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D6.2 Report on Operation of SmartCare deployment sites (First version)

WP6 Service Deployment

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Document information

Abstract

The implementation of integrated care services for the citizens has been a challenge in each of the deployment sites participants of the SmartCare consortium: FVG (Italy), Region of Southern Denmark, Tallinn (Estonia), Aragon (Spain), South Karelia (Finland), Attica (Greece), Kraljevo (Serbia) and Scotland (United Kingdom). The sets out the starting point of each of this deployment sites, and list the actions that have taken and challenges faced in the provision of integrated care services in the deployment territories.

This document covers the operational activities performed in the domains of users' recruitment, professionals' enrolment, the operation of the help desk, and training.

Key words

Operational activities, deployment implementation, issues, lessons learnt

Organisation responsible

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RSD
South Karelia
Tallinn
Kraljevo
FVG
Scotland
Attica

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0.0	10/07/2015	Templates included	Rosana Angles
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0.3	12/02/2016	Updates following internal review	John Oates
0.4	17/02/2016	Minor changes	Rosana Angles
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Outstanding Issues

This is an initial release for consideration at the Review scheduled for April 2016. It will be updated and reissued at the end of the project, to cover the results of the operational

activities of integrated care services in the domains of: organisational changes, technical issues, and ethical and legal aspects.

Filename

D6.2 v1.0 SmartCare Report on Operation of Deployment Sites (V1)

Statement of originality

This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.

Executive summary

This document collects the experiences of the sites on the operational processes to provide of integrated care (IC) services in their territories. Although each site has its own local context and specific situations that affect the implementation of IC services, they had to follow a methodology for the provision of integrated care services to ensure best quality. Therefore, they all have implemented:

- A quality assurance team.
- Help support services.
- Operational activities in different domains.

The operational processes are a consequence of the work in WP5, aiming to prepare sites for the provision of SmartCare services.

In deliverable D6.1 "SmartCare Specification of Common Operational Support Activities", a common framework of work was defined for all SmartCare sites with the objective that all operational processes were covered, and that full quality & support services were provided to guarantee the correctness of the performance of the services. The framework aimed to create one unit in charge of assuring the quality of the process, and a second unit to provide help support services to users.

The implementation of each of these units has been performed differently in each of the SmartCare deployment sites. While some regions have used professional clinical profiles, others have outsourced services. This document sets out the solutions implemented by each region to guarantee the quality of provision of integrated care services according to the defined protocols, together with the different implementations to provide support services to the different types of users. The different starting points and realities of the regions ensure that the transfer of experiences will enrich follower regions, which will have to adapt the lessons learnt to their own regional particularities and social and health systems.

After the self-assessment of the operation of these two units (providing help services, and assuring the quality of processes), the activities undertaken across several domains are analysed. The activities have been collected from the RAIL tool (risks, actions, issues and lessons learned) established as a method to transfer knowledge and experiences in the provision of integrated care services. All the findings are now shared by all pilot sites and WP leaders, supporting the latter in coordinating their WP more effectively. Each site describes its experiences and strategies, and provides a set of lessons that will allow readers to draw up future plans based upon others' experiences.

This document collects the experiences of the sites in the domains of:

- User recruitment.
- Professional enrolment.
- Help Desk.
- Training programmes.

The document will be updated later with the experiences of the Dutch deployment site, and with more domains covering: organisational changes, technical issues and ethical and legal aspects.

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1 Introduction

WP6 refers to the operational activities performed in each SmartCare deployment site so as to provide the basket of integrated care services. Once the sites have started with the provision of integrated care services, it is time to analyse the challenges faced and the activities undertaken to ensure successful rolled out.

1.1 Purpose of this document

The implementation of integrated care services for citizens has been a challenge in each of the deployment sites participating in the SmartCare consortium: FVG, Italy; Region of Southern Denmark; Tallinn, Estonia; Aragon, Spain; South Karelia, Finland; Attica, Greece; Kraljevo, Serbia; and Scotland, United Kingdom. This document states the starting point of each of these deployment sites, and lists the actions that have taken and challenges faced in the provision of integrated care services.

On the current version of this document you will find the experiences faced by the sites in the domains of: users' recruitment; professionals' enrolment; the operation of the help desk; and carrying out the training programmes. Following versions of this document will be enriched with the results of the operational activities of integrated care services in the domains of: organisational changes; technical issues; and ethical and legal aspects.

The document describes in detail the implementation of each of the SmartCare initial sites:

a) Warrant the quality of the processes of provision of care.
b) Provide help support services to users.
c) Strategies to recruit potential end-user participants.
d) Enrol health and social professionals.
e) Set up and the performance of a help-desk.
f) Implement successful training programmes.

The knowledge learned can then be transferred to other follower regions that want to implement integrated care services, and might benefit from this knowledge.

1.2 Structure of document

Section 2 is a brief introduction to the process and methodology of the work on the provision of integrated care services defined in WP6.

Section 3: First section describes the starting status point of each site. The strengths, weaknesses, opportunities and threats of each of the deployment sites are described; this provides an understanding of the implementation strategies of each region.

Section 4 and 5: The following two sections describe the implementation of the reviewer units "Quality Assurance Team" and "Help Support services":

- Section 4: This describes the implementation of the Quality Assurance teams that are in charge of reviewing and warranting the quality of the processes of service provision and the integrated care services.
- Section 5: This describes the implementation of help support services, together with the self-assessment of its functioning.

Section 6 describes the experiences, strategies and lesson learnt regarding the recruitment of users by the deployment sites.

Section 7 describes the experiences, strategies and lesson learnt regarding the enrolment of professionals by the deployment sites.

Section 8 describes the experiences, strategies and lesson learnt regarding the operation of help desk services by the deployment sites.

Section 9 describes the experiences, strategies and lesson learnt regarding the provision of training programmes by the deployment sites.

The final sections describe the conclusions and further work to be performed.

1.3 Glossary

CR	Care Recipient
FAQ	Frequently Asked Questions
FVG	Friuli Venezia Giulia
HC	Health Care
HCP	Health Care Provider, or Healthcare Professional
QA	Quality Assurance
RSD	Region of Southern Denmark
SC	Social Care
SCP	Social Care Provider

2 Background & methodology

2.1 Methodology

Before going into the detail of this document, it helps to review the methodology proposed for the sites to conduct the implementation and operation of integrated care services. This methodology was proposed within SmartCare WP6. Deliverable D6.1 Common SmartCare Specifications describes in detail this methodology, and is available to obtain a deeper understanding and learning.

The aim of defining this methodology was that, once initiated, the provision of integrated care services to sites' target population and the operation of processes had to be maintained, and at full quality. Therefore, the aim was to create a team that focused on the fulfilment of quality requirements, and reviewed the suitability of the processes and services provision.

It was also necessary to provide support services to users, to answer / resolve quickly any type of issue that might occur, and to guarantee the correctness of the performance of the services. These two aspects were key. Each site has performed its own implementation, which is outlined in this document.

The third step of the methodology was to disseminate the lessons learnt by the early adopters of integrated care services, so that the implementation could be replicated in other sites. Obviously, each site has its own particularities that affect the deployment and implementation of these services; but knowing the experiences of others may help them in developing their solutions and defining new strategies.

2.2 RAIL

The RAIL tool was defined in the early stages of WP6 (defined in D6.1) and adopted as a communication methodology between SmartCare members. It collects, in an organised way, the experiences and lessons learnt in several operational domains. The RAIL is a web tool, which was implemented within the project to permit monitoring of risks, and registering actions that were put in place in response to risks encountered, issues that arise, and lessons learned. This tool is supported by a database of excel spreadsheets.

The RAIL tool permits not only registration of information and experiences, but it can also be used as a tool to refer to when looking for other's experiences, and a repository of knowledge. All the findings are shared by pilot sites and WP leaders, supporting the latter in coordinating their WP more effectively, and by the follower sites, to learn and use that knowledge in their own implementation.

RAIL has been completed by all pilot sites in different domains of knowledge. The first has been the analysis of problems faced in terms of recruitment of potential users. The recruitment of the intervention and control groups has not been easy. Each site describes its experiences and strategies, to provide a set of lessons that will allow readers to draw up future recruitment strategy based upon others' experiences, which will facilitate its implementation. Other challenges have been the different strategies for the enrolment of social and health care professionals into the project, as well as successfully managing a help desk and conducting training programmes that are effective.

3 Analysis of the status of the deployment sites

The following analysis shows the initial status of each site, analysing the strengths, weaknesses, opportunities and threats before the operation of integrated care services. This was used to create plans for the implantation of the integrated care services in the different territories, so that the deployment and operation of services would be successful.

3.1 Status in FVG

Strengths	• FVG has a long-standing tradition of integrated care: Districts, multi-professional roles, multidimensional assessments, presence of case manager.
Weaknesses	• Resistance to change in some Districts, both at managerial and staff level. • Fear of work overload. • Difficulty in enrolling GPs due to lack of economic incentives.
Opportunities	• Strengthen interdisciplinary team work and cohesion by providing integrated support for communication and more effective and efficient planning of services and HC/SC interventions. • Foster end user's self management and empowerment.
Threats	• Rigidity of the organisational structure and lack of change management perspective may jeopardise consolidation of the project.

3.2 Status in Region of Southern Denmark

Strengths	• Electronic Messaging System in place and working. • Shared Care Platform tested in everyday worklife. • Strong and agreed need for the system across sectors.
Weaknesses	• Staff under pressure in everyday worklife. • Key integrations missing. • Fewer patients in the disease area than expected.
Opportunities	• ICT infrastructure in place. • High level of ICT literacy. • Health Agreements as a foundation for collaboration.
Threats	• Political differences between Region and GPs. • Many and confusing management layers. • Legal aspects unclear and rigid.

3.3 Status in Tallinn

Strengths	• Experience from DREAMING project. • Co-operation between Tallinn City, ETCH and primary care centers. • Telemedicine application and portal.
Weaknesses	• No nationwide funding for telecare services. • ICT competence low among older age groups.
Opportunities	• Growing interest in telemedicine in the state. • Ministry of social affairs is planning a tender for telecare.
Threats	• Difficult to prove the positive effect of telecare.

3.4 Status in Aragon

Strengths	• SALUD integrates all type of professionals (GPs, primary care nurses + specialists) which eases the participation and collaboration of healthcare professionals. • Unique EHR & accessible by all healthcare professionals. • SALUD shares the healthcare IT infrastructure. • Integration of IT systems already in place. • Small environment which eases the collaboration among organisations and encourages participation of professionals. • Previous experiences in integrated care. • Full satisfaction of users enrolled in previous experiences, which encouraged their participation in current projects & implantation of ICT services. • Alignment of policies and strategies in integrated care. • Single unique identifier of users in the social and healthcare Aragon Systems. (BDU) • Initial deployment so as to lead and define the change management in SALUD. • Suitable economic situation to look for alternatives to the current service.
Weaknesses	• Social providers do not own ICT & IS. • Social providers ignore the existence of an Aragon unique identifier; it is not included as identification in their own IS. • Leadership coming from the healthcare systems vs social leadership. • Inability to assume new competences.

Opportunities	• Definition of a region-wide integrated care policy by the Aragon Government with support of SmartCare team. • Win-win solutions that encourage the currently non-existent collaboration among carers (health and social). • Encourage participation of health & social professionals through interdisciplinary committees. • Share information (health and social) to be user-centered and enhance attention. • SmartCare as catalyst in the use of a single person's identifier in the region.
Threats	• Assessment of integrated care services is mandatory, to assure the sustainability of the services and massive implementation in the territory.

3.5 Status in South Karelia, Finland

Strengths	• Integrated social and health care district. • Directors' commitment.
Weaknesses	• Integrated social and health care district. • Directors' commitment.
Opportunities	• Better quality of care. • Create new cost effective service model. • Include more tightly informal caregivers/relatives to care process.
Threats	• Face-to-face contacts reduction. • Cyber threats (all services working via internet).

3.6 Status in Kraljevo

Strengths	• Stakeholders highly motivated to participate and implement new service. • Professionals that will use the system participated in the development of the services.
Weaknesses	• Poor knowledge of new technologies by end users.
Opportunities	• Other regions in the country to recognise the value of the new service and to adopt the system.
Threats	• Poor internet infrastructure. • New national software for Social Service still pending and not implemented, resulting in legacy solution still in place.

3.7 Status in Attica

Strengths	• Strong Commitment by site policy makers. • Co-location of health and social care professionals. • Very good communication lines between professionals and potential care recipients. • Previous experience of key professionals in other e-health projects is critical to deployment success. • Excellent inter-professional relationships between professionals. • Experienced local coordinator. • The ICT infrastructure needed is available. The mHealth and eHealth technologies required are in place and are user-friendly. • Advice on the design of the new service was obtained from legal, ethical, privacy and security experts relevant to the service. • A thorough and user friendly training curriculum for all professionals and care recipients.
Weaknesses	• There is no legal and regulatory framework in Greece for the planning, financing and deployment of integrated care. • Lack of a capable change manager. • Creating Tender Documents, proceeding with RfPs and awarding a contract for the development of m- and eHealth services to a vendor are very long procedures. • Continuous improvements of the ICT and m- and eHealth system may require extra financial resources that are not readily available. • Gateways (tablets) were provided to care recipients through donations, but due to the difficult financial situation, insufficient donations were made to the municipalities to meet expectations.
Opportunities	• The technology has the potential to scale-up, as it is based on open standards and can be integrated with other ICT systems. • Future efforts should also look at care recipients that are in a more complex situation of frailty (multi-morbidities). • A continuous dialogue and collaboration needs to be established between ICT developers, the municipalities' professionals, and the care users, to improve the platform and to make it even more targeted to care users' needs.
Threats	• SmartCare will be seen as an isolated innovation across the region / country and will have limited visibility. • Mechanisms should be put in place to make sure services are continued after financing from the EC ceases.

3.8 Status in Scotland

Strengths	• Partnership working is well established in Scotland across a broad range of stakeholders. The size and diversity of the SmartCare partnership has ensured wide promotion and active implementation. • National Falls Framework: an existing national improvement strategy has provided strong strategic support. • Sustainability: from the beginning, we have ensured that the delivery of the service will not be resource intensive. • Co-designed: service users designed the tools and prioritised what we developed. • Staff support: highly motivated to implement service improvement.
Weaknesses	• Digital inclusion: not all citizens have access to a smart device or have broadband. • Capacity: what we are attempting to achieve is challenging in the time available. • Industry maturity: suppliers want to sell us what they have developed, rather than what service users and carers have asked for. • Sustaining momentum: A high level of energy needs to be sustained to achieve integrated solution in a short timescale. • Information governance: bureaucracy can slow down the pace of sharing information.
Opportunities	• Link with Government work stream -TEC: we have made a bid to acquire SG funding to fully embed SmartCare with telecare and home health monitoring across Scotland. • Improved outcomes: to accelerate recovery from a fall and reduce future risk. • Further development of tools: NHS24 will fund some additional requirements identified by CR. • Partnership work: as awareness of SmartCare grows, new partners come forward regularly. • Influence national picture: SmartCare will influence the SG goal of a PHF for all citizens by 2016.
Threats	• Competing products: CRs prefer other similar products which are not integrated with statutory systems. • Integration architecture not aligned: National technical architecture does not acknowledge SmartCare approach. • Changes in staffing: Changes in key management staff can slow down momentum.

4 Quality Assurance services

The Quality Assurance team is the unit whose objective is to guarantee the correctness of the quality of the processes when providing integrated care services. They review the processes so that they are in accord with the pathways and steps defined in SmartCare project, and compliant with regional & national legislation.

Each deployment site has defined a quality team, composed of different profiles, but with same objectives and responsibilities.

4.1 Quality Assurance implementation in FVG

4.1.1 Quality Assurance team composition

The profile of the people involved is:

- District contact person (nurse).
- Social worker.
- SmartCare managers.
- SmartCare regional social care coordinator.
- SmartCare healthcare coordinator (nurse).
- SmartCare clinical coordinator (MD).

The role of each profile is as follows:

- District nurse will make sure that data are correctly and regularly inserted in the platform, and that problems are tackled and solved in accordance with the districts' GPs. District nurse also works towards fostering acceptability of home-based devices and platform.
- Social worker will make sure that social data are correctly and regularly inserted in the platform, and that problems are tackled and solved. He/she will also act to improve acceptability of home-based devices.
- District managers supervise the deployment activities in close contact with the FVG team healthcare coordinator.
- SmartCare healthcare coordinator plays a supervisory role, checks the data downloaded each month, and if any discrepancies arise, he/she notifies district nurse and GP.
- SmartCare regional social care coordinator gathers feedback and supports integration of person-centred care.
- SmartCare clinical coordinator plays a supervisory role.

