



**Naval
Postgraduate
School**

**Acquisition
Research
Symposium:
Creating
Synergy
for
Informed
Change**

14-15 May 08

Advances in Acquisition Project Management

CAPABILITIES FOCUSED ACQUISITION PROCESS

–Continued–



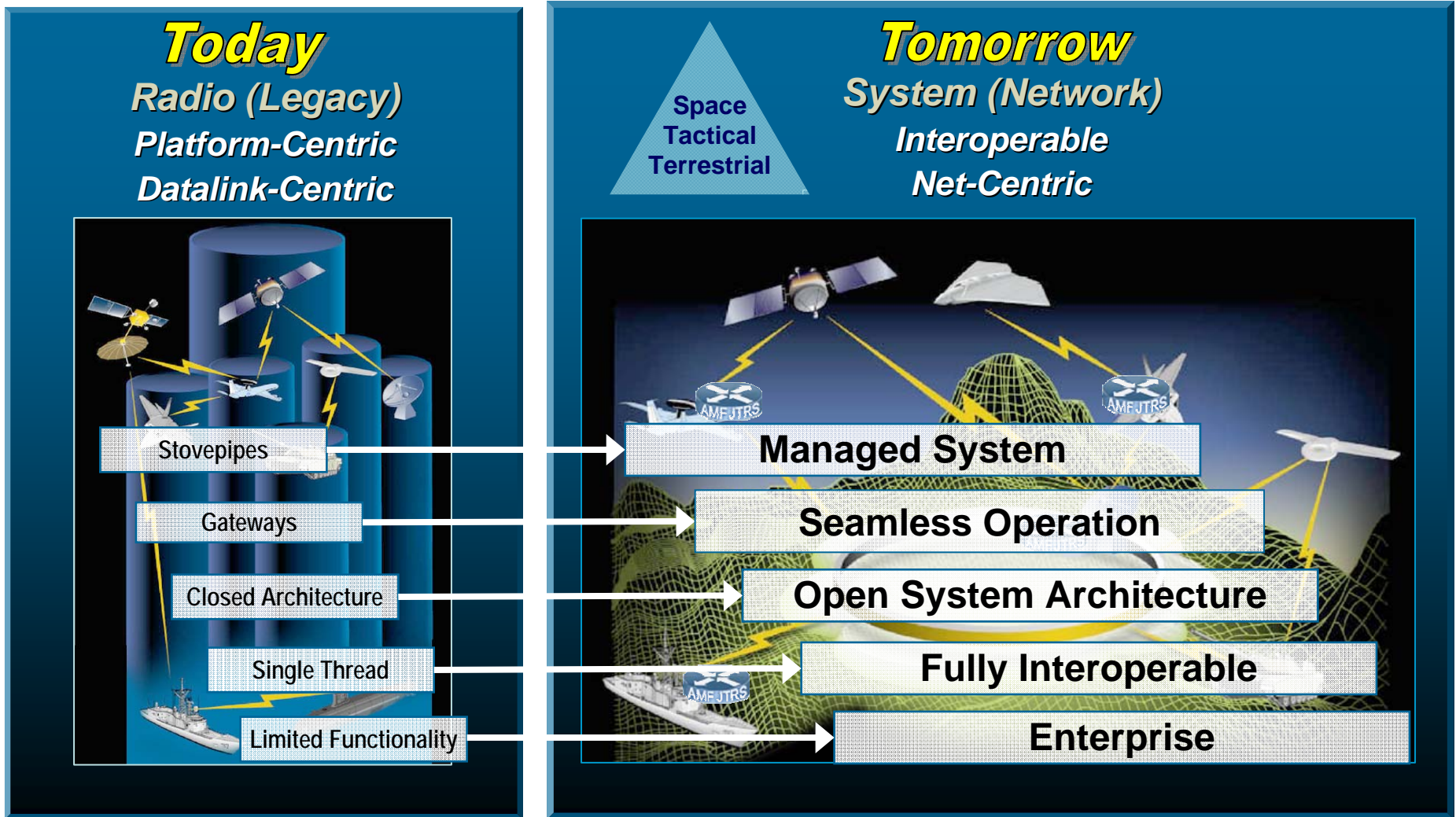
COL Ray Jones
Project Manager,
Modular Brigade Enhancements
Program Executive Office,
Ground Combat Systems
US Army



COL Ray Jones
Program Manager,
Airborne, Maritime, Fixed Site (AMF)
Joint Program Executive Office,
Joint Tactical Radio System
OSD



Acquisition Objective



Better Knowledge .. Better Planning .. Better Execution Better Results



Current To Future Force through Spin-Outs

FCS – System Development and Demonstration

Spin-out 1 FY 2008-10

Networked Sensors/ Shooters

- Limited Battle Command
- JTRS (GMR/HMS)
- Unattended ground sensors
- Non-line of sight launch systems

Spin-out 2 FY 2010-12

Systems/ Component

- APS
 - Mast Mounted Sensor
- Options:**
- Small UGV Class 1 UAV
 - Class 1 UAV

Spin-out 3 FY 2012-14

Network and Ground/ Air Vehicles

- ABCS to FCS Battle Command
- ARV-L
- Small UGV
- Class I UAV
- Class IV UAV

Core Program Delivery FY 2015

Joint Networked System of Systems



Lessons learned OIF and OEF

- RAVEN Tactical UAV
- Interceptor Body Armor (IBA)
- Uparmored Vehicles (UAH, AoA)
- Buffalo mine-clearing vehicle

