



# Army Cost Management Steering Group

**18 November 2014**

**1300-1500**

**3E387**



# Agenda



- Overview
- CMSG Charter
  - CMSG Ad Hoc Working Groups
    - Labor Tracking Business Case Analysis – Defining Requirements
- Cost Management Implementation Plan(s)
- Discussion Topics
  - Command Cost Model Design Documents
  - Cost Managed Organizations
    - Implementation Plan
    - CM Trained Workforce
    - Cost Structure Design within ERP
    - CM Review Process
    - CM Maturity Model Goals Achieved
- Way Ahead



# Cost Management (CM) Steering Group Kick Off



## **Purpose:**

To shape and inform the implementation of cost management policy, strategy, system design and practices in alignment with Army Leadership priorities. Provide guidance and understanding on Army enterprise level cost needs, performance metrics, capability gaps, and recommendations required for more agile, effective, and efficient decision making processes.

## **Expected Outcomes:**

Obtain Army-wide support for this effort to successfully implement Cost Management and meet the information needs across the Army, starting with:

- CMSG Charter review
- CMSG input on key CM information needs and strategies required to successfully support the resource information decision making process and Army leadership priority goals and missions.

18 November 2014



# CMMSG Charter



**Chair:** ASA(FM&C) - DASA-CE.

## **GO/SES Representative Member of:**

Headquarters, Department of the Army	2 <sup>nd</sup> Army
U.S. Army Forces Command	U.S. Army Corps of Engineers
U.S. Army Training and Doctrine Command	U.S. Army Tests and Evaluation Command
U.S. Army Materiel Command	U.S. Army Installation Management Command
U.S. Army Pacific	
U.S. Army Europe	
U.S. Army Medical Command	

## **Objectives:**

- Advise Army Senior Leadership on Army Cost information needs required to successfully implement Cost Management Army-wide and support Leadership's PPBE decision making process.
- Inform and influence the implementation of Cost Management policy, strategy, key capabilities, and best practices sharing.
- Share accurate and reliable cost information and data to synchronize, accelerate, and maximize available resources.
- Take full advantage of all ERPs to enable better cost planning, analysis, and control.

**Cadence:** Quarterly

**Location:** Pentagon/VTC

**Term:** 2 years



# Defining Cost Information “Why & What is Needed”



## Cost Information Needs:

- Cost of Readiness
- Cost of Training Readiness
- Cost of BCT
- Cost of Post Production SW Support
- Cost of IT Services and Support
- Cost of Installation Services
- Cost of Recruiting a Soldier
- Total Ownership Cost of Equipment
- Cost of Etc...

## Different Meaning by:

- Function – Budget vs Functional
- Stakeholder – “Internal vs External”
- Role – “Customer vs Provider”

## Varies by:

- Proximity – “Where you sit”
- Periodicity – “Duration”
- Purpose – “Decision”

## Cost Terms / Definitions:

- Fixed and Variable Cost
- Funded and Unfunded
- Must Fund and Discretionary
- Direct and Indirect Cost
- Reimbursable and Direct Fund
- Overhead, G&A, Fee
- Sunk Cost
- Investment and Sustainment
- Recurring and Non-Recurring
- Etc...



# Army Financial Transparency

Army Cost Management

## Challenges

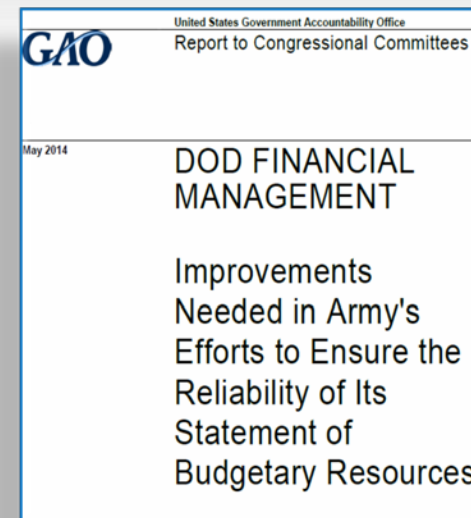
- DOD Audit Readiness
- Visibility into Cost and Spending
- Meaningful Business Analytics for Decision Making
- Financial System Interface Errors and Rework
- Cost Tracking to Output / Outcome

## Opportunity

- Army Cost Data Capture Strategy and CM

## Progress

- Cost Culture and Cost Management (CM) Initiatives
- Army General Fund Enterprise Business System (GFEBS)
- Addressing Financial Material Weaknesses - LSS
- Army Financial Management Optimization (AFMO)
- Army Financial Benefits Reporting and Tracking (AFBRT)
- Army CM Steering Group



The screenshot shows the GFEBS "Cost by Cum Report" interface. It displays a table with columns for "Actuals", "Commitments (Cum)", "Obligations (Cum)", and "Expenditures (Cum)". The table is filtered by "Army" and "USACE".

