Capabilities Based Planning:

A Methodology for Deciphering Commander's Intent

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- ## **What is Capabilities Based Planning?**

  - An analytic methodology that enhances the quality of information available to decision makers by decomposing the commander's vision into actionable capabilities.

  - The capabilities define the future effects needed for agencies to meet their mission and transform into a more agile and adaptable force.

  - Asks the question: *what do we need to do* rather than *what equipment are we replacing?*"[1]

  - Focuses on end states as opposed to material solutions and has the power to create an agency that is more agile, has less stovepipes, and shares information more effectively.

Joint Systems and Analysis Group, Technical Panel 3, "Guide to Capabilities-based Planning." *MORS Workshop, 19-21 October 2004.* TR-JSA-TP3-2-2004

- **EBR's Analytic Methodology**
  - Was created for an agency of the US intelligence community to decompose complex strategic plans
  - Is a systematic, repeatable, and JCIDS compliant process based on federal mandates
  - Defines future organizational needs that are not just material or IT solutions.
  - Uses a database and visualization tool to view
    - Federal Mandates
    - Strategic Objectives
    - Effects
    - Inferred Capabilities
    - Capability Gaps

Analysis Process and Information Flow

Analysis Process and Information Flow

| FAA: "Have to Do" = "Capabilities"	Federal Mandates (5000+)
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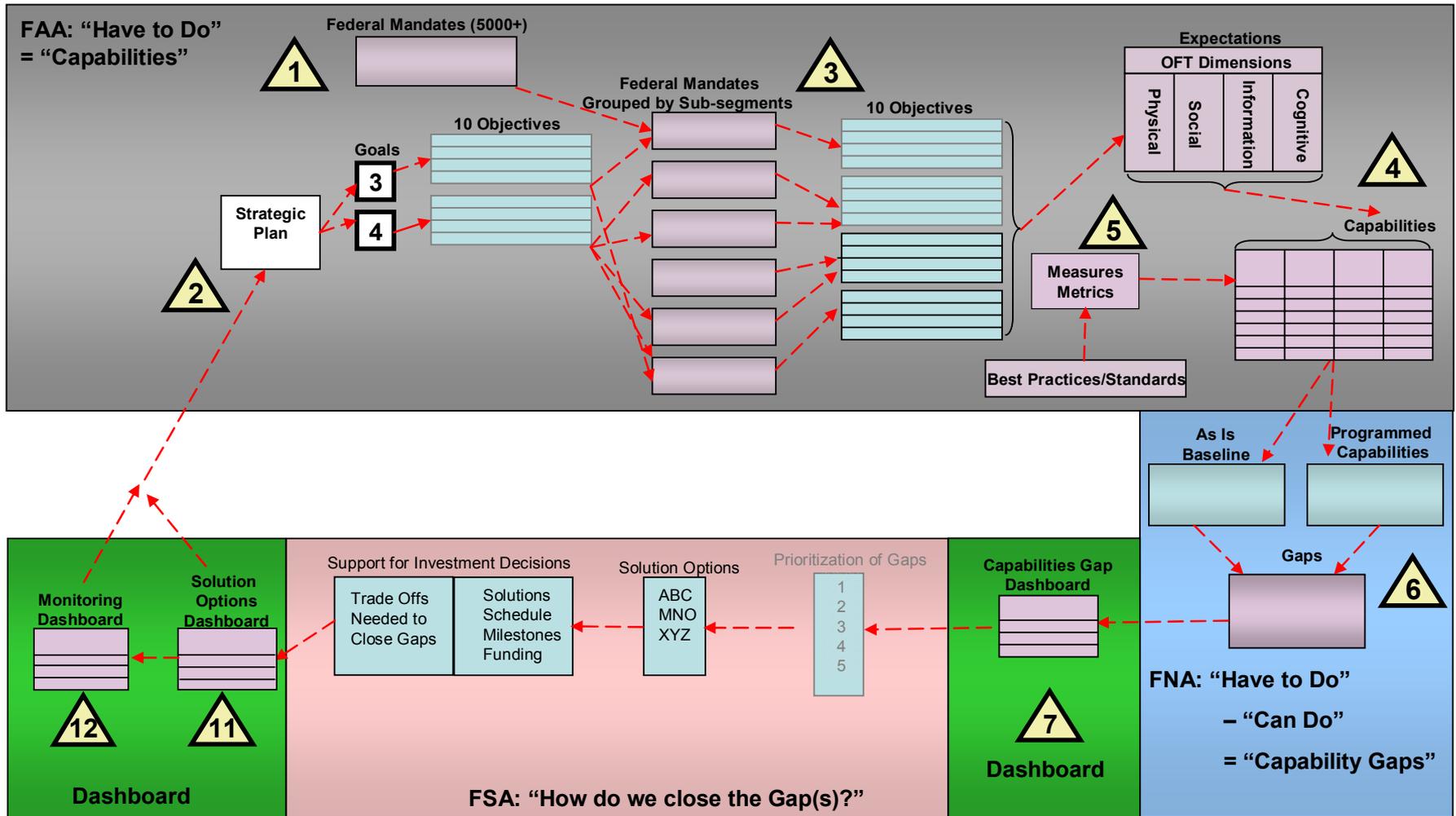
Thousands (appr. 5000) of federal mandate documents were compiled and loaded into a database. Some of the mandates were:

