BRAC 2005
Technical Joint Cross-Service Group (TJCSG)
Meeting Minutes of October 23, 2003

Dr. Ron Sega, Director, Defense Research and Engineering chaired this meeting.

Dr. Sega opened the meeting by reviewing the TJCSG briefing to the ISG. He stated that the briefing went well and thanked the members for putting together a good report. He also stated that the ISG briefly debated the utility of using funding as a measure of workload, concluding that it was an indirect measure that had some utility.

The TJCSG next discussed the interface between extent to which the Education and Training JCSG's Ranges subgroup and the TJCSG regarding useful capacity data on test and evaluation (T&E) assets. The TJCSG members working with the Ranges handed out a draft copy of a data call that covers both T&E range capacity and T&E capacity in general. After further discussion, the TJCSG agreed that the TJCSG and the E&T JCSG need to sign a charter outlining the Ranges subgroup's responsibilities and the relationships between the two JCSGs. The TJCSG also agreed to look at its own internal working group structure to ensure that the T&E community is properly represented.

Using the attached slides, the TJCSG then reviewed those capacity questions that needed resolution. The TJCSG made the following decisions:

- The Capability Integration Team (CIT) will align the capability areas with the TJCSG working groups (slide 4)
- Acquisition Category (ACAT) program type is a valid (if indirect) measure of capacity (slide 5)
- Full Time Equivalents (FTEs) should be collected by type such as job series or military specialty (slide 6)
- Funding is an indirect measure of capacity and should be tied to another metric, for example funding per FTE (slide 7)
- Personnel education level can be either a capacity or military value measure--the TJCSG will ask it under the capacity data call (slide 8)
- Acquisition certification levels will be asked for in the data call (slide 9)
- Years of service will not be asked because years of service do not adequately represent the experience or aptitude of individuals (slide 10)
- Agreed with the Data Standardization Team that the natural resources questions listed on the slide are related to military value (slide 12)
- The CIT would examine the Innovative Systems subgroup's request that patent lawyers, technology transfer officers and technical librarians be added as a specialty in the personnel questions
- The CIT is working with the Medical JCSG and the Headquarters JCSG to incorporate and coordinate medical research and information technology questions

At the conclusion of the meeting, the TJCSG agreed to the following steps to finish the questions and finalize the report:

- The data call questions will be reviewed to incorporate the changes resulting from the TJCSG meeting
- The TJCSG principals will review subgroup membership and make changes if necessary.
- All TJCSG members will forward comments on the T&E and Medical questions either directly or through their CIT members, to the TJCSG no later than 1200EST Monday October 27, 2003
- A final draft report will go to the TJCSG Principals by end of business on October 27, 2003
- The TJCSG principals will present their final comments on the draft report on October 28, 2003
- The TJCSG will review the most current draft of the Ranges subgroup's data call questions

Signed: _____
Mr. Al Shaffer
Chairman, Capabilities Integration Team

Approved: _____
Dr. Ronald Sega
Chairman, Technical Joint Cross-Service Group

Attachments:
1. List of Attendees
2. Guidelines for BRAC Data Call Questions dated 26 August 2003

Technical JCSG Meeting
23 October 2003

Dr. Ron Sega, Chairman, OSD
Dr. John Foulkes, Sr. Member, ARMY
Dr. J. Dan Stewart, Sr. Member, Air Force

Mr. Roger Florence, DOD-IG
Mr. Pete Potochney, OSD-BRAC
Mr. Gerald Schiefer, OSD-BRAC
Dr. Jim Short, DDR&E
Dr. Bob Rohde, ARMY
Mr. Chien Huo, ARMY TABS
Mr. Andy Porth, OSD-BRAC
COL Walt Hamm, USMC
Mr. George Ryan NAVY
Mr. Mike Crisp DOT&E
Mr. Al Shaffer DDR&E
COL Steve Evans, USMC
Mr. Gary Strack, Air Force
Mr. Ken Georgi, Army
Mr. Al Goldstayn, Air Force
Mr. Roy Owens, Army
COL Eileen Walling, USAF
Ms. Eileen Shibley, Navy
Mr. Rafael Villalba, DDR&E
Mr, Omar Alper, Navy BRAC

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Guidelines for Constructing BRAC Data Call Questions

These guidelines assume that the creator is already familiar with the characteristics of the functions or activities the data call addresses, either from personal knowledge or from the querying of experts with the required familiarity. In other words, the data calls are not used to educate the creator as to what kind of questions should be asked.

