

# Module 39, Wrap-up

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## Abstract

This module provides various means to consolidate architectures.

### Distribution

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# Consolidating Architecture Overviews

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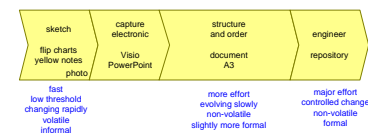
## Abstract

This presentation provides guidelines and means to capture architecture overviews. Main challenge is to maintain the overview across multiple views. Architecture Overview A3s One support multi-view. Another challenge is to make an overview accessible for a wide range of stakeholders. The architecture description should therefor be visualized such that it fits the mental model of the audience.

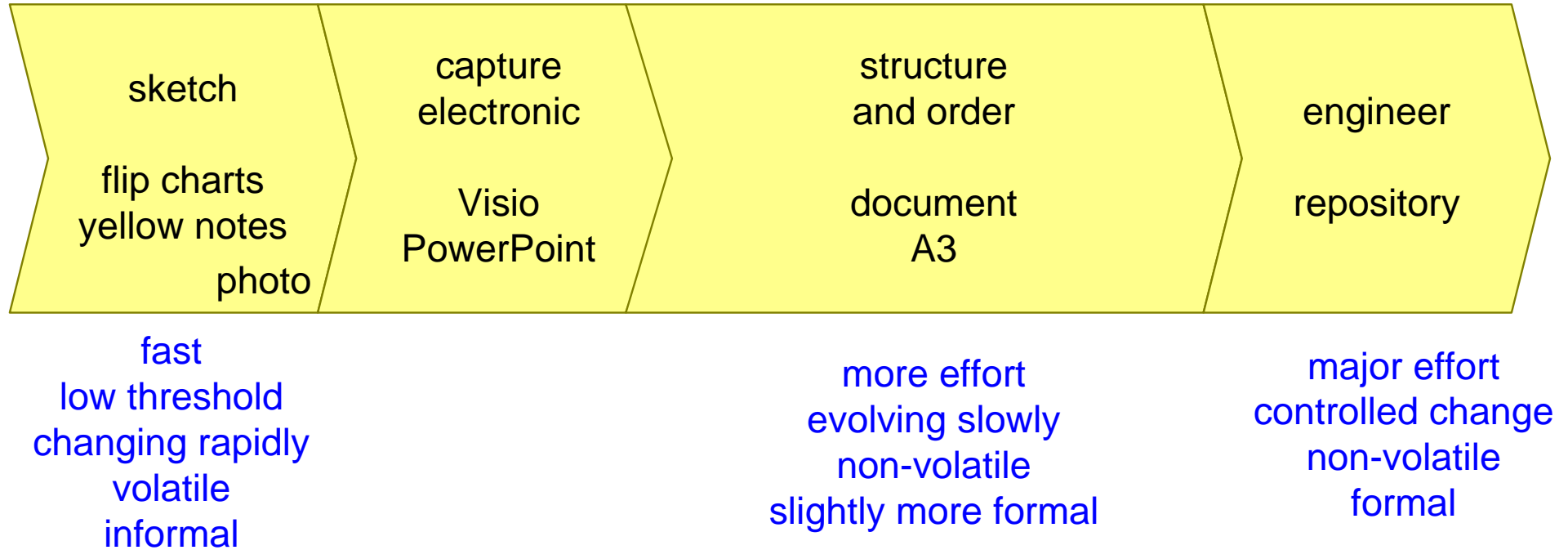
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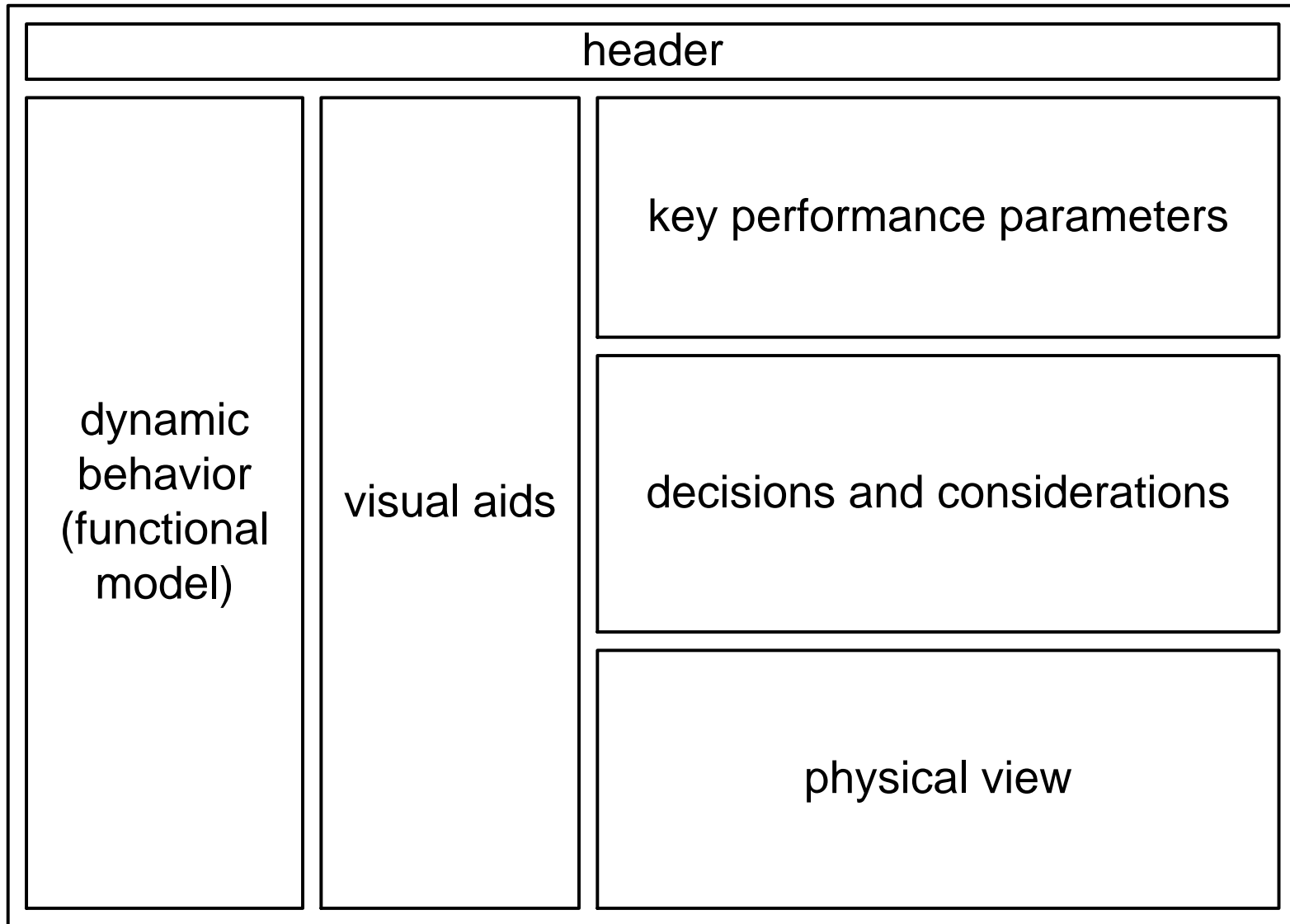
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draft  
version: 0.2



