

D6.1 Toolkit for developing the Digital Competences of Carers

# D6.1 Toolkit for developing the Digital Competences of Carers

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| --- |
| Abstract |
| This Deliverable provides a Toolkit for implementing the Carer+ programme. It is aimed at training providers, certification agencies, labour organisations and other stakeholders involved in developing skills within the home care field. The Toolkit provides Guidelines, procedures and practice examples to support the successful development of digital competences of carers at the local level. It also provides policy recommendations to support the broader sustainability of the Carer+ approach at the wider EU level. |

# Quality control checklist

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| **Generic Minimum Quality Standards** | |
| Document Abstract provided | X |
| Document Summary provided (with adequate synopsis of contents) | X |
| CARER+ format standards complied with | X |
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| Work deliverable relates to adequately covered | X |
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| Comprehensiveness is acceptable (no missing sections; missing references; unexplained arguments) | X |
| Usability is acceptable (deliverable provides clear information in a form that is useful to the reader) | X |
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| Deliverable meets the 'acceptance Criteria' set out in the Quality Register | X |
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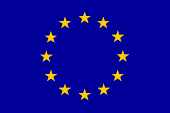
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# Document summary

This document provides a Toolkit for the transferability of the Carer+ programme, i.e. the approach, process and tools developed and evaluated by Carer+ to support the acquisition and application of digital competences within the long term care (LTC) environment.

The Toolkit provides Guidelines, procedures, tools and practice examples to support the successful transferability and implementation of the Carer+ programme within local care environments. It also provides policy recommendations to support the sustainability of Carer+ in the wider EU log term care sector.

The Toolkit is intended to be used by mainly by training providers, accreditation and certification agencies, labour organisations and other stakeholders involved in developing skills within the home care field, including care and social services, training agencies, employer and employee representation bodies, content developers and providers, care teams, and carer support agencies. It also informs policy-makers, in order to help create the conditions for wider transferability and sustainability, as well as researchers in the field

The Foreword to the Toolkit describes its purpose and objectives, as well as the methodology used to develop it.

The Toolkit is based on ‘Ten steps to transferability’. Each step involves a ‘primary task’which in turn links to activities that are required to complete the task. To support Toolkit users in completing the task, a set of tools are provided.

An Annex to the Toolkit provides supplementary material to support the implementation of the Toolkit.

# Foreword: introduction to this Deliverable

## Purpose of this Deliverable

Over its three year life cycle, the Carer+ project developed, piloted and evaluated an approach aimed at supporting professional care workers and informal carers in acquiring a set of digital competences that could then be used to enhance their practice in the home care environment. The longer term objective of this approach was to contribute to improving the quality of life of care recipients. To deliver this approach, Carer+ designed and put into place an infrastructure and process – the Carer+ Programme – which is described in more detail below. ‘The Carer+ Programme’ is defined as “the set of tools, procedures and practices through which care providers acquire and apply digital competences to improve the quality of care they provide and a better quality of life for those they care for”.

Against this background, the ‘Toolkit for Developing the Digital Competences of Carers – Deliverable 6.1 - is the main output of the activities carried out in work package 6 of Carer+. According to the project Description of Work, the objective of work package 6 is “to deliver guidelines to transfer the Carer+ processes and tools to promote the development of digital competences in the care sector, for sustainability and transferability purposes”. The main purpose of this Toolkit is therefore, as set out in the project Description of Work, “to support European actors of the LTC (long term care) sector in transferring the project processes, tools and services to their own individual contexts”.

To achieve this purpose, this Toolkit provides Guidelines, procedures and practice examples to help LTC actors transfer and adapt the project’s process and tools to their own needs and local care environments. It also supports the broader objective of applying the learning derived from piloting the Carer+ programme to supporting broader knowledge transfer and the sustainability of Carer+ in the wider EU long term care sector, through providing policy recommendations to support the sustainability of Carer+.

## Approach used to develop the Toolkit

The approach used to develop this Toolkit followed the methodology set out in the Carer+ Description of Work. This is based on the principle of ‘replicating success’, i.e.collecting data on the successful utilisation of the Carer+ processes and tools by the care workers and informal carers who participated in the project; analysing these data and translating the analysis into transferability guidelines. This approach combined four inter-connected tasks:

* Task 6.1: reviewing piloting practice. This focused on collecting data on carer and care recipients’ involvement in Carer+; their experiences of participating in the project, and in particular how they applied the Carer+ processes and tools in the real care environment to achieve improvements in the quality of care provided.
* Task 6.2: analysis of the piloting practices. This focused on analysing the data collected in Task 6.1 and in particular the use of content analysis methods to extract transferability principles and guidelines from participant interviews, focus groups and case histories.
* Task 6.3: developing a typology of practice. This focused on synthesising and integrating the results of the analysis of piloting practices to develop a typology of good practices, success factors and their defining characteristics; to identify ‘what works, for whom and under what circumstances’.
* Task 6.4: producing the Toolkit. The final activity combined the results of the previous activities to produce the Toolkit set out below.

The ‘technical methodology’ underpinning these four tasks combined two analytical methods: ‘theory of change’ and ‘value-embedded action systems’. These are described in detail in Annex I of this Toolkit, together with the results of the analysis of practices.

## Structure and Content of this Deliverable

The proposed structure of the Toolkit, and the material to be contained in each section, was set out for this Deliverable in the Carer+ Description of Work, to cover the following:

* Introduction to the Toolkit.
* Description of resources, content and practices, learning pathways and material – provides an overview and detailed description of the Carer+ programme, covering the Carer+ approach; the process used and the set of tools that make up the programme.
* Analysis of practices – presents the results of the analysis of care recipients’ involvement in Carer+; their experiences of participating in the project, and the main factors that led to the successful application and adaptation of the Carer+ process and tools within the home care environment
* Transferability principles –provides principles, guidelines and practice examples to support the successful transferability of the Carer+ process and tools within local care environments.
* Conclusions and Recommendations – focuses on the sustainability of Carer+ and its broader embedding within the EU long term care sector. It provides recommendations for policy actions that need to be taken to create a supportive national and trans-national environment for competence development for carers.

Although all of these elements are covered in this Deliverable, the structure, narrative and content of the Toolkit presented below follows a different model to that originally proposed. It takes the form of a ‘stand-alone’ toolkit, written to provide a coherent picture of the Carer+ programme as a whole and showing how the programme can be successfully adapted to local conditions, as well as showing what is needed to support the future sustainability of the programme within the broader EU long term care sector.

The model applied to produce the Toolkit draws on a number of sources and ‘toolkit guidelines’, in particular:

* toolkit guidelines developed by the World Bank in the social innovation and development sectors [[1]](#footnote-1)
* toolkit guidelines developed by the UK Agency for Health Research [[2]](#footnote-2)

The World Bank defines a toolkit as a device which aims to “take practices out of the typical contexts in which we find them - white papers, books, workshops, and conferences” by “immersing ourselves day to day contexts” in order to “create tools to help (users) do what they already do better” so as to “inject the sector’s best practices”.

The UK Agency for Health Research defines a toolkit as “an action-oriented compilation of related information, resources, or tools that together can guide users to develop a plan or organize efforts to conform to evidence-based recommendations or meet evidence-based specific practice standards” and it defines a ‘tool’ as “an instrument (e.g., survey, guidelines, or checklist) that helps users accomplish a specific task that contributes to meeting a specific evidence-based recommendation or practice standard”.

These two definitions highlight three key characteristics or conditions a toolkit needs to meet. They need to be practice-based – rooted in the actual practices of their target group. They need to be action-based – guiding users to carry out actions that will lead to some desired change. They need to be evidence-based – the actions proposed should be justified through evidence like analysis of success factors.

In practical terms, the UK Agency for Health Research Guidelines state that a toolkit should do the following things:

* guide users through a process of change
* provide sequential steps users should follow, incorporating the tasks and actions needed to complete the steps
* provide examples of how to carry out tasks and actions successfully
* provide necessary information regarding what users need to complete tasks
* provide an introduction that states: the purpose of the toolkit; the target users; how to use the toolkit; a list of each tool and its purpose
* provide users with additional resources for more information.

In line with these definitions, the Toolkit provided below has been designed and developed to:

* reflect the practices of users - it is based on the collection and analysis of the adoption and use in their practice of the Carer+ approach and tools by the carers and care receivers who participated in the Carer+ pilot programme
* support a desired change through a process of action – the Toolkit is intended to help users adapt and apply the Carer+ approach and tools to their local environment in order to subsequently support improvements in care delivery and the quality of life of care receivers
* reflect evidence on ‘what works’ – the guidelines and tools contained in the Toolkit are based on clear evidence drawn from the evaluation of Carer+ and on the identification of the ‘success factors’ that lead to positive outcomes for carers and care receivers as a result of the use of the Carer+ tools.

In turn, the structure and content of the Toolkit incorporates the toolkit guidelines cited above as follows:

* the Toolkit starts with an Introduction that specifies its purposes, target users, instructions for use and list of the tools the Toolkit contains
* the next Section specifies the ‘process of change’ the Toolkit is intended to support. This is based on the ‘theory of change’ developed and applied by Carer+ (described in detail in Annex I of this Deliverable)
* Section 3 of the Toolkit sets of the steps needed to implement the process of change – ‘Ten Steps to Transferability’ – that lead to the successful transferability and adaptation of the Carer+ programme to its local context, and, beyond this, to support the broader sustainability of the programme
* the following sections of the Toolkit cover each of these ten steps in detail. They contain: a definition of the ‘primary task’ needed to complete the step; guiding principles to perform the task; tools to implement the principles (including checklists, resource requirements; activity lists; trouble-shooting tips); good practice examples of how to apply the tools successfully.

Finally, Annex I of this Deliverable provides additional supporting information to accompany the Toolkit. This covers:

* A presentation of the technical methodology used to develop the Toolkit
* A summary of how the Carer+ programme was implemented in practice, which provided the basis for the analysis of practices
* A presentation of the key results of the practices review
* A list of supplementary resources and references.

# Toolkit for Developing the Digital Competences of Carers

## Purpose of the Toolkit

Over its three year life cycle, the Carer+ project embarked on a change journey. It developed, piloted and evaluated an approach aimed at changing the way in which care providers do their work. This approach – the Carer+ programme - incorporated a set of tools, procedures and practices through which care providers acquire and apply digital competences to improve the quality of care they provide and a better quality of life for those they care for.

The Carer+ programme was implemented and evaluated in pilot actions in five EU countries: France, Italy, Latvia, Romania and Spain, in 13 different sites in total, including both urban and rural areas. The pilot programme lasted for ten months and involved 190 paid carers and 50 informal caregivers, together with 50 care receivers.

As always in a journey the traveller expects certain things to be in place: information about the route; transport to get there; resources to sustain the traveller on the way. But in every journey obstacles are encountered along the way; expectations of the journey change, and when the traveller arrives at the destination, they sometimes find it isn’t really what they expected. The lessons from this change journey- and particularly the piloting of the Carer+ programme - form the foundation of this Toolkit. Its purpose is to guide potential providers and users of the Carer+ programme through their own change journeys. It shows programme providers and users how they can successfully adapt the Carer+ approach, tools and services to support carers’ acquisition and application of digital competences in their own local care environment and practice.

## Who the Toolkit is for

This Toolkit is intended to provide a resource for organisations who have an interest in developing the skills of carers working in the long term care sector – including informal carers as well as professionals. This includes:

* training agencies and training providers – who can use the Toolkit to assess whether and in what ways the Carer+ programme can add value to their existing training offer
* care labour organisations, trades unions and networks – who can use the Toolkit to identify how their members’ skills, practices and professional development can be enhanced
* employer organisations – who can use the toolkit to develop and implement their own professional development programmes
* care and social service providers - who can use the toolkit to commission providers to run competence development programmes
* accreditation and certification agencies - who can use the toolkit to explore ways in which existing certification and accreditation systems in the care sector can be enhanced to cover digital applications.

The Toolkit is not directly intended for carers themselves. However, it can provide useful information for care workers and informal carers interested in developing, enhancing and applying digital skills in their practice - in particular, the section on ‘Supporting carers and care receivers in using the Carer+ tools and services’.

The toolkit also aims to inform policy-makers. The final section of the Toolkit – which focuses on how to support the long-term sustainability of the Carer+ programme – includes policy recommendations aimed at embedding digital competences within health and social services policy and legislative systems in Europe.

Finally, the Toolkit can provide useful information for researchers interested in the conceptual thinking, methodology and implementation approach used to develop and deliver the programme, as well in the results of the programme evaluation. These aspects are covered in Annex I of the Toolkit.

## How to use the Toolkit

The structure and content of the toolkit follows a narrative that guides Toolkit Users through a process of change. The desired end result of this process is the successful adaptation and implementation of the Carer+ programme within a local care environment, including laying the foundations for loger-term sustainability of the programme. As a result of the successful adaptation and implementation of the programme locally, the Toolkit also supports changes in caring practice, in the interactions between carers and care receivers and, ultimately, changes in the quality of care provided.

The Toolkit provides guidance and support through this change process. It sets out below a sequence of ‘ten steps to transferability’. For each step, Toolkit users can find out about:

* the ‘primary task’ that needs to be carried out
* the activities needed to successfully complete the task
* the resources needed.

At each step, the Toolkit provides resources to help users successfully complete the step. These include:

* tools (checklist, guidelines, resource requirements; activity lists; trouble-shooting tips)
* examples of good practices that show how the step can be successfully completed

Annex I of the Toolkit provides supplementary resource material that users can reference for additional information about the Carer+ programme, how it was implemented, what were its main results and what other sources of information can be consulted.

## List of tools in the Toolkit and what they are for

The Table below provides a list of the tools contained in the Toolkit; where they are located and the the purposes for which they are intended.

|  |  |
| --- | --- |
| **Name of tool/page location** | **Purpose of Tool** |
| Navigation Chart (page 17) | Shows the sequence of steps that need to be taken to transfer and adapt the Carer+ programme to the local environment |
| Carer+ Programme Map 20 | Provides and overview of the Carer+ programme, tools and services |
| Carer+ Tour 21 | Describes in detail each tool/service. Links to on-line ‘virtual tour’ for some tools/services |
| Carer+ programme Positioning Tool 28 | Enables an assessment of the Carer+ potential value added; identifies transferability, adaptation and implementation requirements |
| Carer+ Programme Implementation Resource Checklist 29 | Enables an assessment of the resources needed to transfer and implement the Carer+ programme |
| Guidelines for setting up local support teams 31 | Guidelines for success |
| Activities and resources checklist 32 | Describes key activities that need to be done and resource implications |
| Training the Trainers Course Outline 33 | Template for designing course |
| Trouble-shooting chart 34 | Identifies problems and their solutions |
| Good practice example 35 | Provides practical learning example |
| Guidelines for transferring and adapting the learning programme for carers to the local context 36 | Guidelines for success |
| Activities and resources checklist 37 | Describes key activities that need to be done and resource implications |
| Learning Programme Outline 38 | Template for designing course |
| Skills and competences profiling tool 40 | Enables existing digital competences of learners to be assessed |
| Trouble-shooting chart 42 | Identifies problems and their solutions |
| Good practice examples 43 | Provides practical learning example |
| Guidelines for selecting and recruiting programme participants 45 | Guidelines for success |
| Activities and resources checklist 46 | Describes key activities that need to be done and resource implications |
| Trouble-shooting chart 47 | Identifies problems and their solutions |
| Good practice examples 48 | Provides practical learning example |
| Guidelines for equipping programme participants with appropriate devices and tools 52 | Guidelines for success |
| Activities and resources checklist 53 | Describes key activities that need to be done and resource implications |
| Device evaluation tool 54 | Tool to evaluate fitness for purpose of devices for implementing Carer+ programme |
| Trouble-shooting chart 56 | Identifies problems and their solutions |
| Good practice examples.56 | Provides practical learning example |
| Guidelines for selecting and recruiting programme participants 59 | Guidelines for success |
| Activities and resources checklist 60 | Describes key activities that need to be done and resource implications |
| Trouble-shooting chart 61 | Identifies problems and their solutions |
| Good practice examples. 62 | Provides practical learning example |
| Guidelines for developing and implementing an accreditation and certification system 64 | Guidelines for success |
| Activities and resources checklist 65 | Describes key activities that need to be done and resource implications |
| Trouble-shooting chart 66 | Identifies problems and their solutions |
| Good practice examples.66 | Provides practical learning example |
| Guidelines for supporting smart home care deivery 69 | Guidelines for success |
| Activities and resources checklist 69 | Describes key activities that need to be done and resource implications |
| Trouble-shooting chart 70 | Identifies problems and their solutions |
| Good practice examples. 71 | Provides practical learning example |
| Guidelines for developing and implementing a monitoring and evaluation system 72 | Guidelines for success |
| Activities and resources checklist 73 | Describes key activities that need to be done and resource implications |
| Theory of Change tool 74 | Provides tool for developing programme intervention logic and expected results |
| Trouble-shooting chart 75 | Identifies problems and their solutions |
| Good practice examples. 76 | Provides practical learning example |
| An analysis of the policy context 80 | Review of policy context for development of carers digital competences |
| Recommendations for promoting the sustainability of the Carer+ programme 84 | Provides recommendations for policy interventions to support Carer+ programme sustaonability |
| Good practice sustainability examples 85 | Provides practical learning example |

# Ten Steps to Transferability – navigation chart

The diagram below shows the sequence of ten steps that are needed to successfully adapt and implement the Carer+ programme within a local care environment. Each step involves a primary task that needs to be carried out in order to proceed to the next step.

The next sections of the Toolkit cover each of these steps and tasks in sequence.

# Step 1: Positioning the organisation in the Carer+ Programme

## What this Step involves

This step enables organisations with an interest in developing the competences of carers to familiarise themselves with the Carer+programme and how it works. These organisations will only be interested in implementing the programme if it demonstrates value for them and for carers. This section of the Toolkit introduces the tools and services that are available in the Carer+ programme. The aim is to help potential programme providers and users get a better idea of how the programme could support their interests, needs and objectives and to specify the essential components that are needed to support the development of digital competences for carers. The expected outcomes of this Step are:

* organisations will have a better understanding of the Carer+ approach and implementation framework
* they will have a clear idea of the potential benefits of the programme and how it can support their needs
* they will have an understanding of the possible implementation issues and obstacles that need to be addressed and how to resolve them.

## The Primary Task of this Step

The Primary Task of this Step is:

|  |
| --- |
| To review and understand the Carer+ programme, assess its potential for enhancing the skills and quality of life of carers and care receivers and identify how it can be adapted to suit local conditions and needs. |

The starting point of the Toolkit is an introduction to the Carer+ programme. This section helps you to:

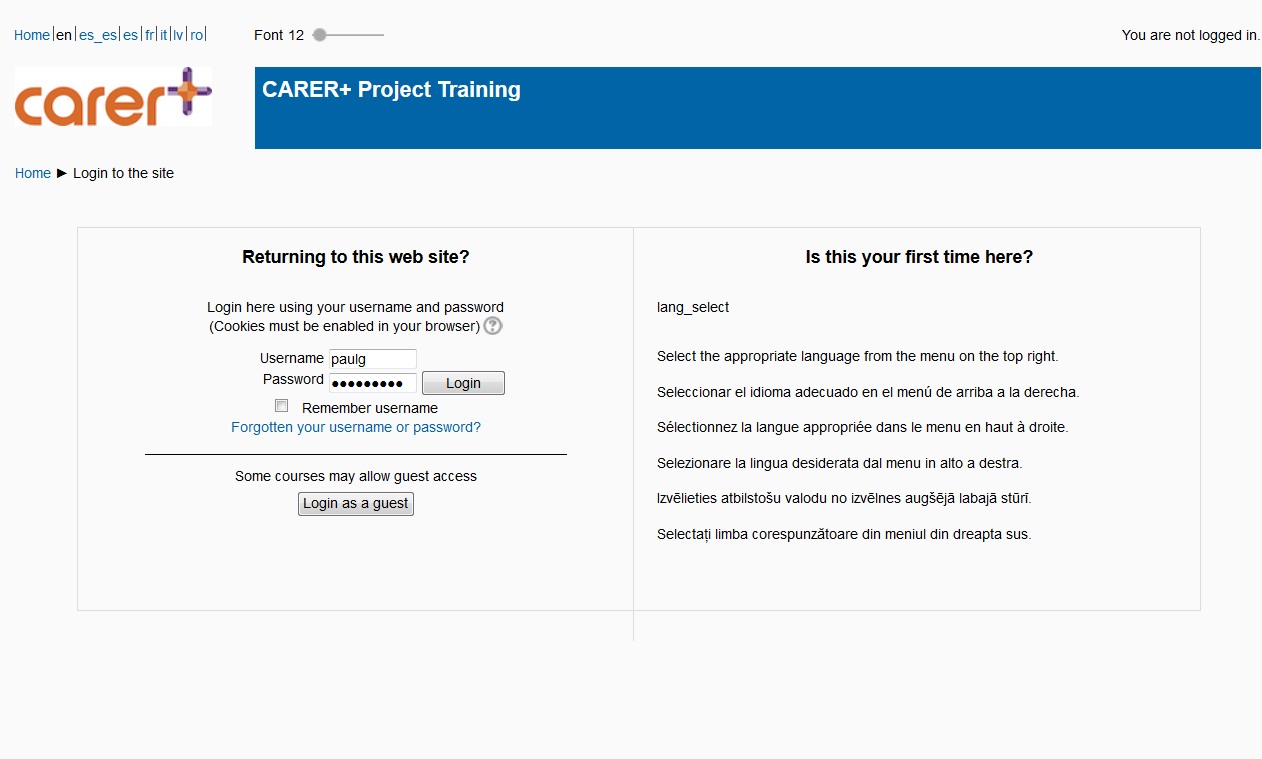
* get an overview of the programme and its approach, using the Carer+ Programme Map
* take a Tour of the programme and familiarise yourself with the different tools and services available
* assess the ways in which the Carer+ programme can contribute to enhanced service delivery and quality of care, and how the programme needs to be adapated, using the Positioning Tool
* identifies potential pitfalls and solutions for implementation with the Trouble shooting Chart
* make an assessment of the likely resources needed to deliver the programme.