2004-2006

2006-2010

- ARH (2009)
- LUH (2008)
- DCGS-A (V3) (2007)
- Excalibur (2007)

2010 & beyond

- WIN-T (2014)
- JTRS AMF (2011-12)
- Apache Longbow Block III (2011)

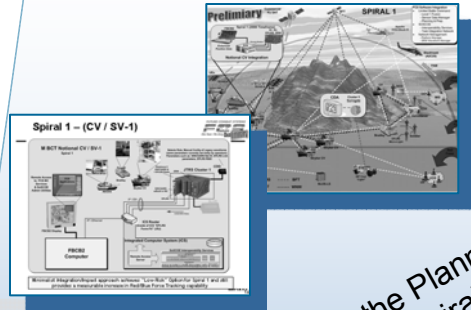
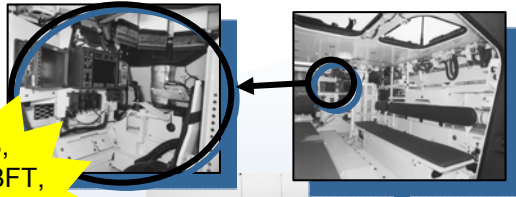
Related Advanced Developments



Battle Cmd/Vehicle Integration

“A Teaming Effort Success Story”

ABCS,
FBCB2/BFT,
SINGGARS,
EPLRS
Based Units



Early 2000's
Fielded Battle
Command

2004
PEO GCS Supports the Planning of
Spin Out (then termed Spiral Outs)

DPEO GCS/C3T Executive R

FBCB2

Why are you IT?

Digitizing the battlefield

First Digitized Division
Historical Developer's Conference
Hosted by PEO, GCS
Detroit, Michigan
8 October 1998

Created by:
FM / GCS
720.422.2811
Date: 10 June 2001

Provides the Power of the Network to
Major Subordinate Elements (MSE)
and Commanders and Controls C3T
and Comms Elements under the Division's
Battle Command System.

Late 1990's
Working Closely with PEO C3T
to Integrate Battle Command

2005
Leading the Synchronization With FCS
& Leading the fielding of Spin Outs

**Project Management Office,
Modular Brigade Enhancements**
Established 19 Sep 05

**Combining
Current Battle
Command
With FCS BC/
SOSCOE,
JTRS**

NOW

SO1 Production IMP/IMS

B-Kit Configuration - TPT-LUT

Bradley Spin Out One A-Kit Installation

- Integrating SO1 LUT Configuration and prep'ing for Tests
- Building/Executing Spin Out Production Phase IMP/IMS

Integrating Battle Command Systems in a manner that maximizes the use of BC information and minimizes impact to vehicle and crew



Supporting the Army Vision Require Synchronization Modernization **WHY?**

WHAT WORKED BEFORE.....



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- Vehicle infrastructure has remained relatively constant since the last development/improvement program
- Requirements are evolving / expanding and requires integration of new capability
 - New/Updated CDDs/CPDs under development
 - Integrating new capability adding to already strained power, space, and weight claims
- Integrating more in current vehicle configuration impacts crew and vehicle capability



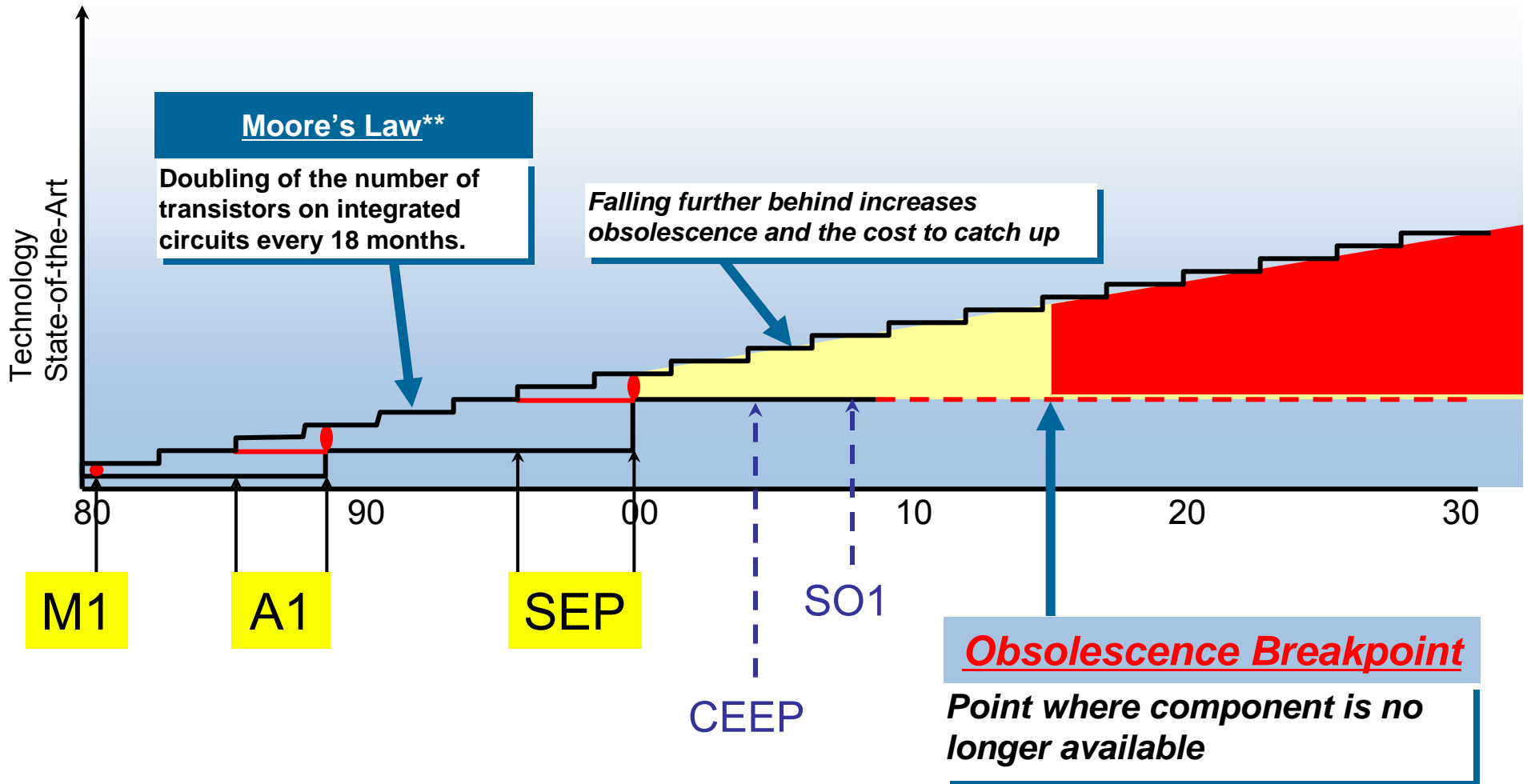
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...DOESN'T NECESSARILY WORK NOW!

