

D.3.3 Validation and Effectiveness Monitoring



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

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Abstract	The purpose of this document is to describe the data analysis carried out with the information obtained from the validation processes and the feedback generated for the refinement of the prototype
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Table of Contents

1	INTRODUCTION.....	3
2	SUMMARY DESCRIPTION OF THE VALIDATION PROCESSES	5
3	RESULTS AND ANALYSIS	9
4	CROSS ANALYSIS, CONCLUSIONS AND RECOMMENDATIONS.....	28

1 INTRODUCTION

This document sets out the approach that was taken to assessing the impact of the MyMate technology on end users. It is closely related to deliverable D3.1 the Validation and Effectiveness Plan. We briefly present an overview of the process by which we have generated validation data and then go into the analysis of the three user sites in Romania, Holland and Spain.

The scope of the validation was based on the premise that we needed to demonstrate a number of different aspects to the MyMate solution in order to improve the technology and in order to generate outputs that would give us the basis for a commercial proposition. In doing this, we have focused on answering the following research questions:

- Does MyMate have a positive impact on the quality of life of Primary End users?
- Does MyMate increase the motivation and achievement of volunteer Secondary End users?
- Does MyMate help Tertiary End users do their job better/more effectively/more efficiently?
- How usable is the MyMate technology (both the app and the dashboard)?
- What improvements could/should we make to the MyMate technology/solution in order to make it more effective?

Our ultimate purpose here is to validate the MyMate solution as a viable and impactful approach to addressing the challenges of aging that we are setting out to address. This will give us the basis for further developing the MyMate technology, bringing a commercial version of the technology to market and enabling us to build the MyMate brand based on the credibility of our evaluation and the demonstrable impact of the technology.

Our evaluation outputs have been informed by the MyMate 'proposition' which is as follows:

"MyMate is designed to mobilise and motivate a community of elderly volunteer carers who will engage with other seniors in their neighbourhood, build new relationships and help tackle the challenge of loneliness and isolation. MyMate is a gamified volunteering platform - based around an end-user app and a management 'dashboard' - that facilitates interactions between senior volunteers and older people living alone and in need of friendship, engagement and activity. MyMate is about connecting members of the same community together and building better, stronger support networks for an ageing population at a local level."

By working with primary, secondary and tertiary users, we have evaluated the extent to which we are achieving the vision set out in the above statement and creating a set of recommendations that will enable us to commercialise the MyMate product.

This document is set out in three main chapters:

- Overview of the validation process – this highlights the key elements of the validation approach, the tools used and the outcomes explored. A more thorough description of these elements is available in D3.1.

- Detailed reporting of the validation that was undertaken at the three end user sites taking account of the different end users engaged with and the main outcomes identified from the qualitative and quantitative methods.
- Summary cross-validation reporting with conclusions for further developments and for the commercialisation of the MyMate product.

This report will be used as the basis for more accessible outputs that will support the commercialisation of MyMate and build into a compelling story of the positive impact that MyMate has on all end user groups.

2 SUMMARY DESCRIPTION OF THE VALIDATION PROCESSES

2.1 Objectives of the Validation

The validation process for the MyMate solution was developed on the basis of a set of clearly defined principles:

- Evaluation of impact with all three user groups – giving equal weight to an evaluation of impact with seniors in their own homes (primary users), elderly care volunteers (secondary users) and authorities/care centres responsible for providing care (tertiary users). It is only if all three groups are well served by MyMate that we know the approach is successful.
- Pre- and post-testing – where possible, we benchmarked to ensure that we were able to demonstrate the difference that we are making, particularly with primary and secondary users. Because of the nature of the MyMate solution – and its uniqueness in the market – it was not possible to run a control group so benchmarking was the best approach available to us.
- Continuous monitoring and evaluation – a process of continuous monitoring enabled us to understand better the way in which the MyMate solution is being used and allowed us to track any issues that arose.
- Mix of qualitative (interviews/focus groups) and quantitative (surveys/data capture etc.) The whole evaluation process was undertaken using a mix of research techniques. Although we were keen to gather comparable data (for which quantitative methods are generally used), we also recognised the importance of having a dialogue with our users throughout to ensure that they were feeding back their experiences, in their own words and at their own time.

Within this context, our objectives for the validation were encapsulated in the following evaluation dimensions:

Dimension 1: Impact on Primary End Users

The impact of the introduction of the MyMate solution on the senior (primary user) was clearly a key element of assessment during the field trials and there were two areas that were specifically examined. The trial period gave us the opportunity to monitor the seniors' response over a longer time frame, allowing the users to get used to what MyMate brings to their life. Through a combination of short surveys and interviews, the primary users' feedback was gathered at the beginning and end of the validation period.

Sub-Dimension 1.1: Quality of Life

Measurement and analysis of the quality of life of the primary user was a key objective for our work with that group. The process involved taking a benchmark at the beginning of the trial period, and then a final assessment at the end of the 8 weeks, with the intervening weeks exposing the primary user to a period of interaction with the volunteer based around the MyMate experience.

1.1.1 Sub-Dimension 1.2: Impact on lifestyle

Where this element of the dimension differs from the previous quality of life element, is that the area of interest is around the level and type of activity that the senior is involved in, and how this may change, if at all, given the backdrop of the MyMate. It is clear that levels of activity may have a direct effect on more general well-being but examining this element in its own right provided useful feedback.

Dimension 2: Impact on Secondary End Users

The secondary end user were exposed to MyMate through use of the app on their device and, once they had been trained in how to use it, were given full use of the platform for the period of the field trial for setting up and completing missions, making arrangements with the care organisation, and earning points/credits on their profile account. The secondary users participating in the process were experienced volunteers who were able to give meaningful and valuable feedback on the MyMate solution. As well as general responses to the MyMate experience, the validation process gave particular regard to opinions of the secondary users on the effect on their levels of motivation towards volunteering activities. A key area of interest was how the MyMate format and its gamified element may have a positive impact on volunteers' levels of engagement.

Sub-Dimension 2.1: Motivation and engagement with volunteering activities

The key research questions asked under this sub-dimension were as follows:

- Has the introduction of the MyMate solution had a positive impact on the Secondary Users' motivation to participate in volunteering activities?
- Did Secondary Users' feedback on the overall MyMate experience demonstrate that they were positive about using the app and about the idea as a whole?
- Did the role of gamification in relation to the Secondary Users' experience with MyMate have any bearing on their motivation and engagement?

Dimension 3: Impact on Tertiary User (Organisation/Institution)

Ensuring that the MyMate solution was useful and effective for the care organiser was a critical aspect to the validation. This has important commercial value when considering bringing the product to market. The tertiary user or its funder will potentially be the target customer for the product and it was therefore important to gauge the impact on the organisation and ensure that there was value in terms of what MyMate offers. The following three key areas were taken into account when considering the overall impact of MyMate on the care providing organisations:

Sub-Dimension 3.1: Effectiveness and efficiency of MyMate as a tool to improve management of care in the community programmes

The efficiency of the organisation responsible for arranging the care for the senior is of fundamental importance to the viability of MyMate as a commercial product. The value that MyMate can potentially add to saving on time and resources will be a recognisable advantage when it comes to marketing the solution. This specific area of interest explored

whether and how the MyMate solution had an impact on administering and management of the volunteers and their regular interactions with the seniors.

Sub-Dimension 2: Impact on organisation

Where this area of research differs from 3.3.1 is in its broader view, looking at not just how MyMate impacted on the specific area of the management of volunteers themselves, but also on the wider impact on the organisation as a whole. This included views of both management and staff on the general acceptance of MyMate and how it affected all areas of the organisation, if there were any consequences, either positive or negative, for the whole establishment.

