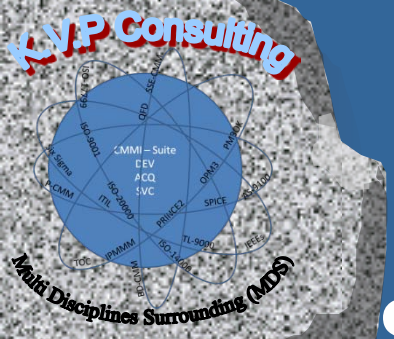


How to Assure your Subcontractors Quality with Cross Constellations and Multi Models Inspiration

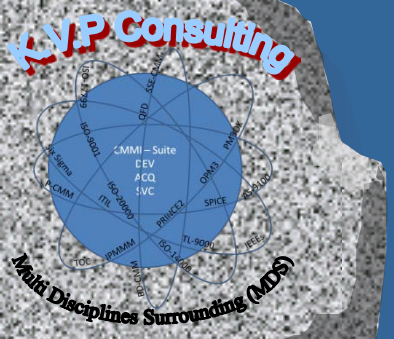
Continues Process Improvement Initiatives

Kobi Vider

K.V.P Consulting

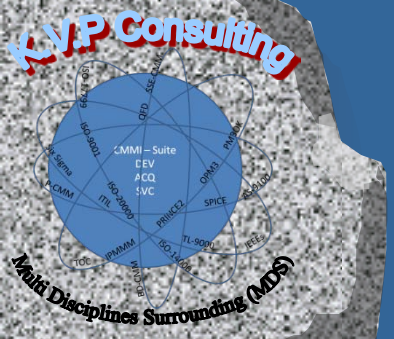
Kobi.Vider@hotmail.com

+972522946676



Agenda

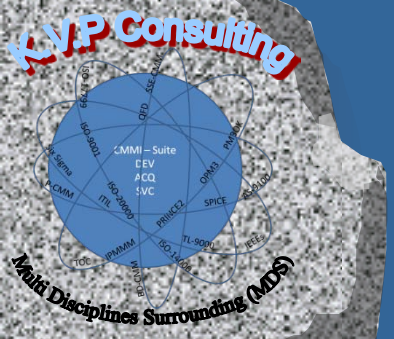
- Background
- The Challenge
- The Solution
- Tips For You



Background

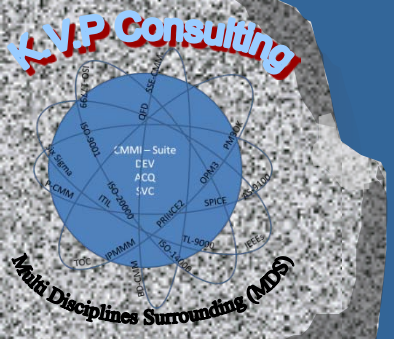
- Complex and large organizations or divisions that run a system / product lifecycle End to End, need to use more than just ‘one’ CMMI or on quality related standard.

- Our experience shows that these organizations are typically structured as matrix organizations, with functional teams or as a complex of independent smaller business units.



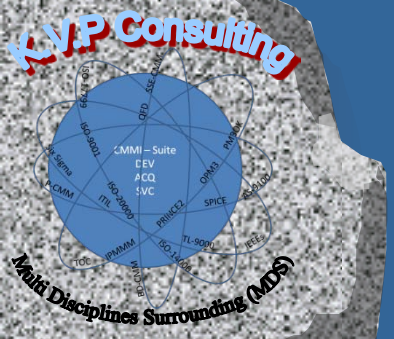
The Challenge

- This situation where organization is running a system lifecycle a matrix with internal or external contractors, with
  - With partial overall view in interactions and handshakes between these groups is introducing inefficient usage of
    - resources,
    - expensive maintenance of duplicate infrastructures
    - and Organizational Sets of Standards Processes as well as assets,
  - May result in less quality and impacting the end product / system.



The Challenge

- This situation where organization is running a system lifecycle a matrix with internal or external contractors, with
  - separate process improvements on different parts of the system / product lifecycle



The Challenge

- This situation where organization is running a system lifecycle a matrix with internal or external contractors = service providers, with
  - separate quality management systems and with compliance to different standards (e.g. AS9100c) and qualification (e.g. MIL-STD 217) on different parts of the system / product lifecycle

Integrated Defense Acquisition, Technology, and Logistics Life Cycle Management System

Following the Material Development Decision, the Milestone Decision Authority may authorize entry into the acquisition process at any point, consistent with phase-specific entrance criteria and statutory requirements

Material Solution Analysis Phase | Technology Development Phase | Engineering & Manufacturing Development Phase | Production & Deployment Phase | Operations & Support Phase

MDD | MS A | MS B | Post-CDR A | MS C | FRP DR

Integrated System Design | System Capability & Manufacturing Process Demonstration | Low-Rate Initial Production | Full-Rate Production/Deployment | Life Cycle Sustainment | Disposal

Initial Operational Capability (IOC) | Full Operational Capability (FOC)

Joint Capabilities Integration & Development System (need-driven)

Initiate Evolutionary Acquisition Strategy | Evolutionary Acquisition Strategy

Oversight & Review

Contracting

Major Products

Logistics/ Sustainment

Defense Acquisition System (event-driven)

Technical

Financial Management

Cost Estimation Methods

Types of Funds

Planning, Programming, Budgeting & Execution Process (annual-calendar-driven)

