

# Helse Vest – IBM - Project LIBRA

## From Waterfall to Agile

IBM Part 1

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## SBN Projects Day

21.04.2021

Mohit Saggar

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# IBM og SAP etablerer ny infrastruktur for Helse Vest

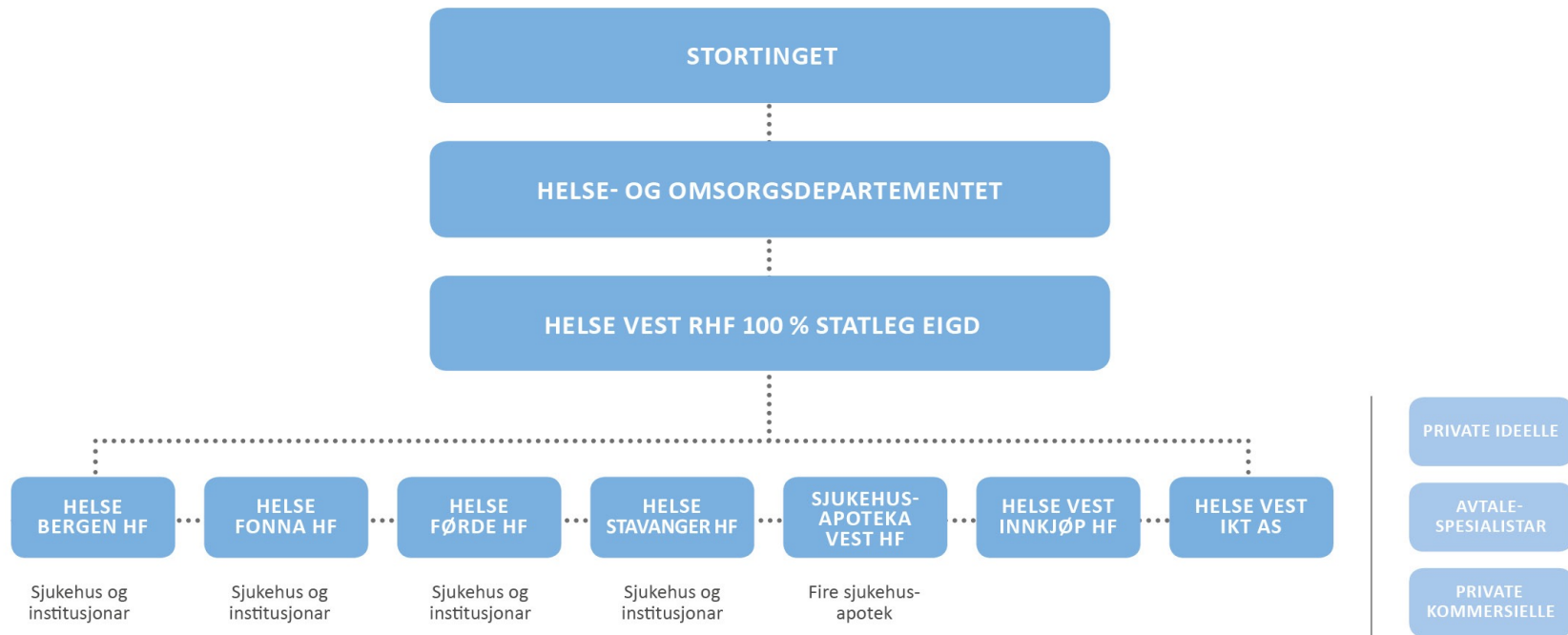


*Robuste driftssystemer gir grunnlag for effektiv drift av sykehusene. Gjennom avtalen med IBM og SAP får sykehusene i Helse Vest tilgang på det nyeste innen økonomi- og logistikksystemer.*

**Oslo, 1. juni 2017:** Helse Vest har inngått en avtale med IBM og SAP til en verdi av 350 millioner kroner. Avtalen innebærer leveranse og innføring av et omfattende økonomi- og logistikksystem, samt forvaltning, drift og vedlikehold av løsningen.

[Helse Vest](#) er det nest største regionale helseforetaket i Norge, og har det overordnede ansvaret for spesialisthelsetjenesten i Rogaland, Hordaland og Sogn og Fjordane. Helseregionen har et pasientgrunnlag på cirka 1 million mennesker, og mer enn 28 000 ansatte.

