

# Project Systems Engineering Introduction; Phasing, Process, Organization

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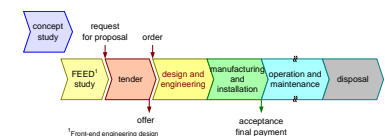
## Abstract

The fundamental concepts and approach to project oriented Systems Engineering are explained. We look at project phasing, phase transition, processes, and organization.

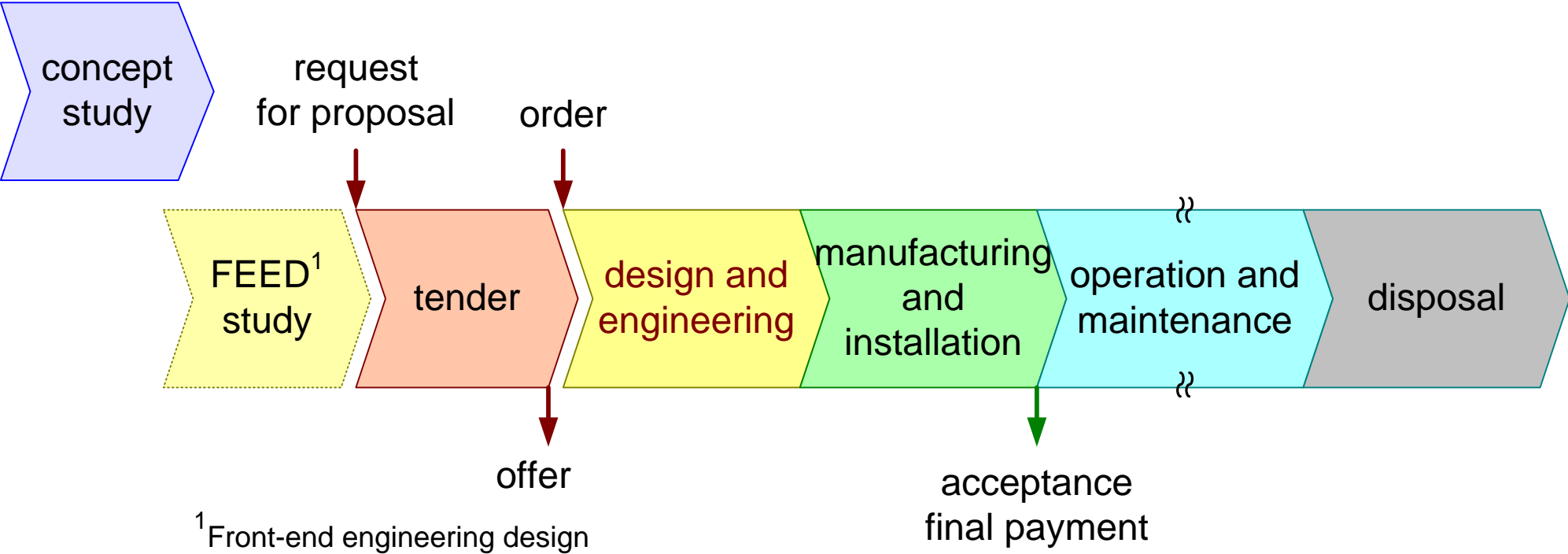
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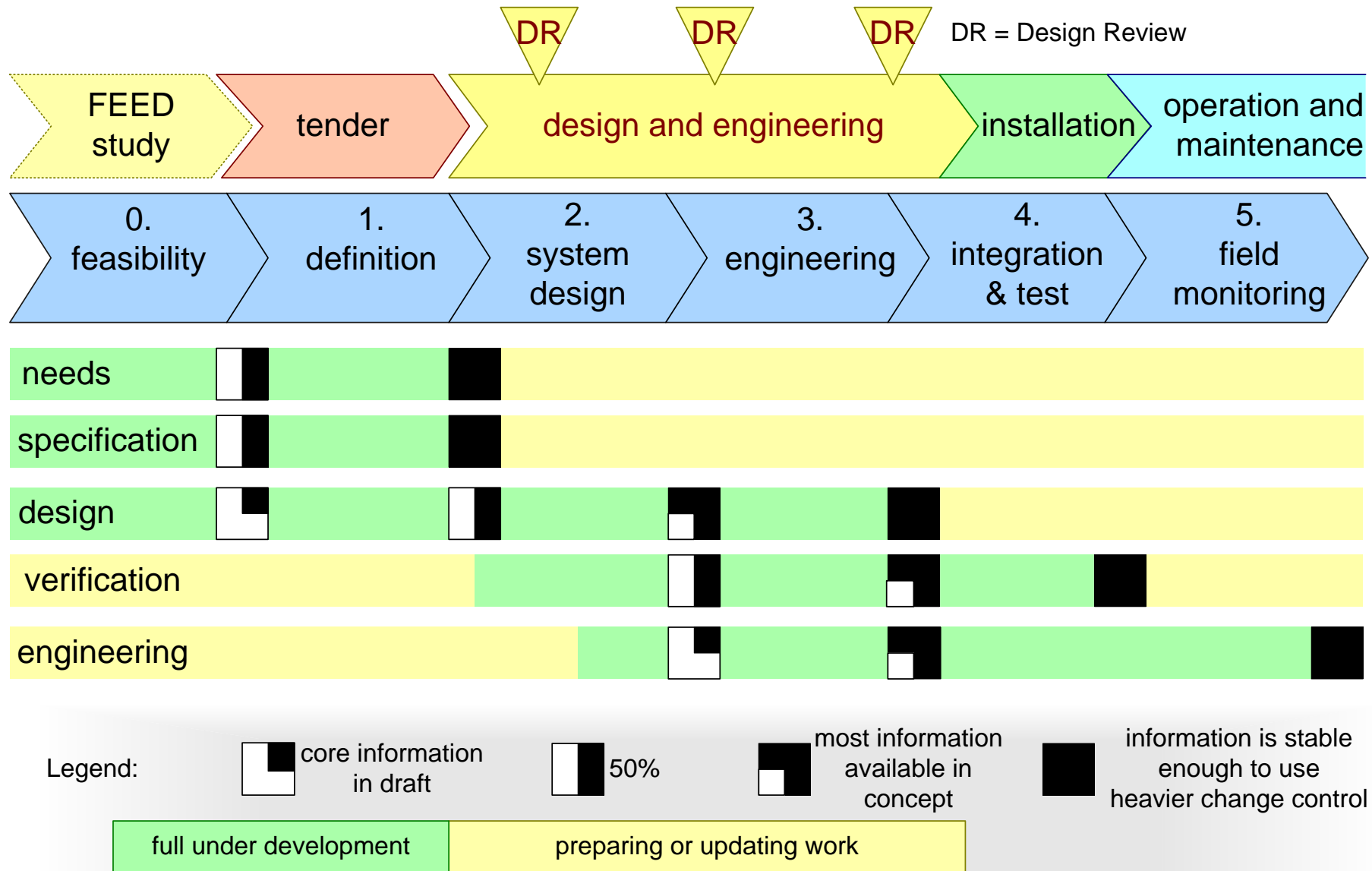
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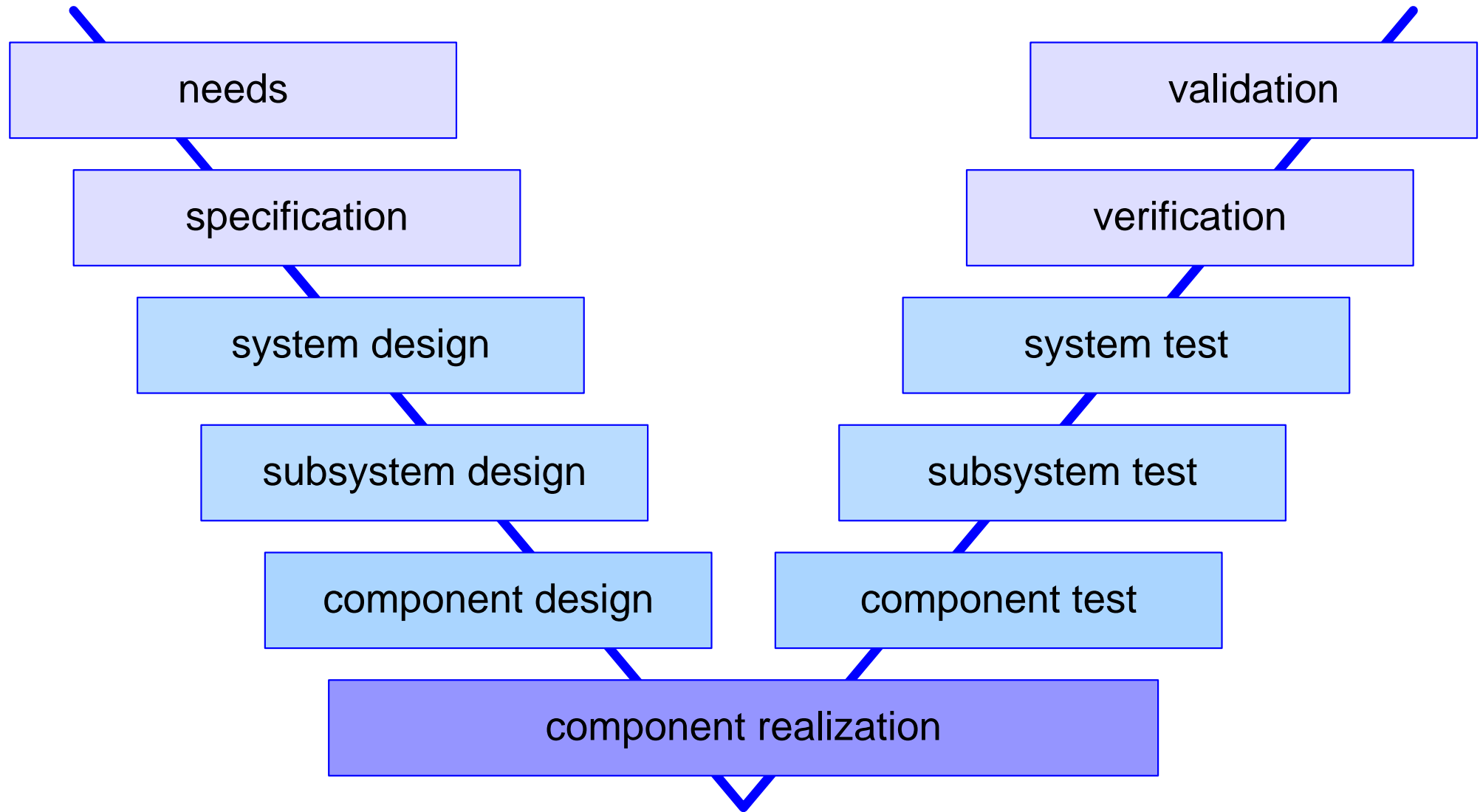
# Project Life Cycle



