SEMA Methods Overview

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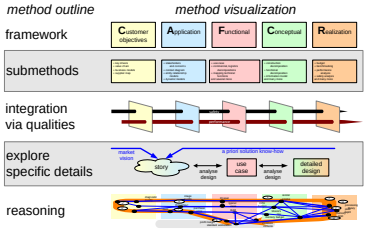
Abstract

This presentation provides an overview of the SEMA course: Architectural Reasoning Using Conceptual Modeling. This course uses the CAFCR+ model with 6 views. Qualities connect all views. Threads-of-reasoning capture the architectural reasoning across views and qualities. Conceptual models visualize and capture the context, the system and its design. Quantification is a means to make problem and solution space tangible.



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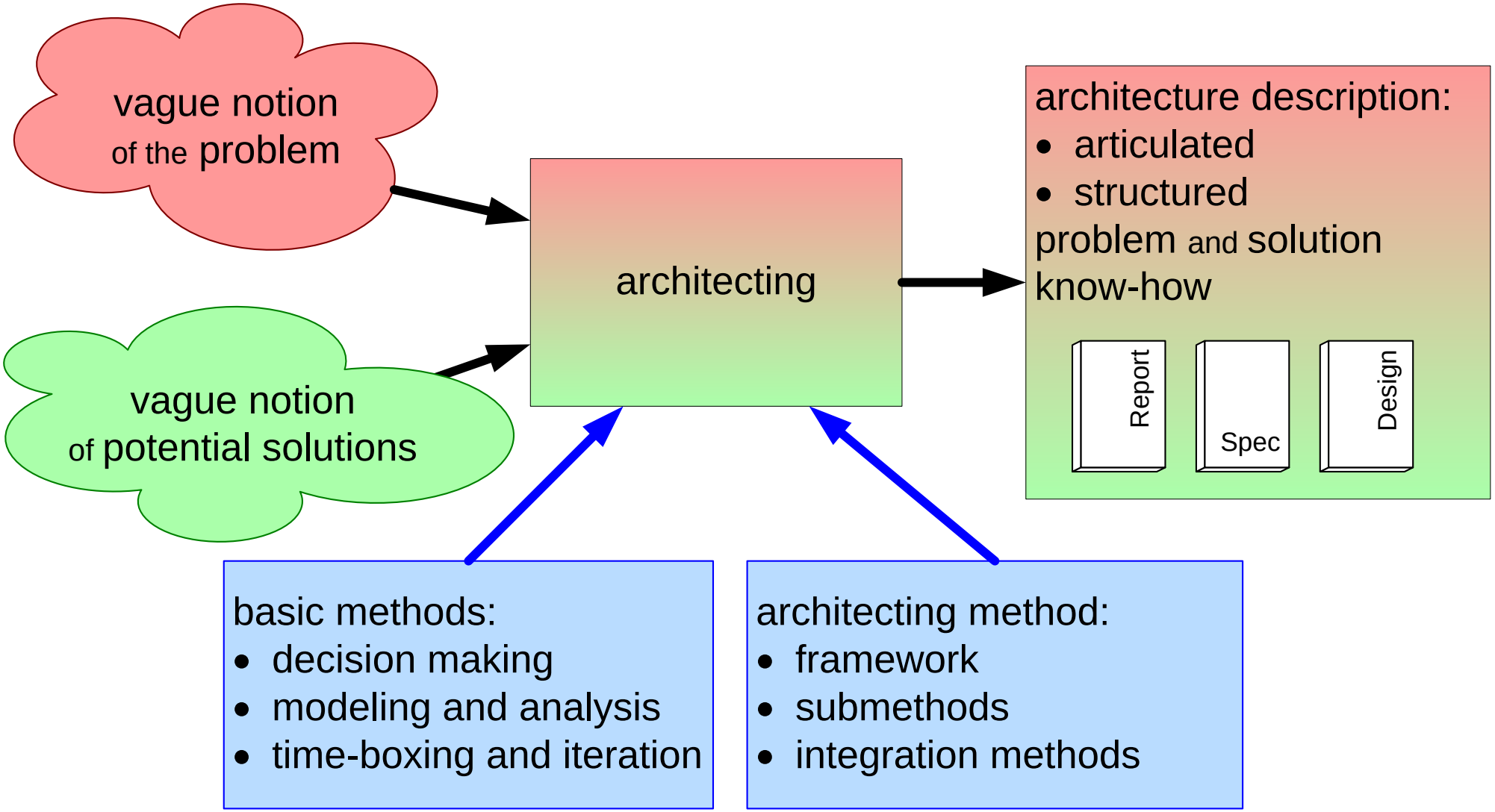
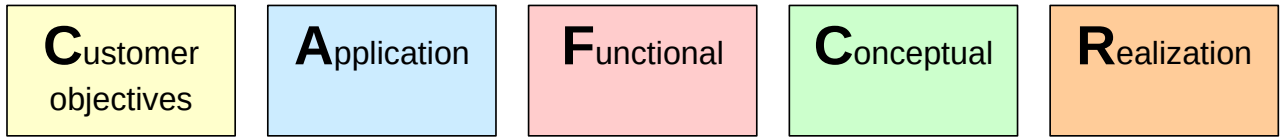
From vague notions to articulate and structured



