

# Introduction to the Norwegian hospital healthcare sector

The Norwegian South East health region

Processes, IT systems and governance

Lecture 1

# Themes

- Overview of the South East health region
- Core business processes and IT systems in the hospitals of the health region
- Governance structures and investments

## Outcome of the lecture

- Some knowledge about the complexity of healthcare delivery
- Some knowledge about the IT system portfolio of the region
- Some knowledge about governance and current investments in the region

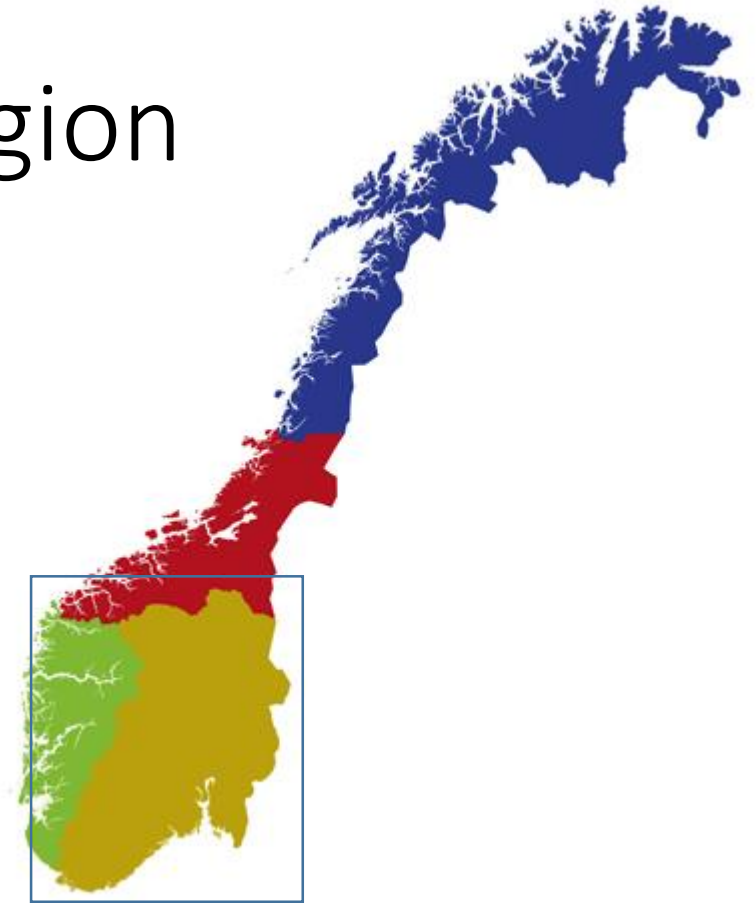
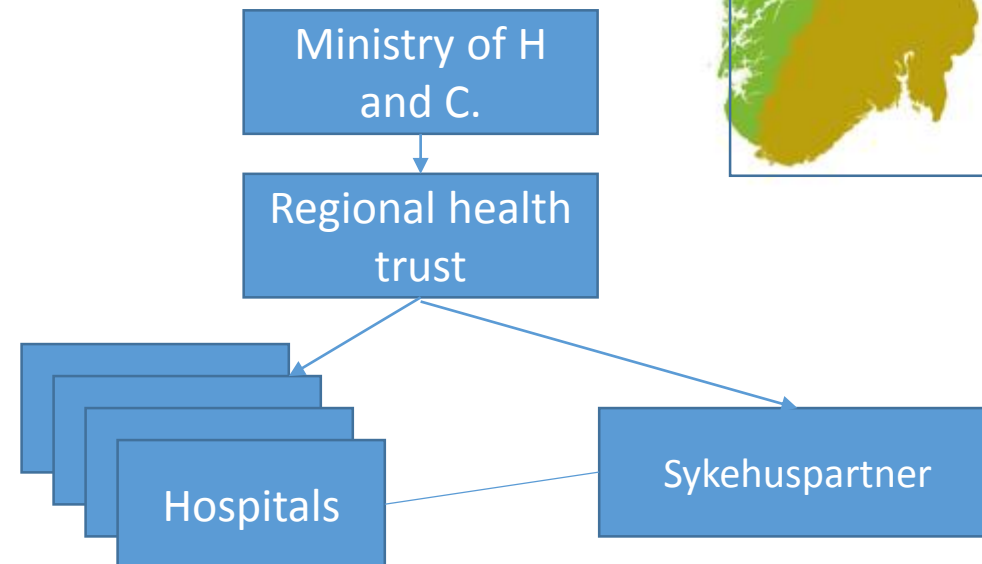
We will try to put the stuff into the frameworks we have learned in the course

# Task for you during the lecture

- Use the handed out papers to make some comments and fill in during the lecture:
  - Foundation
    - List some core business processes
    - IT infrastructure
  - Operating model
    - What is the operating model of the South East health region?
    - How is one trying to change it?
  - Governance matrix
    - Try to fill in the governance matrix for the South East health region

# What is the South East health region

- Responsible for hospital healthcare for approx. 2.9 million of the Norwegian population
- 100% state-owned
- 78000 employees
- Annual budget: 78 billion NOK
- 11 health trusts