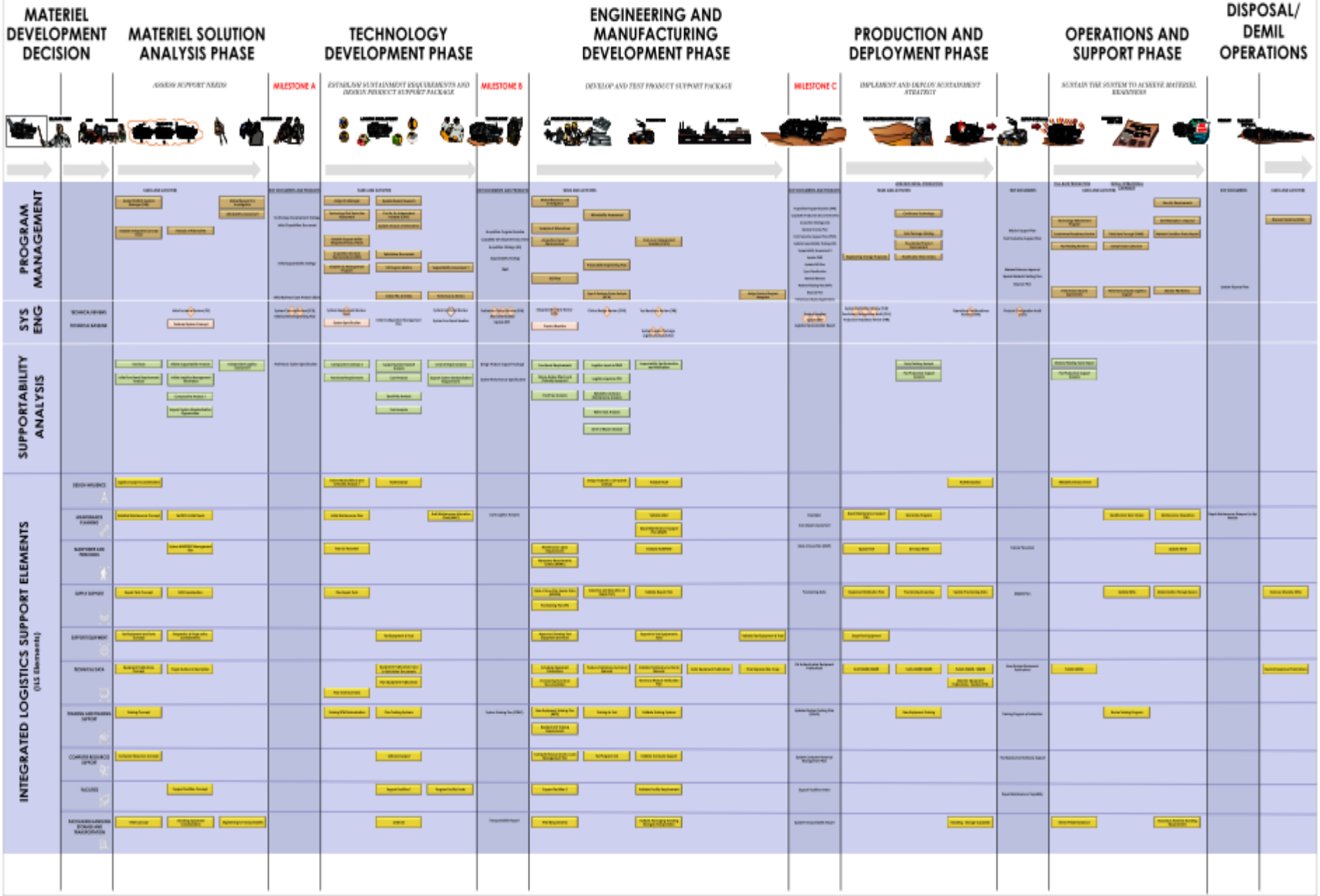
Military Departments and Defense Agencies