1. ***Know how the answer to the question will be used.*** Do not ask a question because the answer "might" be useful. Asking a question should signify a commitment to use the answers somewhere in the BRAC process.

2. ***Avoid essay questions.*** All answers must be auditable. The answer should be a number, a "Yes/No" response, or category membership.

3. ***Consider the likelihood the question can be answered.*** Is the requested information readily available and, if not, is there a standard, or well-known, procedure that all activities can follow to obtain it?

4. ***Ask questions that will distinguish between different activities.*** There is no point in asking a question that all activities will answer in approximately the same way. Likewise, avoid asking questions that reveal unimportant differences, i.e., avoid distinctions without a difference.

5. ***Capacity questions:***
   - ***a.*** Make sure all assumptions about how capacity is to be measured are clearly stated in the question. For example, if measuring throughput, should the activity assume a single shift, five days a week?
   - ***b.*** Ask capacity questions that will allow the analysts to understand the constraints on the capacity, e.g., work force limitations or other input resource constraints.
   - ***c.*** If capacity expansion or reallocation opportunities are to be considered, then ask questions that allow an analyst to reasonably assess those possibilities, including possibilities of trading functional capacity in one area for increased capacity in another. For example, if resources such as utilities or range space are shared by several functions at an activity, then the analyst will need to know how the allocation of those resources may be adjusted to change capacities.

6. ***Review the complete set of questions for balance.*** Is the number of questions for an area of interest adequate to address that area and not just a reflection of how easy it is to ask questions in that area?

BRAC 2005
Technical Joint Cross-Service Group (TJCSG)
Meeting Minutes of October 2, 2003

Dr. Ron Sega, Director, Defense Research and Engineering chaired this meeting. The list of attendees is attached.

Dr. James Short opened the meeting which focused on refining the TJCSG briefing to the ISG. After lengthy discussion the TJCSG agreed to the following:

- ✓ Agreeing to common definitions for functions
- ✓ Developing a simple method to calculate capacity (see hand out)
- ✓ Keeping data call questions simple and straight forward

Signed: _____ 4 Nov 04
Mr. Al Shaffer
Chairman, Capabilities Integration Team

Approved: _____
Dr. Ronald Sega
Chairman, Technical Joint Cross-Service Group

Attachments:
1. List of Attendees
2. Draft Technical JCSG Capacity Briefing to the Infrastructure Steering Group dated September 16, 2003

Technical JCSG Meeting
2 October 2003

Dr. Ron Sega, Chairman, OSD
Dr. John Foulkes, Sr. Member, ARMY
Dr. J. Dan Stewart, Sr. Member, Air Force
Mr. John Erb, Sr. Member, JCS-J4

Mr. Roger Florence, DOD-IG
Mr. Pete Potochney, OSD-BRAC
Mr. Gerald Schiefer, OSD-BRAC
Dr. Jim Short, OSD
Mr. Harold Schliesske, DDR&E
Mr. Chien Huo, ARMY TABS
BG Fred Castle, USAF
Mr. Andy Porth, OSD-BRAC
Mr. George Ryan, NAVY
Mr. Mike Crisp, DOT&E
Mr. Al Shaffer, DDR&E
COL Steve Evans, USMC
Mr. Chris Blake, Air Force
Mr. Gary Strack, Air Force
Mr. Ken Georgi, Army
Mr. Al Goldstayn, Air Force
Mr. Dave Jerome, DOT&E
Ms. Eileen Shibley, Navy
CDR James Hogan, Navy