Cost Center	Actuals	Commitments (Cum)	Obligations (Cum)	Expenditures (Cum)
ARMY	17,294,808,188.77	23,230,252,478.84	23,815,138,138.81	16,446,453,878.98
USACE	3,384.89	3,384.89	3,384.89	3,384.89
NSICG	47,328.89	808,718.35	908,718.35	428,884.43
NSICG	84,116,476.31	37,548,878.18	86,121,276.81	86,287,138.26
NSICG	12,422,128.46	53,483,828.57	34,851,588.96	13,434,823.65
ARMY	3,187,828,388.44	5,984,114,888.72	4,888,823,315.34	3,115,896,388.88
NSICG	185,213,848.89	218,889,844.81	212,388,382.83	189,828,318.81
NSICG	36,883,189.22	145,823,853.86	132,874,238.19	88,788,233.82
NSICG	2,385,844,845.36	5,821,788,311.86	3,188,471,412.72	2,245,841,843.32
NSICG	13,815,848.89	25,424,858.83	18,188,487.21	13,588,210.88
NSICG	823,122,882.76	1,188,438,248.79	1,138,455,488.71	814,528,841.88
NSICG	36,183,842.27	83,888,842.82	88,848,233.72	36,138,188.84
NSICG	813,278,182.89	888,351,878.89	884,761,878.83	818,851,848.88





# Army Cost Management (CM)



## People

1. Leadership Commitment
2. Training
3. FM Workforce ([AFMO](#))

## Technology

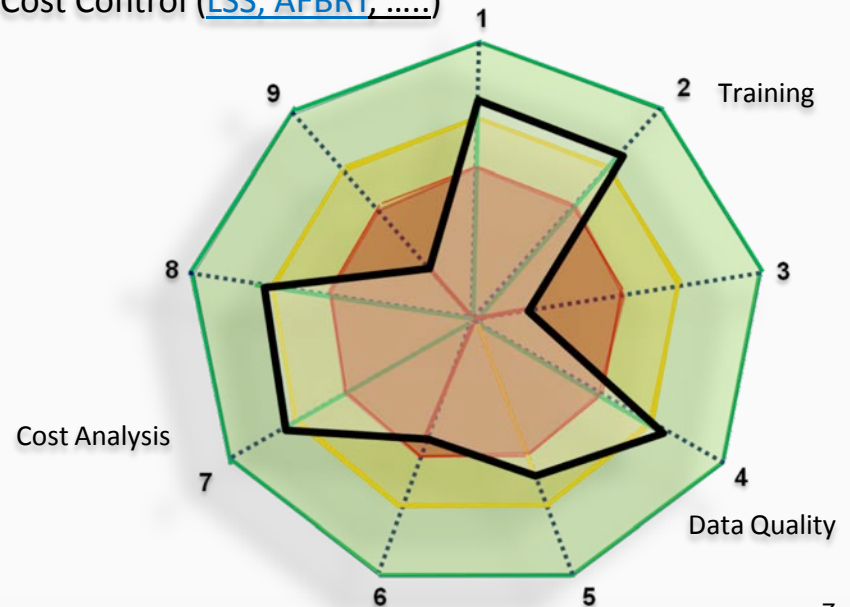
4. Data Quality ([ERP Cost Data](#), [Performance Metrics](#))
5. Tools & Models ([Analytics](#), [BI](#))

## Process

6. Cost Planning ([Cost Estimates](#), .....
7. Cost Analysis ([CBA](#), [AoA](#), ....)
8. Cost Integration to Requirement, Acquisition & Resource
9. Cost Control ([LSS](#), [AFBRT](#), .....

## CM Goal: Best Value Proposition / Resource Optimization

- Stewardship of nation's resources
- Cost informed decision making
- Continuous improvement
- Accountability for costs
- Tracking progress