We are at the degradation point



Obsolescence vs. Technology Advancement

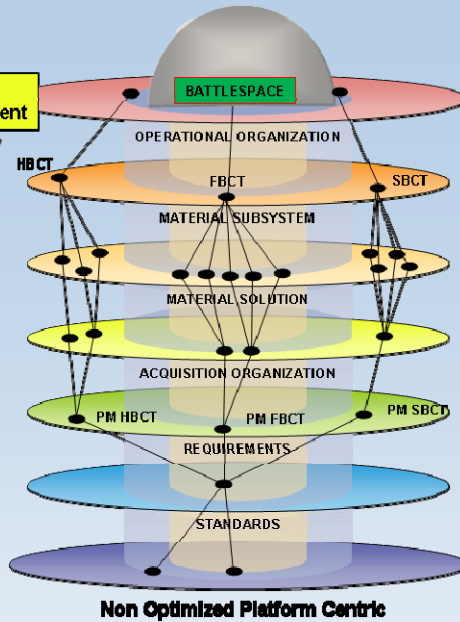
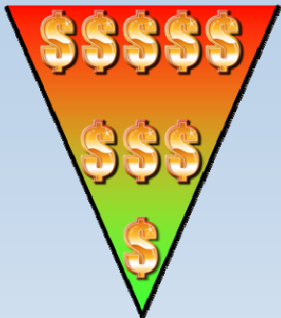


** Computer industry technology "roadmaps" predict (as of 2001) that Moore's Law will continue for several chip generations.



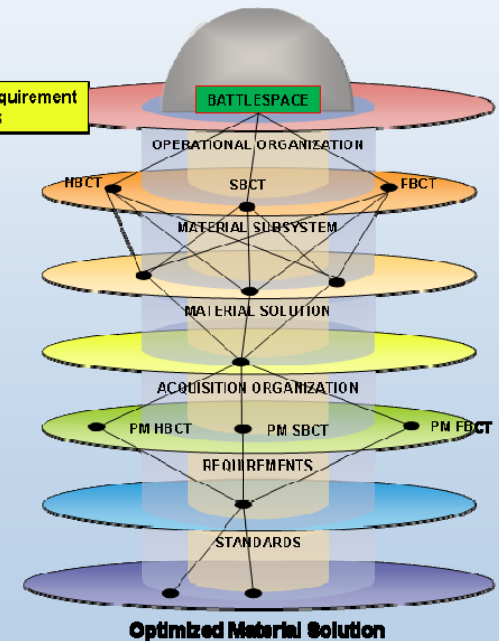
Capabilities Management Challenge

Increase Cost Due to Multiple Solutions for the Same Requirement



Multiple, independent solutions increasing burden on the unit and impacting overall capability

