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# The CMMI<sup>SM</sup> and the Bottom Line

presentation to the

## CMMI<sup>SM</sup> Technology Conference and User Group

Denver, CO

November 12, 2002

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# What is NOT Included

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- **Selection of quality model (CMMI, ISO, etc.)**
- **Selection of CMMI model(s) or approaches**
  - **Domain models**
  - **TSP, PSP**
  - **Staged or continuous representations**

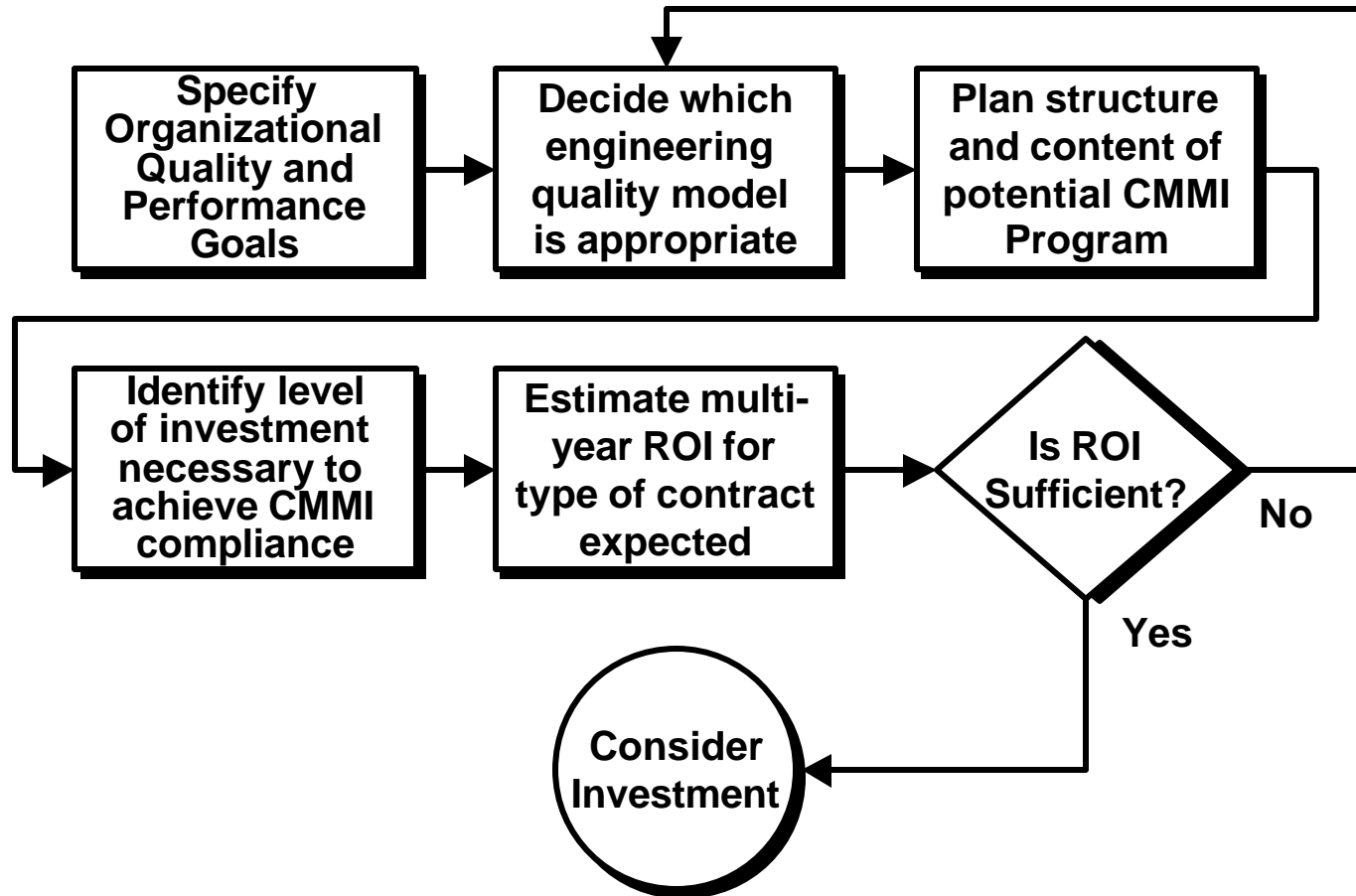
# What IS Included

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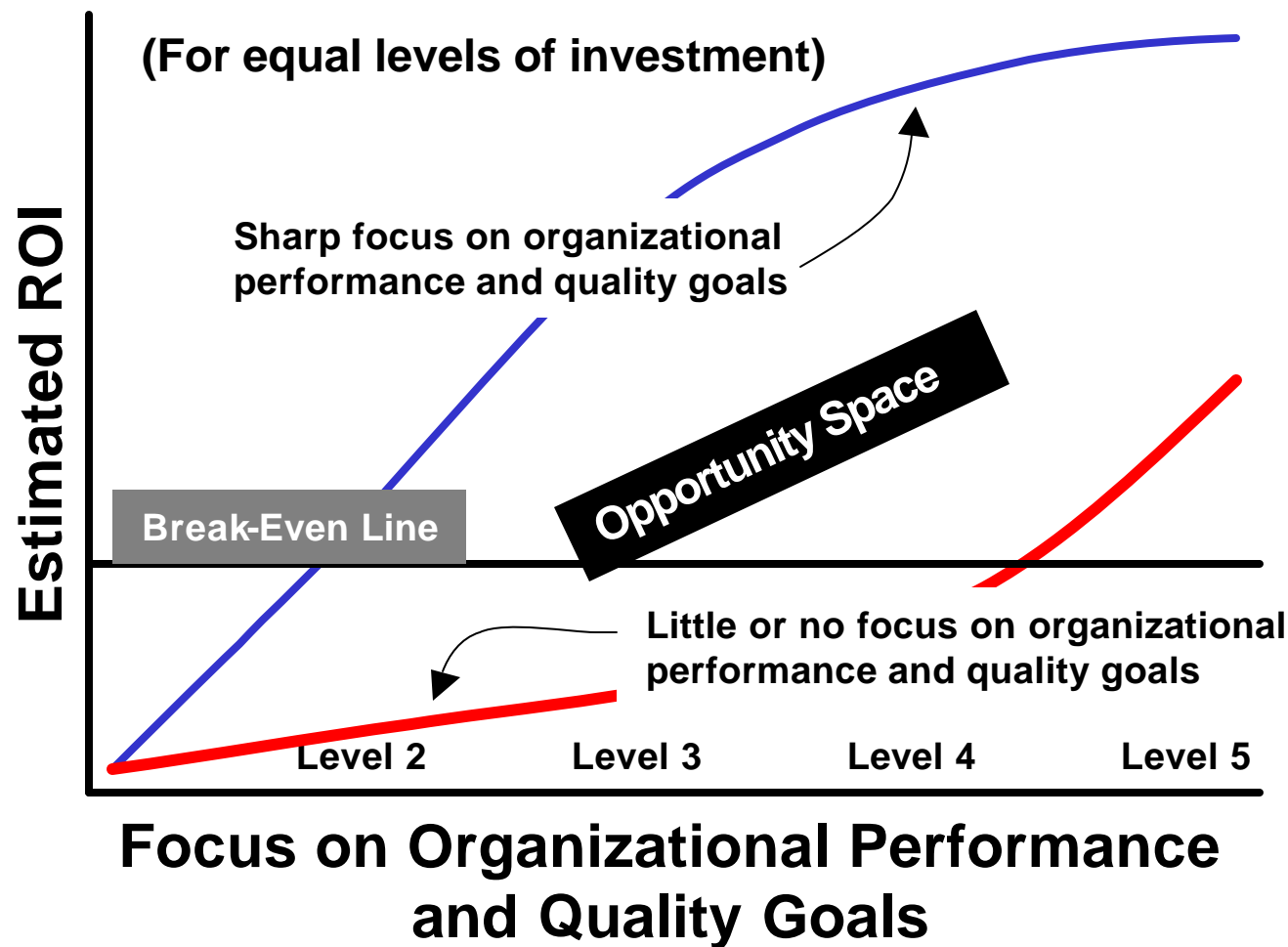
- **Basic decision process for CMMI investment**
- **Importance of quality or performance goals**
- **Understanding of *Value Domains***
- **Understanding of *Contract Types***
- **Calculation of Return on Investment**

