

Competence Development Program; Vision on Architecting and Education

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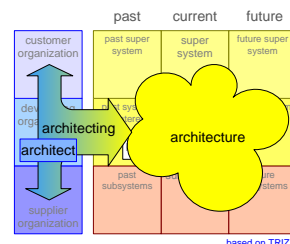
Abstract

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

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

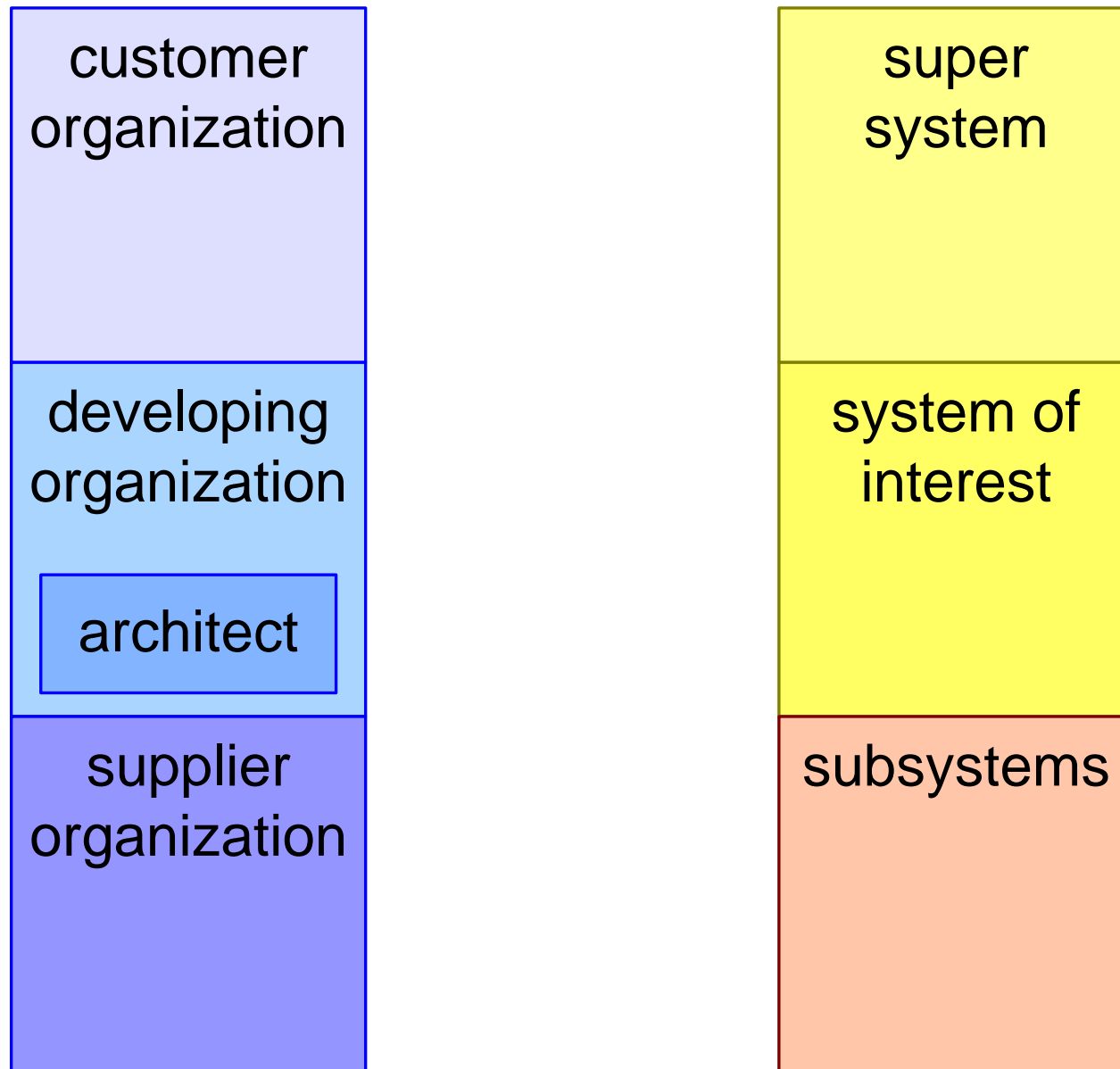
Our Primary Interest

developing
organization

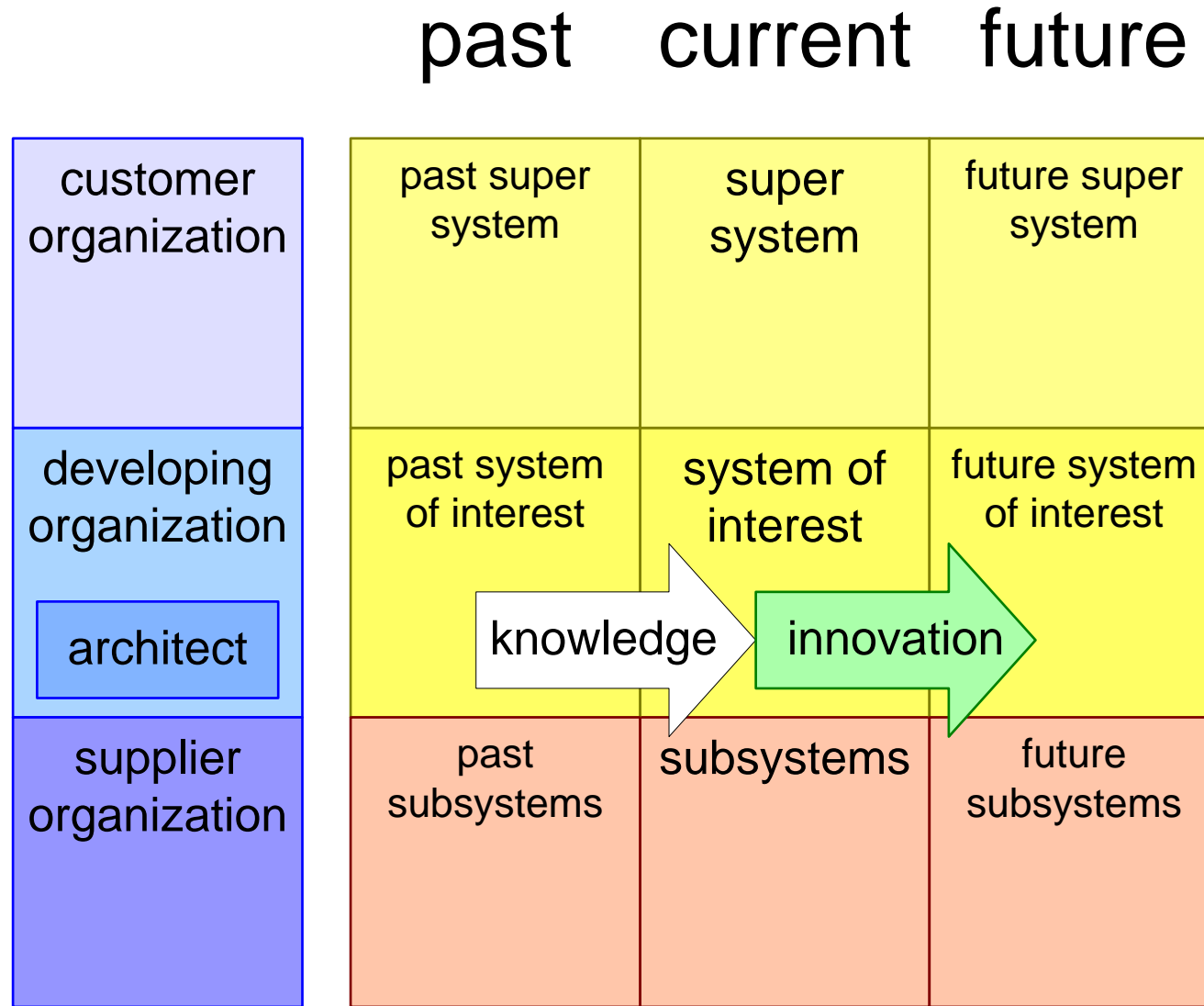
architect

system of
interest

Context, Zoom-out and Zoom-in

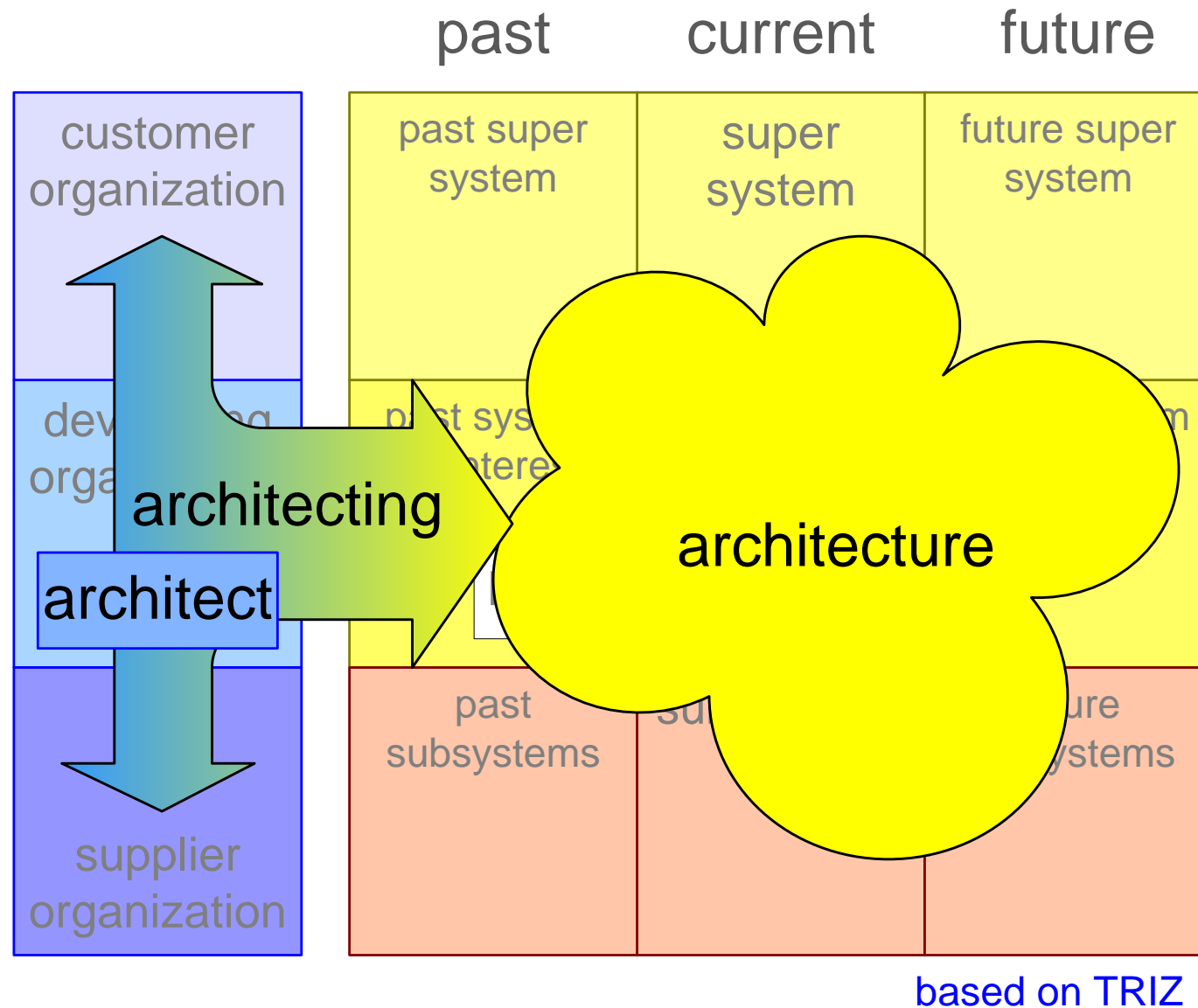


Adding the Time Dimension



