Abstract
The present deliverable provides an overview of the PERSSILAA service protocols that describe the way in which and by whom and when the PERSSILAA services will be delivered in the two validation regions. The description in Campania Region, Italy parallels the description for Enschede, The Netherlands. The service protocols encompass a new service model, to screen for and prevent frailty in community dwelling older adults, integrating nutrition, physical and cognitive function. In order to identify the most important stakeholder for the service delivery, we held several meetings with local organizations of patients, with representatives of social and health services providers, health professionals, general practitioners, who are involved in the loco-regional organization of socio-sanitary services, contribute to providing the preventive services, and function as the primary referent in case
health related problems emerge. Results show that there is an urging need for support of the older adults in the community:

- to improve the adequacy of their nutrition, as they are often overweight;
- to increase their physical activity, as most of them do not exercise at all, and do not go out enough for a walk;
- to provide them with basic ICT training;
- to promote socialization through PERSSILAA services, as it will prove effective to increase adherence

There are no operative models currently available (and running in Campania) that integrate no-profit organization efforts to respond to the needs of the adult citizens with standard support from socio-sanitary services. PERSSILAA provides a template to scale up and contribute to improve overall health outcome sustainably. A further advantage of PERSSILAA model is that is sets up the conditions for raising the awareness about self-care, and training the adult citizen to take an active part to their own health. Last but not least, PERSSILAA provides the opportunity for the citizen to realize how supportive and accessible ICT can be, if they are provided in the adequate context.

Keyword list:
Service Models
Socio-sanitary integration
Loco-regional operationalization
Synergies
### Document History

<table>
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<tr>
<th>Version</th>
<th>Date</th>
<th>Author (Unit)</th>
<th>Description</th>
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<tr>
<td>0.1</td>
<td>19/05/2014</td>
<td>Maddalena Illario, Stephanie Jansen</td>
<td>Creating setup of D5.1</td>
</tr>
<tr>
<td>0.2</td>
<td>16/06/2014</td>
<td>Stephanie Jansen</td>
<td>Inclusion content for the Enschede region</td>
</tr>
<tr>
<td>0.3</td>
<td>26/06/2014</td>
<td>Maddalena Illario</td>
<td>Inclusion content for the Campania region</td>
</tr>
<tr>
<td>0.4</td>
<td>03/07/2014</td>
<td>Stephanie Jansen</td>
<td>Extent content for the Enschede region</td>
</tr>
<tr>
<td>0.5</td>
<td>10/07/2014</td>
<td>Miriam Vollenbroek</td>
<td>Commented in general on the deliverable</td>
</tr>
<tr>
<td>0.6</td>
<td>15/07/2014</td>
<td>Maddalena Illario, Stephanie Jansen</td>
<td>Revision of the content for Campania region; Summary and executive summary draft.</td>
</tr>
<tr>
<td>0.7</td>
<td>17/07/2014</td>
<td>Maddalena Illario, Stephanie Jansen</td>
<td>Finalization of the content and form to submit for revision</td>
</tr>
<tr>
<td>0.8</td>
<td>21/07/2014</td>
<td>Maddalena Illario</td>
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</tr>
<tr>
<td>0.9</td>
<td>23/07/2014</td>
<td>Maddalena Illario</td>
<td>Revision according to the reviewers</td>
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<td>0.11</td>
<td>24/07/2014</td>
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1 Executive Summary

PERSSILAA project.
PERSSILAA is a FP7 funded European project that develops and validates a new service model, to screen for and prevent frailty in the community dwelling older adults of two EU Regions: one in Campania, Italy, and the other in Enschede, The Netherlands. The domains of frailty in the older adults: nutrition, physical and cognitive function, are targeted for early detection, and effective, personalized interventions through remote service modules are offered through local communities.

The deliverable.
This deliverable outlines how the operationalization of PERSSILAA’s common vision (T2.1), scenarios and use cases (T2.2) is carried out in the two validation regions, explaining how the services will be used by older adults and caregivers. Specifically, it is an operationalization of Deliverable 2.1 (Shared vision regarding the screening of frailty and triage to training service) and Deliverable 2.2.1 (Initial service scenarios, use cases and functional specification). The description of Deliverable 2.2.1 is translated into protocols for screening and preventing frailty in the two validation regions. This deliverable also sets up the ground for Work Package 5 (implementation and Validation), and is critical for Deliverable 5.2 (Validation design and METC approval) and Deliverable 5.6 (Business models and cases).

The service protocols
In more detail, the present deliverable identifies how the services are translated into protocols at the two different deployment regions. In doing so, the deliverable allows to highlight the most important similarities and differences of the operationalization that might be useful for subsequent scale up at different settings.

The starting point to develop the PERSSILAA service protocols for both Enschede and Campania region are the outcome of the stakeholder meetings, that brought together the most important stakeholders for the to-be-developed PERSSILAA services.

Building on the interactions with relevant stakeholders through workshops and meetings is pivotal to decline the operationalization into effective organization documents, tools and procedures. The services provided by PERSSILAA will also be the same at the two deployment sites, although there have been operational “adjustments” to the loco-regional situations. Nonetheless, the expected impacts are alike, and the differences might provide further information about whether the community-based approach of the interventions might prove useful for socialization. The activities at the two Campania Communities will proceed in parallel with Enschede Region.

The opportunity to join PERSILAA project will be publicized at the two deployment Regions, either directly at the Communities, or through the GPs, to allow the set-up of the enrolment. Informed consent will be obtained concurrently with the enrolment and first screening. Following the first screening, pre-frail subjects will be invited to the second screening.

Data will be collected on the project’s platform, to allow subsequent aggregated data analysis, and will be interoperable with Universaal platform.
Depending upon the results of the screenings, adequate interventions -addressing physical activity, cognitive function and nutrition- will be provided to the older adults, and will be improved by their feedback on ease of understanding and handiness. Personalized interventions will be identified, and will include:

- Physical activity training, and personalized remote physical activity.
- Remote brain training through the neuropersonal trainer.
- Personalised nutritional interventions, also through an ICT interoperable platform.

Concerning the differences, the approach to the communities differs in that Enschede can manage a direct approach to the General Practitioners, that allows to deploy the first screening by email. This approach is also based upon a high level of digital literacy in The Netherlands, that is not mirrored by the condition of the senior citizen of Campania Region. For this, and because of the difficulties to involve directly large Campania GPs Unions, the first screening has been designed in Campania to be carried out face to face at the two Communities. The Communities also provided the opportunity to interact with a local no-profit, patients organization, “Salute in Collina”, that also involves GPs who are very interested in PERSSILAA services.

Another difference between the set-up of the services at the two Regions also derives from the above: indeed, in The Netherlands the involvement in the first screening of the GPs allowed their involvement to refer whoever resulted “too frail” to further clinical services. In Campania, the two Communities will take advantage of the involvement of the Health Campus, a no profit organization of clinicians, to carry out visits at the two Communities together with FOUND clinicians. They will use a tool available at FOUND, to activate direct booking of the services at the churches, to access further clinical services whenever appropriate.

A third difference between the two deployment Regions is that the remote services (nutritional intervention, remote training platform and neuropersonal trainer platform for cognitive decline) will be available in The Netherlands directly at home next to the kiosks that are being developed throughout different institutions in the region, whereas in Campania the services will be available at the two Communities, in a “centralized” way only. This decision derives from the different levels of digital literacy of the older adults at the two Regions. As in Campania there will be concurrent activities focusing on ICT skills of the older adults, this may change during the project, and subsequent access from home might be provided in Campania as well.
2 About this document

PERSSILAA is a FP7 funded European project that builds on activities within European Innovation Partnership on Active and Healthy Aging and on results of various earlier European projects, with 350 older adults in real implementation environments in Enschede (the Netherlands) and Campania region (Italy) to ensure increasing system efficiency and easy end user acceptance. Outcomes focus on daily activities, quality of life and risk of hospitalization.

