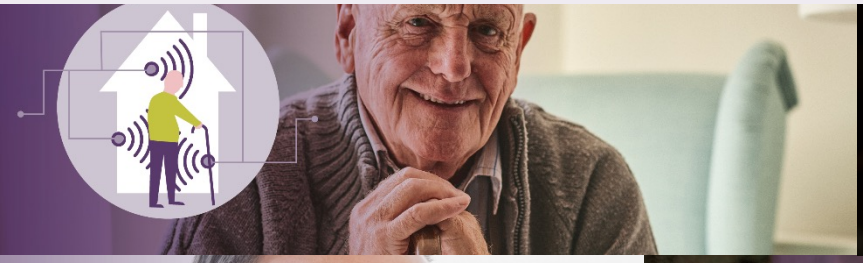
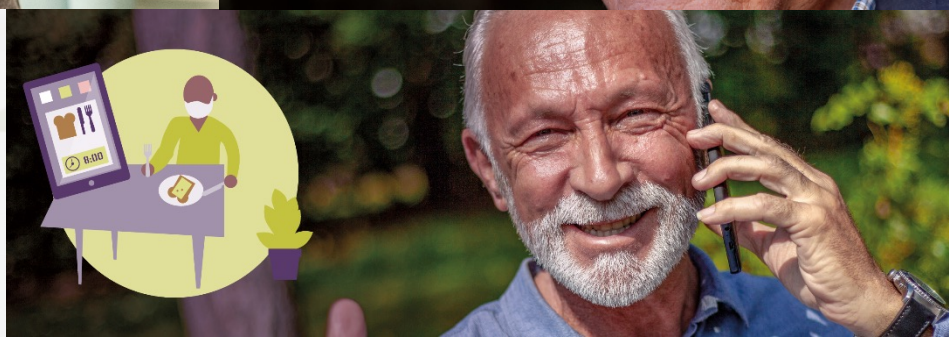
Vilans

#Digital Care

Vilans Theme: Digital Care

overview of activities





September 2023

Henk Herman Nap & Lotte Cornelisse

Vilans

- *Implementing digital care should be the norm*
- *End users are a critical success factor in design and implementation*
- *Technology should add value to people's lives*
- *Long-term care should be supported by data and responsible innovation*

Vilans

INTRODUCTION

Digital care is an important and topical theme that Vilans is actively working on. Digital care can support the well-being and health of citizens and ease the workload on healthcare professionals. Therefore, the use of data plays an increasingly important role.

Digital care offers many possibilities for both elder and disability care. Within Vilans, a team of over 40 people is working on the theme in various programmes and projects.

"Iterative co-design, evaluation and data-driven care!"

Within the theme a number of focus areas are central: Co-design, Data-driven care and Evaluation.

Current Activities:
To future-proof long-term care, we are working within the various focus areas on activities to accelerate the deployment of digital care.

For example, knowledge sharing in various forms and making knowledge applicable through methods and tools.

Within various projects and programmes we are working together on the implementation and evaluation of existing applications.

Furthermore, we are working on innovation in the field of digital care. And, internationally; we are working on the knowledge of tomorrow!

40

>40 VILANS COLLEAGUES ARE WORKING ON DIGITAL CARE PROJECTS

>43 (INTER)NATIONAL PROJECTS ON DIGITAL CARE AND TRANSFORMATION

43

120

COLLABORATION WITH >120 ORGANISATIONS ON DIGITAL CARE (UNIVERSITIES, HEALTHCARE PROVIDERS, GOVERNMENTS...)