# Phased Project Approach

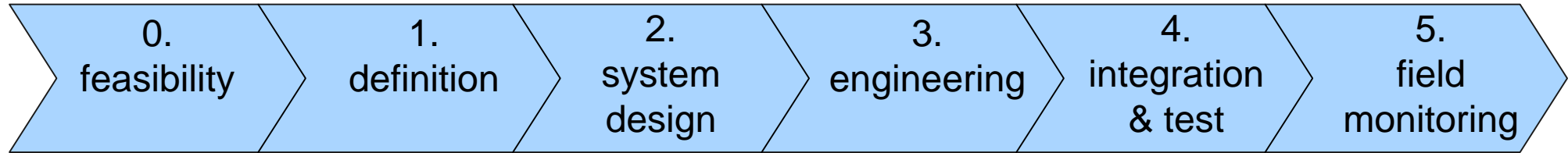


# V-Model



# All Business Functions Participate

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sales

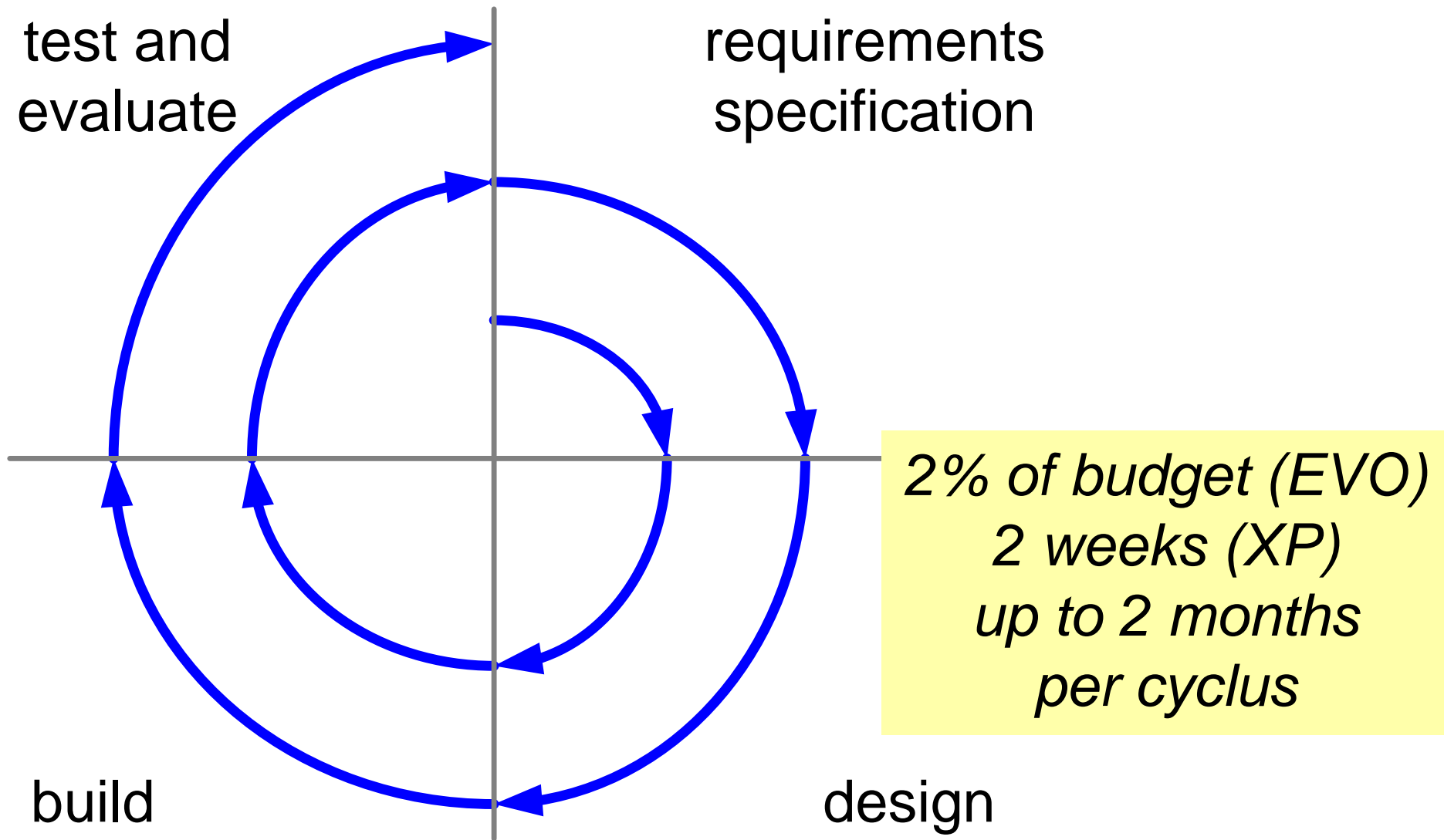
logistics

production

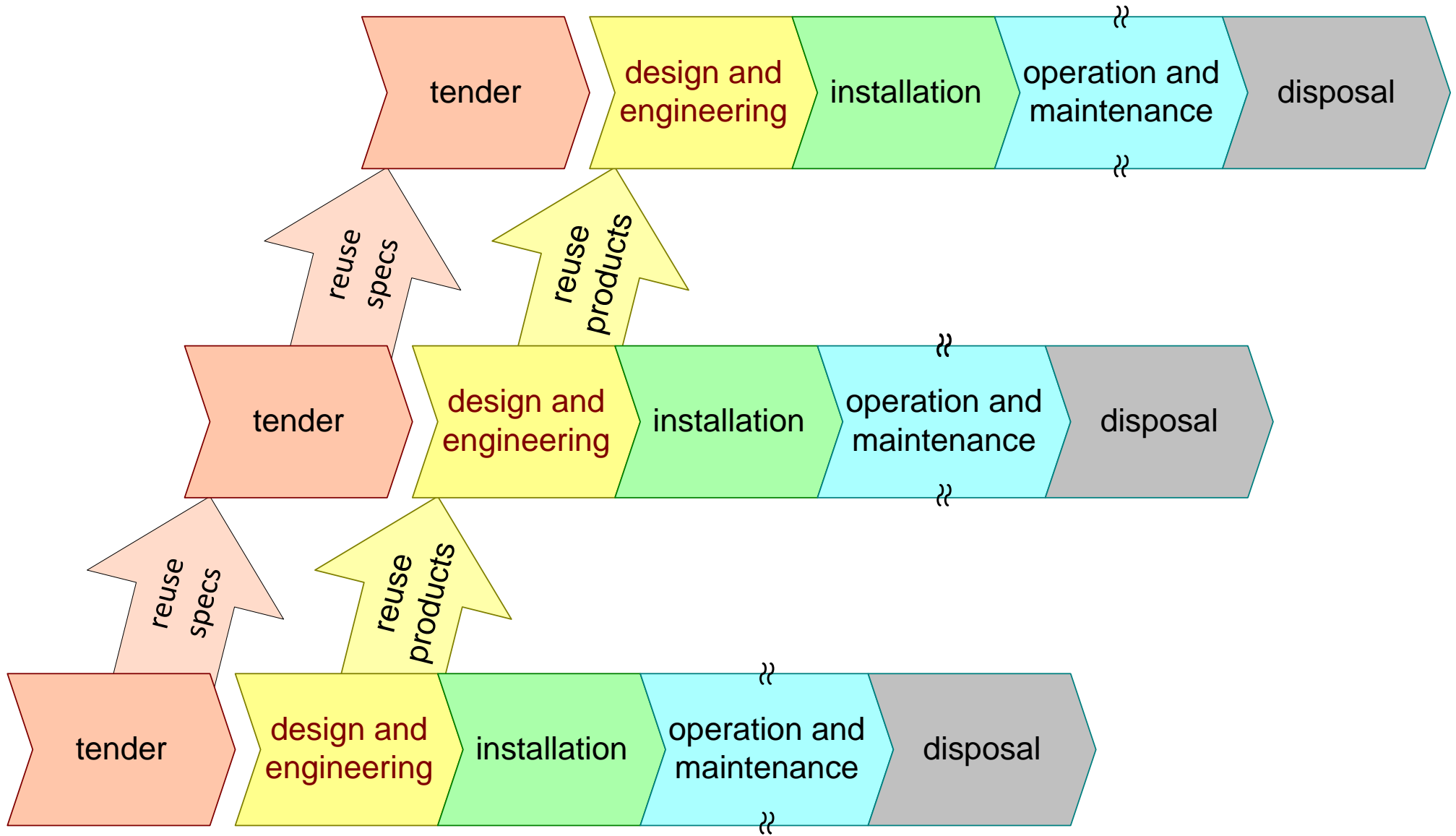
service

development & engineering: marketing, project management, design

