

# Operating and Support Cost Estimating Capabilities



February 2002

An  
Employee-Owned  
Professional Services Company



# CALIBRE

An Employee-Owned Professional Services Firm

Established 1989

Specializing In: Management Information Analysis,  
Technology Solutions, and Operations Support

Employing a staff of 340, selected subcontractors and consultants,  
with projected revenues for this fiscal year of \$49 million.

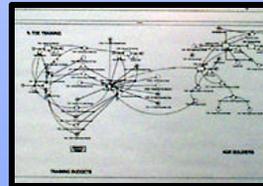
With functional knowledge and specialized skills in:



**Strategic  
Analysis &  
Organizational  
Engineering**



**Resource  
Management,  
Cost &  
Economic  
Analysis**



**Modeling,  
Simulation &  
Decision  
Support**

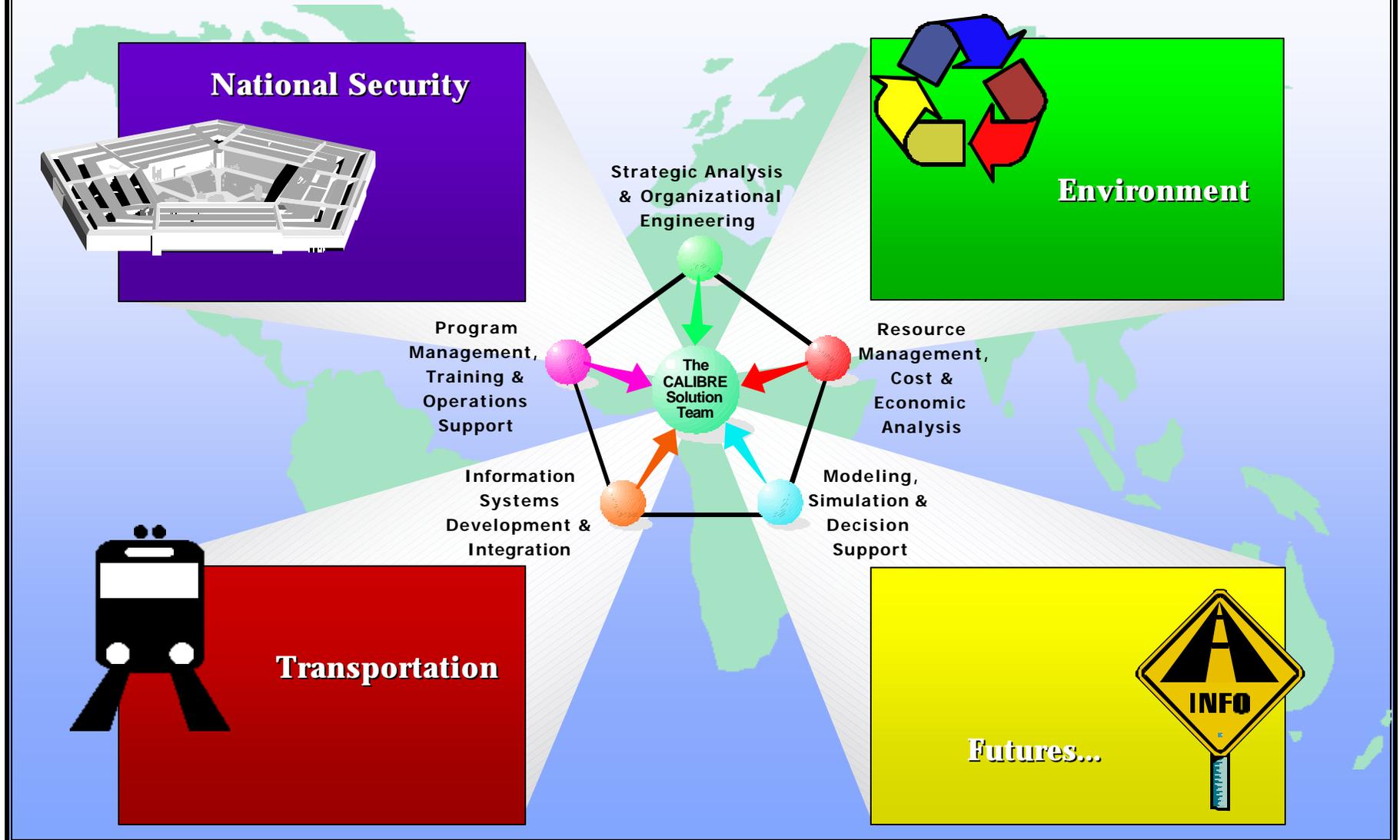


**Information  
Systems  
Development &  
Integration**

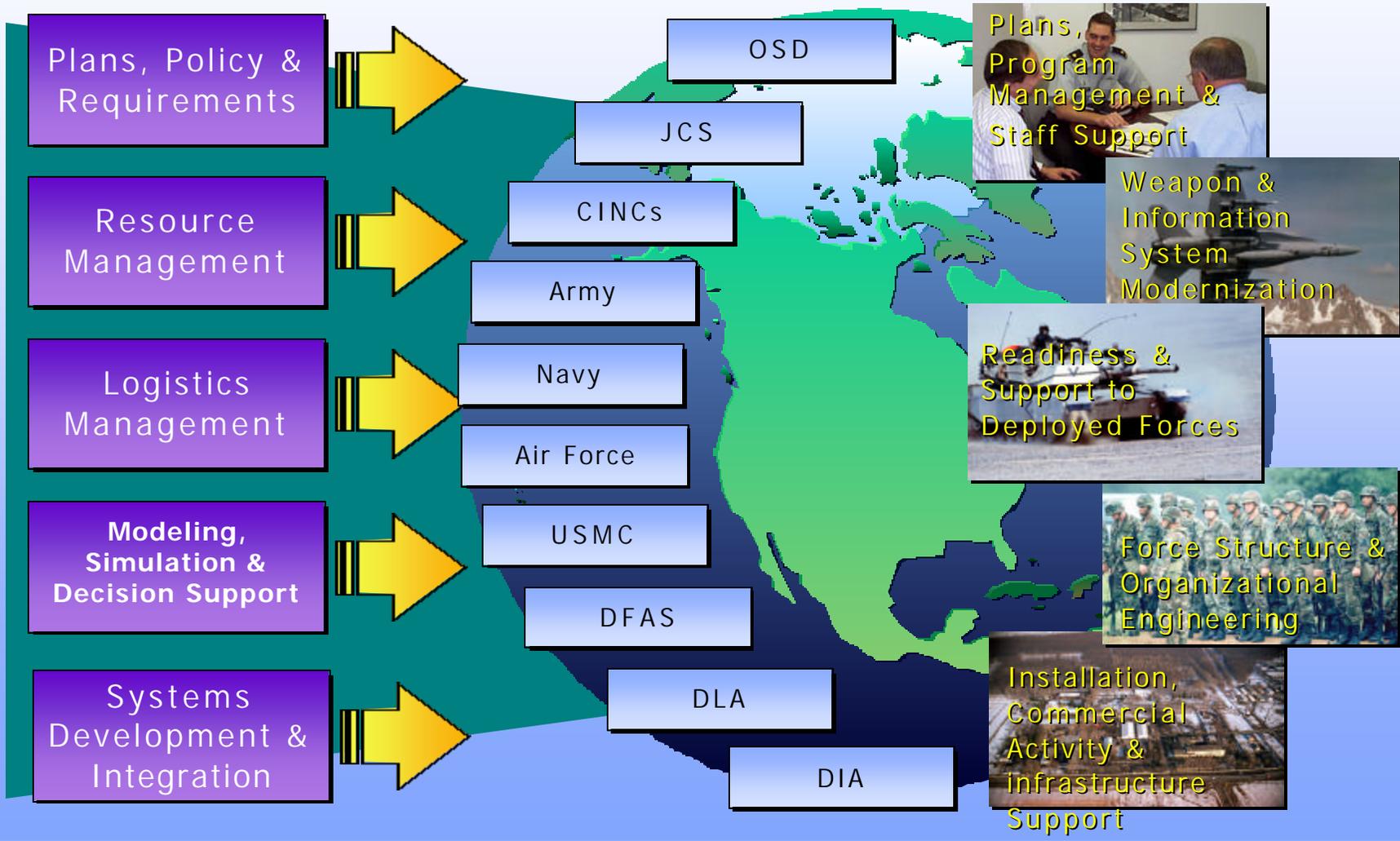


**Program  
Management,  
Training &  
Operations  
Support**

