

# SOULMATE Deliverable 1.2

## User Recruitment Plan

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Author(s): SOULMATE consortium

Contact: [Tom.Bellemans@abeonaconsult.be](mailto:Tom.Bellemans@abeonaconsult.be)

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## 1. Introduction

In the SOULMATE project, diverse travel wishes and needs of older adults (aged 65+) are addressed in order to engage in (and to ensure) an active, healthy and independent living in a secure way through active mobility and physical activity. The integrated SOULMATE consists of three complementary modules: indoor virtual training of the route (Activ84Health), active routing during the trips (Ways4All), and monitoring by a coach at a distance during the trips (Viamigo). In the project, the three service solution partners (i.e. Activ84Health, ABEONA Consult and FH Joanneum) are accompanied by a research partner with expertise in mobility and activity patterns (TU/e), a business partner with expertise in co-creation approaches (RRD), and two business partners with technical expertise in the development of services for elderly (c.c.com Moser GmbH and FRAISS). Three end user organizations (SlimmerLeven, Happy Aging and GEFAS STEIERMARK) will intensively test and evaluate the integrated solution from a user (primary, secondary and tertiary), technical and business perspective.

This document describes the recruitment of end-users in the various phases of developing the SOULMATE solution: co-creation workshops, initial testing, field trials, and benchmark survey and willingness-to-pay (WTP) experiment. Per phase we will address the type and number of end-users involved, how end-users will be recruited, where, how, and how often they will be involved and the way they will be rewarded. Note, that because the co-creation workshops are scheduled as the first phase of the project they will and can already be described in detail, while for the other phases a more general description of the recruitment plan is still given. The steps followed in the co-creation workshop phase to recruit participants will be used as a guidance for the following phases. Before addressing the various phases, first some general information about the recruitment processes will be given.

## 2. General Recruitment Information

End-users will be involved in the different project phases: co-creation process, initial testing, field trials, and a bench mark survey including a willingness-to-pay experiment. In the co-creation workshops, two main goals are served: first, information is gathered on end-user demands, wishes and needs. Secondly, most valued features will be selected from the existing service solutions to come up with an ideal integrated solution, covering all pre-identified wishes and needs. In the initial testing end-users are involved in order to give extensive feedback about the SOULMATE solution during the iterative design phase. During the field trials (6 months), SOULMATE will be used in real-life trips of end-users, by which both qualitative and quantitative performance indicators will be measured. The survey among a larger group of end-users serves as a bench mark, and includes a willingness-to-pay experiment to measure the market perspective.

As transportation needs can differ widely among relevant types of end-users, several well-defined homogeneous groups of elderly will be defined to intensively test and evaluate the SOULMATE solution. This will ensure that a



broad spectrum of transportation needs has been covered. To this end, the following test beds will be organized with end-users:

**SlimmerLeven (The Netherlands):** Individuals living in urban and rural areas. Low rural population densities makes viable public transport more difficult, leading that people in rural areas typically have a greater need for other transport modes than urban dwellers.

**Happy Aging (Belgium):** Individuals with and without identified transport or mobility problems.

**GEFAS (Austria):** Individuals with a different migration background (natives and immigrants). Immigrants may experience information or communication barriers which can make travelling independently more difficult.

As SOULMATE deals with potentially vulnerable users, it is primordial to avoid dubious instructions or situations leading users into trouble. Moreover, in the initial testing and field trials phases of the project the risk that the respondents run for adverse events when using SOULMATE in real life needs to be avoided. Users' safety is the main focus at all times during these phases. SOULMATE will intimately interact with the daily lives of its users. Hence, it will inevitably obtain detailed information on its users. These data will be treated with respect for the privacy of the users and in full compliance with governing legislation. Table 1 shows an overview of number and characteristics of end-users involved in the various phases of the process.