They are located at:

- FVG Districts participating in the SmartCare project.
- Cardiovascular Centre,– Health Authority n°1, Triestina (TS).

4.1.2 Quality Assurance responsibilities

- Provide support, address maintenance and system operational problems, improve system's acceptability by contacting the help-desk (available 24/7 through toll free number).

- Daily real-time updates through the platform and scheduled monthly meetings to ensure lean organisation and running of deployment.
- Share procedures to solve technical issues and to effectively tackle health status problems, e.g. correct setting of alarm thresholds.

4.1.3 Self-assessment

- The platform has a self-control system to check the correct and uninterrupted communication between medical devices and control platform.
- Tasks actually performed: real time communication on deployment situation. Monthly meetings to check on inconsistencies and/or critical issues.
- Issues / incidents solved: failure of devices, either broken or working incorrectly, and resetting of some devices such as pulse-oximeter and glucometer.
- All procedures to solve issues are shared among quality assurance team members, including help desk team. Should an alarm arise, procedures have been set in place for both call centre and healthcare staff.

4.2 Quality Assurance implementation in Region of Southern Denmark

4.2.1 Quality Assurance team composition

- The QA team consists of a team leader, four project managers, two technicians, and a student helper/assistant.
- The team leader is also the Program Manager, and is in charge of ensuring that each project follows the time schedule and that the overall quality of the service is delivered. This means that she follows up on decisions, communicates with management levels, has the overview of joint tasks to be done, and informs the rest of the team of important information.
- The Project Managers each have responsibility for their own project, which is divided according to disease areas. They are responsible for meeting time schedules, describing tasks, making sure the tasks are done on time, and updating the information on their projects regularly for management levels to follow. They are also responsible for communication with the projects participants and documenting the project.
- The technicians are overall responsible for communication with the ICT-provider, and following up on registered errors or development issues in the system. They are responsible for getting testing done before a release, informing users of the updates, and keeping the change management system up to date.
- The student helper/assistant is an all-round person who can do tasks such as setting up meeting rooms, sending out newsletters, etc.

The team is located in the Region's offices in Odense, and partly also at the main hospital in the Region. From there the project managers go out to the deployment points (hospitals, GPs and municipalities) and are able to have meetings with stakeholders. They are at the office together at least two days a week, and regular meetings are held.

4.2.2 Quality Assurance responsibilities

The collective quality assurance team has many tasks, such as:

- Programme Management, which ensures that each project follows the timeline, that the overall programme is in line with agreements and strategies, that there is

overall political and management support for the projects, and that the projects are communicated to decision makers.

- Project Management of each project, which plans the projects, makes sure that the development matches the needs of the users, plans training, and prepares user material, updates progress reports, communicates with the project participants, supports the users in the implementation process and in daily use, has regular follow up meetings with the users, manages the project budget, participates in joint tasks of the team, such as testing, and documents the project.
- Technical support, which includes an overview of development issues, errors and updates makes sure that the ICT provider delivers their part, and informs the users of new functionality and releases. This also includes testing the system before use, and manning the helpdesk line. Some ICT tasks are also done in the team itself, such as configuring the system, preparing statistical reports, and giving access to new administrative staff.
- Making sure that legal and ethical aspects are in line with national and regional guidelines and rules.
- Management of contracts with ICT-providers and relevant stakeholders.

There are many plans and procedures for these tasks. Each project has a project plan with a specific timeline. These project plans are in line with the plan for the overall programme agreed with decision makers.

At the day-to-day operations level, there is a procedure for dealing with changes required in the system or with errors found: the project manager or helpdesk supporter sends the issue to the technical staff who record the issue both in an internal system and also in the system shared with the ICT-provider. The errors are divided into categories according to severity; the ICT-provider has time limits for solving them. Input for further development is discussed between the project manager, the program manager and technical staff, to make sure it is in line with the system's purpose before the request is send to the ICT-provider, which then returns with a plan for development, and price.

4.3 Quality Assurance implementation in Tallinn

4.3.1 Quality Assurance team composition

In Tallinn deployment site, quality assurance is divided between all stakeholders.

From ETCH, there are project managers, doctors, technical support team, and ICT team. The contact centre is also part of the ETCH, and consists of nurses and social workers.

GPs and family nurses are located in the family health centre, and provide healthcare services to the care recipients.

The officials in Tallinn City Social Welfare and Healthcare department are responsible for organising welfare and healthcare in Tallinn City.

The social alarm services are provided by the Tallinn Welfare Centre; the work is overviewed by the social alarm services co-ordinator.

4.3.2 Quality Assurance responsibilities

Project managers supervise the contact centre workflow, provide support, and resolve daily issues.

The technical support team sets up the devices for the care recipients, monitors the usage of devices, and resolves technical issues.

The ICT team is responsible for assuring that the server is working properly and the portal is accessible. The ICT team also ensures data security.

The nurses in the contact centre make sure that the telemonitoring results are overviewed, and all deviations from the normal health readings are communicated to the GP or hospital doctor.

GPs and doctors are responsible for providing high quality healthcare to the care recipients.

The social worker in the contact centre provides social care consultations and is in contact with the informal carers.

The Tallinn City Social Welfare and Healthcare department is responsible for communication between the SmartCare system and city district social welfare departments. They also monitor the work of social alarm services.

4.3.3 Self-assessment

Self-assessment is done by having interviews with stakeholders. Based on these interviews, the overall service is monitored; if there is a need, changes are carried out.

The quality of care is overviewed in the contact centre meetings that take place once a quarter. In that meeting, nurses, social workers, doctors, project managers and technical support team can address issues and find solutions. Care givers must conduct self-assessment every day, and ensure the best care for care recipients.

Weekly meetings are held between Tallinn City Social Welfare and Healthcare department and East Tallinn Central Hospital to guarantee that the system is working properly.

Monitoring of technical problems is done by the technical support team.

4.4 Quality Assurance implementation in Aragon

4.4.1 Quality Assurance team composition

Team set up

A SmartCare Evaluation Committee has been formed for each patient to assure the quality of the processes and proper compliance with the pathways and protocols for provision of integrated care services to that patient.

This SmartCare Evaluation Committee is composed of care professionals (up to two healthcare professionals and one social care professional), a member of the contact centre, and a member of the SmartCare management team (the SmartCare project manager).

This multidisciplinary Evaluation Committee is patient-related; it includes the agents involved in the provision of care for a particular patient. It is also protocol-related; this means that for patients on the long-term protocol, the team has four members:

- one GP (the patient's GP);

- one social care professional (in charge of the provision of social services to the user);
- one professional from the contact centre; and
- the SmartCare project manager.

For patients on the short term protocol, the team has five members:

- one GP (the patient's GP);
- one healthcare specialist;
- one social care professional (in charge of the provision of social services to the user);
- one professional from the contact centre; and
- the SmartCare project manager.

Role of the members

The SmartCare project manager role is to guarantee compliance with the SmartCare pathways protocols, and that the project roles out properly and on time. The project manager also has the role of managing and communicating with the different actors, and coordinating actions both among members of the QA team, and across all the Evaluation Committees.

The whole QA team is also responsible of assuring the correctness and fulfilment of the inclusion / exclusion criteria for the patients before participating in the project, and assurance of the signature of consent documents, and data protection by users and agents.

Healthcare professionals ensure the quality of the health services provided to the user, also ensuring that health services are provided following best practice, for instance, telemonitoring practices. They are also responsible for defining and following up the periodicity of the care and potential incompatibilities. Social care professionals involved guarantee the correct provision of social care services. Health and social care professionals, and contact centre staff, are responsible for defining the care plan and ensuring its compliance with best quality, together with the user's security at all times. The contact centre is also responsible for solving issues that may occur, and forwarding them to the most appropriate agent in each case, and together with the project manager has an overview of all the Evaluation Committees.

Location

The SmartCare project manager, contact centre and healthcare specialists are located at Barbastro Hospital. GPs are located at any of the healthcare centres in Barbastro Healthcare Area. Social care professionals are located at the premises of the Social Services providing care to the patient.

The Quality Team is a virtual team that meets through the collaboration framework, which is the SmartCare web collaboration tool. Face-to-face meetings are held if required.

4.4.2 Quality Assurance responsibilities

The SmartCare Evaluation Committee's tasks include:

- Assure meeting the inclusion criteria.
- Assure signing the consent form and data protection documents.

- Create the care plan.
- Choose the care providers that may better fulfil the users' needs.
- Ensure the proper operational activities according to the pathways, with best practices and assuring the security of the patients.
- Evaluate the SmartCare operational protocol.
- Review the correct fulfilling the pathways' protocols.
- Provide support when required.

Plan of tasks:

Below is a list of the tasks that the SmartCare Evaluation Committee team has to perform:

- Forming the evaluation committee for the patient: A new Evaluation Committee for a user is formed as soon as the user is proposed to enter the programme; it assesses their needs. It is formed of the agents involved in the provision of care to that particular patient. They have continuous communication through the SmartCare collaboration website, where they store any comment and observation.
- Assuring meeting the inclusion criteria. The Committee reviews the user's profile and the professionals' assessments to assure that the user meets the inclusion criteria to participate in the SmartCare project, and that the SmartCare integrated care services can provide benefit to the care recipient.
- Ensure ethics protection. The Committee reviews the informed consent form signed by the user, and signs it to ensure compliance with the ethics and data protection regulations.
- Review and accept the care plan proposed. The Committee reviews the care plan proposed, and looks for care providers that can provide the services proposed.
- Ensure data protection and privacy. The Committee reviews all the care agents that will take part in the provision of the integrated care plan to ensure they have signed the documents that ensure the Law on the Protection of Personal Data (LOPD).
- Ensure the provision of care with best practices. Ensure and review during the whole duration of the care plan that the services are being provided with best practices, according to the plans and pathways.
- Ensure the documentation of the care plan and activities.
- Solve issues: solves issues that may occur during the provision of care.
- Reviews of assessments: when a new assessment is performed, the Committee reviews it to assure that the inclusion criteria are still fulfilled, and all previous steps are redone.
- The Evaluation Committee for the patient is dissolved when the user exits the programme.

Procedure to solve issues

The SmartCare website is the tool that the Evaluation Committee uses to store and solve any issue that may occur and permits the collaboration among care agents.

The tool permits asynchronous communication among the care team. It is also integrated with the usual ICT tools that care agents use; therefore it is integrated with the primary care systems (OMI), EHR and healthcare intranet. Any change in the care plan, assessments

or reassessments of user's needs, or observations made, are notified to the care agents by email. Therefore, the actors are notified immediately when an issue occurs, and enter the SmartCare website through any of the available links to consult the issue and solve it.

The Evaluation Committee then meets (virtually or face-to-face) and take actions to solve the issue.

Telemonitoring alarms are generated automatically and notified via email and SMS according to the urgency of the request for action. The contact centre handles all the alarms, and mobilises the resources required to attend the user, whether the user needs attention from healthcare / social care centres or emergency units.

The contact centre is also available via telephone to a) solve technical issues, which are referred to the ICT technical team for resolution, i.e. devices or communication problems; b) to the specific social contact centre that may answer the specific request, or c) resolve health issues.

4.4.3 Self-assessment

At this time, the SmartCare Evaluation Committees have been working properly and have been performing the tasks according to the plan, and have been crucial for some actions:

- Definition of the integrated care pathways. Mainly on health protocols and integrated care protocols for early discharge pathway.
- Identify new functionalities that enhance the SmartCare technology available.
- Collect contributions from the care providers to enhance collaboration and the web tool.
- Integrate new services into the SmartCare portfolio and new care providers.
- Identifying potential new care providers and signature of collaboration agreements.
- Promotion of enrolment of new care professionals.
- Identification and promotion of new care recipients.
- Promote the change management, mainly in the Servicio Aragones de Salud.
- Escalate the new protocols of care that have been adopted by the Barbastro Healthcare Area, and are under implementation in the rest of SALUD areas.
- Strengthen cooperation channels between primary care and specialised care, and with the social fabric.

Issues / incidents resolved

The main issues that the SmartCare Evaluation Committees had to deal with were questions related to the pathways and health and social protocols, and the proper provision of integrated care services.

No major issues have occurred that could cause uncertainty or insecurity of the care recipients.

Assessment of procedure to solve issues

The SmartCare website has proven to be a perfect tool to permit collaboration, as the asynchronous method of communication facilitates the follow-up of the actions taken and the status of the care recipients. Moreover, it permitted the Evaluation Committees to

meet virtually, and communicate in a very quick, easy-to-use way and with very little time consumed, which is essential for the care providers (both health and social).

Integration with the already existing applications used by the care providers has also been a factor that permitted the success of communication of the Evaluation Committees.

4.5 Quality Assurance implementation in South Karelia, Finland

4.5.1 Quality Assurance team composition

Quality assurance is part of the subproject steering committee and project staff work:

- Steering committee members are: head of the home care; home care change manager; one home care area manager; head of short term care (elderly services).
- Also CIO is consulted when needed.
- Project staff are project manager and three project workers.

All Steering Committee members provide support to project actions, inform social and health care professionals, and plan new service models and sustainability.

All team members are located in South Karelia, mainly in the biggest city, Lappeenranta, where project staff are also located.

4.5.2 Quality Assurance responsibilities

Type of tasks previewed:

- Provide support.
- Plan new service pathways.
- Social and health care staff commitment to new work pathways.
- Address maintenance.
- Ensure security (CIO).
- Resolve system operation problems (project manager).
- Plan and make decisions for service sustainability after project.

Plan of tasks:

- Professionals' commitment work continues.
- Create cost sharing model.
- Sharing experiences and best practices.

Procedure to solve issues

- Regular meetings.

4.5.3 Self-assessment

The work performed by the quality team:

- Project pathways accepted.
- New service model created and accepted.
- How new services will be recorded in the client record.
- Carried out work to commit professionals better.
- Members are managers so they can make decisions and lead professionals.
- Legality of the services ensured.

Tasks actually performed:

- Decisions and inform professionals.

Issues / incidents solved:

- Legal issues, e.g. what kind of health issues / services could be provided via video connection.

Performance:

- It is challenging to ensure professionals' commitment, but during the project this is going in a better direction.

Procedure to solve issues:

- Regular meetings where all the issues are discussed, and decisions made on how to continue.

4.6 Quality Assurance implementation in Attica

4.6.1 Quality Assurance team composition

The QA team in Attica consists of:

- A case manager (nurse), Mrs. Anastasia Dikoudi, with expertise in diabetes management and e-health.
- A physician, diabetologist, Dr. John Doupis, with expertise in diabetes management and e-health.
- IT Manager, Mrs. Nansy Karanasiou.

The QA team members are located in the municipality of Palaio Faliro. Physical meetings are rare; usually meetings take place by skype.

4.6.2 Quality Assurance responsibilities

The role of each member of the QA team is as follows:

- Pilot Coordinator:
  - Communicates with all managerial levels within the municipalities, heads the Project Steering Committee, and informs members of the QA team about important decisions and actions to be taken by them.
  - Ensures that there is continuous political and managerial support for the project.
  - Ensures that the overall project progress is according to the budget, timeline, use of resources and milestones planned in the DoW and the TA of the Project.
  - Cooperates with policy makers and the municipal press offices in order to organise and execute dissemination and communication activities.
  - Ensures that services provided by the multidisciplinary team of professionals are according to the standards set in the protocol of the pilot and, in addition, according to their job description and the training received.
  - Proof reads all deployment site deliverables and reports to the WP leader or project QA manager.