# Maturing an Architecture Description



# Architecture Overview A3



simplified from <http://www.gaudisite.nl/BorchesCookbookA3architectureOverview.pdf>

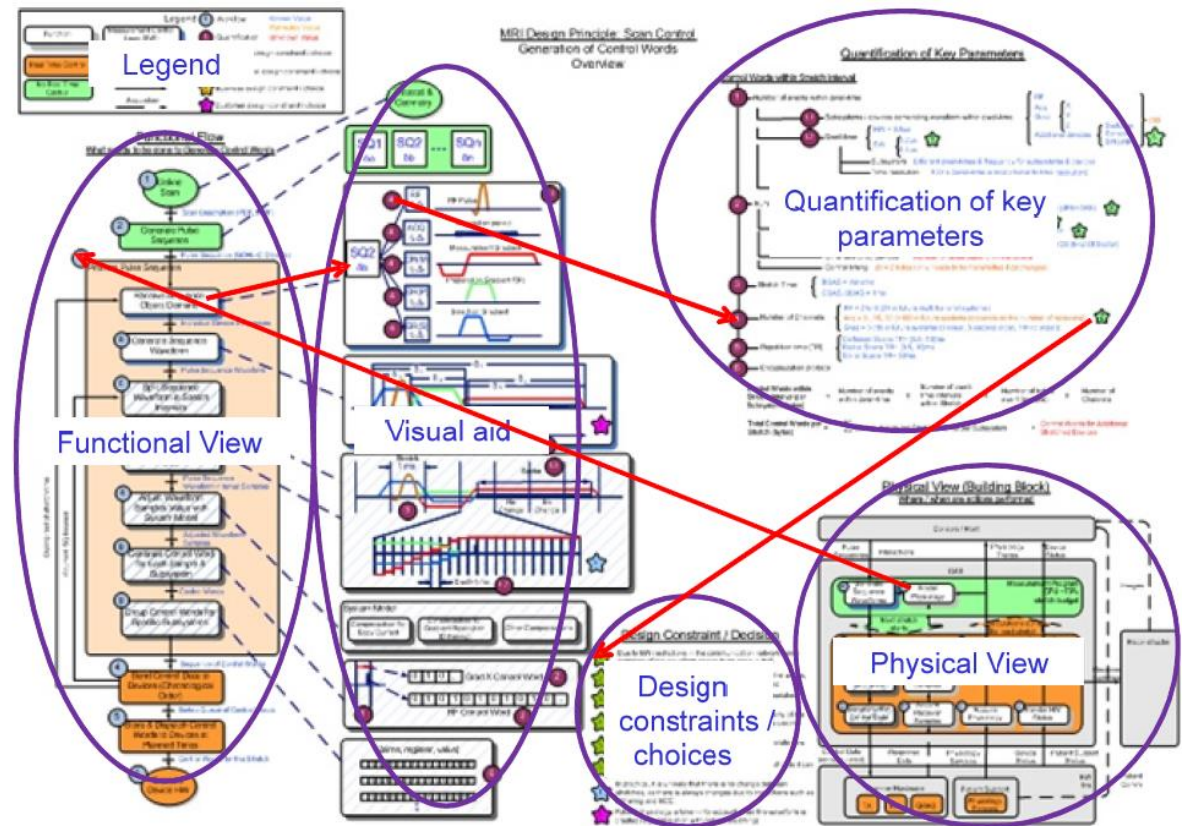
