Legacy is sexy and this room is hot

Story

Drivers

Tips

Agile / Scrum

Solution

SOA / Integration

Coaching

Quality

Enterprise Java

Viktor Grgić @vgrgic, LeanArch.eu

Why this talk?

* Remove from tech dictionary words:
  * generic
  * reusable
  * flexible

Large software projects today

* ...are replacing something **old for new**.
* Many of them have single goal: **Replace** outdated **technology** with new one.
* Many of them are huge investments with long term promises of so called **flexibility in future**.
* ...and if your project is not one of these, then you're maybe creating a **christmas tree**. Looks nice, but it is dead very soon.

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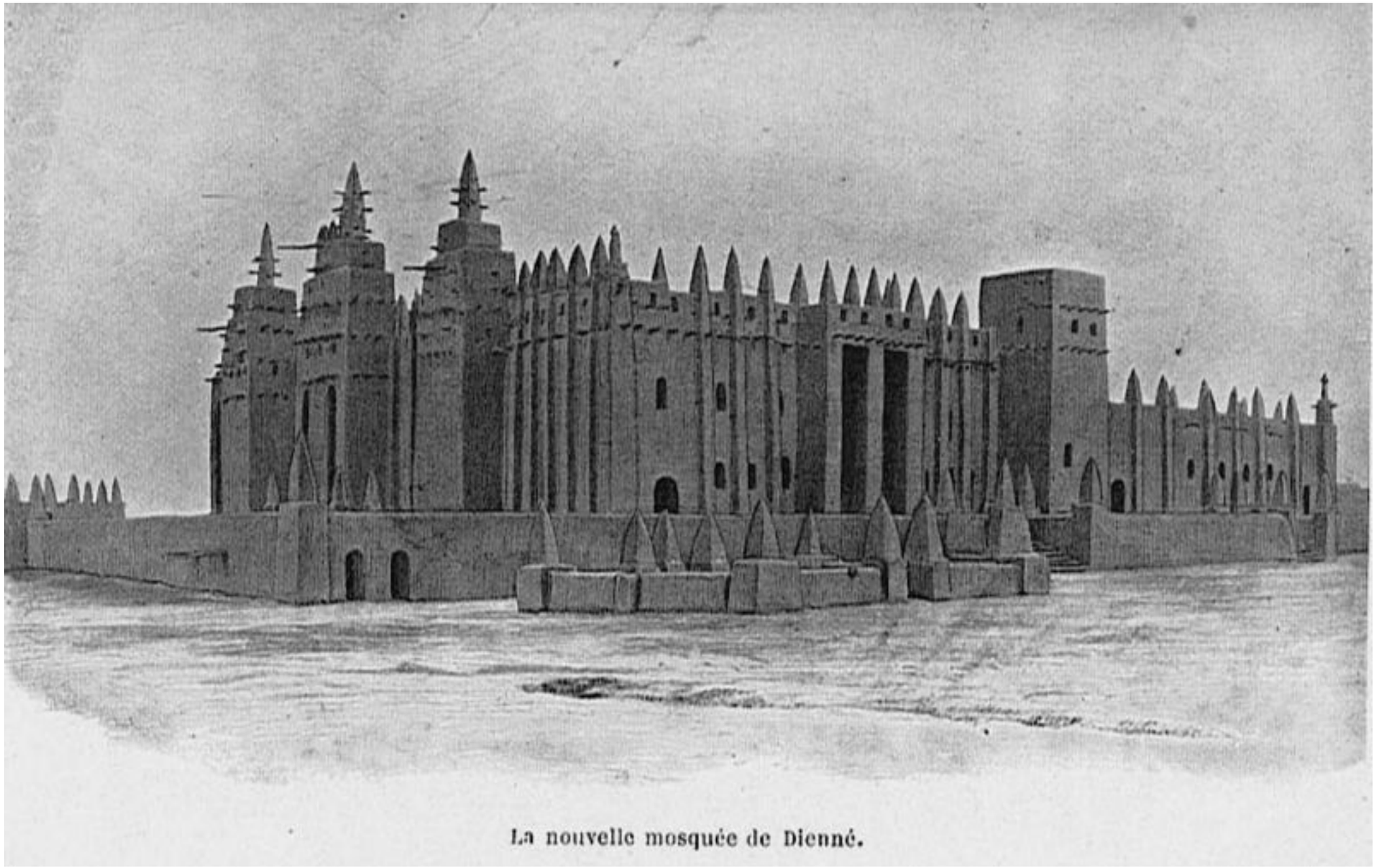
Great Mosque of Djenné, Mali ruins
1828