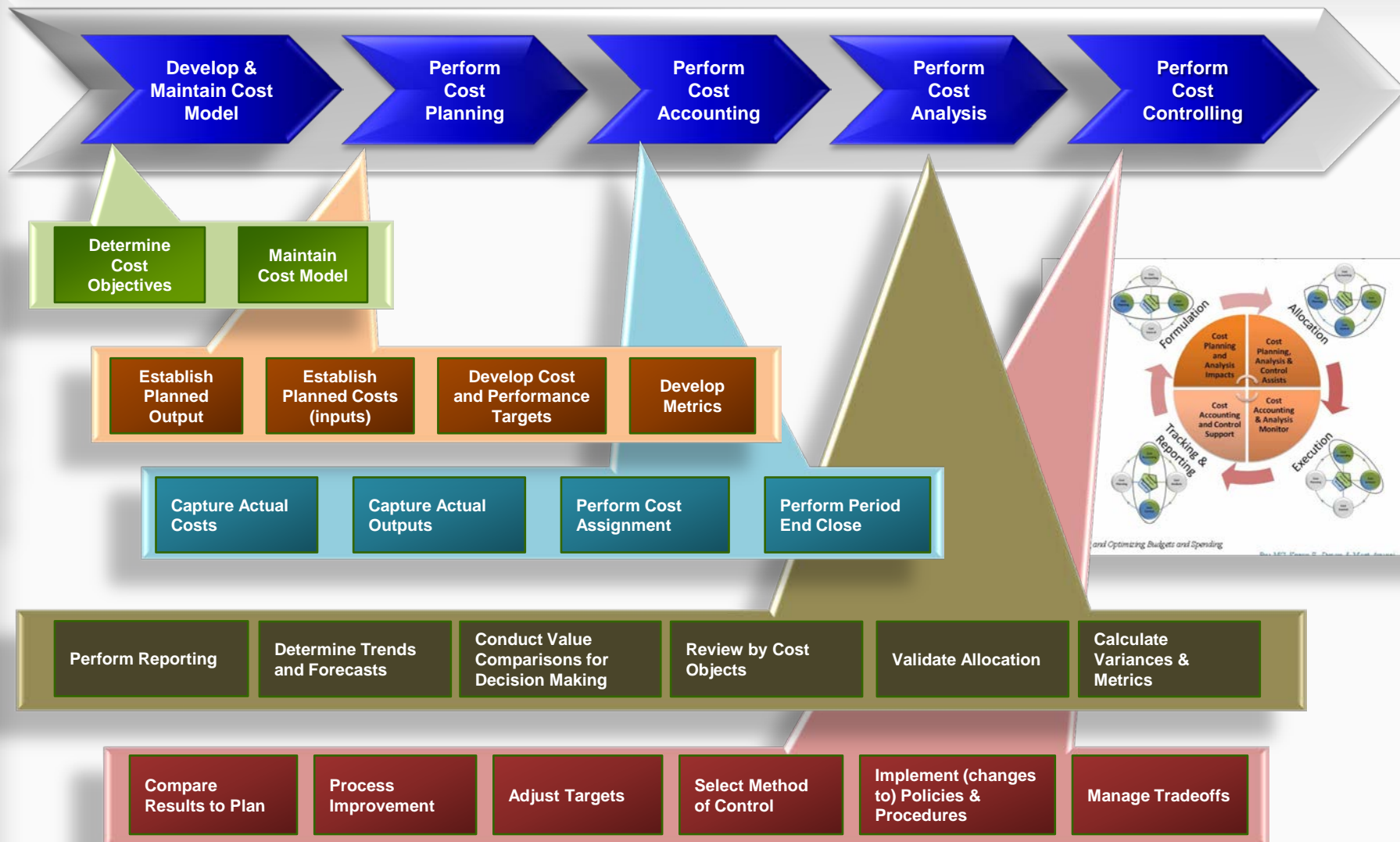




# Army Cost Management End-to-End Process



Army Cost Management





# Army CM / PPBE Matrix



Army Cost Management

	Planning (6-10 Years)	Programming (6 Years)	Budgeting (1-2 Years)	Execution (Current Year)
HQDA				
Command/ DRU				
Operational Activity				

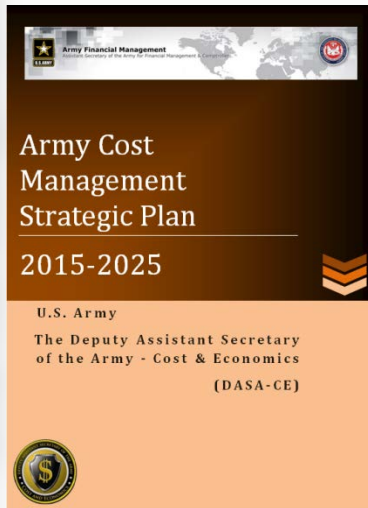


# Cost Management “Strategy to Deployment”

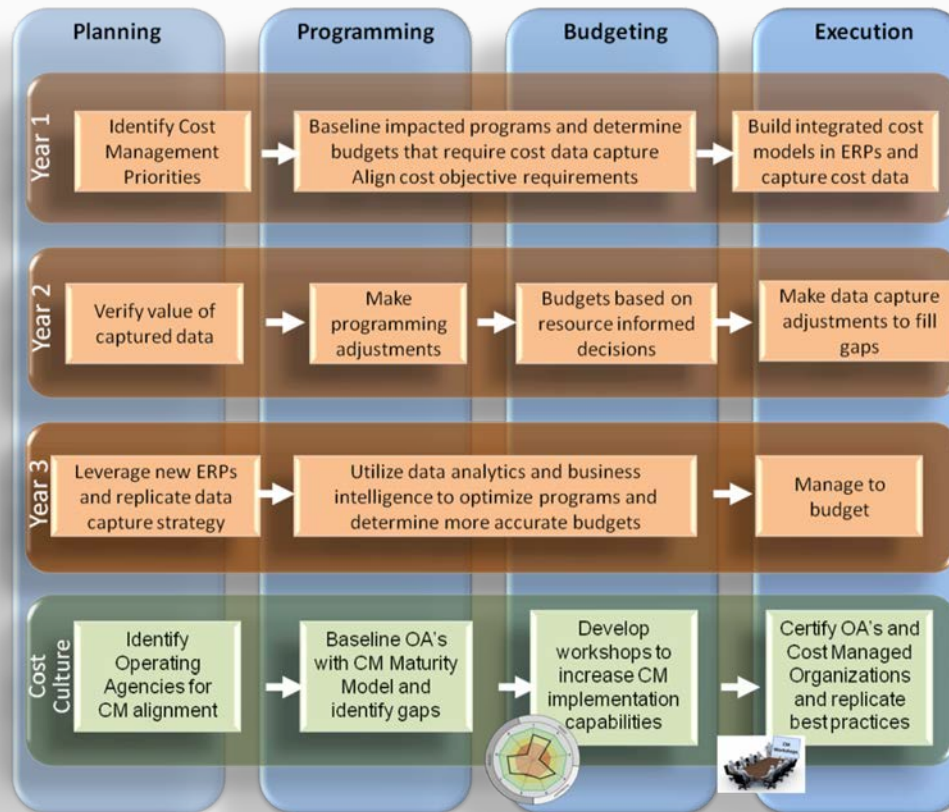


- ✓ Improve data quality and cost data visualization tools for decision making in the PPBE process.
- ✓ Incorporate rigorous Cost Management in funding decision to reduce future cost risk.
- ✓ Comprehensive execution data capture in resource allocation process to support auditability.

