

# Competence Development Program; Vision on Architecting and Education

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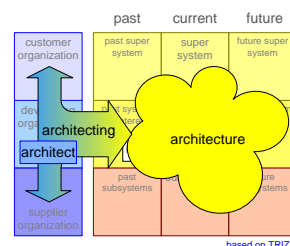
## Abstract

The TNO vision on competence development of architects is described. Architect, Architecture, and Architecting are placed in perspective. A didactic model of the layers attitude, ability, skills, and knowledge is the framework for the vision on education.

## Distribution

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September 9, 2018  
status: planned  
version: 0



TNO-ESI evolved the competence development program  
for architects over many years.

Joris van den Aker is program manager and driver behind  
the program

# Our Primary Interest

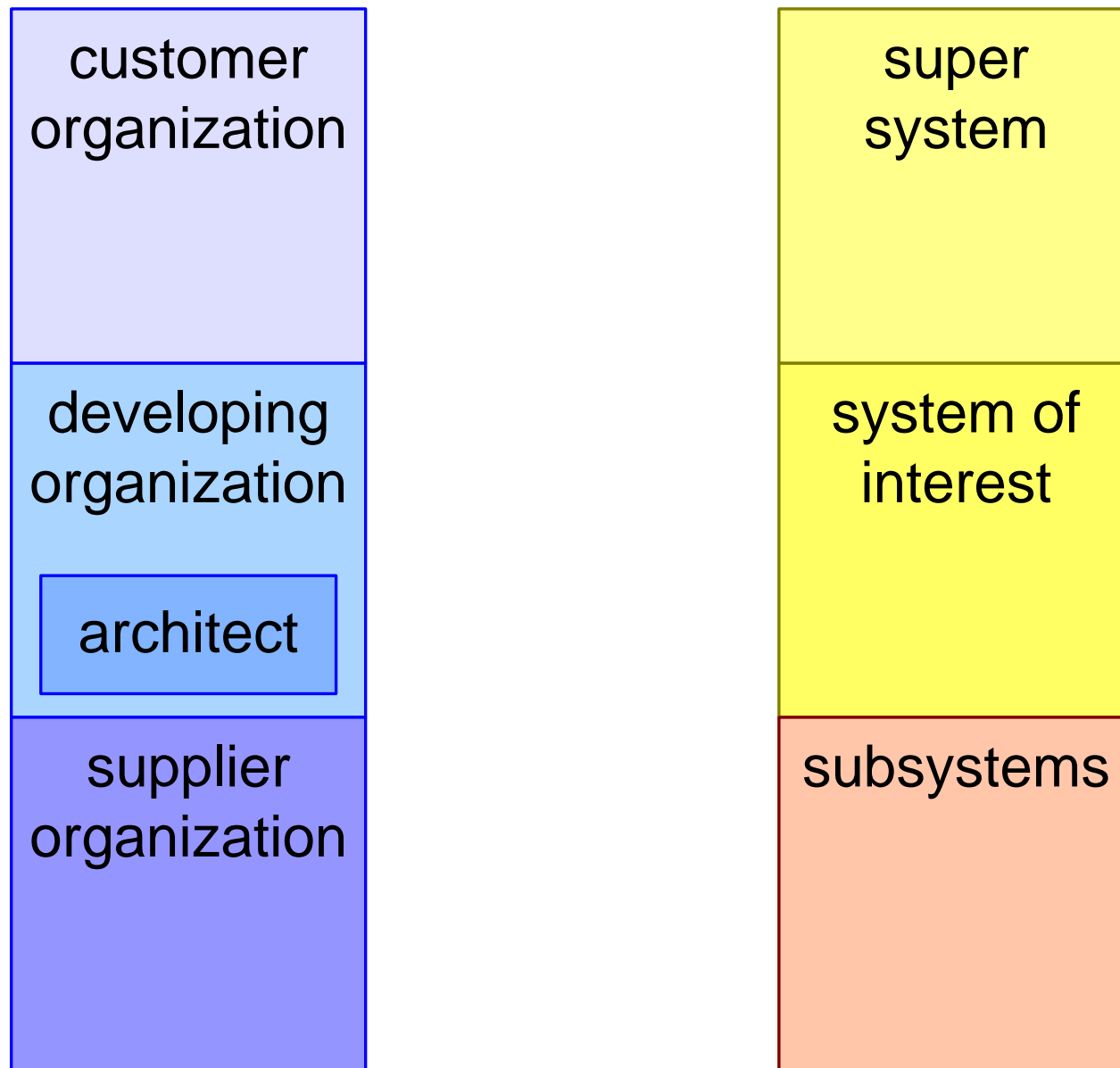
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developing  
organization

