**AKERSHUS UNIVERSITETSSYKEHUS**

# Sub-plan 8: New work processes and technology

## 2022-2026

20.04.2022

ahus.no • MENNESKELIG NÆR, FAGLIG STERK

UNIVERSITETET I OSLO

2
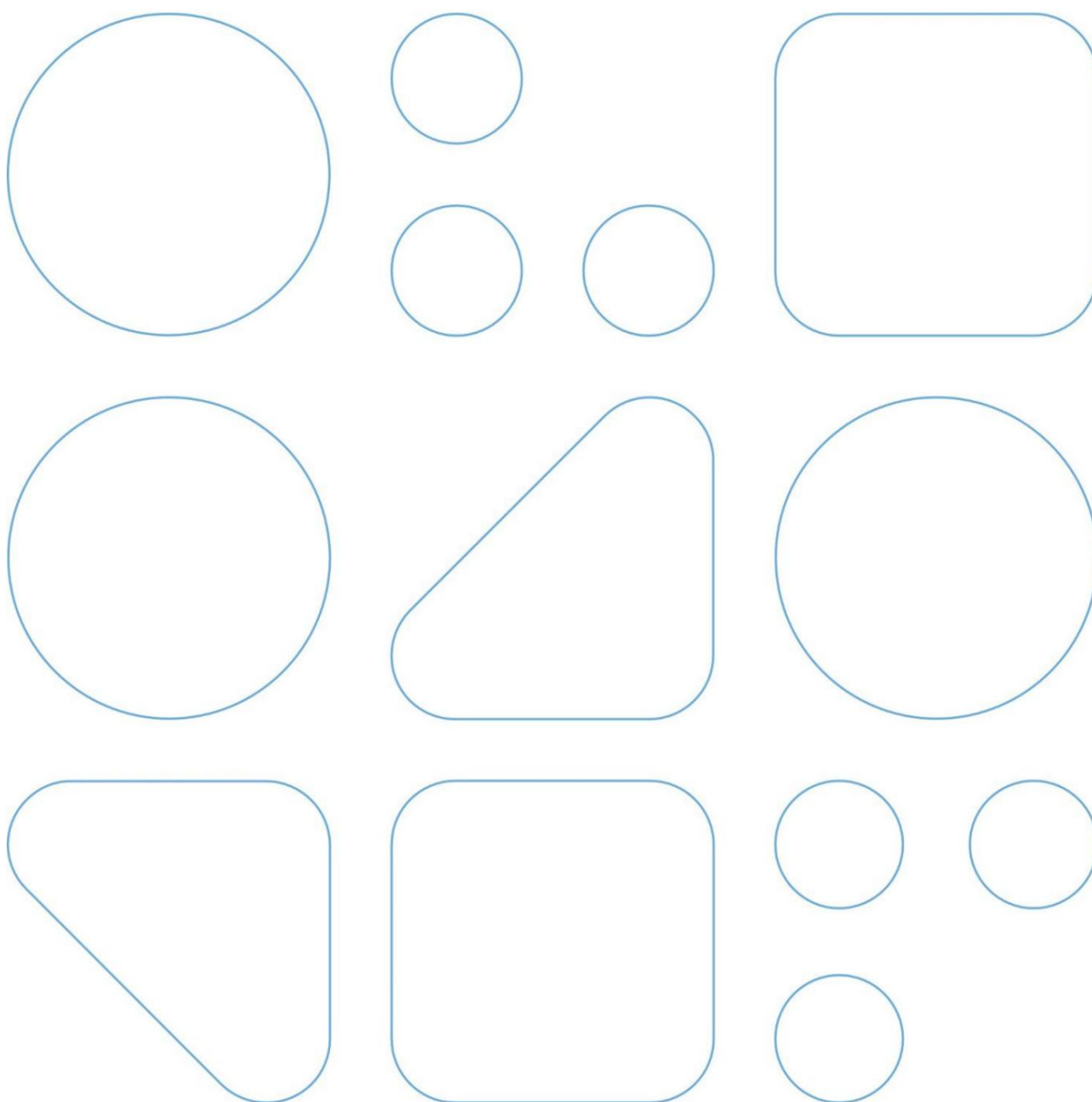
## Development plan 2040
### Sub-plan 8: New work processes and technology

This plan is one of nine sub-plans under Development Plan 20240, which describes Akershus University Hospital's (Ahus) main goals and plan for the development of the hospital up until 2040. The sub-plans describe specific projects and development initiatives that are planned for the next four years. The partial plans are rolled out and updated annually, as part of the company's prioritization and budget process.