# CALIBRE's Capabilities and Business Areas



# Broad Support to U.S. National Security Organizations

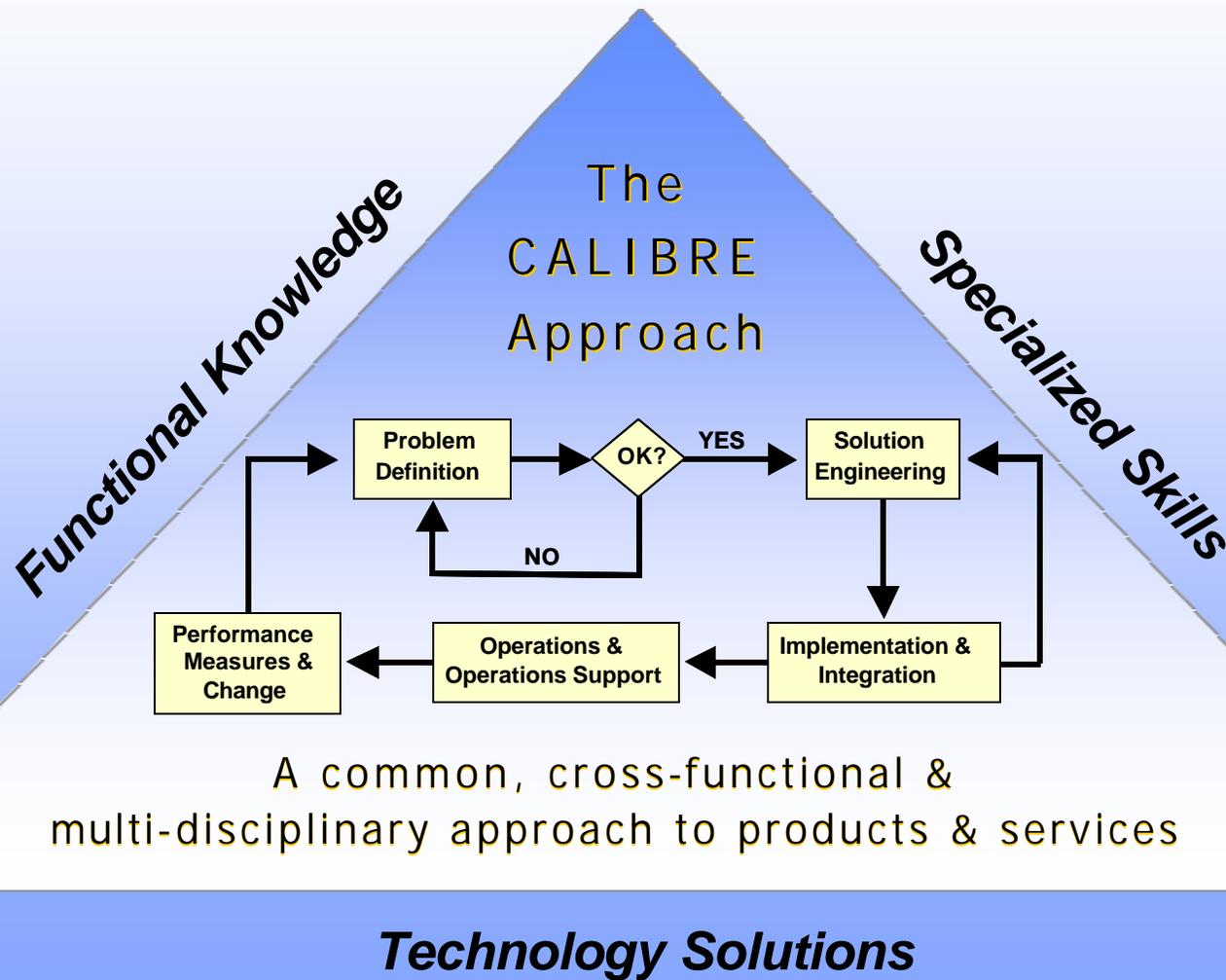


## Government Customers...

- Office of the Secretary of Defense
- Organization of the Joint Chiefs of Staff
- Unified and Specified Commanders in Chief
- Defense Agencies (DLA, DIA, DFAS, etc.)
- Department of the Army
- Department of the Navy
- Department of the Air Force
- United States Marine Corps
- United States Coast Guard
- National Guard Bureau (Army, Air, States)
- General Services Administration
- Federal Aviation Administration
- Office of the Sergeant at Arms, U.S. Senate
- Regional Transportation Commission, Reno, Nevada
- Southeastern Pennsylvania Transportation Authority (SEPTA)
- Washington Metropolitan Area Transit Authority (WMATA)
- State of New Jersey Department of Veterans Affairs
- State of South Carolina Department of Veterans Affairs