Great Mosque of Djenné rebuilt
1895



Great Mosque of Djenné
1910

Esha Chiocchio / National Geographic

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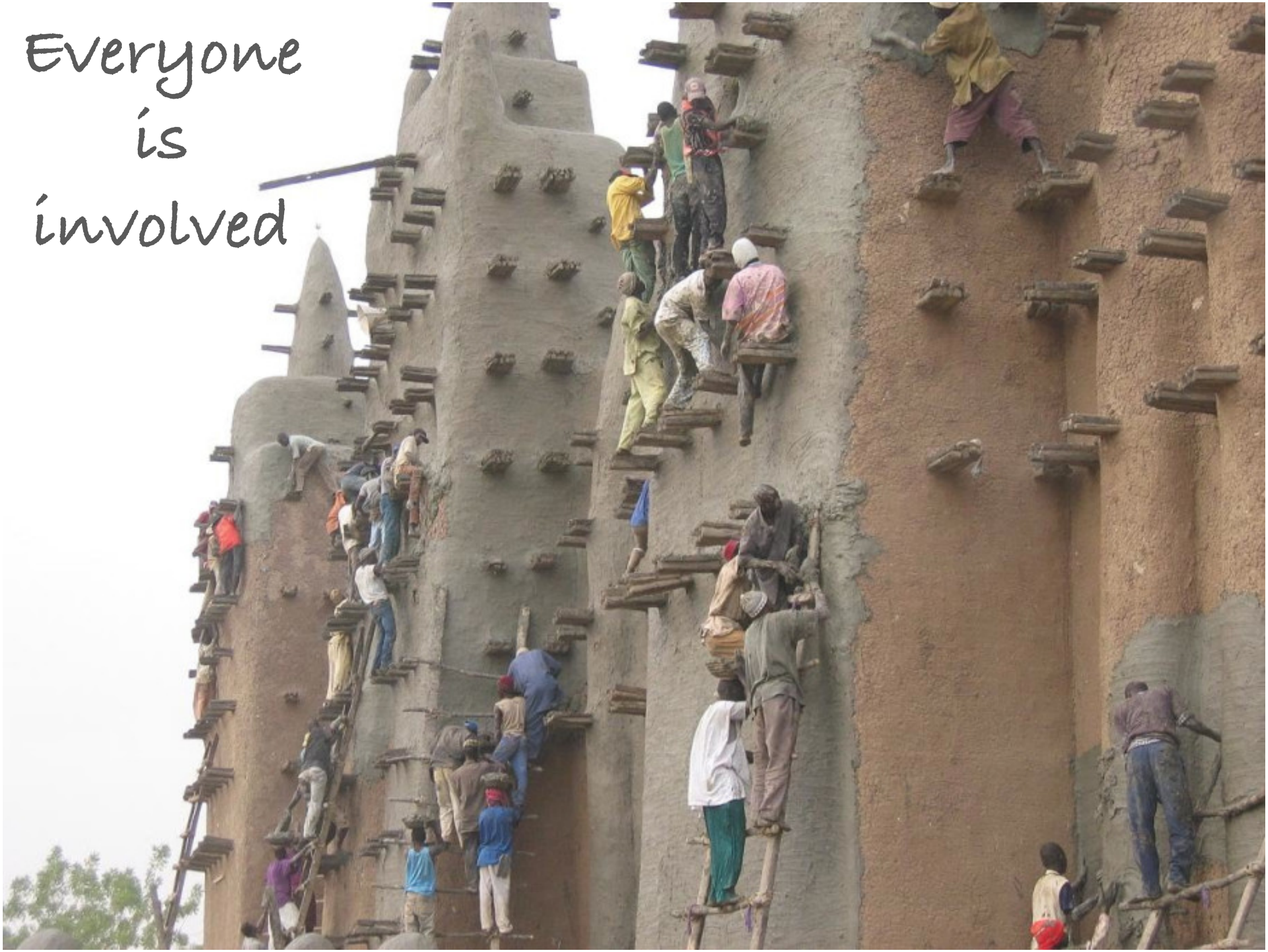
Everyone is involved



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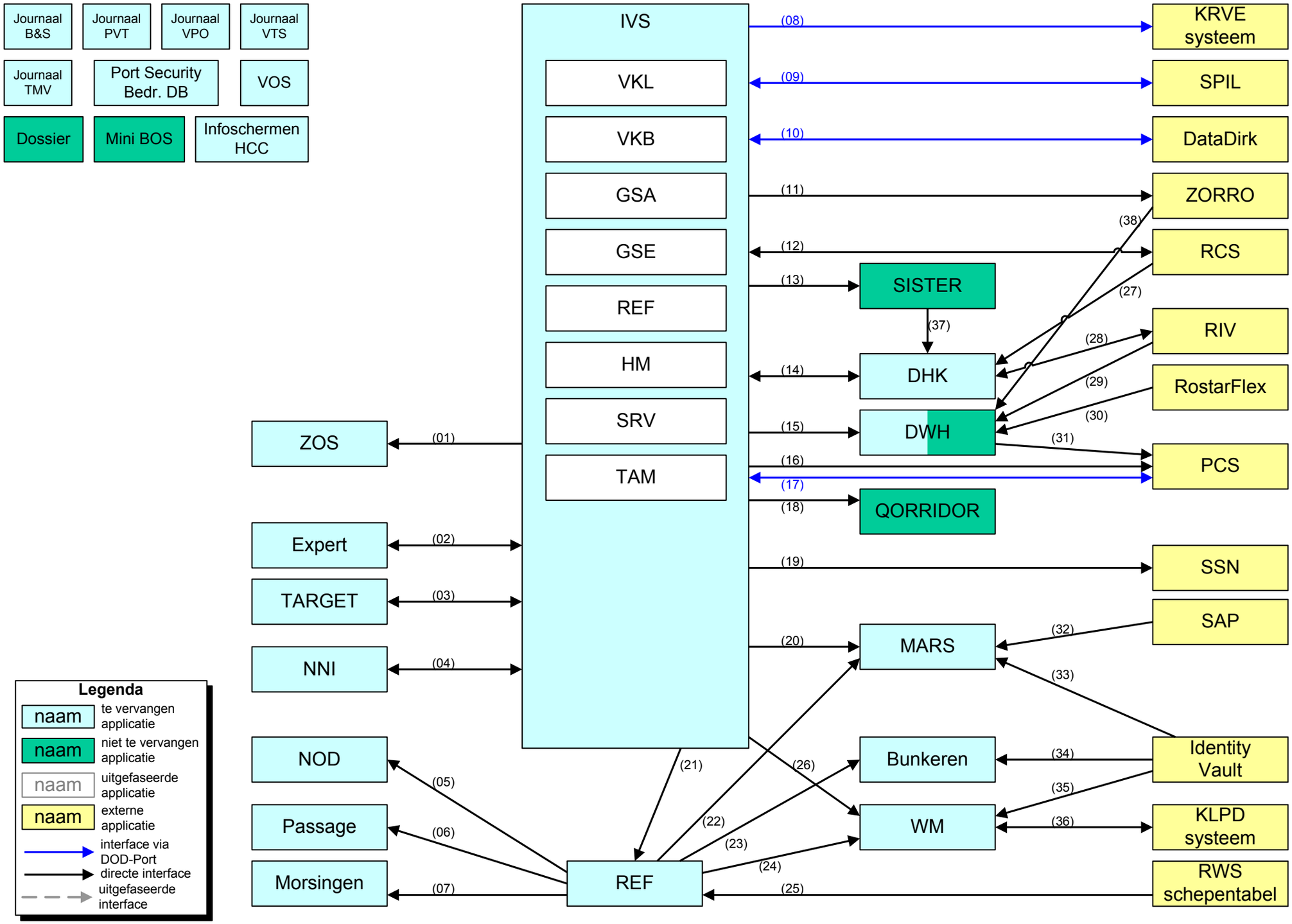
About 6 years ago...