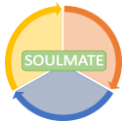
Table 1 Overview of number and characteristics of end-users involved in the various phases of the SOULMATE project

	Co-creation Workshops ("Service Design" & "Feature Selection")		Initial testing	Field trials		Benchmark Survey & WTP
AU	Natives: 6 + 6	Immigrants: 6 + 6	5	Natives: 20	Immigrants: 20	100
B	Complete mobile: 6 + 6	Mobility impaired: 6 + 6	5	Complete mobile: 20	Mobility impaired: 20	100
NL	Urban: 6 + 6	Rural: 6 + 6	5	Urban area: 20	Rural area: 20	100
Total	72		15	60	60	300

Besides elderly themselves, also secondary end-users (e.g. family members, caregivers, neighbors or voluntary workers) will be involved in the testing phases, especially for elderly with a challenge (e.g. mobility or cognitive impaired, or difficulties in communication). Finally, tertiary end-users like governmental organizations (e.g. care home organizations or senior associations) and public transportation companies, will be involved as well.

### 3. Co-creation Workshops

The co-creation phase brings together different end-users in order to jointly produce a mutually valued outcome. Specifically, co-creation workshops with end-users are conducted, in which we gather information of elderly about their transport wishes, and desired and needed functionalities and components of SOULMATE (e.g., active support, monitoring at a distance, learning routes). Designated elderly, their informal caregivers, and technology designers will, collaboratively, design an integrated set of technologies in the form of a paper prototype. The paper prototypes will be analyzed, and functional specifications will be deduced. Specifications, which are highly



prioritized (a roadmap of products specifications will be made), will be supplemented by activity diagrams to demonstrate how the technology will be used in a real life context to the design team. Wireframes will be created in order to support the graphical design. (See document D1.1 for more detailed information about the co-creation methodology)

## Recruitment

In each of the 3 countries (Austria, Belgium, the Netherlands), 4 workshops with a duration of at maximum 2 hours each, with a heterogeneous group will be organized by the end-user organizations (SlimmerLeven, Happy Aging & GEFAS) in 2 rounds:

Round 1: to develop the service model

Round 2: to co-design an integrated set of technologies for the integrated solution

Per workshop 6 end-users will participate and they will differ on:

- urban density level of neighborhood: urban vs. rural areas (Netherlands);
- mobility impaired or not (Belgium);
- migration background: natives vs. immigrants (Austria).

Based on availability, in each workshop 2 to 4 of the following secondary and tertiary end-users will participate: family members, caregivers, neighbors, voluntary workers, and stakeholders from municipality, public transport company, and elderly organization.

Moreover, other consortium partners (e.g., technological partners) will be present at the workshops to be involved in the complete process of developing the integrated SOULMATE solution.

Awareness is raised in each country by designated recruitment campaigns by the end-user organizations among the various types of end-users to win them for participating in the workshops. End-users will be recruited through the extensive networks of the end-user organizations, who have panels of end-users:

Belgium - Happy Aging

- mobile end-users recruited in their own community, see Figure 1 for recruitment form
- mobility impaired end-users recruited by Triamant, location Velm, Sint-Truiden ([www.triamantgroup.com](http://www.triamantgroup.com)) in person among their clients

The Netherlands – SlimmerLeven

- urban end-users recruited by the community council of Brandevoort in Helmond and various associations who gather weekly/monthly in community center 't Brandpunt in Brandevoort
- rural end-users recruited by an active, interested community member in the rural village Sterksel

Austria - GEFAS Steiermark

- native end-users recruited among the members of GEFAS by a personal e-mail or calling members
- immigrant end-users are recruited by the official Migrants' Advisory Council of the City of Graz among different migrants' organizations (due to the characteristics of this group we decided together to lower the minimum age to 55+)



## Samen op weg naar een betere mobiliteit!

Zelfstandig mobiel blijven, dat draagt zeker bij aan het Happy Aging gevoel! Onszelf verplaatsen is nodig om boodschappen te doen, familie te bezoeken en activiteiten te ondernemen. Hoe vanzelfsprekend onszelf verplaatsen ook is: soms kunnen we gerust een steuntje in de rug gebruiken. Bijvoorbeeld om de weg te vinden naar een onbekende locatie, of om wat meer te bewegen door te kiezen voor de fiets.

### Om ouderen hiermee te helpen, werkt Happy Aging samen met partners uit Oostenrijk, Nederland en België aan SOULMATE: een reisinstrument door én voor ouderen!

Op **dinsdag 26 juni van 14.00 tot 16.00** denken we samen met een groep 50+’ers na over wat we van een reisassistent verwachten. Welke hulpmiddelen -bijvoorbeeld een GPS of navigatieapp- gebruikt u nu al? Waarmee denkt u nu of in de toekomst hulp te kunnen gebruiken? En welke opties daarvoor kent u al?