# About Helse Vest



# Key numbers 2019 and mission

Treatment base of **1,1 million** inhabitants

**29 000** employees

**50** hospitals and institutions

Budget of **30 billion NOK**

**662 million** in profits on company code level  
(foretaksnivå)

**340 million** invested in software and licenses, and  
projects under development



# LIBRA

# Project Setting

When logistics becomes a matter of life and death

Greenfield SAP S/4 HANA  
implementation

The customer has no  
prior SAP experience

Local team

Supported by Global  
Delivery Center in  
Manila, Phillipines

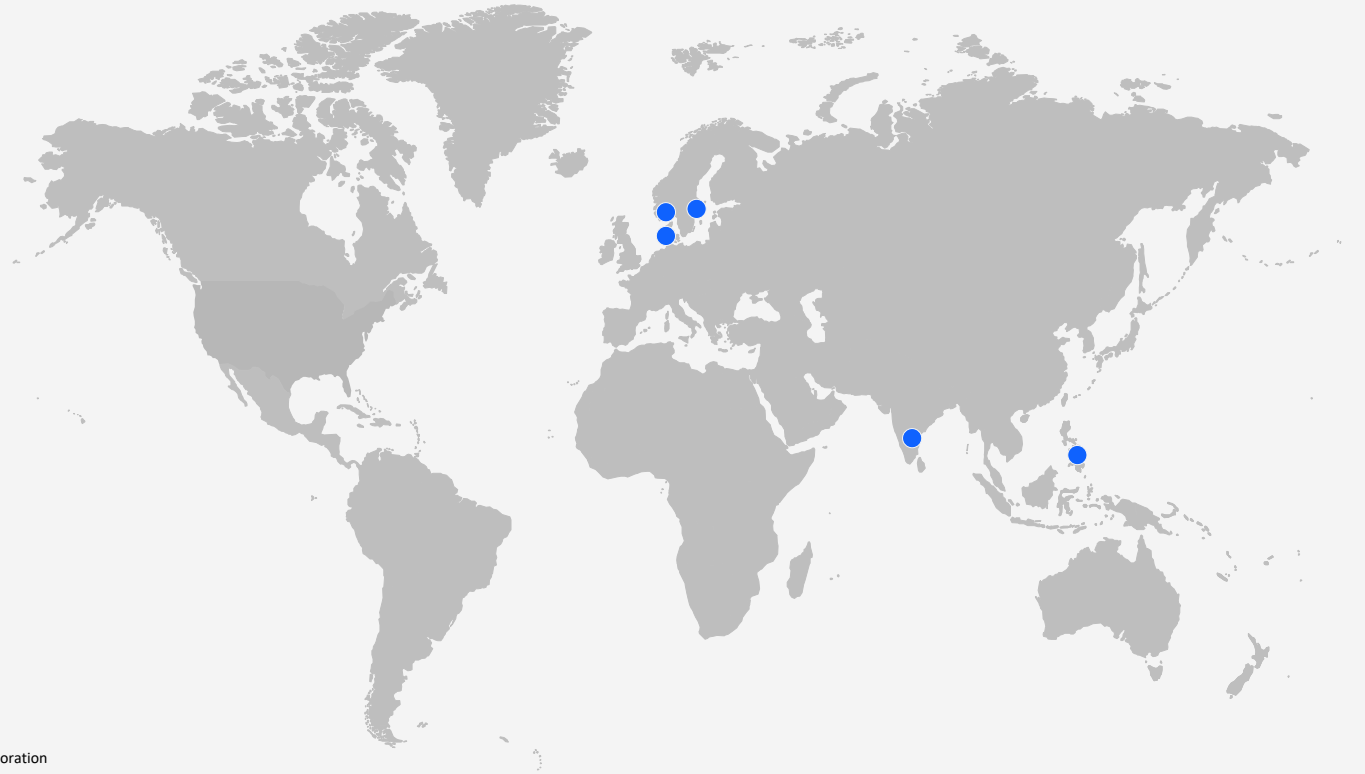
Fixed price contract

# Team

Global Delivery in Manila

Local team from the  
Nordic countries

IMI in India



# Team

## Local team

Local team consisting of resources from all over the Nordic region.

Solution Architecture

Implement and document design

Quality assurance and clarifications of solution

Dialogue with Helse Vest

## Global Delivery Center

Global delivery team with a huge cohort of skilled SAP resources in Manila.

Technical specifications of development objects

Set up and configure the solution

Unit test solution

AMS – Application Management Service

## IMI in India

Delivering infrastructure services

In charge of technical operations, such as monitoring, server maintenance etc.



# Why commit to this delivery structure?

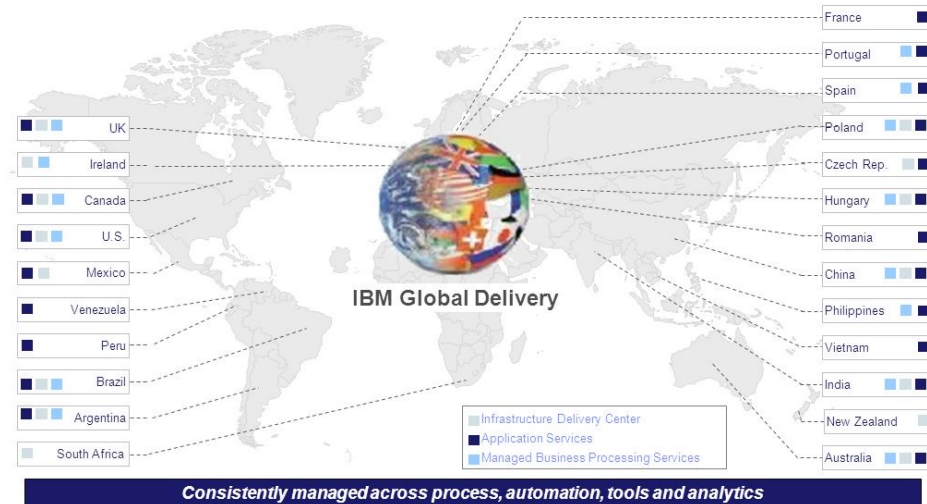
A project that needs many resources where few possess the necessary expertise in Norway, therefore the delivery model is based on global resources

The expertise of the GD team reflects the entire solution from functional, development, integration to testing, conversion and SAP basis.

Their competence, skills and experience generally hold a high level

Secondary is keeping costs down

## IBM's Delivery Centers



*Consistently managed across process, automation, tools and analytics*

© 2011 IBM Corporation

# Risks and measures related to the delivery model

## Risk (1)

**Distance and cultural differences** entail that the complexity of communication of needs and expectations increases

## Counteracting measures

Team leads and selected consultants are in Norway during the specification phase and take part in discussions and preparation of prototypes.

The dialogue with Helse Vest is mainly in Norwegian. Much of the documentation is also in Norwegian and is translated for GD

## Risk (2)

Helse Vest loses ownership of the configured solution when it is developed in Manila. This is because the daily communication between those who set up the solution and Helse Vest does not take place

## Counteracting measures

This is compensated through many demo and prototype of the configured solution. The purpose is both to maintain ownership of the solution.

Demos are used to clarify questions and make choices regarding final solution

## Risk (1)

**Distance and cultural differences** entail that the complexity of communication of needs and expectations increases significantly

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## Risk (2)

