Interreg CENTRAL EUROPE

Co-funded by the European Union

DigiCare4CE

DigiCare4CE

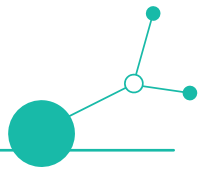
Implementation Plan

A 2.2 Implementation of pilot action 1 "The digital transformation of care management and delivery"

D.2.2.2 Implementation plans developed by implementation teams

A 2.3 Implementation of pilot action 2 “The datafication of elderly care delivery based on environmental, wearable and IoT solutions"

D.2.3.2 Implementation plans developed by implementation teams



Version 2

03 2024

OVERVIEW

Table of content

INTRODUCTION

Background (Application form):

Pilot Action 1: The partners DIT (+BRK), GGZ, TUKE (+Kosice Region), RRDA (+ Corde Donum) participate in the Pilot Action 1 "The digital transformation of care management and delivery". The core of this pilot action is to test digital management and information systems The content of the project is management and information systems designed for the organization of care operations (including documentation) and cooperation with third parties (medical practices, hospitals, physiotherapy, etc.).

Pilot Action 2: The partners (+ where applicable associated partners) NOELGA, ISRAA, CVUT (+ Centre of Gerontology), EGTC Carpatia (+ ARCUS) participate in the Pilot Action 2 "The datafication of elderly care delivery based on environmental, wearable and IoT solutions". The core of this pilot action is to test various smart devices such as sensors, wearables or emergency buttons as well as mobile applications and, furthermore, VR/AR therapy in the context of care operations.

For both pilot actions a **standardized implementation plan** defines the interfaces between the respective local implementations to ensure joint implementation (D.2.2.2. & D.2.3.2). The implementation plan is developed by implementation teams and will include timing, resources, the project/pilot description, risks, risk mitigation plan, methodology etc.).

Objective:

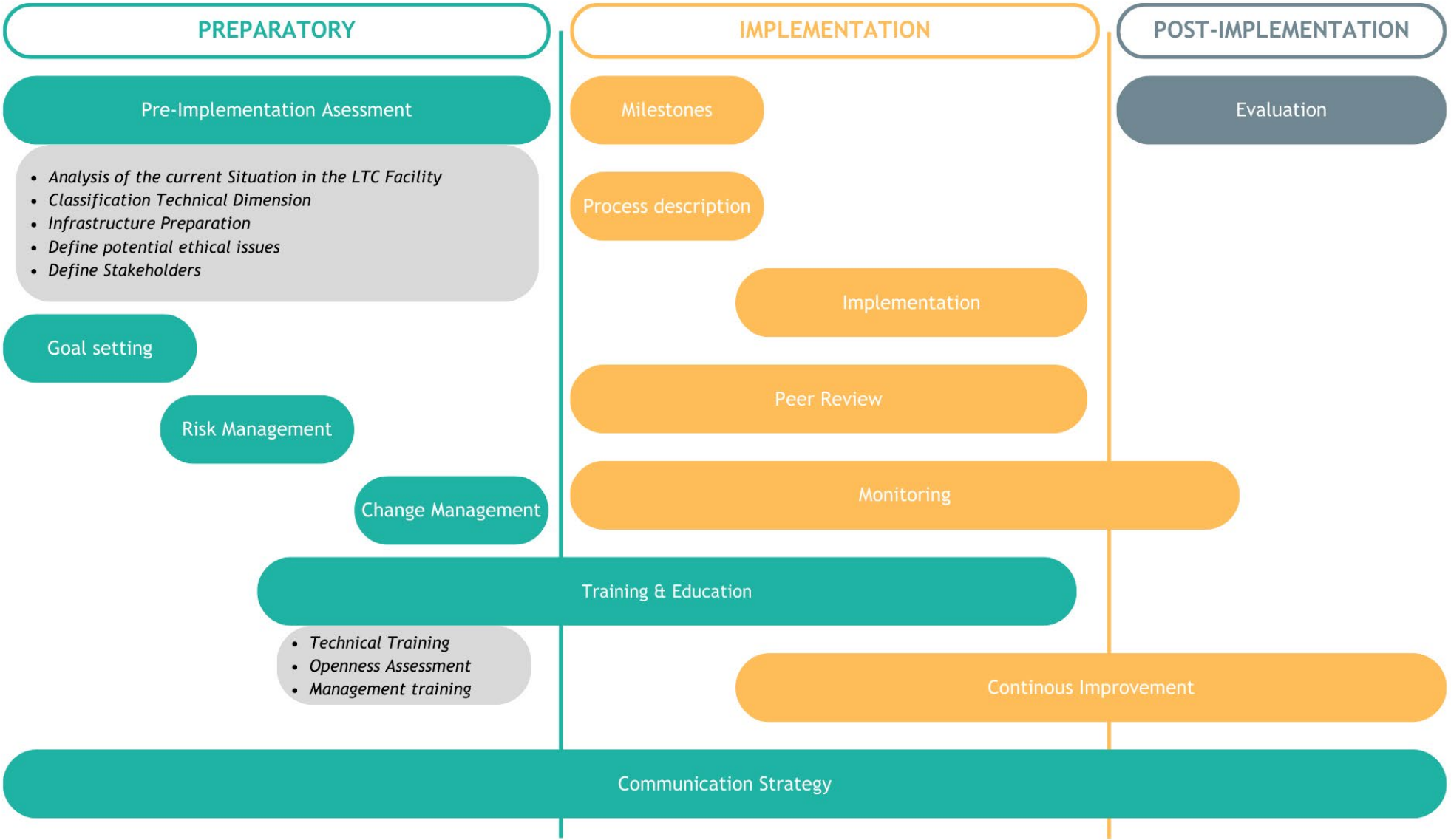
The implementation plan serves as a standardized framework for the joint implementation of new technologies in our associated long-term care facilities. It defines the interfaces between the respective local implementations. The plan was developed collaboratively by implementation teams, with coordination led by GGZ and NOELGA, and supplementary support and feedback provided by DIT, IAT, and ISRAA. The plan encompasses key elements such as timing, resource allocation, risk assessment, methodologies, training, and other considerations for Pilot Actions 1 and 2. While the DigiCare4CE Model forms the theoretical foundation for these pilot actions and subsequent project phases, the implementation plan functions as a guide for standardized practical implementation. This implementation plan is a dynamic document and will be adapted and expanded throughout period 2 to 4, ensuring flexibility and facilitating a continuous learning process during the pilot actions.

Instructions:

When using the implementation plan, please consider the following aspects:

- The implementation plan serves as a comprehensive framework for our implementation; however, local pilot actions may need additional or alternative steps and considerations.
- Utilize the provided worksheets and templates as needed. Regularly update and review them, provide feedback on tasks that may prove impractical during implementation.
- External sources are referenced at specific chapters in the implementation plan; it is essential to examine and supplement these references as required.
- Text in turquoise highlights the specific requirements for the DigiCare4CE pilot action. In contrast, text in black offers general guidance on implementing new technologies in long-term care facilities and is applicable independent of our project.

Implementation Timeline



A. Preparatory Phase

The preparatory phase will start in January 2024. Tasks in this phase should ideally be completed until March 2024.

1. Pre-Implementation Assessment

Topic	**ANALYSIS OF THE CURRENT SITUATION IN THE LTC FACILITY**
Information	Understanding the current situation in a long-term care facility is vital for implementing new technology. It helps to identify specific needs, inefficiencies in workflows, and ensures the chosen technology aligns with facility goals. This understanding is essential for integrating new technology seamlessly into the existing processes. Describing the current state also highlights the benefits of technology adoption, supporting better resource allocation and informed decision-making. This comprehensive understanding is crucial as staff members can provide valuable insights into daily challenges and suggest practical solutions and it helps selecting features that directly address these challenges. Understanding the current situation also helps in ensuring that the chosen technology complies with regulatory standards and guidelines in the healthcare sector and the LTC facility. For guidance, refer to your responses in Questionnaire 1 and 2 from Activity 1.2, in which you have already provided information on the current status in the LTC facility.
Task 1	**Current situation in LTC-facility**: Describe the current situation and workflow in your long-term care facility where you wish to test a new technology. Please also provide information on why the technology is needed and which benefits and consequences occur if the technology is (not) implemented.
Deadline	**29.02.2024**

What kind of technology do you want to implement?

How was the technology agreed upon? Who decided what would be implemented? Which stakeholders have been included in the decision-making process? (e.g., management, employees, other organizations...)

Please describe the current situation and workflow, which you want to digitalize, in detail so you can compare/evaluate it later. If applicable, you can use photos or other visual aids (e.g., flow charts)

How will the organizational processes be influenced?

What do you want to change? What are your expected results?

Provide a list of data which you want/need to measure. How will you measure this data?

Why is the selected technology needed, which benefits are expected and what are the consequences of not implementing the technology?

Expected benefits	**Consequences of not implementing the technology**

Topic	**ANALYSIS OF THE FUTURE SITUATION IN THE LTC FACILITY**
Information	When implementing new digital solutions, it is essential to look beyond the current benefits and also think about their long-term relevance. Questions about the durability of the solution over 10-15 years, the need for updates ore upgrades, the ability to adapt to changing infrastructure and hygiene standards, and the ability to identify potential future problems are essential. A complete picture ensures, that the chosen solution will not only be successful in the short term, but will also be able to meet changing needs and challenges in the long term.
Task 2	**Future situation in LTC-facility:** Think about the future situation and potential changes in your care facility. Inquire about the durability of the solution and if / when updates and upgrades may be needed.
Deadline	**29.02.2024**

How will the digital solution be further developed in the next 10-15 years and will it remain relevant for our company?

What regular updates or upgrades are required for the efficiency and security of the solution?

Can the digital solution be adapted to a new infrastructure?

What technological developments can be expected in the next few years and how might this affect the relevance and performance of the solution?

What potential risks and challenges could arise in the future and what strategies can we develop to address them?

How will the solution be accepted by employees and will regular training continue to be required to ensure smooth integration?