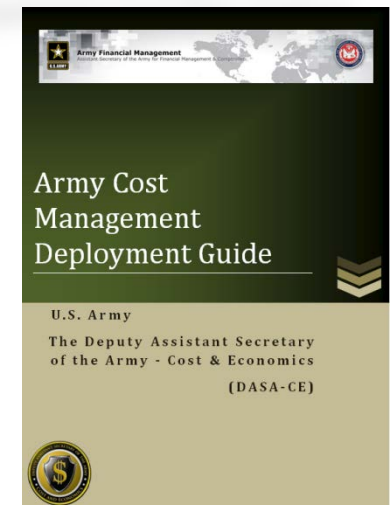
Army Cost Management



Integrate Cost Management into PPBE and Core End-to-End processes



Prioritized, Aligned, and Optimized Cost Data Capture





# CMSG to Guide Policies and Key Focus Areas



Army Cost Management

## 1. POLICY

### Army Policy

- Army Information Needs
- Army Posture Statement
- Army Financial Management Optimization (AFMO)

### Policies and Regulations

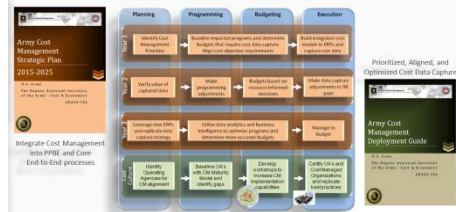
- AR 1-1 (PPBE)
- AR 5-1
- AR 18-11
- APMG
- Command level Policies and Regulations

### OSD Policy & Legislative Sources

- Army Financial Transparency
- NDAA 10, 12, 13, 14
- GAO Reports
- Better Buying Power
- CFO Act
- GPRA

## 2. STRATEGY & PROCESS

### Cost Management Integration Strategy in PPBE



### Cost Management Steering Group Framework



## 4. OPTIMIZED RESOURCES

## 3. DECISION MAKING

# Enabled Army Leadership Missions and Strategic Priority Goals



# Agenda



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# CMSG Planned Schedule



- Quarterly CMSG Schedule (T)
  - ✓ Quarter 1 – 18 Nov 2014
  - Quarter 2 – 25 Feb 2015
  - Quarter 3 – 20 May 2015
  - Quarter 4 – 19 Aug 2015
  
- Location: National Capital Region with VTC





# Back up



# Example for Discussion



## Example of Costing Needs “Cost of Readiness”



### Why Readiness Costing is Needed?

- Major funding reductions put readiness at risk.
- If we don't know what readiness cost how can we say it's not enough.

### External

- To aid in building budget materials.
- Justify budget decisions to OSD and congressional staff.

### Internal (Army Senior Leader questions)

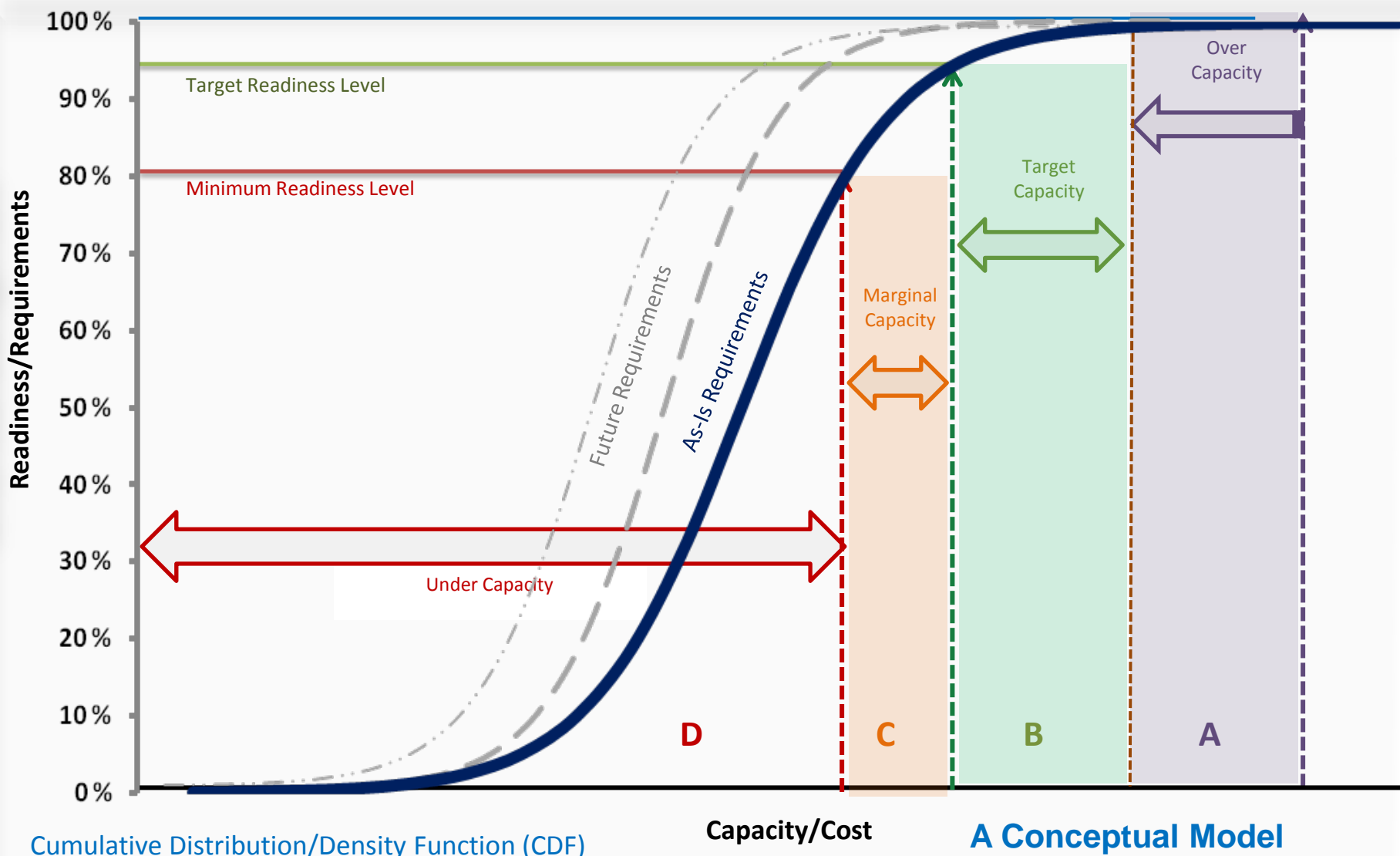
- What is the readiness impact if we assume more risk in funding?
- How much funding can be reduced and still maintain minimum required deployable units?
- Where is the knee in the curve between cost and readiness?