- Case Coordinator:
  - Ensures that all communication of team members with care recipients and caregivers of the deployment site is seamless and continuous, and that complaints and problems with the operation of services are promptly reported to the medical coordinator and the pilot coordinator for resolution, to the extent possible.
  - Ensures that level 1 support to care recipients and caregivers with respect to technical issues is provided on time, and when problems persist, or level 2 support is required, the IT vendor is contacted to solve the problems as soon as possible according to the SLA.
  - Ensures that all data from the deployment site database are collected, coded and uploaded to the Arsenal.IT database for evaluation purposes according to the instruction booklet. Closely cooperates with the local pilot evaluator and IT manager for the evaluation process.
  - Collects and stores in an appropriate place all Informed Consent Forms. The ICFs are accessible only to the physician of the QA team, the local medical coordinator, and the members of the MEC.
  - Ensures that in case of drop out of participants, new ones enter the study, and that when such an event happens, participants are notified that they exit the study and that they return to the municipalities all equipment given to them for the purposes of the study.
- Physician - diabetologist:
  - Closely cooperates with the local medical coordinator to ensure that all procedures related to assessment, monitoring and follow up of care recipients are done according to medical and ethical standards of conduct and the protocol of the study.
  - Ensures that all necessary clinical data for each patient are collected and appropriately managed in the local platform, and ensures the quality of such data uploaded in the Arsenal.IT platform.
- IT Manager
  - Provides technical support to the municipalities in case of consistent malfunction or serious damage, or in case of consistent unreliable readings of telemonitoring equipment, and in such cases proceeds with replacements.
  - Ensures that new releases of software are available and informs care coordinators about it.
  - Provides improvements in the design, functionality and content of the IT systems in use after agreement with the local government.
  - Ensures security of the IT systems in use, and privacy of data.
  - Gives access to new users when necessary, or withholds access to users that drop out.

Table 1: Attica: Tasks performed, tasks preview, plan of tasks and procedure to solve problems

Profile of QAT Member	Task	Preview of Task	Plan of Task	Procedure to Solve Problem
Local Coordinator	1.1.	• Communication with local project managers. • Organizing SC meetings regularly. • Meeting with the multidisciplinary teams. • Disseminate decisions taken by SC and ensuring that decisions are executed to the extent possible.	• Communication through either face to face meeting, through skype or through telephone.	• Decisions or activities to be realized are communicated to all SC members, project managers and professionals by e-mail. All documentation is stored in the cloud (BOX). • If problems are not solved, continuous cycles of communication take place until problem is solved.
Local Coordinator	1.2.	• Communication with all team members to ensure seamless and continuous support to the care recipient's needs.	• Face to face meetings whenever there is need.	• Discussing the progress of the pilot and explaining problems encountered and positive issues that emerge. Ask for policy maker's help whenever there are difficult issues management cannot or does not want to solve.
Local Coordinator	1.3.	• Monitors Progress in terms of users recruited, drop outs, use of human resources, costs, timelines.	• Information from local project managers is input in a cloud storage file - BOX and updated regularly.	• Recruitment and drop out numbers are recorded on a weekly basis. • Cost elements are monitored by finance departments and timelines by local project managers
Local Coordinator	1.4.	• Proposes various dissemination and communication activities to the policy makers in order to promote together with the local municipality's press offices the work done	• Research is done on what communication and dissemination activities can be done. Proposals for such activities are given to policy makers in order to proceed.	• Whenever an activity with communication / dissemination impact takes place in ATTICA, discussions take place in order to decide the means of communicating the activities to the media and external stakeholders.
Local Coordinator	1.5.	• Ensures that all members of the multidisciplinary team execute their tasks as they are described in their contractual agreement with the local government both in qualitative and quantitative terms.	• Activity reports are submitted to the local coordinator and to the municipal authorities to see if and how tasks are performed.	• Activity reports are connected to payment of professionals so they have a strong incentive to perform according to tasks analyzed in their job description. If a task is not performed according to quality and quantity standards, the local coordinator holds meetings with professionals to ensure the task is concluded as appropriate.
Local Coordinator	1.6.	• All project deliverables are developed by team members and quality checked by the local coordinator before submitted to the WP leaders.	• Information is collected by local coordinator, assembled in the BOX and draft versions of deliverables created. Final version submitted.	• A continuous cycle of data collection, data cleaning, draft version of deliverable created and finalization and submission of deliverables takes place.

Profile of QAT Member	Task	Preview of Task	Plan of Task	Procedure to Solve Problem
Case Coordinator	2.1.	• When problems with service operation need higher level of management intervention to be solved, reports to the local coordinator to find solutions. • Gathers complaints about service operation procedures and reports them to the local coordinator. • Constantly communicates with all team members and prompts them to encourage care recipients to use the SmartCare services.	• List of problems, complaints and issues created on a weekly basis and reviewed with the local coordinator in face to face meetings. • Skype calls and e-mails.	• Decisions or activities to be realized are communicated to all SC members, project managers and professionals by e-mail. All documentation is stored in the cloud (BOX). • If problems are not solved, continuous cycles of communication take place until problem is solved.
Case Coordinator	2.2.	• Registers problems that require level 1 support and communicates with all care coordinators in order to solve them. • Reports directly to the IT manager for technical problems requiring level 2 support.	• Face to face meetings. • Skype calls, telephone calls and emails.	• Each care coordinator solves level 1 problems w.r.t. his care group according to set timelines (usually the same day or one day later). • The IT manager and the IT team, solves level 2 problems within 1 week of request.
Case Coordinator	2.3.	• Is responsible for the collection, codification and uploading of data to the Arsenal.IT database.	• Collects pilot data in CSV form, proceeds with codification according to the codebook and uploads data to the Arsenal.IT database on a weekly basis.	• Ensures that data collection is seamless and continuous after communication with IT managers and care coordinators.
Case Coordinator	2.4.	• Ensures that all ICF's are collected and safely stored for future inspection by the MEC.	• All ICF's are collected by care coordinators and stored in a safe location in each municipality.	• Checks with each care coordinator to ensure that all ICF's returned by care recipients are signed and stored in a safe location within each municipality.
Case Coordinator	2.5.	• Receives information from care coordinators on drop outs and ensures that new patients enter the study • Ensures that when a person drops out, he/she is notified about the exit and that all equipment used in the study and provided by the municipalities is collected in functional state.	• email, skype or telephone calls.	• Based on the patient flowchart collected from the pilot sites each Friday, the care coordinator can arrange for new recruitments to enter the study when there is a drop out, for drop outs to be informed about exiting the study and for equipment to be returned to the municipalities to be used by new care recipients.

Profile of QAT Member	Task	Preview of Task	Plan of Task	Procedure to Solve Problem
Physician - Diabetologist	3.1.	• The Physician (Diabetologist) communicates with the Medical Coordinator and vice versa in order to ensure that assessment and follow up of care recipients are done according to medical and ethical standards of conduct and the protocol of the study.	• Regular e-mails or telephone calls to discuss any issues.	• The Medical Coordinator and the Physician ensure that the rights of the patient are protected as detailed in the Convention of Human Rights and Biomedicine and that medical services are provided as in the law 3418/2005 (code of medical ethics).
Physician - Diabetologist	3.2.	• Once subject enrolment begins, ensures that such data is collected, validated, complete and consistent for each patient before uploading in the ARSENAL database by the care coordinator.	• Communication with care coordinator via skype or telephone calls on a weekly basis.	• If clinical data are missing, communicates with care coordinator to recover such data and upload them on the SmartCare Platform.
IT Manager	4.1.	• If telemedicine equipment does not function properly and consistently or broken down, ensures that it is replaced by a similar equipment within one week of request.	• emails and telephone calls between IT manager and care coordinator.	• If data readings in telemedicine equipment are consistently out of normal range or the equipment is broken down, the Care Coordinator informs the IT Manager to replace the faulty equipment within one week of request.
IT Manager	4.2.	• For new updates of the app of the tablet, the IT manager communicates with care coordinators to ensure that the new update is downloaded in each tablet.	• email.	• Whenever there are application updates in the tablet of the patients, the IT managers inform the care coordinators to download the new versions or to inform care recipients to download updates themselves.
IT Manager	4.3.	• Provides improvements in the design, functionality and content of the IT systems in use after agreement with the local government.	• email, face to face meetings.	• After agreement with municipality, new modules of services (e.g. message platform between professionals and patients and in between professionals) are available for use.
IT Manager	4.4.	• Ensures security of the IT systems in use and privacy of data.	• Internal process of the IT vendor.	• The IT vendor ensures that all IT security standards set out in the IT security plan are followed. • If there is a breach of security, the IT vendor notifies the Local Government and the Greek Data Protection Agency as well as the Electronic Crime Unit of the Greek Police.
IT Manager	4.5.	• Gives access to new users when necessary or withholds access to users that drop out.	• e-mail (request by care coordinator).	• New care recipients are allocated to new slots in the platform and corresponding slots is the app of the tablet by care coordinator after the IT manager is notified. • Slots for patients that drop out are de-activated by the care coordinators after the IT manager is notified.

4.6.3 Self-assessment

The implementation of SmartCare has been a significant breakthrough in the mode and philosophy of operation of the Attica pilot's social and health services.

Description of the work performed by the quality assurance team

Self-assessment is performed regularly by filling in a checklist with all the tasks that the QA team should carry out, as detailed in Table 1.

According to the self-assessment process, the QA team executed all the assigned tasks since the start of ATTICA's implementation phase.

Task	Performed	Task	Performed	Task	Performed	Task	Performed
1.1.	Yes	2.1.	Yes	3.1.	Yes	4.1.	Yes
1.2.	Yes	2.2.	Yes	3.2.	Yes	4.2.	Yes
1.3.	Yes	2.3.	Yes			4.3.	Yes
1.4.	Yes	2.4.	Yes			4.4.	Yes
1.5.	Yes	2.5.	Yes			4.5.	Yes
1.6.	Yes						

Issues / Incidents solved

- No appropriate organisational structures to manage the project, so changes in the organisational charts of the partners were put in place.
- Resistance to involvement in the project by pink and white collar workers, so a continuous flow of information to all levels of staff (pink and white collars) implemented in order to create a friendly climate for the project.
- Limited availability of gateways (tablets) for patients, so sponsors were approached to make donations.
- Telcos were not used by care recipients to communicate with professionals, so in order to improve communication between professionals and care recipients, messaging was initiated.

Performance

- The QA team monitor the quality and the performance of the Project in order to achieve the results necessary. When planned results were not achieved, corrective procedures were put into effect, as detailed in Table 1.
- Performance of the project in terms of milestones met, financial targets (% of resources used), human resources used (number of professional engaged in the platform and tasks performed), and number of care recipients and caregivers recruited is closely monitored by the QA team. There is a slight lag in terms of numbers of care recipients recruited and actually using the SmartCare services due to the unavailability of the necessary number of tablets. It is expected that 75% of originally planned care recipients will actually receive the SmartCare services (i.e. circa 320 instead of 420 planned).
- Professionals and patients are satisfied with the project, and want it to continue. However, more concrete results will emerge when WP8 is completed.

Procedure to solve issues

- Presented in Table 1.

4.7 Quality Assurance implementation in Kraljevo

4.7.1 Quality Assurance team composition

The quality assurance team is formed of:

- Vladmir Cibukovac: IT expert, Health Centre Kraljevo.
- Svetlana Stanic: social service expert, Censer for Social work.
- Bojan Poznanovic: IT expert, Belit d.o.o.

The role of each person is:

- Vladimir Cibukovac: resource management in Health Centre, end user communication, system maintenance, corrective measures, preventive measures.
- Svetlana Stanic: Service processes definition and revision, end user communication, corrective and preventive measures.
- Bojan Poznanović: Product realisation planning, project realisation, software development, and training of end user procedures.

They are located at Health Centre Kraljevo, Centre for Social Work Kraljevo, and Belit d.o.o., Belgrade.

4.7.2 Quality Assurance responsibilities

The type of tasks previewed for this team are documented in the realisation of the SmartCare project in line with internal quality assurance procedures; the tasks are: Project realisation; Software development; and End user training.

During the implementation of the project, the following tasks were defined:

- Quality assurance goals and software definitions developed, and end user training activities defined.
- Verification activities, validation, monitoring, measuring, control and evaluation activities defined for the project.
- Supporting papers for the implementation of the project as proof that the project meets demands.

4.7.3 Self-assessment

From the beginning of the SmartCare project, each local partner assigned a person responsible for quality assurance of the new service. Each partner pursued its quality assurance agenda according to the internal procedures and workflow defined in each organisation: Health Centre Kraljevo, Centre for Social Work Kraljevo, and Belit Beograd.

The tasks that the team has actually performed are:

Responsibilities & Tasks	Health Centre	Centre for Social Work	Belit doo
Creation of Project realisation plan	X	X	X
Service definition plan	X	X	X
Technical documentation creation			X
Implementation	X	X	X
Testing			X
Revision	X	X	
End user training			X
End user communication	X	X	
Subsequent changes			X

Issues / Incidents solved:

- Organisational changes in one of the partners.
- Prolonged pending situation regarding implementation of the national information system for social services.
- Chat / conversation function of SmartCare portal stopped working.
- Visit from the Office of Commissioner for Personal Data Protection.
- Training of end users assessment.
- End user duplicate accounts.
- New version of mobile application upload.
- Log-in problems for some end users.
- Telecom monthly limits exceeded resulting in suspending the service.
- Accidental erasure of mobile application.

Performance

The project team monitors performance in order to achieve the intended results. When planned results were not achieved, took corrective measures.

The SmartCare project results are monitored in relation to the corresponding plan of the project work packages which include a list and description of phases, control points and the expected timetable.

End user satisfaction and fulfilment of their expectation will be carried out and reported under WP8.

Procedure to solve issues

System development was carried by Belit doo. Internal quality assurance procedure was implemented. Under quality assurance framework, a mechanism for the implementation of corrective measures and activities to solve issues included:

- Problem identification.
- Analysis of the causes.
- Making decision on initiation corrective measures.
- Implementation of corrective measures.
- Assessment of the effects of corrective measures.

Corrective measures are required in the following cases:

- End user dissatisfaction (problems and/or suggestions).
- Non conformities during the implementation of the project.
- Non-compliance of project documentation / plan and existing practices.

Corrective action may be proposed by:

- IT support, in order to eliminate the observed irregularities during internal or external checkups.
- All staff if they notice a problem / solution for improvement in their field of work.
- The project coordinator, in order to eliminate irregularities observed during the regular reviews.

4.8 Quality Assurance implementation in Scotland

4.8.1 Quality Assurance team composition

Quality Assurance is overseen by the Project Office and implemented by the various service providers that contribute to SmartCare.

The Project Office includes the Programme Manager, Technical Architect, Project Coordinator and Communications Manager. Service providers are the Living it Up (LiU) Managed Service, various companies who provide technical components and technical support, and the local partnership services.

The Programme Manager collects issues from the local operational areas; these include both practice and technical issues. The Programme Manager delegates tasks to the appropriate person or team to resolve the quality issue. The majority of quality issues can be resolved immediately by LiU Managed Service (technical issues and content) or in the local partnership areas. Some issues need to be taken to a project board for resolution. The Technical Architect oversees resolution of technical and design issues. The Communications Manager addresses the quality of the promotional and digital material we are distributing. This includes newsletters, leaflets and video material.

4.8.2 Quality Assurance responsibilities

- Practice issues: these are raised at the implementation group which meets 4-weekly and are resolved there or referred to operational teams. An example could be digital up-skilling / training for vulnerable service users; a SmartCare engagement officer will provide coaching or the person may be referred to local digital coaching classes provided via the Third sector.
- Clinical governance: the SmartCare digital tools are being regularly tested by practitioners – physio, occupational therapist. Social care and service users are also asked for feedback in co-design groups. In addition, SmartCare links with LIU content governance arrangements.
- Testing: SmartCare applies the Living it Up Test Strategy, which is a framework of quality assurance to remove defects from software before deployment. Each of the technical service providers is primarily responsible for the quality of their delivery, and will apply its own quality management system, which in some cases will be ISO9000 certified. Suppliers provide a statement of how their quality management system delivers the requirements of the LiU Test Strategy; the Technical Architect verifies adherence to that statement. For example, service providers typically have to provide documented evidence that system testing was carried out.

- Content: SmartCare relies on the LiU Managed Service for content production. This service has an Operating Manual that defines how content is sourced, reviewed and clinically assured, before it is fit for publication.
- Technical and content support: Within the overall scope of support by the LiU Managed Service and its service provider is the resolution of quality issues that are detected after software or content went to deployment. This is described further in the Help Support section below.

4.8.3 Self-assessment

In addition to the quality activities carried out by SmartCare, the seven local partnership areas have quality systems in place to ensure that the health and social care services they are providing meet nationally agreed standards. National external inspection agencies for social care SCSWIS (social care and social work improvement Scotland), and healthcare HIS (heath improvement Scotland) require local services to self-assess and measure areas such as safety and outcomes for service users. SmartCare is a service which adds value to local partnerships self-assessment.

More specific to the daily service, the quality team cover several aspects of activity to ensure a quality service is delivered. These are described below.

