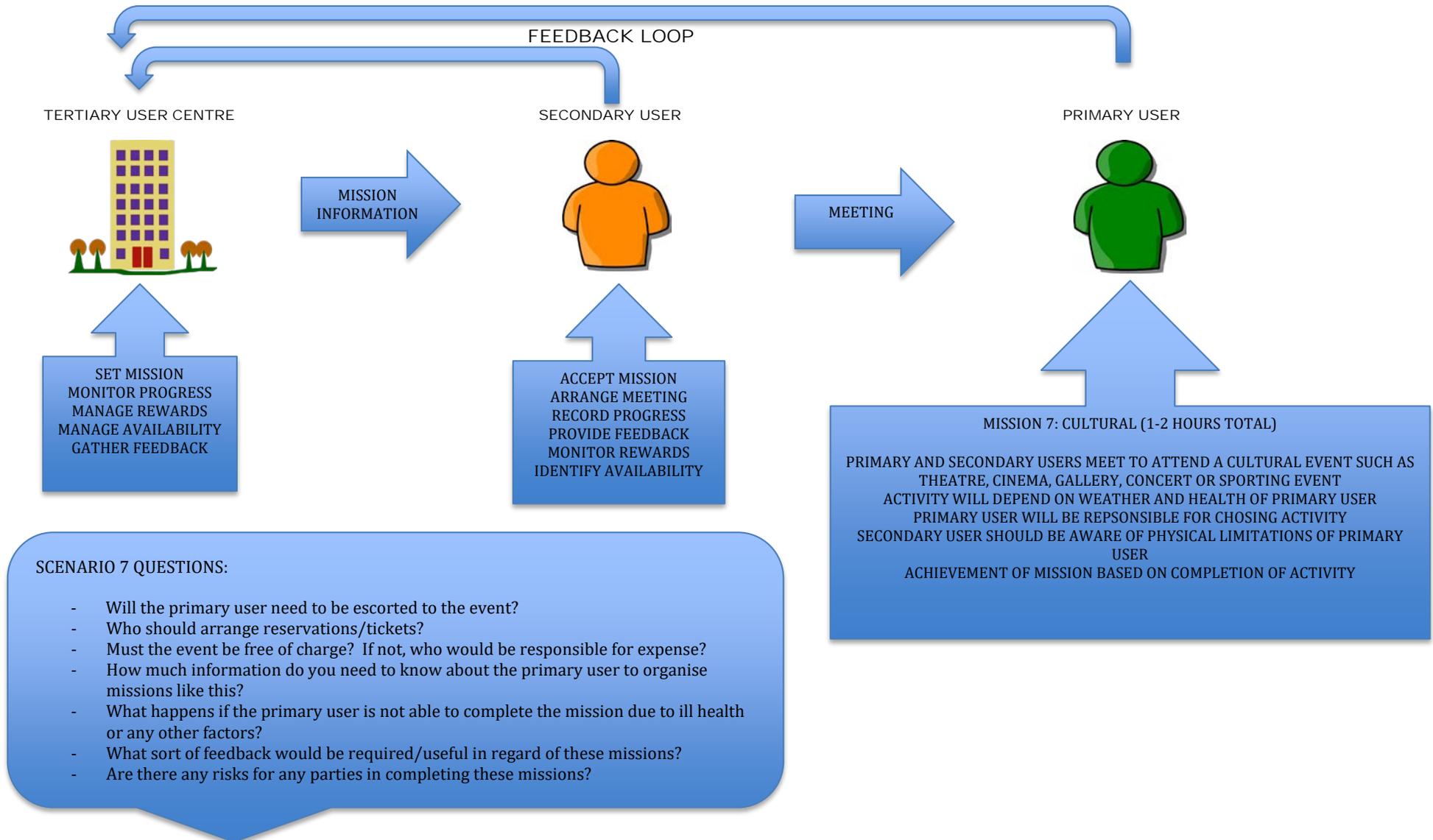
USER SCENARIO 6: SIMPLE READING MISSION



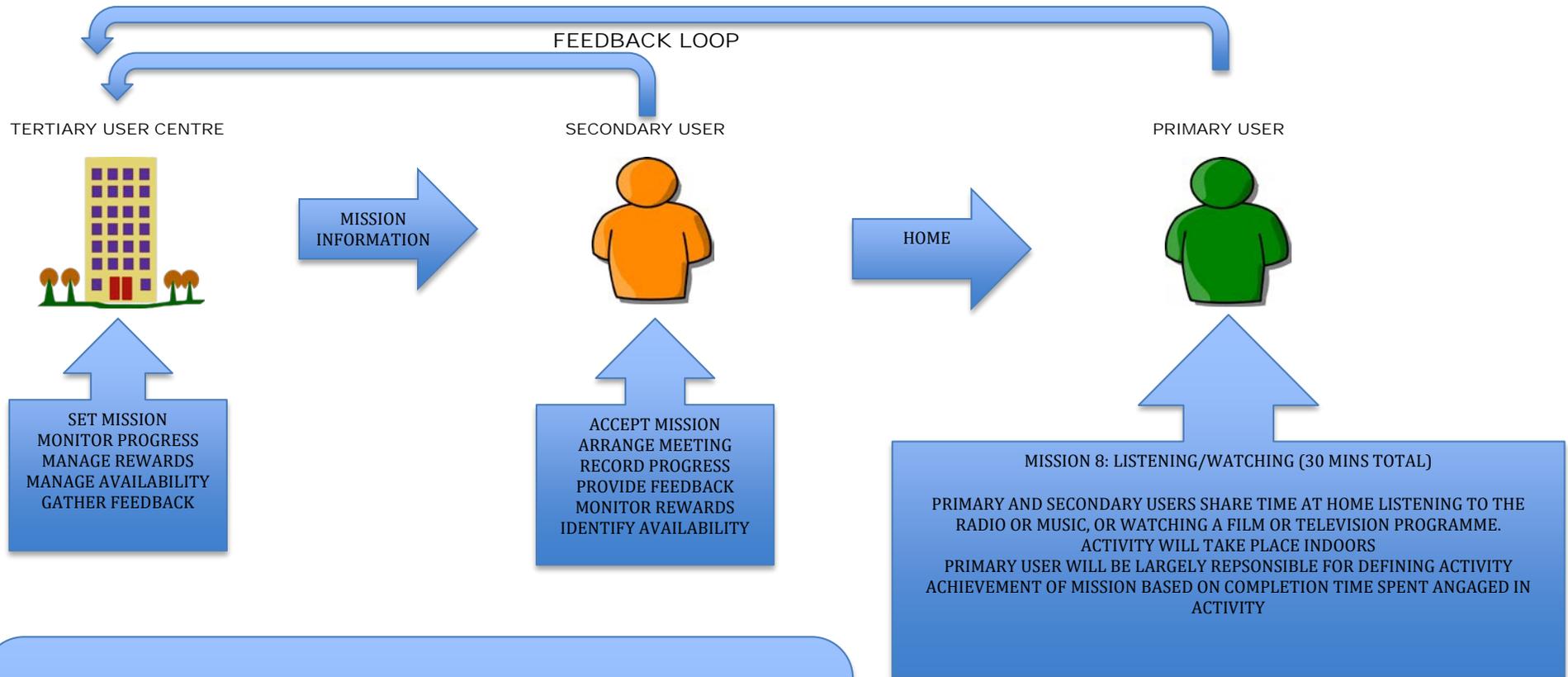
SCENARIO 6 QUESTIONS:

- How much information do you need to know about the primary user to organise 1 missions like this?
- Is there any type of reading matter that would be inappropriate?
- What sort of feedback would be required/useful in regard of physical missions?
- Are there any risks for any parties in completing physical missions?