# A3s to Capture Architecture Overviews

multiple related views

quantifications

one topic per A3

capture "hot" topics



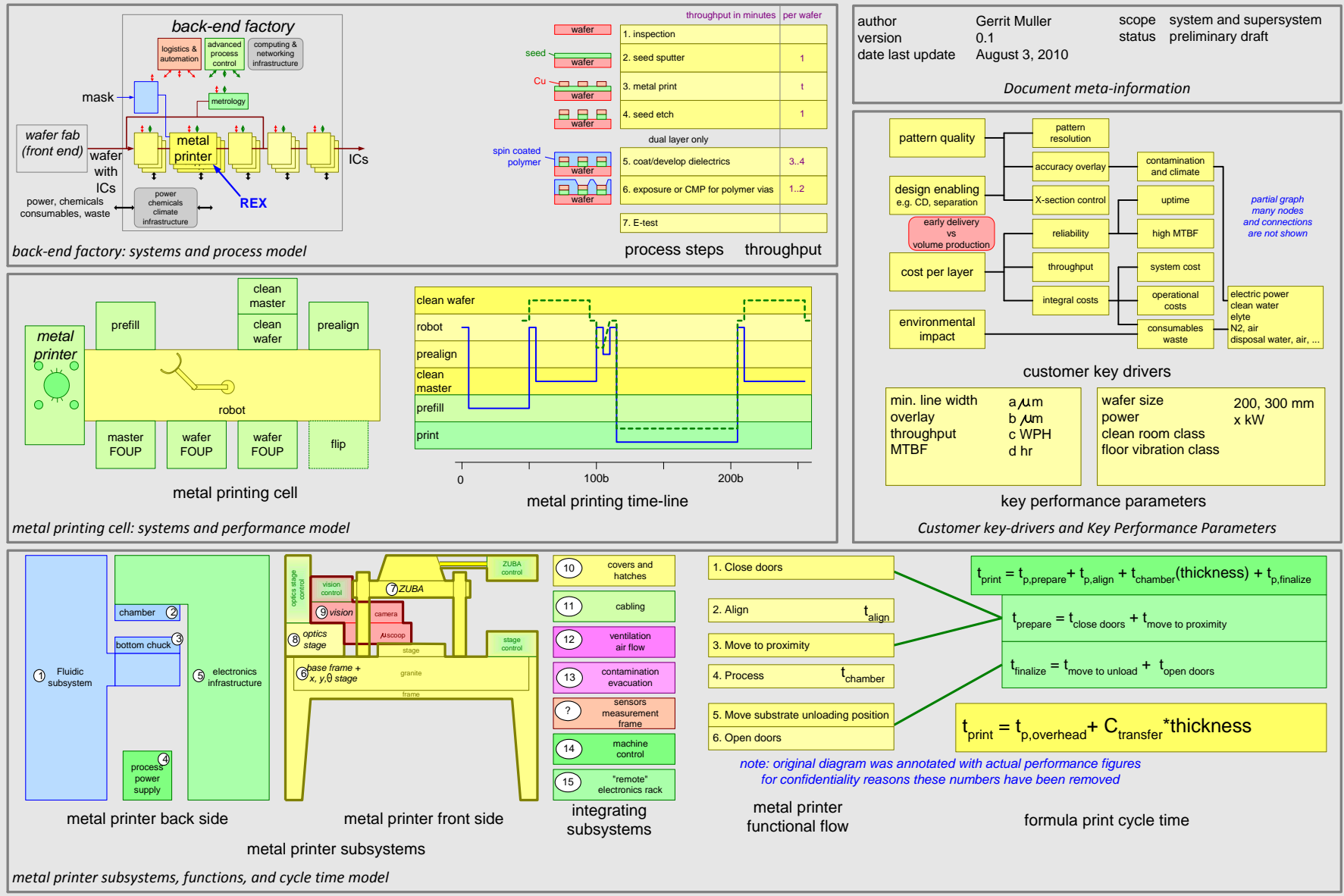
source: PhD thesis Daniel Borches <http://doc.utwente.nl/75284/>