- **OMB Circular A-11, A-123**

- **DoD BEA**

- **President's Management Agenda**

The federal mandates related to six key areas: Supply chain, Infrastructure protection, human resources, financial management, strategic planning, and technology assurance

Analysis Process and Information Flow

FAA: "Have to Do" = "Capabilities"

Federal Mandates Grouped by Sub-segments

10 Objectives

Goals

3

4

Strategic Plan

2
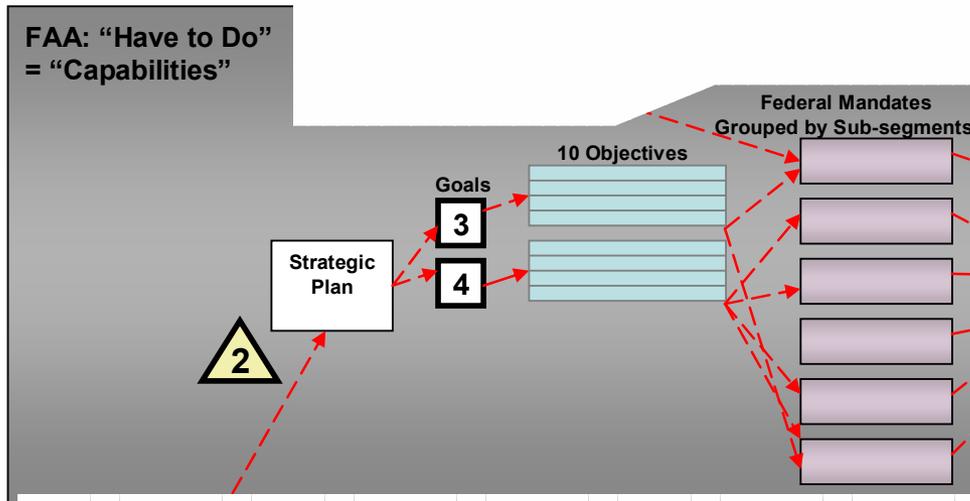
Goals and objectives from the agency's strategic plan were extracted, organized, and then linked to mandates.

To facilitate the linking, Effects for each business domain were linked to the mandates. The effects were extracted from the DoD BMMP and answers:
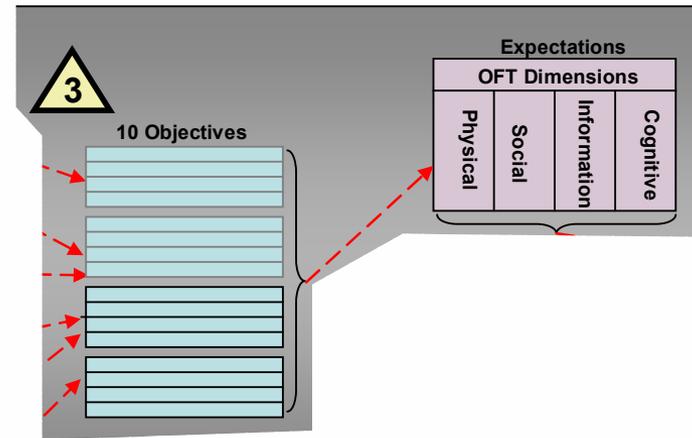
"what would be the effect or result of achieving the mandate?"

