



NORTH SEA REGION (NSR) HOME CARE INNOVATION ACTION PLAN

North Sea Region
2026–2030

This document has been produced as part of the ACE project — Accelerating the Home Care Innovation Ecosystem of the Future in the North Sea Region — co-funded by the European Regional Development Fund through the Interreg North Sea Programme 2021–2027. The content reflects the views of the project partners only and does not represent the official position of the Interreg North Sea Programme or the European Commission.

LONG-FORM, SYSTEM-ORIENTED IMPLEMENTATION GUIDANCE

How, Who, and When

(The Strategy is provided as a separate document.)

PREFACE

This Action Plan accompanies the NSR Home Care Innovation Strategy. It comes from the same source — thirteen partner organisations across six countries that spent three years working in real home care settings, documenting what worked, what did not, and what had to change for innovations to take hold.

The actions in this document come directly from practice: from care workers who adapted workflows, managers who redesigned governance structures mid-pilot, procurement officers who realised three months in that they had been brought in too late, and older adults who explained clearly which technologies felt designed for them and which did not. The ACE partnership refers to these as critical adaptations: practical, experience-based changes that reveal what was missing in the home care ecosystem.

This document translates that evidence into implementation guidance for those responsible for changing how home care operates: municipalities, care organisations, procurement officers, and Small and Medium-sized Enterprises (SMEs). It follows the same five system dimensions as the Strategy, allowing readers to move between the two documents without losing the thread.

Readers who have not read the Strategy will find in it the underlying rationale for this Action Plan: why these dimensions matter, which levers are most important at different levels of the system, and what national governments and NSR bodies need to do to create the conditions for these actions to succeed.

ACE is a 42-month project co-funded by the Interreg North Sea Programme and led by Sweden's Research Institute, RISE. Since January 2023, thirteen partner organisations from Sweden, Denmark, the Netherlands, Belgium, France, and Germany have prepared home care providers across the region for the innovations that will define the future of care at home. The project includes quadruple helix workshops, needs-definition activities, nearly thirty innovation pilots in real care settings, adaptation support for more than one hundred fifty home care providers, and a stakeholder community of over 350 organisations and individuals. This Action Plan translates those findings into practice.

EXECUTIVE SUMMARY

Care technologies work in home care settings when the conditions around them are right. When those conditions are absent, even well-designed solutions stop being used the moment a project ends. This is what care workers, managers, older adults, and families across six countries reported when documenting what happened in practice. The evidence behind this document comes from that ground level: from people working in home care who recorded the changes they had to make in governance, workflows, training, and procurement, to ensure innovations could take hold.

The core finding was that governance and sustainable funding are the decisive factors in turning pilots into permanent practice. Where decision-making ownership was clear and a post-pilot funding pathway existed, change lasted. Where either was missing, even well-functioning pilots ended when the project did. This document addresses the conditions that determine which outcome prevails is organised around five dimensions of the home care ecosystem: Technology and Processes, Business Models and Procurement, Policy and Regulation, Behaviour and Culture, and Infrastructure. For each dimension, actions are defined across three levels: what NSR and national coordination bodies should align, what care organisations and municipalities must implement locally, and what SMEs and solution providers are responsible for delivering. Implementation is structured across four phases from 2026 to 2030, progressing from governance foundations to structured pilots, scaling, and ultimately institutionalised practice. Six practical templates in the appendix support implementation at every stage. The most direct instruction in this document is to identify who is responsible for the decision-making before the pilot begins, including what happens after the pilot ends.

The companion Strategy provides the ecosystem-level rationale for home care transformation: why these dimensions matter, what national governments and NSR bodies must do to create the conditions for these actions to succeed, and country-specific analysis of the six NSR contexts. Both documents draw on the same evidence base. The Strategy addresses those with the authority to change the system framework, and this document addresses those responsible for implementing change within it.

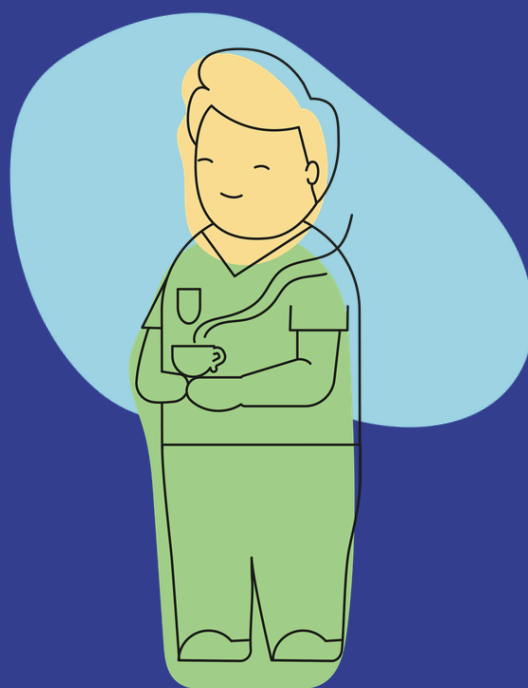


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PART I: FOUNDATIONS AND PRINCIPLES

What we are working towards

An older person gets up in the morning in their own home. The technology around them works quietly, in the background. Their care worker arrives knowing what has happened overnight, without needing to call to check. A small issue has already been caught, earlier than it would have been last year. The person did not have to explain their situation from scratch. The care worker has time to talk. This is not a utopia. It is the direction of travel, and it is achievable if the right conditions are in place.