Office of the Secretary of Defense and Joint Staff

White House

Appropriated Funds To Support Contracts

LIFE CYCLE LOGISTICS CHART

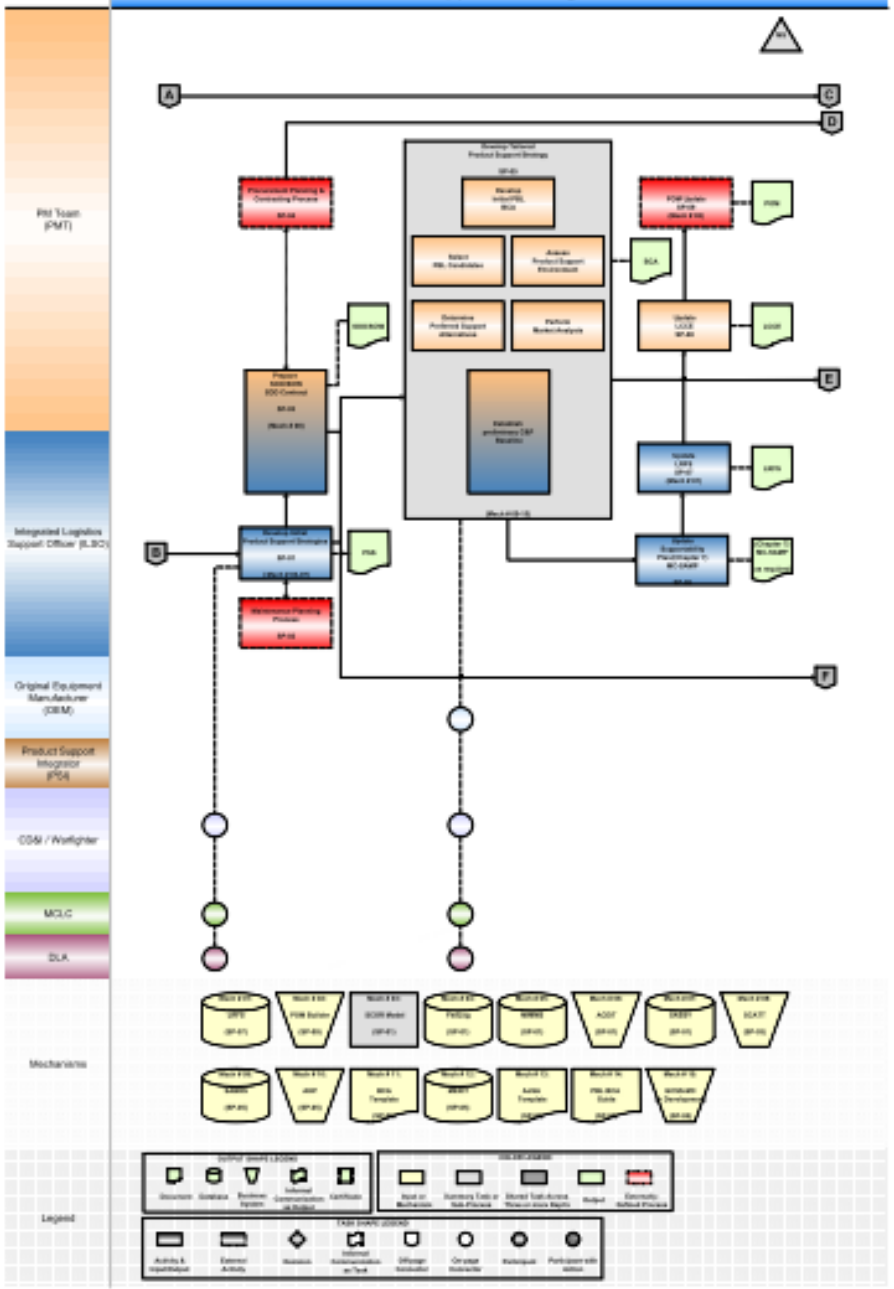


DRAFT

Performance Based Logistics (PBL)

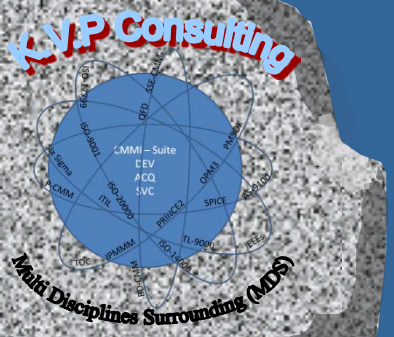
DRAFT

Support Planning



POC: Mr. Randall Shockey, MCSC ACLOG


PROGRAMS
COUNTERMEASURES
Non-Lethal Weapons
Nuclear
Chem/Bio Weapons
LO/CLO
Special Access Programs
Information Technology
Space
Personnel Security
Industrial Security
Operations Security
Physical Security
Critical Infrastructure
Information Security
Foreign Disclosure
Electronic/Command & Control Warfare
Information Assurance
Transportation Mgmt
Emanations Security
Supplier Assurance
Anti-Tamper
Example of Safety & Security
Required Standards
ABOUT THIS CHART
This chart organizes acquisition security policies and guidance by purpose and Office of Primary Responsibility (see Color Key). It is intended to show all policies an acquisition program may need to comply with and direct them to the full text.
Policies that cross categories apply to both categories. No meaning is intended by the organization of the categories.
In the electronic version available on the DDR&E/SE website (http://www.acq.osd.mil/sse/), each policy is hyperlinked to its full text online. To use the hyperlink, simply click on the policy.
For printing, the print version is best viewed on 22"x17" (Size C) paper.