***Presentation is based on Paper which is available in Conference Proceedings.***

# Basic Decision Process



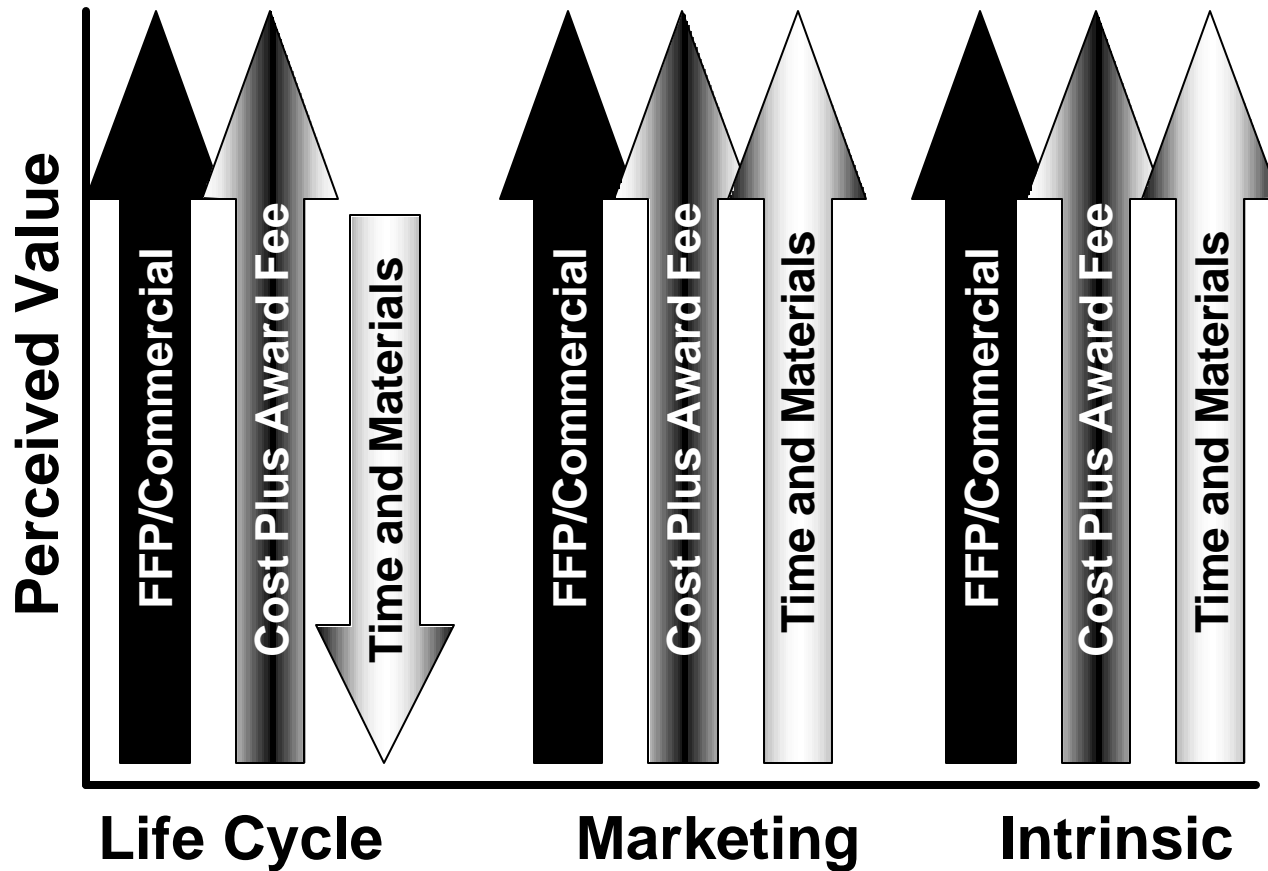
# Importance of Quality or Performance Goals



# Value Domains

<b>Life Cycle</b>	Increased productivity, reduced time to market, higher product quality, reduced costs
<b>Marketing</b>	"Level 3 requirement", customer perception of schedule and cost predictability
<b>Intrinsic Value</b>	Responsive infrastructure, highly knowledgeable employees

