

## DELIVERABLE 1.4

# ROADMAP OF DIGITAL SKILLS AND KNOWLEDGE ASSOCIATED WITH HEALTH SERVICES AND TECHNOLOGIES IN 2 COUNTRIES

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## Introduction

A roadmap of digital skills and knowledge associated with health services and technologies in 2 countries (GR & HU) has been implemented. The road map has been finalized considering the Digital inclusion assessment results and analysis (D1.2) and the tools repository (D1.3) with the aim to provide a logical framework for the knowledge development of the FICs populations of the two pilot areas. The aim has been a clear picture on the special skills the FIC need for utilising the potential of digital tools in their daily work. In doing so has been considered the assessed the state of the art in terms of skills and competences of the Female Informal Carers (FIC) in the two pilot areas and the relevant e-tools available. **The deliverable is implemented by DCS supported by PROMPT and PROLEPSIS. The roadmap finalization was delayed (from April 2022 to December 2022) with the aim to capitalize the information produced in D1.2 / .3.**

The activities implemented during the deliverable 1.4 have been targeted to assess the state of the art in terms of skills and competences of the Female Informal Carers (FIC) in order to define a clear picture on the special skills the FIC need for utilizing the potential of digital tools in their daily work.

The specific activities implemented are:

- Implementation (D.1.1) of a digital needs and assessment survey and submission to a relevant target group in Hungary and in Greece (D.1.2)
- Setting up of an Inventory of digital healthcare services and technologies relevant to FICs (D.1.3). There is a huge market fortele-care tools and applications offered for caring older adults, but the offers differ country-by-country. For developing a learning content and course relevant for informal carers, there is a need for an overview on the digital existing tools and to make an adapted selection of them.

Within the PR1, the main objectives to pursue are:

- Objective 1: to get a clear picture about the present level of basic digital skills of FICs in the target countries;
- Objective 2: to define a list of digital tools widely used by FICs in the piloting countries (Greece and Hungary) to care for the older adults;
- Objective 3: to determine how aware the FICs are regarding the potential of the new, sensor-based technologies, digital monitoring and telecare systems. By assessing the digital needs of the FICs this PR will primarily target the needs of this target population

After the elaboration of the digital needs and assessment survey, the recruitment of the informal carers and the setup of the Inventory digital healthcare services and technologies of relevant to FICs that are used or are available in each partner country, the Deliverable 1.4 includes the analysis made starting from the questionnaire and the Deliverable 1.2, in order to identify and map the required digital equipment, skills and knowledge to create and develop the proper content modules in PR2.

The analysis material and tangible outcomes that will be delivered from this PR will be also exploited by the partners of the project to enable a tailored definition of the training content to be created in PR2.

## Deliverable 1.4 Map

The Deliverable 1.4 will be structured in 3 main parts:

1. State of art report on the readiness/uptake of using assistive technologies in elderly care in each target country – elaborating the deliverable 1.2 - and definition of the FIC's training needs identifying the proper level;
2. Inventory of the digital tools elaborating the results of the Deliverable 1.3;
3. Definition of the further exploitation and capitalization plan to disseminate the Digitalis training approach to the wide EU territory.

### State of art report on the readiness/uptake of using assistive technologies in elderly care in each target country – elaborating the deliverable 1.2 - and definition of the FIC's training needs identifying the proper level

Starting from the Deliverable 1.2, the majority of the FICs who participated to the questionnaire reported that they have a high skill level in:

- digital tools and online services;
- articulating information needs, create and update personal search strategies;
- computers and internet as well as computing and internet;
- sharing info on websites or blog and copyright rules and applying them;
- create information and content in digital environments at a good level, access to the contents for free;
- developing digital skills.

In particular, considering the DigComp 2.2, the most of FICs are independently or at advanced level, according to their needs, able to: solve, and define non-routine problems, to assess information needs, to adapt the searching strategy to find the most appropriate data, to explain how to access these data, share information and contents using various search strategies.

Another interesting point is related to the device used by caregivers which is preferably their smartphone but it is interesting that most caregivers do not use technology to keep in touch with the person they care for. Instead, they prefer personal visits while the majority of the caregivers live with them.

In fact, the survey results indicated that there is not an intermediate level: 40.9% of the participants rated their digital skills as advanced, while 4.6% said they have no skills.

The major problem raised is related to the protection of personal data: only 7% of the FICs surveyed are able to protect their personal data, protecting themselves and others. In fact,

most of the FICs do not have specific skills in the use of special security, despite their daily use of their desktop, laptop and smartphone.

What the FICs see as the most difficult part of their job is more related to their personal life; in fact, finding the best balance between the daily work, family and the caring job is very difficult at least for 50% of the FICs surveyed, making it as the most difficult situation in their informal care work.