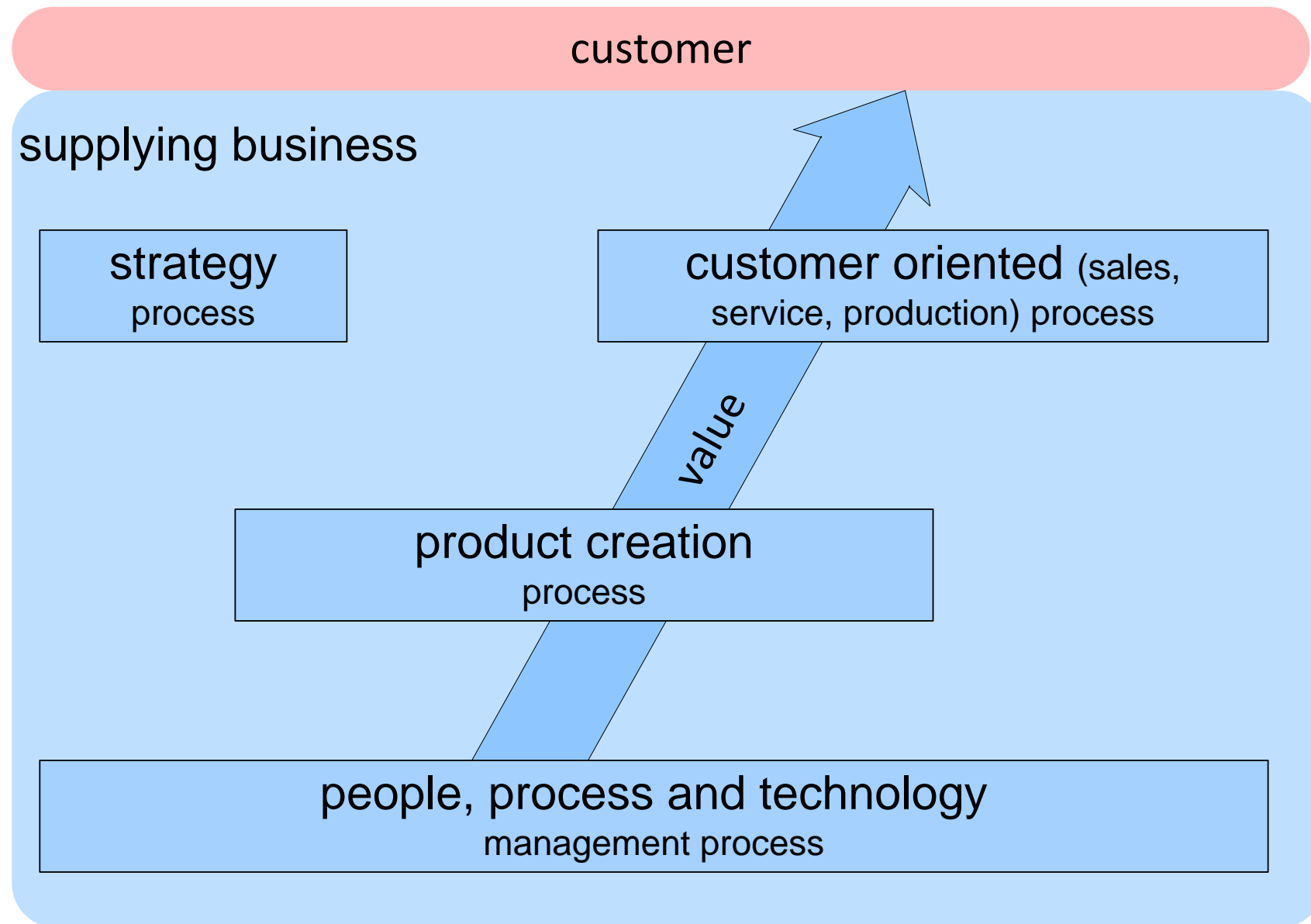
# Evolutionary PCP model



# Reuse and Products

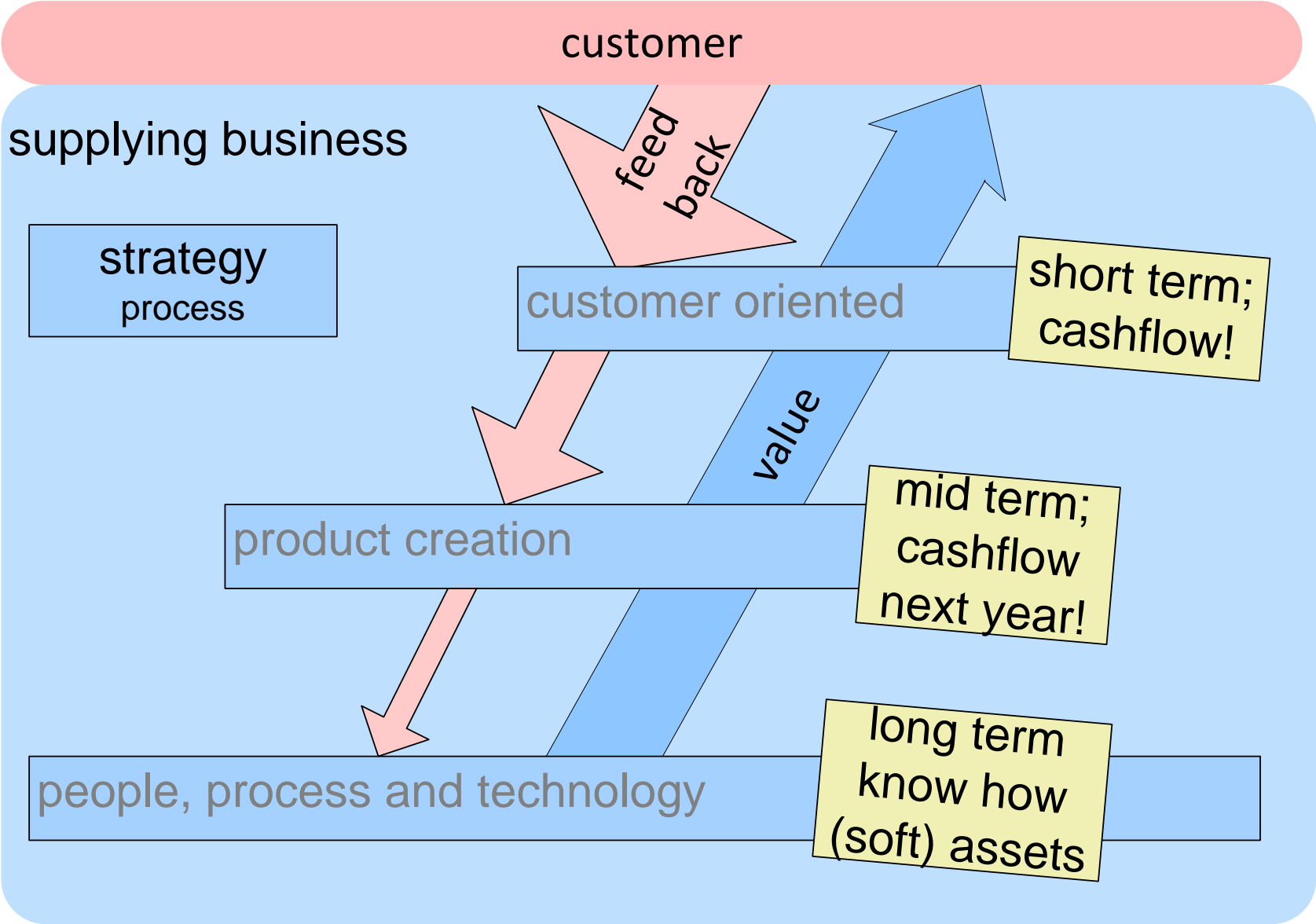


# Simplified Process View

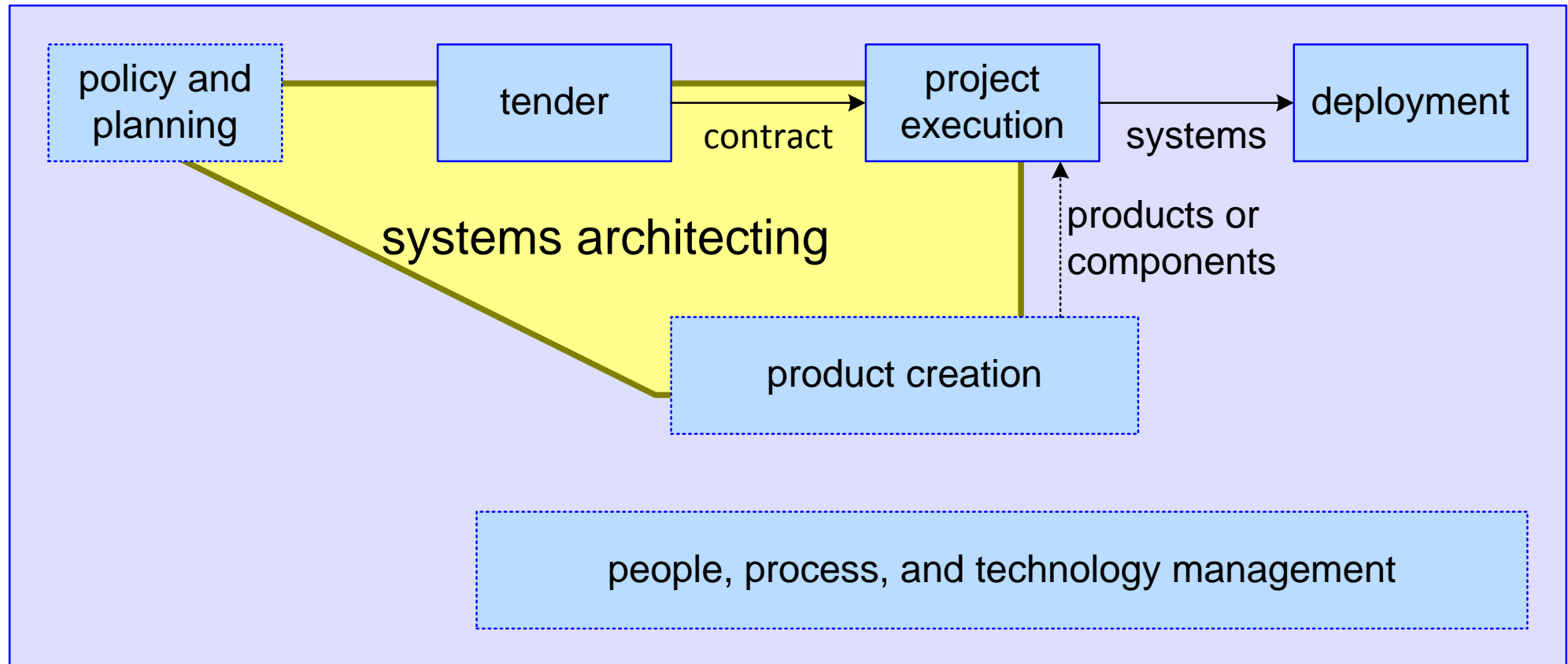