***...Federal, Regional, State, and Local***

# Our Approach to Solving Problems



# Functional Knowledge

## National Security

- ✓ **Acquisition**
- ✓ **Command, Control, Communications, Computers & Intelligence**
- ✓ **Installations & Facilities Maintenance**
- ✓ **Logistics**
- ✓ **Manpower & Personnel**
- ✓ **Organization & Force Structure**
- ✓ **Planning, Programming, Budgeting System**
- ✓ **Resource & Cost Management**
  - Strategy & Plans
  - Training & Doctrine
  - Commercial Activities
  - National Guard & Reserve Affairs



## Environment

- Restoration
- Compliance
- Conservation
- Natural & Cultural Resources
- Pollution Prevention



## Transportation

- Capacity Planning & Management
- Capital Program Management
- New Technology Assessment
- Operational Budgeting
- Regulatory Program Evaluation
- Safety Oversight & Analysis



# Specialized Skills

## Management Information Analysis, Technology Solutions, Operations Support

✓ **Cost & Economic Analysis**

✓ **Data Modeling, Mining, & Warehousing**

✓ **Internet Applications Development & Hosting**

- Curriculum Development & Delivery
- Decision Support & Business Intelligence
- Distance Learning
- Enterprise Resource Planning
- Geographic Information Systems
- Knowledge Management

✓ **Modeling & Simulation**

✓ **Operations Research & Systems Analysis**

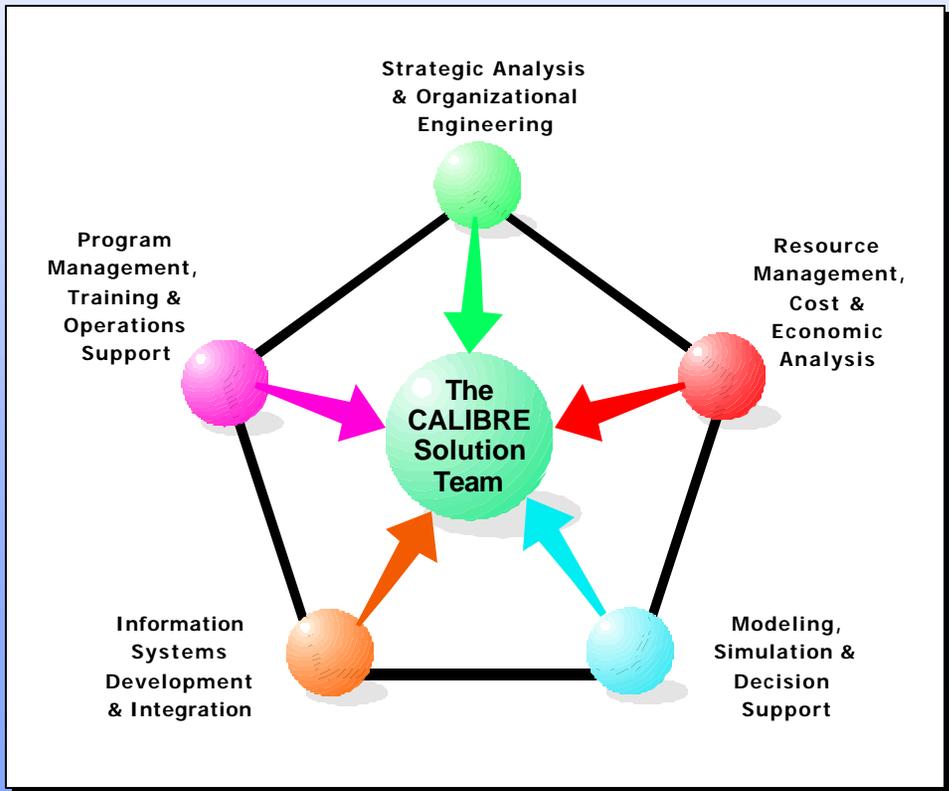
- Multimedia Performance Improvement
- Organizational & Process Engineering
- Program Management
- Systems Development & Engineering
- Software Quality Assurance



# CALIBRE Solution Teams Provide...

Management Information Analysis, Technology Solutions, and Operations Support

***Uncompromising professional standards and business ethics***



- Flexibility...
  - to meet today's requirements and tomorrow's challenges
- Accuracy...
  - through analytically-derived solutions
- Responsiveness...
  - with quality products and services delivered within cost and on time that fully satisfy customer needs
- Clarity...
  - understandable and useful every time
- Leverage...
  - bringing the complementary skills and experience of our business partners to bear for our customers

## CALIBRE O&SCE Solution Team Provides...

- **Understanding of the Navy and the Marine Corps**
  - ✓ We have individuals with both functional and policy experience
- **Understanding Warfighter Ships**
  - ✓ We have individuals with Warfighter Ship experience both at the Command and Department Head levels
- **Understanding Operating and Support Cost Estimates**
  - ✓ We have “certified” individuals that understand O&SCE cost methodologies, costing elements and documentation requirements

