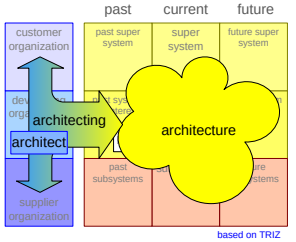
Competence Development Program; Vision on Architecting and Education

by *Gerrit Muller* University of South-Eastern Norway-NISE
e-mail: gaudisite@gmail.com
www.gaudisite.nl

Abstract

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



January 10, 2021
status: planned
version: 0

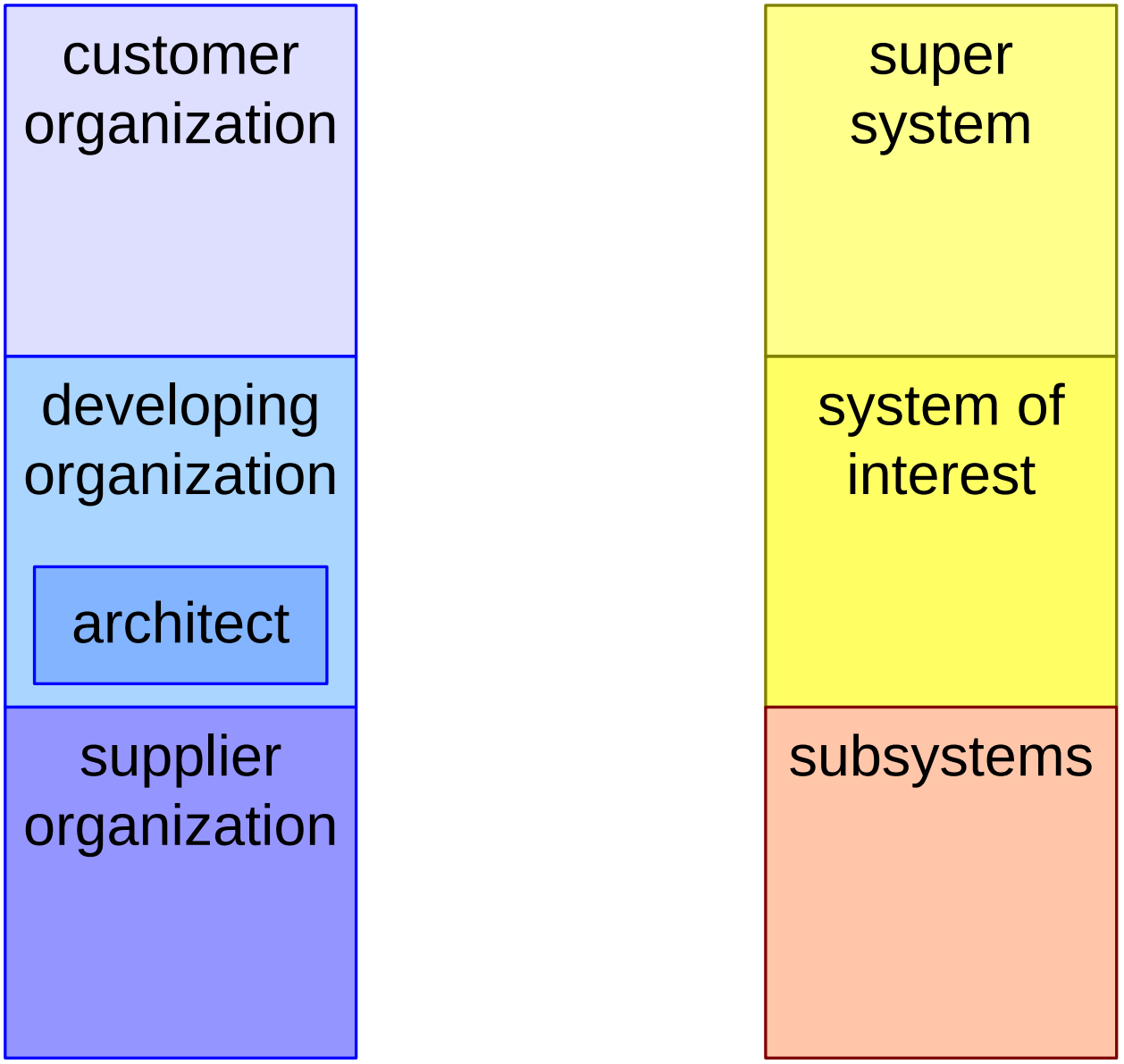
Colophon

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

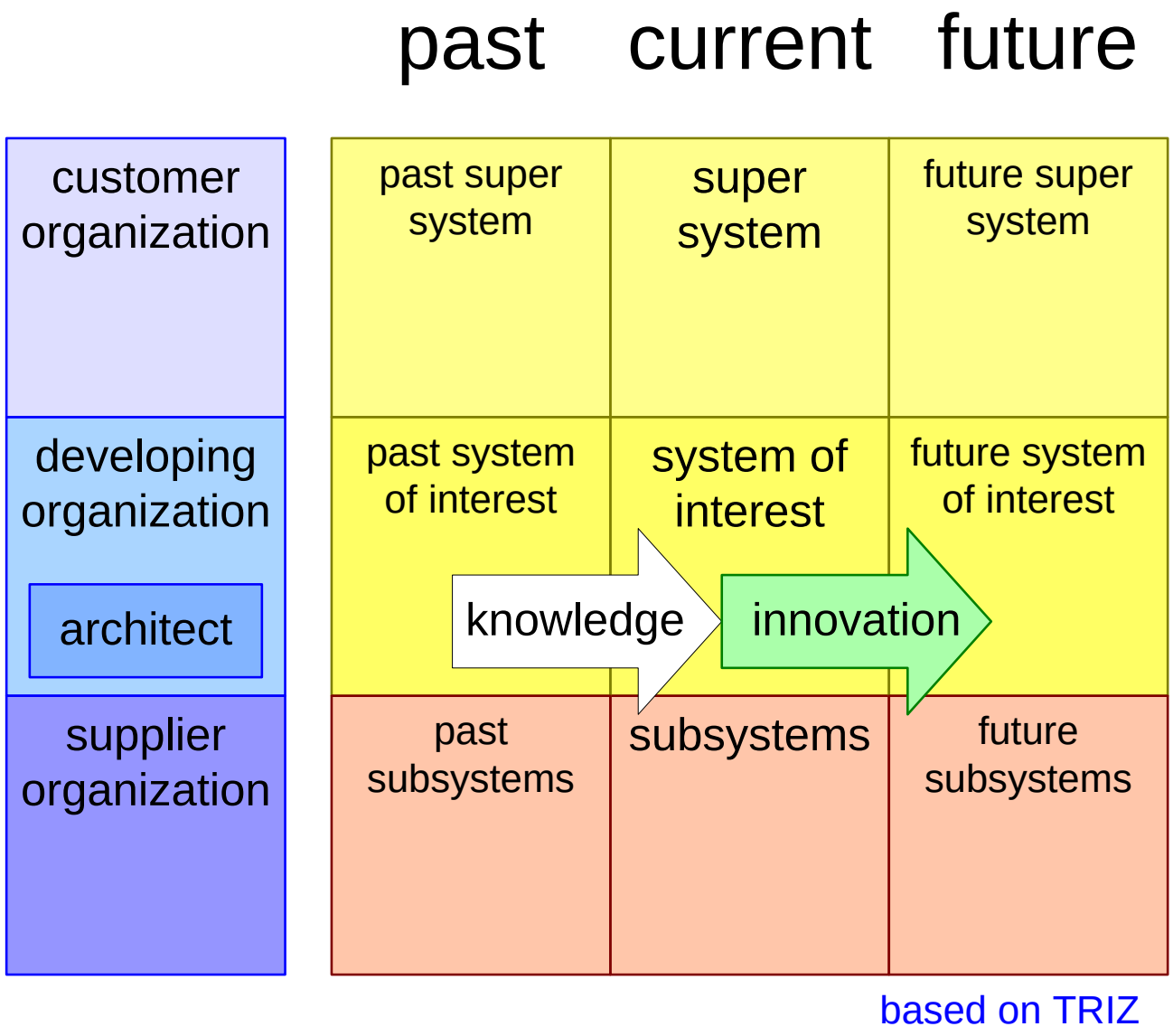
Joris van den Aker is program manager and driver behind the program