USER SCENARIO 7: CULTURAL MISSION



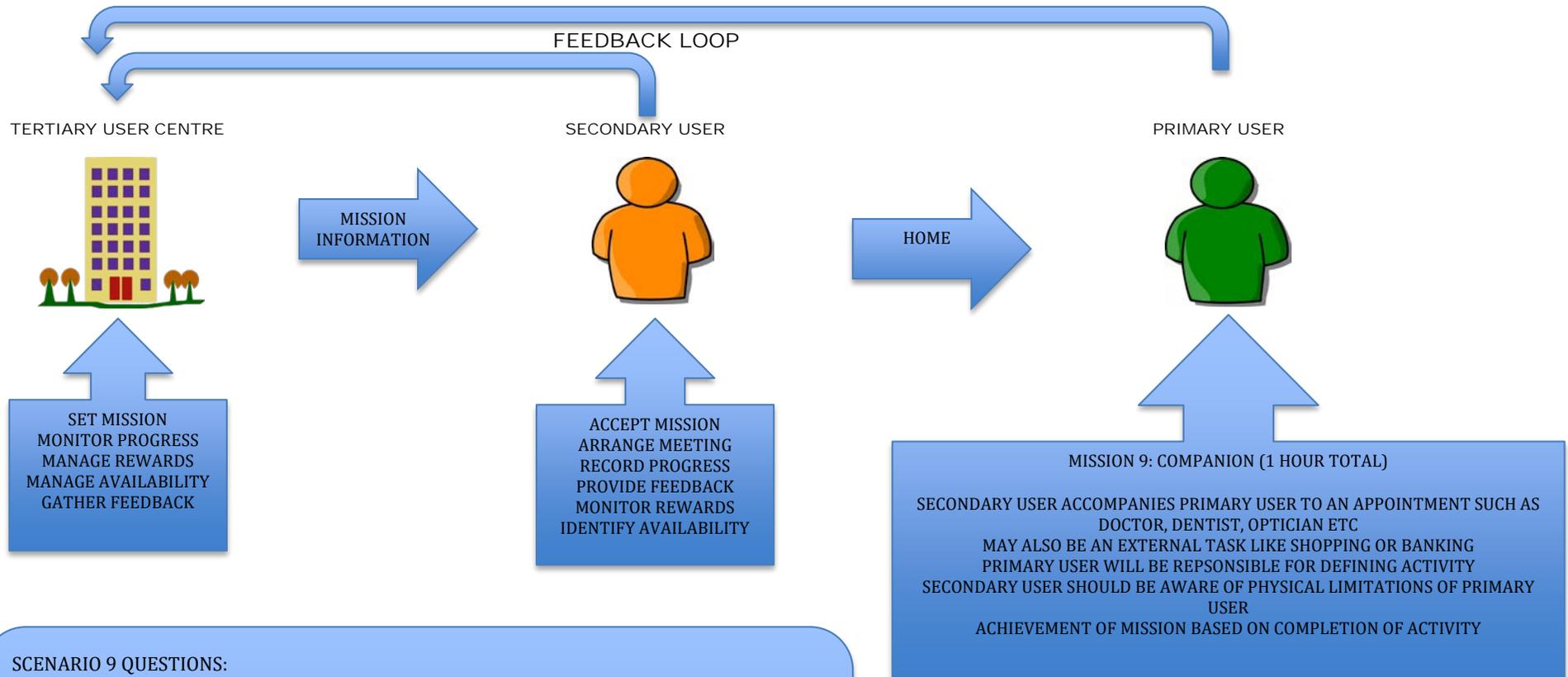
USER SCENARIO 8: SIMPLE LISTENING/WATCHING MISSION



SCENARIO 8 QUESTIONS:

- How much information do you need to know about the primary user to organise physical missions like this?
- Are there any technical considerations around listening or watching content?
- What sort of feedback would be required/useful in regard of these missions?
- Are there any risks for any parties in completing these missions?

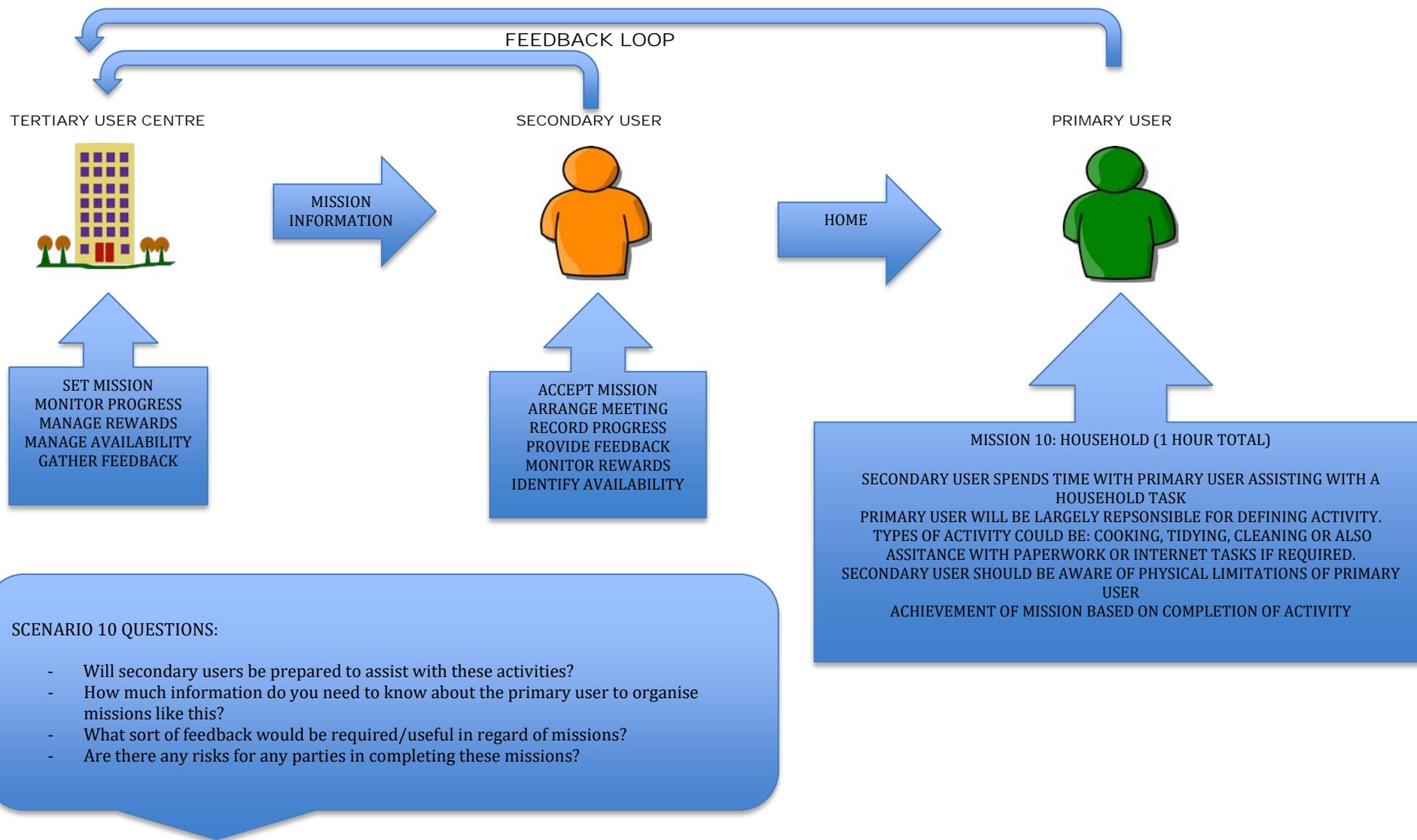
USER SCENARIO 9: COMPANION MISSION



SCENARIO 9 QUESTIONS:

- Method of transport? Taking into account physical limitations as well as cost
- Are there complications around timing here - in order to complete the mission the secondary needs to be available at the exact time of the appointment.
- How much information do you need to know about the primary user to organise missions like this?
- What sort of feedback would be required/useful in regard of these missions?
- Are there any risks for any parties in completing these missions?

USER SCENARIO 10: HOUSEHOLD MISSION



3-3 Game Mechanics

The use of game mechanics as a part of the MyMate experience has been explored with all secondary and tertiary users throughout the user consultation phase. What is clear from this work is that the idea of 'gamifying' the MyMate platform would be of significant motivation to secondary users, even though this is true more for some users rather than others. What is also clear is that the concept of a gamified mobile platform is quite difficult for most users to visualise so the feedback they have given has not always been conclusive. With this in mind, we will be seeking to test the gamification elements of the MyMate platform as we move forwards and as early prototypes of the mobile application become available.

More broadly, we have explored the different mechanisms that we might consider building into the MyMate platform in order to gamify the experience. This exploration has been augmented by a deep and ongoing literature search led by partner White Loop into the mechanics of gaming as applied to non-gaming contexts. When we think about the options for gamifying the experience, there are a range of mechanics we can consider: points, badges, levels, progress bars, leaderboards, virtual currency, and avatars; point systems that manage the acquisition and spending of points that quantify user performance; badges that are given for special achievements; user ranking based on the received points and badges; published/shared leaderboards that reflect user performance in comparison to other users; levels that show the user's expertise and progress and where the player is in the game; progress bars that provide a percentage-based graphical representation of the players' progress; virtual currency used for purchasing in-game (virtual) goods.

The gamification design principles that are most commonly deployed within wider (i.e. non-gaming) contexts include the following:

- GOALS: specific, clear, moderately difficult, immediate goals
- CHALLENGES & QUESTS: clear, concrete, actionable learning tasks with increased complexity
- CUSTOMISATION: personalised experiences; adaptive difficulty; challenges that are perfectly tailored to the players skill level; increasing the difficulty as the player's skill level expands
- PROGRESS: visible progress towards mastery
- FEEDBACK: immediate feedback or shortened feedback cycles; immediate rewards instead of vague long-term benefits
- COMPETITION AND COOPERATION: social engagement loops
- ACCRUAL GRADING
- VISIBLE STATUS: reputation, social credibility and recognition
- ACCESS/UNLOCKING OF CONTENT
- FREEDOM OF CHOICE: multiple routes to success allowing students to choose their own sub-goals within the larger task
- FREEDOM TO FAIL: low risk from submission; multiple attempts
- USE OF STORYTELLING: including the adoption of roles in the form of avatars

This list is by no means exhaustive but it is instructive in considering the ways in which we might apply game mechanics or 'gamification design principles' within the MyMate context.