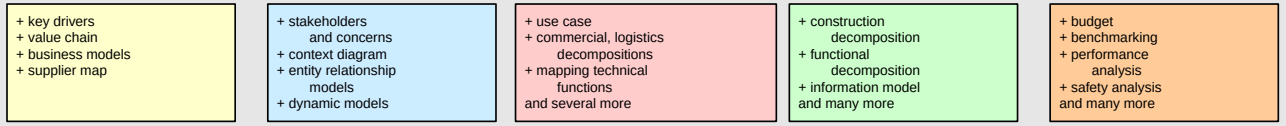
Overview of architecting method

method outline *method visualization*

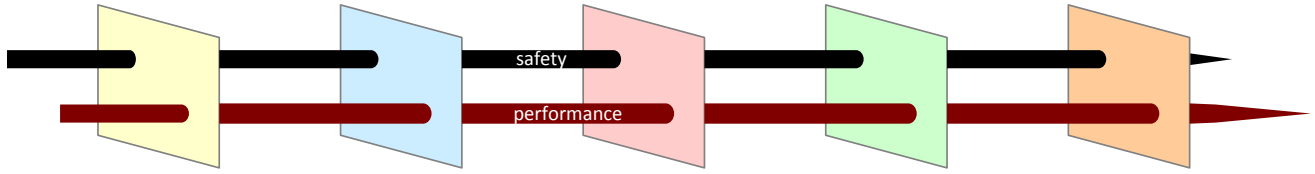
framework



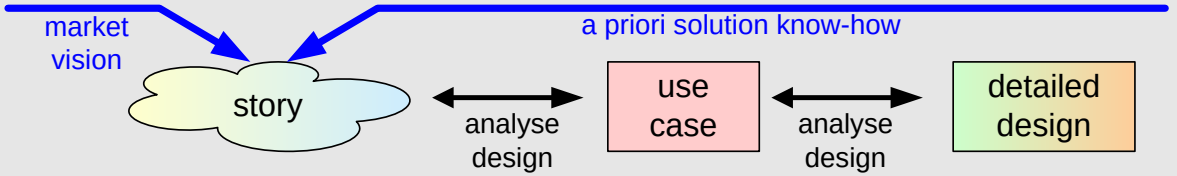
submethods