PERSSILAA develops and validates a new service model, to screen for and prevent frailty in community dwelling older adults, integrating nutrition, physical and cognitive function. PERSSILAA develops remote service modules for screening, monitoring and training. Screening - easy to use tools to get an overall picture of a person’s health status. Monitoring – unobtrusive monitoring of everyday functioning. Training - remotely available health promotion programs. PERSSILAA innovates the way our care services are organized from fragmented reactive disease management into preventive personalized services offered through local community services, supported by a proactive team of caregivers and health professionals and integrated into existing healthcare services. PERSSILAA realizes a technical service infrastructure to support these multiple services and users in an efficient, reliable, easy to use way and therefore works on gamification, interoperability and clinical decision support. PERSSILAA builds on activities within European Innovation Partnership on Active and Healthy Aging and on results of various earlier European projects. There is continuous end user involvement and evaluation with 350 older adults in real implementation environments in Enschede (the Netherlands) and Campania region (Italy) to ensure increasing system efficiency and easy end user acceptance. Outcomes focus on daily activities, quality of life and risk of hospitalization. PERSSILAA builds business models for sustainable implementation and develops recommendations for European guidelines. The consortium (8 partners/5 countries) provides a unique skills mix, merging social, medical and technological sciences with industry, academia and end user organizations.

2.1 Role of the deliverable

In this deliverable PERSSILAA’s common vision (T2.1), scenarios and use cases (T2.2) will be operationalized into concrete protocols used for screening and preventing frailty in the two validation regions. In other words, it describes how the PERSSILIA services will be used by older adults and caregivers. As in D2.2.1 (Initial service scenarios, use cases and functional specification) these working procedures are visualized by means of activity diagrams to clearly distinguish the different actors and their tasks and responsibilities. This deliverable contains detailed working arrangements between all actors involved in the service delivery information transfer, response times, helpdesk facilities, admin functions etc.

2.2 Relationships to other PERSSILAA deliverables

As already noted this deliverable is an operationalization of Deliverable 2.1 (Shared vision regarding the screening of frailty and triage to training service) and Deliverable 2.2.1 (Initial service scenarios, use cases and functional specification). The ideal situation described in Deliverable 2.2.1 are together with the various actors concretized to protocols used for screening and preventing frailty in the two validation regions.
Besides, this Deliverable will serve as the foundation for the following deliverable of Work Package 5 (implementation and Validation). As such, it is crucial input for Deliverable 5.2 (Validation design and METC approval) and Deliverable 5.6 (Business models and cases).

2.3 Structure of this document

The remainder of this deliverable is structured as follows. Chapter 3 is the Introduction and provides a broad overview of the context where PERSILAA innovative service protocols were developed. Chapter 4 describes the methodologies and addresses in detail the operationalization procedures, and how these activities were integrated into the service protocols that will be deployed at loco-regional levels in Campania and Enschede. Chapter 5 provides the results and refers mostly to building the interactions with the stakeholders and the Communities involved, collecting their feedbacks and subsequently integrating it into the service design protocols. Chapter 6 describes the issues and barriers that had to be overcome in the operationalization of the activities at the two different deployment sites. The future work in Chapter 7 identifies what to do next in order to allow the best deployment of the project’s activities along with the availability of the services.
3 Introduction

It is widely acknowledged that technology supported interventions have great potential in healthcare to overcome the problems related to our ageing community, to increase the quality and accessibility of care, and to restrain the economic imperative of rising healthcare costs. Looking at the trajectory to come to successful technology supported interventions it is known to be a time-consuming iterative process where development starts after a requirement analysis and is followed up with a feasibility study as a first proof of concept. This process is iterative and results in a technical stable application, what is appreciated by the patients and ready for clinical evaluation (1).

The current state of the art shows that the evidence regarding the effectiveness of telemedicine interventions is growing (2, 3). However even proven effective telemedicine interventions often fade away and are not implemented in healthcare (4-6). A striking example is the myofeedback-based teletreatment (7). This teletreatment, that facilitates remote physical rehabilitation for patients suffering from chronic neck and shoulder pain, has shown to be as effective as conventional treatment (8, 9). Although this intervention has a positive societal business model (10), it is not implemented in healthcare (MyoTel FP6, eTEN, No 046230). When implemented or used in every day care, these technology supported services have been most often implemented as stand-alone interventions these were evaluated as a stand-alone treatment and not incorporated in the healthcare processes of daily life. Therefore, PERSSILAA should be integrated with the services available at loco-regional level, and the service protocols should be designed together with healthcare professionals (11), especially in the scale-up design.. Some typical examples: Bernocchie et al, 2011 (12) evaluated a technology supported intervention that facilitated a preventive cardiovascular program for patients at risk for cardiovascular events and which was offered as stand-alone program not making any connection to traditional existing interventions. Concerning the follow up modus, here technology supported interventions are most often offered after a period of conventional rehabilitation patients prolonged their rehabilitation at home by means of a technology supported intervention (11). For instance, the intervention evaluated by Tousignant et al., 2011 (13) facilitated a follow-up treatment for patient who underwent a total knee arthroplasty. After discharge from the hospital, patients received two months of physiotherapy at home making use of a videoconference system, this intervention has the potential to increase the quality of healthcare / community process. Both being service configurations with potential they are probably not most cost-effective and sustainable. The stand-alone version is of course very efficient and puts a strong emphasis on self-management of the patients but often hampers alignment with care services leading to confusion for the patients by receiving inconsistent information and tips as well as doubling of treatments. Using technology supported services as follow might of course be more effective but is also more costly.

It is currently thought (11) that blended program will be most successful as they make optimally use the advantages of the various configurations as:

1. It uses technology where possible but offers face to face services when needed
2. It emphasizes the self-management of the patient as much as possible
3. It lowers the professional capacity and costs as much as possible.

On striking examples is the CLEAR project (ICT-PSP CLEAR 224985) were a tradition rehabilitation program was partial replaced by a technology supported intervention. By
replacing one day of care at the rehabilitation clinic by one day of home rehabilitation using a technology supported intervention the effectiveness of the rehabilitation program was maintained (14), but there was a gain in efficiency.
4 Methods

4.1 Developing the PERSSILAA service protocols

4.1.1 Developing the PERSSILAA service protocols for the Campania region

The starting point to develop the PERSSILAA service protocols for Campania region are the outcome of the stakeholder meeting as described in section 4.2.2 of D2.2.1. This stakeholder meeting brought together the most important stakeholder for the to-be-developed PERSSILAA service in the Campania region: the General Practitioners, the Caritas Coordinators, the representatives of the older adults the referent of regional health care services, the referents for Health Campus, the referents of FOUND. The meeting was aimed to create the awareness among relevant stakeholders (older adults, clinicians, policy makers, informal caregivers, volunteers, shown in table) on PERSSILAA core concept and activities. Based on this meeting, various rounds (9 so far) of meetings were scheduled for the two Communities in Campania, that we the Parish of Santa Maria del Buon Consiglio a Confalone, in Naples, and the Parish of Pilar, in Ercolano, nearby Naples (Figure 1). Both Communities belong to the “Naples Dodecanato”, that is where the local network will be established, with more Caritas Communities. The subsequent workshops had more specific focus, in order to identify specific local referents for each activity, to identify the training needs of the volunteers and of the older adults involved in the Communities, to establish common, standardized procedures at the two different Campania Communities.