digestable  
(size limitation)

practical  
close to stakeholder experience

# Example of A3 Architecture Overview

## A3 architecture overview of the Metal Printer (all numbers have been removed for competitive sensitivity)

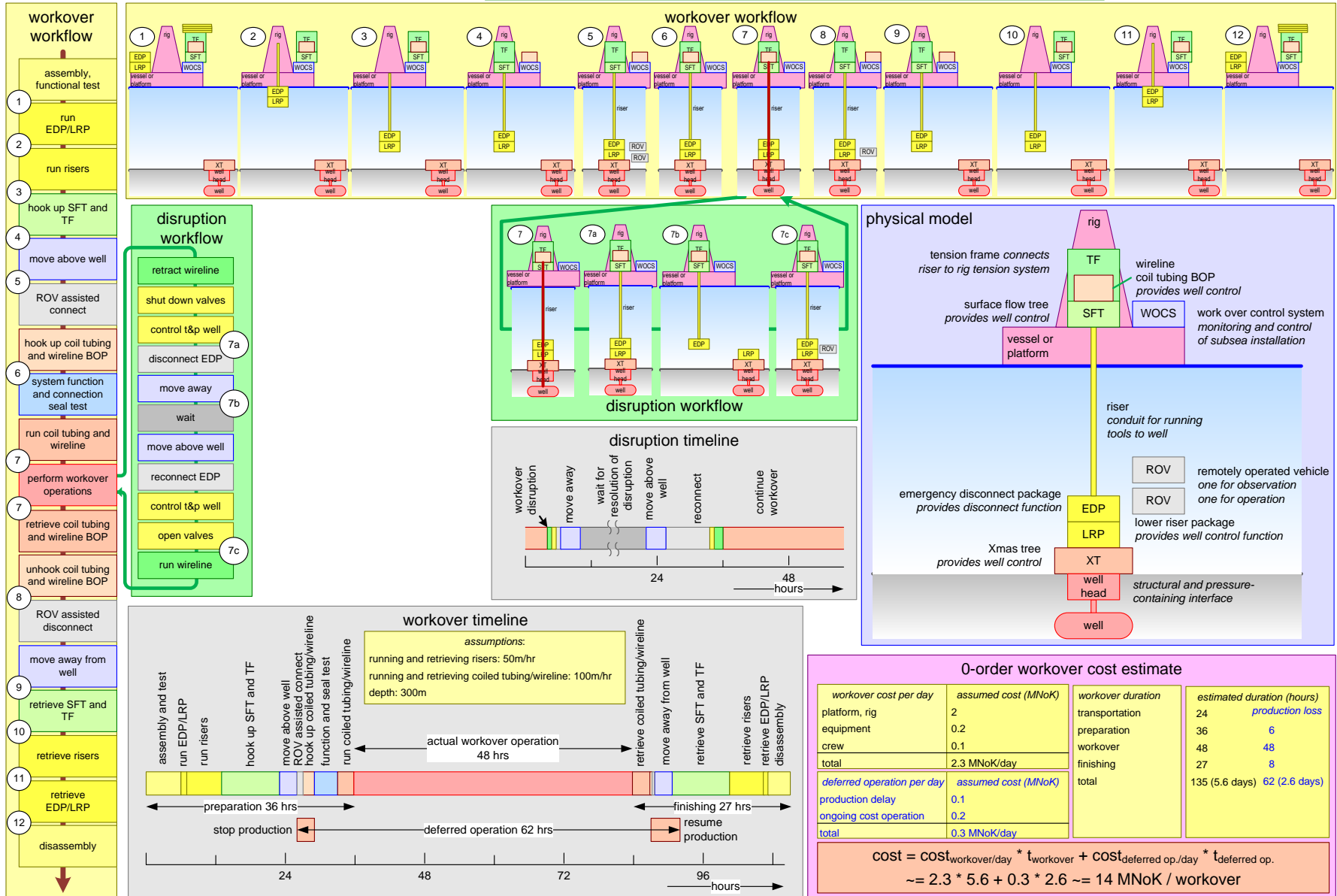


# Example of SubSea A3 Architecture Overview

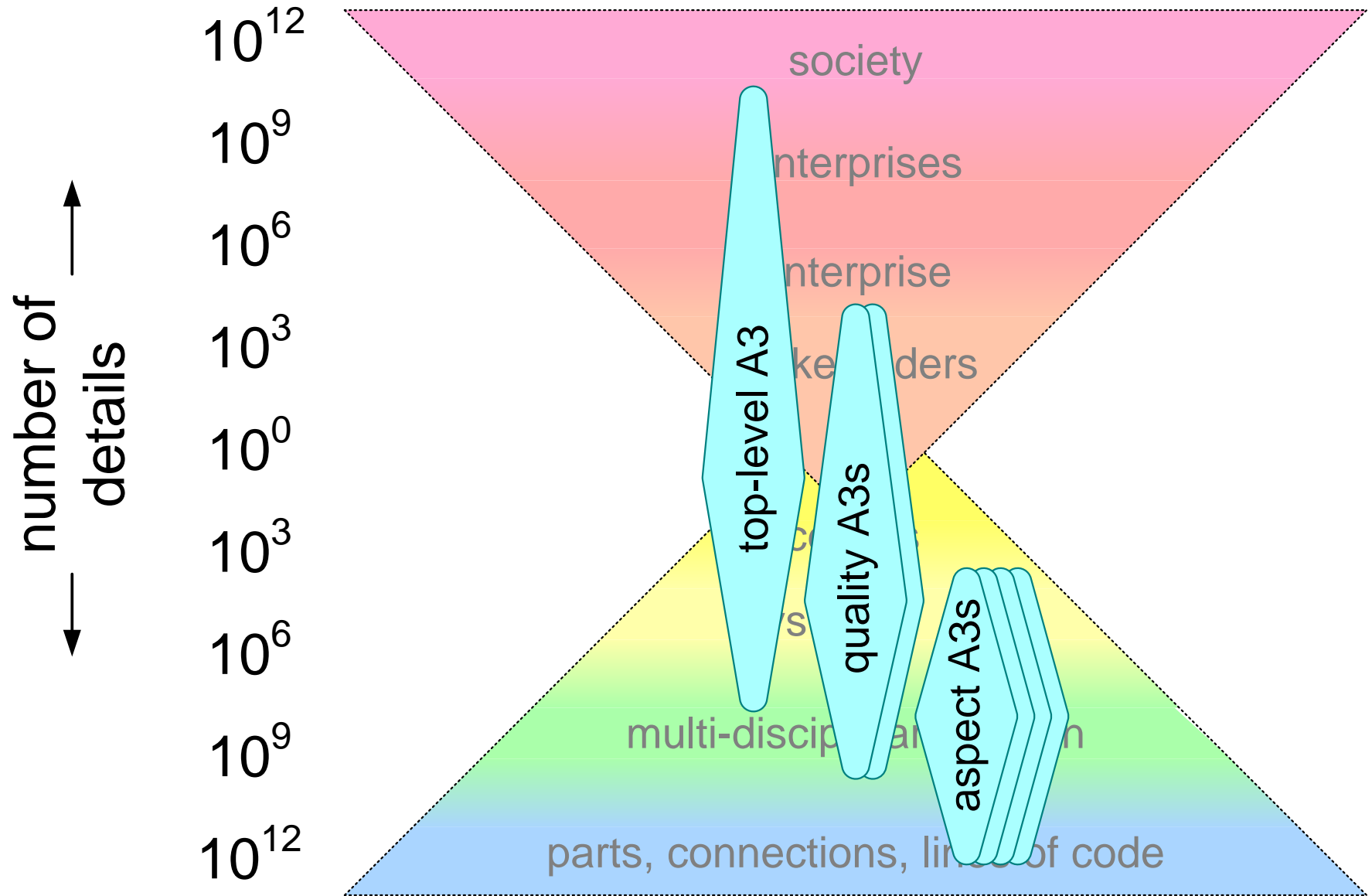
Workover operation; architecture overview

This A3 based on the work of SEMA participants: Martin Moberg<sup>a</sup>, Tormod Strand<sup>a</sup>, Vazgen Karlsen<sup>1</sup>, and Damien Wee<sup>1</sup>, and the master project paper by Dag Jostein Klever<sup>1</sup>. <sup>a</sup>Aker Solutions, <sup>1</sup>FMC Technologies