How to read this document

This Action Plan should be read alongside the NSR Home Care Innovation Strategy. The Strategy explains why transformation is needed and defines the system conditions. This document explains how to act on those conditions, who needs to do what, and when. If the five home care ecosystem dimensions or the strategic objectives are unfamiliar, readers should start with the Strategy.

1. PURPOSE OF THE ACTION PLAN

This document translates the Strategy into implementation guidance. Its audience is not primarily policymakers and funders—it is the municipalities, care organisations, procurement officers, and SMEs who will implement changes to home care operates from now to 2030.

The Strategy explains why the home care ecosystem conditions need to change. This Action Plan sets out how to achieve the enabling conditions for that change. Both documents share the same structure, based on five home care ecosystem dimensions, allowing readers working on implementation to move between them while maintaining continuity.

2. RELATIONSHIP TO THE STRATEGY

The Strategy is addressed to decision-makers at local, regional, national, NSR, and EU level. It asks them to change funding frameworks, regulatory interpretations, procurement standards, and infrastructure investment. This Action Plan is addressed to the organisations and actors who operate within them and must implement change under current conditions while those frameworks evolve.

This distinction is intentional. Both documents are grounded in the same ACE evidence base and organised around the same five home care ecosystem dimensions. However, they answer different questions:

- The Strategy explains why transformation is needed and what future innovation-ready home care systems should look like.
- The Action Plan explains how that change happens in practice, who is responsible at each level, and when action is required.
- The Action Plan is an implementation instrument, not a restatement of the strategic rationale.

Readers seeking the underlying reasoning for the five home care ecosystem dimensions or the cross-border alignment mechanisms should refer to the Strategy. This document assumes that foundation.

The ACE conceptual tools described in the Strategy, the NSR Innovation Readiness Index, Procurement & Compliance Toolkit, and Common Skills Framework are also relevant to implementation. Where NSR-level or national bodies have developed them further, they should be integrated into the implementation processes described below.

3. BOTTOM-UP FOUNDATION AND EVIDENCE BASE

The actions in this document come from what happened in practice across the full range of ACE partnership activities: workshops where care workers and older adults described what was missing, adaptation sessions where organisations discussed what had to change, case studies where technologies met real users for the first time, and pilots where implementation revealed what no planning process had anticipated. Together, these activities produced a picture of what makes home care innovation take hold and what causes it to stall.

The evidence base draws on ACE activities and results:

- ACE needs analyses: structured assessments of home care contexts, unmet needs, and readiness conditions across NSR partner organisations.
- Consolidated critical and non-critical adaptations: a systematic synthesis of what care organisations changed—in workflows, governance, training, and technology configuration—to make pilots practical.
- Evaluation findings: combined qualitative and quantitative evidence on what produced outcomes, what did not, and why.
- Pilot governance insights: WP2 lessons from coordinating pilots across multiple national contexts.
- Perspectives of older adults and citizens: documented experiences and preferences of the people for whom home care innovation is ultimately intended.

4. GUIDING PRINCIPLES FOR IMPLEMENTATION

The following principles should shape how the actions in this document are implemented. They are not aspirational—they reflect what ACE partners found distinguished sustainable implementations from those that failed to last.

- Act before conditions are perfect. Start with what is available, build in structured learning from the beginning, and adjust as you go. Waiting for ideal conditions usually means waiting indefinitely.

- Design with, not for. Involving older adults, families, and frontline staff in design and evaluation is not a procedural nicety. Solutions that are built without them consistently fail to fit the reality of people's lives.
- Simplicity is a requirement, not a preference. A technology that adds complexity to a care worker's day will not be used. The bar for adoption is usability in real-world conditions, not functionality under controlled testing environments.
- Pilots are decision tools. Their purpose is to generate evidence that informs a decision: scale up, adjust, or stop. A pilot without defined success criteria and a pre-planned decision point is not a pilot, but rather a delay.
- Equity is not optional. Access to care innovation should not depend on geography, workforce size, or digital infrastructure. Solutions that work only in well-resourced urban settings are not good enough.
- Plan for permanence from day one. Thinking about long-term operation as an end-of-project problem is one of the most reliable paths to failure. Who runs this after the project ends? Where does the budget come from? These questions must be answered before a pilot begins.
- Learn across borders. One of the most valuable features of a transnational partnership is exposure to what works in different contexts. NSR partners should document what they learn in formats that are useful to others, not just themselves.

5. STRUCTURE AND LOGIC OF THE ACTION PLAN

The Action Plan is organised around the five home care ecosystem dimensions from the Strategy. For each dimension, actions are described at three levels:

- NSR or national coordination level: where alignment, shared frameworks, or collective learning create value that individual organisations cannot generate alone.
- Care organisation or local level: where adaptation to national and organisational realities is unavoidable and necessary.
- SME or solution-provider level: where responsible design, adaptation, and support determine whether technologies actually work in care settings.

