# Modeling and Analysis: Reasoning Approach

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#### **Abstract**

We make models to facilitate decision making. These decisions range from business decisions, such as Service Level Agreements, to requirements, and to detailed design decisions. The space of decisions is huge and heterogeneous. The proposed modeling approach is to use multiple small and simple models. In this paper we discuss how to reason by means of multiple models.

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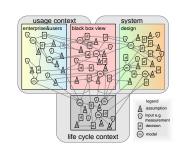
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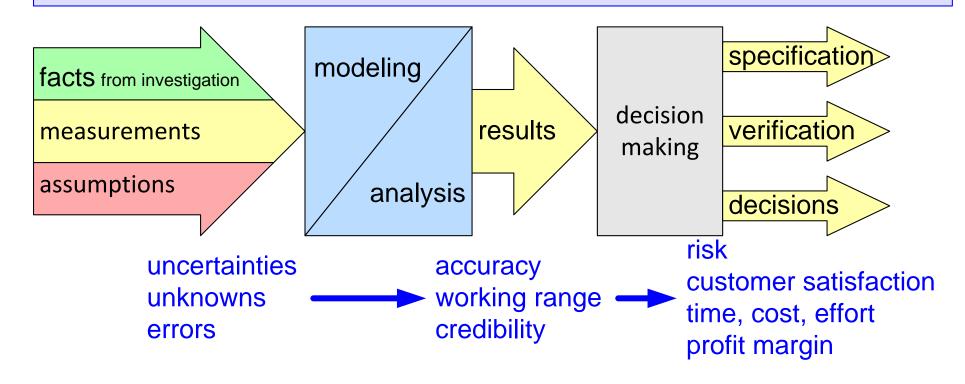
### Purpose of Modeling

How to use multiple models to facilitate decisions?

How to get from many fragments to integral insight?

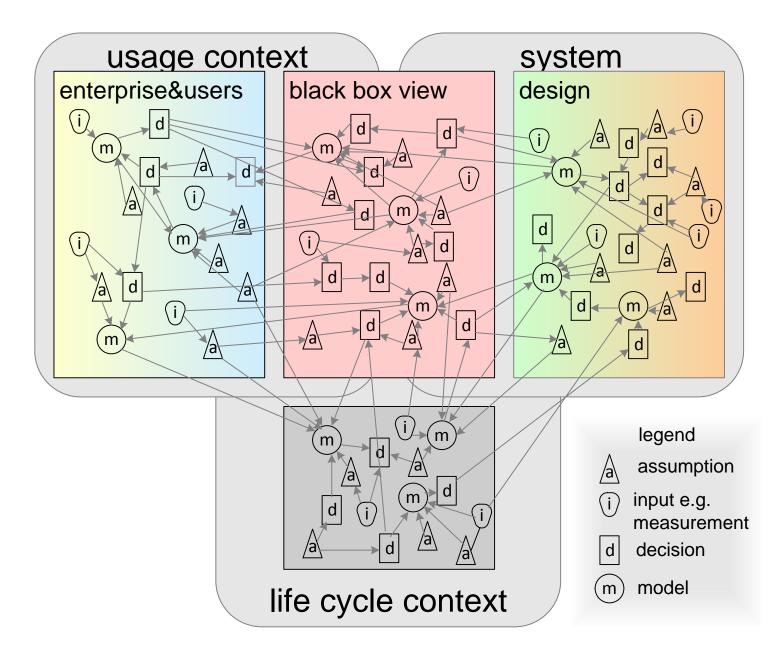
How many models do we need?

At what quality and complexity levels?