Our Primary Interest

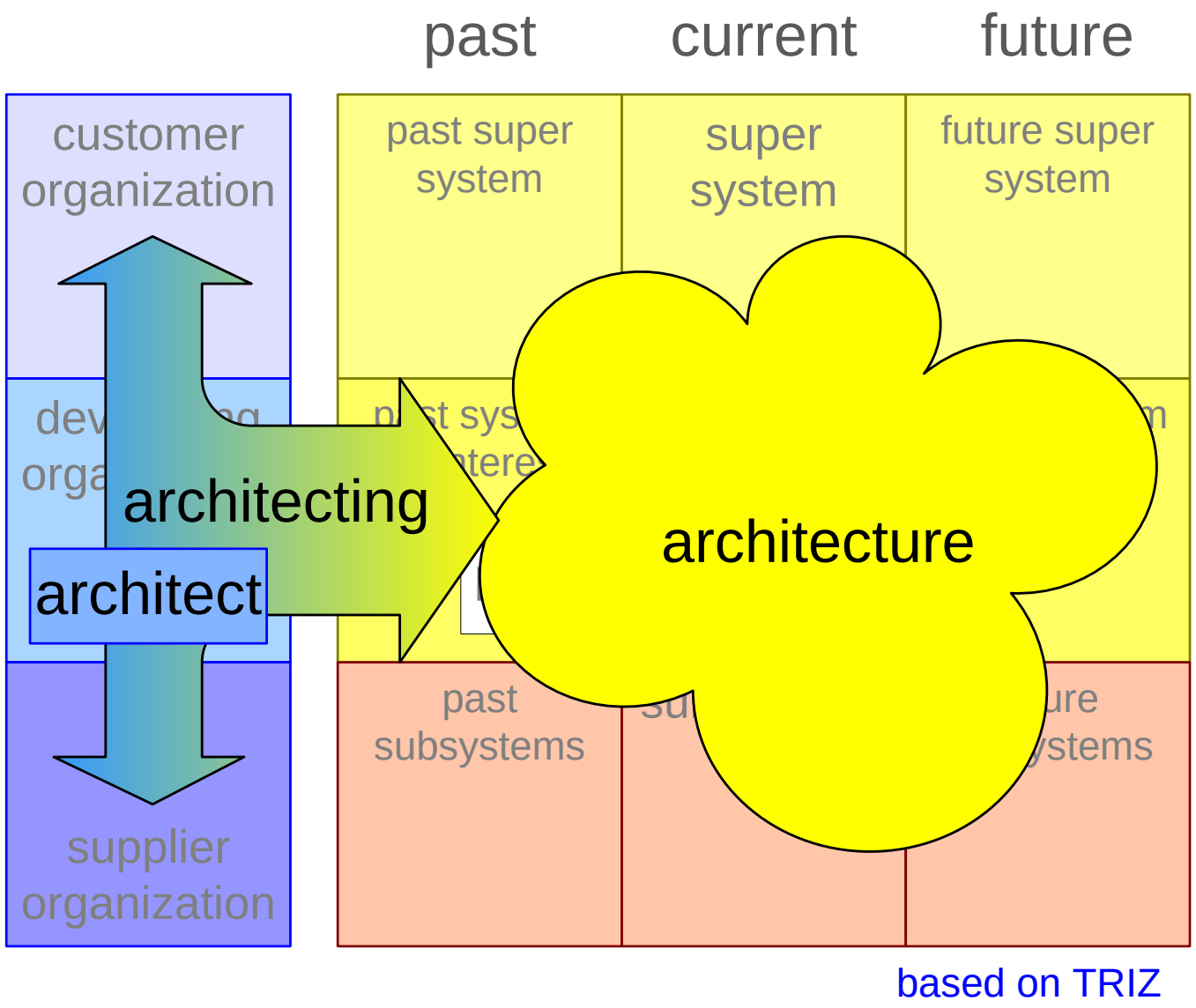
Context, Zoom-out and Zoom-in



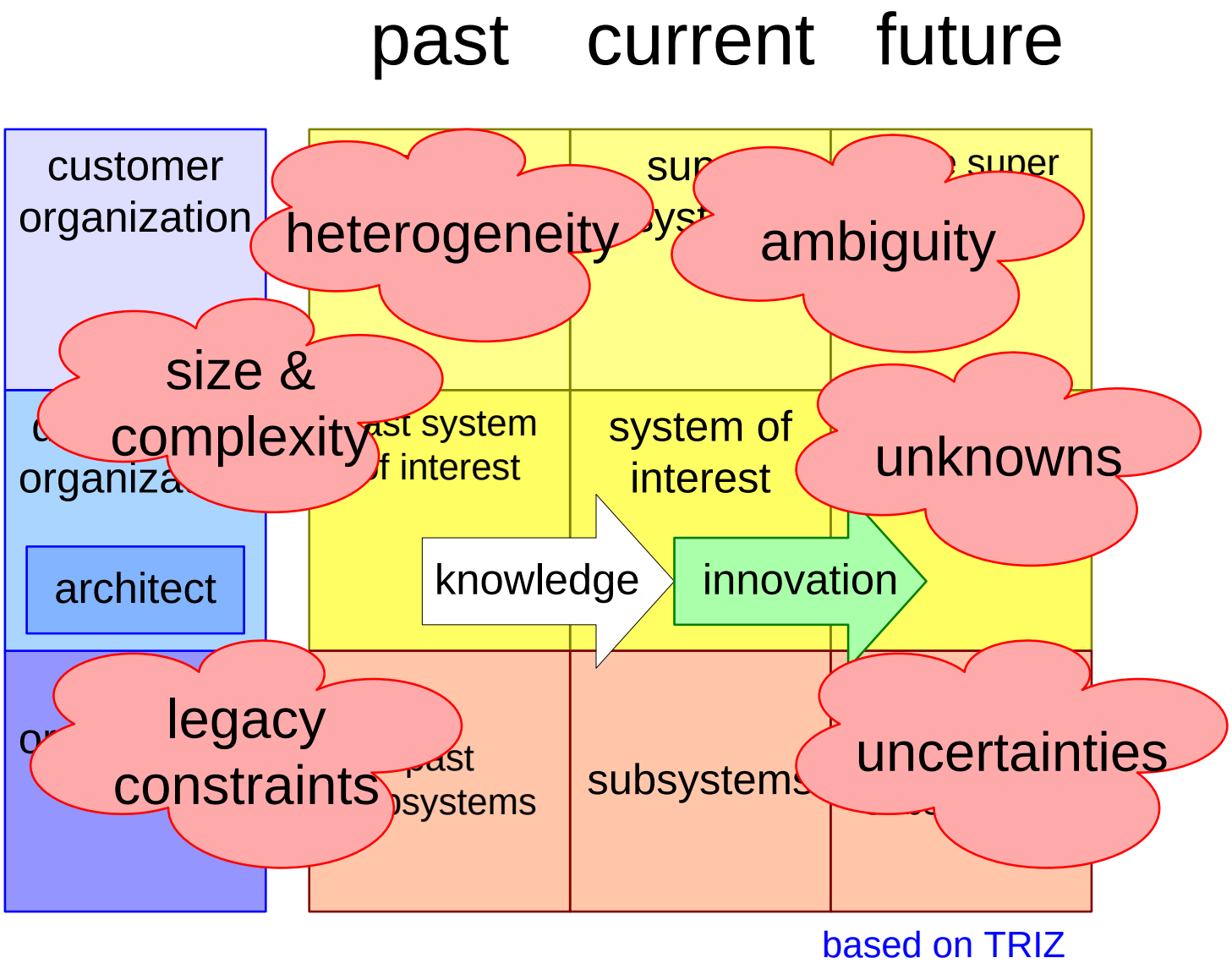
Adding the Time Dimension