As a result of our consultation with end users – and consultation between the consortium partners internally – our proposals for game mechanics (which will be built into early iterations of the MyMate technology – are as follows:

- PERSONALISED GOAL-SETTING – secondary users will be able to take on missions as individual 'players' with their own journey defined by the choices they make, their interests, their level of expertise and other relevant factors; the process of first setting the goal and then working their way towards achievement of the goal will be key to this and the tracking of progress (and feedback on that progress) should be built into the model
- COMPETITION – within an individual setting, the facility to compete with others around the successful completion of missions will be explored, particularly in reference to the motivating factor that competition has on those individuals; we will explore mechanisms to show scores and rewards in relation to other MyMate 'players'
- REWARDS – connected to the concept of competition, the incentivising of achievement through rewards will be explored as an additional mechanism to drive user motivation and to stimulate enthusiasm for the successful completion of missions; the nature of the rewards on offer should be explored through both virtual concepts (points/badges/awards) and through real-world rewards (prizes/financial rewards etc.)

These are the critical ideas that will be built into the MyMate application and then tested with secondary users. We have intentionally kept the game mechanics simple as the feedback we have had from secondary and tertiary users suggests this will give us the best outcomes in terms of stimulating user motivation without confusing those users.

4 SUMMARY RESULTS OF THE USER CONSULTATION ACTIVITIES AT MONTH 12

4.1 Introduction

Focus group sessions were conducted with all three user groups in each of the user centres in Altea, Spain; in Bucharest, Romania and in The Netherlands. Our aim was to generate an understanding of responses to the MyMate idea and specifically to the game missions and scenarios (presented in Section 3 of this document). We also wanted to record the individual responses of each user group to the ten user scenarios generated as a result of our first phase of engagement work. We were particularly interested to discover which if the scenarios appealed most to primary and secondary users and to find out whether there were any issues with any of the existing scenarios in terms of barriers to completion. We also looked to explore whether there were any further ideas to be captured around activities to be undertaken within the MyMate solution. The results are summarised below as per user group for each of the participant countries:

4.2 Results from Altea, Spain

4.2.1 PRIMARY END USER FEEDBACK

The session was run as an open discussion about activities within the MyMate solution (rather than looking specifically at each of the 10 scenarios as we did with secondary and tertiary users). The profile of the group was as follows: 8 users; 7 women; all resident in the apartment block; all live on their own apart from 1; 6 involved previously in the project.

Main points from the discussion as follows:

- many of the users expressed a preference for women as secondary users with only one user expressing a preference for a man
- there was much discussion about the timeframe for MyMate activities with the view that you would want to have a minimum of one meeting a week and that the meeting should last at least one hour
- one of the main characteristics that primary users would look for in their secondary users is that they should be a good listener – this may even be something that secondary users should be trained in
- secondary users also need to be able to adapt to others
- there has to be a connection between the primary and secondary users in order to make the relationship work and primary users need to feel completely comfortable with their secondary user to enable the relationship to develop
- primary users are all different – they all have different personalities - and some have very different needs in terms of what they are looking for – some will be more in need of emotional support and someone who can help solve their problems whereas others will want something more simple (more like companionship) – this has to be taken account of when secondary users are matched with primary users
- it's also important that primary and secondary users are 'at the same level' in terms of respect and limitations
- good interest in the idea of playing games with one user saying she liked playing chess and other board games but didn't have anyone to play with

- games could be played in groups of more than just two if these games are coordinated
- secondary users providing help with going to the doctor or to hospital would be a positive thing as this is sometimes challenging for primary users and some have no help for this
- there is a strong sense that primary users do not want to 'face challenges' on their own – MyMate could be a support in this
- walking is an activity that all primary users engage in but it's felt that a secondary user would encourage more walking and make the process more enjoyable
- one user said she had 'a duty to walk every day' but that this would be easier with the support of a secondary user
- in terms of possible physical activities, walking is the main activity with some scepticism towards more advanced physical activities like tennis or swimming
- there was a real interest in creative activities [something not currently addressed within the existing 10 scenarios] – specifically of interest are activities like painting and sewing
- sewing is a common activity amongst the female users but is typically a solo activity – could become more of a shared experience though
- the idea of a 'cooking exchange' was discussed [again not something in the current set of scenarios] with primary users sharing and swapping recipes with secondary users
- reading is an activity that is commonly undertaken by users and enthusiastically embraced as a collaborative endeavour – this could be as a kind of 'book group' with readers discussing the book or could be users reading to each other
- there was a general view that change is good [and, perhaps, not common for users beyond a certain age] and that connected to this is the idea of learning something new – this will depend on the profile of the user but many are keen to see/hear/find out about new things; the challenge is how to integrate this more directly into the scenarios for MyMate
- the idea of going on cultural 'missions' is interesting, with the cinema and exhibitions both gaining interest amongst the user group – this perhaps links to the previous point
- in terms of activities based on conversation, there should be no boundaries explicitly set on this – the conversation has to be natural and organic and the primary and secondary user will find their own boundaries as they talk

4.2.2 SECONDARY END USER FEEDBACK

The session was run in a more structured way and presented each of the current 10 user scenarios for discussion with feedback gained on each scenario. The profile of the group was as follows: 8 users; all women; all local active seniors.

Main points from the discussion as follows:

MISSION 1: SIMPLE PHYSICAL MISSION

- response to this mission was positive with all agreeing it made sense
- timing was felt to be best around 30 minutes although could go longer

- the type and length of the activity would depend on the physical health and condition of the primary user
- walking was seen to be the most common/popular type of activity – this could include walking inside the house as a form of exercise (up and down stairs for example)
- the physical activities need to be carefully matched to the users

MISSION 2: SIMPLE GAME MISSION

- the idea of learning a new game was as appealing as just playing existing games that the users were familiar with
- many users played games and this seemed a positive mission for all
- games that they played included 'Palobras', drafts, chess, Scrabble and various card games
- it was noted that playing some games can support you in learning a new language
- the choice of the game should be dictated by the primary user with the secondary following their lead
- the timing is important – you probably need between 1 and 2 hours to play a game (typically)
- the length of time you need will depend on the game that you play
- playing games regularly is a good idea and would add to the experience

MISSION 3: SIMPLE COGNITIVE MISSION

- secondary users were very positive about this type of activity
- some already engage in these kinds of activities although some don't
- the issue of resources was raised – you need the right kind of activities for secondary users to try out with their mates and the secondary user will not always have the right materials to hand
- a suggestion was to use the library to source these kinds of activities although the centre could also provide some support in this regard
- there may be an opportunity for the centre to invest in these types of resources and then to distribute them amongst the secondary users
- enthusiasm is high for this activity but they will need support to know what they should be doing with specific users
- this activity would probably need between 30 minutes and 1 hour to complete
- you would not want any longer as the activity is quite intense and may become tiring
- one aspect to this can be about memory and about looking at old photos in order to stimulate memories amongst both the primary and secondary users
- writing down memories (in a diary for example) could be a way of encouraging cognitive function

MISSION 4: SIMPLE CONVERSATION MISSION

- some suggestion that this 'happens anyway' so could it really be classed as a mission?
- there are some subjects that perhaps people should steer away from – mainly politics and religion
- there may also be an issue if the mates do not share particular passions (like sport for example)

- to that end, the conversation would flow better if the mates were well matched in terms of their interests
- although some areas should be approached with caution, you cannot put boundaries on conversation, particularly at the start of the relationship
- you need to let the conversation flourish
- it's very important that the secondary user is a good listener for this activity
- the activity does not need to have a time limit as conversation could be short or long

MISSION 5: ADVANCED PHYSICAL MISSION

- the idea was reasonably warmly received with some reservations
- swimming was the most common activity that was thought to be possible/likely
- a key question was around who would pay for the activity if it involved some form of payment – with the suggestion that secondary users may not be willing to pay for primary users
- the suggestion of both tennis and running were made but there was not much enthusiasm for either in the room
- one of the main concerns was about there being accidents involving elderly people and who would be responsible if such an accident occurred
- linked to this were questions of insurance and whether the secondary user was covered by the insurance from the care centre
- these issues put off the secondary users from considering more advanced physical activity
- there were also concerns from some users that the organisation of such activities would be complex although not all users saw it that way

MISSION 6: SIMPLE READING MISSION

- this was well-understood and accepted by the secondary users
- co-reading was seen to be the most positive approach (taking turns in reading)
- part of this could be about learning a new language (so the particular nature of what you read needs to be considered)
- this was seen as a highly positive mission because it is very flexible in terms of the time you need to complete and the nature of what you read

MISSION 7: CULTURAL MISSION

- there was much discussion about the feasibility of this type of activity with some scepticism about whether this would work
- it was recognised that some activities would be good for primary and secondary users to engage in (like historical visits or visits to markets)
- however, a major issue was around who would pay if there was a cost involved with secondary users unsure about whether they would want to be the one to pay
- that said, if there was a way of funding these visits – either from the primary user or from the centre – then the secondary user would be enthusiastic about going
- there may also be the opportunity to run cultural missions to attractions and destinations that are free (like markets and some museums) and this would simplify the process

- the centre could play a role in highlighting what type of local activities were available and what you could do when you get there
- having shared interested between mates would be key to the success of this mission

MISSION 8: LISTENING/WATCHING MISSION

- there was little enthusiasm for this mission amongst the room
- this was seen very much as a passive activity and therefore there were questions about the value of this to either user
- it was seen to be an activity that the primary user would do anyway and did not add to their activeness
- there may be something in this if there was a particular subject or theme that the mates were passionate about and could therefore watch and then discuss together (like sport or history)
- this was seen very much as a companion mission that could form part of a wider 'mixed mission' with other activities (perhaps alongside a reading mission)