2. Technical Dimension:

Topic	CLASSIFICATION
Information	The digital health landscape involves various stakeholders, such as community/government representatives, technologists, the health workforce, project managers, network operators, researchers, individuals (clients, residents) etc. Despite their collaboration, a common and standardized language (digital health ontology) is vital to plan, conduct, and evaluate inventories of existing assets, identify gaps and duplications, conduct research, assess effectiveness, and foster alignment across various digital health implementations. The World Health Organization provides a *"Classification of digital interventions, services and applications in health"*, which aims to create a shared language to describe the uses of digital technology for health (World Health Organization, 2023). Overall, the classification is organized around 3 axes: (1) health system challenge, (2) digital health intervention, (3) digital services and application types. Additional information and examples for each category see here. For guidance, refer once again to your responses in Questionnaire 1 and 2 from Activity 1.2, in which you have already roughly classified your technology.
Task 3	**Classification of your technology:** Identify the health system challenge, type of intervention and digital service your associated facility addresses within the pilot action.
Deadline	**31.01.2024**

Table 1. Classification of digital health intervention (pilot action)

Health system challenge	Digital health intervention	Digital services and application types
Which challenge targets your pilot action?	*Which type of intervention (based on the targeted primary user) is targeting your pilot action?*	*Which type of technology and area of digitalization is targeted?*
☐ Information ☐ Availability ☐ Quality ☐ Acceptability ☐ Utilization ☐ Efficiency ☐ Cost ☐ Accountability ☐ Equity ☐ other:	☐ Intervention for persons ☐ Intervention for healthcare providers ☐ Interventions for health management and support personnel ☐ Interventions for data services ☐ other:	☐ Point of service ☐ health system, provider administration ☐ registries and directories ☐ data management services ☐ surveillance and response ☐ other:

Topic	TECHNOLOGY READINESS LEVEL
Information	The Technology Readiness Level (TRL) scale was originally defined by NASA in the 1990's to indicate the maturity of a given technology. In 2014, the scale was introduced to EU funded projects in the Horizon 2020 program (APRE & CDTI, 2022). Usually, new technologies undergo different stages of the TRL scale throughout their life cycle. Throughout the research and development stages, there can be iterations among the various TRL levels. In this context, the TRL scale helps to evaluate and better understand the current state and project progress. To effectively use this implementation plan, it is crucial that the technology readiness level surpasses **level 7**, signifying its readiness for deployment. The focus here is on the practical application rather than research, ensuring the system/technology can **operate in a real-world environment**. Should the technology readiness level fall below 7, it necessary to take into account various additional considerations. If your readiness level is lower than 7, it is recommended to acquaint yourself with the aspects related to the research and development of a digital solution in the context of LTC.
Task 4	**Assess the product maturity of your chosen solution using the Technology Readiness Model and explain your result(s). If your TRL level is lower than 7, additionally acquaint yourself with aspects related to your TRL level (e.g., research, development).**
Deadline	31.01.2024

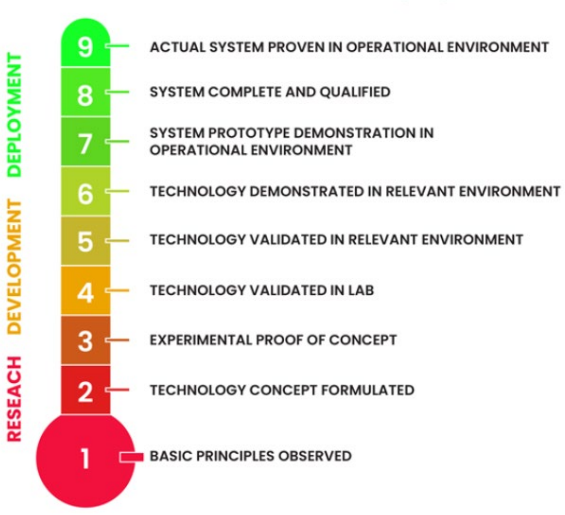


Figure 1. Technology Readiness Level

Table 2: Technology Readiness Level assessment-tool, modified following BRIDGE2HE.

☐	TRL 1 – basic principles observed (case of key enabling technologies)	scientific research has just started, and the first results are used to be translated into future research and development
☐	TRL 2 – technology concept formulated	basic principles have been studied and first experiments/tests are designed based on the initial findings (still speculative)
☐	TRL 3 – experimental proof of concept	analytical and laboratory studies conducted, results from experiments/tests support the initial idea (proof-of-concept model)
	When TRL 3 is reached, one can conclude that the new technology is **feasible from a scientific point of view.**	
☐	TRL 4 – technology validated in lab	Validation of technology has been performed at laboratory level, a laboratory prototype is available.
☐	TRL 5 – technology validated in relevant environment	Technology is tested in a more realistic, but still under control mode environment.
	When TRL 5 is reached, one can conclude that the new technology is **feasible from a technological point of view.**	
☐	TRL 6 – technology demonstrated in relevant environment	To confirm that engineering is feasible, the prototype is demonstrated in (industrially) relevant environment.
☐	TRL 7 – system prototype demonstration in operational environment	The prototype/working model is demonstrated in an operational environment under 'normal' conditions and timings.
	When TRL 7 is reached, one can conclude that the new technology is **reliable from the technological point of view.**	
☐	TRL 8 – system complete and qualified	The technology is ready for implementation into an already existing technology or technology system.
☐	TRL 9 – actual system proven in operational environment	The technology system has been proven during operations, competitive technology.
	When RL 9 is reached, one can speak of a **commercial technology**.	

Following your **Technology Readiness Level assessment**, explain shortly your chosen TRL level and the maturity of your technology:

Topic	INFRASTRUCTURE PREPARATION
Information	Clarify with your IT department and the manufacturer the technical requirements and necessary measures for the deployment of the technology. The following questions may need to be clarified: • *Is WLAN required? SIM card capability? Is offline processing possible? Is the installation of, for example, signal boosters necessary?* • *Is data transmission required, and what about the completeness of the data?* • *Are analog or digital interfaces with the technology available in the facility, and are they compatible?* • *Are there any technical requirements for the facility that go beyond the manufacturer's safety instructions, such as involving the construction department, data protection, occupational safety, etc.?* • *What support does the manufacturer provide for implementation and ongoing operation?* • *What warranty services are offered?* • *Are possible product adjustments after implementation chargeable or provided as a service? Is there a replacement in case of hardware damage or loss?* (Würdig et al., 2022). Consider that the acquisition of works, suppliers or services from economic operators by means of a public contract is subject to **rules on public procurement**. This secures transparent and fair conditions for competing on the common market and shall be followed when procuring services, works or supplies. Rules differ depending on the kind of goods or services to be procured, the value of the purchase and the legal status of the awarding institution. Rules are set at the following levels: • EU rules as set by the applicable directives on the matter; • National rules; • Interreg programme rules It is strongly recommended to become familiar with the applicable procurement rules and, if necessary, to seek advice of procurement experts or national controllers early enough before launching a public procurement procedure. • More information on **EU rules on public procurement**, including on applicable EU thresholds, can be found at **https://ec.europa.eu/growth/single-market/public-procurement_en**, while information on national rules on public procurement can be found on the websites of competent institutions on the matter. • The Interreg CE Programme requires beneficiaries to give evidence of adequate market researches for contracting amounts between **EUR 10.000,00** (excl. VAT) and the threshold set by the applicable EU and national rules. More information: **Interreg CENTRAL EUROPE programme manual**.
Task 5	If applicable, assess and upgrade the facility's IT infrastructure as needed (e.g., hardware, software, network). Customize the technology to meet the facility's unique requirements. Integrate the new system with other existing healthcare systems (e.g., care management tools, electronic health records etc.). Clarify how vendors are selected and contracts are made.
Deadline	**31.03.2024**

Technical requirements and infrastructure for implementing the technology:

Evaluate the compatibility of the chosen technology **with existing systems and infrastructure:**

Vendor / supplier selection and contracting	
Do you have internal procurement guidelines?	☐ Yes / ☐ No
Where can you find the vendor/supplier?	
Are these guidelines up-to-date?	☐ Yes / ☐ No
Tender follows the eligibility rules of Interreg CENTRAL EUROPE?	☐ Yes / ☐ No
Does every team member have access to that document?	☐ Yes / ☐ No

Topic	**RELIABILITY TEST**
Information	Conducting a **reliability test or pre-test** before implementing new technologies in residential nursing homes is a crucial step to ensure the effectiveness and usability of the solution. Develop realistic scenarios that reflect the daily tasks and challenges faced by employees in the nursing home. Include a variety of situations to thoroughly test different aspects of the technology. Observe how users interact with the technology and address any issues that arise during this phase. Then obtain feedback regarding user-friendliness, efficiency, reliability, and overall user satisfaction. Use surveys, interviews, or focus groups to gather feedback from participants. Encourage users to provide detailed feedback on their experiences, including any difficulties they encountered and suggestions for improvement. Use this information to make necessary adjustments to the technology and its implementation. Document the results of the reliability test, including both positive outcomes and areas that need improvement. This documentation will be valuable when making decisions about whether to proceed with the full implementation. Consult with experts in the field, including technology specialists, nursing professionals, and usability experts, to gain additional insights and recommendations. Take the opportunity to connect with experts listed in the roster to obtain professional feedback on your solution and its implementation.
Task 6	Conduct a reliability test with a selected group of employees (e.g., experts, interested employees etc.) and obtain their feedback. If possible, also consult with experts (e.g., from the expert roster) and seek their professional opinion.
Deadline	**31.03.2024**

Describe how you are going to test the reliability of the technology? How will be involved in the pre-test? How will you gather feedback? (method)

3. Ethical & legal Dimension

Topic	ETHICAL & LEGAL DIMENSION
Information	The legal and ethical dimension refers to elements, principles, behaviours, and considerations that relate to both legal requirements and ethical standards. This category encompasses aspects related to ensuring that actions and decisions align with the law, such as enabling safety, security, privacy, and with morally acceptable conduct. **Ethical:** Technologies with higher maturity levels (near to level 9) usually do not need ethical approvals, since they have already been through a research phase in which ethical aspects have been tested. However, if necessary, establish ethical guidelines for the use of technology with your employees and seek care-related ethical expertise in case of uncertainties. Pay attention to transparency, information, and adherence to agreed-upon ethical values, especially when new employees are being integrated and regularly assess whether new ethical questions have arisen (Würdig et al., 2022). Ethical rules might be country specific. Therefore, we recommend checking **ethical guidelines and standards of your country**. Depending on the technical solution you want to implement you may also involve the following councils such as the Residents' Council or the Bioethics Commission of your country. These practical questions might support in adhering ethical standards: • *What ethical issues may arise from the use of technology in your institution?* • *What approaches could you develop to address these issues?* • *Does the use of technology hinder or support social participation, the right to self-determination, and the privacy of your clients?* • *Is the dignity and health of your clients preserved through the use of technology?* • *Does the use of technology harm the reputation of your institution?* • *Does the deployment of technology contradict the guiding principles of your establishment?* • *Which stakeholders need to be informed about and involved in the implementation of technology? Think beyond your clients, for example, consider relatives, caregivers, employee representatives, nursing home authorities, health departments, health insurance companies, medical practices, political committees, etc.* **Legal:** Adherence to data protection rules is also important throughout the whole pilot action, encompassing the implementation and testing phases of a new technology within our long-term care facilities. Ensure strict compliance with both internal organizational and national data protection rules and, on a broader scale, adhere to EU data protection requirements. More information on data protection in the EU: Data protection EU. • *Does the pilot action follow data protection rules? How to adhere to data privacy rules?* • *Which consents are needed?*