IN PROGRESS DRAFT

Technical JCSG Capacity Analysis

Briefing to the Infrastructure Steering Group

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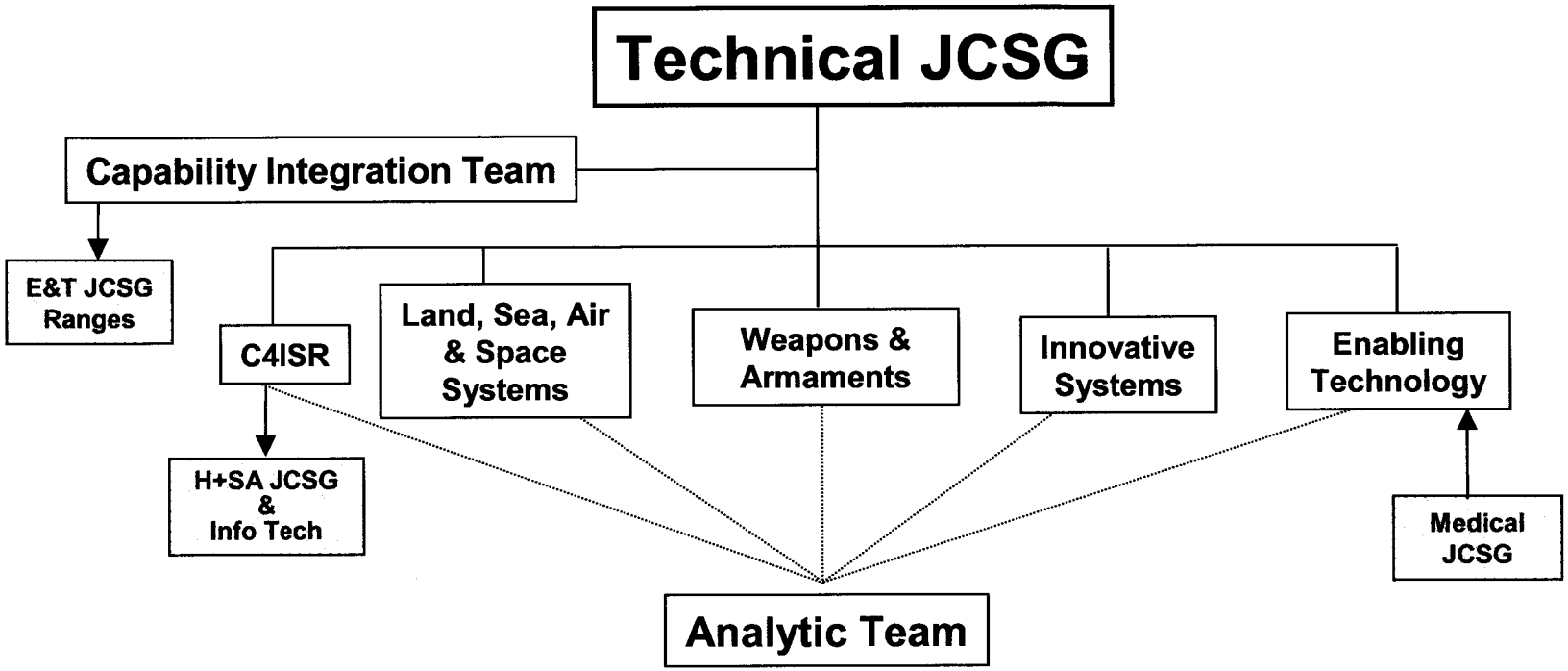
Overview