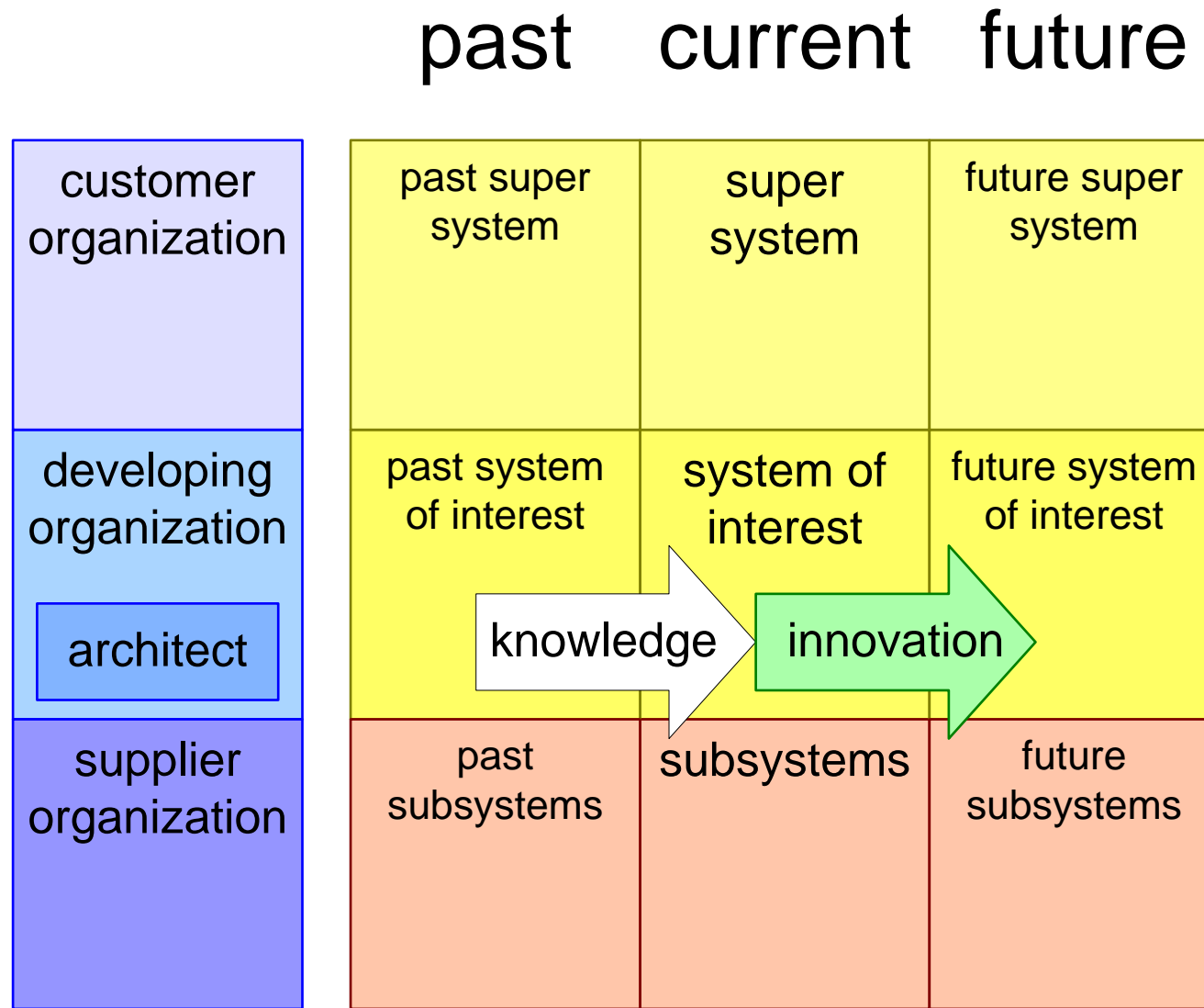
architect

system of  
interest

# Context, Zoom-out and Zoom-in

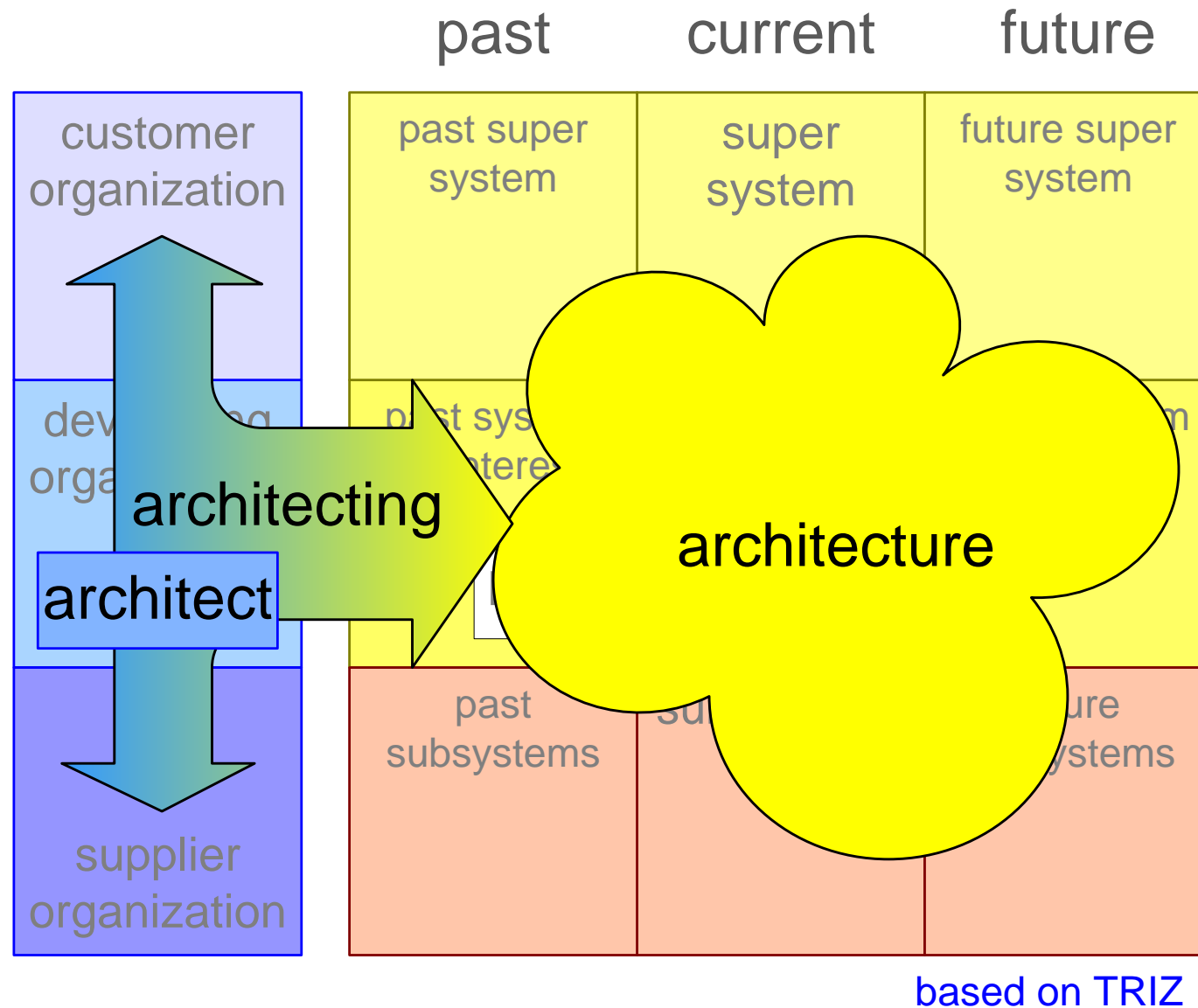