	• *How will the contracting between LTC & vendor be organized?* • *How to optimize surveillance?* • *How is data flow managed?*
Task 7	Which ethical and legal issues arise through the implementation of new technology in the LTC facility? Please also describe how you are going to deal with these issues? Also line out which data you will measure and who will have access to it? Check again your list of data, which you want to collect (see Chapter 1: Pre-Implementation Analysis) and ensure that each data is collected according to ethical and legal standards and rules.
Deadline	**15.03.2024 / continuously**

Ethical & legal consideration(s)	**Handling**

Data	**Access**
See Chapter 1 (Pre-Implementation Analysis)	

4. Organizational Dimension

<table>
<tr><td>Topic</td><td>PROJECT MEMBERS & STAKEHOLDER MANAGEMENT</td></tr>
<tr><td>Information</td><td>
Early involvement of key stakeholders: It is important to identify key stakeholders for your pilot context as an important factor for the success of a product implementation is the early involvement of all stakeholders. These can be internal and external stakeholders. A list of project members and stakeholders will help you to further coordinate communication and involvement in your pilot. Think of the following questions:

Who in your organization is needed and should be involved to introduce new technology? (include all levels, decision making)
Who are the opinion leaders?
Who needs to be informed about the change?

Management Power: Appoint a project manager (pilot) responsible for the implementation and as a central contact person for the LTC facility. Especially for complex product launches, the team typically needs an experienced guide who is flexible, residents, competent, and able to support new users confidently until they are proficient in independent product use and the changed processes (Würdig et al., 2022). If applicable, appoint a wider pilot management team (e.g., establish a dedicated help desk to assist users with technical issues.). Clarify in detail the roles and responsibilities in advance and communicate them transparently.

The concept of <u>co-creation</u> is essential in this context. It is helpful to clarify in which extent the relevant stakeholders will participate. The phases and levels of co-creation might be a useful to clarify to what extent the relevant stakeholders will participate and be involved in the implementation process. Further useful tools and inputs on co-creation in elderly care can be found on the project website of “I CARE SMART” (toolbox for senior engagement; business engagement; handbook on co-creation & open innovation methods). Additionally, the levels of participation by Wright, Block and Unger (2010) are useful to analyze in which level stakeholders participate and what chances and challenges might occur in each stage of participation:

<table>
<tr><td>Level 9 community-owned initiatives</td><td>GOES BEYOND PARTICIPATION</td></tr>
<tr><td>Level 8 decision-making authority</td><td rowspan="3">PARTICIPATION</td></tr>
<tr><td>Level 7 partial delegation of decision-making authority</td></tr>
<tr><td>Level 6 shared decision-making</td></tr>
<tr><td>Level 5 inclusion</td><td rowspan="4">PRESTAGE OF PARTICIPATION</td></tr>
<tr><td>Level 4 consultation</td></tr>
<tr><td>Level 3 information</td></tr>
<tr><td>Level 2 instruction</td></tr>
<tr><td>Level 1 instrumentalization</td><td>NON-PARTICIPATORY LEVEL</td></tr>
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Task 8	Describe roles and responsibilities of key stakeholders in your LTC-facility. Please clarify to what extent the stakeholders will be involved (= level of participation).
Deadline	31.01.2024

Stakeholder	Involvement	Description of role and responsibilities	Level of participation
Project Manager (Pilot)	☐ Yes / ☐ No		
(Multidisciplinary) Project team	☐ Yes / ☐ No		
Local IT support (help desk)	☐ Yes / ☐ No		
LTC-facility management (e.g., director, managers)	☐ Yes / ☐ No		
Purchasing department, procurement	☐ Yes / ☐ No		
IT department	☐ Yes / ☐ No		
Legal department	☐ Yes / ☐ No		
Data protection officer	☐ Yes / ☐ No		
Ethics committee (or similar)	☐ Yes / ☐ No		
Nursing staff	☐ Yes / ☐ No		
Administrative staff	☐ Yes / ☐ No		
Quality manager	☐ Yes / ☐ No		
Residents	☐ Yes / ☐ No		
Relatives	☐ Yes / ☐ No		
Legal representation of residents	☐ Yes / ☐ No		
Vendor/supplier	☐ Yes / ☐ No		
Occupational safety / hygiene	☐ Yes / ☐ No		
…	☐ Yes / ☐ No		

**please extend the list if needed*

Topic	GOAL SETTING
Information	Concrete, realistic, and shared goals are motivators and provide a clear guideline. They should be regularly reviewed and adjusted as needed throughout the process. Develop the objectives associated with product implementation and make them transparent. It is useful to document goals and evaluate their achievement regularly: Has the intended result been achieved? What supportive factors and barriers have you identified within your organization throughout the process? Involve employees and project team members in the goal setting process to increase their motivation.
Task 9	Clearly define strategic and operative goals of implementing the new technology which are SMART: specific, measurable, achievable, relevant and time bound. Elaborate on how you are going to achieve these goals, i.e., define measures.
Deadline	15.02.2024

Strategic/operative goals	Description
e.g., 2/3 of the nursing staff feel satisfied and confident with using the new technology.	

5. Communication and culture

Topic	COMMUNICATION & CULTURE
Information	Effective communication and a supportive organizational culture are critical for overcoming resistance, fostering collaboration, and ensuring the successful adoption of new technology in a LTC setting. It creates an environment where employees feel empowered, valued, and well-prepared to leverage technology to enhance their work and improve resident care. External communication is also essential for introducing the new technology to external stakeholders such as residents, their families, and regulatory bodies. Transparent and informative communication with these external parties helps manage expectations, build trust, and demonstrate the nursing home's commitment to providing enhanced care through technological advancements. Communicating acceptance from stakeholders, works best when it focuses on the people who are affected by the change (Maguire et al., 2018), but also recognises differences between professional cultures, facilitating dialogue and translation between professional cultures (network, task-teams) (Dugstad et al., 2019). Team communication and collaboration is also important in bottom-up engagement in digital strategy (Trenerry et al., 2021). A good strategy should conceptualise and communicate technologies as tools that complement rather than replace staff and introduce a variety of incentives for adopting the new model, which should reflect the diversity of interests in the workforce (Chan et al., 2022). Communication measures for the pilot actions are needed in the following phases: (i) Communication in the preparatory phase (information for stakeholders & employees) (ii) Communication during implementation (feedback, motivation & trouble shooting) (iii) communication after implementation (communicating results & final feedback)
Task 10	**Communication overview:** Create a communication plan that outlines key messages, channels, and frequency of updates for involved staff in the pilot action. Keep in mind to communicate the benefits and objectives of the new technology to all stakeholders. **Note:** There's an extra annex on how to communicate.
Deadline	Communication in the preparatory: 15.03.2024 Continuously

Communication in the preparatory	
Staff	
About which aspects will the employees be informed?	
How do you want to inform your staff?	

How can the staff contribute their opinion / suggestions?	
Stakeholders	
How do you want to inform your relevant Stakeholders?	

Communication during implementation:	
Feedback	
How can the staff give feedback?	
How can the residents give feedback?	
How can stakeholders give feedback?	
How will feedback be handled?	
Who will be informed about the feedback?	
Motivation	
How will you keep the motivation up?	
Do you plan activities to motivate staff?	

Do you plan activities to motivate residents?	
Trouble shooting	
What risks can be associated with the project?	
Are there technical risks that could lead to problems?	
Does the innovation dependent on other activities or teams?	
What experience do you have from similar projects?	
What processes are in place for troubleshooting and problem solving?	
Who will be informed about troubles?	

Further procedure:	
How will get all results of the project?	
How will get a part of the results of the project? What part will they get?	
How will give final feedback?	

To facilitate communication, specify the communication channels you prefer for each target group. Additionally, consider the optimal frequency of contact and identify the key messages you intend to share.

Target group	Key message	Channel/Frequency

6. Training and Education

Topic	TRAINING & EDUCATION
Information	Digital change is as much about the people as it is about technology and training of employees proved to be one of the most important factors to facilitate the digitalisation process (Bail et al., 2022; Boyle et al., 2022; De Leeuw et al., 2020; Trenerry et al., 2021). But this has many different facets. Management needs to provide investments and opportunities in professional development, tailored training, and peer-to-peer learning; (De Leeuw et al., 2020) skills upgrading or retraining, appreciating that in the healthcare sector, these users possess varying degrees of technological expertise and access, everyone should receive mandatory training in technology use in the healthcare sector (Iyanna et al., 2022). Organizations should negotiate with firms providing e-health products/services to secure onsite personnel support and chat-based online support to address any challenges end-users (healthcare providers and residents) might face (Iyanna et al., 2022). **Co-design capabilities:** When the employees are actively involved in the co-creation of the digitalisation process and receive acknowledgement from management the process is much smoother (Boyle et al., 2022). For this to occur staff **clarity about roles** and responsibilities must be communicated clearly. Also, the organizational culture must **promote democratic participation and decision-making processes** and the promotion of innovative capabilities of all actors (Federal Ministry for Digital and Economic Affairs, 2021). This must include employees with existing digital competencies, staff involvement as end users in the development so they are fit for purpose, and user engagement (staff or resident) can promote a sense of ownership (Bail et al., 2022). **Perception of benefits:** The process is also facilitated by positive perceptions of the (potential) user of the technology especially perception of the benefits of the innovation (Gagnon et al., 2012). Perception of usability and the ease of use of technology is important, as new technology should be better than traditional methods (Granja et al., 2018).
Task 11	A) **Technical training needs assessment:** Identify the specific training needs of different staff roles (e.g., nurses, administrative staff, care management) to ensure that the workforce is well equipped to meet the demand of the ever-evolving business environment. B) **Openness Assessment:** Identify what the employees expect from the technology and how the training is going to influence their everyday life. Are their special personal needs to support them? **C) Management training needs assessment:** **Training & education:** Offer a training and education "program" for the employees identified in the table below. Choose suitable training methods (e.g., workshop, online modules, train-the-trainer, …) and provide ongoing training and support for staff to adapt to the new technology. **Framework:** A more detailed framework for the training is attached in the annex.
Deadline	Continuously

A) Technical training needs assessment

Target group	Training need
Training/education program	
Target group	**Training need**
Training/education program	
Target group	**Training need**
Training/education program	

B) Openness Assessment

Target group	
Expectation of the technology	
Does the technology influence the workflow? If yes, will it complicate the workflow? If yes, how do you think you / the company can handle this?	☐ Yes / ☐ No
Does the target group need a special training (except the technological)?	
What obstacles could arise and how can they be overcome?	