Figure 1: position of the two communities in the validation region Campania.

One introductive workshop was held jointly for both Communities, to allow the participants to meet and share views and perspectives on the project and on the services it will develop and provide. Subsequently, several meetings were held at each community with the relevant...
stakeholders to cover all the subjects and define the service protocol. During the meetings, each stakeholder received specific assignments.

In the joint workshops the following subjects were covered:

1. **Introduction:** the PERSSILAA project was introduced to the stakeholder and the various (to develop) modules of the PERSSILAA project were presented.

2. **Current situation:** the referent of the GPs of the patient’s association provided an overview of the existing services available for the older adults at the Community, also starting to highlight their mutating needs, and how novel technologies might contribute to respond to these needs.

3. **Togetherness with the Communities:** we defined the gain of every stakeholder to participate and use the PERSSILAA service to screen for, monitoring of and preventing frailty.

4. **Service protocols:** the document outlines how the service protocols are operationalised at the two communities, also in terms of connection with existing services, for example through the activation of direct booking of additional services available at FOUND specialty clinics.

During the subsequent meetings that were held to operationalise PERSSILAA, we identified some key-points:

1. **Illustrate the project to the central Caritas Authority, and to the “Pastorale della Terza Età”,** in order to envision their involvement to support the project and to contribute to the identification of the other parishes to include into the local communities network.

2. **Current situation:** determined the current role and tasks of every stakeholder regarding screening for, monitoring of and preventing frailty, starting from the horizontal issues, such as the agreements between Caritas and FOUND, and between FOUND and Health Campus (FOUND Resolution N° 131 of 17/03/2014, and FOUND Resolution N° 173 of 02/05/2013 respectively).

As in D2.2.1 during the process of developing a service protocol for each sub-region, activity diagrams are created to provide a clear overview of the various tasks that need to be accounted for, who is, or are, responsible for each task, and finally, how the various tasks are related to each other.

The description of PERSSILAA service protocol is provided dividing the services in categories, that represent an overview of how the activities supporting the services are related to each other, how each stakeholder contributes to each service, and how the access to the services is allowed and stimulated at the communities.

This deliverable provides a more detailed overview on the operationalization of the project’s activities meaning for the Campania region that:

- FOUND clinicians and Health Campus will be in charge of first screening, until training of informal caregivers is completed.
- In Campania, Caritas volunteers and no profit organizations involve many General Practitioners, who have volunteered to take an active part into the project, also providing the link with GPs local union, that will be important in the scale-up phase of the project. They have been involved so far in the validation of the Italian version of the QMCI, administering it jointly with the minimental, that is available also in Italian.
- FOUND clinicians will enrol the study population, who will undergo the second screening.
- The second screening will be carried out jointly by Health Campus and FOUND.
- During the set-up of PERSSILAA activities, an informal ICT training activity for the older adults was organized, that will be carried out jointly by Federanziani and another no profit organization, named “Alpha”, to increase the exploitation of PERSSILAA services by the older adults.
- Personalised PERSSILAA services will be provided face-to-face and through ICT supported services, in the community, following training and tutoring of the older adults by informal caregivers. An estimated number of 7 tutors (about 1:20) has been foreseen for the different activities and for the older adults, who will not access contemporarily to PERSSILAA services.

4.1.2 Developing the PERSSILAA service protocols for the Enschede region

The starting point to develop the PERSSILAA service protocols for the Enschede region are the outcome of the stakeholder meeting as described in section 4.2.2 of D2.2.1. This stakeholder meeting brought together the most important stakeholders for the to-be-developed PERSSILAA service in the Enschede region.

After this meeting various stakeholders from different municipalities were very enthusiastic about PERSSILAA. Therefore we started with scheduling rounds of workshop with various stakeholders in the municipality of Enschede and the municipality of Hengelo (Figure 2). For the developing of the service protocols the primary focus was on the municipality of Enschede. The eventual service protocols will subsequently be adapted to the situation in the municipality of Hengelo and other municipality in the Enschede region.

![Figure 2: position of the two sub-region in the validation region Enschede.](image-url)

For every municipality the important stakeholders were invited for various workshops. One workshop per municipality was not sufficient to cover all the subjects and to define the service protocol for that region. Therefore various workshops per municipality were planned and between the workshops stakeholder received home assignments. These assignments
focused on the subjects of the workshop and forced the stakeholders to take a stand on these subjects. These stands were used as a starting point of the next workshop.

In the workshops the following subjects were covered:

1. Introduction: the PERSSILAA project was introduced to the stakeholder and the various (to develop) modules of the PERSSILAA project were presented.

2. Current situation: determined the current role and tasks of every stakeholder regarding screening for, monitoring of and preventing frailty.

3. Win-Win: determined the gain of every stakeholder to participate and use the PERSSILAA service to screen for, monitoring of and preventing frailty.

4. PERSSILAA situation: determined the envisioned role and tasks of every stakeholder regarding screening for, monitoring of and preventing frailty.

5. Service protocols: determined the service protocol of the specific municipality. Agreement on the role and tasks of every stakeholder regarding screening for, monitoring of and preventing frailty

During the process of developing a service protocol for the municipality, activity diagram are created to provide a clear overview of the various tasks that need to be accounted for, who is, or are, responsible for each task, and finally, how the various tasks are related to each other. The activity diagram of D2.2.1 were used as starting point for these operationalized activity diagrams that reflect the concrete stakeholders and their joint service protocols for the municipality of Enschede and Hengelo.
5 Results

5.1 The PERSSILAA service protocols

5.1.1 Campania region

The stakeholders

In Campania the following stakeholders joined the PERSSILAA workshop and meetings:

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Description</th>
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<tbody>
<tr>
<td>Pilar Community at Municipality of Ercolano</td>
<td>Ercolano is an Italian town of 53,000, located nearby Naples, in Campania. It is well known for its archeological site of the ancient roman town, and lies at the western foot of Mount Vesuvius, on the Bay of Naples, just southeast of the city of Naples. Pilar is a pretty large Community centered at the homonimous church, where a project is ongoing among churches activities, that is the “Progetto Oratorio Interparrocchiale”, within which the older adults carry out physical training, and health promotion activities.</td>
</tr>
<tr>
<td>Santa Maria del Buon Consiglio a Confalone Community at Municipality of Naples-Vomero Neighbourhood</td>
<td>Naples is the largest city in Southern Italy, with 1 million inhabitants. Vomero hill and its surroundings (5th Municipality of Naples) are mostly a residential zone that has conserved little from this rural past. Since the beginning of the 20th century the area has had a dramatic increase in residential housing, currently counting about 100,000 residents. It is close to the hospital area where also FOUND is located. Santa Maria del Buon Consiglio a Confalone carries out a project dedicated to the older adults, including physical training and the promotion of a healthy and active lifestyle.</td>
</tr>
<tr>
<td>Caritas</td>
<td>Caritas is one of the largest Italian no profit organizations, that is capillary distributed in Campania. Its territory units are managed by the priests, who are the legal referents for these peripheral units at the churches. They carry out many activities to support the needy population, monitor yearly the evolution of the poverty and its determinants, and represent an important place where the older adults refer for support.</td>
</tr>
<tr>
<td>Salute in Collina Onlus</td>
<td>Citizen’s empowerment is very important to ensure the full deployment of Perssilaa services. Salute in Collina Onlus involves both citizens and General Practitioners. The General Practitioners are the “gatekeepers” for all accesses to socio-sanitary services in Italy, and they represent the first referents for the citizens to answer their health needs. The “Salute in Collina” no profit organization is patients-based, and involves also 10 general practitioners. Its goal is to contribute to deliver better care and services to Campania citizen, by supporting end-user involvement in the set-up of the services, and carry out scientific projects on health care innovation.</td>
</tr>
<tr>
<td>FOUND</td>
<td>FOUND is an excellence health care facility in Southern Italy, that hosts over 50 Specialist Courses and master Degrees of Federico II University Medical School. It provides in-hospital admittance, day-hospitals, day-services and outpatient activities. The hospital is hosted in a multi-building site, with 26 buildings located within a green area of 440,000 square meters. FOUND takes part to the regional and national health</td>
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care programs in organ transplantation, maternal-infant protection, AIDS and related syndromes, cardiology, heart surgery, hosting the Regional Centers for kidney and bone marrow transplants, cardiovascular diseases and specific pediatric diseases, providing high level of specialty care. Thanks to the presence of so many sectors, and to the coexistence of teaching, research and health care the hospital provides many opportunities to develop interdisciplinary activities. The Hospital hosts the Departments of Clinical Medicine, Clinical Neurosciences, Anesthesiology and Drug Utilization, Internal Medicine and Pathology, Gastroenterology, Endocrinology, Surgery that manage a broad range of diseases, including the most frequent chronic conditions, often affecting the older adults population, with a long-standing tradition of excellence in diagnosis and treatment of hypothalamic-pituitary diseases, neuroendocrine tumors, osteoporosis and neuroendocrine complications of obesity, heart failure, gastrointestinal disorders, dementia, cancer, coagulopathies.