***Uncompromising professional standards and business ethics***

## CALIBRE O&SCE Solution Team Uses...

### ■ O&SCE Tools

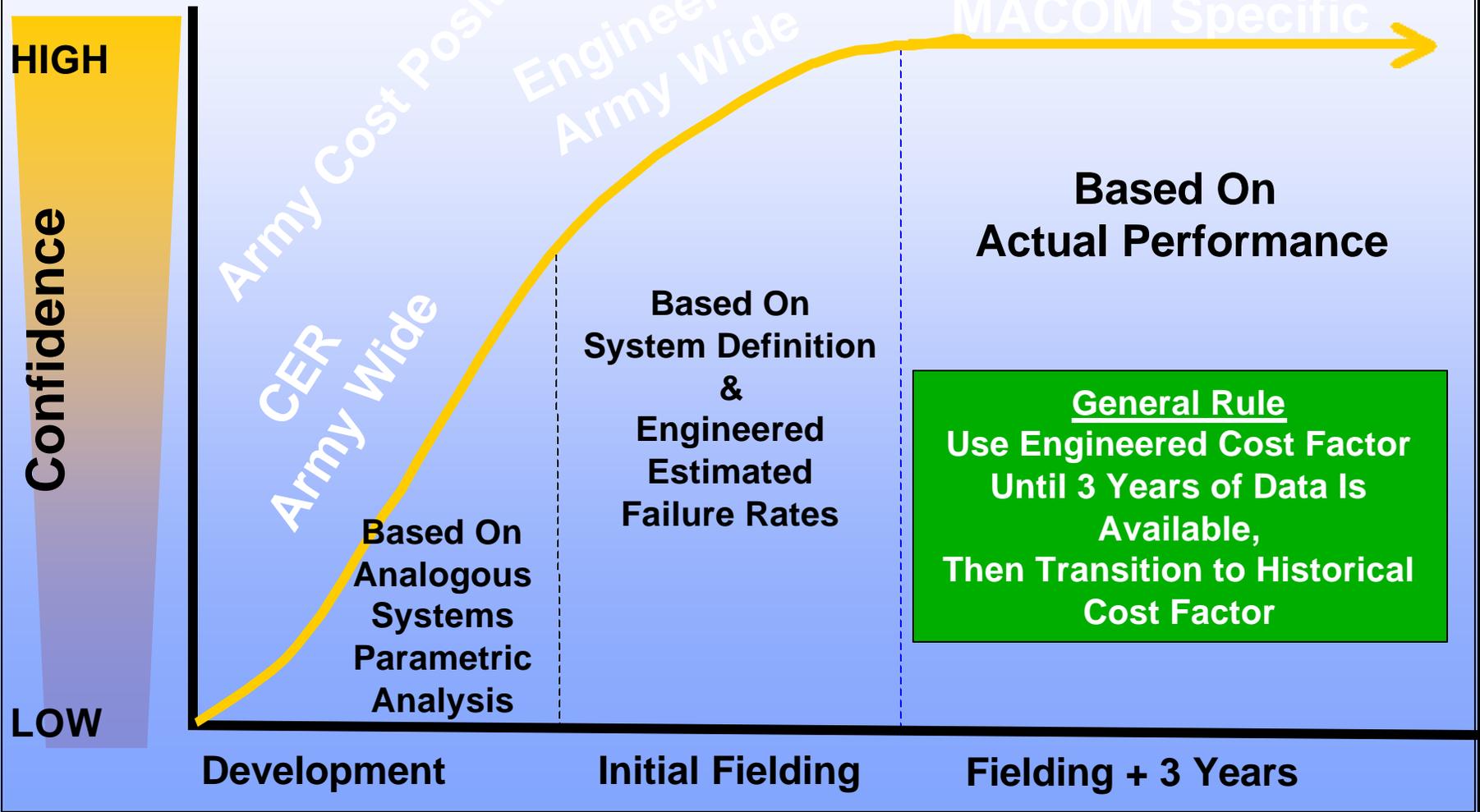
- ✓ Use standard costing tools were applicable; frequently develop automated spreadsheet tools to execute projects
- ✓ Use DoD and Services specific guides to ensure preparation, documentation and presentation of cost estimates are to standard

### ■ O&SCE Facilities

- ✓ The O&SCE solution team operates out of CALIBRE's Alexandria, VA facility and as supported from on-site customer locations
- ✓ CALIBRE operates as a "project-driven" Matrix organization with subject matter experts assigned to projects requiring their particular expertise

***Uncompromising professional standards and business ethics***

# Weapon System Cost Factor Life Cycle



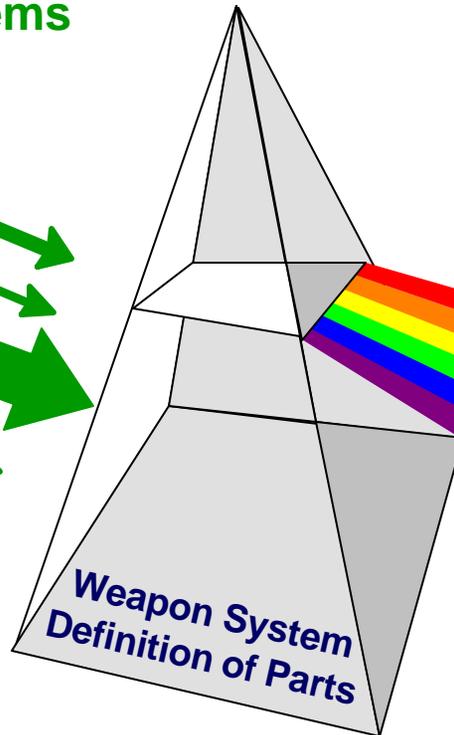
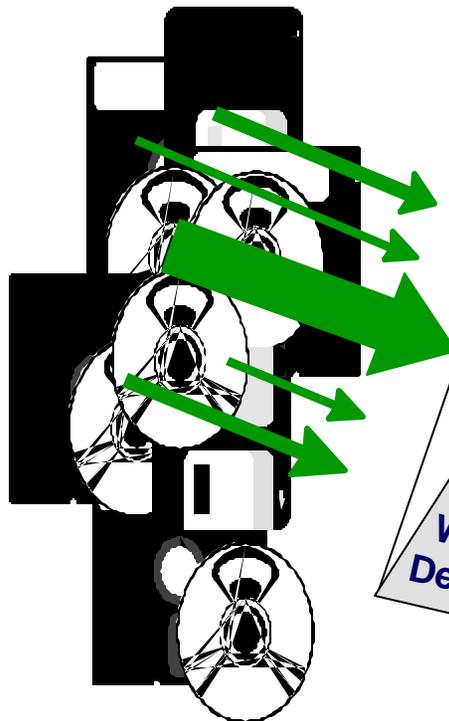
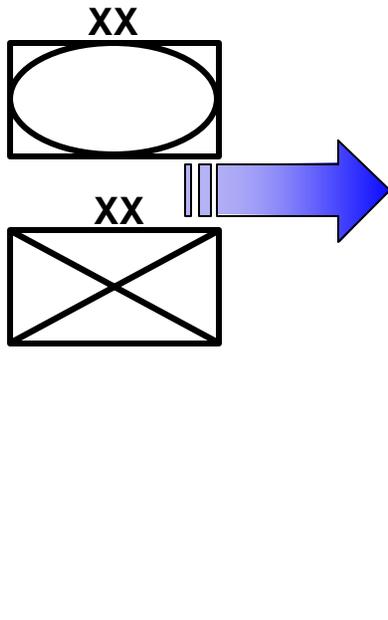
# OSMIS Integrates Weapon System Cost Data