Tasks actually performed

- Reading and validating self-management advice offered on LiU / SmartCare site.
- Clinicians test tools with willing service users / co-design.
- Review and response for all support tickets submitted to 1st line support.
- Moderation of all user generated comments on LiU website.
- Review and response to all comments and tweets on Facebook and social media.
- Weekly content meetings and 6-weekly editorial board meetings.
- Monthly review of digital metrics and site performance information from Google analytics and partner service reports.

Issues / incidents solved

When an upgrade of SmartCare is released, this can cause some technical instability. The LiU platform relies on user feedback and testing in order to get to the bottom of technical issues.

Examples of issues which we have resolved through the quality control process include:

- Adjustment of the content on the falls self-assessment tool to ensure it was consistent with national guidance and the NHS 24 falls zone.
- Issue with saving information in Person Held File when using IE8 browser: Service users experienced loss of data when filling out the Person Held File. Also, the save function was not clearly visible.
- Issue with system thinking email was already in use when registering: when registering on the LiU platform, the user was presented with an "email already in use message".
- Client was correct, but access to the resource identified by the URL was forbidden 403 Error after logging in to LiU: The web server (running the web site) experienced some technical difficulties in the HTTP data stream sent; this indicated a fundamental access problem. The LiU service desk relied on people reporting 403 errors in order to track timings and occurrences of page errors. The technical team

worked on logs and found bugs causing the access problems. A technical fix was released in a pre-production environment and tested for anomalies.

- Time function on the calendar: Some users experienced timing issues with the calendar. When users entered times into the calendar, the time would spontaneously jump by one hour on refresh. Technical investigation concluded that when moving from British Summer Time (BST) to Greenwich Mean Time (GMT) there was some adjustments needed in the product build.
- Functionality of SmartCare on different devices: Users experienced display issues when viewing the PHF / calendar on an IPAD. Buttons were hidden and some boxes and words were cropped. SmartCare product build was in turn tailored for use on a variety of platforms.

Performance

A measurement framework was established to review performance of activity on LIU and use of SmartCare tools. If performance slips below targets, an investigation with local partnership areas and technical partners is launched. Table 2 below is an example of the information which the quality team review on a regular basis.

Table 2: Scotland: Measurement framework

Metric	Definition	LiU Target
User	Total number of people registered with LiU to use digital tools and to contribute content.	3,200
Member	Total number of people signed up to LiU newsletter.	17,000
Total page views	Number of page views each month, indicating content has been read.	55,000
Total monthly visits	Number of individual user sessions each month; each user is identified by their IP address.	9,000
Avg. page views per visit	Average number of pages viewed by users during each visit.	4.0
Average visit duration	Average length of time a visit to the website lasts. Spending 30 seconds per page is considered a good industry standard.	4.0
Bounce rate	Percentage of visits to the website where only one page is looked at. A high bounce rate is often seen in referrals from social media.	45%
New users	Percentage of visitors to the website who have never been there before.	60%
Returning users	Visitors to the website who have visited before.	40%

In addition, a range of other activities are in place to measure performance:

- Verify adherence to the test strategy, e.g. verify existence of test plans and evidence. For the LiU / SmartCare, this is managed through an agreed release management process which requires evidence of testing to be reviewed and signed off by technical lead before agreeing new release. Documented evidence on project management tool huddle.
- User acceptance testing (direct software testing by the Project Office).
- Review LiU Managed Service helpdesk reports.

Procedure to solve issues

An operational manual sets out all processes followed to resolve identified issues. Excerpts covering customer service and feedback are shown below.

Customer service and support desk
The support desk will be the first line of contact for LiU users and members, and will offer first line technical support if there are issues with the functionality of the site.
Individuals can make contact with the support desk by email (support@livingitup.org.uk) or by completing the form on the cloud based support system. This is linked to the 'feedback' tab and 'contact us' link in the footer. Queries are monitored, triaged and managed using a ticketing system to track each issue.
When someone sends an email or completes a feedback form, they receive an auto-response which provides a unique number to allow the user to follow up their query.
A gate keeping procedure is followed to monitor and categorise queries in line with the SLA plan outlined in section 3.
All responses should be written in line with the LiU tone of voice and communication guidelines. Support desk will build a list of standard responses over time (a knowledge base) which should form the basis of responses, but each reply should be personalised.
Support desk will provide regular reporting to Operations and Customer Service Manager including: number of tickets raised, number of tickets resolved, applicable SLA and measure of whether this was met, ticket opening, updated and closing times, categorisation. This reporting will be used to help determine future development priorities and assure quality of service from partner organisations.
Queries about content and engagement activities are managed directly by the managed service. These can come in from the following locations, and will be reviewed and receive a response from the account manager using the Kayako software: • Forms and inboxes: suggest an experience guide (flourish), suggest an organisation (discover), suggest a community challenge (flourish), hello@livingitup.org.uk, content@livingitup.org.uk. • Local inboxes: In the project phase, a number of local email addresses were used to manage local content queries. These have been redirected to hello@livingitup.org.uk, and responses are managed by the managed service.
Where complaints are made about the LiU / SmartCare service or managed service, these are handled in line with the complaints policy.
The customer service team takes responsibility for more proactive engagement with users. This is done through a range of engagement and evaluation channels.
The support desk is responsible for technical partner coordination.

General Enquires

In summary, through the 'Help' section of LiU, help and assistance is provided for the most commonly asked questions that are received. If users are unable to find a solution to a problem in the help articles, or simply want to provide feedback, then users can do so by submitting a "Ticket" to LiU.

Some commonly asked questions in relation to SmartCare on LiU include:

- Do I need to fully register with LiU in order to use SmartCare?
- Do you have a user guide for navigating the LiU platform?
- How can I give feedback or contact someone in relation to SmartCare?
- Once I register, what happens to my information?

Technical Issues

Via the 'Contact Us' page on Living it Up (https://support.livingitup.scot) service users are encouraged to use the ticketing system to raise any issues. These issues can range from technical issues, registration issues, to general help. When service users raise a ticket, they are automatically emailed with a reference number and ID, and assurance that the issue is being dealt with.

As a result, the LiU support desk and technical partners work on the issue and provide the appropriate response. The ticket is only closed when the issue has been resolved.

5 Support Services implementation

During the provision of integrated care to users, many types of incidents may occur. From ignorance of the next steps in the protocol of care provision, to technical problems due to the use of the technology or biomedical devices, or even the need to respond to a request for care from a care recipient. It will be essential to provide support services to respond to all these issues, and to all these actors, so as to ensure their satisfaction and the correctness of the services provided with best quality.

Help services are being set up and run to respond to problems faced by staff, users and clients. These teams are operational at each site, supported by the core team.

This section describes how the sites have set up their help support services to the different agents.

	DESCRIPTION
WHAT	Provide help support services
WHY	To respond to problems faced by staff users and by clients/care recipients.
HOW	Implementation of a Help Services
WHO	Identification of persons/units to response (maybe Supported by the core team staff)
WHEN	During the whole process (since fully operational till end of provision of services)
WHERE	At each deployment site

5.1 Support Services in FVG

5.1.1 Help Support Implementation

Table 3: FVG: Help services implementation

	Help desk (IT support)	Process support	Call centre	Help-Desk
For who	HCP SCP End Users Caregivers Third sector	HCP SCP End Users Caregivers Third sector	HCP SCP End Users Caregivers Third sector	HCP SCP end
Profile of team	IT network manager Technical IT IT developer	Service operational Management	Staff trained to respond to work in medical environment	Staff trained to respond to work in medical environment
Topics	IT support Training Use of technology Platform access Platform enhancement	Operational issues (pathways) Provision of service related Processes Ethical/legal	Demand Request Alarms handling Reminders	Technical problems Device home delivery Training Platform use

5.1.2 Composition

Roles:

- IT network manager is responsible for the platform security and accessibility.
- Technical IT analyses technical problems on the platform or devices.
- IT developer analyses technical problems and finds solutions.
- Call centre handles alarms and interfaces with formal and informal stakeholders.

They are located at Piacenza (I) with the support of local staff that carry out domiciliary interventions.

The type of tasks they perform are 24/7 support to all stakeholders on platform and technology use, and alarms handling. Their schedule is 24/7 through a toll free number (800-109300) or email (support-hpfriuli@hes.it).

5.1.3 Processes to provide support

Each new problem is analysed with a problem solving approach to ensure uninterrupted flow of the service, as well as patient's safety, security and comfort.

5.2 Support Services in Region of Southern Denmark

5.2.1 Help Support Implementation

Table 4: RSD: Help services implementation

	Help desk (IT support / Call centre)	Process support
For who	HCP SCP End users	HCP SCP
Profile of team	Quality Assurance Team members (IT/Project management)	Project Managers
Topics	Use of technology IT support Log-in failure	Operational issues (pathways) Provision of service related Processes Ethical/legal

5.2.2 Composition

Help desk services

For the help desk, it is primarily the IT technical staff members of the QA team that man the phones and mail. They are situated at the local office across from each other, and split the time between them. The phones are open from 08:00 – 16:00 on weekdays, and the mails are viewed in the same time period. They typically get questions regarding failure to log in to the system, or difficulties in finding information on a particular patient. Sometimes they get errors which they test and then send to the IT-provider to fix.

IT issues apart from the service itself go to the organisations' helpdesk, such as when the internet connection is down or slow.

Process support

Questions regarding the project or the general functionality or participation in the project go to the individual project managers who have a good communication with the participants. They can also be reached by phone or email in the normal working hours of 08:00 – 16:00.

5.2.3 Processes to provide support

If the helpdesk receives a call from a user having problems with the log-in, they have several questions they can ask to make sure the user is doing everything correctly. If it still does not work, they can change (reset) the password in the system; the user can then change it back, which usually solves the problem. The care recipients use their nationally issued key card with their social security number for access, and so issues with installation of components for this on their PC is usually the issue here. These problems can often be solved directly between the helpdesk staff and the user on the phone. If there is something wrong with the underlying systems or internet connections, they are referred to their usual helpdesk at the organisation or the internet provider for their home. The helpdesk staff record the call on a helpdesk log for statistical purposes.

If the call reveals an error in the system, then the helpdesk staff get a description from the caller; they then test the failure for themselves, and then register it in the joint system with the IT-provider. Here the error is described and categorised for the IT-provider, so they can determine and fix the error as soon as possible. When the error is fixed, the help desk staff receive information by mail; they can then contact the user to let them know that the error has been fixed. Reports can be taken from the system for statistical use.

5.3 Support Services in Tallinn

5.3.1 Help Support Implementation

Table 5: Tallinn: Help services Implementation

	Help desk (IT support)	Process support	Call centre	Social alarm service
For who	HCP SCP Call centre	HCP SCP	End users Informal carers	End users Informal carers
Profile of team	IT team Technical support team	Project manager Officials from Tallinn city	Healthcare staff Social staff	Social workers Technical support team
Topics	Use of technology IT support	Operational issues (pathways) Provision of service related Processes Ethical/legal	Information/ support Use of technology	Alarm button and phone Social alarm brigade

5.3.2 Composition

Help Desk

- IT team: Located at ETCH, provides IT support, manages the SmartCare server. Operative on workdays. Can be accessed by project manager or technical support team via email or phone.
- Technical support team: Located at ETCH, provides support concerning measuring devices, SmartCare application and SmartCare portal. Operative on workdays. Can be accessed by call centre (contact centre nurses and social worker) via email or phone.

Process support

- Project manager: Located at ETCH, manages operational issues and pathways, keeps track of the workflow, manages communication between stakeholders, and provides support on ethical and legal aspects. Operative on workdays. Can be accessed by stakeholders via email or phone.
- Officials from Tallinn city: located at Tallinn City Social Welfare and Healthcare department, reviews operational issues, pathways and social alarm services. Operative on workdays. Can be accessed by stakeholders via email or phone.

Call centre

- Healthcare staff: Located at ETCH. Provides support concerning healthcare issues. Forwards technical issues if needed to help desk. Operative on workdays. Can be accessed by end users and informal carers via phone.
- Social staff: Located at ETCH. Provides support concerning social care issues. Forwards technical issues if needed to help desk. Operative on workdays. Can be accessed by end users and informal carers via phone.

Social alarm services

- Social workers: Located at Tallinn Welfare Centre. Communication with end users and informal carers, contracts with clients. Visit clients at home when informal carers can't respond to an alarm. Can be accessed by end users and informal carers via email or phone on workdays. Has a 24/7 social brigade readiness.
- Technical support team: Located at private company Telegrupp. Responsible for social alarm devices. Can be accessed by social alarm services and help desk on workdays via email or phone.

5.3.3 Processes to provide support

The methodology to respond to issues of each of these units is as follows:

- Help Desk: All issues received, either by email or phone, are registered. All technical issues concerning the telemonitoring devices at patient's home are solved in co-operation with care recipients, either by instructing by phone, or in more difficult cases by home visit.
- Process support: Issues are solved during weekly meetings. Meetings are reported.
- Call centre: On receiving a call or an e-mail from care recipient or informal carer, the call centre workers provide initial information and resolve issues that are manageable for them. Call centre workers make an entry in the SmartCare portal to share relevant information with other stakeholders. Contact centre workers communicate unresolved technical issues to help desk.

- Social alarm services: Technical issues are communicated to private company Telegrupp. Telegrupp provides technical support for social alarm services.

5.4 Support Services in Aragon

5.4.1 Help Support Implementation

Table 6: Aragon: Help services Implementation

	Help desk (IT support)	Process support (pathway/protocol- related)	Call centre
For who	HCP SCP End users	HCP SCP	Users
Profile of team	IT	Service operational SmartCare project management	Healthcare staff Social staff
Topics	Use of technology IT support	Operational issues (pathways) Provision of service related Processes Ethical/legal	Demand Request

5.4.2 Composition

Three type of units have been defined to provide help support, according to the type of support provided and the people on the team: Help Desk (IT support); Process Support Team; and Call centre.

Help Desk (IT support)

The help desk provides technical support to healthcare providers, social care providers and end users. Its main objective is to solve issues that may occur due to technology related problems, biomedical devices, communications or ICT infrastructure, SmartCare web application, or its integrations with the already existing systems, etc.

The help desk is composed of six computer engineers with vast experience in health informatics and the Servicio Aragones de Salud IT infrastructure and maintenance. They are located at the Informatics Service Department on the 1st floor at Barbastro Hospital premises.

They provide 24x7 help support.

The types of tasks that they assume are:

- Provide support for technological issues that may occur.
- Provide support and resolve biomedical devices incidents.
- Provide support, training and resolve incidents with the SmartCare website.
- Resolve incidents with the Servicio Aragones de Salud's technological infrastructure that is available for the SmartCare project.
- Provide support and resolve incidents related to the applications that are integrated with the SmartCare platform.

Help desk services are available via:

- The Call Centre that forwards them technological incidences.
- Via telephone number (+34.974.249.011) 24x7.
- Via email (informatica.hbrb@salud.aragon.es).

Process Support Team

This help support unit provides solutions to issues related to the provision of care, the healthcare protocols and SmartCare pathways.

It is composed of the SmartCare project manager and the SmartCare management team supported by a representative from the Barbastro Hospital's Emergency Unit, a representative from the primary care centres, and a representative from the social care providers.

They are located at the Innovation Unit at the 1st floor, at Servicio Aragones de Salud Barbastro Hospital.

It provides help support services to healthcare and social care professionals enrolled for the provision of integrated care services.

Among its tasks:

- Resolve issues on SmartCare pathways, agents involve, etc.
- Resolve issues and questions on healthcare protocols.
- Resolve issues and questions on social protocols.
- Resolve issues about the identification of care providers.
- Resolve logistic issues that may occur between the care providers.
- Search for new care providers if required.
- Collect incidents that may be on the operational side, and promote meetings with the care agents to change protocols / SmartCare pathways, including regulatory or SALUD management units.
- Support on ethical and legal issues.

It is operational from 07:30-15:30 Monday to Friday, and via email at innovation.hbrb@salud.aragon.es.

Call centre

The call centre responds to care recipients' calls and queries, and telemonitoring issues.

It is composed of an emergency nurse and an emergency doctor. It is located at the Emergency Unit at the Barbastro Hospital. It is operational 24x7 via telephone (+34.650.22.58.81) and email.

Their tasks are to:

- Collect users' demands for new services and forward them to the SmartCare Evaluation Team for new assessment of the user's needs.
- Collect users' questions about the SmartCare services and respond to health issues. Forward social issues to the corresponding care provider for resolution.
- React to telemonitoring alarms, type 1 and type 2.
- Collect any other issue that end users may have.

5.4.3 Processes to provide support

Help Desk (IT support)

When a call or email arrives at the help desk, engineers respond in the shortest time to the issue, and according to the nature of the query.