# Value Relationship to Contract Types



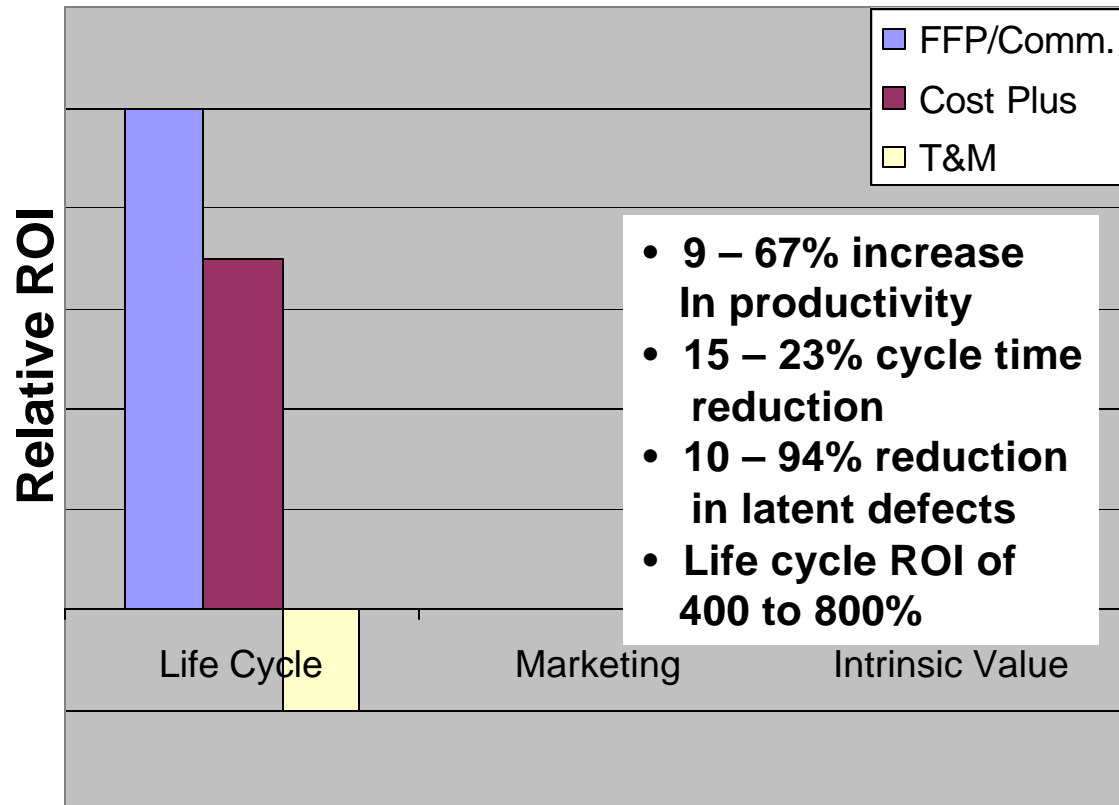
# Introduction to Life Cycle ROI

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- **“Traditional” presentation of CMM/CMMI ROI**
  - SEI data analysis
  - Data and Analysis Center for Software
- **Includes:**
  - Productivity gains
  - Reduction in cycle time
  - Reduction in post-release defects
  - Reduction in calendar time