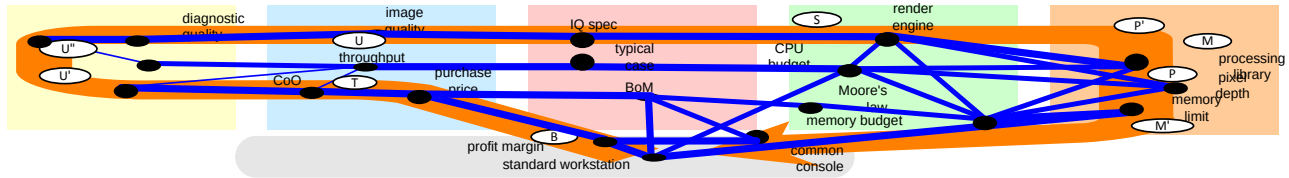
integration via qualities



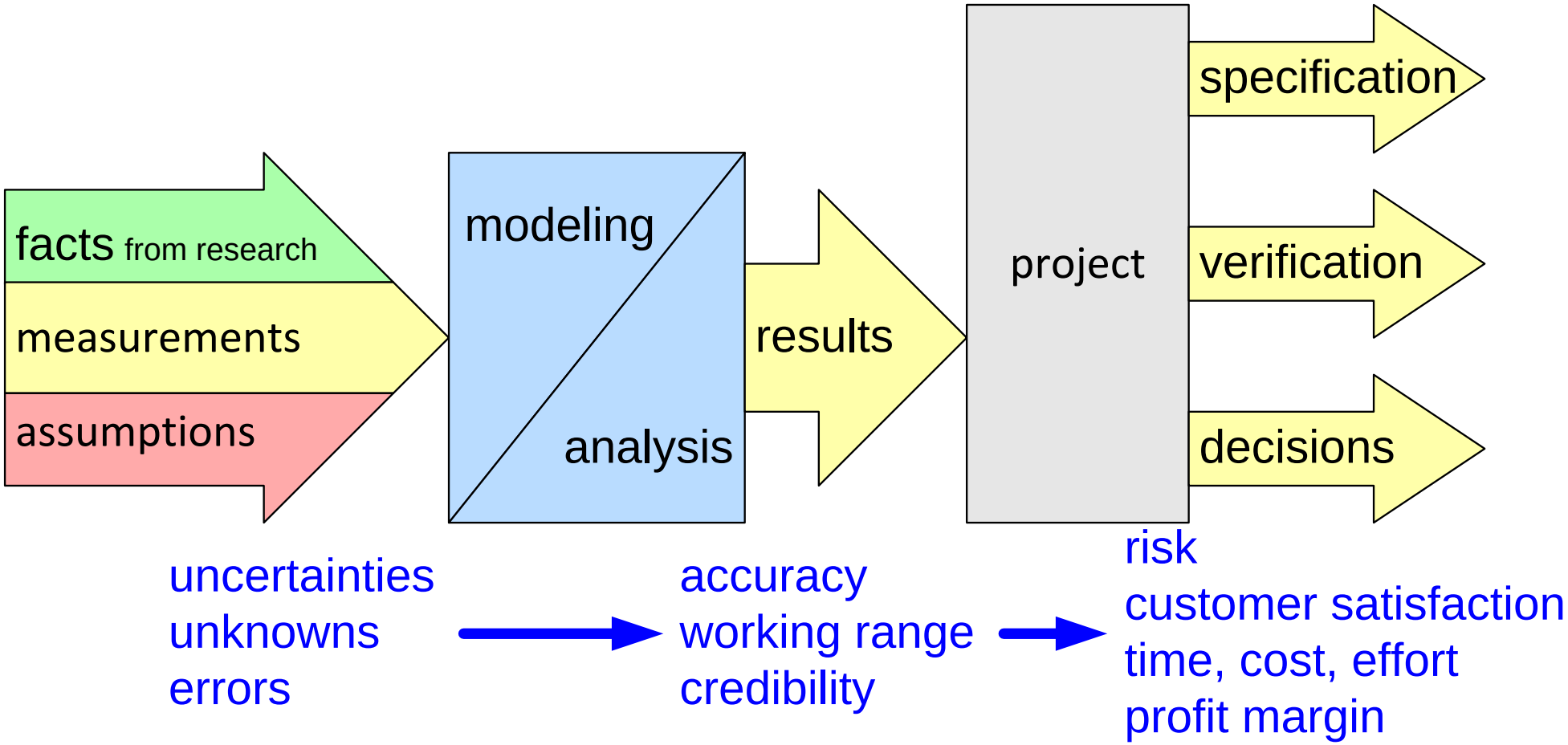
explore specific details



reasoning



Purpose of Modeling



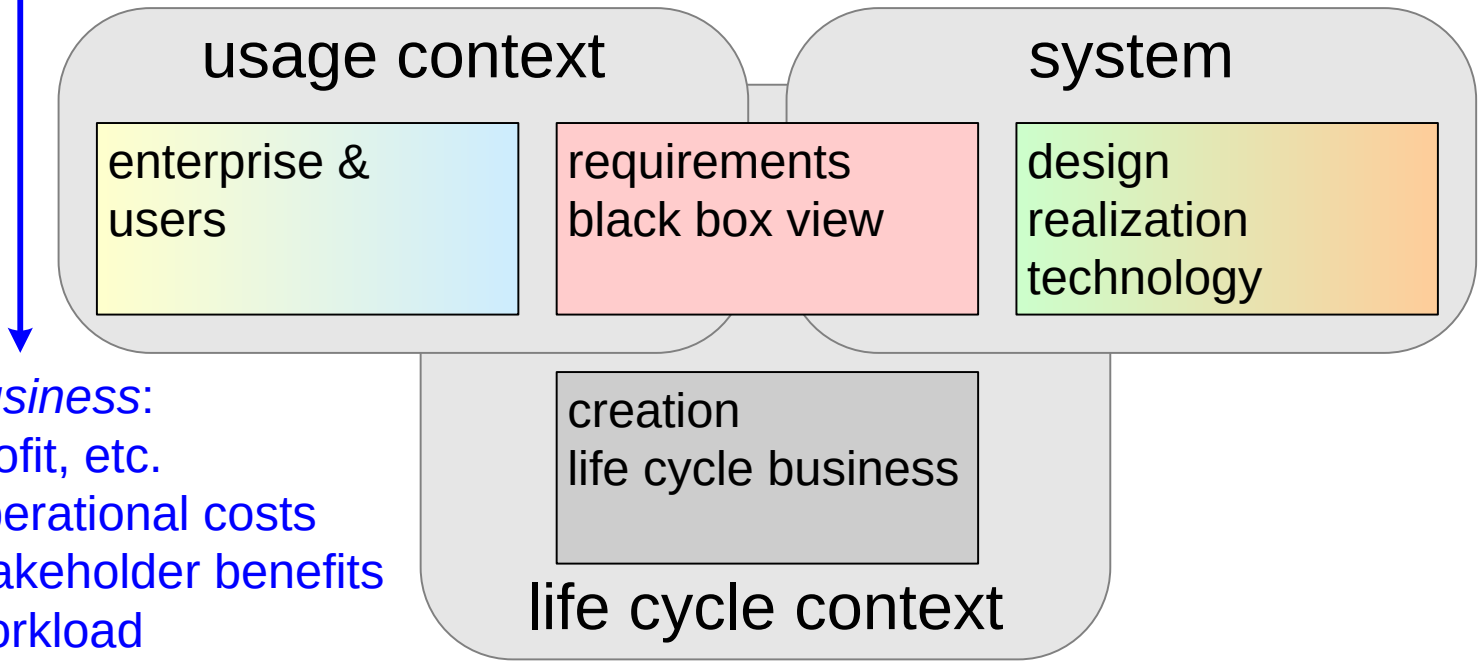
What to Model?