Nine sub-plans have been drawn up:

Subplan 1: The elderly patient

Sub-plan 2: Acutely and critically ill patients

Sub-plan 3: Cancer

Sub-plan 4: Mental healthcare and substance abuse treatment

Sub-plan 5: Children and young people

Sub-plan 6: Competence and education, recruiting and retaining

Sub-plan 7: New tasks and further development of patient services

**Sub-plan 8: New work processes and technology**

Sub-plan 9: Research and innovation

**AKERSHUS UNIVERSITETSSYKEHUS**

# About the investment area

## In order to meet future needs for specialist healthcare services, there is a need to work in new ways.

The hospital premises must be utilized as best as possible, and many patients will in future receive their treatment in their own homes. It is necessary to streamline the work processes, so that healthcare personnel can spend as much time as possible on patient treatment. Where possible, cumbersome solutions and time wasters must be replaced, so that patient processes can be made more efficient and streamlined. There are today a number of technological solutions which, with optimal use, can provide significant labor savings within the health service.

Akershus University Hospital has drawn up a technology plan for the period 2020-2035 which lays down guidelines for how the healthcare institution should work with technological development. New solutions must be incorporated into patient care in a structured and planned manner, in accordance with development goals and plans. Based on the technology plan, an action plan is drawn up with a five-year perspective. The action plan is rolled out annually in line with the company's other planning procedures.

Sub-plan for new work processes and technology is based on the ambitions expressed in the technology plan, and complements this by placing the main emphasis on change processes in clinical operations and support functions. By making a good plan for how the offer to different patient groups can be further developed, it will be facilitated for the best possible utilization of the potential in technological solutions, and the realization of gains in the clinical business.

The sub-plans interfere with each other in several areas, and the implementation of some measures will require that joint targets are set for different investment areas. Furthermore, some ambitions will be linked to cooperation with municipalities and districts, or with other actors in the specialist health service. Measures related to these must therefore be planned and implemented in close cooperation with relevant partners.

### Goal setting

The sub-plan has the following objectives:

1. Prepare a realistic plan for the development of the business with the support of technology.
2. Make arrangements for planning the use of technology together with external actors, and in particular within the healthcare communities

AKERSHUS UNIVERSITETSSYKEHUS

## What has been achieved so far:

| Project title | Results (key words) | Commenced year | Implementation year |
|---|---|---|---|
| Home-based hospital treatment | Acquired solution for digital home monitoring, piloted in 5 departments | 2018 | 2021 |
| Clinical educational videos | Produced educational videos in several departments, investigated acquisition of display platform and connection to EQS and The skills portal | 2020 | 2023 |
| Electronic curve and medication | A continuous curve for all inpatients in somatics and psychiatry | 2016 | 2019-2022 |
| Digital citizen services | Access and log, My referrals, my hours | 2018 | 2019-2023 |

# Plan for the period 2022-2026

The sub-plan is based on the ambitions in the technology plan. In the plan, emphasis is placed on changing work processes with the help of technological tools, so that patient treatment and employees' everyday work can be simplified and improved. This is collected under seven effort areas for the planning period:

## 1: Establish a process for digital home follow-up (DHO)

A solution for digital home follow-up has been acquired which enables follow-up and treatment of patients at home. Currently, tools have been developed that take care of needs related to the following concepts:

• Advanced home hospital
• User-managed outpatient clinic
• Treatment with advanced medical-technical equipment
• Digital follow-up using form solutions
• User surveys

During the planning period, a plan for rolling out the concepts must be drawn up, so that patients who can benefit from being followed up at home will be offered this. Emphasis will be placed on establishing procedures of at least as high a quality as if the patient had met in hospital, and with an increased degree of user involvement.
The work requires a significant effort from both clinical personnel and the support apparatus, so that satisfactory profit realization can be achieved.