## Carer+ Programme Map

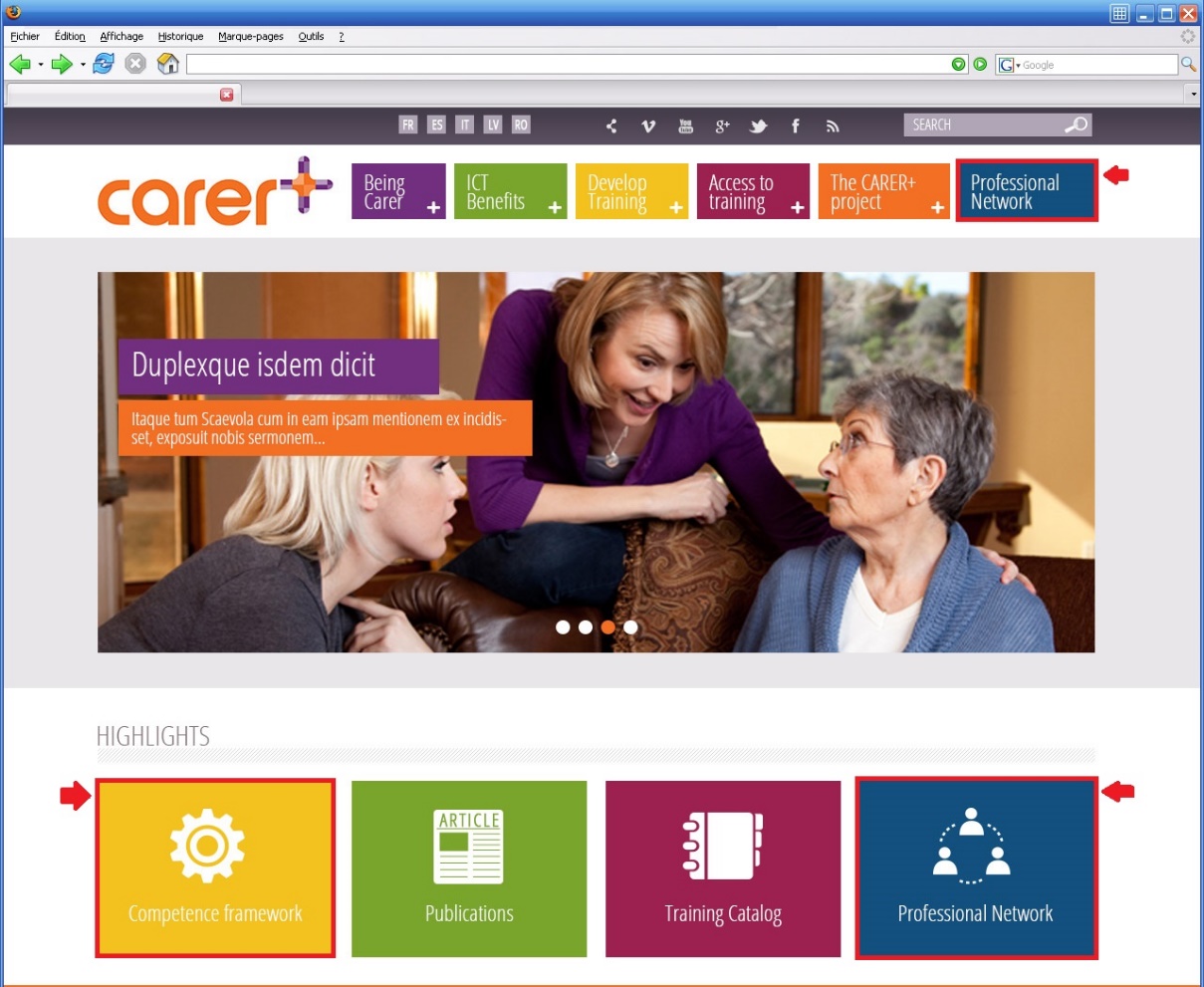
In concrete form, the Carer+ programme is an integrated framework for developing the digital competences of carers – and care recipients – and supporting the application of these competences in care practice. This framework is shown in the illustration below.



**Carer+ Competence Framework**



**Carer+ Local Support Services**



**Carer+ Learning Environment**

**Carer+ Assessment & Certification**



****

**Carer+ Home Care Services - Tools Adaptation in home care environment**

**The Carer+ Programme Framework**

As the illustration shows, the Carer+ programme framework combines five integrated components:

* The Carer+ competence framework. This sets out the key digital competences that carers need to apply in their practice. It provides the structure for the design of the Carer+ learning programme.
* Local support services. This creates the infrastructure to support the learning programme and the subsequent adaptation and use of the Carer+ tools by carers within their care environment.
* The Carer+ learning environment. This provides the infrastructure for carers to acquire digital competences, as well as the learning delivery approach and the learning content.
* Carer+ assessment and certification. This provides the infrastructure and process for assessing carers’ competences, validating and accrediting these competences and, going forward, sets out the procedures for subsequent certification of these competences.
* Carer+ Home Care Services - tools adaptation. This provides the infrastructure, tools and support to enable carers to apply their skills in their practice, working with care receivers using smart devices.

## Carer+ Tour

The Carer+ Tour provides more detail on each of the Carer+ programme tools and services. You can get a taste of how some these work in practice by clicking on the link provided at the end of each description to take a virual tour.

### the carer+ competence framework

The Carer+ digital competence framework could be described as the foundation stone of the Carer+ programme. It sets out the competences required for carers to understand and use digital technologies in their care practice. The framework incorporates state of the art standards in competence mapping and has adapted these standards for application within the care sector specifically, building on the Framework for Developing and Understanding Digital Competence in Europe (DIGCOMP) initiative developed by the European Commission Joint Research Centre.



It covers three core competence domains as follows:

* General digital competence – these are baseline, or foundational, competences that are adapted from the DIGCOMP project and are organised under four themes of information, communication, content creation and safety.
* Enabling digital competence in care – this defines competences that are required to transfer general competences into the care domain and are grouped under four themes of acceptance, adaptation, progression and support.
* Care-specific digital competence – this defines specific competences that allow the ‘enabled care competences’ to be contextualised and applied within care practice. They cover the areas of independent living and social participation for care recipients; personal development and social integration of carers; and care coordination.

Taken together, the Carer+ digital competence framework encompasses

* 3 Competence Domains
* 12 Competence Areas
* 48 Competences
* 2 Application Levels – Level 1 means enabling digital competence in the carers’ own work practices and Level 2 means enabling care recipients to understand and use digital technologies.

The framework is supported by examples of Learning Outcomes. These are not essential requirements but examples of how a competence can manifest itself through observable instances of a person’s Knowledge, Skills and Attitudes. The Learning Outcomes are particularly important for the Carer+ programme because they directly link to the Carer+ learning curriculum and content and to the Carer+ assessment approach.

CLICK HERE TO TAKE A TOUR OF THE CARER+ COMPETENCE FRAMEWORK

<http://www.carerplus.eu/developing-training/wiki/digital-competence-framework>

### Carer+ Local Support Services

This component of the programme provides the infrastructure, know-how and support needed to deliver the Carer+ training and, subsequently to create the conditions necessary for carers who have gone through the programme to access devices and applications that will allow them to put the skills they have acquired in the training into practice within the home care environment.

The focus in this component is on recruiting local support, training and mentoring staff who will help the carers through their learning programme, and then support them in using the Carer+ tools in their practice. The diagram below illustrates how this works.

As the diagram shows, the training effort which prepares the ground for subsequent digital-supported practice in the home care environment involves local support led by a ‘super trainer’ as a professional leader of the staff. Super trainers are expected to coordinate the local staff involved in the realisation of the Carer+ programme. This requires an initial 3-day training programme to train these super-trainers and to enable the second tier of the training strategy – the ‘mentors’ responsible for providing support to the care-givers involved in the piloting process on the ground - to carry out their role.

**PROVIDER INSTITUTION**

*Cooperation agreement*

**SUPER TRAINER**

**ICT specialist**

**PARTNER ORGANISATION**

**Mentor 1**

**M2**

**M3**

**M5**

**M4**

Carer 1

C5

C4

C3

C2

Care recipient 5

Care recipient 4

Care recipient 3

Care recipient 2

Care recipient 1

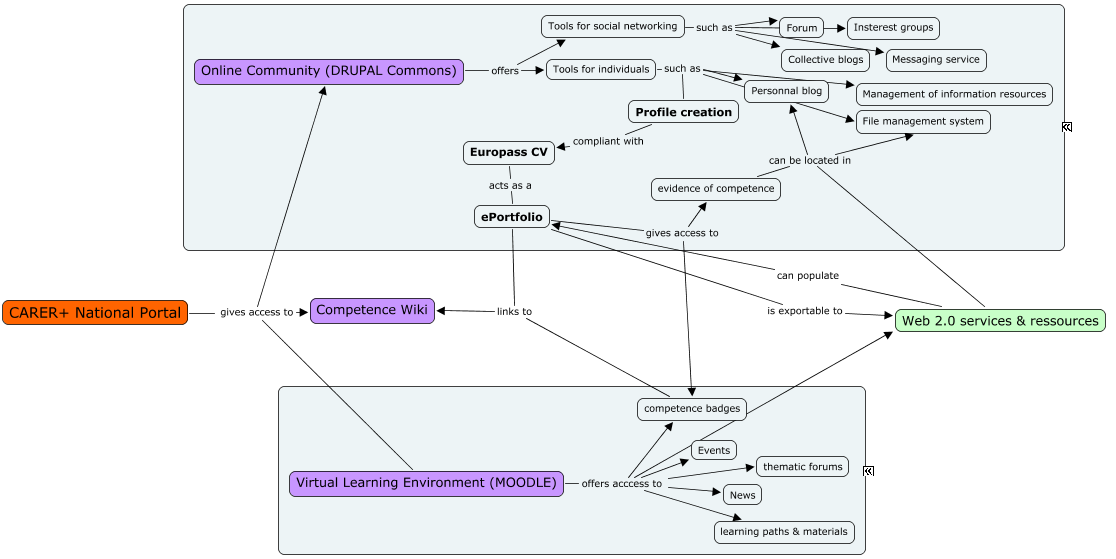
**Carer+ local support services**

This mentoring role is to guide and provide individual support to carers (and care recipients) during the training (and home caring) period. They help participants to understand and better select an appropriate learning pathway, leading in turn to assessment of their learning and the final award of a Carer+ proficiency badge. They also support participants with information and problem solving. The training for mentors involves 60 hours capacity building training.

In addition, ICT specialists help all the participants (carers and care recipients) with provision of the equipment and handling the ICT tools supplied (installation, configuration, deployment at care recipients’ homes and solving possible problems raised with the different ICT devices).

### The Carer+ learning environment

The CARER+ online learning environment – aimed at providing training for carers to develop and apply their digital competences in practice - is made up of three interconnected services and platforms. The diagram below shows how they link together.



**Carer+ Learning Environment**

Users can access all services and platforms of the Online Learning Environment from the CARER+ National portals. From there, users can log onto the online community which offers tools for social networking, such as a forum or a messaging service. The particularity of this online service is that the profile (present in every social network) is compliant with Europass CVs and allows users to create an e-Portfolio, which they can use to display evidence of their learning achievements and competences. This e-Portfolio is exportable to Web 2.0 services and resources and can be populated via these same services and resources. A file management system and a personal blog can also serve as repositories for evidence of skills and competences.

The curriculum and course content comprises a total of five courses: two core compulsory courses that must studied one after the other; followed by three electives in areas of professionalization and the provision of social care interventions. The five courses cover the following areas:

Course 1: This course covers foundational digital competence and is designed to lead the participants from a novice or beginner state to one where they are confident in both the use of mobile Internet devices, basic applications, security, privacy and digital content.

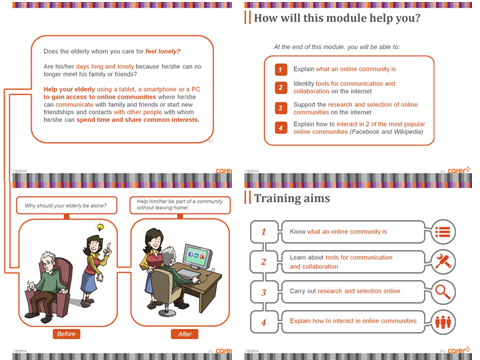
Course 2 is the second core course and situates the care worker as a designer of care interventions to develop capability to build and test solutions to identified problems.

Course 3 focuses on the professional development activity of the participants to enhance their competences in the areas of planning, reporting, communicating and networking and professional profile building.

Course 4 focuses on promoting independent and assisted living. It is orientated towards designing and implementing social care interventions with ICT to support and promote independent living for care recipients

Course 5 focuses on ensuring that participants will be able to design and implement ICT based interventions with care recipients.

The programme is designed to work in a blended setting with all activities supported by the virtual learning environment and an online, social network community. Each of the individual courses is approximately 35 hours in total and designed to run over a period of eight weeks with short, small group, weekly face-2-face sessions with a mentor. The course modules combine text with visual material and practice-based exercises.



**Example of Carer+ course module**

Training participants are supported in choosing an appropriate learning pathway through the use of the Carer+ profiling tool. This is designed to provide information on the baseline skills of participants enrolling in the Carer+ programmes and to provide some indication of their knowledge and attitudes towards ICTs and learning. The results are made available to mentors and tutors and also to the participants themselves. The aim is to understand the baseline skills and motivations of the participants to help organize their learning journey through the Carer+ programme. The results from this tool also provide baseline evidence for assessment.

CLICK HERE TO TAKE A TOUR OF THE CARER+ LEARNING ENVIRONMENT:

<http://training.carerplus.eu/>

### Carer+ assessment and certification

This component provides the infrastructure and process for assessing carers’ competences, validating and accrediting these competences and, going forward, sets out the procedures for subsequent certification of these competences. Users can be awarded competence badges when they complete modules contained in the Moodle virtual learning platform. These competence badges correspond to competences stored in the Competence wiki. Users can add them to their e-Portfolio, thus adding other evidence of their successful training and competence acquisition. This is done through the Carer+ Micro-certification system, which defines a set of proficiency badges representing the successful development of skills and competences via both the non-formal and formal learning pathways and through the use of the learning environment e.g. active engagement in online discussion forums. Micro-certification is used to promote and develop the acquisition of baseline hard and soft skills or proficiencies that are required as prerequisites to following the formal learning pathways. Micro-certification allows learners to ‘win’ *proficiency badges* – a fun and motivating way to benchmark skills and provide other learners within the learning environment a visible mechanism by which they can usefully identify relevant expertise amongst their peers. These are designed and coded to denote the achievement of different levels of proficiency and competence area.

**Carer+ proficiency badges**

Carer+ has developed a certification model to take learning outcomes forward beyond the award of proficiency badges and into the more formal environment of assessment and certification. Certification is understood in Carer+ as a destination on a pathway that begins with an intentional decision to learn, continues via systematic organisation of the learning according to an outcome-oriented framework, and reaches a stage of demonstration of the acquired competences through undergoing an assessment phase based on specific quality criteria and resulting in an institutional recognition of the competences possessed by the learner. This model is currently developed as an analytical framework for assessment and certification – because it is clear from the research Carer+ has carried out that assessment and certification within the broader world of national systems is highly dependent on the cultural and legislative context in different countries. The model, shown below, therefore represents a minimal default standard for certification process and, at the same time, a tool for identifying common features and gaps when compared with existing certification processes in the area of digital competence of care workers.



The certification model is based on four processes: the learning process, through which carers gain competences; the application process, through which carers meet relevant competence requirements by applying what they have learned; the assessment process, through which these competence requirements are formally assessed against specific criteria and the awarding process through which carers gain formal recognition of their acquired competences. The conditions needed to support this model are discussed below in this Toolkit.

CLICK HERE TO TAKE A TOUR OF **Handbook for the certification of digital competencies in social care sector:**

<http://www.carerplus.eu/content/handbook-certification-digital-competences-social-care-sector>

### Carer+ tools home care services

The final component in the Carer+ programme focuses on infrastructure and support provision to enable carers to apply their skills in their practice, working with care receivers using smart devices. The service developed by Carer+ to do this consists of the deployment of a pervasive technological environment for self and professional development within the home, supported by an educational approach that promotes active cooperation (peer-to-peer and intergenerational learning) and which is in turn supported through mentoring and technical advice provided by local support teams.

A number of different combinations of ‘smart technologies’ for home care have been developed and tested within Carer+. These initially included simple Smart Networked Objects enabled with Wi-Fi, 3G+, and RFID technologies integrating all-in-one solutions for eInclusion. However, a combination of issues involving one of the Carer+ technical partners, together with usability issues highlighted in the initial validation of the devices, meant that the piloting was ultimately carried out using Internet tablets (Asus Memopad; iPad Air; iPad mini; Google Nexus 7; Samsung Galaxy Tab). Some of these were coupled with NFC readers and tags.

|  |  |
| --- | --- |
| **iPad Mini** | **iPad Air** |
| http://images.techhive.com/images/article/2013/11/ipad-mini-retina-hand-100068326-large.jpg | http://media.idownloadblog.com/wp-content/uploads/2015/03/ipad-air-inline.jpg |
| **Google Nexus 7”** | **NFC tags** |
| http://zdnet1.cbsistatic.com/hub/i/r/2014/08/25/b2c236d9-2c23-11e4-9e6a-00505685119a/resize/620xauto/38b9f37d635a8031f1e5ab18782bbbdb/0002-v1.jpg | https://lh3.googleusercontent.com/-2XVBOQHGJ6k/VGDcEAkJX2I/AAAAAAAAAFI/heuWqLuTlkg/w727-h541-no/DSC_1535.jpg |

NFC (near field communication) is a wireless technology which allows for the transfer of data such as text or numbers between two NFC enabled devices. NFC tags, for example stickers or wristbands, contain small microchips which can store a small amount of information for transfer to another NFC device, such as a mobile phone or tablet. Family members and carers can configure NFC tags that they can stick later on objects. Each tag can be assigned to a specific function – for example dialling up a relative on skype.

The use of these devices, combined with the digital competences acquired by carers as a result of their participation in the Carer+ learning programme, is the central focus of the Carer+ delivery of home care services to care recipients. This delivery is based on a mutual (intergenerational) education and learning process between carers and the care receivers. Carers typically carry out a mapping exercise of care recipients’ individual social and health care needs and then tailor their own caring working practices according to these personal needs. Mentoring and technical support from ICT specialists is constantly available during the whole adaptation phase for each carer.

The process of adapting the Carer+ tools to the home care environment depends on two main things: the legislative and administrative framework that governs care services within a particular country or region, and the specific needs of carers and care receivers in individual care environments. The care system often requires that assessment for older people must be undertaken by a social worker using a needs assessment methodology. After a needs assessment is completed, a task schedule is drawn up and given to a care service provider to provide the care service. The main feature of home care provision is continuous cooperation between these parties. The Carer+ adaptation and utilization process must therefore take into accounting prevailing local conditions.