# Readiness & Requirements Capacity & Cost



Army Cost Management



Cumulative Distribution/Density Function (CDF)

Capacity/Cost

A Conceptual Model



# Cost of Training Readiness Structure



(G3/5/7 Working Draft)

## UIC Direct

➤ Funding and requirements directly influenced by the Brigade training strategy that are tied directly to a Brigade

$$= \text{Direct}(\$1\text{stFYinFYDP}) + \text{Indirect}(\$1\text{stFYinFYDP}) + \text{CTTRANS}(\$ \text{Program}) + \$ \text{AMMOSTRACStrategy}$$

## General Support

➤ Costs and requirements that can change in proportion based on the desired outcome.

➤ Requirements that can be influenced by recourse decisions and increases or decreases in resources will directly affect a units training strategy.

➤ Capability that supports on an area basis.

$$\text{Cost of Unit Trng} = \text{TSS}(\text{OMAAPE}) + \text{Unit Training}(\text{OMAAPE}) + \text{Sust and Inst Training}(\text{OMAAPE})$$

$$\text{Cost of Leader Development} = \text{Cost of Unit Trng} + \text{Education/Self Development}(\text{OMAAPE})$$

## Enterprise

➤ Costs and requirements that remain unchanged irrespective of the output.

➤ Requirements that must be in place in order for a brigade to train.

$$\text{Total Unit Cost of Training for the Army} = \text{UIC Direct} + \text{General Support} + \text{Enterprise} (\$ \text{MDEP/APE})$$

### UIC Direct OPTEMPO

(CLIII, IX, IX Depot Rep, CLS Parts and Labor)

### UIC Indirect OPTEMPO

#### Soldier SPT

(CLII, IV, VIII, Ofc Spt, IT, COTS, TDY)

#### CTC Trans

(Combat Training Center Support)

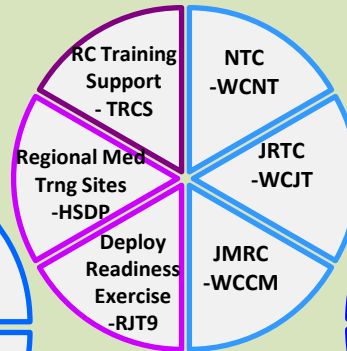
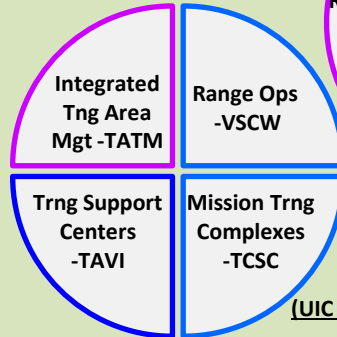
### TRNG AMMO

STRAC (EE PEG- RE01)

## Unit Training Readiness

(MDEP/APE)

### Training Support Systems

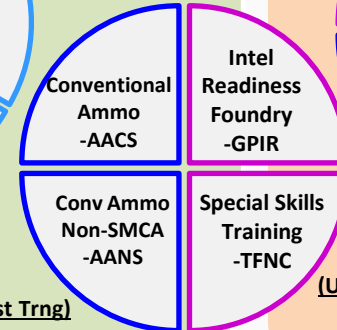


### Unit Training

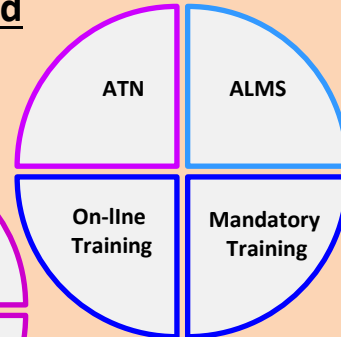
(UIC Direct+TSS+Unit Trng+Sust/Inst Trng)