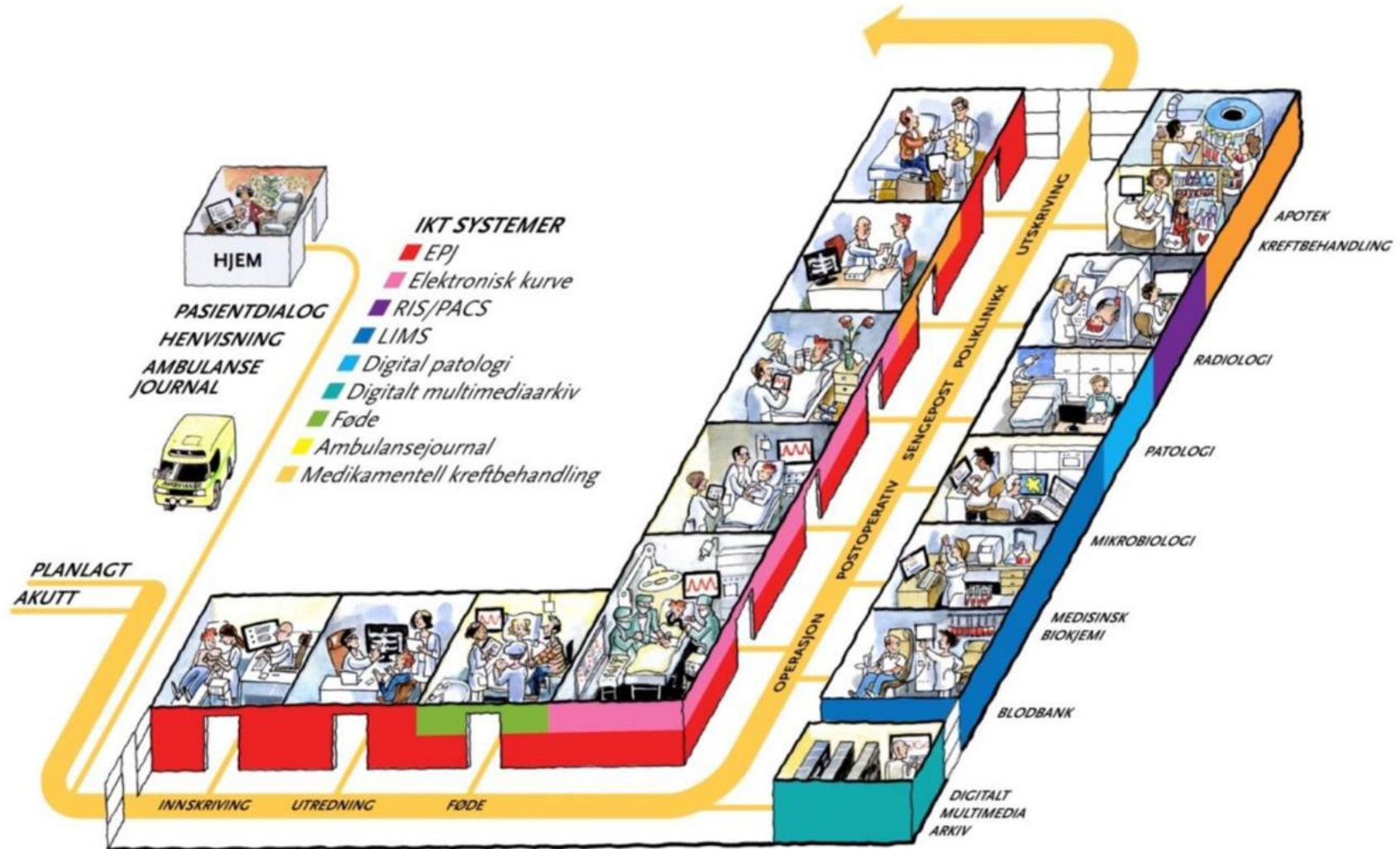


# One day in the region's hospitals

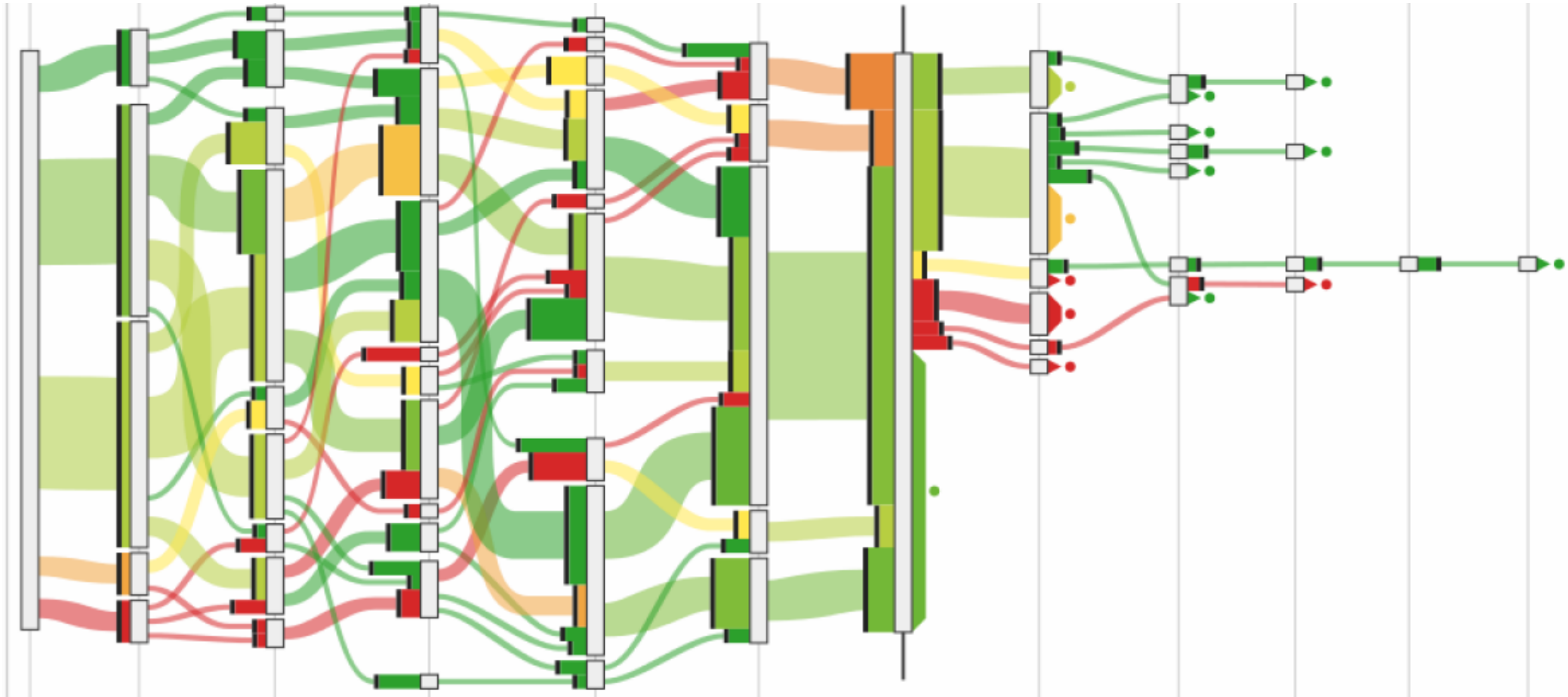
- 14 000 patients are treated
- 45 000 out of 78 000 employees are at work
- 100 new births
- 200 ambulances in operations – 43000km
- 2000 referrals handled
- 220 millions NOK spent