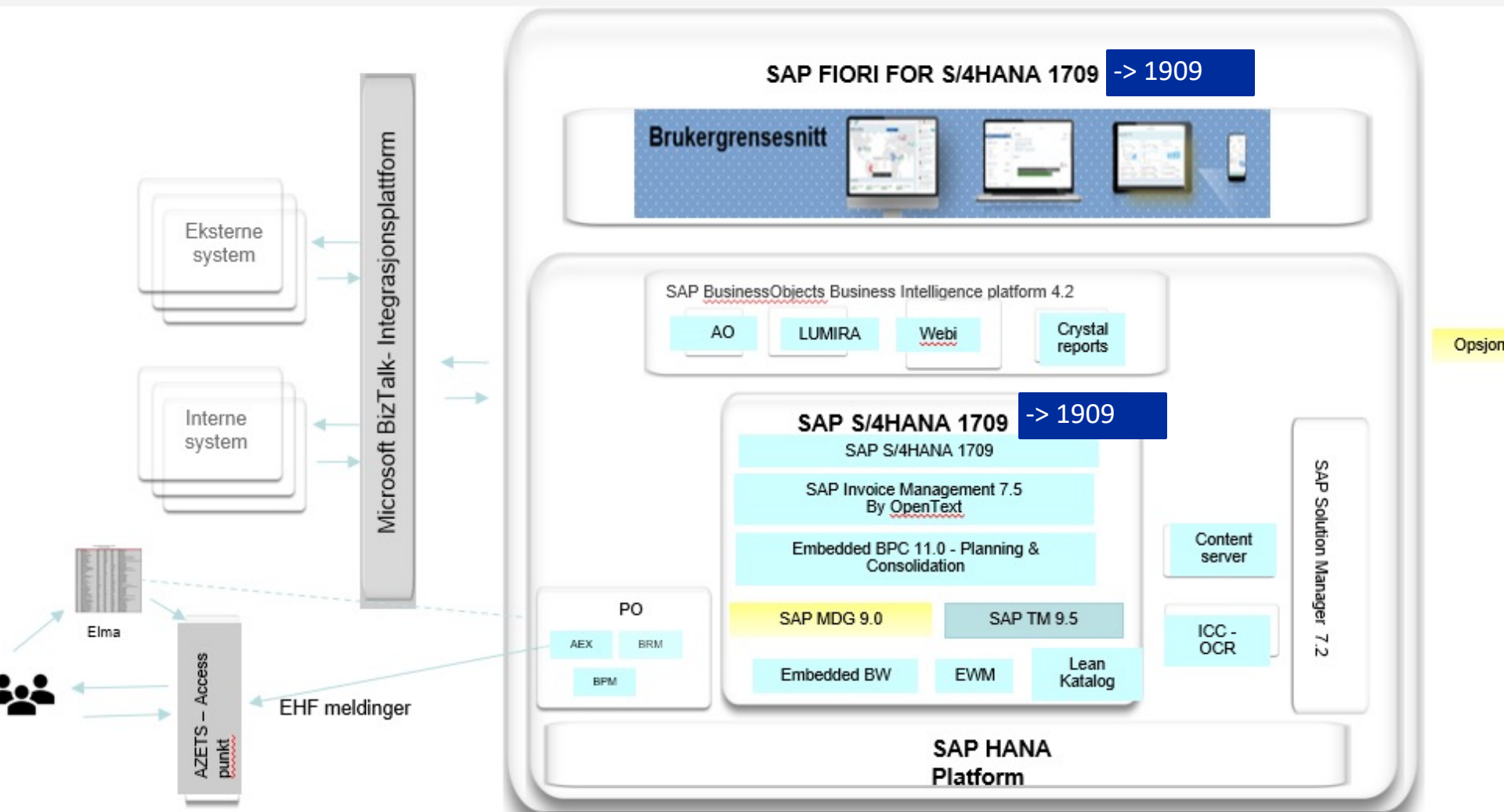
Helse Vest loses ownership of the configured solution when it is developed in Manila. This is because the daily communication between those who set up the solution and Helse Vest does not take place

## Counteracting measures

This is compensated through many demo and prototype of the configured solution. The purpose is both to maintain ownership of the solution and for IBM to clarify questions that IBM has regarding the product

Demos are used to clarify questions and make choices regarding final solution

# Architecture



# Methodology

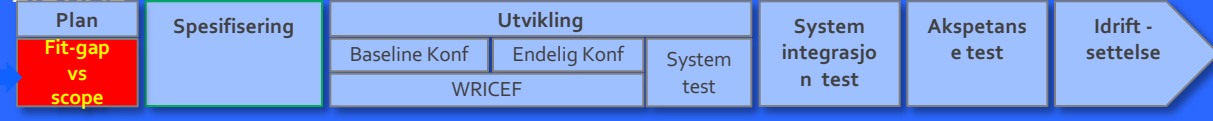
# From LIBRA 1 to LIBRA 2

## LIBRA1



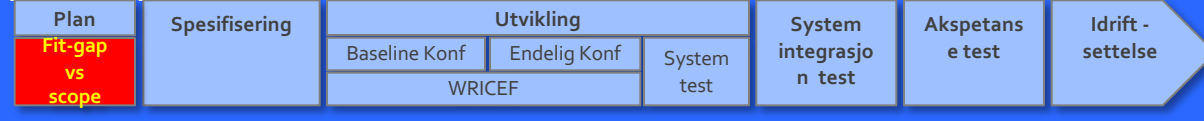
Løsningsfase

## LIBRA2



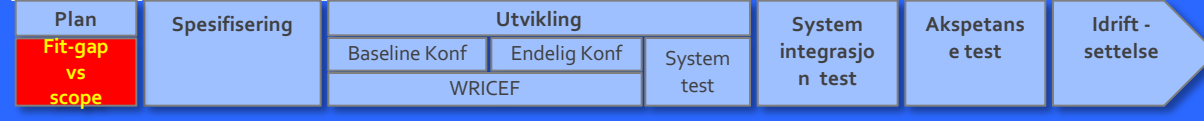
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## EWM&TM



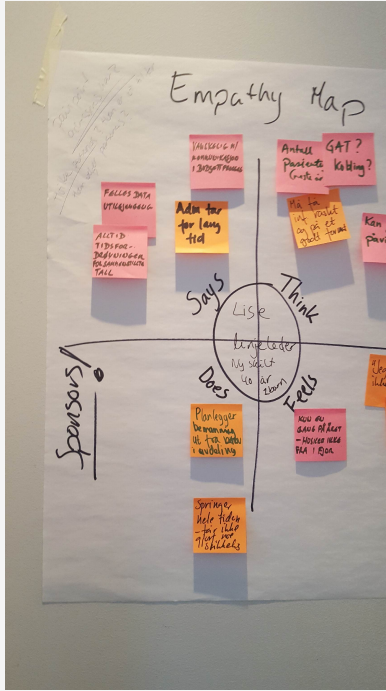
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## FORSYNINGSKJEDER



L1 scope brukes som mal i fit/gap analyser videre

## Detailed design obtained through Design Thinking



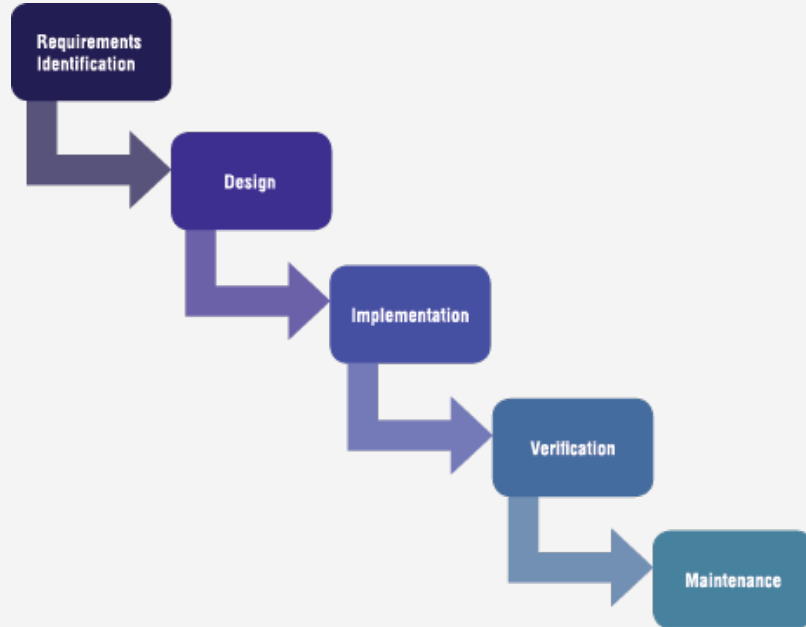
Common understanding of end-users and tasks the user performs