This three-level structure reflects a deliberate choice. Uniformity across the NSR is not the goal. What the NSR needs is sufficient alignment to enable learning and reduce duplication, combined with enough flexibility for each country and organisation to adapt to its own context. This document seeks to balance both.

Building on the home care ecosystem dimensions, the Action Plan covers stakeholder roles mapped to implementation phases, a phased timeline, a monitoring and learning framework, and a practical appendix of templates and checklists.

PART II: ACTION PLAN BY HOME CARE ECOSYSTEM DIMENSION

6. HOME CARE ECOSYSTEM DIMENSION 1: TECHNOLOGY, PRODUCTS & PROCESSES

Technology is the most visible part of care innovation, and the part that receives the most attention. It is also, by ACE's evidence, rarely the main reason pilots fail. What is decisive is not whether the technology works technically (most of the time it does) but whether it fits into real workflows, relationships, and organisations. That fit does not happen automatically.

Recurring problems across ACE pilots included workflows that were not redesigned before deployment, alarm systems configured for efficiency rather than for end users, and solutions tested under conditions that did not resemble the settings where they were ultimately deployed. These are not technology failures. They are implementation failures that could have been prevented through better process design.

6.1 NSR-Level and Aligned Actions

-  Develop shared principles for usability, accessibility, and ethical deployment of home care technologies, grounded in citizen perspectives and professional practice across the NSR.
-  Maintain NSR Living Labs and cross-border testbeds so that evaluation results from one context can inform decisions in others.

-  Agree on what evidence of value looks like, drawing on ACE evaluation findings (D3.2), so that care organisations know what to ask from suppliers, and suppliers know what to provide.
-  Develop and publish NSR-wide usability and accessibility guidelines that procurement criteria can reference.
-  Promote interoperability standards and require suppliers to demonstrate compliance.

Success Story 1: Sara Dutch SME Piloted in Belgium Added Value and Impact

Sara proved that social robotics can effectively reduce caregiver workload while enhancing resident autonomy through personalised movement and memory games. The pilot demonstrated that “implementation works best when the demand comes directly from the care team involved in day-to-day practice,” ensuring the technology solves real-world problems rather than being assessed top-down. The experience reinforced the value of structuring pilots as decision instruments - building staff trust through practice rather than mandate and creating the conditions for innovation to become institutionalised.

6.2 Care Organisation and Local Actions

- ✚ Before any pilot or procurement: conduct structured needs mapping involving frontline staff, older adults, families, and support functions. Use interviews, observation, and service design methods. Do not begin a pilot without a documented and validated need.
- ✚ Redesign workflows before deploying technology. Layering a digital solution onto a broken process produces a digital broken process. Workflow redesign is not optional.
- ✚ Run co-design sessions with all relevant groups before selecting a solution. What staff will use, older adults will engage with, and families will trust are three different questions.
- ✚ Conduct technical readiness checks covering infrastructure, device compatibility, and user needs before any deployment decision.
- ✚ Define interpretation and decision protocols for every data-generating technology before deployment. Staff need to know what a specific alert or reading means, who is responsible for acting on it, within what timeframe, and through which escalation pathway. Leaving this to individual judgement creates inconsistency and clinical risk.
- ✚ Structure each pilot as a decision instrument: a named owner, clear scope, defined success criteria, and a pre-planned decision point at which continuation, adjustment, or discontinuation is assessed based on evidence. All functions (i.e., IT, procurement, legal, management) should be at the table from the start.
- ✚ When technologies are deployed in private homes, relatives and informal caregivers must be included in the implementation process, informed about what the technology does, how data is used, and what their role is in relation to it. Treating the home as a care facility without involving the people who share it or support the person living there is a consistent source of adoption failure.
- ✚ Document adaptations and outcomes through micro-cases throughout the pilot: what was changed, why, and what happened as a result. These records are what make learning transferable.
- ✚ Do not allow technology to substitute for human contact with people who are isolated or at significant social risk. This is a design constraint, not an aspiration.

Success Story 4, Moxiam Swedish Company Piloted in Belgium

Added Value and Impact

Moxiam uses discreet sensors to track daily routines and detect deviations, allowing for more proactive care without the use of intrusive cameras. The solution helps shift the care culture from standard checkups to deeper engagement. As noted, it “can strengthen communication between seniors, informal caregivers, and professionals, allowing for deeper, more meaningful conversations beyond the standard checkups”. It also empowers seniors to decide who has access to their information.

6.3 SME Actions

-  Assume nothing transfers automatically. Adapt to the organisational and cultural context of each deployment, not just the national context.
-  Provide evidence packages demonstrating how the technology performs in comparable real-world settings, not only controlled trials.
-  Co-creation does not end at product design. Engage throughout configuration, training, and early operation.
-  Offer multi-language interfaces and user flows that do not assume technical familiarity.
-  Prepare for variable infrastructure. Not all homes and care facilities have reliable Wi-Fi. Solutions that cannot handle this are not ready for general deployment.

From the field

The pilots that worked invested heavily in configuration and staff training before launch. The ones that did not assumed the default settings were good enough. They were not.

7. HOME CARE ECOSYSTEM DIMENSION 2: BUSINESS MODELS, INVESTMENTS & PROCUREMENT

ACE partners found that well-functioning pilots often stopped not because the technology failed but because no one had resolved who would finance it after the project ended.