FOUND R&D board also manages Campania Reference Site for Active and Healthy Aging, thus ensuring collaboration with many relevant locoregional stakeholders.

Health Campus

The Association was born to implement a constant dissemination and promotion of prevention through clinical and educational initiatives.

Health’s Village focuses its energies and its resources primarily on two major objectives:

1. Specialist visits and inspections in order to prevent and detect risks to the health of citizens
2. Dissemination of a culture of prevention that encourages changes in lifestyle, in order to obtain a person's overall well-being (through education, information and communication issues related to prevention and wellness concept linked to healthy lifestyles).

Health Campus provides establishes a "Field Clinic" dedicated to the prevention of a number of diseases, that is set up at the same time of popular events. Interested citizens can be visited, may receive ultrasounds and x-rays (mammography in particular for the prevention of breast cancer) and information about healthy lifestyles. The support of Health Campus to Persilaa project will be pivotal during the second screening, and especially during the scale up to other local communities, as with its volunteer clinicians it will reinforce FOUND personnel deployed on the territory.

www.campussalute.it

In Campania the following PERSILAA meetings were held:

<table>
<thead>
<tr>
<th>Data / place</th>
<th>Stakeholders</th>
<th>Subjects</th>
<th>Outcome</th>
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</thead>
<tbody>
<tr>
<td>June 2nd, 2013 Campania Health Care Authority, Isle C3, Centro Direzionale.</td>
<td>Campania Health Care Authority and Persilaa referents from Campania partners</td>
<td>Presentation of Persilaa project and aims</td>
<td>Awareness from regional health Authorities about the innovative tools Persilaa is developing.</td>
</tr>
<tr>
<td>Date</td>
<td>Location</td>
<td>Participants</td>
<td>Activity</td>
</tr>
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<td>-------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>June 11th, 2013</td>
<td>Caritas Diocesana Direction, Naples</td>
<td>Director and vice-director of Caritas Diocesana; volunteers from caritas; referent for Perssilaa project Campania unit.</td>
<td>Presentation of Perssilaa Project at the Caritas Diocesana Direction</td>
</tr>
<tr>
<td>June 23rd, 2013</td>
<td>Caritas Diocesana Vice-direction, Naples</td>
<td>Referents for Caritas Vice-direction; referent for Perssilaa Project Campania Referent; Caritas volunteers.</td>
<td>Presentation with slides of Perssilaa Project</td>
</tr>
<tr>
<td>October 17th, 2013</td>
<td>Santa Maria Del Pilar Church, Ercolano</td>
<td>Coordinator of Church caritas Community; Referent for Perssilaa Project Campania Unit; Caritas volunteers.</td>
<td>Meeting for project operationalization-1</td>
</tr>
<tr>
<td>October 24th, 2013</td>
<td>Church of Santa Maria Del Buon Consiglio a Confalone, Naples</td>
<td>Referent for Perssilaa Project Campania Unit; Caritas volunteers; referents for the direction of Pastorale for the Third Age.</td>
<td>Meeting presentation of Perssilaa Project at the Pastorale of the “Third Age” of the Church of Naples</td>
</tr>
<tr>
<td>November 21st, 2013</td>
<td>Direction of Pastorale of the Third Age</td>
<td>Coordinator of Church caritas Community; Referent for Perssilaa Project Campania Unit; Caritas volunteers; older adults referents.</td>
<td>Support from Pastorale of Third Age to establish a local network of Churches to scale-up Perssilaa activities.</td>
</tr>
<tr>
<td>January 30th, 2014</td>
<td>Church of Santa Maria Del Pilar, Ercolano</td>
<td>Coordinator of Church caritas Community; Referent for Perssilaa</td>
<td>Meeting for project operationalization-2</td>
</tr>
</tbody>
</table>

Awareness from Central Caritas Authority about the activities that were being developed and set-up at churches Caritas Communities within the Perssilaa project.

Creating awareness among Caritas stakeholders on Perssilaa, in the perspective to broaden the network of involved churches and create consensus and support for subsequent scale-up.

Identification of specific referents at the Pilar Community to support the activities of the project, and identification of the spaces for the specific activities.

Identification of specific referents at the two Communities to support the activities of the project, and identification of the spaces for the specific activities.

Definition of the involvement of the “Salute in Collina” patients no profit, and of its GPs, in support of the screening and prevention of Cognitive Decline, and of the nutritional aspects of frailty in the older adults. Scheduling tasks to be carried out at the Parish by Caritas volunteers. Definition of the roles for the operating staff and volunteers of the Parish Caritas.

Scheduling tasks to be carried out at the Parish by Caritas volunteers.
<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Participants</th>
<th>Meeting Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 6th, 2014</td>
<td>Church of Santa Maria Del Buon Consiglio a Confalone, Naples</td>
<td>Coordinator of Church Caritas Community; Referent for Perssilaa Project Campania Unit; Caritas volunteers; older adults referents.</td>
<td>Project Campania Unit; Caritas volunteers; older adults referents.</td>
<td>Definition of the roles for the operating staff and volunteers of the Parish Caritas.</td>
</tr>
<tr>
<td>March 10th, 2014</td>
<td>Church of Santa Maria Del Pilar, Ercolano</td>
<td>Coordinator of Church Caritas Community; Referent for Perssilaa Project Campania Unit; Caritas volunteers; older adults referents.</td>
<td>Coordinator of Church Caritas Community; Referent for Perssilaa Project Campania Unit; Caritas volunteers; older adults referents.</td>
<td>Meeting for project operationalization-3 Set up of the activities to test the organization through initial services provision</td>
</tr>
<tr>
<td>March 12th, 2014</td>
<td>Church of Santa Maria Del Pilar, Ercolano</td>
<td>Coordinator of Church caritas Community; Referent for Perssilaa Project Campania Unit; Caritas volunteers; 30 older adults of the third age group of the Church.</td>
<td>Coordinator of Church caritas Community; Referent for Perssilaa Project Campania Unit; Caritas volunteers; 30 older adults of the third age group of the Church.</td>
<td>Meeting with Federanziani Identification of the stakeholders to involve in the workshop for the presentation of Perssilaa project</td>
</tr>
<tr>
<td>March 27, 2014; joint Ercolano/Naples Perssilaa meeting</td>
<td>Older adults, health professionals, no profit, patients organizations, health care agencies</td>
<td>1 (introduction) 2 (current situation) 4 (PERS SILAA situation)</td>
<td>Older adults, health professionals, no profit, patients organizations, health care agencies</td>
<td>Raising awareness among local relevant stakeholders on Perssilaa opportunity for professionals and seniors. Alignment of PERS SILAA activities at the two Communities</td>
</tr>
</tbody>
</table>

**Service protocol**

**Role and tasks of the stakeholders**

The activities at the two Campania Communities will proceed in parallel. An agreement has been signed between Church Caritas Communities and FOUND, to allow FOUND clinicians to work at the Communities locations. The Churches will provide the spaces and the volunteers to contribute to carry out PERS SILAA activities, also providing for insurance coverage through the church activities. Health Campus will integrate FOUND to carry out the screenings.

