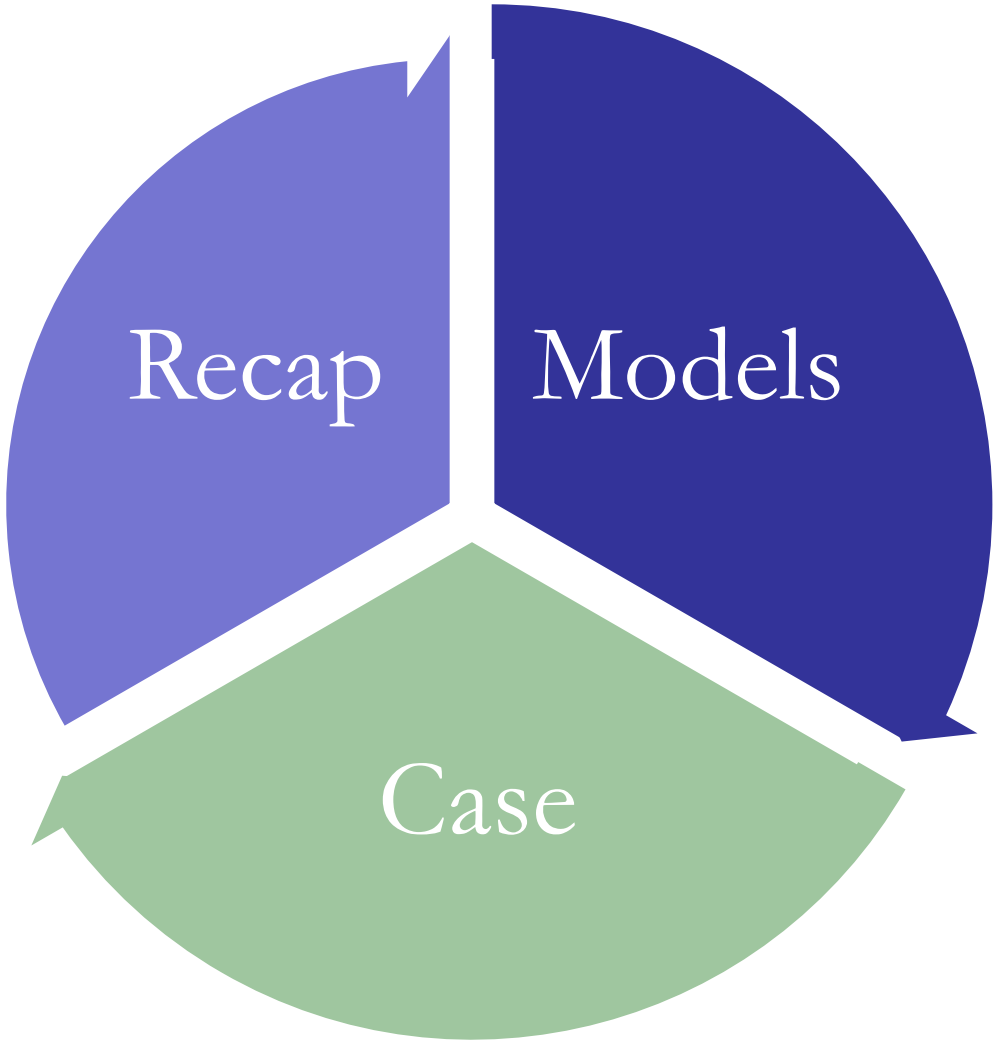


UiO : Department of Informatics
University of Oslo

Platforms in the Public Sector

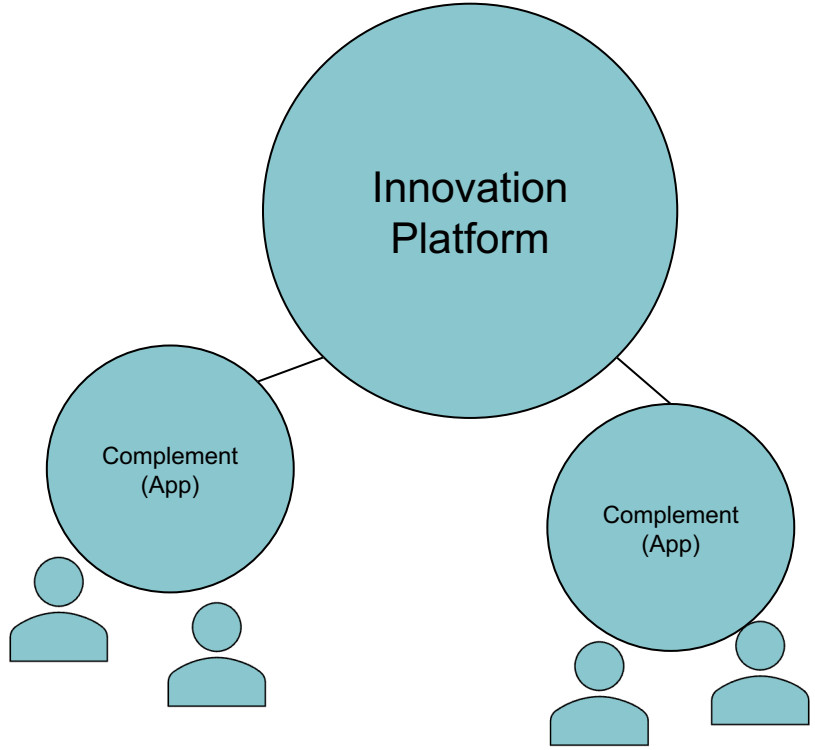
IN5320 – November 2021

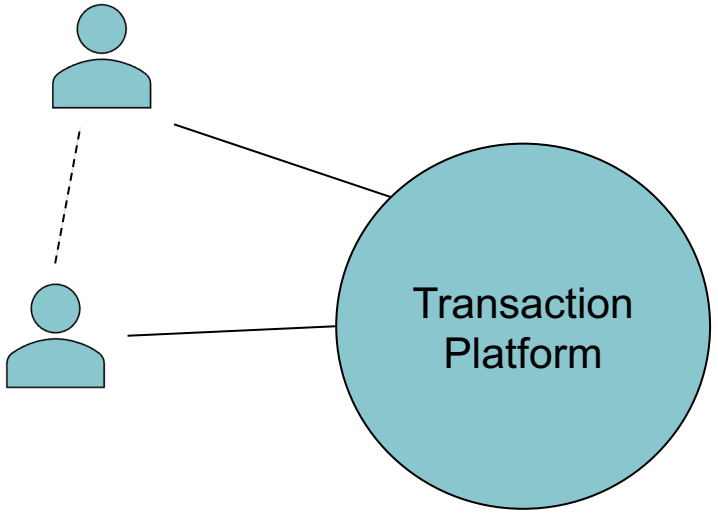
Alexander Kempton


Recap
Models
Case

A brief recap of what digital platforms are

- An architecture where actors and technologies are organized around a digital core
- Innovation platforms, transaction platforms, hybrids





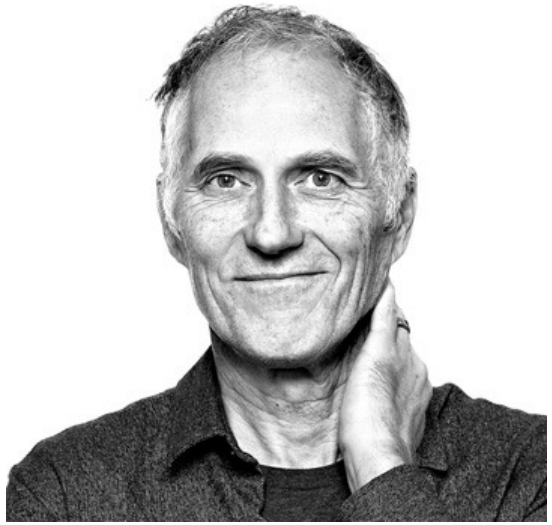
Platform is a highly successful architecture.