A sample effect is:

"Establish common business practices across DoD – improved capability to share and use data across the enterprise"

Analysis Process and Information Flow

After the linking process, the plan objectives and federal mandates were used to create expectations that answer:

"When we achieve the objective we will be/have ___."

The expectations were created using four Office of Force Transformation domains: Physical, Social, Information, and Cognitive

These four domains provided more structure to the analysis and allowed the team to infer capabilities that were not focused on IT solutions.

Office of Force Transformation (OFT) domains (Physical, Information, Cognitive, and Social) that provide structure for analysis
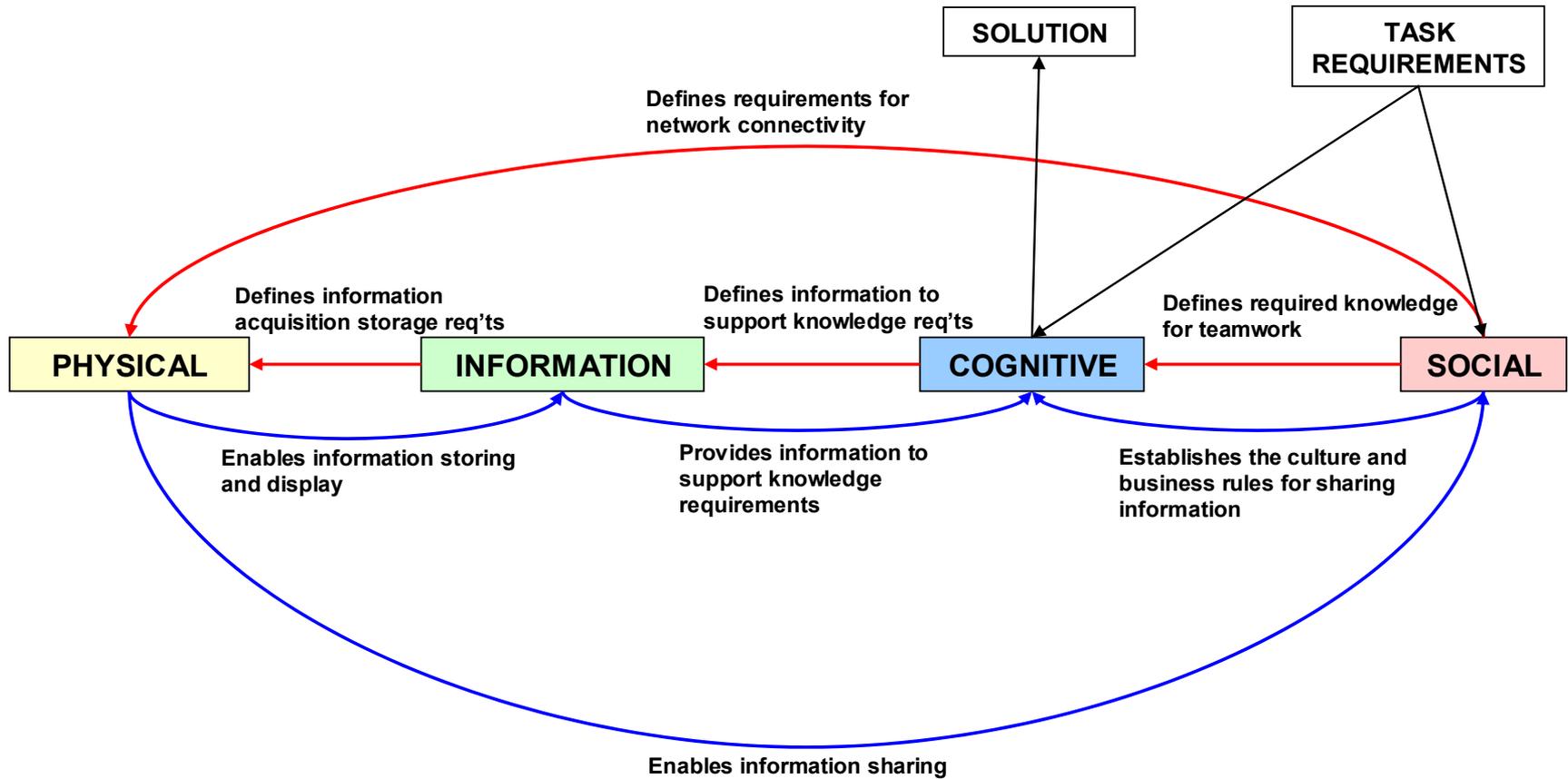
DEFINITIONS