Optimized Solution for Same Requirement Reduces Cost and Risk



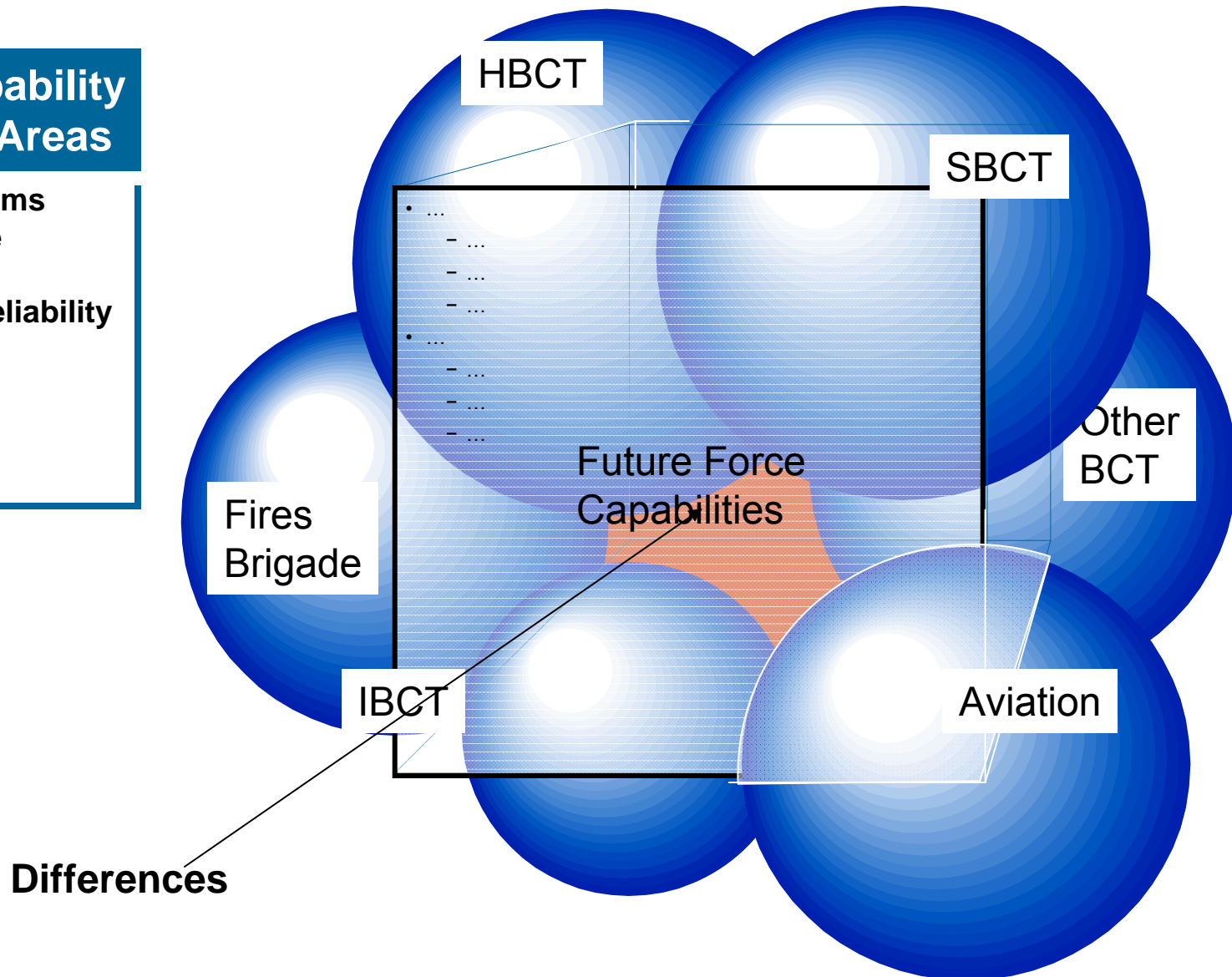
Fewer, well coordinated materiel solutions that are employed consistently across all systems & optimizing overall capability



CF Needs to meet Future Force Required Capabilities

Sample Capability Difference Areas

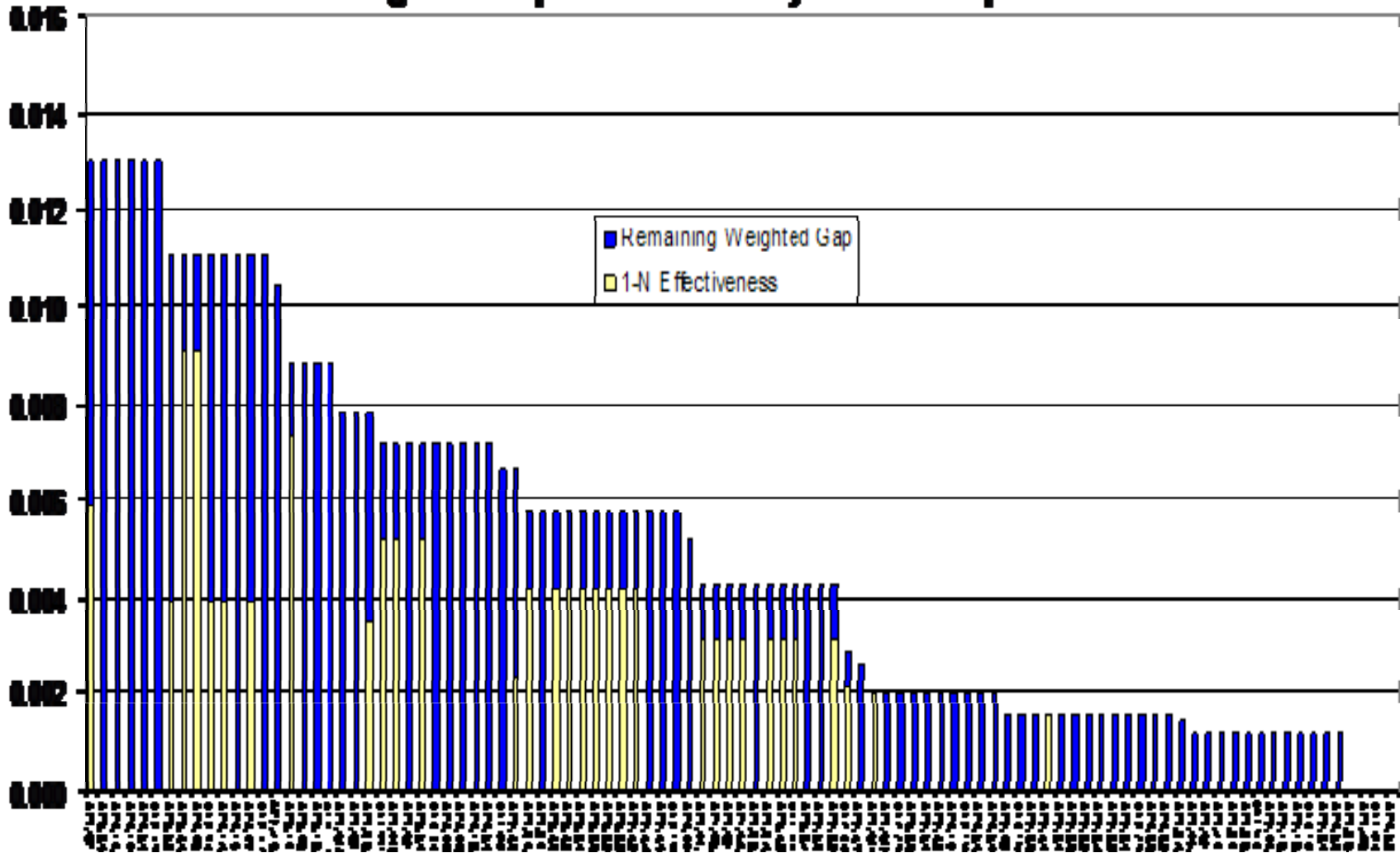
- Unmanned Systems
- Networked Battle Command
- Supportability/Reliability
- Survivability
- Lethality
-
-