# Adding the Time Dimension

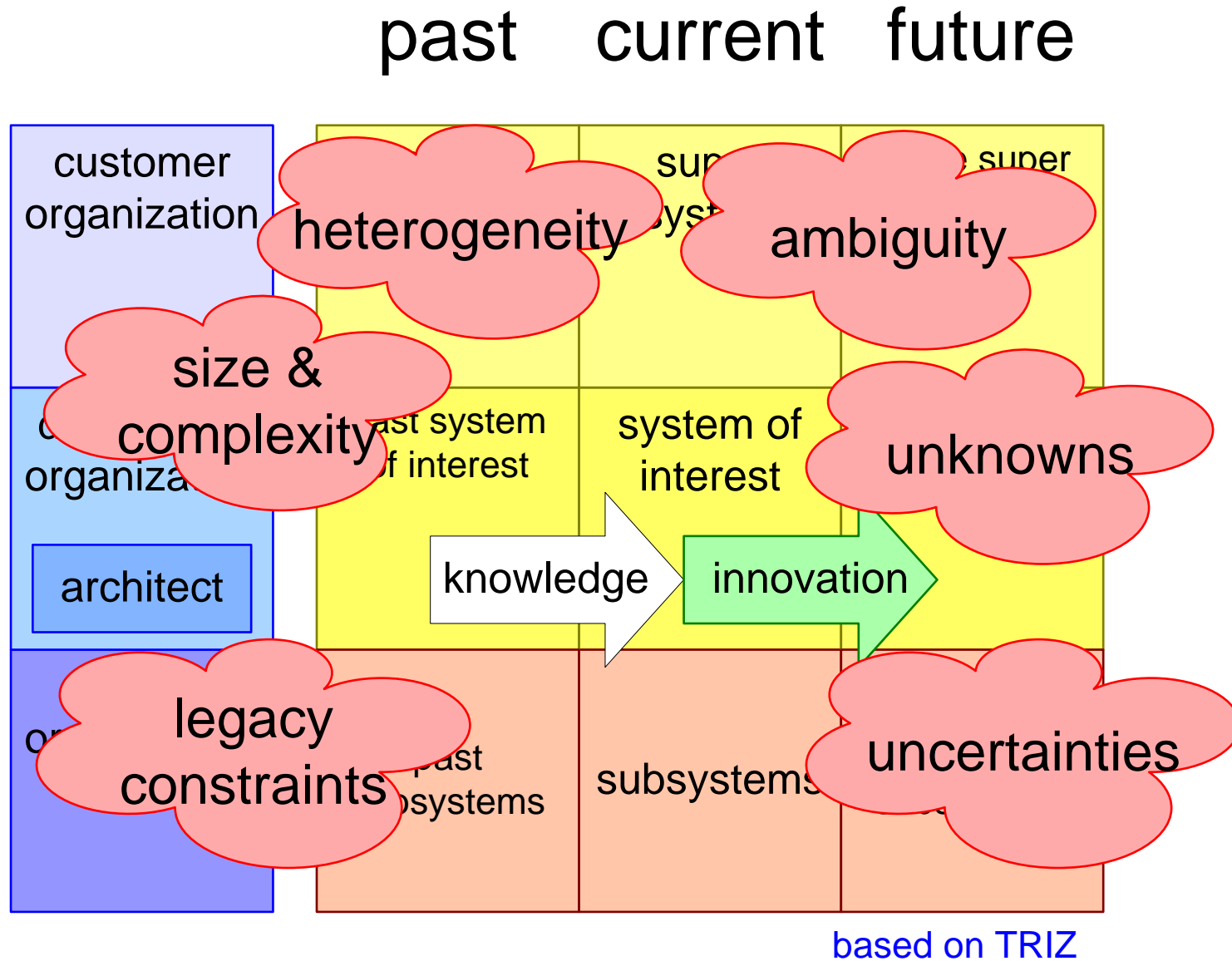


based on TRIZ

# Architect, Architecture, Architecting

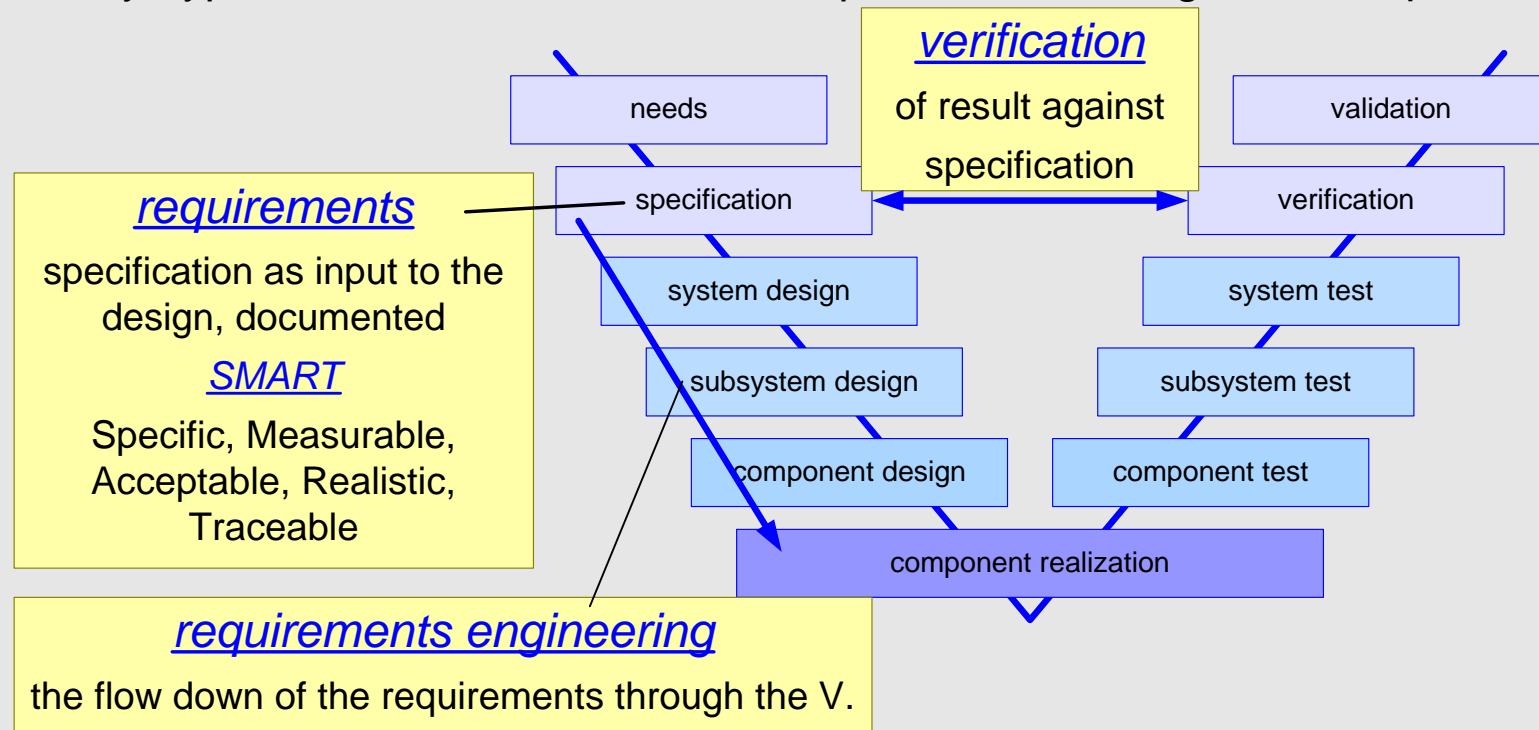