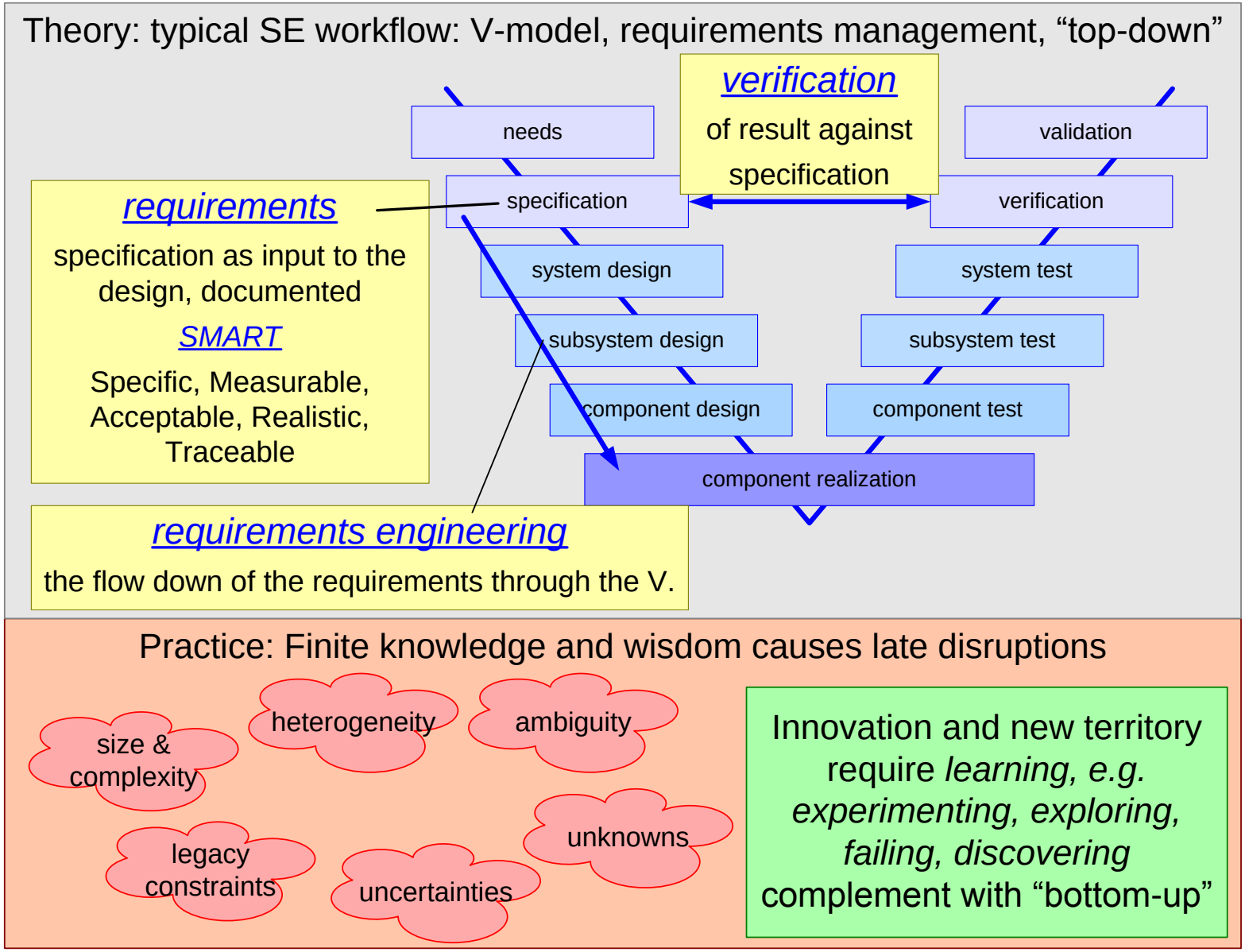
Architect,Architecture, Architecting



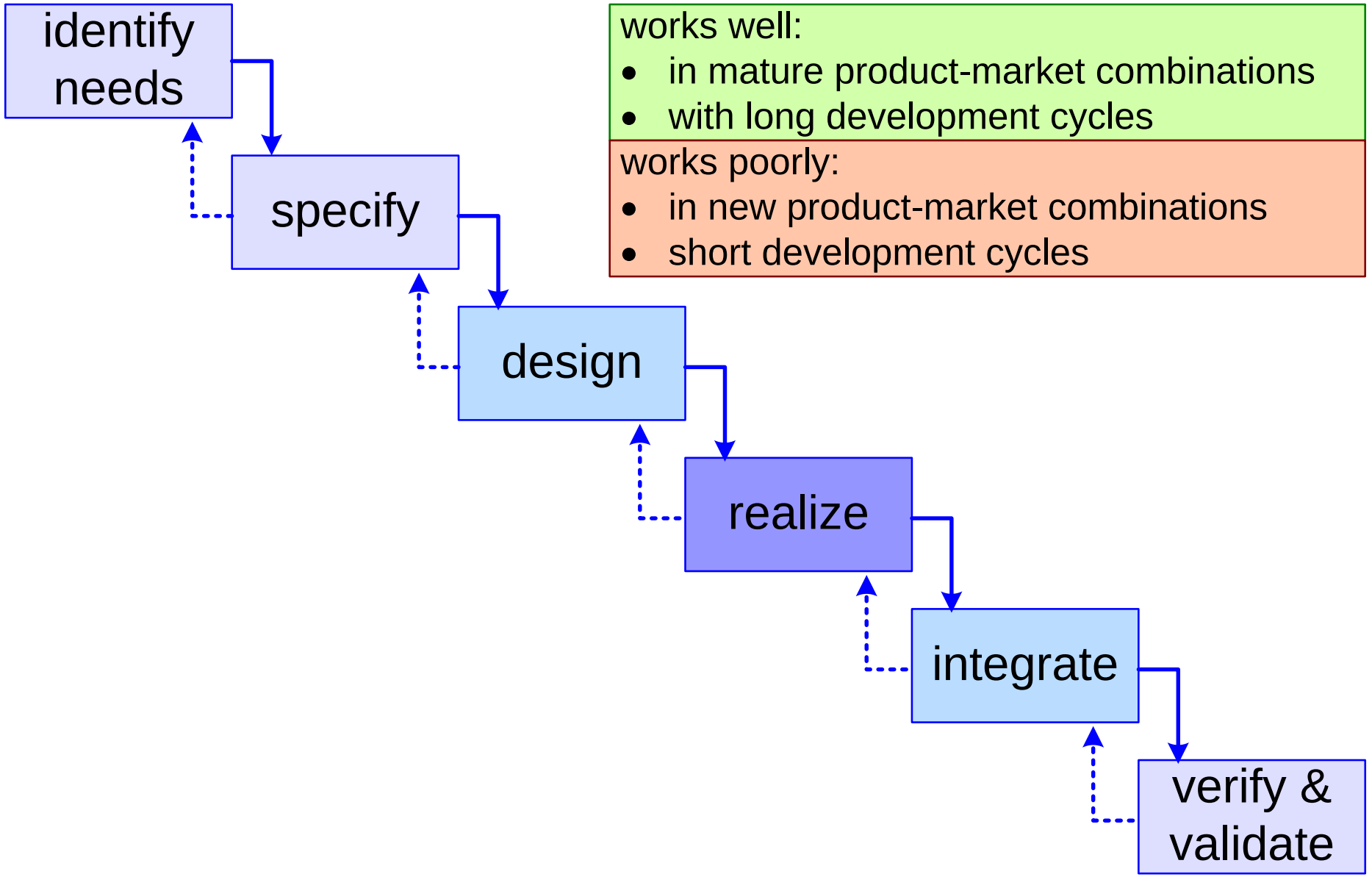
Challenges


past current future
customer organization
heterogeneity
ambiguity
size & complexity
unknowns
system of interest
knowledge
innovation
architect
legacy constraints
uncertainties
subsystems
based on TRIZ