# Life Cycle ROI

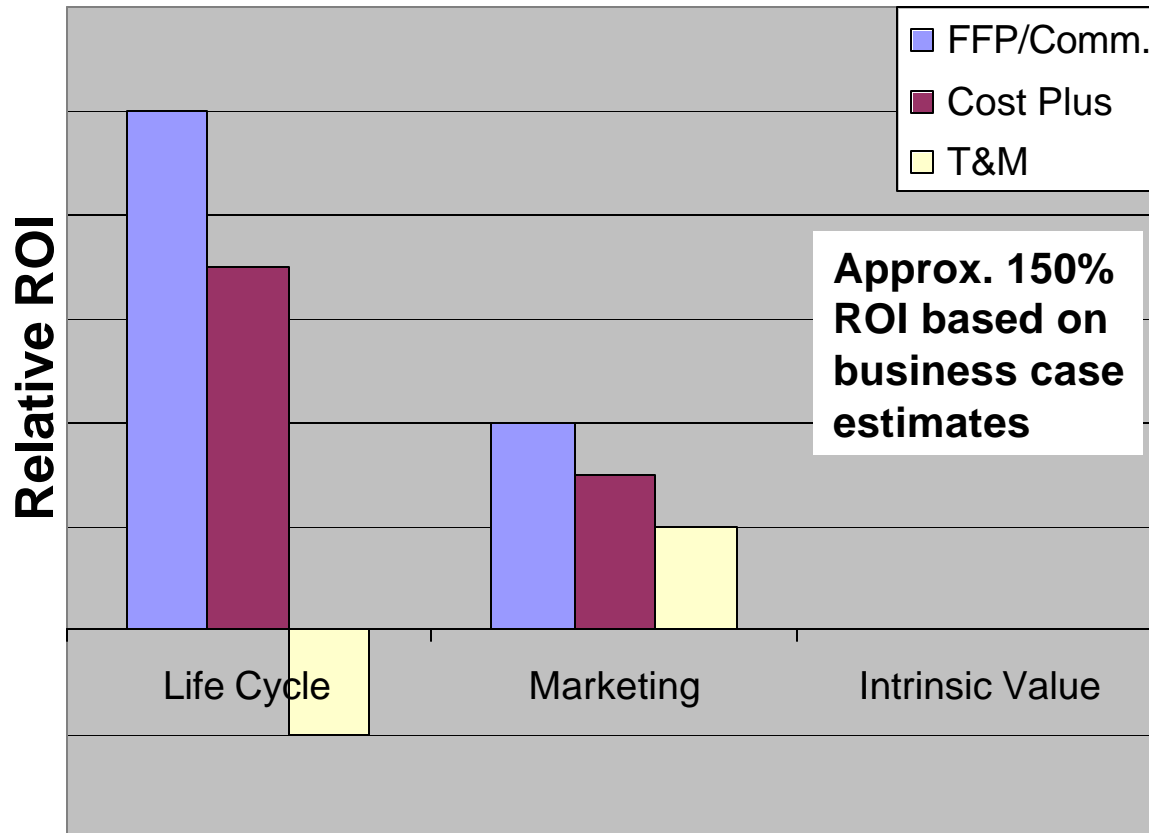


# Introduction to Marketing ROI

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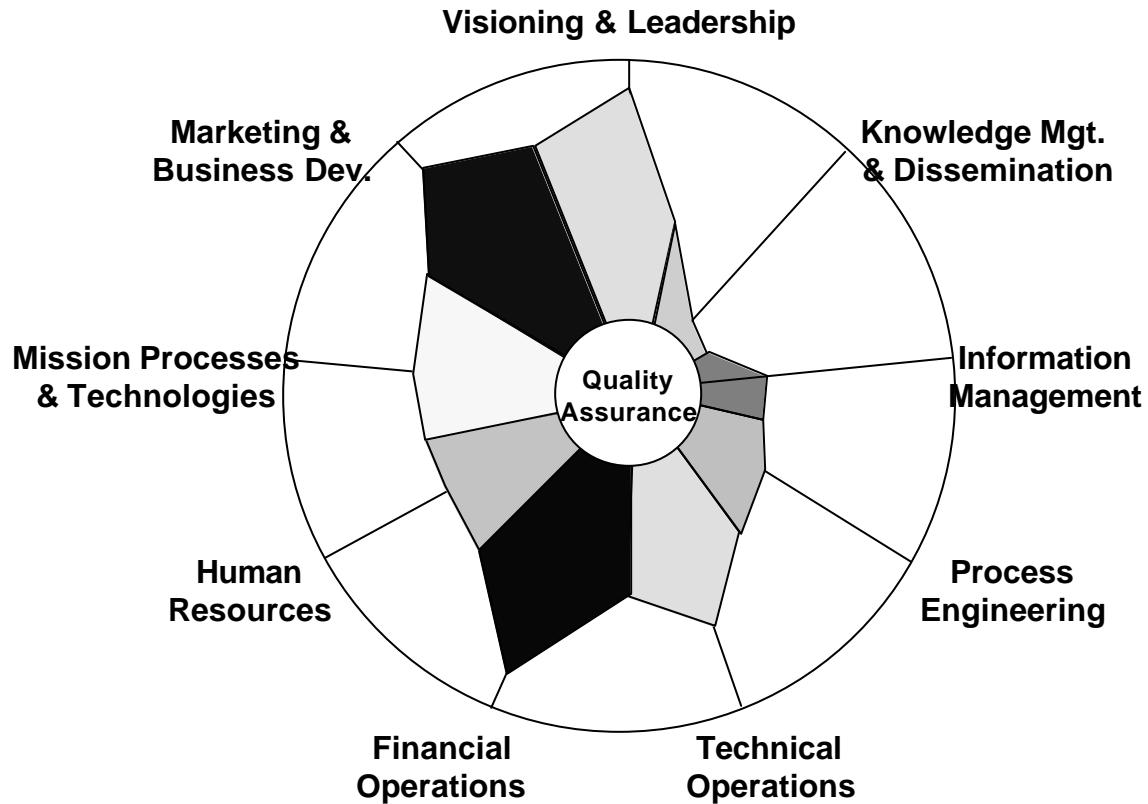
- **Increased number of opportunities**
  - CMMI “compliance gate”
  - Efforts where CMM/CMMI compliance is rewarded
  - Compliance in specific domains
- **Increased probability of win**
  - Schedule predictability and adherence
  - Improved quality
  - Reduced costs
  - Faster time to completion