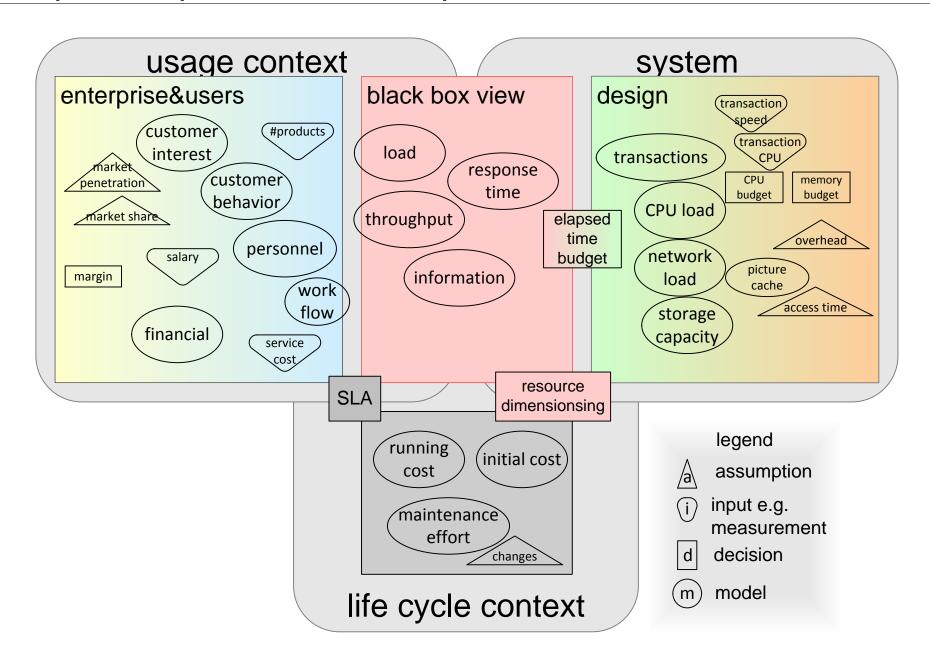


# Graph of Decisions and Models



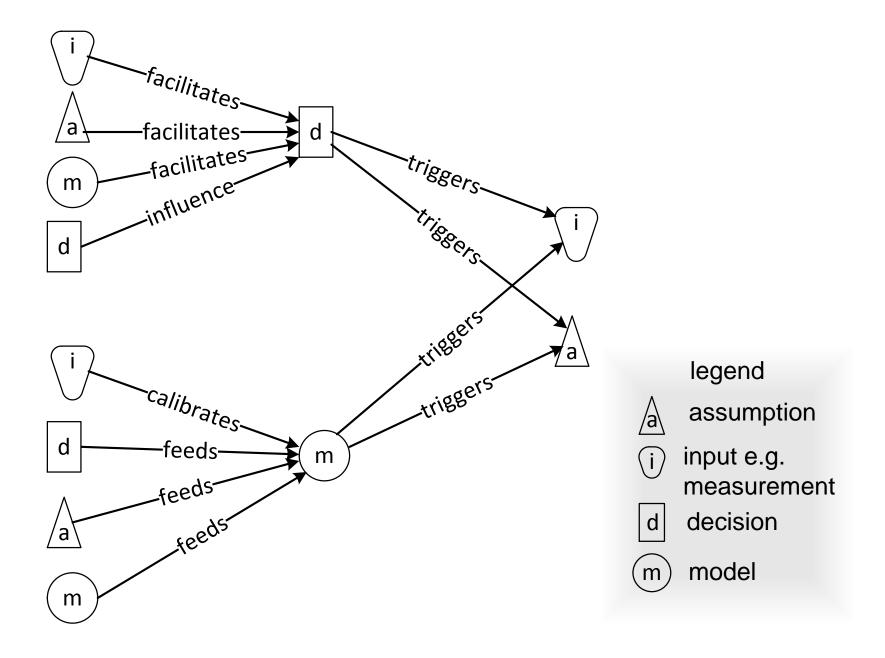


# Example Graph for Web Shop



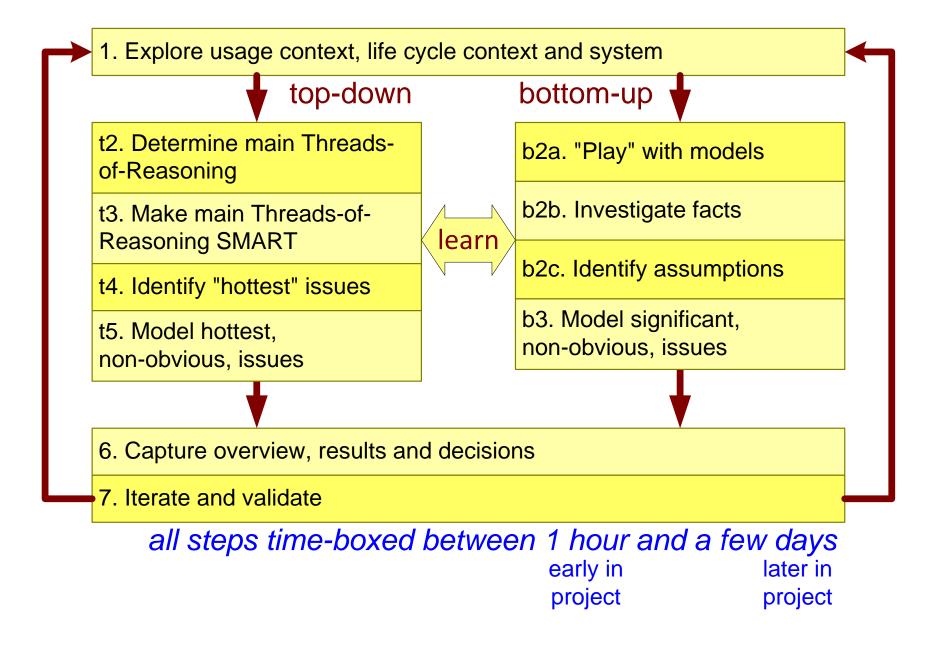


# Relations: Decisions, Models, Inputs and Assumptions



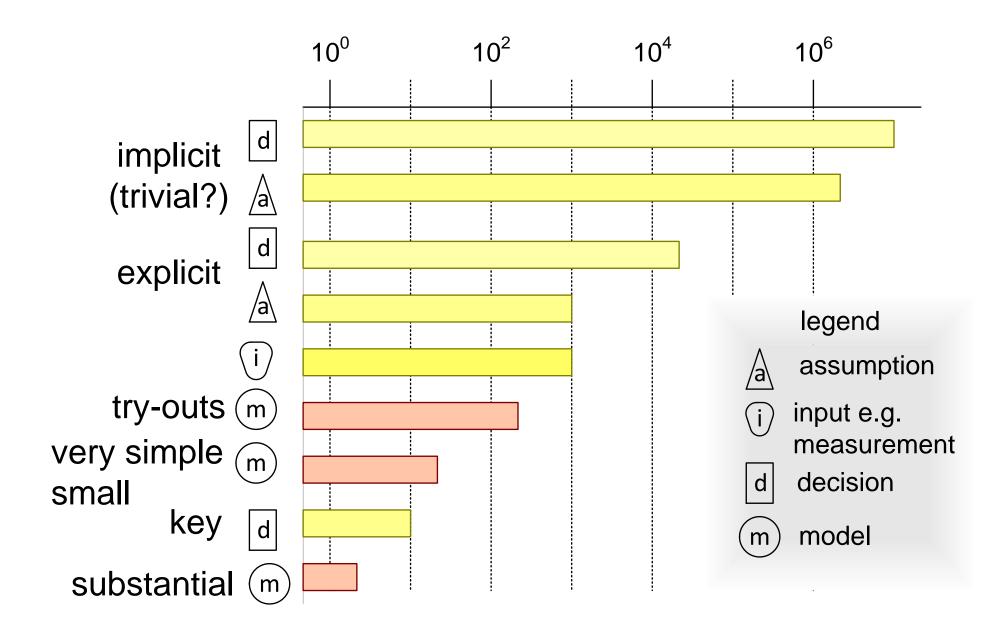


