

# The Business Side of a Software Architect

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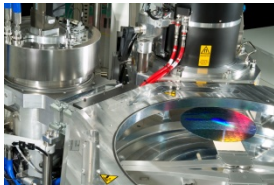


- Chief Software Architect at Orbotech
- Presidency member at ILTAM

# Orbotech in the Electronics Value Chain Today



Flat Panel  
Displays (FPD)



Touchscreens, Advanced  
Packaging, MEMS, RF,  
Power



Printed Circuit Boards  
(PCB)



# Do Software Architects Have to Understand Business Models?

## Business ?



Business

Methodology

Technical

Leadership

Technology

Domain

Negotiation

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- One of the roles of a software architect is to translate business cases into software requirements and then to software architecture.
- The Software architect also have to verify that the actual running software is aligned with the business needs.
- In order to translate between two languages you need to be able to understand both of them
  - The context
  - The terms
  - The nuance
  - The sub context



- Understanding of the business language can assist:
  - Validate decisions and find misalignments
  - Better communication.
  - Identify risks
  - Remove biases



- How to make sure we didn't miss important quality scenarios?
- How to make sure we capture the right response measures?
- How to make sure we didn't lose the big picture in the prioritization process?
- How to handle similar quality scenarios with different response measures?
- What to do in the case of a tradeoff, when a response measure can not be achieved?

