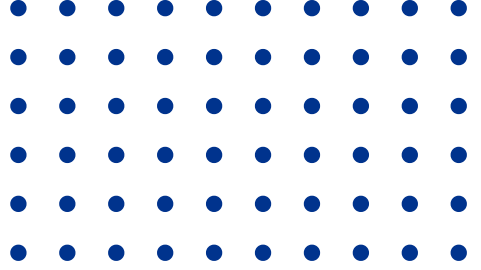


# TECHNOLOGY AND INNOVATION

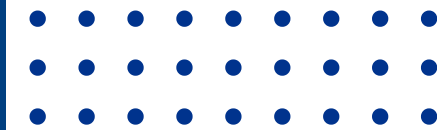
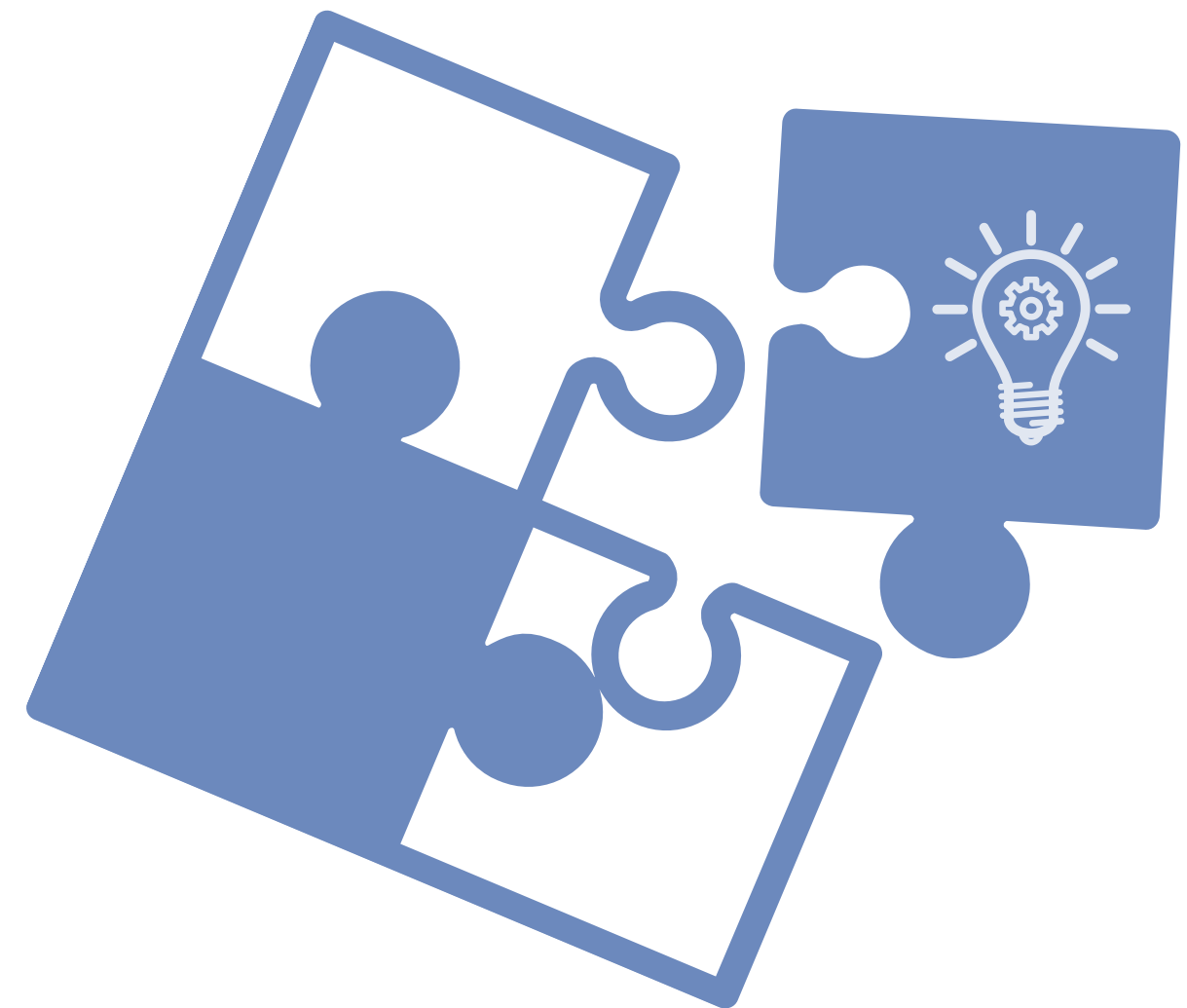
STRATEGY 2024 - 2029