PHYSICAL	INFORMATION	COGNITIVE	SOCIAL
Devices, tools, and networks that enable information to be distributed to permit interaction with information	Documents and databases that contain the information that enables people to understand what they need to understand	Knowledge that allows people to carry out the tasks needed to achieve goals, including knowing what information needs to be shared	Organizational culture that motivates and enables people to share information

METRICS

PHYSICAL	INFORMATION	COGNITIVE	SOCIAL
Extent to which the network and tools enable people to get and use information they need	Completeness and intelligibility of information to support cognitive needs	Extent to which people know what they need to know	Extent to which people are able and willing to share information

DOMAIN DEPENDENCIES

SOLUTION

TASK REQUIREMENTS

Defines requirements for network connectivity

Defines information acquisition storage req'ts

Defines information to support knowledge req'ts

Defines required knowledge for teamwork

PHYSICAL | **INFORMATION** | **COGNITIVE** | **SOCIAL**

Enables information storing and display

Provides information to support knowledge requirements

Establishes the culture and business rules for sharing information

Enables information sharing

Expectations by OFT domains

OBJECTIVE 2: Integrate budgeting with performance management

When we achieve the objective we will be/have:

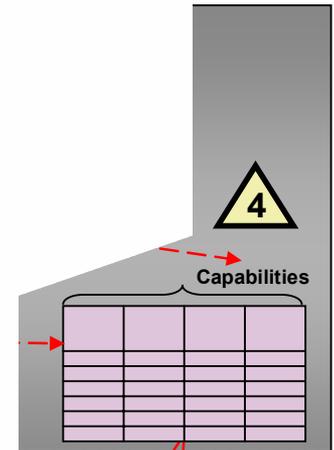| PHYSICAL	INFORMATION	COGNITIVE	SOCIAL
-Able to access verifiable, trusted financial data -Using a suite of visualization tools that enable planning for and tracking the development of essential capabilities -Able to collaborate within the agency and within the DoD community. -Comply with OMB and DOD Reporting requirements Automatically.	-Produce timely and accurate financial information -Data in standard format -Monthly CFO reports tracking investment performance and disclosing full cost -DoD and OMB policies, guidance, and procedures. -Data for visualizations to include; programs, expenditure center-level objectives Integrated Master Schedule. -Mission accomplishment objectives	Knowledgeable of: -effective business management processes -Standardized capabilities implementation and tracking methods -Procedures to implement expenditure center-level objectives -teamwork and collaboration enabling strategies -Mission support needs -managing new alliance risks in a complex collaborative environment	-Managing the change process at organization and employee levels -Members of integrated teams sharing information and expertise -Managing the risk associated with new internal and external alliances.

Analysis Process and Information Flow

Capabilities were inferred using the expectations, federal mandates, metrics, and domain dependencies.

Capabilities answer the question:

"In order to achieve our expectations, then we must have: ___."

Capabilities

Inferred Capabilities

OBJECTIVE 2: Integrate budgeting with performance management

PHYSICAL EXPECTATIONS

-Able to access verifiable, trusted financial data
-Using a suite of visualization tools that enable planning for and tracking the development of essential capabilities
-Able to collaborate within the agency and within the DoD and intelligence communities.
-Comply with OMB and DOD Reporting requirements Automatically.

INFORMATION EXPECTATIONS

-Produce timely and accurate financial information
-Data in standard format
-Monthly CFO reports tracking investment performance and disclosing full cost
-DoD and OMB policies, guidance, and procedures.
-Data for visualizations to include; programs, expenditure center-level objectives Integrated Master Schedule.
-Mission accomplishment objectives

SOCIAL EXPECTATIONS

-Managing the change process at organization and employee levels
-Members of integrated teams sharing information and expertise
-Managing the risk associated with new internal and external alliances.