24/7 system for traffic management, transport, environmental safety and crisis management.

Port of Rotterdam, Project HaMIS

1. Replace outdated traffic management system
2. Support the port of Rotterdam expansion

old



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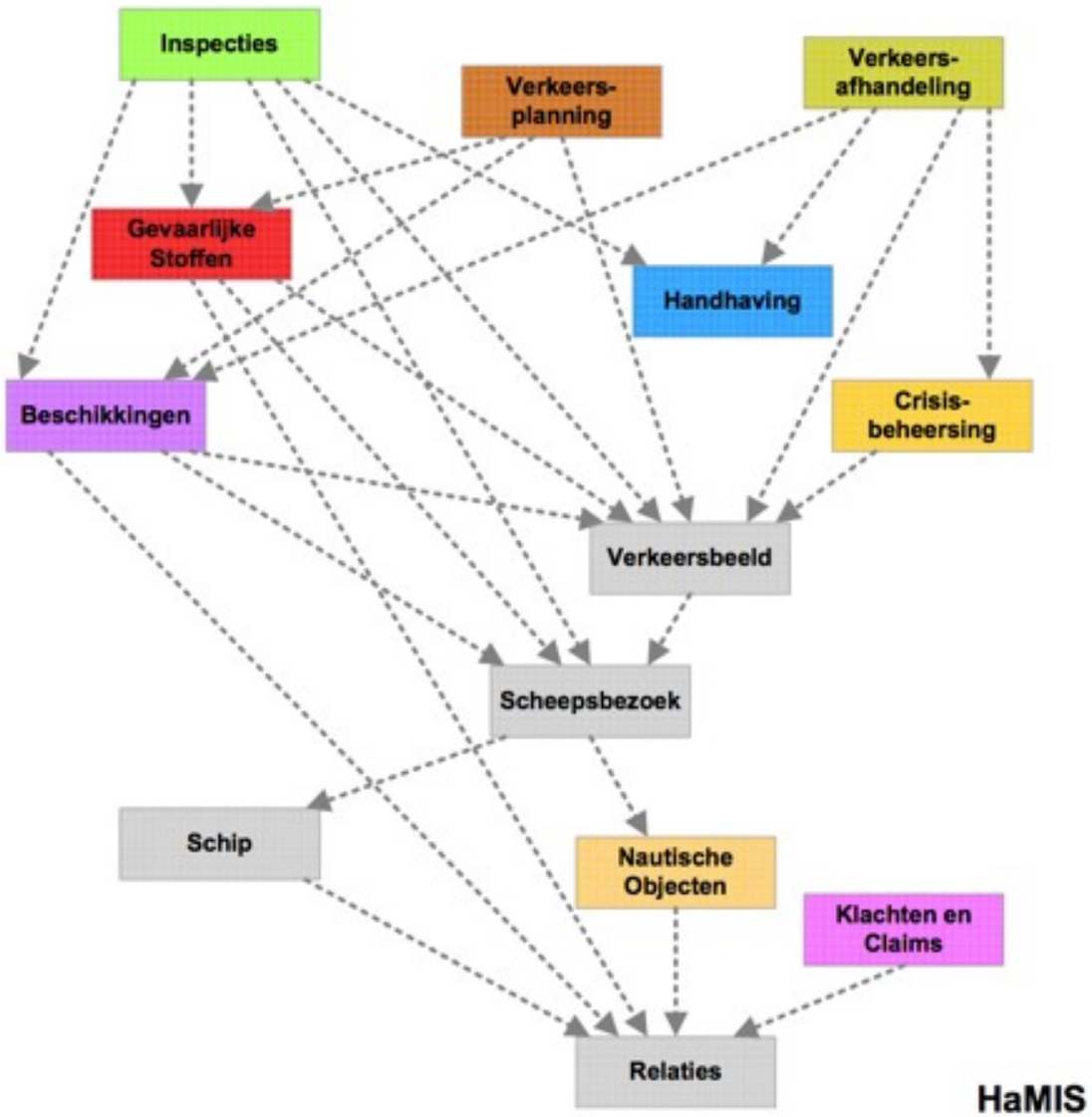
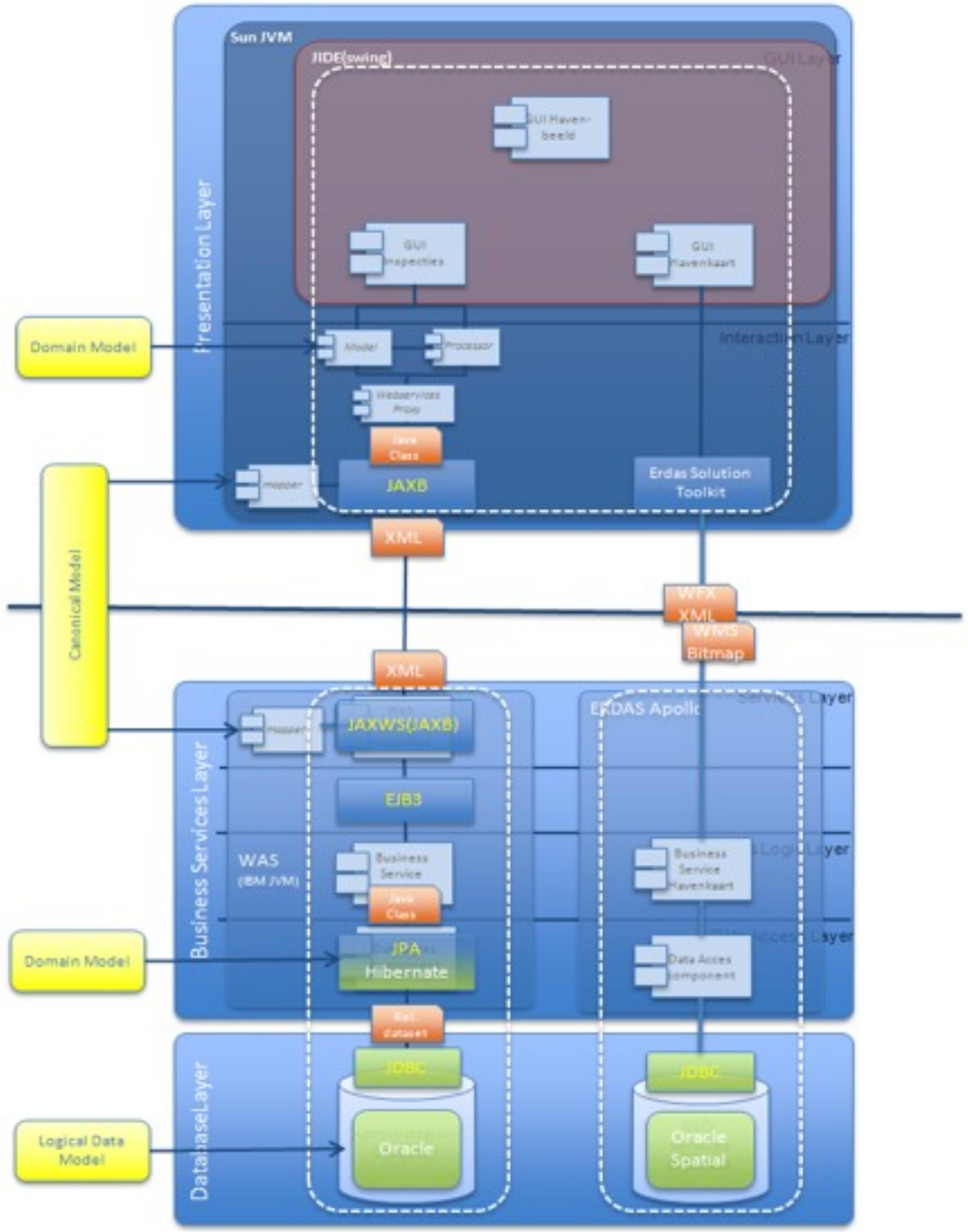
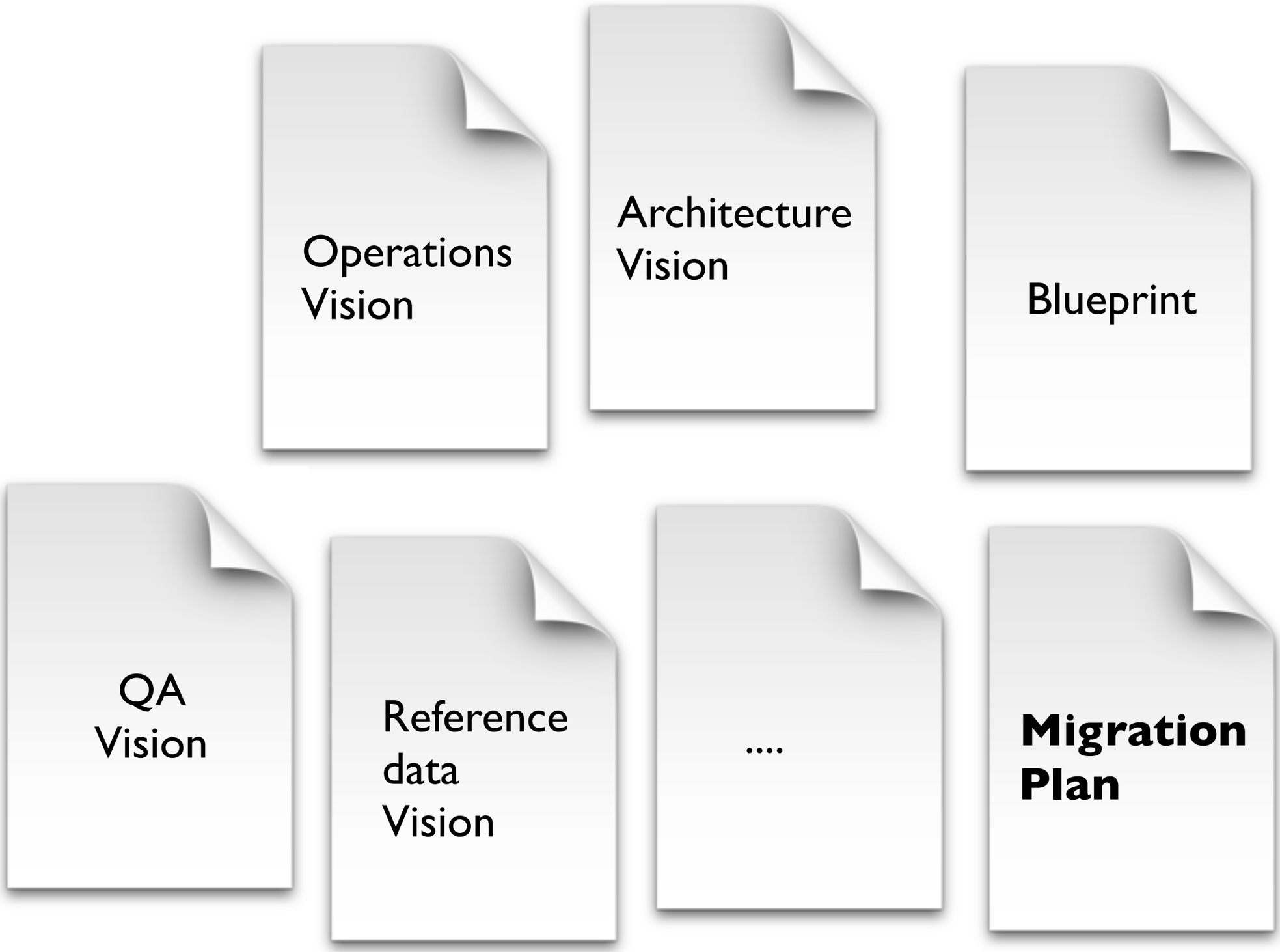
New (as defined about 5 years ago)