# Marketing ROI

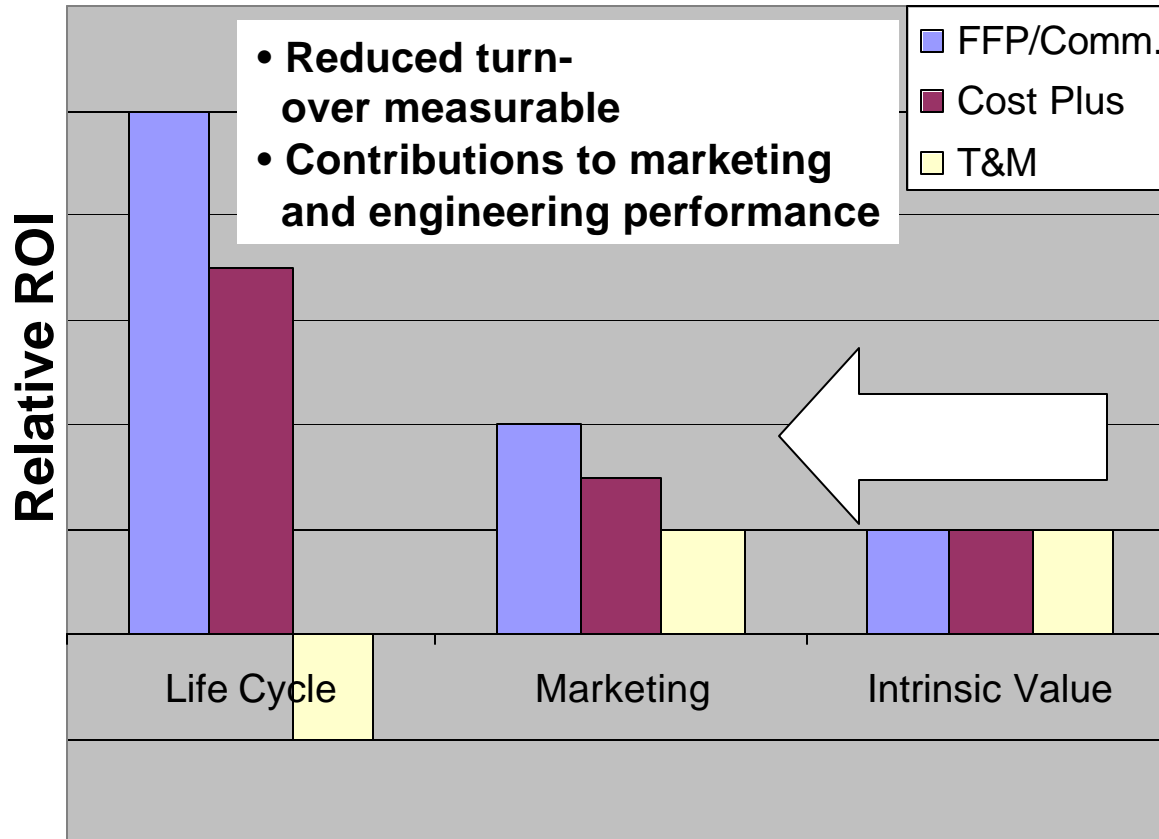


**E.G.: P(WIN)  
IS 80%,  
Contribution of  
CMMI  
compliance  
est. at 25%.  
After win, 32%  
of contract  
profit attrib.  
to CMMI  
Compliance.**

# Intrinsic Value



# Intrinsic ROI



# Calculation of Final ROI

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- **Actuarial plan needed**
  - Investment amortized over time frame
  - Life cycle, marketing, and intrinsic ROI applied to appropriate phase
- **Calculate individual ROI**
- **Apply against investment across time frame**
- **Sum ROI from all Value Domains across time frame**

# Sample “Bottom Line” Investment vs ROI