Activities

Knowledge Sharing

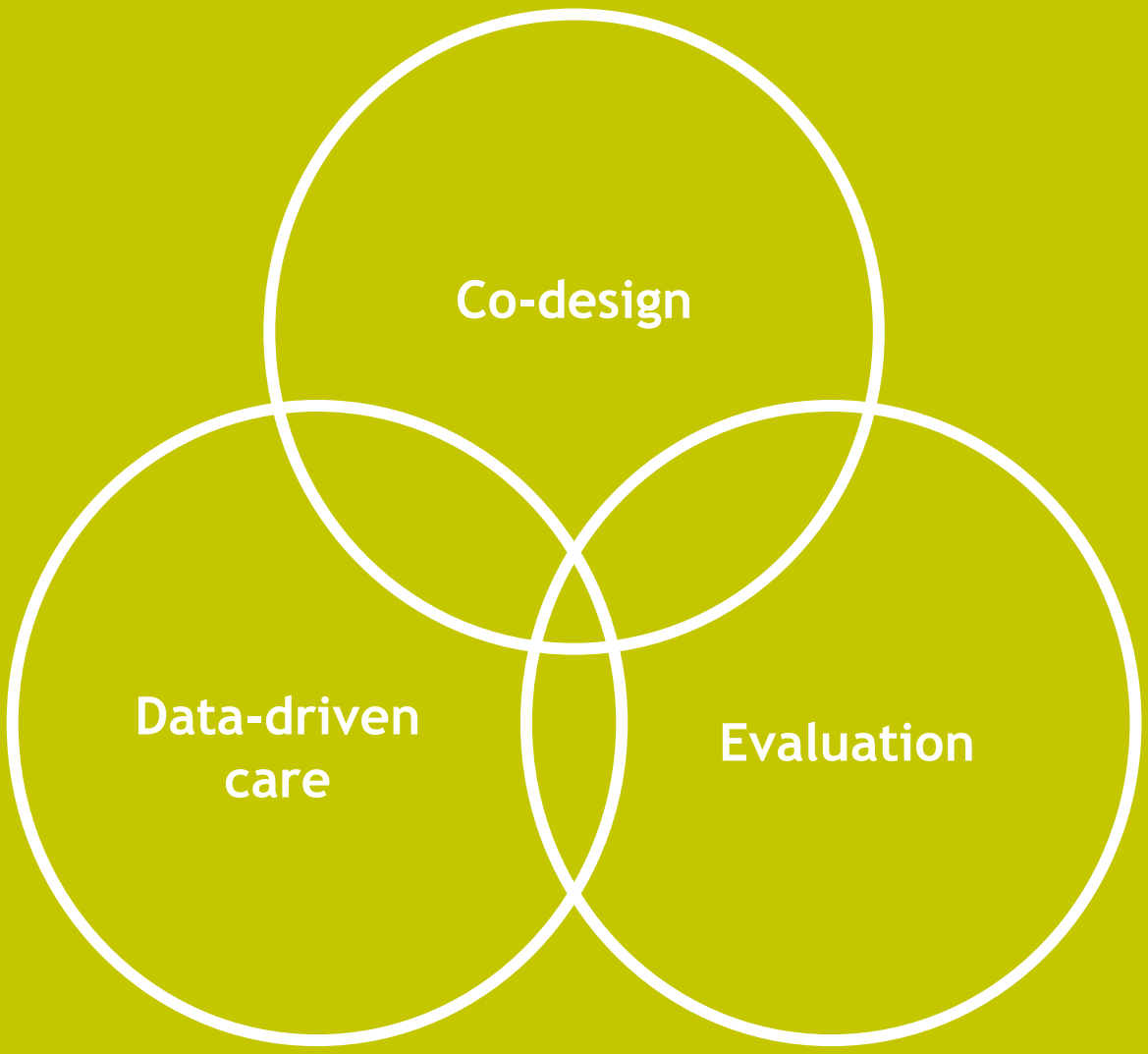
Methods and Tools

Digital Care Innovation

Collaborative Implementation and Acceleration

Zorgvernieuwing in Versnelling
Digitale revolutie ouderen- en thuiszorg

International Activities


Co-design
Data-driven care
Evaluation

CO-DESIGN

It is important to include the end user and other stakeholders iteratively throughout the design process, from wishes and needs, design to validation. In design-oriented work, we consider the individual and the context. We ask all relevant partners to think along with us and we engage involved parties in technological innovation, including those who pay for care and those who oversee care.

Test with end-users

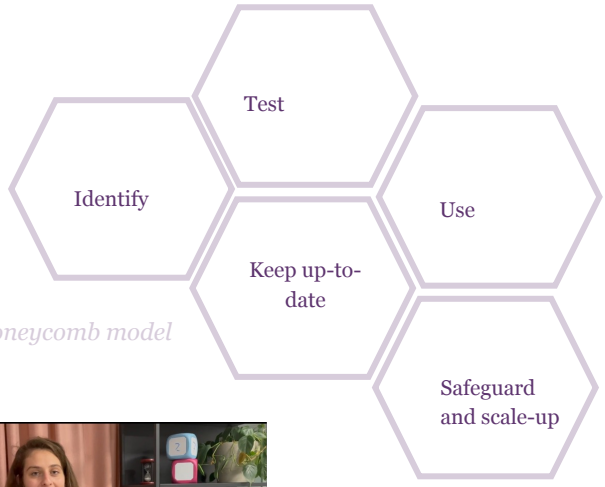
Methodology development

In addition to co-design, Vilans is (further) developing methodologies to better involve people in the development of (new) digital applications.

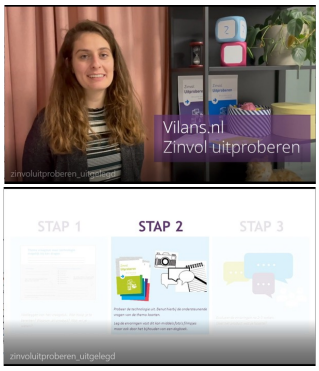
Iterative design process

Co-design and implementation

To successfully design and implement digital care, we use the Honeycomb Model. The 'Meaningful Trial' method is one component of this. Thanks to our short lines of communication with care innovators, we can respond quickly and easily to questions and concerns.