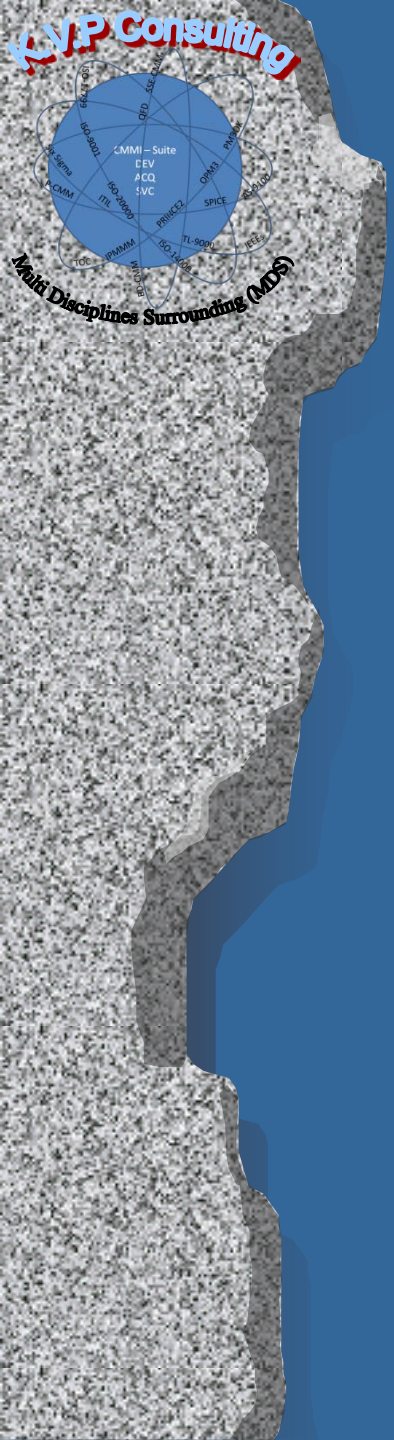


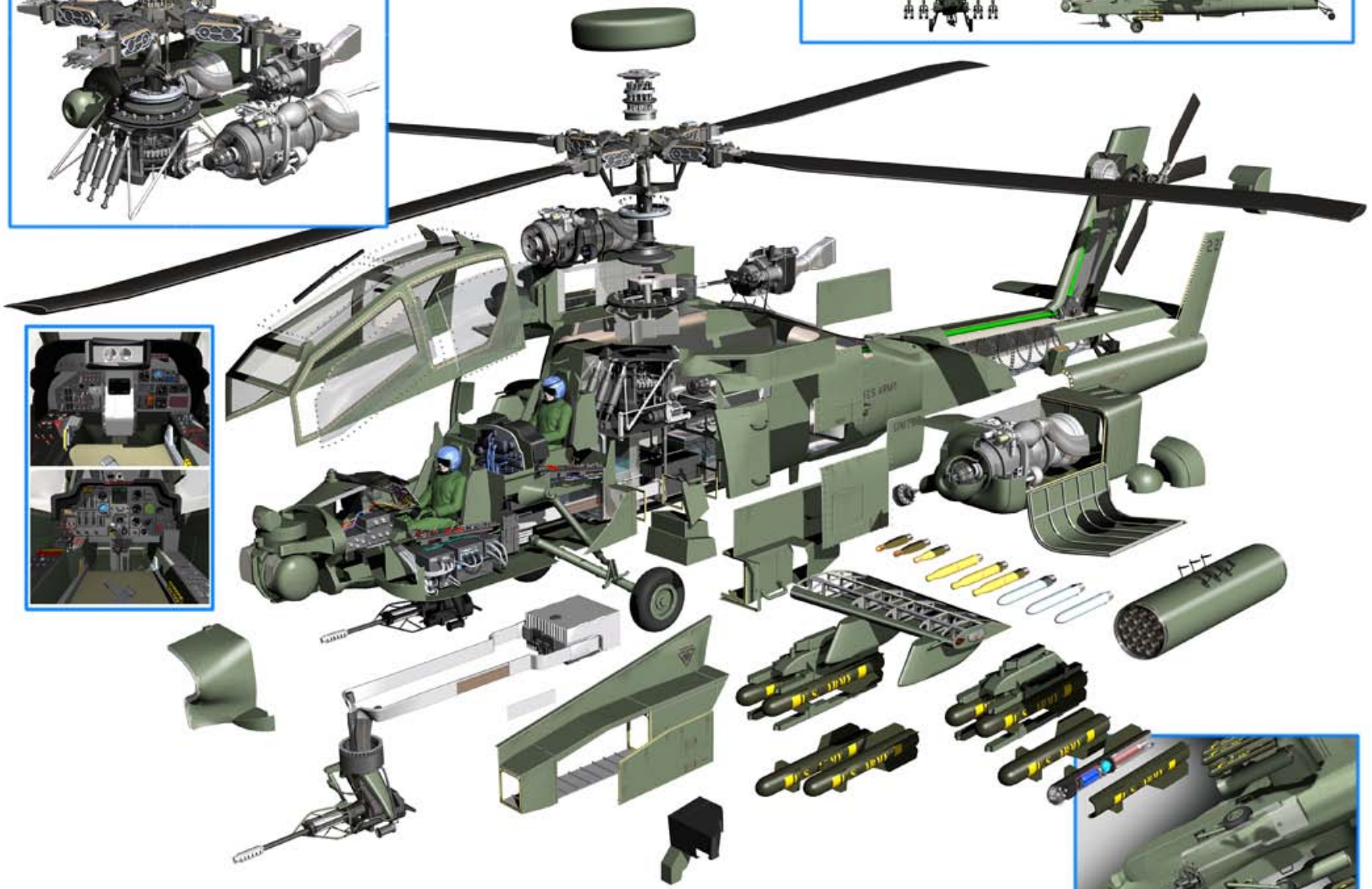
The Theory in the Models is Nice

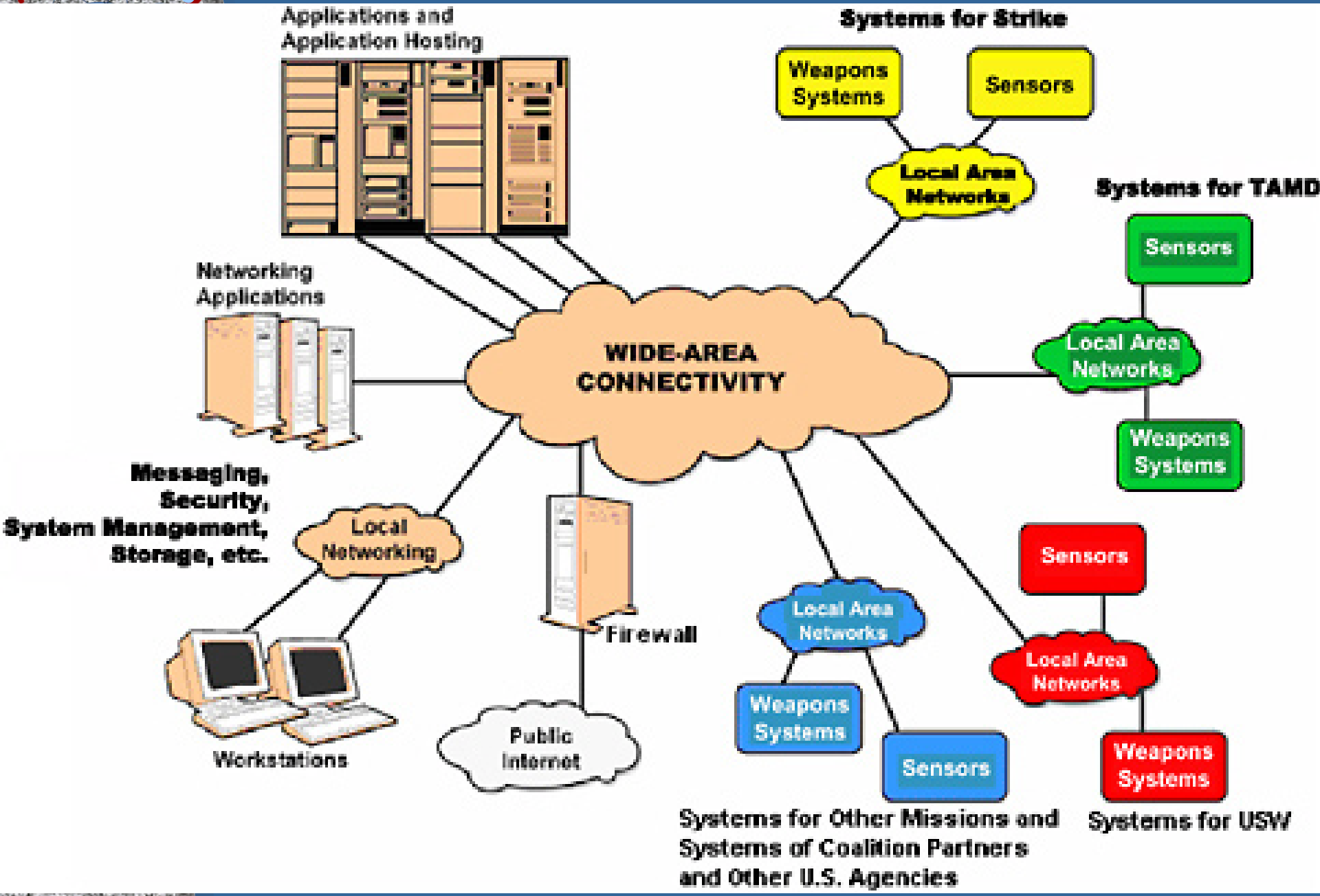
However

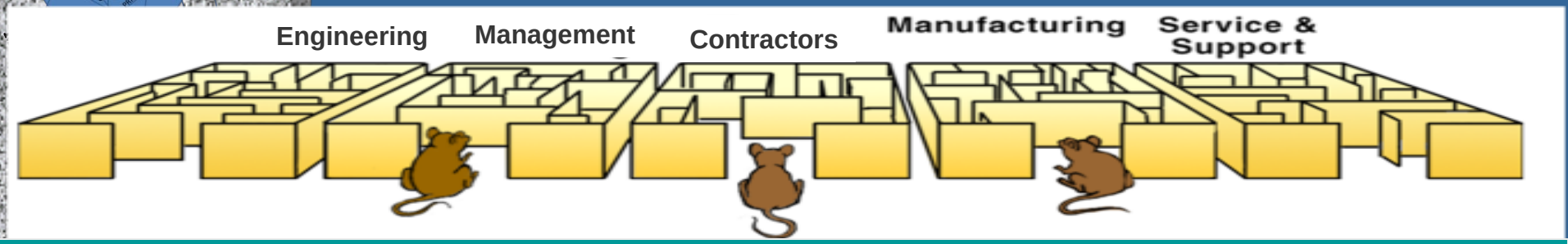
Real Life is More Complicated

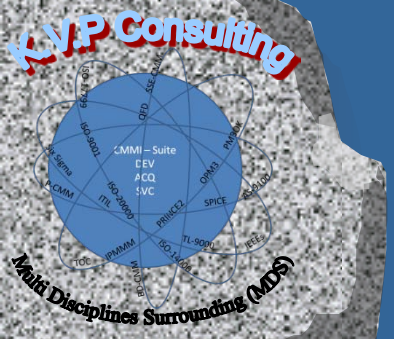
Much More


V.P Consulting
CMMI – Suite
DEV
ACQ
SVC
Multi Disciplines Surrounding (MDS)



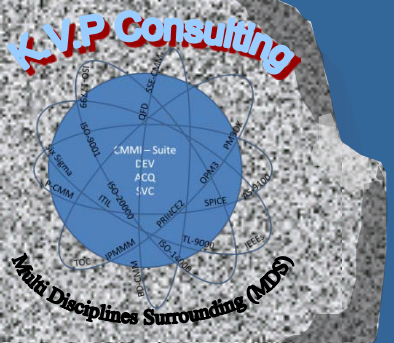

Applications and
Application Hosting
Systems for Strike
Weapons Systems
Sensors
Local Area Networks
Systems for TAMD
Sensors
Local Area Networks
Weapons Systems
Networking Applications
WIDE-AREA CONNECTIVITY
Messaging, Security, System Management, Storage, etc.
Local Networking
Workstations
Firewall
Public Internet
Local Area Networks
Weapons Systems
Sensors
Sensors
Local Area Networks
Weapons Systems
Systems for Other Missions and Systems of Coalition Partners and Other U.S. Agencies
Systems for USW


Engineering
Management
Contractors
Manufacturing
Service &
Support



The Case Study Organization

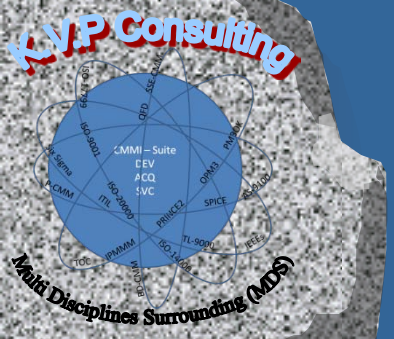
- Government Agency
- Structure and Size
  - 6 Senior Managers
  - ~250 Project / Program Managers (running ~450 tasks / projects per year)
  - ~900 In-house Development, Service and Maintenance Personal