Target group	
Expectation of the technology	
Does the technology influence the workflow? If yes, will it complicate the workflow?	☐ Yes / ☐ No

If yes, how do you think you / the company can handle this?	
Does the target group need a special training (except the technological)?	
What obstacles could arise and how can they be overcome?	

Target group	
Expectation of the technology	
Does the technology influence the workflow? If yes, will it complicate the workflow? If yes, how do you think you / the company can handle this?	☐ Yes / ☐ No
Does the target group need a special training (except the technological)?	

What obstacles could arise and how can they be overcome?	

C) Management training needs assessment

Target group	
Expectation of the technology	
Does the technology influence the workflow? **If yes, will it complicate the workflow?** **If yes, how do you think you can handle this?**	☐ Yes / ☐ No
How are you going to support the staff?	
Does the target group need a special training (except the technological)?	
Are you continuously monitoring the progress of the implementation process?	

Target group	
Expectation of the technology	
Does the technology influence the workflow? If yes, will it complicate the workflow? If yes, how do you think you can handle this?	☐ Yes / ☐ No
How are you going to support the staff?	
Does the target group need a special training (except the technological)?	
Are you continuously monitoring the progress of the implementation process?	

Topic	CHANGE MANAGEMENT
Information	**Change Management** is key to increase acceptance and reduce barriers when implementing new technologies (Riiser & Koppel, 2022). According to Phillips & Klein (2023), there are five topics which are key for successful change, namely "*communicate about the change, involve stakeholders at all levels of the organization, focus on organizational culture, consider the organization's mission and vision, and provide encouragement and incentives to change*." Nevertheless, each organization is different and there is no universal change management approach that works in all settings. **Additional information:** Change Management: Why It's Important in Health Care | Executive and Continuing Professional Education | Harvard T.H. Chan School of Public Health A change process in the healthcare sector usually includes three stages: (i) preparing for change, (ii) managing change and (iii) reinforcing change. In the following change steps, as well as strategic and operational practices are outlined and might be useful for your pilot action (Kho et al., 2020):

	Change steps*	Strategic practices identified in review	Operational practices identified in review
Preparing for Change	1. Assess the opportunity or problem motivating the change		Conduct a needs assessment Assess compatibility of telemedicine equipment and applications
	2. Select and support a guiding change coalition	Establish plans Gain leadership and management support Identify champions Engage partners and stakeholders	Assign coordinating roles Ensure adequate resources
	3. Formulate a clear compelling vision	Develop and articulate a clear, simple vision	
Managing Change	4. Communicate the vision	Communicate changes and understanding of telemedicine Gain stakeholder trust, acceptance and buy-in	
	5. Mobilize energy for change	(Continue to) engage partners and stakeholders	
	6. Empower others to act	Facilitate ownership of the service	
	7. Develop and promote change-related knowledge and ability		Provide training and education Develop new work processes, protocols and procedures
	8. Monitor and strengthen the change process	Monitor change and maintain flexibility	
Reinforcing Change	9. Identify short term wins and use as reinforcement of change process	No practices identified in review	
	10. Institutionalize change in organizational culture, practices and management succession	(Continue to) engage partners and stakeholders Evaluate the changes and maintain flexibility	

Accompany and support the employees intensively during the implementation phase. Acknowledge the commitment of the employees even after the official start of the implementation. Project managers of the pilot action should be present on-site regularly. Consider highlighting the special commitment of your employees in public relations efforts (such as press articles) as well. This is particularly appropriate when the product launch is associated with significant benefits for your end-users (Würdig et al., 2022).

Here are some scientific findings on change processes in the healthcare sector (Hospodková et al., 2021):

- Healthcare systems are too complex for a linear, top-down approach; a bottom-up approach is supported for continuous improvements.
- Continuous improvement requires real-time feedback, short-term victories, and training for healthcare staff in systemic thinking and implementation skills.
- Successful and sustainable change requires monitoring key factors such as a clearly defined vision, early stakeholder engagement, clear rules, adaptation to local context, provision of technical base, and step-by-step implementation with strong feedback.

	• Organizational preparedness is crucial, involving motivation, resources, employee attitudes, and organizational climate. • The perception of a need for change is influenced by whether the innovation is seen as an opportunity or threat, and adaptability depends on how the innovation will change employee roles and work procedures. • Rigorous management is essential, especially in situations where change has a major impact and is a sensitive issue.
Task 12	Take your time to **self-assess your LTC-facilities ability to change** ways of working. Note down important factors for success and barriers to change. Then, develop change management strategies and measures (e.g., See above: feedback structures, celebrating victories, rule setting, definition of a vision etc.) to promote successful change which are suitable for your LTC facility.
Deadline	15.02.2024

Ability to change of your LTC facility	**Successful factors for change in your LTC facility**	**Barriers for change in your LTC facility**

Subsequently, with the use of the literature provided above, develop change management strategies and measures to addressing resistance to change.

Change management strategy / measure	**Description**

7. Resources / Economical dimension

Topic	Resources / Economical dimension
Information	Compile the incurred costs in a detailed cost plan and present it to the board/executive management early on. If possible, provide a market analysis and cost-benefit comparison to similar products if needed. Communicate product costs and the results of a cost-benefit analysis with the executive management and if necessary, with employees. Software and AI-based products are often associated with higher costs, so it is important to provide clarification to avoid potential acceptance issues. At the beginning, product introduction usually entails additional effort, especially for adjusting technical functions. Plan personnel resources for this purpose. Take into account the potential need for additional personnel during the implementation process. Have any unforeseen costs arisen during the course of the project (comparison of actual and planned)? Is an adjustment of the budget necessary, requiring approval from the board/executive management? (Würdig et al., 2022). Determine the budget allocation for implementing your technology within the DigiCare4CE project in the LTC facility. Clarify whether the project funding fully covers the expenses or if your associated organization is also contributing financially to the implementation.
Task 13	**Resource allocation and budgeting:** Identify the financial resources required for the implementation, including costs for hardware, software, training, and ongoing maintenance. Assess **staffing needs** for the implementation, including IT specialists, trainers, and support personnel.
Deadline	**29.02.2024**

Resource allocation and budgeting

Create a table for resource allocation and budgeting according to your organization's requirements.

Staffing needs

Create an overview that outlines roles, responsibilities, and timelines for each team member involved in the implementation:

Team member / staff	Responsibility	Timeline (number of hours)

Topic	RISK MANAGEMENT
Information	The emphasis on resident safety and well-being is vital, particularly in LTC settings. To accomplish this, it is essential to enable organizations and staff to effectively identify, communicate, document, and address risks in general. In general, risk management in LTC settings should include the following (Ibrahim et al., 2019): • Support individuals in making informed choices by identifying, providing, and communicating available options and potential consequences. • Documenting consent, possibly through formal risk agreements, brings clarity and helps establish responsibility for implementing choices. • LTC managers regularly review and reflect on decisions and actions related to choose implementation, utilizing robust governance systems. • Learning from these experiences is crucial for meeting the expectations of individual residents, staff, the organization, and the community.
Task 14	Identify potential risks and challenges associated with the implementation of your technology in different dimensions (e.g., resistance from staff, technical issues, or budget constraints). Assess the size and likelihood of each risk. For each risk, develop a comprehensive prevention/risk mitigation measure.
Deadline	15.03.2024

Risks and Challenges	Size	Likelihood of occurrence	Preventive/mitigating measures
Describe the risk, challenges and its cause.	*e.g., large, medium, small*	*e.g., 60%*	*What can be done to prevent or mitigate the occurrence of the risk. Who is responsible for preventive measures?*

B. Implementation

The implementation phase will start in March 2024. Tasks in this phase should be completed by 31th of May and continuously revised until February 2025.

8. Implementing the digital solution

Topic	IMPLEMENTATION
Information	Especially in the initial weeks of implementation (the duration depends, among other things, on the complexity of the product), as the project manager or another responsible person, you should allocate sufficient resources for on-site support. This allows you to provide support and advice, while also assessing through observation and exchange to what extent any concerns or questions are confirmed or arise in practice. Check whether the technology's functions align with internal operational requirements. Engage in communication with the manufacturer. They may support you in finding solutions as a customer-oriented solution for problems. Therefore, plan regular feedback loops. Clearly demonstrate to your employees that you actively counteract negative impacts. This can strengthen long-term motivation and utilization.
Task 15	Select a smaller group of staff or a specific unit for a pilot implementation. Collect feedback from pilot users to make necessary adjustments before you “roll-out” the digital solution. You can also put the milestones in a chart to get a graphical overview of the implementation process. *To effectively plan and implement your pilot, establish milestones for key events throughout the implementation. This will facilitate progress monitoring and serve as a motivational tool.*
Deadline	31.05.2024

Milestones: To roughly schedule your pilot, set milestones for important events during the implementation. It will help you to monitor your progress.