Honeycomb model



Contact care innovators

WhatsApp

Care innovators VVT
Over 200 participants

Explanation video Meaningful Try-Out

Engaging with care

Insights into needs

We map (latent) needs and wants in long-term care. Through ethnographic research, in which you literally allow yourself to be 'immersed', we investigate (new) needs in the field of social and technological innovations. In this way, we have identified great demand for solutions to reduce physical strain.

People with care tasks are increasingly dealing with care technology. During a study we looked at how people seek knowledge and information in the field of digital care. This allows us to match Vilans' knowledge networks even better with demand.

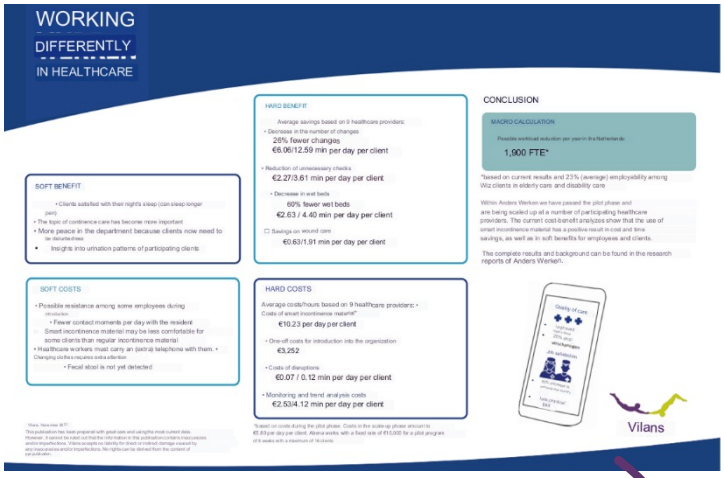
Visiting sources of information

EVALUATION

Technology is a means, not an end. It is an important means towards better quality of life and care. (Cost) efficiency and workload reduction are also benefits. We can no longer ignore the obvious value of using technology. There are various methods for determining the value of digital care, and Vilans uses the Value Fan methodology based on the Social Business Case methodology (mBC). We map hard and soft costs and benefits for different stakeholders. It is essential to take into account that the added value varies over time (for example because a client population changes) and per stakeholder, including clients, (in)formal caregivers, and financiers of care.

Value assessment in practise (AWIZ).

Value-based research is being conducted within several projects and programs, including Anders Werken In de Zorg (AWIZ). This field research forms the basis for nationally recognised research.



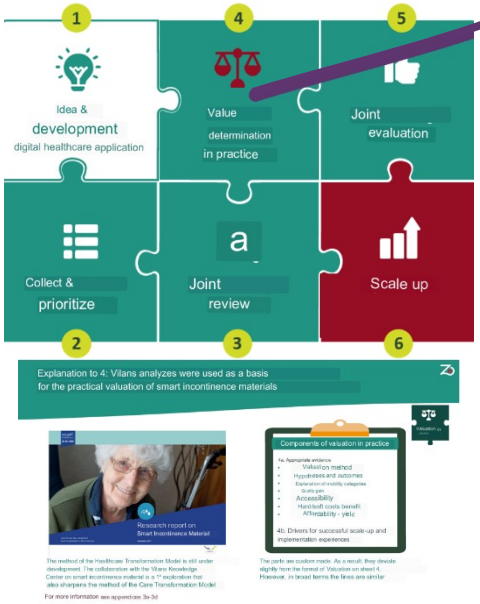
Researching the value of healthcare technology together

With significant research on 13 time-saving technologies in elder care

Vilans SIGNIFICANT PUBLIC

Care Transformation Model

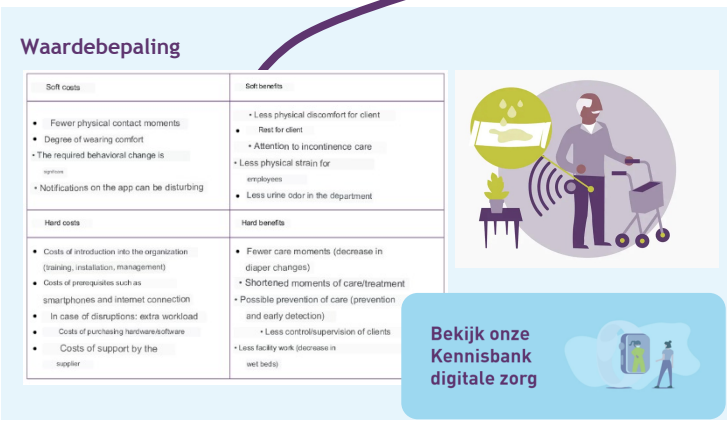
Independent research is included in the review process of the Digital Care Knowledge Center (ZN).