  - ~2000 External Contractors
  - Internal R&D Team
  - Internal Reliability and Performance Team
  - Internal maintenance and support units
  - Internal manufacturing and assembly units



Common Failures - 1

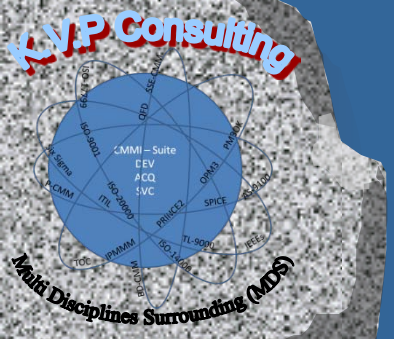
Organizational risk events are predominantly managerial, not technical.

- Lack of defining business objectives in quantitative terms and structure
- Inadequate definition of 'Good Enough' level
- Inability to differentiate different business objectives and success factors for the different domains and lifecycle phases
- Inadequate resource usage and adjustment to Plan and Objectives
- Failure to identify and manage risks
- Poor or mismanaged service / operational requirements
- Uncontrolled baselines, no configuration management
- Misunderstood business / operational needs and objectives



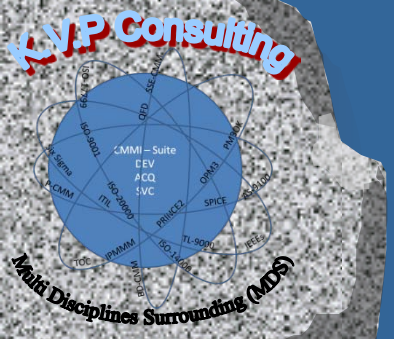
Common Failures - 2

- Poor contractor acquisition or management
- Lack of skills, capability and training
- Poor planning and tracking
  - Value Stream
  - Equipment
  - Resources
  - Finance
- Poor / misuse of data and measurements
- Inability to estimate accurately
- No quality assurance / control
- Poor communications