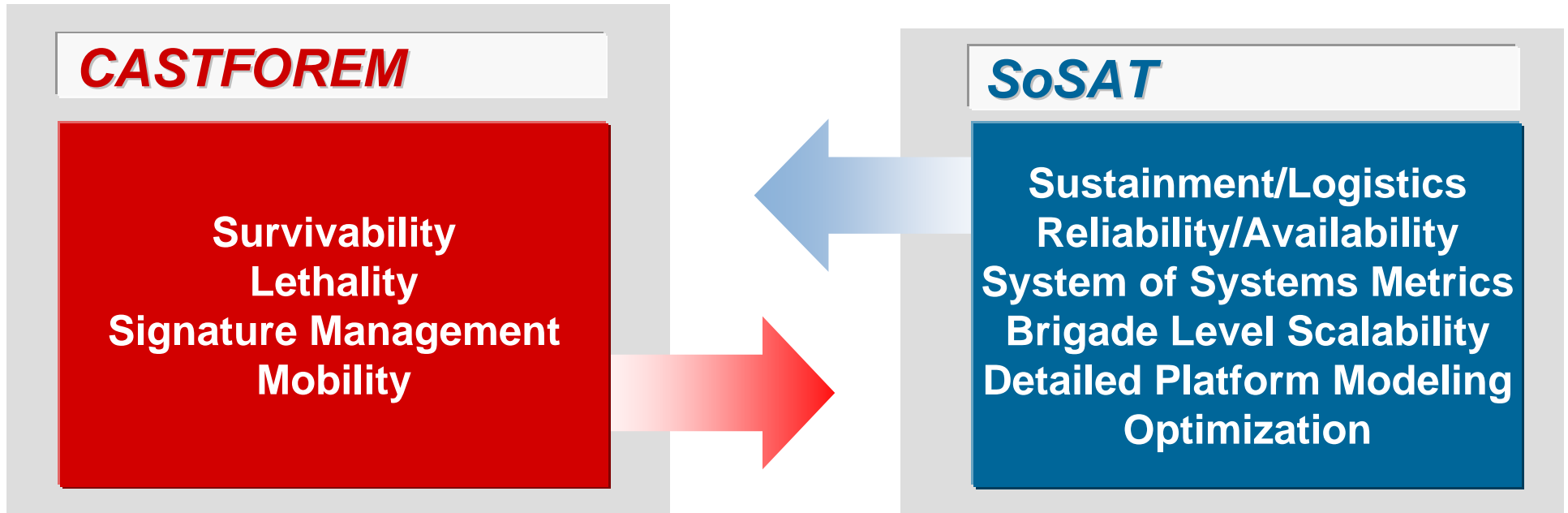
Notional 1-n Gap Analysis

Weighted Gaps Addressed By Platform Improvements





Linking SoSAT & CASTFOREM Conducting Evaluations of Alternatives to Identify Capability Gaps



- **CASTFOREM** provides **SoSAT** parameters associated with warfighting technology effectiveness
 - e.g. probability of platform/subsystem mission survival, probability of mine detection
- **SoSAT** provides **CASTFOREM** parameters associated with platform reliability and sustainment
 - e.g. downtime due to (lack of) reliability failures



Integrated Analyses to Maximize Operational Effectiveness

SoSAT
CLOE
...

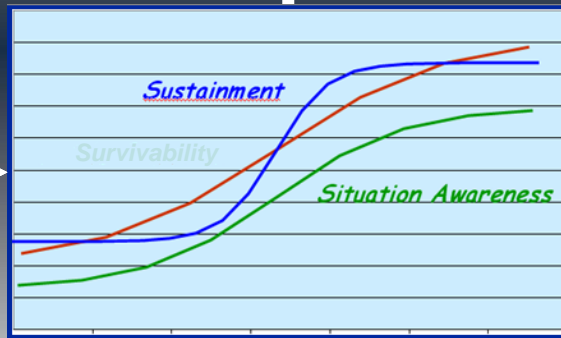
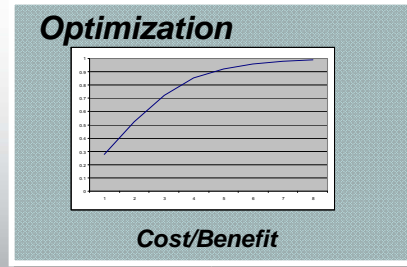
1-N List
Impacts

CASTFOREM
APS
...