Business processes and IT systems

# Support patient treatment and flow

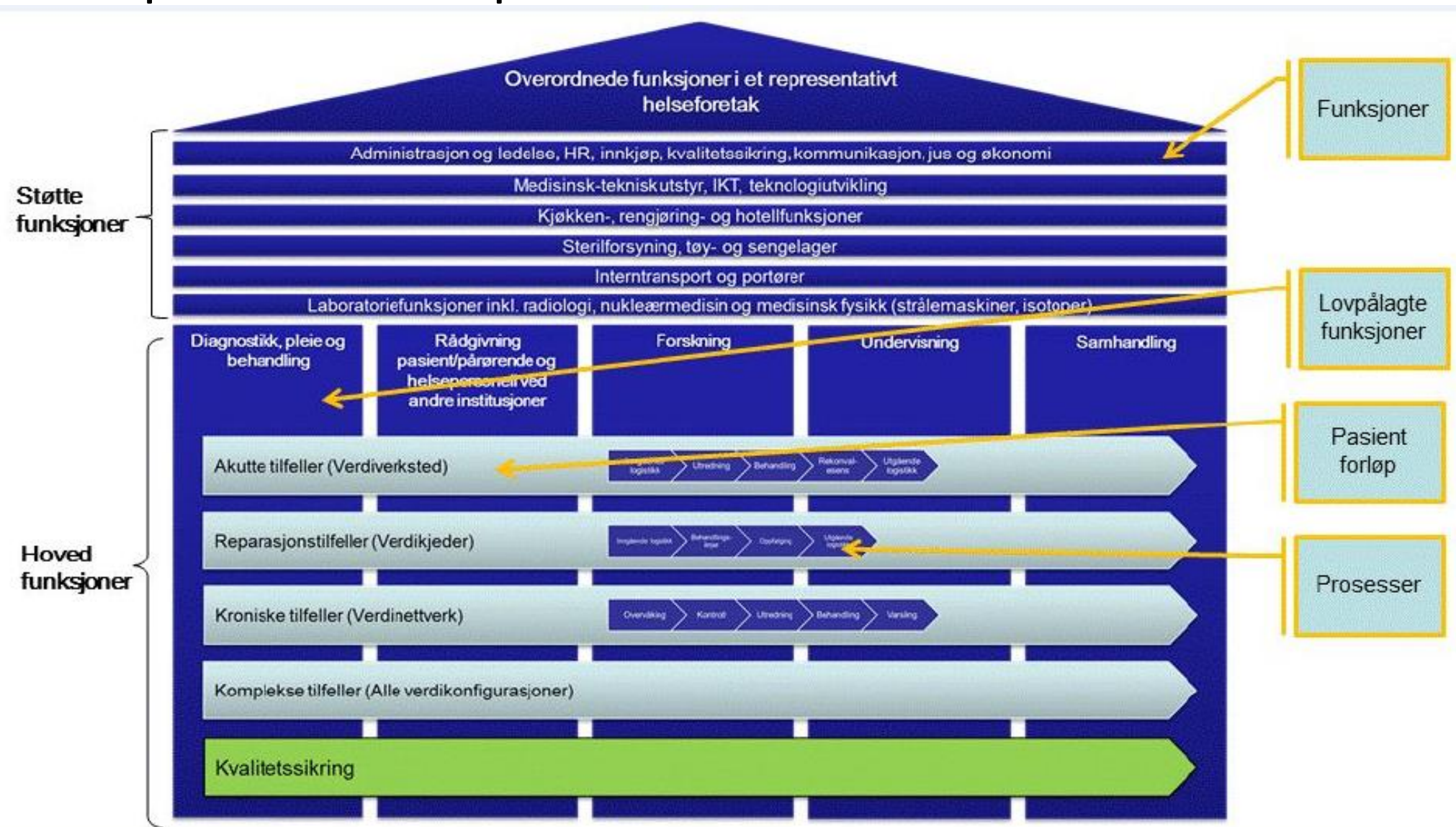


Many patients with many health problems simultaneously





# Hospital enterprise model



# Main business processes

## Styring og retning



## Kjernevirksomhet



## Medisinsk service



## Støtte



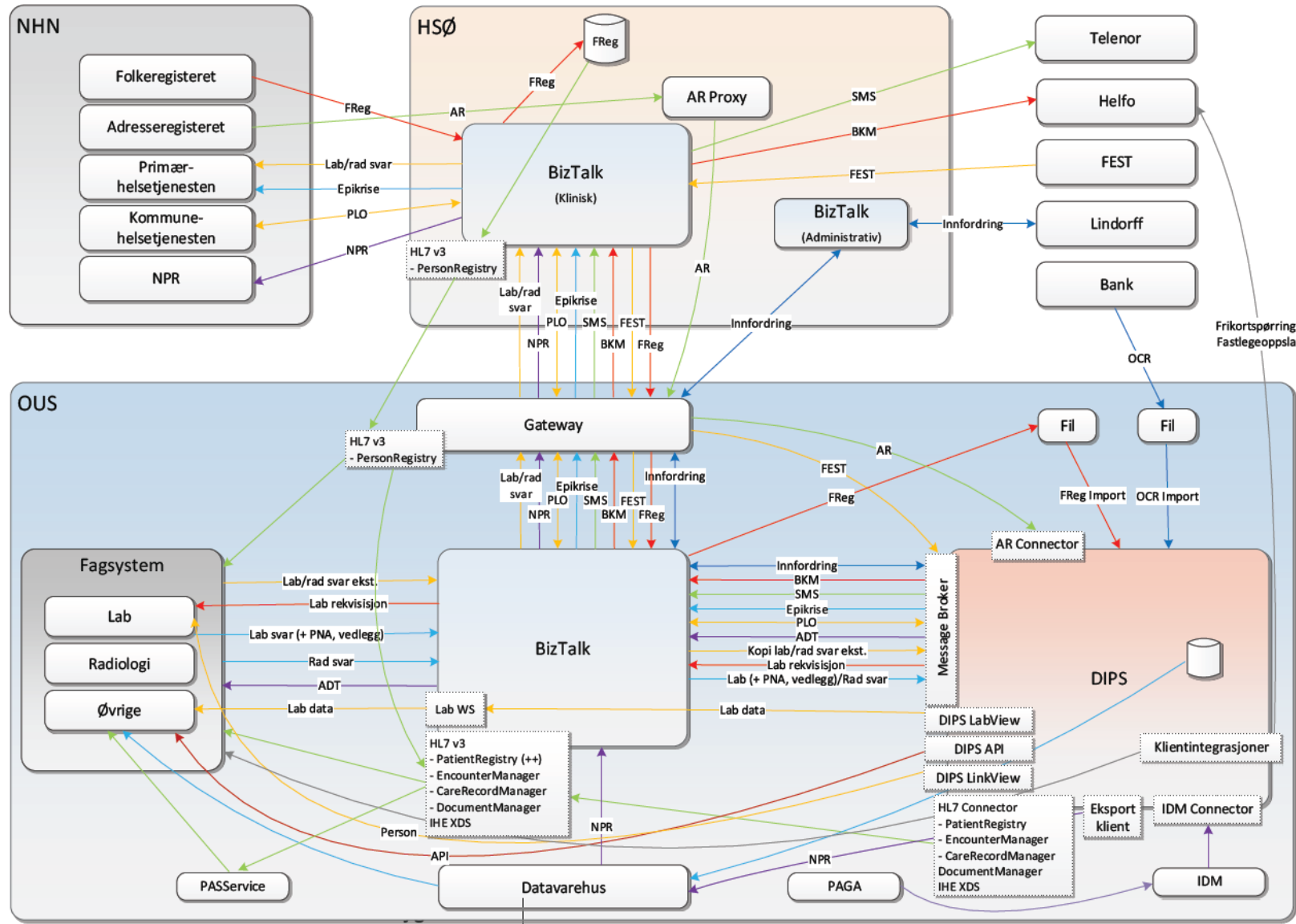




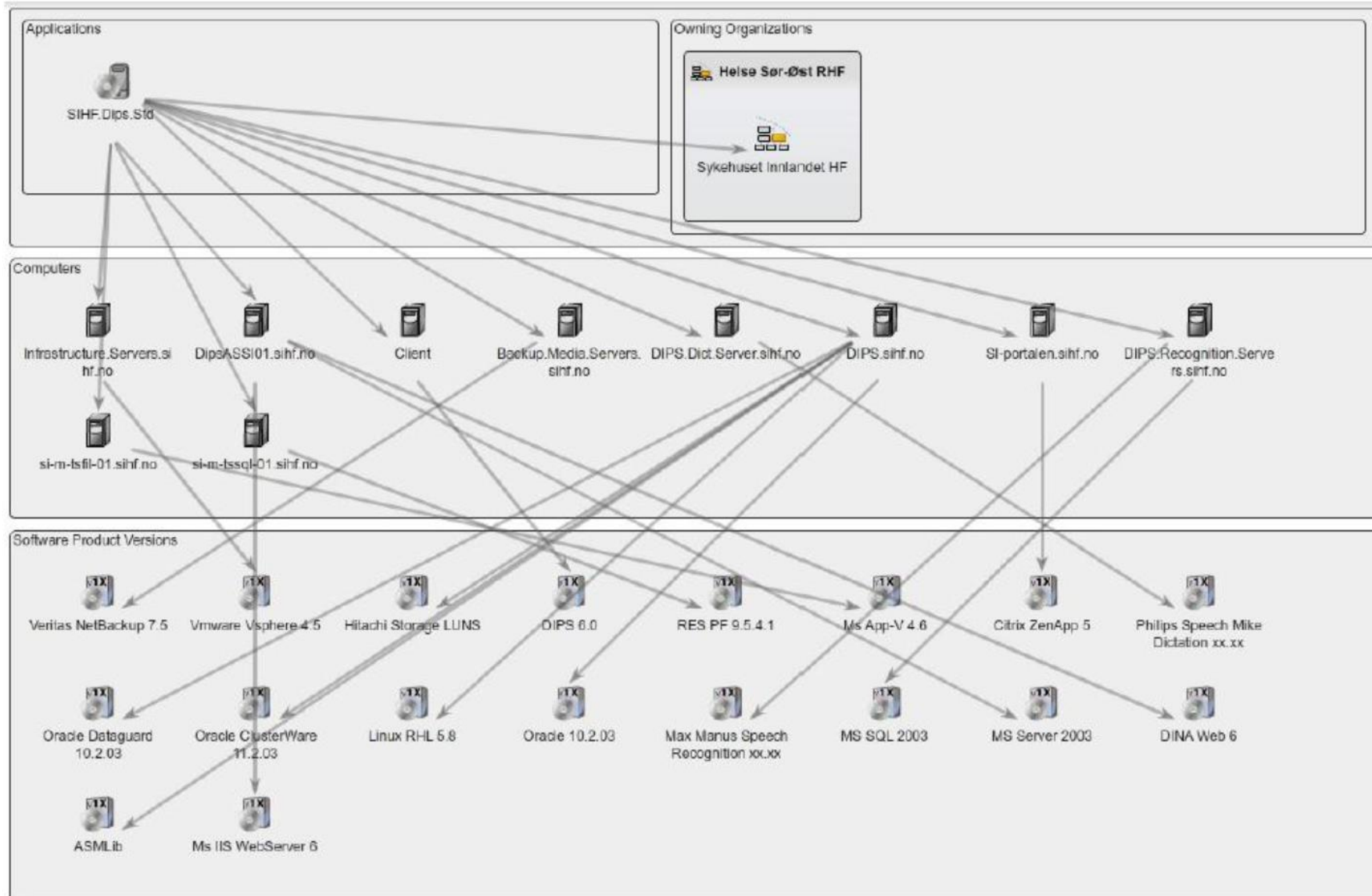
# Many different IT systems for the same functions

	PAS/EPJ	RIS/PACS		LAB-Medisinsk biokjemi	LAB-Mikrobiologi	LAB - Patologi	LAB-Blodbank	Kurve og medikasjon	Multi-media	Medikamentell kreftbehandling		Ambulansejournal	Fødejournal
Oslo universitetssykehus	PasDoc	Siemens		Flexlab	Swisslab	DocuLive Patologi	Prosang	MetaVision	Diverse	Cytodose	Cytodose		Papir
	DocuLive			Unilab				Unilab					Papir
		Agfa	Sectra										
Akershus universitetssykehus	DIPS	Siemens		Analytix	Analytix	DocuLive Patologi	LabCraft	MetaVision	Diverse	Cytodose			Partus
								DIPS					