Near Term 0 Years → 2 Years Long Term

### Sustainment and Institutional Training



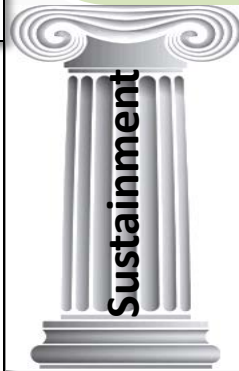
## Education / Self Development



(MDEP/APE)

(UIC Direct+TSS+Unit Trng+Sust/Inst Trng+ Education)

Near Term 0 Years → 2 Years Long Term



Training / Manning / Equipping / Installation / Sustainment / OCO





# Data and Information Network

## What Data/Information Do We Have or Need?



Source: APPG SEPT 14

Army Cost Management

Information Needs	Enterprise/ External Use?	Data /Information Available?	Data Network			
			Organization (s)	Line of Effort	Source(s)	Decision(s)
HQDA requires a cost analysis of ARCYBER Mission Unique Equipment requirements in order to program funding in time for facility occupation.	✓		<b>G6</b>	Installations		✓
How do we develop a comprehensive institutional process to derive the cost of training readiness to provide a shared understanding to Army Senior Leaders and Managers?	✓		<b>G3</b>	Readiness		✓
The Army is directed to define a path forward for this program because of The critical role of software growth and sustainment. As resource constraints make The current business model unaffordable, The effort shall include business models and options that reduce costs and increase performance outcomes.	✓		<b>G4</b>	Equipping/ Modernization		✓



# Examples of Congressional and Leadership Information Needs



## Hierarchy of Army Cost Needs



Army Cost Management

**Hierarchy of Army Cost Questions with Examples**

Knowledge Level		Doctrine Policy & Modernization Strategy	Organization		Training	Materiel	Leadership	Personnel	Facilities
			Operating Force	Generating Force	Human Capital	Military Equipment	Human Capital	Human Capital	Installations
1	Program Cost		MTOE Units	TDA Units	Institutional; Functional; and OPTEMPO Unit Training	Procurement & Sustainment Cost by Weapon System Family	Professional Development Programs	Pay, Benefits, Recruiting, Retention	BOS/SRM Cost by Service and Installation
	Program Drill Down	POM, Budget, CY Execution and History by Compo, OA, FY, APPN, MDEP, APE, Base/OCO and Location							
2	Non-Financial Quantity Measures		# BCTs, CABS, Enablers	# NTC Rotations Supported	# Trained Grads;	# Tanks, Aircraft Procured & Sustained	# Leaders from squad leader to 4-star generals required	# MTOE/TDA Authorized and Onhand;	# Service Offerings; Bldg SqFt; Population Supported (Soldiers, DACs, Contractors, On-Post Housing)
3	Simple Metrics (unit cost)		OPTEMPO \$ / ABCT	NTC \$ / Rotation	Flight Trng \$ / Apache Pilot Grad	Reset \$ / Bradley	Training cost per leader	MPA Cost per Soldier	BOS \$ / On-Post Soldier
4	Fully Loaded Cost		ABCT Cost w/ OPTEMPO Trng; NTC; Equipment Reset; BOS; Mil Pay, Inst Trng		Life time training cost by MOS;	Bradley Cost w/ OPTEMPO, Depot Reset; Contracts; Depreciation; PEO, Central Log & Instl Support		Cost per Soldier w/ MPA, BOS, MED, Trng & Variable Facility Cost	
5	Performance Metrics		Readiness vs. OPTEMPO Miles & \$		Unit T Rating	Unit S Rating		CHRA \$ per new hire civilian; Unit P rating	per Capita Utility Expense
6	What if Excursions		Reduce 3 BCTs;	Merge 3 FOAs	Pre-position Equip at NTC	Transfer 800 Aircraft to the RC	Expanded training for unit commanders	20% Civ End Strength Reduction	BRAC 2 Post