Working with Academy Het Dorp on business cases from practical experiences in the Innovation Impulse

Knowledge sharing via the Knowledge Bank

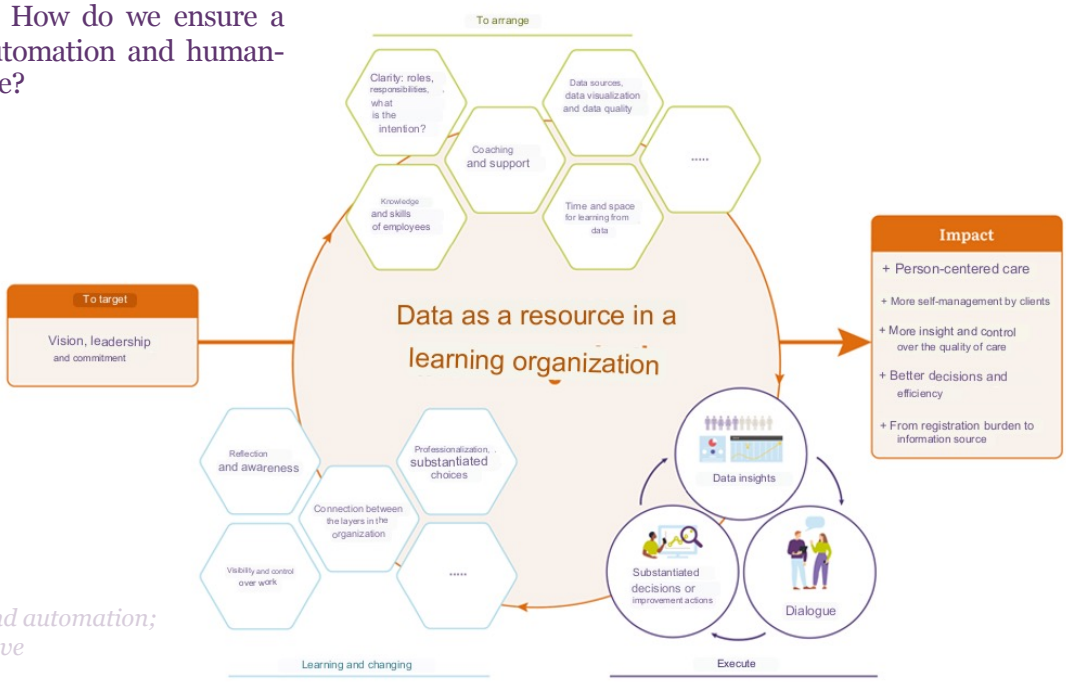
Evidence-based research, among other things, is shared via the knowledge bank.



DATA DRIVEN WORK

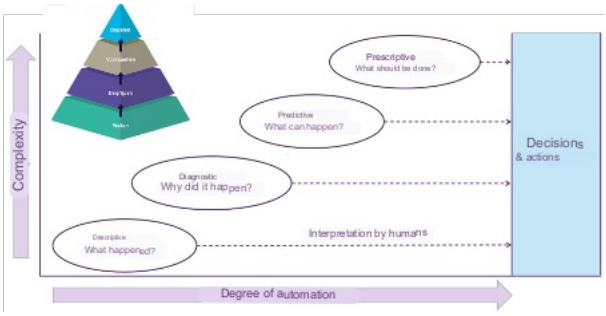
In long-term care, we collect and share a lot of client and caregiver data. Increasingly, this involves data from digital care plans, AI-driven domotics and wearables. Vilans believes it is important for healthcare organisations to work together to take data-driven care to the next level. We believe that data and AI should be designed and deployed in a meaningful way (i.e., Responsible Innovation). How do we ensure a good balance between automation and human-driven person-centred care?

Working Data Driven - Network



Model for data-driven work

Degree of complexity of AI and automation; from descriptive to prescriptive



Increasing urgency for responsible innovation

Future-Exposition

In our society, we use increasingly more advanced and "smarter" technology. This technology is increasingly thinking along with us. It offers healthcare many opportunities, but also brings social and ethical challenges. It is important to have an open dialogue about this.

This is why we developed the Future-Exposition. The Future-Exposition facilitates the discussion about the increasing use of data and AI. It invites people to discuss scenarios in the field of innovation and digitalisation in healthcare.

Future-Exposition

KNOWLEDGE SHARING

Digital Care Knowledge Bank
The Digital Care Knowledge Bank is a central platform for knowledge exchange on digital care. We share independent information on different types of healthcare technology, focusing on the hard and soft costs and benefits, and who will be impacted. We also share knowledge on (best) practices, experiences with pilots, setting up pilots, financing possibilities and in which context applications are valuable.