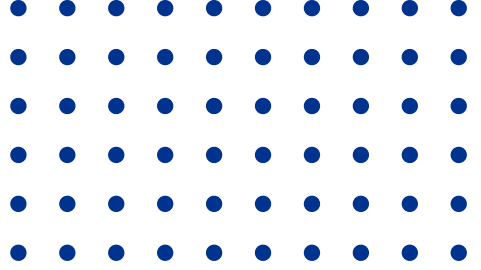


# Innhold



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# INTRODUCTION

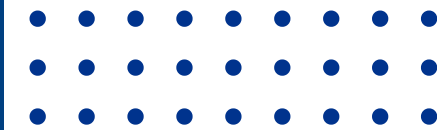
Strategy is an approach to achieve a goal and thus set the direction for our choices and priorities. In OUS's development plan for 2040, it is stated that we need to rethink how the hospital delivers healthcare services, and it has formulated two main ambitions for OUS:

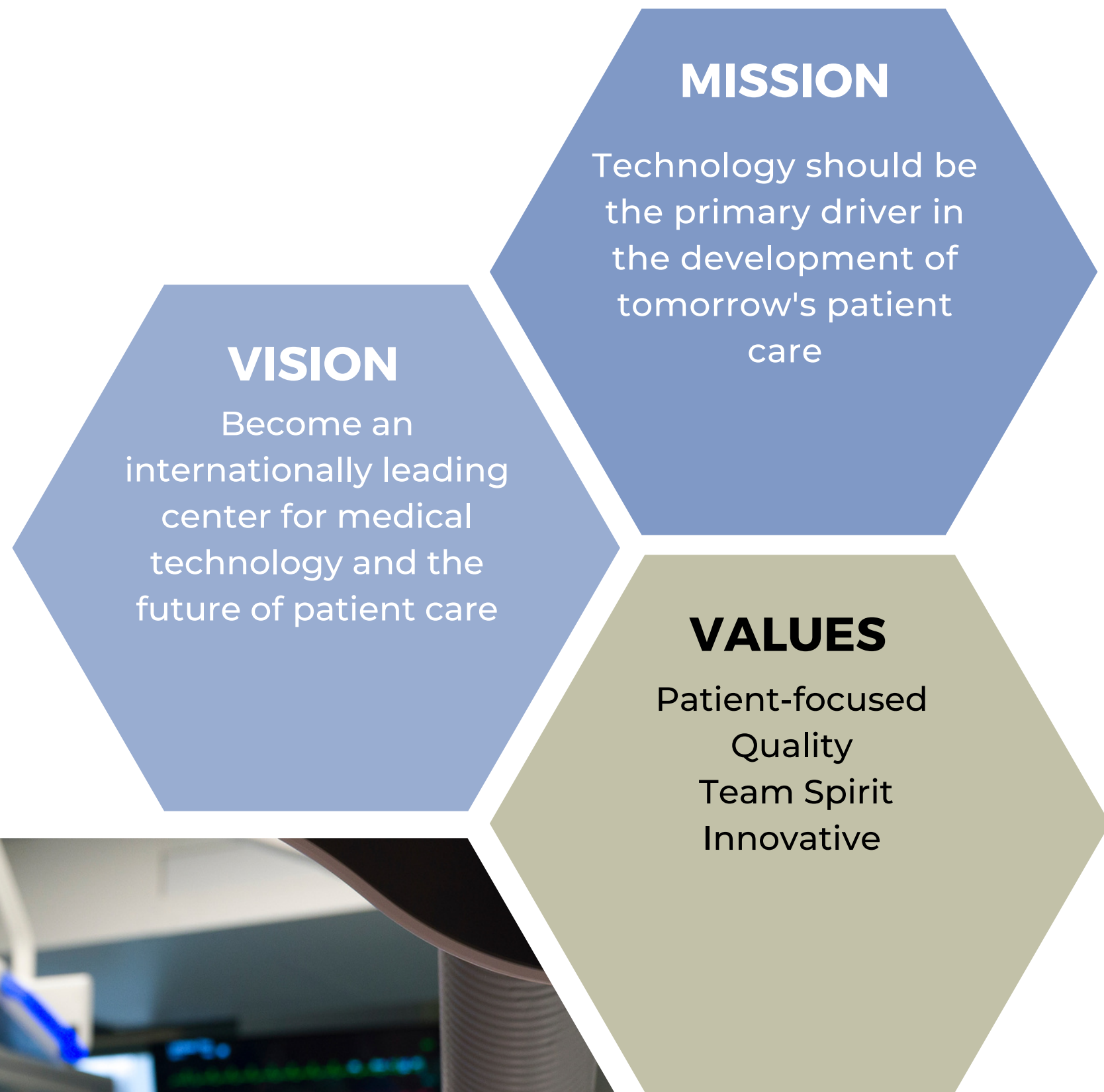
- Employees driving change
- Equitable collaboration with the patient

