



# Cost As An Independent Variable (CAIV) Acquisition Strategies: A Brief Overview

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# Overview

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- What is CAIV?
- CAIV's History and Evolution
- Use of Earned Value Management in CAIV Acquisition
- CAIV's Impact on Acquisition Management
  - Current Trends
  - Future Trends
- Where To Learn More



# What is CAIV?

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CAIV is DoD's acquisition methodology of making technical and schedule performance a function of available (budgeted) resources.

## *Strategy*

- Aggressively set realistic cost objectives for acquiring and supporting defense systems, and
- Manage programs to meet those objectives.

## *Approach*

- Set realistic but aggressive cost objectives early in each program
- Manage risks to achieve cost, schedule and performance objectives
- Devise metrics for tracking progress in setting and achieving cost objectives
- Motivate/incentivize government/industry to achieve objectives
- Incentivize operating and support cost reductions for fielded systems



## CAIV is...

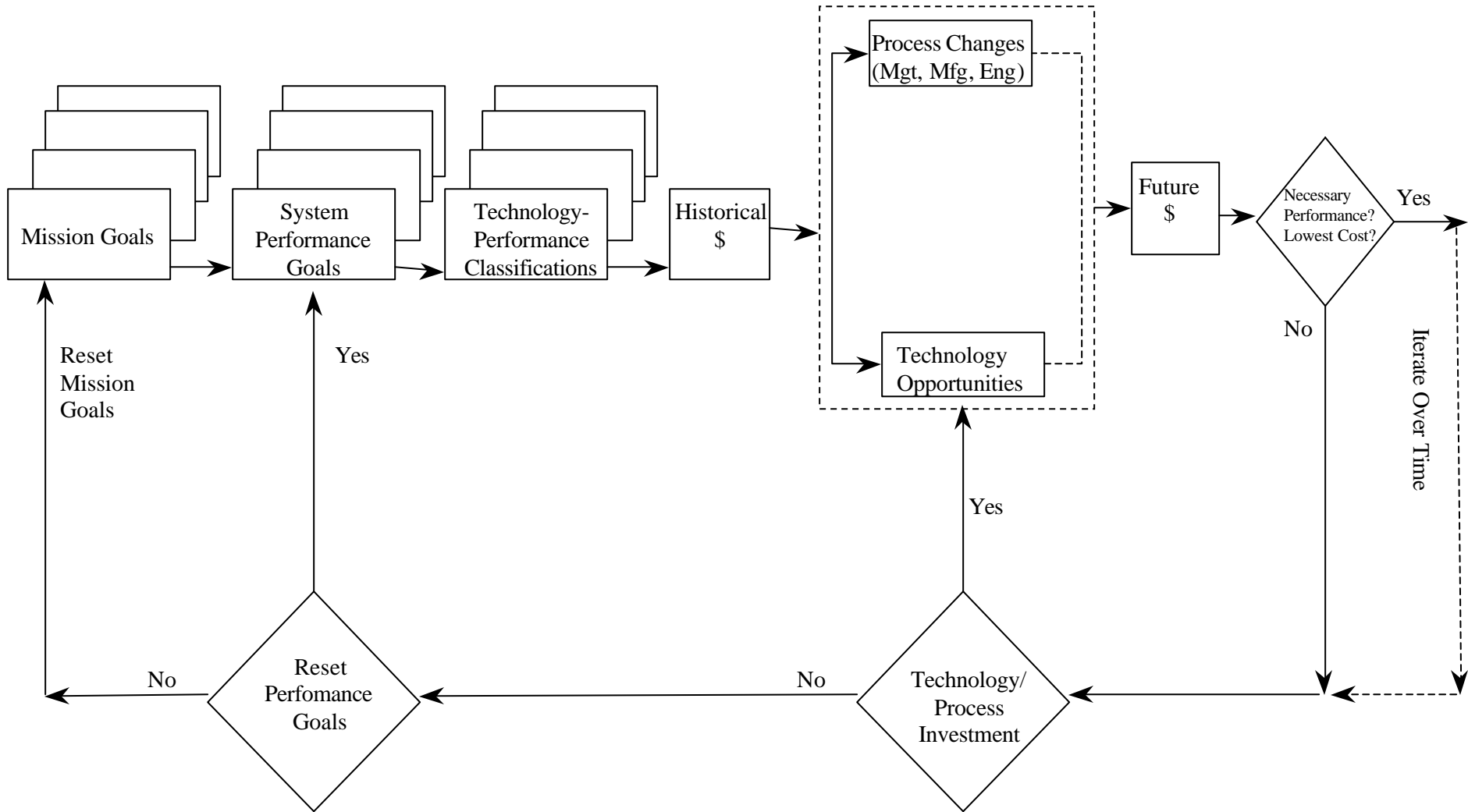
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Explained another way...

- Three program performance parameters
  - Technical
    - Schedule
      - Cost (Price)
  - Two of these variables must depend on the third
- Systematic analysis of all life cycle cost elements
  - Acquisition
  - Operations/Support
  - Manpower
  - Modernization
  - Disposal



# Cost/Performance Optimization Process





# CAIV's History and Evolution

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- Based on commercial practice
- History is in the making, now!
  - 1995 - 1996
    - OSD policy on cost/performance trade-offs
    - Test implementation on flagship Army/Navy/Air Force/Marine Corp programs
  - 1997 - 1998
    - Services' promulgate policy/guidance documents, business plans
- Why CAIV? Improves systems acquisition cost estimating diligence and program controls.



# Use of Earned Value Management in CAIV Acquisition

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- CAIV's "first diagnostic of risk management".
- Principle method of validating whether expected cost performance will be met
- Tool for adjusting performance requirements to meet cost objectives
- Performance monitoring (expected life cycle cost validation) conducted on an ongoing basis through all Acquisition phases:
  - Concept Exploration
  - Program Definition and Risk Reduction
  - EMD/LRIP
  - Production, Fielding/Deployment, Operational Support



# CAIV's Impact on Acquisition Management: Current Trends

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- Increasing rigor in cost modeling
- Cost/Performance Integrated Process Teams (CPIPT)
- Existing data quality/granularity - limiting the quality/sophistication of post-acquisition life cycle costing
- New contract incentives
- Program reporting: improved quality



# CAIV's Impact on Acquisition Management: Future Trends

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- Improved systems engineering - performance tradeoff and cost/performance tradeoff tools
- Renewed interest in VECPs as incentives
- Continued risk management method improvements
- Increased use, improvements to technical performance management (TPM)
- Improvements to historical O&S cost databases
- Increased focus on data quality during the cost data collection process
- Increased focus on industry/contractor process cost data associated with Government systems - ABC/ABM



# Where to Learn More

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- Web Sites
  - <http://www.acq.osd.mil/ar/>
  - <http://www.acq-ref.navy.mil/wcp/civ.html>
  - [http://www.safaq.hq.af.mil/safaq/acq\\_pol/caiv.html](http://www.safaq.hq.af.mil/safaq/acq_pol/caiv.html)
  - <http://navsea.navy.mil/acquisition-reform/caiv.htm>
  - <http://www.pricystems.com/caivsemi.htm>
- Future military service guidance documents