Procurement was sometimes involved only at the contracting stage, without participation in the learning that the pilot had generated. Business cases that excluded training time, governance costs, and ongoing support consistently underestimated the real cost of adoption, and were later used to justify not scaling solutions.

These are structural problems, not individual mistakes. Fixing them requires changing how procurement is organised, what business cases are required to include, and how funding programmes are designed.

7.1 NSR-Level and Aligned Actions

-  Develop shared procurement guidance that integrates evidence requirements, usability criteria, and outcome logic, allowing care organisations across the NSR to work from compatible frameworks.
-  Share structured experience on post-pilot funding pathways and cost-sharing models across Member States: what worked, what did not, and why.
-  Support experimentation with outcome-based or value-based financing (where national regulations allow it) and document the results for others to learn from.
-  Produce guidance on funder roles for cross-country deployments, addressing the recurring ambiguity over the respective responsibilities of municipalities, insurers, and citizens.

7.2 Care Organisation and Local Actions

-  Use lifecycle costing from the outset. Include training, governance, maintenance, and support over three years, not only the purchase price. Pilots that omit these costs produce false business cases.
-  Run micro-business cases before committing to procurement. Small, structured assessments of expected value and expected cost reduce the risk of large procurement decisions made on incomplete information.
-  Involve procurement staff during the pilot, not at the contracting stage. The procurement function needs to understand what the pilot revealed before it can write useful specifications.
-  Procurement value definitions should include qualitative outcomes: dignity, autonomy, staff working conditions. Procuring only for quantitative metrics excludes what often matters most.
-  Include prevention goals in procurement criteria where relevant, such as fall reduction, reduced isolation, delayed care dependency.
-  Older adults, frontline workers, and family representatives should actively shape procurement requirements, not only participate in testing. Their preferences determine whether what is purchased will actually be used.

7.3 SME Actions

-  Research each national context before entering it. Business models and pricing that work in one NSR country may be unviable in another. Do not assume transferability.
-  Be transparent about pricing and what post-pilot operation costs. Organisations that discover the full cost after signing a contract do not become long-term customers.
-  Adapt to differing reimbursement structures across NSR countries. This is a cost of responsible market expansion, not an optional extra.
-  Prepare documentation that supports outcome-based procurement: what effects the technology has produced, in which settings, and how they were measured.

8. HOME CARE ECOSYSTEM DIMENSION 3: POLICY & REGULATION

Regulatory uncertainty was cited across ACE pilots as one of the most consistent sources of delay and risk aversion. The uncertainty was not usually about whether a technology was appropriate, but about how the General Data Protection Regulation (GDPR) applied to specific use cases, who was responsible for what in cross-border data-sharing arrangements, and what constituted valid consent in different national contexts.

When each organisation must resolve these questions independently, the cost is substantial and the answers are inconsistent. Shared interpretation at the NSR level is not a bureaucratic nicety; it is a precondition for responsible scaling.

8.1 NSR-Level and Aligned Actions

-  Work toward shared GDPR interpretations for common home care use cases, such as remote monitoring, communication platforms, and sensor-based safety systems. Start with the most frequently encountered scenarios and build from there.
-  Develop guidance on interoperability and data responsibility that gives organisations something concrete to act on.
-  Ensure that funding programmes require organisational readiness, not only technology. Programmes that fund hardware without governance create expensive failures.
-  Provide clear guidance on cross-border data flows and what suppliers are responsible for making available to care organisations.

8.2 Care Organisation and Local Actions

-  Conduct a Data Protection Impact Assessment for every digital solution before implementation. This is a legal requirement and a useful discipline.
-  Standardise consent and information processes for older adults and families. Ad hoc approaches create legal risk and undermine trust.
-  Build staff competence on data flows, rights, and responsibilities, so they understand how personal data is used and can handle it responsibly.
-  Require suppliers to demonstrate legal compliance before deployment, not after.

8.3 SME Actions

-  Prepare country-specific GDPR compliance documentation as a standard part of market entry. Do not wait to be asked for it.
-  Support care organisations in understanding the technical and legal configurations of your products, not just the features.
-  Make data practices transparent and user permissions clear and auditable.
-  Adapt technical and legal configurations to the requirements of each NSR country you operate in.

9. HOME CARE ECOSYSTEM DIMENSION 4: BEHAVIOUR, CULTURE & VALUES

Cultural resistance to technology in care settings exists, but it is frequently misunderstood. ACE evidence shows that what presents as resistance is more often uncertainty, insufficient support, or the entirely rational response to being asked to use something without adequate training or a clear explanation of its purpose.

This means that culture change is not primarily a communication task or a matter of attitude, but a governance task. It requires clear ownership, structured training, protected time for co-creation, and leadership that treats change management as a planned component of every initiative, not something added as a response to problems as they arise.

9.1 NSR-Level and Aligned Actions

-  Support a Common Digital Skills Framework with a clear progression model from beginner to advanced, adapted to different professional roles across the NSR.
-  Enable cross-border learning and leadership development focused on change management and innovation governance. Isolation is one of the most underestimated barriers for individual organisations.
-  Promote staff exchange and cross-border learning networks so that organisations can exchange experiences and learn from one another, not only from their own experience.