## Carer+ Programme Positioning Tool

The Carer+ Positioning Tool shown below, provides a simple way for organisations to assess the potential value added each Carer+ tool and service could contribute, as well as identifying the things that need to be done to transfer, adapt and implement the programme to the local context.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Carer+ tool/service** | **Potential added value** | **VA rating (0 – 5)** | **Adaptation requirements** | **Adaptation Difficulty rating (0 – 5)** |
| http://carerplus.eu/sites/default/files/carer/04_developing_training/dcf.png  **Competence Framework** |  |  |  |  |
| **Local Support Services** |  |  |  |  |
| home-page  **Carer+ Learning Environment** |  |  |  |  |
| C:\Users\User\AppData\Local\Temp\Temp1_IPERIA_BADGES_CAREER.zip\IPERIA_BADGES_CAREER\80X80\JPEG_FORMAT_WEB\80x80_BADGE_1.jpg C:\Users\User\AppData\Local\Microsoft\Windows\INetCache\Content.Word\80x80_BADGE_2.jpg C:\Users\User\AppData\Local\Microsoft\Windows\INetCache\Content.Word\80x80_BADGE_5.jpg  **Carer+ Assessment & Certification** |  |  |  |  |
| **Carer+ Home Care services** |  |  |  |  |

### How to use the Positioning Tool

For each tool and service shown in the Table:

* Write down a list of all of the ways you think the tool/service could add value to existing care services in your area, as well as the care needs (for carers and care recipients) the tool could help support
* In the next column, make an estimate of the value added the tool could make, on a scale of 0 to 5 (0 indicating no value added, 5 maximum value added)
* In the next column, make a list of the actions that would need to be taken to adapt the tool/service to suit the local care environment, and the possible obstacles to the adaptation and implementation of the programme
* In the final column, make an estimate of the level of difficulty required to adapt and implement the tool/service, on a scale of 0 to 5 (0 indicating no value added, 5 maximum value added).

## Carer+ Programme Implementation Resource Checklist

The Programme Implementation Resource Checklist shown below provides a simple way for organisations to understand the resources needed to transfer and implement the Carer+ programme within the local care environment; to assess the extent to which these resources are available and to identify potential resource issues.

|  |  |  |
| --- | --- | --- |
| **Carer+ tool/service** | **Implementation Resources required** | **Resource capability and potential issues** |
| http://carerplus.eu/sites/default/files/carer/04_developing_training/dcf.png  **Competence Framework** | Staff capable of understanding and applying the competence framework.  Capacity and skills to further develop and adapt the framework to the local context |  |
| **Local Support Services** | At least 1 super-trainer, 1 mentor and 1 ICT support specialist per area.  Delivery of 60 hours capacity building training programme.  Access to programme participant networks.  Capacity to deliver successful participant recruitment programme.  Capacity to provide 1 ICT device per programme participant. |  |
| home-page  **Carer+ Learning Environment** | Capacity to deliver a 200-hour course consisting of 40 face-to-face training hours and 160 online learning hours, involving 5 training modules.  Infrastructure capable of delvering on-line courses and support.  Mentors and ICT service support to cover all programme participants. |  |
| C:\Users\User\AppData\Local\Temp\Temp1_IPERIA_BADGES_CAREER.zip\IPERIA_BADGES_CAREER\80X80\JPEG_FORMAT_WEB\80x80_BADGE_1.jpg C:\Users\User\AppData\Local\Microsoft\Windows\INetCache\Content.Word\80x80_BADGE_2.jpg C:\Users\User\AppData\Local\Microsoft\Windows\INetCache\Content.Word\80x80_BADGE_5.jpg  **Carer+ Assessment & Certification** | System in place to assess programme participant's course work.  Credibile and trusted certification award body.  Links to established accreditation and certification agencies. |  |
| **Carer+ Home Care services** | Supply of engaged care receivers to pair with care workers.  Capacity to deliver ongoing community animation and support.  Mentoring and ICT support capacity.  Monitoring and evaluation capacity and skills. |  |

### How to use the implementation resource checklist

For each tool and service shown in the Table:

* Review the nature and level of resources required to implement the tool/service, as shown in the second column of the Table
* In the next column, make an assessment of whether these resources are available, and identify and resurce issues that are likely to occur.

## Outcomes of Step 1

Following completion of the Step 1 Task, and integrating together the outcomes of the Step 1 tools, organisations should now have a clearer picture of:

* the Carer+ approach and how it works
* the potential benefits of the programme and how it can support their needs
* what resources are necessary to adapt and implement the programme
* potential issues and obstacles that need to be adressed

On this basis, it should be possible to make a decision on whether to proceed to the next step.

# Step 2: Setting up local support teams

## What this Step involves

This Step puts into place the support infrastructure necessary to deliver the programme. It addresses the need for the care workers involved in the programme to be supported in dealing with a new set of tools - the Virtual Learning Environment and the ICT devices used to improve care delivery and quality of care. Since most care workers who take the training – and most of their care receivers – are unfamiliar with all or some elements of these tools, there are issues around anxiety, access, engagement and motivation that need to be addressed. In addition, there is a need for the delivery organisation to monitor the process (both training and use of the device).

The expected outcomes of this Step are:

* an infrastructure will be in place to provide support for the carer training programme and service delivery provided later on in the programme
* local support staff will be recruited and trained to provide support for programme participants.

## The Primary Task of this Step

The Primary Task of this Step is:

|  |
| --- |
| To set up an appropriate team that will follow and support the carers and care recipients through the online training programme and with the usage of the applied ICTs; organise a service of technical support to the carers involved in the programme; provide specialist support on care-related topics dealt with in the course. |

To help you complete this task, this Section provides:

* Guidelines for setting up local support teams
* Activities and resources checklist
* Training the Trainers Course Outline
* Trouble-shooting chart
* Good practice example.

## Guidelines for setting up local support teams

* Training the trainers is the foundation for success. An effective and appropriate training the trainers programme needs to be put into place at the start of this Step
* Ensure that there is a lead trainer or team leader assigned who will co-ordinate the effort, provide leadership and create buy-in to the programme
* Provide appropriate job contracts for local support staff. These should detail the exact tasks to be implemented by the support staff. They should set clear boundaries and goals
* Ensure appropriate supervision systems and processe are in place for support staff.
* Put into place measures to support team working.
* Ensure that the local support team is multidisciplinary. The support team should reflect a skill set that combines: technical support for problems related to the use of the devices or the VLE; specialized staff who can supplement the care-related training modules with pertinent advice on how to contextualise the contents; staff who can provide advice on what tablet-based activities can be proposed to the care recipients based on their physical and mental conditions, etc.).
* Local support teams should be recruited in close cooperation with the local/regional/national authority in charge of planning and organising domiciliary care services. The authority should select a number of staff members suitable to be a part of the local support team based on the requirements of the programme and possibly in charge of the various phases of the domiciliary care organisation process.
* Minimum technical requirements for support teams should be an at least average level of digital skills to enable the staff to do a preliminary test of the Carer+ training course, create an online community for the carers and involve them in activities based on the VLE contents, act not only as a content-related support but also as a cohesion agent to keep the learners motivated.
* Other requirements for local support teams are pedagogical and interpersonal communication skills.

## Activities and resources checklist

The Activities and Resources Checklist provided below shows what needs to be done to set up effective local support teams. Use the checklist to assess if the required activities have been done and the relevant resources are in place.

|  |  |
| --- | --- |
| Does the local support staff team include an ***ICT specialist*** (who can help with the technical problems)?  Does the local support staff team include ***trainers*** (familiar with Moodle platform or similar technical online learning environments)?  Does the local support staff team include ***mentors/facilitators***, with social service or home care service provision experiences , who can help with adopting training lessons and exercises to home care practice? | □  □  □ |
| Are trainer and mentor/facilitator roles separated in the support team? | □ |
| Has the Carer+ ‘Train the trainer’ programme been put into place? | □ |
| Have all staff members been signed up to attend the train the trainer programme? | □ |
| Have all staff members been equipped with the ICTs being used by care workers and recipients? | □ |
| Have enough mentors been recruited to cover the total anticipated numbers of carers that will take part in the programme (there should be 1 mentor available to support between 8-10 carers (participants)? | □ |
| If more than one site is providing the programme, is sufficient team support provided for every involved site? | □ |
| Has a dedicated telephone or on-line helpline been set up to support learners with the technological aspects of the training? | □ |

## Training the trainers programme course outline

The Carer+ Handbook for the Pre-Pilot, Pilot and Post-Pilot Phases (D5.1) provides some recommendations on what the structure and content of the ‘Training the Trainers’ course should look like. In practice, the course needs to be adapted to suit local conditions and needs. The main recommendations are:

* Provide a course of not less than 60 hours duration, focusing on capacity building training, as a preparation for the support team’s role in providing support for carers participating in the full Carer+ programme
* Course delivery should combine on-line and off-line training
* Courses should prioritise familiarisation with **the 200 hours training programme for carers and the training platform used to deliver the programme**

The course outline below provides a template for developing a suitable course structure for the training the trainers programme.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Module** | **Number of hours** | | **Training days** |
| *face-to-face* | *distance learning* |
| 1. | Introduction to the CARER+ project | 2 | - | 1. |
| 2. | ICT tools in home care (based on the international and local/national literature/experiences) | 4 | 1 | 1. |
| 3. | Home care for older people | 6 | 1 | 2. |
| 4. | CARER+ piloting programme  *(training activities and the learning environment, home care delivery to older people)* | 12 | 4 | 3-6. |
| 5. | Support services:   * mentoring, * community animation, * technical support | 24 | 6 | 7-8. |
| **Total:** | | **48** | **12** | **8** |

## Trouble-shooting chart

Analysis of the practices carried out in the Carer+ pilots identified a number of obstacles to the successful setting up of local support teams. The trouble-shooting chart below helps to identify the likely pitfalls and proposes some solutions to solve them.

|  |  |
| --- | --- |
| **Problem** | **Solution** |
| Keeping mentors and facilitators separate from carers who will participate in the main programme. Local mentors and facilitators should not be be drawn from the carers who will participate in the learning programme. This will create extra time pressures and could be de-motivating. | Find and recruit local mentors and facilitators who have have some knowledge of caring practices, and who already have some level of applied digital competences in the care environment. If local carers are recruited they should be provided with some extra benefit or incentive. |
| Issues with external recruitment of local support staff. Recruiting staff from outside the programme local co-ordinating organisation can create issues around things like authorisation and requests to do work outside normal hours. | Daw up a *cahier des charges* where each step of the process is listed, the connection between the various steps is made clear, and the activities to be done by each staff member are described in detail and quantified in terms of number of hours/days necessary and allocated time slots for the activities. The *cahier des charges* should be then signed for acceptance by both the general manager and the staff members’ immediate supervisor in order to ensure that the appointed staff will be allowed to devote their time to the activity within their employment contract |
| Over-burdening of support staff with peripheral tasks | Don’t engage support staff in monitoring and evaluation tasks. These should be carried out either by external evaluators or the programme co-ordinators. |
| Insufficient local expertise to deliver some aspects of the required training – e.g. specialist ICT technical skills. Typical technical problems focus on understanding how ti use NFC tags | Recruit external specialists if necessary |
| Variability in local conditions and regimes - different home practices, different service providers and organisational cultures, different working cultures and hours available for training – can create implementation problems | Build flexibility into the training programme to cater for local conditions – e.g. provide ‘after hours’ and weekend training |

## Good Practice Example

The practice example below illustrates how the local support team structure was set up in one of the pilot sites in Italy. It illustrates how to do it in practice.

|  |
| --- |
| **Example of local support team structure, Italy pilot**  In the Carer+ pilot programme in Italy the total number of local staff (mentors) involved in the training was 9. Of these 9 people, 4 were IRS (the pilot co-ordinators) internal staff members appointed as **technical mentors** and 5 were the team of **content (care-related) mentors** appointed by the local pilot partners.  The team of 4 technical mentors was composed of 4 staff members of IRS with a background in social science and at least 10 years experience in projects and activities in the field of social and welfare services - including home care:  3 mentors  1 ICT specialist  The team of 5 care-related content mentors was composed of:  **2 main mentors** (social workers) in charge of assisting the carers during the training  **3 supervising mentors** (head of unit/service) experts in care planning, care service provision, and training and d/s match respectively,  as shown in the diagram below:    The content mentors teamwas organised for operating on a rotating basis according to the professional engagements of the various members. |

## Outcomes of Step 2

Following completion of the Step 2 Task, and integrating together the outcomes of the Step 2 tools, organisations should now have:

* set up the local support infrastructure
* recruited a qualified and competent staff team
* developed and implemented a ‘train the trainers’ programme for their staff team.

The next step is to design the main learning programme for carers.

**Step 3: Designing the Learning Programme**

## What this Step involves

This Step involves desiging an effective and relevant learning programme – based on the existing Carer+ learning programme (described above in Step 1) - to support local carers in acquiring new digital competences. This step emphasises the important role of the carer as a key mediator to raise awareness for care receivers of the opportunities afforded by ICTs to enhance the quality of life of older people in care.

The expected outcomes of this Step are:

* design and production of a learning programme that addresses the learning needs of local carers
* creating a learning environment that supports more effective development of carers’ competences and professional skills and ultimately more effective relationships with care receivers.

## The Primary Task of this Step

The Primary Task of this Step is:

|  |
| --- |
| To deliver a coherent and comprehensive set of learning, teaching and training materials that involves carers as co-collaborators in a pedagogical dialogue. |

To help you complete this task, this Section provides:

* Guidelines for transferring and adapting the learning programme for carers to the local context
* Activities and resources checklist
* Learning Programme Outline
* Skills and competences profiling tool
* Trouble-shooting chart
* Good practice examples.

## Guidelines for designing a local learning programme for carers

* The Carer+ learning programme needs to reflect the learning context and learning needs of the local target group. Existing learning services must be taken into account in choosing which elements of the Carer+ learning programme will add most value.
* All learning should be driven by authentic activity. The Carer+ learning programme and learning environment must be embedded within the local ‘life world’ of programme participants and must include tasks and learning goals that link to carers’ everyday practice
* The learning programme should reflect the Carer+ competence framework, and be adapted to support the competence priorities highlighted in the local context, as well as linking to practice-based competences as they develop. The learning programme needs to be adjusted to reflect factors like the existing level of competences of the participating group.
* Basic knowledge, skills and attitudes should be revisited in more depth to achieve deep learning, on the basis of feedback from participants experiences in applying the learning as they acquire it
* The localised programme should ensure a balanced curriculum that follows two modes of participant engagement: **face-to-face activities,** involvinginteraction and facilitation by a trainer (around 7 hours per course) and p**ersonal activity driven study,** involving learning that is ‘scaffolded’ by electronic resources that drive the self-development of competences and are strengthened by coupling to peer supported online activity in the virtual learning environment
* Peer support and peer learning should be encouraged by providing opportunities to share experiences. The local learning environment should therefore ensure that the technical infrastructure is in place to deliver peer support and peer learning, and that suitable mentors are recruited and have the necessary support skills.

## Activities and resources checklist

The Activities and Resources Checklist provided below shows what needs to be done to design an effective and relevant local learning programme for carers. Use the checklist to assess if the required activities have been done and the relevant resources are in place.

|  |  |
| --- | --- |
| Has a mapping of existing local learning and training services been carried out to assess any overlaps with the the Carer+ learning programme, and to identify how to tailor the Carer+ programme most effectively to the local context? | □ |
| Has a needs assessment been carried out on the learning needs of the target group, for example using the Carer+ skills and competence profiling tool? | □ |
| Does the Carer+ programme fit the needs identified? | □ |
| Have activity-based learning exercises and assignments been developed that reflect authentic situations and tasks, and which programme participants can identify with? | □ |
| Does the learning programme incorporate an adequate balance between face to face and self-directed learning? |  |
| Have appropriate ‘micro-projects’ been designed that allow programme participants to experiment with real-life, interactive learning experiences? | □ |
| Has an appropriate learning infrastructure been put into place that has the capacity and technical functionality to deliver the Carer+ virtual learning environment (VLE)? | □ |
| Does the learning infastructure include capacity and functionality to support on-line autonomous (self-directed) learning? | □ |
| Does the learning infastructure include capacity and functionality to support peer support, peer learning and mentoring? | □ |

## Carer Learning Programme course outline

As outlined above in ‘Step 1’, the Carer+ Learning Environment is composed of three inter-connected platforms. Learners can access all services and platforms of the Online Learning Environment from the CARER+ National portals. The curriculum and course content comprises a total of five courses in:

* Foundational course in digital competence
* Foundation course in design of care interventions
* Professional development activity
* Promoting independent and assisted living
* Design and implementation of ICT based interventions with care recipients.

The programme is designed to work in a blended setting with all activities supported by the virtual learning environment and an online, social network community. Each of the individual courses is approximately 35 hours in total and designed to run over a period of eight weeks with short, small group, weekly face-2-face sessions with a mentor.

Learning programme developers need to ensure that provision is in place so that participants are supported in choosing an appropriate learning pathway. This can be done through the use of the Carer+ profiling tool (presented below) supported by face to face mentoring. The basic course outline of the Carer+ learning programme is shown below. Review this course outline in the light of the results of needs assessment exercises, the Carer+ profiling tool and the opinions of involved mentors to select the most appropriate module balance for the target group.

|  |  |  |
| --- | --- | --- |
| **Course** | **Description** | **Study** |
| Theme: Basic skills and competence development | | |
| **1. Foundation for digital competence development** | Building the baseline digital competence skills for care workers | Compulsory entry course.  32-35 hours  (incl. 7 hours face-2-face tuition) |
| **2. Foundation for design of social care interventions with ICT** | Understanding the benefits, needs and challenges of planning and providing for social care interventions with ICT; Designing interventions and evaluating their impact. | Compulsory entry course.  32-35 hours  (incl. 7 hours face-2-face tuition) |
| Theme: Management and professionalization | | |
| **3. Managing social care interventions and professionalization** | Planning and reporting day to day care activities with ICTs; processing information with technology; enhancing professional role and profile. | Optional specialisation pathway.  32-35 hours  (incl. 7 hours face-2-face tuition) |
| Theme: Providing social care with ICTs | | |
| **4.a Independent living** | Social care interventions with ICT for facilitating independent living. | Optional specialisation pathway.  32-35 hours  (incl. 7 hours face-2-face tuition) |
| **5. Social inclusion** | Social care interventions with ICT for promoting social inclusion. | Optional specialisation pathway.  32-35 hours  (incl. 7 hours face-2-face tuition) |
| **4.b Assisted living[[3]](#footnote-3)** | Social care interventions with ICT in assisted living contexts. | Optional specialisation pathway.  32-35 hours  (incl. 7 hours face-2-face tuition) |

## Skills and competences profiling tool

It is essential that localisation of the Carer+ programme takes into account the learning profiles and needs of participating carers. Factors like educational history; level of existing digital competences; familiarity with on-line learning wll need to be taken into account in decisions like the balance between face-to-face and self-directed (on-line) learning provided; which competences need to be prioritised in the learning rogramme; what activity-based learning and ‘micro-projects’ should be delivered. The Carer+ skills and competences profiling tool, illustrated below, enables the learning programme to be adjusted and customised to ‘personalised learning plans’ that reflect these factors. . This tool is designed to provide information on the baseline skills of participants enrolling in the Carer+ programmes and to provide some indication of their knowledge and attitudes towards ICTs and learning. The results need to be made available to mentors and tutors and also to the participants themselves. The aim is to understand the baseline skills and motivations of the participants to help organize their learning journey through the Carer+ programme. The tool can be downloaded from the Carer+ website at www.carerplus.eu.