# Challenges

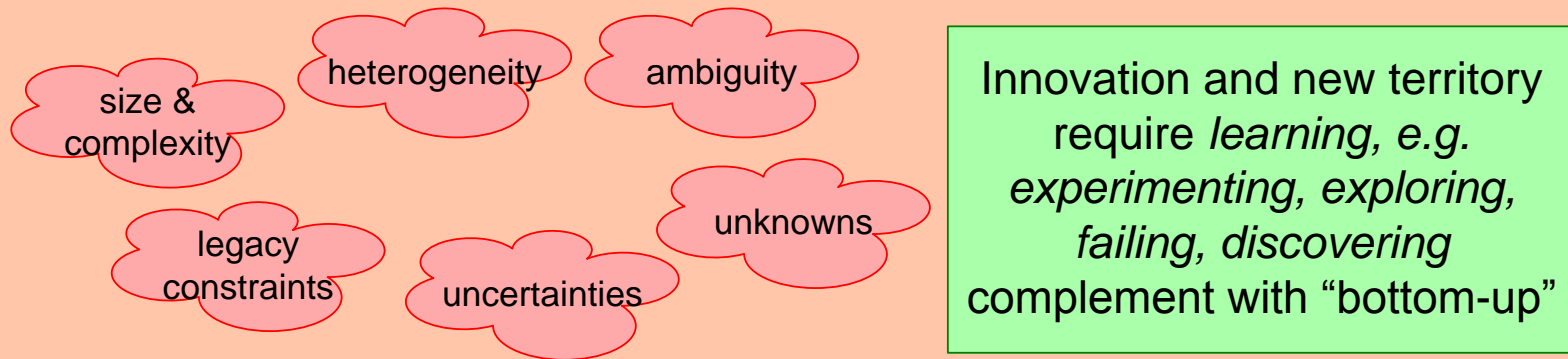


# From Theory to Practice

Theory: typical SE workflow: V-model, requirements management, “top-down”

