## Platformization & infrastructuring

platform-oriented infrastructures

(or infrastructure-oriented platforms)

### Case

- "Digital Renewal" IT programme (2012) of the South East Health Authority in Norway
- 75-80.000 employees
- 11 hospital trusts (40-50 hospitals)
- 4.000 (??) applications
  - Fragmentation
  - Costs
- MTUs (25.000 at OUS) & IoT, mobil apps,...

## Evolution of IIs in Helse Sør-Øst

- Started in the 70-ies, stand-alone applications
- Growth in no of applications
- Commiunication technology, integration
- Standardization:
  - 1990: Messages
  - 2003: regional application standards, national arachitecture
  - 2012: "consolidation of applications"

## Digital Renewal

- Consolidation one regional solution/installation
  - EPR: DIPS at OUS, consolidation
  - Lab: new solution, pilot rollout
  - Radiology: new solution, pilot rollout
  - Collaboration
  - Management support
  - Infrastructure: Outsourcing
- 2 BNOK/year

#### **Outcomes: EPR**

- DIPS at OUS.
- Running Oct. 2014
- 80 M Euros
- Integration with 55 applications
- Phase 2: 60 additional applications
- Standardizing databases ++
- Planning consolidation: 130 200 M Euros
- 700-1000 integrations
- Converting to new version: 90 M Euros
- 55

## Integration - history

- Ad-hoc
- Standardize messages plug and play: failed!!
- Hospital ESBs (BizTalk)
- Regional control of ESBs
  - Integration Factory
- Integration Platform: BizTalk & Internet Integration Server

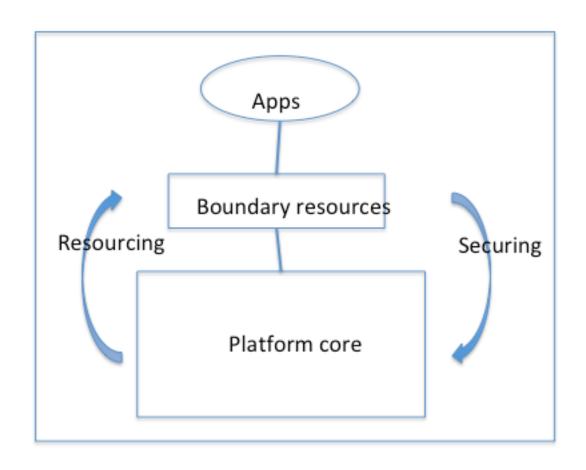
#### **Outcomes**

- Reorganization: RKL (RCS), CMS, CTS, ...
- DIPS consolidation: 1.2 1.8 BMNOK
  - Stepwise, limited strategy
- LAB and Rad: troubled
- Infrastructure: stopped
- Østfold: Outside DR, successful
- Others: Imatis (whiteboards), MedCLoud, ...
- Evolution of the Integration Platform

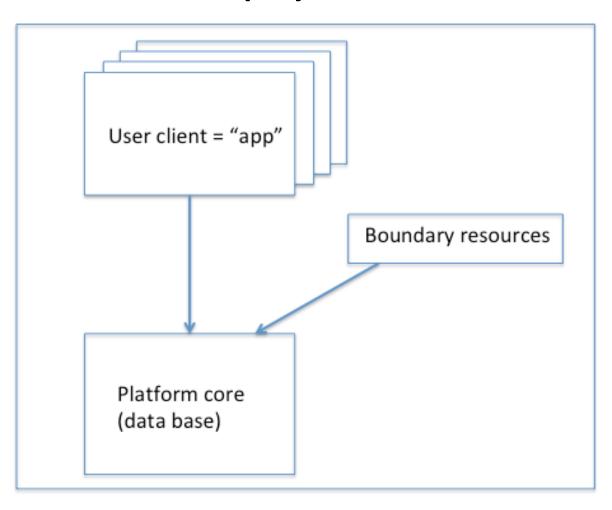
## Lessons learned

- Failure of "Application Theory"
- Positive: Emerging (generative) platformoriented infrastructure