# Differentiated Strategies



Performance



Conformance



Reliability



Low Cost

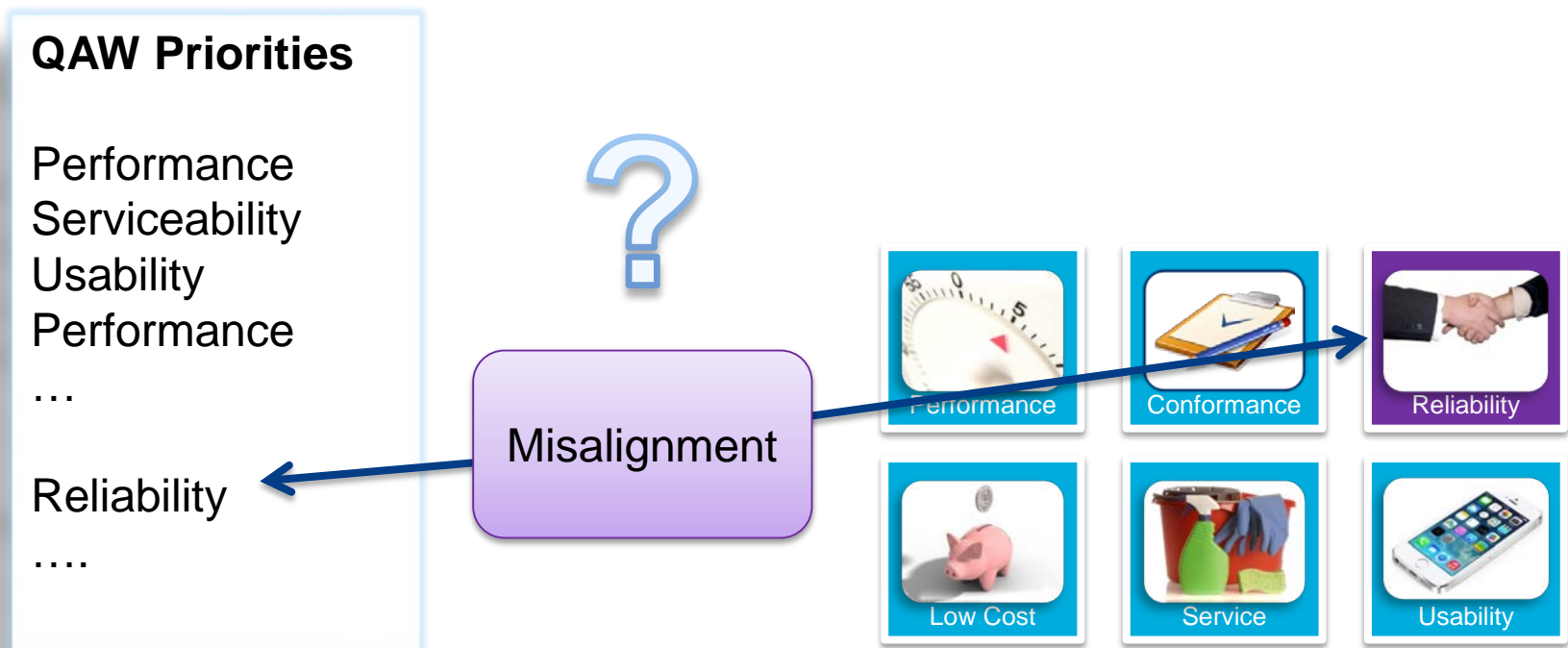


Service

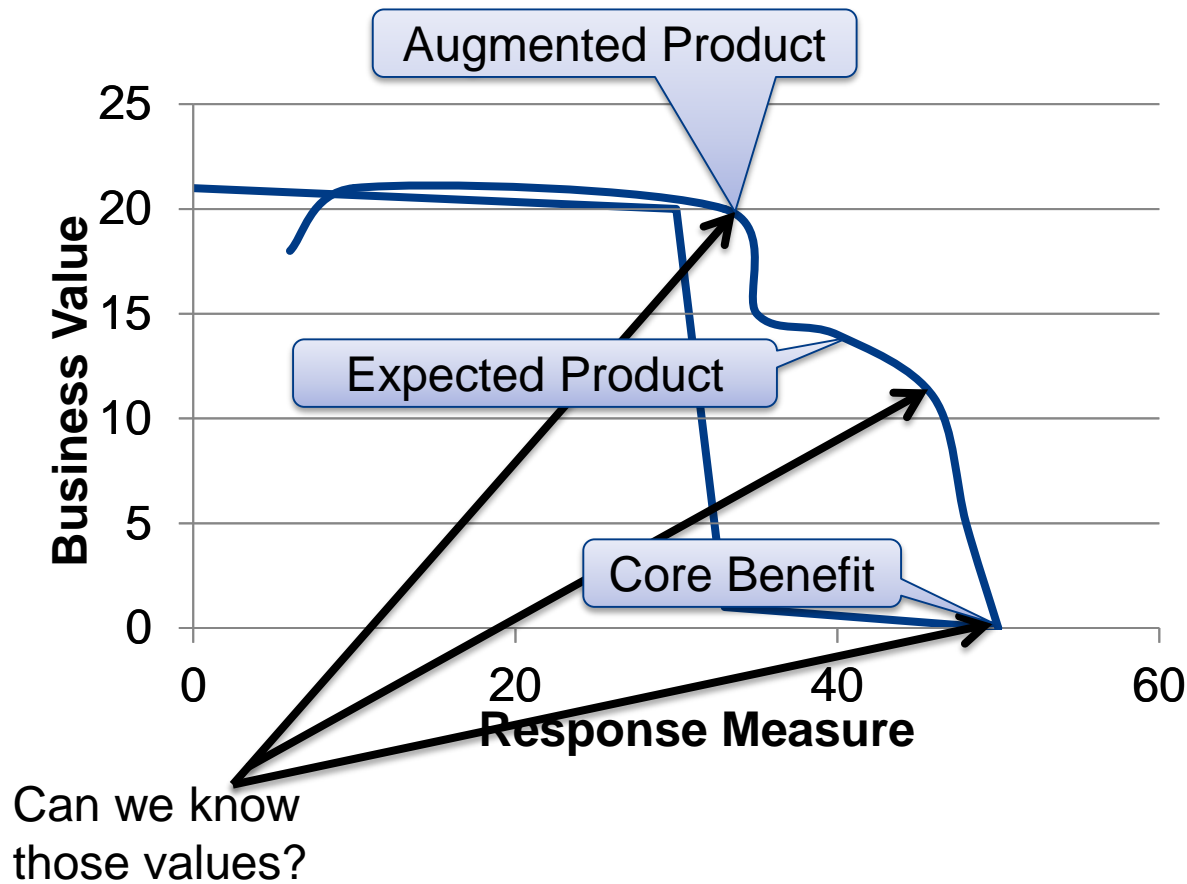


User Experience





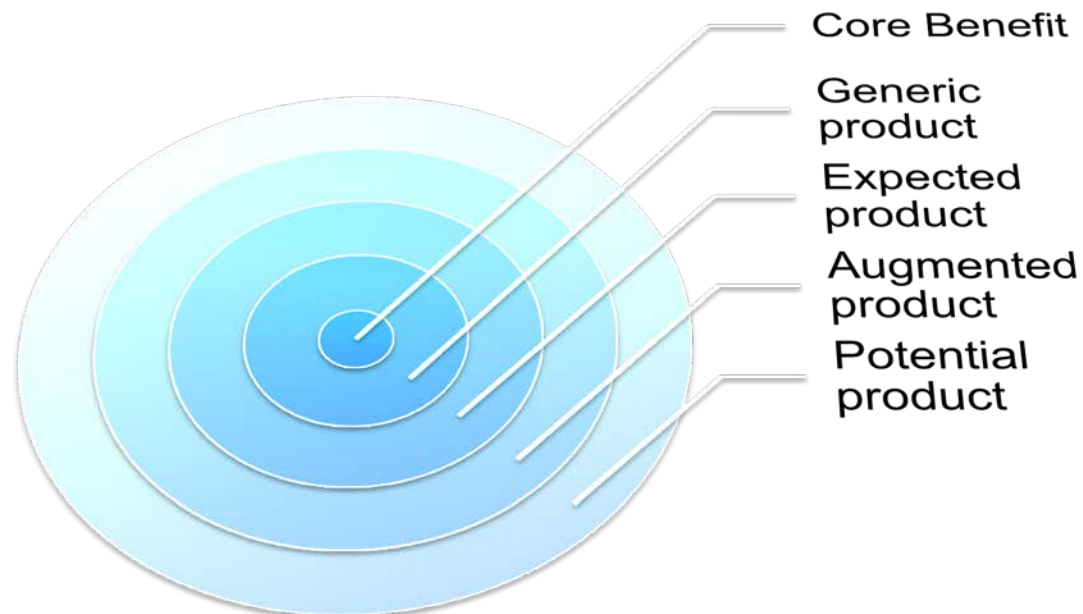
# Where are My Response Measures?