INFERRED PHYSICAL CAPABILITIES

-Network enabled sharing of information and expertise among executives to plan & prioritize investments
-Common operating picture displaying strategic plan goal and objectives, capabilities, mandates and investment decisions.
-Methods to authorize persons to access budget and financial data integrated with performance measures
-Earned value management tools to support integration of budget, performance measures, and milestones

Analysis Process and Information Flow

The generated capabilities were tested and refined by using:

defined metrics, best practices, and scenarios.

Metrics were created to validate that implementing such a capability could be measured

Best practices were extracted from industry and government and were used to ground the capabilities.

Agency scenarios were used to verify that the capabilities were within the scope of the agency.
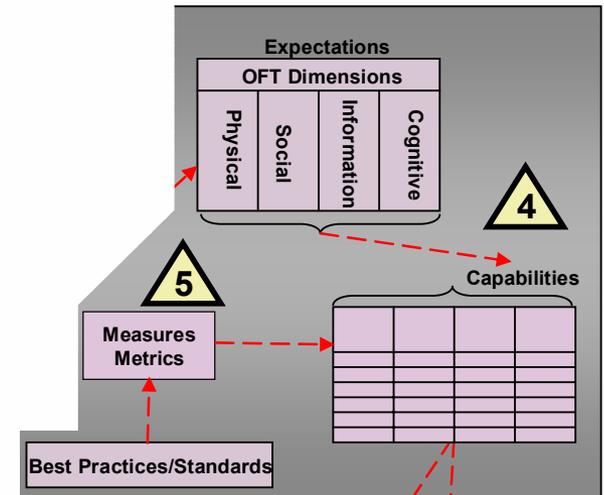
Examples of Metrics for Collaboration Effectiveness

- **Adequacy of knowledge to support effective collaboration**
  - Completeness of team member knowledge of the plan
  - Correctness of team member knowledge of information sharing requirements
  - Correctness of understanding team goals

- **Effectiveness of collaborative behaviors**
  - Frequency at which team members needed to ask for information from others
  - Frequency at which team members ask team members to redo work
  - Frequency that team tasks are late

- **Quality and Cost Effectiveness of Team Products**
  - Quality of team product as rated by team client
  - Person hours required to create team product
  - Timeliness of team product

Case Study: Belgian Post Group

- *Belgian Post Group is one of the largest civilian employers in Belgium.*
- *It provides postal, courier, direct marketing, banking, insurance, and electronic services in European market.*
- *Transformation project affected more than 800 post offices and more than 3,000 users*

Problem: The Group needed to transform culture and business processes to coordinate activities, reduce cost, and increase operational effectiveness

Implementation:

The project had two phases:

- 1st Phase: Prepare Belgian Postal Group for change, and redefine the required processes, systems, and organization. This was implemented through a large number of workshops that were held to identify the improvement potential and determine vision.

- 2nd Phase: Actual implementation of IT applications. This functionality included financial modules, costing and reporting as well as logistics, order management, and purchasing. implementation was done using a conference room pilot approach, where a representative model was built. After testing, the model was gradually migrated in a phased approach to day-to-day operations. Extensive training of project members, product managers, and users was used to support a smooth roll-out. The training team was responsible for:
  - Communication and change leadership
  - Documentation management
  - Project team training and coaching
  - End-user training coordination and development
  - Post-implementation support and helpdesk
  - Final knowledge and ownership transfer

Benefits:

- Reduced cost and increased operational performance.

- Greater transparency and elimination of 'walls' between the various entities

- Introduction of a fully integrated (absolute) budgetary control system, from requisition to GL-entry of the 'actuals'

- End of Month reporting out of a consolidated set of books, replacing Excel based reporting

- Integrated Procure to Pay cycle

- Centralization of +/-21 physical data entry locations (AP departments) to one

- Introduction of catalogue based internet procurement for office supplies

- Electronic payment of invoices

- Single supplier database.

Analysis Process and Information Flow

The inferred capabilities were compared to the agency As-Is baseline.