MISSION 9: COMPANION MISSION

- this was seen to be a positive and constructive idea that secondary users would embrace
- there was a distinction made between a visit to a hospital and a visit to a doctor or local health centre
- the hospital is a much bigger place and such a visit would take much more time
- the time factor was identified as a potential issue in that it's difficult to judge how long a hospital visit can take and this has implications for the secondary user
- there was a discussion around the organisational aspects of doing this but agreement that it would be of real value and no problem to the secondary user in terms of completion

MISSION 10: HOUSEHOLD MISSION

- this was generally very badly received as it was perceived as being about the completion of 'manual tasks'
- one user said that she did not clean her own home so she would not want to go and clean someone else's
- there was a discussion about cooking, with the view that this would be a more acceptable household activity for the mates to engage in
- anything to do with tidying and cleaning was less well-received
- there was a fear expressed by some that primary users may take advantage of their mates if the mission was a household mission

GENERAL POINTS FROM THE DISCUSSION

- language might be an issue as many English people live in Spain and their level of Spanish might not be adequate; however, Spanish secondary users would welcome the opportunity to speak more English so that would be a positive

- there are cultural aspects to this that relate to language in that those with a Latin background have some different ideas about relationships, interactions and so on; within multi-cultural communities (like Spain) we need to bear this in mind
- the matchmaking process will be key to the success of each relationship and much focus needs to be brought to this
- choosing the gender of the secondary will be part of this process as some secondary users would prefer to only visit their own gender
- the balance of genders is also an issue to take account of – in Spain, there are many more women than men under the care of these types of centres
- the capacity of the secondary user to travel will be key to the frequency of their interactions and to the type of activities they are able to undertake
- the relationship has to be one of equals with both the primary and secondary giving and taking
- where relevant, pets could be used to 'break the ice' between mates
- more creative activities should be integrated into the missions; this might include knitting or sewing and should also be focused on sharing skills and learning from each other
- the key issue in the minds of the secondary users was one of responsibility and who is responsible for the care of the primary user
- there was a worry that, as a secondary user going into the home of a primary user, you could be accused of theft by the family of the primary user and this would be challenging to deal with
- there was a suggestion that you would need a contract in order to set out responsibilities between the secondary user and the tertiary user
- it was noted that only a small number of men would be likely to volunteer as secondary users and this may pose a problem for gender balance
- the main challenge is to understand the profile of the secondary user and to match them appropriately
- there also need to be incentives for secondary users that go beyond just volunteering – this has to be interesting to them
- part of the incentive would be that they could learn how to use the MyMate technology
- it may also be motivating for them to learn new cognitive games
- for them, it is all about learning new skills and then applying these skills
- we should be aware of what the primary users might be able to teach the secondary users
- the secondary user is a friend, not a carer

4.2.3 TERTIARY END USER FEEDBACK

The session was run in a similar way to the secondary user session in that we presented each of the current 10 user scenarios for discussion with feedback gained on each scenario. The profile of the group was as follows: 8 users; one trainer of people who work with primary end users; one person concerned with cognitive stimulation; one person responsible for managing nurses; two managers of elderly care centres; one person who coordinates volunteers who go into the homes of elderly people; one information manager focused on rehabilitation.

Main points from the discussion as follows:

MISSION 1: SIMPLE PHYSICAL MISSION

- response to this mission was positive with all agreeing it made sense
- however, it was made clear that this cannot be 'physiotherapy' and that the secondary user needs to be careful what type of physical activity they take on as some activities require the attentions of a professional
- connected with this, the physical activity has to be something that a volunteer can comfortably do (as some volunteers are, themselves, not physically able to do everything)
- the tertiary users will need to be clear in setting the boundaries for this type of activity
- the main focus for this mission should be walking and this should be done in tandem with other types of activities like shopping or going to appointments etc.
- petanque could also be an option for some primary users
- part of integrating this type of activity could be to create 'preconfigured missions' that involve multiple activities
- it's important to ensure that the primary user is physically able to complete the activity (even if it's walking) and that there are no health concerns that would impact on this
- part of the reporting back from the secondary user could involve observations on the physical condition of the primary user
- there may need to be a 'plan b' for outdoor activities in the case of rain
- physical activities could include activities on accessible beaches or might involve 'elderly playgrounds'
- users also mentioned 'static bicycles' and a 'vibrating platform' as other elements for use in physical exercise
- physical mission should ideally relate to geolocation – this should be governed by what is practical and feasible

MISSION 2: SIMPLE GAME MISSION

- the concept of a game mission was well received
- this could be more closely linked to the centre – playing games is an activity that the is common at the centre and there is a good community of people that do this there
- games might include (common to the centre) cards, Scrabble or dominos
- bingo is also played by some residents and visitors to the centre but this happens at a different location
- there may be some problems with users or with the centre getting involved in anything that constitutes gambling so this has to be thought about in relation to some games
- the social aspect of playing games was very important and was seen as a real positive – games give a context to make new friends and to extend the social network, particularly when played in larger groups
- the location for game playing could vary – some games are available and are played at home whereas others are played with more people at the centre

MISSION 3: SIMPLE COGNITIVE MISSION

- there was a question in the minds of the users about whether this mission was that different from Mission 2 – need to be clear about the difference between 'normal' games and 'cognitive' games
- perhaps there should just be one game mission and that mission can be partly defined by the type of game to be played
- if primary and secondary users are going to engage in cognitive or memory games, they will need support from the centre in terms of getting access to these games and in understanding how they are played
- painting and reading are also cognitive exercises so perhaps these activities should be considered or a different mission created for them (although there is already a reading mission)
- playing music (i.e. listening to music) is also a cognitive exercise and could be considered as an activity for a separate mission
- there may also be other 'cognitive materials' that the centre can provide to the secondary user for use with the primary user
- writing down memories is also a common cognitive activity – need to decide whether these types of activities fit into this mission or should be included in a different mission
- there should be some standard feedback questions that the secondary user is asked after completion of a cognitive mission

MISSION 4: SIMPLE CONVERSATION MISSION

- the tertiary users were unsure of the value of this in that the primary and secondary users will talk anyway
- there was also some questioning of whether you can 'guide' the conversation or set boundaries for what is discussed
- the focus here should be on ensuring that the secondary user receives a degree of 'social training' so that they are prepared to engage in a positive way with their primary users
- this training might be mainly about listening and ensuring that the primary user is engaged in conversation
- more generally, the secondary user needs to be guided in terms of their social responsibilities (how to treat the secondary user etc.)
- although some areas of conversation might be contentious (politics/religion etc.) you have to allow users to set their own agenda
- the profile and matching of the secondary user is critical here in ensuring there is a good level of communication
- primary users can become abusive when they are talking about certain topics – this is where the secondary users needs to have the right level of training

MISSION 5: ADVANCED PHYSICAL MISSION

- the idea was seen as an extension of the simple physical mission with the same concerns attached here regarding the welfare of the primary user and the ability of the secondary user to complete the chosen physical activity

- there were more references to the types of physical activity that could be considered including activities on the beach and in the 'adult playground'
- it may be that walking is the only 'simple physical' activity and everything else is 'advanced'
- this needs to be carefully monitored because of the potential risks to both primary and secondary users

MISSION 6: SIMPLE READING MISSION

- this was well-understood and accepted by the tertiary users as a positive and well-liked activity for many seniors
- it was commented that there is currently a 'reading workshop' at the centre so this mission could connect with something like that
- the idea of a 'book group' was also mentioned with the possibility that the reading could take place at home (by the senior on their own) but that they then come together with other users to discuss it
- a further idea was floated around the reading of newspapers and magazines and then this creates the opportunity to discuss the news with the secondary user
- it was also noted that this activity should always involve the primary user actively taking part in the reading and not just passively listening – listening only was not seen as a particularly valuable activity for the primary user

MISSION 7: CULTURAL MISSION

- there was generally a positive response to this type of activity with some specific questions about how exactly it would work
- there was a concern raised about cost and who would pay with a real question over whether paid for activities would really work
- however, it was noted that there are a lot of free activities every month with the local area and it may be a question of connecting users to these activities
- the centre could play a role here in finding or creating a timetable of free events that primary and secondary users could choose to attend
- exhibitions and galleries were generally free and so would be good opportunities for a cultural mission of this kind
- there are some free opportunities to go to the cinema for seniors so these could be taken advantage of

MISSION 8: LISTENING/WATCHING MISSION

- there was little enthusiasm for this mission amongst the room with questions over whether there was any real 'value' in this – was thought to be too passive and not active enough
- there may be some increased value in shared watching of TV or listening to music if what you are watching is new to the primary user and so is broadening their cultural experiences
- it was generally felt that a focus here on TV would not be constructive with the primary users typically watching a lot of TV anyway (by themselves)

- any listening or watching activity should be accompanied by a conversation about that experience afterwards otherwise it's very difficult to see the value in this