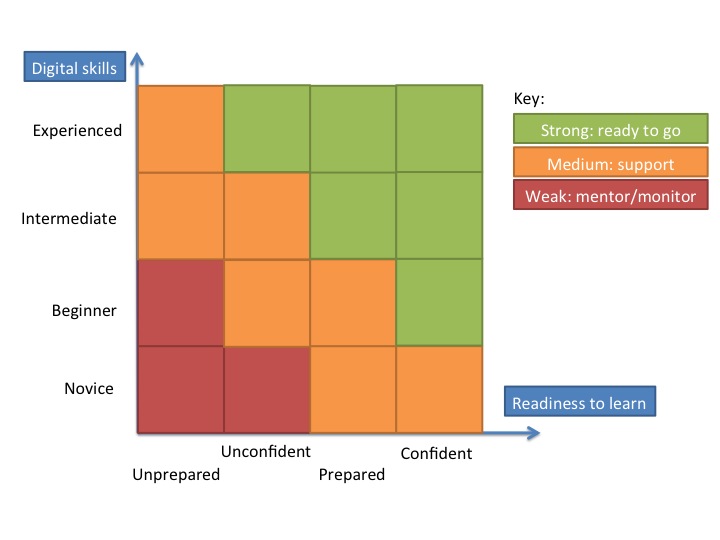
The tool collects data from participants on:

* Personal background data;
* Internet and mobile phone use;
* Attitudes and confidence in relation to ICT use;
* Specific knowledge of ICT use and terminology;
* Readiness and motivation for study.

Analysis of the data can be used to provide a simple profile of each of the participants using the following categorisation:

|  |  |
| --- | --- |
| **Digital skills profile:** | **Readiness to learn:** |
| ☐ Novice | ☐ Unprepared |
| ☐ Beginner | ☐ Unconfident |
| ☐ Intermediate | ☐ Prepared |

Then the ‘action matrix’ shown below can be used to identify those participants who are stronger and those who are likely to be weaker learners. The action matrix acts as an early warning system and is a quick visual tool to help course facilitators identify those participants who are likely to require extra support and interventions to ensure they engage fully an productively with the programme.



## Trouble-shooting chart

Analysis of the practices carried out in the Carer+ pilots identified a number of obstacles to the successful design of a local carers’ learning programme. The trouble-shooting chart below helps to identify the likely pitfalls and proposes some solutions to solve them.

|  |  |
| --- | --- |
| **Problem** | **Solution** |
| Learning programme content difficult to understand in local language | Use qualified translators with technical expertise in ICTs to convert the courses into local languages. Ensure that the translations reflect the local culture. |
| Getting the right balance between face to face and on-line (self-directed) learning. | Make sure that the learning needs – and existing digital competences – of the programme target group are assessed before finalising the course structure (for example by using the Carer+ profiling tool). Adjust the balance of face-to-face and self-directed learning accordingly. |
| Course material is too ‘technical’ for some learners – especially carers with low educational qualifications. | Provide additional guidance tools and procedures. In France, for example, skype was introduced into the learning programme structure to provide continuous learning support for programme participants. In other pilot locations, additional guides and instructional manuals were developed and used. Several guidelines and tutorials with screen shots were prepared in order to make the explanations user-friendly and easy to understand step by step. |
| Inadequate facilitation by a trainer and lack of peer learning activity in learning programme, leading to less effective face-to-face interaction. | Ensure the programme incorporates provision for careful and continuous monitoring of carer learning by the mentor. Peer learning activity needs to be encouraged by the mentors in both face-to-face and online learning set ups. |

## Good Practice Examples

The practice examples below illustrates how the Carer+ learning programme was adapted to reflect local needs and local context. They illustrate how to do it in practice.

|  |
| --- |
| **Embedding activity-based problem-solving learning in course design**  The courses of the programme focus on topics and activities that correspond to the identified competence area described in the digital competency framework. Each one incorporates tasks that employ an activity orientated and problem solving learning approach. For example, by the end of Course 2 the participants attain a set of competences that enable them to understand the role and benefits of the use of ICTs in social care and to design and evaluate interventions for particular home care settings for older people. In particular participants:   * Identify a range of benefits that ICTs can bring to social care settings within the home for older people; * Evaluate the needs of particular home-care situations and translate these into meaningful social care interventions; * Assess the risks and challenges associated with a specific ICT intervention; * Plan for and then evaluate an ICT based intervention.   In France, NFC tags were incorporated as a major element of the training programme and became one of the most successful elements of the trainin. They were seen as fun and useful, and supported carers and care receivers in applying learning in practical ways – for example radio listening, GPS services. Tags were used to develop an activity-based learning activity that provided information on a weekly basis on the medicines care receivers were required to take each day. |

|  |
| --- |
| **Using pedagogic devices to support purposeful activity**  In the Carer+ courses there are a number of pedagogic devices used to support learning through purposeful activity. These include:  Multiple choice questions MCQs to complete  Micro projects that the participants are engaged with  Badges that are used to motivate participants while studying the Carer+ curriculum  A portfolio style submission to demonstrate evidence of achievement |

## Outcomes of Step 3

Following completion of the Step 3 Task, and integrating together the outcomes of the Step 3 tools, organisations should now have:

* set up the local infrastructure necessary to provide the learning programme, including a technical platform for the VLE and associated peer-to-peer and on-line supported mentoring
* identified the learning needs of the target group
* developed a localised Carer+ learning programme that reflects the needs of the target group

The next step is to .recruit carers to participate in the learning programme.

# Step 4: Getting Carers involved

## What this Step involves

This Step involves attracting, recruiting, engaging and retaining participants in the Carer+ programme. A successful learning programme is only successful if it attracts, recruits and trains participants who will get the best out of it and will in turn make a contribution to helping their peers learn. Equally, the Carer+ programme has to ensure that the skills acquired by carers in the programme are then relevant for use in the individual care environments in which they work – not least by being transferred into benefits for their care receivers as a result of mutual collaboration between carers and receivers. This means that the caregiver-care receiver ‘diad’ needs to be receptive to learning.

At the same time, this part of the programme has logistical drivers. Carers need to be aware of the programme, they have to access the infrastructure and their working environment needs to be compatible with engaging in learning activities.

The expected outcomes of this Step are:

* a cohort of carers are recruited into the learning programme
* the cohort includes a number of carer ‘couples’ (care providers paired with care receivers)
* the programme participants are motivated and committed to the programme.

## The Primary Task of this Step

The Primary Task of this Step is:

|  |
| --- |
| To select and recruit carers and care ‘couples’ who are motivated and committed to participate in the programme. |

To help you complete this task, this Section provides:

* Guidelines for selecting and recruiting programme participants
* Activities and resources checklist
* Trouble-shooting chart
* Good practice examples.

## Guidelines for recruiting and selecting programme participants

* Ensure that the recruitment campaign is preceded by an adequate awareness-raising effort, directed at the target group, that enables potential programme participants to familiarise themselves with Carer+ and its potential opportunities and benefits. This can be done using a combination of traditional media (flyers, brochures) and social media.
* Identify relevant national and local agencies and networks – for example employer organisations in the care sector; care labour organisations – who could act as recruitment interfaces for the programme, and engage with them.
* Independent carers or service provider institutions are effective sources for accessing participants and effort should be put into engaging local service providers in the recruitment process.
* Older people living in a home environment and not receiving social or health care through a residential care institution need to be involved in the recruitment drive. Age should not necessarily be a factor in care receivers’ participation in the programme. However, the health situation of potential recruits should be considered – particularly the capacity of care receivers to utilise the Carer+ devices.
* Ensure that informal caregivers (e.g. family members) are involved in the recruitment effort.
* Ensure that both carer and care recipient ‘couples’ are equally committed to participate (they should be existing caring couples who have worked with each other for a reasonable length of time).
* Ensure that all potential programme participants are made fully aware of the potential benefits – as well as the potential challenges – of being involved in the programme. It is particularly important to obtain the informed consent of care receivers who will participate
* Ensure that factors that could affect the participation and commitment of programme participants – for example job or family circumstances; financial and time constraints – have been identified and any necessary actions taken to address these issues, for example through providing incentives for participants.

## Activities and resources checklist

The Activities and Resources Checklist provided below shows what needs to be done to successfully recruit and reating participants for the programme. Use the checklist to assess if the required activities have been done and the relevant resources are in place.

|  |  |
| --- | --- |
| Has an appropriate awareness-raising campaign been implemented? | □ |
| Have relevant local stakeholders and potential partners been identified (service providers; employer organisations; labour organisations)? | □ |
| Have relevant stakeholders been contacted and engaged with? | □ |
| Has an appropriate recruitment strategy been agreed? Possible options are:  Option 1: service providers can involve their own staff (care workers) and clients (care recipients)  Option 2: cooperation with local social service provider(s) or with local organisations providing outreach to the participants (carers and care recipients)  Option 3: organise a local recruitment campaign to find potential participants from the ‘market’  Option 4: mixed methodology of the above. | □ |
| Has an agreement been put into place that expresses the intention of partners to implement the programme, and the institutional commitment to the programmes’ objectives as well as the provision of all the technical, human and institutional conditions that are necessary to implement the programme? | □ |
| Has a relevant mechanism been put into place to co-ordinate recruitment, selection and management of programme participants? | □ |
| Have the ‘rules of participant engagement’ – including informed consent provisions – been produced and distributed to participants? | □ |
| Have potential participation obstacles been identified and acted on – for example providing incentives to participate? | □ |

## Trouble-shooting chart

Analysis of the practices carried out in the Carer+ pilots identified a number of obstacles to the successful recruitment of programme participants. The trouble-shooting chart below helps to identify the likely pitfalls and proposes some solutions to solve them.

|  |  |
| --- | --- |
| **Problem** | **Solution** |
| Limited number and range of potential stakeholder partners in local area | Identify and engage with national agencies – e,g, National Committees – who can act as bridges to effective recruitment points |
| Carers don’t understad the potential opportunities and benefits of getting involved in the programme | Organise local dissemination events and ‘recruitment fairs’. Engage carers who have gone through the programme as programme ‘champions’ |
| Carer’s don’t have the time to get involved, or cannot afford to take time off work | Develop and apply a package of incentives – for example financial support; agreements with employers to allow ‘time off’ |
| High participant ‘drop out’ from initial recruited cohort | Carry out ‘exit interviews’ with potential drop outs to establish reasons for non-participation |

## Good Practice Examples

The practice examples below illustrate the strategies used to successfully recruit participants into the Carer+ programme. They illustrate how to do it in practice.

|  |
| --- |
| **Carrying out a successful recruitment campaign in France**  In France, recruitment of and engagement with participants involved two connected activities: firstly, a wider, ongoing EU-wide and national promotion campaign aimed at raising awareness of Carer+ and publicing the piloting opportunity and, secondly, a more focused local initiative specifically targeting potential participants in the pilot site locations. The local recruitment campaigns were organised through the National Committee but varied according to the characteristics of the local context. In France, the pilot co-ordinator, IPERIA, worked with existing training centres in different regions with whom it had already established co-operation on a regular basis, and in addition used its own databases of carers, as well as utilising ‘Relais Assistants de vie’ (one stop shops for carers) to disseminate information about participation in the pilot. In Latvia, the pilot co-ordinator LSA, in its role as a care service provider, recruited pilot participants – both carers and care recipients – from its staff base. |

|  |
| --- |
| **Recruitment options**  **Option 1: Involve own staff and care recipients**  In this scenario, target groups such as care workers and care recipients have to be provided with all the information directly. Web- and paper-based information both have to be available. Staff can be informed by internal workshops.  **Option 2:** **Cooperate with local social service provider(s) or other local organisations**  In this case, a Committee can be set up where the partner organisations can be represented in order to make a decision about target groups and select participants together. An agreement needs to be put into place that expresses the intention of partners to implement the programme, and the institutional commitment to the programmes’ objectives as well as the provision of all the technical, human and institutional conditions that are necessary for the proper, safe and professional implementation of the programme.  **Option 3: Organizing a local recruitment campaign**  A local recruitment campaign can promote the extensive reach of the potential participants in the target settlements/regions of the pilot exercise. It relies on the web and paper-based information services; however it is specifically aiming at: households of older people and their supporting informal caregivers, care workers, home care service providers, basic health care institutions, family doctors (GPs), community centres, libraries etc.local governments *and* local media.  In this case, an application form should be used (via the website and/or placed at community places, libraries, GPs etc.) that can be sent to the pilot institution.  **Option 4:** Mixed involvement scenario  Programme co-ordinators may decide to organise a multi-method involvement procedure. This could involve a local committee set up to decide the final list of participants (the principles of selection - e.g. the health situation of the care recipient, the motivation level of carers – should be decided by the members of the committee). Members can be selected from the service provider, the local government (social service department), associations of carers or care recipients etc.. An informed consent should be signed with the participants. Giving the ICT device to the carers and the care recipients at the end of the pilot can be a great incentive Since carers are taking an extra task in the pilot (they will be teaching the older people to use the technology), some incentives (e.g. extra payment) should be taken into considerations (if circumstances allow). |

## Outcomes of Step 4

Following completion of the Step 4 Task, and integrating together the outcomes of the Step 4 tools, organisations should now have:

* carried out an awareness-raising campaign
* identified and set up arrangements with key stakeholders – including service providers, local authority agencies – to recruit programme participants
* carried out a successful recruiting drive
* signed up carers and care ‘couples’ to participate
* obtained informed consent for participation and delivered any necessary incentive package to retain participants.

The next step is to equip programme participants with the Carer+ devices and tools.

# Step 5: Equipping carers and receivers with Carer+ tools

## What this Step involves

This Step involves selecting appropriate ICT devices and tools for programme participants to use in the Carer+ learning programme and, later, to use in their care practice. The type of device used to carry out learning activities in the learning programme and to apply the skills acquired in the learning programme is crucial to the success of two key Carer+ programme objectives: improving the quality of care provided and, consequently, improving the quality of life of the care receivers. It is essential, given the fact that a significant number of carers and care receivers may have little or no experience with using even basic devices like tablets, that the right choices of devices and ICT tools are made in order to equip users with the most effective technical environment in which they can work

The expected outcomes of this Step are:

* a set of ICT devices and tools will have been evaluated and a final set that match the needs and profiles of programme participants selected and acquired
* programme participants will have been supported to use the devices and tools effectively
* programme participants will be able to use the devices and tools without incurring financial or other penalties.

## The Primary Task of this Step

The Primary Task of this Step is:

|  |
| --- |
| To provide to carers with a user-friendly ITC device enabling them to participate in the Carer+ training, to acquire relevant homecare-related ITC skills and ultimately apply them in practice |

To help you complete this task, this Section provides:

* Guidelines for equipping programme participants with appropriate devices and tools
* Activities and resources checklist
* Device evaluation tool
* Trouble-shooting chart
* Good practice examples.

## Guidelines for equipping participants with Carer+ tools

* Ensure that the devices evaluated, reviewed and chosen are up to date and reflect ‘state of the art’ – but make sure that ‘state of the art’ does not mean they are complicated and difficult to use.
* It is important to make sure that the devices chosen are suited to the needs of the users (screen size, user-friendliness, handiness, etc.) . The main principle for device selection and provision is that of inclusion. Programme participants need to be provided with devices and tools that not only do an effective technical job, but which support their social interaction and paricipation.
* It is important that the device/tool selection process facilitates acceptance. The carer/care receiver should receive an “acclimatisation” session where the device and tools and their main functionalities and instructions for use are explained to them.
* Devices and tools need to be adapted to the participants’ profiles.
* Personal data protection rules applicable in participating countries must be complied with in selecting devices and tools for use by programme participants.
* .Ensure that the devices and tools chosen for programme participants are supported with comprehensive, accessible technical support in the event of technical problems that may occur later.

## Activities and resources checklist

The Activities and Resources Checklist provided below shows what needs to be done to equip carers and care receivers with the Carer+ tools.

|  |  |
| --- | --- |
| Has a decision been made on which actors will be equipped in the pilot programme (carers and/or care recipients, family members, team leaders/coordinators)? | □ |
| Has a budget plan for the devices and tools been produced (e.g. buying or leasing the equipment?) | □ |
| Has a mapping of possible devices and tools available on the market been carried out? | □ |
| Have the ICT devices been pre-tested with carers and/or care recipients (with the actors who will equipped in the programme)? | □ |
| Is wireless Internet connectivity appropriate to the effective operation of the ICT devices and the needs of future users provided? | □ |
| Are there plans in place for deciding what to do with the devices after the end of the programme? | □ |
| Has an appropriate contract between programme provider and participant been put into place? (e.g. free loan contract; specifications of minimum commitment by the user set; terms for either return or donation of device are clearly described). | □ |
| Has an equipment register been set up where all the information on each device (model, serial number, no. of SIM card, PIN, PUK, etc… and the data of each user are recorded)? | □ |

## Device evaluation tool

The device evaluation tool shown below provides a method for evaluating the tablet devices that are candidates for use with older people and carers. A designated device tester should be appointed and asked to complete an evaluation grid for each of the devices that have been selected and then answer five evaluation questions. The method includes a TAP (talk-aloud protocol) that requires the tester to carry out three tasks:

1. Orientation:

* Switch on the device. Observe orientation;
* Find and understand button functionality;
* Record observations on the physical characteristics such as weight, the touch screen, visual aspects, icons, ergonomics;
* Note how they orientate around the “home” screen.

1. Read news:

* Install a nationally relevant application for reading the news e.g. BBC news;
* Repeat using the device web browser e.g. loading a newspaper or TV site.

1. Manage media:

* Take a photo;
* Edit it;
* Email it to a family member or friend.

The results of the evaluation are summarised for each device in the evaluation sheet shown below.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **DEVICE (you are evaluating)?** | | | | | | | |
| Dimension / feature cluster | Your personal evaluation | Evaluation with respect to carers | Δ\* | C score  1 = poor  5 = good | Evaluation with respect to older persons (OP). *Please note any potential issues that separate young old and older old usage* | Δ\* | OP score  1 = poor  5 = good |
| **1. Usability:**  Out of the box set-up, touch-screen, preciseness, fault tolerance, sensitivity, keyboard, navigation, ease of set-up, accessibility of the interface (e.g. zoom) intuitiveness, learnability |  |  |  |  |  |  |  |
| **2. Physical characteristics:** Robustness, quality of build, ease of cleaning, screen size, display quality, weight, buttons, affordances |  |  |  |  |  |  |  |
| **3. OS specific features:**  Store front, app development, app range, app variety, updating system, cloud storage, language options |  |  | N/A |  |  | N/A |  |
| **4. Device hardware features:**  Connectivity (3G, wi-fi, bluetooth), speed, memory size, battery length, time to charge, connection ports, camera/s, audio, security |  |  | N/A |  |  | N/A |  |
| **5. Other:**  Positive feeling in using the device; satisfaction, efficiency, sense of accomplishment |  |  |  |  |  |  |  |

## Trouble-shooting chart

Analysis of the practices carried out in the Carer+ pilots identified a number of obstacles to equipping programme participants with the Carer+ tools. The trouble-shooting chart below helps to identify the likely pitfalls and proposes some solutions to solve them.

|  |  |
| --- | --- |
| **Problem** | **Solution** |
| Choosing devices not fit for purpose | Carry out a comprehensive testing of possible devices and tools before making a decision on which ones to use |
| Underestimating the fears and anxieties that users may have about ICTs. | Devoting time to the induction and acclimatisation phase which should be ideally performed by a social worker (content mentor) first and then completed by the technical mentor to ensure users will be happy with the devices and tools |
| Choosing the wrong tools to work with the devices selected, or devices selected not having the functionality to run preferred tools | Make sure that the evaluation of the devices includes an assessment of the interoperability between devices and tools. Choose alterative tools if necessary. For example, in the French pilot, NFC tags were not used since participants were equipped with IPad and these devices do not enable this kind of technology. However, QR codes were prepared and proposed to the participants as a way to replace NFC tags. The application of these QR codes was wide: a QR code was placed in the kitchen for an application on healthy meals; a QR code was placed near the TV so as to launch an application for weather forecast; a QR code was placed near the bed so as to launch a clock alarm. |

## Good Practice Example

The practice example below illustrates a strategy used to successfully equip programme participants with the Carer+ tools. It illustrates how to do it in practice.

|  |
| --- |
| **Familiarising carers and receivers with devices and tools**  In France, a key issue identified in the process of equipping participants was the difficulty in explaining the new technologies involved, particularly to participants who had never used ITC devices. To address this, the mentors prepared several guidelines and tutorials with screen shots in order to make the explanations user-friendly and easy to understand step by step. These guidelines and tutorials have been highly appreciated both by care workers and care recipients. In addition to this, meetings of 1 hour duration were organised with each couple (informal carer / care recipient) involving:   * An initial phase to enable the trainer and the care recipient to meet and to analyse care recipient needs and interests. * Another phase enabling the care recipient to explore and have a first contact with the tablet (available buttons, tactile screen manipulation, etc.) and available applications on it. * A last phase for the practical approach using the camera of the tablet: this application is very visual and intuitive, which makes it a good starting point for a first contact with the tablet. The fact that pictures can be modified afterwards, by applying funny effects, was a way to motivate the care recipient and to facilitate the introduction of the tablet in his/her environment. * A last phase was included in order to enable the informal carer to further explore and find applications and utilisations of the tablet for their care recipients. The mentor remained therefore as an observer but still available afterwards to deliver guidance and advice. |

## Outcomes of Step 5

Following completion of the Step 5 Task, and integrating together the outcomes of the Step 5 tools, organisations should now have:

* completed an initial evaluation of prospective devices and tools
* selected the right devices and tools
* completed an inductionprocess to familiarise programme participants with the devices and tools and their use.