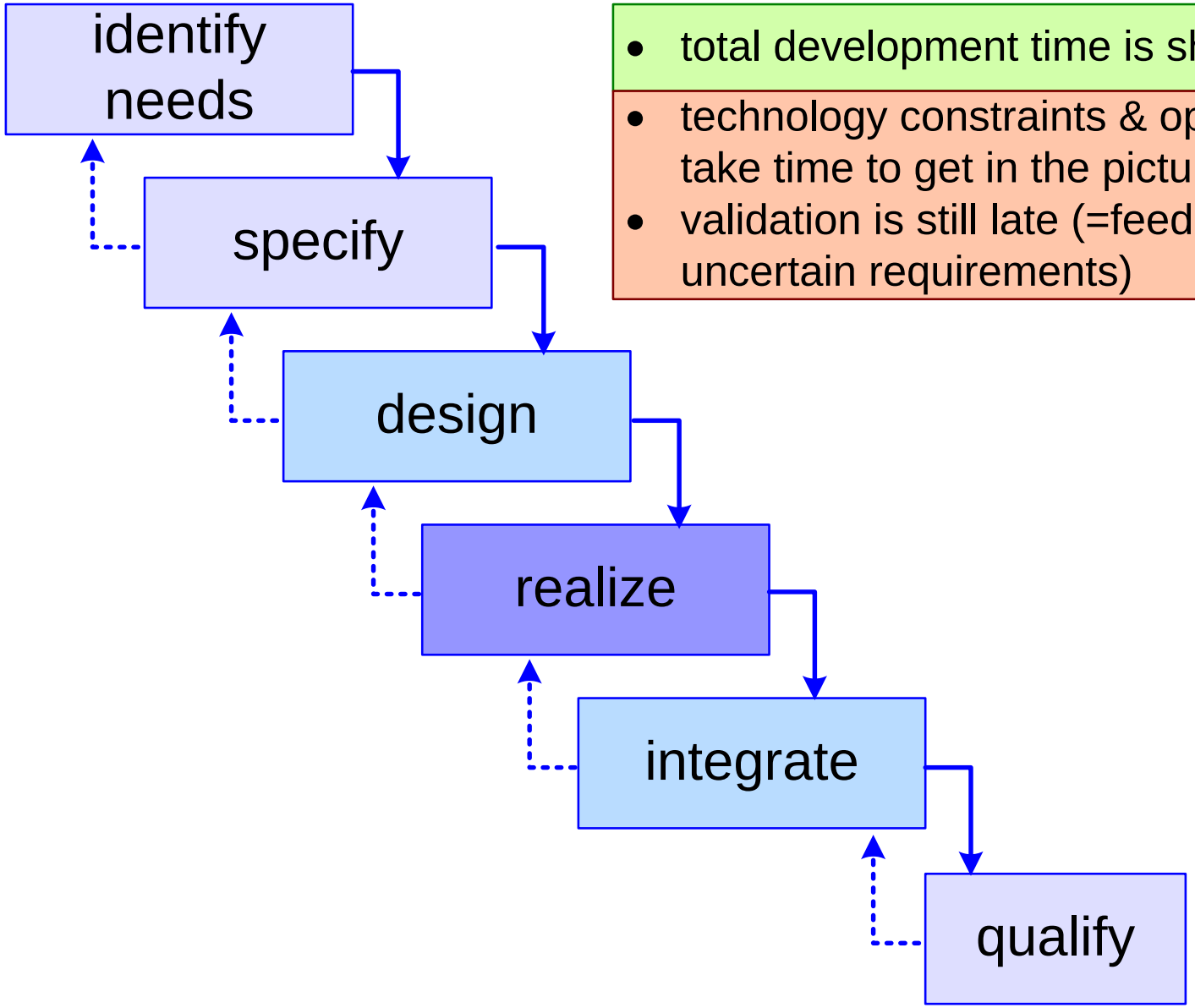
From Theory to Practice



Waterfall model



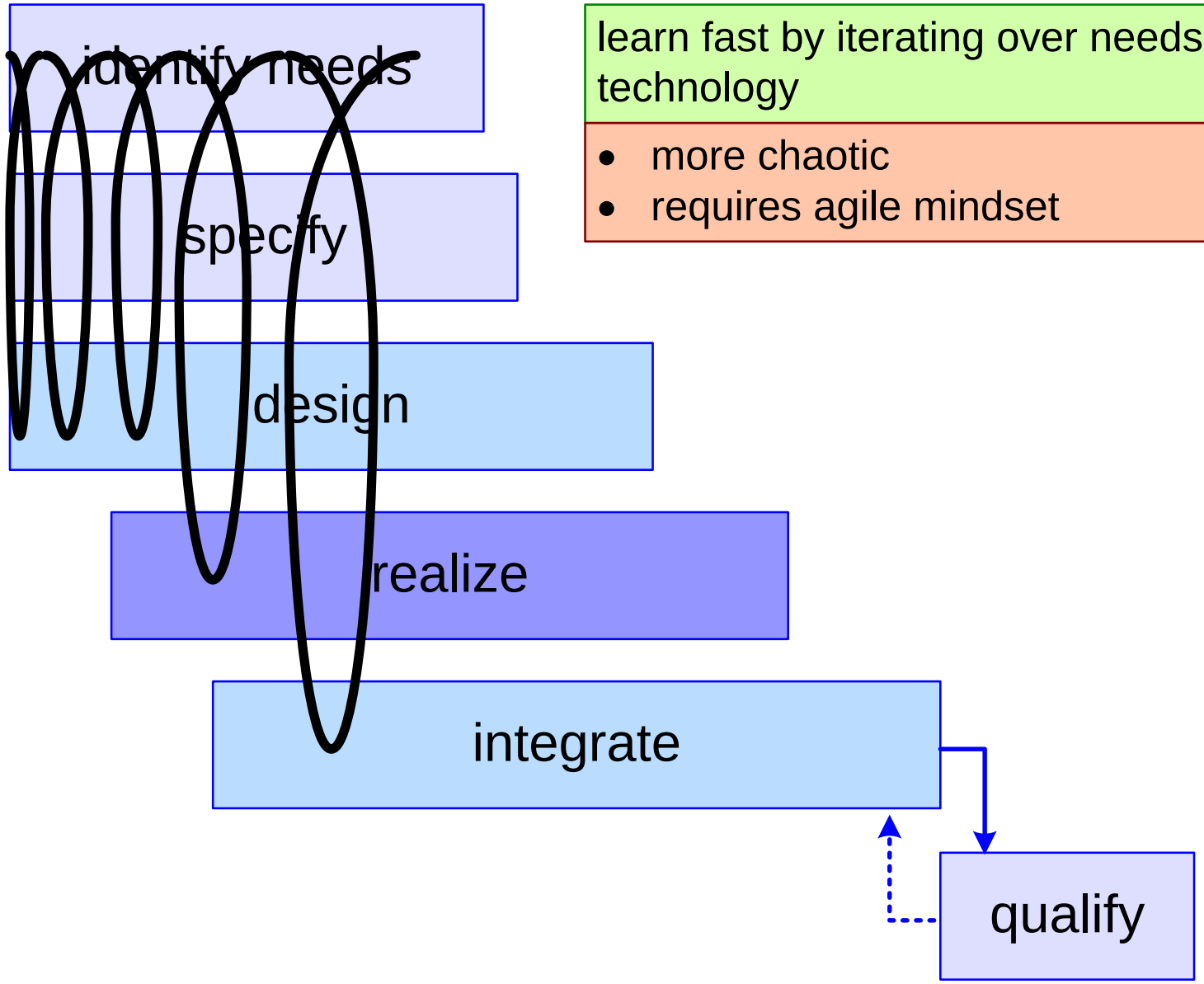
Concurrent Engineering



- total development time is shorter