By aligning the capabilities inferred by the team to the capabilities in the As-Is baseline, the team derived capability gaps.

As Is Baseline

Programmed Capabilities

Gaps

6

FNA: "Have to Do"

– "Can Do"
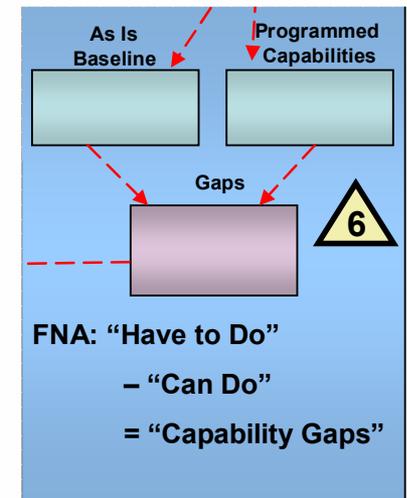
= "Capability Gaps"

Capability Gaps:

Objective 2: Integrate budgeting with performance management

PHYSICAL CAPABILITIES

-Network enabled sharing of information and expertise among executives to plan & prioritize investments

-Common operating picture displaying strategic plan goal and objectives, capabilities, mandates and investment decisions.

-Permit authorized persons to access budget and financial data integrated with performance measures

-Earned value management to support integration of budget, performance measures, and milestone

GAPS

Some collaboration tools are available but training program not yet implemented

COP exists, but data needs have to be defined

Access exists but budget and management not integrated

EVM program not implemented agency wide

CAPABILITY DOES NOT EXIST AND NOT PLANNED= GAP

CAPABILITY DOES NOT EXIST BUT IS A PLANNED ACQUISITION

CAPABILITY EXISTS

Analysis Process and Information Flow

The capability gaps were displayed in a strategic dashboard that allows senior agency executives to:

•assess agency compliance with federal mandates,

•track actions taken to mitigate gaps,

•use a Web interface and intuitive critical indicators,

•view relationships by linking thousands of federal

mandates, best practices, and case studies to an

organization's strategic goals, and tracks and monitors investment decisions.
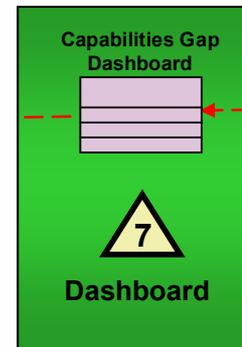
Capabilities Gap Dashboard

7

Dashboard

Capability Gaps

Integrate Budgeting with Performance Management

DASHBOARD

Goal 1:
- 1.1
- 1.2
- 1.3
- 1.4
- 1.5

Goal 2:
- 2.1
- 2.2
- 2.3
- 2.4
- 2.5

CAPABILITY	GAPS	STRATEGIC PRIORITIES	MANDATES	SCENARIOS	IMPLEMENTATION CONSIDERATIONS
2.2.1 PHYSICAL -Network enabled sharing of information and expertise among executives to plan & prioritize investments	Some collaboration tools are available but training program not yet implemented	Priority #1	PMA/OMB A-11	Business Planning	Best Practices & Metrics
2.2.2 PHYSICAL -Common operating picture displaying strategic plan goal and objectives, capabilities, mandates and investment decisions.	COP exists, but data needs have to be defined	Priority #2	PMA/BEA	Asset Management	Best Practices & Metrics
2.2.3 PHYSICAL -Permit authorized persons to access budget and financial data integrated with performance measures	Access exists but budget and management not integrated		OMB A-11/BEA	Growth	Best Practices & Metrics
2.2.4 PHYSICAL -Earned value management to support integration of budget, performance measures, and milestone	EVM program not implemented agency wide		PMA/BEA	Major System Acquisition	Best Practices & Metrics

Legend:
- 🟥 Capability does not exist and not planned = gap
- 🟨 Capability does not exist but is a planned acquisition
- 🟩 Capability exists

Final Remarks:

Our methodology produces a process that is repeatable, traceable, and can be incorporated into a visual strategic dashboard to make sense of the large amounts of data.

Capabilities-based planning methodology creates capabilities and expectations that allow the commander's staff to perform their duty and to achieve the visionary goal.

Questions and Comments