# Reasoning Approach



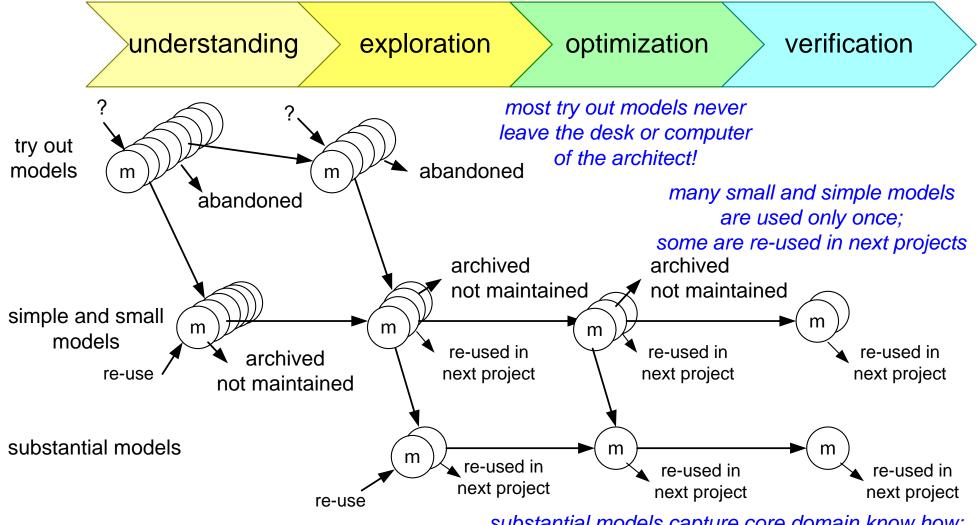


# Frequency of Assumptions, Decisions and Modeling





# Life Cycle of Models



substantial models capture core domain know how; they evolve often from project to project. creation and evolution of intellectual property assets



# Examples of Life Cycle of Models