Sunnaas sykehus	DIPS			DIPS Lab				Papir	Diverse				
Vestre Viken	DIPS	Carestream	Flexlab	Miclis	Sympathy	LabCraft	DIPS	Diverse	Papir	Mobimed			Partus (flere installasjoner)
		Siemens					Analytix						
Sykehuset Innlandet	DIPS	Siemens		Analytix	Analytix	Sympathy	LabCraft	Papir	Diverse	Cytodose			Partus
										Papir			
Sykehuset Østfold	DIPS	Sectra		Netlab	Miclis	Sympathy	Prosang	Papir	Diverse	Papir			Partus
Sykehuset i Vestfold	DIPS	Sectra		Unilab	Miclis	DocuLive Patologi	Prosang	PICIS	Diverse	Papir			Partus
	PAPS							PAPS					
								Papir					
Sykehuset Telemark	IMx	Agfa		Flexlab		Sympathy	LabCraft	Papir	Diverse	Cytodose			Partus
Sørlandet sykehus	DIPS	DIPS RIS	Sectra	Unilab	Miclis	Sympathy	Prosang	Papir	Diverse	Papir			Partus (flere installasjoner)

# DIPS integration overview for one hospital

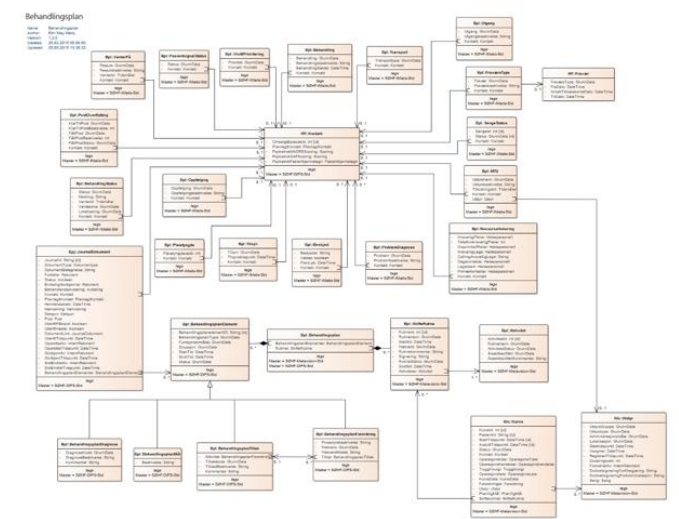
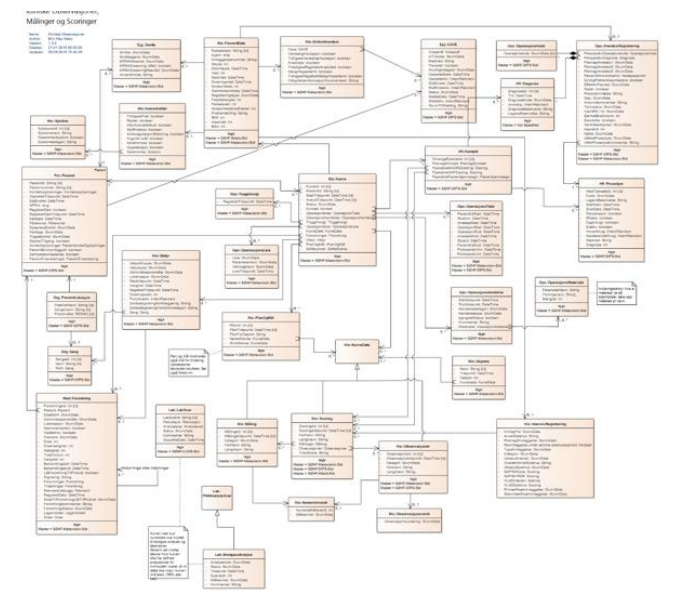
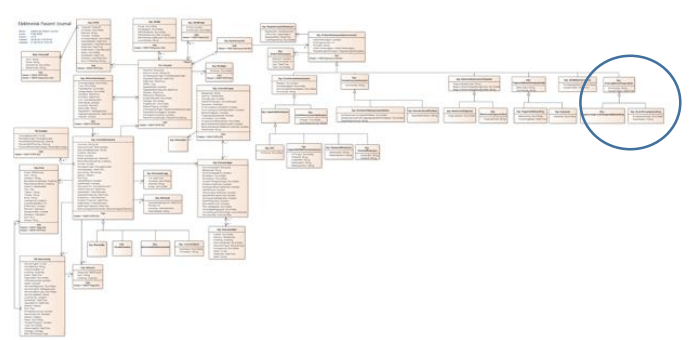
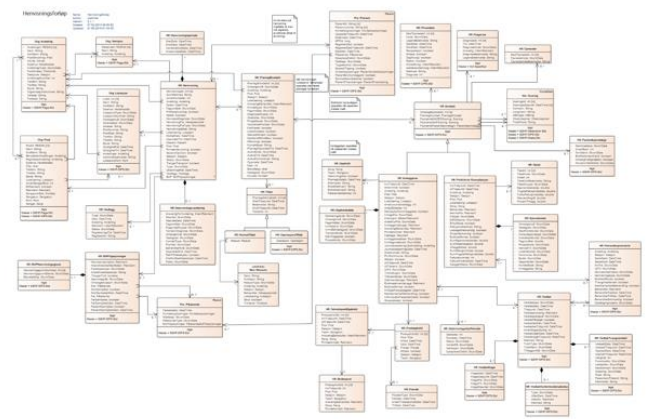
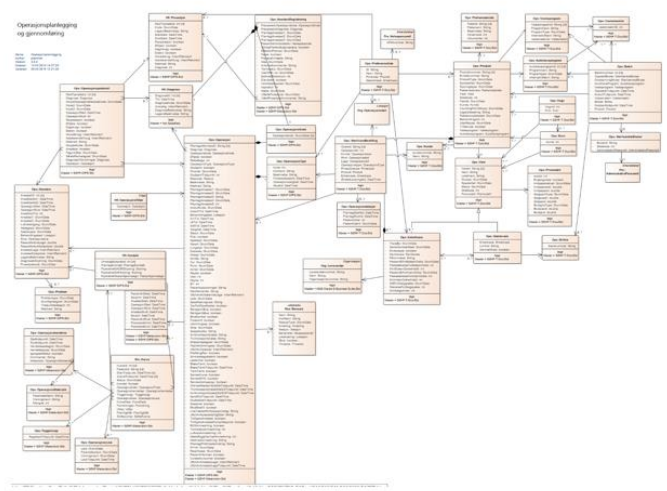