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

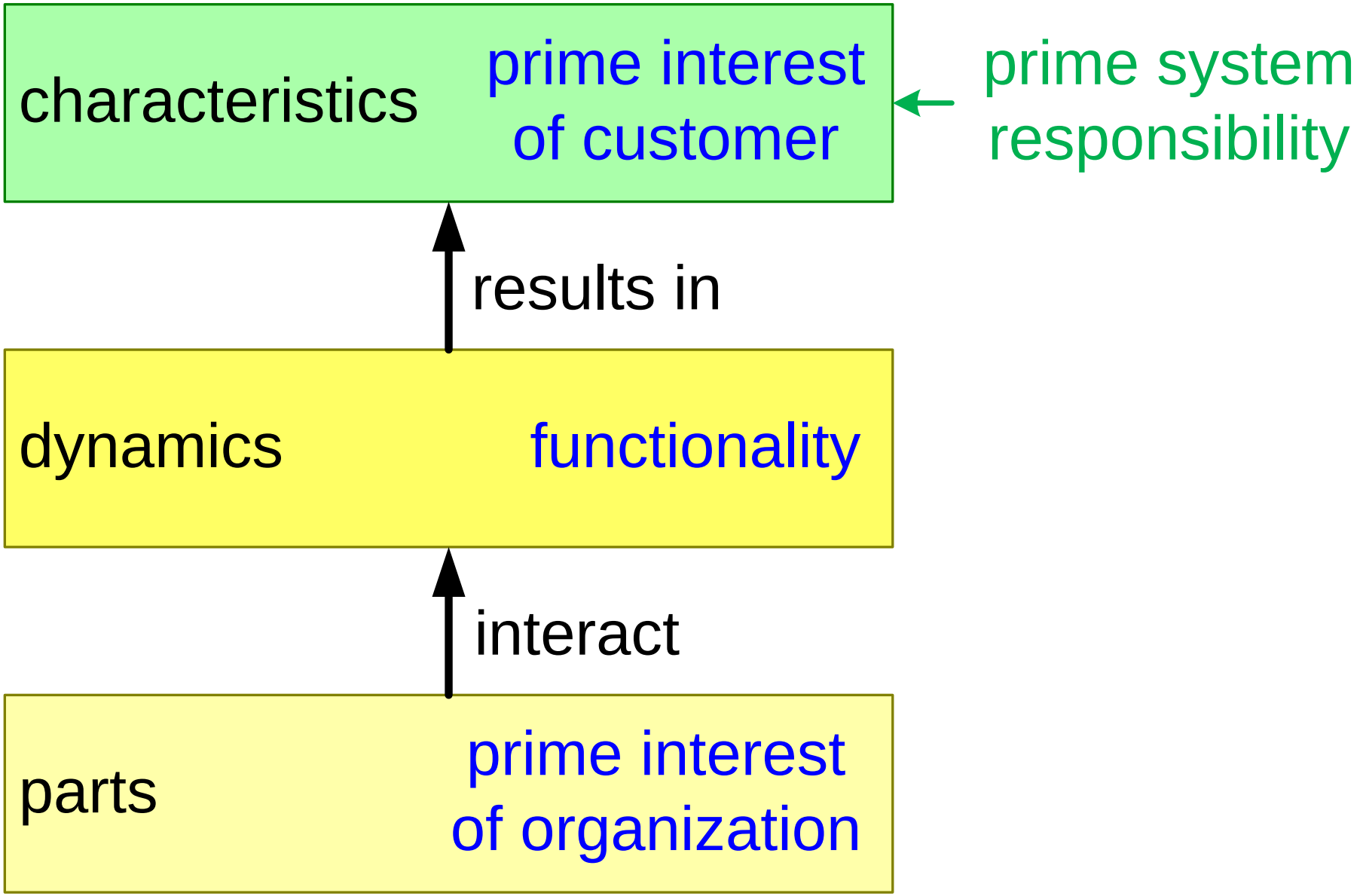
Iterative Approach



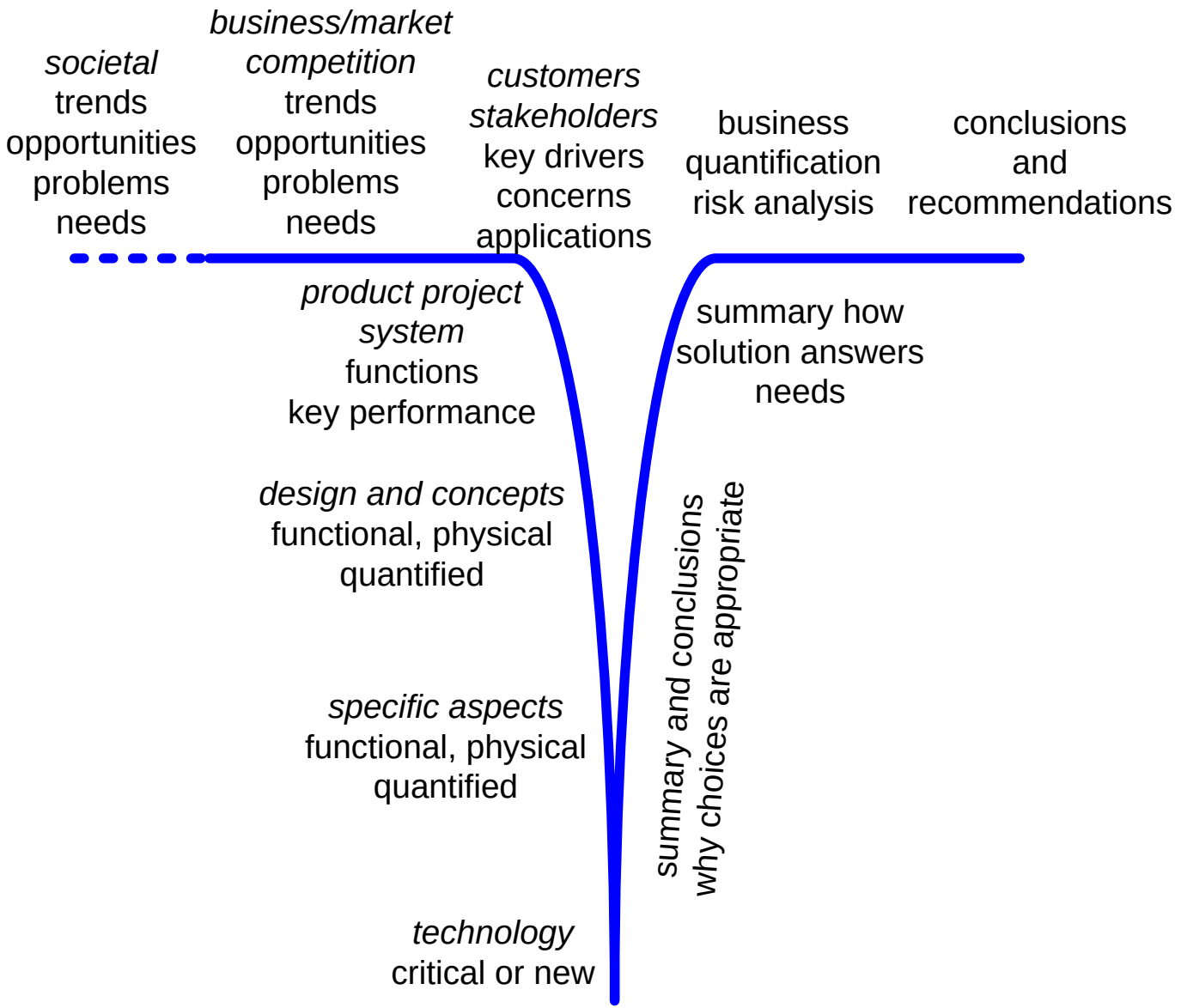
learn fast by iterating over needs and technology