**Enrolment**

The opportunity to join PERS SILAA project will be publicized during the routine parish activities, where structured groups of older adults regularly meet. Setting up PERS SILAA enrolment, screening and services concurrently with other activities will facilitate acceptance, involvement and adherence by the adult citizen of the community. Informed consent will be obtained concurrently with the enrolment.
First screening
All assessments through validated tools will be carried out by trained volunteers, and data will be uploaded on PERSILILAA platform. The identification of specific days and times when the first screening (and subsequently all the other services: physical training, access to the nutrition platform, neuropersonal trainer) will be available for the older adults, and is aimed to establish a reliable tie between the team and the older adults, building on their perception that their needs can be fulfilled at least partially by the activities of PERSILILAA project. To this purpose, periodic appointments will be set up for groups of older adults (10-15/time) to carry out the assessment required for the first screening.

Second Screeneing
The subjects that will be enrolled following the first screening will be subsequently provided another appointment for the clinical activities of the second screening: anthropometric measures, BIA, MOC, endocrinology visit. Both questionnaires and clinical data will be collected on the project’s platform, to allow subsequent aggregated data analysis, and will be interoperable with FOUND platform and with Endocare network platform. PERSILILAA staff (clinicians and volunteers) will evaluate the results of the screenings to identify the best interventions that will be offered to each person.

Deployment of PERSILILAA Interventions
Depending upon the results of the screenings, a personalised activity planning will be structured taking into account the results from the assessment to which adequate interventions -addressing physical activity, cognitive function and nutrition- will be detailed in a form that is similar to a prescription, easy to follow and corresponding to what the adult citizen will find into the ICT-supported services. The format will be proposed to the older adults, and will be improved by their feedback on ease of understanding and handliness. The planning will be drafted by clinicians, trainers, informal caregivers for each enrolled older adult, where detailed personalized interventions will be identified, and will include:

- Face to face physical activity training, and personalized remote physical activity. Face-to-face activities of physical training will be provided on a regular basis. The older adults will be distributed in different classes depending upon their physical activity screening: during the classes, they will be offered to train on a remote platform for specific exercises, that they will be able to access from home.

- Remote brain training through the neuropersonal trainer. The seniors who will be enrolled in the PERSILILAA project will be offered to train remotely through the Neuropersonal trainer, following a personalized program that will be accessible at the two churches on a regular basis, to overcome the lack of hardware and ICT connections at home. The centralized opportunity to train will also work as a socialization driver to adhere to the remote intervention.

- Personalised nutritional interventions, also through an ICT interoperable platform. The nutritional screening will be followed by an approach that will target both the Communities as a whole, and by a personalised intervention. Preliminary data collected at both communities revealed that obesity, overweight and inadequate
physical activity are a common issue. The Community approach is aimed to target the families of the community, creating an environment of awareness that should positively impact the outcomes in terms of adequate nutrition. A link will be provided with a project that just started at the two communities, aimed to collect the story of special menus and recipes of the loco-regional tradition, where different generations interact.

Training
Training will be carried out formally and informally. A formal training program will be deployed by FOUND training office, and will be dedicated to the personnel recruited for PERSSILAA activities. The trained personnel will be subsequently involved in the “train-the-trainer” activity involving further communities. PERSSILAA will take advantage of ICT literacy programs dedicated to the older adults that are being carried out jointly at the two churches, in order to fill in the digital gap that might hinder the full exploitation of ICT-supported PERSSILAA services. Physical trainers are being selected to respond to PERSSILAA requirements in terms of competences, know-how and skills, and will also be involved in the scale-up of PERSSILAA activities to a broader network of local churches through a train-the-trainer program.

Potential exploitation of PERSSILAA services at a regional level
In Campania the municipalities are responsible for managing part of the social services. Campania resolution 320 (“Delibera della Giunta Regionale n. 320 del 03/07/2012, following regional resolution N° 40 of 14/02/2011) represents the first instrument to support the integration of socio-sanitary services, as it changes territorial areas (where social services are referred) and districts (where health services refer), making them correspond (therefore social and health services refer to the same areas). The operationalization of this resolution is still largely incomplete, and a more structured integration of the services should be carried out, taking into account sustainability, involvement of non-profit organization, services provided by the municipalities and services provided by the region, the availability of innovative ICT support tools, data collection and interoperability with health records.
Figure 3: Organization of the screening and service provision in Campania region.

Table 3: Role and tasks of the service providers

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Role</th>
<th>Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOUND</td>
<td>Responsible for the screening and service provider of the preventive services to the prefrail group</td>
<td>- To carry out the first and second screening.</td>
</tr>
</tbody>
</table>
| FOUND       | Responsible for the screening and service provider for the frail group | - Carry out the first screening  
- Process the first screening  
- Inform older adults about the outcome of the first screening  
- Invite pre-frail older adults for the second screening |
| Health Campus no-profit | Supporting FOUND in the screenings and service deployment | - Collaborate to carry out the first and second screenings  
- Support FOUND for dissemination activities |
| CARITAS at both Communities (Pilar/Ercolano and Santa Maria del Buon Consiglio a Confalone/Naples) | Location for the first and second screenings, and for service provision | - Collaborate with FOUND to carry out first and second screening  
- Invite pre-frail older adults to make use of the PERSILAA services  
- Collaborate to the deployment of PERSILAA services through a train-the-trainer methodology  
- Create the PERSILAA network of Campania Churches |
The activity diagram for Campania as presented in D2.2.1 is adjusted to the current situation (Figure 4). This activity diagram provides information about the current stakeholders and processes cornering both screening moments and the delivery of the service.
5.1.2 Enschede region

For the Enschede region two municipalities are determined:

1. the municipality of Enschede
2. the municipality of Hengelo

As already stated we started with the workshop in the municipality of Enschede. During this meeting the service protocol of the municipality was determined. The final workshop with all stakeholders was scheduled in the last week of June. After this final workshop all stakeholder are aware of their roll and tasks regarding screening for, monitoring of and preventing frailty. This service protocol) will be presented.

During the workshop of the stakeholder of the municipality of Hengelo the service protocol determined for the municipality of Enschede is adapted to the specific situation in the municipality of Hengelo. The workshop and meeting with these stakeholders are ongoing and not yet finalized. For this reason, the service protocol) cannot be presented yet but will follow as much as possible the procedure developed for Enschede.