- If it is a device or communication incident on the end-user side, they will check for solution by providing instructions on how to solve it, changing the device for a new one if required, or providing new consumables. They will travel to the requester's premises if necessary.
- If the issue is platform related, or due to integration problems, they solve it by using all the Servicio Aragones de Salud maintenance units and personnel in charge of the maintenance of the ICT systems. The IT team contact any stakeholders that may be responsible for the maintenance of SALUD's and SmartCare services and applications.

Process Support Team

Queries and issues related to process and the provision of integrated care services are received by the SmartCare project manager and the SmartCare management team. Issues are answered by consulting the SmartCare pathway protocols, and the health and social protocols defined for the provision of integrated care services.

- If support is required, or changes to the protocols are needed, the SmartCare management team asks for support from the internal representatives. Barbastro Hospital Emergency Unit participates on issues related to the short term protocols; the representative from the Primary Care centres participates on issues related to the provision of health / social services provided from the SALUD healthcare centres; the representative of the social care providers participates on issues related to the provision of social attention.
- The SmartCare project manager can organise meetings among the different representatives to clarify or provide answers.
- The SmartCare project manager is also competent to transfer issues and organise meetings with the SALUD's Managing Director or the Aragon Health Department representatives if required to provide solutions that may require a high level of commitment.
- Regulations about ethics and data protection are consulted with the SALUD legal competent units and Aragon Ethics Committee.
- Answer to the issues are provided within a maximum of two weeks.

Call centre

The processes to provide support from the Call Centre vary according to the issues:

- Healthcare alarms: The call centre has a protocol and methodology to resolve issues related to the telemonitoring of vital signs. These protocols have been approved by the Salud's Primary Care and Specialised Care Managing, and are disease-related. They permit mobilisation of all resources required for the attention of the user when the vital signs are out of range, including emergency situations and referrals to the health centres. Response is immediate for serious alarms (values very high out of range) and within hours for low severity alarms (values slightly out or range).
- Demand for new services: Issues related to the demand for new services by the end-user are forwarded to the SmartCare Evaluation Team so that a new

assessment is done to evaluate the new care recipient status and demands. Issues related to the demand for social attention are referred to the social call centre of the social provider in charge of provision of care to that recipient.

- Any other issue is forwarded to the SmartCare management team for resolution.

5.5 Support Services in South Karelia, Finland

5.5.1 Help Support Implementation

Table 7: South Karelia: Help services Implementation

	Help desk (IT support)	Process support	Call centre
For who:	HCP SCP ICG	HCP SCP	Users ICG
Profile of team	Technology provider IT staff	Service operational Management	Project workers (health and social care staff)
Topics	Use of technology IT support	Operational issues (pathways) Provision of service related Processes Ethical/legal	Provision of service related use of technology

5.5.2 Composition

Help desk

The profile of the people that compose the help desk is IT professionals that answer and solve technology related questions and issues.

The help desk provides support for technology (GPS and video connection); home visits are made when needed.

The staff are located at Helsinki, Finland (GPS support) and Kuopio, Finland (video connect support). They operate from 08:00-17:00 on working days. They are accessible via phone or ticketing system.

Process support

Process support staff are project staff and social / health care managers. Support is provided to social and health care professionals.

Their tasks are:

- Process support provides help to implement new care processes.
- Provide training and help visits to caring units if needed.
- Support for ethical questions.
- Help to choose the right services for the client.

The team is located at Lappeenranta, South Karelia, Finland, and is operational from 08:00-16:00 on working days. Access to the Process Support team is by phone or email.

Call centre

Call centre service is provided by project staff who answer all end users' questions. They provide service related and technical support to clients and informal caregivers.

They are located at Lappeenranta, South Karelia, Finland, and are operational from 08:00-16:00 working days. Access to the call centre team is by phone or email.

5.5.3 Processes to provide support

The methodology to respond to issues is:

Help desk

- All contacts received by phone or via ticketing system are handled in two working days.
- Held desk can make remote connection to tablet/GPS device, and maybe fix the problem.
- If problem cannot be solved by remote connection, IT staff makes a home visit.

Process support

- Contacts are handled every working day, and help / support provided as soon as possible (mainly on the same day).

Call centre

- Contacts are handled every working day, and help / support provided as soon as possible (mainly on the same day).
- Staff at IT Help desk are contacted if needed.

5.6 Support Services in Attica

5.6.1 Help Support Implementation

Table 8: Attica: Help services Implementation

	Help desk Level 1 support (for ICT, tablet and telemedicine equipment Issues)	Help desk Level 2 support (for ICT, tablet and telemedicine equipment Issues)	Process Support	Managerial and legal support
For who:	HCP SCP Care Recipients and Caregivers	HCP SCP Care Recipients and Caregivers	HCP SCP Care Recipients and Caregivers	Policy makers Project Managers
Profile of team	Care coordinators	IT development team and IT Manager	Care Coordinators	Pilot Coordinator Project Managers Legal Experts

	Help desk Level 1 support (for ICT, tablet and telemedicine equipment Issues)	Help desk Level 2 support (for ICT, tablet and telemedicine equipment Issues)	Process Support	Managerial and legal support
Topics	Training care recipients in the use of software, tablets and telehealth equipment. Collection of requests from end users for technical problems related to the functioning of the software, the telehealth equipment and tablets. Resolving problems that require Level 1 support. When problems cannot be solved, forwarding requests to Level 2 support team. Communication with sponsors of tablets when non – functional for replacement.	Bugs fixing. Problems with functionality. Updates of software and log-failures. Install new content in the platform where applicable. Replacement of telehealth equipment when Level 1 support is not enough. Security issues.	Provide guidance with respect to the correct implementation of the care pathways. Monitor progress in the uptake of SmartCare services. Encourage care recipients and caregivers to use the SmartCare services. Replacing drop outs/including new users Collect and store ICF's.	Quality of Service Issues. General project management issues. Ethical/legal. Organisational issues. Financial issues. Procurement/supplier issues. Communication and PR issues. Policy issues.

5.6.2 Composition

Profile of people involved

- Care coordinators solve level – Support issues as they are trained to do so. They are in contact with other professionals and care recipients and caregivers and receive their queries either through the platform, through e-mails or by phone.
- The IT development team and the IT Manager provide level 2 support when necessary.
- Care Coordinators are also dealing with service operational issues. They are the people continuously in contact with the care recipients, the caregivers and the other care professionals.
- The Pilot Coordinator primarily, and to a lesser extent the Project Managers and the legal experts within the Attica pilot, provide expert services on issues of: quality of service; general project management; ethical / legal; organisational; finance; procurement / supplier; communication and PR; and finally policy.

Role of each profile

- Care Coordinator: Collects requests and complaints on the functioning of the software, telemonitoring equipment and tablets. The care coordinator reacts by either resolving the issue, or forwarding the request / complaint to the Level 2 support team. Also responsible for monitoring the progress of the pathways per patient, and encourages care recipients and caregivers to follow the care plan, either through messages via the platform or via e-mails and telephone calls. Collects and stores ICFs, and is responsible for enrolment of new SmartCare service users or for discharging users.
- IT development team and IT Manager: Respond to requests for Level 2 support. They are responsible for bug fixing, resolving problems with functionalities, updates of software, and solving IT security issues.
- Pilot Coordinator, project managers and legal experts: They provide expert services on issues of: quality of service; general project management; ethical / legal; organisation; finance; procurement / supplier; communication and PR; and finally policy.

Where are they located

- Care Coordinators: At the Municipal Health Centres of Alimos, Agios Dimitrios and Palaio Faliro respectively.
- IT development team and IT Manager: Vidavo Health Telematics, Athens and Thessaloniki.
- Pilot Coordinator, project managers and legal experts: At the Administration Department of the Municipalities of Alimos, Agios Dimitrios and Palaio Faliro.

Schedule

- Help desk (level 1 support) and process support for SmartCare end users is available Monday to Friday during working hours of the municipalities (08:00 to 17:00).
- Help desk (level 2 support) is available Mondays to Fridays, 09:00 to 17:00.
- Pilot Coordinator, project managers and legal expert support is available Mondays to Fridays, 09:00 to 17:00.

How to access them

- Level 1 support is available by phone (cell), email and through the SmartCare platform.
- Communication with Level 2 support is available by e-mail and telephone.
- The pilot coordinator and the project managers can be reached through e-mails, skype or telephone.
- The legal expert is available only by appointment.

Local SmartCare (www.atticasmartcare.gr) is a portal where all end users can download user manuals for software and the telemonitoring equipment used.

5.6.3 Processes to provide support

Description of the methodology to respond to issues

The care coordinator is responsible for addressing issues received from the end users and related to level 1 support as well as issues related to the processes of the SmartCare pilot. Level 1 support issues are usually solved within one day of filing the request / complaint.

If the technical problem cannot be solved by the care coordinator, a request is sent in writing via the e-mail to the IT Manager / IT development team.

Level 2 support responds in writing to the care coordinator within one day of the request, and solves the issue within five working days of the request.

The local coordinator, project managers and the legal expert provide their support continuously; however, because of the nature of issues they deal with, end solutions might be delayed more than one week.

5.7 Support Services in Kraljevo

5.7.1 Help Support Implementation

Table 9: Kraljevo: Help services Implementation

	Call centre (First level support)	**IT development team** (Second level support)	**Process support** (Second level support)	**Administrative team** (Second level support)
For who	End users HCP SCP	HCP SCP HCP IT Personnel	HCP SCP	HCP SCP End users
Profile of team	IT professional from Health Centre	IT development team	Service operational Management	Service operational Management
Topics	Collecting requests Resolving Forward to the second level	Bugs fixing Adjusting reporting parameters Problems with Functionalities New software versions etc.	Organisational issues Provision of service related Processes Problems in communication Facilitate coordination Ethical/legal	Replacing/including new users Consent forms Replacing equipment Contact with suppliers Telecom provider Contact with authorities

5.7.2 Composition

Profile of people involved

- IT professional from Health Centre: person who will be in charge of communication with end users and service operational team. IT background, system administration and resource management.
- IT development team: group of people developing the solution, responsible for planning, design, testing, implementation and changes / modifications.
- Service operations: people in contact with those users deploying the service to the end users.
- Management team: all three partners have representatives in charge of delivery of integrated care.

Role of each profile

- First level support: IT professionals collaborated with local IT support in Kraljevo in developing the services and procedures for bug fixing. IT professional in Kraljevo is responsible in providing first level of support to end users and health and social professionals. He collects requests and then reacts accordingly, by either resolving them or forwarding them to the second level of support.
- Second level support includes:
  - IT development team who developed the software is responsible for bug fixing, adjusting parameters for reporting, resolving problems with functionalities, uploading new software versions, etc.
  - Administrative team is responsible for replacing / including new users, and following paperwork, replacing broken equipment, contact with suppliers, internet provider, etc.
  - Process support which include social and health professionals resolves organisational issues, problems in communication, facilitates coordination between services.

Where are they located:

- IT support is located in Health Centre, Kraljevo.
- IT development team is located in Belit doo, Belgrade.
- Administrative team include representatives from health and social centres and Belit.
- Process support includes representatives from health and social centres in Kraljevo.

Schedule

Help service for SmartCare end users is reachable during working hours of Health Centre Kraljevo. Administrative and process support team have regular daily briefings and meetings to discuss issues. IT development team is reachable for IT support to Health Centre during work hours. Monthly consultations between management representatives are held either by teleconferences or in person.

How to access them

Call centre and first level support for end users and health and social care providers operating the portal is available by phone (cell), email and by SmartCare messaging system.

Communication between first level and second level of support is available by all means of communication, with mandatory logging of the contact; these are sent periodically to the management team as a report.

Local SmartCare website is designed to present an overview of the system and to provide a place where all users can download user manuals for the system.

5.7.3 Processes to provide support

Description of the methodology to respond to issues

First line support (IT professional in Health Centre Kraljevo) is responsible for addressing issues received from the end users. If the problem cannot be solved by him, he will inform second level support of the problem in writing using following elements:

- New request: Request to create new functionality.
- General request: Any request not directly attached to SmartCare functionality.
- Change request: Request for a change of existing SmartCare functionality.
- Error report: Reporting an error in the SmartCare system.

After selecting one of the subjects, IT support chooses to whom to send the request (for example, administrative team or process support team). It is necessary to enter Type and Subject of request, as well as the text field which carries a description of the request / problem.

If necessary, it is possible to attach files (jpeg, doc, avi) to further describe the issue. Finally, the priority of the request / problem should be set.

Second level support will address the issue and send feedback to the IT support about the status of request. Each received request will have the following status:

- New: upon receiving request will be treated as NEW.
- Open: receiver is working on request.
- Closed successfully: receiver resolved the issue.
- Closed unsuccessfully: issue was not possible to resolve.
- Attached: request is added to existing issue.

5.8 Support Services in Scotland

5.8.1 Help Support Implementation

Table 10: Scotland: Help services Implementation

	First line support (face to face and online)	Second line support	Digital upskilling	Process support
For who:	All users of the new tools	First line support	CR I/FC	HCP SCP
Profile of team	IT supplier Partnership and Engagement Officers	IT suppliers Living it Up Managed Service	Living it Up managed service	service operational management
Topics	Technical issues Content issues Configuration requests Content requests	Technical support Content support	Published articles and videos on how to set up and use IT	Operational issues (pathways) Provision of service related Processes Ethical/legal

5.8.2 Composition

The provision of help is structured into two tiers. End users interact with different access channels that are provided by first line support. First line support then co-ordinates a set of second line resolver groups on behalf of the end users.

The structure handles both technical support and content support.

Help is also provided on the Living it Up (LiU) website (Connect section) in the form of articles that help people learn digital skills.

- Content support
  - Profile: Staff with background in Health and Social Care service provision, x4
  - Role: Partnership and Engagement Officer
  - Type of tasks: Initial setup and introduction to the tools
Ongoing review and face to face support
  - Location: NHS 24 office and on-site (visit end users)
  - Schedule: Normal office hours
  - How to access: Phone, email, face to face
- Technical support
  - Profile: Technology specialist in the teams of the IT suppliers,5 suppliers
  - Role: IT supplier (first line and second line)
  - Type of tasks: Operate help portal
Service desk to co-ordinate tickets
Resolve defects
Resolve requests for configuration changes
System monitoring and administration
  - Location: UK offices
  - Schedule: Mostly normal office hours
First line service desk 24x7x365 for any priority issues
  - How to access: Online help portal, email, internal ticketing systems
- Living it Up support
  - Profile: Staff with background in media production in the team of the LiU Managed Service, x1
  - Role: LiU Managed Service
  - Type of tasks: Research, produce and publish content:
- help content
- requests for new content
- resolve any errors in published content
  - Location: Scotland office
  - Schedule: Normal office hours
  - How to access: Online help portal, email

5.8.3 Processes to provide support

All users of the new tools can initiate the process by speaking directly to their Partnership and Engagement Officer, or by using an online help portal, or by sending an email to a support email address.

Issues and requests that are received through these channels are recorded in a ticketing system. The first line service desk attempts to resolve issues directly. Where this is not possible, it ensures that the relevant information is gathered, and identifies what second line support is needed. It then co-ordinates the necessary activities of all parties involved, whilst providing a single point of contact for the service users.

For technical issues and configuration, the resolver groups are various IT service providers which carry out second line technical support. There are multiple suppliers involved for the various SmartCare tools and the various components of the LiU platform.

For non-technical issues, the resolver group is the LiU Managed Service, which develops and maintains the content on the LiU platform.

Service users are kept informed of the progress of their ticket via email updates. Closure can take various forms, such as a simple explanation for self-help, completing a configuration request, deployment of a software fix, or updated website content.

6 Operational experiences in User Recruitment

Identifying potential users to participate in the project is one of the biggest challenges of the deployment sites. All of them have defined inclusion criteria based health and social aspects, trying to reach those users to whom integrated-care would potentially bring more benefits. But the challenge is not only identifying these patients, but encouraging voluntary participation to achieve the target number of users.

Each deployment site has defined different strategies to recruit patients. The sections below detail their activities and experiences in the recruitment process, and how they dealt with the issues they encountered.