Sub-Dimension 3: Commercial model

Engaging with the professionals in the field of elderly care with a particular regard to their thoughts on the commercial viability of MyMate was a valuable and important part of the validation process. The process encouraged the participation of senior management in strategic administration and planning roles to discuss their opinions on exploiting the commercial aspect of MyMate to its full potential.

Dimension 4: Mobile App Usability (Secondary End Users)

A key element of the field trials was ensuring the usability of the technology, verifying that it was appropriate for the participating secondary users and that it enhanced their MyMate experience. Through a combination of on-going monitoring of the users' experience as they continue through the 8 week trial, and surveys, focus groups and interviews at the end stage of the trial period, a broad spectrum of feedback and user data was gathered

Dimension 5: Management Dashboard Usability (Tertiary End Users)

Users of the MyMate dashboard were employees of the tertiary end user who were appropriately qualified to use the technology and fully trained and supported for the field trial process. These users were relatively experienced and regular users of similar technology. Their feedback on usability was valuable in relation to the Management Dashboard but was less intensively gathered than for the secondary users. Our expectation was that our standard web-based approach would not create usability issues but we did check this assumption through our on-going engagements and feedback.

2.3 Tools developed for Validation

To support the delivery of our objectives and to address the requirements of the five different dimensions set out above, we adopted a blended evaluation model. This meant that we were able to use both qualitative and quantitative methods in order to generate data and feedback and thereby analyse our impact.

The rationale for the specific tools used was based on the nature of the feedback we were looking for and the number of users involved. As there were relatively few tertiary users involved in the study, we limited our use of quantitative methods with this group. However, we did use multi-choice surveys for some of the aspects of our work with primary and secondary users as the numbers here gave us a greater set of baseline data to work from.

Although the data from the quantitative processes has been useful in assessing the change in quality of life for primary users and in tracking the levels of motivation amongst secondary users, we have generally relied more on the focus groups and interviews within these users as a way of evaluating impact and gaining feedback.

Furthermore, we have worked closely with the tertiary end users throughout the validation and have relied on an on-going process of formal and informal feedback regarding the impact of the approach, the usability of the technology and so on. This is all reflected in the amalgamated results that are reported in Sections 3 and 4 of this deliverable.

2.4 Scope of the Validation

The design of the pilots has been pragmatic. We have worked with three end user sites all of which have different characteristics and different user types. The following bullets give an overview of the process and of the users involved:

- across the three user sites, we engaged with around 65 primary users, 35 secondary users and 12 tertiary users
- some primary users were individuals living in their own home, generally healthy, with no issues of dementia and at risk of isolation
- some primary users were based more in residential care homes (although still living relatively independently in those homes and in need of human contact)
- there were some primary users who had health problems (with one user, who is described in our video case study, suffering from motor neurone disease); however, our analysis related to issues of loneliness and quality of life and we were not aiming to consider impact on physical health or on any medical conditions
- secondary users tended to be female (with around 90% of all volunteer elderly carers being women); this was a reflection of the self-selected nature of the volunteers available and not a choice on our part
- secondary users were largely individuals with some experience of volunteering and an enthusiasm for the idea of supporting their community; there were some who were new to volunteering but these were in the minority
- tertiary users were a mix but were generally locally run, state funded organisations who were responsible, in some way, for the health and wellbeing of seniors in their own community
- the pilots were typically run for between 8 and 12 weeks with primary and secondary users encouraged to complete 'missions' at least once a week

The variations in the way that the pilots were run, in the duration of the pilots and the mix of end users had no bearing on the evaluation and the results gathered were consistent and comparable.

3 RESULTS AND ANALYSIS

3.1 Introduction

This section of the deliverable offers the results for each of the three pilot sites. This allows us to make the comparison between these sites and exposes any differences in the impact on different user types.

For each of the pilots run, we have provided details and feedback from each set of users. A more general analysis (and cross-pilot) analysis (including recommendations) is provided in Section 4.

3.2 Results from the Pilot in Spain

3.2.1 Primary End User results

The overall results in terms of impact on primary users was highly positive. This is based on the quality of life surveys completed at the beginning and the end of the process and is augmented by primary end user interviews and observational feedback from the tertiary end users involved.

Although it may seem a somewhat obvious statement to make, by offering seniors the opportunity to regularly interact and spend time with a new friend, their quality of life is significantly improved and they are less likely to experience the negative impacts of loneliness.

Key findings from the Quality of Life surveys included:

- overall majority of those surveyed showed either an increase in their QoL score or stayed the same.
- those with low scores beforehand showed an improvement overall, whereas those who started with a higher level at the outset less positive on the scores, although looking at these individuals more closely, their responses to interview questions showed that they were still positive about MyMate generally
- anomalies in survey results may indicate external factors had influence on responses (e.g. death of partner, worsening illness, having a bad day); the questions reflected an interest in general quality of life and did not ask any questions regarding the immediate context within which the respondent was answering
- the scores are a good indication of a positive upward trend but should be seen in the context of the interviews and also observations of the formal care giver

The interviews with primary users give us more detail of the stories of individuals, their own perceptions of their quality of life as well as their MyMate experience. From those interviews, the key points are as follows:

- Overall comments were positive about MyMate and that their participation in the pilot had gone well
- All reported a good or excellent relationship with their volunteer carers
- In terms of how it made them feel:

- their interaction with the volunteer made them feel somebody cared about them
- it encouraged them to be more sociable with others
- one primary user reported a significant change in attitude, more likely to try new things and seek out new friendships
- it provided much needed contact and support in difficult times (e.g. when they were dealing with the death of partner)
- it encouraged individuals to take on a higher level of physical activity (going out for a walk with someone where previously they had not done that)
- gave a sense of more freedom and independence – doing things outside those provided directly by the formal caregiver such as physio, going to the cafeteria, going shopping more frequently etc.
- helped to reduce anxiety: where the volunteer gave focused one-to-one attention, this helped increase confidence and reduce anxiety
- encouraged individuals to take up old hobbies again – e.g. one primary user started to play the guitar again and even gave concerts to others at the care centre
- real appreciation of one-to-one company, conversation about past memories, as well as taking time to talk about worries and fears and share thoughts and feelings
- reassured by the routine of regular visits, something to look forward to
- All participants thought MyMate was a good idea and wanted to continue it beyond the scope of the pilot
- In terms what could be done to make it better, some primary users wanted to see it in practice for the longer term, especially if they could keep the same volunteer who they had established a relationship with.

In addition to the direct feedback from primary users, observations from the formal carers and tertiary users offered an additional perspective. Key points from that feedback are as follows:

- MyMate helped ease the demand on others, e.g. where formal caregivers are involved, some primary users demand intensive interaction even if their physical needs are not critical; MyMate helped 'spread the load' for those who simply need some one-to-one attention and social interaction.
- Positive changes were noted in primary user attitudes to volunteers as pilot progressed – primary users slowly became more cheerful and accepting of their assigned mate.
- With the help of volunteers, some of the less confident primary users were more likely to participate in communal activities, board games, musical activities etc.
- Primary users involved in the study were to make more frequent and longer visits to communal areas, particularly those who chose normally not to interact.
- Those with more severe physical impairments were still able to benefit from once or twice weekly visits from a volunteer, even if they can't get out; the benefits were mainly seen in relation to mood.
- For some, there was a positive impact on food intake, where the volunteer built a rapport and helped at mealtimes; this increase in food intake was important for those who had lost an interest in meals.

- There were clear and obvious benefits to level of physical activity for some primary users (i.e. those who were able to up their physical activity).
- This had a noticeable knock-on effect of overall well-being and a generally more positive state of mind.
- Tertiary users observed positive outcomes even for those with severe cognitive conditions; their appreciation of MyMate volunteer visits was evident from facial expressions, in their eyes, smiling etc. giving them a greater sense of connection to the world around them.
- Nonetheless feelings of isolation still existed for some primary users, but MyMate clearly provided some respite and gave primary users something to look forward to.