How can it be applied in the public sector?

Characteristics of public sector - relevant to platforms

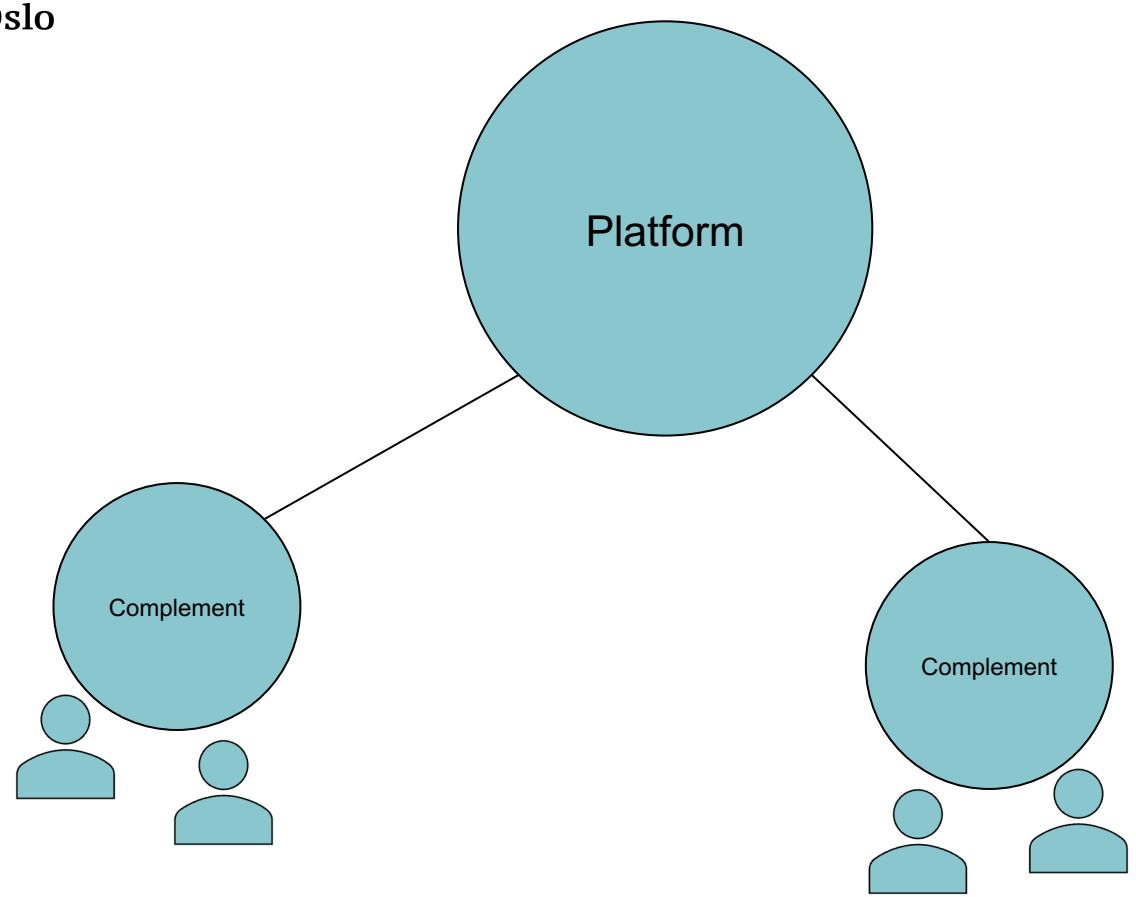
- Diversity
- Functions
  - Providing services
  - Policy-based governance
- Organized across levels and networks of organizations

How can the platform architecture be applied in the public sector?



"How does government become an open platform that allows people inside and outside government to innovate? How do you design a system in which all of the outcomes aren't specified beforehand, but instead evolve through interactions between government and its citizens, as a service provider enabling its user community?"

Tim O'Reilly 2011, "Government as a Platform"



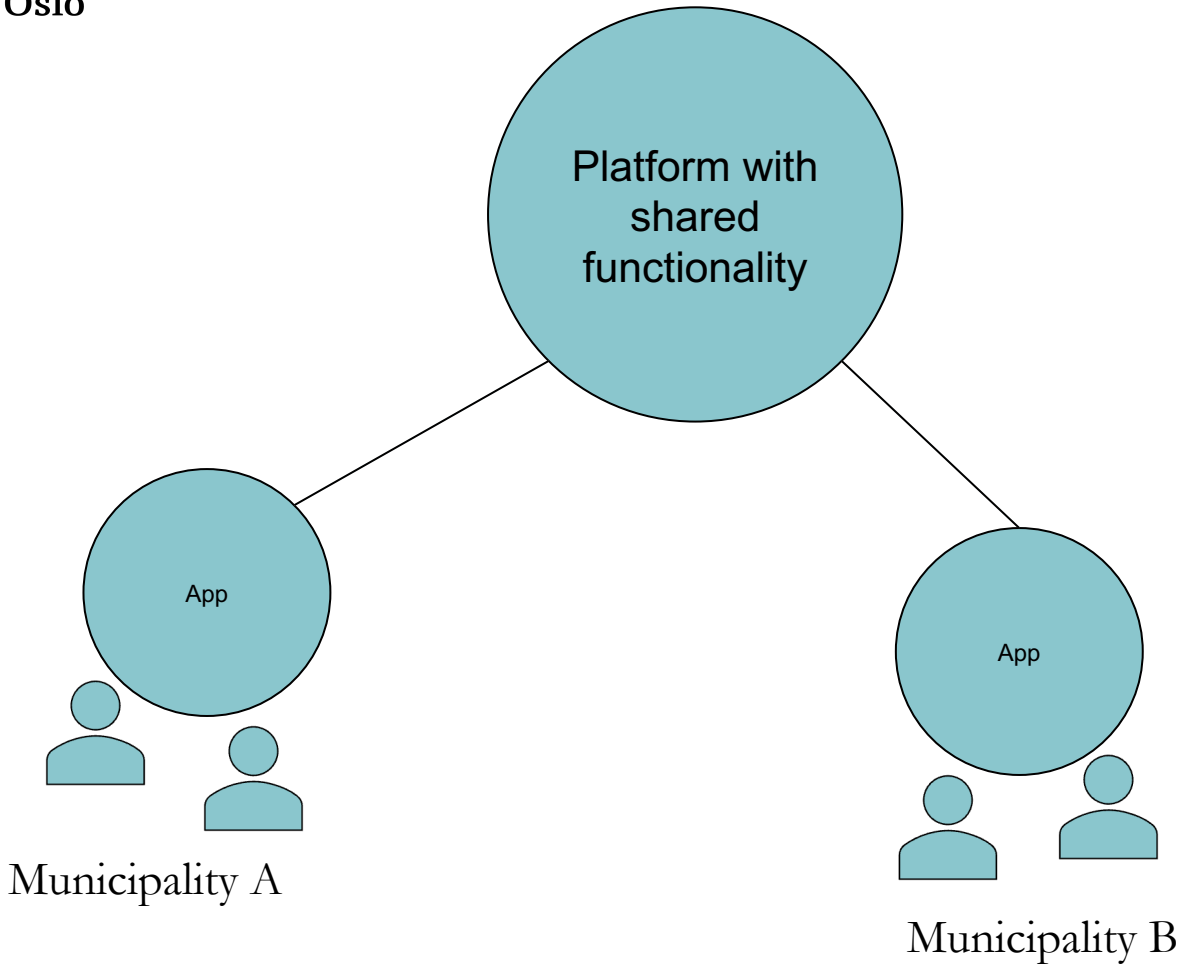
(Bonina and Eaton 2020; Brown et al. 2017; Bygstad et al. 2018; Janssen and Estevez 2013; O'Reilly 2011; Thompson and Venters 2021; Vestues et al. 2021; Bygstad and Hanseth 2018)

