# The Use of Objective Information In DoD Program Decision Making

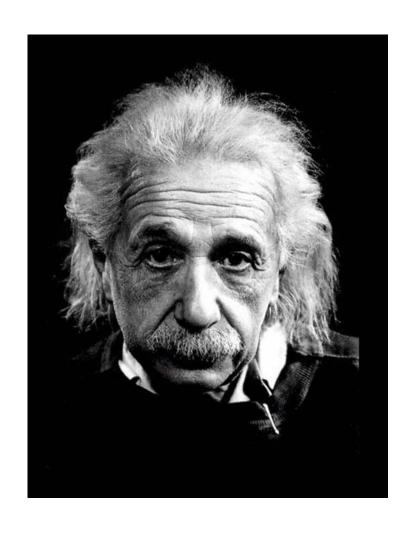


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#### Performance and Decision Analysis



"Two things are infinite: the universe and human stupidity;

And I'm not sure about the universe"

Albert Einstein

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# Program Performance Issues

Identified Issues	Relative Occurrence
Process Capability	91 %
Organizational Management	<b>87</b> %
Requirements Management	<b>87</b> %
Product Testing	<i>83</i> %
Program Planning	<b>74</b> %
Product Quality - Rework	<b>70</b> %
System Engineering	<i>61</i> %
Process Adherence	<b>52</b> %
Program Schedule	48 %
Interoperability	43 %
•••	
Configuration Management	<b>26</b> %

## Fundamental Questions

- Why do we measure?
- Why do we assess risk?
- Do these things help?
- Really ?

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# Only if we use the answers to make Meaningful Program Decisions

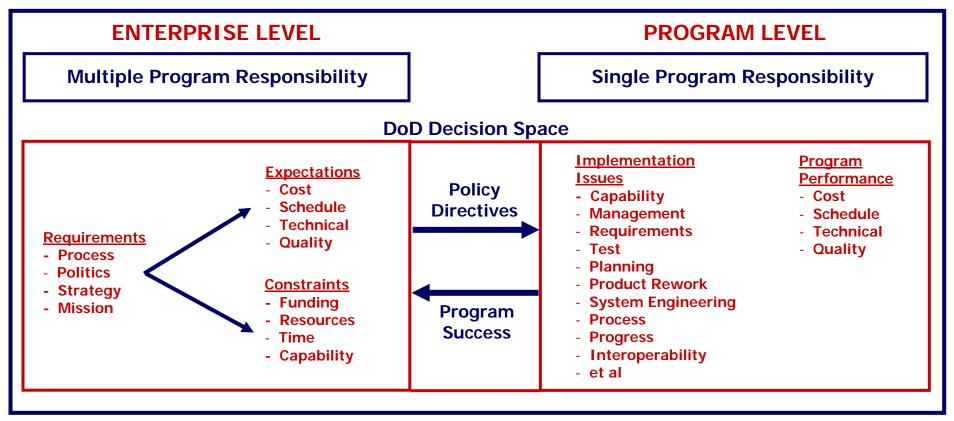
A decision is a choice for action...

Defined by the expenditure of resources ...

That can never be fully recovered if you change your mind

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#### **DoD Decision Environment**



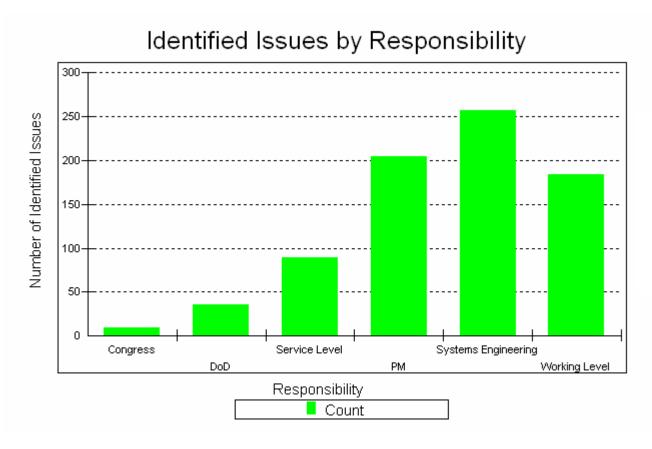
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ACQUISITION ENVIRONMENT (Threats, Economy, Technology)

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#### Where are most of the decisions made?

# Complex issues with multiple interactions across all levels of DoD management

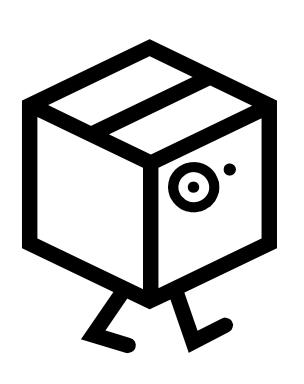


# Key Program Decision Factors



- Decision objective(s)
- Decision authority
- Decision cost
- Decision capability
- Decision complexity
- Decision context

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To make effective program decisions, a program must establish and manage its decision space - its ability to make choices to allocate resources - across the life of the program

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### A Program is the Sum of Its Decisions

**Program Decision Space** 

Fact-Based
Performance
Data

Context-Based
Performance
Information

Ability toMake and ActOn Decisions

- Measurement Data
- Risk Data
- Financial Data
- Historical Performance Data
- Environmental Data

- Valid Performance Relationships
- Cause and Effect Information
- Thresholds and Criteria
- Portfolio Performance Analysis
- "External Analytics"
- Adequate Scope

- Technical Capability
- Acquisition Capability
- Resource Flexibility
- Communication
- Commitment
- Pro-Activity
- Leadership

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### **Decision Freedom**

- A measure of the extent of the "decision space" allocated to the program team
- With greater decision freedom the program has much more flexibility and freedom of independent action
- The program uses this freedom to address strategic and operational issues, to allocate and reallocate scarce resources, to fend off program attacks (both internal and external), and to manage the scope of operational requirements

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# Decision Freedom External Environment Factors

#### **Program Decision Space**

Fact-Based **Performance** Data

Context-Based Performance Information

Ability to Make and Act On Decisions

**Enterprise Performance Objectives** 

Legislation **And Policy** 

Resource Stability and Variance

**Expected Behaviors** 

**Program Environment** 

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Enterprise constraints, expectations or poor program execution can limit the decision space on DoD programs - this reduces the overall ability of the program team to make decisions

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# Can you run out of Decision Freedom?



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## You Might Have Decision Freedom If...

- You can objectively characterize the status of your program
- Your program has real measurement and risk management processes in place
- You directly address the performance issues not just wish they would go away
- You can trade off requirements, schedule, and cost
- Your program management process is based on more than "concurrent fire fighting"
- You pro-actively influence the enterprise and the environmental requirements and interfaces
- You can show that your decisions worked

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#### Performance and Decision Analysis



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