Milestone	Scheduled Deadline	Actual Deadline

Date
- Milestone 1

Date
- Milestone 2

Date
- Milestone 3

Date
- Milestone 4

Date
- Milestone 5

9. Description of the process and use of technology

Topic	PROCESS
Information	It is necessary to create or find a manual for the digital solution being implemented. The unit process description should serve as a resource for team members to refer to when questions arise, problems are encountered, or errors are made. The manual is essential for current and future staff to understand and use the unit. If necessary, collaborate with the manufacturer to create an additional short guide with visual representations or video recordings of the essential operating steps. Make these documents and materials available to all relevant parties. Place the short guide in close proximity to the technology, and/or save the information on the work phone or tablet.
Task 16	Use the checklist below to make sure you provide all relevant parties with a clear description on how to use the technology.
Deadline	31.05.2024

Process description	Available	Where can you find this information?
Is there already a comprehensive manual or detailed description existing?	☐ Yes / ☐ No	
Is the document up-to-date and accurate?	☐ Yes / ☐ No	
If there is no document – will someone create one?	☐ Yes / ☐ No	
Does every team member have access to the document?	☐ Yes / ☐ No	

10. Monitoring & Evaluation

Topic	MONITORING & EVALUATION
Information	Monitoring and evaluating the implementation of a digital solution in long-term care enable stakeholders to ensure that the technology aligns with the goals of improving care quality, optimizing operations, and enhancing the overall well-being of residents. It also allows for continuous improvement and adaptation to the dynamic nature of healthcare environments. Implementing key performance indicators (KPI) in the monitoring and evaluation process adds a structured and measurable dimension to assessing the effectiveness and impact of a digital solution in a long-term care setting, facilitating informed decision-making and continuous enhancement. **Key performance indicators:** Examples: Time for documentation, accuracy & completeness / quality (e.g. rate of errors; inconsistencies), legal compliance (compliance with data security; privacy regulations, regulatory requirements related to process), resident outcomes, digital literacy (digital competences of nursing staff through periodic evaluations), level of satisfaction (of residents, management), communication (changes in collaboration, communication with other health professionals…), risk and safety (change in risk/safety based assessments)
Task 17	Select “key performance indicators” (KPIs) related and relevant to your chosen digital solution (e.g., nursing documentation system) and monitor them in regular intervals. Important: Measure KPIs before implementation to compare them with the data after the implementation.
Deadline	Continuously

KPI	Description	Pre-Implementation	Post-Implementation

Topic	PEER REVIEW
Information	A peer review team assembled by joint pilot team members and stakeholders in long-term care will visit you. The teams evaluate the current status of your pilot action and hold interviews with you as a hosting partner. The international peer review team will consist of the following members (3-5 participants): (i) Joint pilot team members (ii) Associated strategic partners, experts in the field of digitalization. (iii) Stakeholders in LTC (iv) Coordinators (PP2 GGZ) Peer reviews are essential to validate the technology's appropriateness, ensuring it meets standards and aligns with best practices. These reviews contribute to quality assurance, and identify potential risks, guiding a more successful implementation of new technologies in your associated LTC facility.
Task 18	**Host a peer Review:** Organize a peer review visit with the coordinator PP2 GGZ about halfway through the pilot action / implementation. The peer reviews will take place during **March and July 2024.**
Deadline	**02.02.2024**

Nominate at least one member of your project team and/or external expert/strategic partner which will be part of the **peer review team**. The peer review team member should be either a joint pilot team member, strategic partner or stakeholder in LTC.

Name of peer review member	Organization	Field of expertise	E-Mail	Mobile number

Organize a local public event and invite selected local stakeholders in which the international peer review team shares and discusses its initial findings. In joint peer review reports the recommendations for the ongoing implementation will be summarized.

Date of peer review	Location		Local stakeholders

11. Optimization & Continuous Improvement

Topic	CONTINUOUS IMPROVEMENT
Information	Continuous improvement allows organizations to adapt to evolving needs, enhance the quality of care, and maximize the benefits of technological solutions. Incorporating feedback from staff and professional peer reviews ensures that the technology aligns with best practices, addresses challenges, and evolves to meet the changing demands of the healthcare landscape. Regularly reviewing and updating both the technology and workflows is essential. This iterative process supports fostering a culture of adaptability, and continuous learning within the organization.
Task 19	Establish a process for continuous improvement, incorporating feedback and lessons learned from feedback loops with staff and the peer reviews. Regularly review and update the technology and workflows to stay aligned with best practices (e.g., with respect to the study visits).
Deadline	Continuously

C. Post-Implementation Assessment

The post implementation phase will be announced Tasks in this phase should ideally be completed until *tba*.

Topic	**POST-IMPLEMENTATION ASSESSMENT**
Information	**tba**
Task 20	Conduct a post-implementation assessment and compare it with the pre-implementation process. Identify challenges, areas of success and recommendations/learning experiences for further improvement and future technology enhancements.
Deadline	

Aim of the Project	
Pre-implementation	**Post-implementation**

D. Directories

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2. List of figures

3. List of tables

TRAINING PLAN

Dear pilot partners,

systematic and well-prepared training is crucial for successful implementation of technical solution. It helps your users understand technical solution, it includes them into co-shaping the goals of digital transformation of your LTC facility and when properly structured it gives them a sense of security while using technology – building their trust for future introduction of digital solutions.

Before meeting in Košice, we would like to ask you to prepare a training plan for your pilot. Depending on your situation you might have already implemented part or your plan. Still, it is important you write it down and think about possibilities you might have missed. Furthermore, presenting your training plan to others might give you some new ideas how to improve your training; for the purpose of this presentation, **please prepare short power-point** based on the questions below.

While preparing the training try to think about the training as a continuum.

1. In preparation for the training shortly answer the following questions:
    - Shortly describe technical solution you are implementing.
    - Why did you decide for this digitalization and what are your goals?
    - Is there non-technical knowledge that is also important for your implementation?
    - What will happen during the pilot / Which milestones do you predict? When?
    - Where will solution be implemented? And who will be involved?
    - Where and how can people implementing technology receive support if they have technical or non-technical issue? Think about the time before, during and after the implementation.

2. Planning of the training: Considering the questions above, now think about the people involved in your pilot. While thinking about whom you should include into the training think about different levels: from managers to people who will be using technology. Think about what kind of knowledge and information they will need.

Who in your organization is needed for implementation of new technology and should be included in the training? (include all levels, decision making)	What kind of training and information do they need? - Before the pilot - During the pilot - After the pilot	When and in what form do you plan to provide this training and/or information? Who will be providing this training and/or information?

3. Finally, think about your expert rooster. Where in the trajectory of training can you include them? Think about all the stages from preparation, to training before and during the pilots and support.

Interreg CENTRAL EUROPE

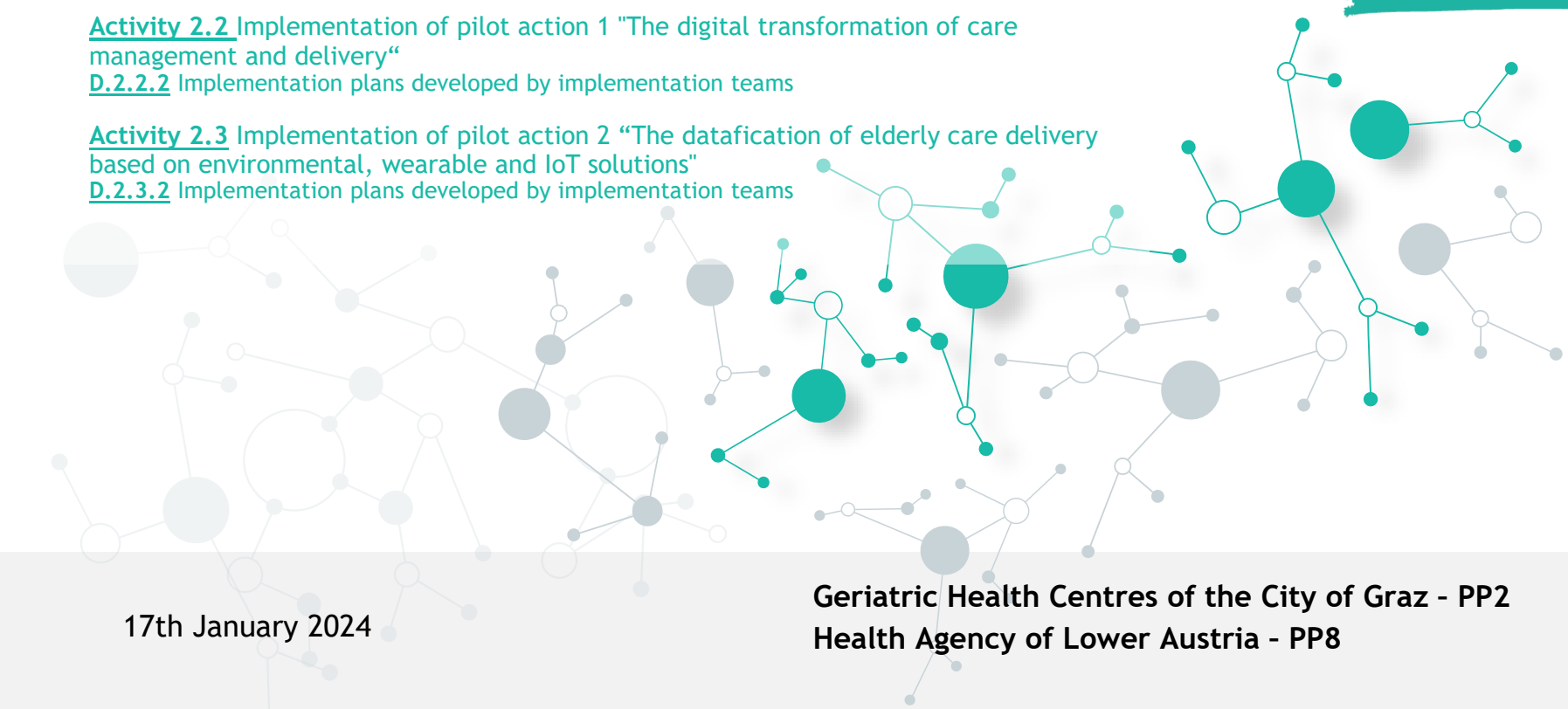
Co-funded by the European Union

DigiCare4CE

1st TRAINING ON THE IMPLEMENTATION PLAN

Activity 2.2 Implementation of pilot action 1 "The digital transformation of care management and delivery“
D.2.2.2 Implementation plans developed by implementation teams

Activity 2.3 Implementation of pilot action 2 “The datafication of elderly care delivery based on environmental, wearable and IoT solutions"
D.2.3.2 Implementation plans developed by implementation teams



17th January 2024

Geriatric Health Centres of the City of Graz - PP2
Health Agency of Lower Austria - PP8