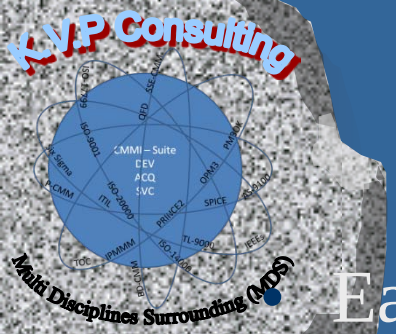
The Operational Need

- Management capability level from both professional and knowledge level
- Performance and reporting norms
- Self management and self discipline maintaining personal professional and knowledge capabilities
- Individual and team discipline
- Cooperation and knowledge and resource sharing
- Appropriate visibility of information, data and capabilities
- Quality of readiness and preparedness for performing mission



The Operational Need

- Centralized resource management and appropriate utilization and usage of it
- Multidimensional management (future planning, unit strategy, short term objectives, the immediate objectives)
- Initiating, developing and implementation management of new processes and technologies
- Balanced planning and deploying new processes and tools improvements and new technologies in a measured way that will quantify the improvement vs. expectations
- Information, data and communication security



The Operational Need

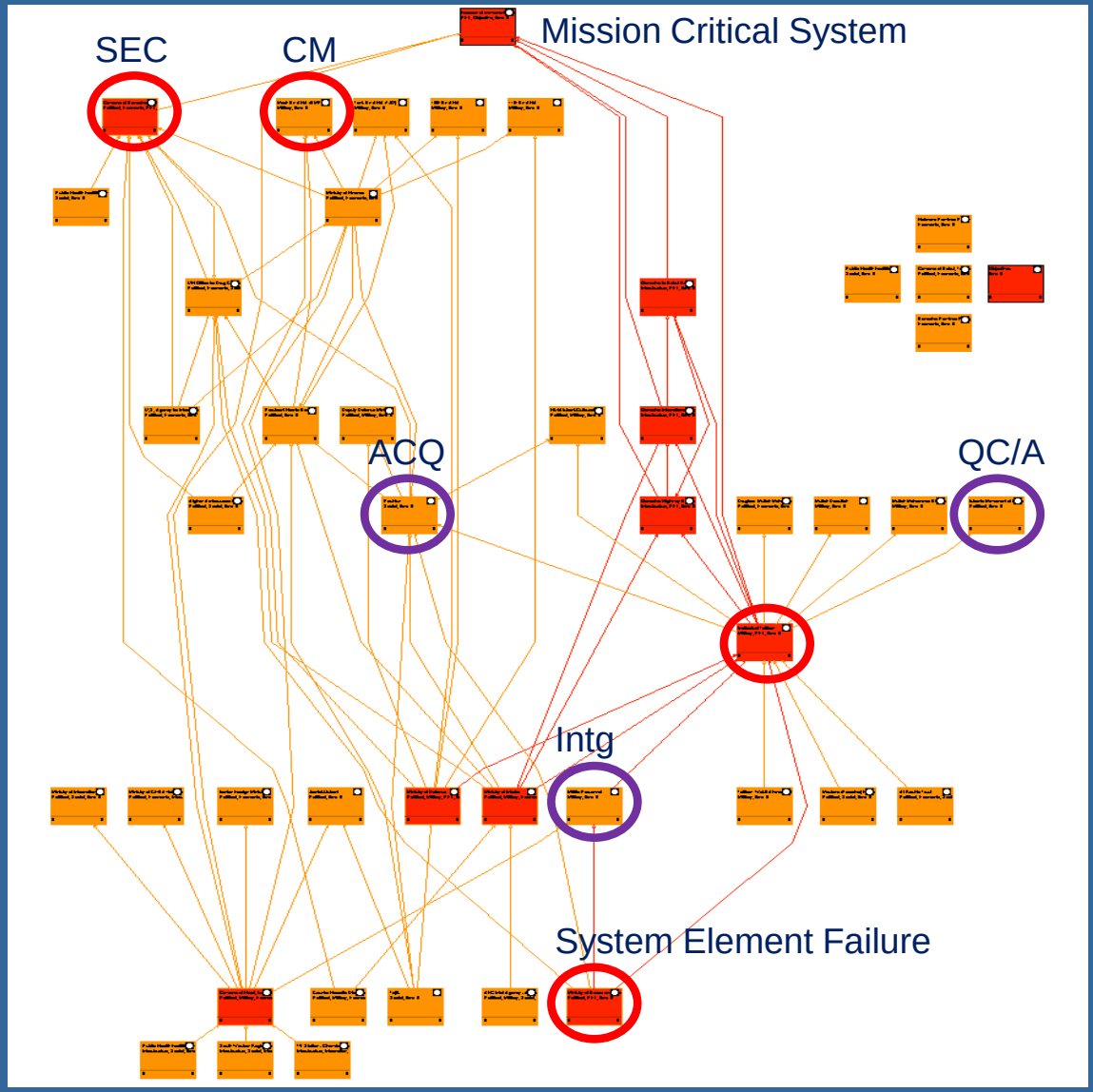
Each person working in the implementation organization will need to do the following:

- Access the processes descriptions
- Understand the lifecycle at a top level
- Understand in detail of the processes that he or she performs