business:
profit, etc.
operational costs
stakeholder benefits
workload
risks

key performance:
throughput, response
reliability
availability
scalability
...

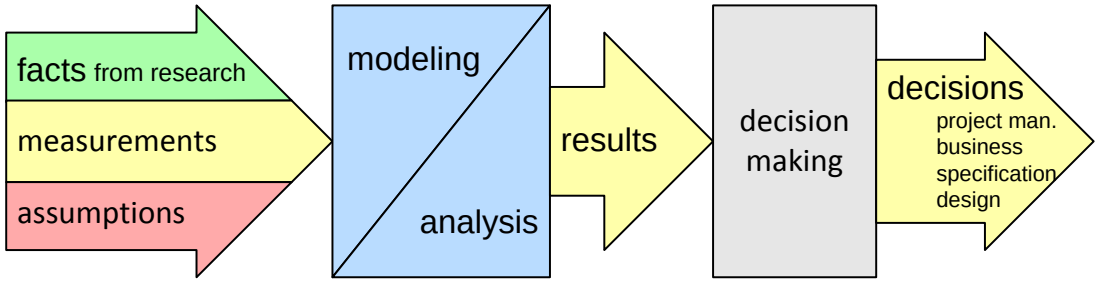
(emerging?) properties:
resource utilization
load
latency, throughput
quality, accuracy
...

and their mutual relations



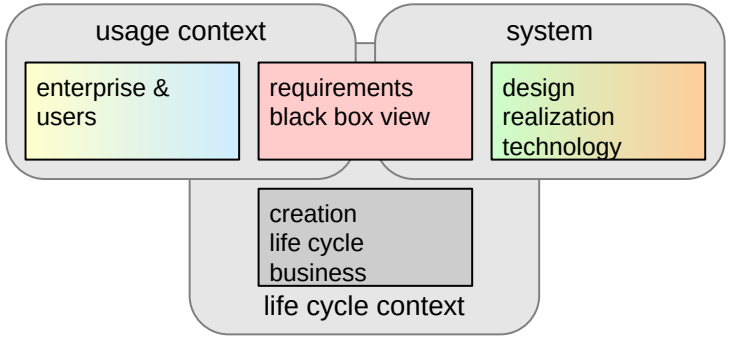
business:
profit, etc.
operational costs
stakeholder benefits
workload
risks

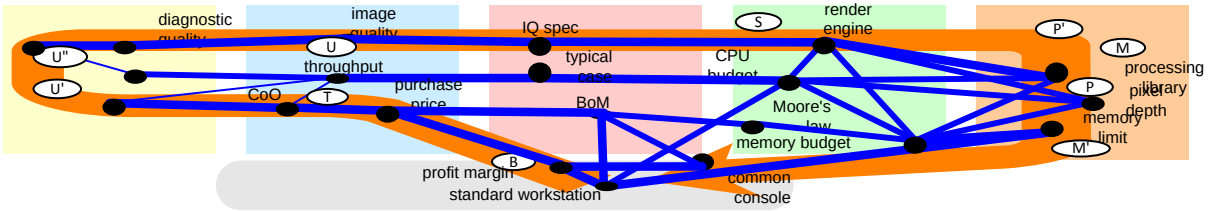
Overview of Modeling Approach



collect input data

model and analyse relevant issues



for different stakeholders& concerns

integration and reasoning