Even the municipality are neighbour cities there are some differences. Since 2010 the Dutch municipality are by law (Public Health Act – article 5a) responsible for the health of older adults. They have to screen the older adults in time and detect problems. Besides the municipality have to provide solutions. This task is carry out in various ways by the municipality of Enschede and Hengelo. Currently the municipality of Enschede does not carry out this task in a structural way but via various projects. The idea in PERSSILAA is to find a more structural way to perform this. The municipality of Hengelo did make already a more structural choice and delegated this task to non-profit / network organisation with the aim to encourage older adults to live independently with the best possible well-being.

Next to this law, also the health care sector deploys activities to screen older adults. The insurance company Menzis has developed an innovation module which enables general practitioners to set up an adequate procedure to screen their older adults population for which they get some extra money. Both in Enschede and Hengelo some general practitioners are using this module.

In everyday practice, these two developments have much resemblance but are however not aligned yet making it confusing for the older adults to be contacted for more or less the same activities by different organisations. As such alignment is urgently needed. In the municipality of Enschede the contact between municipality and health care organisation is poor as is the contact between the various first line care professionals’ organisations. In the municipality of Hengelo there are some first initiatives to align the care for older adults; there is a periodic meeting between the municipality and of various first care and/or second care organisations. The PERSSILAA project starts from the currently running initiatives and existing stakeholders to develop effective and sustainable service models.

5.1.2.1 Municipality of Enschede

The stakeholders

In the sub-region Enschede the following stakeholder joined the PERSSILAA workshops:
The municipality of Enschede has 158,542 inhabitants (January 1, 2014, source: CBS). Based on population Enschede is the largest city of the province Overijssel and the eleventh municipality of the Netherlands.

MC EUDOKIA
Medical centre Eudokia is located in the district Stadsveld in Enschede. This Medical centre locates four GP practices (8 general practitioners) and a pharmacy.
In this Medical centre the GPs work together with physiotherapists, an obstetrician, dietician, social worker, a psychologist and a podiatrist. Also, there is a small laboratory of the local hospital.

FYON
FYON is a physical therapy practice with location in municipality of Enschede, Boekelo and Deurningen. The Fyon location in Enschede is near MC EUDOKIA in the district Stadsveld.
Various physical therapists with various specialisms working at FYON.

Livio
Livio is a healthcare organization for older adults and exploits care homes / home care services. Livio provides dietitians care, daycare, health points (shops with healthcare products and advices), various residential forms for older adults and various neighborhood support points in mainly the municipality of Enschede.

Speeltuin Stadsveld
This community centre is located in the district Stadsveld in Enschede. This centre is a “living room of the neighbourhood” were older adults are invited to meet.

SAXION
Saxion University of Applied Sciences is one of the largest institutions of higher education in the Netherlands, with over 24,000 students. Saxion University of Applied Sciences has four campuses in the East of the Netherlands - one campus in each of the four Dutch cities of Deventer, Enschede, Apeldoorn and Hengelo.

The PERSSILAA workshops
In the sub-region Enschede the following PERSSILAA workshops:

<table>
<thead>
<tr>
<th>Data / place</th>
<th>Stakeholders</th>
<th>Subjects</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 24 RRD</td>
<td>- Municipality Enschede - MC Eukokia - Menzis - RRD / UT</td>
<td>introduction current situation PERSSILAA situation</td>
<td>- Alignment screening MC Eudokia and PERSSILAA (RRD)</td>
</tr>
<tr>
<td>April 10</td>
<td>- MC Eukokia</td>
<td>current situation</td>
<td>- First draft service protocol</td>
</tr>
<tr>
<td>Date</td>
<td>Participants</td>
<td>Situation</td>
<td>Protocol Analysis</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------------------------</td>
<td>----------------------------</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>May 15</td>
<td>Mc Eudokia</td>
<td>win-win</td>
<td>municipality Enschede (RRD)</td>
</tr>
<tr>
<td></td>
<td>- MC Eudokia</td>
<td>PERSSILAA situation</td>
<td>- Introduction new stakeholders: Fyon physical</td>
</tr>
<tr>
<td></td>
<td>- RRD / UT</td>
<td>Service protocols</td>
<td>therapy practice</td>
</tr>
<tr>
<td>May 19</td>
<td>Fyon</td>
<td>introduction</td>
<td>municipality Enschede (RRD)</td>
</tr>
<tr>
<td></td>
<td>- Municipality Enschede</td>
<td>current situation</td>
<td>- Fyon as stakeholder</td>
</tr>
<tr>
<td></td>
<td>- Fyon</td>
<td>win-win</td>
<td>- Meeting with Saxion for employing students</td>
</tr>
<tr>
<td></td>
<td>- RRD / UT</td>
<td>PERSSILAA situation</td>
<td>physical therapy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Service protocols</td>
<td></td>
</tr>
<tr>
<td>May 20 RRD</td>
<td>Saxion (lector Active Ageing &amp; Palliative Care)</td>
<td>introduction</td>
<td>municipality Enschede (RRD)</td>
</tr>
<tr>
<td></td>
<td>- Fyon</td>
<td>current situation</td>
<td>- Student assignment for bachelor nursing</td>
</tr>
<tr>
<td></td>
<td>- Saxion (lecture physical therapy)</td>
<td>win-win</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- RRD / UT</td>
<td>PERSSILAA situation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Service protocols</td>
<td></td>
</tr>
<tr>
<td>June 16</td>
<td>Fyon</td>
<td>introduction</td>
<td>municipality Enschede (RRD)</td>
</tr>
<tr>
<td></td>
<td>- Municipality Enschede</td>
<td>current situation</td>
<td>- Meeting with all stakeholder for sub-region</td>
</tr>
<tr>
<td></td>
<td>- RRD / UT</td>
<td>win-win</td>
<td>Enschede</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PERSSILAA situation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Service protocols</td>
<td></td>
</tr>
<tr>
<td>June 24</td>
<td>Speeltuin Stadsveld</td>
<td>introduction</td>
<td>municipality Enschede (RRD)</td>
</tr>
<tr>
<td></td>
<td>- Speeltuin Stadsveld</td>
<td>current situation</td>
<td>- Service protocol sub-region Enschede</td>
</tr>
<tr>
<td></td>
<td>- RRD</td>
<td>win-win</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>PERSSILAA situation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Service protocols</td>
<td></td>
</tr>
<tr>
<td>June 26</td>
<td>MC Eudokia</td>
<td>Service protocols</td>
<td>municipality Enschede (RRD)</td>
</tr>
<tr>
<td></td>
<td>- Municipality Enschede</td>
<td></td>
<td>- Service protocol sub-region Enschede</td>
</tr>
<tr>
<td></td>
<td>- MC Eudokia</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Fyon</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Livo</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Saxion (2x)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- RRD/UT</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Service protocol**

In the sub-region Enschede the screening questionnaires (details on the first screening see D2.1) will be sent around via the GP’s of MC Eudokia to all adults aged 65 years and older (around 2000 older adults). Starting from the results of the first screening the GP’s of MC Eudokia and the Municipality of Enschede will be primary organisation responsible for the follow up of the various groups. The older adults who are frail will be taken care of by the GP’s of MC Eudokia, the older adults how are pre-frail will be invited by the municipality of Enschede for a second screening and the older adults who are robust will be invited for screening next year (figure 5).
The first idea was to deliver the PERSSILAA service to pre-frail older adults as an online service in their own environment (home). The GP’s of the MC Eudokia liked this idea but also has some doubts as they are not sure to which extend this population had access to the internet. Besides, loneliness is an issue in this population. Therefore the GP’s of MC Eudokia requested to find other ways to deliver the PERSSILAA service to this population. One of their ideas was to invited pre-frail adults to several locations in the neighbourhood, just like in the Campania region, to use the online self-management service in a group or alone. Suggested locations were related to home care organisations, physiotherapy practices and neighbour houses.