9.2 Care Organisation and Local Actions

-  Appoint Innovation Leads and Reference Persons at team or unit level. Local anchoring matters — without someone whose job it is to support and follow up, adoption is unlikely to last.
-  Invest in structured, repeated training and peer learning. Competence builds over time, with practice and reinforcement.
-  Allocate protected time for co-creation with staff, older adults, and families. Co-creation requires dedicated time to be meaningful.
-  Every technology initiative needs a change management plan before deployment begins: a dedicated change lead, a communication plan with messages tailored to each group (staff, older adults, families), a clear statement of the purpose of the change, and explicit leadership endorsement that new working methods are the expected standard.

-  Assign clear ownership for every stage: needs identification, pilot, procurement, implementation, and long-term operation. Defining roles clearly at the start makes them easier to maintain under pressure.
-  Bring support functions—IT, legal, finance, HR, procurement—into the process from needs identification, not only when the contract is almost ready. Establish regular joint forums so these functions can plan their contribution throughout.
-  The function responsible for long-term operation of a solution should be involved in pilot design, not introduced at handover. They need to understand the solution, identify operational requirements, and begin budget planning before the pilot ends.
-  Bring innovation into regular team meetings and supervision. When it exists only in a project structure parallel to daily operations, it remains a project—and projects end.

Success Story 3, Wear&Care Danish SME Piloted in Sweden

Added Value and Impact

Wear&Care uses wearable sensors to alert staff precisely when an incontinence pad needs changing. However, the pilot revealed that the technology's effectiveness depends entirely on a supportive organisational culture. The platform highlights potential improvements for more comfortable care, yet they remain theoretical without proactive governance.

As observed during the implementation, “the management must be much more engaged and enthusiastic about a new solution, such as this one, to lead the way for the staff... without the leadership the staff can't act differently”. The experience demonstrates that culture change is inseparable from governance. Without leadership actively empowering staff to adjust their routines, the technology's potential remained unrealised.

From the field

Adoption became routine where leadership communicated why change was needed and remained visible during transition. Where leadership announced change and then disappeared, staff reverted to previous practices as soon as the pressure eased.

9.3 SME Actions

-  Training materials must be available in multiple languages and at appropriate literacy levels.
-  Participate in training sessions yourself. Supplier presence during training sessions significantly improves adoption.
-  Produce separate guides for frontline staff, supervisors, older adults, and families. Each group has different questions and needs.
-  Co-creation is part of sales and onboarding, not a separate service. Organisations that feel genuinely supported during implementation become better long-term partners.
-  Support the organisational change process around your technology. A technically functional deployment needs an organisationally prepared environment to succeed.

10. HOME CARE ECOSYSTEM DIMENSION 5: INFRASTRUCTURE

Infrastructure is foundational: without it, nothing else in this Action Plan is achievable. A care technology that requires reliable broadband in a home that does not have it cannot deliver on its promise. Infrastructure gaps are also not randomly distributed. They tend to occur where care needs are greatest: rural areas, older housing stock, regions with lower investment.

Unequal infrastructure access is an equity issue, and addressing it requires political and investment decisions at national and NSR level, alongside the practical readiness assessments that care organisations can undertake themselves.

10.1 NSR-Level and Aligned Actions

-  Map infrastructure gaps across NSR regions to give policymakers and funders an accurate picture of where investment is most needed.
-  Commit to universal connectivity as a policy goal at NSR level, including homes, not only care facilities.
-  Define minimum infrastructure requirements for digital care services, so that deployment decisions are made against a clear standard.
-  Create funding mechanisms for rural and underserved connectivity, specifically targeted at the communities where care innovation is otherwise blocked.

Success Story 6, Smart Floor Dutch Company Piloted in Denmark

Added Value and Impact

Smart Floor shifts the focus from reactive fall detection to proactive prevention by using sensor-equipped flooring to map walking patterns and predict risks before a fall occurs. As CEO Frans Lefeber explains: "preventive care will be crucial in the future to address increasing pressure on healthcare staff in ageing societies." By embedding these sensors into the care environment, the system creates a foundational layer of safety that promotes healthier, more independent living.

10.2 Care Organisation and Local Actions

-  Conduct home-level connectivity assessments before any deployment decision. Infrastructure that is available at the office may not be available at the service user's home.
-  Prepare and document fallback solutions for unreliable connectivity. Wired alternatives, offline-capable solutions, and manual backup procedures should be specified in advance as part of deployment planning.
-  Maintain an inventory of devices and infrastructure to enable proactive maintenance rather than reactive repair.
-  Work with telecom providers to address local bottlenecks. Care organisations (especially if they are working within a municipality) may have more leverage with providers than individual households.

Success Story 2, Orikiio French SME Piloted in Denmark

Added Value and Impact

By using sound-based artificial intelligence to detect falls or distress, Orikiio enabled "passive monitoring" that respects user privacy while ensuring rapid response times. The pilot showed that "innovation must reduce the workload of care professionals, not add to it," by eliminating unnecessary physical checks and reducing "alarm fatigue". It successfully bridged the gap between technical infrastructure and person-centred care by integrating smart sensors into existing home workflows.