For the hospital to succeed in these two ambitions, technology must be the engine that enables the transformation ahead of us. The hospital's main task is patient care, and TIK's role in this is to facilitate technology-driven medicine, technology-driven changes, and efficient hospital operations. On the following pages, the strategic direction for the Technology and Innovation Clinic (TIK) until 2029 is presented. It describes where we are heading, the priority areas we focus on, and how we will get there. In addition to this strategy plan, action plans for each priority area will be developed and revised annually.








The Technology and Innovation Division





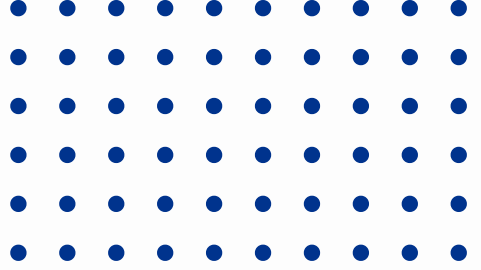
# Departments in TIK @2023

-  **Innovation**
-  **Clinical and Biomedical Engineering**
-  **The Intervention Centre**
-  **Technology and e-health**
-  **Technology in new buildnings**

# CURRENT SITUATION

Areas of responsibility	Tasks				
<b>Foster patient healthcare by facilitating patient participation and empowerment</b>	The clinic ensures that patient information is accessible where the patient is	The clinic ensures that the patient has high-quality technology to actively participate in their own treatment, both at home and in the hospital	The clinic facilitates digital patient communication that integrates the patient experience into follow-up		
<b>Maintain the daily operation of technological services</b>	The clinic provides environmentally friendly, secure, and stable operation of the hospital's technology	The clinic works to make necessary information available and presented in a way that supports good patient care and hospital logistics	The clinic is the hospital's key supplier and competent purchaser of services from external partners	The clinic takes responsibility for the entire technology delivery in close collaboration with customers and partners	
<b>Offer high-quality patient care</b>	The clinic provides high-quality patient care	The clinic establishes the framework necessary to develop and establish future patient care	The clinic offers high-tech operating rooms for advanced and complex patient care, regardless of specialization	The clinic provides equipment, consumables, and associated training for home treatment	
<b>Develop, test, and establish new healthcare services supported by technological solutions</b>	The clinic develops future-oriented patient care and serves as the hospital's toolbox for new patient care	The clinic develops new organizational models and logistics solutions for OUS	The clinic delivers sound technology strategies and solutions for new buildings to be tested and phased into today's OUS	The clinic develops and facilitates the future specialized healthcare in the home in collaboration with primary healthcare and other stakeholders	The clinic establishes an interdisciplinary platform for testing and validating new clinical methods, treatment pathways, technology, and ICT
<b>Be an internationally leading center for research, innovation, simulation, and education in the future technology-based medicine</b>	The clinic ensures that OUS employees have the necessary skills to ensure patient safety in the use of non-technical and technical skills	The clinic establishes a platform for researching and training on new systems	The clinic provides training and offers relevant simulation training locally, nationally, and internationally	The clinic elevates competence within its areas of responsibility, takes social responsibility for education, recruits, and builds competence	The clinic delivers world-class research
<b>Promote and coordinate the development of new services together with research environments, innovation clusters, technology companies, and other external actors</b>	The clinic bridges the gap between existing technology and new systems for automation, logistics solutions, and clinical systems	The clinic bridges the gap between life science, precision medicine, molecular biology, and clinical practice	The clinic connects research and business with clinical practice to create new services and value for Norwegian healthcare and the health industry		