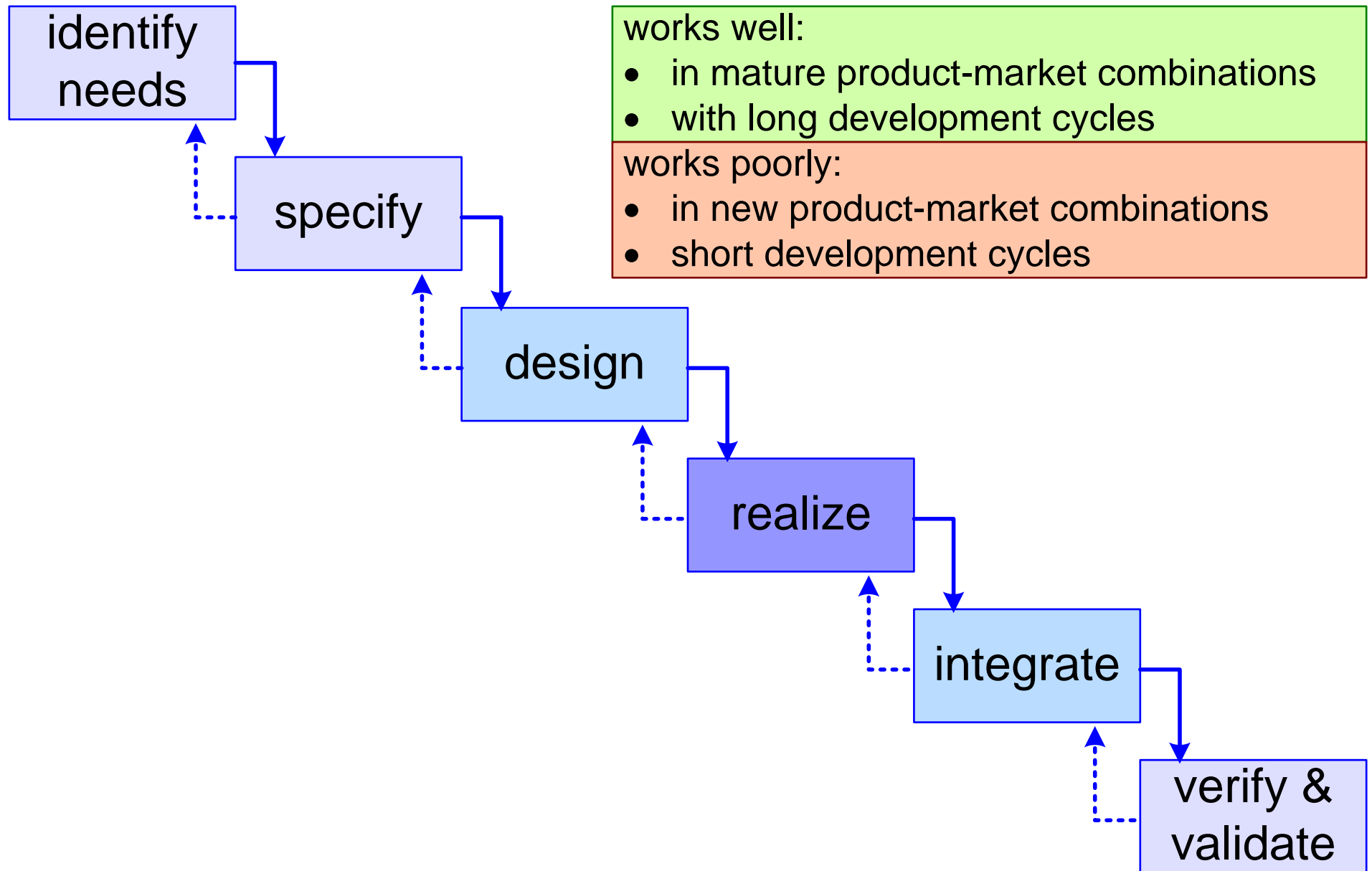


Practice: Finite knowledge and wisdom causes late disruptions

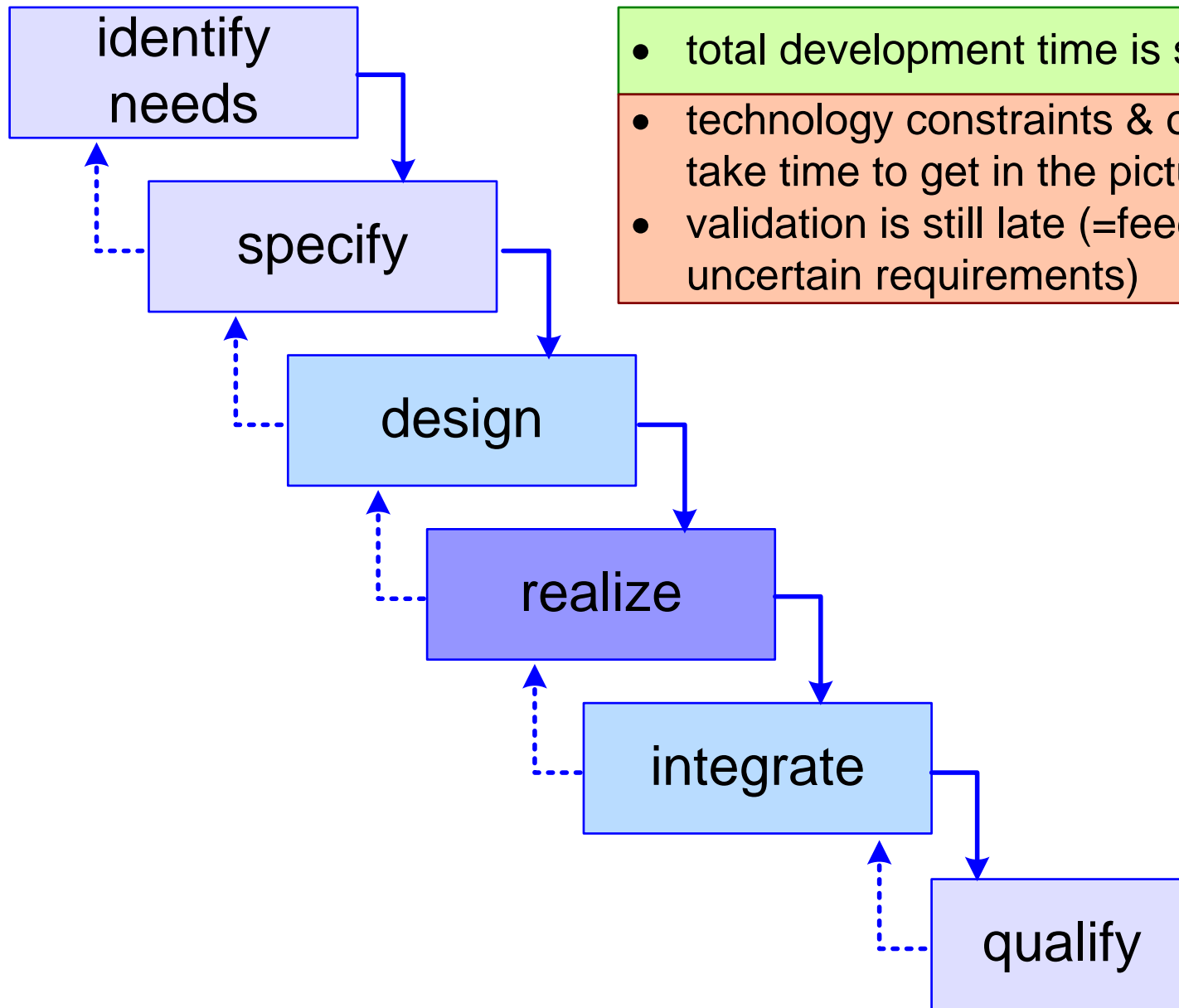




# Waterfall model

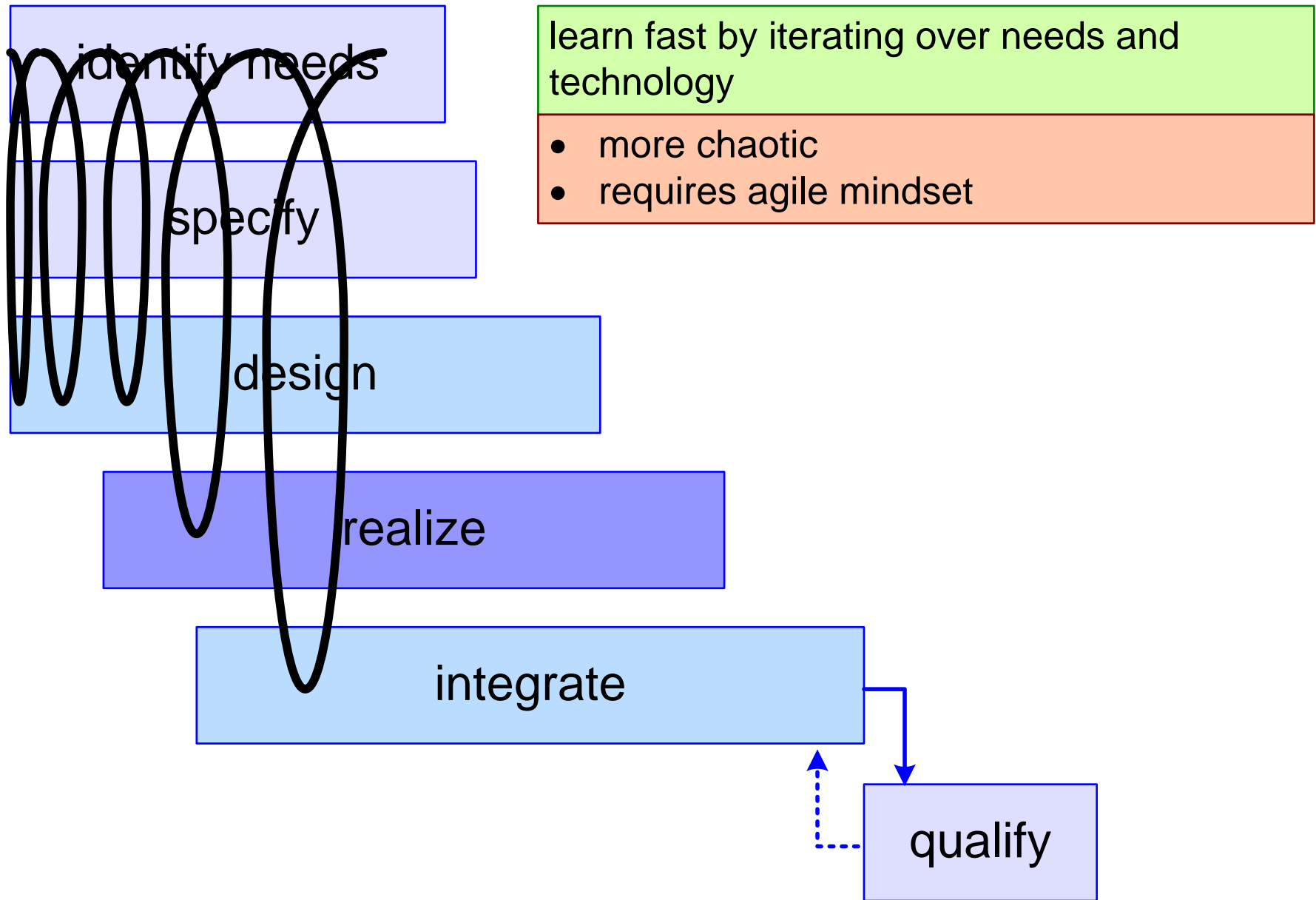