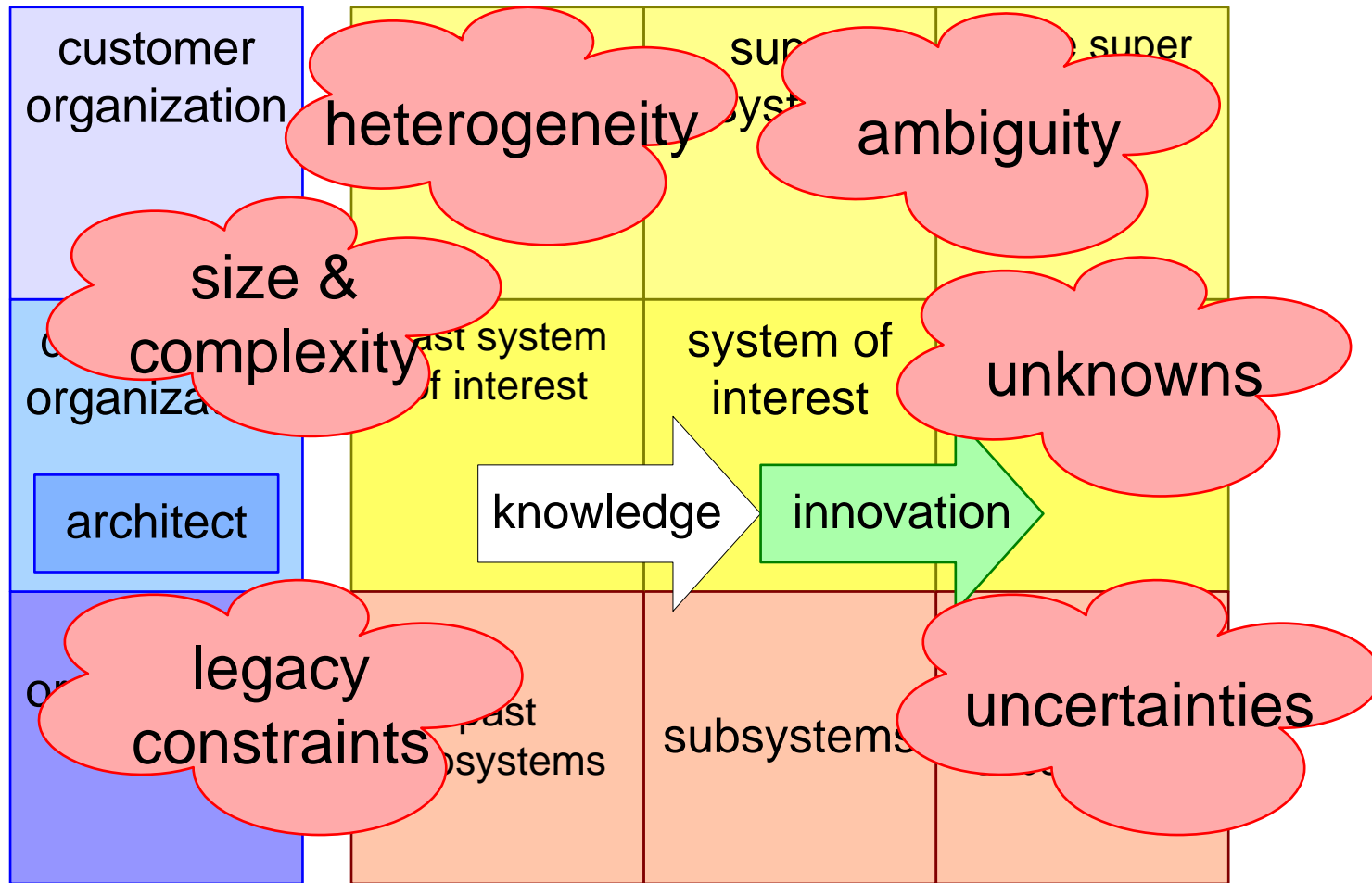
based on TRIZ

Architect, Architecture, Architecting



Challenges

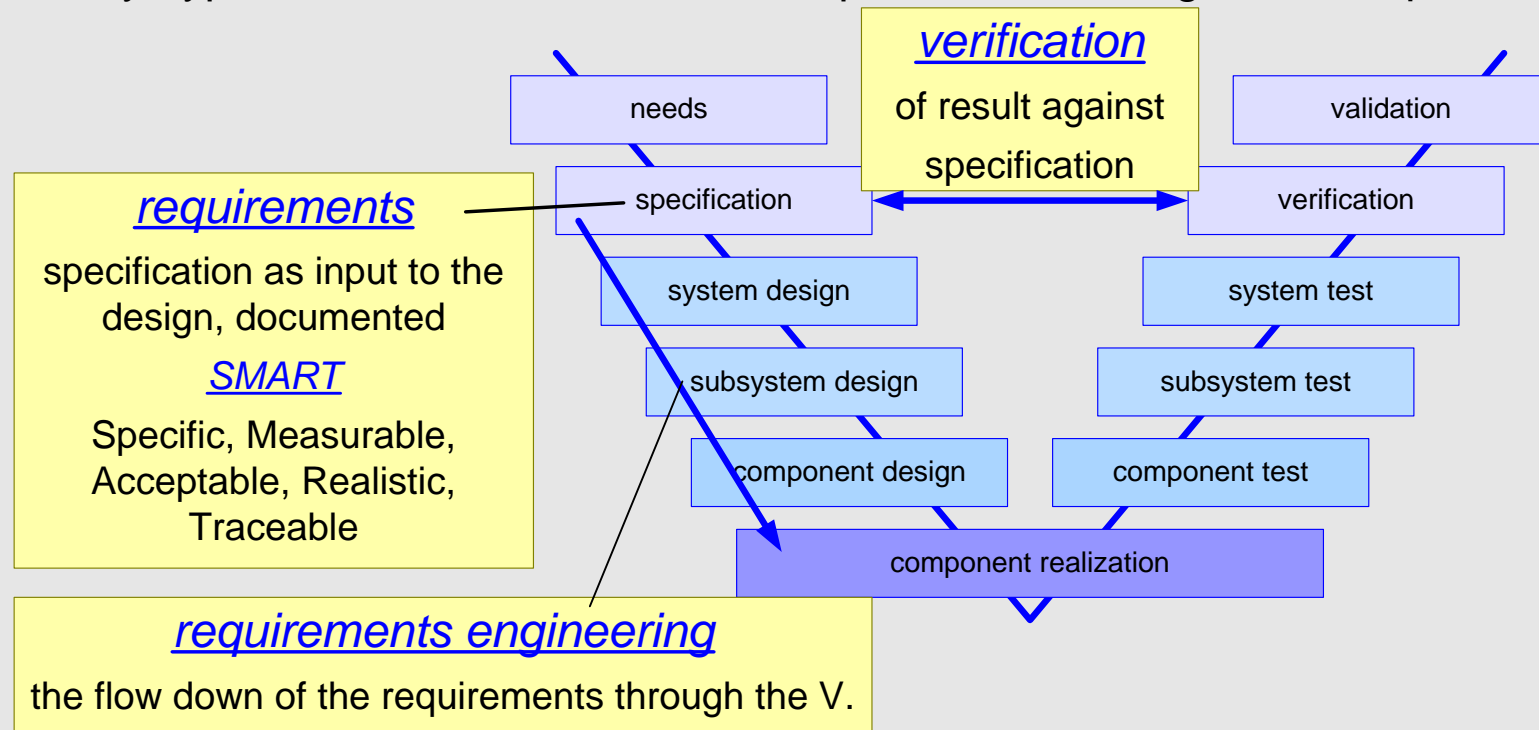
past current future



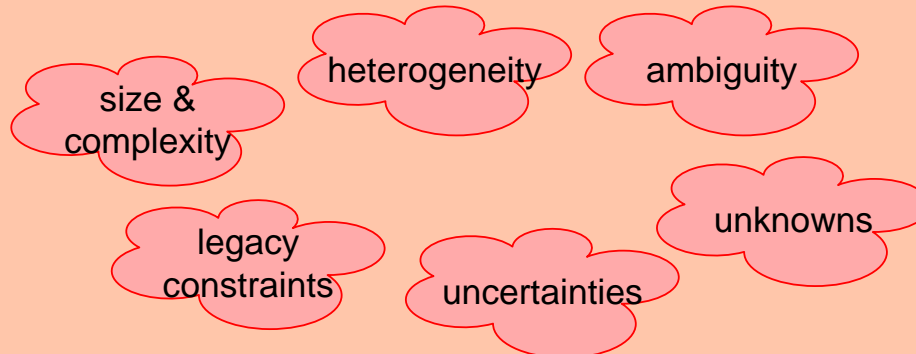
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From Theory to Practice