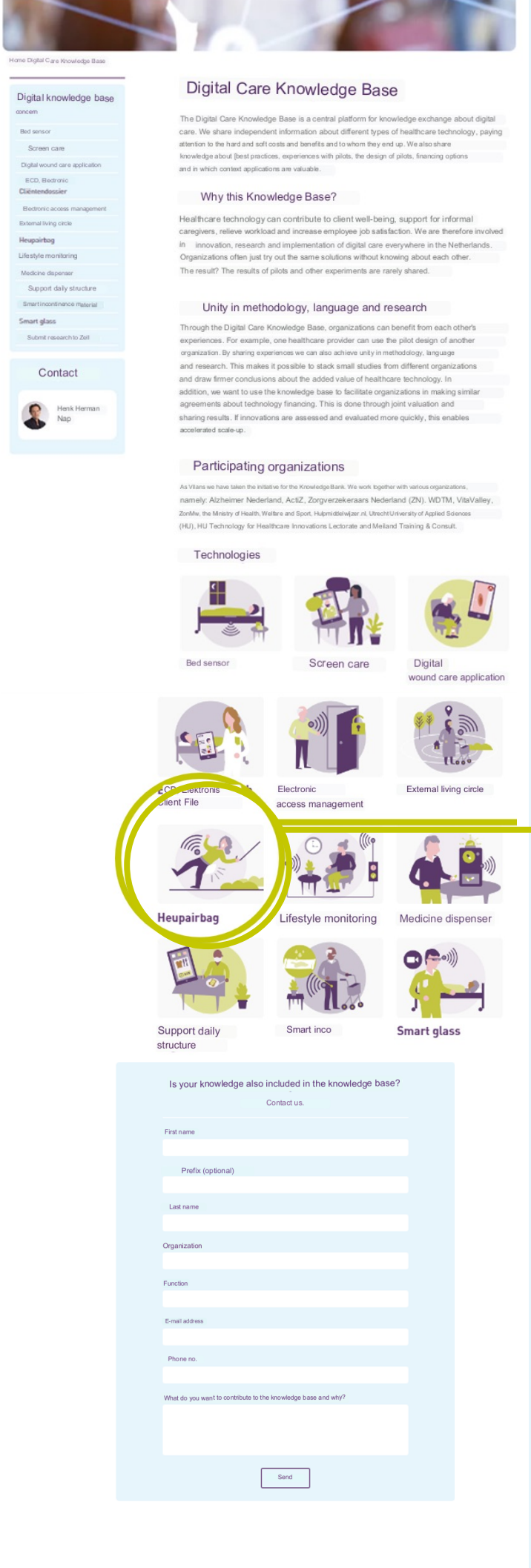
Launch during healthcare innovation kicks off May 19, 2022

Vilans created the Knowledge Bank. We collaborate with several Dutch organisations, including: Alzheimer Nederland, ActiZ, Zorgverzekeraars Nederland (ZN), WDTM, VitaValley, ZonMw, the Ministry of VWS, Zorg van nu, Hulpmiddelenwijzer.nl, Hogeschool Utrecht (HU), HU Lectoraat Technologie voor Zorginnovaties and Meiland Training & Consult.

Further development
We are currently optimising the knowledge bank by adding information on implementation, experiences and evidence-based research.

In parallel, we are improving the knowledge bank by::
- exchanging experiences and knowledge during projects and studies.
- facilitating low-threshold exchange (low-threshold knowledge sharing).
- more timely response to (critical) questions.
- identifying signals in the field earlier (faster knowledge sharing).

"Community"



Digital knowledge base

Bedsensor

Screen care

Digital wound care application

Electronic access control

Heupairbag

Lifestyle monitoring

Medicine dispenser

Support daily structure

Smart incontinence material

Smart glass

Contact or questions?

Heupairbag

What is it?

A hip airbag is a belt or pants with air cushions on both sides of the hip that ensure a soft landing if someone falls. The sensors in the belt continuously monitor every movement and immediately recognize a fall. CO2 cartridges in the belt ensure that the airbags inflate. After a fall, the cartridges must be replaced.

Target audience

The hip airbag is intended for:

- Accept people with an increased risk of falling and wearing an airbag.
- People in wheelchairs who tend to stand up.
- People forget at night that they have difficulty walking and that they have the urge to walk.

The average usability of the hip airbag is 8 percent among Wlz clients in intramural elderly care. Until now, the hip airbag has mainly been used intramurally, in nursing homes. Application of the hip airbag in home care is also obvious.

Valuation

Financing

Research into this technology

Only independent research is included here: research in which the manufacturer or supplier is not involved.

- Working Differently, fall impact reduction, fact sheet. Vilans, November 2021 (see Downloads: Working Differently, fall impact reduction fact sheet).
- Anders Werken, Research report on fall impact reduction, H. Nap et al., November 2021 [see Downloads: Anders Werken fall impact reduction report].
- Report Aunt Louise Challenge Nursing Homes of the Future 2019-2021 including calculation of Social Return on Investment (SROI methodology) [zie Downloads: report challenge AuntLouise hip airbag].
- Nemeth B, van der Kaaij M, Nelissen R, van Wijnen JK, Drost K, Blauw GJ.Prevention of hip fractures in older adults residing in long-term care facilities with a hip airbag: a retrospective pilot study. BMC Geriatr. 2022 Jun 30;22(1):547. doi:10.1186/s12877-022-03221-1. PMID: 35773627; PMCID: PMC9245388 (see Downloads: prevention of hip fractures in older adults residing bmc 2022).