Quality Scenario

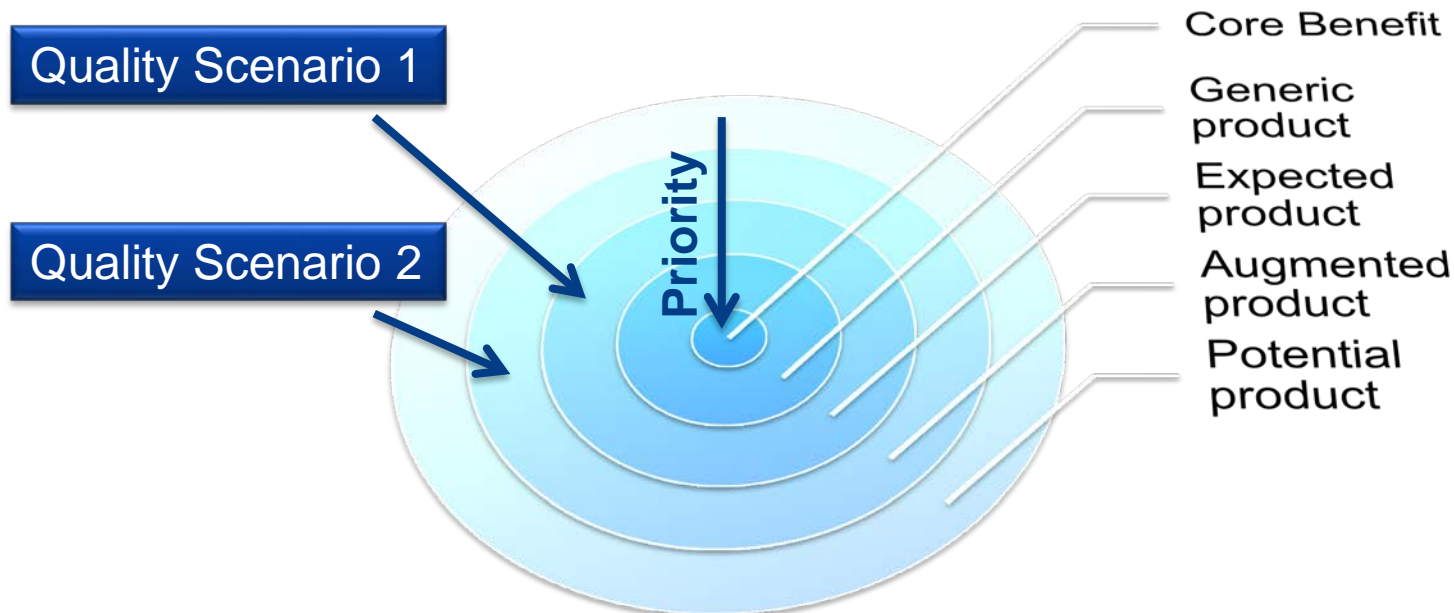
*Where is my response measure on the graph?*