6.1 Experiences in user recruitment in FVG, Italy

Activities performed	• Sent official letter to all Districts and to hospital heads of Departments, and carried out rounds of phone calls to District managers to update them on the status of deployment and the need to enrol more short-term (hospital discharge) patients.
Risks faced	• The patients who are on the verge of being discharged feel very weak and often traumatised by their disease experience. Talking to them is difficult, and they may be reluctant to change. • Frail patients who need to come home from hospital may not want to undergo heavy monitoring. • In the hospital discharge short term pathway, some caregivers may feel scared of having to rely on at home monitoring for the fear of facing additional responsibilities.
Issues occurred	• SmartCare welcome, with some initial concerns about ease of use soon overcome. • Reorganisation of the regional healthcare system started in January 2015; the merging of hospital and community-based services is proving to be difficult due to staff overload and concerns about the future. This situation has slowed down recruitment for the short-term (hospital discharge) pathways. A communication was sent to all regional districts updating all professionals about project's achievements obtained thus far, and goals still to be reached with a view to enhancing motivation and collaboration. • It has happened twice that family caregivers were enthusiastic about the opportunity of keeping their loved one at home through more intensive monitoring. However, eventually the end user declined participation in the project because he felt overwhelmed by his personal health and life problems, and did not want to have to face any kind of change. One end user was convinced through thorough explanation and support by his domiciliary nurse. The other still declined participation.

6.1.1 Lessons learnt in FVG on user recruitment

- We are sometimes experiencing willingness to participate in the project on the part of caregivers, but unwillingness to participate on the part of end users. In some cases, people are very tired, and feel overwhelmed by the suffering related to their illness and the related psychological problems. They are afraid of change. Greater dissemination of the role of ICT-supported integrated care in helping people manage their chronic disease may improve patients' knowledge, trust and understanding.

- Before starting any ICT-based integration, it is advisable to clearly define the organisational structure, and take into account all the human variables which may facilitate or hinder progress.
- Effective user recruitment starts long before actual enrolment. It is connected to good dissemination and communication on the added value of integrated care. Since it is largely dependent on trust, it requires formal stakeholders to trust the benefits of ICT-integrated care. Otherwise, end users will have trouble to jump on board, especially after hospitalisation has occurred.

6.2 Experiences in user recruitment in Region of Southern Denmark

Activities performed	• Information via healthcare professionals at visits. • User material developed and handed out at first meeting. • Contact with patient associations and participation in workshop. • Media attention: a news segment in the local news to make patients aware of the system and interested in its use.
Risks faced	• Staff not ready to involve and guide patients at recruitment. • Patients insecure about data safety and therefore declining use. • Not enough patients willing to try the system, and therefore not enough input for evaluation. • Patients not having internet and PCs at home and therefore not able to participate.
Issues occurred	• Staff not handing out the guides and giving the patients information at recruitment. Reminding staff of the procedure was required. • Patients not interested in using the platform. Making sure staff inform them correctly, and otherwise accepting their choice was promoted. • Patients have a lot of questions and need a lot of information at recruitment time. They are vulnerable, and may not be ready to take on a new system. Nurses evaluate patients' readiness, and introduce the system at the end of the consultation after all concerns regarding their disease have been discussed.

6.2.1 Lessons learnt in Southern Denmark on user recruitment

- It is important to look at the timing of training. We have experienced that training and the actual use of the system need to be close together. Also, it is a bad idea to plan training just before the summer holidays, as users seem to forget the training received.
- We have recruited care recipients through the care professionals, as we see that it creates more trust in the project; it is less disturbing for the care recipients to receive all relevant information from the same person.
- On the other hand, it requires some work to get the care professionals ready to recruit and make them understand the importance of the project and the benefits for the care recipients.
- Make the guides very simple and user friendly, as the patients have many other issues to deal with at recruitment time.
- Make a small guide for the professionals about what to say to patients when recruiting, including some of the typical concerns about safety and use of their data.

6.3 Experiences in user recruitment in Tallinn, Estonia

Activities performed	• Patient criteria and starting points for recruitment were decided. • Possible suitable end-users were invited to participate in a study by sending letters or while making a home visit. • Randomisation was done to compose intervention and control groups.
Risks faced	• There may be few suitable patients (too fragile, under age-limit, not interested). • Suitable patients may not be willing to participate in the study.
Issues occurred	• Patients change their mind about participation after they have signed the consent form, but before the service starts. More explanation about the service was provided. • The patient may want to participate, but relatives may be against it. The solution was to have more communication with relatives. • Many recruited patients did not want to use the social alarm services, and were more interested in the telemonitoring services. Therefore, the social alarm service was made voluntary.

6.3.1 Lessons learnt in Tallinn on user recruitment

- Recruitment criteria may have to be changed depending on the situation.

6.4 Experiences in user recruitment in Aragon, Spain

Activities performed	• Holding information meetings: Different activities have been performed to inform users about the SmartCare project with the aim of promoting recruitment and participation. Different formats of information meetings have been held.
	• These have been:
	  ○ Holding information meetings with each potential user leaded by the GP.
	  ○ Holding information meetings with each potential user by the social care providers.
	  ○ Holding community information meetings with potential users & families led by the SmartCare Evaluation Committee.
	  ○ Holding community information meetings with potential users & families leaded by the care providers.
	• Enrolment of carers and family: Family and carers have been included in the information meetings to generate confidence and support for potential users, to promote enrolment.
	• Collaboration agreement signature with SCP: The inclusion and enrolment of social care providers is key for user recruitment. Information meetings have been held between the SmartCare team and different social care providers (public and private) to achieve the signature of collaboration agreements, and therefore make SCPs take an active part in the recruitment of users. Red Cross and social associations to identify potential users and inform.
	• New remote areas: User recruitment has been performed in different geographical areas, including remote areas with poor or difficult access to health and social services, by collaboration of care providers in those areas.

	• Generate confidence: Enrolment of GPs to disseminate the SmartCare project among their patients to identify potential users and promote the participation among them. Use of GPs and nurses to identify potential users and inform. • Word of mouth communication: Promote the continuity of users of other care programmes (that fulfil inclusion criteria) as they have a network of neighbours / carers / friends that may be potential users. • Identification of users somehow related to previous programmes' participants (neighbours, etc.). • Support from previous experiences.
Risks faced	• Lack of confidence: Lack of confidence in the program that makes users reluctant to participate. Due to lack of awareness, fear of being over-protected, not willing to open their houses, etc. • Insufficient number of users: There may be a risk of not getting the final number of users into the programme as defined on the DoW. Therefore, agreements with SCPs are key. • Excessive number of users at start: Starting the service with an excessive number of users may cause overload of the service providers and dissatisfaction of the users.

Issues occurred	• Too many people to participate at the start. We started providing integrated care services to small groups of people to avoid overloading professionals and dissatisfaction due to wrong procedures.
	• Control group: Unwillingness to participate in the control group, as, after learning about the programme, all users preferred to participate in the intervention group. Different strategies were defined to solve this issue:
	  ○ Selection to the control group was made at different locations.
	  ○ Wider dissemination of the control group by the social care providers.
	  ○ Collect historical data from the information systems, after a process of anonymisation if not reaching the final number of users in the control group. This strategy was not finally required.
	• Drop-outs due to "over-care". In some cases, users feel "over-cared" for, that is, they feel their condition has worsened, or believe to be in a worse status than they really are, or feel very much attended, due to the amount of care they receive. Contingency plans were the revision of the care plan, adapting it to the user's needs. In a couple cases, users dropped-out of the programme. Adaptation of the care plan is essential to meet the user's requirements and expectations.

6.4.1 Lessons learnt in Aragon on user recruitment

- Enrol healthcare professionals to identify potential users: Involve healthcare professionals, since the early stage of the project is fundamental, so encourage the professionals' enrolment and the identification and potential participation of their patients.
- SCPs to identify potential users: Social care providers are agents closer to the users, with a regular and close relationship (in most cases, closer than that of the GPs or nurses). Therefore, in most occasions they are the main identifiers of potential users of the programme, to be added to the GP efforts.
- Relatives' inclusion: Informing the relatives is essential for the recruitment of patients, as, in most occasions, users are dependent patients. Therefore, relatives must be involved from the beginning, and include them on the initial informative sessions.

- Generate confidence: Users have confidence on their carers. Therefore, use these carers (GPs, care providers) as the ones that inform them about the integrated care programmes.
- Agreements with SCPs for wider implantation: Enrolment of SCPs is key, not only to achieve the final numbers, but for a region-wide implementation of integrated care services.
- Inclusion of users step by step: In order to avoid dissatisfaction of the users and agents due to overload from excessive number of users at the start, it is necessary to introduce users step by step. All beginnings are difficult, as service providers must become confident with the technology and the new processes.

6.5 Experiences in user recruitment in South Karelia, Finland

Activities performed	• Home care, rehabilitation, service assessment team and informal carers support team professionals have recruited care recipients. Recruitment is done widely, which has help to reach target numbers.
Risks faced	• If professionals do not commit to new caring model, or do not understand how the new care model works, they do not recruit the care recipients either.
Issues occurred	• Professionals did not understand what benefits the new technology can bring to the care pathways. These professionals were retrained, and given more face-to-face training and time to discuss with project staff.

6.5.1 Lessons learnt in South Karelia on User recruitment

- Users are more willing to participate when they have an opportunity to see and test the technical solution. They are not so frightened anymore.

6.6 User recruitment experiences in Attica, Greece

Activities performed	• Potential SmartCare participants (potential end users and their informal carers) were identified via participation in large information events for citizens suffering from Type 2 diabetes, such as the World Diabetes Day. More potential participants are screened in a short time. • Use of professionals to identify end-users from databases in Municipal Health Centres.
Risks faced	• A long period of time between screening of patients and pilot start caused a significant number of patients to drop out of the study, since they could not wait for the services to be deployed as promised. • The very old people (over 70 years of age) in our pilot are not used to ICTs. Even though training has been provided to them and there is continuous level 1 support, these people need continuous support to use the SmartCare services, and in the end they do not record measurements or follow the care plan as planned, as they get demotivated. • Since an intensive and continuous communication campaign was not possible due to budget constraints, the planned number of care recipients was not reached.

Issues occurred	• Difficult to enrol the required number of patients that fulfil all the inclusion criteria, especially in terms of people being ICT literate. Greece has a low numbers of ICT literate people. We discussed this with the Federation of People Suffering from Diabetes (POSSASDIA) so they could identify citizens from the Attica pilot that suffered from T2DM and were also ICT literate. Also, contact local specialists to inform their patients about the project and contact the Attica pilot. • Some care recipients are not well accustomed to ICTs. They wanted to drop out because they did not feel confident and comfortable with the use of the ICT solution and the telemonitoring equipment. Intensive and on-the-spot training of care recipients by care coordinators until they felt confident and comfortable with using the software and the equipment.

6.6.1 Lessons learnt in Attica on user recruitment

- Caregivers, where applicable, need to be involved more aggressively in encouraging care recipients to stay in the pilot from enrolment until time of service provision. Where possible, a psychologist or care coordinator needs to support this process.
- Always execute an intensive communication campaign before the study start. Also, train the care recipients (especially the very old) in the use of ICTs some time before the study begins, so that they do not drop out during the study.
- Some care recipients claim that the ICT system is very rigid. It needs to be more fun and therefore interesting to them to use. In the future improvements of the system, the IT developers should introduce the game element to make it more fun.

6.7 Experiences in user recruitment in Kraljevo, Serbia

Activities performed	• End Users are identified by GPs and SCP. • Centre for Social Work Kraljevo and Health Centre Studenica jointly defined list of participants in May 2014, and the dynamic of involvement of users in the coming period. • Throughout 2014, health and social professionals jointly informed future end users regarding participation in the SmartCare project, and what would be their role in the system. They gradually collected signed consent forms from the users. • First 30 end users enrolled in the SmartCare. Enrolment was performed in the Health Centre in Kraljevo; end users received equipment and were trained to use it. The event was covered by local media representatives, and the Mayor of Kraljevo and Chief of Raska District attended. • During three days from 30/03-01/04 2015, 80 end users were enrolled. The event took place in Health Centre Kraljevo. End users were called in small groups. Total number of users enrolled is 110.
Risks faced	• Some of the end users have serious chronic health problems and belong to an elderly population; therefore several of people deceased before starting to use the service. Therefore 30 more end users were enrolled to ensure the planned number of end users receive the service.
Issues occurred	

6.7.1 Lessons learnt in Kraljevo on user recruitment

- First approach to the end user is very important; end users who were informed about SmartCare from their GP or committed social worker were interested to take part, indeed they showed enthusiasm to participate. Our conclusion is that well informed professionals were key in presenting SmartCare to the new users.

6.8 Experiences in user recruitment in Scotland

Activities performed	• Wide range of engagement promoting benefits of LiU and SmartCare. • News Letters. Facebook Page. Twitter. • Practitioners' recommendation. • Recruitment strategies in place in each Local Area. • Recruiting on to the LiU platform. • Advertising the SmartCare tools.
Risks faced	• Monthly recruitment targets not being met; slippage month on month to figures make the 10,000 target number unachievable. • Users will disengage with the digital process if they feel that they are not competent enough with basic IT skills. Users can experience frustration with technology if systems are not easy to use. Repeat use (chances of users returning) is low if the users had a bad user experience using the system. • Promotion of SmartCare is crucial due to short time-scales of the project. Partners must have a medium in which they can recruit onto SmartCare.
Issues occurred	• Service users – digital skills – familiarity with online services. • Broadband access, both location and financial. • Recruitment rates are too slow due to the lack of ownership of staff in local authority areas. • Recruitment rates are too slow due to the lack of experience of staff in local areas in relation to promotion and engagement. • Technology as a barrier: the service user does not have enough experience using technology and is not confident enough using PC / laptop or mobile device. • User does not have confidence in data protection and what information the SmartCare platform will hold on them. The notion of a person held file, storing personal information online, is unnerving to the user. • SmartCare works under strict budget constraints. This limits the project in terms of how much we can spend on promotional material and engagement.

6.8.1 Lessons learnt in Scotland on user recruitment

- Implement robust recruitment strategies at the start of the project. Identify key members of staff from each local area to take ownership of recruiting targeted people.
- Project Managers have identified capacity issues as an ongoing risk. Key members of staff with allocated time should have been identified at the start of the project. NHS 24 is now trying deal with capacity issues by recruiting internally.
- The targeted over 50 age group, and in particular the more vulnerable older patients (70+), will often perceive technology negatively, and lack confidence using

it. By providing services that help develop ICT capabilities, this breaks down some of the barriers experienced when recruiting.

7 Operational experiences in professionals' enrolment

If patient recruitment is an arduous task, the enrolment of healthcare and social professionals willing to participate in the project is usually an even more complicated task. Barriers such as expecting an overload of tasks, reluctance to change, or feeling the professional role threatened are handicaps which are sometimes difficult to overcome.

But professionals are the key element in the provision of care, and especially when collaborating between sectors to provide integrated care services. They transmit security to patients in SmartCare protocols and care plans. They are essential on the satisfaction of users and on the quality of the services.

7.1 Experiences in professionals' enrolment in FVG, Italy

Activities performed	• Enrolment of HC/SC professionals and uploading their credentials onto the SmartCare platform has been carried out. • Contacted potential formal stakeholders by phone and during monthly district meetings. Discussed with them pros and cons of participation in the project. Scheduled a deadline for feedback.
Risks faced	• Vertical management makes it difficult to recruit healthcare professionals who do not feel sufficiently supported. • Social workers are under Municipalities and, though closely working with districts, they play more of an ancillary role; this uneven relationship, together with work load, has eroded to a certain extent the willingness to participate.
Issues occurred	• Slow-pace of the cultural / organisational framework. • Meetings need to be scheduled well in advance. • Written feedback takes time.

7.1.1 Lessons learnt in FVG on professionals enrolment

- It is important to take into consideration that changes within a public system are very slow paced. Even scheduling a meeting needs to prearranged long before the meeting date, otherwise attendance may be very low.
- Economic incentives and/or a bonus system should be put in place to promote participation of stakeholders.
- The integrated approach needs to be sustainable for all stakeholders in the long run. Namely, nurses and social workers are overloaded with work and responsibilities. It is necessary to make sure that ICT-supported care eases the stakeholders' workload (e.g. making sure that they do not have to duplicate interventions, such as filling out paperwork while at the same time uploading information on the platform).