AGENDA

Introduction

- Background
- Objective
- Instructions for the use of the implementation plan

Implementation plan

- Preparatory phase (focus of today)
- Implementation (2nd and 3rd training session)
- Post-implementation (period 4)
- After each sub-phase: open discussion after each sub-category

Next steps

- Deadlines / save the date
- Synergies with other WP's / cooperation
- Q&A

INTRODUCTION

Background & objective

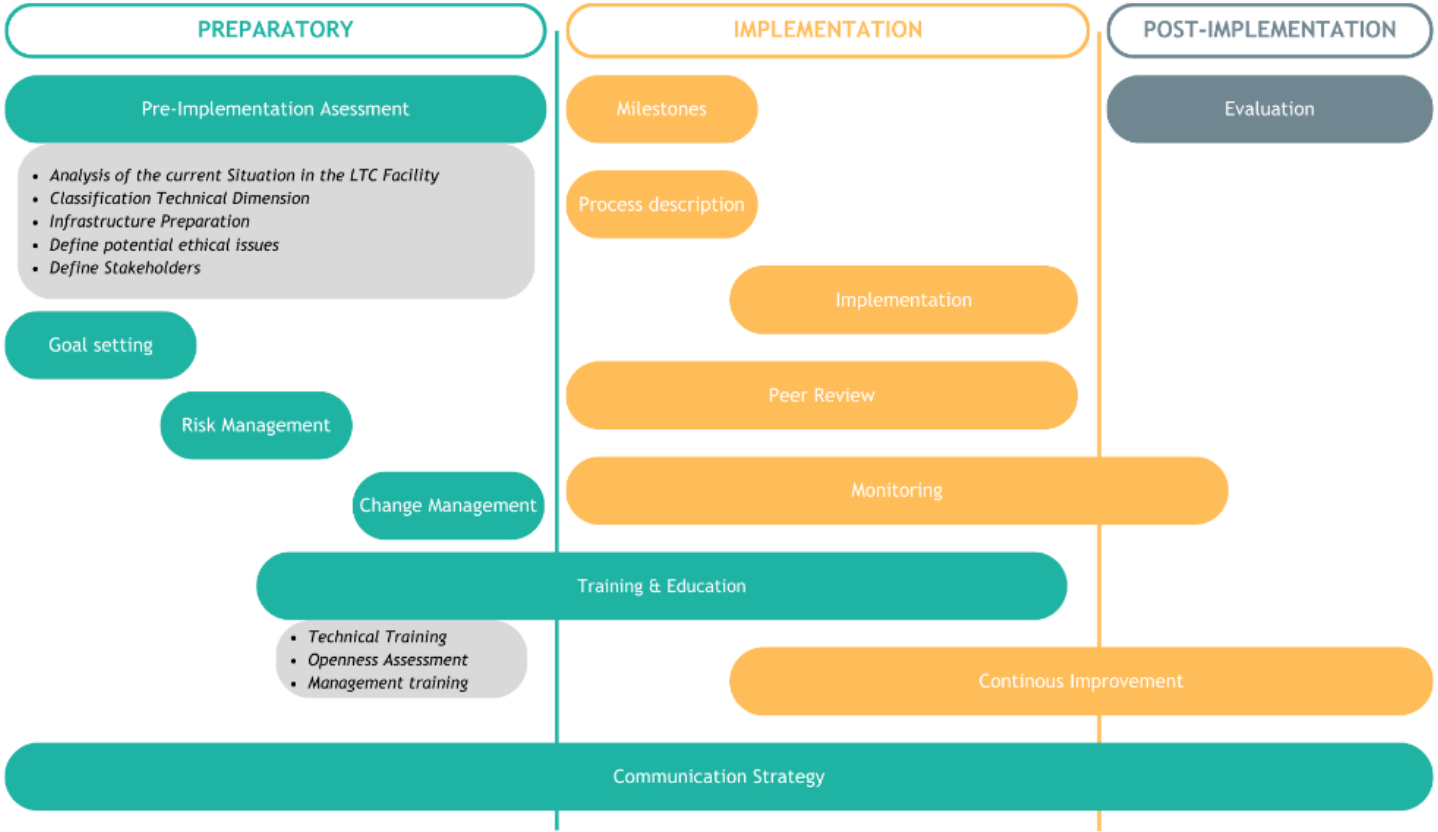
- **D.2.2.2 & D.2.3.2:** For both pilot actions the standardized implementation plan defines the interfaces between the respective local implementations to ensure **joint implementation of new technologies in LTC facilities**
- The implementation plan was developed by implementation teams (DIT, GGZ, NOELGA, IAT, ISRAA)
- The plan covers key elements like timing, resource allocation, risk assessment, methodologies, and training
- DigiCare4CE Model serves as the theoretical foundation, while the implementation plan guides **practical implementation** (= dynamic document which can be adapted and expanded)

INTRODUCTION

Instructions

- Implementation plan serves as a comprehensive framework; **BUT** local pilot actions may need additional or alternative steps and considerations
- Utilize the provided worksheets and templates. Regularly update and review them, provide feedback on tasks that may prove impractical during implementation
- External sources are referenced at specific chapters in the implementation plan; please examine and supplement these references as required
- Each dimension / category consists of **worksheets / checklists**
- Text in turquoise highlights the specific requirements for the DigiCare4CE pilot action
- Text in black offers general guidance and is applicable independent of our project

OVERVIEW


PREPARATORY
IMPLEMENTATION
POST-IMPLEMENTATION
Pre-Implementation Asessment
Analysis of the current Situation in the LTC Facility
Classification Technical Dimension
Infrastructure Preparation
Define potential ethical issues
Define Stakeholders
Goal setting
Risk Management
Change Management
Training & Education
Technical Training
Openness Assessment
Management training
Communication Strategy
Milestones
Process description
Implementation
Peer Review
Monitoring
Continous Improvement
Evaluation

Preparatory Phase

Part 1

PREPARATORY PHASE

Pre-implementation assessment (NOELGA)

Topic & information

- Analysis of the current situation in the LTC Facility
- Identifies specific needs and workflow inefficiencies
- Ensures alignment of chosen technology with facility goals
- For a seamless integration into existing processes
- Highlights benefits of technology
- Ensures compliance with regulatory standards and healthcare guidelines

Tasks

- Describe the current situation and workflow of the long-term care facility
- Provide information why the technology is needed
- What are the benefits if the technology is implemented.
- Describe the consequences of not implementing the technology
- *Already provided in Questionnaire 1 & 2*

Deadline

- 29.02.2024

PREPARATORY PHASE

Pre-implementation assessment (NOELGA)

Completion

- What kind of technology do you want to implement?
- Who decided what would be implemented? Which stakeholders have been included in the decision-making process?
- Describe the current situation and workflow, which you want to digitalize, in detail so you can compare /evaluate it later.
- How will the organisational processes be influenced?
- What do you want to change? What are your expected results?
- Provide a list of data which you want / need to measure. How will you measure this data?
- Comparison: Why is the selected technology needed, which benefits are expected and what are the consequences of not implementing the technology?

PREPARATORY PHASE

Pre-implementation assessment (NOELGA)

Feedback / Questions

PREPARATORY PHASE

Technical Dimension (GGZ) – Part 1 Classification

Topic & information

- **classification of the technology** - use of a standardized language (e.g. WHO classification tools)

(1) health system challenge, (2) digital health intervention (3) digital services & application types

- Refer to your responses in Questionnaire 1 and 2 (Activity 1.2)

Tasks

- Identify the health system challenge, type of intervention and digital service your associated facility addresses within the pilot action

Deadline

- 31.01.2024

PREPARATORY PHASE

Technical Dimension (GGZ) – Part 1 Worksheet example

Health system challenge	Digital health intervention	Digital services and application types
Which challenge targets your pilot action?	*Which type of intervention (based on the targeted primary user) is targeting your pilot action?*	*Which type of technology and area of digitalization is targeted?*
☐ Information ☐ Availability ☐ Quality ☐ Acceptability ☐ Utilization ☐ Efficiency ☐ Cost ☐ Accountability ☐ Equity ☐ other:	☐ Intervention for persons ☐ Intervention for healthcare providers ☐ Interventions for health management and support personnel ☐ Interventions for data services ☐ other:	☐ Point of service ☐ health system, provider administration ☐ registries and directories ☐ data management services ☐ surveillance and response ☐ other:

PREPARATORY PHASE

Technical Dimension (GGZ) – Part 2
Technology Readiness Level

Topic & information

- **Technology Readiness Level** (TRL) scale to indicate the maturity of a technology
- Helps to evaluate and better understand the current state and project progress
- TRL level from 1 to 9 (research – development – deployment)

Tasks

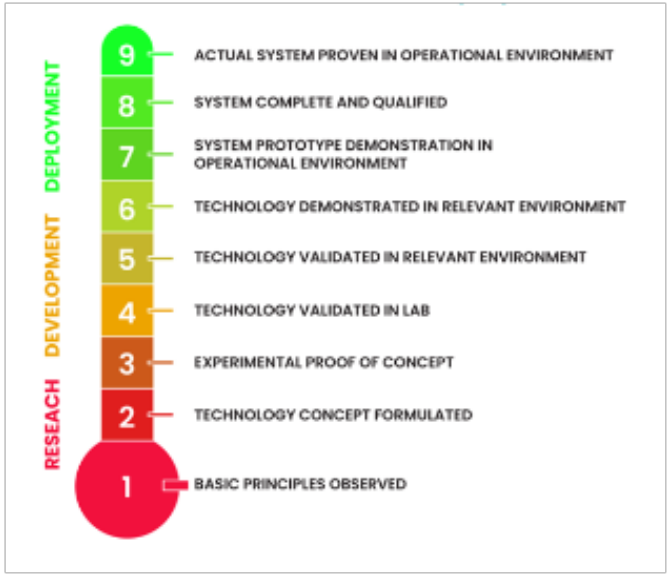
- Assess the product maturity of your technology with the TRL scale
- If your TRL is lower than 7, additionally acquaint yourself with aspects related to your level (e.g. research & development phase)

Deadline

- 31.01.2024

PREPARATORY PHASE

Technical Dimension (GGZ) – Part 2 Worksheet example



☐	TRL 1 - basic principles observed (case of key enabling technologies)	scientific research has just started, and the first results are used to be translated into future research and development
☐	TRL 2 - technology concept formulated	basic principles have been studied and first experiments/tests are designed based on the initial findings (still speculative)
☐	TRL 3 - experimental proof of concept	analytical and laboratory studies conducted, results from experiments/tests support the initial idea (proof-of-concept model)
	When TRL 3 is reached, one can conclude that the new technology is **feasible from a scientific point of view.**	
☐	TRL 4 - technology validated in lab	Validation of technology has been performed at laboratory level, a laboratory prototype is available.
☐	TRL 5 - technology validated in relevant environment	Technology is tested in a more realistic, but still under control mode environment.
	When TRL 5 is reached, one can conclude that the new technology is **feasible from a technological point of view.**	
☐	TRL 6 - technology demonstrated in relevant environment	To confirm that engineering is feasible, the prototype is demonstrated in (industrially) relevant environment.
☐	TRL 7 - system prototype demonstration in operational environment	The prototype/working model is demonstrated in an operational environment under 'normal' conditions and timings.
	When TRL 7 is reached, one can conclude that the new technology is **reliable from the technological point of view.**	
☐	TRL 8 - system complete and qualified	The technology is ready for implementation into an already existing technology or technology system.
☐	TRL 9 - actual system proven in operational environment	The technology system has been proven during operations, competitive technology.
	When RL 9 is reached, one can speak of a **commercial technology**.	