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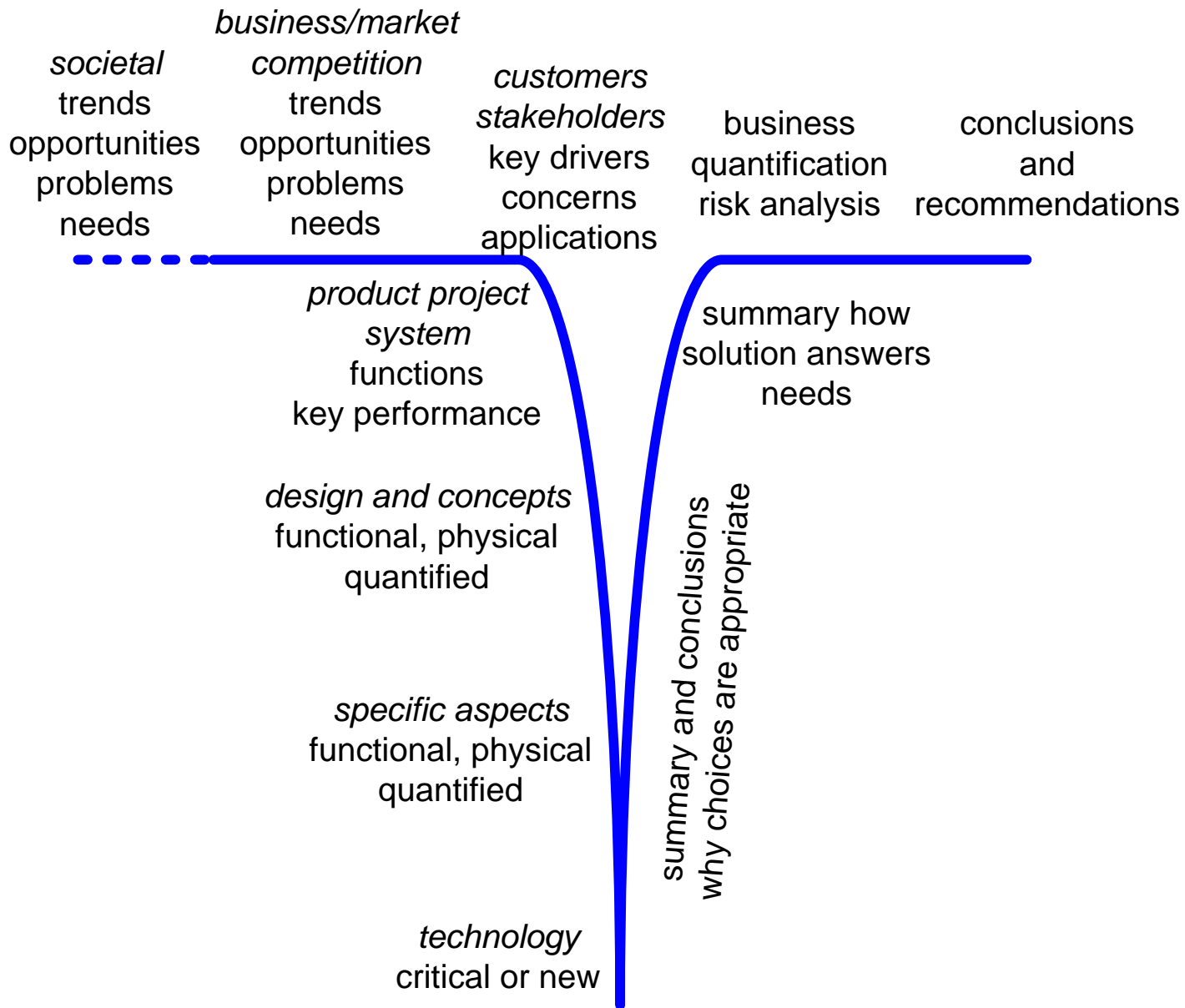


# Multiple Levels of A3s





# T-shape Presentation



1.1 One of several prerequisites for architecture creative synthesis is the definition of **5-7 specific key drivers** that are critical for success, along with the rationale behind the selection of these items

2.1. The essence of a system can be captured in about **10 models/views**

2.2. A **diversity** of architecture descriptions and models is needed: languages, schemata and the degree of formalism.

2.3. The level of **formality** increases as we move closer to the implementation level.

from <http://www.architectingforum.org/bestpractices.shtml>

# Exercise Wrap-Up

Capture your work done during the course, e.g. make photos of the flip charts.