# Five Product Levels



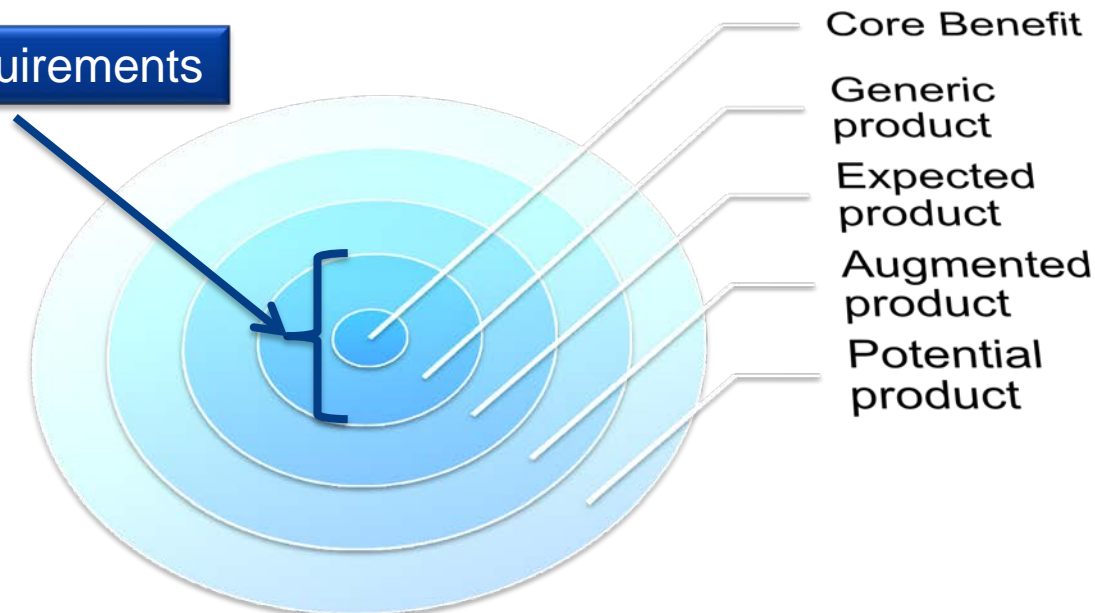
Five products levels – Philip Kotler

# Understand Your Product Concept