Reuse of functionality

Organizing systems

Sharing of data

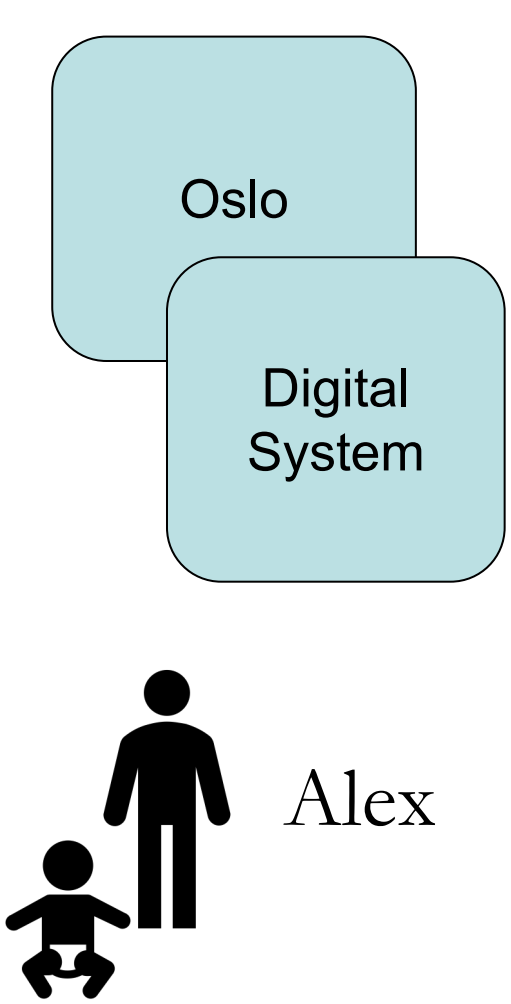
(Thompson and Venters 2021)