Complexity



# Opportunity for Data Capture and Advanced Analytics Strategy



Army Cost Management

Data Standardization

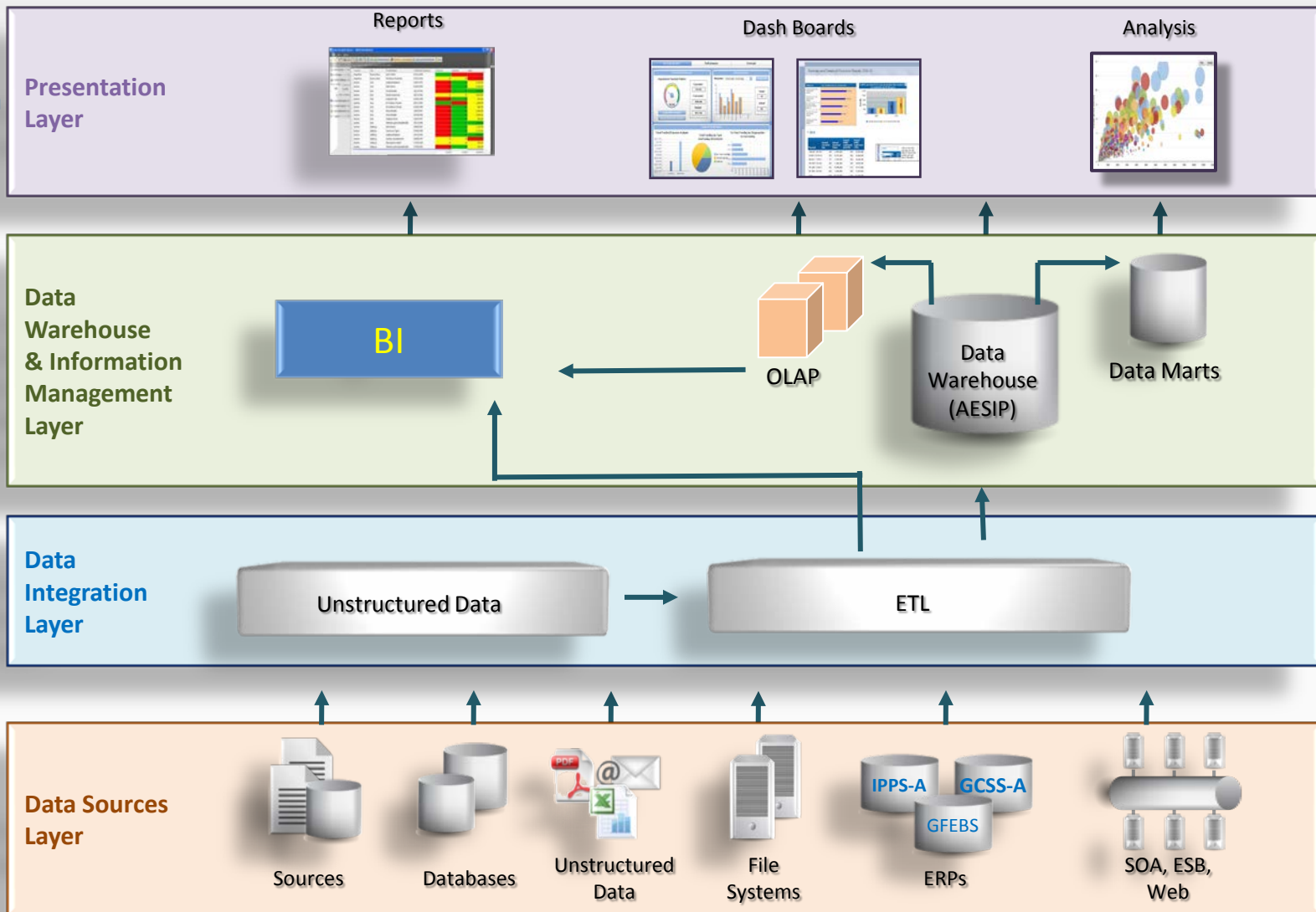
Common Data Value

Common Exchange Mechanism

Common Entity Model

A

B



GFM-DI

High Cost of Data Standardization at Data Source Layer ?



# Enterprise CM Data Need

Army Cost Management

Views



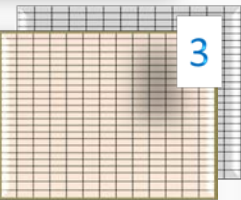
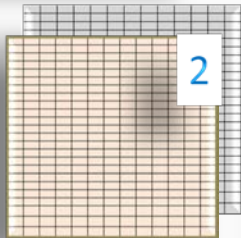
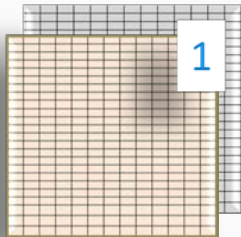
1. Customers

2. Contracts

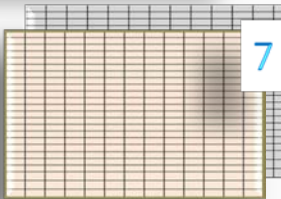
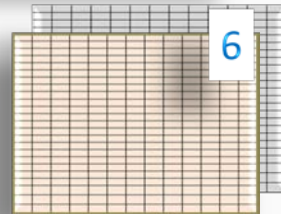
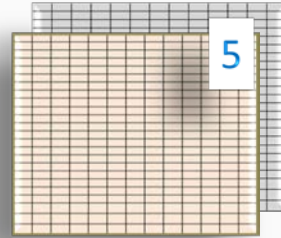
3. Services

4. Funding

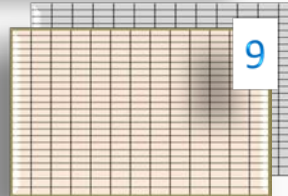
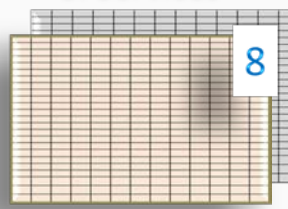
5. Cost Centers