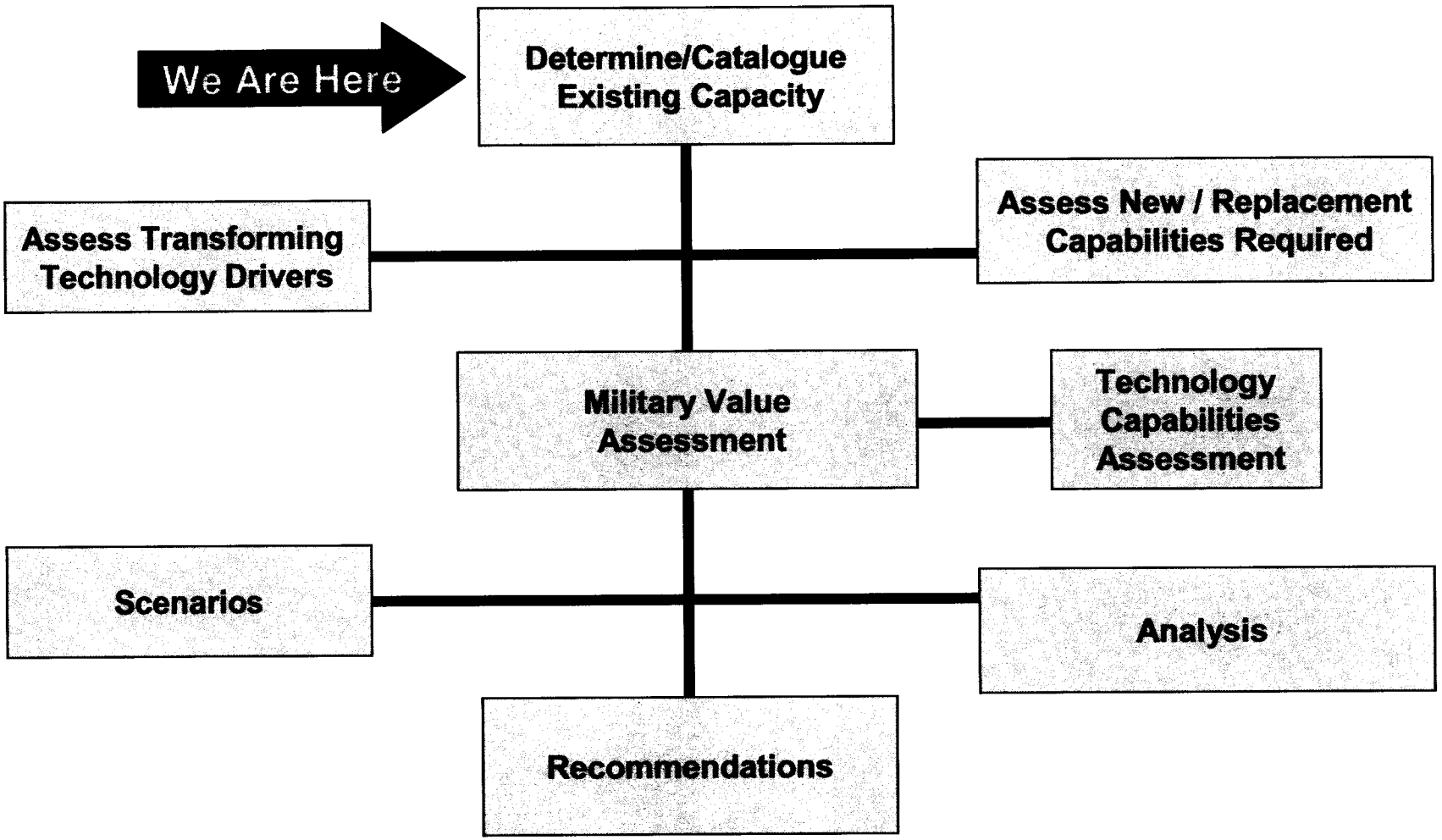
- Organization
- Functions
- Capacity Analysis Methodology
- Issues Impacting Analysis

Organization



Military	Civilian	Contractor
15 (5 FTE)	70 (3 FTE)	10 (1 FTE)