Ensure that the project focuses on the contract's ambitions and the large, but achievable, problems and solutions for users

Unified implementation of WS across subject groups

Meet requirements in the contract that state we will use method to ensure end user quality

Identify WO W factors – internal buy-in in the organization



The agreement dictated waterfall with approved design before the start of development

Methodology at IBM based on waterfall at contract signing

# New working method – LIBRA 2

An analysis of experiences and lessons learned L1 led to a need for improvements before initiating LIBRA 2

## **Ambitions**

- Reduce overhead in comparison to LIBRA1
- Finalize and see the solution as early to get acceptance in IBM and Helse Vest
- Test and approve as early as possible
- Better control of progress

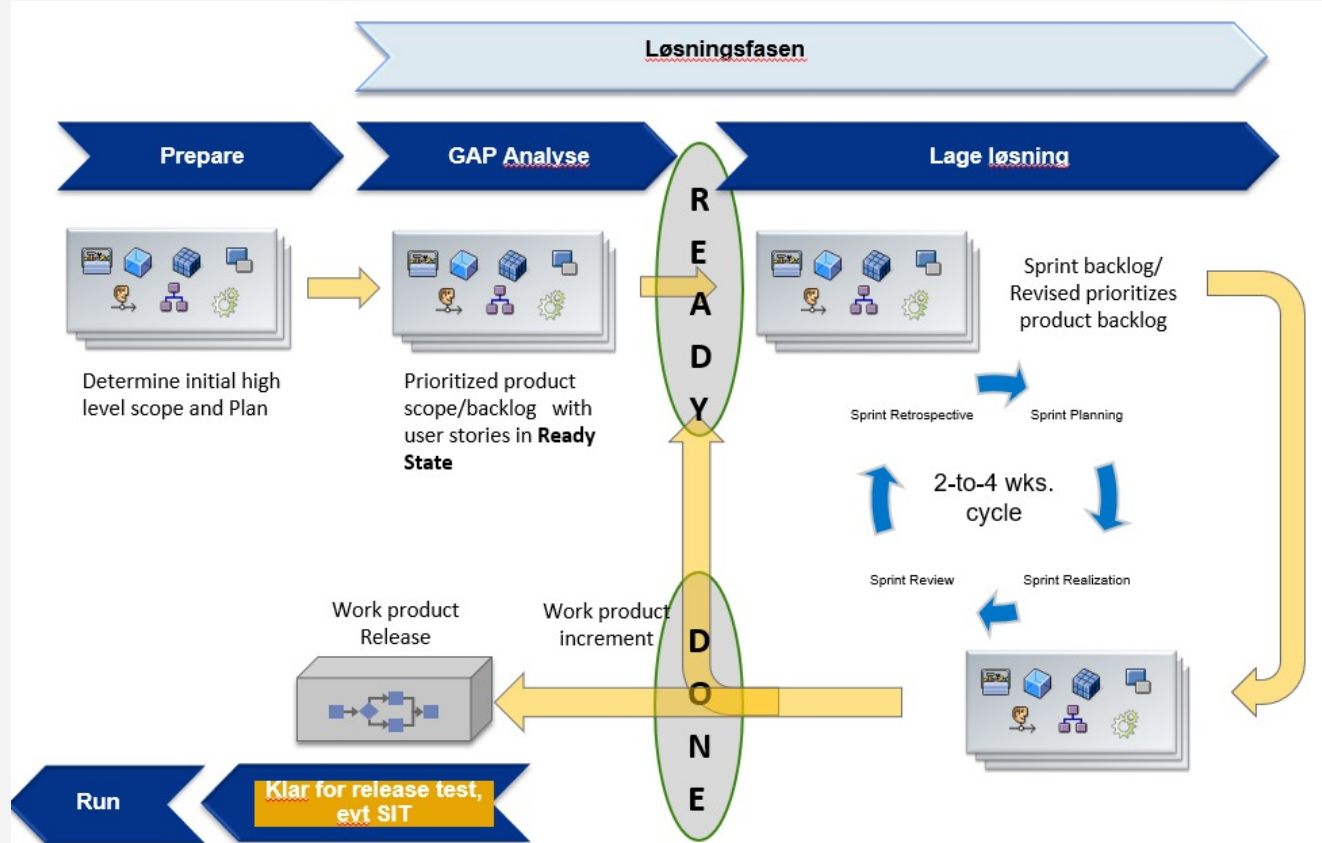
## **IBMs proposal**

- Go Agile

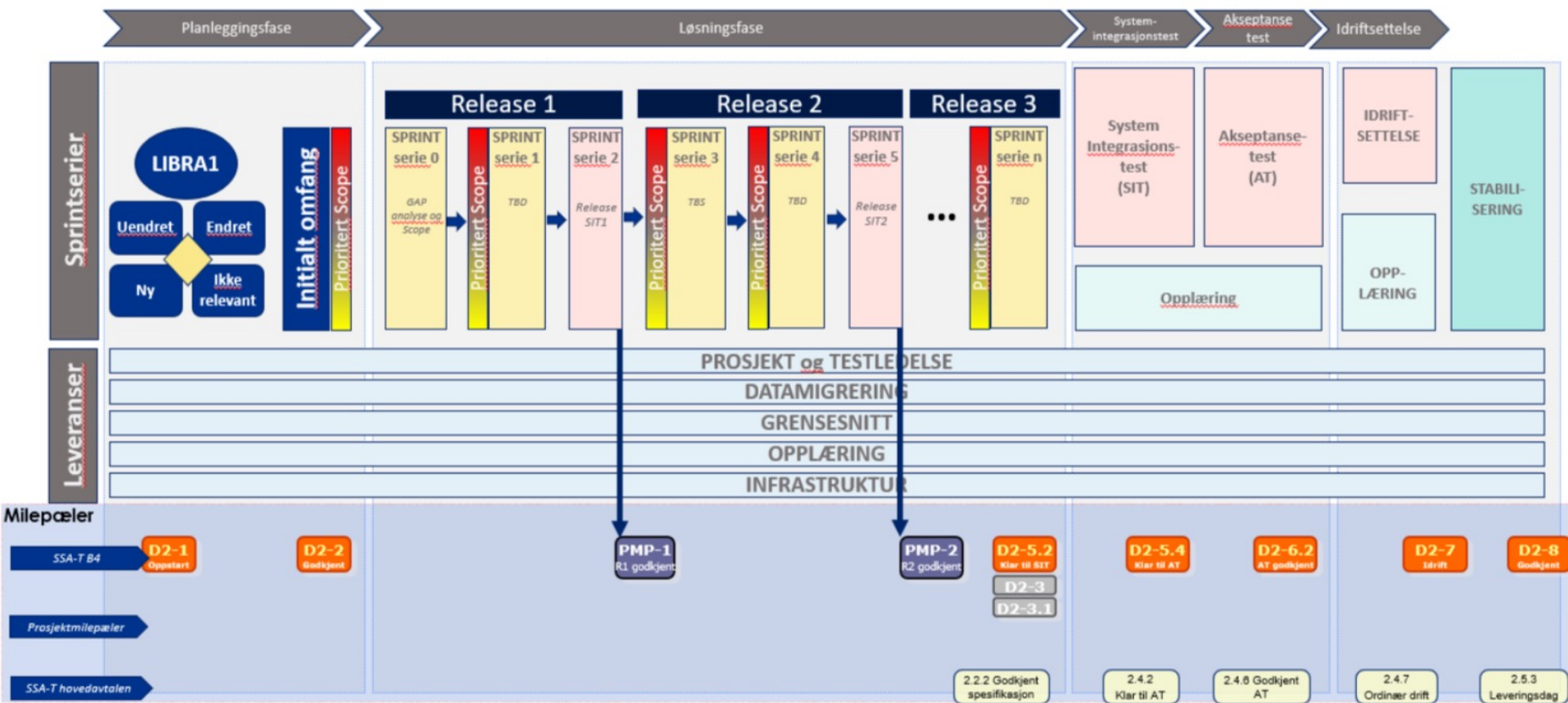
## Conclusion:

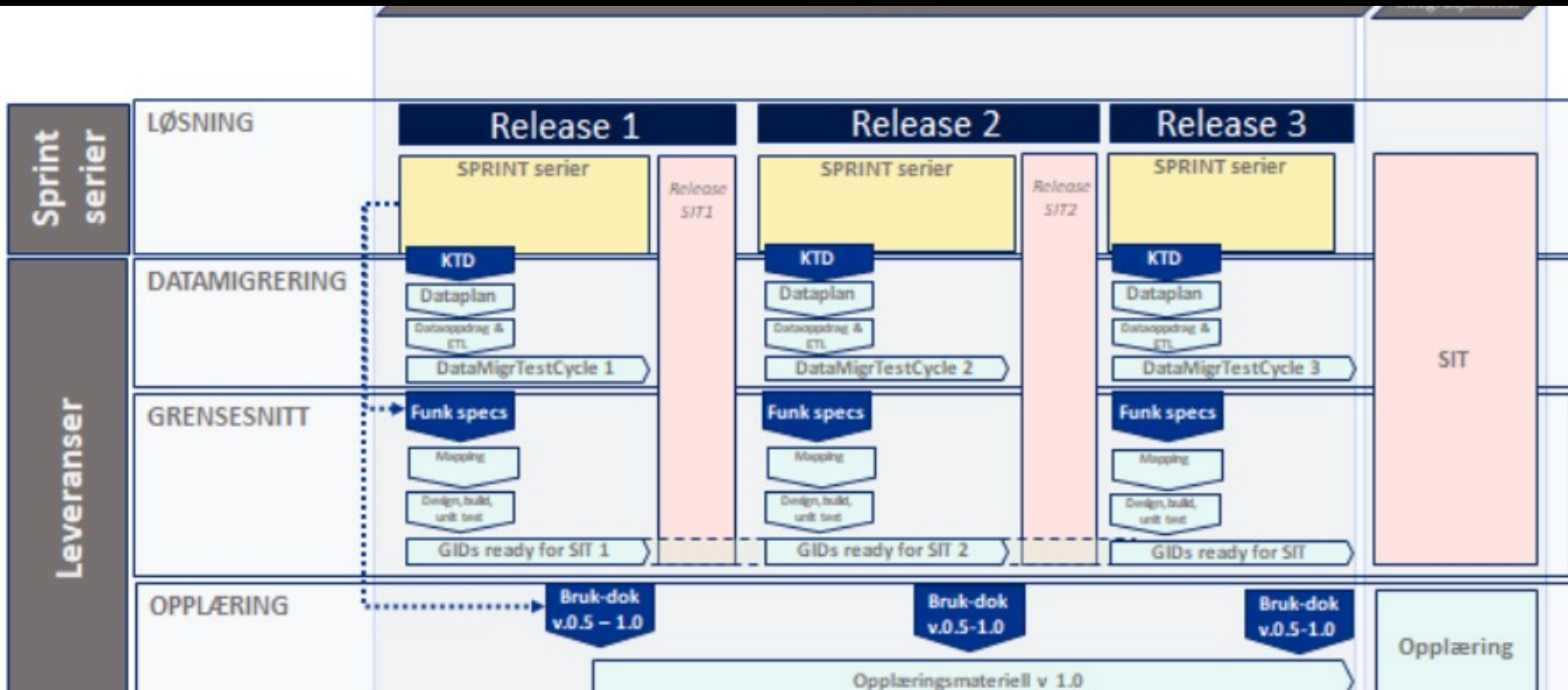
Elements of Agile are used in the solution phase

# Methodology



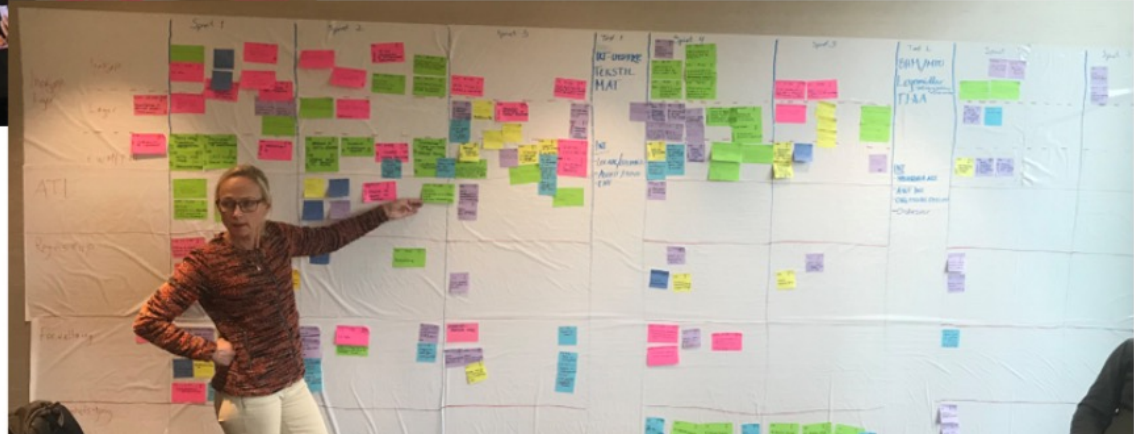
"Don't let anything that's not READY into your Sprint, and let nothing escape that's not DONE."  
(Serge Beaumont about [definition of ready](#))