The next step is to deliver the training programme.

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# Step 6: Delivering the Carer+ learning programme

## What this Step involves

This Step involves delivering the Carer+ programme developed in Step 3 within its local setting, with a focus on developing the digital competences of carers. Digital competences are more and more necessary even in domiciliary care where domotics, tele-health, and tele-medicine tools – as well as digital access to health care services - are becoming widespread. However, most carers have low digital skills which need to be developed or updated. In addition, working in domiciliary care or residential care is a highly stressful and socially misrecognised job where a carer may experience loneliness, isolation, exclusion. The contextual, personal and cultural factors need to be taken into account in implementing training.

The expected outcomes of this Step are:

* validation of the relevance and adequacy of the learning resources developed in Step 3 by testing them in real conditions
* transformation of the “regular carer” into a “carer+” as a result of the acquisition of ITC skills applied to homecare.

## The Primary Task of this Step

The Primary Task of this Step is:

|  |
| --- |
| To train carers to develop their digital skills for both work and leisure in order to update their competence, improve their professionalism, and increase their well-being by maintaining their social bonds, staying in touch with their families in their countries of origin, preventing exclusion and loneliness and other situations of distress which are common among this group of workers. |

To help you complete this task, this Section provides:

* Guidelines for selecting and recruiting programme participants
* Activities and resources checklist
* Trouble-shooting chart
* Good practice examples.

## Guidelines for delivering the Carer+ learning programme

* The learning programme needs to be delivered through a combination of face to face and self-directed (on-line) learning. A web based learning environment needs to be made accessible from participants’ mobile devices via the CARER+ portal.
* Successful learning outcomes depend heavily on learning interaction and sufficient face-to-face sessions. Ensure that face-to-face sessions are built into the programme delivery strategy.
* However, face to face sessions require significant resources and present complications in terms of delivery, not least because they require time commitments from both learning providers and learners. These time constraints need to be recognised and sufficient resources built into the learning delivery programme.
* This means that it is important in learning programme delivery to respect the time plan, the budget available and to ensure the relevant and necessary staff are available – particularly IT experts to solve any problems with the on-line platform, and mentors to bridge the training model with carers on the ground and make it accessible to them.
* The delivery strategy must facilitate cooperation between all stakeholders. Caregivers and care recipients need to be supported with flexible mentoring roles, caregivers need to facilitated to support themselves within a community of practice, older people need to be facilitated to support themselves within a social virtual community, providing interactivity with other older people and with their families.
* It is essential that the delivery environment blends Individual learning activities complemented with cooperative learning activities, self-directed learning and ‘learning to learn’.
* The delivery strategy should ensure that the main principles of development of competences and supporting social inclusion are complied with. Training is a means not only to provide knowledge and information to update the carers’ technical-professional competence, but also to encourage socialization and the creation of a community for mutual support at both professional and social/personal level.
* The learning programme must ensure that personal data protection rules are complied with in the countries in which the programme is delivered.

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## Activities and resources checklist

The Activities and Resources Checklist provided below shows what needs to be done to successfully deliver the learning programme.

|  |  |
| --- | --- |
| Does the on-line learning platform support access to the learning programme through participants’ mobile devices? | □ |
| Has a strong and effective induction phase been built into the programme delivery, enabling trainees to familiarise themselves with the technologies, the pedagogic approach and the learning content? | □ |
| Has an effective timetable for course delivery been produced, which takes account of the daily practices and possibe time constraints of programme participants? | □ |
| Have procedures been put in place to equip learners with devices and enable participants to familirise themselves with the devices? (see section 5 above) | □ |
| Are systems in place to support learners through mentoring, and to allow continuous monitoring of learning progress? | □ |
| Does the programme provide a classroom equipped with a computer, loudspeakers, beamer, flipchart? | □ |
| Does the programme provide small group face-to-face training sessions (max 6-8 people each) **or** a trainer/mentor for 5-6 learners during plenary sessions (for supporting learners in materially performing the operations on the tablet and/or in the VLE)? | □ |
| Does the programme provide one trainer/mentor in charge of coordinating the session and operating the VLE from the central computer connected to a beamer? | □ |
| Does the programme provide for the following pedagogical support: sufficient interaction time among learners allowed during each session; constant follow-up by trainers/mentors in-between the training sessions to maintain motivation; flexible duration of the various modules based on the needs of the participants? | □ |

## Trouble-shooting chart

Analysis of the practices carried out in the Carer+ pilots identified a number of obstacles to the successful delivery of the learning programme participants. The trouble-shooting chart below helps to identify the likely pitfalls and proposes some solutions to solve them.

|  |  |
| --- | --- |
| **Problem** | **Solution** |
| High level of learner drop-out from programme | Ensure that strategies are in place to support a high level of learner motivation throughout the training. These could include: regular contact (e-mail; social media) with participants; ensuring mentors are available for participants, not only during face-to-face sessions, but in ‘social time’; getting family mebers involved to support learners. |
| Insufficient time allowed for induction into the programme | Ensure that the induction programme provided at the star of the learning process addresses participants needs. Sme learners – particularly those with low education and poor digital skills – require more time and face-to-face support to familiarise themselves with learning requirements and expected outcomes. |
| Learners feel isolated during self-directed learning sessions | Self-directed learning can add further **i**solation to the already isolated carer. The solution is to compensate with sufficient face-to-face training time (approx 50% of the total training time) to foster inclusion and encourage the creation of new connections and friends and at the same time develop a positive relationship with technology thanks to its use in a “social” context |
| Learner demotivation | Demotivation may happen when the tasks are perceived as exceedingly difficult and/or when the person feels a lack of support or lack of consideration by the trainer/mentor [and/or when the person cannot participate to training sessions due to time constraints. To solve this it is advisable to create and maintain a constantly active communication channel between learners and mentors (e.g., a Facebook group), with one or more mentors in charge of moderating |
| Learners’ time constraints. The working hours of the participants (especially those who are employed on a live-in basis) sometimes make it complicated for them to leave their workplace to attend the face-to-face training sessions. | This could be solved either by early and participatory planning of the training sessions or organising several shorter small-group training sessions with one trainer/mentor based on the carers’ off time schedule (e.g., one 1-1½-hour small group session each weekday instead of one 6-8 hour plenary session per week). |

## Good Practice Examples

The practice examples below illustrate the strategies used to successfully deliver the Carer+ learning programme. They illustrate how to do it in practice.

|  |
| --- |
| **Creating a Support Environment through Collaboration and Peer Group work**  A number of ways developed in Carer+ through which participants in the learning programme created their own strategies to solve problems like isolation and lack of time.  Several mentors in France set up a follow up system through emails, sms, phone calls, skype calls, hard-copy guidelines, etc., to ensure a more tailored support to each participant and to address issues around uneven digital skills amongst the peer group. A Facebook group was also set up.  A contribution to solving the time constraints challenge was offered by the care recipient’s family members who accepted to replace the carers during the training hours. This was attained thanks to a strong awareness-raising and active involvement action by the care recipient’s families for the carers to successfully conclude the training. |

|  |
| --- |
| **Personalising the Virtual Learning Environment**    In Italy, one of the strategies used to reduce feelings of isolation by learning programme participants was to personalise the VLE platform by allowing learners to access dedicated links to programme delivery co-ordinators, mentors and technical support staff. These included picture of the staff. The effect was to make the learning programme feel more ‘human’ for programme participants and to create a sense that the learners were supported by real people. |

## Outcomes of Step 6

Following completion of the Step 6 Task, and integrating together the outcomes of the Step 6 tools, organisations should now have:

* set up a learning programme delivery environment that meets the needs of the participants, including necessary support arrangements
* implemented the programme

The next step is assessing and certifying competences.

# Step 7: Assessing and certifying competences

## What this Step involves

This Step involves devising and applying procedures and tools to evaluate, certify and accredit the learning accomplished by carers involved in the learning programme. If the Carer+ programme is to realise one of its key objectives – improving the professionalization of workers in a sector that is prone to uneven levels of competences and practices – then it is crucial that the learning delivered by the programme, and the competences acquired, are effective, recognised, valued and transferable.

The courses of the programme focus on topics and activities that correspond to the identified competence area described in the digital competency framework. For example, by the end of Course 2 the participants attain a set of competences that enable them to understand the role and benefits of the use of ICTs in social care and to design and evaluate interventions for particular home care settings for older people.

The main presenting problem with certification for Carer+ relates to the question: how to make the Carer+ certification logic compatible with national qualification systems and certification processes in order for the care workers to have their Carer+ skills and competences recognised, and possibly certified, beyond the project’s frame.

The expected outcomes of this Step are:

* carers have acquired the attriutes, attitudes and learning outcomes covered in the learning programme
* carer’s recognition of their learning achievements has been formally validated and reinforced.

## The Primary Task of this Step

The Primary Task of this Step is:

|  |
| --- |
| To develop an accreditation and certification process for the digital competences of carers that provides formal recognition of their learning achievements and links this process with the Carer+ Digital Competence Framework and beyond, to national systems and processes. |

To help you complete this task, this Section provides:

* Guidelines for developing and implementing an accreditation and certification system
* Activities and resources checklist
* Trouble-shooting chart
* Good practice examples.

## Guidelines for certifying and accrediting competences

* Ensure that the assessment approach directly relates not only to the competence domains set out in the Carer+ competence framework bu also specifically evaluates the extent to which carers have assimilated the ‘learning otucomes’ embedded in the framework
* The assessment process and tools should be deigned to reduce the tensions and anxieties carers feel about having their ‘performance’ evaluated, not least because many of the target group lack formal qualifications and have limited experience of the academic world
* The assessment process and tools needs to reflect all aspects of the pedagogic design and content structure adopted in the learning programme. This includes ‘purposeful activities’ like micro projects
* The certification process needs to be based on an ‘analytical model’ that incorporates process (Actors, Stages and Relations), stages (Learning, Application, Assessment and Awarding), and types of Actors (Learner, Mentor and Certifying Entity).
* The certification process should not presuppose any application entry requirements based on formal education, or require that the candidate have a minimum number of years of relevant work experience or proven employment history in care services. It should be based strictly on determining whether a person possesses a defined set of competences.
* Since the Carer+ programme at its current stage cannot be directly embedded in existing national certification structures and systems, programme providers should concentrate on certificates issued outside regulatory / accreditation frameworks and put effort into developing ways of integrating within sectorial / national systems in the future.

## Activities and resources checklist

The Activities and Resources Checklist provided below shows what needs to be done to successfully certify and accredit competences.

|  |  |
| --- | --- |
| Are learners provided with competence (proficiency) badges when they complete modules contained in the Moodle virtual learning platform? | □ |
| Do these competence badges correspond to competences stored in the Competence wiki? | □ |
| Are these proficiency badges designed so they represent the successful development of skills and competences via both the non-formal and formal learning pathways? | □ |
| Are learning outcomes linked with the e-Portfolio, thus adding other evidence of their successful training and competence acquisition? | □ |
| Has an appropriate Qualification Standard been defined, based on the Carer+ Digital Competence Framework? | □ |
| Does this standard follow the DCF structure and organising principles, as well as the logic of competence development contained therein? | □ |
| Has an appropriate Assessment Standard been defined, which focuses on what is to be looked for in a candidate, and how to look for it? | □ |

## Trouble-shooting chart

Analysis of the practices carried out in the Carer+ pilots identified a number of obstacles to the successful certification and accreditation. The trouble-shooting chart below helps to identify the likely pitfalls and proposes some solutions to solve them.

|  |  |
| --- | --- |
| **Problem** | **Solution** |
| The assessment process and micro-cerification is intimidating and challenging for learners | Make assessment process and micro-cerification engaging and fun. This was addressed in the Carer+ pilot by using multiple-choice questions to avoid placing ‘academic’ pressure on participants; using a distinctive set of badges in the micro-certification system that were engaging as well as clearly indicating achievement levels |
| Learners fail to seen the benefit for them in acquiring certification. They feel certification only benefits the programme providers by showing evidence of success | This can be addressed by linking the assessment to practical outcomes related to achievement – for example by using portfolios |
| On-line assessment procedures are not compatible with industry standards | Make sure that the on-line tools used in the assessment process comply with technical standards and interoperability –for example using Mozilla standards |
| Certification and accreditation does not comply with national and regional legislations | Steps need to be taken to persuade national and regional agencies to embed Carer+ qualifications into already existing qualifications systems (see step 10 below) |

## Good Practice Examples

The practice examples below illustrates examples of assessment and used in the Carer+ learning programme. They illustrate how to do it in practice.

|  |
| --- |
| **Using micro-certificates**  Users can be awarded competence badges when they complete modules contained in the Moodle virtual learning platform. These competence badges correspond to competences stored in the Competence wiki. Users can add them to their e-Portfolio, thus adding other evidence of their successful training and competence acquisition. This is done through the Carer+ Micro-certification system, which defines a set of proficiency badges representing the successful development of skills and competences via both the non-formal and formal learning pathways and through the use of the learning environment e.g. active engagement in online discussion forums. Micro-certification is used to promote and develop the acquisition of baseline hard and soft skills or proficiencies that are required as prerequisites to following the formal learning pathways. Micro-certification allows learners to ‘win’ *proficiency badges* – a fun and motivating way to benchmark skills and provide other learners within the learning environment a visible mechanism by which they can usefully identify relevant expertise amongst their peers. These are designed and coded to denote the achievement of different levels of proficiency and competence area |

|  |
| --- |
| **Using Multiple Choice Questions to make assessment less intimidating**  By the end of Carer+ Course 2, participants are expected to be able to:   * Identify a range of benefits that ICTs can bring to social care settings within the home for older people; * Evaluate the needs of particular home-care situations and translate these into meaningful social care interventions; * Assess the risks and challenges associated with a specific ICT intervention; * Plan for and then evaluate an ICT based intervention.   This involves evaluating their purposeful activity’. Purposeful activity is assessed via **Multiple Choice Questions** (MCQs) rather than ‘essay style’ questions. |

## Outcomes of Step 7

Following completion of the Step 7 Task, and integrating together the outcomes of the Step 7 tools, organisations should now have:

* developed and implemented an assessment process that is engaging, fun and reinforces learners’ sense of achievement
* put into place a system that provides concrete certification and accreditation of learning achievements
* explored ways of linking the local certification and accreditation system to regional and national systems.

The next step is delivering home care services.

**Step 8: Delivering smart home care services**

## What this Step involves

This Step involves supporting carers to use the skills they have acquired, in combination with the Carer+ devices and tools and working with their care receivers,to improve their care practices and, in turn, the quality of life of those they care for. The application of the Carer+ tools – i.e. the combination of digitally acquired competences and digital devices and applications – in the home care environment is the ‘end product’ of the Carer\_ programme. The programme can only be judged a success if the learning acquired through it has a positive effect on subsequent care practices and ultimately on quality of life for both carers and care receivers. The key presenting problem is to support carers and care recients to use the tools in ways that are authentic, useful, practical, emebedded in everyday practices and life and above all are compatible with ‘values and beliefs’.

In practical terms, support provided needs to address issues like the resistance carers and receivers have to technology, potential technical difficulties they may have in using the tools, demotivated, “ITC”-blocked, uncomfortable or unconfident participants

The expected outcomes of this Step are:

* motivated carers and care recipients who feel accompanied and supported all through the process of delivering good practice
* carers and care receivers are able to routinely use ITC devices
* an improvement in the quality of care provided
* an improvement in the quality of life of carers and care receivers.

## 

## The Primary Task of this Step

The Primary Task of this Step is:

|  |
| --- |
| .To support carers in using the Carer+ devices and tools and applying the competences they have learned in the programme to deliver improved home care, in collaboration with their care receivers |

To help you complete this task, this Section provides:

* Guidelines for supporting smart home care deivery
* Activities and resources checklist
* Trouble-shooting chart
* Good practice examples.

## Guidelines for supporting smart home care delivery

* Create the conditions in which the tools can be explored, experimented with and applied in ways that add value in every daypractice and life
* Ensure that devices and applications are adapted to the user’s profile and needs
* Ensure that relevant personal data protection rules are complied with
* Provide local support staff that are available over the whole duration of the programme
* Ensure technical support is available that covers the range of devices and applications used
* Provide enough time and support for users to learn to use the technology
* Provide opportunities for users to contact local staff members
* Provide opportunities for carers and for care recipients participating in the programme for networking and sharing experiences

## Activities and resources checklist

The Activities and Resources Checklist provided below shows what needs to be done to promote smart home care delivery.

|  |  |
| --- | --- |
| Have induction sessions been set up at the beginning of the programme to provide participants with a clear overview of the aim of the programme and benefits it can bring to them? | □ |
| Are platforms in place to deliver ongoing and appropriate support by the local team (technical by ICT experts and other by mentors and trainers): face to face interviews, skype support, phone line, e-mail, whatsap)? | □ |
| Do users have opportunities to contact local staff members - face-to-face opportunities; workshops; group meetings; Skype support; Phone line; E-mail contact? | □ |
| Are moderated platforms in place for carers and for care recipients participating in the pilot programme for networking and sharing experiences - online communities like Google+ groups, Facebook or Twitter groups, LinkedIn groups etc.? | □ |

## Trouble-shooting chart

Analysis of the practices carried out in the Carer+ pilots identified a number of obstacles to smart home care delivery. The trouble-shooting chart below helps to identify the likely pitfalls and proposes some solutions to solve them.

|  |  |
| --- | --- |
| **Problem** | **Solution** |
| Exceeding the local team capacity to solve problems | This risk could be minimized by:   * Adapting the ICT devices to each participant ( for instance adapting care recipients’ desktops by creating direct access –or NFC tags-to apps/programmes they may use) * Organizing an initial face-to face- training to care recipients in order to clearly explain the benefits of using ICT on their daily lives and basic guidelines to use ICT devices . * Facilitating networking amongst participants in order to share problems and solutions * Organizing face to face exchanging sessions and workshops * Making a social network available * Creating a register of incidences to optimize the process. * Addressing issues with demotivated participants. For example, several mentors in France set up a follow up system through emails, sms, phone calls, skype calls, hard-copy guidelines, etc., to ensure a more tailored support to each participant |
| Carers and receivers feel isolated | Ensure face to face support is continually available. Because of the often isolated situation of carers (especially independent ones) and informal caregivers, regular meeting opportunities and/or online communities for them can be extremely important (since they usually do not have any chances to meet people with the similar background) |

## Good Practice Examples

The practice examples below illustrate examples of successful smart homecare delivery. They illustrate how to do it in practice.

|  |
| --- |
| **Embedded practice: Evernote**  In this example, as a result of increased skills in searching on-line, the care workers realised that applications for organisational purposes were very useful, such as Evernote or the calendar application.  Para los que siguen este blog se habrán dado cuenta de que durante ...  The carers used Evernote to better organise their day to day tasks, set alarms and reminders for key activities. The main outcomes were that day activities were more clearly organised and the care recipient had a feeling of a more organised and quiet day to day life. The example shows how new applications become adopted through ‘use’ in familiar practice. The applications were used like classic paper agendas, so the regular organisational tasks remain unchanged while the tool used for it (mainly Evernote application) was new and added significant value to routine practices. |
| **Embedded practice: Einstein Brain Trainer**  https://encrypted-tbn2.gstatic.com/images?q=tbn:ANd9GcQ5nTrfmgQ9sGZuOaiwNYMrSqKA-oNK4orjmhP3MU60BNxVEvMAVmAZKRI  The gaming and competitive environment of the activity where the carer does the same exercises as the care recipient allows the care recipient to accept the cognitive stimulation tool as an entertaining activity, such as playinh briscola, an Italian card game that the care recipient likes to play. The collaborative interaction between care and receiver provides entertainment for the receiver as well as mproving mental health by stimulating cognitive functions. Working together with the carer also enables the recipient to avoid the feeling that the exercise is part of a therapy imposed from above.  In this example, the home care worker engages in competitions with the care receiver, each using their own tablet, using the Einstein brain training app. |

## Outcomes of Step 8

Following completion of the Step 8 Task, and integrating together the outcomes of the Step 8 tools, organisations should now have:

* an established community of carers and care receivers who are actively applying digital competences in their practice and everyday life to deliver improvements in home care.