Ook [Activ84Health](#) - het bedrijf dat minder mobiele mensen in staat stelt om levensechte fietstochtjes te maken - sluit aan! Al een voorproefje meepikken? [Bekijk dan zeker dit filmpje.](#)

Denk jij graag met ons mee?

► [Meld je hier aan voor 22 juni. Bellen kan ook: Judith bereik je via 011/286906](#)

Figure 1 recruitment of mobile end-users by Happy Aging

## Rewards

In the co-creation workshop phase it is decided not to give any specific awards to the end-user participants. However, each of the workshops will be organized as a social activity with coffee/tea and sweets. Moreover, all participating end-users in the co-creation phase will be invited to a social feedback session. This feedback session serves as an expression of our gratitude for their participation, and as a first introduction and kick-off into the (live) testing phase of the SOULMATE solution.

## When & Where

All workshops will be organized in a place that is familiar and easily accessible to the local end-users, so this is different for each workshop.

First round: workshops are organized in each country in the period 15 June-15 July 2018.

Second round: workshops are organized in August 2018.

### Belgium

- |  |              |
|--|--------------|
| 1. Office Happy Aging (mobile)   | 26-06-2018   |
| 2. Location Triamant Velm ( <a href="http://www.triamantgroup.com">www.triamantgroup.com</a> ) (mobility impaired) | 27-06-2018   |
| 3. Office Happy Aging (mobile)   | August, 2018 |
| 4. Location Triamant Velm ( <a href="http://www.triamantgroup.com">www.triamantgroup.com</a> ) (mobility impaired) | August 2018  |

### The Netherlands

- |  |             |
|--|-------------|
| 1. Wijkhuis 't Brandpunt (community center), Brandevoort , Helmond (urban) | 5-07-2018   |
| 2. Dorpshuis Valentijn (community center), Sterksel (rural)                | 10-07-2018  |
| 3. Wijkhuis 't Brandpunt (community center), Brandevoort , Helmond (urban) | August 2018 |



- 4. Dorpshuis Valentijn (community center), Sterksel (rural) August 2018

Austria

- 1. Office GEFAS Steiermark , Graz. (natives) 28 -06-2018
- 2. Office of Migrants' Advisory Council, Graz (immigrants) 10-07-2018
- 3. Office GEFAS Steiermark , Graz. (natives) August 2018
- 4. Office of Migrants' Advisory Council, Graz (immigrants) August 2018

The participants of the first workshop rounds are also asked to participate in the second round of workshops. If not possible, new participants will be recruited in a similar way as for the first round. For the workshops in round 2 a similar practical set up (such as location, recruitment, catering) will be used and described in detail. Note that the content is different for the workshop in round 2.

## Informed consent

Gathering informed consent and permission for audio recording and taking photographs is included as one of the first steps in each workshop. The end-users always participate at a voluntary basis, and have the possibility to stop participation at any moment, without the need to explain oneself. Figure 2 shows the form that will be used for this purpose (translated to the language of the specific country).



## Toestemmingsformulier workshop “SOULMATE”

### Meedenken over een nieuw reisinstrument voor 65-plussers

Ik ben geïnformeerd over het doel van de workshop. Ik kon aanvullende vragen stellen. Mijn vragen zijn genoeg beantwoord. Ik had genoeg tijd om te beslissen of ik meedoe.

Ik weet dat meedoen helemaal vrijwillig is. Ik weet dat ik op ieder moment kan beslissen om toch niet mee te doen. Daarvoor hoef ik geen reden te geven.

Ik geef toestemming om mijn gegevens te gebruiken voor de doelen van de workshop.

Ik geef toestemming voor het gebruik van het geluidsmateriaal dat tijdens de workshop wordt opgenomen.

Ik geef toestemming dat de gegevens die tijdens de workshop verzameld worden 15 jaar na afloop van deze workshop te bewaren.

Ik wil meedoen aan deze workshop.

Naam deelnemer workshop:

Handtekening:

Datum :

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Ik verklaar hierbij dat ik deze deelnemer van de workshop volledig heb geïnformeerd over de genoemde workshop.