PREPARATORY PHASE

Technical Dimension (GGZ) – Part 3 Infrastructure

Topic & information

- **Infrastructure preparation:** Clarify with your IT department and manufacturer the technical requirements for the deployment of the technology
- Acquisistion of works, suppliers or services ▫ follow **rules on public procurement**
  - EU rules
  - National rules
  - Interreg programme rules (see programme manual)

Tasks

- Assess and upgrade the LTC facilities IT infrastructure as needed (e.g. hardware, software, network…)
- Customize the technology to meet the LTC facility‘s unique requirements
- Integrate the solution in existing systems
- Clarify how vendors are selected and contracts are made

Deadline

- 31.03.2024 (and throughout the entire implementation phase)

PREPARATORY PHASE

Technical Dimension (GGZ) – Part 4 Reliability test

Topic & information

- **Reliability test / pre-test** before implementing new technologies to ensure usability and acceptance of end-users
- Realistic scenarios that reflect daily tasks – test different aspects / use cases
- Observe how users interact and address any issue that arise during the test
- Obtain feedback regarding user-friendliness, efficiency and reliability (e.g. quality of measurement)
- Methods: interviews or focus groups with selected end-users, expert interviews (e.g. from expert roster)

Tasks

- Conduct a reliability test with a selected group of employees and obtain their feedback
- Consult with experts to seek their professional opinion

Deadline

- 31.03.2024

PREPARATORY PHASE

Technical Dimension (GGZ)

Feedback / Questions

PREPARATORY PHASE

Ethical & legal dimension (NOELGA)

Topic & information

- Involves elements, principles, behaviors, and considerations

Ethical Dimension

- Technologies at higher maturity levels often don't require ethical approvals due to prior research
- If needed, establish ethical guidelines for technology use
- Regular assessment of emerging ethical questions
- Ethical rules may vary by country, check country-specific guidelines and standards

- **Legal dimension**
  - Compliance with internal and national data protection rules

Tasks

- Describe how you'll deal which ethical and legal issues that may arise through the implementation of the new technology?
- Line out which data you will measure and who will have access to it?
- Ensure that each data is collected according to ethical and legal standards and rules.

Deadline

- 15.03.2024 / continuously

PREPARATORY PHASE

Ethical & legal dimension (NOELGA)

Completion

- Define the ethical & legal consideration & Describe how you are going to handle them
- Write down the collected Data and how you‘ll get access to them

Ethical & legal consideration(s)	Handling

Data	Access
See Chapter 1 (Pre-Implementation Analysis)	

PREPARATORY PHASE

Ethical & legal dimension (NOELGA)

Feedback / Questions

PREPARATORY PHASE

Organisational Dimension (GGZ) – Part 1 Stakeholder Management & Project team

Topic & information

- **Early involvement of project members & stakeholders**
- A list of key stakeholders helps to coordinate communication and involvement in the pilot action
- Management power: appoint a project manager (lead of pilot action; contact person) & wider pilot management team
- Use the concept of co-creation & participation: clarify to what extent and when you want to involve stakeholders
- Useful sources: website I CARE SMART or 9 levels of participation by Wright, Block & Unger (2010)

Tasks

- Describe roles and responsibilities of stakeholders in your LTC facility
- Clarify to what extent you will involve stakeholders (= level of participation)

Deadline

- 31.01.2024

PREPARATORY PHASE

Organisational Dimension (GGZ) – Part 1 Example Worksheet

Stakeholder	Involvement	Description of role and responsibilities	Level of participation
Project Manager (Pilot)	☐ Yes / ☐ No		
(Multidisciplinary) Project team	☐ Yes / ☐ No		
Local IT support (help desk)	☐ Yes / ☐ No		
LTC-facility management (e.g., director, managers)	☐ Yes / ☐ No		
Purchasing department, procurement	☐ Yes / ☐ No		
IT department	☐ Yes / ☐ No		
Legal department	☐ Yes / ☐ No		
Data protection officer	☐ Yes / ☐ No		
Ethics committee (or similar)	☐ Yes / ☐ No		
Nursing staff	☐ Yes / ☐ No		
Administrative staff	☐ Yes / ☐ No		
Quality manager	☐ Yes / ☐ No		
Residents	☐ Yes / ☐ No		

Level 9 community-owned initiatives	GOES BEYOND PARTICIPATION
Level 8 decision-making authority	PARTICIPATION
Level 7 partial delegation of decision-making authority	
Level 6 shared decision-making	
Level 5 inclusion	PRESTAGE OF PARTICIPATION
Level 4 consultation	
Level 3 information	
Level 2 instruction	
Level 1 instrumentalization	NON-PARTICIPATORY LEVEL

PREPARATORY PHASE

Organisational Dimension (GGZ) – Part 2 Goal setting

Topic & information

- **Shared goals** are motivators and provide a clear guideline
- Goals should be regularly reviewed, adjusted and evaluated
- Make goals transparent
- Identify supportive factors and barriers for the goal achievement
- Involve end-users and project team members in the goal setting process

Tasks

- Define strategic and operative goals for your local pilot action, e.g. with the SMART-method (specific, measurable, achievable, relevant and time bound)
- Elaborate on how you are going to achieve and review the goals

Deadline

- 15.02.2024

PREPARATORY PHASE

Organisational dimension (GGZ)

Feedback / Questions

PREPARATORY PHASE

Communication & culture (NOELGA)

Topic & information

- Effective communication and supportive organizational culture is critical for overcoming resistance
- External communication important for introducing technology to residents, families, and regulatory bodies
- Transparent communication manages expectations, builds trust, and showcases commitment
- Stakeholder communication focuses on affected individuals, recognizes professional culture differences, facilitates dialogue and translation between cultures

Tasks

- **Communication overview**
  To outline the key messages, channels, and frequency of updates for involved staff

Deadline

- 15.03.2024 / Continuously

PREPARATORY PHASE

Communication & culture (NOELGA)

Completion

- Define the communication measures that are needed in the following phases:
  - Communication in the preparatory phase *(information for stakeholders & employees)*
  - Communication during implementation *(feedback, motivation & trouble shooting)*
  - communication after implementation *(communicating results & final feedback)*

- Define which key message you want to communicate to which target group and how (often)

PREPARATORY PHASE

Communication & culture (NOELGA)

Feedback / Questions

PREPARATORY PHASE

Training & eduction (GGZ) – Part 1 Training programs

Topic & information

- **Training & education** as preparation for the implementation of new technologies: upgrade skills, digital literacy, instructions to use technology, organisational change etc.
- 3 training sessions on the implementation plan (for project managers of DigiCare4CE):
  - 1st training: preparatory phase
  - 2nd and 3rd training: implementation phase & train-the trainer (for managers) and additional feedback sessions
- Individual training sessions within local pilot action (e.g. with managers, endusers)

Tasks

- Technical training needs assessment (specific training needs regarding pilot action)
- Openness assessment
- Management training needs assessment
- Offer a training & education program suitable for your organisation – a framework will be provided by IAT

Deadline

- February/March 2024, continuously

PREPARATORY PHASE

Training & eduction (GGZ) – Part 2 Change management

Topic & information

- **Change Management:** (1) communicate about the change, (2) involve stakeholders at all levels of the organisation, (3) focus on organisational culture, (4) consider mission & vision (5) provide encouragement & incentives to change
- Phases: (1) prepare for change, (2) manage change, (3) reinforce change – for each phase different strategic and operational practices
- Be present on-site regularly; use a bottom-up approach
- Real-time feedback, celebrate short-term victories, monitor key factors (e.g. vision, engagement, rules…), communicate need for change

Tasks

- Self-assess your LTC facilities‘ ability to change (including factors for success and barriers to change)
- Develop change management strategies and measures (further sources ▫ implementation plan)

Deadline

- 15.02.2024

PREPARATORY PHASE

Training & education (GGZ)

Feedback / Questions

PREPARATORY PHASE

Resources & economical dimension (NOELGA) – Part 1

Topic & information

- Include market analysis and cost-benefit comparison
- Communicate product costs and analysis results if necessary
- Product introduction involves initial effort, especially for adjusting technical functions
- Consider potential need for additional personnel during implementation
- Monitor unforeseen costs during the project; compare actual vs. planned
- Clarify whether the project funding fully covers the expenses or if your associated organization is also contributing financially to the implementation

Tasks

- **Resource allocation and budgeting**
- Assess **staffing needs** for the implementation

Deadline

- 29.02.2024

PREPARATORY PHASE

Resources & economical dimension (NOELGA) – Part 1

Completion

- Create an overview that outlines roles, responsibilities, and timelines for each team member involved in the implementation

Team member / staff	Responsibility	Timeline (number of hours)

PREPARATORY PHASE

Resources & economical dimension (NOELGA) – Part 2

Topic & information

- **Risk management**
  - Emphasis on resident safety and well-being in LTC settings is vital
  - Effective identification, communication, documentation, and addressing of risks
  - Support informed choices and involve documenting consent
  - Clarity and establish responsibility for implementing choices
  - Regularly review and reflect decisions and actions

Tasks

- Identify potential risks and challenges associated with the implementation of your technology in different dimensions
- Assess the size and likelihood of each risk
- Develop a comprehensive prevention / risk mitigation measure.