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

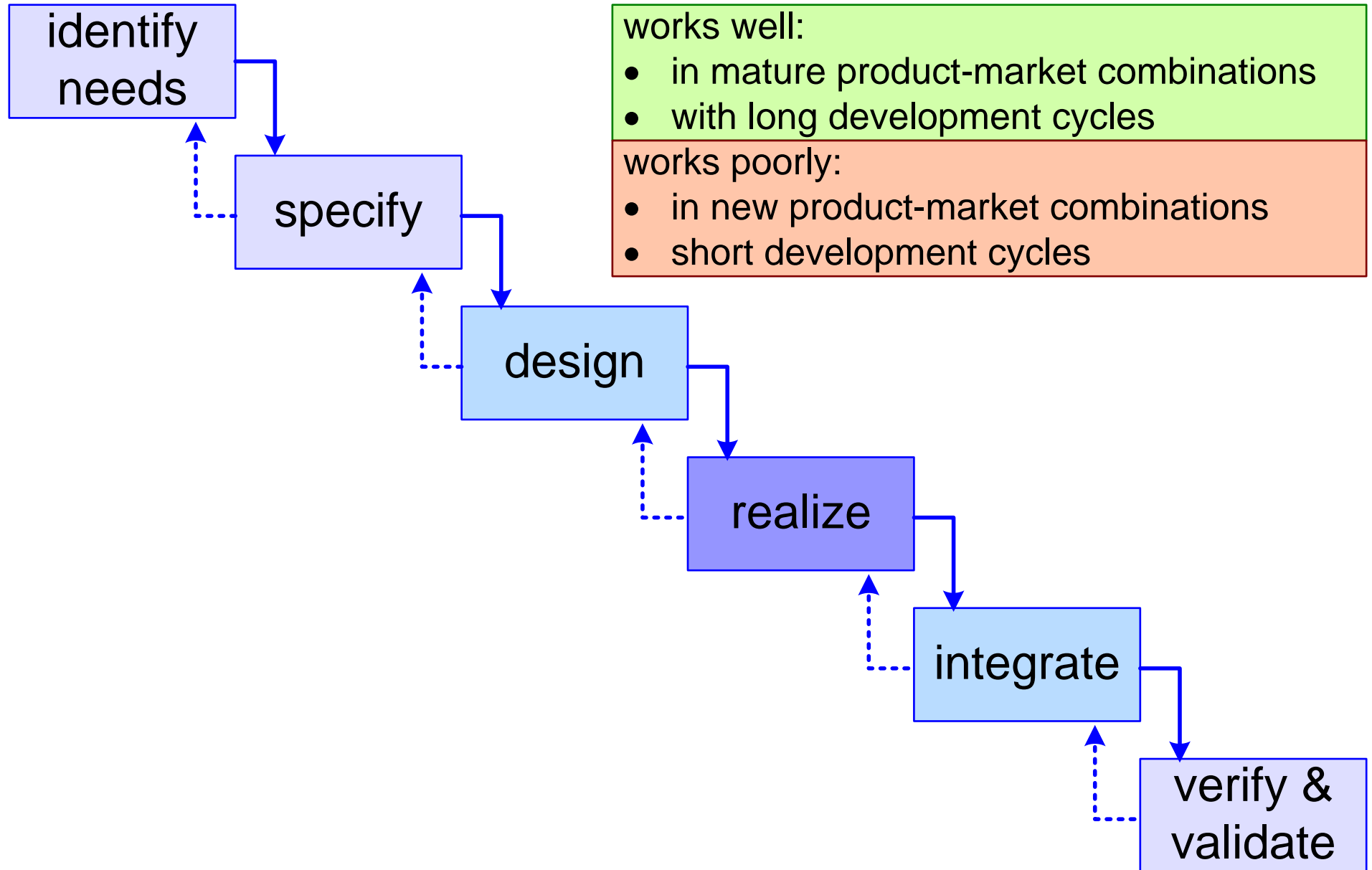


Practice: Finite knowledge and wisdom causes late disruptions

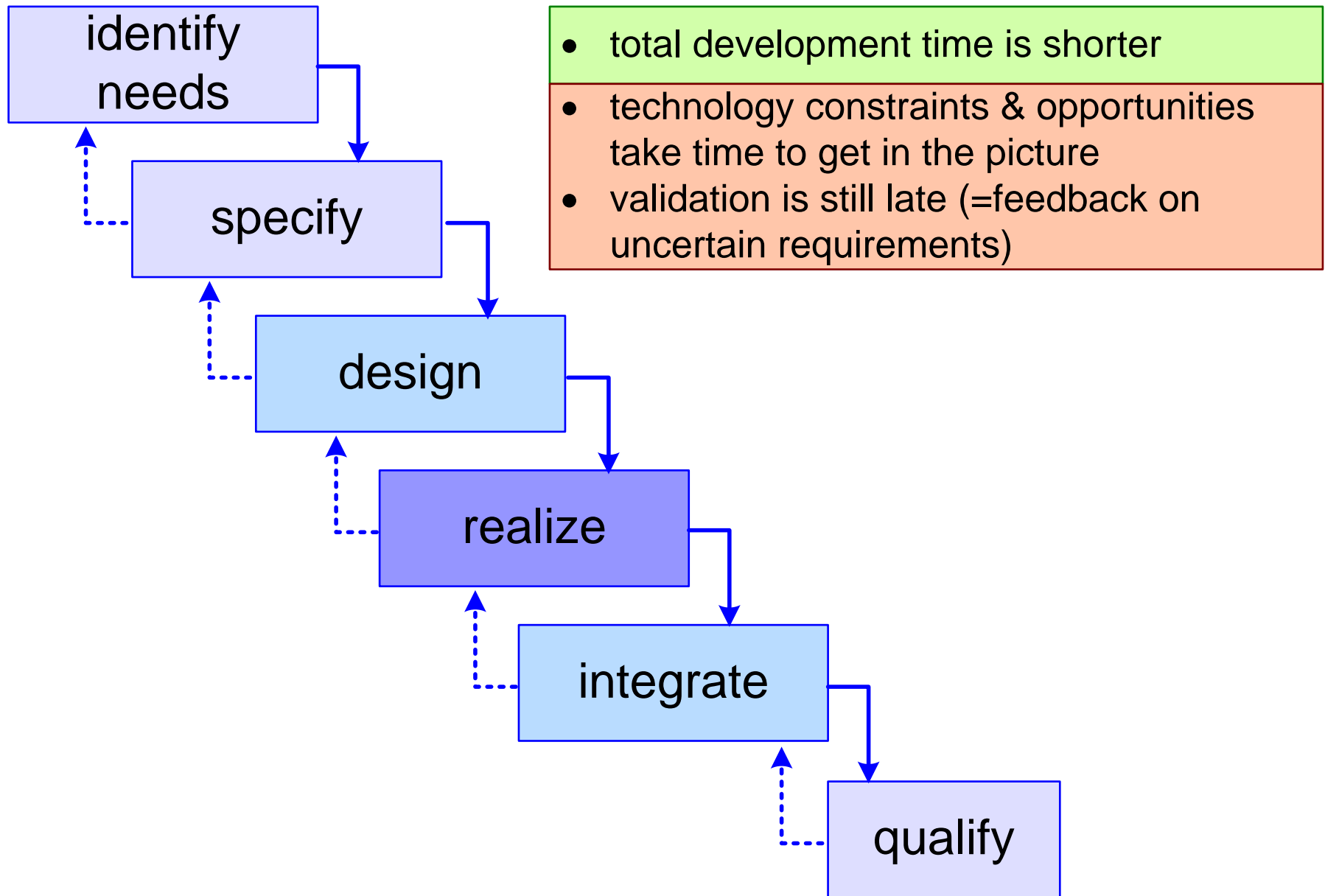


Innovation and new territory require *learning, e.g. experimenting, exploring, failing, discovering* complement with “bottom-up”