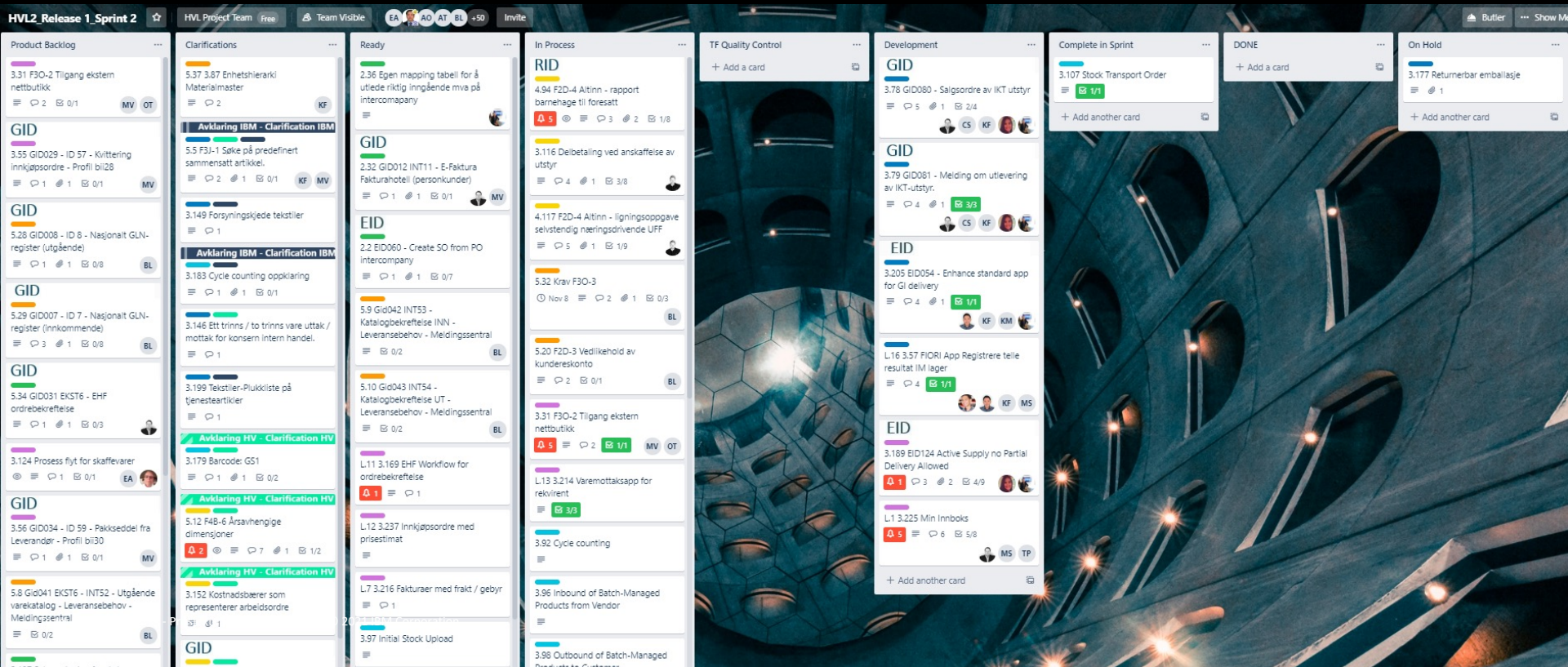
# Releaseplanning



# Planning – Backlog+Trello

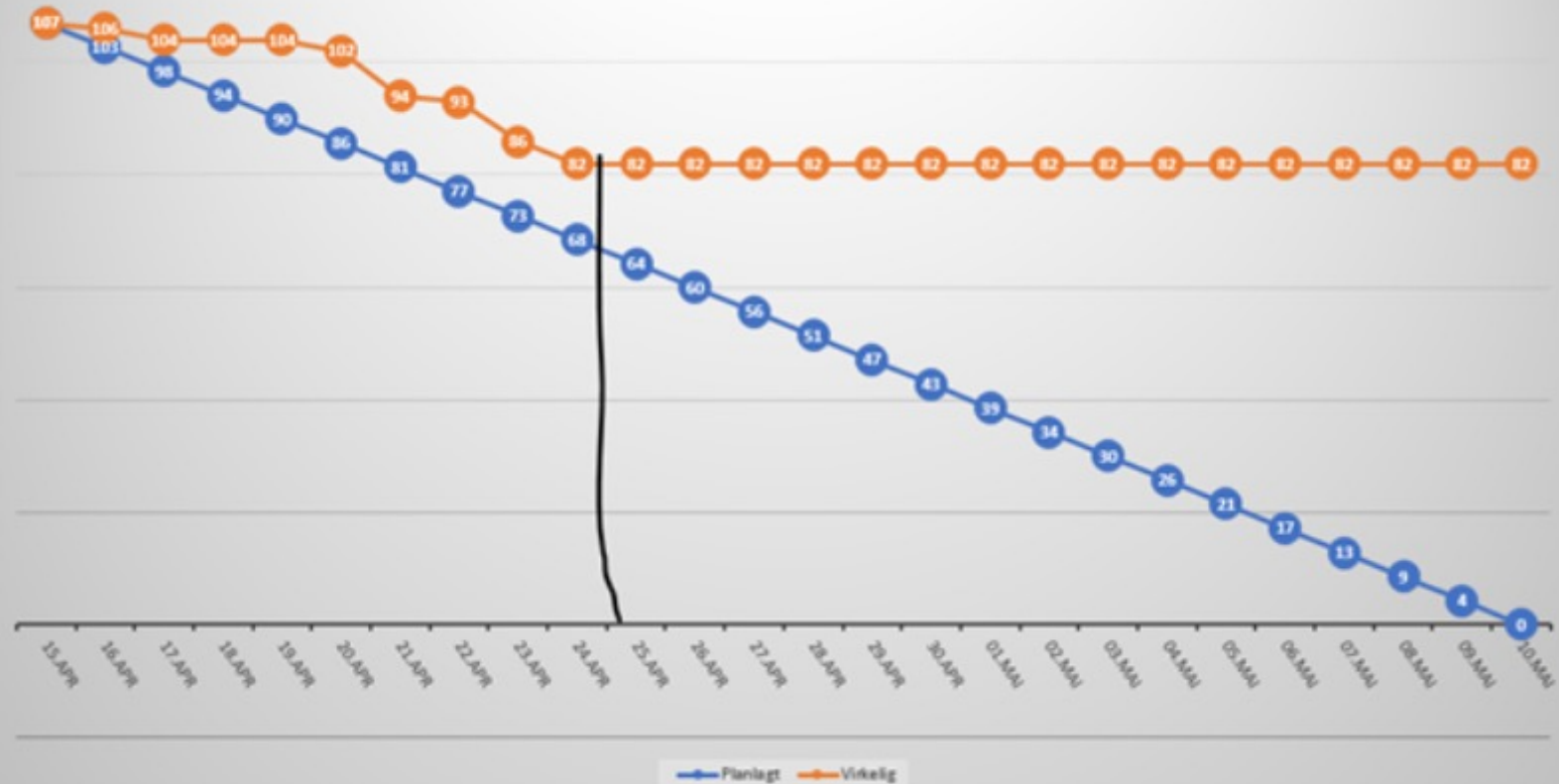
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# Progress

