Product Engineering

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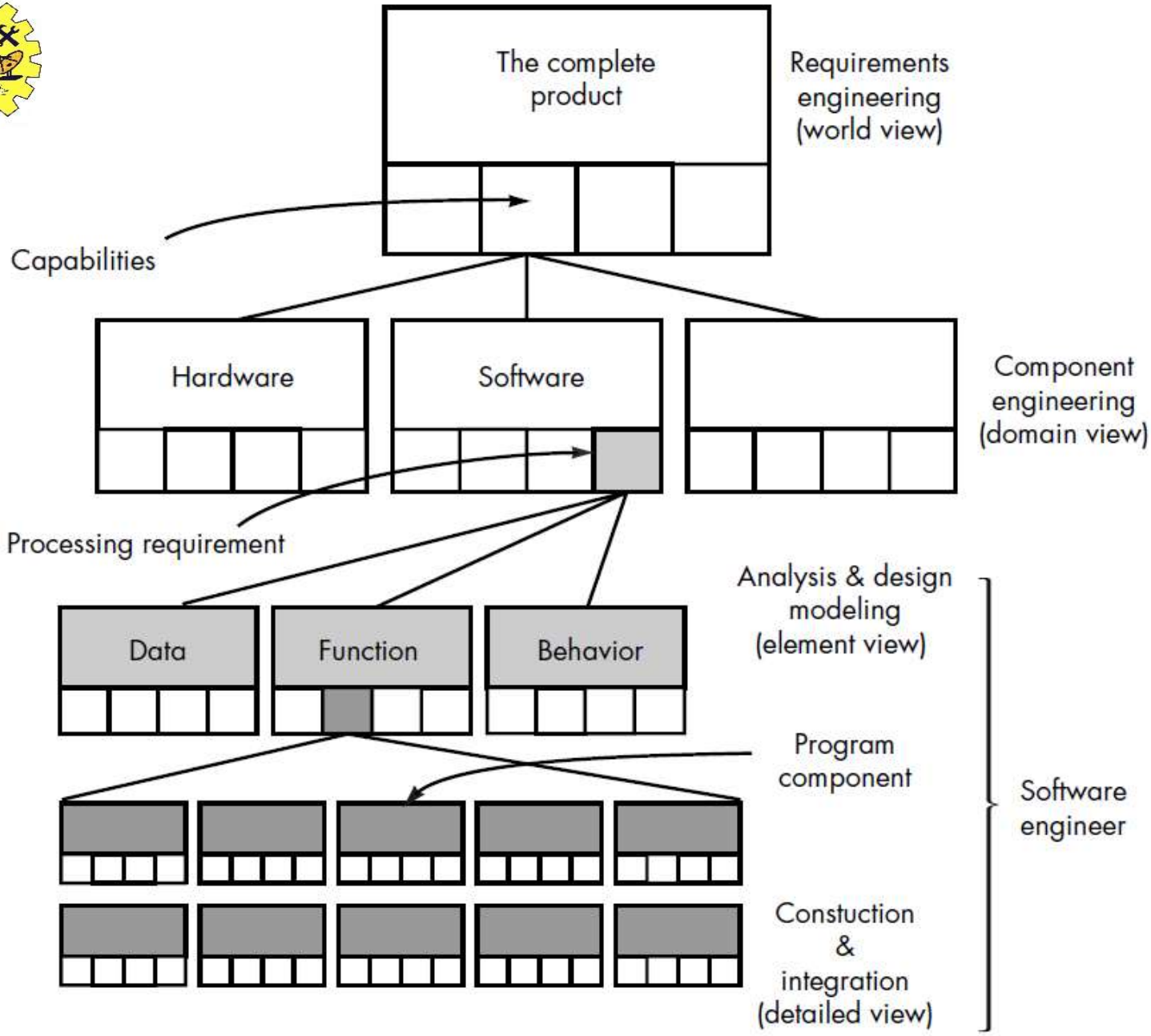
- Product engineering translates the customer's desire for a set of defined capabilities into a working product
- It achieves this goal by establishing a product architecture and a support infrastructure
  - Product architecture components consist of people, hardware, software, and data
  - Support infrastructure includes the technology required to tie the components together and the information to support the components
- Requirements engineering elicits the requirements from the customer and allocates function and behavior to each of the four components

- System component engineering happens next as a set of concurrent activities that address each of the components separately
  - Each component takes a domain-specific view but maintains communication with the other domains
  - The actual activities of the engineering discipline takes on an element view
- Analysis modeling allocates requirements into function, data, and behavior
- Design modeling maps the analysis model into data/class, architectural, interface, and component design


The complete product
Requirements engineering (world view)
Capabilities
Hardware
Software
Component engineering (domain view)
Processing requirement
Data
Function
Behavior
Analysis & design modeling (element view)
Program component
Software engineer
Constuction & integration (detailed view)