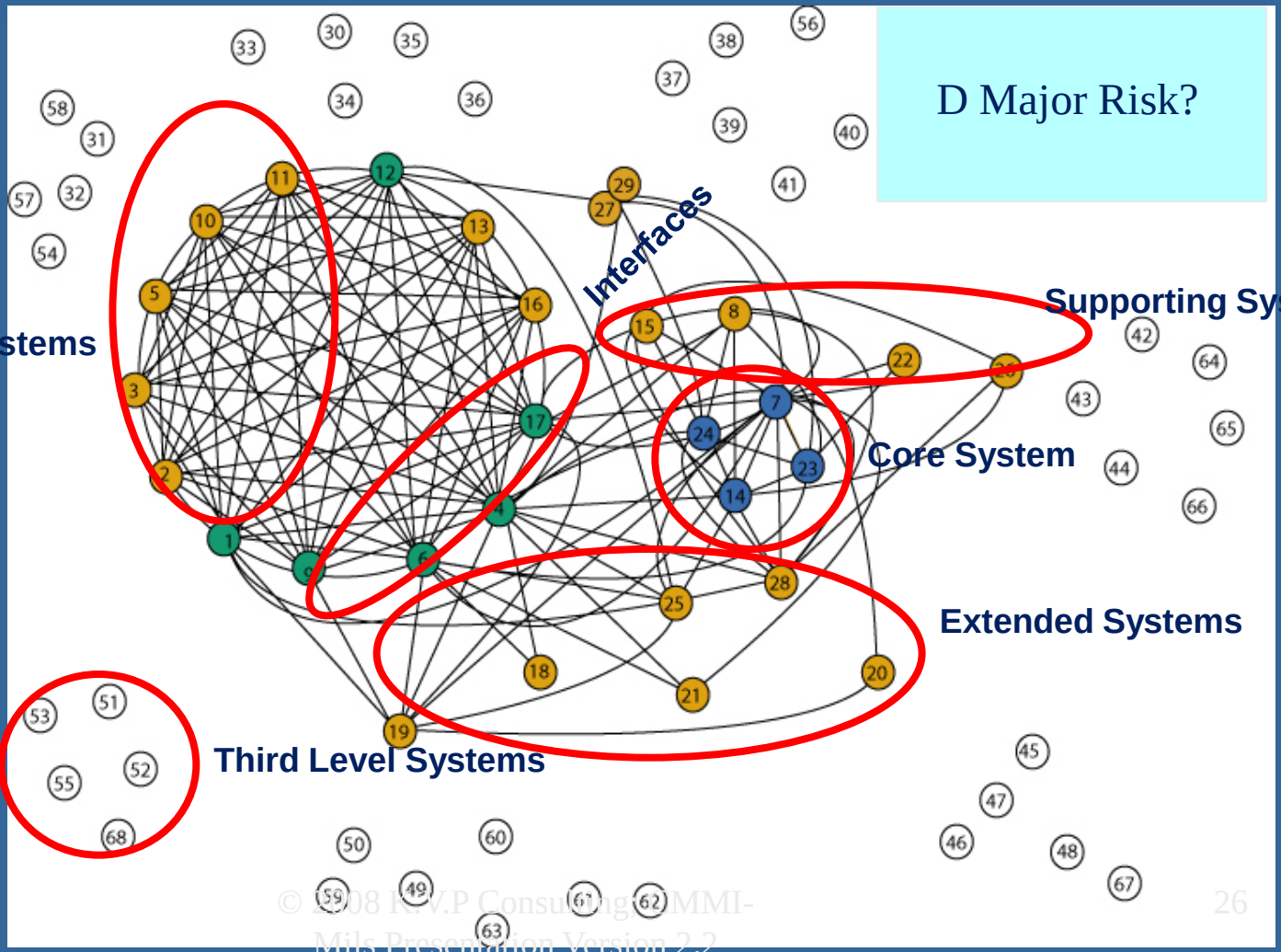
In addition, managers must do the following:

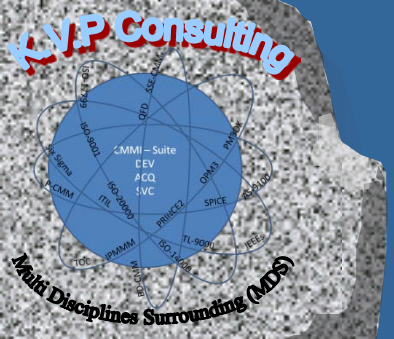
- Understand the lifecycle at a top level
- Understand the leadership change management expectations in detail
- Understand how to lead the unit using the new processes
- Access historical measurement data for all processes and product versions performance
- Support implementation of new processes in their own surroundings
- Remove roadblocks to implementation

A Complex Effects-based Environment



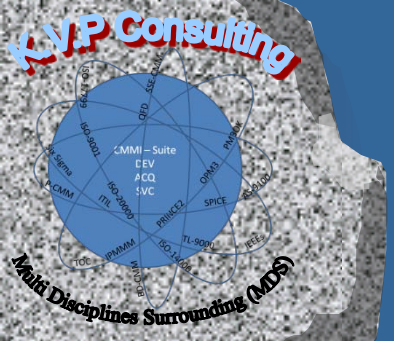
Military Combat Services Support Challenges in the Battlefield C4ISR Systems





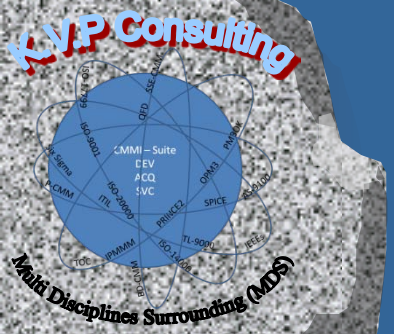
The Approach to the Solution Concept

- Best practices in the model focus on activities for providing quality services to the customer and end users
- To identify improvement targets in main lifecycle areas such as operations, information, governance, people and organizational structure, portfolios, project execution, and finance
- Select processes that are critical to the system success such as stakeholder management, technical interfaces and integration



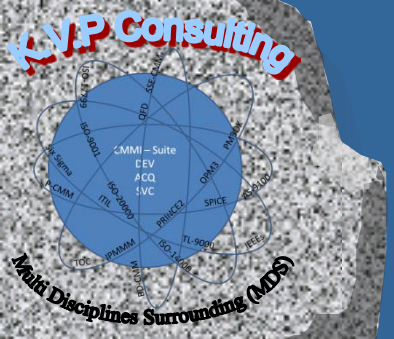
The Approach to the Solution Concept

- Build an action plan composed from the following main steps
  - Organizational map
  - Functional team and groups size and role in the lifecycle
  - Full lifecycle map
  - Setting improvement targets
  - Gap analysis
- Suggesting to the senior management to address the lifecycle and process (as a whole) as a complex of crossing interfaces and to add additional content to the lifecycle map (as a layer)



The Conceptual Solution

- Building on contingency theory, it outlines a comprehensive framework suggesting a fit between the level of Mission interoperability and environmental as well as internal contingencies.
- Moving from the current environment of basic process and way of thinking toward a more controlled and measured process to reduce the overwhelming amount of information that build decisions



The Conceptual Solution

- We have found that Maturity Models and practices combined with some other industry standards and methods as a new integrated approach can be used as tools to leverage procedures to support the lifecycles and the organizational business objectives and capability, readiness and preparedness to achieve improvement and excellence.