- more chaotic
- requires agile mindset

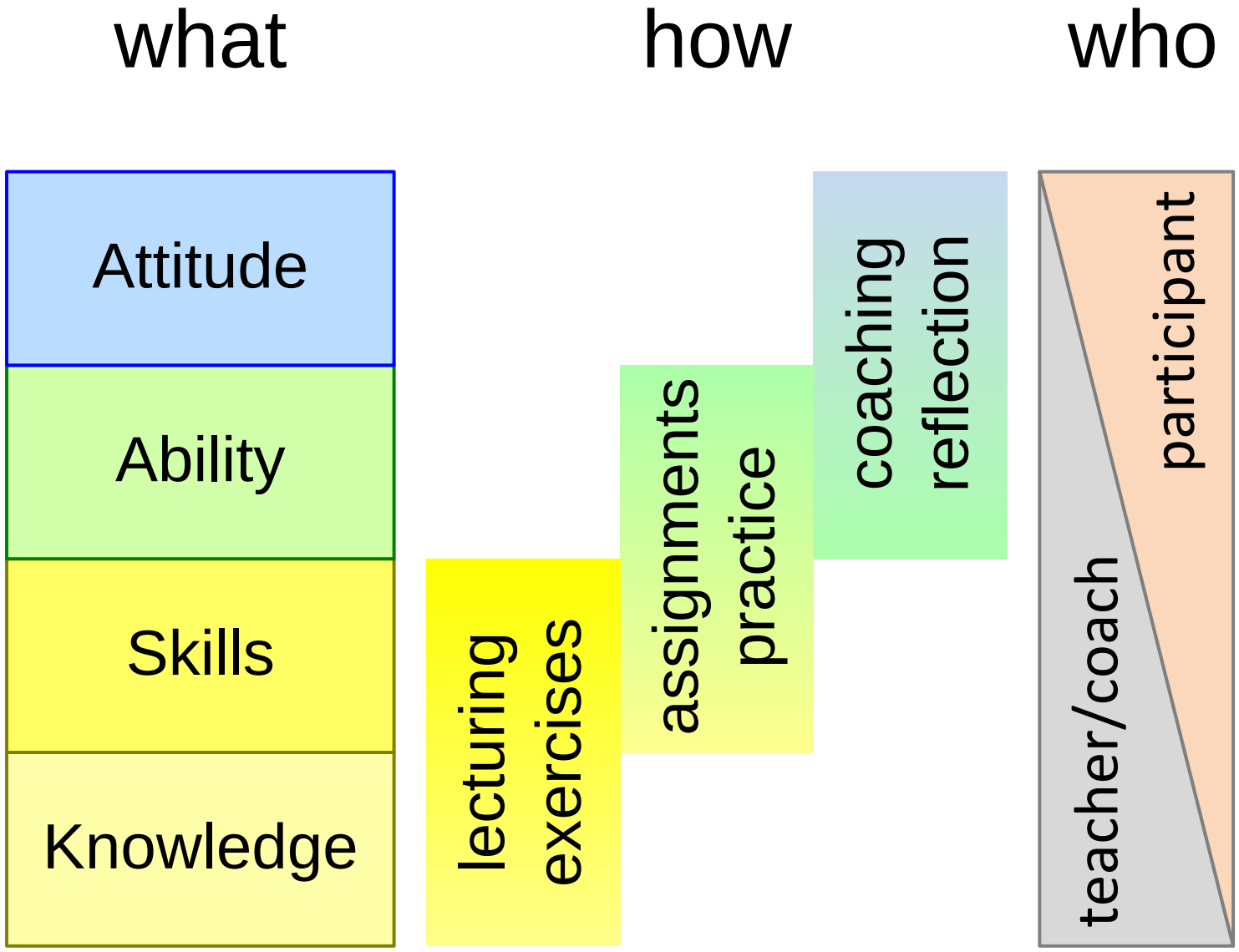
Architect and Typical Expectation from Organization