# Example: DIPS EPJ technical chart



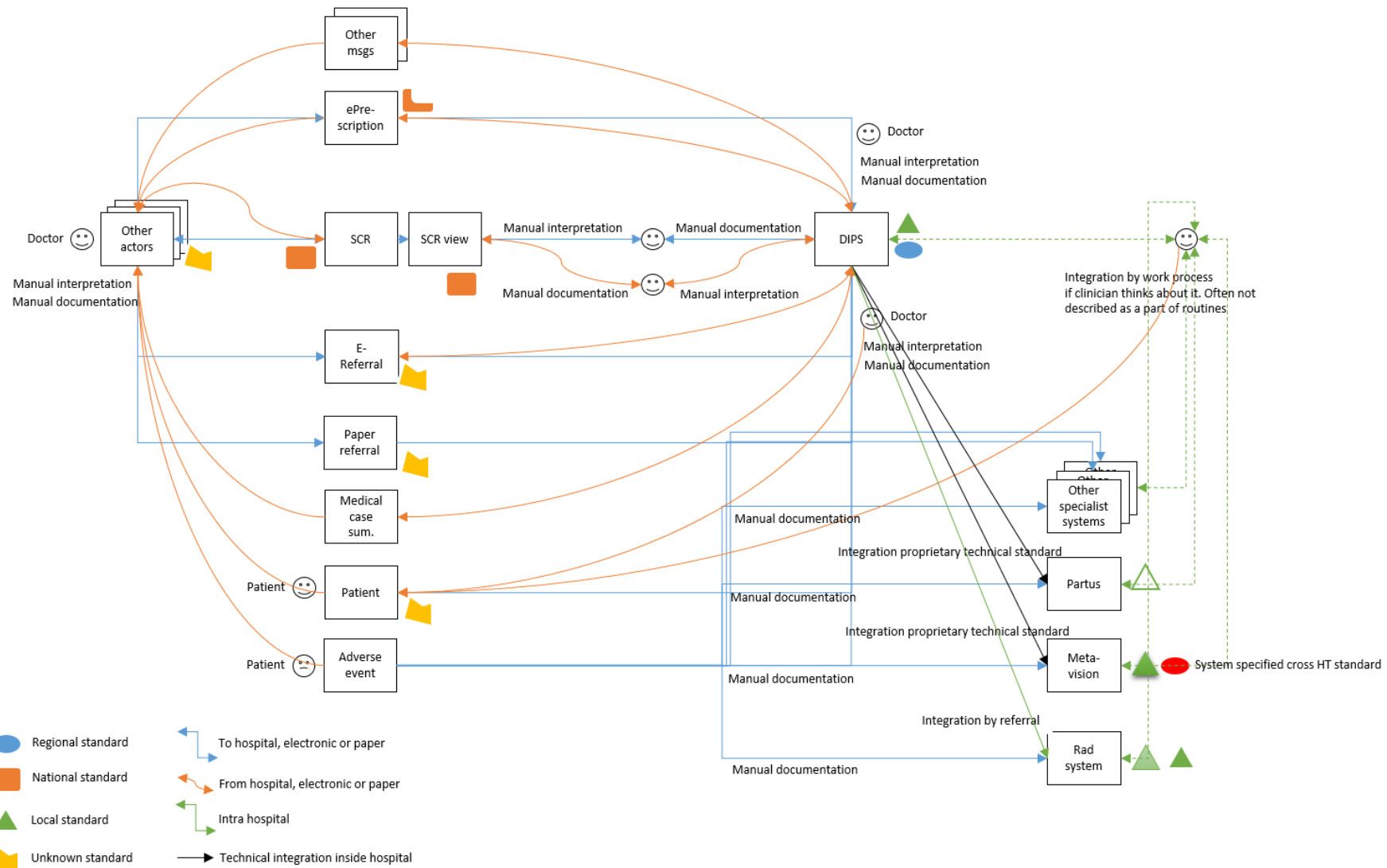
Figur 11: Applikasjonen SIHF.DIPS.std

# Information in the DIPS application



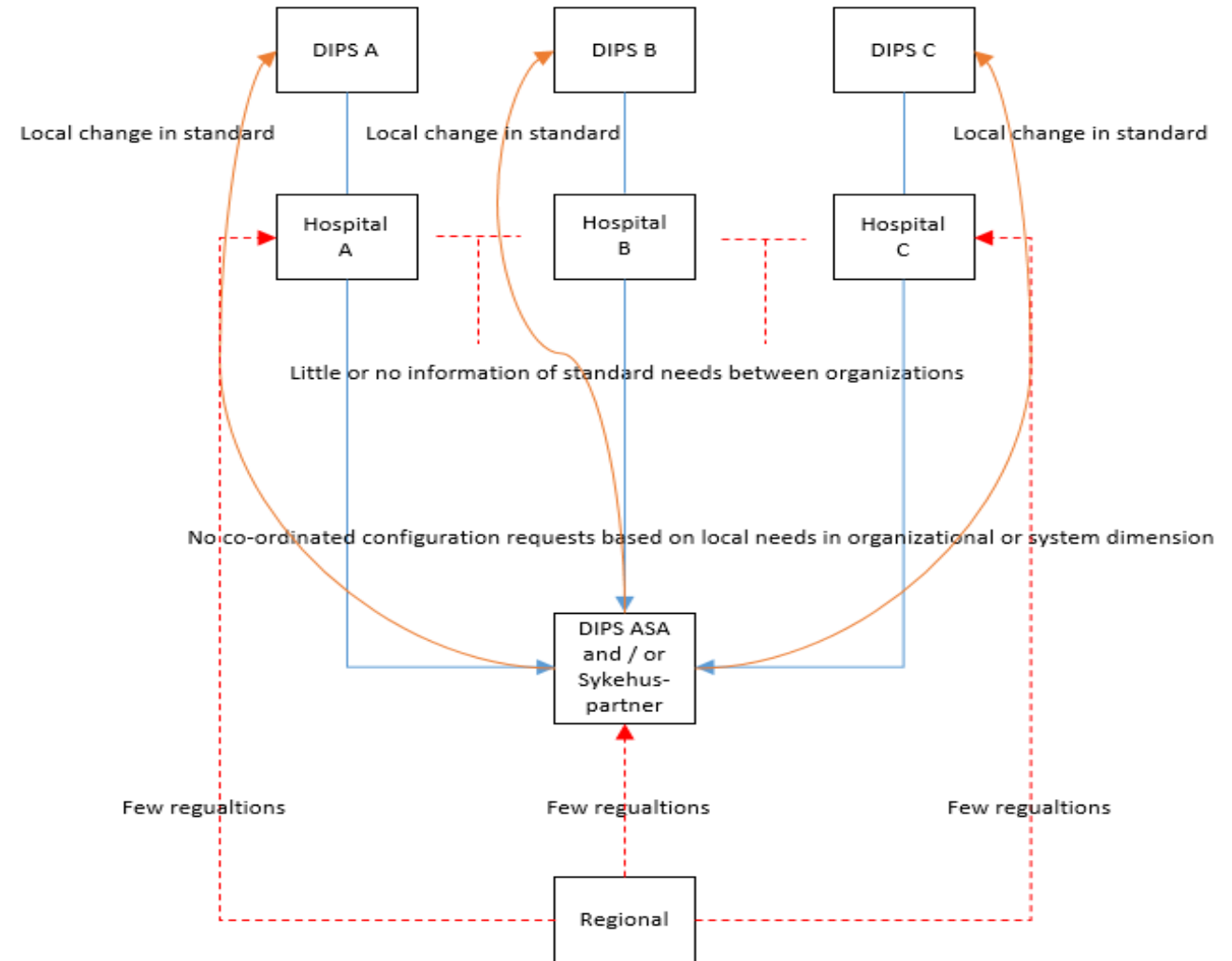
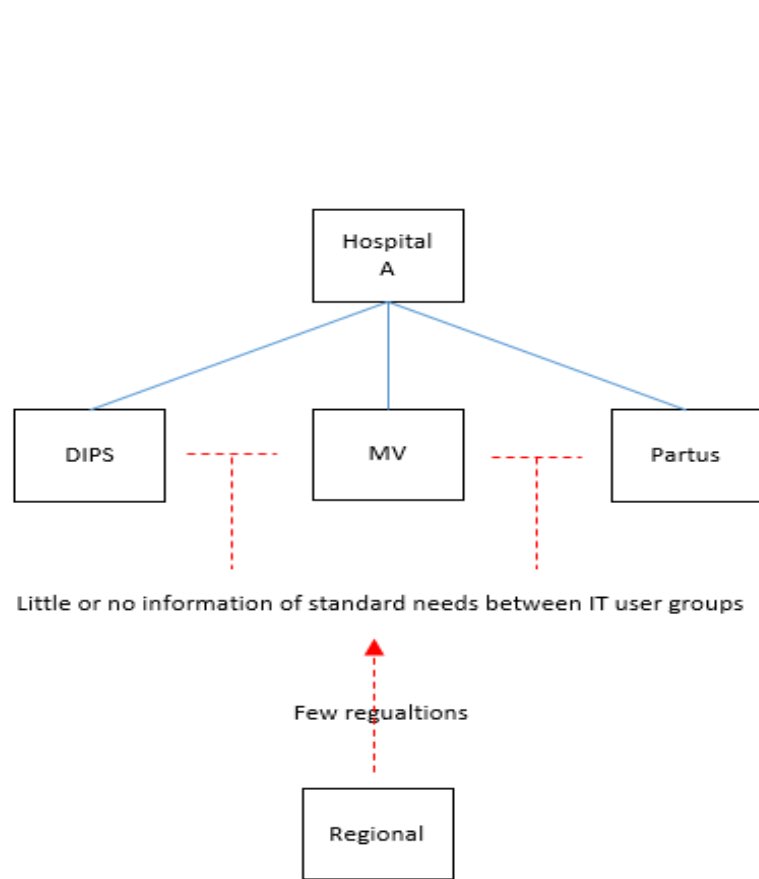