From this point we started to approach various “new” stakeholders to inform them about the PERSSILAA project and ask if they were open to host / provide the PERSSILAA service at their locations. All of the approached stakeholders were positive about this idea. While the older adults should be familiar with the location where the PERSSILAA service is delivered we decided to plan the appointment of the pre-frail older adult for the second screening also at these locations. So, these older adults can choose a preferred location. Therefore the second screening and service provision of guidance of the older adults using the self-management PERSSILAA services will be hosted / provided at home or at various locations (kiosk). In the neighbourhood of MC Eudokia we will start with three location, these are located at: Fyon, Livio and Speeltuin Stadsveld (figure 6). The number of these locations to use the service will expand during the project. Even now meeting are scheduled with other stakeholder in the surrounding of MC Eudokia to host / provided the PERSILAA service.

Another issue was the lack of money at municipality and by MC Eudokia to screen the older adults. Various costs came up for the first and second screening. Besides, the staff of MC Eudokia had limited time to screen all older adult above 65 years. A solution that was considered sustainable by all stakeholders is the involvement of students in the PERSSILAA project. In Enschede there is always a need for learning places / environments for a growing group of students. Therefore Saxion University of Applied Sciences was asked to participate in the PERSILAA project. There were very enthusiastic about the PERSILAA project and
indicated that this project match good with their education program and research focus. These students (physical therapy and nursery) will support MC Eudokia and the PERSSILAA locations to screen the older adults and will help the pre-frail older adults to use the PERSSILAA service at home or at the preferred location.

**Figure 6:** Organization of the second screening and service provision in the sub-region Enschede

To screen the older adults in Enschede for functional decline on the physical, cognitive and nutrition domain and to provide the self-management services to the older adults the rolls and tasks of the various stakeholders are concretized. In table 6 the rolls and tasks of the stakeholders who will provide the PERSSILAA service to the older adults (service providers) are determined.
<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Role</th>
<th>Tasks</th>
</tr>
</thead>
</table>
| Municipality of Enschede | Responsible with the GP for the screening and service provider of the preventive services to the pre-frail group | - To financially facilitate the first and second screening (copying costs and postage) and the official service provider for the preventive services for the pre-frail group (although actually performed by other partners)  
- Coordination of the pre-frail group  |
| MC EUDOKIA             | Responsible with the Municipality for the screening and service provider for the frail group | - Sent out the first screening  
- Process the first screening  
- Inform older adults about the outcome of the first screening  
- Invite pre-frail older adults for the second screening  |
| FYON                   | Location for the second screening and for service provision          | - Perform the second screening  
- Process the second screening  
- Invite pre-frail older adults to make use of the PERSSILAA services  |
| Livio                  | Location for the second screening and for service provision          | - Perform the second screening  
- Process the second screening  
- Invite pre-frail older adults to make use of the PERSSILAA services  |
| Speeltuin Stadsveld    | Location for the second screening and for service provision          | - Perform the second screening  
- Process the second screening  
- Invite pre-frail older adults to make use of the PERSSILAA services  |
| SAXION                 | Students Nursery and Physical Therapy                                | - Continue providing students for the PERSSILAA project  
- Supervision of the students  |
| RRD                    | Supervision and teaching                                            | - Teaching the student and professionals in delivering the services  |
Financing

Various costs are associated with the screening and delivering the PERSSILAA service to the pre-frail older adults. Based on the workshops and participation to the various stakeholders a very rough estimation of the cost for every year is made. Of course this will be assessed during the first round to get a more concrete overview. The table below gives the first estimation (table 7).

Table 7: Cost estimate of the PERSSILAA service (in Euro)

<table>
<thead>
<tr>
<th>Service</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sent invitation screening</td>
<td>3500</td>
<td>3000</td>
<td>2500</td>
<td>The cost of the task will decrease every year while older adults have the ability to complete the screening questionnaire online.</td>
</tr>
<tr>
<td>Help with completing screening questionnaires</td>
<td>x</td>
<td>x</td>
<td>X</td>
<td>No related costs – the location are offered for free by the PERSSILAA location and the help is given by the Saxion students</td>
</tr>
<tr>
<td>Education of the volunteers/students</td>
<td>450</td>
<td>x</td>
<td>X</td>
<td>Volunteers of the PERSSILAA location and Saxion students are educated to perform the second screening.</td>
</tr>
<tr>
<td>Calling none responders</td>
<td>x</td>
<td>x</td>
<td>X</td>
<td>No related costs – this is a task of the Saxion students</td>
</tr>
<tr>
<td>Technology (PERSSILAA service)</td>
<td>x</td>
<td>x</td>
<td>X</td>
<td>No related costs – is during the project offered for free by RRD but currently estimated to be around 5000 euro’s a year</td>
</tr>
<tr>
<td>Coordination of the pre-frail group.</td>
<td>3000</td>
<td>3000</td>
<td>3000</td>
<td>During the project the pre-frail group are supervised by a coordinator. This person provides extra help when requested by the older adults and coordinates the validation of the service.</td>
</tr>
<tr>
<td>Education of the service providers</td>
<td>450</td>
<td>x</td>
<td>X</td>
<td>Volunteers of the PERSSILAA location are educated to use the service and to educate the older adults to use the service. Per older adults 2 hours of education is estimated. When extra help is requested this is provided by one of the volunteers of the PERSSILAA location or Saxion students.</td>
</tr>
</tbody>
</table>

The activity diagram for the sub-region Enschede as presented in D2.2.1 is adjusted to the current situation. This activity diagram provides information about the current stakeholders and processes cornering both screening moments and the delivery of the service.
Figure 7: Enschede Activity diagram

PERSSILAA service Enschede

Older adult

- Receives invitation

- How does the older adult want to complete the screening?

  - Alone & online
  - Alone & on paper
  - With help

  - Requests help

  - Make appointment

  - Together complete screening 1 online

- Completes screening 1 online

  - Completes and returns paper-based screening

  - Processes paper-based screening

  - Determine level of frailty

  - Sends out invitation for screening 1

Students

Service providers

Technology

GP
PERSSILAA service Enschede

Older adult

Students

Service providers

Technology

GP

Determines a training/education scheme for elderly person

How does the older adult want to interact with PERSSILAA service?

At home

At location

With help

Requests help

Make appointment

Interacts with PERSSILAA interventions

Is being kept up-to-date about interim results

Concludes PERSSILAA interventions

Notified of end results

Notified of end results
5.1.2.2 Municipality Hengelo

The workshop and meeting with the stakeholder of the municipality of Hengelo are ongoing and not yet finalized. It appears now that the service protocol to the municipality of Enschede can be easily be adapted by the municipality of Hengelo and mapped on their specific situation and (available) stakeholders.