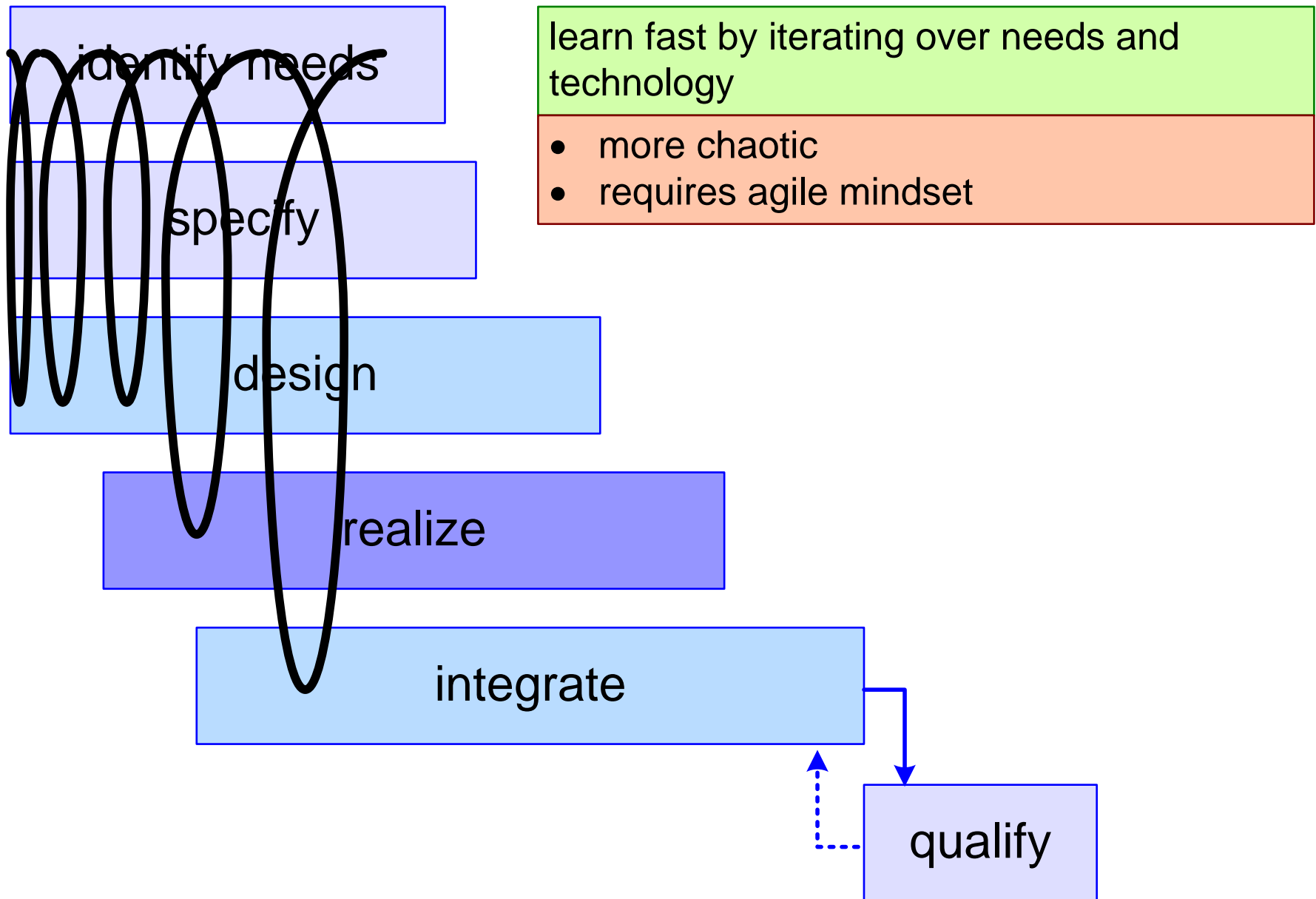
Waterfall model



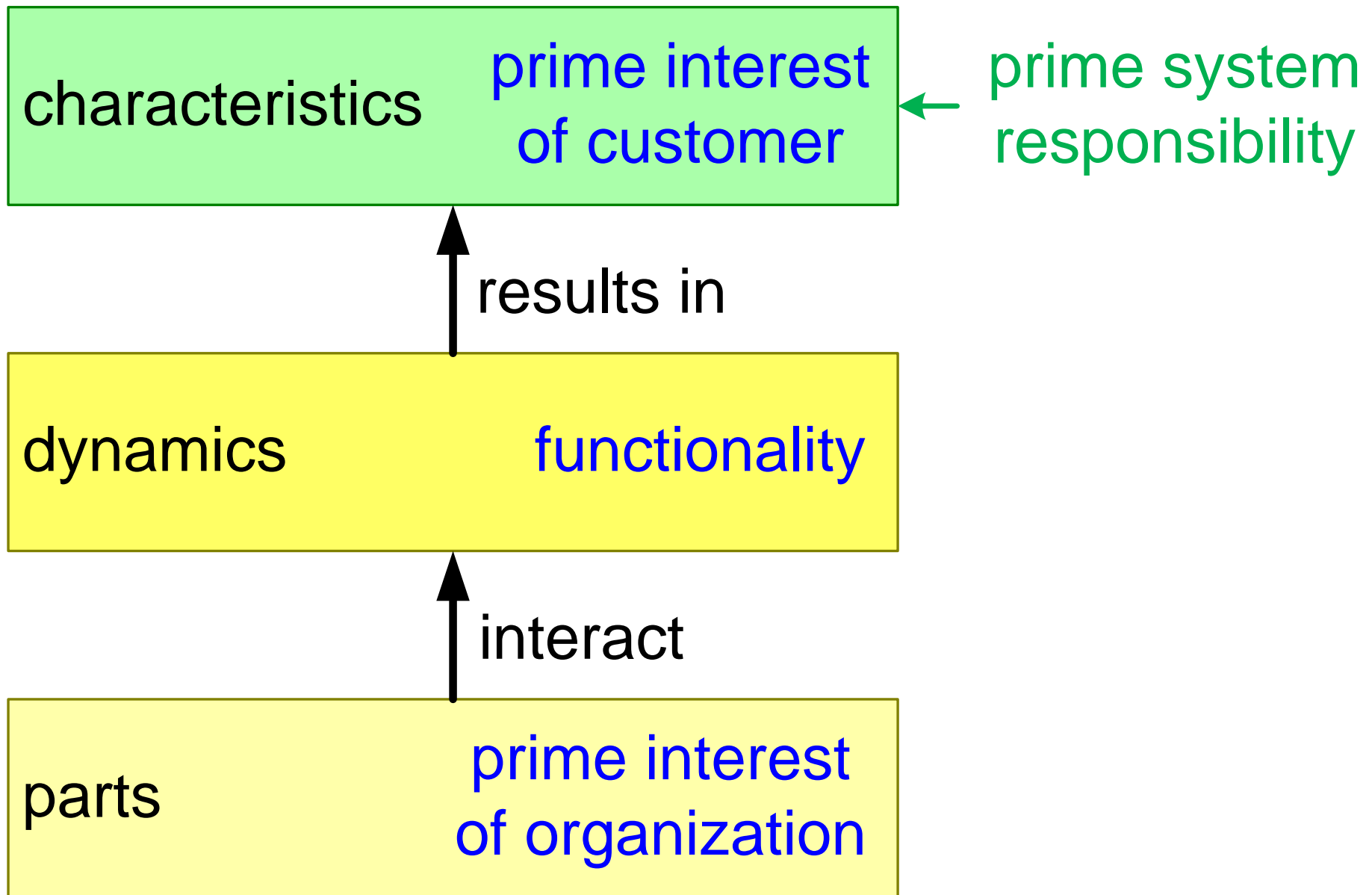