JANUS
-360 SA
...

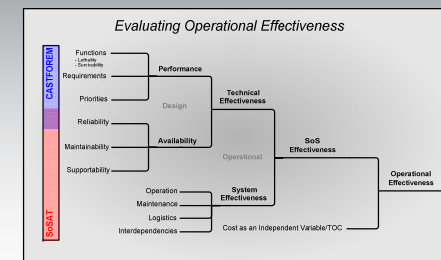
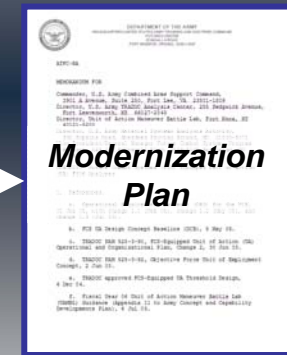
GRIP
Improved
embedded
training
...

Constraints
-Budget
-SWAP



Increases in Force Operating Capabilities
With various BCT solution configurations

Rank Order
Based on cost/benefit





PEO GCS SE Contracted Effort

- SE Contractor brought in to support execution of efforts like this

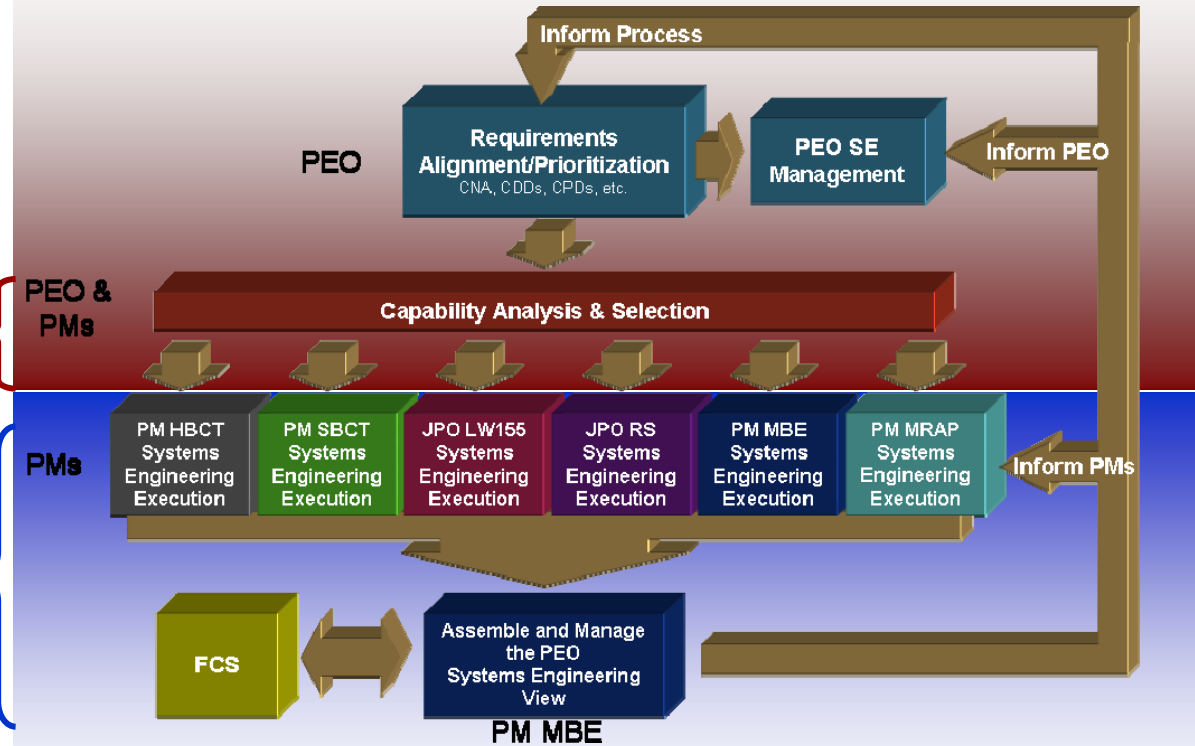
- Focus:

- Supporting the execution of the common capability analysis

- Developing for the PMs and PEO the SE processes

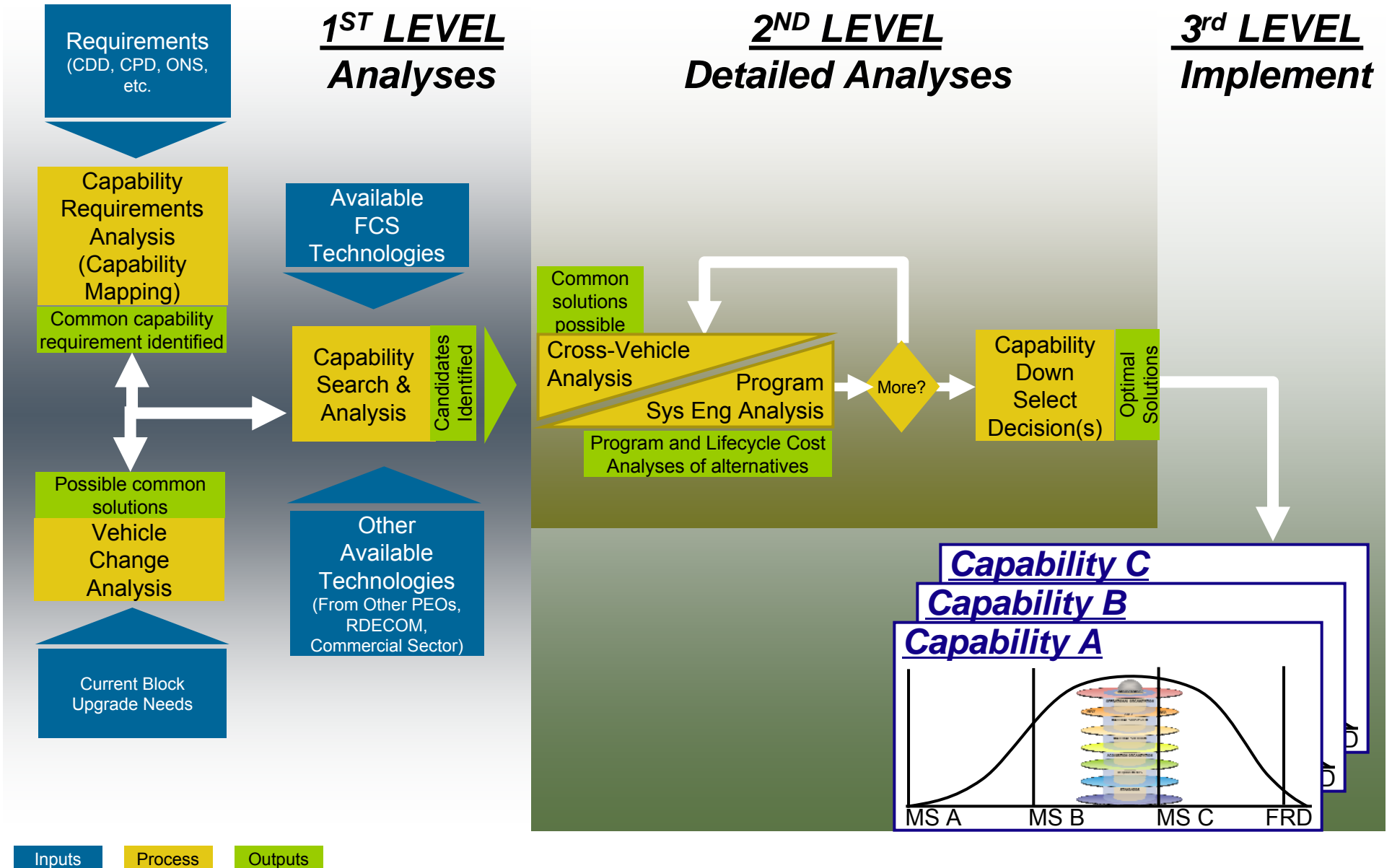
- Benefit:

- They will get real-life experience with this effort and be able to develop better processes, determine tools and training needs