Make a list of questions, assumptions, biggest uncertainties and unknowns

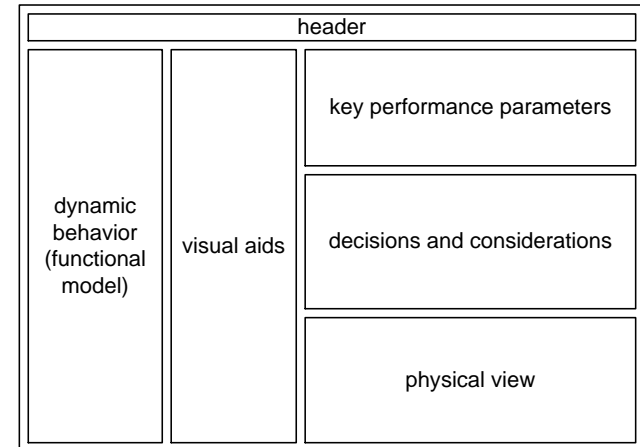
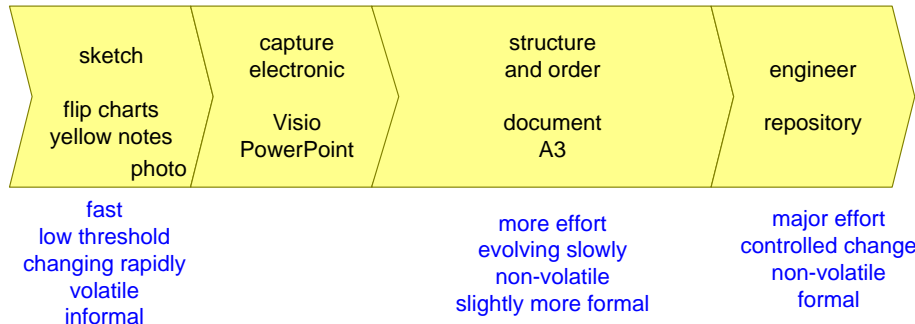
Make a list of lessons learned

Make a plan for the homework

# Consolidating Architectures

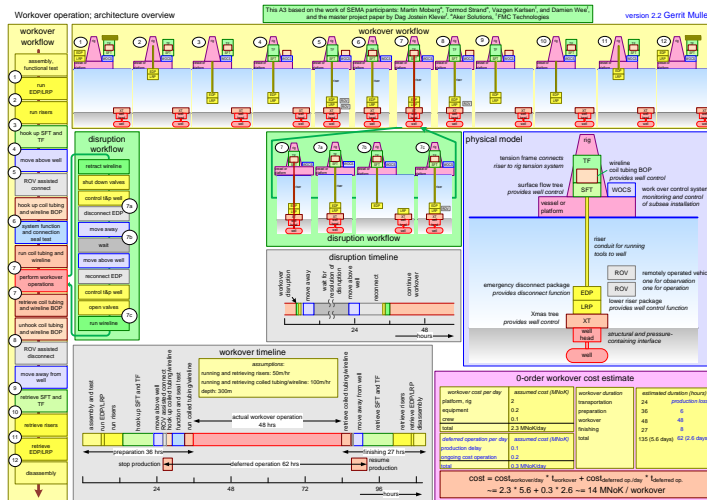
## A3 Architecture Overview

### Maturing, from Light to Heavy

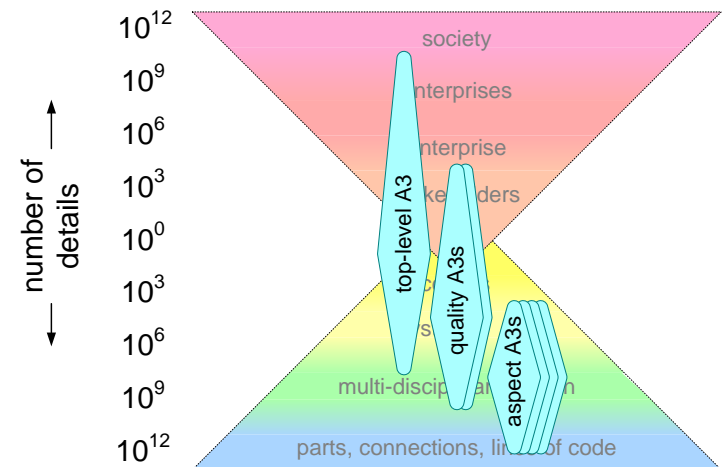


simplified from <http://www.gaudisite.nl/BorchesCookbookA3architectureOverview.pdf>