Concurrent Engineering



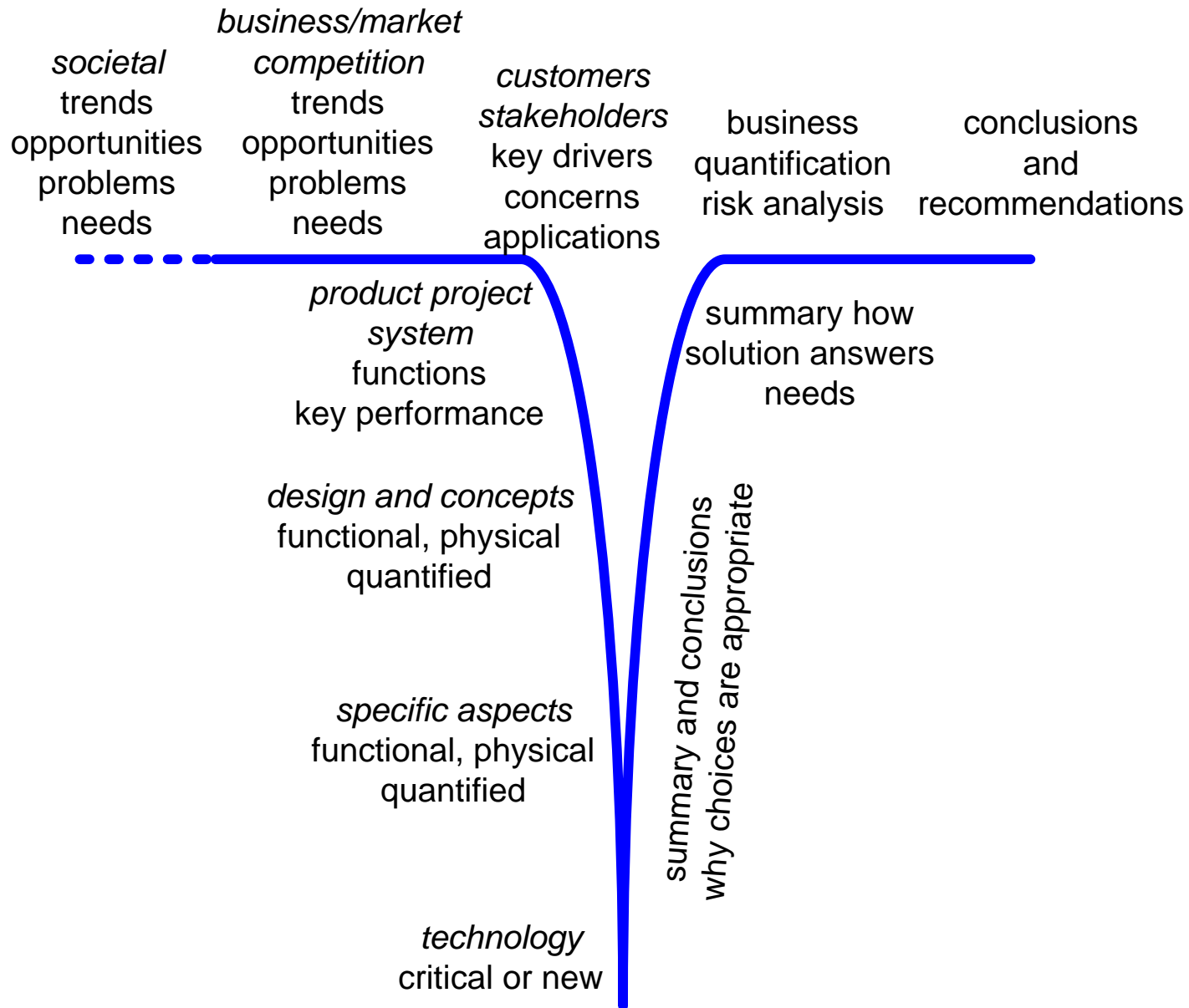
Iterative Approach