MISSION 9: COMPANION MISSION

- this was a positive ideas in the minds of the users with some concerns about the destination
- it was felt that visits to the bank should not be part of the approach as the primary user (or their family) may become suspicious of this
- secondary users helping primary users with health visits was seen to be a very positive idea
- it was noted that any transport costs associated with this should be paid by the primary user and that this must be agreed upon
- in some cases the cost would not change from what it is now as the primary user may pay for a taxi to the hospital which the secondary user could accompany them to
- it was suggested that the secondary user could drive the primary user to an appointment if they were able and willing to do that
- it was also noted that the secondary user would need to be clear about the time commitment involved in going on a hospital visit (as these appointments can sometimes take some time) and that this should be part of the mission
- this type of mission creates a greater level of responsibility on the secondary user and they need to recognise this

MISSION 10: HOUSEHOLD MISSION

- there were some concerns about some aspects of this mission although some good ideas came from the discussion
- it was clear that the more 'menial' tasks – cleaning, tidying etc. – would not be well-accepted by secondary users and could be abused by primary users
- however, cooking could be a positive household activity that primary and secondary users could do together, learning from each other as they go
- the primary user could even be seen as the teacher here, showing the secondary user how to cook their favourite dish – this would be very motivating for them and would put them in control
- this would be more about the experience of sharing cooking ideas rather than preparing food for the primary user – it's about a transfer of knowledge
- the secondary user could teach the primary user too but this would mainly be about the primary user leading the way
- the user profiling here would be essential to ensure that both were interested and able to undertake such a cooking mission

GENERAL POINTS FROM THE DISCUSSION

- the number of volunteers per primary user is critical: there need to be two or three volunteers to each primary user in order to make this work
- we must not create too much of a dependency between the primary user and their secondary volunteer

- the tertiary users must decide what the balance between primary and secondary users is as primary users all have different needs and characteristics
- some primary users will need more care and some will need a different mix of care
- the issue of 'social responsibility insurance' was raised, particularly in relation to physical activities – this is something we may have to address during the validation phase
- the focus generally should be to encourage the primary user to do something different, something new or something more
- there could be something more of a 'social mission' which is focused on meeting new people or making new contacts; part of this could be to encourage the primary user to socialise more at the elderly centres where they live or visit; this would encourage more autonomy
- the primary user must be given a clear understanding of the role and purpose of the secondary user before they start engaging
- this needs to be about the evolution of wellbeing for the primary user and all activities (and the feedback from activities) should focus on that
- feedback should also focus on any problems that arose, any cancellations or any practical incidents that need reporting
- it would also be useful for the secondary user to feed back ideas for future activities that they could complete with their primary users (or to say which activities they shouldn't do again)
- there should also be a feedback mechanism in place to track the progression of the relationship between the primary and secondary user (to ensure that this relationship is going in the right direction)
- feedback should also relate to the level of enjoyment of the experience amongst both users
- when thinking about designing missions, some ideas for specific users may emerge from the user profiling and we should be open to this possibility
- it was felt that designing individual activities for specific users would be feasible
- some activities that relate to learning about technology or help with using existing technology would be valuable and useful – this might include using mobile phones, using Skype or using streaming services
- there should also be more focus on including creative activities in the missions
- all of this should be driven by the user profile which is seen as an essential component of making this work
- incentives for secondary users should be based on a rising scale relating to the number of missions completed

4.3 Results from Bucharest, Romania

4.3.1 PRIMARY END USERS

The session was run as an open discussion about activities within the MyMate solution (rather than looking specifically at each of the 10 scenarios as we did with secondary and tertiary users). The profile of the group was as follows: 7 users; 6 women and 1 man; all seniors living in their own home; some on their own and some in couples.

Main points from the discussion as follows:

- users mentioned that although they might live alone, they do have the support of their neighbours and also for their families
- they are not necessarily keen to be seen as 'lonely' or 'alone' although this doesn't suggest that they couldn't benefit from MyMate
- one of the primary users talked about the support that she gives to those around her (living in her block) and she is 84 years old: we should not only see these individuals as primary users – they may actually be secondary users
- this is also a statement that demonstrates an unwillingness to seem too 'in need' – this has an impact on how we 'sell' the idea of MyMate to primary end users
- the same user is also a distributor for a cosmetics company (so she makes points with her work)
- there is a risk of conflicts in the example of discussing politics with neighbours (or with other users) although conversation is clearly part of what the users would like to do
- trying to get seniors who are very sedentary can be a real challenge as they become set in a pattern of behaviour – this is a challenge that MyMate could address
- sometimes, if you change the environment for a senior who is very much fixed in their own home can be a real challenge for them
- for some seniors, the sense of being independent (and feeling independent) is an important factor in their wellbeing
- talking is an activity that would be welcome – this could be about books, about travelling, social problems, medical issues – having someone to talk to in this way would be beneficial
- walking would be a good activity, particularly if there is a park nearby but it has to be local – they will not want to go far from their homes (depending on their physical abilities); a number of users mention an interest in 'walking in the area'
- activities that enable the primary user to be in their own home or in their own community would be most welcomed and most likely to be taken up by the user
- help with household activities would be welcome (once the relationship has been developed) – one primary user mentioned cooking, cleaning or simple things like accessing things in the home that are difficult to reach
- one user has a collection of 10000 books in her house and she would welcome some engagement around books and reading as this is a passion of hers
- another user was questioning whether the secondary users should get involved in activities like cleaning as this is at odds with being more of a 'cultural friend' and doing the types of activities that entails
- it's important that there is an open exchange of views and ideas between the primary and secondary user
- cultural events are of interest to this group – to have the ability to get out more and undertake cultural activities of whatever sort would be welcome if they were able to
- getting the primary user away from watching TV should be a focus for this activity as that is what they do anyway – the activities should be more active than that
- it may be a good idea to avoid discussions about diseases and illness as this usually leads to the primary user becoming a bit negative – discussion should be around passions and interests
- the idea of the companion mission was well received, particularly in relation to support for trips to the doctor and the hospital

- also need companionship to go to city hall to pay taxes and for utilities – so sorting out personal financial matters and administrative matters could be an area of help that MyMate could offer
- secondary user could also help the primary user if they have some difficulties with their motor skills and need help with the preparation of food (for example)
- it is clear that the activities would be defined by the profile of the primary user, both in terms of their interests and their physical abilities
- there was a general discussion about values and the importance of helping others – this is a strong instinct within the group (and suggests that they do not only want to be helped themselves but want to make a contribution to those around them)
- a brief discussion on time suggested that primary users would want/expect their secondary user to spend around 1 hour per session once or twice per week with them
- twice per week would raise the level of engagement for the primary user – it would become part of their schedule and something they would look forward to and prepare for
- there was a suggestion that MyMate participants could come together for some group engagements or activities and that this would provide additional interest for all users involved
- additional activities may revolve around creative pursuits like sewing or painting
- there was a proposal that the primary users could organise some forums where they were able to share their expertise and knowledge with others (with a number of the primary users present being former professors or academics with specific fields of experience)
- although this group would appreciate help, they also want to make the most of their own resources and give something back to others – they are not helpless
- the group liked the idea of 'social clubs' where you can come together and engage with a wider group (rather than only being one to one with your MyMate companion)
- creating a forum where these users can exchange ideas (about how they can engage with others in their community) is a positive thing and should be embraced further – they are keen to be contributors to the project and to the ideas that the project might pursue

4.3.2 SECONDARY END USER FEEDBACK

The session was run in a more structured way and presented each of the current 10 user scenarios for discussion with feedback gained on each scenario. The profile of the group was as follows: 10 users; 6 women, 4 men; all local active seniors; differing ages.

Main points from the discussion as follows:

MISSION 1: SIMPLE PHYSICAL MISSION

- the general response to this mission was positive and the mission was well understood by all users
- it was noted that this mission would also be useful (i.e. positive) for the secondary users as well (in that it would drive them towards doing something more physical)
- the time required for this mission could be up to one hour – 30 minutes might be a little short in some cases (although this could be flexible)

- walking was identified as the most important activity here (the most feasible and commonly understood); this could involve going into a park or something similar and made sense to the user group
- in addition, an alternative type of physical activity could be to help primary users to take care of their plants or work in a garden (if they are in a home) – this mixes physical activity with an interest or hobby
- another user commented that a walking mission it could be focused on going for a walk to a specific place like a museum (something that connects with another mission later)
- one comment highlighted the need to be aware of the physical limitations of the primary user as this is a concern for any physical mission
- it was also noted that the primary user would have to demonstrate their acceptance of the physical mission before the secondary could undertake it
- in this, the profiling of the primary user is essential and matching with the secondary user

MISSION 2: SIMPLE GAME MISSION

- the idea was well received and clearly understood by all users in the group with little further explanation required
- card games are quite popular with a number of suggestions made for specific card games to be played [games that they play already]
- users also mentioned a game called 'rummy' which is played with tiles
- online games were also offered as a possible option for games that users could play together although no specific examples were given
- users would be happy to provide games themselves and to help primary users to learn new games but also they would be keen to learn new games from their primary users
- the practicalities of organising multiplayer games may be challenging in terms of bringing different users together (although the users liked this idea); in that case, most of the playing would happen one to one