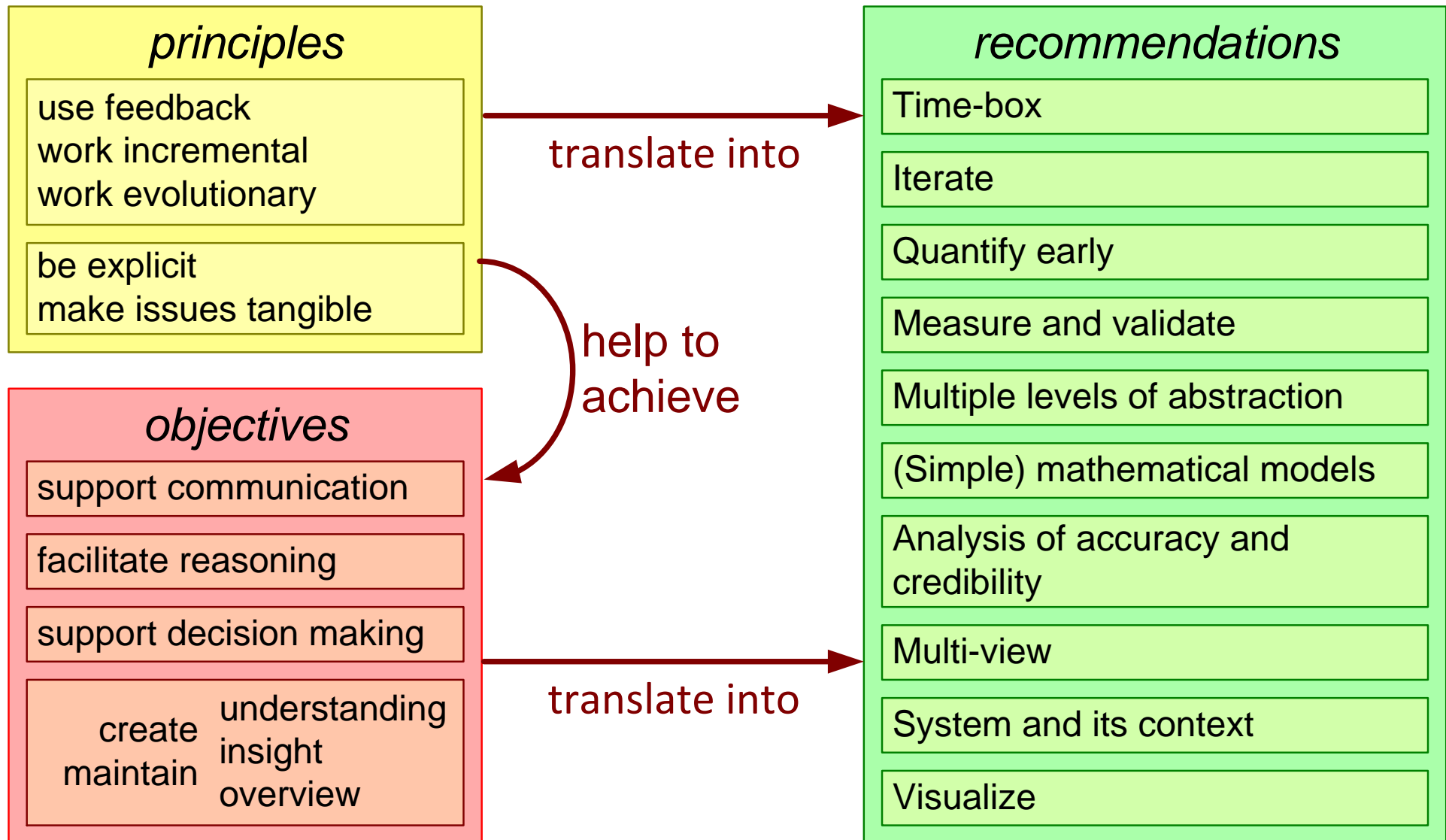
### Subsea A3



### Multiple Levels of A3s



# Recommendations as Red Thread



# SEMA Homework Assignment

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## Abstract

This document described the homework assignment for the SEMA course. The homework is made and delivered incrementally, so that the teacher can provide feedback during the assignment.

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# Group Assignment

Submit each step to the teacher, and process feedback in the next step

Step 1. weeks 1..3

- Consolidate work of course in 20 slide presentation as baseline.
- Search for answers to the main questions, biggest uncertainties and unknowns, validate main assumptions.
- Elaborate most relevant models.
- Discuss your work with other stakeholders to collect more facts and figures and for early validation

Step 2. weeks 4..6

- Transform the presentation into a T-shape presentation
- Identify gaps in the “T”
- Make simple models to eliminate the gaps

Step 3 weeks 7..9

- Identify required changes in models made so far, due to increased insight;
- Change one of the models accordingly.
- Evolve the T-shape presentation (max 20 slides); the target audience of this presentation is your management.
- Present to company management
- Identify next models to be made, measurements to be done, or fact finding to take place.
- Update the presentation with feedback from management and a list of future work.

# Individual Assignment

Write an individual reflection report after finishing the group assignment, answering the following questions:

What is the credibility and accuracy level (quantified, e.g. 1% or 50%) of the models so far and why?

In retrospect, formulate a problem statement that requires such modeling effort?

What would you do differently if you would have to do this again?

How are you going to apply this in practice?

preferred size 1 A4, max 2 A4.



# Submission Instructions

## *Submission instructions*

use for all deliverables the following conventions:

filename: SEMA <your name or team> <subject>.<version>.<extension>

e.g. SEMA WOSteam presentation.2.doc

or SEMA John Student individual report.1.docx

email to: <gerrit . muller@ usn . no>

subject: SEMA <subject>

"standard" file types preferred, e.g. pdf, jpg, doc, ppt, vsd, docx, xls, xlsx, ppt, pptx