# Flow of one type of information in the information systems in one hospital

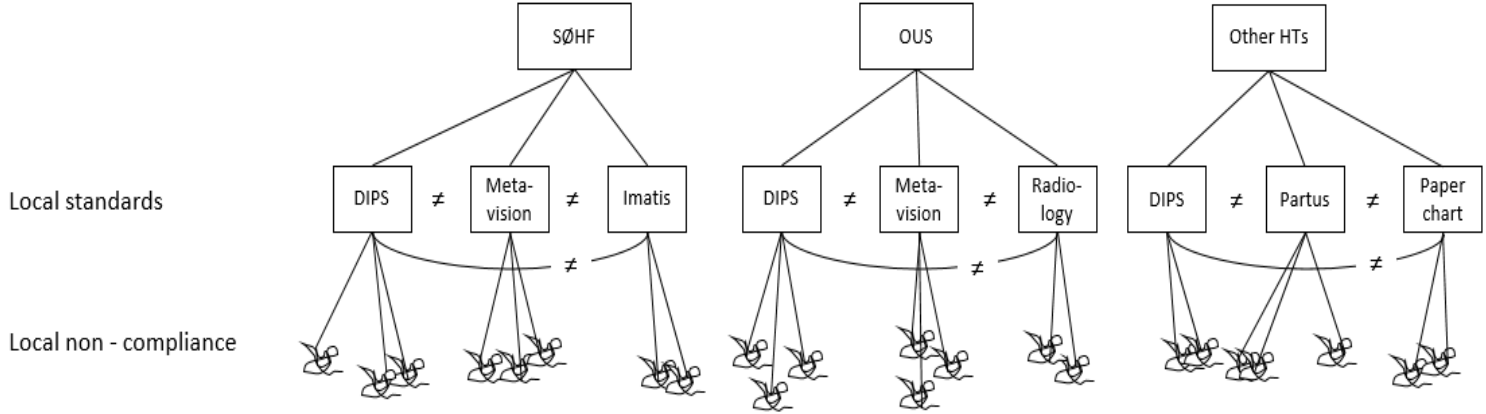


# Traditional governance of IT solutions

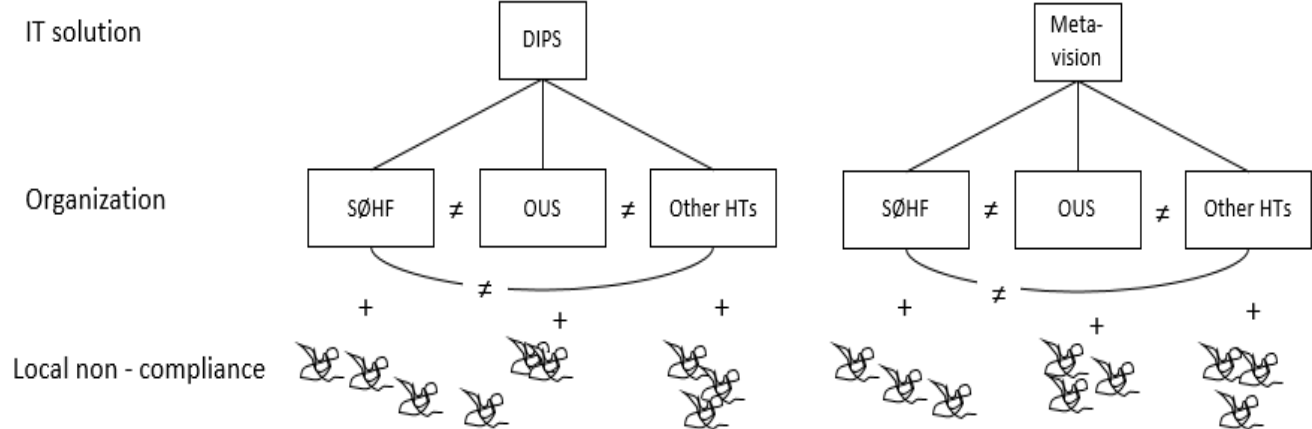
Still the same for *local* IT solutions



# Standards fragmentation



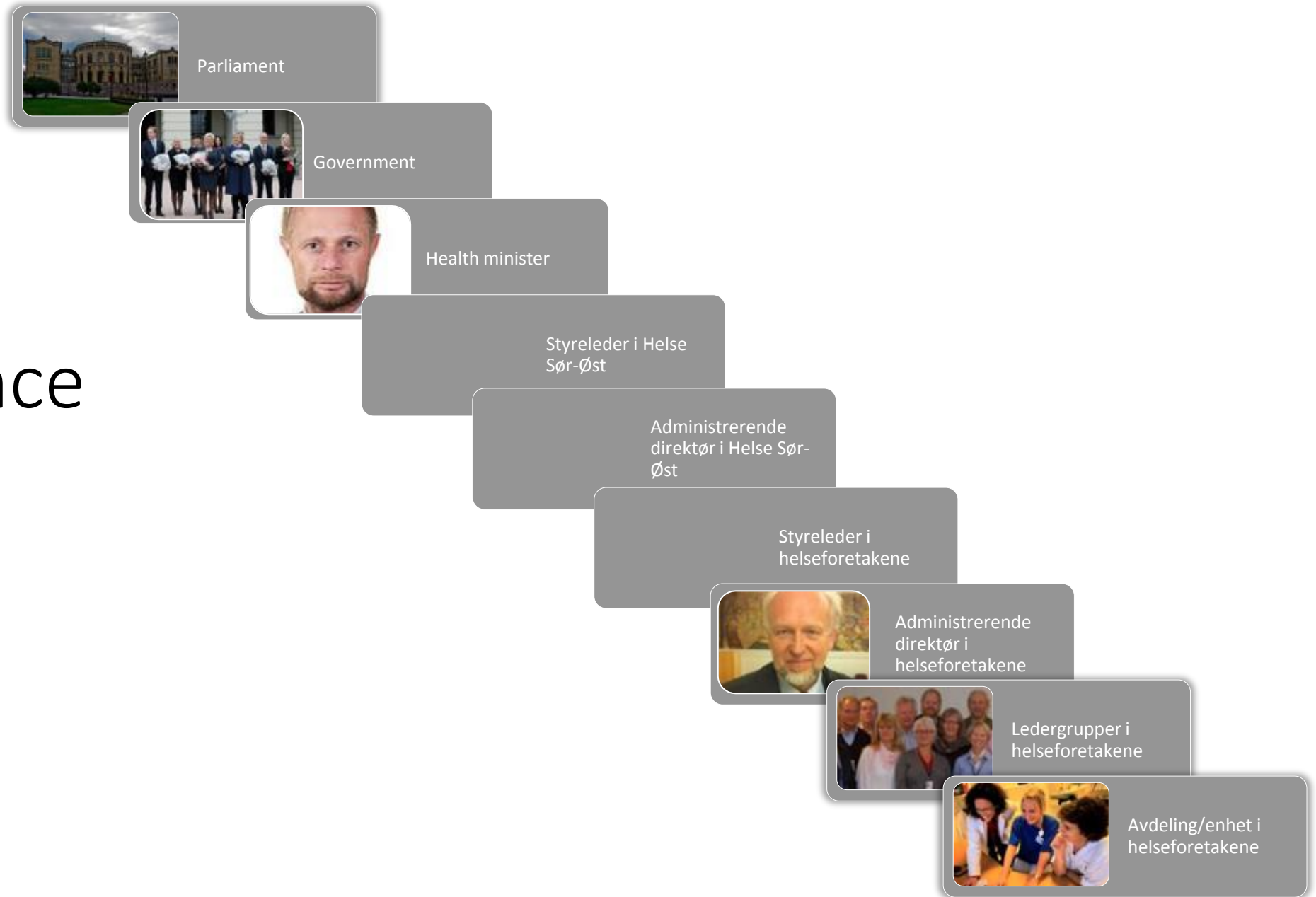
Organization - system perspective on standard fragmentation