**STAMIS**  
Standard Army Management  
Information Systems

**Financial & Non Financial**

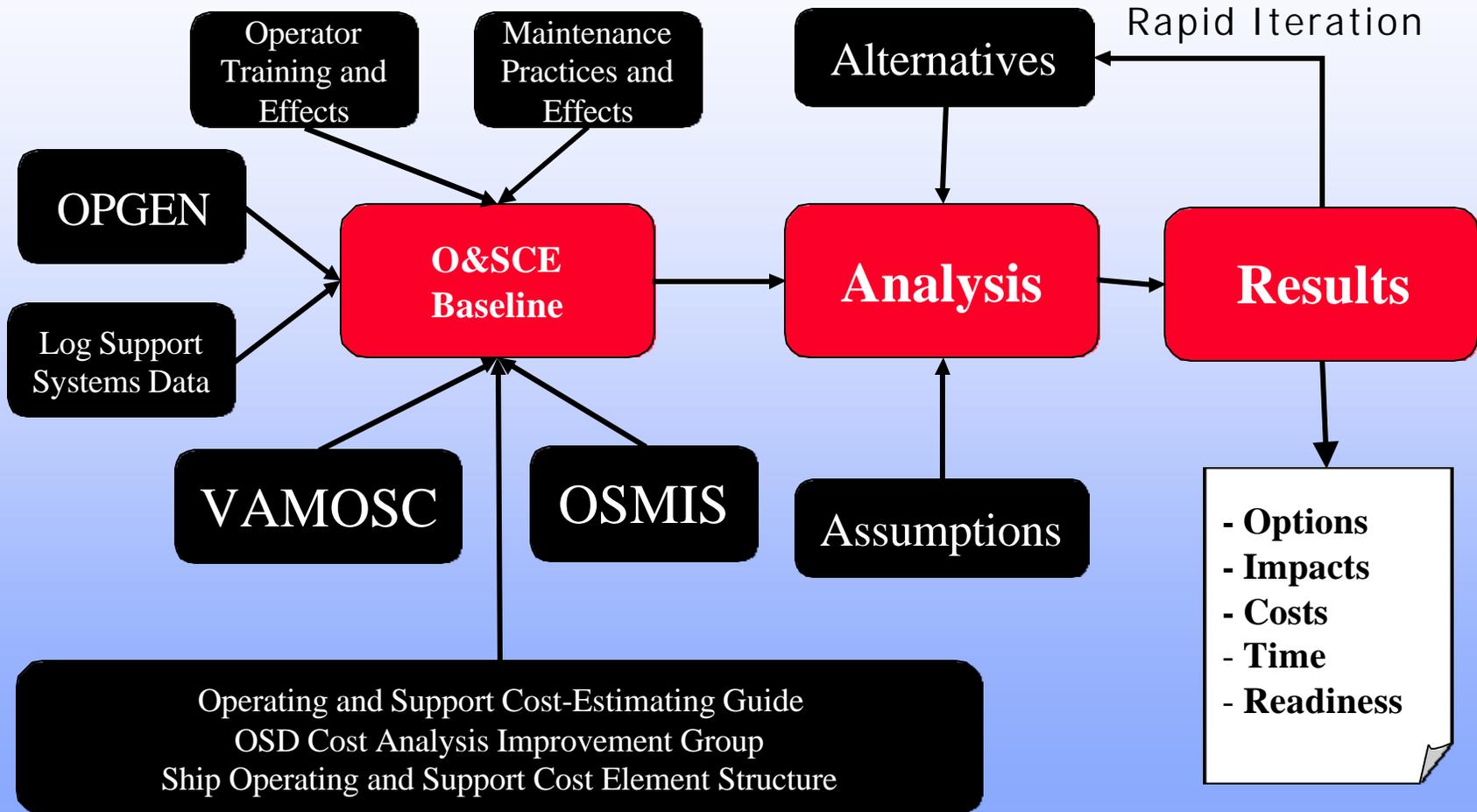
- ▣ FLYING HOURS
- ▣ VEHICLE MILES
- ▣ WHOLESALE DEMANDS
- ▣ VEHICLE DENSITY
- ▣ PARTS PRICE

**Units**

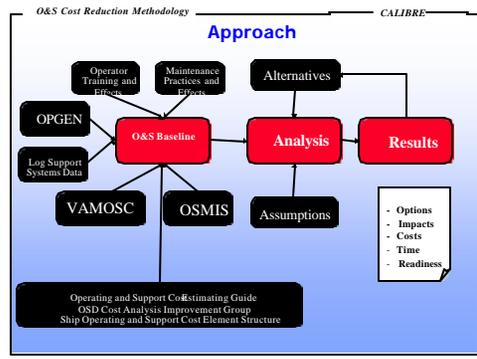


*Picks Up What's Available*

# Operating and Support Cost Estimating Methodology Example



# Cost Baseline Components Example



## Ship O&SCE (abbreviated)

- Mission Personnel
  - Ship Personnel
- Unit-Level Consumption
  - POL/Parts/Supplies/Reparables
  - Munitions
  - Purchased Services
- Intermediate Maintenance
  - Maintenance (Afloat/Ashore)
  - Parts/Supplies
  - Commercial Industrial Services
- Depot Maintenance
  - Overhaul/Rework
  - Nonscheduled Ship Repair
  - Fleet Modernization/Rework
  - Naval Aviation Depot
- Contractor Support
  - Contractor Support Services
- Sustaining support
  - Support Equipment Replacement
  - Centrally Provided Material
  - Engineering/Maintenance Support
  - Simulator Operations
- Indirect Support
  - Personnel Support
  - Installation Support