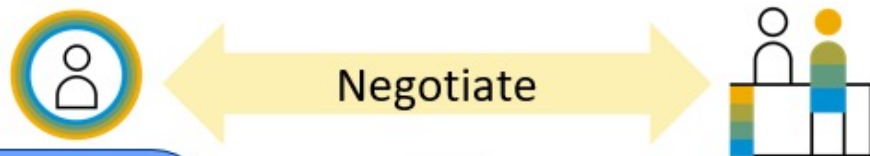


|            |      | Functional specification- HV/IBM | Mapping document - HV | Mapping document - EHF- IBM | Configuration documentation - IBM | Development / konfigurasjon_ IBM | Technical specification_ IBM | KTD - Krav til data- IBM | Unit test- IBM | Role specification _IBM | Test script system test- IBM | System test_ HV/IBM | Demo- IBM | User documentation - document created- IBM | Process documentation- HV |     |
|------------|------|----------------------------------|-----------------------|-----------------------------|-----------------------------------|----------------------------------|------------------------------|--------------------------|----------------|-------------------------|------------------------------|---------------------|-----------|--------------------------------------------|---------------------------|-----|
|            | P-S4 | 0                                | 0                     | 0                           | 0                                 | 0                                | 0                            | 0                        | 0              | 0                       | 0                            | 0                   | 0         | 0                                          | 0                         | 0   |
|            | C-S4 | 12                               | 1                     | 2                           | 14                                | 5                                | 7                            | 0                        | 6              | 1                       | 4                            | 2                   | 2         | 2                                          | 1                         | 59  |
|            | P-S5 | 0                                | 0                     | 0                           | 0                                 | 0                                | 0                            | 0                        | 0              | 0                       | 0                            | 0                   | 0         | 0                                          | 0                         | 0   |
|            | C-S5 | 11                               | 1                     | 0                           | 2                                 | 8                                | 6                            | 0                        | 6              | 1                       | 7                            | 8                   | 5         | 3                                          | 1                         | 59  |
|            | P-S6 | 0                                | 0                     | 0                           | 0                                 | 0                                | 0                            | 0                        | 0              | 0                       | 0                            | 0                   | 0         | 0                                          | 0                         | 0   |
|            | C-S6 | 16                               | 0                     | 1                           | 9                                 | 21                               | 4                            | 1                        | 22             | 4                       | 14                           | 14                  | 6         | 3                                          | 3                         | 118 |
|            | P-S7 | 1                                | 6                     | 0                           | 0                                 | 1                                | 1                            | 0                        | 1              | 1                       | 1                            | 1                   | 2         | 0                                          | 9                         | 24  |
|            | C-S7 | 9                                | 2                     | 1                           | 9                                 | 19                               | 12                           | 2                        | 25             | 4                       | 32                           | 32                  | 19        | 19                                         | 15                        | 200 |
| Total plan |      | 49                               | 10                    | 4                           | 34                                | 54                               | 30                           | 3                        | 60             | 11                      | 58                           | 57                  | 34        | 27                                         | 29                        | 460 |
| Remaining  |      | 1                                | 6                     | 0                           | 0                                 | 1                                | 1                            | 0                        | 1              | 1                       | 1                            | 1                   | 2         | 0                                          | 9                         | 24  |
| Complete   |      | 48                               | 4                     | 4                           | 34                                | 53                               | 29                           | 3                        | 59             | 10                      | 57                           | 56                  | 32        | 27                                         | 20                        | 436 |