10.3 SME Actions

-  Design for variable connectivity from the start. A solution that requires consistently good broadband to function will face significant limitations in home care settings.
-  Provide offline-tolerant or low-bandwidth modes where technically feasible. Graceful degradation is a feature.
-  Support connectivity diagnostics during rollout, so that infrastructure problems are identified before they affect service delivery.

PART III: STAKEHOLDERS, TIMELINE & MONITORING

11. IMPLEMENTATION PHASES AND TIMELINE (2026–2030)

The four phases below describe increasing home care ecosystem maturity rather than fixed project milestones. Different organisations and Member States will expectedly move at different speeds. What matters is that each phase builds on the previous one, and that decisions about what to do next are based on evidence rather than optimism.

Phase	Key actions and milestones
Phase 1	• Governance roles, ownership structures, and decision pathways clarified within organisations. • Needs mapping routines, baseline skills assessments, and infrastructure reviews conducted. • Regulatory and GDPR alignment work begins at NSR level. • Innovation leads and reference persons appointed. • Co-creation routines established with older adults, families, and staff. • No large-scale deployment expected—learning prioritised over speed.
Phase 2	• First NSR GDPR guidance published. • Procurement and evidence templates released. • Pilots structured as decision instruments with defined criteria. • Micro-pilots running in all participating organisations. • SMEs begin cross-border Living Lab testing. • Cross-functional coordination forums established within organisations.
Phase 3	• Successful pilots transitioned into permanent practice with defined funding. • Interoperability standards published and applied. • National and regional funding models formalised. • Cross-border recognition of Living Lab evaluations established. • Advanced training systems operating. • Co-creation embedded in annual planning cycles.
Phase 4	• Innovation processes embedded in normal operations, not running in parallel. • Learning mechanisms institutionalised and not dependent on individuals who may leave. • Harmonised GDPR practices across NSR. • Stable, sustainable funding frameworks adopted. • High digital inclusion among staff and citizens. • Mature NSR-wide innovation ecosystem operationalised.

12. STAKEHOLDER ROLES AND PHASED INVOLVEMENT

The table below maps core responsibilities for each actor type and cross-references them to the implementation phases in Section 11. The purpose is to give organisations and individuals a clearer picture of where their primary contribution falls, and what they depend on others to do.

Actor	Core Responsibilities	Primary Phase(s)
 Care organisations	- Core owners of implementation - Conduct needs mapping, piloting, procurement, long-term operation - Integrate cross-functional support - Change management and staff development	Phase 1: Governance and needs mapping
		Phase 2: Structured pilots
		Phase 3: Scaling to permanent practice
		Phase 4: Continuous improvement
 SMEs	- Core enablers through adaptation and support - Market adaptation and country-specific GDPR compliance - Co-create beyond product delivery - Evidence packages for procurement	Phase 1: Market and context research
		Phase 2: Living Lab and co-creation
		Phase 3: Cross-border scaling
		Phase 4: Long-term support
 National / regional authorities	- Enablers, regulators, and funders - Regulatory interpretation and GDPR guidance - Invest in infrastructure - Fund programme design	Phase 1: GDPR alignment and infrastructure mapping
		Phase 2: Procurement toolkit release
		Phase 3: Funding model formalisation
		Phase 4: Policy consolidation
 Support functions (IT, legal, procurement, HR)	- Essential contributors from needs identification stage - Involved from the start, not only at contracting stage - Participate in joint coordination forums throughout	- All phases - Most critical in Phase 2 (pilot design) and Phase 3 (scaling)
 Older adults and families	- Co-creators, testers, and evaluators - Active role in defining requirements, not only participating in testing - Influence what is purchased and how it is configured	- All phases - Most critical in Phase 1 (needs mapping) and Phase 2 (pilot co-design)
 Research organisations	- Co-creators, testers, and evaluators - Active role in defining requirements, not only participating in testing - Influence what is purchased and how it is configured	- All phases - Most critical in Phase 1 (needs mapping) and Phase 2 (pilot co-design)

13. LEARNING, MONITORING AND NON-CRITICAL ADAPTATIONS

Monitoring is not a reporting task, but a management tool. Organisations that build evaluation into every stage of a project, to demonstrate outcomes for a funder, gain the ability to course-correct at the appropriate time.

Not every adaptation identified during a pilot is a critical barrier. Some reflect local circumstances or individual preferences and can be addressed incrementally. The key is knowing the difference: which problems block adoption, and which can be handled through continuous improvement once a solution is in place.

13.1 Indicators for Monitoring at Organisational Level

Care organisations should track across six categories throughout implementation. The specific metrics will vary by context, but the categories should be consistent.

- **Adoption and use:**

Is the solution being used as intended? How many people, how often? Where are the drop-offs, and why?

- **Outcome achievement:**

Is progress being made toward the pre-defined effect goals? What do users and staff report about the experience?

- **Governance and readiness:**

Is ownership clear? Are the right functions involved? Do pilots have documented decision criteria for scaling?

- **Competence and culture:**

Are digital skills developing over time? What proportion of teams have active co-creation routines? Is technology considered as a first option, or as a last resort?

- **Infrastructure:**

What percentage of service users have verified adequate connectivity? How many infrastructure problems were caught pre-deployment versus discovered after launch?