## 2: Adopt new digital learning tools

The need for training is great, both among new employees, personnel undergoing training and others who need professional updating. Furthermore, there is a growing need for competence sharing between the levels of care. Ahus has long worked on developing digital learning tools to increase the availability of learning resources. A large number of e-learning courses are produced, which will continue in the years to come. With the establishment of a regional center for digital learning, Ahus will have a particular responsibility for contributing to the development of future-oriented learning resources and facilitating good cooperation across the health institutions.

AKERSHUS UNIVERSITETSSYKEHUS

In 2020, extensive work was started to produce training videos associated with clinical procedures. The videos are intended to be used in the education of healthcare personnel, as part of the mandatory new employee training and to refresh the skills of more experienced employees. Throughout the planning period, educational videos will be produced in all clinical subjects, and a link will be established towards the allocation and registration of learning activities in the Competence Portal. Furthermore, work will be continued with the use of new technology, including VR, in simulation and skills training.

### 3: Adopt digital interaction tools

Through the establishment of secure digital interaction solutions, we will in future be able to make information available to the employees wherever they are to a much greater extent than today. After we have upgraded our PC park to Windows 10, this will, among other things, enable the use of office 365, Teams and new functionalities.

We get more digital interaction, both internally and externally, which for many will be experienced as more easy and flexible. This will change many basic work processes and streamline work which today mainly goes through e-mail, Word and Excel. Important objectives are to make information to and between employees more accessible, more open, and to facilitate collaboration with external actors in a safe and efficient way. The work will facilitate a faster and safer integration of cloud services in the future

**4: Use regional technological solutions in patient care** New and improved solutions are constantly being developed which will eventually be used throughout the region.
The hospital partner has overall responsibility for planning and rollout at regional level, while the individual healthcare organization must ensure that the solutions are used locally.

The biggest measures in the first part of the planning period are more digital services for citizens through helsenorge.no, rollout of closed drug loop and preparation for implementation of DIPS Arena.

### 5: Strengthen security with decision support tools

In the hospitals of the future, artificial intelligence and other solutions will increasingly be used as support tools for the employees. This will be particularly relevant in connection with diagnostics, choice of treatment and monitoring of data.

In the orthopedic clinic, electronic risk boards have been used in order to be able to gain an overview and act quickly in the event of a worsening of the disease state. This is a tool that, with some adaptations to each department, can quickly be put into use on a large scale. Work is underway on several solutions for decision support within, among other areas, imaging and cardiac medicine, which will be continued during the planning period. It is also planned to further develop the tool for digital home monitoring with traffic light systems for easier detection of deterioration and decision on measures.

### 6: Increase mobility

Technology can help make everyday work easier and more efficient for employees. In order to be able to spend as much time as possible with the patient, there is a need to increase the mobility of healthcare personnel. Through various projects, arrangements will be made so that more of the treatment can take place where the patient is, and that documentation can be carried out in a more flexible way. Arrangements will be made for clinical personnel to work more outside the hospital, both on ambulation and from home offices.

AKERSHUS UNIVERSITETSSYKEHUS

**7: Collaborate seamlessly across the**

**board** The population has an expectation that health services should be experienced as coherent, even if several actors are involved. This particularly applies to patient processes that go across hospitals and municipalities. With well-planned procedures and the use of technological tools, it will be possible to achieve better transitions and a more seamless division of tasks between health personnel at different levels of care. During the planning period, further work will be carried out to find good, common solutions for patient progress, communication and collaboration regarding the individual patient.