**We usually focus on the appropriate cost elements and cost drivers, but all of these elements comprise an O&SCE baseline.**

**This OSD structure will be mapped to the echelon, command structure and Navy overlay.**

# OSMIS System Coverage NSNs Tracked



FISCAL YEARS  
(NUMBER OF SYSTEMS)

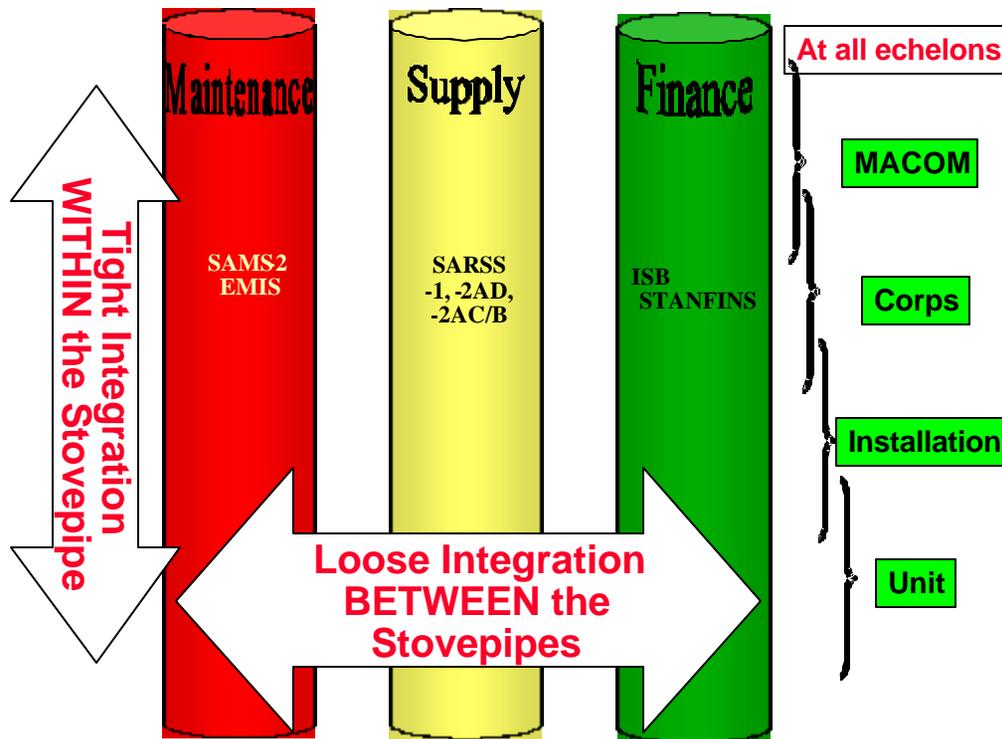
<u>SYSTEMS</u>	<u>96</u>	<u>97</u>	<u>98</u>	<u>99</u>	<u>00</u>
AVIATION	42	44	39	39	39
COMBAT	34	34	46	70	76
ARTILLERY/MISSILES	24	24	27	26	27
TACTICAL	137	140	160	296	475
ENGINEERING/CONSTR.	61	71	71	106	132
COMM/ELECTRONIC	<u>116</u>	<u>128</u>	<u>154</u>	<u>226</u>	<u>287</u>
TOTAL	414	441	497	763	1036
	<b>Δ</b>	<b>+ 27</b>	<b>+56</b>	<b>+266</b>	<b>+273</b>