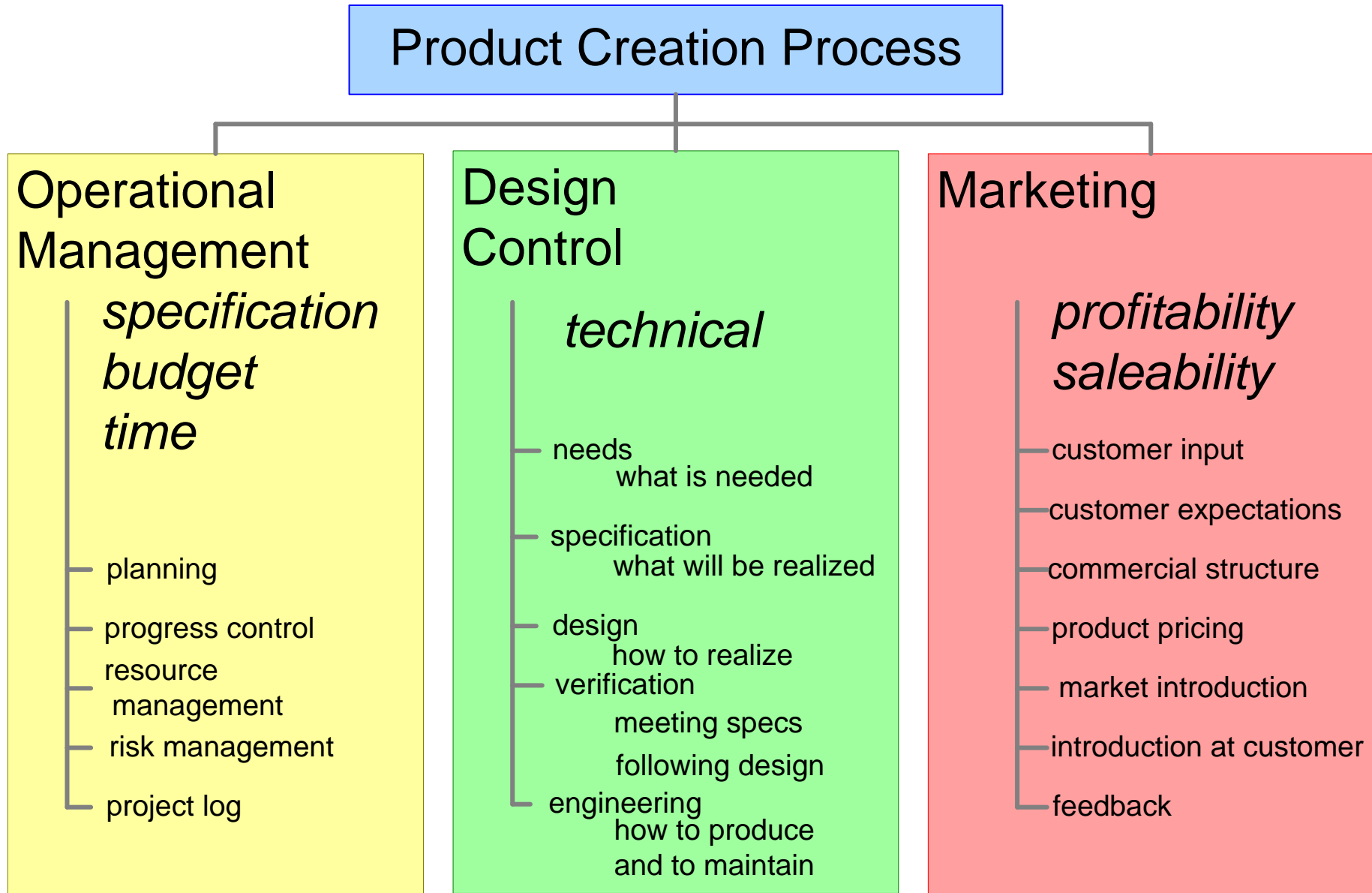
# Simplified Process; Money and Feedback



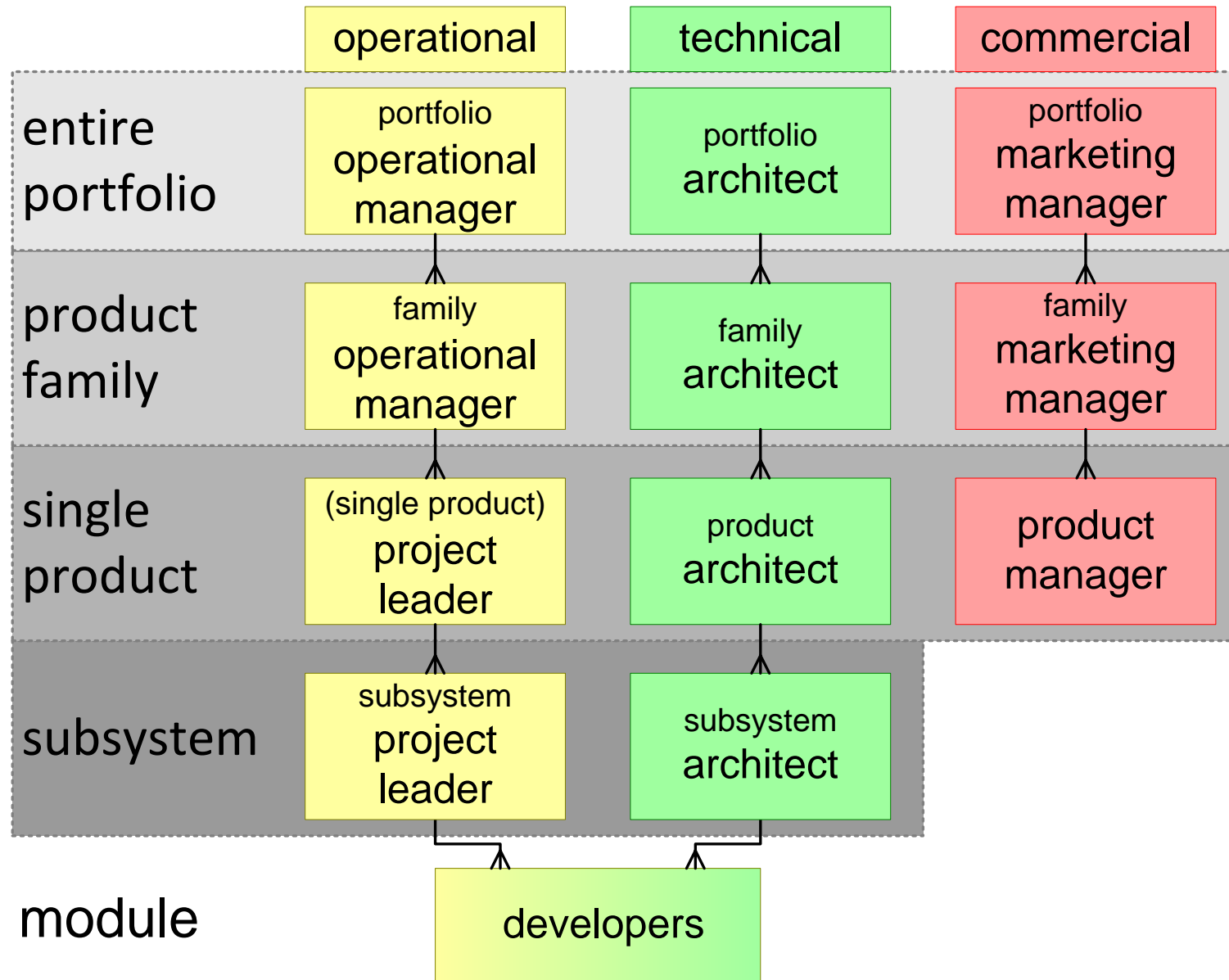
# Simplified process diagram for project business