3.2.2 Secondary End User results

For secondary users in the Spanish pilot, we will first look at the impact on quality of life, quality of experience and motivation and engagement all together as gathered from the surveys, interviews and focus groups.

Then we will consider feedback on Usability from the surveys and engagement activities with these users.

In terms of motivation, the following summary findings were generated from the volunteer Motivation Survey:

The pre-pilot motivation survey highlighted some common themes:

- Sample volunteers were a mixture of those who volunteer regularly and those who were new to volunteering
- Most volunteers do so for altruistic reasons, to help others – they do not do this in order to gain some reward
- Most feel volunteering is also good for their own general wellbeing (as well as having a positive impact on the world around them)
- Most would volunteer more if it was easier to organise – this can clearly be a barrier to their participation
- Most were neutral about having incentives to volunteer more (which may have an impact on the gamification aspects of MyMate)

The post-pilot survey offered an additional set of key points:

- Overall, secondary users were very positive in their responses to the survey in terms of their general experience of MyMate
- An overwhelming number said the MyMate had made them more willing to volunteer and made them more motivated to be a volunteer
- 100% positive results in terms of helping to facilitate meeting new people and their volunteering activities
- 100% positive in terms of MyMate being fun and making them feel good
- Results from the survey were generally indifferent about impact of incentives on their motivation
- The majority felt that it really helped them with organising and carrying out their volunteering activities

These results provide clear messages in terms of the positive MyMate experience for secondary users. It's also interesting to note the neutral attitude to the MyMate points – a key part of the gamified experience - when asked directly about it – but nonetheless all users found that the app was fun and made them feel good. Part of the fun came from the gamified element but this was more attractive to some users than others. Perhaps the incentives form part of the fun element even if users are not directly aware of this themselves?

The results from the survey are echoed and elaborated on in the interviews and focus groups.

In terms of having an impact on quality of life, the results suggested the following:

- Users universally felt the benefit of volunteering with MyMate on their wellbeing
- They reported that it felt good to empathise with others
- The app allowed them to 'do more' although as many already volunteered, they were already aware of how volunteering had a positive affect on their wellbeing

In terms of the quality of experience, there were a number of aspects commented:

- all users felt that it was a good experience
- a common feeling was that the app helped with the sense that everything was being supervised and was well-organised
- the approach made them feel less isolated in terms of their volunteering work (something some of them had felt in other forms of volunteering)
- MyMate helped them get more out of the experience by matching them up with new groups of people – this was a key drive, the sense of connection with others
- some commented that it's good to volunteer with more than one primary user as this expands your network of influence
- one volunteer had become very attached to a primary user and was continuing to visit after the end of the pilot – some others expressed an interest in doing that reflecting the nature of the relationships that MyMate facilitated
- a first time volunteer was keen to continue to volunteer generally even after the pilot – their experience gave them the confidence to volunteer more

In terms of barriers to the success of MyMate amongst secondary users, other time commitments (family, personal, work) continue to be the main factors that were mentioned in terms of volunteering generally. This didn't change with MyMate, but was helped by the fact that the app helps organise time through the calendar and scheduling facility.

In relation to the wider topic of the motivation and engagement for volunteering, there were some changes between the pre-pilot and post-pilot analysis:

- Prior to MyMate, the original reasons for volunteering were generally...
 - for company and to help people
 - because they feel like they have something to offer and want to give something back
 - not only conversation and listening, and taking people out, but also other activities to share e.g. music, singing etc.
- The attitude to volunteering post-pilot had evolved...
 - Most did some volunteering before, but now were more convinced to do it all the time – they wanted to increase their investment of time

- More and different people would not be able and likely to volunteer with the help of MyMate – this kind of approach can help to expand the group that volunteers interact with
- Some said that their attitude was the same as before – still motivated by helping others rather than points
- Some indicated that it helped to confirm feelings about volunteering, that it made them feel happy and useful
- The biggest motivator continues to be helping others but the sense was that MyMate is a smart, organised way to do that so is in line with their expectations.

Regarding the MyMate points/incentives and the underlying gamification elements, the views were mixed:

- The general feeling was that the points system was easy to understand and made sense.
- There was a mixed response in terms of how this affected motivation, overall neutral in terms of any obvious impact on motivation but did help users to feel engaged with the whole experience .
- A few users commented that the gamification approach was interesting and helped motivate them with tasks (they wanted to gain points/get to the next level etc.)
- Some said that the points didn't really make much difference, that they would volunteer anyway and use the app in the same way
- The notion of competition (between users to gain points) was largely dismissed and there was not real appetite for this amongst the group.

In terms of the usability of the app, there was some interim feedback prior to the pilot (which has been previously reported). The idea of this 'pre-pilot usability testing' was to iron out any issues with usability and to ensure all users were comfortable with the technology. As a result of that process, the usability feedback gained here is minimal as there were very few issues. That said, we still completed the analysis.

The results are a blend of feedback from interviews and focus groups as well as completion of the Usability Survey. There were very positive responses overall on all aspects of the app's usability. Each method of feedback provided strong messages that MyMate was easy to use in all aspects.

Summary points are as follows:

- All users found the app easy to use
- Comments like 'the best thing about MyMate is the simplicity' were common
- The overall message from the usability focus groups was that the three best things are
 - The organisation of the app
 - The practicality of the app
 - The simplicity of the app
- All users were comfortable with the technology once they were trained and familiar with the way it worked
- Most found it quick to learn and easy to remember how to use the app each time

- The task scheduling and calendar were noted as being really helpful with organising time
- Very positive feedback in terms of being well designed, not overcomplicated and intuitive therefore no need for extra instructions
- All liked the choice of suggested activities and thought this was a good way to present the possible missions
- Overall the majority found it fun to use the app and liked the points function (with the caveats mentioned previously)
- All saw it as a major advantage to be able to use the app to communicate directly with the care centre in terms of helping to be more organised
- The app helped them to feel supported by the care centre - this was an additional benefit as sometimes when volunteering they can feel on their own without help.

3.2.3 Tertiary End User results

For tertiary users in the Spanish pilot, we will first look at the context within which those users were working as this will have a bearing on their responses. We will then consider their overall views of MyMate both as a solution that can have impact on primary and secondary users and as a mechanism by which care givers can manage aspects of their remit. This is gathered from the interviews and focus groups carried out over the course of the pilots.

After this, we will consider feedback on Usability from additional engagement activities with these users.

A number of common themes emerging from interviews with tertiary users carried out before pilot:

- The tertiary users are responsible for a whole range of primary users, with a variety of physical and cognitive challenges.
- Their role is to plan and manage the care of the primary users, as well as monitor their physical and emotional conditions.
- They are also responsible for providing activities for them and encouraging social interaction at the care centre.
- Monitoring of primary users is through multidisciplinary meetings where those involved with each primary user come together and share information.
- Staff feel it is very important to work as a team, that all the different departments work together to provide the best care possible, with the main goal of improving the quality of life of the primary users.
- Technology is used daily by the tertiary centre staff that were interviewed; computers for management, planning and recording purposes, and also mobile phones for internal communications.
- The main challenge that tertiary users mentioned was having the resources and staff to provide the best care possible. Any help given by volunteers would be a welcome addition:
 - to provide more one-to-one attention for those who would like it or who are more prone to isolation
 - to ease the burden on the staff who provide other kinds of care, and don't have time to sit and chat etc.

This set the context for the pilot and highlighted the enthusiasm for MyMate as an idea.