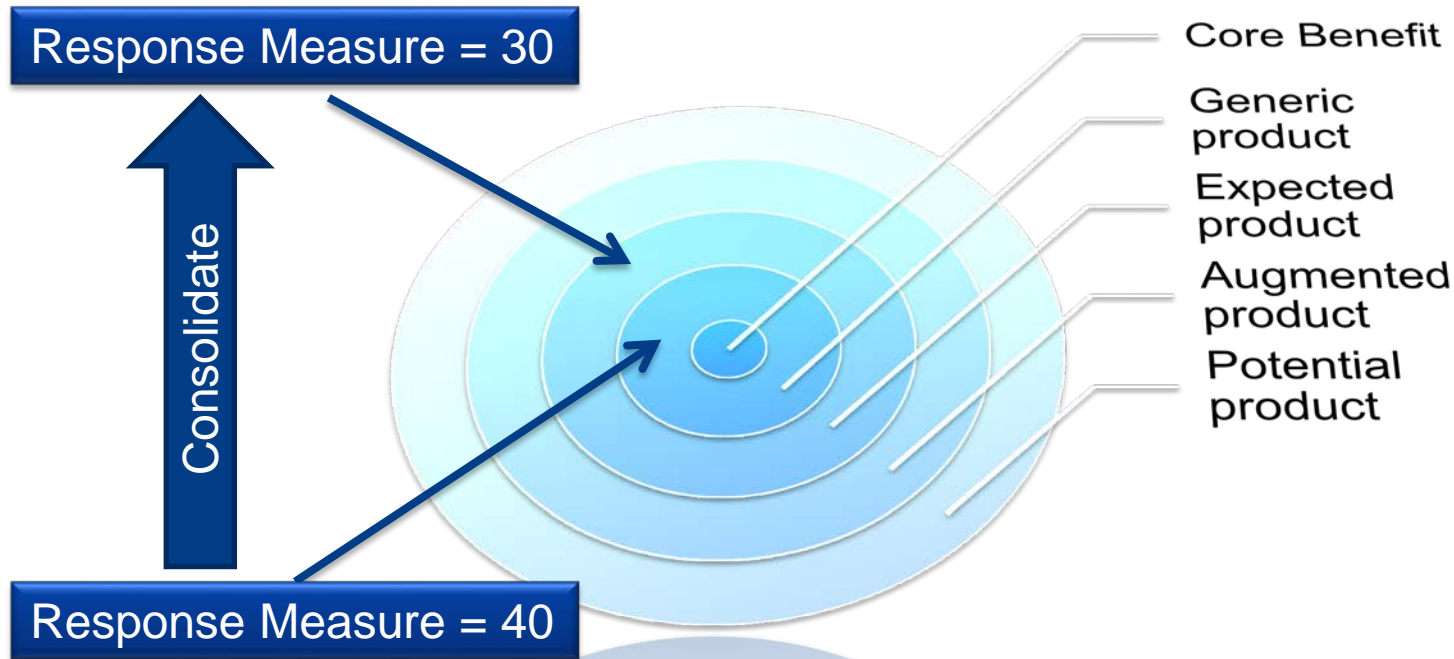


# Architecting Your Previous Product

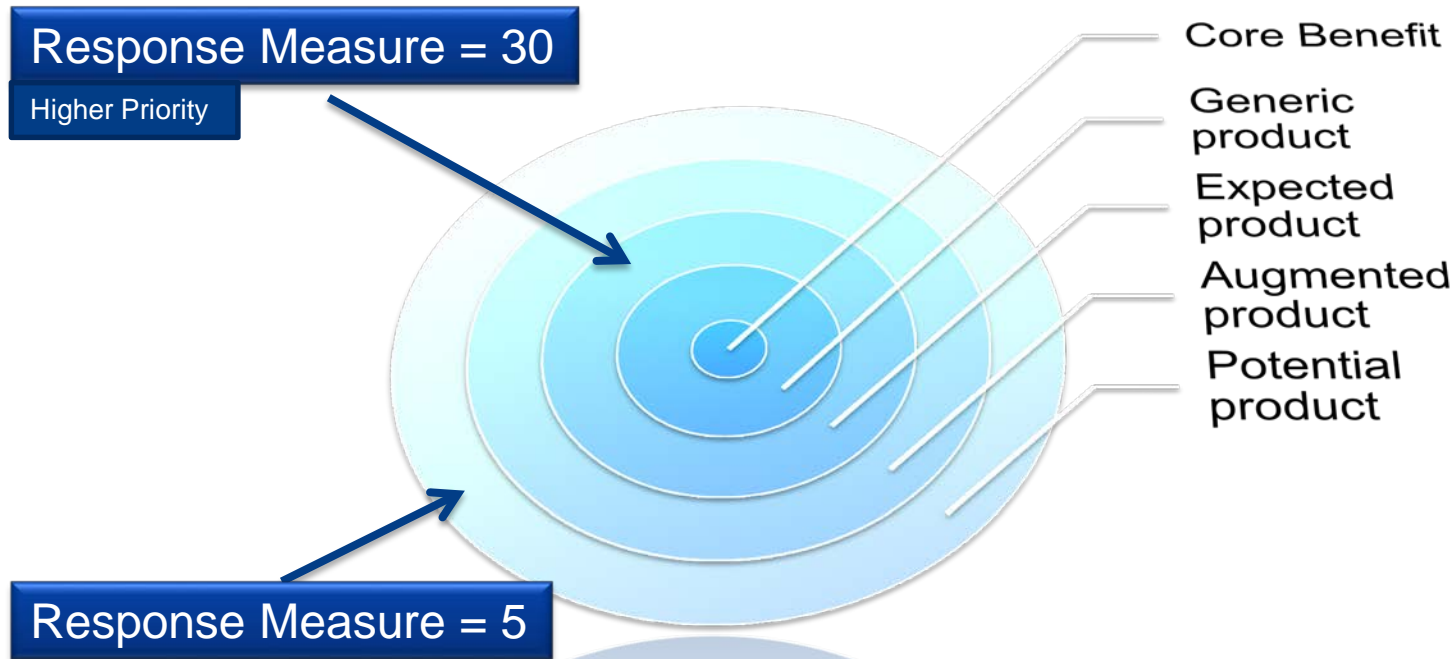
## The Trivial Requirements



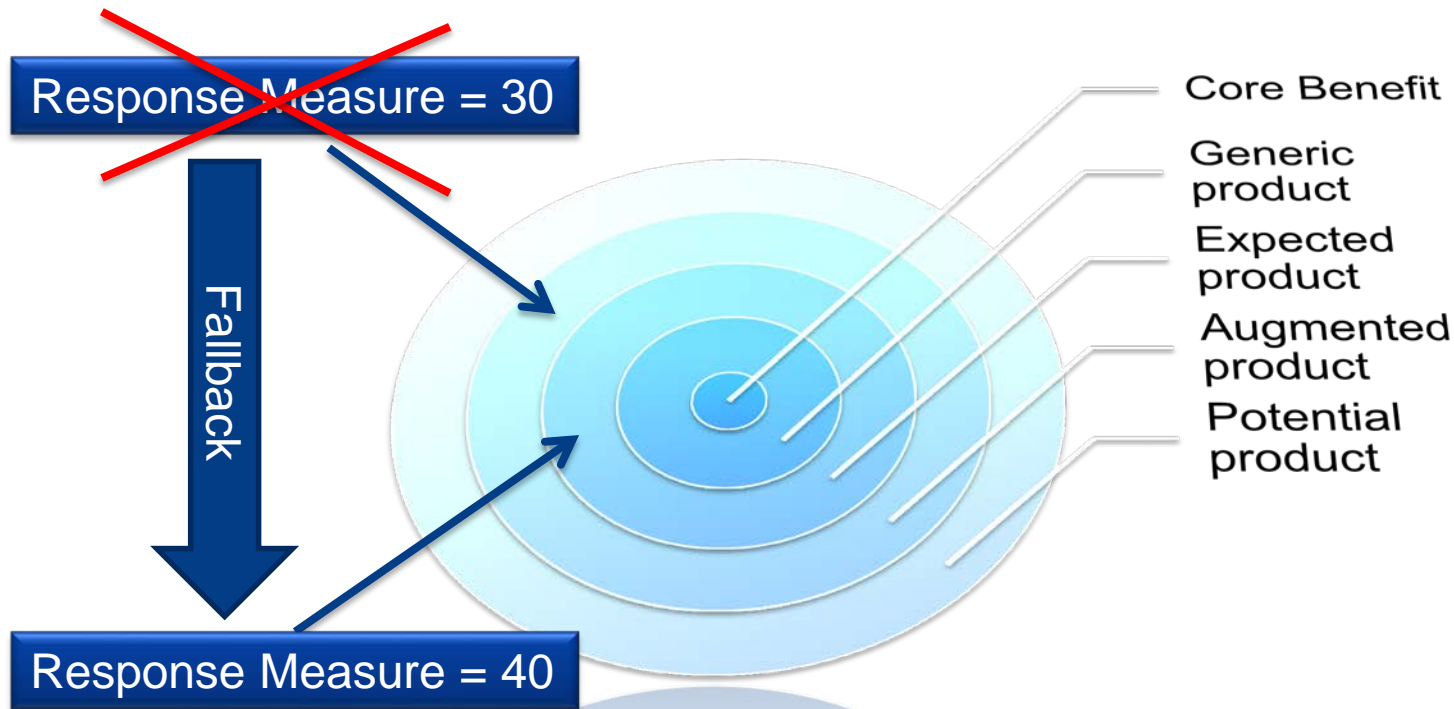