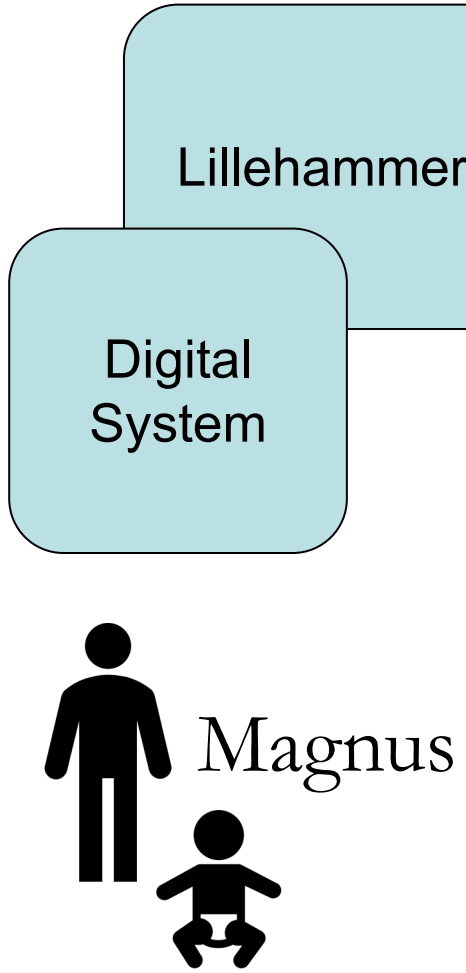


Reuse of functionality

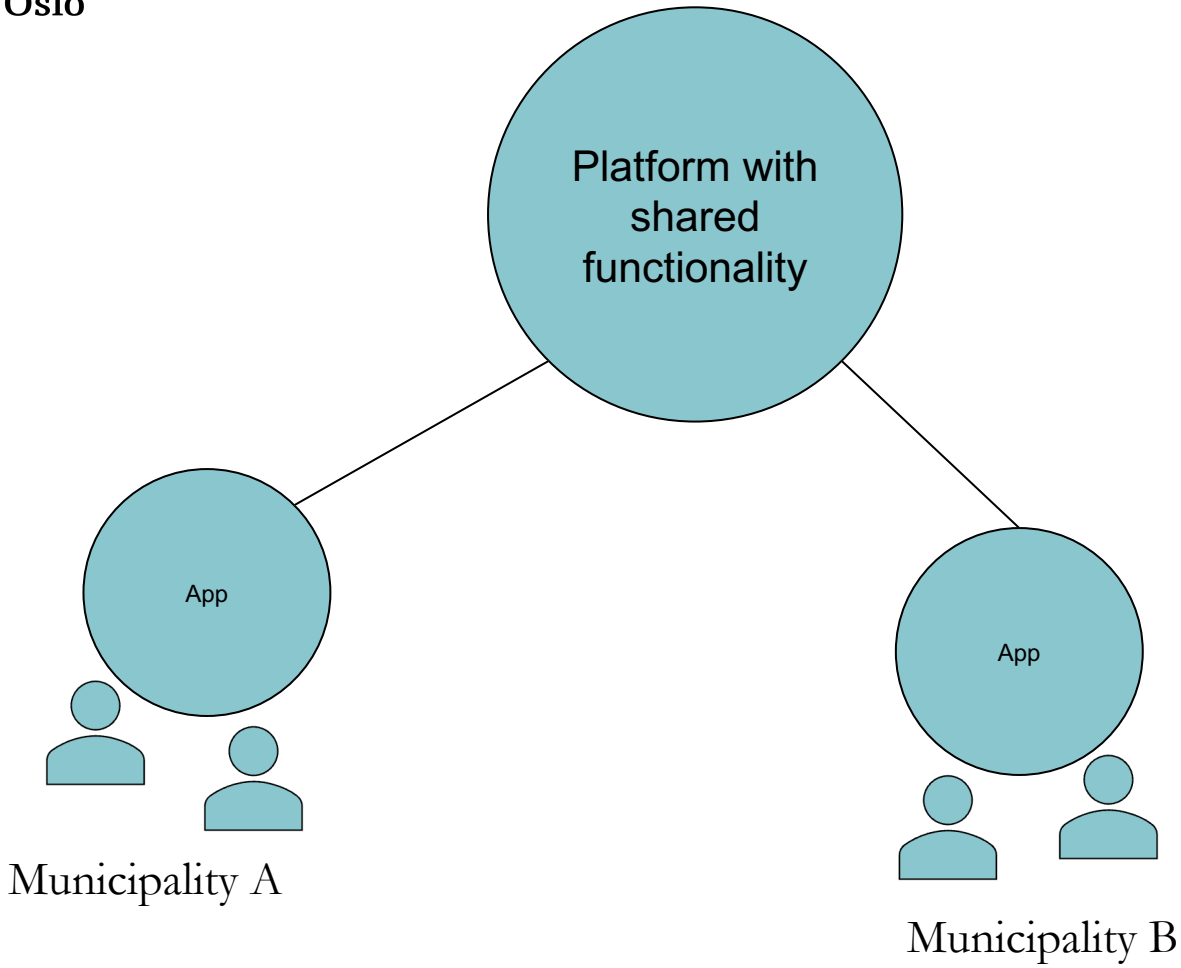
Organizing systems

Sharing of data


Oslo
Digital System
Alex


Lillehammer
Digital System
Magnus

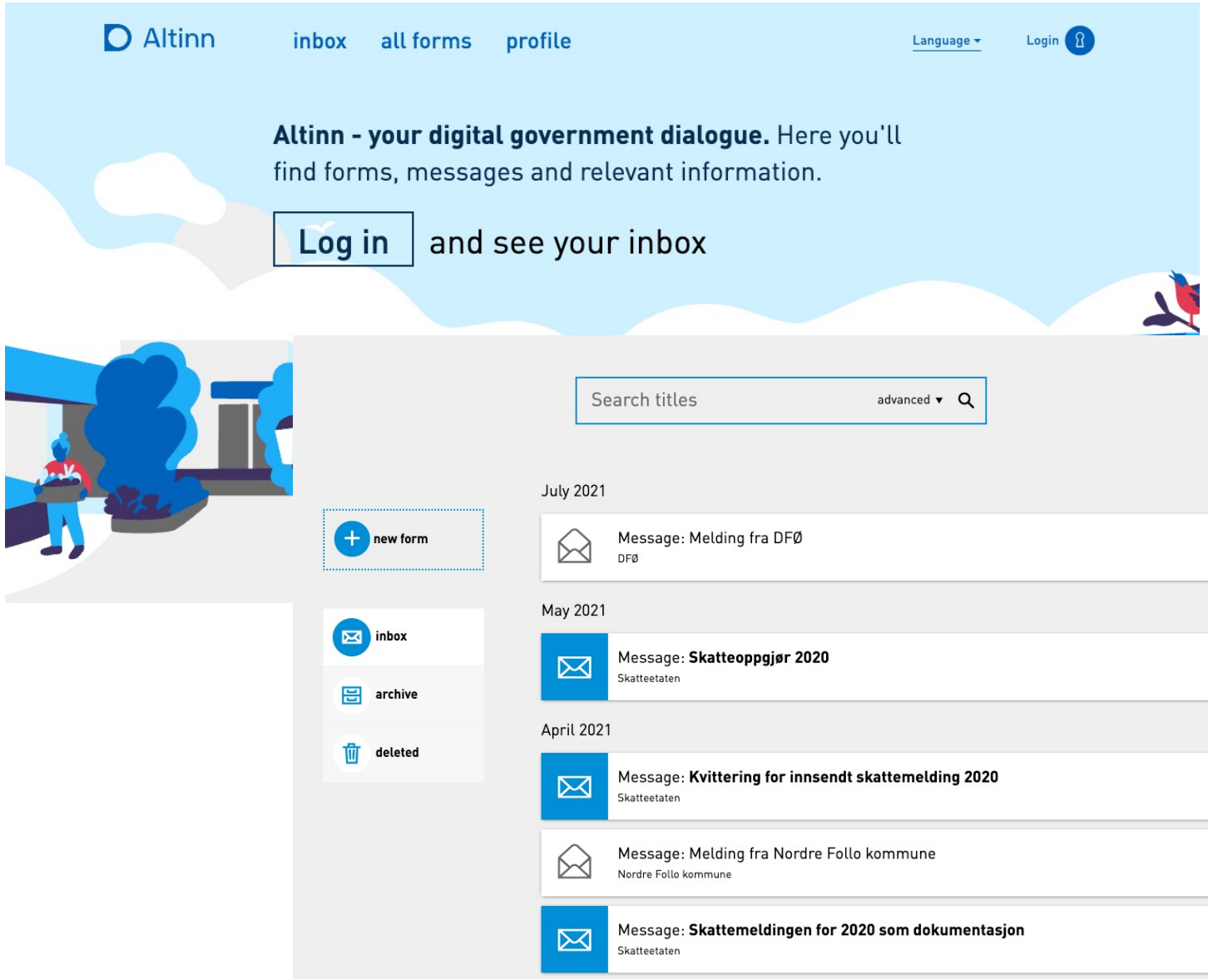
(Thompson and Venters 2021)