As a result of the pilot completing, we gathered a set of key messages and observations via interviews with tertiary end users. These are summarised as follows (and are additional to the feedback quote above in relation to the impact on primary end users):

- There was a positive outcome to the pilot overall.
- A greater number of primary users were able to have the benefit of volunteer time than would normally be the case.
- The range of activities that primary users were involved in was improved and varied – singing, chatting, playing games, going for a walk etc. This was a major positive to the approach.
- There is a natural period of adapting when primary users are getting to know new volunteers, so this may take some time with new volunteers especially when primary users have some cognitive challenges, so it would be good to continue with the same people where possible.
- The primary users responded well to the routine of regular visits and started to look forward to them. This added greatly to their quality of life and sense of enthusiasm.
- There were no issues reported in terms of interaction between volunteers and tertiary users. All relationships were positive.
- Everything went smoothly in terms of organisation and professional communications with the dynamic between tertiary user and secondary user working well.
- These users were very supportive of the idea that MyMate can help provide a more efficient and cost-effective service to those under their care.
- They recognised that the system offered a way of giving additional care with minimal intervention from them but within the context of on-going monitoring.
- MyMate could easily fit in with the services already offered, and complement the weekly schedule of activities and workshops. It would enable the centre to focus on those with more needs in terms of help with social interaction and isolation.

The tertiary user survey asked general questions about the MyMate experience and responses were very much in accordance with the positive feedback from the interviews. Some key points:

- 100% responded that they felt that the primary users were accepting of the concept of MyMate
- All agreed that MyMate can help address the challenges of aging
- The majority were positive about the impact of MyMate on improving the life of those who use it
- Overall results show that tertiary users found MyMate to be a simple approach that was not too time consuming or complicated
- There was an overall positive response when asked if the staff found MyMate to be an effective way of managing volunteer caregivers
- The majority agreed that they would consider implementing MyMate in the future

In terms of usability, our approach here mirrored that with the app – we ran pre-pilot feedback sessions to iron out any issues with usability so reduced the number of negative feedbacks received. Based on that feedback, the key results from the dashboard usability analysis are as follows:

- Usefulness – very positive in terms of helping the tertiary users to do their job, managing the volunteer process, and saving time
- Ease of use – again very positive, no problems in getting to know how to use it and felt comfortable with all elements of the dashboard
- Results show that tertiary users were able to start using the dashboard straight away after initial training, with no need for further instructions; this upheld the view that the initial usability was high and reflective of tools that users were already familiar with.
- There was very positive feedback about the overall design of MyMate, with few steps needed to be taken between different actions and the layout of the screens being considered to be intuitive.
- Nobody felt there were any elements of the MyMate dashboard that were unclear and a short time spent using the dashboard built familiarity quickly.
- For the tertiary users, the best things about MyMate were
 - the overall functionality
 - the ability to be able to store information about the primary users
 - access to feedback and comments relating to specific users

3.3 Results from the Pilot in Romania

3.3.1 Primary End User results

Primary users completed the pre- and post-quality of life surveys, were observed throughout the process and a sample number were interviewed. We also generated feedback from the secondary users in respect of the impact that MyMate had on them. The conclusions from those processes are as follows:

- The regular interactions with MyMate partners had a positive impact on the way that primary users felt – they were more positive as a result of the experience
- MyMate helped primary users to be more active and more engaged in the world around them
- MyMate gave primary users a reason to look ahead and to do more in their lives – it stimulated their enthusiasm for life
- Being involved in MyMate generally improved the sense of wellbeing of primary end users
- Being involved in MyMate helped primary end users to feel like they were more satisfied with their life

From the feedback of secondary users, the impact on primary users is summarised as follows:

- Primary users enjoyed the experience on MyMate and there were no issues to report
- All primary users would repeat the MyMate experience and would be part of it again given the chance
- Primary users were able to develop positive relationships with secondary users as a result of their involvement with MyMate
- MyMate helped primary users to feel less isolated and gave them something to look forward to
- By the end the primary user was driving the engagement (whereas at the beginning the secondary user had to organise) – this demonstrated the way that the primary user became more positive and proactive as the project developed
- another secondary users was with a primary user who was in danger of depression but this action has helped her to address her issues and encourage her to work more closely with her husband (who was unwell) – the experience gave the primary user a spark to do more in their own lives
- regular scheduled meetings worked well for a number of primary users – one primary user had physical problems but regular meetings helped her to start walking short distances and motivated her to do more and to be more positive
- even though one primary user - a women - lived with her family, she was still alone and sharing thoughts and feelings with a secondary user was very helpful

Although tertiary users had limited access to primary users within the context of the Romanian pilot, their response (which was largely anecdotal and based on interactions with secondary users) was that MyMate had successfully created a positive dynamic between primary users and their volunteer elderly care givers and had given the tertiary end user valuable feedback on the emotional state of primary users through the process.

3.3.2 Secondary End User results

For the secondary end users in the Romanian pilot, the key points were taken from the pre- and post-survey and from the interviews and focus groups. Most of the volunteers involved in the pilot were already regular volunteers. In terms of their main motivations for volunteering, the drivers were as follows:

- because it makes them feel good
- to help others
- because its fun

There was a general sense of positivity about volunteering and a desire to do more. Some of the secondary users were already involved in supporting older people within their communities but this was largely on an ad hoc, informal basis. Therefore, there were high hopes about the potential value and relevance of MyMate for these audiences.

Overall we gained very positive results from post-pilot surveys and interviews with the following emerging as key themes:

- 100% strongly agreed that MyMate made them feel good
- 100% strongly agreed that MyMate made them feel fit
- 100% strongly agreed that being part of MyMate increased their level of activity

A number of other strong messages emerged from the surveys:

- MyMate motivated these users to be more involved in volunteering activity
- MyMate made them more likely to volunteer
- MyMate made it easier to organise and complete volunteering activities

From the interviews and focus groups run, a number of other key points emerged in relation to the background on the volunteers:

- all volunteers were women (it was noted that, in Romania, it is not common for men to volunteer)
- there were a diverse range of activities undertaken by these volunteers – some intergenerational, craft, painting, fund raising etc.; they also volunteer with other age groups – families, children etc. - and have also done an exchange with an association in Belgium
- There are lots of opportunities to volunteer in Romania – if you have the right attitude you can do it
- All users agreed that it is was important for volunteering to be well organised and that this had an impact on the ability of the volunteer to add value
- The discussions explore the main motivation for volunteering:
 - emotional reasons, to give something back
 - a way to socialise
 - be part of a community
 - to learn new things
 - to feel useful and help other people
 - to have a sense of purpose
 - to keep yourself active

Regarding MyMate experience, the secondary users made a number of key points during the focus group discussions:

- all generally enjoyed the project and the experience made them feel good
- the impact was considered to be 'good for both sides', particularly in terms of supporting mental health
- the volunteers became increasingly happy as the interest from the primary user grew and the primary user assumed more responsibility for the relationship
- one of the secondary users was monitoring a Parkinson's patient during her time on MyMate - and she saw an improvement in her attitude (not physically but mentally)
- MyMate was considered to be a well organised project with a clear set of objectives
- the project was well received in terms of approach – it was seen as very highly planned but this was good; you had a plan to discuss with the primary user, both partners in the relationship were respected and there were clear boundaries; everyone understood what they needed to do
- the project was able to generate and sustain a unique relationships between the users but one with boundaries and structure
- there were no real negative issues in relation to primary users or their families (in terms of the dynamic with the secondary users) – they were all welcomed
- it was noted that it would have been useful to have a chat room or forum amongst the volunteers so they could share their experience

The focus groups discussions also considered the impact that MyMate had on motivation and engagement in relation to the volunteering activities of secondary users. In this discussion, a number of key points emerged:

- Users were generally not so motivated by points as it's not the reason for volunteering - they volunteer for other reasons.
- The main driver for volunteering was personal self-esteem – the fact that the app enabled them to track their progress and achievements gave them this and that was of value.
- For this group (who volunteer anyway) they do not do it for points and rewards but that does depend on the person - some were more motivated by this from a game-playing point of view (even though the points did not offer any 'real world' rewards)
- One secondary user commented that she was not getting enough points for what she was doing so she negotiated more points for those missions.
- The main reward (mentioned in the discussions) was getting thanks from the person and seeing them progress in terms of their mood and level of engagement with the world around them.
- The points and gamified elements were seen as useful for self-motivation (rather than for competition) – you want to gain points for yourself just to feel that you are being recognised/rewarded in terms of your self-esteem.
- There was no sense of competition from this group – if anything competition would put them off using the app.
- There was some sense that points and rewards against the idea of volunteering (the spirit of volunteering)
- The option to donate your points was discussed and considered to be more motivating as you are adding to your impact - you are giving even more back.
- Points might keep you volunteering for longer as they give you feedback and targets to hit - this is more than the receipt of personal rewards but is a motivating factor at an individual level.