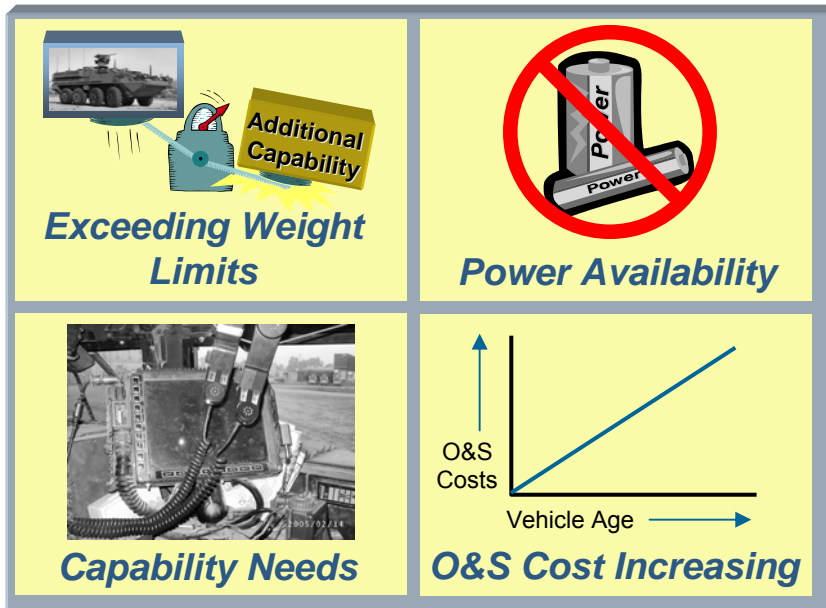


Ground Vehicle Analyses Process



PEO GCS Modernization Tenets

Facing Common Upgrade Challenges

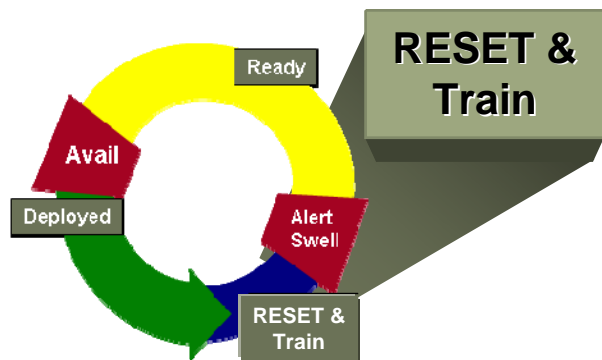


Opportunity for Common solutions

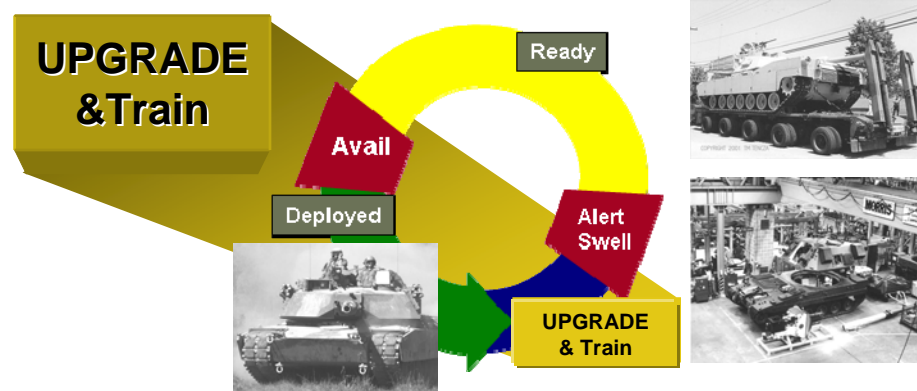
- Minimizing Development Costs
- Commonized Capability Across Fleets
- O&S Cost Benefits
- Increased quantities yielding procurement cost saving



Modernization Leveraging Arforgen



VS.

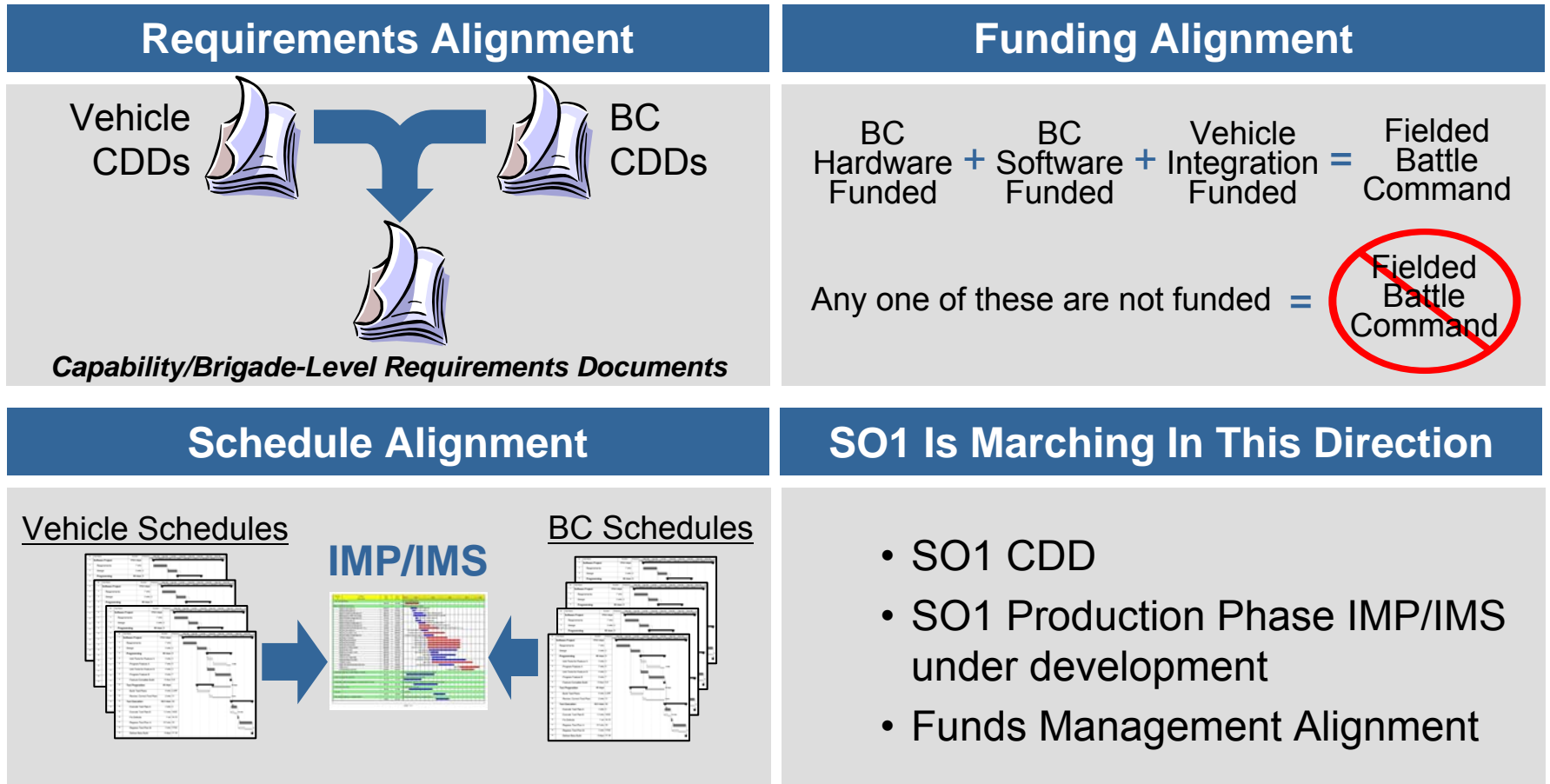




SUMMARY

Making It All Happen: "A Broad Ground Vehicle View"

Example: Programs Must Be Aligned To Enable Battle Command



Battle Command Development and Battle Command Vehicle Integration:
Synchronization is the Key to Success