7.2 Experiences in professionals' enrolment in Region of Southern Denmark

Activities performed	• Workshops held as kick-off at the beginning of the project. • Enrolment of HCP and SCP from the beginning (specific users were involved in development of platform). • Pilot operation in two hospitals, two SCP organisations, and one GP practice. • Information meetings held with relevant SCPs and HCPs.
Risks faced	• Staff negative about a new IT system, and resistant to change. • Insufficient backing from local leaders, making the project under prioritised. • No time for participation in evaluation such as interviews and questionnaires. • No balance between intervention and control group in both professional and patient numbers.
Issues occurred	• Difficult to change workflows. Double work and technical difficulties in the beginning. • Workload is heavy for the professionals; difficult to keep them involved. • Apprehensive in starting new IT-system – a lot of bad experiences. • The system and integrations were not ready at the time of implementation which caused negativity and reluctance among staff. Kick-off meeting was held to restore faith in the project and reboost usage when development and integrations were in place. • Slow-pace of the cultural / organisational framework.

7.2.1 Lessons learnt in Southern Denmark on professionals enrolment

- It is extremely important to communicate the vision of the end product, and to make sure that training and implementation is planned for a relatively short period of time where they can focus and prioritise the project. Also, coordinate with other ICT implementation projects so not to overwhelm the professionals.
- Make sure that there is a clear agreement with the staff organisations so that the project is prioritised.
- Keep the motivation high during implementation by frequent visits from the project team to make sure they keep enrolling more staff and use the system.
- Enrol the ambassadors (staff members that are positive and eager to use the system) first and let them motivate the remaining staff to participate.

7.3 Experiences in professionals' enrolment in Tallinn, Estonia

Activities performed	• Information meeting for the health and social care providers held. • Responsibilities of different stakeholders in the service were defined. • Contracts with family health centre GPs and nurses, hospital doctors, nurses and social worker were made. • Meetings with city district social welfare departments were made to introduce the SmartCare integrated care service.Workshops held as kick-off at the start of the project.

Risks faced	• Professionals may be occupied to the extent that they have very little time to provide SmartCare services. • Circumstances may change over time, and the contracts may have to be reviewed.
Issues occurred	• Preparing contracts is time consuming. Recruitment of professionals has to start in good time. • Cooperation between professionals was weak to start with, because many of the professionals working on the SmartCare service had not cooperated before. Meetings had to be held where all stakeholders could attend and meet each other.

7.3.1 Lessons learnt in Tallinn on professionals enrolment

- Meetings have to be held to introduce the professionals who are starting to work together. The meetings should be held in a comfortable atmosphere where professionals can actually communicate with each other.
- There has to be a plan B for cases where the professionals are not able to recruit enough patients or do not have time to provide care to the patients.

7.4 Experiences in professionals' enrolment in Aragon, Spain

Activities performed	• Enrolment of previous programme HCPs.
	• Enhancement of the IT applications used in-house to enrol social workers in SALUD.
	• Collaboration agreements signature with social providers.
	• Clearly define the responsibilities of each role.
	• Clearly define the competences required for each role.
	• Integration of the data into the existing applications mostly used by the HCP.
	• Creation of multidisciplinary teams and promote participation.
	• Promoted participation of HCPs:
	  ○ Participation of SmartCare team in workshops, congresses and events to promote the participation of healthcare professionals in SmartCare.
	  ○ Dissemination of SmartCare programme in internal SALUD meetings and committees. Also, with GPs and nurses.
	  ○ Visits to SALUD healthcare centres and emergency units to disseminate the SmartCare programme and promote the participation of healthcare professionals.
	  ○ Meetings with the management teams & government units to promote the participation of different healthcare areas on the project.
	• Promoted participation of SCP:
	  ○ Meetings held with social care providers to promote the signature of collaboration agreements and the participation of social agents.
	  ○ Information meetings held with all sets of agents to inform all types of roles.
	• Promoted participation HCP and SCP from the early phases of the project, and make them part of the definition teams.
	• Provision of help support services to provide quick answers to any question that may occur.

Risks faced	• HCPs may not be willing to participate if they feel there is an overload on their daily tasks. • SCP may not be willing to participate if they feel incompetent to assume certain tasks.
Issues occurred	• Private SCPs with small workforce may not be as compliant with the administrative tasks. SCPs have to assume affordable effort according to their resources. • HCP & SCP may be unwilling to participate if they feel they are not part of the project. Therefore, promoting the participation of HCP and SCP from the early phases of the project is key, and make them part of the definition teams. Also, the provision of help support services to provide quick answers to any question that may occur. • Negative people may destroy the project or the continuity of other people involved. It is important to select key people that provide professional leadership and show enthusiasm, and people that have participated in previous programmes to neutralise the negative effects of others. • Reluctance to participate by social providers because not treated equally as healthcare professionals (effective and correct management of the professional roles). A proper and intelligent management of egos is required, and a careful selection of competences to be transferred and assumption of powers.

7.4.1 Lessons learnt in Aragon on professionals enrolment

- Promote participation among people that have previous experience: The participation of agents from earlier projects is key to share their experience and answer any fears and risks of new participants. Encourage the participation of colleagues. This may neutralise baseless fears, such as the overload of tasks.
- Continuity: Professionals that have been involved in previous projects are always keen to participate, giving an added value and enhancing the project with their early experiences.
- Profile of participants: Younger agents or those providing care in remote areas are more willing to participate in new experiences. These experiences give them a method of self-promotion, research opportunities, and chances to help their users that have poorest access to services.
- Available effort: The nature of the SCPs affects the effort that they can provide for the provision of integrated care services. Private SCP may provide more effort (via recruiting more staff, assuming new competences, return of investment, etc.) in order to be able to provide care for more users; meanwhile public SCPs may not (based on sustainability of the systems). I.e. NGOs always provide care regardless of their return of investment, etc.
- Public healthcare providers do not have a return of investment, nor "avoided" health attentions, as they are meant to serve universally all users non-stop.
- Not having a private market of primary care healthcare attention eases the participation of healthcare professionals and GPs into the project, as their business is not affected.
- The reinforcement of the social agents' role on the provision of care (assuming low-value healthcare competences) encourages their participation.

- Providing help support services that respond quickly to questions is essential for the satisfaction of professionals and to promote the enrolment of new agents, that ensures their continuity on the programs

7.5 Experiences in professionals' enrolment in South Karelia, Finland

Activities performed	• Two professionals recruited to recruit patients. • Health and social care professionals recruitment is not the issue, because all professionals working in our organisation • All home care, rehabilitation and service assessment team members were trained, which gave them possibility to participate. This has helped recruitment.
Risks faced	• Health and social care professionals working in shifts. It is difficult to reach all professionals to train them.
Issues occurred	• Not all possible professionals are very keen to participate. Organisation directors are behind the new care pathway, and lead staff to change their working models.

7.5.1 Lessons learnt in South Karelia on professionals enrolment

- Professionals need face-to-face (f2f) appointments where they are trained to use SmartCare system. For some professionals, one f2f training session is enough, but some could need three or four f2f training sessions.
- When you recruit professionals, acceptance rate is higher if you can first recruit lead users who are more willing to use new the technology and develop new working processes. Other professionals are easier to commit when they have support from their own work community.

7.6 Experiences in professionals' enrolment in Attica, Greece

Activities performed	• Hiring of 10 new professionals is underway. • Information meetings held in the municipal healthcare centres with health visitors and social workers. • Creation of job descriptions and a guide to SmartCare services is under development for all professionals. • Meetings with the staff of multidisciplinary teams in order to promote collaboration on common processes and platform are under way. • Key professionals involved in the deployment phase were also actively engaged in process re-engineering and the design of the platform and the ICT tools used. As a result, there were none unfamiliar with the processes and functionality of the ICT solution used.
Risks faced	• Professionals recruited for the timeline of the project are going to provide voluntary services for the extension period, and do not have a strong monetary incentive to keep on working according to the original execution plan. • Follow up of patients for the extension period will be extremely difficult, as some permanent professionals are not very willing to support the project due to lack of monetary incentives; professionals contracted for the original timeline of the project will assist voluntarily, hence compromising the follow up time schedule.

Issues occurred	• Resistance to change, lack of IT capabilities and very little experience in telehealth. • The majority of professionals did not have previous experience in e-health tools and use of telemonitoring equipment. Use intensive and continuous courses to train professionals in the e-health tools and telemonitoring equipment. Use selected personnel with previous experience in e-health platforms and telehealth to act as mentors for the remaining. All tools are user friendly.

7.6.1 Lessons learnt in Attica on professionals enrolment

- All professionals should be involved in the very early phases of the project design. This will allow professionals to accept gradually the modifications the new service brings to their everyday practice, and encourage them to act as advocates for innovation.

7.7 Experiences in professionals' enrolment in Kraljevo, Serbia

Activities performed	• Enrolment of GPs, nurses and SC workers are informed at the beginning of the SmartCare project. • Majority of the professionals were included in focus groups and workshops held in previous meetings in Kraljevo.
Risks faced	
Issues occurred	

7.8 Experiences in professionals' enrolment in Scotland

Activities performed	• Staff briefings. • Staff are now being introduced as part of daily practice to sign post patients and service users to LiU site. • Two webinars with JIT. • Webcast October. National Conferences. • Falls Team multidisciplinary events. • Enrolment of health and social care staff at conferences / events. • Enrolment of GPs to SmartCare platform. • Enrolment of third sector workers to the SmartCare platform. • Enrolment of community nurses. • Gaining strategic leadership.
Risks faced	• There is no follow up into practice after engagement of workers. Time pressure on professionals. • No engagement from GPs. • There is limited engagement from the third sector if SmartCare does not target appropriately. • Sufficient time is not available for community nurses to engage with SmartCare and co-opt SmartCare into local practices.
Issues occurred	• Context in Scotland - major organisational change – staff time. • Access to devices. • Ensuring staff put the tools into practice and follow up by recruiting

service users and embedding SmartCare into their practices. Strategies were implemented for local engagement from project managers and others from implementation team. Help was provided by other members of staff to engage.

- GPs have very limited time to spend on local developments for SmartCare local targets.
- It has been difficult to identify the large number of third sector organisations involved in falls recovery and prevention. We have used the umbrella organisation SCVO (http://www.scvo.org.uk/) to target the third sector organisations in Scotland that are appropriate in the management and prevention of falls. We have used and found information in this umbrella company newsletter and management groups.
- Community nurses find it very difficult to commit time to SmartCare. It is very hard to find development time in a very pressurised schedule. We have tried to integrate SmartCare at team meeting and existing workshops. We take any opportunity to slot into meeting that have already been scheduled with community nurses.

7.8.1 Lessons learnt in Scotland on professionals enrolment

- If care recipients request a GP to use SmartCare and share information and support care coordination, then it is likely to secure GP engagement.
- Third sector organisations have been a major conductor to the success of SmartCare, and have been key to achieving the recruitment numbers. Third sector organisations have also been key in identifying the service users we have used for the co-design of SmartCare.
- In order to get the nurse engagement, we must secure nurse "buy in" by linking to strategic objectives and for example key performance indicators.

8 Help Desk

The use of technology in an environment where users are not technological natives, such as the users of SmartCare technology (older citizens and health & social professionals) means that ICT is seen as a threat if users are not provided with quick solutions to the problems that will surely arise. Therefore, help desk services will play a leading role in achieving the smooth engagement of users into integrated care programmes, and ensuring that technology is considered a powerful enabler in its role of empowering citizens.

SmartCare help desk services resolve incidents that occur during the provision of integrated care services due to technology issues.

8.1 Experiences in Help Desk services in FVG, Italy

Activities performed	• Helpdesk has been set up and tested. • Help-Desk was asked by 87-year old end user to schedule one phone call/week to check on her adherence, get feedback on use of devices, and provide much needed social support, since the elderly lady lives alone in her home.
Risks faced	• There is a risk of doing too little or too much without hitting the target, and thus disengaging the user. Also, not having adequate training or monitoring of such training may lead to professionals not using the platform and keep relying on paper & phone.
Issues occurred	• Some end users and caregivers had problems remembering the help desk's toll free number. Stickers were made and put on the devices. • Weekly calls from the call centre had been scheduled on request of a care recipient. She then broke a leg and had to be hospitalised. The calls were interrupted, and when she came home, she complaining that calls had stopped. It was agreed that should a care recipient be discharge from hospital, a call would be placed by the nurse to the contact centre to remind them to resume the service.

8.1.1 Lessons learnt in FVG on Help Desk

- Our site faced issue with the size of arm cuffs for blood pressure (too large for some users); this highlighted how important it is to know who our service's end users are or will be. Good planning and regular monitoring and feedback are essential to provide an efficient service.
- Even the best technology needs some adaptation to clients' specific needs. Hence, flexibility on the part of the technical provider is an important predictor of success.

8.2 Experiences of Help Desk services in Region of Southern Denmark

Activities performed	• Creation of a help desk team to support users by phone and e-mail. • Clear description of the contact possibilities and address / number of the help desk on the guides handed out. • Creating a team of help desk supporters to answer the incoming issues both by phone and by mail. • Creating procedures for time from receiving issue to making sure it is answered, along with a procedure to record issues and making sure errors are forwarded to the ICT provider.

Risks faced	• No available staff to answer the helpdesk by either phone or mail. • Not making the contact information of the helpdesk clear enough or having errors in the information. • Not having a good connection to the ICT provider when errors are found by the users that might stop use of the system. • Staff and patients reluctant to use the helpdesk and instead stop using the system.
Issues occurred	• Difficulty in keeping everyone in the team up-to-date with changes. • Only one person in the project team who was able to man the helpdesk at start-up. A second person was hired as a substitute, and more people from the team trained on how to man the helpdesk. • No clear procedure when a staff member contacted the helpdesk to receive new password, in order to make sure of the authenticity of the user. Procedures were made to check if the user should get a new password. • No procedures when an error was detected in connection with the further contact with the ICT provider. A procedure was made to first get a description, test the error, and then fill out an electronic template for the ICT provider with a description of severity.

8.2.1 Lessons learnt in Southern Denmark on Help Desk

- A good helpdesk that can be reached in office hours by both mail and telephone is of course important.
- However our experience shows us that the best helpdesk is the person present at the organisation at arranged times to walk-around and be available for questions. A lot of the users do not contact the helpdesk, but simply stop using the system. However, seeing a known face makes it easier for them to ask questions and for the help desk professional to spot problems with usage on site.
- Make sure to have procedures ready, documented and stored at a shared space for dealing with different issues that may occur.
- Make sure to always have at least two people from the project team being able to answer calls or emails in case of sickness etc., and make sure that personnel can be replaced.
- Make sure to plan holidays and vacations in order to keep the helpdesk manned, or make sure it is clear that there is no helpdesk in those periods.

8.3 Experiences of Help Desk services in Tallinn, Estonia

Activities performed	• All technical issues encountered with the end-users were recorded. • Help Desk provided “FAQ” document for Call Centre to make providing help more efficient. • Help Desk performs home visits in case the problem is not solved by a phone call.
Risks faced	• Problems do not reach the Help Desk, or Help Desk worker overlooks it.
Issues occurred	• Older end-users have very little experience with technology. Training provided that considers the end-users needs. • End-users may forget and feel helpless if they experience some technical errors. Experienced Help Desk personnel consult and remind the end-users that they are there to help; and it is OK to experience some errors and that the problems are solvable.

8.3.1 Lessons learnt in Tallinn on Help Desk

- Elderly are less afraid to contact nurses or social worker who they have already been in face-to-face contact with.
- Some older care recipients do not contact the Call Centre if they experience a technical issue. The nurse or social worker must also monitor if the measurements are done.

8.4 Experiences of Help Desk services in Aragon, Spain

Activities performed	• An electronic forms repository, protocols, different technological user guides, management guides and applicable law for the project.
	• Support for registering and management of technical incidents.
	• Creation of different types of help support units.
	  ○ Help Desk inside the hospital formed of technical ICT staff with knowledge of the ICT technology involved in SmartCare.
	  ○ Process support, to provide support to HCP and SCP on queries about the process of provision of care.
	  ○ Call centre: point of contact for users on integrated care services queries.

Risks faced	• Users may abandon the SmartCare services due to a lack of support.
Issues occurred	• Incidents with biomedical devices occur quite regularly. It is important to solve all incidents that may occur (or replace devices) in a very short time to avoid mistrust by users of the technology.

8.4.1 Lessons learnt in Aragon on Help Desk

- Adequate profiles in each support services:
  - Call centre must be formed of healthcare profiles, to provide confidence in the resolution of incidents.
  - ICT help support services must be formed of ICT people with knowledge of the ICT infrastructure of the SALUD systems.
- Staff providing support for telemonitoring services do not need to be 24x7, as demands arrive during the same time frames.
- It would be advisable that devices are remote controllable, to avoid travel by the ICT team and streamline procedures for resolving incidents.
- Help support services must be human based. (No machines.)
- Technical point of contact for professionals to provide accessibility and security and fast response.