- Seeing your progress (in terms of points and levels) is a good mechanism for feedback - you want make it to the next level and be proud of your achievements.
- It was generally felt that the system and app would bring new people in and attract new audiences to volunteering.
- Volunteering is quite a new thing in Romania and needs further support – there need to be ways of engaging more volunteers and the app would be a good way of doing that.
- Younger people are starting to volunteer more but older people need to be supported to volunteer more and MyMate could be a way to do this.
- Volunteering is good for your health, makes you more active, stops you from worrying about your problems – MyMate encourages that and makes it easier to do and so should be supported.
- It's very important for people who were active during their professional lives to carry on being active and doing something of value. The MyMate approach makes that possible.
- If the chemistry between primary and secondary use is good then the relationship continues beyond the project (and a number of secondary users saw this happen first hand).

When asked about the most positive aspects of being involved in MyMate, secondary users gave a range of responses:

- I feel active and see the benefits in the primary user;
- I'm busy with something useful
- Feeling valued at her age is something that society does not always support
- MyMate is interesting and new, a great way of planning and supporting volunteering activities
- MyMate makes volunteering more accessible – it's time saving as it was easier to plan and organise things
- I enjoyed the novelty of the approach – the chance to learn about and do something new
- MyMate is useful and efficient – I would use it again
- Using the app brings us more into line with a younger generation, with the technology
- MyMate brings us up to date

In terms of the usability of the app, the approach was the same as in the other pilots. There was a series of pre-pilot usability tests to feed back into the app development and to ensure that any issues with usability were ironed out early on. In addition to this, usability was evaluated through a blend of responses from interviews, focus groups and questionnaires. The key points from those engagements are as follows:

- All secondary users enjoyed using the app - the interface was very friendly and easy to use.
- There were some general usability issues experienced but these were more related to the use of the tablet and the fact that some users needed to learn how to use a tablet.
- All users used the app to organise their missions and their time – they did not need any other means of organising so it worked for them.

- The group were very positive about the app in terms of usability generally with no strong views in a negative direction and no significant recommendations for improvements.
- There were some minor technical problems/bugs to be fixed with the app that this user group identified:
 - the chat facility was not working fully and needed fixing
 - the feedback facility on the missions was also not working as it should – the users could not find the 'send' button so this needed to be addressed
- Beyond these minor issues, there were no real recommendations for improvements to the app – users were very happy.
- The group made a number of suggestions for ideas to complement the existing app
 - A forum between volunteers where they could share experiences and talk about their volunteering
 - Think about primary users who use technology and how they could be included in the process from a technology perspective
 - Use video chat functionality with primary users to make them more connected and create more opportunities for interaction

3.3.3 Tertiary End User results

For tertiary users in the Romanian pilot, their approach was quite hands-off in terms of their day to day involvement. They oversaw the creation of the users, the matchmaking of the users and the creation and allocation of the missions. They then monitored the activities of the secondary users and gathered period feedback to ensure everything was running well.

Before evaluating the impact of MyMate, focus groups and surveys were used to explore the context within which MyMate was being implemented. The main points from those engagements are as follows:

- Volunteering is an important part of what they offer, and they hope it will continue to grow. The human interaction with the primary users is very beneficial but also the volunteers have a sense of fulfilment.
- There is currently no direct monitoring of primary users' health status but they update their own records with reports on general wellbeing of primary users.
- Recruiting and keeping volunteers in Romania is a major challenge and something that needs addressing.
- The current rate is of volunteering is 2% amongst the senior community – this could be improved with the right tools.
- There is a definite sentiment that technology could be a big help in delivering a cost effective and efficient service to primary users – this would work in terms of keeping track of both the needs of the primary users and the activities of the volunteers.
- In terms of current technology, the tertiary users encourage volunteers to communicate through a community Facebook page but there is little else that is used in this way.

Following the completion of the pilot study, we engaged with the participating tertiary end users on a range of issues. The results of those engagements are summarised as follows:

- MyMate made a real change in the way in which the whole process of volunteering worked within the framework offered by the tertiary users.

- There were particular benefits in terms of the communication with primary users and the MyMate solution was much more efficient in terms of keeping track of volunteer activities.
- The main perceived benefit to the system was the ease with which they could organise their volunteers.
- There were no practical challenges around implementing MyMate – the solution integrated into their set-up without any issues.
- The tertiary end users observed obvious and various benefits to volunteers – it was clear that MyMate made it much easier for them to organise their own time.
- They also noticed the degree to which the system was intuitive – as a result, everyone enjoyed using it.
- All staff were very positive about the implementation of MyMate - it was universally well received and perceived as a positive addition to their toolbox.
- On a commercial level, they would definitely consider MyMate as a product and are not aware of any similar products currently on offer.
- The only issue would be the level of cost that would be incurred – this may become a stumbling block as these organisations are not wealthy and need to find funds from somewhere.
- It was suggested that if it were available as an app on the usual Android and Apple stores then it would be widely accessible.
- For the end user organisation are using the dashboard, purchasing an annual licence or subscription would be an acceptable model of payment for this type of technology.

In terms of usability, our approach here was the same as with the other pilots sites – we ran pre-pilot feedback sessions with the tertiary end users in Romania to iron out usability issues. As a result, the amount of feedback on the dashboard usability was limited but still useful. Key points are as follows:

- Usefulness – the scores here were very positive in terms of enabling the tertiary users to run an efficient system. This was reflected in their comments during the interviews and focus groups.
- Ease of use – tertiary users found the dashboard very intuitive and experienced no difficulties once they had their initial introductory training. The dashboard uses familiar web-based graphics and is therefore quick to learn.
- Feedback on the design of the dashboard was good but suggested that different colours may enhance the overall experience. It was felt that the look and feel was a little bit boring as it is.
- Most of the dashboard worked well, but there were some issues with the chat facility and the feedback facility. These issues were addressed during the course of the pilot and are recognised as system bugs (rather than issues of usability).
- A suggestion for improvement of the dashboard would be the ability to filter the missions, so the tertiary user is able to look at them in terms of date of creation, rejected missions etc.
- For the tertiary users, the best things about the MyMate dashboard were its simplicity and efficiency.

3.4 Results from the Pilot in The Netherlands

3.4.1 Primary End User results

In the Dutch pilot the primary users were involved throughout all phases of the pilot, including the focus groups that were jointly organised with the secondary and tertiary users. This ensured a full understanding of the pilot project and MyMate by the primary users. Also, the primary users that were involved are experienced in joining pilot groups for innovation projects by NOF. By inviting these primary users, we were certain to receive feedback and suggestions from the primary users, that we could use, given the fact that this project started later in The Netherlands than the other pilot sites of MyMate

In the pilot we involved the primary users with the task to describe missions in MyMate that were sent out to the secondary users. This gave the primary users the chance to see 'under the hood' of the MyMate back-end, which gave the insight on the rewarding system and feedback options that the secondary users have

Primary users joined all focus groups and we also interviewed at the end of the pilot. The whole pilot process, focus groups and the final interview resulted in the following feedback:

- For the primary users MyMate was not visible for the life-like pilot scenarios. In the beginning the primary users did not feel that MyMate was giving extra benefits to them and/or the secondary users
- Primary users are very happy with the work of the volunteers. It helps them with everyday chores and gives them social contacts. However they don't perceive MyMate as necessary to maintain their relationship with the volunteer. However, this is no surprise as the MyMate solution is designed to be 'invisible' to the primary user. The main benefit is the organised contact they have with the secondary user.
- During the combined focus groups the secondary users responded neutral towards the use of the rewarding system. The Dutch volunteers don't volunteer to receive personal (financial) gain, but they want to give back to the community. However during the focus groups both primary and secondary users liked the idea that they can collect reward points together and spend them on activities that they do together. Points can be spent on coffee when they are out together, was one example.