HaMIS



Lots of documents

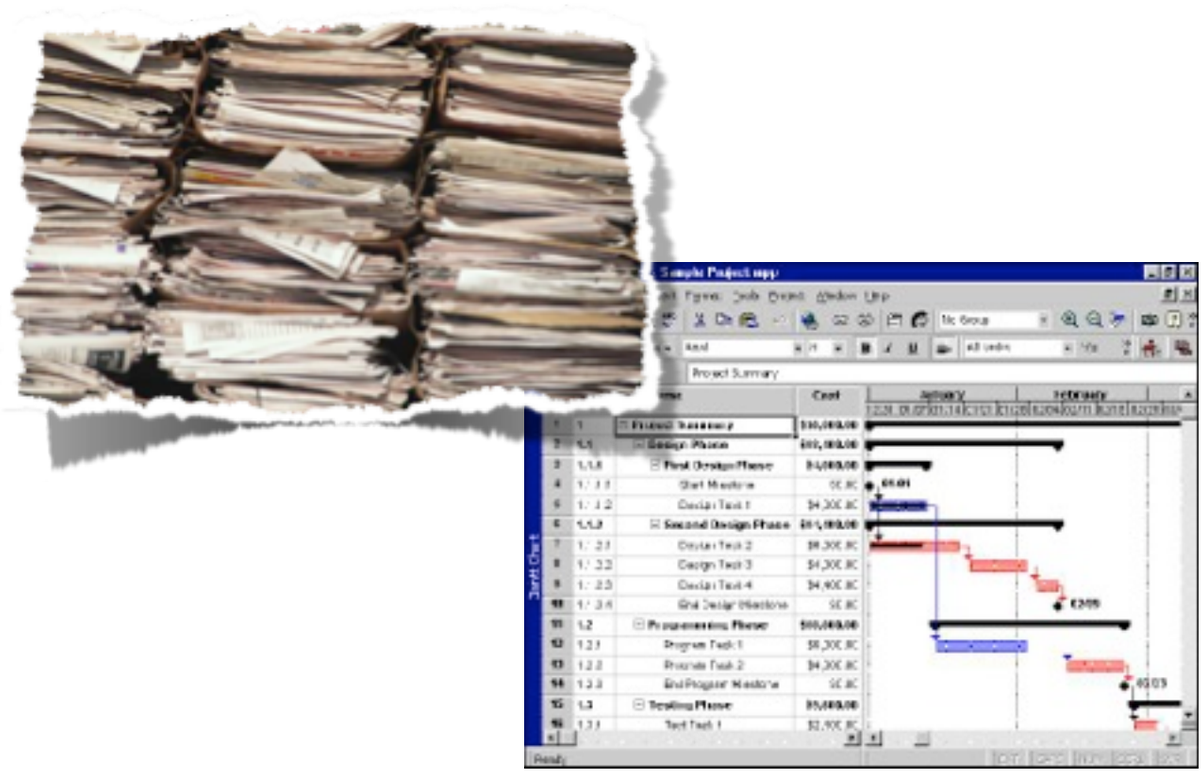


We just need...