# Quality Scenario Consolidation



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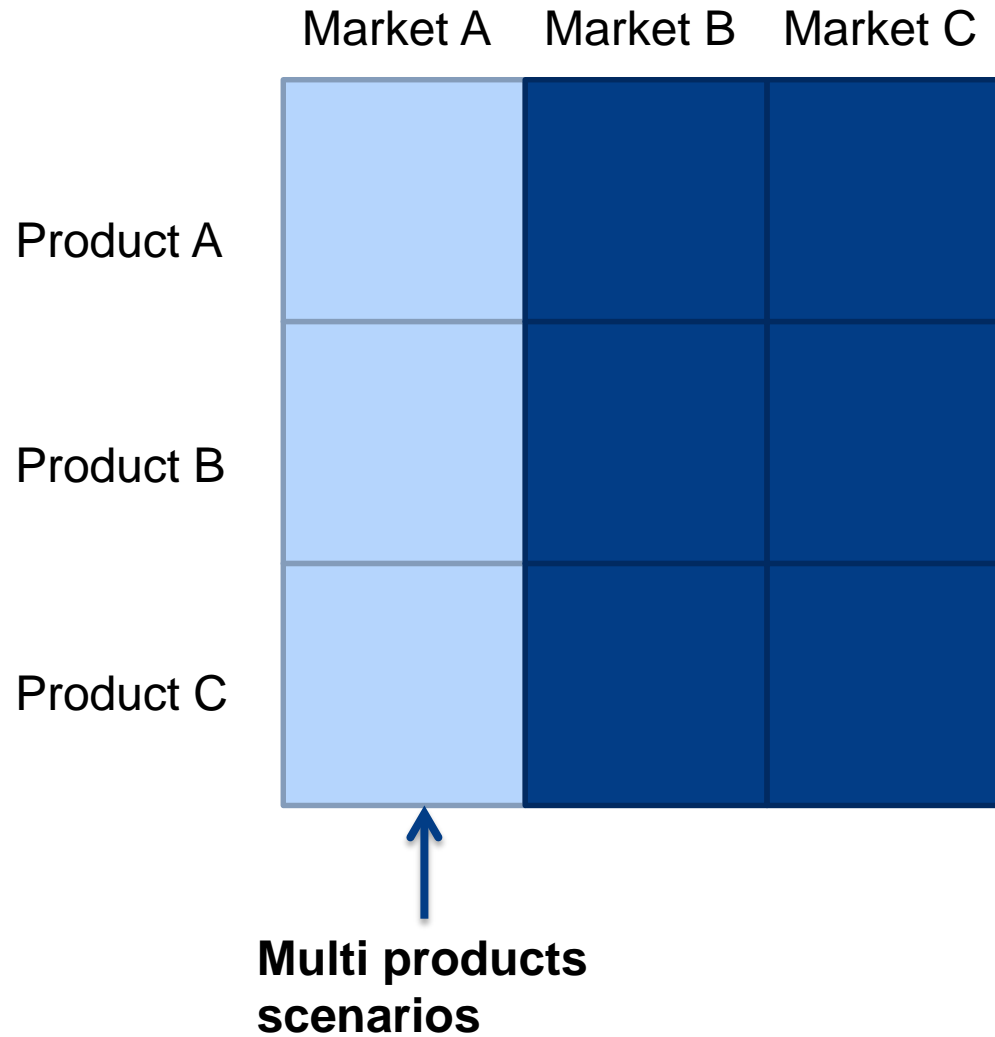