3.4.2 Secondary End User results

For the secondary end users in the Dutch pilot, the key points were taken from the pre- and post-survey and from the interviews and focus groups. In the Dutch situation all of the volunteers involved in the pilot were already volunteering on a regular basis.

Most of the volunteers in any field in the Netherlands are in the age group 35-45.(58%) Volunteers that are most likely to focus elderly are over the age of 55. In the age group 65 and older 45% is likely to volunteer and 1 on 3 is 75 years or older. Studies show that the number of volunteers does not increase after retirement, but the retirees are more likely to spend more time volunteering. On an average people over 65 spend 5,4 hours a week. (CBS, 2015)

In terms of impact on quality of life we base our comments on surveys, focus groups and interviews, the volunteers noted:

- All of the volunteers already volunteer on a regular basis and do not feel that MyMate itself has an added impact on their quality of life. However, it was recognised that the approach was useful in organising their volunteering engagements.
- In general, it is felt that volunteering itself benefits one's own quality of life. It gives a gratifying feeling. However, the volunteers do not see impact on one's own quality of life as a main driver to volunteer.
- Volunteers were enthusiastic about working on a large project to improve volunteering and having an impact on the quality of life of elderly. This made them feel good. Having conversations and sharing experience was also a positive effect.

In terms of their main motivations and engagement for volunteering, the drivers were as follows:

- Wanting to be useful to society
- Investing back into society. These volunteers feel that they are well off because of modern day society and therefore want to reinvest.
- Helping to combat loneliness among elderly.
- Helping out and hoping, that when the times comes, somebody will return the favour.
- Wanting to do something meaningful besides work.
- Enlarging one's social network or experience.

The volunteers felt that volunteering is the right thing to do. It benefits the elderly and in return it gives a gratifying feeling. All the Dutch volunteers are socially active and working and started the pilot with the idea that MyMate could be helpful in organising visits in a more efficient way. Their goal was to minimize the administrative burden and to increase their output.

- In general, the participants feel it is gratifying being part of and pilot that helps elderly.
- All the volunteers felt that MyMate could increase the level of activity, but that some changes need to be made to MyMate. The volunteers are all active with work and have an active social life.
- Secondary users wanted to have more freedom around choosing activities from a picklist. The volunteers want to do different visits with different elderly people. Their main priority is that a visit matches their agenda rather than the person they are visiting. All the volunteers are used to the process of matching up with the wishes from elderly from the services that NOF offers. (<https://match.ouderenfonds.nl/home>) For them, something that gave them more choice would improve their level of motivation to use the system.
- In contrast to Romania there is no preference for male or female volunteers nor is there a preference among elderly for male or female volunteers.
- In the Dutch pilot the elderly were able to determine their own preferred activities. There was a strong preference for 'practical' missions. This entailed clearing the clutter in the fuse box, explaining how a photo camera works, helping out rearranging a room and so on. The volunteers responded very well to these kinds of missions because it made them feel more 'useful'.
- In general volunteers feel it is not very difficult to build a relationship with the elderly, although sometimes the elderly can be a little bit demanding or melancholic, especially if they are lonely.

- The main use of the app was valued in term of 'time management' and organizing and securely exchanging information.
- The functionality of collecting points, credits, for one's own benefit was not initially met with enthusiasm although if points or credits were put towards benefits during a visit, e.g. a coffee or meal voucher, that can benefit both the elderly and the volunteer, then secondary users found it more agreeable.
- Volunteers did not feel that competing would motivate them to volunteer more and would prefer to feel like they were part of something collective.
- Collecting points for a charity was also seen as an acceptable alternative within the context of the gamified platform approach taken in MyMate.

Regarding the usability of the app the volunteers made the following remarks:

- The app is easy to use also for inexperienced app users
- It is easily instructed and works in an intuitive way. You need very little instruction.
- All the volunteers would prefer to use the app only on their smartphone. They do not carry around a tablet all-day and they are more accustomed to their phone. All volunteers have a tablet but only use it for watching movies and Facebook.
- The method of accepting a mission, starting and finishing was overly complicated for some and there was a sense that an easier way could be found.
- The chat functionality was not fully functioning so it was not used properly (although there was enthusiasm for the idea). The volunteers would like to have the possibility to chat with each other – or to have a forum to share their experiences – this would improve the sense of value associated with MyMate.
- Having an address and a map online and GPS functionality was highly appreciated.

General feedback during interviews and focus groups:

- Volunteers highly appreciate the fact that research and development was being done on ICT and elderly people and were keen to be a part of that.
- Volunteers feel that ICT can be very helpful in supporting elderly people and in giving additional tools to volunteers.
- Volunteers liked being part of a group and discussing their experiences. This also takes time out of their volunteering time, but it was felt as useful. Alternatively, MyMate could, in future, facilitate in online collaboration.
- Some secondary users mentioned that they would appreciate a system where if one volunteer is otherwise occupied, another volunteer can step in. This sentiment is understandable because all the volunteers select wishes from the Match service offered by the NOF and this system offers that functionality. [This is not an issue for the MyMate system in itself but just relates to how the system will be implemented.]

3.4.3 Tertiary End User results

For the tertiary user in the Dutch pilot, we worked together with the National Foundation for the Elderly (NOF). The NOF is a charity that promotes quality of life for elderly people in the Netherlands. The primary focus of the Foundation is combatting loneliness. Approximately 200.000 Dutch elderly feel extremely lonely. Their only social contact is once every four weeks.

The National Foundation for the Elderly supports elderly people through meaningful projects that:

- Combat loneliness
- Combat poverty
- Improve safety
- Improve active aging and health

The National Foundation for the Elderly aims to improve quality of older people's lives in a wide variety of areas. Research, knowledge and partnerships support this aim.

The NOF has a special website to match elderly and volunteers ([link](#)). On this website (MATCH) volunteers can subscribe and fill in a profile. The volunteers can view the wishes from elderly and match with them.

The screenshot shows the website 'nationaal ouderen fonds' with a search bar and a list of 497 wishes. The wishes are categorized by location and include details like the user's name, location, and the specific request.

Wish Title	Location	Date	Description
hulp bij computer/koffie/bezo...	Nijmegen	05-12-2018	Zoekt m/v 40/50jr. die haar kan helpen met de computer. Wil graag ook naar het winkelcentrum. Koffie drinken met wat lekkers.
Museum bezoeken (4 tot 6 x...	Alkmaar	05-12-2018	Mevrouw is op zoek naar m/v 30+ die het leuk vindt om samen met haar Musea te bezoeken (zo'n 4 tot 6 keer per jaar). Zij is slecht ter been en is dus op zo...
Muziek maken/koffie/uitje	LEMMER	05-12-2018	Meneer (73) zoekt een vrijwilliger om gezellig muziek mee te maken (country/top 40)/koffie drinken/uitje/telefoonsprek.
markt-museum-film-theater...	Goes	05-12-2018	Zoekt m/v van 60+ om samen te lachen tijdens de koffie, lunch, wandelen, bezoek aan de markt - museum - bioscoop - theater
Babbelen, spelletjes, muziek...	Breda	05-12-2018	Gezellig babbeltje. Soms een rondje lopen, kan heel goed. Spelletje rummikup of scrabble. Leest niet meer zo veel helaas. Komt uit Amsterdam. Houdt...
Honden, ballet en een gezell...	Bleskensgraaf	04-12-2018	Mantelzorger, vrouw (67) zoekt bezoekvrijwilliger om af en toe over alledaagse dingen te praten, honden, ballet of wandelen met het keeshondje. Heeft thuis...