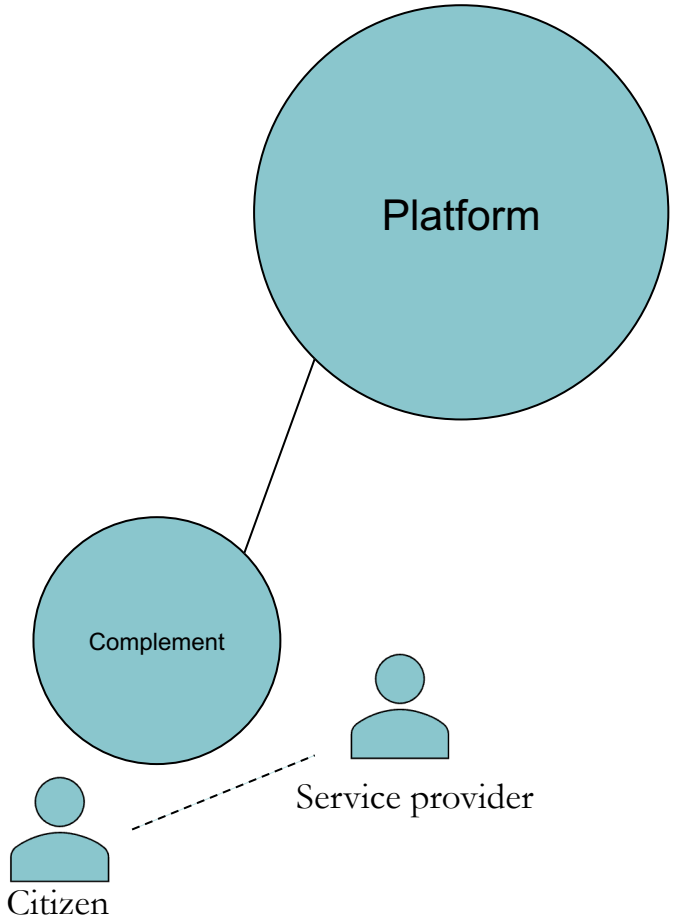


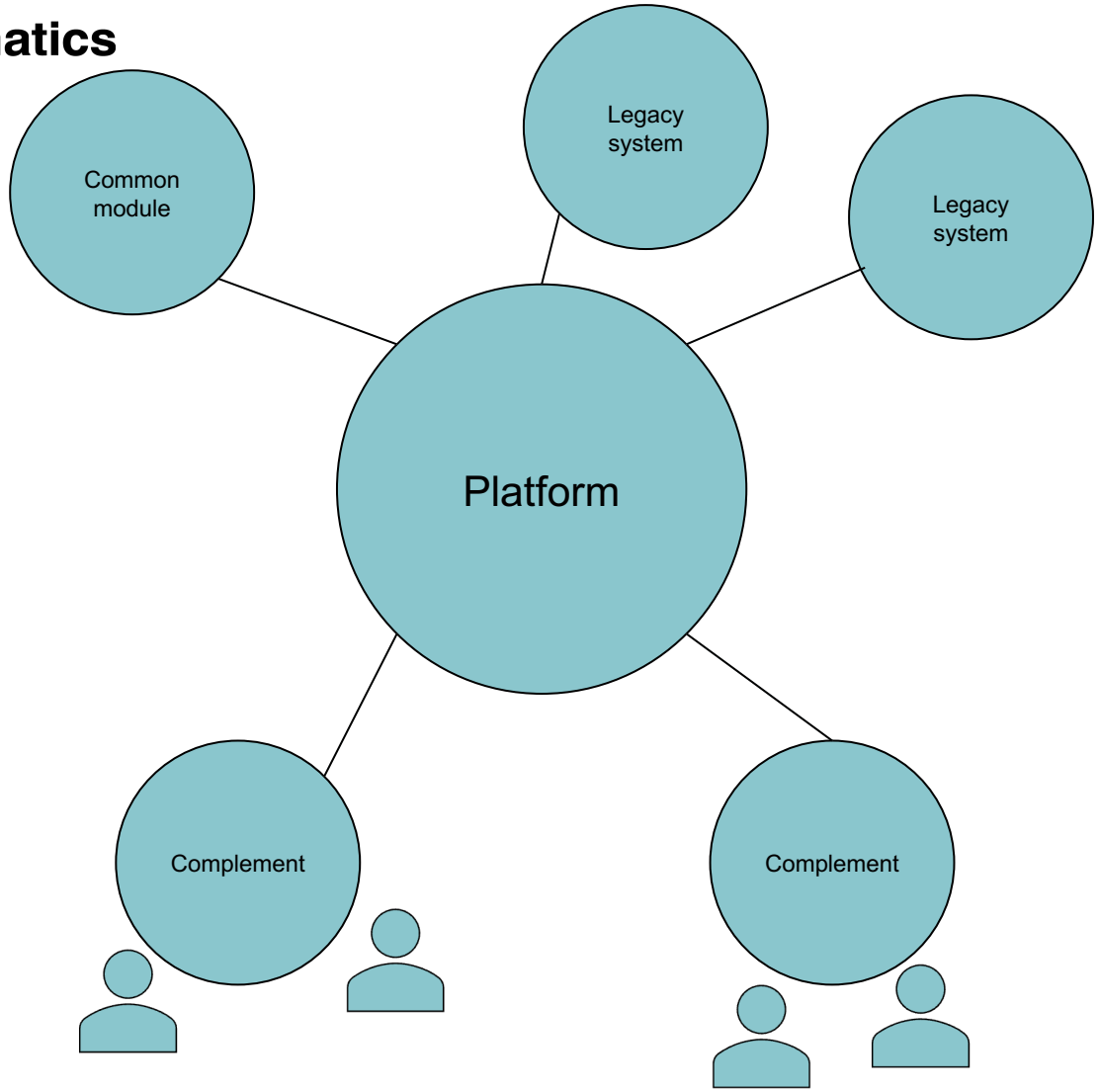
Reuse of functionality

Organizing systems

Sharing of data


Altinn
inbox
all forms
profile
Language
Login
Altinn - your digital government dialogue. Here you'll find forms, messages and relevant information.
Log in
and see your inbox
Search titles
advanced
new form
inbox
archive
deleted
July 2021
Message: Melding fra DFØ
DFØ
May 2021
Message: Skatteoppgjør 2020
Skatteetaten
April 2021
Message: Kvittering for innsendt skattemelding 2020
Skatteetaten
Message: Melding fra Nordre Follo kommune
Nordre Follo kommune
Message: Skattemeldingen for 2020 som dokumentasjon
Skatteetaten