# Quality Scenario Fallbacks

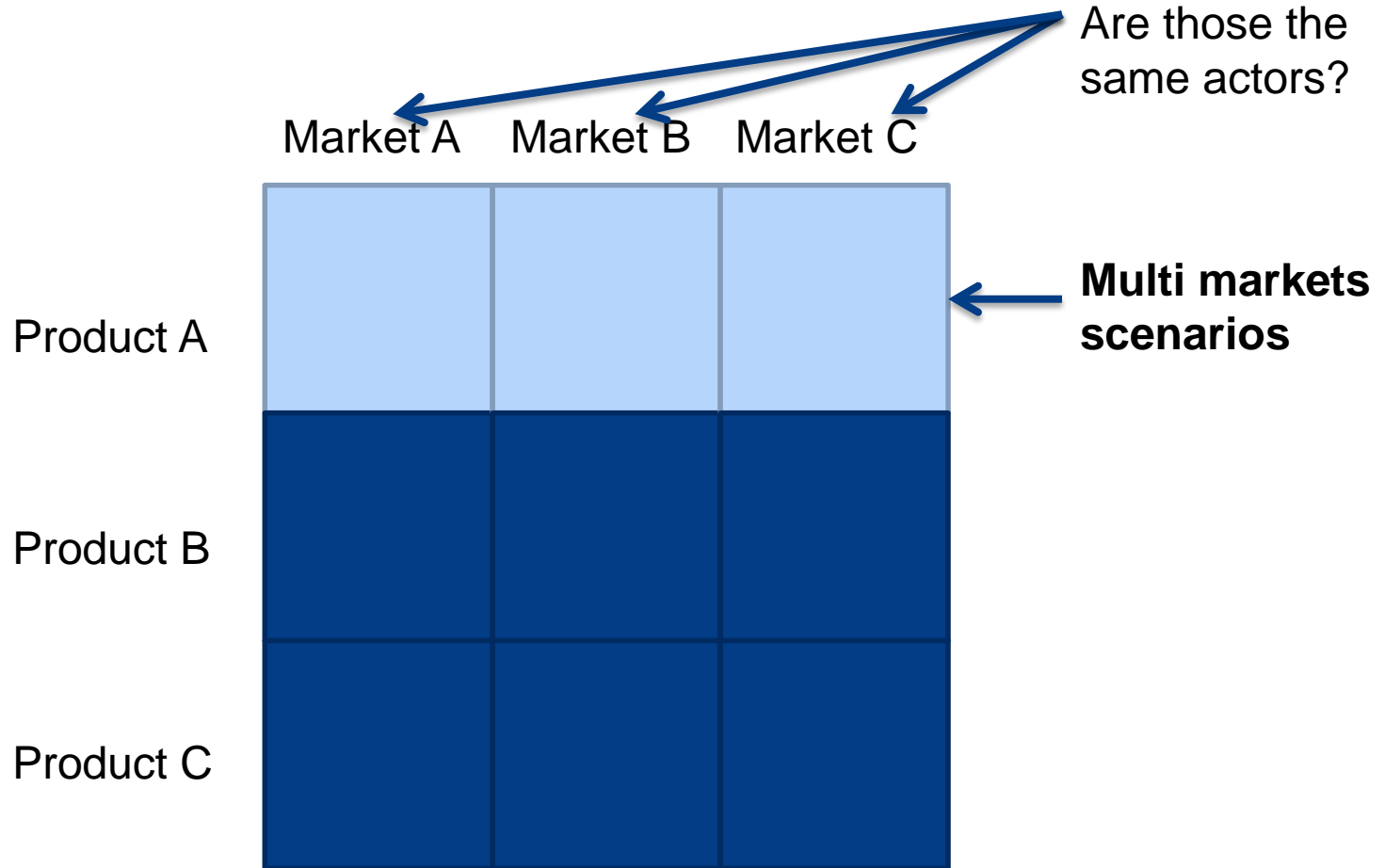




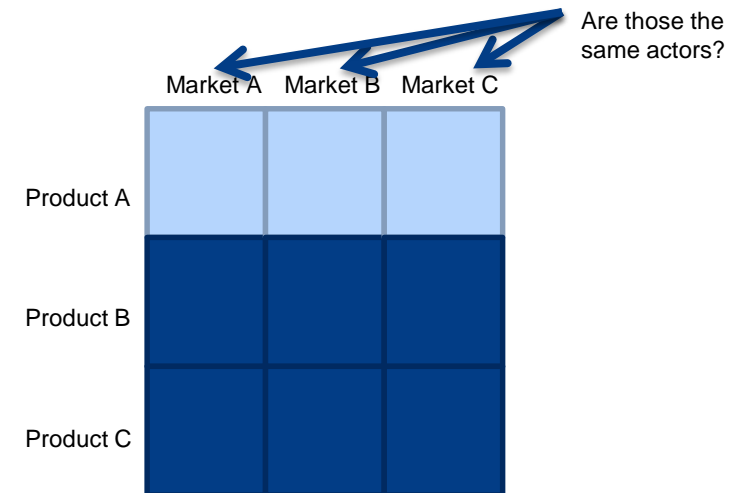
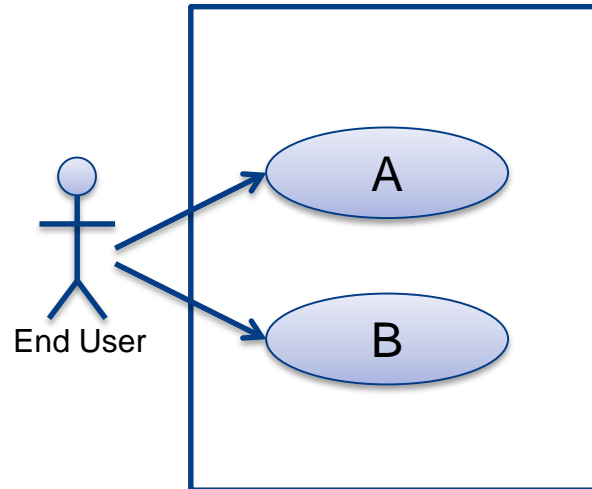
|           | Market A | Market B | Market C |
|-----------|----------|----------|----------|
| Product A |          |          |          |
| Product B |          |          |          |
| Product C |          |          |          |



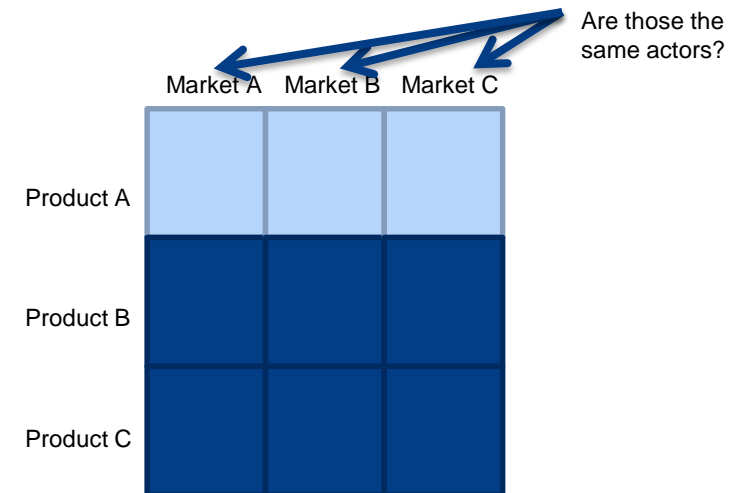
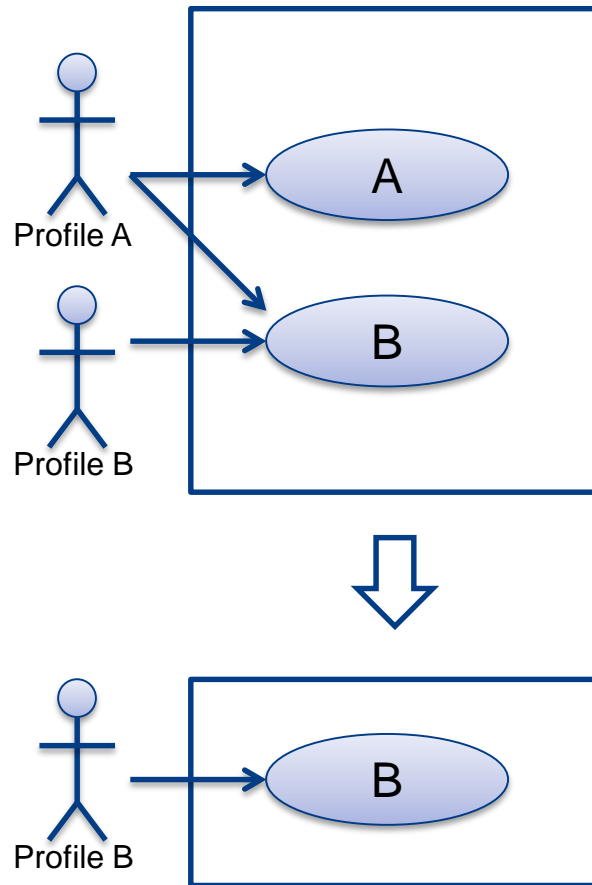
# Product Segmentation



# How Many Actors?



# How Many Actors?



Business knowledge can help a software architect:

- ✓ Discover some important scenarios that may be ignored.
- ✓ Capture response measures that are better aligned with the business needs.
- ✓ Trigger an alarm when the big picture is lost in the prioritization process
- ✓ Better handling of similar quality scenarios with different response measures.
- ✓ Better handling of response measures in the presence of tradeoffs.

# Software Architecture and Business, Where to?

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- Should a software architect have business knowledge?
- Can the business-software architecture cases be extended to create guidelines?



**THANK YOU**