# CHANGE DRIVERS



## Healthcare Professionals

Because healthcare professionals are already a scarce resource, we must use our employees and their expertise much more efficiently than before. This will result in fewer staff per patient



## Expectations and Demands

Expectations for healthcare services are changing, and digital competence is increasing. It is expected that healthcare adapts, is available where the patient is, and when the patient needs it



## Demographics

Changes in the population, including an aging population and an increase in life expectancy, mean more patients with complex medical conditions who will require healthcare services.



## Technological Development

Technological advancements in society should be reflected in the services offered to our employees, patients, and their families



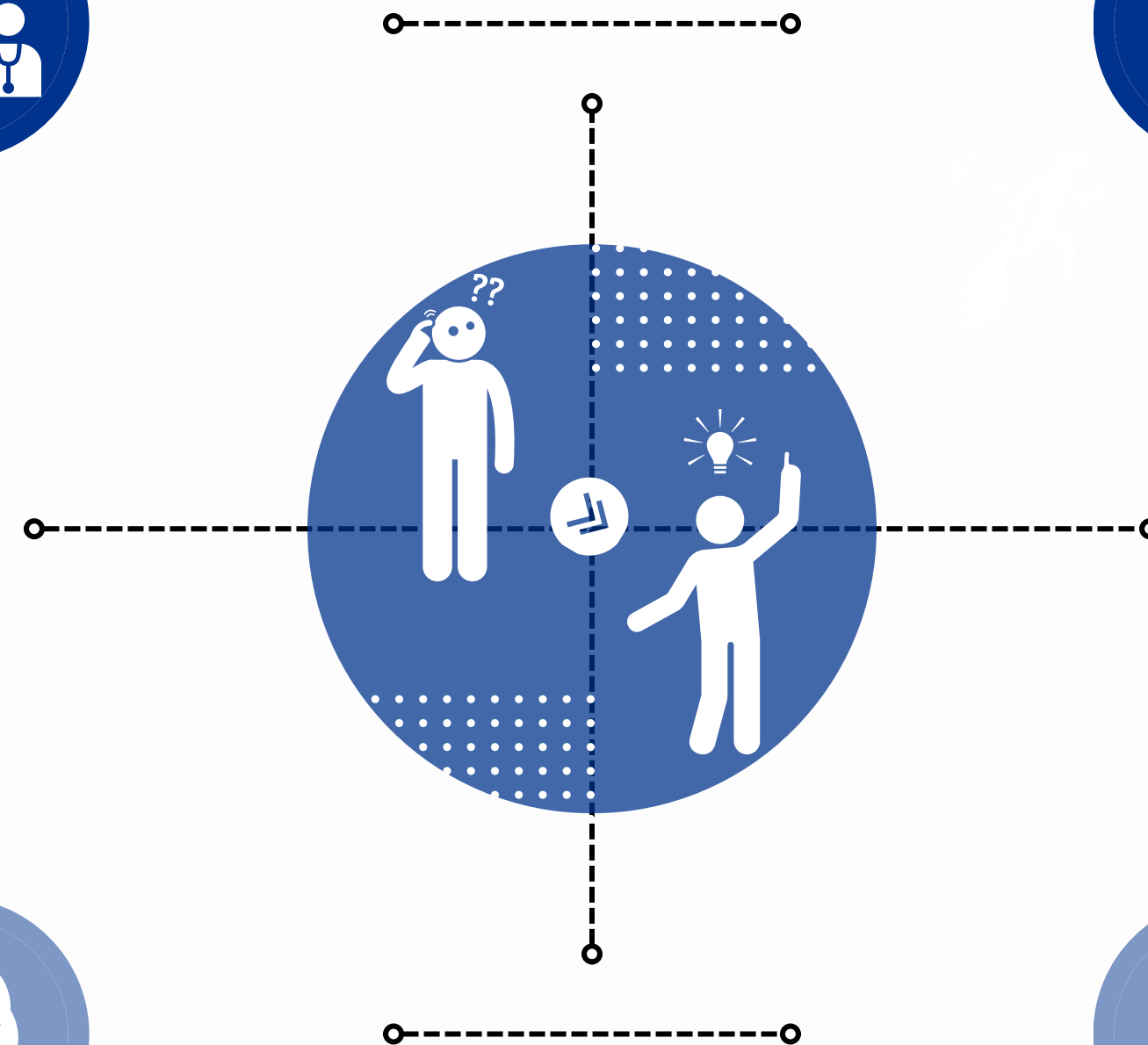
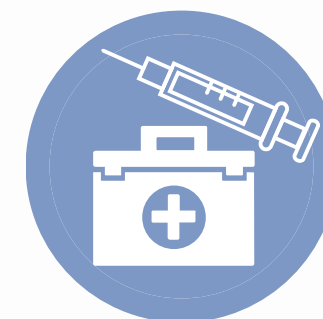
## Economy