# Integrated Logistics Analysis Program



# Background: The Need

## Traditional Information Stovepipes

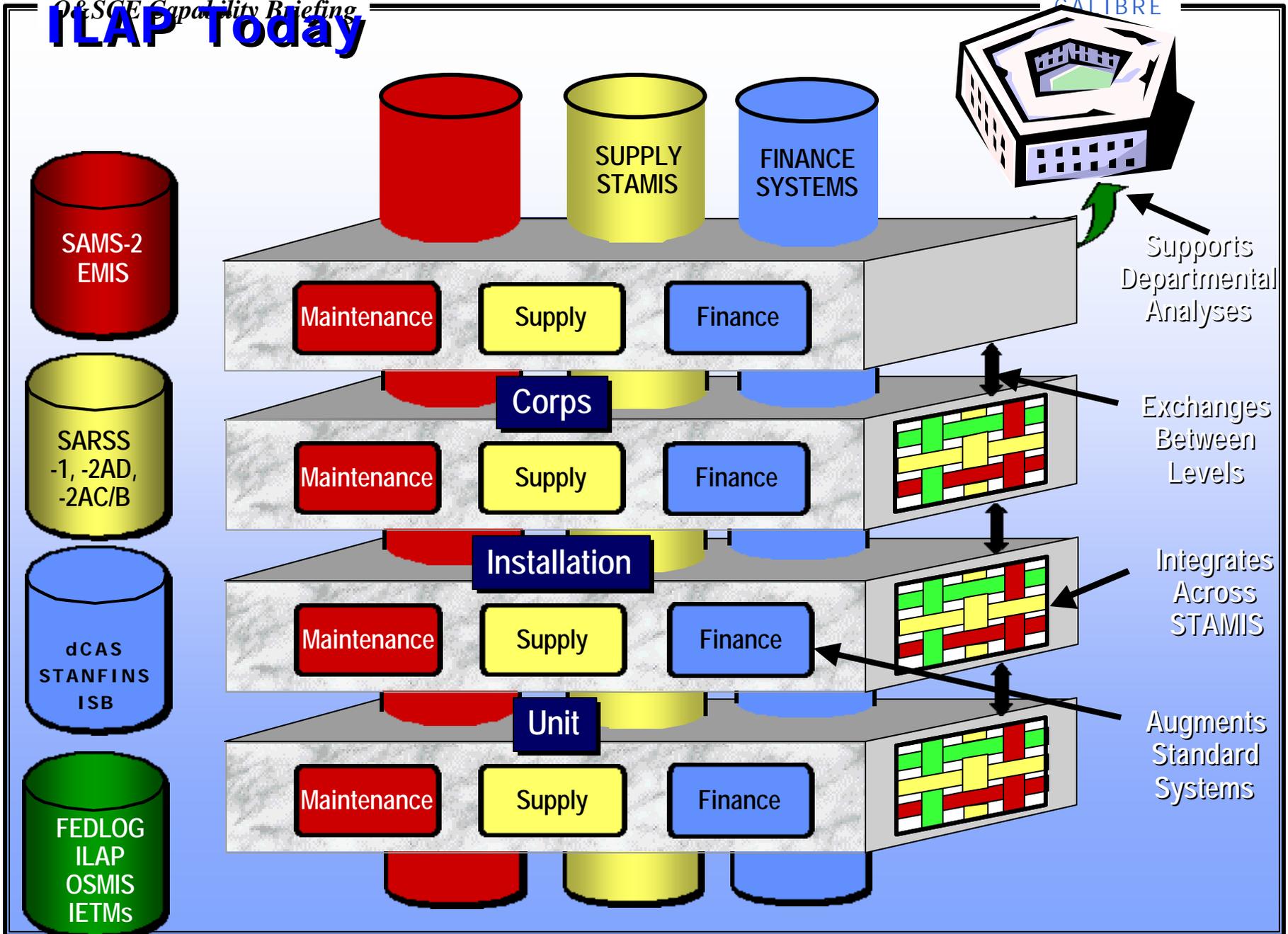


You **can** manage stovepipes, but...

- It takes lots of time
- You need to be an “expert” in every area
- You can’t share information
- You often get incomplete answers

O&SCE Capability Briefing  
**ILAP Today**

CALIBRE



# One Name, Three Entities



## ILAP: the Application

Purpose: Provide Army logistics and resource managers at all levels with timely, integrated logistics and financial data to support enhanced management at a reduced cost and effort.

Attributes:

- Automatic integration and distribution of logistics and financial data
- Augments and supplements STAMIS
- Unit-ILAP serves divisional and non-divisional units
- Corps/Installation/MACOM-ILAP serves appropriate users at each level



## ILAP: the Data Warehouse

Purpose: Provide Army logistics and resource managers at all levels with current and historical logistics and financial data

Attributes:

- Data distributed among all sites
- Automatic collection of data from systems of record (e.g., SARSS, ISB)
- Consolidated ILAP server supports HQ DA and all other echelons with integrated, Army-wide data



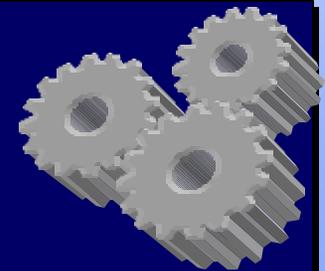
## ILAP: the Infrastructure

Purpose: Provide the connectivity needed to support Army-wide automated data exchange

Attributes:

- 362 interconnected sites
- Command-provided COTS hardware and software
- Windows NT, Oracle DBMS (like GCSS-Army)
- 2x and 4x Intel processors

- Application independent
- Communications via NIPRNET
- Supports thin and thick clients
- Supports dialup access
- Technical Support
- Traditional Help Desk
- Active Remote Monitoring



**Everywhere except the National Guard**

**Commands purchased hardware – Not centrally funded**

# Selected Project Summaries

Selected Projects	Strategic Analysis & Organizational Engineering	Resource Management, Cost & Economic Analysis	Modeling, Simulation & Decision Support	Information Systems Development & Integration	Program Management, Training & Operations Support
A-76/ Cost Competition Analyses	X	X			
AC/ARNG Integrated Division Study	X	X			
Air Force XP Modernization		X	X	X	
Application of Environmental Functional Information Requirements for a Metropolitan Network	X			X	
Army Training & Testing Area Carrying Capacity (ATTACC)		X	X		
ARNG State Supply Process Review	X	X	X		
Aviation Logistics & Readiness Model (ALRM)		X	X	X	X
Capital Program Management System (CPMS)		X	X	X	X
Cardiovascular and Thoracic Surgery Associates Support				X	
Chemical Demilitarization Program - Independent Assessment		X			
Chemical Weapons Facility Inspections	X	X			
Controlled Humidity Preservation (CHP)		X			
Cost Analysis for Industry		X	X		
Electronic Commerce/Electronic Data Interchange	X	X		X	
Forces/Organizational Cost Estimating System (FORCES)	X	X		X	
GCCS-GCSS Requirements Evaluation Procedures Integration	X	X		X	
Global Command & Control System - Army (GCCS-A)				X	X
Humanitarian Assistance Program (HAP)				X	X
Information Management Policy and Planning Support	X			X	
Installations Corporate Information Management (ICIM)	X	X		X	
Integrated Logistics Analysis Program (ILAP)		X	X	X	X
Integrated Sustainment Maintenance (ISM)		X			X
Interagency Humanitarian Demining Strategic Plan	X				
Interservice Support Agreement Management System (SAMS)		X		X	
Joint Manpower Program (JMP)	X	X		X	
Leadership Feedback System (LFS)	X			X	
Life Cycle Materiel Management	X	X			

## Selected Project Summaries (cont.)

Selected Projects	Strategic Analysis & Organizational Engineering	Resource Management, Cost & Economic Analysis	Modeling, Simulation & Decision Support	Information Systems Development & Integration	Program Management, Training & Operations Support
National Breast Cancer Coalition Support				X	X
National Guard Division Redesign	X	X			
Navy Support/Visibility and Management of Operating and Support Costs (VAMOS)		X		X	
Operating & Support Management Info Systems (OSMIS)		X	X	X	X
PEO Financial Administration System		X		X	X
Points of Light Foundation	X			X	
Probe Rightsizing		X	X	X	
Projecting Transactions/Adjusting Cash (PROTRAC) Model		X	X	X	
Reengineering The Army Plan (TAP)	X	X			
Resource Management Model (RMM)		X		X	X
Resourcing Base Operations: Reengineering the Programming Process	X	X			
Resources to Readiness	X	X		X	
Revolving Fund Model (REVOLVER)		X	X	X	
SOF Aviation Cost Factors		X	X		
Standard Service Costing (SSC) & Service Based Costing		X		X	X
Strategy Options for Defense Information Services	X	X			
Support to the Special Operations Community	X	X		X	
Support to the US Army Medical Command	X	X			
Support to USAREUR for Stock Funding of Depot Level Repairables (DLRs)		X	X		X
Surface Maintenance Management Model (SM3) and Integrated Materiel Management Model (IM3)		X	X	X	X
Training, Readiness, Operations, & Unit Personnel Execution Resourcing System (TROUPERS)		X	X	X	X

## Past Performance: Cost Studies



### Ship Self Defense System Cost Analysis

- **Customer:** ASN(RDA)
- **Results:** The Navy faced the challenge of controlling unplanned cost growth on a critical ship self defense system. CALIBRE was asked to provide expert analysis and insight into the probable cause and potential remedies such that the schedule could be re-baselined with confidence. CALIBRE generated independent cost estimates (ICE) using parametric software cost estimating techniques tuned to the application development environment, experience of the development team, and the likely productivity of the staff. Using that ICE, CALIBRE was able to provide the client with a critical estimate of likely program acquisition cost.
- **Value for this Effort:** Result indicated that further re-baselining should be expected.