Battle Plan



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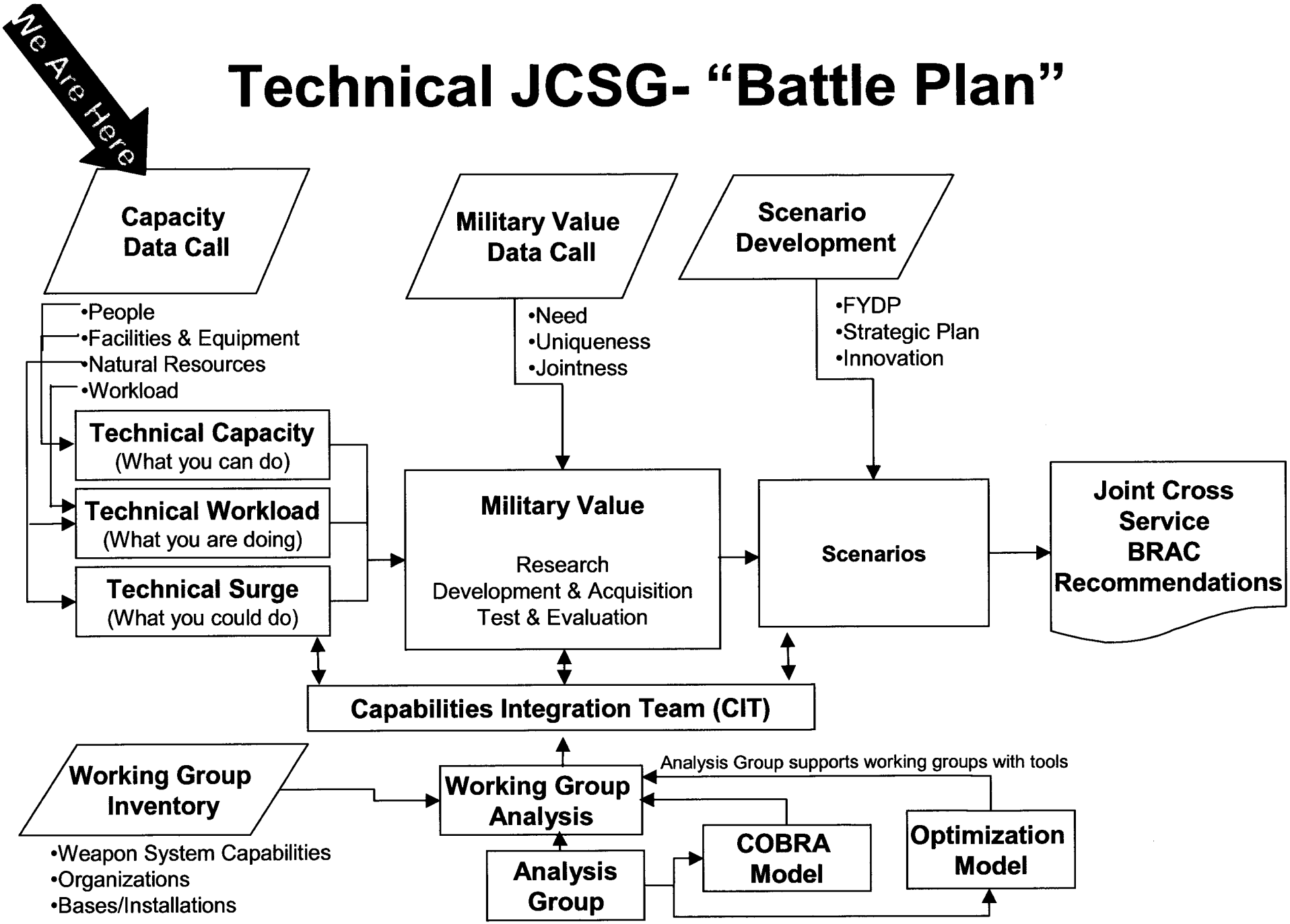
Technical JCSG- "Battle Plan"



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Technical Functions to be Analyzed

--Slide 1 of 3--

- **Research**
  - **Basic Research**
    - ***New Science Knowledge of Interest to Military***
    - ***High University Content***
  - **Exploratory Development**
    - ***Applied Research into New Technologies***
    - ***Development of Existing Technology for Military Application***
  - **Advanced Development**
    - ***Hardware Development, Integration & Experiments***
    - ***Does Not Necessarily Lead to Procurement***

Technical Functions to be Analyzed

--Slide 2 of 3--

- **Development and Acquisition**
  - **Systems Development & Demonstration**
    - ***Efforts to Expedite Technology Transition to Military Use***
  - **System Modifications**
    - ***Improve Product Affordability, Reliability, Maintainability***
  - **Experimentation and Concept Demonstration**
    - ***Exploit Mature Technologies to Solve Military Problems***
  - **Product/In-service Life-Cycle Support**
    - ***Check-out of System after modification or upgrade***