Service production should be structured in a way that allows us to get more or better services out of every dollar we spend. This entails performing work in different and smarter ways to increase production with the same input factors



## Medical Advancements

Medical treatment is becoming more personalized, specialized, and advanced. With advanced medical technology comes a need for more interdisciplinary collaboration involving multiple professional groups in patient care





## TARGET SCENARIO IN 2029

In 2029, the hospital's employees have the tools they need to efficiently provide high-quality patient care, and all administrative processes are improved and streamlined. The Technology and Innovation Clinic (TIK) develops and delivers new solutions **quickly and seamlessly** in close collaboration with the clinics. The hospital has implemented new technology in four out of six construction projects and is systematically preparing for the remaining two.

TIK facilitates technological medicine and technology-driven changes in the hospital. OUS has an **updated and modern medical technology park** where available medical technology in the market is used to support new and modern treatment methods. We have **agile ICT service providers** that deliver what the hospital needs. The clinic is OUS's **toolbox for developing** new treatment methods and workflows by further developing and improving the use of high-tech operating rooms. The clinic has established a complete testing center with physical and digital infrastructure.

Research and innovation that contribute to value creation are strong, and in 2028, the clinic is a Center for **Research-Driven Innovation (SFI)** in the fields of clinical machine learning, translational research (including technological translation), or minimally invasive surgery. The clinic provides high-quality patient care and is a national center for testing and developing new methods for advanced patient care. H2B is the place where we, in collaboration with competent partners, **create unique solutions** to challenging problems within the hospital and put them into operation

# Main Goals

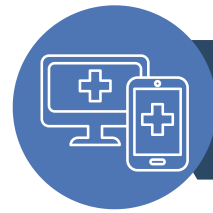
- ✓ Technology shall be the driving force in the development of future OUS
- ✓ Technology shall virtually extend the hospital's walls all the way to the patient's home, ensuring that patients and their families experience equitable specialized healthcare at home as they would in the hospital
- ✓ TIK has the overall responsibility for the entire technology delivery in close collaboration with customers and partners
- ✓ TIK is OUS's toolbox for the development/introduction of new treatment methods and work processes where technology is the agent of change
- ✓ TIK is an internationally leading research center in the future technology-based medicine
- ✓ TIK has ensured a more aggressive exploitation of the innovation potential in the hospital, where ideas quickly turn into finished products and services with documented increased financial benefits for the hospital and society





# Priority Focus Areas

Technology-driven medicine



Specialized Healthcare at Home



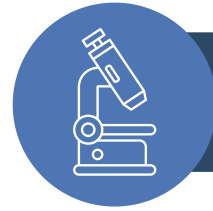
Data Governance, AI, and Decision Support