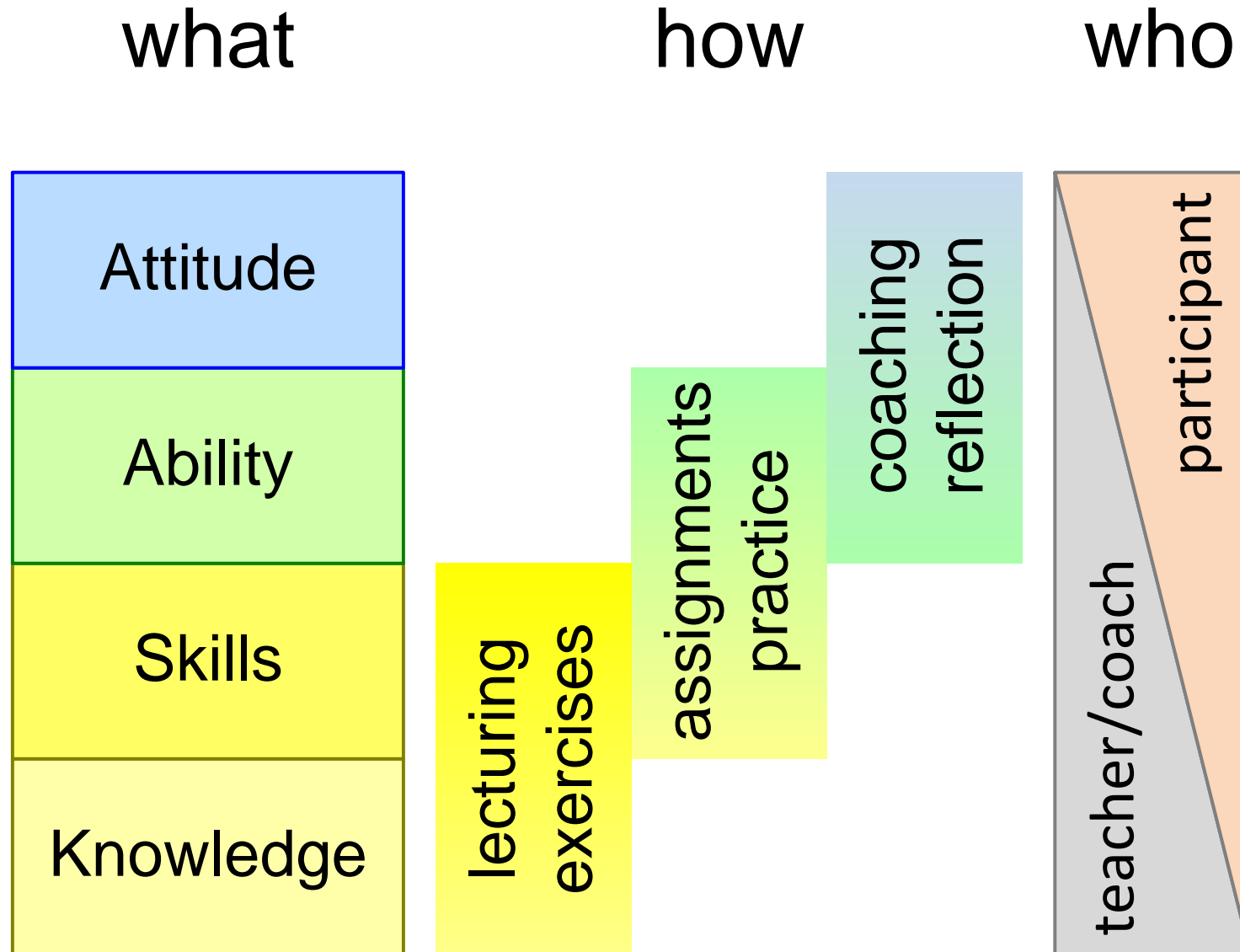
Architect and Typical Expectation from Organization