Technical Functions to be Analyzed

--Slide 3 of 3--

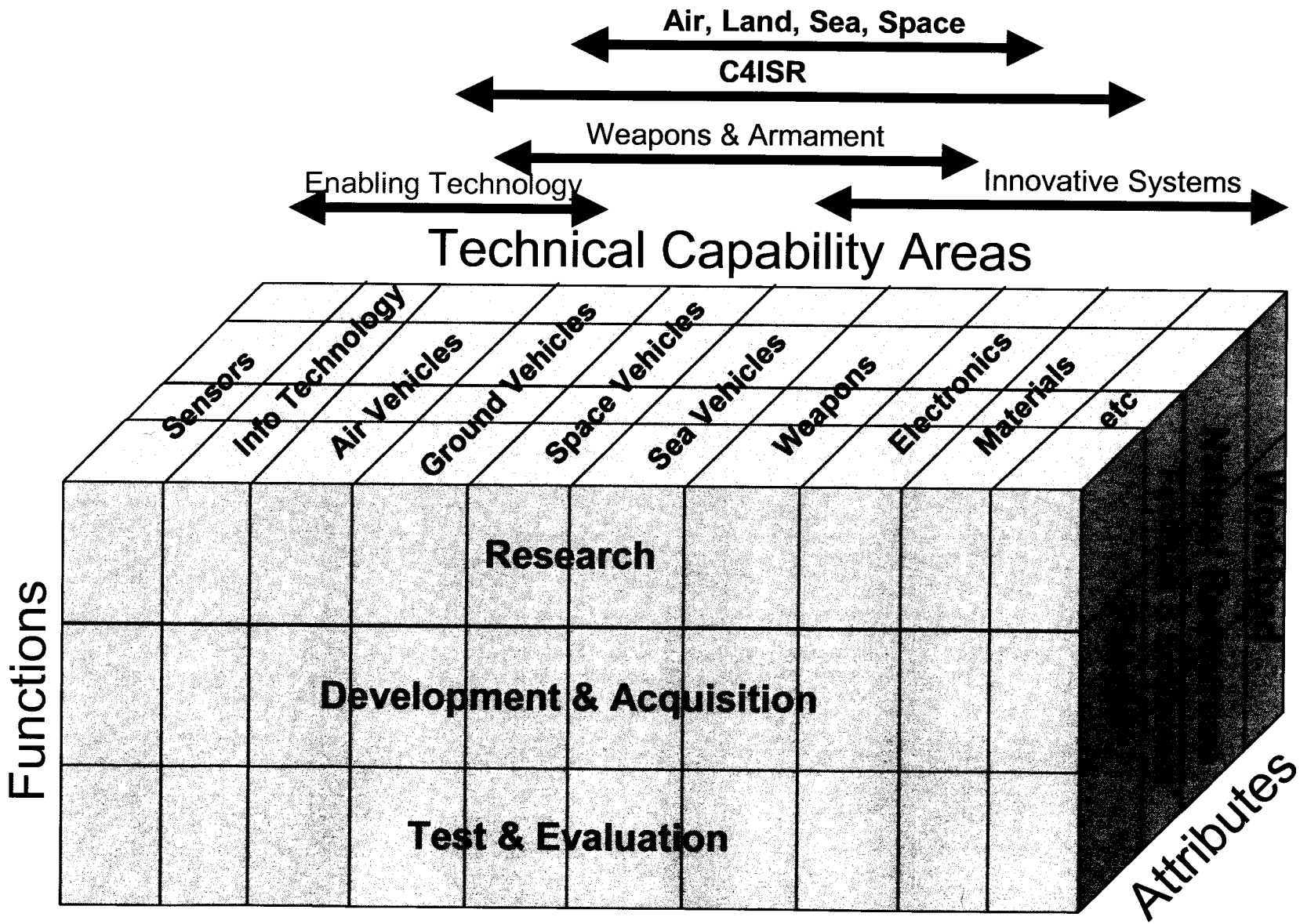
- **Test and Evaluation (supporting RD&A)**
  - **Developmental Test and Evaluation (DT&E)**
    - ***Technical Performance & Safety***
  - **Operational Test and Evaluation (OT&E)**
    - ***Effectiveness & Suitability Under Realistic Operating Conditions Including Combat***
    - ***Determine if Critical Operational Issue Have Been Satisfied to Improve Combat Operations***

Assumptions for Developing Attributes

- **Technical functions support technical capability areas (each has a technical working group)**
  - **Air, Land, Sea & Space**
  - **Weapons & Armaments**
  - **C4ISR**
  - **Enabling Technolgy**
  - **Innovative Systems**
- **The Technical Working Groups identified four attributes common to all three functions**
  - **People:** *Describe workforce & what they do*
  - **Facilities & equipment:** *What the facility has*
  - **Natural Resources:** *Notable Geography, Climate features & Environmental operating constraints*
  - **Workload:** *Current use of people, facilities & equipment*

Assumptions for Developing Attributes

- Technical Working Groups agreed to break technical capability areas into finer pieces
  - Called technology areas
    - Sensor, information technology, electronics, materials, etc.
    - Not practical to assign technology area to just one technical capability area
- Functions analysis space
  - Functions & attributes are a 2-D analysis space
  - Technical JCSG needs a 3-D analysis space
    1. Functions (& sub functions)
    2. Attributes
    3. Technical Capability Areas (& their technology areas)