100+ identified use cases

Project Start Architecture

Q&A department



Architecture with 4 layers & 6 subsystems

BPEL process server

6 architects

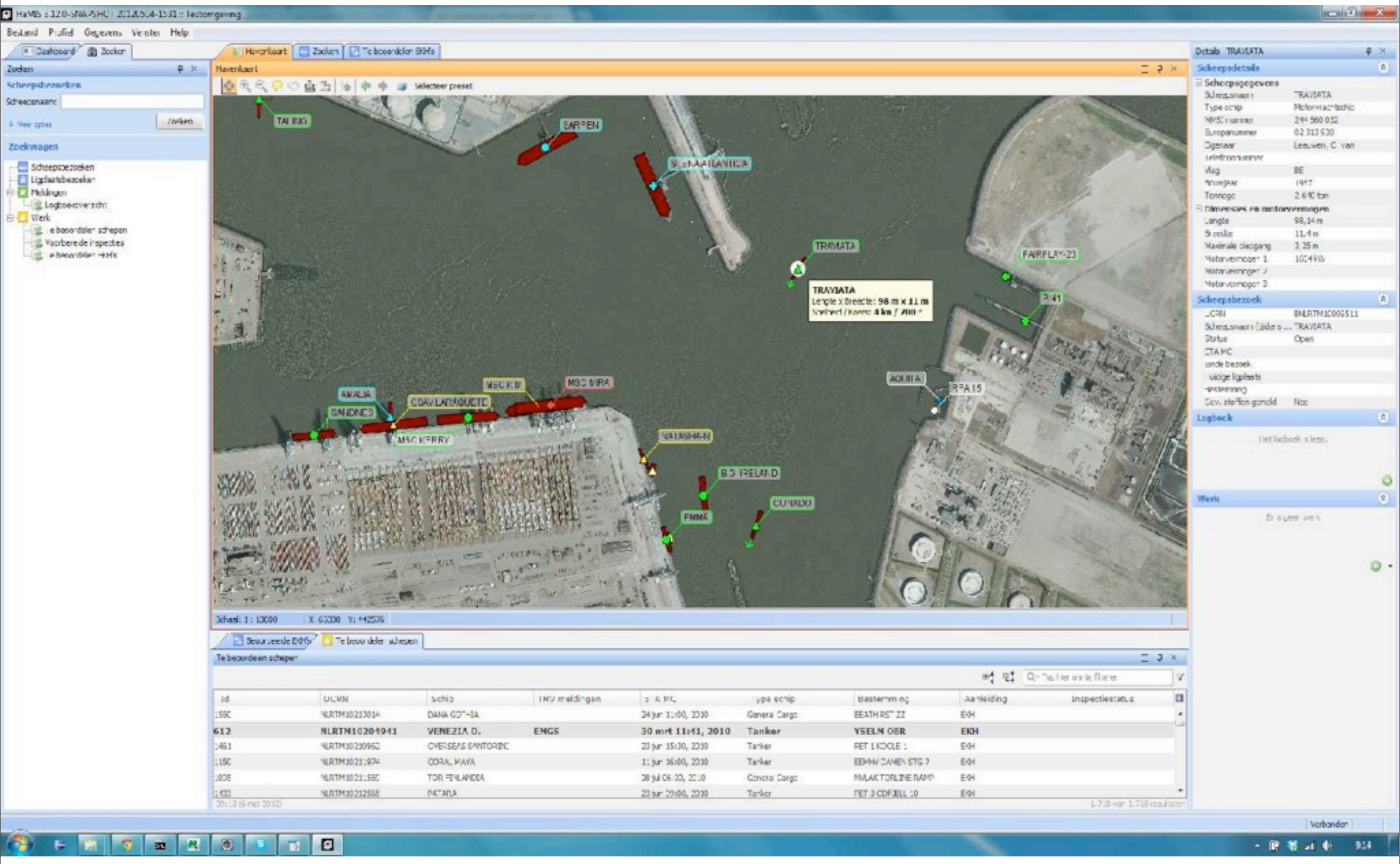
RUP and Scrum but

800+ architectural decisions

1 Use Case in 6 months

(Re)Started

* Ship inspections process
* Little risk
* **Significant business value**
* Migration stuff completely postponed
* Agile / Scrum introduction
* One sprint later, useful functions delivered in **production**



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Welcome to double legacy!

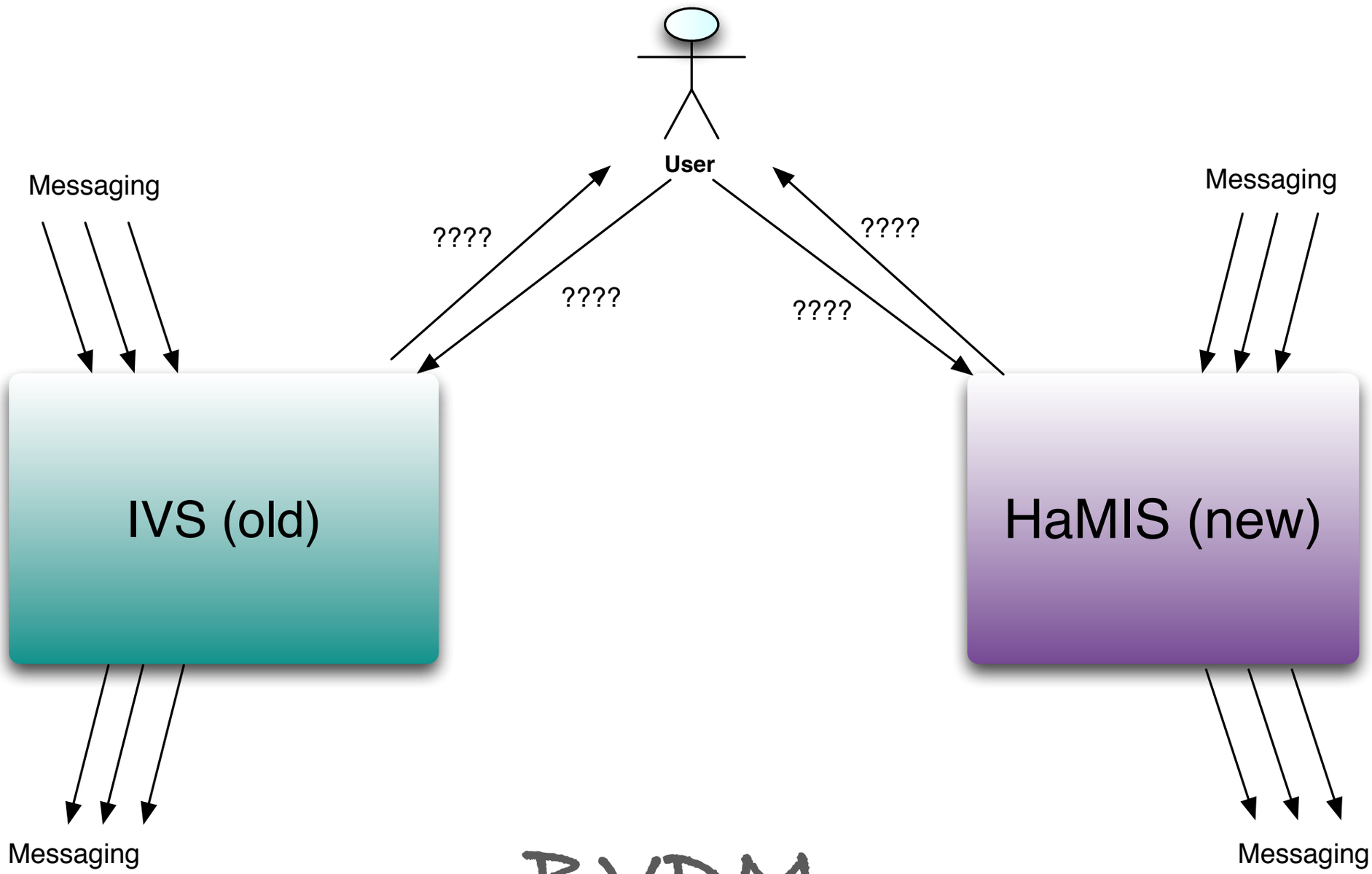
Any decision that can be postponed is postponed