Deadline

- 15.03.2024

PREPARATORY PHASE

Resources & economical dimension (NOELGA) – Part 2

Completion

- Create an overview about the potentiell risks and challenges and how you want to prevent oder mitigate them

Risks and Challenges	Size	Likelihood of occurrence	Preventive/mitigating measures
Describe the risk, challenges and its cause.	*e.g., large, medium, small*	*e.g., 60%*	*What can be done to prevent or mitigate the occurrence of the risk. Who is responsible for preventive measures?*

PREPARATORY PHASE

Resources & economical dimension (NOELGA)

Feedback / Questions

Implementation Phase

Part 2

IMPLEMENTATION PHASE

Overview (GGZ)

Details on the implementation phase will be provided in training session 2 & 3. Outlook

- Implementing the digital solution
- Description of the process and use of technology
- Monitoring & Evaluation
- Optimization & continuous improvement

Side note: Please organize your local peer review vists together with GGZ until 02.02.24.

Post-Implementation Phase

Part 3

POST-IMPLEMENTATION PHASE

Overview (NOELGA)

Post-implementation assessment & comparison with pre-implementation process

SAVE THE DATE

Training on the implementation plan #2 and #3 & continous feedback sessions*

14.2.	11.–13.3.	17.4.	15.5.	12.6.
2nd Training session (online)	3rd Training session in Kosice	Feedback session (online)	Feedback session (online)	Feedback session (online)

**for partners coordinating pilot action 1 & 2*

Thank you for your cooperation and feedback!

TRAINING ON THE IMPLEMENTATION PLAN 2

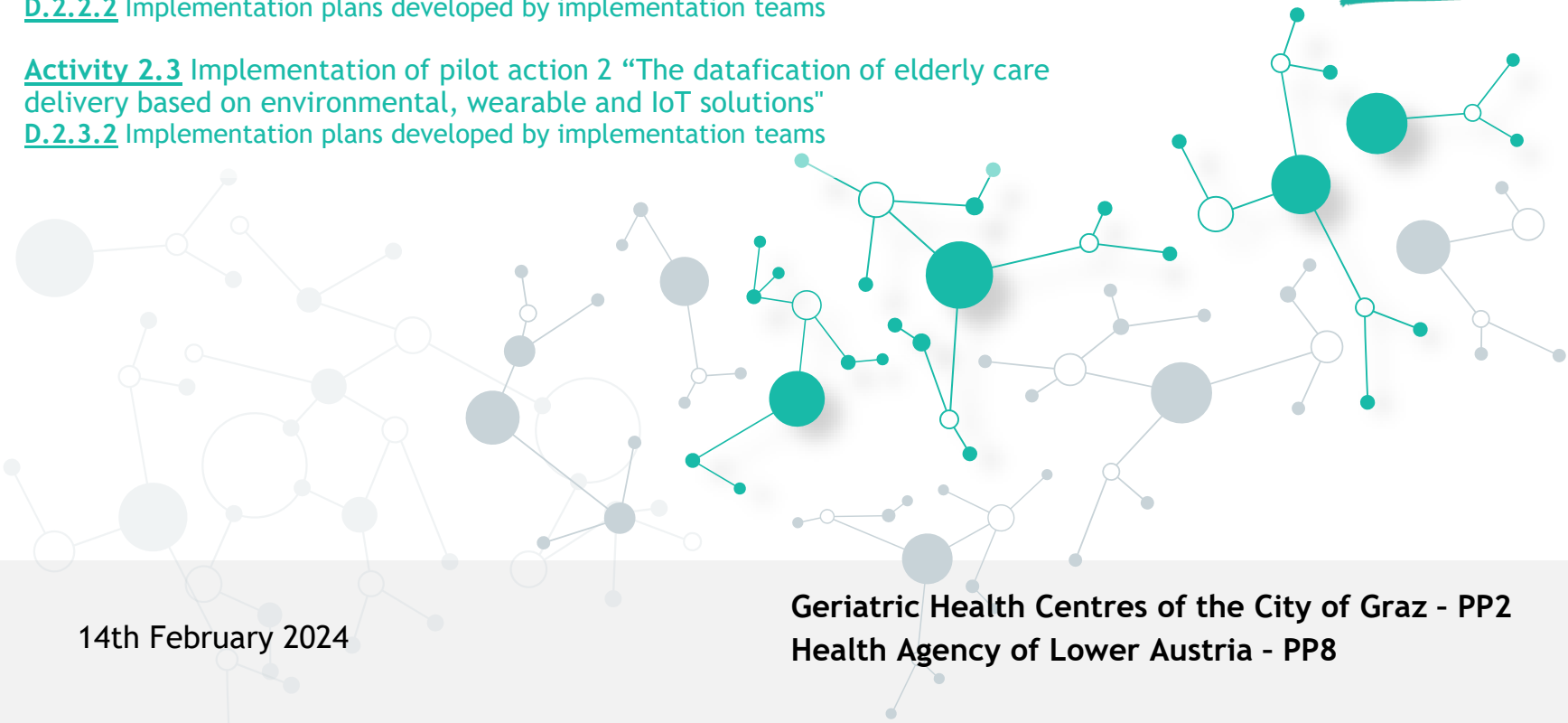
Interreg CENTRAL EUROPE

Co-funded by the European Union

DigiCare4CE

Activity 2.2 Implementation of pilot action 1 "The digital transformation of care management and delivery“
D.2.2.2 Implementation plans developed by implementation teams

Activity 2.3 Implementation of pilot action 2 “The datafication of elderly care delivery based on environmental, wearable and IoT solutions"
D.2.3.2 Implementation plans developed by implementation teams



14th February 2024

Geriatric Health Centres of the City of Graz - PP2
Health Agency of Lower Austria - PP8

AGENDA

Introduction

- Background
- Objective
- Instructions for the use of the implementation plan

Implementation plan

- Preparatory phase – feedback session
- Implementation
- Post-implementation (period 4)

Next steps

- Deadlines / next training and feedback sessions
- Synergies with other WP's / cooperation
- Q&A

1. What is the present status of your pilot action?
2. How would you characterize the progress so far?
3. Will you have to adjust your initial plan?
4. What challenges are currently being encountered?
5. In what areas do we require additional support to ensure success?

Warm up & reflection

Preparatory Phase

Part 1

PREPARATORY PHASE – PART 1

Deadline: 31.03.2024

- Pre-implementation assessment
- Technical dimension
- Ethical & legal dimension
- Organizational dimension
- Communication & culture
- Training & education
- Resources & economical dimension

Implementation Phase

Part 2

IMPLEMENTATION PHASE

Peer Review (GGZ)

Topic & information

- A peer review team assembled by joint pilot team members and stakeholders in long-term care will visit you
- The team evaluates the current status of your pilot action and provides feedback and recommendations for the further implementation
- Peer reviews are essential to validate the technology‘s appropriateness – ensuring ti meets standards and alings with best practices
- Contribute to quality assurance, identification of potential risks, guide a more successful implementation

Tasks

- Nominate peer review team members (project manager, strategic partners, stakeholders in LTC etc.)
- Participate in the online peer review training – in case you are a peer review team member
- Host a peer review: Organize a peer review visit with the coordinator PP2 GGZ
- The peer reviews will take place during **March and July 2024**

Deadline

- **ASAP**
- Please insert the information on Nextcloud

IMPLEMENTATION PHASE

Peer Review – When should the online peer review training should take place?

Date 1

Date 2

Date 3

IMPLEMENTATION PHASE

Peer Review – Please provide us with your information on Nextcloud

Please provide the name (and contact details) of the contact person of the LTC facility in which your pilot action takes place in the table below until **02.02.2024**. This person will be the "host" of the peer review visit.

Please provide the name (and contact details) of one potential peer review team member in the table below until **02.02.2024**. Please make sure that the person provides expertise in long-term care, digitalization, process or quality management. The person can be an external expert, strategic partner, steering group member, expert in your organization, stakeholder in long-term care OR you as a project manager and pilot team member. Each peer review visit should be accompanied by one peer review team member per partner organization of DigiCare4CE. *(Info: You can also nominate more than one person for the peer review team. Please make sure that at least one person of your organization is able to participate at each peer review visit.)*

IMPLEMENTATION PHASE

Peer Review – Please provide us with your information on Nextcloud

Peer review visit	Date	Status
St. Pölten (NOELGA)	29.4.	Confirmed – save the date
Graz (GGZ)	30.4.	Confirmed – save the date
Treviso (ISRAA)	16.4. or 18.4.	Please confirm the date
Rzeszow (RRDA)	5.6. & 6.6.	Please confirm the date
DIT		Please select a date (min. 1 day)
TUKE		Please select a date (min. 1 day)
CVUT		Please select a date (min. 1 day)

IMPLEMENTATION PHASE

Peer Review – Please provide us with your information on Nextcloud

- **Language:**
  - Given that English is not native language of the peer review host and its employees, it is important to establish effective communication methods for both the peer review team and all participants
  - e.g. translators
- **Hybrid Peer Review Visit:**
  - It may not be feasible for every stakeholder to participate in person during the peer review visit
  - In such cases, please arrange for a technical infrastructure that allows the peer review visit to occur in a hybrid format.
  - The feasibility of conducting an entire peer review visit online should be discussed within the entire DigiCare4CE consortium in advance (and may also need clarification with the Joint Secretariat)

IMPLEMENTATION PHASE

Optimization & continuous improvement (NOELGA)

Topic & information

- Continuous improvement allows organizations to adapt to evolving needs and maximize benefits of the digital solutions
- Incorporate feedback of end-users and stakeholders throughout the entire implementation process
- Review the technology and related workflows regularly
- Support a culture of continuous learning within the organization

Tasks

- Establish a process for continuous improvement, incorporating feedback and lessons learned from feedback loops and peer reviews
- Aling your technology with best practices (e.g. study visit)

Deadline

- **Throughout the entire implementation phase**

SAVE THE DATE

Training on the implementation plan #3 & continous feedback sessions*

- **11.–13.3.** — 3rd Training session in Košice
- **17.4.** — Feedback session (online)
- **15.5.** — Feedback session (online)
- **12.6.** — Feedback session (online)

**for partners coordinating pilot action 1 & 2*

Thank you for your cooperation and feedback!