Platform
Complement
Service provider
Citizen



Reuse of functionality

Organizing systems

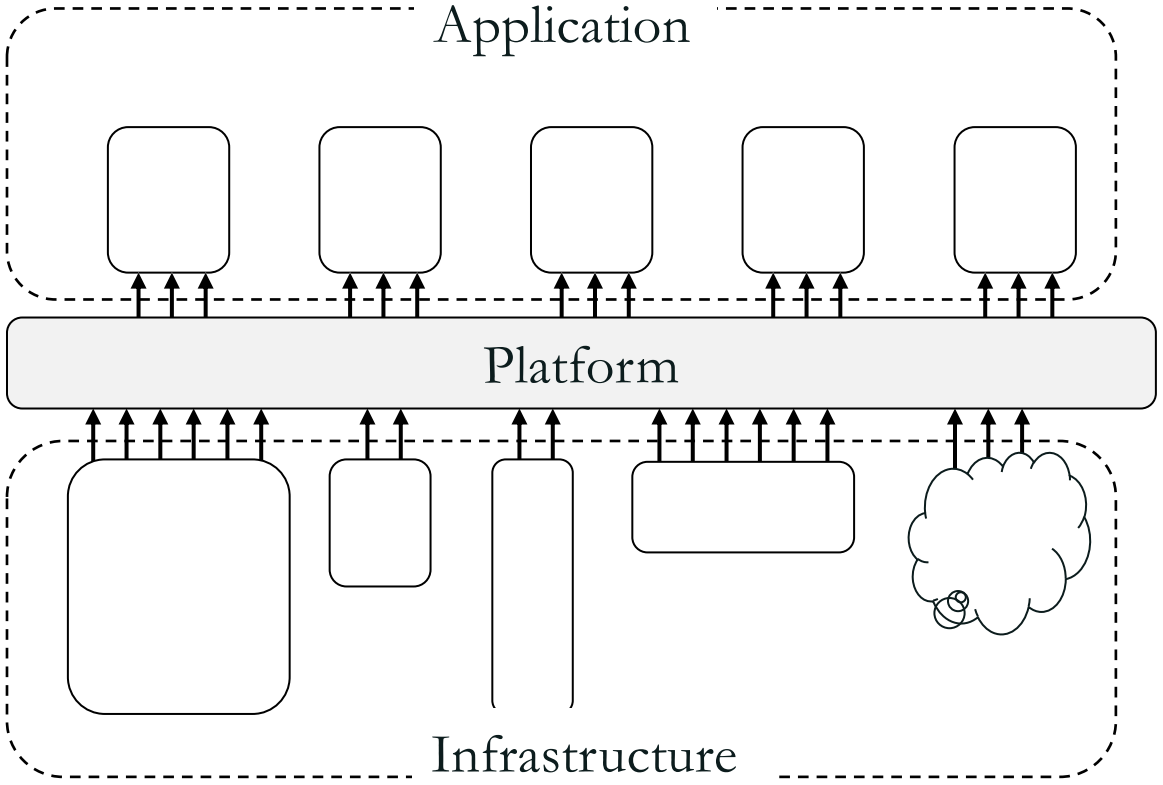
Sharing of data

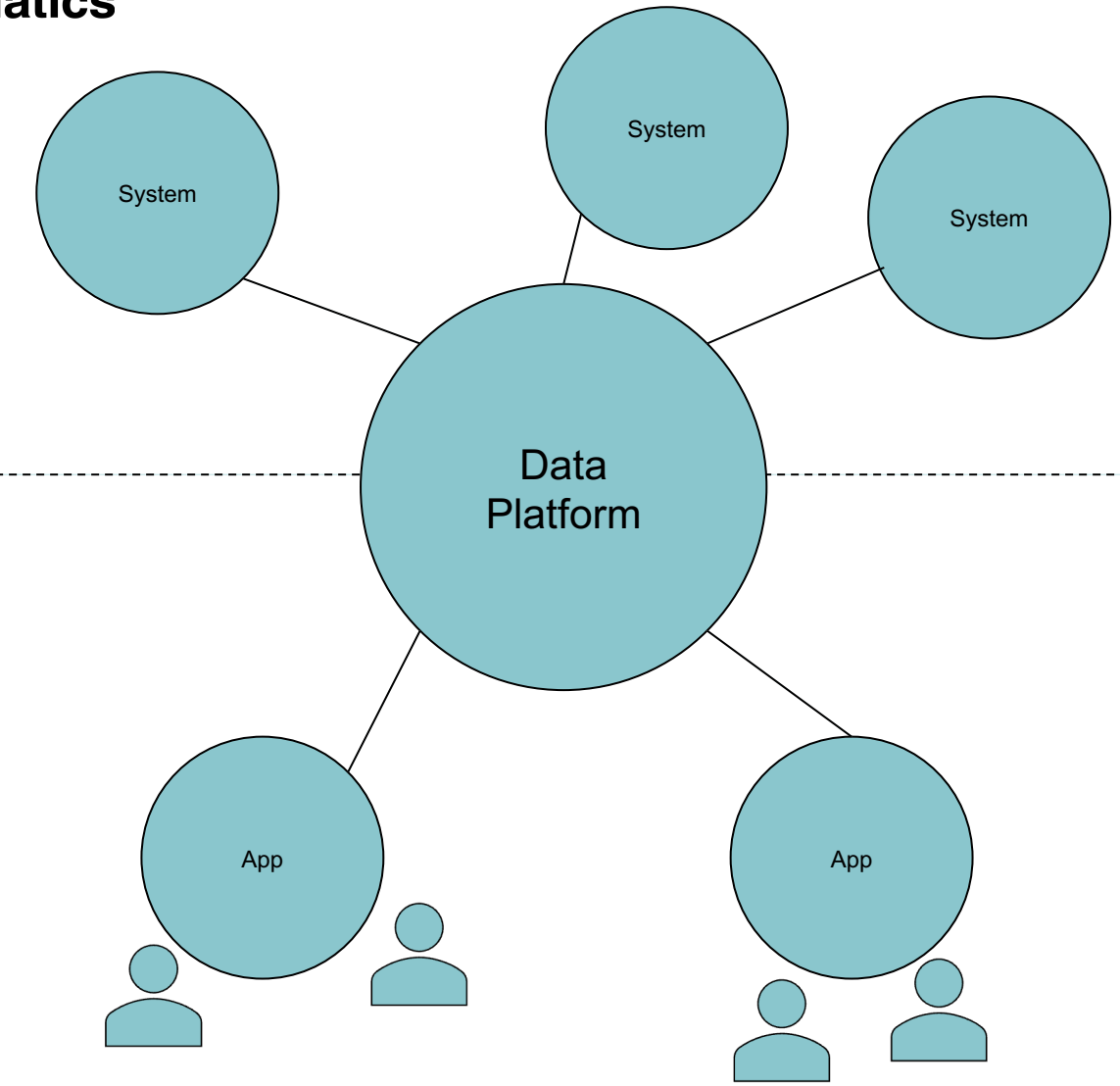


NAV's Application Infrastructure Service built on Kubernetes

NAIS is an application platform built to increase development speed by providing our developers at NAV with the best possible tools to develop and run their applications.

And it's open source!





Supply side

Demand side

Reuse of functionality

Organizing systems

Sharing of data

Search...

Overview
Setup and Access
Get Started
Authentication
News and Notifications

Overview

An overview of the APIs Entur provides. We've divided them into the categories below by what domain they belong to.

Open Data and Services

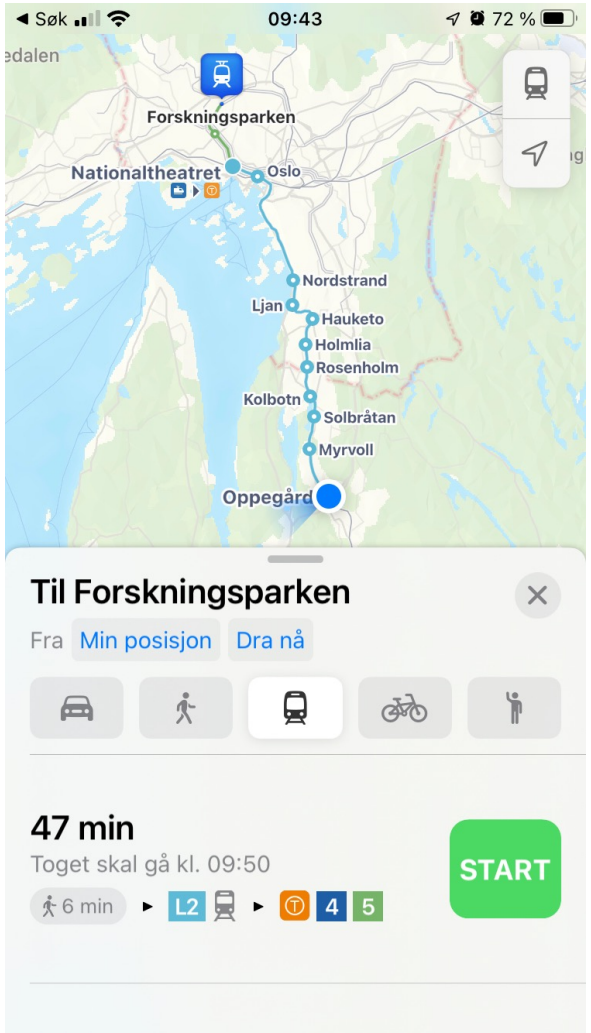
Entur operates the national registry for all public transport in Norway, collecting data from 60 public transportation operators. The registry contains data about 21,000 daily departures on 3,000 routes. This data is open and free of use for app and service developers. Entur believes in open source development and we strive to create re-usable components.

Source Code

Journey Planning APIs

Partner Services

Entur provides sales and ticketing solutions for rail operators and other partners. To access these APIs you need a Partner agreement with Entur. See how to setup and access these APIs



How can the platform architecture be applied in the public sector?