### Abrams Crusader Common Engine (ACCE) Program

- **Customer:** Caterpillar and Perkins Engines
- **Results:** Developed a 3 billion dollar proposal for execution of the Abrams Crusader Common Engine program. Effort centered around a replacement diesel engine for the Abrams and a replacement power pack (engine and transmission for the Crusader). Proposal included the development of the engines/power packs, production of the engines/power packs, and an estimate of expected net O&S savings to the fleet over a 30 year time horizon. Along with projected savings due to a diesel engine and new transmission recommendations were made to reduce the logistics foot print associated with maintaining both vehicles.
- **Value for this Effort:** The USMC will be able to leverage our substantial understanding of M1A1 turbine and diesel engine O&S cost.

# Past Performance: Cost Systems



## Army OSMIS (Operating and Support Management Information System)

- **Customer:** US Army Cost and Economic Analysis Center (USACEAC)
- **Results:** As a result of CALIBRE's efforts, cost factors are now used to build profiles of direct and indirect resource requirements within the Planning, Programming, Budgeting and Execution System (PPBES). These factors are used with various models to determine costs in all areas, including sales, surcharges, and depot maintenance programs, as well as Headquarters and field budget distribution and resource excursions.
- **Value for this Effort:** This system will give the USMC a highly valuable tool to baseline and reduce M1A1 Operating and Support costs. This system is being used for supply policy research and cost reduction initiatives like Total Ownership Cost, and O&S Cost Reduction (OSCAR) effort. The insight gained from these tasks will be applied directly to the USMC effort.



## USMC MOSIS (Marine Corps Operating and Support Information System)

- **Customer:** Naval Center for Cost Analysis (NCCA)
- **Results:** As a result of CALIBRE's efforts, MOSIS has provided the NCCA and the Marine Corps with accurate, defensible O&S information needed for conducting independent cost estimates used in justifying replacement system development. MOSIS details parts costs, maintenance labor hours and work order cost information for each of the three Marine Expeditionary Forces (MEFs), the Marine Corps Reserve, and the Marine Corps Prepositioned Forces. NCCA has used MOSIS to validate the Marines' initial proposals to replace its aging fleet of Amphibious Assault Vehicles. Program Managers from LAV and AAV have used MOSIS to develop a POM budget and target selected components for inclusion in service life extension programs for aging combat systems.
- **Value for this Effort:** CALIBRE understands how the USMC introduced Weapon System cost management into the logistics support infrastructure.

## Current Performance: Acquisition Support



### Acquisition Resource Management System (ARMS)

- **Customer:** Assist. Secretary of the Army, (Acquisition, Logistics & Technology)
- **Results:** The Army faced the challenge of merging multiple data sources into a single, integrated tool to facilitate acquisition program management. CALIBRE provided a custom software solution to synthesize Research Development and Acquisition program and budget information, obligation plans and execution data into a single application. This web based system produces standard reports and allows customization by users. ARMS has the inherent flexibility to allow data entry at varying levels of detail to support Department level requirements as well as a diverse community of PEO and PM program and budget needs.
- **Value for this Effort:** The Army has an effective and responsive acquisition management system for gathering data and performing budget and execution analysis.



### Army Total Ownership Cost Support (ARTOC)

- **Customer:** Army Total Ownership Cost Office, ASA (Acquisition, Logistics & Technology)
- **Results:** A centralized approach to strategic, investment and tactical planning supported by life cycle costs analyses was necessary to reduce Total Ownership Costs (TOC) for the Army's Transformation efforts. CALIBRE's support to the ARTOC office facilitates integration of the Army's cost reduction programs and provides program management with onsite support to for return on investment (ROI) and risk analyses, development of performance based metrics, strategic planning, and Knowledge Management.
- **Value for this Effort:** The ARTOC office has the technical expertise to assess life cycle costs and to successfully integrate all TOC programs and projects for Army weapon systems.

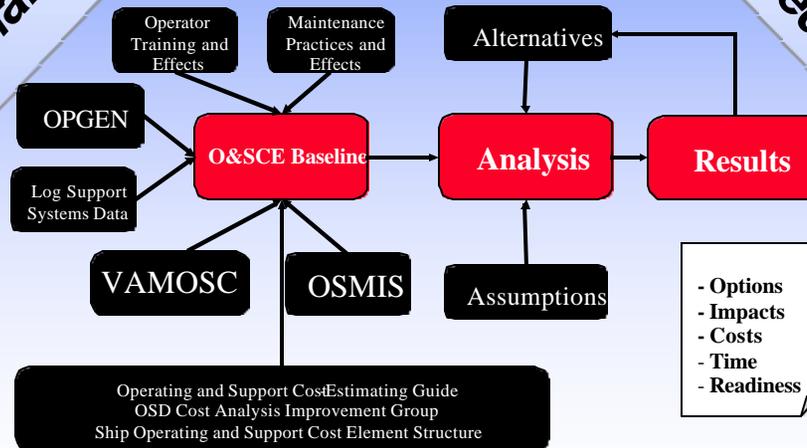
# Summary

CALIBRE Systems, Inc.

Functional Knowledge  
O&SCE Cost and Line  
Logistics Management

O&SCE Cost Driver Data  
O&SCE Cost Modeling and Forecasting  
Specialized Skills  
Cost Reduction Review

## The CALIBRE Approach



A specific cross-functional & multi-disciplinary approach to products & services

## Technology Solutions

**Web-based Logistics Operations and Software Systems**