**8: Planning technology in new buildings**

In order to work as efficiently as possible, it is necessary that it is possible to adopt new technological solutions within the framework of infrastructure and building stock. When planning new buildings, it will be crucial that technology needs are identified and prioritized in line with plans for future work methodology. Where possible, it should be planned with a flexibility linked to future expansion of the technology portfolio. In the work on new buildings, there will therefore be active planning for future technological needs.
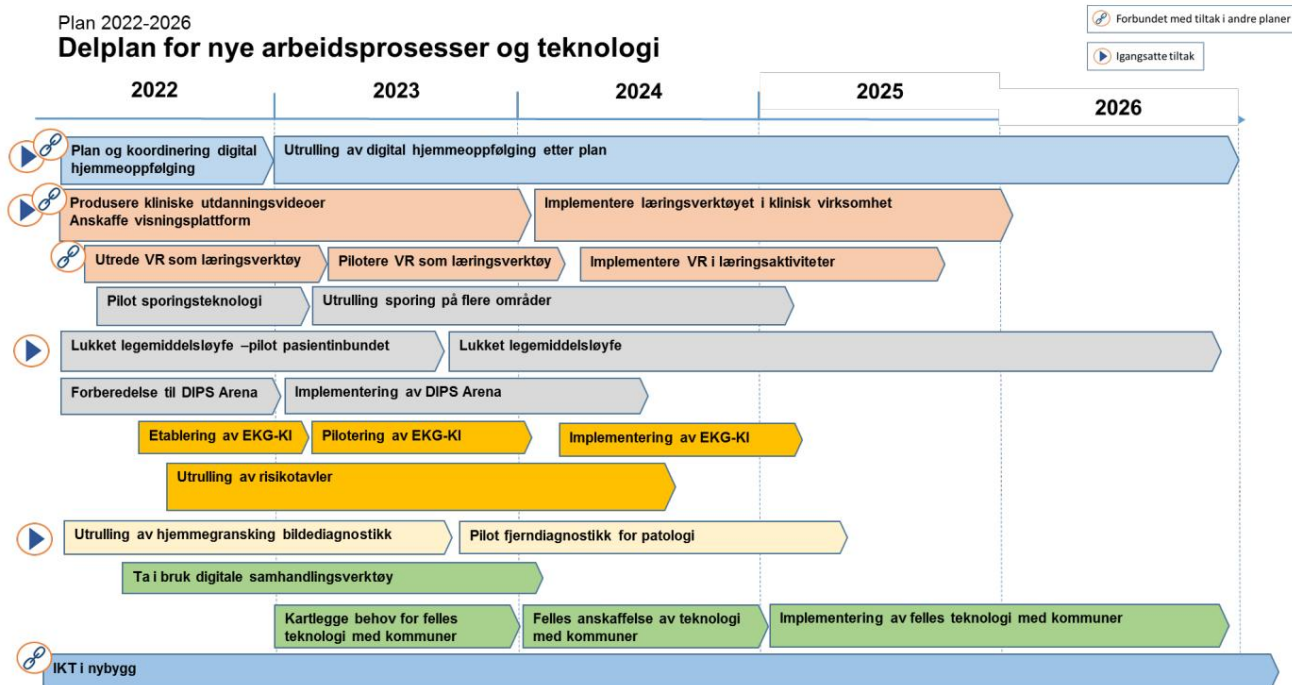
AKERSHUS UNIVERSITETSSYKEHUS