# Concurrent Engineering

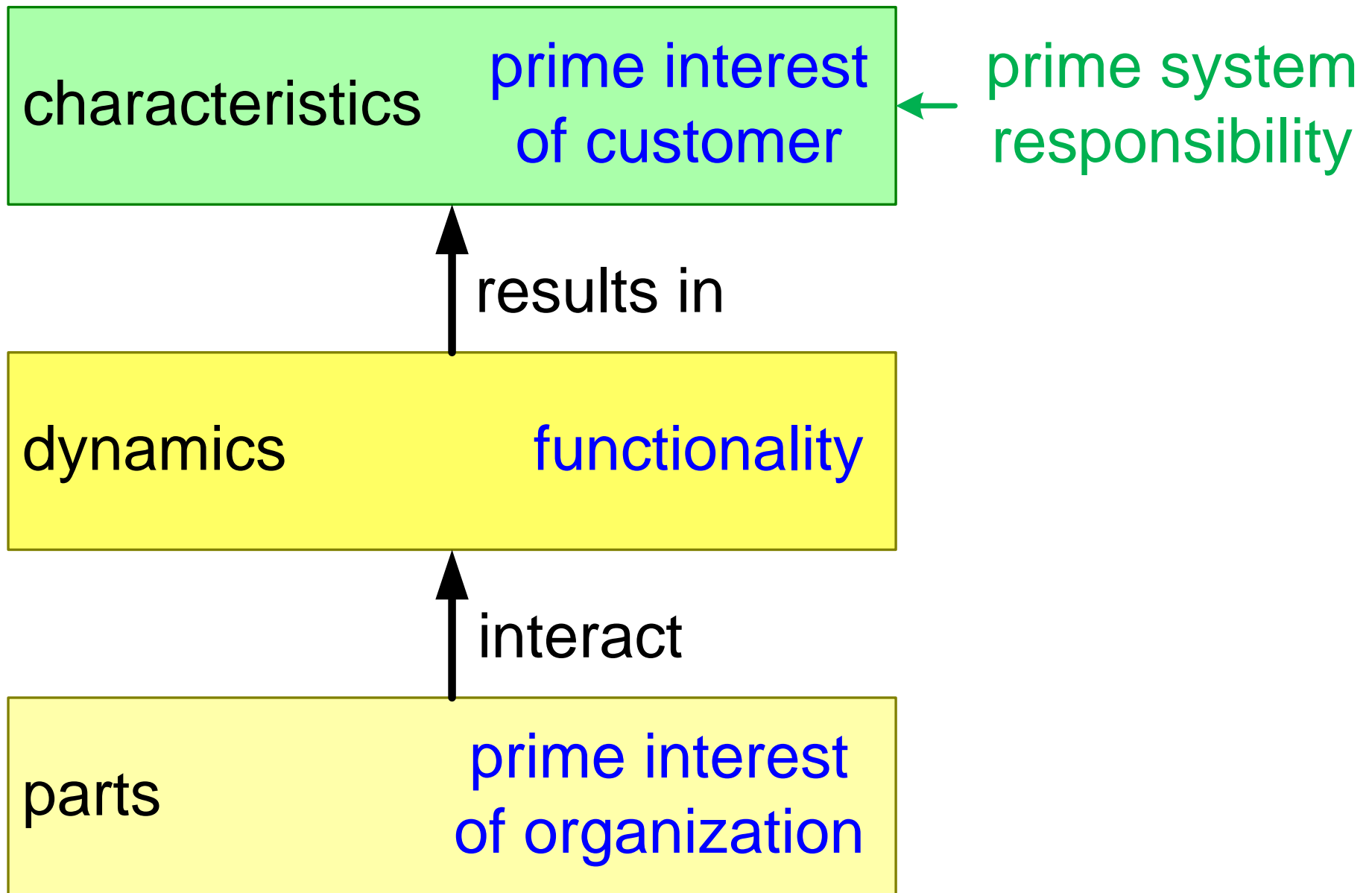


- total development time is shorter
- technology constraints & opportunities take time to get in the picture
- validation is still late (=feedback on uncertain requirements)