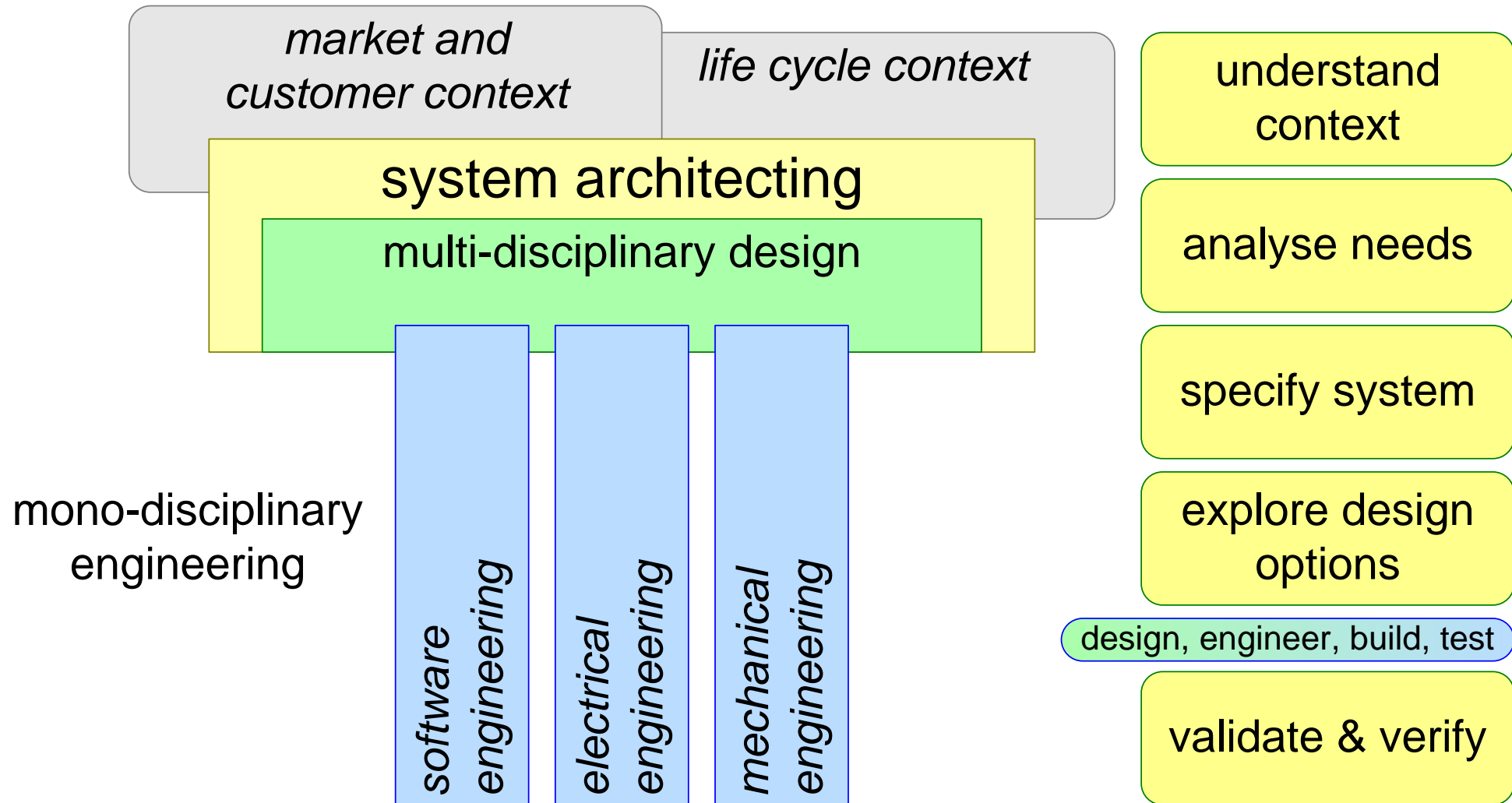
Final Delivery: T-shape Presentation to Top Management



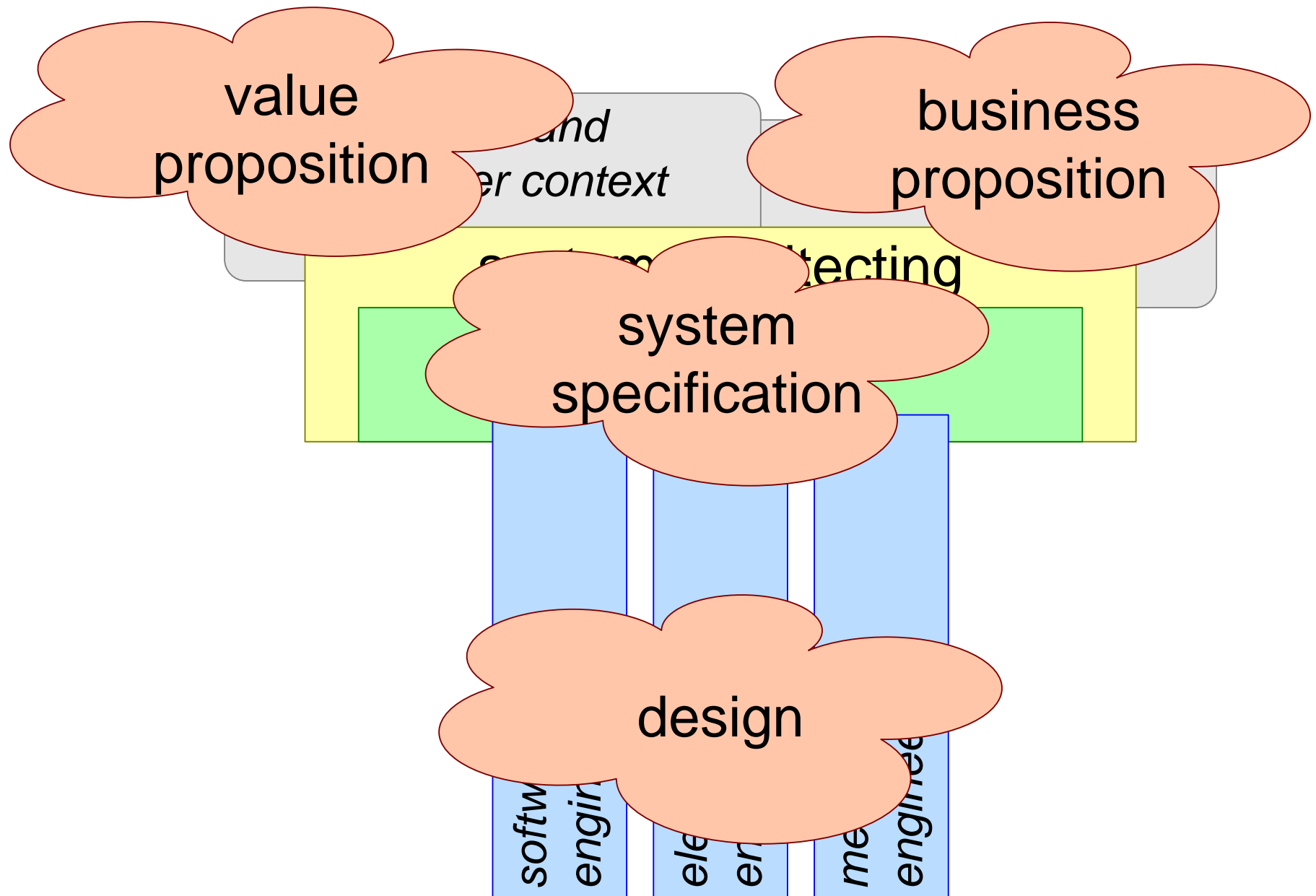
Competence Development: working at multiple levels



Architecting: Fit-For-Purpose



Delivery at the end of this module



Alternate Knowledge/Skills and Attitude