8.5 Experiences of Help Desk services in South Karelia, Finland

Activities performed	• Project workers will help. • System providers offer technical help desk. • Technical support fully provided by technical provider.
Risks faced	• When issue cannot be solved via phone and home/office visit is needed. Visit may have been delayed a few days. This has delayed system usage and user is able to form image that technical solution does not work at all.

Issues occurred	• Not all informal caregivers have learned to call help desk. They have contacted health professionals who do not have the knowledge to help. Re-instructed informal caregivers to call help desk.

8.5.1 Lessons learnt in South Karelia on Help Desk

- Immediately after implementation the need for the help desk support is higher than later on.

8.6 Experiences of Help Desk services in Kraljevo, Serbia

Activities performed	• Telephone support is provided on Serbian business days in the Serbian language. The hot-line telephone numbers are supplied to the relevant staff and to the end users; any change of the telephone numbers will be notified immediately. On-site services are provided during the normal business hours of the Social and Medical Centre.
	• Basic tasks which are covered by Help Desk:
	  ○ Upgrade the mobile application when needed with a new release after bug / malfunction fix is issued.
	  ○ Provide on-site support and Help Desk to key users.
	  ○ Provide Help Desk services and an e-ticketing system.
	• Second level of support includes:
	  ○ IT development team who developed software is responsible for bug fixing, adjusting parameters for reporting, resolving problems with functionalities, uploading new software versions, etc.
	  ○ Administrative team responsible for replacing / including new users, and following paperwork, replacing broken equipment, contact with suppliers, internet provider, etc.
	  ○ Process supports which include social and health professionals resolving organisational issues, problems in communication, facilitate coordination between services.

Risks faced	
Issues occurred	

8.7 Experiences of Help Desk services in Scotland

Activities performed	• Help Desk in place. • Concerns – suggestion Link on platform – email in. • Development of SmartCare Help Desk manned by LiU support office.
Risks faced	• SmartCare users will experience frustrations if they experience problems with the LiU platform. This could rapidly disengage users.

Issues occurred	• Already established for LiU.
	• Reliance on Help Desk will increase need for it to be reliable.
	• Capacity issues at the support office. Help Desk not responsive enough. Help Desk is already established for LiU platform. Reliance on Help Desk will increase as SmartCare develops; concern with lack of Help Desk support. To solve these issues, some strategies were:
	  ○ The resource agreement in progress with LiU platform.
	  ○ Highlighted time for SmartCare Community Manager commitment.
	  ○ Integrate SmartCare / LiU strategic vision.
	  ○ Suggestion to provide "Help" link on LiU pages if users have any difficulties.
	  ○ SmartCare has set up a central mailbox to which these problems can be directed.

9 Training

Training, as defined in Wikipedia, is teaching, or developing in oneself or others, any skills and knowledge that relate to specific useful competencies. Training has specific goals of improving one's capability, capacity, productivity and performance.

Training programmes have been defined in the SmartCare project to empower all users enrolled in the provision of integrated care services and final users and on different topics. Below is the set of activities performed by the sites to train users at the different stages of operation.

9.1 Experiences with training in FVG, Italy

Activities performed	• Training activities have been carried out both in group sessions and at end-users' homes through formal sessions, role playing, discussions, modelling and active interaction. • Tags were printed and added to all home devices with 800-number for Call Centre / Help-Desk. The number can be used 24/7 by all formal and informal stakeholders. • A short film was prepared by the company managing the Help Desk / Call Centre explaining how to use and maintain the home devices. • Besides the stickers on the devices, a paper 'business card' was prepared with the Help Desk / Call Centre toll free number to be called should they have any question and/or need. The number is accessible 24/7. • Focus groups were held to identify formal and informal stakeholders' training needs. • Training methods have been chosen according to outcome of focus groups and district meetings. It was decided to provide simultaneous training of HC/SC providers, and one-on-one training of patients and caregivers (with domiciliary nurse present).
Risks faced	• Ineffective or inadequate training may jeopardise the whole project. Here the risk was the huge diversity among stakeholders both in computer-literacy, health-literacy, motivation and roles.
Issues occurred	• Group training and on-site training was successful and welcome. Training of social workers still needs refinement. • Two professionals have very low computer literacy and still have problems with uploading information. They had a reinforcement of training and were supported through the 24/7 Help Desk which they call whenever in doubt. • Some professionals have low computer literacy, and they tend to forget the platform uploading procedure. Peer-to-peer support and mutual learning has taken place in some districts. Instead of calling the 24/7 Help Desk, they rely on each other, with more experienced staff supporting the least experienced. • Some professionals still feel uncomfortable using the tablet while they are at the end user's home. A check list was prepared with detailed explanations of all the information required and the steps to be taken to upload it onto the platform. The check list can also be printed on paper and filled out manually to be later uploaded on the digital platform. • Some end users do not like / want or are unable to easily read written information; an instructional video was created to easily tutor both end users and caregivers.

9.1.1 Lessons learnt in FVG on training

- Training is an ongoing process. It is important to closely monitor it, get continuous feedback, and not be afraid to be creative. Stakeholders' individualised needs have to be taken into account within a person-centred approach, the person being each and every stakeholder within the integrated care process.
- Integrated care within a person-centred health and social care perspective needs to be further studied and researched.

9.2 Experiences with training in Region of Southern Denmark

Activities performed	• Dedicated training sessions adapted to the different user-groups. • Guidelines customised for each group of users and handed out to all users. • Help Desk set up to support the users. • Updates in the system are communicated by mail.
Risks faced	• Negative staff at the training session affecting the learning environment. • The system is not ready for training: to many errors or unfinished areas making it hard to understand. • Unprepared trainers with insufficient knowledge of either workflow or system. • Many cancellations because of illness or acute problems at the department.
Issues occurred	• Timing of the training was not good as it was close to a summer holiday; therefore they had forgotten the information when they returned.

9.2.1 Lessons learnt in Southern Denmark on training

- The timing of the training is important: make sure the session is as close to the actual use as possible.
- Make sure that the project manager or trainer is available at the site when the start of use has been planned to answer questions on the spot.
- Make sure that there is a person from the project management team or trainer available at the site regularly to check if the system is correctly used, and to answer questions on the spot to prevent users stopping using the system.
- Make sure that you have a clear procedure to update training guides and tools when the system is updated, so the users always have the correct material.

9.3 Experiences with training in Tallinn, Estonia

Activities performed	• Starting of training was planned for November 2014. • Training session for nurses and social worker to introduce the portal and devices, done by IT-support. • On-site hands-on training for elderly done by nurses. • Quick reference guidelines were made for end-users, informal carers, GPs, nurses, social workers, etc. on how to use the portal, tablet and measuring devices.
Risks faced	• Training is insufficient or too shallow, due to the different levels of technical knowledge that end-users have.

Issues occurred	• Finding suitable time for training sessions may be difficult due to the work schedule of nurses. The meetings have to be organised with sufficient time to give participants the possibility to make changes in the schedule. • Training done by nurses did not involve changing the user of the blood pressure monitor, because the user was not intended to be changed. Many calls were made to the contact centre because the user was changed accidentally. Nurses have started to mention the user exchange possibility to train the end-users to change the user by themselves.

9.3.1 Lessons learnt in Tallinn on training

- End-user training must be very personal, and take into account the different level of technical knowledge end-users have.

9.4 Experiences with training in Aragon, Spain

Activities performed	• Dedicated training meetings adapted to the profile of people involved, and at their premises. • Training sessions are practical, with not only access to the information, but also with practice in the use of the technology. • Manuals have been written on best practices in taking vital signs, the use of biomedical devices, and the use of technology, platforms and applications. Manuals available to end users and care agents. • Support from the Help Desk and, when possible, from the same people that gave the training sessions. • Specific training on available services has been performed by each care provider.
Risks faced	• Lack of confidence in the technology, the methodologies and the use of biomedical devices.
Issues occurred	• Many users think they know how to take vital signs, as devices are end-user friendly. Training by HCP to generate confidence and show them best practice. Training programme has to be very clear and better if taught by healthcare professionals to generate confidence. Manuals have to be handed to the care agents for later review.

9.4.1 Lessons learnt in Aragon on training

- Manuals available: For further consultation; available via web, on the common platforms, and on paper.
- Support for commitment: Care agents have to be supported in the processes and use of technology when providing care. Therefore, having a support team to solve technical issues and questions on the process are essential for successful provision of care, generate confidence on the new systems, quickly response to issues that may occur, and satisfaction of the agents.
- Promote the empowerment of citizens starting with primary education at schools.
- Training by HCPs to generate confidence and demonstrate best practices. Training programme has to be very clear; it is better if taught by healthcare professionals to generate confidence. Manuals have to be handed to the care agents for later review.

- It is wrongly thought that older people are not capable of learning. We must trust the patients' capability to manage their health. For that, citizens must trust the technology and use it according to the "best practice" manuals.

9.5 Experiences with training in South Karelia, Finland

Activities performed	• Face-to-face training to all care recipients in their own home provided by study nurse.
Risks faced	• It is almost impossible to reach all possible professionals for the training. This is due to fact that most of them working in shifts.
Issues occurred	• Older people often have memory problems; they have difficult learning new things. Informal caregivers, professionals and project staff try to support elderly as much as possible. • In some cases all the technical kit works in background, and elderly do not need to use any devices, etc.

9.5.1 Lessons learnt in South Karelia on training

- Face-to-face training with the possibility to test the technical solution is the most effective way to train both professionals and end users.

9.6 Experiences with training in Kraljevo, Serbia

Activities performed	• Training steps included:
	  ○ Process implementation which determined training needs and development plan.
	  ○ Training material development January 2014.
	  ○ Training plan implementation February 2015.
	• Training material includes:
	  ○ On-screen presentation and tutorials.
	  ○ Printed hand-out materials for end users and professionals.
	  ○ Downloadable .pdf material available on Kraljevo pilot site website.
	• Training sessions for end users were held: 03/03/2015, 30 end users; 30/03/201, 30 end users; 31/03/2015, 30 end users; 01/04/2015, 20 end users. All training sessions were held in Health Centre Kraljevo; users were called in groups of 10 persons. Five ICT personnel conducted the training, firstly showing the overall functionalities on-screen, then individually on the mobile devices in their hands.
	• Majority of health and social care professionals were included from the start of the project in the design and creation of functionalities through focus groups discussions and informal contacts.
	• Both groups of professionals received two rounds of training. First, before deployment, an almost completed version of the system was presented to them, and they were able to see functionalities and provide feedback before final roll-out of the system. Valuable information received led to final changes and fine-tuning.
	• Complete training was provided for the professionals 04/03/2015 in the Health Centre Kraljevo and Centre for Social Work Kraljevo."

Risks faced	• The level of familiarity with smart phones (mobile phones in general) was very poor, lower than expected. It was necessary to repeat the training session for end users who were not accompanied by their informal care providers.

Issues occurred	

9.6.1 Lessons learnt in Kraljevo on training

- Effective training is the key condition for the success of this pilot site, and for the successful functioning of the services, especially for the end users. Multiple approaches and tools must be used to best suit end user needs. For the older population, a one-to-one approach with a user and family members at the same time is most useful. The potential widespread mass use of the SmartCare system must take into account the significant effort needed for training.

9.7 Experiences with training in Scotland

Activities performed	• Dedicated services within local teams. • LiU assets: who they will benefit. • Training videos produced. • Instructing care recipients in the use of the digital tools. • Instructing staff in the use of the digital tools. • Care recipients and staff require a variety of mechanisms, written instruction, e-learning videos and face-to-face tuition. • Developing "how to" guides on SmartCare digital tools.
Risks faced	• Care recipients find digital tools and technology too difficult to use. • Staff find tools too difficult and time consuming to use. • Other service change activities in local partnership areas have taken priority over SmartCare. • The language that is used in the development of digital tools and "how to" instruction guides is not easy to understand ,resulting in disengagement by users.
Issues occurred	• Care recipients have a varied level of digital literacy. We have linked care recipients to local digital literacy classes. We have used our Partnership Engagement Officers to provide one-to-one coaching on using the digital tools. "How to" guides have been made available on LiU to remind people on how to use SmartCare. • Staff have a varied level of digital literacy. We have had regular briefings and demonstrations at Implementation Group on the functionality of the digital tools. • Capacity and resources are an issue in order to satisfy the level of mechanisms required. We have used local partnership training sessions. • Using clear and user friendly language to outline steps. Using language that a variety of users will find clear and concise in helping them to use / explain the digital tools. We have reviewed these "how to" guides with service users, staff and carers. This has enabled us to change language that is not understood or simplify "how to" steps. By asking for feedback from the service, we are able to tailor material to be user friendly and easily understood.

9.7.1 Lessons learnt in Scotland on training

- More time and resource is needed to be set aside for training. Use capacity in the third sector better for up-skilling.
- Do not make assumptions regarding digital literacy of staff groups.

- Co-design is a very effective mechanism to drive up the quality of the digital technology.

10 Conclusions

The first operational phase of provision of integrated care in the first nine deployment sites has shown the challenges of providing integrated care services due to their regional particularities: differences between actors providing social and health care; the existence (or lack) of communicating layers between primary and specialised care; and the strength of the private market in both health and social sectors. Despite these challenges, sites succeeded in creating a collaborative environment between the two systems of protection and care, placing the user at the centre, and seeking cooperation and coordination between the caregiver agents.

From the start, the operational phase is not easy, as it involves the time when plans begin to be implemented and problems and incidents arise. These first operational steps are essential to realign strategies for the success of the programmes implemented. The experiences explained in this document may serve as lessons for many other regions that wish to implement similar solutions of integrated care; they can start writing their roadmap more easily, learning from others' experiences.

Patient recruitment has been a difficult task for all sites, needing large interest-raising and information campaigns to attract potential users, as well as the enrolment of people closer to the end-users, such as relatives or carers, and even through the word-of-mouth communication via users who have participated in similar previous projects. Recruitment should not fall solely on healthcare professionals, but also on social care providers and stakeholders, with the requirement that professionals must have extensive knowledge of the programme to explain and clarify questions that users may pose. We also have to lose the fear of technology and the false belief that older people cannot learn how to use technology, because this can be solved by training processes, and friendly and easy-to-use solutions. Users are perfectly capable of using ICTs and integrating it into their daily lives, ensuring the continuity of users in these programmes. We must trust patients' capability to manage their health. For that, citizens must trust the technology and use it according to the "best practice" manuals.

Regarding the enrolment of professionals, the main challenge is the reluctance to participate. Professionals are usually a hive of activity, and believe that new processes and the use of technology would cause an overload of tasks. They also fear losing competences in their professional profile. These fears can be eased by engaging outstanding reference professionals, who encourage the participation of their colleagues, and by training. Technological solutions must assist in the integration of care, and ease the workload of stakeholders. In addition, new solutions must be integrated with the tools that professionals are accustomed to, to curb their fear of change.

The sustainability of the systems may be at risk if they are dependent on strategies of hiring professionals to provide integrated care services. We must involve professionals from the beginning of the project to get used to the new processes and change, and provide support services that immediately resolve any doubts or incidents that occur, to improve professionals' satisfaction.

Help desk services are essential to prevent users from dropping out of the project, both professionals and end-users. They must be accessible, and respond immediately. They must be flexible and formed of a multidisciplinary team of different roles, who are close to the end-user to generate confidence. Sometimes there is no chance to answer questions; on the contrary, users stop using the systems. Therefore, it is better first, to be effective in answering / solving issues and second, to review the use of technology by users to identify problems beforehand; the reason users stop using the systems may be unresolved technological problems. All devices should preferable be remote controlled.

With respect to the phases of empowerment, training programmes developed in SmartCare have different objectives, which are to train both professionals and end users in the use of not only the tools and platforms, but also the integrated care programme and care processes; these use biomedical technologies and best practices, as well empowering patients in the health and self-management of their clinical condition. Manuals are also available for further reference. One of the main outcomes is the need identified to promote the empowerment of citizens from primary education at schools.

11 Further work

This document has described four domains of operation, analysing the deployment sites experiences in user recruitment, professionals' enrolment, helpdesk and training programmes. The final version of this deliverable, which will be presented to the Commission by the end of the project in August 2016, will contain the experiences in the operation of other domains, including organisational changes, technical issues, and ethical and legal aspects. It will also be enriched with the experiences of the Dutch deployment site.

Meanwhile, the experiences are still being collected in the RAIL tool (presented in D6.1, and available at www.pilotsmartcare.eu/RAIL) for other sites to learn from.