Where do projects and research take place?

Application of the hip airbag in nursing homes is part of the Anders program

Working in healthcare: Hip airbag - Working differently in healthcare

read more

Information about the hip airbag for users (private individuals) can be found in the Aids Guide.

Downloads

tantelouise heupakbag challenge report

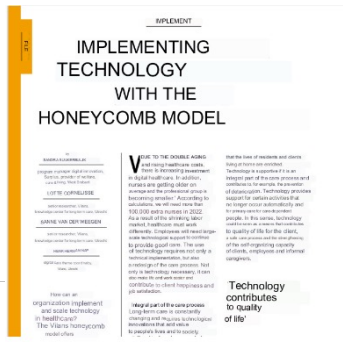
View our
Digital Care
Knowledge Base
www.vilans.nl/kennisbank-digitale-zorg/

Knowledge dissemination through meetings, presentations, and working sessions.

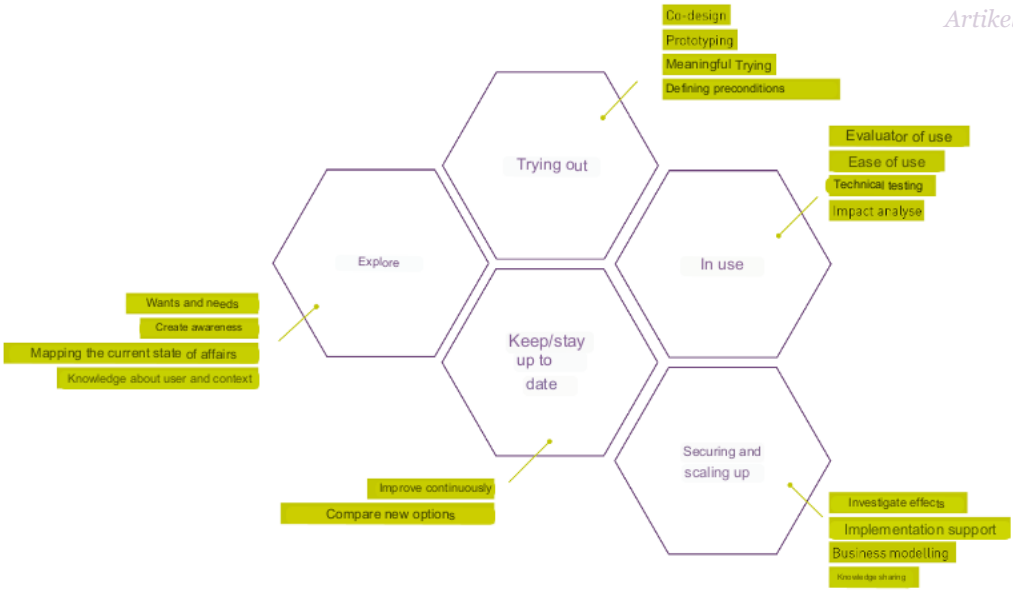
METHODS AND TOOLS

Honeycomb model

The "Honeycomb Model" contains five essential phases for implementing and scaling up technology in the field. It is important that the phases are iterative. For example, an organisation may evaluate a technology in the 'In Use' phase and conclude that it is necessary to co-create further based on insights from the research in the 'Try Out' phase. For each phase, associated activities are defined.



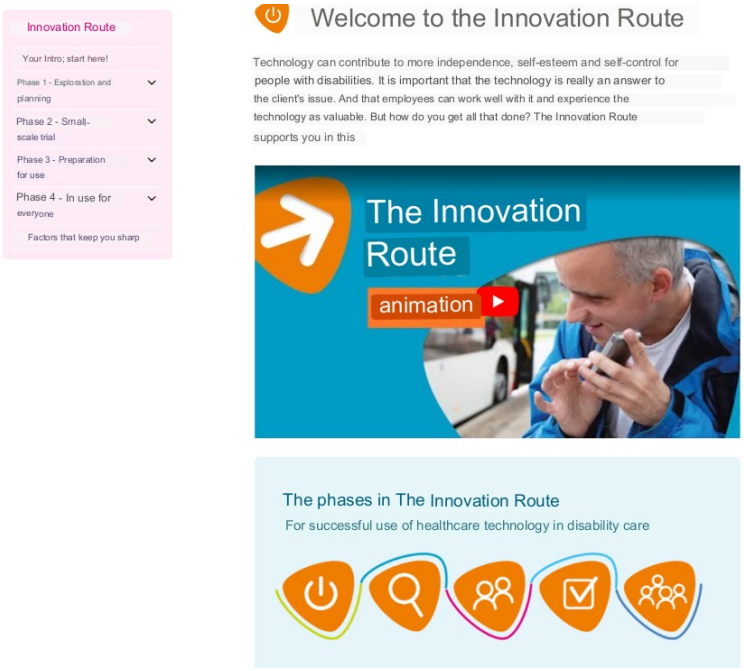
Artikel in TVZ



Value Fan

For value-based research, we use the Vilans Value Fan. Value-based research in practice should result in accepted evidence for further upscaling and contributes to acceleration, sustainable deployment and funding of innovations.