- **Procurement quality:**

Are lifecycle costs included in business cases? Are outcome requirements specified? Was procurement involved from the pilot phase?

Success Story 5, Helpsoq Dutch Company Piloted in Denmark

Added Value and Impact

Helpsoq is an electric aid designed to help individuals put on compression stockings independently, addressing a task that typically requires two daily nurse visits. By automating this process, the pilot demonstrated that the technology directly restores dignity and reduces the burden on overstretched care staff. The core value of this innovation is best captured by its impact on the user's quality of life: "The biggest advantage is that users no longer have to wait for a caregiver to start their day. They can put on their stockings whenever they want and immediately regain their freedom." The experience demonstrated that starting with a validated user need can deliver measurable improvements in both autonomy and organisational efficiency.

13.2 NSR-Level Monitoring Themes

Across the partnership, the following should be tracked to assess regional progress:

- Regulatory harmonisation: How many shared GDPR interpretations have been formalised and adopted across NSR countries?
- Infrastructure parity: Is the gap between best-connected and least-connected NSR regions narrowing?
- Cross-border knowledge exchange: How many documented micro-cases have been shared? How many Living Lab evaluations have cross-country recognition?
- SME participation: What diversity of SME types engaged, and what proportion complete cross-border scaling with documented market adaptation?
- Funding sustainability: What proportion of pilots transition to permanent operation with defined ongoing funding?

13.3 Documentation and Learning

The Quarterly Micro-Case Template in the Appendix (Template 4) is designed to support this process. Key principles that make documentation useful rather than bureaucratic include:

- Store documentation in shared systems, not personal files. When the person who managed the pilot leaves, the learning should not leave with them.
- Document what did not work with the same rigour as what did. Unrecorded failures are likely to be repeated.
- Format lessons for sharing across NSR partners, not only for internal use. The value of transnational learning depends on materials that are accessible and usable across contexts.

- Quarterly review meetings should assess evidence, adjust plans, and formally record decisions. Review meetings should lead to recorded decisions, not only discussion.

13.4 Measurement Principles for Organisations and Municipalities

Making impact themes measurable requires building measurement into the process from the start, not designing an evaluation after deployment. The following principles apply at the organisational and municipal level and complement the home care ecosystem-level indicators tracked by national governments and NSR bodies (described in the Strategy, Section 12).

- Define outcome goals before selecting a solution. Both quantitative effects, like reduction in unplanned visits, staff hours freed, fall incidents prevented, and qualitative ones, like sense of independence of the user, staff experience of the working day. These need to be stated explicitly before procurement begins. Digitalisation is not the goal. It is a means to these desired effect goals.
- Design impact evaluation to measure actual impact, not change or outcome. Causal impact is defined as the *difference* between the test group's outcome and the outcome the same group would have had without the intervention. Since you cannot observe both outcomes – the *factual* outcome and the *counter-factual* outcome – one needs a valid comparison group that can represent what would have occurred in the test group in the counter-factual scenario.

ACE

- Collect baseline data before anything changes. Without a pre-intervention baseline, impact measurement will be substantially more difficult and precision of the measurement considerably lower. Baseline collection should be built into the pilot design stage, not added retrospectively when a funder asks for impact evidence.
- Monitor continuously, not only at end-point. Course corrections require evidence, and regular monitoring ensures it is available when decisions need to be made.
- Store learning institutionally, not individually. What was learned, including what did not work and why, must be stored in shared systems with long-term accessibility to the whole organisation.
- Procure for outcomes, not features. Procurement requirements should specify the effects being sought and allow suppliers to propose how to achieve them. Specifying technical features alone produces solutions that meet the specification without necessarily producing the intended outcome.

The Outcome and Benefit Calculation Guide (Template 5 in the Appendix) provides a structured format for applying these principles to specific initiatives.

APPENDIX — TEMPLATES AND CHECKLISTS

The templates below are starting points, not fixed forms. Adapt them to your national context and organisational structure.

TEMPLATE 1: TECHNICAL READINESS CHECKLIST

Complete before deploying any digital care technology. Apply at individual service user locations as well as at organisational level.

Infrastructure

1. Is stable internet access available at the deployment location? If Wi-Fi only, has signal quality been verified? Is a wired fallback possible?
2. Are required devices (tablets, sensors, hubs) available and compatible with the solution?
3. Have IT support and maintenance responsibilities been assigned?

Data and Compliance

4. Has a Data Protection Impact Assessment been completed?
5. Has the supplier provided GDPR compliance documentation for this deployment context?
6. Have consent processes for older adults (and families where relevant) been defined and tested?

Organisational Readiness

7. Have we named a project owner and a long-term operations owner?
8. Have workflows been reviewed and updated before deployment?
9. Has staff training been planned and adequately resourced including time allocation, costs for materials, and the training lead?
10. Has a budget been identified for the continued operational phase, not just the pilot?

TEMPLATE 2: STANDARD INNOVATION PROCESS

A five-stage process aligned with ISO 56002, moving from identified opportunity to scaled operation. Each stage ends with a defined decision point before proceeding.

Stage 1 — Opportunity identification:

Map and validate the opportunity using structured methods. Go beyond a single stated need: engage users and stakeholders to understand the underlying challenge, relevant context, and what effects a solution should produce. Scan existing solutions to confirm the opportunity is not already addressed. Define the target group, desired outcome, and alignment with organisational priorities.