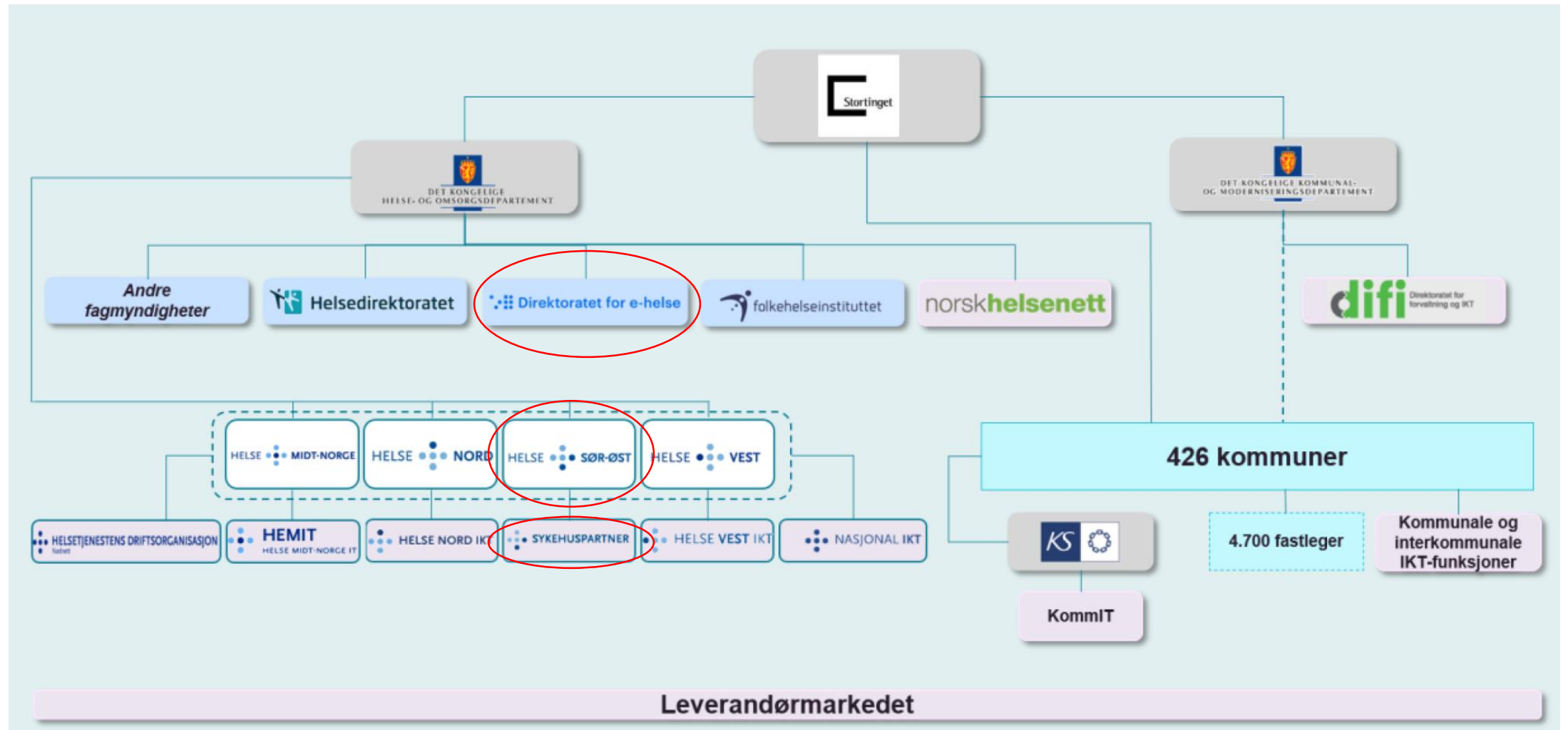
System - organization perspective of standard fragmentation

IT governance and investment portfolio

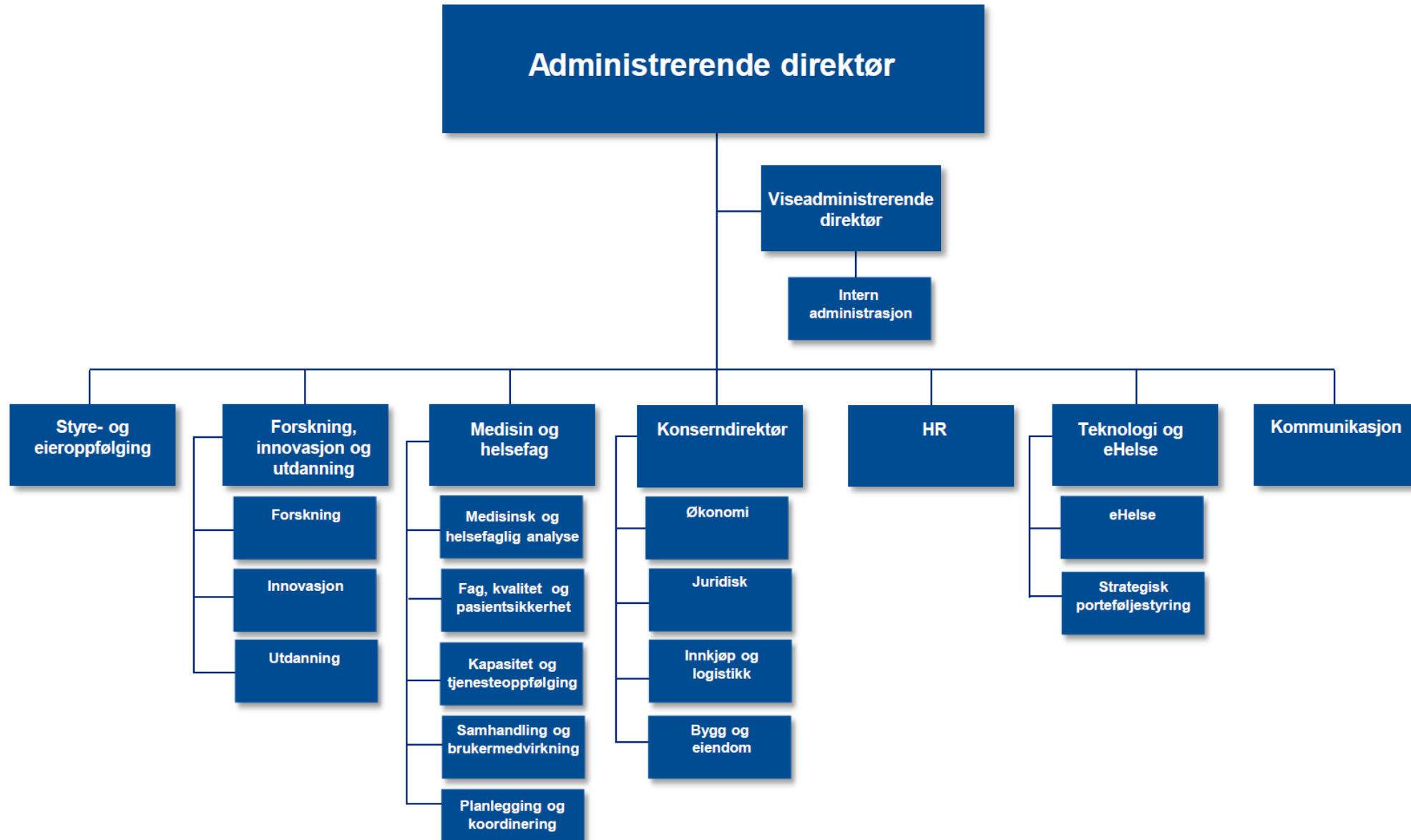
# Governance hierarchy



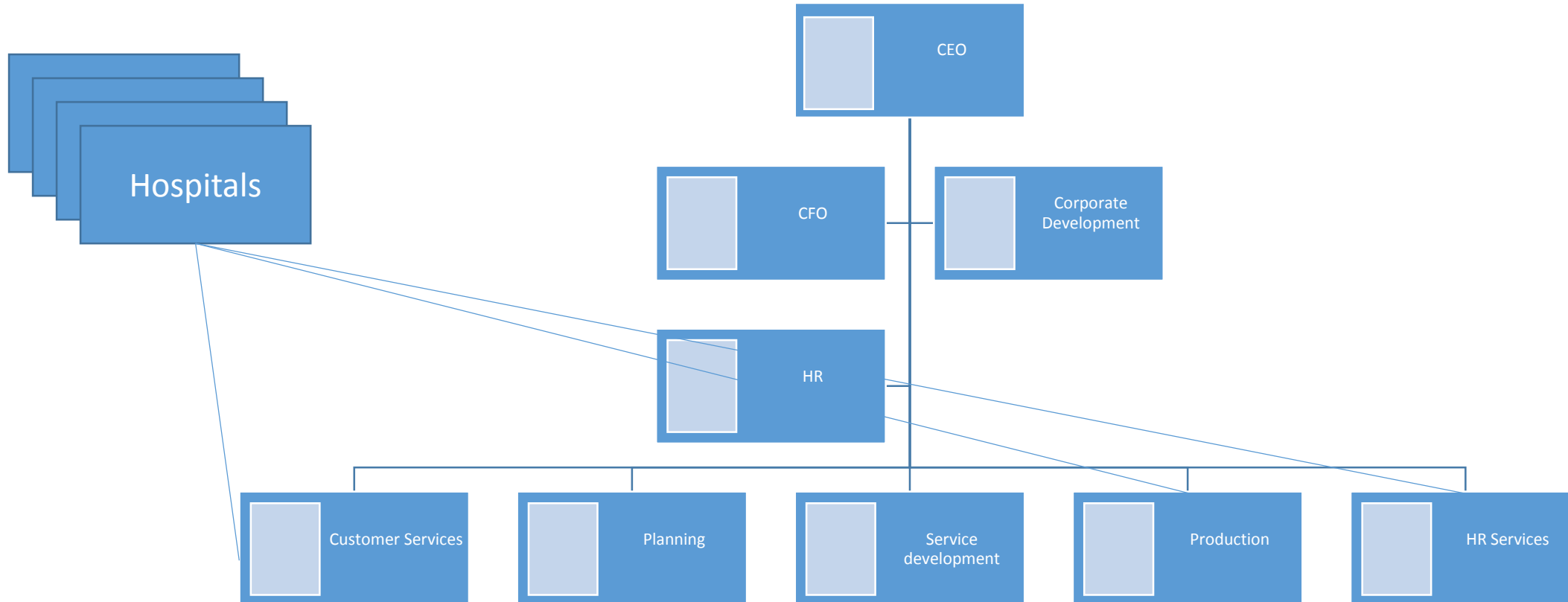
# Overview of national governance structure