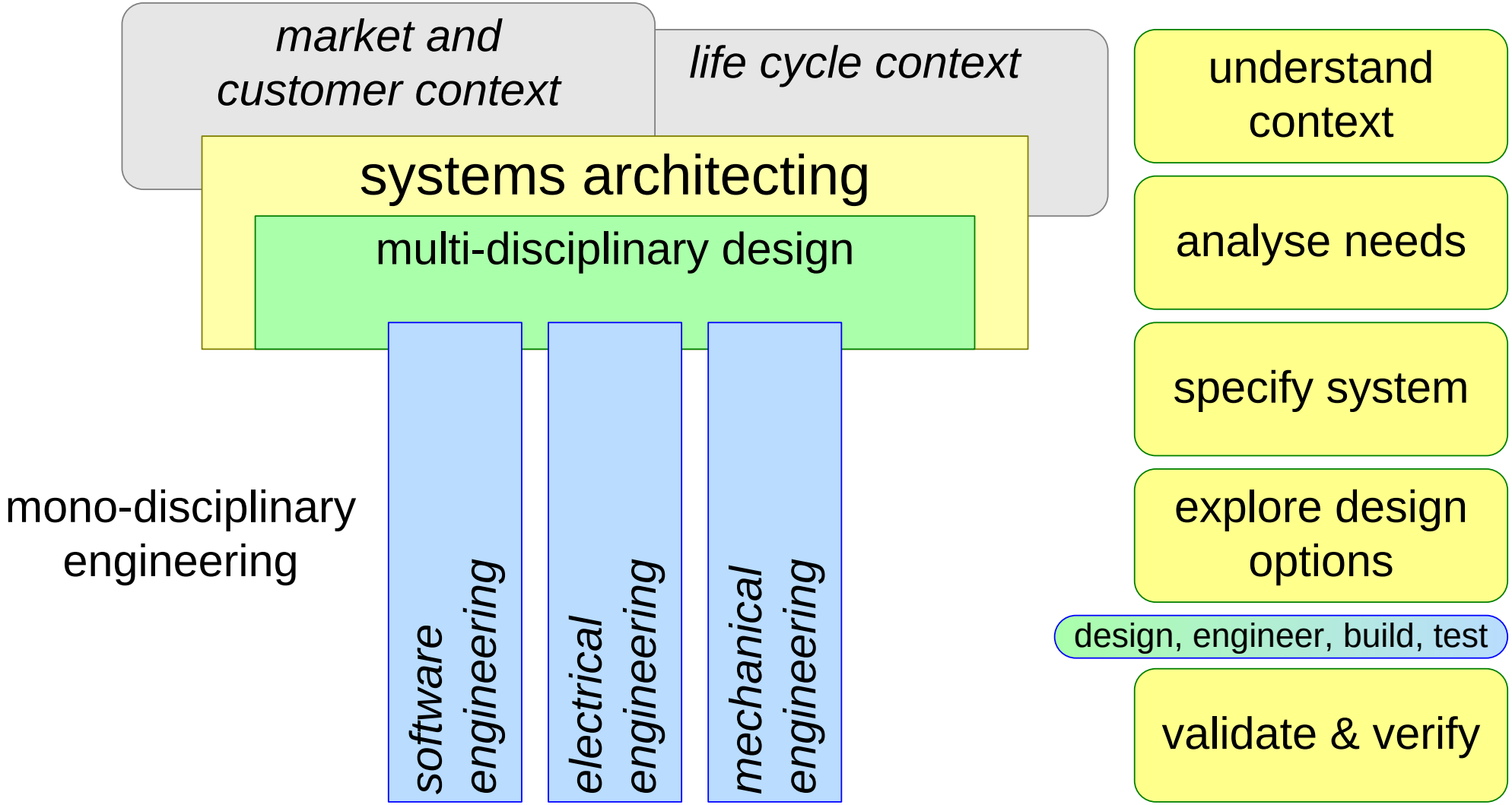
Final Delivery: T-shape Presentation to Top Management



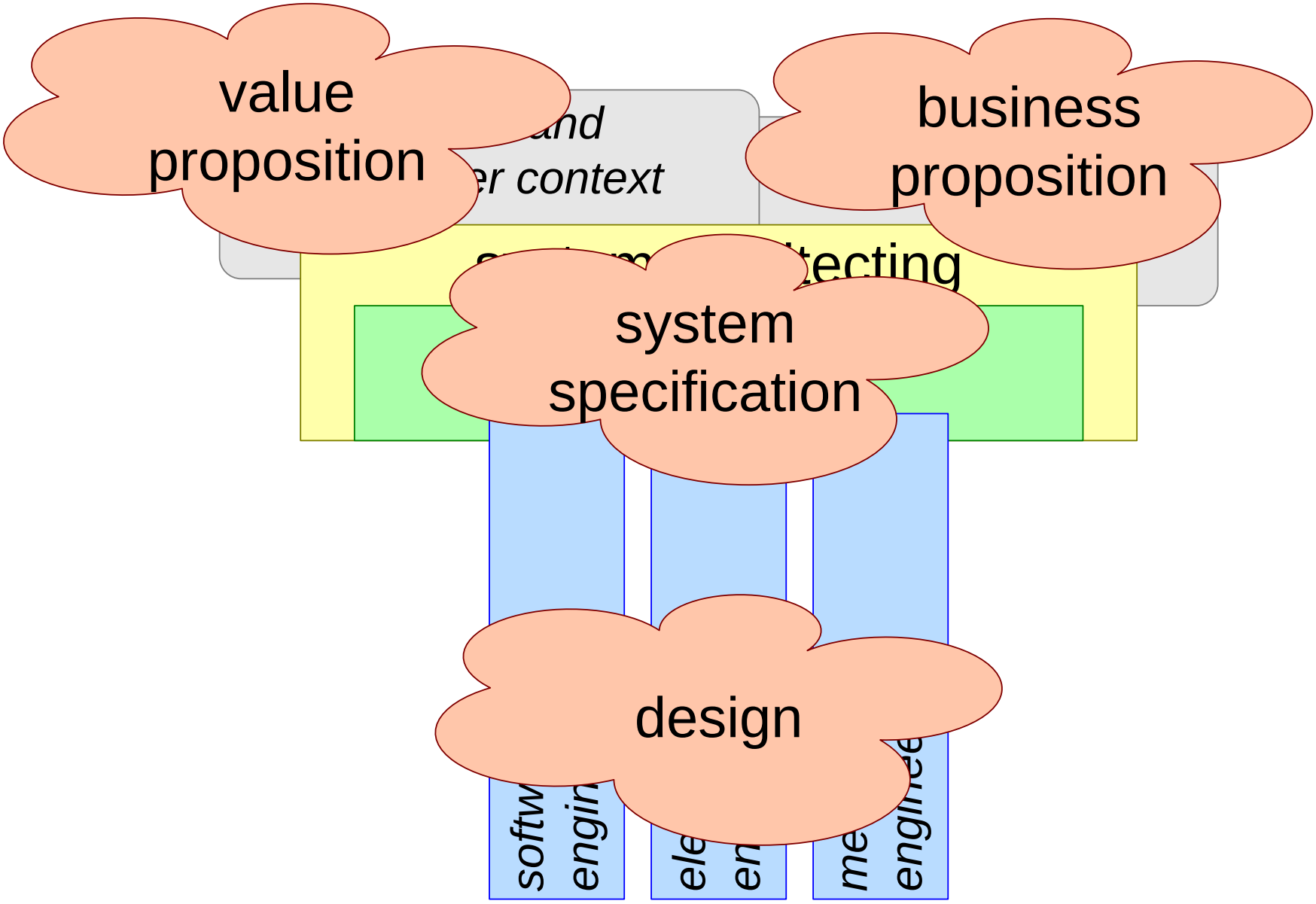
Competence Development: working at multiple levels



Architecting: Fit-For-Purpose



Delivery at the end of this module



Alternate Knowledge/Skills and Attitude