Decision point: proceed only if the opportunity is validated and relevant.

Stage 2 — Concept development

Generate and develop possible approaches to addressing the opportunity. Use structured ideation, cross-sector learning, and — where relevant — early market engagement to explore what solutions exist or could be developed. Assess candidate concepts against feasibility criteria: technical, financial, legal, and organisational. Where procurement is likely to be required, involve procurement staff at this stage and consider pre-commercial engagement with providers. Select one or more concepts to validate.

Decision point: management authorisation to proceed with validation.

Stage 3 — Validation using pilots

Design the validation: define scope, timeline, success criteria, and responsible parties. Assign a validation owner and a change lead. Produce a validation plan and a communication plan. Involve IT, legal, finance, operations, and communications from the outset; include procurement staff where the concept involves external supply. Execute the pilot-validation with continuous structured evaluation. Hold regular review meetings. Document what works, what does not, and what is adjusted. Collect data against pre-defined success criteria.

Decision point: validation complete; results documented and ready for evaluation.

Stage 4 — Evaluation and decision

Assess results against success criteria. Draw conclusions about the concept's viability, scalability, and organisational fit. Identify lessons for further development. Where procurement is relevant, update specifications and requirements based on validation learning. Decision point: scale up with a defined pathway, adjust and extend the validation, or discontinue with documented rationale.

Decision point: scale up with a defined pathway, adjust and extend the validation, or discontinue with documented rationale.

Stage 5 — Deployment and operation

Deploy the solution at scale. Procure using validation-informed requirements. Implement with an active change management plan. Hand over to the named operational owner with a defined support structure, budget, and review schedule. Establish mechanisms for ongoing monitoring, learning, and improvement.

TEMPLATE 3: NEEDS MAPPING GUIDE

Use before selecting or procuring any solution. Involve frontline staff, older adults, families, and relevant support functions. The goal is to establish what the actual need is—not to find a use for a technology that has already been identified.

Key questions

1. What specific problem or unmet need has been identified? Who identified it, and how?
2. Who is affected? How many people, and with what characteristics?
3. What effect do we want to achieve? How will we know when the need has been met?
4. Are there existing solutions—internal or from other organisations—that already address this need?
5. What constraints apply? Budget, infrastructure, regulatory, staff capacity, user ability.

Methods for gathering need

- Structured interviews with older adults, family members, and frontline staff.
- Observation of current workflows and daily routines.
- Surveys on user experience and staff workload.
- Supplier market dialogue—to understand available solutions and what is being developed.
- Review of comparable implementations at NSR partner organisations.

TEMPLATE 4: QUARTERLY MICRO-CASE TEMPLATE

Complete once per quarter for each active technology initiative. Aim for one page. The purpose is continuous oversight and transferable learning, not comprehensive documentation.

1. Initiative:

Name, brief description, current stage

2. Intended effect:

What outcome was this meant to achieve?
How is it measured?

3. What is working:

Evidence of progress; positive feedback from users or staff

4. What is not working:

Obstacles, gaps, or negative feedback this quarter

5. Adjustments made or planned:

Actions taken or planned; changes to scope, method, or resources

6. Next quarter focus:

Planned activities, milestones, or decision points

7. Shareable insights:

What other teams or NSR partners could use

TEMPLATE 5: OUTCOME AND BENEFIT CALCULATION GUIDE

Use before starting a pilot or procurement to define expected effects and how they will be measured. Both quantitative and qualitative effects matter. Procure for outcomes, not features.

1. Desired effect:

Plain language description, e.g. “reduced isolation among older adults living alone”

2. How will it be measured?:

Design the evaluation in accordance with Impact measurement standards to be able to measure actual causal impacts. Choose outcome and control variables. Quantitative: visits, hours, incidents. Qualitative: experience surveys, staff observation

3. Baseline:

Current situation before any intervention. Data source and collection method

4. Target:

What level of improvement is expected, and by when?

5. Estimated costs:

Technology, installation, training time, workflow adaptation, governance, maintenance, support over three years

6. Estimated benefits:

Quantified where possible: staff hours, visit reductions, incident rates. Non-quantifiable: quality of life, dignity, staff satisfaction

7. Who pays, and for what:

Funding responsibilities across municipality/region, care unit, IT, external funding, citizen contribution if any

8. Post-pilot funding pathway:

How the solution will be financed after the project ends. What decision is needed, and by whom

TEMPLATE 6: SME EVALUATION TEMPLATE

For use by care organisations when evaluating supplier readiness. Assessment should cover:

- **Usability evidence:**

Documented results from comparable real-world settings; user feedback from actual pilots

- **GDPR compliance documentation:**

Country-specific compliance evidence; data processing agreements; security certifications

- **Cross-border market adaptation:**

Evidence of successful deployment in more than one NSR country; documented adaptations made

- **Training and onboarding support:**

Multilingual materials; separate guides for staff, older adults, and families

- **Post-pilot pricing transparency:**

Full cost of ownership over three years; conditions under which prices may change

- **Co-creation track record:**

User involvement in product development; participation in Living Lab or co-design processes



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