Air, Land, Sea, Space
C4ISR
Weapons & Armament
Enabling Technology
Innovative Systems
Technical Capability Areas
Sensors
Info Technology
Air Vehicles
Ground Vehicles
Space Vehicles
Sea Vehicles
Weapons
Electronics
Materials
etc
Research
Development & Acquisition
Test & Evaluation
Functions
Attributes

Capacity Analysis Methodology Attribute—People

- **People:** Human/Intellectual Resources, Describe Workforce & What They Do
  - Metrics / Measuring Units
    - Number of DoD Technical & Contractors / Total Number of People by Specialty Code; Military, Civilian, Experience
    - Education & Experience / Academic Credentials, Technical Credentials & Acquisition Credentials; Professional Certificates
    - Training / Training budget; number of people enrolled in academic institutions (high school, junior college, undergraduate, graduate, professional certification)

Capacity Analysis Methodology Attribute—Facilities & Equipment

- **Facilities & equipment:** sum of what is available to the workforce
  - Metrics / Measuring Units
    - Facilities Space (Buildings, Laboratories, Offices, etc) / square Feet, % occupancy, operating hours/year
    - Commercial equipment inventory / type, number of units
    - Specialized & custom equipment inventory (e. g. anechoic chamber) / quantify special & custom features; size, weight & value
    - Utilities / kilowatt hours, cubic feet per hour, gallons per day, etc.
    - Internet & information technology / type of connectivity

Capacity Analysis Methodology Attribute—Natural Resources

- **Natural Resources:** Notable Geography & Climate Features & Environmental Operating Constraints
  - Metrics / Measuring Units
    - Geography / sq miles; Unencumbered space & population within 25, 50,100 mile radius, further
    - Climate (hot, cold, wet, dry) / days above & below a temperature, days with/without precipitation, number of days that operations are not curtailed by weather
    - Environmental / operating permits, endangered species impacting operations, EPA waivers

Capacity Analysis Methodology Attribute—Workload

- **Workload:** Current use of people, facilities & equipment
  - Metrics / Measuring Capacity
    - Funding / actual funding & actual work years; distribution by acquisition category; distribution by acquisition program; distribution by budget activity; funding from external customers
    - Tests conducted / total tests & test hours of major facilities; quantify complexity & scope of tests
    - Transitions & milestones & fielded items / total number of demonstrations moving from the laboratory to a more mature customer in the past ten years
    - International & interagency agreements / number of agreements, average project duration, number of products transitioned by either partner under any agreement

How Capacity Will Be Measured

- **Improve on 1995 BRAC JCSG's**
  - **Laboratory & T&E JCSG's**
  - **Similarity between questions**
    - 1995 questions are familiar to the installations
    - 2005 questions based on 1995 questions
      - Modify LJCSG and T&E JCSG questions
      - Add Acquisition questions

Surge Requirements

- Technical Surge Capacity is not well defined
- TJSCG envisions at least two elements
  - Capacity to do something technical which will revolutionize warfighting
    - Difficult to plan capacity for an unknown technology emerging at an unknown moment in the future
    - Reallocation of attributes (people; facilities & equipment; natural resources; workload)
  - Capacity to do more of what we currently do
    a. Capacity needed for current workload
    b. Maximum demonstrated (& theoretical) capacity
       ✓ Surge capacity = b - a

Surge Requirements

- **Other sources of Surge Capacity**
  - Academic sites
  - Industrial & commercial sites
  - Agencies other than DoD
  - Foreign Governments

Issues Impacting Analysis

- **Overlaps with other JCSG Groups**
  - No specific issues at this time
    - Ranges (E&T JCSG)
    - Communications & Information Tech (H&SA JCSG)
  - Concern of Medical JCSG
    - MJCSG has empowered members on TJCSG Working Group to suggest
      - attributes
      - metrics
      - capacity questions

Issues Impacting Analysis

- **Approach to Surge Capacity**
  - TJCSG is comfortable with approach
  - Solicit constructive criticism

- **Challenge to quantify intellectual capacity**
  - Designing questions to count & quantify facilities & equipment; natural resources; workload is easier
  - Designing questions to capture and quantify intellectual capacity is harder