Reuse of functionality

Organizing systems

Sharing of data

Case assignment: platform for welfare technology

- Digital technologies and services that assist citizens with health or social issues



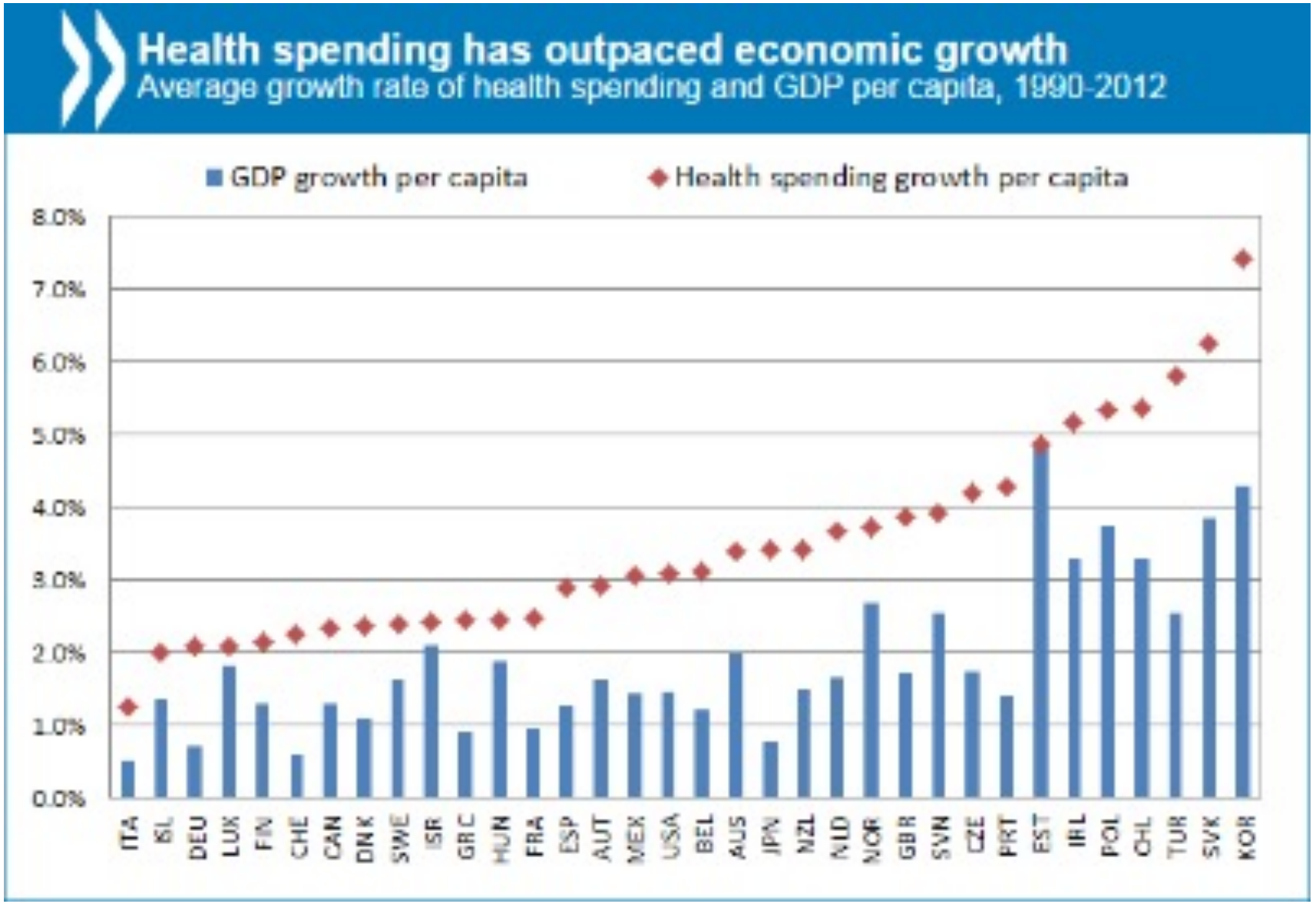











Health spending has outpaced economic growth
Average growth rate of health spending and GDP per capita, 1990-2012
GDP growth per capita
Health spending growth per capita
8.0%
7.0%
6.0%
5.0%
4.0%
3.0%
2.0%
1.0%
0.0%
ITA
ISL
DEU
LUX
FIN
CHE
CAN
DNK
SWE
ISR
GRC
HUN
FRA
ESP
AUT
MEX
USA
BEL
AUS
JPN
NZL
NLD
NOR
GBR
SVN
CZE
PRT
EST
IRL
POL
CHL
TUR
SVK
KOR

Case assignment: platform for welfare technology

- Digital technologies and services that assist citizens with health or social issues











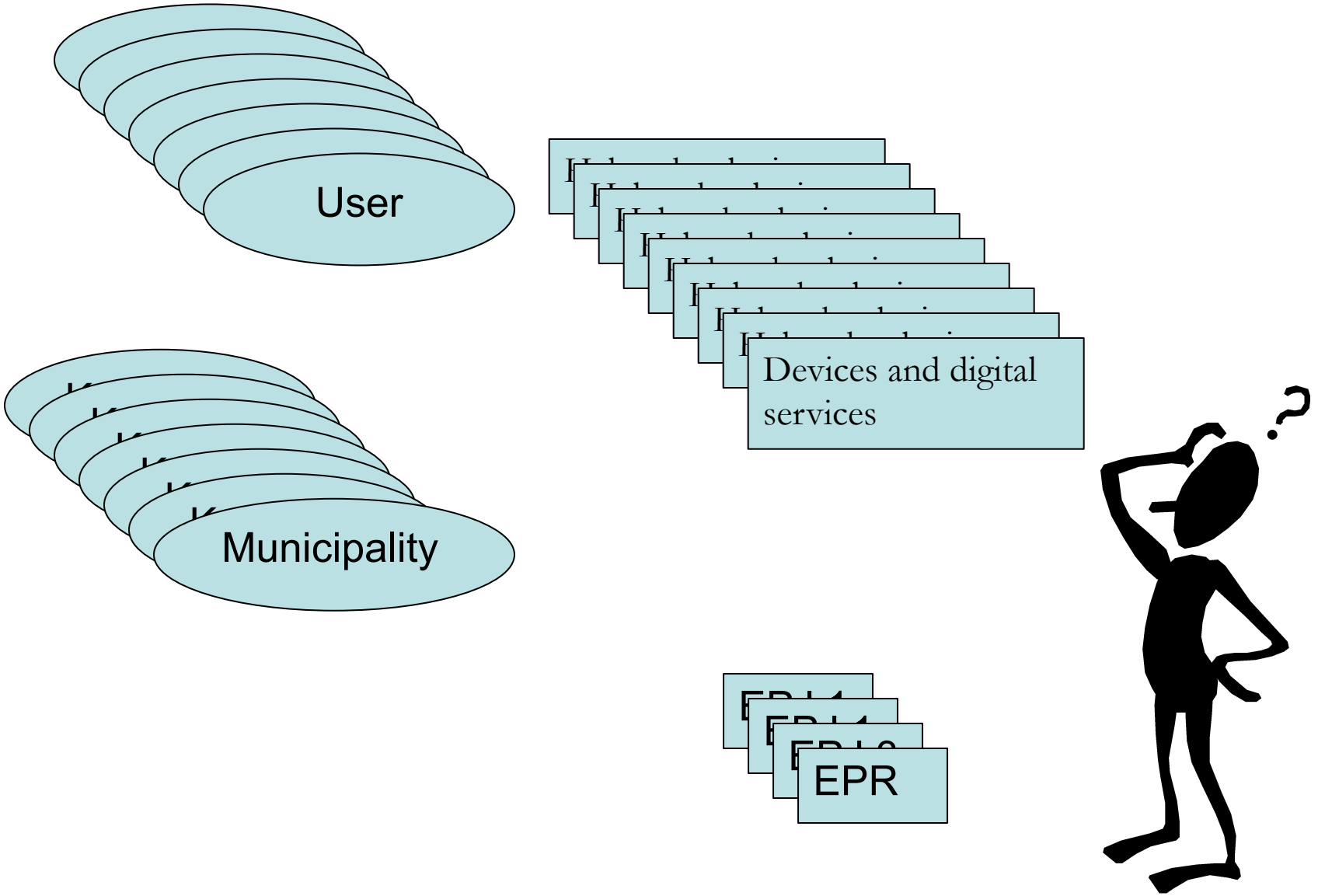


Policy goals:

- Enable innovation (both to develop a market and to get new solutions)
- Enable municipalities to plug-and-play different technologies and make them interoperable
- Collection and use of data

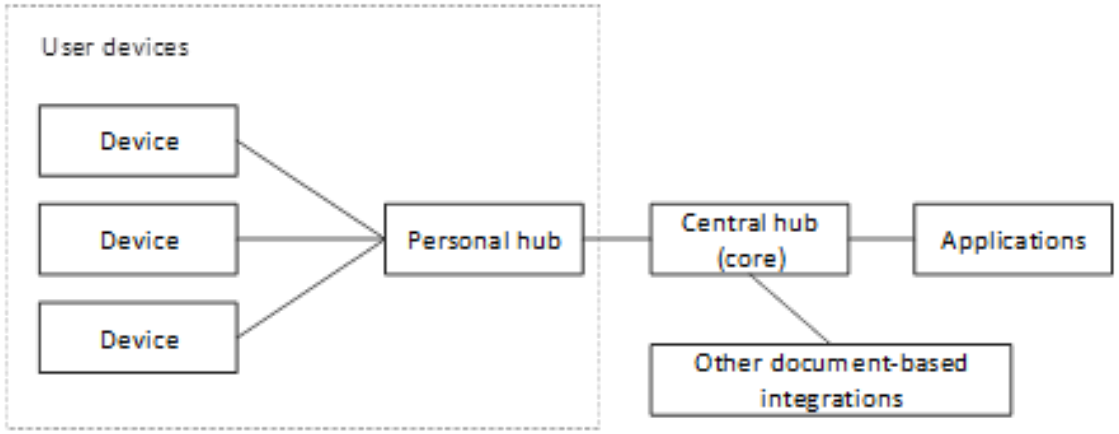
The welfare technology program

- 2015->
- Directorate of e-health
- Municipality of Oslo
- Several other municipalities
- Involving several eHealth companies and startups
- Need to integrate new technology with existing systems, most importantly the electronic patient record systems

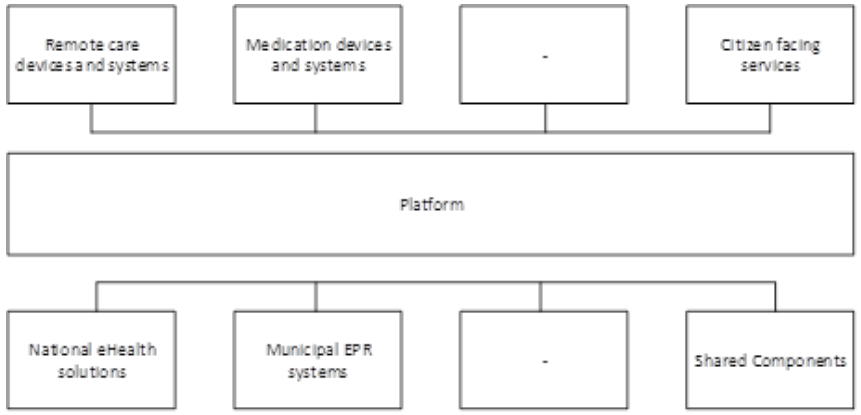

User
Devices and digital services
Municipality
EPR

Case assignment

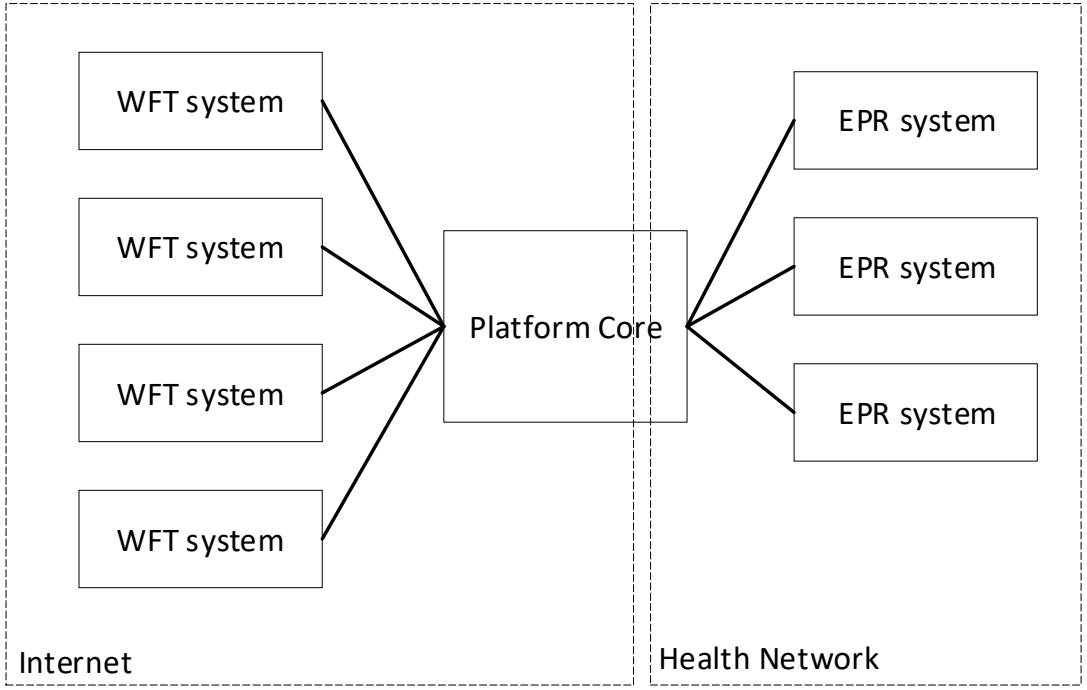
1. Sit in groups (or individually if you prefer)
2. Go to https://tinyurl.com/public-sector-platforms
3. Add a slide to the presentation
4. Add a group name to the slide
5. Create an architecture-overview of a platform that could be used for welfare technology, that fits with the policy goals


User devices
Device
Device
Device
Personal hub
Central hub (core)
Applications
Other document-based integrations

1


Remote care devices and systems
Medication devices and systems
-
Citizen facing services
Platform
National eHealth solutions
Municipal EPR systems
-
Shared Components

2


WFT system
WFT system
WFT system
WFT system
Platform Core
EPR system
EPR system
EPR system
Internet
Health Network

3

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