# The Regional health trust

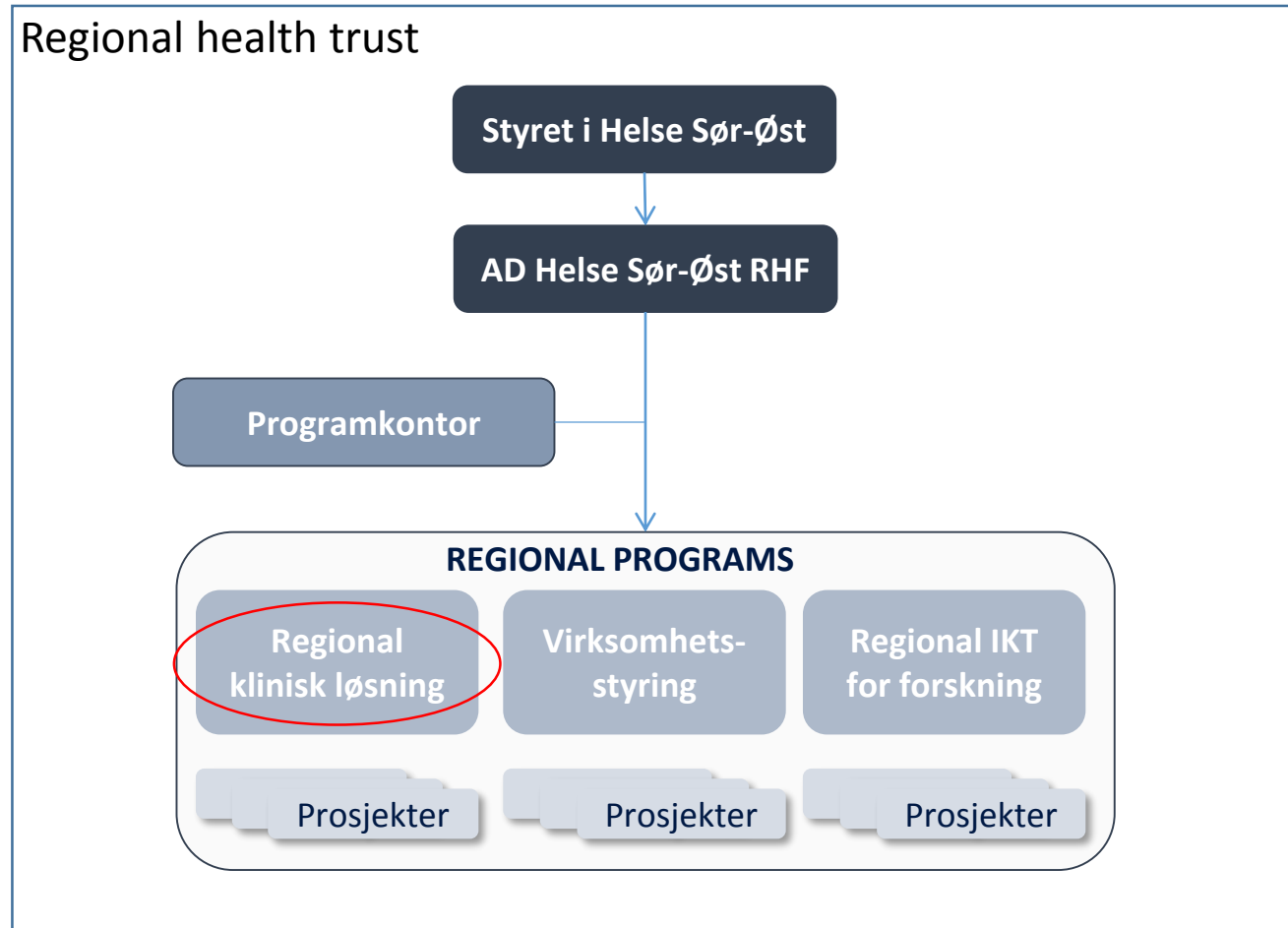


# Sykehuspartner – IT service provider

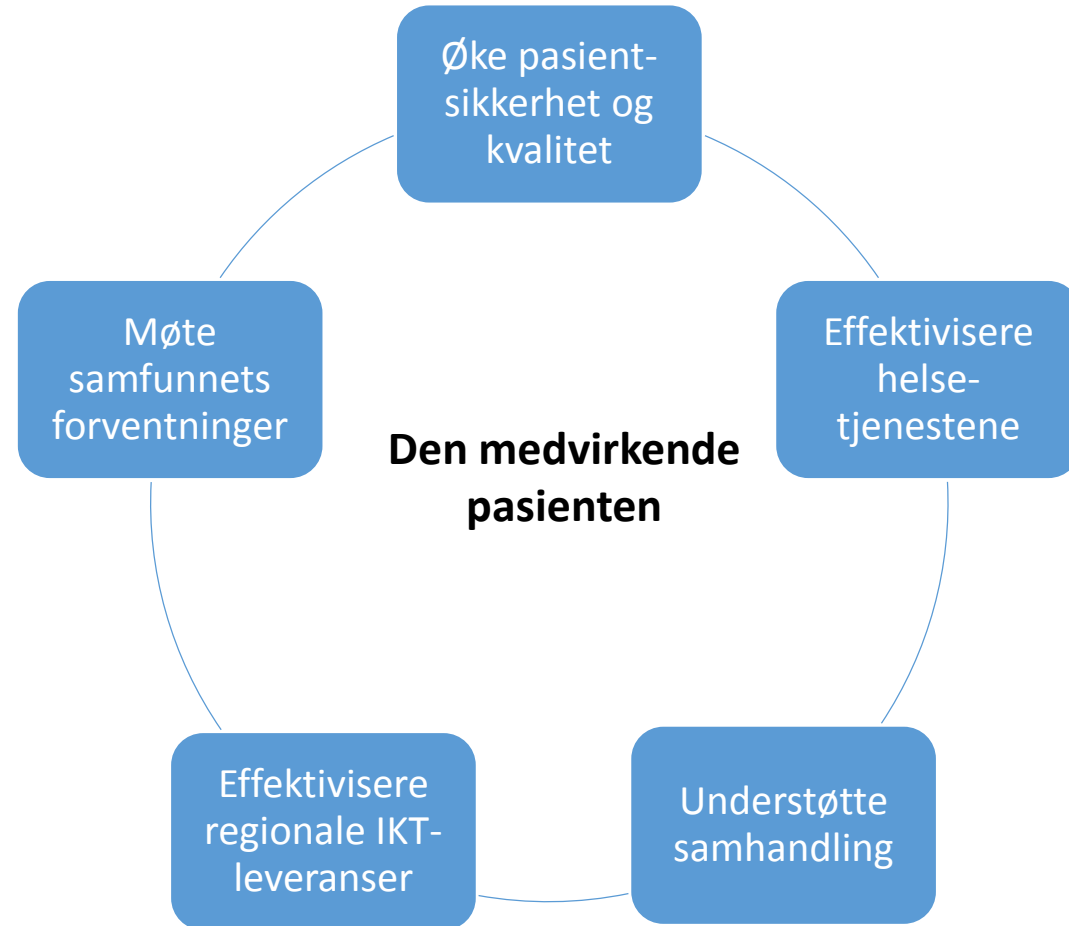




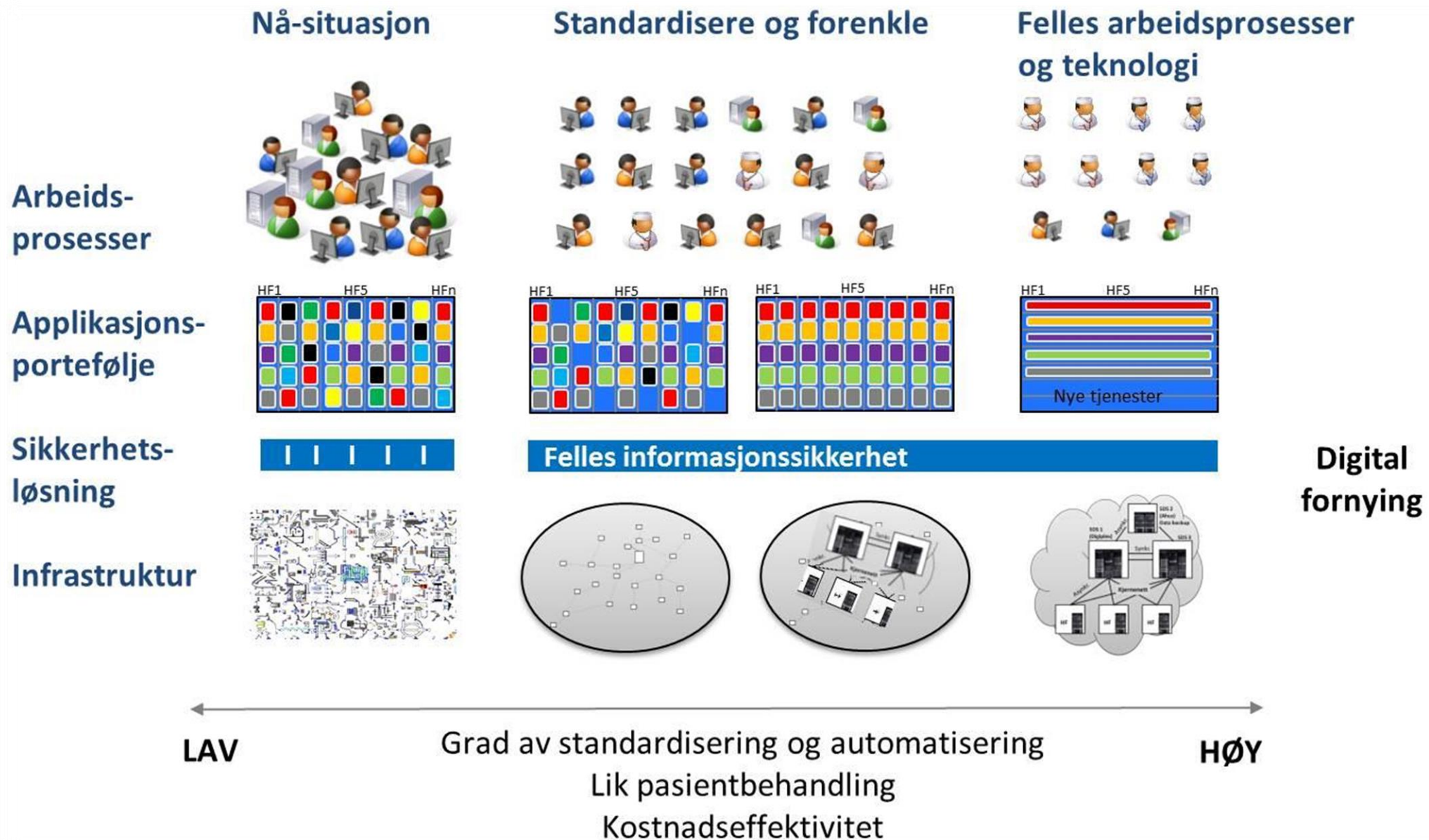
# Investment programs in SEHR



# Main aims



# Goals of the investment programs



# Moderne IKT infrastruktur



Bærbar



Nettbrett



Telefoni



Arbeidsstasjon



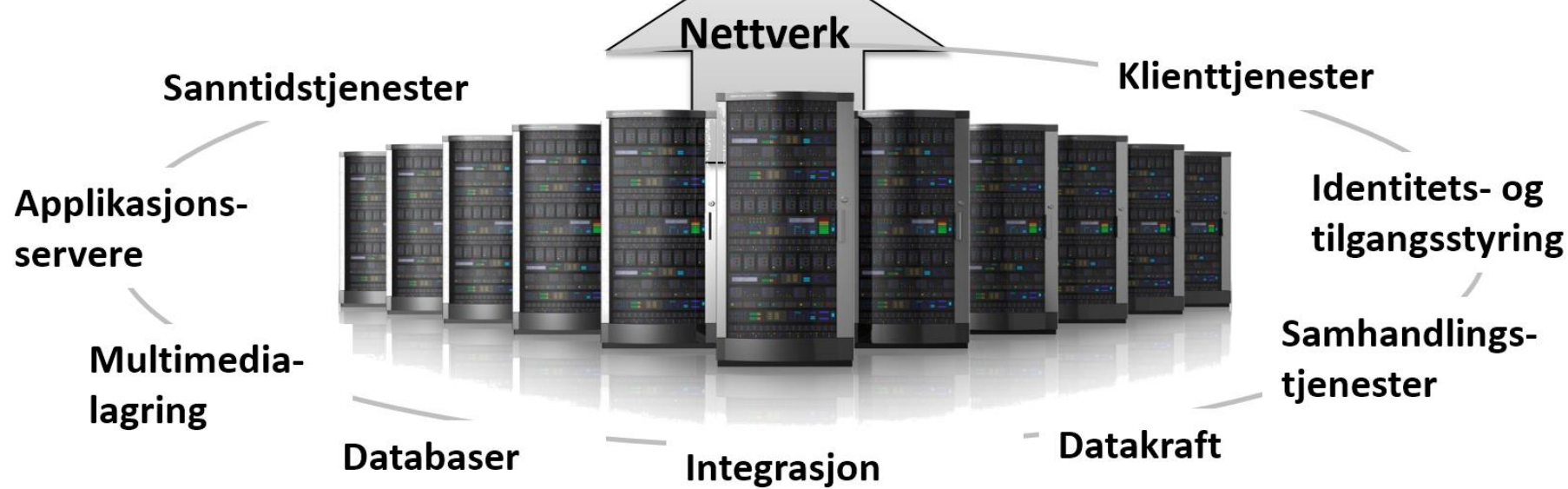
MTU

*Dynamiske arbeidstøler*

*Tilgjengelighet på tvers av terminaler og helseforetak*

OVERVÅKNING

SIKKERHET



*Samlede løsninger i regionale datasentre*

# Standardization and consolidation of main IT systems

	PAS/EPJ	RIS/PACS	LAB-Medisinsk biokjemi	LAB-Mikrobiologi	LAB - Patologi	LAB-Blodbank	Kurve og medikasjon	Multi-media	Medikamentell kreftbehandling	Ambulansjournal	Fødejournal
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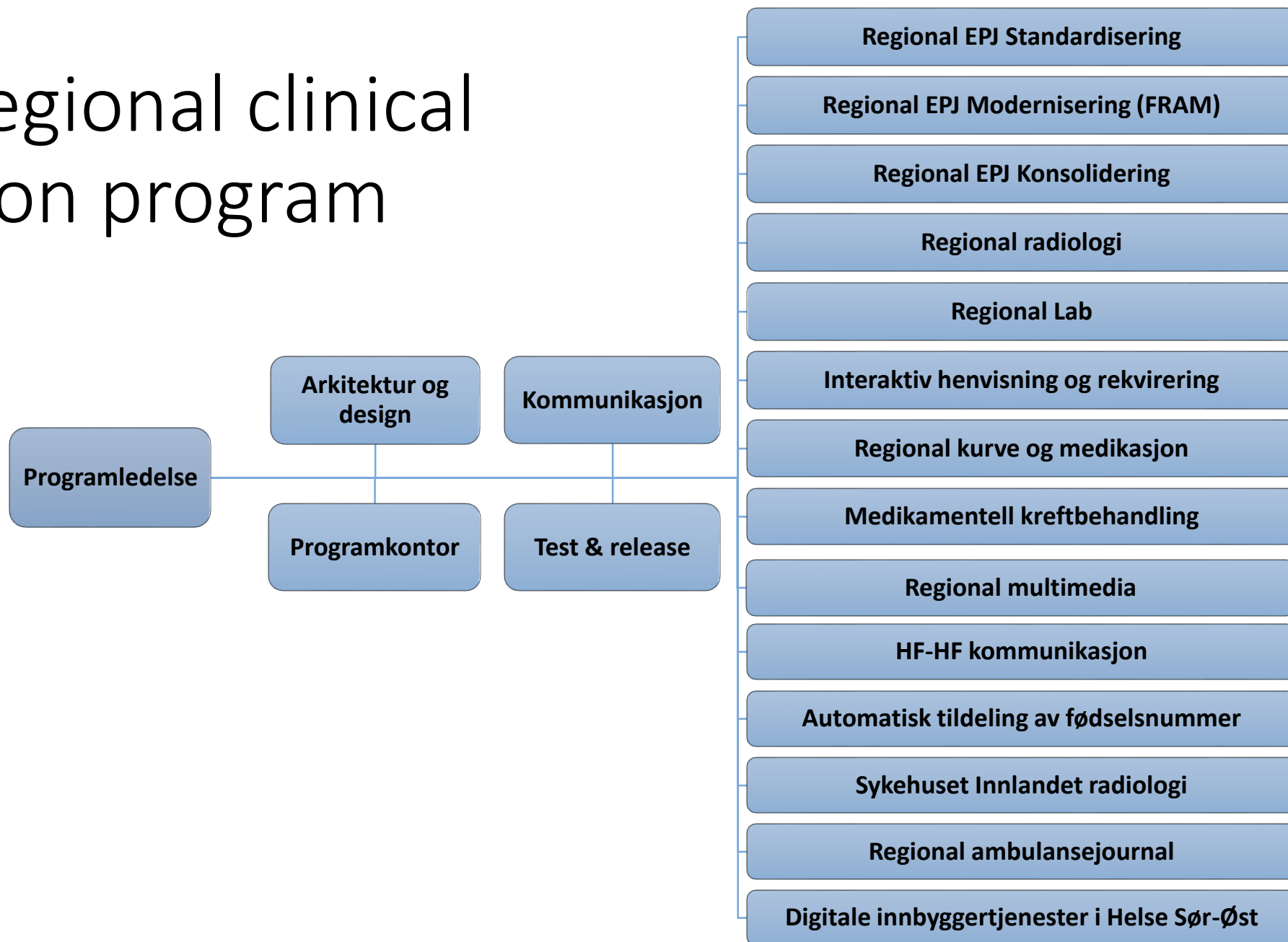
2014



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Sykehuset i Vestfold											
Telemark sykehus											
Sørlandet sykehus											

2024

# The regional clinical solution program



# The regional clinical solution - program governance