# Overview of planned projects and measures

| Goal | Planned measures in the period | What to do in 2022 | What it takes to succeed |
|---|---|---|---|
| 1) Establish a process for digital home follow-up | - Rollout plan<br>- Coordinator and support function for the clinic<br>- Establish new patient processes and new work processes<br>- Pilot and implement | - Plan<br>- Outline<br>- coordination | - Personnel resources<br>- Good cross-functional cooperation<br>- Plan cooperation with municipalities/districts |
| 2a) Adopt new digital learning tools | - Clinical Education Videos<br>- VR as a learning tool<br>- Implementation of digital learning in clinical operations | - Piloting of VR solutions for observation skills and Emergency psychiatry<br>- Acquisition of new and modern Learning portal (Newly established regional center for Digital learning is added to Ahus) | - Coordination with the clinic<br>- Collaboration across HF to share experience and expertise |
| 2b) Adopt digital tools | - Windows 10<br>- Office 365<br>- Teams<br>- Digitization of the pathology business<br>- Automation of processes | - Rollout of Windows 10<br>- Planning the use of office 365<br>- Blessed Teams<br>- RPA prostate cancer report | - Good coordination with the clinic<br>- Good training and support both before and after use<br>- Good information |
| 3) Adopt regional technological solutions in patient care | - Closed drug loop<br>- DIPS Arena<br>- Tracking technology<br>- Digital citizen services | - Pilots patient bound (LLS) at Ahus Participation in regional professional groups for Dips Arena<br>- Plan the introduction of Dips Arena<br>- Pilot tracking of a PERSON | - Good Ahus participation in regional planning<br>- Anchoring in the company<br>- Change management at all management levels<br>- Project resources Clinical subject resources<br>- Internal organization<br>- Management plan |
| 4) Strengthen security with decision support tools and | - ECG interpretation with AI<br>- AI in imaging<br>- Electronic risk boards | - Piloting of ECG interpretation<br>- Rollout of risk boards to several departments | - Thoroughly worked out e clinical data<br>- Good involvement of the clinic |
| 5) Increase mobility | - Home inspection<br>- Video consultations<br>- Lookups and tools available on digital devices | - Home review for radiologists<br>- increase the proportion of video consultations r<br>- Develop and anchor strategy for mobility at Ahus | - Sufficiently mobile ICT equipment<br>- Mobile platform<br>- Involvement from clinical activities<br>- Regional development of apps for mobile platforms |
| 6) Collaborate seamlessly across borders | - Establish new patient processes (followed up by other sub-plans)<br>- Map the need for a joint strategy within technology with municipalities/primary health services n | - Create a joint plan that includes technological solutions | - Joint planning with the municipalities |
| 7) Planning technology in new buildings | - Participate in planning work processes in new buildings<br>- Map technology needs | - Concept phase KSB<br>- Pre-project phase PHN<br>- New trap building | - Active participants<br>- Collaboration on across<br>- Early involvement of technology resources in the projects |

## Process drawing



Plan 2022-2026
**Delplan for nye arbeidsprosesser og teknologi**

| | | | | | |
|---|---|---|---|---|---|
| | Forbundet med tiltak i andre planer | | | | |
| | Igangsatte tiltak | | | | |

**2022** | **2023** | **2024** | **2025** | **2026**

Plan og koordinering digital hjemmeoppfølging

Utrulling av digital hjemmeoppfølging etter plan

Produsere kliniske utdanningsvideoer Anskaffe visningsplattform

Implementere læringsverktøyet i klinisk virksomhet

Utrede VR som læringsverktøy

Pilotere VR som læringsverktøy

Implementere VR i læringsaktiviteter

Pilot sporingsteknologi

Utrulling sporing på flere områder

Lukket legemiddelsløyfe –pilot pasientinbundet

Lukket legemiddelsløyfe

Forberedelse til DIPS Arena

Implementering av DIPS Arena

Etablering av EKG-KI

Pilotering av EKG-KI

Implementering av EKG-KI

Utrulling av risikotavler

Utrulling av hjemmegransking bildediagnostikk

Pilot fjerndiagnostikk for patologi

Ta i bruk digitale samhandlingsverktøy

Kartlegge behov for felles teknologi med kommuner

Felles anskaffelse av teknologi med kommuner

Implementering av felles teknologi med kommuner

IKT i nybygg

AKERSHUS UNIVERSITETSSYKEHUS

**Akershus University Hospital HF**

Visiting address: Sykehusveien 25, Lørenskog

Mailing address: PO Box 1000, 1478 Lørenskog

Telephone: 67 96 00 00

Email: postmottak@ahus.no

ahus.no · MENNESKELIG NÆR, FAGLIG STERK