## Burndown Sprint - totalt for R2 - sprintserie 5



# Definition of Done



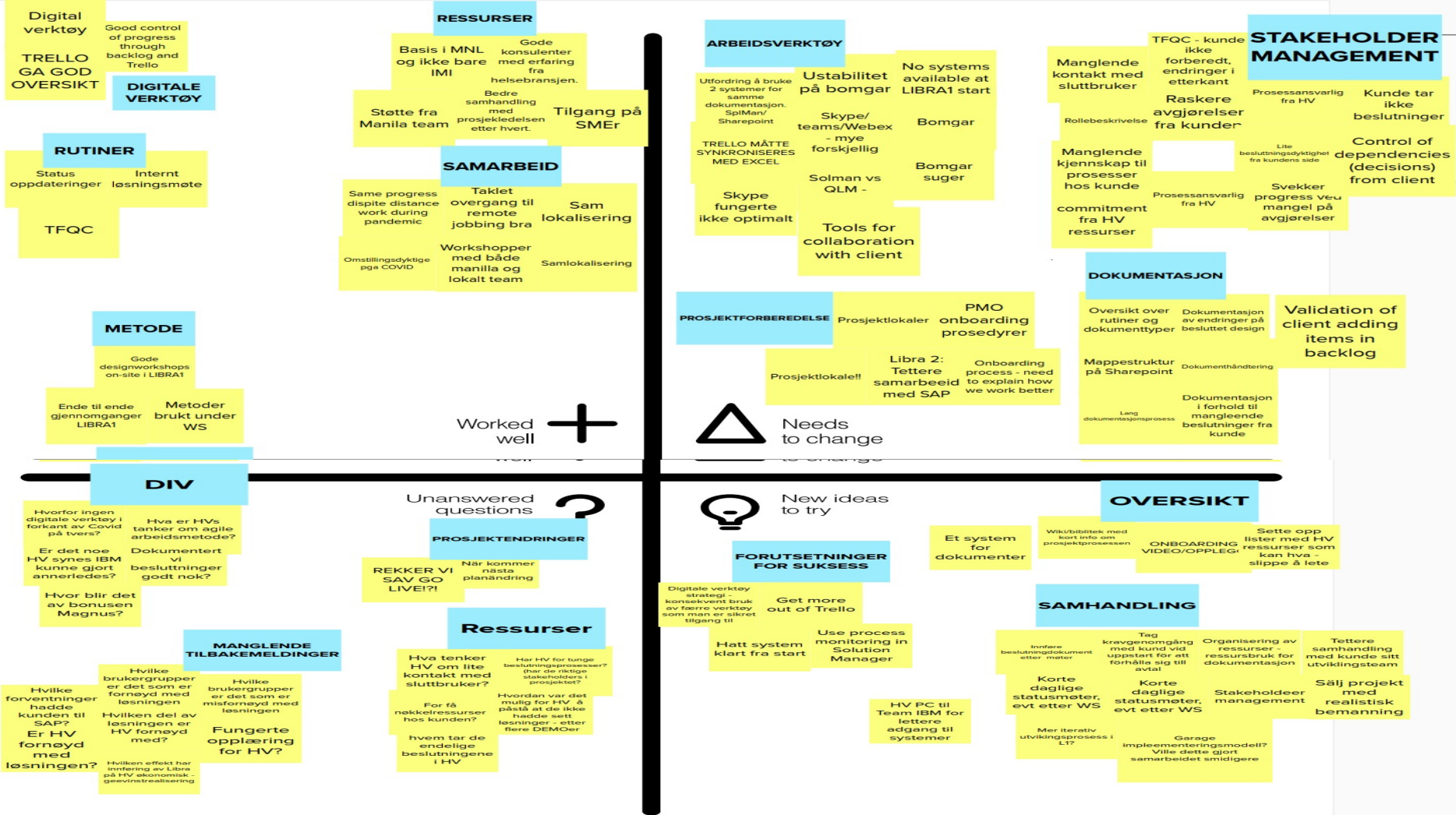
## Definition of Done

- Met Acceptance criteria
- Unit tested
- No increased technical debt
- Documentation in order
- Conform standard X

Done

- Product Owner decides is OK
- Describes the product at the end of the sprint
- Quality checklist
- Static constraints and requirements
- Can vary over time

# Team reflections



# Feedback session

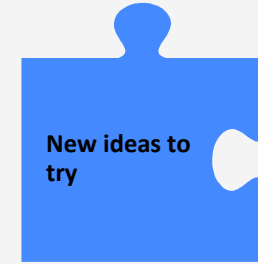
## – Local team IBM and Helse Vest



- Good progress when COVID-19 hit
- Large focus on solution development
- Scope divided – focus on more detailed areas
- Good control of progress on Trello and Backlog
- Parts of the solution is ready earlier
- Demos are done earlier
- Workshops to bring out needs
- Work on-site worked well



- Stakeholder management – lack of product owners
- Digital tools – instability in digital tools and many different applications
- Heavy documentation processes
- Long decision-making processes
- Demanding to implement new methodology in the program
- Sprint planning were too ambitious
- Lack of focus on other deliveries than solution
- Discrepancies in expectations for system test



- Interaction with customer – closer collaboration, focus on building trust across organizations
- Prerequisites for success – consistent use of fewer, stable digital tools
- Overview – onboarding video, project process wiki and documentation
- Digital tools for planning and status reporting
- Include all activities on Trello and in Sprint planning

# Conclusion

## Contract

Conditions in the fixed price contracts created a difficult foundation to work agile

Documentation focus in contract was still there even after changing methodology

## The big picture

Difficult to see the solution and the bigger picture of Helse Vest when working semi-agile

Late deliveries from Agile workstreams to waterfall workstreams

## Preparation of methodology

Difficult to change methodology while going full speed on project activities

Prepare project team to change mindset and work agile

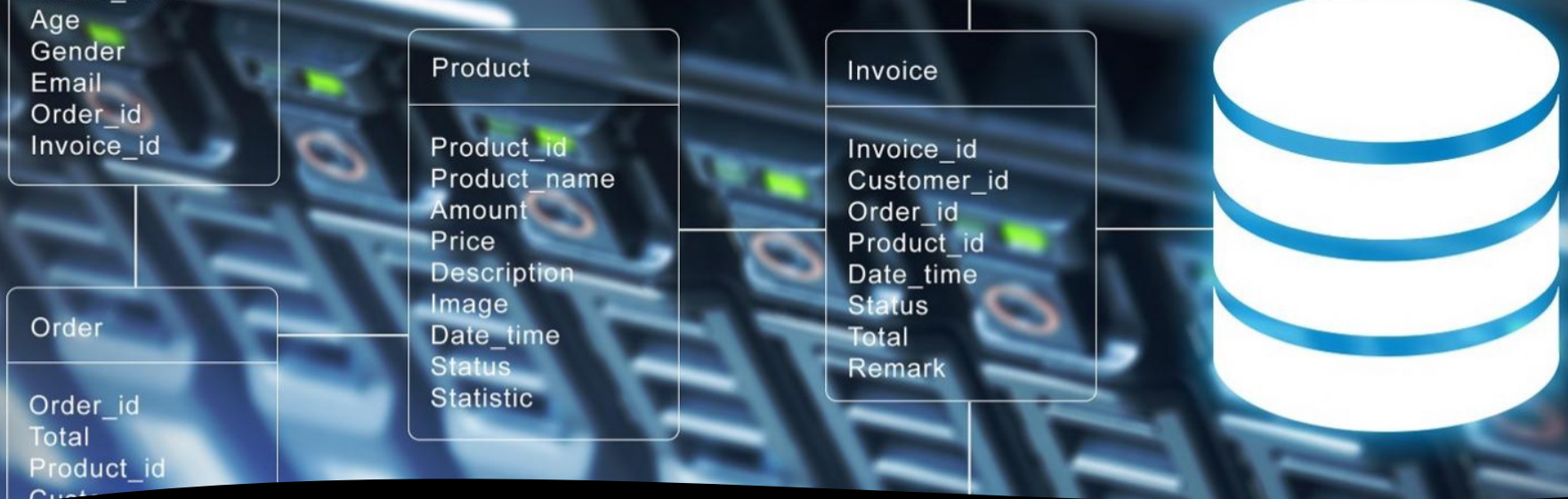
## Design thinking + Agile

Full confidence that Design Thinking and Agile is the future of project management

Use time to see connection between different parts of the delivery and how it correlates with methodology

Agile tools shows progress at a detailed level

# Next steps...



Vast amount of data:

- Financial data, sales data, transactional data, customer data, etc.

Application areas:

- Drive AI/ML: Perform complicated tasks
- Analytics & Business Intelligence (BI)

# Drive Value from Data



Challenges:

1. Data is locked to various applications
2. Raw data that need to be processed

# Thank you

Mohit Saggar

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Mohit.saggar@ibm.com

+47 480 29 101

ibm.com

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