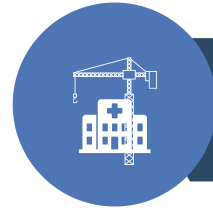
Total Supplier



Agile Development



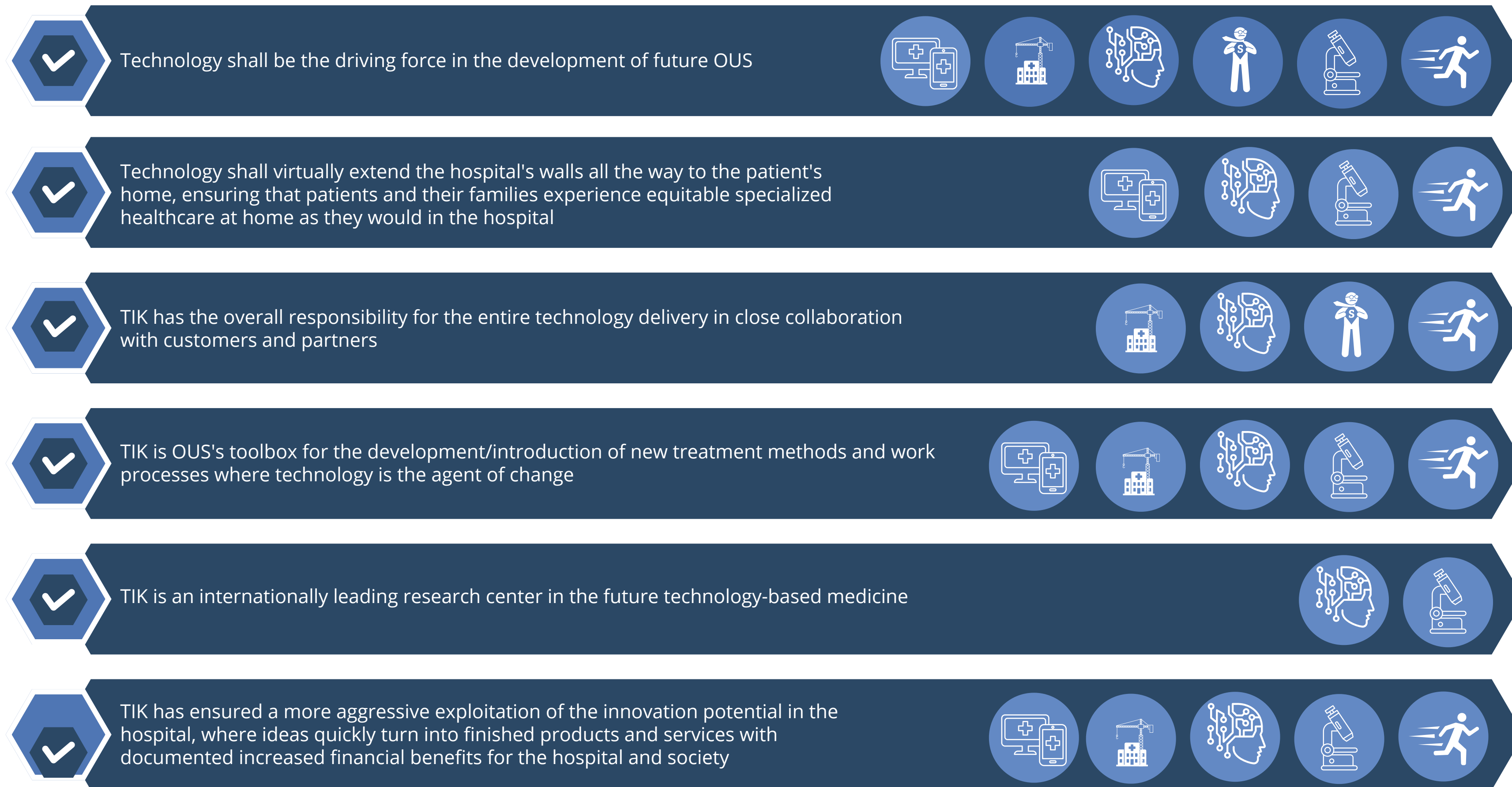
Research, Innovation, and Collaboration with the Industry