The next step is evaluating and learning through practice.

# Step 9: **Evaluating and learning through practice**

## What this Step involves

This Step involves collecting and analysing information about the programme, its implementation and its results in order to learn from the experience and to apply what has been learned to the future development and improvement of the programme. The evaluation component of the programme is critical to supporting innovation and change. Yet many stakeholders involved fear evaluation. They think it’s all about measuring success and about punishing them for failing to meet their targets. But when it is used to help stakeholders learn how to do things better, evaluation is a very powerful tool to support change and innovation. To help stakeholders learn, evaluation needs to be used not just as a retrospective tool to assess performance, for example at the end of the programme (‘ex-post’ evaluation). Rather, it needs to be embedded within the whole programme process – from start to finish - to support a cycle of continuous improvement.

The expected outcomes of this Step are:

* a monitoring and evaluation system in place that continually tracks programme progress and results
* information on results and outcomes that allows an assessment of whether and in what ways the programme works
* information on results and outcomes that can be used to attract more partners and users, and support the broader sustainability of the programme.

## 

## The Primary Task of this Step

The Primary Task of this Step is:

|  |
| --- |
| To design and implement a programme monitoring and evaluation system, including an impact assessment approach and tools in order to measure results, learn from them and contribute to future programme development. |

To help you complete this task, this Section provides:

* Guidelines for developing and implementing a monitoring and evaluation system
* Activities and resources checklist
* Theory of Change tool
* Trouble-shooting chart
* Good practice examples.

## Guidelines for developing and implementing a monitoring and evaluation system

* The shape of the monitoring and evaluation system needs to be informed by clarity about issues such as what are the purposes of the evaluation, who are the audience, and what kinds of things need to be focused on.
* It also needs to consider the logistics of carrying out the evaluation: what are the settings in which evaluation will be carried out; what people are available to implement it and what skills are available; what communications channels need to be put into place.
* A well-designed evaluation needs to be responsive to its stakeholders by: consulting them about their evaluation priorities and taking their questions into account when shaping the evaluation agenda; paying attention to their different methodological stances and preferences for certain kinds of data and evidence; involving them actively, where appropriate, in data collection and in interpreting findings; and engaging them in an ongoing process of reflection in relation to where the programme is going and how it is getting there.
* Evaluators will need to be clear about the kinds of data and evidence that different stakeholders find convincing, and to build a plurality of criteria and methods into the evaluation plan.
* Evaluation must follow the process of the programme life cycle, and cover: a design phase; an early start-up phase; an establishment phase; an implementation phase.
* The evaluation system will require a range of specific evaluation methods, given the multi-faceted nature of the Carer+ programme. The system needs to ensure that evaluation methods provide ‘triangulation’ – i.e. use different kinds of data (quantitative and qualitative) that can be compared with each other to achieve a balanced evaluation result.
* Triangulation also needs to ensure that the different ‘voices’ of stakeholders involved in the programme are represented in the evaluation – particularly the least powerful ones, like care receivers.
* Effective evaluation requires a multi-disciplinary team or network of evaluators whose collective perspectives and expertise can be mobilised at relevant stages of the programme and evaluation lifecycle. Human resources for evaluation can be found, however, among stakeholders involved in the programme.
* Evaluation has to be clearly integrated into programme decision-making and management arrangements. Key decision points in the programme need to be identified and evaluation deliverables planned so that they can contribute to these decisions. Some kind of regular opportunity for stakeholders to consider evaluation results and their implications should be planned. There needs to be opportunities to review the evaluation plan and strategy.

## Activities and resources checklist

The Activities and Resources Checklist provided below shows what needs to be done to develop and implement an effective evaluation system.

|  |  |
| --- | --- |
| Have key programme stakeholders been consulted about the purposes of the evaluation, the kinds of results needed and the evaluation methods that are appropriate? | □ |
| Has an audit of the existing programme evaluation capacity and skills been carried out? | □ |
| Does additional support – like external evaluation experts – need to be recruited? | □ |
| Has an ‘intervention logic’ model of the programme been developed which specifies the programmes’ expected change journey and results and which is linked to the evaluation system? (see theory of change tool below | □ |
| Has an evaluation plan been developed which defines the priority areas; specifies the evaluation questions and assessment criteria; specifies the methods and tools to be used to answer these questions; shows how the timing of evaluation outputs will inform the key decisions of the programme; indicates the mechanisms and procedures to ensure regular feedback to all stakeholders and especially programme managers; breaks down evaluation activities into its component activities, allocating responsibilities and making clear how the evaluation will be organised? | □ |
| Has an evaluation handbook been produced which operationalises the plan, provides a timetable, procedures, data collection methods and tools to be used, analysis methods to be applied and reporting procedures? | □ |
| Are procedures in place to report and disseminate the evaluation results to relevant audiences? | □ |
| Are procedures in place to link the evaluation results to programme implementation and management processes on an on-going basis? | □ |
| Are procedures in place to apply the learning from the evaluation to programme development and sustainability actions? | □ |

## Theory of Change tool

The Theory of change’ tool provides a systematic and cumulative study of the links between the vision and context of the programme, and its objectives, activities and results. It involves the specification of an explicit theory of how and why the Carer+ programme might cause or have caused an effect. Developing a theory of change to evaluate the programme involves five steps, as shown in the diagram.

Step 1: Identify the problem. Clarify the problem that is being addressed by the programme and identify what is causing the problem. For example, the problem might be ‘A high rate of drop-out of carers from the profession.’ The suspected cause might be defined as ‘Low level of carer digital competences’.

Step 2: Identify the aims. These can be defined as the long term expected changes (impacts) that the programme will deliver. This might be ‘An increase in the quality of care provided and quality of life of care receivers’.

Step 3: Map the expected ‘change journey’. Work backwards from the expected impacts to identify the expected outcomes along the way that the programme is expected to deliver. These might be – in sequence – ‘high level of participation of carers in the learning programme; increase in the level of digital competences of carers; high proportion of carers applying their skills in their practice; improved service delivery; improved quality of life for care receivers’.

Step 4: Identify the activities and outputs necessary to deliver the expected outcomes. These might be – in sequence – ‘Carrying out a needs assessment with carers to identify their learning needs; adapting the Carer+ programme to these needs; delivering the programme’.

Step 5: Specify indicators and targets. Develop indicators that will be used to assess progress and achievements and test the theory of change and its component parts. These could include:‘% of carers participating in the learning programme; increase in number and level of digital competences following participation; increase in carers’ self-reported satisfaction with their care provision; increase in quality of life of care receivers.



## Trouble-shooting chart

The trouble-shooting chart below helps to identify the likely pitfalls in monitoring and evaluation and proposes some solutions to solve them.

|  |  |
| --- | --- |
| **Problem** | **Solution** |
| Stakeholders are afraid of evaluation and don’t buy into it. | Make a thorough stakeholder analysis at the outset. Identify problems and issues. Ensure that key actors involved in the evaluation have some ownership in its implementation and results. |
| Staekholders have different perceptions of what is ‘success’ and what the evaluation needs to achieve. | Be prepared to accept failure, and work in advance to reduce the impact of potential failure by drawing stakeholders’ attention at the outset to existing tensions. Organise consultation groups to try to achieve consensus on the goals of the programme and success indicators. |
| The wrong evaluation methods and techniques are chosen for the evaluation. | Carefully consider the object and purposes of the evaluation, and set these against the choices of methods and techniques you can use |
| Operational problems – delays; lack of communication; variability in quality of data collected. | Good preliminary planning is better than cure. Ensure at the outset that you are aware of the resource requirements, that a detailed workplan for the evaluation has been prepared, and that there are contingency plans to cover disasters. Make sure there are tracking arrangements in place to enable monitoring of the progress of the evaluation to take place. Ensure data storage facilities are appropriate for the field work planned. Put together and circulate the ‘rules’ of the evaluation, so everyone is clear about what is expected. If necessary, set up ‘evaluation contracts’ with participants. |

## Good Practice Example

The practice example below shows how monitoring and evaluation worked in Carer+. It illustrates how to do it in practice.

|  |
| --- |
| **Using Theory of Change in Carer+**  All of the pilots involved in the Carer+ evaluation used ‘Theory of Change’. Theory of Change requires a framework – an ‘intervention logic’ - to be constructed that shows a clear chain of linked steps between the ‘presenting problem’ an intervention wants to address, and the expected effect the intervention will have on that problem. The overall Theory of Change for Carer+ is shown in the illustration below.    As the illustration shows, the Carer+ project can be seen as a ‘change journey’ that consists of a sequential progression of ‘step-changes’, each of which has an effect on subsequent steps. The journey begins with an initial ‘theory of change’ - the theory that care givers and care receivers currently lack the ICT knowledge and skills that could improve the quality of care they provide . Following on from this initial theory of change, each step in the change journey then has its own ‘theory of change’. For example, if it is true that care givers and recipients lack ICT knowledge and skills then it follows that a systematic mapping of these skills and knowledge gaps would highlight the improvements in competences that need to be supported (Step 2). The hypothesis for Step 3 is then - ‘Carers' competences can be improved with access to ICT devices and training to use them’, and for Step 4 - ‘If carers competences are improved through access to ICT devices and training, then this will lead to an improvement in the quality of care provided’. Finally, to complete the change journey, the theory of change for Step 5 is ‘An improvement in the quality of care leads to an improvement in the quality of life of care receivers’. Using this model, the Carer+ evaluation used a range of methods – surveys, focus groups, statistical analysis of training programme participation measures – to collect data on whether and in what ways the assumptions and hypotheses embedded in the model could be substantiated. |

## Outcomes of Step 9

Following completion of the Step 9 Task, and integrating together the outcomes of the Step 9 tools, organisations should now have:

* developed and put into place an effective monitoring and evaluation system
* begun to collect and analyse data on what works, for whom and under which circumstances
* put into place systems and procedures for feeding evaluation results into strategic development and sustainability plans.

The next step is developing and implementing sustainabiltiy actions..

**Step 10: Promoting sustainability**

## What this Step involves

This Step focuses on supporting the wider dissemination and exploitation of the Carer+ approach and tools within the European long term care secfor. At its present stage of development, Carer+ is essentially a pilot project that has operated within the parameters of an EU-funded programme. Although by its nature, Carer+ has a trans-national outlook and has worked across several EU countries, its future implementation will depend on whether and to what extent the programme can be more widely adopted across a broader spectrum of countries and regions and, more importantly, the extent to which it can be embedded within existing care systems and structures at the national and trans-national level. This Step therefore considers what can be done to support the wider implementation of the Carer+ programme. It describes the current policy drivers that could support the broader implementation of the programme; what Carer+ stakeholders need to do to impact on policy; how Carer+ stakeholders can exploite opportunities for further implementation.

The expected outcomes of this Step are:

* an increased understanding for stakeholders of the policy context that will shape the future sustainability of the carer+ programme
* stakeholders will be provided with a set of recommendations to promote the sustainability of the programme
* stakeholders will use these recommendations, together with examples of sustainability practices, to take actions to support the sustainability of the programme.

## 

## The Primary Task of this Step

The Primary Task of this Step is:

|  |
| --- |
| To make stakeholders aware of the policy context, provide recommendations to support the sustainability of Carer+ and provide examples of how sustainability can be supported. |

To help you complete this task, this Section provides:

* An analysis of the policy context
* Recommendations for promoting the sustainability of the Carer+ programme
* Good practice sustainability examples.

## Context and policy background

### The context of home care

The policy environment in which Carer+ operates is being shaped by a complex set of economic, social, cultural and political dynamics that together are re-defining the ways in which health, social and welfare services – and as a result home care services – are now being delivered.

First, as has long been recognised, changes in EU demographics, with people living longer, mean that the demand for care services is increasing. It is predicted that, by 2020, the proportion of people aged 80+ in the EU will reach 5.7 % (compared with 4.3 % in 2010) and will grow to 10.1 % by 2050. In contrast, it is predicted that the working age population (aged 15 to 64) will shrink by 16 % by 2050[[4]](#footnote-4).

Second, as peple live longer, they typically become less healthy and less active, and require more support from health, social and welfare services. Acording to the same European Commission data, more than half of the EU population aged 65-74 and 63 % of 75+ people had a long-standing illness or some health problem that increased their need for some form of livng assistance.

Third, because of a reduction in revenues from taxes and other sources as a result of people retiring from the labour market, the money available to spend on welfare is reducing. As an EC Report concluded: “For Europe and many other countries around the world, the ongoing demographic development has significant socio-economic implications: in the future there will be more older people in absolute as well as relative terms, there will be considerably more old people particularly in the upper age range, there will be fewer family carers providing informal support for these, and there will be a smaller productive workforce to contribute to the creation of economic wealth in general and to the financing of health and social services in particular”[[5]](#footnote-5). The economic issue has been further exacerbated by the recent global economic crisis, fiscal problems in the Eurozone and as a result further pressures on health, social and welfare budgets.

Since home care is generally more cost effective than residential care, Member States are now focused on enhancing tailor-made home care services. Hence, institutional care is reserved more for those with severe disabilities/conditions. The increasing need and demand for home care is underlined by the fact that according to EC research around half of people aged 80+ were living alone, though, cultural aspects result in different trends and levels for different countries. In addition, the research shows that the vast majority of EU citizens prefer to be looked after in their own homes for as long as it is possible rather than being placed in institutions[[6]](#footnote-6).

The growing demand for home care raises the need for formal, professional care as well as informal supportive structures. However, the prospective reduction of the working age population, the rise of educational attainment of the population and low wages and benefits in the sector make care work less attractive. This means informal care is likely to play an increasingly significant role and has different approaches, actors and features in different countries. It typically includes spouses, partners and other family members, friends, neighbours or relatives. However, a higher participation of women in the labour market and the increase in alone-elderly households with relatives often living apart, means that family members might not be available to provide care in the future.

Other, privately hired informal home care assistance is also appearing, with or without a work contract and with or without social insurance coverage. In the last few decades in some European countries, increasing numbers of informal caregivers are migrant workers, which has implications regarding the quality of the services provided. Migrant family care assistants often lack professional skills and face limited training opportunities because of their language barriers. Working conditions can be problematic with many migrant workers working without supervision or reasonable time off struggling with isolation, emotional and physical stress.

### The policy context

In response to these drivers, a range of policy interventions have been implemented within the EU that create a supportive environment for the Carer+ programme. The Agenda for New Skills and Jobs focuses on flexibility and security in the labour market, skills development and better working conditions, and is linked to the European Framework for key competences for lifelong learning. The European Platform against Poverty and Social Exclusion promotes active inclusion, reform of health systems, informal learning and social innovation. The Social Investment Package (SIP) focuses on helping member states to pursue active policies prioritising social investment and the modernisation of their welfare systems in order to address the unemployment, poverty and social exclusion challenges brought about by the economic crisis and the sustainability challenges posed by the demographic trends. The Social Investment Package specifically focuses on ‘neglected’ areas like affordable quality childcare and education, training and job-search assistance, housing support and accessible health care.

All of these policy initiatives prioritise the role of ICTs in delivering more efficient and effective care. Many governments have been prioritising the role of non-government organisations in service construction and delivery and of de-centralising the provision of care even further down the supply chain to individual providers. This is where the strategic value of ICT channels exists, by allowing services to be accessed directly by intermediaries and to individual care workers themselves to deliver the right service portfolios to vulnerable clients. The expected ‘value proposition,’ when involving the Third Sector and related organisations, as well as individual care providers, is that they will help deliver services more effectively to beneficiaries because they are nearer to the local problems (being locally based). They can often address problems coherently (they can ‘join-up’ services across government silos), and they can deliver resource savings to government. Changed paradigms in society stimulate transformation of services. Care is no longer based on charity but on rights: vulnerable people have the right on affordable basic health care[[7]](#footnote-7).

### The obstacles

Both the contextual and the policy background are creating opportunities for the Carer+ programme to help address the increasing demand for home care services; provide new ‘social innovation services’ that are filling the gaps in health and welfare systems vacated by central government; support the professionalization of the home care sector; increase the contribution made by ICTs in delivering smart services. However, there are a number of obstacles that are inhibiting these opportunities. The main barriers are:

* the diversity and variability of care systems across the EU
* the diversity and variability of training and certification systems
* economic and financial issues, including the lack of established business models in the domain
* the unevenness of ICT diffusion and infrastructure
* organisational inertia and resistance to change
* personal anxieties and resistance to adopting ICTs by carers and care recipients

It has long been recognised that welfare and care systems in the EU are shaped by the underlying political economy and economic culture. The approach developed by Esping-Andersen (1990) suggests that social services in different EU countries are fundamentally being driven by the prevailing economic system. Nations can be clustered into types, according to the approach adopted and instruments applied to social security and welfare. This reflects the degree of de-commodification and the kind of stratification countries create. The ‘Liberal’ type entails means-tested assistance, modest universal transfers, or modest social insurance plans (England and the Netherlands). Benefits cater mainly for low-income people and state dependants, with little redistribution of income. The ‘conservative-corporatist’ type is characterized by a moderate level of de-commodification. The state’s intervention is restricted to providing benefits that maintain incomes relative to occupational status (Austria, Italy, France, Germany). In the ‘social-democratic’ type, the level of decommodification is high. Welfare benefits are generous, universal and highly redistributive and they do not depend on any individual contributions. The state will pre-emptively intervene to prevent social problems arising and provide care when they do (the Nordic countries). In the Mediterranean type, welfare is shaped by a reliance on family structures (Spain, Portugal, Greece)[[8]](#footnote-8). Subsequent work has reviewed the original typology to take account of conditions in newer EU member states, particularly those from the former ‘Eastern bloc’ to identify an additional three types: neo-liberal, with minimal state intervention, low welfare spending, low taxes, strongly deregulated labour markets and widespread liberalization (the Baltic states and Slovakia); social-corporatist, with strong state intervention and centralised welfare (Czech Republic, Slovenia, Romania, Bulgaria) and ‘hybrid’, with strong protectionism and high levels of openness (Poland, Hungary)[[9]](#footnote-9).

This picture is reinforced by the evidence gathered by Carer+ in its analysis of the conditions affecting home care across EU states. In Denmark, for example, every resident is entitled to personal and practical assistance if s/he cannot perform basic personal and practical activities autonomously, regardless of ability to pay. The system of care services is decentralised: the responsibility for the provision of personal and practical assistance rests with the local authorities. They must consider all requests for personal and practical assistance. The decisions of the local authorities must be based on a specific and individual assessment of the need for assistance. In Germany, home care is focused on statutory long-term care insurance, which was codified in 1995 into the Social Code (Sozialgesetzbuch). It is a contribution financed compulsory independent social insurance scheme, in accordance with compulsory affiliation and sickness insurance limits. This ‘core protection system’ is reinforced with voluntary additional insurance for long-term care for every citizen. In Ireland, benefits for long-term care are organised centrally and are operated nationally on the basis of National Guidelines. Long-term care is provided on the basis of universal entitlement, with some elements of social assistance, e.g. the Nursing Homes Support Scheme involves a financial assessment which is used to determine the applicant’s co-payment. Schemes are tax financed and there is also a universal social charge. The UK operates a non-contributory, state-financed system providing cash benefits and benefits in kind (social care) for elderly or disabled persons and their carers. Local authorities are responsible for identifying the needs of their local population and commissioning services to meet them. Services are delivered through the public, private and voluntary sector.

The lesson for Carer+ is that there is no single universal delivery mechanism that can provide a ‘one-size-fits-all’ solution to the diverse systems that prevail in different EU countries. Equally, the same picture applies to training systems. In France, for example, the education of carers is paid by employers. They pay taxes that are collected by an accredited fund-collecting agency (OPCA). This agency then takes responsibility for paying vocational training to carers. In case the carer is unemployed, his/her training may be paid by the state via the ‘Pôle emploi’ (French employment agency). In Italy, the formal qualification of ‘Carer’ as such does not exist in some regions. However, regional regulations mention a number of skills relevant to caregiving, which can be certified through a *declaration of competence*. This allows credit recognition for access to further training aimed at achieving a qualification (‘Healthcare Assistant’). In France again, the National Register of Professional Certification establishes precisely the perimeter of activities of a job. The qualifications listed in the register are recognised across the whole country.