- Problem definition
- Competition analysis/ market research
- Map out care pathway
- Create stakeholder map
- Create and test impact map
- Translate expected impacts into hypotheses
- Establish measurement plan
- Select methodology
- Collect data
- Analyse data
- Cost-benefit matrix
- Share results
- Initiate evaluation process



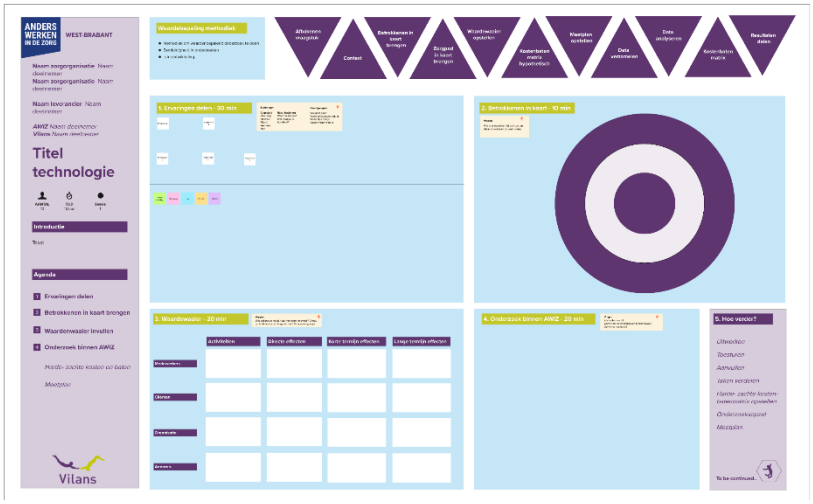
Innovation-Route

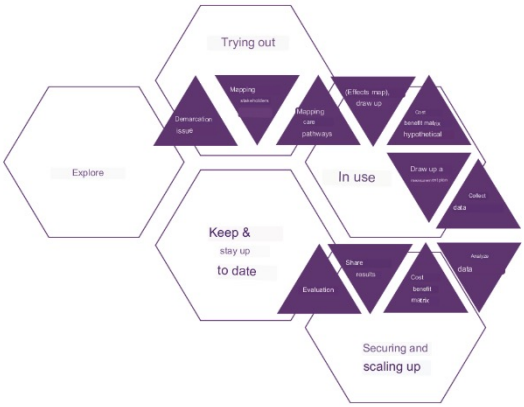
The Innovation-Route is a practical roadmap that organisations can use to embed technology. The different steps include tools and ways of working that organisations can utilize.

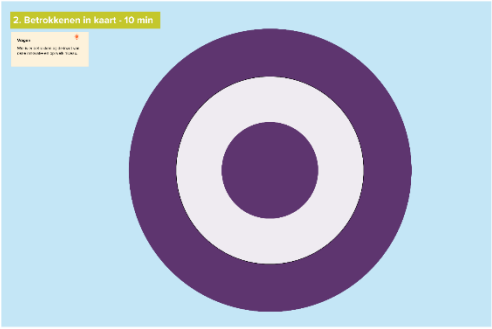
Technology Toolkit Nursing Home Care

Within the programme Waardigheid en Trots (Dignity and Pride), a toolkit was developed based on implementation processes in the field.

Work models for determining value in the field





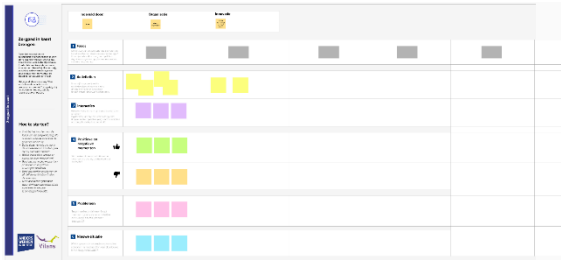


Mapping involvement

Who is involved at what level?
What will you measure by whom?!

Mapping care pathways

What is the current and future situation?



DIGITAL CARE INNOVATIONS

Vilans works on projects in which innovation is taking place in the field of digital care. We work demand-driven and are fully involved in explorations and experiments with new innovations.

Types of warm contact using technology

Warm contact

We have been exploring ways within long-term care to still achieve warm and meaningful contact at a distance through digital methods.