...also the migration path

Which path to choose?

* Should we do all reporting first in the new system?
* Which part of the system should we replace first?
* How do we prevent a big bang?
* Where to start?
* **We followed ships in harbour!**

Migration without a plan

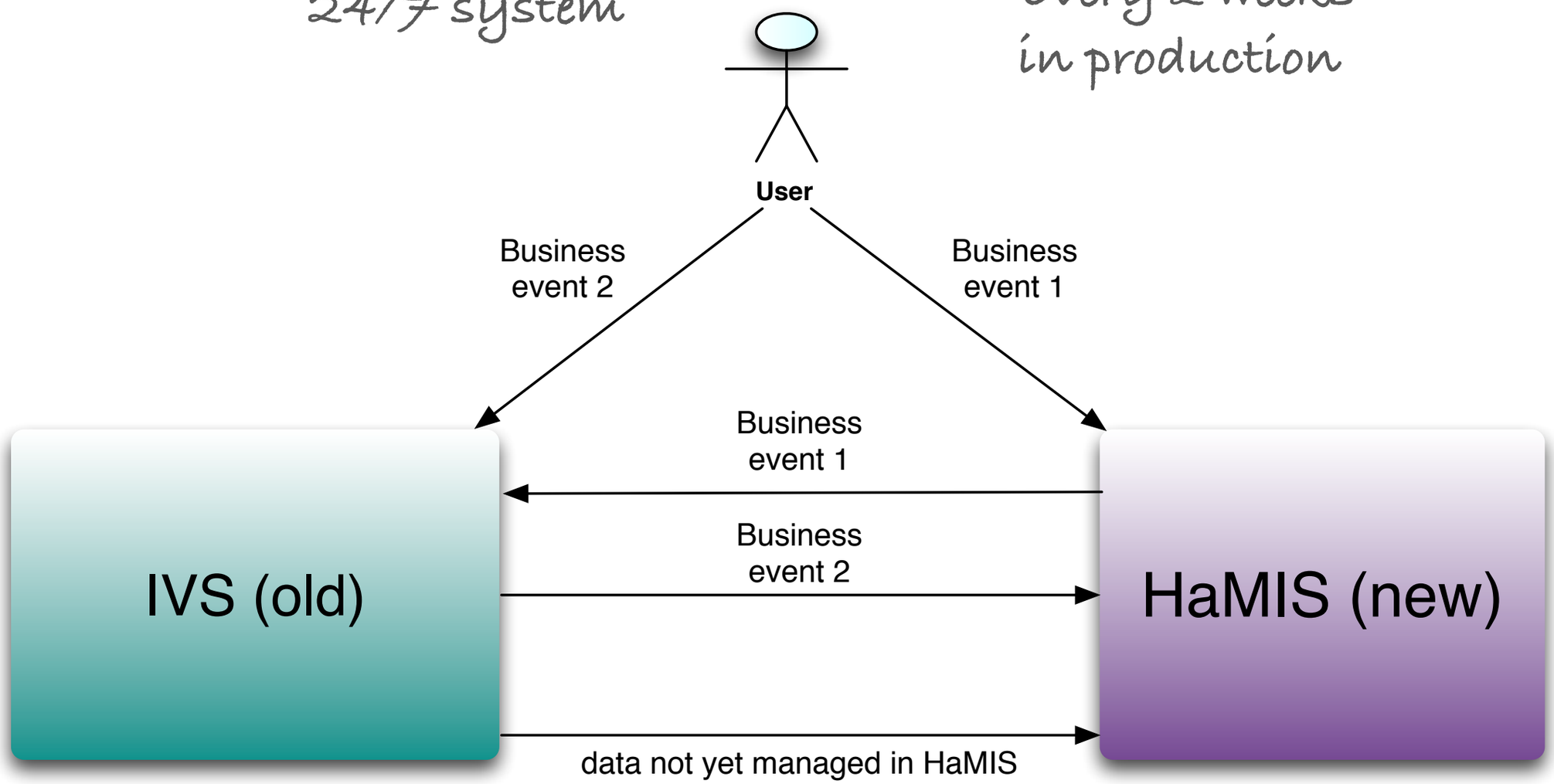


BVDM

Migration = Strangulation

24/7 system

Every 2 weeks
in production



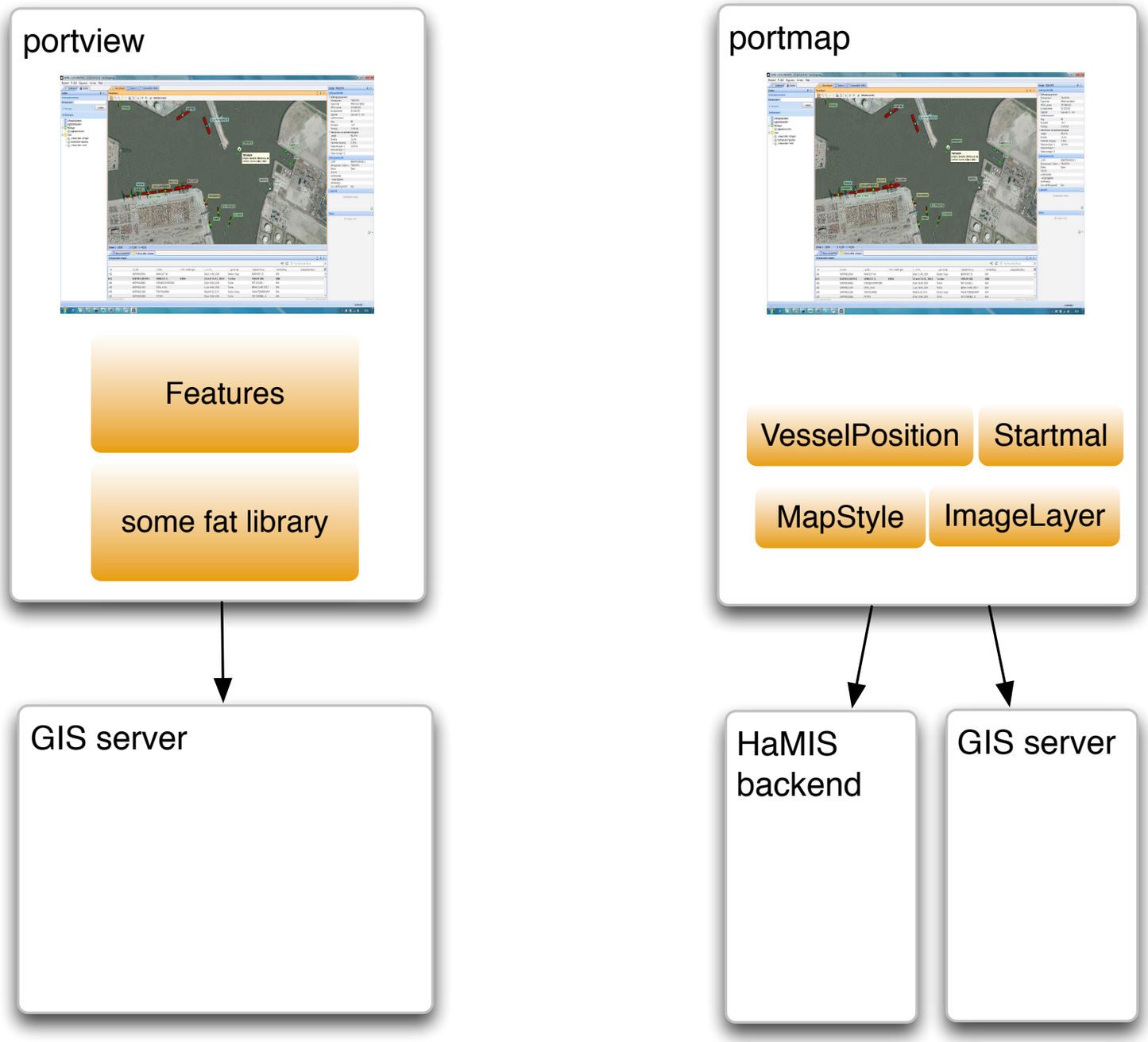
"The most important reason to consider a strangler application over a cut-over rewrite is reduced risk." - Martin Fowler, StranglerApplication

We banned term:
Generic or Reusable
on every level

Aren't you creating a mess?

* One team delivers the simplest possible solution
* Another team delivers another similar even simpler possible solution :-)
* ...and maybe third one.
* Then, we get together and talk about what you learned and which one is really the best in **this context**.

Example


portview
Features
some fat library
GIS server
portmap
VesselPosition
Startmal
MapStyle
ImageLayer
HaMIS backend
GIS server

Delivering value with partial foundation or DVWPF :-)

Examples

* Data model with production data is gradually extended and continually refactored
* IBM Websphere replaced by JBoss
* User interface redesigned 2 or more times
* SOAP replaced by binary Hessian
* Core domain model concepts (gradually) redesigned: inspection checklist, vessel visit vs. vessel

Each team is a cross-functional team and has intensive contact with end-users

Some challenges

* Teams want to understand business first, before accepting epics and stories.
* Continuous discussion about priorities
* Making business value SMART.
* Technical complexity is **NOT** a real challenge.
* Should we spend (or waste) money on synchronization vs. postpone going live.

65 sprints later;
Almost all of them
delivered business
value (functions
in production)

Software Quality ★★★★★

Agile (Fowler) ?? ★★★

Lessons learned

* Never stop delivering business value.
* Deal with migration gradually / strangulation
* Everything in software can be soft even data / domain model!
* Trust in business / context driven approach above standard / generic solutions
* Involve everyone to solve complex problems

Software quality

Agile Scrum

Business events

DevOps

Liquid architecture

User domain

Context

Thank You !

You work in Hong Kong?
Please contact me!

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