The engagement with NOF during the Dutch pilot was split into two activities. One involved the actual pilot, during which a number of tertiary users used MyMate in the daily environment. They received a short training on how to use the system and then they started to create the profiles for the primary and secondary users, creating missions and communicating with the secondary users.

The second activity consists of two focus groups, the first one as part of the kick-off of the pilot phase, the second one after the end of the pilot. The results of these focus groups is summarized below.

On the experience the participants noted:

- MyMate should be set up more in a way that it would facilitate in bringing together volunteers & elderly without intervention of NOF. The MATCH-coordinators of NOF do the first screening of volunteers, including a background check and interview. After this process volunteers should be in a flex-pool from which they can select wishes from elderly that suites the volunteers time schedule and interest
- There were some questions about the establishment and maintenance of missions and an initial misunderstanding that mission activities were 'fixed'. The system actually enables tertiary users to set up their own missions and/or select/adapt existing missions. This would meet with the tertiary user's expectations.

Looking at the added value of MyMate, participants were both positive and negative. Noteworthy to mention, is that the added value of MyMate was primarily seen when MyMate is more tailored and/or more integrated into existing programs.

- MyMate could be a useful tool for Silverline, this is a program that facilitates in young volunteers making regular (weekly) phone calls to elderly. There is a demand for a loyalty program to make the volunteers more loyal. A reward system could be helpful to make the Silverline volunteers more loyal to the program
- MyMate could be useful to facilitate in transportation wishes. Elderly have a frequent demand for transportation, for going to the hospital, the general practitioner, hairdressers or for example clothing stores
- If, more tailored, to specific needs of NOF it could be useful tool to add to the already existing MATCH program. This gives the volunteer the opportunity to see the data in an app. At the moment it is being done by phone and email.
- It is not felt that the introduction of MyMate, as is, would have a noticeable impact on the organization in a financial or organizational way. The app might make it easier to arrange contact between elderly and volunteers but will only replace processes that are in place, such as email or phone-contact. Replacing this in itself will not have a commercial impact. Maybe if the app would be tailored more to the exact wishes it could.

The usability of MyMate was questioned by some tertiary users. There were some calls to make the application easier to work with and more intuitive. To name some examples:

- It can be difficult to see the available timeslots or interests of the volunteers. This needs to be improved in order to make it easier to match with relevant volunteers/elderly people.
- When you have a backlog of messages, it can be more difficult hard to scroll through or find a specific message or user. This part could be simplified.
- Some parts of the system could be more automated and triggered by actions taken by the secondary user when they complete something using the app [although this was more of a perception as this already happens with certain processes].
- A group option could be interesting. To avoid back and forth communication with one volunteer to create a match, a group option would increase the chance of creating a match sooner. More volunteers can be approached with the same mission at the same time.
- When setting up missions and creating profiles, some of the items that need to be filled in would be easier when using dropdowns or by limiting the number of options.

4 CROSS ANALYSIS, CONCLUSIONS AND RECOMMENDATIONS

4.1 Impact on Primary End Users

4.1.1 Main Findings

The findings in relation to primary end users were largely consistent across all pilot sites. Our focus was on exploring improvements in quality of life indicators (through the pre- and post-pilot survey) and then relying on feedback and observations from secondary and tertiary users to further inform us.

Based on the collective feedback from the three pilot sites, the main conclusions are as follows:

- all primary end users benefitted from the MyMate approach in that it enabled them to engage more regularly with someone who was of a similar age to them and someone who became a source of care and support
- the main benefits were in the degree to which the primary end user engaged with the world around them, became motivated to do more and was seen to have more to look forward to
- the regularity of the visits from the secondary user were key here – by scheduling the visits and ensuring that they were regularly repeated, the primary user knew what to expect and could build that into their weekly activities
- the nature of the relationship between primary and secondary user was key – they secondary user was neither a family member nor a medical or care professional; therefore, they had a unique position as a kind of ‘allocated friend’ and this is what allowed the relationships between primary and secondary users to blossom
- it’s important to note that even though the type of primary user differed (with some living with other people, some suffering chronic illness etc.) these users were united by a need to address isolation; what the pilots demonstrated was that the MyMate approach worked to address this particular issue, regardless of the background of the primary user
- there were no reported issues with the role or responsibility of the secondary user in relation to the health of the primary user; it was clear from the beginning that the secondary user was there as an ‘allocated friend’, not as a care giver or as someone who should ‘report’ on the medical condition of the primary user
- the activities that the primary user wanted to undertake with the secondary user would vary greatly and it was often best for the primary user to decide this on an ad hoc basis rather than for the tertiary user to dictate this from afar

The broad and resounding conclusion was that the concept of connecting senior volunteer carers with seniors at risk of isolation worked for the primary users in every context regardless of health, culture or location.

4.1.2 Recommendations

There are no specific commercial recommendations in respect of this group in that they will not be ‘customers’ for the MyMate product. However, there are some ideas that emerged

from the study that might improve the impact of MyMate for primary users and therefore have a positive influence over our ability to commercialise the product:

- There may be opportunities for the primary user to have some interaction with the MyMate app. This could be in the form of providing their own feedback or could be some kind of communication tool that facilitates interaction between primary and secondary user. Many primary users were able to use tablet technology so this should be considered for the next iteration of the app.
- As mentioned above, the way in which missions were set up suggests that the tertiary end users know best what the primary user will want (and will be able) to do. In fact, this is usually a decision that is reached by the primary and secondary user together. Therefore, a review of how the missions are created and allocated would be sensible prior to commercialisation.
- It was clear that primary users were very keen to get involved in the whole process of MyMate. Although there were mixed results regarding the gamification aspects of MyMate for secondary users (which we explore below), it may be interesting to see the primary and secondary users as a 'team' and to introduce the primary user to the idea of gamification and reward as a further incentive to 'do more'.

4.2 Impact on Secondary End Users

4.2.1 Main Findings

Although the profile of secondary users across the different pilot sites was largely similar – in that these users were retired seniors, mainly female, physically and mentally well, keen to volunteer etc. – the context for volunteering was different in each country. The Netherlands has the most advanced culture of volunteering and also uses some basic online tools for volunteer organisation. Romania has the lowest levels of volunteering, particularly amongst seniors and the process is largely ad hoc. Spain has a strong community culture and sense of connection between neighbours but this is largely informal and therefore difficult to manage or evaluate.

Although the impact of MyMate on secondary users was positive everywhere (and we go into detail below) Romania was the country where the value was most keenly felt as MyMate provided a structure and a mechanism by which volunteers could be organised and tracked and created new and interesting incentives for volunteers to get involved and stay involved. In Spain, the app was well received and was viewed as something that built on what was already happening whilst adding new layers of motivation. In the Netherlands, the value was less well-articulated and MyMate was considered as 'another tool' to work alongside that which already existed there.

In commercial terms, this would suggest that MyMate may have a brighter commercial future in those countries where volunteering is less well-developed and where there is a need for greater organisation of these activities. That said, the results from the Netherlands remain positive and it seems there is still a market there in terms of engaging and motivating secondary users.