# Decomposition of the Product Creation Process



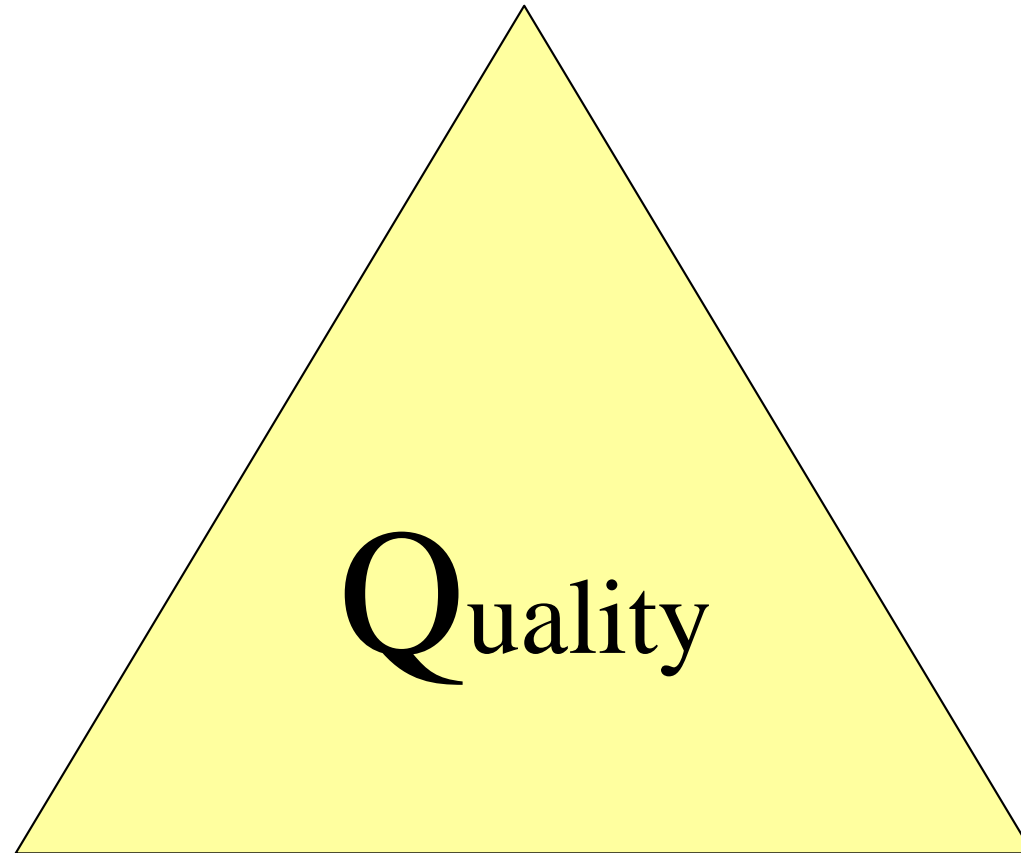
# Operational Organization of the PCP



# Prime Responsibilities of the Operational Leader

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Specification



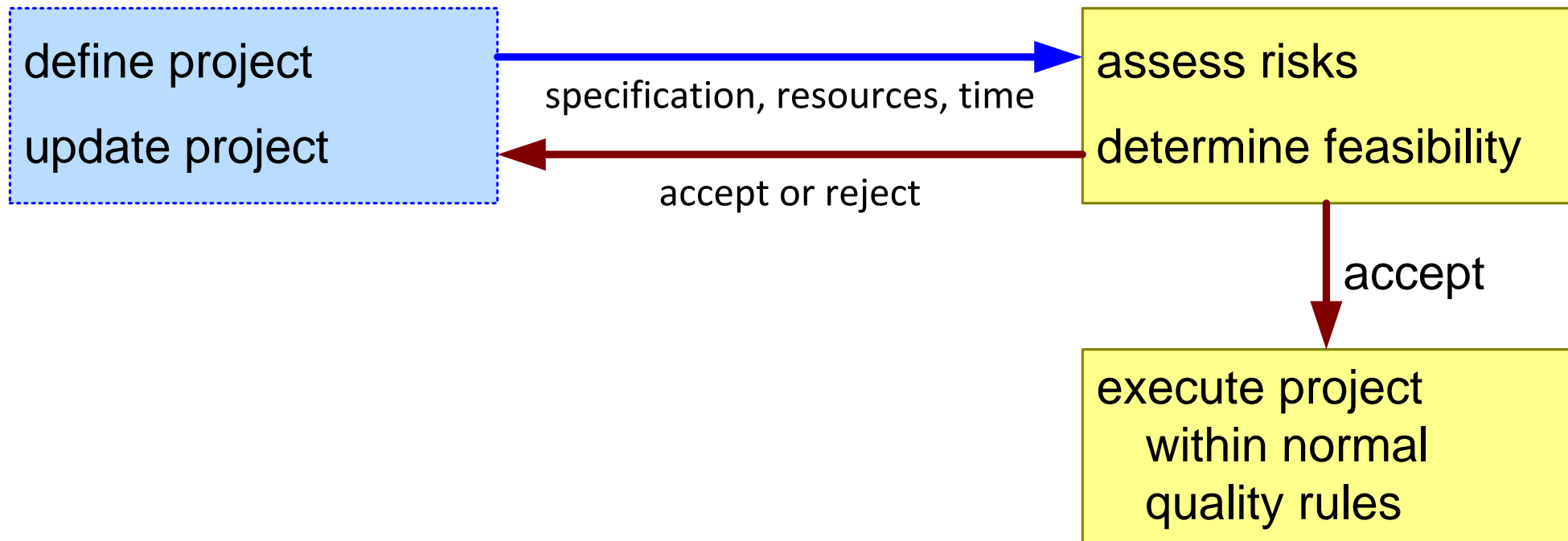
Resources

Time

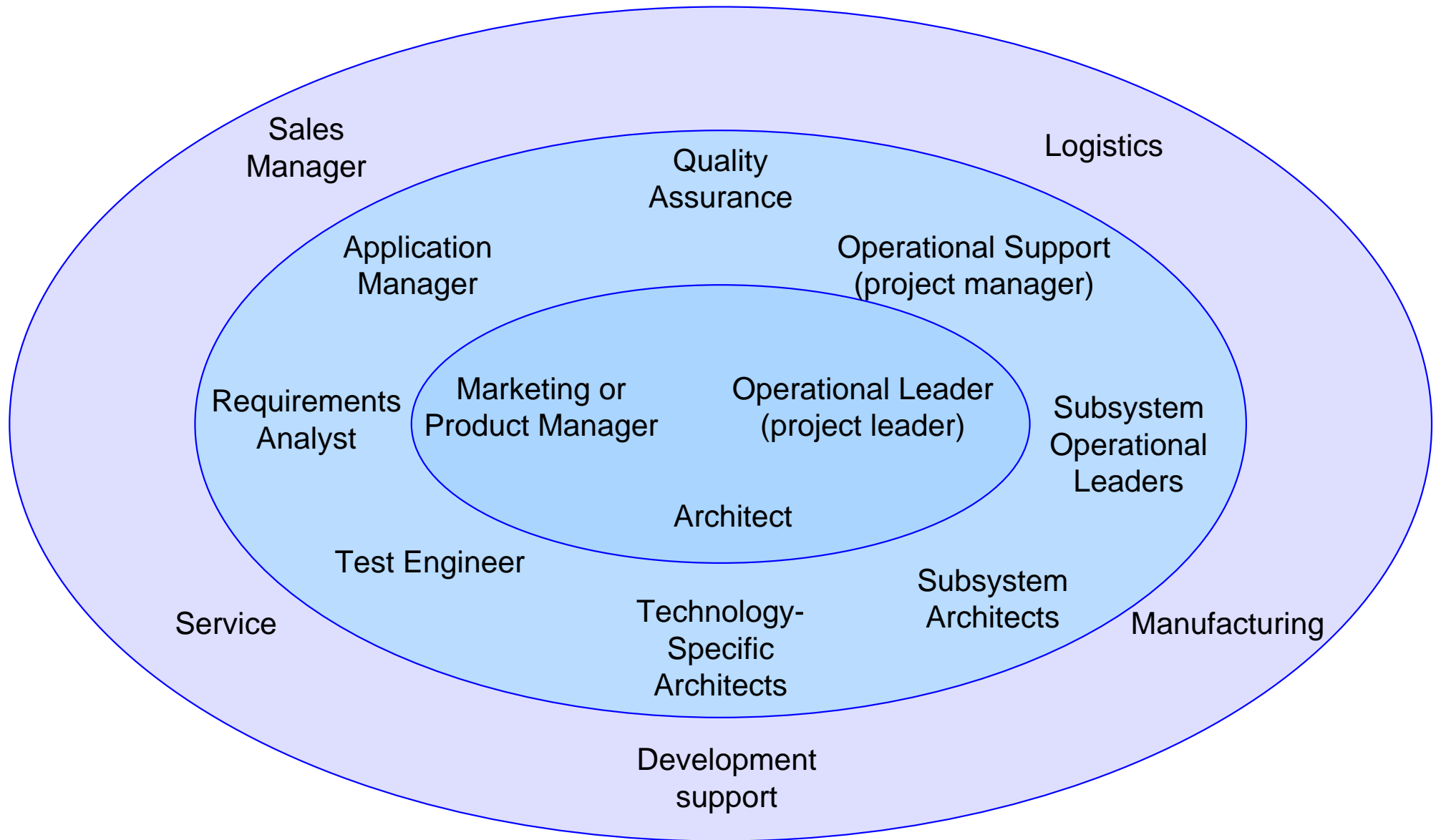
# The Rules of the Operational Game

business management