MISSION 3: SIMPLE COGNITIVE MISSION

- the secondary users were keen on this idea and saw it as an extension of the second mission on gaming
- one user talked about doing crosswords and competing with others in this challenge (as an activity that is already done)
- that said, there was a concern expressed about this competitive element in that it may put off those who were 'not winning' [which is something that would apply to any game or cognitive challenge]
- they would think that one hour would be a good length of time for this mission
- the timing would be dependent more on the willingness and availability of the primary user (more than the secondary)
- they would be happy to take materials from the centre and use these as part of their cognitive activities
- this would create a need for a good level of training amongst the secondary users (as highlighted by one user)

MISSION 4: SIMPLE CONVERSATION MISSION

- the users were positive about this but they said half an hour is enough – less talking, more doing
- in terms of the subjects for discussion, less politics was felt to be a good idea as this could be contentious
- talking about health, family, children, memories, travel, what they read – all of this would be interesting to discuss
- it would be good to get the primary user to talk about themselves as a way of getting them engaged
- they would want support in terms of social/communication training before they undertake this type of mission

MISSION 5: ADVANCED PHYSICAL MISSION

- the idea was received with some humour – would it really be possible to do advanced physical activities with primary users?
- 'the person who can play football doesn't need help from us' – this is not necessarily feasible for most primary users
- some simple gymnastic activities (basic gym stuff) to keep them mobile might work well
- would have to know about the specific health condition of the primary user before they take this on
- basic medical training would be useful in order to recognise the signs of a primary user having any medical problems would be useful (probably in general but specifically in anticipation of physical activities like this)
- this might be blood pressure, taking temperature etc.

MISSION 6: SIMPLE READING MISSION

- this could be an activity to do with someone with a poor memory -
- could be challenging for those with some cognitive/concentration issues
- newspapers/reviews/magazines would be better sources for reading rather than novels and poetry as this is more of a long-term activity
- reading current material would be a good way of stimulating conversation (connecting to a previous mission)
- secondary would be the one that does most of the reading (unless the primary particularly wants to read)
- 30 minutes is a good length of time for this mission

MISSION 7: CULTURAL MISSION

- this mission was initially well received
- money will be a major issue in terms of who will pay and how this will work in relation to those activities that need to be booked and paid for
- if everyone pays for themselves, this would be OK
- accessing free exhibitions and galleries would be one way of getting round this but most of the cultural activities would be paid for

- sharing this would be the way forward
- there are some reductions in cost for elderly people that they could take advantage of
- things like opera (during the week) could be interesting as it's cheaper and therefore more accessible
- very happy to go with the cultural activities that the primary wants to do as 'they are there to serve the primary user' – they would see themselves as being supportive of what the primary user wants to do (in general)

MISSION 8: LISTENING/WATCHING MISSION

- this mission was well-received but did not elicit a great deal of discussion [perhaps suggesting that it is not particularly interesting in comparison to other missions]
- watching TV is a somewhat passive activity
- the focus for this should be more on more interesting TV shows that have value and stimulate discussion (i.e. not soap operas)
- could be that the focus should be on documentaries or history programmes that teach you something
- listening to music is not seen to be a 'mission activity' – this will happen anyway

MISSION 9: COMPANION MISSION

- generally well received and recognised as being of value to the primary user
- this is the sort of thing that happens over time once the rapport and trust has been built between users
- there is a greater level of trust with this type of activity
- transportation would be a matter of discussion, particularly if there is a cost involved (the primary user should pay)
- the time aspects of this could be problematic – the users recognised that it is not possible to manage the timing of a hospital visit in the same way that you can manage the timing of other missions
- but they would still do it (if they committed to it) as they see the value

MISSION 10: HOUSEHOLD MISSION

- this was questioned by the group, with the suggestion that the activity 'should not be physical'
- but the activities should be based on the willingness of the secondary user to do this
- this has to be personalised depending on the ability and condition of the secondary user
- volunteering should be more about socialising rather than the more physical household activities – should be more focused on the emotional aspects rather than this
- within this context, cooking is a more positive activity as it is social and about learning (rather than cleaning which is neither)

GENERAL POINTS FROM THE DISCUSSION

- how the matching of primary and secondary users works was of interest to this group
- they want to know how the database of primary users will be managed and how they will be connected to their selection of primary users
- there was a question about the participation of the family of the primary users in this process so that the family is part of an 'approval' process for what the primary user can get involved in
- there should be a 'menu' of missions that can be applied to or accessed by the primary users (and this is approved by the family)
- it's important that expectations are very clear from the start regarding the types of missions that primary users will get involved in so that there is transparency – we must 'avoid any kinds of surprises')
- this has to be based on a type of contract that protects both the primary user and the secondary user – everyone has to be clear about what has been agreed and what is feasible
- the legal aspects of this are important to get right
- there might be other types of activities that users do together that can 'become' missions – there needs to be a more general level of feedback on activities between users that enables the creation of new missions based on what the users are doing together
- the centre can also monitor trends between users in terms of the relationship and the types of activities undertaken (through a research database)
- if the relationship develops and becomes negative, the question was asked about what would happen to the secondary user if they were unhappy with their relationship [perhaps suggesting the need for some kind of ongoing monitoring of the relationship itself]
- needs to be a focus on agreeing the legal framework around this to ensure that the secondary is not 'accused' of anything
- main motivation is to help others
- may be need for training on the technical aspects of using the mobile phone application in order to facilitate the secondary user to provide feedback and access the mission materials
- there could be some safety issues as some elderly people are scammed and we must ensure that communication with volunteers is within a closed loop so scammers are not able to take advantage
- confidentiality is also a key issue that the secondary users were keen to stress
- understanding the specific hobbies and passions of the primary users would give us more ideas for new missions
- there was also a general discussion of how the secondary users can connect to the primary users and where they can spend their time with the idea that it may be better for the users to meet centrally in 'a protected environment'

4.3.3 TERTIARY END USER FEEDBACK

The session mirrored the secondary user session in that we presented each of the current 10 user scenarios for discussion with feedback gained on each scenario. The profile of the group was as follows: 3 users (it was planned to have 5 but two were unwell and unable to attend);

Main points from the discussion as follows:

MISSION 1: SIMPLE PHYSICAL MISSION

- the users' response to this mission was positive
- the question was around the ability of the secondary user to complete this mission and their physical capability to do this
- walking would be the dominant activity for those in residential care
- for other users in their own homes, they would maybe do this by themselves
- the main issue is the lack of time that 'standard' carers have here and this would give the time for this type of physical mission
- the level of physical ability of the primary user must be clearly known beforehand so that any physical mission can be geared to their abilities (and not left up to the secondary user as this would be a risk)
- walking could be a social mission too
- feedback on general health would be useful for the tertiary users to gather, particularly after a physical mission like this
- feedback could be on a rating system depending on the perceived health of the primary user following the mission

MISSION 2: SIMPLE GAME MISSION

- the idea was generally accepted by the users with no major comments
- bingo could also be a game that is played alongside the more classic games like cards and so on
- this is a good mission for all types of user (it is highly accessible) and is low risk
- like the conversation mission, this would be a good 'starter' mission to get the relationship between the primary and secondary user going

MISSION 3: SIMPLE COGNITIVE MISSION

- tertiary users were positive about this mission and saw the value
- the challenge is that, from a social point of view, the people they are dealing with may not be up to completing a cognitive mission
- the mission has to match the user
- perhaps the needs that we should be looking at are more basic than trying to address cognitive issues in this way

MISSION 4: SIMPLE CONVERSATION MISSION

- this type of mission is well received as it is simple, completely accessible and addresses the basic needs that most primary users will have
- conversation is a central part of addressing isolation and should be something that all secondary users are able to do
- that said, there may be a requirement to ensure that secondary users understand what is required of them in their interactions with primary users and the fact that they have to listen
- these users did not identify any issues with this

- conversation could be the starting point for more sophisticated activities later on (so you start with completing a conversation and you see where that takes you)
- important to have areas of common interest – which throws focus on the need to match make effectively at the beginning

MISSION 5: ADVANCED PHYSICAL MISSION

- for these users, the people they are looking to help would not be doing advanced physical activity so this mission would not be relevant
- they feel that the focus should be on addressing isolation and on social activities rather than on this

MISSION 6: SIMPLE READING MISSION

- some of the primary users are visually impaired so having someone read to them would be a positive
- the subject of the reading matter would depend on the primary user but it might be better to read things that spark debate (like newspapers or magazines)
- it would also be better to read short things (as time is short)
- some users may be happy to read religious material – prayer books/bibles etc. – particularly if they share a religion

MISSION 7: CULTURAL MISSION

- for those users who are able to do it, it would work well
- but it may be that such a mission comes after the relationship between the primary and secondary user has been built (as this is a more involved/extended type of mission)
- some of the primary users have disabilities and, therefore, they can get free or cheap tickets but they need someone to accompany them and, in this way, such a mission could be positive
- there are also other activities that are free and it would be useful for the secondary user to know what these free opportunities are

MISSION 8: LISTENING/WATCHING MISSION

- it would be good for users to watch TV shows that create comment and discussion
- this might include watching sporting events together (football/tennis/handball etc.)
- the idea would be to share an interest and then to discuss this afterwards (rather than just watch passively)

MISSION 9: COMPANION MISSION

- this was well received and thought of as a highly ranked mission that would be of real use to the primary user
- this would give the primary user the type of support they need at these times