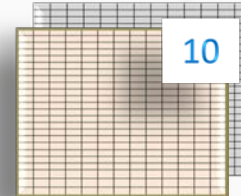
2. Contracts



3. Services



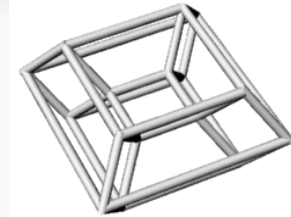
4. Funding



## Full Visibility - Big Cost Data

$$\# \text{ Tables} = N * (N-1) / 2$$

for 10 views 45 cost visibility table is needed



### Multi-dimensional Polygon Cost Visibility

- 1- Customers by Contracts
- 2- Customers by Services
- 3- Customers by Funding
- 4- Customers by Cost Centers
- 5- Contracts by Service
- 6- Contracts by Funding
- 7- Contracts by Cost Centers
- 8- Services by Funding
- 9- Service by Cost Centers
- 10- Funding by Cost Centers

Org, Year, Supplier, Type . . . ?





# PPBE and Cost Management Activities



Army Cost Management

	Planning (6 - 10 Years)	Programming (6 Years)	Budgeting (1-2 Years)	Execution (Current Year)
HQDA	<b>Strategic Decision-Making:</b> <ul style="list-style-type: none"> <li>- Cost Benefit Analysis</li> <li>- Analysis of Alternatives</li> <li>- Army Cost Position (LCCE)</li> <li>- Cost Models / Tools                             <ul style="list-style-type: none"> <li>* FORCES Costing Model</li> <li>* Capability Costing Tool</li> </ul> </li> <li>- Cost of Army</li> <li>- Workforce Analysis</li> </ul>	<b>Outyear Forecasting:</b> <ul style="list-style-type: none"> <li>- Cost Factors &amp; Models                             <ul style="list-style-type: none"> <li>* TRM/OSMIS</li> <li>* FORCES Costing Model</li> <li>* AMCOS / Civ Pay Rates</li> </ul> </li> <li>- Army Cost Position (LCCE)</li> <li>- Contingency Cost Model</li> <li>- CBA's, LSS</li> <li>- Incorporate AFBRT benefits</li> </ul>	<b>Formulation / Justification:</b> <ul style="list-style-type: none"> <li>- Cost Factors                             <ul style="list-style-type: none"> <li>* OPTEMPO Cost Factors</li> <li>* Mil Pay Rates</li> <li>* Civ Pay Rates</li> </ul> </li> <li>- Cost/Spend Plans</li> <li>- Analysis to Defend Positions</li> <li>- Historical Trend Analysis</li> <li>- Establish Should Cost Goals</li> <li>- Include AFBRT initiative info</li> </ul>	<b>Allocation/Funds Distribution:</b> <ul style="list-style-type: none"> <li>- Cost Analysis to Support                             <ul style="list-style-type: none"> <li>* Cash Management</li> <li>* Reprogramming</li> <li>* Rate of Execution</li> </ul> </li> <li>- Budget vs. Actual (Variance)</li> <li>- Monitor Will /Should Cost</li> <li>- Track Cost Savings (AFBRT)</li> <li>- Mid-Year Reviews</li> </ul>
Command / DRU		<b>Strategic Planning:</b> <ul style="list-style-type: none"> <li>- Cost Benefit Analysis</li> <li>- Concept Plans</li> <li>- Workforce Mgmt</li> <li>- Trend Analysis</li> <li>- Cost Models / Tools</li> <li>- Investment Decisions</li> <li>- Identify Efficiency Initiatives</li> <li>- Submit AFBRT initiatives</li> </ul>	<b>Outyear Plans / Controls:</b> <ul style="list-style-type: none"> <li>- Cost Targets/</li> <li>- Annual Efficiency Goals</li> <li>- Assess Cost &amp; Spend Plans</li> <li>- Plan Output (Capacity Mgmt)</li> <li>- Cost Benefit Analysis</li> <li>- Trade Space Analysis</li> <li>- TRAPS</li> <li>- Establish AFBRT initiative milestones</li> </ul>	<b>Measure &amp; Control:</b> <ul style="list-style-type: none"> <li>- Variance Analysis (Cost &amp; Output)</li> <li>- Benchmarking Best Practices</li> <li>- Adjust Cost Targets</li> <li>- Mid-Year Reviews</li> <li>- Measure Reduction Initiatives</li> <li>- Adjust Allocation Rules</li> </ul>
Operational Activity			<b>Operational Planning:</b> <ul style="list-style-type: none"> <li>- Establish Annual Cost Plans</li> <li>- Set Output Goals / Objectives</li> <li>- Optimize Capacity</li> <li>- Adjust to Directives (e.g. TRAPS)</li> <li>- Establish Activity Rates (Labor / Equip)</li> <li>- Estimate OH Allocations</li> </ul>	<b>Continuous Improvement:</b> <ul style="list-style-type: none"> <li>- Qtrly Cost Mgmt Reviews</li> <li>- Variance Analysis                             <ul style="list-style-type: none"> <li>* Resources (Inputs)</li> <li>* Labor Rates</li> <li>* Output (Unit Cost, Qty)</li> </ul> </li> <li>- Budget vs. Actual (Variance)</li> <li>- OH Allocations</li> <li>- Product/Service \$, Customer \$</li> <li>- Track AFBRT Savings</li> </ul>