Radar-technology

Specifically for the WOZO policy, a range of radar sensors for detecting emergencies is being tested for functionality. As a possible extension or modernisation of lifestyle monitoring to safely deliver the Complete Home Package to people who require intensive dementia care.

Testing radar-technology in a model home

Exoskelet

Exoskelet

Meaningful try-out of an exoskeleton suit by Anders Werken In de Zorg West- Brabant

Hyodol

Testing Hyodol

The Hyodol is a social day structure robot from South Korea. The doll features many sensors, allowing it to observe various activities and send alerts to the caregiver. The doll contains more than three thousand pre-programmed phrases, songs and prayers and a dashboard that measures user interaction and activities. In a 90-day trial, Vilans, Smart Robot Solutions and the Haagse Hogeschool are exploring whether the Hyodol is of added value in Dutch elder care.

Bedtransfer and Sit&Shower: meaningful try-out with Omring

The AFH ecosystem currently consists of an automatic transfer bed and an automated shower unit (Sit&Shower). The transfer bed is still a prototype and Vilans and Omring are now investigating areas for improvement. The Sit&Shower is already on the market abroad (including Singapore) and its deployment in Dutch care is being investigated.

Shower cabin

Transfer bed

WORKING TOGETHER ON IMPLEMENTATION AND ACCELERATION

Together with partners, we are working on implementing digital care in the VVT (elder care) and GHZ (care for people with dissabilities). We are collaborating with hundreds of organisations in 'Zorgvernieuwing in versnelling' (Care Reform in Acceleration), 'Waardigheid en Trots voor de toekomst' (Dignity and Pride for the future) and 'Innovatie Impuls Gehandicaptenzorg 2.0' (Innovation Impulse Disability Care 2.0).

Action Plan : Care Reform in Acceleration

The initiators of "Care Reform in Acceleration" drew up an Action Plan and made the call to work together with the goal: *right care in the right place by working as innovatively and digitally as possible in elder and home care.*

Based on the many positive responses and suggestions, the plan has been further defined, goals sharpened and acceleration initiated. There is currently collaboration on eight goals.

Zorgvernieuwing in Versnelling
Digitale revolutie ouderen- en thuiszorg

Action Plan - digital technology in elder and home care

8 goals:

- Those involved in (future) care of older people recognise where the use of care technology can add value and are able to put it to use.
- Sharing knowledge and experiences on a national level ensures better and faster implementation of technological possibilities.
- Be an attractive (innovation) market, where care organisations and (innovation) partners actively cooperate to bring faster, more impactful innovations to the market.
- Reimbursements do not hinder the deployment of proven (digital) solutions.
- Elder and home care organisations work together within a sustainable information ecosystem in which data and services are digitally accessible, exchangeable and reusable.
- Healthcare organisations have the basics in place for the optimal deployment of healthcare technology.
- Real transformation of care is taking place alongside optimization of existing care processes. Opportunity for disruptive innovation of elderly and home care.
- In training of (future) care workers, care technology and an innovative way of working is the norm.

Programmes for implementing digital care

Waardigheid en trots voor de toekomst

Waardigheid en trots voor de toekomst (Dignity and Pride for the future) supports long-term care providers in eldery care. The technology theme provides support in the implementation of technology through webinars, tutorials, knowledge sharing and customized support. Specific attention is paid to 'getting the basics right' and 'making better use of the basics'.

Working together on future-proof nursing care

Innovatie-impuls IIG-2

Vilans

HG ACADEMY HET DORP

With the Innovation Impulse, we inspire and support organisations in the disability sector to implement technology and scale up its use. We do this through advice and support programmes, organising and facilitating knowledge transfer and conducting research into effects and benefits. We have also developed the Innovation Route; a practical step-by-step plan - based on 4 years of knowledge and experience within the first Innovation Impulse - by which organisations can implement technology.

INTERNATIONAL ACTIVITIES

We are internationally active in development projects and are in demand to speak at conferences.

Our role within international projects: coordination, co-design, valuation, responsible innovation, business modeling and communication.

Thanks to our international activities, we are able to connect parties and gather new knowledge.

Internationale projecten

AAL PROGRAMME
Interreg North-West Europe CERTIFICATION-D
Free Walker
RESILIEN-T
DemiCare
HAAL
GUARDIAN
eWare
JAIN
POSTHCARD

HAAL project

HAAL dashboard

doel werkdrukverlichting

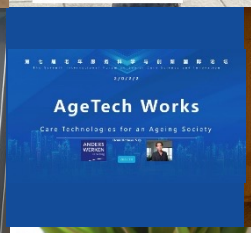
voor zorgprofessionals*

door het combineren van informatie/data

HAAL Vilans

HAAL

The HAAL project combines multiple Active and Assistive Living (AAL) innovations. By combining the data from different healthcare technologies, they are able to reinforce each other, also all the data can be presented in one dashboard so that care providers do not have to work in multiple applications. Vilans is responsible for project coordination, co-design of the dashboard and business modeling.



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