The theme of diversity and unevenness can also be detected in relation to economic and financial considerations. Standards and systems of paying for home care vary across the EU. In France, the employed carer is entitled to benefits on the same basis as other employees. The beneficiary of the allowance can make use of home services offered by specialised organisations (services organised by the municipality, by state-authorised associations or by undertakings). She can also opt to remunerate these organisations by using a universal service employment cheque (chèque emploi service universel, CESU). The beneficiary can choose to be the employer either directly or by proxy. In Belgium, the economics of home care is focused on care insurance (Zorgverzekering/Assurance soins). The Flemish care insurance was created by the government in addition to the existing social security system. The care insurance enables a care insurance fund to take responsibility (in the form of a monthly benefit) for payment of costs connected with the provision of assistance and services of a non-medical nature. Care insurance is financed by payment of contributions. In the Czech Republic, social services have multi-source financing. They are financed from state, regional and municipal subsidies, from direct payments of clients, from the revenue of providers and from gifts. The main benefit of social care services is the ‘care allowance’, which is a state benefit paid to individuals dependent on care. The amount of care allowance corresponds to the degree of ‘dependence on care’ which is based upon an assessment of self-care capabilities. Family members of people using the services may, but do not have to, provide the care.

The economic and financial dimension is not solely confined to paying for care. The costs of ICT-mediated service provision is also an issue for Carer+. The current level of ‘market maturity’ (costs, who pays and how much, which players are involved in the supply chain) varies throughout Europe. While first generation applications seem to have reached saturation in several countries, second generation services have not been mainstreamed yet (only the UK is undertaking this at present). Second and third generation applications are only in a pilot/trial stages in a few Member States. The most significant financial barriers are the limited public provision and public funding/cost subsidies, unevenness in the diffusion of innovations, disparities in geographical availability, the variability of infrastructural readiness to use advanced level technological solutions and the lack of standardised business models

Moving from pilot projects to mainstream provision also causes difficulties in some countries. There is clear resistance by service providers’ management and carers themselves as well as the recognition that both carers and older people as end users are unwilling to acquire the necessary digital skills. [[10]](#footnote-10)

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## Policy Recommendations to support Carer+ sustainability

To address the obstacles highlighted above, Carer+ needs to support changes in the policy field in three main areas:

* Raising the policy profile and credibility of Carer+ and developing new networks
* Promoting economic and financial relevance
* Promoting new forms of service delivery partnerships.

Recommendations for raising the policy profile and credibility of Carer+ are:

* An effort is needed by Carer+ partners to engage with key networks in EU countries that interface with certification bodies and ultimately government agencies
* Making the case for how the Carer+ certification model can support relevant policies – particularly the Social Investment Package (SIP); the ‘growth and jobs’ agenda, the employability and mobility agenda and the Grand coalition for Digital Jobs
* Developing a better understanding of how migration patterns influence the care sector labour market, how these patterns impact on certification and how migration policy needs to link up with certification policy .

Recommendations for promoting economic and financial relevance are:

* Develop a clear business and service model – one that links to the certification process. This model should clearly identify the ‘cost consequences’ costs if no scaling up and professionalization of home carers takes place.
* A cost consequence approach reinforces the need for Carer+ to develop a business and service model that recognises the current pressures on welfare budgets and the fiscal crisis in the EU. Such a model needs to be flexible and adaptable to work with variations in different welfare systems and countries.
* The business model needs to clearly demonstrate the sustainability and added-value of professionalisation of the home care providers to the benefit of the elderly people in an independent living setting
* Develop strategies for working with the ‘black economy’. The experience of Carer+ reinforces research findings that significant numbers of carers are ‘invisible’. This raises issues around professionalization, job insecurity and exploitation.

Recommendations for promoting new forms of service delivery partnerships are:

* Working to support closer collaboration and integration between health services and social services
* Developing new partnership models that involve collaboration with private sector organisations, social entrepreneurs, third sector organisations and health and care services.

## Good practice sustainability examples

To support the policy impact effort outlined above, Carer+ can build on the foundations it has already developed through its networking, piloting and awareness-raising interventions – including the Policy Visits organised through work package 1 of the project. These should be seen as potential catalysts for future growth of the programme. They include the following.

* Working with Bilbao City council. Bilbao has recently created a specific training programme for homecare workers based on the Carer+ model. It is being developed by Grupo SSI and the Basque Government. The intervention offers a clear opportunity for Carer+ to explore new forms of collaborative partnerships involving commercial and civic stakeholders.
* Work with the EFFE (European Federation for Family Employment), which has launched the "Manifesto for recognition of household services, family employment and homecare in Europe”. This manifesto has the objective to bring together all professional decision-makers and experts across Europe, combining their strengths and expertise in order to identify European families needs and to find solutions adapted to each cultural context. This offers and important opportunity for Carer+ to address a number of policy impact objectives: raising profile and credibility; developing collaborative networks that impact on key national and pan-European structures; providing a space to explore how to balance standardisation of services with adaptability to local context – particularly with regard to the valorisation and professionalization of homecare jobs.
* A similar foundation has been built in the Emilia-Romagna region in Italy, where Carer+ has been engaging with local health care and public utility agencies exploring, amongst other things, how to integrate bridge initiatives like the creation of a shared database of accredited homecare workers to guarantee quality of service and at the same time surface undeclared work in the ‘black economy’.

## Outcomes of Step 10

Following completion of the Step 10 Task, organisations should now have:

* an improved understanding of the policy context and drivers that are shaping long term home care
* policy recommendations that they can take into account to develop actions – for example lobbying of regional and national agencies – to support the wider embedding of the Carer+ approach in the long term care sector
* examples of sustainability actions to learn from.

**Annex I: Supplementary Material**

This Annex provides additional resources to supplement the Toolkit. It is set out as follows:

* Section 1 outlines the conceptual framework that underpins the Carer+ programme, and this Toolkit, including the programme ‘Theory of Change’
* Section 2 provides a summary of the implementation of the programme in the Carer+ pilots
* Section 3 presents the results of the analysis of the practices implemented in the pilots, which were used to develop the material provided in this Toolkit
* Section 4 provides further resource material to support the transferability of the Carer+ programme.

## Section 1: The Carer+ Programme and Toolkit Conceptual Framework

The Carer+ implementation approach and methodology, and the design of the Toolkit, has been shaped by inputs from three main sources:

* A review of relevant theories and concepts in the field of technology development and diffusion
* A review of relevant research in the use of ICTs to support independent living for older people
* A review of the results from the Carer+ evaluation.

### Theoretical perspectives

The starting point for developing the Carer+ implementation approach and the Toolkit Design was a review of the literature on technology development, its diffusion and its utilisation within complex social settings. The main focus of this review was to understand how the technological design process works; how technological innovations become adopted and how they are then adapted for use in actual practices. Its main purposes were firstly to identify the obstacles to the successful adoption and adaptation of technologies in real practice, and, secondly, to understand how users actually work with technologies to serve their needs. We therefore hoped to identify ways in which the obstacles to successful utilisation of the Carer+ tools could be addressed, and to identify the ways in which the use of the tools could be best supported.

The key source texts for the review were drawn mainly from the ‘social constructivist’ approach to technology. Social constructivism emphasises the ‘social shaping’ of technologies and more broadly the ‘sociology of technology’ (Woolgar, 1991) [[11]](#footnote-11). These perspectives envisage technology and innovation as contradictory and uncertain processes. Technology development proceeds through the interaction of social and technical elements that cannot be separated from one another, and are in constant mutual tension. Technologies, once developed and implemented, not only react back upon their environments to generate new forms of technology, but also generate new environments (Williams and Edge, 1995) [[12]](#footnote-12). The relationship between technology and society is therefore never a one-directional, continuous process of change and progress. Technologies are developed, shaped, and adopted, responding to social needs, and to specific political and economic circumstances that reflect the broader contextual backdrop at the macro level. As tools of social interaction, technologies – particularly ‘media’ technologies - adopt the topography of the society in which they are developed and used (Di Maggio, 2001)[[13]](#footnote-13)

The review identified three key concepts that have been applied to help shape the Carer+ implementation approach and methodology. These are:

* Technical coding
* Civilising Choices
* Value-embedded action systems.

**Technical Coding**

The technical code reflects how technologies are socially and culturally constructed, in the sense that technological design and development does not happen in a vacuum. The features of the design of a technology-enabled social innovation and the development trajectory it takes will be shaped by the roles and interests of the stakeholder groups involved (Feenberg, 1995) [[14]](#footnote-14). As a general rule, the more powerful the stakeholder, the more influence they will have on technology design and development. Technical coding also refers to the ‘immanence’ of technology. At the genesis of technological innovation, the developmental trajectory an innovation eventually takes is up for grabs. There is a relatively short moment of ‘technological flux’ before the technology becomes ‘coded’ and stabilised. Following stabilisation of the technological innovation, the technical code will determine how the technology is used and embedded in real practices. But since the design and development path of technologies tends to amplify the positions and interests of powerful stakeholders, the form a technology eventually takes through the process of development, adoption and adaptation through use will be dictated by powerful stakeholders, so that weaker stakeholders may lose out in their attempt to extract value from using the technology.

A good example of this is the design, evolution, adoption and adaptation of the bicycle. In the illustration below, two types of bicycle – a racing cycle and a safety cycle - are shown. When asked to identify which is which, most people give the wrong answer. The racing cycle is in fact the one on the left – the Victorian ‘Penny Farthing’ and the one on the right is the ‘safety cycle’.

**Racing cycle** **Safety cycle**

The modern ‘racing’ cycle is popularly assumed to be a direct descendent of the Victorian ‘penny farthing’. In fact, racing bikes can be seen as an evolution of a completely different technology – the ‘safety bicycle’ , emerging in Victorian times to provide a less dangerous alternative to the penny farthing, which was originally bred for speed competitions. So high was the fatality rate in these speed competitions that the government of the time stepped in to issue restrictions on their use and specify design standards for future bicycle development which paved the way for the subsequent evolution of the safety cycle (Pinch and Bijker, 1986) [[15]](#footnote-15). The ‘innovation space’ in which the safety bicycle developed in its early gestation was characterised by a number of possible innovation scenarios, or to put it another way by a ‘contest of meanings’ – between the bicycle as a mass transportation tool; the bicycle as a sportsman’s toy, and so on. However, the safety design eventually emerged as the dominant form of bicycle.

Implications for delivery of Carer+ programme:

* the devices and technological tools used to deliver services within the home care environment need to be seen not simply as technical ‘artefacts’ with neutral, objective and ‘given’ properties, but as embedded cultural practices that will change according to their context of use. Care givers and care receivers therefore need to be supported in identifying ways in which the tools can be incorporated in everyday practices and activities that are meaningful, useful and valuable.
* in order to ensure that the ‘technical coding’ of the Carer+ tools does not exclude the weaker stakeholders involved, care recipients must be actively involved as co-collaborators and co-constructors of the strategies and actions taken in the home to use the Carer+ tools effectively.

**Civilising Choices**

If we accept the proposition that technological innovations reflect ‘technical codes’ and ‘contests of meanings’, then it follows that they also embody what Feenberg described as ‘civilising choices’. An extreme example of this is the 17th century Spanish flintlock pistol shown below.



**Spanish flintlock pistol, 16th century**

This pistol, along with horses, metal armour, and above all organisational know-how was a key technological innovation in enabling the Spanish conquistador, Pizarro, accompanied by 168 Spanish soldiers to destroy the 80,000-strong army of the Inca ruler Atahuallpa in 1532, at Cajamarca. The Spanish forces used a cavalry charge against the Incan forces, in combination with gunfire from cover. The subsequent imprisonment and execution of Atahuallpa laid the foundations for the future systematic colonisation and exploitation, and economic, social and cultural decimation of one of the Old World’s most powerful civilisations, contributing in the long term to the current glaring disparities in wealth and cultural influence between the colonised and the colonisers [[16]](#footnote-16).

The point from this example is that technologies, as noted above, are not neutral. They embody complex belief systems in the way they are developed and utilised. In principle, the Conquistadores could have applied their technological advantage to the mutual benefit of the Incan and Spanish cultures. Instead, the ‘civilisation choice’ of the technological innovations developed and used by the Conquistadores was one of destruction, exploitation and subjugation. Although an extreme example, the Spanish flintlock pistol embodies the principles of technological ‘civilising choices’. As with the process of technical coding, all technologies reflect ‘contests of meanings’ that embody choices for adoption and adaptation that will benefit some and disadvantage others.

Implications for delivery of the Carer+ programme:

* The care domain – and in particular the field of assistive technologies – presents choices that have profound implications for the empowerment and dignity of vulnerable people and, conversely for their disempowerment. Research shows a prevailing tendency to impose these choices on older and vulnerable people by adopting technological solutions that prioritise outcomes like surveillance, containment and pacification.

The adaptation and utilisation of the Carer+ tools therefore needs to recognise the rights and needs of care recipients and to avoid situations in which the tools are imposed from above. Care recipients should be actively involved in decisions and choices about the use of the Carer+ tools.

Technologies provide ‘benefits’ for their users not simply in relation to their innate ‘properties’ but in terms of how they embody different purposes and beliefs. Users extract value from technologies not because they make initial rational decisions about what these technologies can do but because they embark on a process of engaging with and interpreting the meaning of the technologies. It is through this process that the very technology itself becomes established through practice – through ‘value embedded actions’. An example is the use of neuro-imaging like magnetic resonance imaging (MRI) and computerised axial tomography (CAT) scans in neuro-science and neuro-surgery.



**Example of a CAT scan**

What is striking about the use of these these technologies is their uncertain relationship with practice. As Cullen and Cohen (2006) show the use of CAT and MRI scans by clinicians in the treatment of psychiatric problems like schizophrenia has less often been driven by the clinical utility of scans – for which there is little evidence of effectiveness – than by the search in medical research for the holy grail of neurology – how the mind works. Consultants routinely scan patients presenting with schizophrenic symptoms for evidence of physical pathologies like brain lesions – although the incidence of these is historically low. The main ‘use value’ of these scans is less for diagnosis than to construct an evidence base for research. Equally, for patients, a print-out of their MRI or CAT brain scan has an important social purpose. It provides a full-colour, concrete picture of a condition that had hitherto remained ever-present but essentially ephemeral. In one case, a schizophrenic patient who had been given a copy of his MRI scan subsequently had it made into Christmas cards for distribution to friends and family. In this example, the constructions made by those involved in the design, development and use of the technologies on health, concepts of illness, ideas of treatment and appropriate action are all increasingly mediated by and through the technology. In other words, the technologies are ‘immanent’ – they are ‘active’ and embody ‘value embedded action systems’.

Implications for delivery of Carer+ programme:

* Programme delivery needs to undersand and reflect how technologies are constructed by the different stakeholders involved. Specifically, the programme should incorporate procedures and tools for assessing the needs of users, and mapping how these reflect values and beliefs.
* On this basis, care providers and care receivers need to be supported in working together to identify ways in which the Carer+ tools can be used in activities that maximise use value.

### Research

The background work for the development of the implementation approach for the Carer programme included a review of research in the use of ICTs for to support independent living for older people. A number of studies and reports were consulted, the most relevant of which was a study carried out by the European Commission JRC Institute for Prospective Technologies. This carried out a mapping of programmes and interventions in the field, covering other reviews in the field, including a review of 8,000 papers on smart technologies for older adults (Morris, 2010) and identified 14 good practice cases that had a clear evidence base of impact. Another IPTS study, carried out in the context of the EU ‘CARICT’ project, was also reviewed. This was based on a mapping of 52 ICT-based services for informal carers developed in Europe, and a cross–analysis of 12 of these initiatives to get data on their impacts, drivers, business models, success factors, and challenges. In addition, we reviewed all of the relevant research reports uploaded in the Carer+ database, together with relevant papers from the academic literature (for example a study on the adoption of mobile devices by homecare nurses). The key conclusions and implications for developing the Carer+ implementation approach derived from the research review were as follows:

* Successful implementation of ICTs in the home care environment requires the involvement of end-users (carers, elderly people and formal care staff) as active players in the design of the services, complemented by training in digital and care services competences
* The carer’s perception of usefulness is the main factor in the adoption of technology
* Technological innovation cannot be done in a vaccum. It requires the progressive integration of ICT-based services for informal carers in the formal long-term care system
* Integration requires co-operation between stakeholders, including non-profit organisations (third sector)
* The effectiveness and success of implementation depends on existing infrastructure. This means that technologies to support carers and care recipients need to be adapted to the exploit the features of the existing ICT and digital inclusion infrastructure
* A key barrier to successful implementation is overcoming negative attitudes and scepticism
* Successful implementation on a wide scale requires scientific evidence of impacts to convince potential partners and users of the credibility of the services
* An effective implementation method requires an effective business model.

### The Carer+ Theory of Change

Like all programmes, Carer+ has a vision. This vision could be expressed as follows:

*“Carer+ wants to help care workers and informal carers understand how technologies – and the knowledge needed to use them – can improve their caring practice, and in this way, can contribute to improving the quality of life of those they care for”.*

This vision can also be expressed as a ‘Theory of Change’. A Theory of Change is essentially a Roadmap that describes:

* what the ‘presenting problem’ is that needs to be changed
* what the solution to this problem is
* what steps are needed to progress from the problem to the solution.

The Theory of Change defines all the building blocks needed to change a problematic situation – or in other words the things necessary to achieve a long-term goal or impact. A simple way of illustrating this is to map the ‘intervention logic’ (or logic model) of a programme like Carer+. The intervention logic:

* specifies the problem to be addressed by the programme
* specifies how the programme will change the problem (what are its expected objectives, outcomes and impacts)
* specifies the activities and outputs necessary to deliver the objectives, and expected outcomes and impacts
* specifies how progress towards achieving the programme outcomes and impacts will be measured.

However, a Theory of Change model goes further than this basic intervention logic. Whereas a simple ‘logic model’ is essentially a descriptive device for mapping programme components – like objectives, activities, outputs, outcomes, impacts and evaluation indicators - and the relationships between them, the Theory of Change model embodies an explicit theory of how and why a programme might cause an effect. It has built into it a set of assumptions and hypotheses about what causes a problem, what particular actions will cause a change in that problem and what are the likely outcomes of these actions. In other words, a Theory of Change shows the ‘causal pathways’ between a programme’s objectives, its activities, and its expected outcomes and impacts. It says: “if we take action X, then this will cause effect Y and this will eventually lead to outcome Z”.

In this sense, the implementation process of a programme is a living laboratory in which the assumptions and hypotheses about causes and effects that are embedded in the programme can be explored and tested. The overall Theory of Change model for the Carer+ programme is illustrated below.

**Carer+ programme Theory of change model**

As the illustration shows, the Carer+ programme supports a ‘change journey’ that consists of a sequential progression of ‘step-changes’, each of which has an effect on subsequent steps. The journey begins with an initial presenting problem and an explanation of what causes that problem:

* presenting problem – the care sector shows, overall, a low level of professionalisation. The end result of this problem is that low professionalisation has a negative effect on the quality of care provided. The theory of change is that gaps in digital competences of carers contribute to low professionalisation. If these gaps could be addressed, then this would lead to an improvement in the quality of care that is provided and, ultimately, to improvements in the quality of life of care recipients .

Following on from this initial theory of change, each step in the change journey then has its own ‘theory of change’, and ‘causal pathway’:

* If care givers lack ICT knowledge and skills then it follows that a systematic mapping of these skills and knowledge gaps, set against a benchmark of the competences that ideally should be acquired, would highlight what improvements in competences need to be supported (Step 2)
* If the competences that are required are mapped, then a training programme can be developed to help carers acquire the necessary digital competences. Participating in the training programme will improve the knowledge carers have about how ICTs can support care practice and will equip them with new skills (Step 3).
* Providing carers and care receivers with access to suitable devices will then allow carers to apply their new skills in their practice, working together with care receivers. This will lead to an improvement in the quality of care provided (Step 4).
* An improvement in the quality of care provided will ultimately cause an improvement in the quality of life of care receivers (Step 5).

## Section 2: Implementation of the Carer+ programme in the pilots

The Carer+ programme was implemented in pilot actions in five EU countries: France, Italy, Latvia, Romania and Spain, in 13 different sites in total, including both urban and rural areas. The pilot programme lasted for ten months and was planned to involve 200 professional care workers (40 per country); 50 informal carers (10 per country); 50 care recipients (10 per country). In the event, 190 paid carers and 50 informal caregivers completed the pilot programme, showing an extremely low drop-out rate of 3.2%.