Naam onderzoeker (of een vertegenwoordiger daarvan):

Handtekening:

Datum:

Figure 2 Example informed consent form

## 4. Initial Testing

In the initial testing phase the initial versions of the instrument will be tested and evaluated by 5 motivated end-users per country in iterative loops till it is ready to be tested by a larger group of end-users. During regular, bi-



to four-weekly, meetings with the end-users, in a place familiar to them (e.g., office end-user organization), their use of and experience with the SOULMATE solution will be extensively discussed. Goals of these regular meetings include usability, perceived usefulness, integration in everyday life, acceptance, and safety. The results will be discussed with the developers to continuously evaluate and improve the instrument until a final version of the instrument is ready to be extensively tested.

For the initial testing phase 5 end-users per country will be involved because participating in this costly study-design testing phase is effortful for the end-user. Moreover, research has proven that very high percentages of usability issues are detected by the first four\five users (Virzi, 1992). The end-users will be recruited in January 2019 by the end-user organizations in a similar way and from the same communities as was done for the co-creation workshops. In fact, the end-users in this phase could be the same ones as in the co-creation workshops. The initial testing will take place in the period January-April 2019. The participants in the initial testing phase will be rewarded with a gift voucher as it requires quite some effort from them to participate. Before participation they will be asked to sign an informed consent form. Moreover, as the end-users in this phase might be at risk to run for adverse events while using SOULMATE (e.g., falling) it will be determined in advance whether the research project requires assessment by an accredited Medical Ethics Review Board (METC). If this is the case, the proposal for testing will be submitted to an accredited METC for approval.

## 5. Field Trials

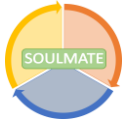
During the field trials, 40 end-users per country will use the SOULMATE solution during their real-life trips. During their use of the solution and after 3 months (middle) and 6 months (end of field trials), there will be follow-up measurements of their travel behavior, QoL and physical activity to test for changes compared to the baseline, to test for the effect of using SOULMATE. Besides these measures, the Acceptance and usability of SOULMATE will be measured using the Technology Acceptance Indicator. These quantitative measurements will be supplemented by interviews with the end-users to explain the findings of the surveys and to gather a deeper understanding of why people (do not) use the technology in certain situations.

Key performance indicators for the SOULMATE solution are related to the use of SOULMATE by elderly (e.g. user-friendliness, acceptance, usage statistics), its impact on the quality of life in the daily lives of elderly and their care givers. During the field trials, both the clinical impact (e.g. physical activity) and the impact on the activity/travel behavior of the end-user will be evaluated.

The field trials are planned in the period July 2019 – February 2020, and the recruitment for this phase starts in June 2019. At the start the participants will be asked to sign an informed consent form. The end-users will use the SOULMATE solution in their everyday life, and again the feedback meetings and specific testing will take place in a place familiar to them (e.g., office end-user organization). Also for this phase, the end-users might be at risk to run for adverse events while using soulmate, and therefore it will be determined in advance whether the research project requires assessment by an accredited Medical Ethics Review Board (METC). If this is the case, the proposal for testing will be submitted to an accredited METC for approval. The participants for the field trials are also recruited in a similar way and from the same communities as for the co-creation workshops and initial testing. Furthermore, they will be rewarded for their participation with a gift voucher.

## 6. Benchmark Survey & WTP

Survey data on the QoL indicators (similar as used in the field trials) will be obtained from a larger group of 100 end-users per country, and used as a benchmark baseline. The informed consent will be included as part of the survey. The survey will allow testing and quantifying the effects of using SOULMATE by the end-users because the information collected from this larger group can be compared to the field trial participants. Moreover, it will provide information to the developers on how to maximize and personalize the capabilities of the instrument for a variety of end-users. Moreover, the survey will include a willingness to pay for and acceptance of (WTP&A)



experiment to test what future users preferences are for the various components of SOULMATE and what they are willing to pay for the various components of the SOULMATE solution.

The survey with the experiment is planned at the start of the field trial, and thus should be held among the end-users groups in May/July 2019. This group is also recruited in collaboration with the end-users organizations. Because the task for the respondents is smaller compared to the initial and field trials, no individual rewards will be given but some gift vouchers will be raffled under the participants of the survey.

## Acknowledgements

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## References

Virzi, R. A. (1992). Refining the test phase of usability evaluation: How many subjects is enough?. *Human factors*, 34(4), 457-468.