## Inventory of the digital tools elaborating the results of the Deliverable 1.3

The objective of this deliverable is the definition of the E-Health services in order to produce an adapted mapping and inventory of the e-health services and related technologies that can be used by informal carers to facilitate their work and improve outcomes for their patients in all Piloting countries (Greece, Hungary and Italy). This elaborated list of digital healthcare services will be finetuned when starting the mapping and inventory activities by applying to a specific framework/criterion for the final selection of the services/technologies to be part of the training content (as for instance digital services level of use, existence of evaluation related information, usability data, relativity to responding to the needs of FIC's patients etc).

In particular, the deliverable 1.3 is structured in this way:

1. Communication, emergency alert: including all the general communication and networking tools (e.g. whatsapp, viber,..), the specific communication tools more specialized for homecare recipients or communication networks developed for caregivers and all the emergency alert devices for homecare recipients.
2. Home and Safety security: including all the detectors, sensors, home treatment connected to applications and able to monitor several physiologic parameters, heart problems, sleep monitor...
3. Mental Health: which are games or learning apps and online community sites to maintain mental health and to support both the patient and the female informal caregivers.
4. National E-health Systems: in this case we decided to include all the electronic health record /system / services useful for the all the citizens in Italy, Hungary and Greece for booking their appointments, receiving their medication or examinations prescription and consulting the entire history of their health care life.

As an example, and started from what we studied in the deliverable 1.3, in the questionnaire forwarded to the FICs we ask specific information and the results are:

- Communication, emergency alert: 36.4% of the participants in the overall sample reported that they live in the same place with the person they care for. And 22.7%



keep in touch by phone, and the same percentage of participants make personal visits. Only 2.3 % use social media to communicate.

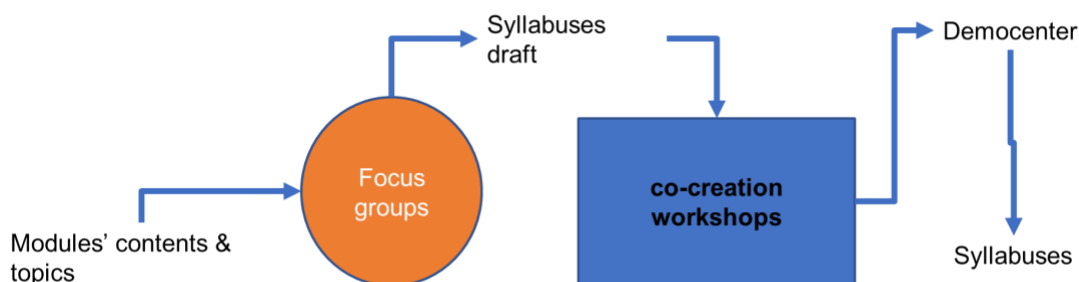
- Home and Safety security: 23.1% of the participants reported that they don't use any digital technologies in their care work. The two most used technologies were reported as social media (17.9%) and blood pressure monitoring (17.9%).
- National E-health Systems: 36.4% of participants reported that they use the Greek national e-Health system to get or activate a recipe. Followed by 27.3% who make an appointment for medical visits.

## Digitalis model to support the Female Informal Caregivers' skills implementation

After the questionnaire and the analysis of the answers received and the needs of the FICs, as a Consortium we decided to develop the modules in the following order: valutazione dei bisogni

- MODULE 1 - Basic digital skills and competences for caring for older adults (using the DigComp frame)
- MODULE 2 - Assistive technologies and health related information services
- MODULE 3 - Self-monitoring and disease management by using ICT
- MODULE 4 - Digital adherence technologies (smartphone-based technologies, digital pillboxes, etc.)
- MODULE 5 - Social networks, online communities for active and healthy ageing

Codesign process: Content validation



**Focus group:** composed by experts, will provide the modules contents

**Co-creation workshop:** composed by stakeholders, will validate the provided contents and draft the modules syllabi.

Since the DIGITALIS project intends to apply a new approach in teaching adult learners online and in order to set the content of each module, Consortium has decided to work strictly together with the female informal caregivers setting up collaborative lessons.

Following the definition of the modules, the education methodology will be discussed in specific focus groups in both the Pilot Country. Within the focus groups will be set up also the first draft of the curriculum or syllabus of each module.

The contents curriculum / syllabuses will include: - Learning goals, motivations for participants, learning-teaching, mentoring and assessment methodology, duration and estimated workload, prior knowledge, learning guide; - Module descriptions with lists of learning outcomes, skills and competences (in terms of EQF and DigComp) topics and assignments.

The curriculum / syllabuses serves as a solid basis to the content development and will be finally discussed in the co-creation workshops, which will be held in each Pilot country with FICs led by a trained mentor (one per country) and a trained in qualitative methodology moderator. The aim of the co-creation workshops will be to define the most appropriate training approach and contents. It is scheduled to organise 5 online or face-to-face (if circumstances allow) co-creation workshops (5 in each Pilot country, 10 in total).

At the end of the co-creation workshops will be defined the 5 curriculum / syllabuses required defining also the best teaching methodology for FICs.