In addition to these points, the following emerged in relation to secondary users:

- All secondary users enjoyed the experience and saw the value of what MyMate was trying to do (in terms of supporting community-based approaches to informal care).
- The groups of volunteers were largely self-selecting and so would volunteer anyway. However the MyMate app and approach certainly inspired the secondary users to volunteer more, to do more, to stay involved for longer and to remain motivated.
- There was a common view that the way in which the process worked was extremely helpful in organising and managing the interactions between primary and secondary users. This was particularly felt in Romania and Spain.
- It was also felt that the ability to communicate with and feedback to the tertiary user was highly effective and appreciated as a way to bridge the gap between the primary user and the formal care provider.
- The gamification elements of the MyMate app had mixed responses. For some, this added a layer of interest in terms of providing targets and rewards. For others, they were less engaged and would probably have preferred the gamification elements to be switched off.
- There was certainly a general aversion to the idea of competition between secondary users in all but a very small minority. This was seen to be counter to the 'spirit' of what they were doing.
- There was also discussion around the compiling of points and the possible rewards that people may receive as a result. For some, real world rewards (like coffees, shopping points etc.) would be welcome but for others they would not want to personally benefit from the process and may prefer to 'give their points away'.
- There were virtually no issues with the usability of the technology. Even though some secondary users were new to tablet and touch screen technology, once the issues with accessibility to this technology were overcome the use of the app itself presented few problems. There were one or two functions that were largely unused and could be removed but apart from that, the response from secondary users was positive.

4.2.2 Recommendations

The recommendations coming from the evaluation with secondary users are a mix of possible tweaks to the app and ideas that might enhance the value and motivation for these users in future versions of the MyMate process. The app and process do work as is so these ideas are embellishments of what is already there:

- There could be an option to switch on and off the gamification module as, for some, this was not a source of motivation but something of a distraction. However, it may be better to slightly change the gamification approach rather than switch it off (see below).
- The existing system enabled secondary users to choose to 'donate' their points to charity. However, the pilot did not fully facilitate this and the option was somewhat buried in the architecture of the app. By bringing that idea forward, we may inspire more secondary users to get into the gamified approach if they are doing it altruistically.
- We also need to explore the possibility of what happens when we connect the gathering of points to real world rewards. It may be that the ability to convert points

into physical rewards would still be motivating for some users (and could be offered alongside the option of donating points to charity).

- It was evident that although competition between individuals was largely disliked between secondary users, the idea of teams within the MyMate world might work better. This may be community-based teams or teams of primary and secondary users working together. This could be developed and connected to the gathering of points within the system.
- As the project progressed, secondary users became more and more enthused and also more engaged. Part of what was missing was the opportunity for them to connect with each other and share their experiences. It may be useful to create a forum for secondary users to connect that runs within the app.
- The feedback mentioned regarding primary users and missions applies also to secondary users. It may be useful to allow secondary users more freedom to create missions with their primary user and to define what happens on these missions (rather than the tertiary users always setting these missions).
- The lowest level of impact for the app was in The Netherlands where there is already high levels of organised volunteering amongst seniors and where there are competing systems that help match volunteers with elderly people. This shows that we need to be more focused on differentiating our product in these more advanced markets.
- As mentioned above, there are some functions within the app that were not heavily used. In a future iteration of the MyMate app, we should identify these functions and remove them.
- We should make efforts to further simplify the interface. Although the response was good from users in terms of the level of usability, there are still opportunities to make the experience less cluttered.

4.3 Impact on Tertiary End Users

4.3.1 Main Findings

The experiences of tertiary end users were broadly similar across the three pilot sites (even though the set up of these users differs from country to country). The fundamental experience of using the MyMate dashboard as a mechanism for managing volunteer elderly people was common and well received. All tertiary end users were positive about the idea of MyMate – all these users face the same challenges in terms of trying to meet their responsibilities for supporting an aging population whilst facing limited (or even declining) resources. The idea of mobilising retired active seniors as volunteer ‘friends’ to those at risk of isolation was universally welcomed.

Within the user requirement phase of the project, we developed a clear understanding of the boundaries that MyMate should work within. This meant that we did not try to implement any form of health ‘monitoring’ as part of the MyMate approach. The risk here was that we would be putting untrained volunteers into positions of authority in respect of the health of elderly people. Our focus on socialisation and active living was therefore in line with the expectations of tertiary end users and no issues were reported in relation to secondary users ‘overstepping’ their remit.

In addition to this, the following points emerged in respect of the feedback received from tertiary end users:

- The MyMate approach gave tertiary users a simple mechanism by which to organise the activities of volunteer secondary users within their own communities. This was largely something they had not had access to before and it was welcomed.
- Tertiary users appreciated the ability the system gave them to keep in contact with their tertiary users and to track and monitor their activities from the online dashboard.
- There were not reported issues in terms of the implementation of the MyMate system within the processes of tertiary users. This was essentially something new to them so was an addition to what they were already doing but the simplicity of the system meant that implementation was smooth.
- Alongside the widely recognised and reported benefits of the MyMate approach for the wellbeing of primary end users, tertiary users also commented on the impact that MyMate had on secondary users. They felt that the system was effective in motivating secondary users to persist with their volunteering activities and gave them the organisation and support they needed to perform their role effectively.
- All tertiary users recognised the potential that MyMate had to create a new layer of community-based care that was effective and highly affordable. This made MyMate an attractive proposition for all tertiary users.
- The MyMate dashboard – and the processes around which the dashboard operates – was easy to use, intuitive and easy to learn. The design was largely welcomed although it was felt that there could have been a little more ‘interest’ in terms of the look and feel.

4.3.2 Recommendations

Tertiary end users were asked a series of questions regarding possible improvements to the system, changes to the processes or issues that we would need to address prior to commercialisation. These users were also asked about the possible business model around MyMate and what they would see as the most feasible approach to taking MyMate into the market. Although there were some differences in emphasis from country to country, there was largely consensus around the following points:

- The idea of mobilisation elderly retired volunteers was welcomed and sensible as an approach to addressing isolation. However, some tertiary end users did not see why other types of volunteers (younger volunteers specifically) should not be included as part of the model.
- The tools for communication between the tertiary user and the secondary user could be reviewed and improved. This is a critical value that such a system can offer and this communication channel needs to work efficiently.
- There were some concerns over the recruitment and retention of volunteers and the impact this would have on the effectiveness of the system (i.e. without volunteers it simply doesn't work). This is not an issue for the technology but we might want to think about providing more support and guidance for organisations looking to recruit volunteers, particularly seniors.
- The idea of the secondary users as a ‘community’ of volunteers was quite compelling. Within the context of the pilot, these groups were brought together for the focus groups and feedback sessions but beyond this there would be no formal mechanism

to connect this group together. We should explore ways that we could enable this group to connect and share their experiences.

- Tertiary end users also noted the dynamic of primary and secondary users driving their own activities and missions rather than necessarily following the instructions of the tertiary user. This needs more thought and perhaps a process that is less prescriptive and more empowering to the senior volunteers.
- Allied to this, it was felt that the main area of the dashboard that required simplification was the mission set up and allocation. This area of the system has quite a lot of different components and could be rationalised in a future iteration of the dashboard. There were one or two other minor points on dashboard usability that need to be addressed in the next iteration of the technology.
- The advanced nature of the market in The Netherlands meant that the tertiary end users there were less enthused about the whole MyMate technology than in other participating countries. The commercial approach in these more advanced markets needs to be based on tailoring the system to the specific requirements of the client and adapting the MyMate system to work alongside existing systems of volunteer management.
- The key commercial concerns regarding the MyMate system will be price and payment model. It was largely felt that the app should be made available for free and then care organisations pay for access to the dashboard and for the ability to set up users. The level of cost associated with this will have to be further refined and will largely depend on the funding model in each country.
- Associated with this point, one of the main commercial issues we will face is the diverse structures of funding in each country. The challenge will be to find the right funding partner and to then make commercial agreements with that funder.