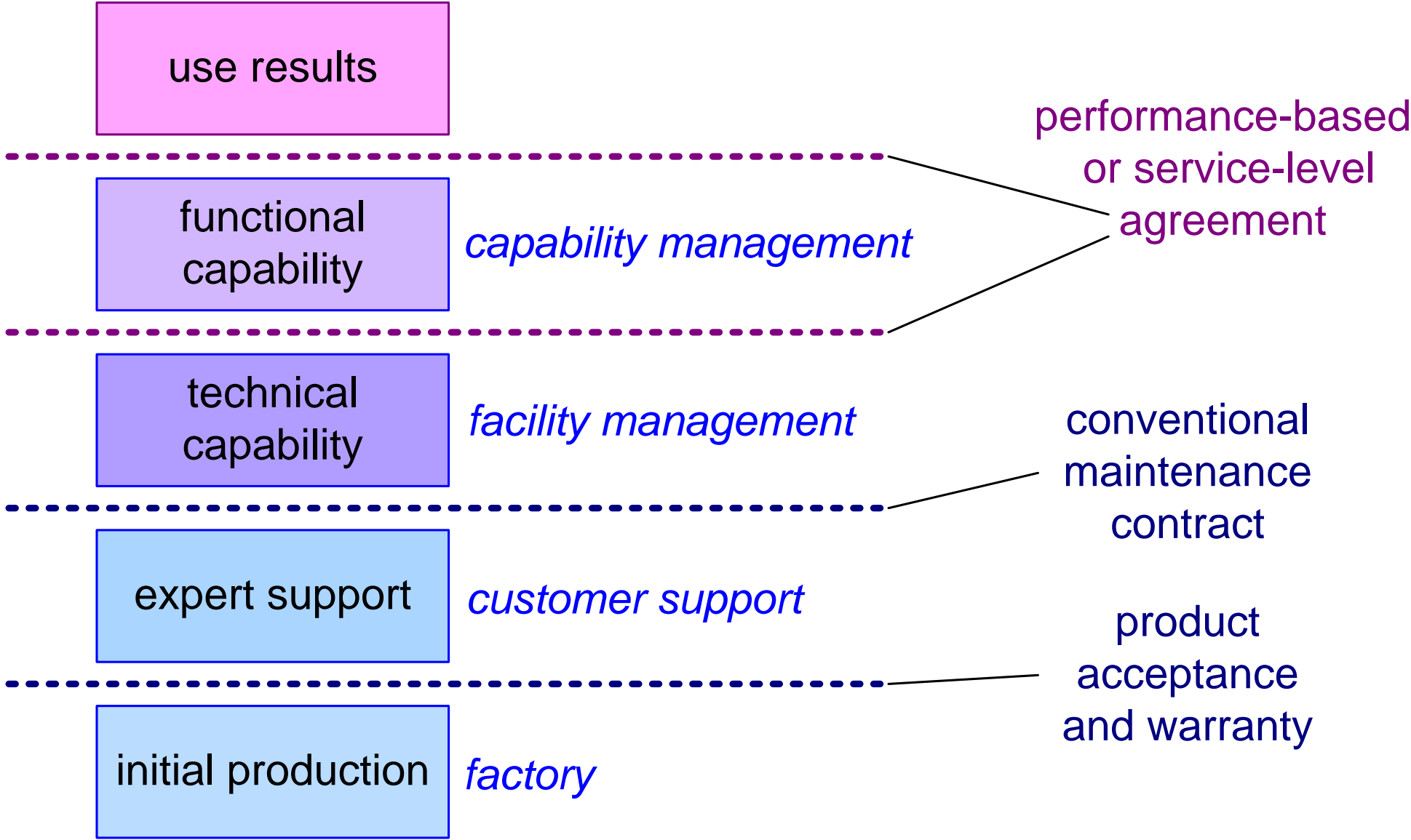
project leader



# Operational Teams



# What Service Level to Deliver?





# Systems Engineering Management Plan (SEMP)

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How the project will perform the systems engineering process:

- main events and activities
- roles and responsibilities
- work products
- procedures and standards

Bridge between project management and engineering (NASA 2016)