- this would be something that would happen once the relationship has been established
- might be better to go by public transport than expecting or asking the secondary user to drive (if they are able)

MISSION 10: HOUSEHOLD MISSION

- doing housework is usually covered by formal care givers and not by volunteers
- it may be that the secondary users would be willing to do the more 'menial' tasks like cleaning but this is not necessarily the focus for this
- it would be up to the discretion of the secondary user what they were willing to do
- the general view was uncomfortable about this mission in terms of its relevance to what the project is trying to achieve

GENERAL POINTS FROM THE DISCUSSION

- the need to address loneliness and isolation is recognised as very high so the general view of what the project is trying to achieve in connecting secondary users with primary users is positive
- there was a concern expressed about whether the secondary users would be able to use the technology within MyMate (the smartphone app) – this group are not always keen to use smart-phone technology and this has to be addressed
- it may be necessary to make the app more user friendly to an older user base, even though we are talking here about secondary users, not primary users
- the process of saying you have accomplished a mission has to be very simple
- access to devices (smart phones) plus training in how to use them could be a key motivation for the recruitment of secondary users
- question also about the way in which secondary users receive messages relating to MyMate with a suggestion that it may be better for messages to be voice based rather than notification based
- there were comments relating to the level of trust that would be required for the primary user to accept secondary users into their house – this was an area that users felt needed to be directly addressed
- this throws further light on the need to connect primary and secondary users together in a way that ensures that trust is built
- for the pilots, the suggestion is that secondary users are not sent into the home of primary users but that the activities are undertaken within a central location (an elderly residential centre) as this is easier to manage and monitor
- there were concerns expressed about how the project would be funded once it was commercialised (what is the business model?)
- it could be included within a package of services – thinking about this integration needs to be part of the business planning process for the project
- there is still a real need for support within residential homes as many of these users are lonely or lacking the level of care needed
- a focus for communication should be on personal history, their lives, their memories etc.) – this will engage them

- secondary users will need to develop better listening skills (and this applies to the conversation mission and to all other missions) – the need for some ‘social skills training’ is clear as not all secondary users will be good at this
- the idea of ‘mixed missions’ came up – for example conversation and then a game – this should be part of the mission design (i.e. more than one activity within a single mission)
- feedback should be related to the satisfaction of both the primary and the secondary user based on their experience
- feedback should be about the outcome of the mission in terms of wellbeing
- there was a discussion about the specific type of primary user that we are trying to address in the project – this will have a significant effect on the type of missions that we design and that we give to secondary users
- this also shows that we need to be very clear with tertiary users exactly what type of primary users we are designing this solution for
- there could be some issues with the family of the primary user suspecting the secondary user – you need to ensure that the family are fully informed of what’s happening in relation to this kind of solution
- primary users with dementia can say things that are not true (about things that have happened to them) and this could have an impact on the secondary user; for this reason, it is wise to take the relationship slowly and start outside of the home
- there is nothing currently like this (in terms of volunteer elderly care) in Romania but there is a real need for it
- it’s difficult to judge how many secondary users you could recruit initially but you may find it easier as you have success stories over time
- the gamification could be a way of motivating those who are already engaging with local seniors but would be willing to do more (say those who live in one block and who can engage with older people as they go about their daily lives)
- churches could be a good source of volunteers within a particular community
- there is also a federation of volunteer organisations in Romania that could support this
- and there is a network of ‘senior clubs’ in Romania that have active seniors as members and that could be a further source of volunteer secondary users
- family doctors (GPs) might also be a source of suggestions for both primary and secondary users
- for these tertiary users, there is a strong community aspect to this (help your neighbour)

4.4 Results from The Netherlands

Focus group sessions were conducted with two user groups in the elderly care centre in Vlissingen, The Netherlands (WVO Zorg). The first group (primary users) consisted of 8 female participants. 6 reside in the care centre and 2 participants live independently in the vicinity of the centre. They sometimes participate in activities in the centre. Their age range from 79 – 96. Average age is 87. 3 of the participants have a computer and they use them for Google, Facebook, emailing with relatives or playing offline games. They do not have any advanced internet skills, so the usage is very limited.

Although the group is 100% female there is no gender preference for the primary users. The primary feel equally comfortable with male or female. This seems to change slightly when it comes to mission 9, going the doctor's office.

The secondary user group consisted of 7 participants. 5 female and 2 male, ranging in age from 63-71. Average age is 67. All of the participants had a background in some kind of social work/ welfare, with the exception of one. They all came across as very knowledgeable. There is no gender preference for the secondary users.

There were no engagements undertaken at this stage with tertiary end users.

4.4.1 PRIMARY END USER FEEDBACK

The primary users first received an introduction of MyMate, the background and goals. Then the user scenarios were explained and were discussed. Some more than others, because the group felt there was a similarity in some of the scenarios.

Generally spoken the participants were enthusiastic about the general idea that something is being done to support elderly.

General feedback:

- It takes time to trust people, and what is being done by MyMate to ensure that the volunteers are to be trusted. At the time of the consultation there was nationwide attention for elderly being victimized by door-to-door scammers so that can that the participants are over sensitive.
- You can only know if somebody is trustworthy if a relationship develops, this means that you have to engage in activities that require less trust in the beginning, like having superficial conversation or a walk. After time you can progress into more personal activities.
- Nearly everybody in the group is dependent on a 'walker' or electric mobile scooter so having a walk, even a short one, is not a favored activity.
- The participants seem to value the practical use of a volunteer more than gaining a friendship. It, the relationship, must be there to help them with day-to-day affairs.
- It is the consensus of the group that primary and secondary should decide on the appropriateness of the activities.

MISSION 1: SIMPLE PHYSICAL MISSION PRIMARY

- The response to talking a walk our outdoors activity is slightly negative, the participants are all walker or electric scooter dependent.
- Talking a walk is something you would do if you know someone for some time. It takes trust.
- If one had to go outdoors maybe to a bench in a nearby park, but I would depend on the weather.
- Maybe if confined by the weather or physical impairs one could walk around the house, practice getting out of a chair or throwing a ball back and forth. Although this is, according to the group, something you would do only if you are more familiar with somebody.
- Shuffleboard is considered to be a good alternative for a simple physical activity.

- The type of activity should be decided by the primary and secondary together.
- The participants neither have a ball or shuffleboard in their home

MISSION 2: SIMPLE GAME MISSION PRIMARY

- The simple games mission that are mentioned spontaneously are, again shuffleboard, Rummikub, klaverjassen (card game of Dutch origin) and other card games.
- Playing games is also something one would rather do when a more personal relation is established. It is not considered to be done with strangers
- Contrary to the perceived personal nature of playing games they are considered to be useful as an icebreaker between people of getting a conversation started.
- All the participants have playing cards or games at home
- Games as chess or checkers are dismissed as being too difficult
- Not all games are suitable time wise, so this should be taken into consideration.
- Primary and Secondary should both decide on the game and both feel like it. If the game is played as a mandatory mission, you wouldn't have fun playing.

MISSION 3: SIMPLE COGNITIVE MISSION PRIMARY

- A simple cognitive mission is met with enthusiasm
- Group suggestions are crossword puzzles, scrabble, memory or monopoly.
- Time is important and one therefore monopoly is less likely
- Also some verbal memory game are mentioned
- The group members like to engage in these activities but not too long because it can be strenuous on the mind.
- Scrabble is seen as a conversation starter and sharpening the mind.
- Primary and secondary should decide together on the activity
- It is easier to do a simple cognitive mission (although it can also be a game) with a complete stranger than simple (social) game as in mission 2

MISSION 4: SIMPLE CONVERSATION MISSION PRIMARY

- A simple conversation mission is more complex than it seems and is less considered as a mission. Conversations cannot be forced.
- It is felt that topics like politics and religion should be avoided
- A general conversation about family, grandchildren is a possibility but up to a certain point. First there has to be a level of trust.
- It is not something that should be guided with clear boundaries
- A volunteer should not know what to and what not to talk about
- The things you can talk about is also determined by the region.(some more religious than others)
- A conversation is something that should develop naturally and not be forced.

MISSION 5: ADVANCED PHYSICAL MISSION PRIMARY

- An advanced physical mission is dismissed by the group as feasible
- Looking at their average age and physical abilities, this is understandable.

- The group is unable to come up with advanced mission, other than talking a longer walk, a shuffleboard tournament or throwing a ball for a longer period of time.
- The suggestion of tennis, swimming or any other physical activities are being dismissed

MISSION 6: SIMPLE READING MISSION PRIMARY

- Reading with somebody else is considered to be a bit strange
- Even childlike or demeaning.
- Alternatively audiobooks are mentioned
- Reading is also seen as a strenuous activity
- A newspaper article could be a conversation starter, but not to be read together.
- Talking about books is considered as a mission, but one doesn't read much anymore. Maybe talking about classical literature is an option.

MISSION 7: CULTURAL MISSION PRIMARY

- This is also an activity that you have to be familiar to someone.
- Participant want a cultural mission close to home because traveling is difficult.
- People prefer to go Dutch, each person pays for themselves. Although it would be nice if the care centre would pay(is mentioned in Dutch modesty).
- It must be arranged by the secondary. The primary doesn't know how to do this.
- Considering the age of the participants it is a challenge finding a cultural event that both parties would enjoy.