Technology in New Buildings



# Sammenheng mellom hovedmål og prioriterte områder



# Strategic Goals



Technology shall virtually extend the hospital's walls all the way to the patient's home, ensuring that patients and their families experience equitable specialized healthcare at home as they would in the hospital



The clinic ensures that we have data management that makes all data available for relevant systems and that all clinics have access to AI and decision support



The clinic has the overall responsibility for the entire technology delivery in close collaboration with customers and partners



The clinic has established interdisciplinary teams that drive active and rapid development of processes and systems based on agile principles in all clinics



The clinic is an internationally leading center for research in future technology-based medicine and has ensured a more aggressive exploitation of the hospital's innovation potential



The clinic ensures comprehensive technology in old and new buildings that enables clinics to provide efficient, high-quality patient care

# Strategic Objectives



1. By the end of 2026, patients and clinicians have access to technology and OUS infrastructure for monitoring and treating patients at home
2. TIK enables clinics to use the tools, streamline the processes replaced by the tools, and offer daily operational management



1. TIK shall establish a data delivery unit that provides quality-assured data on request
2. TIK shall establish systems that collect, quality-assure, systematize, and make all relevant data produced in the hospital available.
3. TIK shall be mandated to implement infrastructure for AI and machine learning.
4. All clinics shall have the opportunity to use at least one AI/machine learning-based system



1. By 2025, when introducing new technological solutions, TIK shall take overall responsibility by providing clinics with mapping, advisory, project management, procurement, customization, implementation, process guidance, training, and operational support.
2. Ensure that responsibilities, tasks, and roles are clarified with all stakeholders and establish binding service deliveries with our service and equipment suppliers



1. By 2025, OUS shall have agile service providers meeting the HF's needs
2. By 2025, TIK shall offer a complete test and development center for technology with both digital and physical infrastructure
3. Establish an interdisciplinary core team with dedicated and competent TIK employees



1. The clinic is OUS's toolbox for the development/introduction of new treatment methods and work processes.
2. The clinic shall focus on Life Science and by 2026 establish a collaborative environment with UIO in the field of "technology and medicine."
3. By 2026, H2B is a collaboration arena (public and private partnership) where ideas quickly turn into finished products and services with documented increased financial benefits for the hospital and society.
4. By 2028, TIK shall have an SFI in the fields of machine learning, translational research, or minimally invasive surgery



1. Implementation and activation of technology deliveries to new buildings with functionality that enables efficient, high-quality patient care and allows for benefits realization
2. Ensure comprehensive delivery by complementing and extending new technology to existing buildings.
3. By 2024, offer clinics process guidance and organizational development so that new technology and new buildings realize anticipated benefits and meet the future healthcare needs

# TIK Strategy 2024-2029

## Vision



Become an internationally leading center for medical technology and the future of patient care

## Goals



1. Technology drives the development of tomorrow's patient care
2. Technology should virtually extend the hospital's walls all the way to the patient's home
3. TIK has the overall responsibility for the entire technology delivery
4. TIK is OUS's toolbox for the development/introduction of new treatment methods and work processes where technology serves as the agent of change
5. TIK is an internationally leading research center for the future of technology-based medicine
6. TIK has ensured a more robust utilization of the hospital's innovation potential,

## The State in 2023



Challenging economy  
 Low innovation pace  
 Aging equipment fleet of medical devices  
 High research activity  
 Low technological maturity  
 Mainly large regional IT projects  
 Planning activities of new buildings

### TOP 6 Strategic initiatives

Hospital@home	Data governance, AI and decision support,	Total supplier
Agile development	Research, innovation, and collaboration with industry	Technology in new buildings

Technology-driven medicine →

## The State in 2029



The hospital's employees have the digital tools they need  
 Local development and delivery of new IT solutions quickly and smoothly (agile)  
 Modern equipment fleet  
 Higher research activity  
 High technological maturity  
 High innovation pace.  
 Develop new treatment methods and work processes.

## Top 3 Principles

# 1

### Digital first

If it can be done digitally, it MUST be done digitally

# 2

### Clinic-centric

We aim to be close to the clinics and address the needs where they arise.

# 3

### Data driven

Data provides knowledge and insight, and it should drive development