The stakeholders

In the sub-region Hengelo the following stakeholder joined the PERSSILAA workshops:

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality of Hengelo</td>
<td>Hengelo is a multifaceted medium-sized town (over 80,942 inhabitants). Impressive because of its rich industrial history, its present activities and its plans for the future. Because of Hengelo’s strategic position Hengelo is considered the centre of Twente.</td>
</tr>
<tr>
<td>Stichting Welzijn Ouderen Hengelo</td>
<td>SWOH is a non-profit / network organisation with the aim to encourage older adults to live independently with the best possible well-being. SWOH offers product to older adults on information and advice [1], support and activation [2] and Neighbourhood and community [3].</td>
</tr>
<tr>
<td>Hospital ZGT</td>
<td>ZGT is a general hospital with two large locations; in the municipality of Hengelo and in the municipality of Almelo. Both locations work together with general physicians, home care organisations and nurseries. Every year there are 250,000 patients. ZGT has dependences in Geesteren, Goor, Nijverdal, Rijssen and Westerhaar.</td>
</tr>
<tr>
<td>Maartje Home care</td>
<td>Maartje is a locale home care organisation that provides home care to older adults in the region Twente. Maartje has eight location in various towns and villages in Twente.</td>
</tr>
<tr>
<td>General physicians Contrast</td>
<td>A group of five GP practices located in the building “de Brug” of te premises of hospital ZGT. These GPs are working together to increase the quality of care. There are located in the district Woolde in Hengelo.</td>
</tr>
<tr>
<td>Pharmacy Tuindorp</td>
<td>A pharmacy located in the district Wilderinkshoek in Hengelo. This pharmacy provides not only medicines; they also find it very important to advice on health and properly drug use and pay great attention to the prevention and detection of adverse events.</td>
</tr>
</tbody>
</table>

The PERSSILAA workshops
In the sub-region Hengelo the following PERSSILAA workshops:

<table>
<thead>
<tr>
<th>Data / place</th>
<th>Stakeholders</th>
<th>Subjects</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 3, Municipal office</td>
<td>- Municipality Hengelo</td>
<td>1 (introduction)</td>
<td>- Participation of RRD in the group “ouderenzorg Hengelo”</td>
</tr>
<tr>
<td>Hengelo</td>
<td>- GP Contrast</td>
<td>2 (current situation)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- RRD / UT</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>May 12, Hospital ZGT</td>
<td>- Municipality Hengelo</td>
<td>1 (introduction)</td>
<td>- Homework assignment to clear win-win and roll / task for every stakeholder</td>
</tr>
<tr>
<td>Hengelo</td>
<td>- Hospital ZGT</td>
<td>2 (current situation)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Maartje Home Care</td>
<td>3 (win-win)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- GP Contrast</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- RRD / UT</td>
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<tr>
<td>June 25, Hospital ZGT</td>
<td>- Municipality Hengelo</td>
<td>3 (win-win)</td>
<td>- Next meeting to concretized service protocol sub-region Hengelo</td>
</tr>
<tr>
<td>Hengelo</td>
<td>- SWOH</td>
<td>4 (PERSSILAA situation)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Hospital ZGT</td>
<td>5 (Service protocols)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Maartje Home Care</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>- GP Contrast</td>
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<td></td>
<td>- Pharmacy Tuindorp</td>
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<td></td>
<td>- RRD / UT</td>
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</tbody>
</table>

The service protocols for the sub-region Hengelo are not yet concretized.
6 Conclusions

The set-up of the service protocols of PERSSILAA have been facing different challenges that depend upon:

- The differences in the organization, funding and regulatory background of the regional health services at the two deployment regions (Enschede and Campania)

- The involvement of the older adults, which was achieved in Enschede through the GPs, and in Campania directly in the Community. Each of these two approaches carries pros and cons, but the effort to carry out a synergic approach allowed the standardization of the service protocols, whose effectiveness will be demonstrated by the follow-up of the older adults during the study.

- The differences in socio-cultural background among the two study population. The nutritional intervention might provide a common ground to promote cultural exchange among the two different Regions.

PERSSILAA represents the opportunity to identify issues, gaps, challenges and solutions to provide to the other EU regions that will be interested to deploy its model. Adaptation and personalization of the services to loco-regional context will be pivotal towards an effective and sustainable scale-up of ICT-supported solutions to societal challenges.

Below a detailed analysis of the main problems and solutions that the set-up of PERSSILAA service model posed.

Stakeholder involvement

The first issue that both deployment sites encountered was the identification of the relevant stakeholders that was important to involve ensuring adequate activities for the project. However, this appeared not to be a big problem as all stakeholders are very enthusiastic to join and still new stakeholders would like to align.

At both sites the GPs were involved, although different interactions and collaboration modalities were set-up. Furthermore, although the first screening in Enschede will also be carried out by email, the delivery of PERSSILAA service to this population is planned to be carried out at several locations in the neighbourhood to use the online self-management service in a group or alone next to service provision at the older adults home. Suggested locations were related to home care organisations, physiotherapy practices and neighbour houses, that resemble the role of aggregating structured community that the Churches have in Campania.

Agreements and financing

In Italy, specific agreements have been signed jointly by the stakeholders, to identify roles and responsibility in the project’s activities. Insurance coverage has been identified within pre-existing Church activities to ensure sustainability of the project’s activities, and further clinical/social services will be provided within the existing ones. In the Enschede region no agreements have been signed and they are more informally organized so far. In Enschede also alignment concerning the coverage of the financing between the municipality within the context of the WMO and the insurance company need to be made. Some initial discussions took place but we expect that the results of first evaluation round can be used to make this more concrete.
ICT and interoperability
At this moment the first screening is being developed into an online tool which will be ready for use in September when the first screening rounds will start. Also the first versions of the selfmanagement modules of the cognitive (Neuropsychological Trainer) and physical (CoCo) part will be ready and used. However these are not integrated yet and implemented on Universaal. Also the interoperability of ICT platform with existing systems is not being organized yet. In the Netherlands this was however only asked for by the General Practitioner. Integration and interoperability will be further analysed and organized where needed and suitable within the upcoming project period involving ICT partners of the PERSSILAA project.
Future work

Summing up for the PERSSILAA project: to optimally screen on and prevent frailty and functional decline technology supported services are expected to be of potential however only when embedded in and aligned to community and health care services. In order to do so PERSSILAA developed together in close collaboration with all the various stakeholders the novel working routines in healthcare / community when using PERSSILAA services to screen for and prevent frailty and functional decline in community dwelling older adults.

PERSSILAA project starts from the currently running initiatives and existing stakeholders to develop effective and sustainable service models, and represents a valid instrument to prevent frailty in the aging population. Screening of the older adults for risk factors of frailty and connecting that screening with adequate interventions should be carried out in an integrated and systematic way, being embedded in everyday practice. This is a scale up that implies full integration with socio-sanitary services at a strategic level. Raising the awareness among relevant stakeholders and among the older adults in the communities on PERSSILAA tools is pivotal to respond to the needs of the aging population, contributing to the cultural shift where senior citizen take an active part to their own well-being and active life.

The future activities of PERSSILAA will have two main focuses:

1. Carry out the enrolment and service provision to the older adults.
2. Increase the awareness at the level of loco-regional stakeholders in order to maximise the impact of PERSSILAA outputs.

Enrolment and service provision will follow the protocol that has been developed within the project. In parallel, there will be the need to continue to organize events and meetings about what the project is developing, involving all stakeholders, including policy makers. For Campania, this will be particularly important, as the municipalities are responsible for managing part of the social services. Campania resolution 320 (“Delibera della Giunta Regionale n. 320 del 03/07/2012, following regional resolution N° 40 of 14/02/2011) represents the first instrument to support the integration of socio-sanitary services, as it changes territorial areas (where social services are referred) and districts (where health services refer), making them correspond (therefore social and health services refer to the same areas). The operationalization of this resolution is still largely incomplete, and a more structured integration of the services should be carried out, taking into account sustainability, involvement of no-profit organization, services provided by the municipalities and services provided by the region, the availability of innovative ICT support tools, data collection and interoperability with health records. The recent establishment of a regional network of Municipalities will provide another important opportunity to raise the awareness about PERSSILAA services, and create scale-up opportunities.
Bibliography