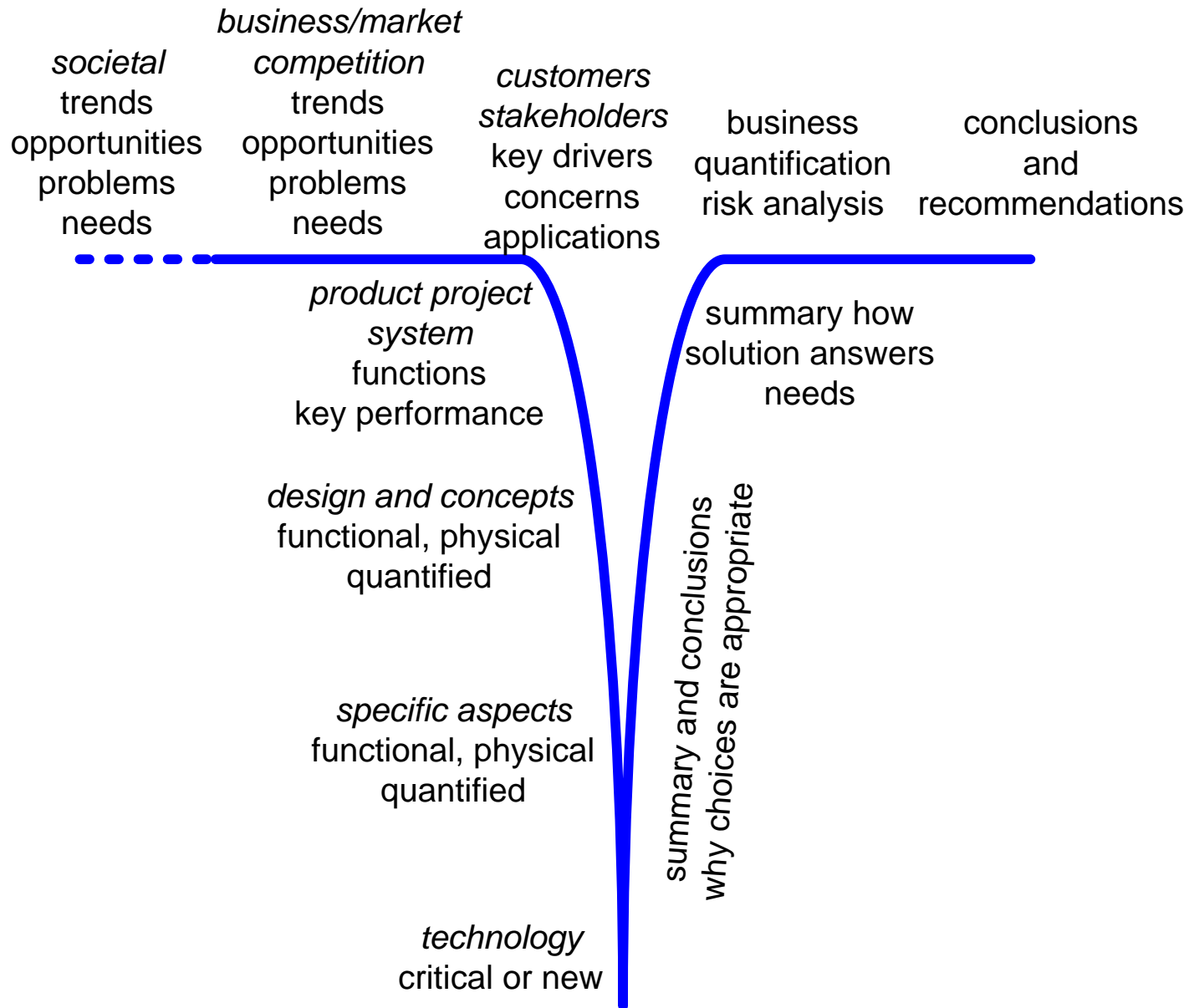
# Iterative Approach



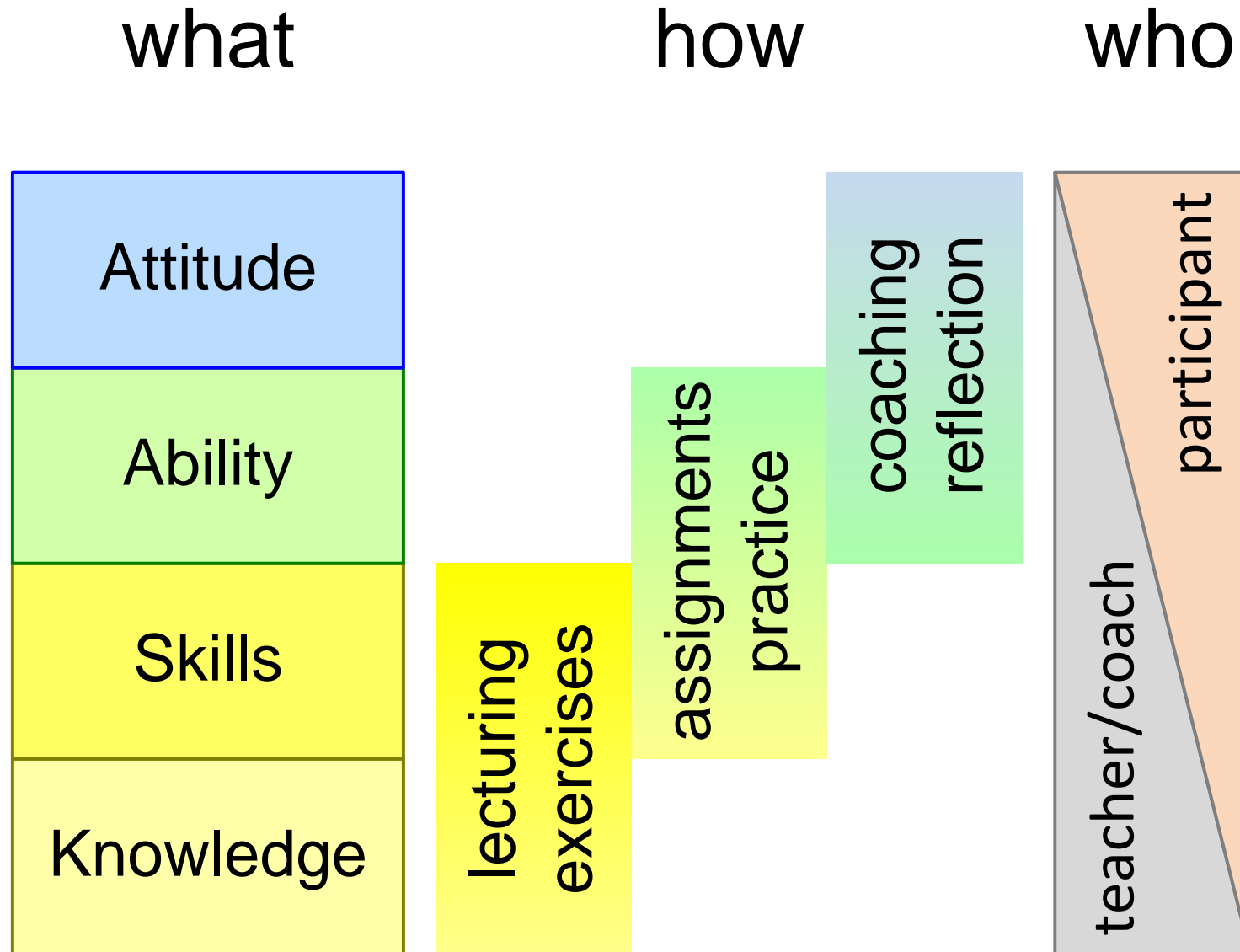
# Architect and Typical Expectation from Organization