MISSION 8: LISTENING/WATCHING MISSION PRIMARY

- Again, this is an activity one would only do with people one is familiar with
- If asked, imagine you know your volunteer al long period of time, it is more favourable.
- It feels strange to actively start watching television together as a mission
- You could enjoy a program more together than alone, sing together or play along with a gameshow.
- Talking about a tv-program is also considered as a risk if the content is on politics or religion.
- All of the above go for listening also. No one can picture themselves into sitting down and listening to a radio show or discuss it.

MISSION 9: COMPANION MISSION PRIMARY

(going to the doctor / hospital)

- Surprisingly, this is met with the utmost of enthusiasm despite of the intimate character of the activity
- Familiarity is less of an issue in this case
- It is nice to have an extra set of ears
- The primary would be willing to arrange his or her own transportation.
- The primary is responsible for planning and arranging. If the care centre is the referring centre they should arrange the transportation.

- (going to the bank)
- Going to the bank or ATM is something one doesn't consider doing with a volunteer until trust in one another established

MISSION 10: HOUSEHOLD MISSION PRIMARY

- This isn't considered to be an important mission, but not entirely dismissed.
- It is a big step to let somebody 'go through your things'
- Participants find household activities to be something for the care centre or the official home care organizations.
- It doesn't feel as something you would do as a social activity.

4.4.2 SECONDARY END USER FEEDBACK

The secondary users first received an introduction of MyMate, the background and goals. This was more in-depth and technical than with the primary users.

MyMate is received well but the group is sceptical about the importance of ICT and as it comes to profiling, the group thinks the roll that ICT plays is limited. Above all Volunteers should be socially skilled people, capable of overcoming distrust from the primary, being able to reach trough a barrier without being obtrusive. Being truly empathetically is very important and having a sound human judgment. Profiling could be helpful in profiling shared personal interest. It is felt that the tertiary user should keep a close eye on the relationship between primary and secondary. Primary and secondary should be open and honest about the relationship and if one of the two is dissatisfied it should be made easy to break the ties. Secondary should put more effort into this. Primary should be able to stop the relationship also by notifying the tertiary user.

There should also be a way for secondary to notify tertiary on the wellbeing of the primary. After all, the secondary are the ears and eyes for the tertiary. Is something is alarming or out of the ordinary they should somehow be able to report this. Secondary should be able to make the choices for mission from a picklist so that they can play with the choice of missions the help them build the relationship with the primary.

A reward system is felt as unnecessary, the yearly Christmas gift from the care centre is considered as more than enough. Rewards could be given to the primary, most of them have a low income or spent on activities together with primary.

MISSION 1: SIMPLE PHYSICAL MISSION SECONDARY

- The secondary think it is to big of a step to do this in the beginning of a relationship. One should first get to know each other, being able to judge what the primary is capable of.
- Shuffleboard is mentioned, seems like a pleasant way to get people moving
- Boccia, a sort of bowls, for the physical impaired
- One could take balloons and do a throwing activity, although this should not come across as demeaning, it depends on the primary
- One could take a duo-bicycle ride (the care centre should have one)

- The initiative should come from the primary and the activity should be joint decision.
- If there is no trust or good report, this is not a suitable mission

MISSION 2: SIMPLE GAME MISSION SECONDARY

- Shuffleboard, Rummikub, klaverjassen and card games are mentioned. Also scrabble and game of goose.
- Wii game computer, this can also be counted as an simple physical activity.
- Most of the primary will have simple (card) games at home, probably not a Wii.
- The secondary do not think primary will engage in a game if trust is not established.
- Simple games are considered to be helpful for interaction

MISSION 3: SIMPLE COGNITIVE MISSION SECONDARY

- This is seen as a useful activity
- One could engage in crosswords, Sudoku or scrabble.
- Memory is mentioned, but again, this should not be demeaning to the primary.
- Using the computer and Google to take a trip down memory lane. Old home addresses, cars or information on old schools.
- The activity should be a joint decision

MISSION 4: SIMPLE CONVERSATION MISSION SECONDARY

- The secondary are positive about this mission.
- One could always talk about health, but this should be handled with care because talking about health could take hours
- Talking about religion is difficult and one should be always respectful and not opinionated
- Politics can be discussed but only on a general level
- Both politics and religion can put strain on the relationship
- Talking about family and looking at photo albums always works
- Talking about the past professional career
- Topics should be decided jointly and depending on the moment, can not be an assigned topic.

MISSION 5: ADVANCED PHYSICAL MISSION SECONDARY

- Not really feasible for the group of primary users
- Activities that can be considered are taking small walks, maybe a little bit of gardening.
- Maybe very slow walker dancing
- Duo bicycle
- You should be able to know what somebody is capable of
- The activity should be jointly decided and maybe discussed in a prior visit, so somebody can (mentally) prepare.

MISSION 6: SIMPLE READING MISSION SECONDARY

- Under normal circumstances this is considered an inappropriate activity, also demeaning.
- Maybe suitable if somebody is going blind and likes reading
- Maybe if someone specifically asks for it.
- More suitable as a group activity
- Secondary would not want to propose this as an activity to the secondary

MISSION 7: CULTURAL MISSION SECONDARY

- If the relationship is established this is a good mission
- One could think of going to the theater, a movie, a road trip to old familiar sites, visiting the old home, church, community centre.
- One should try to get the funding from the care centre, from MyMate rewards, or go Dutch. But this all depends on what phase the relationship is in.
- The type of activity and the logistics should be decided jointly

MISSION 8: LISTENING/WATCHING MISSION SECONDARY

- This is an easy to perform task, although not very much favored by this group because of the inactive nature of the activity.
- It could be useful to start interaction and build trust
- The group feels that their effort should induce activity and interaction and listening and watching feels more like doing nothing
- This activity should be asked by the primary but not proposed by secondary or tertiary.

MISSION 9: COMPANION MISSION SECONDARY

- Seen as a very useful mission
- Strangely, doesn't require a whole lot of trust
- Initiative should be taken by the Primary, making appointment must be done by primary.
- Secondary's are all willing to use their private transportation
- Primary must explicitly ask secondary to come inside examine room
- Going to the bank is also by the secondary considered to be more difficult because of privacy. One would not prefer to do this activity or it should be specifically asked by primary.

MISSION 10: HOUSEHOLD MISSION SECONDARY

- The group is unanimously negative about this mission.
- Household missions are for the home care organizations
- They did not sign up to do household missions
- Maybe cooking and eating together is acceptable if asked by the primary
- It is felt that this might turn out in pseudo cleaning services

5 CONCLUSIONS FROM THE USER ENGAGEMENTS AT MONTH 12

5.1 Key Conclusions for the development

Based on an amalgamated view of the user engagement sessions run in each of the participating countries, we can draw some important conclusions regarding the development of MyMate game contents:

- All missions should be assigned based on a deep understanding of the physical and other abilities of both the primary and secondary users
- Missions should ideally involve some form of creative activity or something that either or both of the primary and secondary user can learn from – the instinct to learn new things is strong in all groups of users
- We should not include missions that require the secondary user to do anything that is demeaning or menial (like cleaning): this is not the kind of mission that secondary users are likely to embrace
- We should think about ‘mixed’ missions particularly where more simple tasks like conversation or walking are concerned – it may be a little too easy to set a mission that only has walking as an activity
- There are a number of potential issues where missions may involve money – cultural missions for example or missions that require travel; we need to understand better how payments can be made and whether it should be up to the users themselves to organise such missions
- The primary users have a great deal to offer in terms of their experience, their ideas, their knowledge and so on; missions should focus more on ensuring that secondary users bring those aspects of the primary users’ personality out into the open
- There need to be clear guidelines that cover all aspects of how a secondary user will interact with a primary user; however, we also need to recognise that with elements like conversation, the users themselves will have to lead the activities and manage their own boundaries
- Trust is a key issue in relation to the dynamic between the primary and the secondary user and this will lie at the heart of the success of the MyMate technology in terms of ensuring that all users feel confident to spend time together
- To this end, there will need to be clear approaches to bringing users together and ‘matchmaking’ them at the beginning and also mechanisms to ensure that feedback is provided to the care professionals on a regular basis
- There will need to be a careful selection process in respect of the secondary users in that they will need to be patient, good communicators and willing to meet the wishes of others
- There will also need to be a process of training secondary users to ensure that they understand their responsibilities and also that they are able to interact effectively with their primary users
- There needs to be some form of ‘contract’ between the primary user and the tertiary user and also between the secondary user and the tertiary user; the purpose of this is to set out responsibilities and to ensure there is the legal framework in place to protect users from any litigation

- The feedback provided by both primary and secondary users should, in general, focus on both the experience of completing the mission and on the general wellbeing of the primary user
- In terms of recruiting secondary users, there will need to be a local solution to this that looks at existing networks of seniors and taps into the potential of these networks to generate secondary user volunteers
- We cannot assume that all secondary users will be comfortable with the mobile application (although it seems that some will be); the profile of the secondary user will change both locally and according to the national context so attention needs to be given to the training of secondary users in the relevant technologies
- There has to be a high level of transparency when it comes to the set up of the missions so that everyone knows what the expectations are; this can form part of the contract that all users sign.