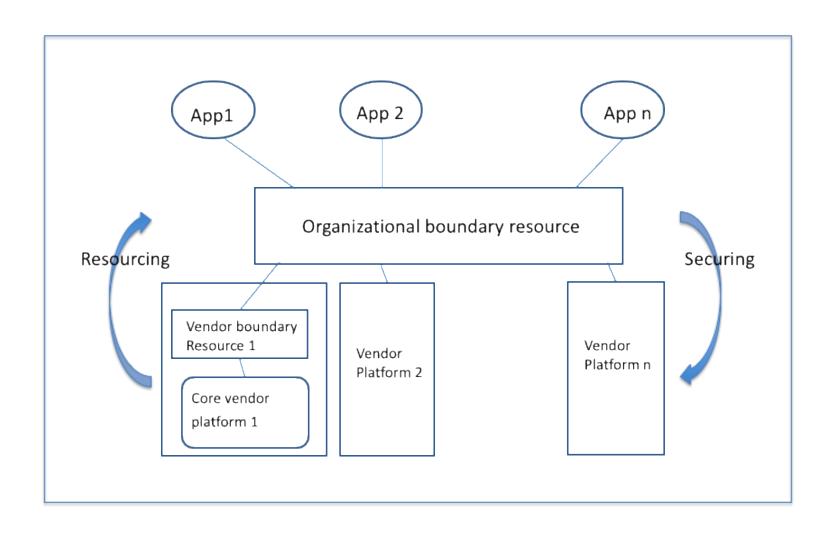
## **Platforms**

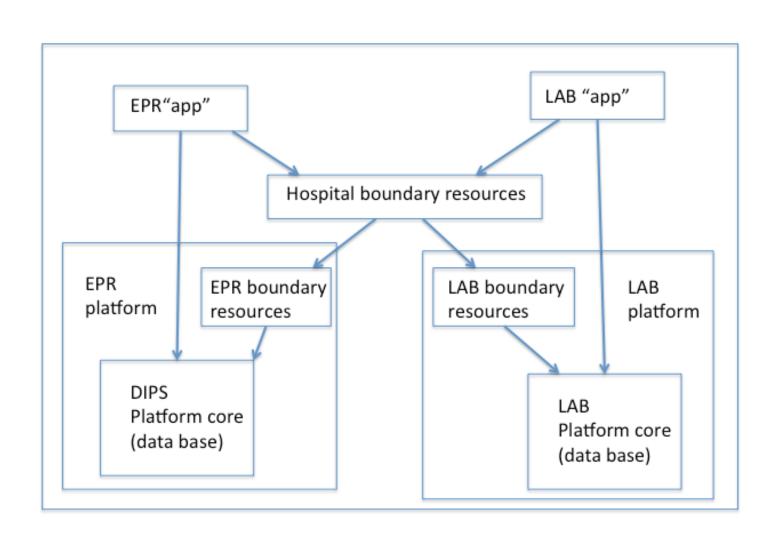


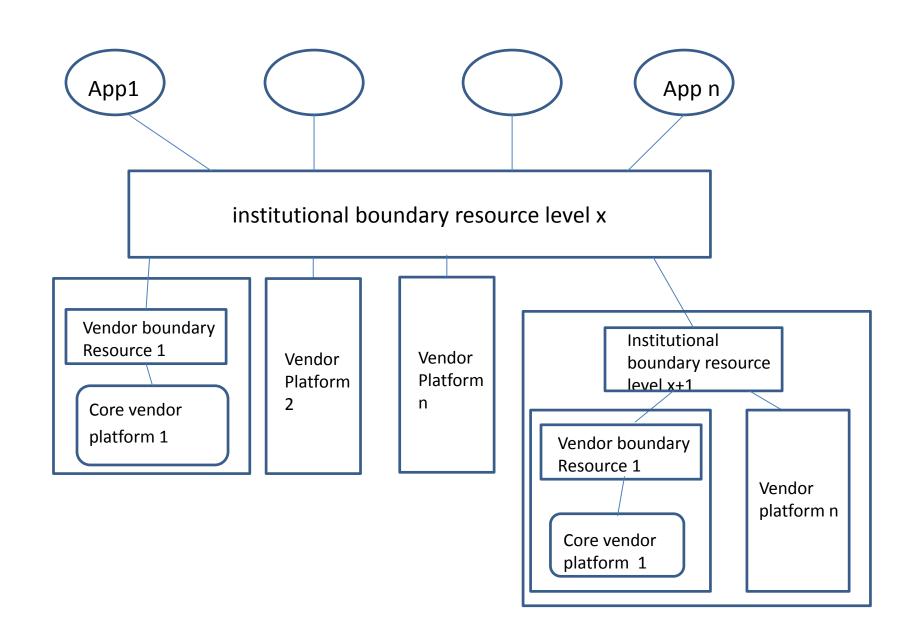
# Pllications (silos) as Platform ecpsystem

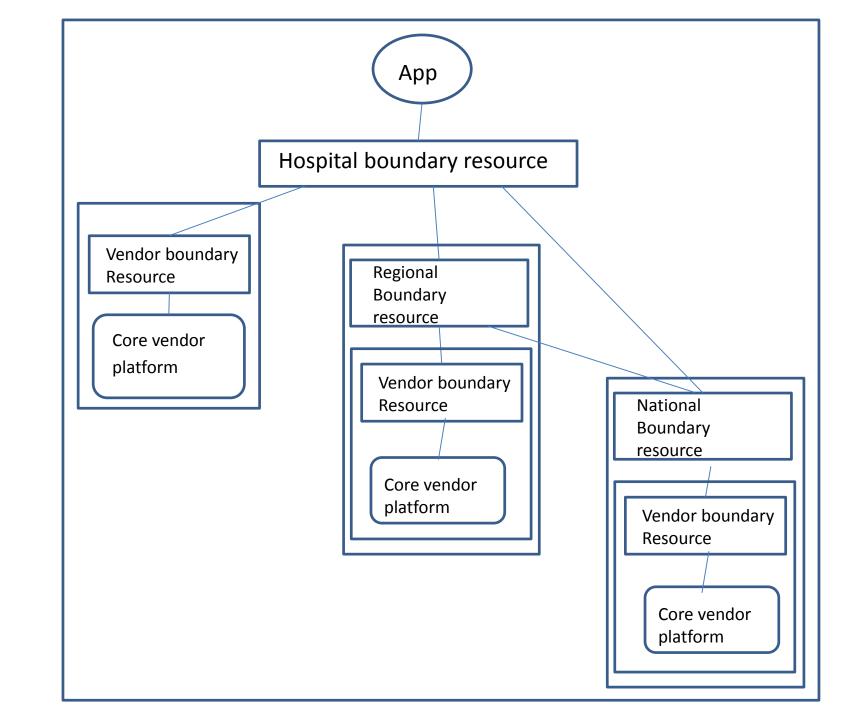


# Multi-platform infrastructure









# II evolution = managing tensions

#### stability

- Integration
- Standardization, uniformity
- Centralization

#### change

- Modilarization
- Variety
- Decentralized control