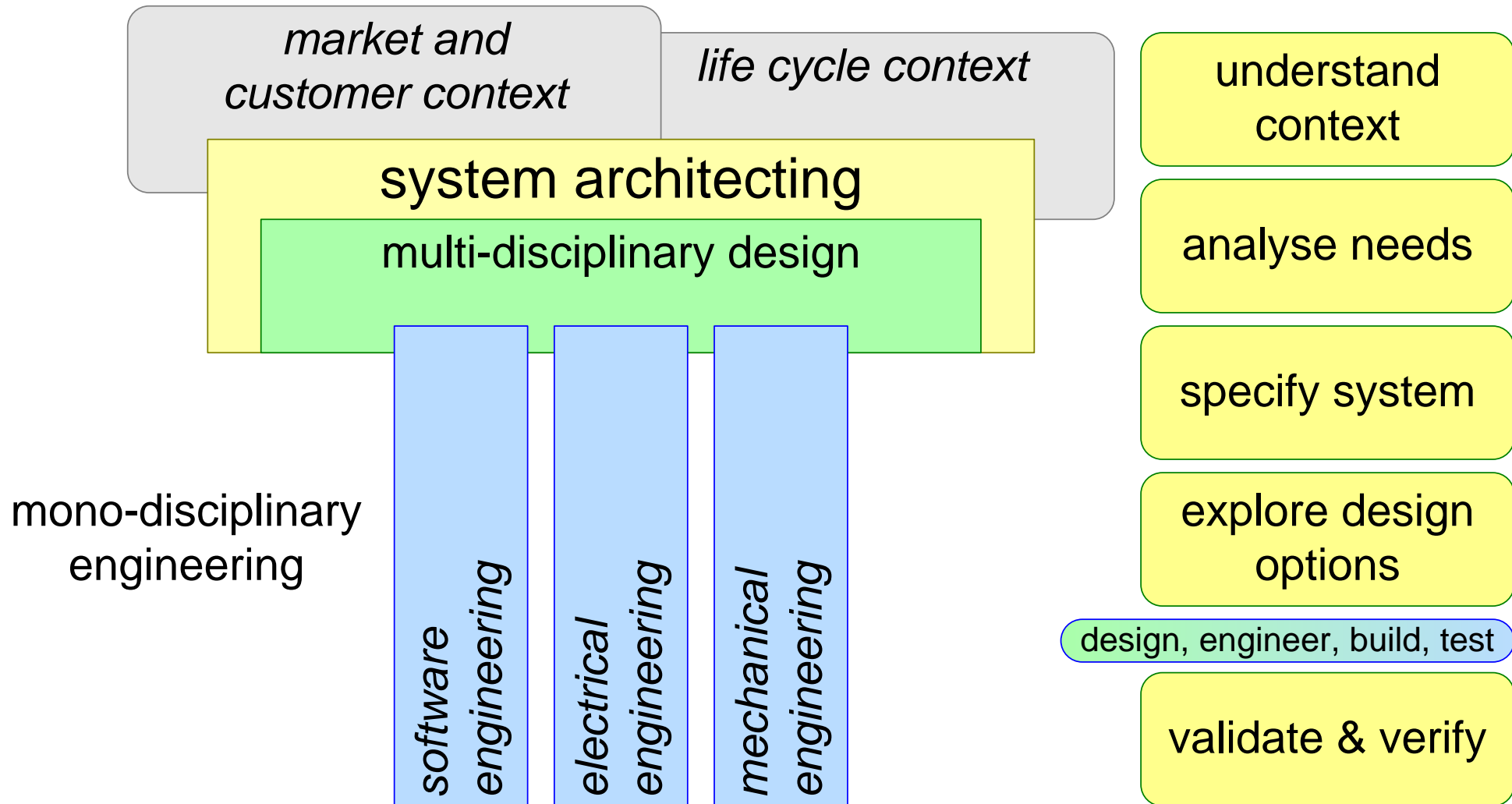
# Final Delivery: T-shape Presentation to Top Management



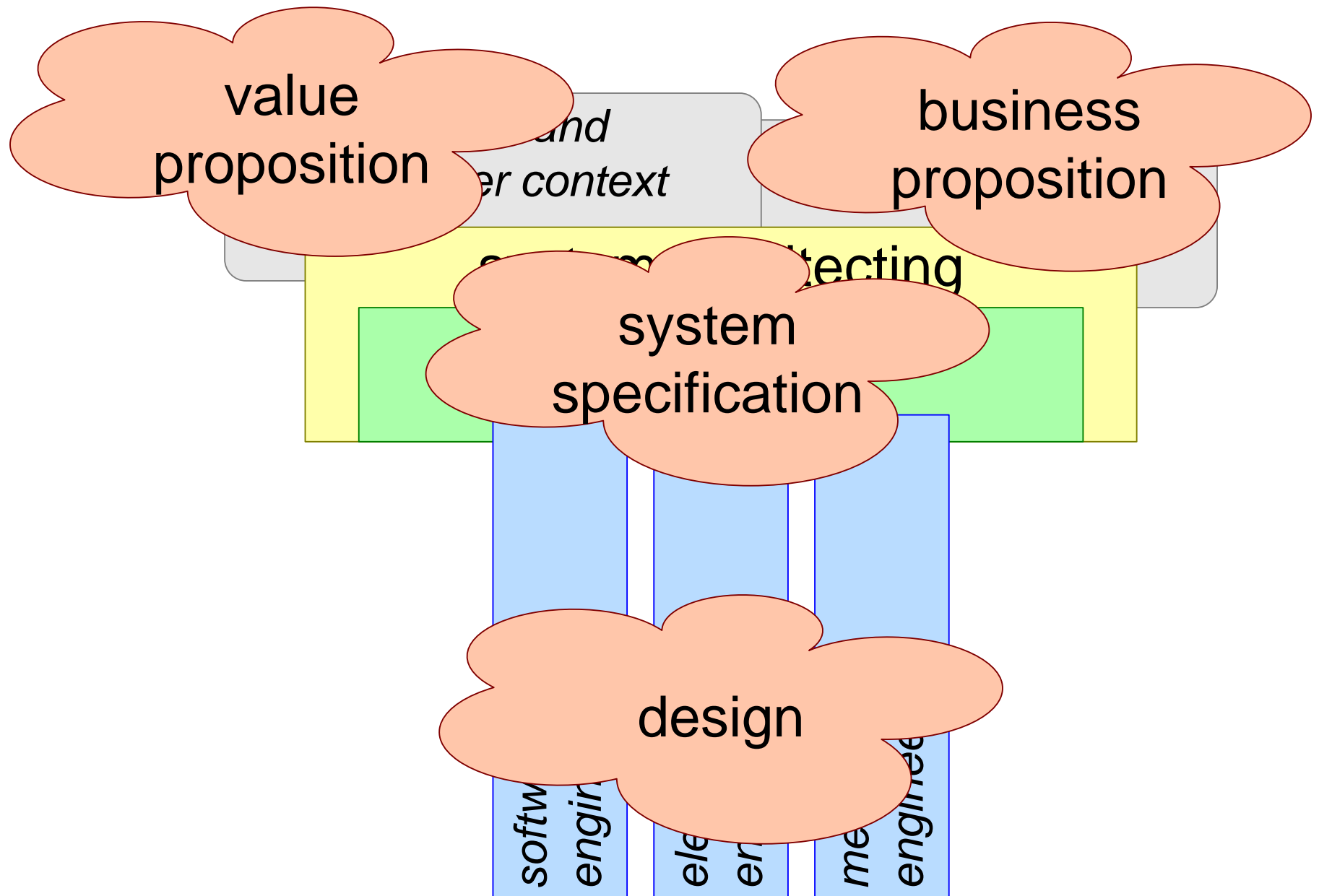
# Competence Development: working at multiple levels



# Architecting: Fit-For-Purpose



# Delivery at the end of this module





# Alternate Knowledge/Skills and Attitude