Each pilot site followed a common implementation approach, though this approach varied to a limited extent according to local conditions (for example the actual duration of the programme; the strategies adopted to support pilot participants). The implementation process covered three phases, as shown in the Figure below:

* a pre-pilot phase, focusing on setting up the infrastructure and logistics for implementing the programme
* a main implememtation phase, focusing on delivering the training programmes and supporting home care service implementation
* a post-pilot phase focusing on assessing programme impacts and promoting the transferability and sustainability of the results.

**The Carer+ Programme Implementation Process**

As the Figure shows, the key implementation actions and events in each phase were as follows.

### the pre-pilot phase

In the pre-pilot phase, the main implementation activities were:

* setting up local staff teams and training the trainers
* recruiting pilot participants and preparing them for engaging in the programme
* equipping participants with devices
* desiging and producing the training programme for carers.

The training effort which prepared the ground for the main piloting activity - using the Carer+ tools within the home care environment - involved local piloting teams in the piloting countries and locations led by a so called ‘super trainer’ as a professional leader of the staff. Super trainers were expected to coordinate the local staff involved in the realisation of CARER+ pilot exercise and the scope of their role covered all the piloting sites at national level. They were also responsible for data collection for the impact assessment research. A 3-day training programme was organised by Telecentre-Europe in July 2013 in Paris, France, to train these super-trainers and to enable the second tier of the training strategy – the ‘mentors’ responsible for providing support to the care-givers involved in the piloting process on the ground - to carry out their role. The training for mentors involved 60 hours capacity building training organised on national lines. The training for ICT specialists was not formalised, but they were free to participate in the mentors training programme.

Recruitment of and engagement with participants involved two connected activities: firstly, a wider, ongoing EU-wide and national promotion campaign aimed at raising awareness of Carer+ and publicing the piloting oppoerunity and, secondly, a more focused local initiative specifically targeting potential participants in the pilot site locations. The local recruitment campaigns were organised through National Committees but varied according to the characteristics of the local context, In France, for example, the pilot co-ordinator, IPERIA, worked with existing training centres in different regions with whom it had already established co-operation on a regular basis, and in addition used its own databases of carers, as well as utilising ‘Relais Assistants de vie’ (one stop shops for carers) to disseminate information about participation in the pilot. In Latvia, the pilot co-ordinator LSA, in its role as a care service provider, recruited pilot participants – both carers and care recipients – from its staff base. In Romania the pilot co-ordinator EOS – a training organisation – used its extensive range of service provider partners to recruit participants.

A key activity in the process of equipping pilot participants with devices was an initial evaluation of potential devices in order to assess their suitability for the Carer+ programme. The evaluation methodology incorporated an assessment of the features and usability of a range of potential devcies, together with the use of a TAP (talk-aloud protocol) that involved the implementation of three tasks carried out by an end user using the device. The overall assessment of each device was based on five related key criteria, scored and commented on from three perspectives: a personal perspective, the perspective of an older person and the perspective of a care worker/giver. These criteria were:

* Usability: out of the box set-up, touch-screen, preciseness, fault tolerance, sensitivity, keyboard, navigation, ease of set-up, accessibility of the interface (e.g. zoom) intuitiveness, learnability.
* Physical characteristics: robustness, quality of build, ease of cleaning, screen size, display quality, weight, buttons, affordances.
* OS specific features**:** store front, app development, app range, app variety, updating system, cloud storage, language options.
* Device hardware features: connectivity (3G, Wi-Fi, Bluetooth), speed, memory size, battery length, time to charge, connection ports, camera/s.
* Other:positive feeling in using the device; satisfaction, efficiency, sense of accomplishment.

Drawing on the results of the evaluation, each pilot site selected a particular device and configuration according to the needs and profiles of the participating carers and care recipients.

As noted above, the training programme for care-givers was designed as a 200-hour course consisting of 40 face-to-face training hours and 160 online learning hours, involving 5 training modules the structure and content of which aimed to develop the ICT competences contained in the Carer+ competence framework. Two of these 5 modules were core compulsory courses that had to be studied one after the other; followed by three electives in areas of professionalization and the provision of social care interventions. The programme was designed to work in a blended setting with all activities supported by a virtual learning environment and an online, social network community. Each of the individual courses was approximately 35 hours in total and designed to run over a period of eight weeks with short, small group, weekly face-2-face sessions with a mentor.

### the implementation phase

The main programme implementation phase focused on two activities:

* Delivering the training programme for carers
* Supporting carers – and their care receivers – in applying the results of the training programme in their everyday practices

The training programme began with a self-assessment of participants’ digital competences. This used the Carer+ profiling tool which was designed to provide information on the baseline skills of participant’s enrolling on the Carer+ programmes and provide some indication of their knowledge and attititudes towards ICTs and learning. The results were made available to mentors and tutors and also to the participants themselves. The aim was to understand the baseline skills and motivations of the participants to help organize their learning journey through the Carer+ programme. The results from this tool also provided baseline evidence for awarding badges. It was designed in the form of a series of short questionnaires and a quiz, broken into five sections: About you; Internet use; Computer and Internet self assessment; ICT quiz; Readiness to learn.

The training delivery consisted of two phases. The induction or introductory part was delivered through individual or group face-to-face workshop (40 hours). The rest of the programme was entirely delivered on an outreach basis (160 hours). A web based learning environment was made accessible from the participants’ mobile devices via the CARER+ portal.

The learning activities carried out during the process involved cooperation between caregivers and care recipients with flexible mentoring roles, caregivers among themselves within a community of practice, older people among themselves within a social virtual community, older people and their families. Individual learning activities complemented cooperative learning activities; autonomy and learn to learn were pillars of this approach.

Training progamme participants also received personal learning support from **m**entors during the training. They helped participants find individual learning paths and methods. Each participant in the programme had a mentor for solving specific questions related to the individual learning experience.

In the fifth month of the training, carers started to deliver home care services to care recipients over a six-month long period. As noted above, this service delivery – enhanced by the carers’ newly acquired digital competences – focused on mutual (intergenerational) education and learning of the carers and the care receivers. In order to identify how their acquired digital competences could be combined with the use of the provided devices could most effectively support the care delivery process, participating carers carried out a mapping exercise of care recipients’ individual social and health care needs and tailored their own caring working practices according to these personal needs.

A number of strategies were used to support the service delivery process.There was constant community animation during the whole pilot (training and home care service provision) organised by mentors. It included general support for the programme, specific thematic support, networking and cooperative activities for and between carer and care recipient communities involved at the local level. The focus of this mentoring role was to guide and provide individual support to the participants (carers and care recipients) during the training (and home caring) period. They helped pilot participants to understand and better select an appropriate learning pathway, leading in turn to assessment of their learning and the final award of a Carer+ proficiency badge. They also supported participants with information and problem solving.

In addition, ICT specialists helped all the participants (carers and care recipients) with provision of the equipment and handling the ICT tools applied within the terms of reference for the project - (installation, configuration, deployment at care recipients’ homes and solving possible problems raised with the different ICT devices).

### Post-Pilot activities

The post-pilot phase focused on three activities:

* Pilot closure procedures
* Evaluation and impacts assessment
* Transferability and sustainability actions.

The closure of the pilot phase depended on the arrangements in place in the individual ilot sites. In some sites, the ICT devices had to be surrendered back to the pilot co-ordinators. In others, participants were allowed to keep the devices.

The Carer+ evaluation was embedded into the project long before the pilot started. It included initial evaluation (ex-ante) activities designed to collect baseline data on carers’ existing competences, in order to assess the extent to which competences had improved as a result of participating in the programme. It included ongoing (formative) evaluation intended to assess project progress and the effectiveness and suitability of the Carer+ approach as it evolved. At the end of the pilot phase, the main summative (ex-post) evaluation was carried out. This focused on collecting data on participants’ competence development; their experience of participating in the programme, and the main outcomes associated with participation. The culmination of the evaluation effort was an **I**mpact Assessment Report**,** which integrated all the evaluation data and results to produce an overview of the extent to which Carer+ had achieved its intended objectives.

Drawing on the evaluation data, the final phase of the Carer+ programme focused on transferability and sustainability actions. These were intended to ensure that the usable knowledge and results gained from CARER+ project could firstly be adapted and applied in log term care environments outside the pilot sites and, secondly, that the learning from the implementation of the Carer+ programme could support improvements in service delivery at he wider EU level and beyond.

## Section 3: analysis of practices, success factors and lessons learned

This Section presents the analysis of practices drawn from the pilot implementation. It identifies the key factors that contributed to the successful adaptation and application of the Carer+ approach, tools and services to the local, individual context. It describes how the lessons learned from the pilot experience can be used to support the transferability of the programme.

### Analysis of implementation practices – methodology

The foundation for the development of this Toolkit, incorporating transferability principles, guidelines and good practices, was an analysis of the practices carried out by participants involved in the Carer+ programme implementation process, as described in the preceding section.

This analysis was mainly based on data collected and analysed from the piloting impacts assessment, but included other evaluation activities. It covered the following:

* Results from the Carers survey
* Conclusions from focus groups carried out with carers and care receivers
* Individual carer diaries and ‘case studies’ of carers participating in the pilot programme
* Training programme evaluations
* Carer+ Validation Workshops. These were organised with groups of external experts and stakeholders in the care field.

The Carers survey was a post-test survey – administered at the end of the piloting period – completed by both paid carers and informal carers. A total of 186 participating paid carers completed the survey, which included 25 questions in 5 blocks, covering: Experiences with the Carer+ Training Programme; Carer+ technology impact on caring practice and on formal carers’ professional development; Carers’ perception about the changes of the quality of life of care recipients in Carer+; Overall satisfaction with Carer+; Respondent’s profile.

All of the informal carers who took part in the programme (a total of 50) completed the post-test survey. The survey also included 25 questions in 5 blocks, covering: Experiences with the Carer+ Training Programme; Carer+ technology’s impacts on caring practice; Caregivers’ perceptions about the changes of the quality of life of the older persons in Carer+; Overall satisfaction with Carer+; Respondent’s profile.

In each piloting country, two structured focus groups were carried out, one with carers (including both formal and informal caregivers if possible) involving 7-10 participants, and one with care recipients involving 4-10 participants. A total of 9 focus groups were implemented (In Italy, the focus group with care receivers was not implemented) involving 56 programme participants in total.

The carers focus group covered topics on **expectations of Carer+ and if these had been fulfilled; experience of the Carer+ training programme; effects of using the CARER+ technologies on personal skills and future life opportunities; effects of Carer+ on everyday caring practice; advantages and disadvantages of everyday usage of technology in ycaring practice; impact of CARER+ technologies on the quality of home care provided; main benefits and good practices of being involved in CARER+.**

The care receivers focus group covered topics on **expectations of Carer+ and if these had been fulfilled; experience of the Carer+ training programme; effects of using the CARER+ technologies on personal skills and future life opportunities; advantages and difficulties with the everyday use of technology; effect of Carer+ technologies on care provided; effect of CARER+ technology on autonomy and everyday life; main benefits and good practices of being involved in CARER+.**

Individual case studies were also used in the practice analysis. These were based on qualitative data collected from programme participants using a ‘caring diary’ that recorded the experiences of carer-care receiver ‘couples’ and their experiences and interactions involving the use of the Carer+ approach and tools. In particular, the case studies and caring diaries were intended to capture examples of ‘good practices’ involving new ways of providing care that were made possible as a result of the use of the acquired digital competences combined with the Carer+ technologies. A total of 36 of these good practices were collected and analysed.

The analysis of practices also used data collected from evaluations of the Carer+ training programmes. For the ‘training the traners’ programme this entailed focus groups and interviews with programme participants. For the carers’ training programme, data were extracted from the post-test surveys (which included questions on experiences of participating in the training programme) and from the post-test focus groups.

A final source of data for the practice analysis was the Carer+ validation workshops. Three validation workshops were implemented over the lifetime of the project, and involved experts and stakeholders reviewing three key outputs: the Competence Framework for care workers; the learning programme and the pilot implementation and impacts assessment. These workshops provided useful data on success factors, obstacles to implementation and transferability and sustainability principles.

### Key findings of the Practice Analysis

The main implications for the delivery of the Carer+ programme from this review were as follows:

* Users have different profiles, different circumstances and different needs. The profile of professional care workers is very diverse – with a wide spectrum of educational background and status; variations in current digital competences; wide variations in job stability and prospects and a similar pattern of diversity in the environments in which they work. Equally informal carers present very different circumstances, experience and needs. The Carer+ implementation approach therefore needs to identify these contextual variations and provide support to enable the Carer+ tools to adapt to the context of use.
* However, professional care workers are different from informal care-givers. They have a different background, education, skills base, motivation and aspiration. The Carer+ programme needs to recognise and respond to these differences.
* In turn, care receivers present a correspondingly diverse pattern of circumstance and need. This is exemplified by the issues and problems experienced in home care situations, which range from physical health conditions through emotional and psychological issues to challenges around things like social isolation, financial anxieties and boredom. The Carer+ programme needs to be sufficiently flexible to respond to this variability.
* Both care providers and care receivers were challenged by the introduction of new technologies and new ways of working together. This led to anxieties around change and resistance to change. It is crucial that these anxieties and resistances are understood and addressed as part of the collaborative needs assessment and the delivery plan that is developed between key stakeholders at the start of the adoption process.
* Care receivers only engage with technologies when there is evidence that they will add value to their daily lives. This reinforces the findings from the literature review – that the Carer+ tools need to be utilised within the home environment in ways that are practical, value added and in line with care receivers beliefs and everyday lives.
* Care providers are also challenged by the motivational, time and intellectual commitment required to participate in an unfamiliar learning programme. The Carer+ learning offer therefore needs to recognise these challenges and provide incentives to overcome them.

## Section 4: Further resources

**Designing training programmes**

Design for learning, JISC at <http://www.jisc.ac.uk/elp_designlearn.html>

Open University Learning Design Initiative <http://www.open.ac.uk/blogs/OULDI/>

Active learning - see pedagogical patterns for active learning at <http://www.pedagogicalpatterns.org/current/activelearning.pdf>

Ferrari, A. (2012). Digital Competence in Practice: An Analysis of Frameworks. JRC Technical Reports. <http://ipts.jrc.ec.europa.eu/publications/pub.cfm?id=5099>

Ferrari, A. (2013). Digital Competence Descriptors: a draft proposal. Draft JRC Technical Reports. DIGCOMP Project. <http://is.jrc.ec.europa.eu/pages/EAP/DIGCOMP.html>

**Choosing devices**

<http://www.netmagazine.com/features/15-top-tips-developing-new-ipad-3>

**Certification**

Mozilla open badges <http://openbadges.org/en-US/faq.html> and the Open Badge Infrastructure ... Open Badge Backpack

**Delivering smart home care**

Carretero, S. (2014). Mapping of effective technology-based services for independent living for older people at home. Seville: Joint Research Centre, Institute for Prospective Technological Studies, JRC. Scientific and Technical Reports Series.

Cullen, J and S Cohen (2006) Making Sense of Mediated Information: Empowerment and Dependency, in New Technologies in Health care’, ed. A Webster, Palgrave, Basingstoke

Carretero et al (2013) Can Technology-based Services support Long-term Care Challenges in Home Care? Analysis of Evidence from Social Innovation Good Practices across the EU: CARICT Project Summary Report

Zhang, H (2010). Factors of Adoption of Mobile Information Technology by Homecare Nurses: A Technology Acceptance Model 2 Approach. Computers, Informatics, Nursing, 28, 1, 49-56.

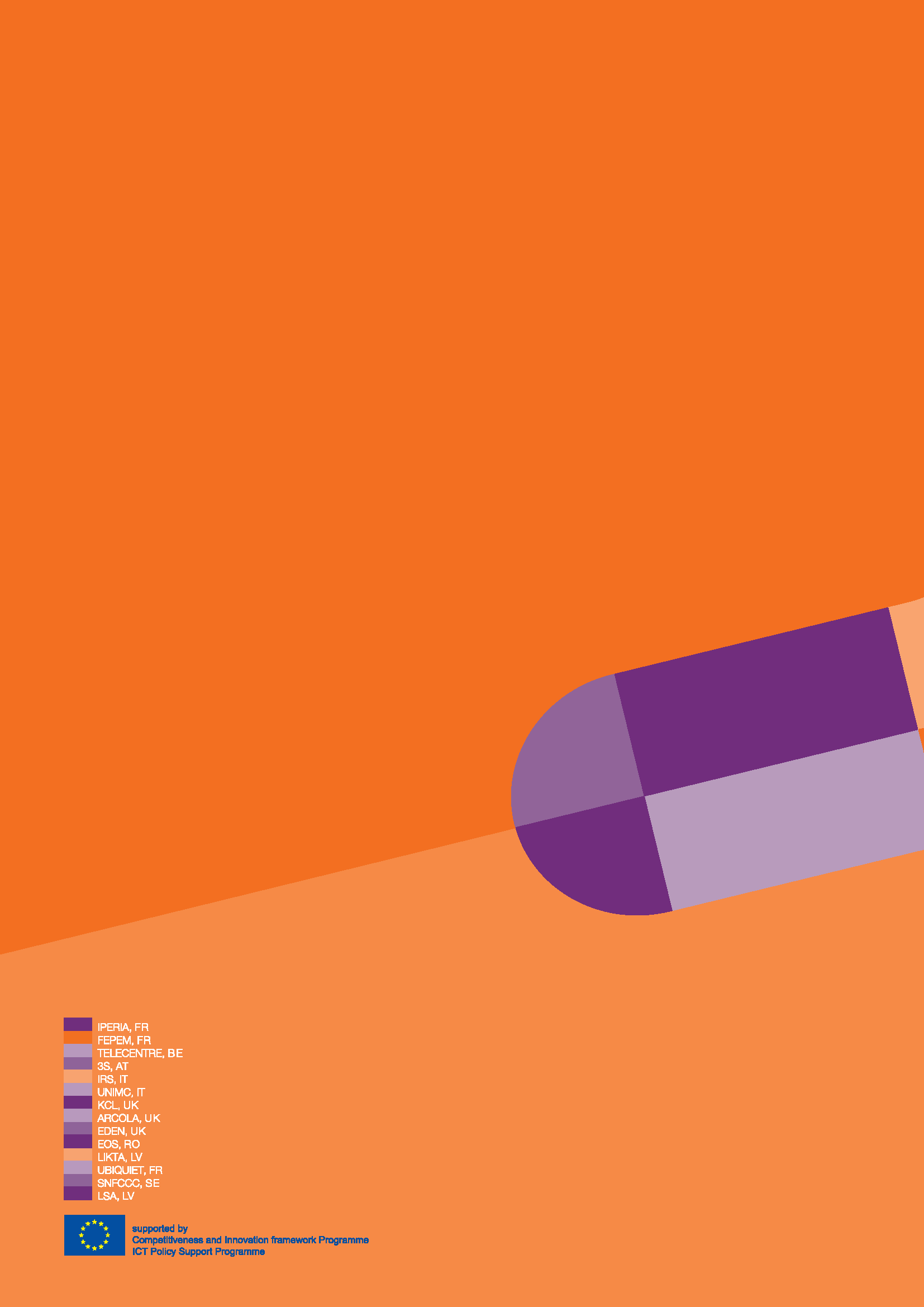
**Evaluation**

<http://www.socialresearchmethods.net/kb/intreval.php>

<http://toolkit.pellinstitute.org/evaluation-101/evaluation-approaches-types/>

Chen, H.-T. (1990). *Theory-driven evaluations*. Newbury Park, CA: Sage Publications Inc

https://www.theoryofchange.org/



1. worldbank.org/developmentmarketplace/toolkit [↑](#footnote-ref-1)
2. <http://www.ahrq.gov/research/publications/pubcomguide/pcguide6.pdf> [↑](#footnote-ref-2)
3. This is combined into a single course 4 title ‘Independent and assisted living’ [↑](#footnote-ref-3)
4. European Commission,’Long-term Care Challenges in an Ageing Society’, 2010. [↑](#footnote-ref-4)
5. European Commission. ‘ICT and Ageing’, 2008, pp4 [↑](#footnote-ref-5)
6. European Commission. ‘Long-term Care Challenges in an Ageing Society’, 2010 [↑](#footnote-ref-6)
7. Inno-serve (2012) ”Literature review on innovation in social services in Europe”, Work Package 1, May 2012: <http://inno-serv.eu/> [↑](#footnote-ref-7)
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16. Diamond, J (1997) *Guns, Germs, and Steel: The Fates of Human Societies*. W.W. Norton & Company [↑](#footnote-ref-16)