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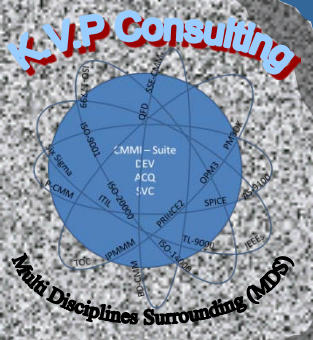
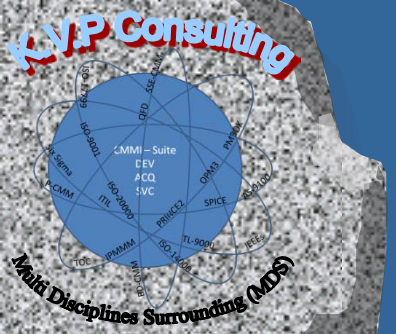


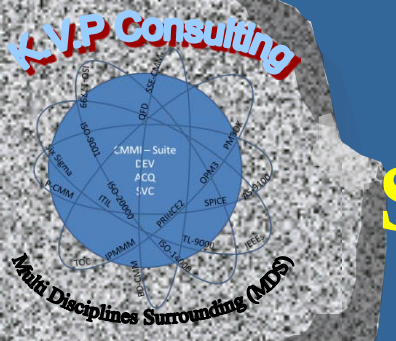
The Proposed Solution Concept

- Using the CMMI-SVC as an overall umbrella, to:
  - Increase results and effectiveness
  - Reduce quality related activities costs by reducing overlaps and choosing the appropriate parts only as part of the ‘whole’
  - Reduce administration costs by improving the ability to manage the lifecycle network
  - Converged working network helps businesses to save procurement costs of infrastructure



Process Improvement Effort Objectives

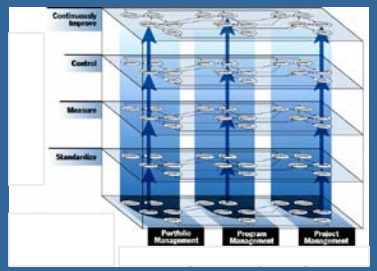
- Group Target is Process Improvement:
  - Increase Processes Efficiency
  - Increase Budget utilization
  - Reduce Cost of Poor Quality
  - Increase Uniformity in Processes
- Leading Standards to Compliance with
  - Internal Quality Standard
  - EFQM
  - CMMI Suite



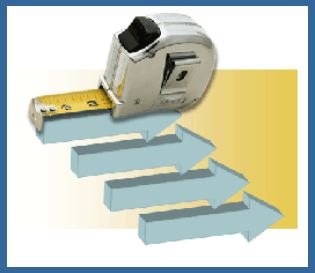
Supporting Quality Standards Scope

- All Groups
  - Smart Grid
  - ISO 25999
- ACQ PMs / PMO
  - PMBOK
  - DoD 5000.01 & 5000.02
- Maintenance and Service
  - MIL-STDs
  - ISO 14000
  - OHAS 18000

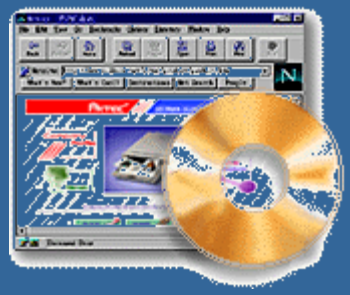
Supporting Quality Standards Mapping



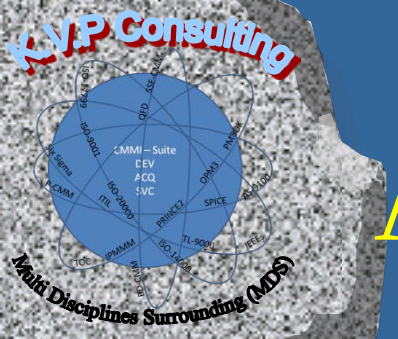
SGMM



Tool



Slides



Additional Standards Elements

(applied internally and to contractors)

- ISO 9001-2008 = 216
- OHSAS 18001 = 132
- ISO 27001 = 126
- ISO 27002 = 134
- ISO 14001 = 139
- PMBOK 3rd = 804
- OPM3 = 1402
- DoD-AF V2 = 40
- ISO 20000 = 196
- ITIL V2.0 = 741
- Six Sigma = 148
- MIL-STDs = 127
- EFQM = 804

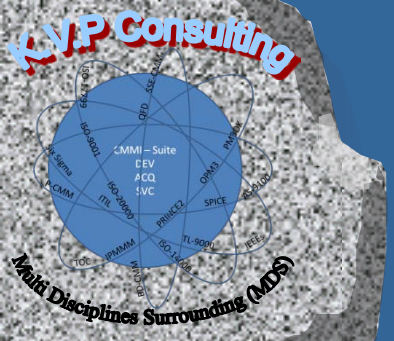
Total of

5009

‘Additional’ Elements

IS IT?

- Not Counted
  - Domain Specific Regulations
  - LEAN
  - SOA-MM



Some Mapping Examples

Six Sigma Correlation Snapshot

14 out are covered

DEFINE

MEASURE

ANALYZE

IMPROVE

CONTROL

REQM SSD ORP DAR RSKM

CAM CT QPM M&A IRP

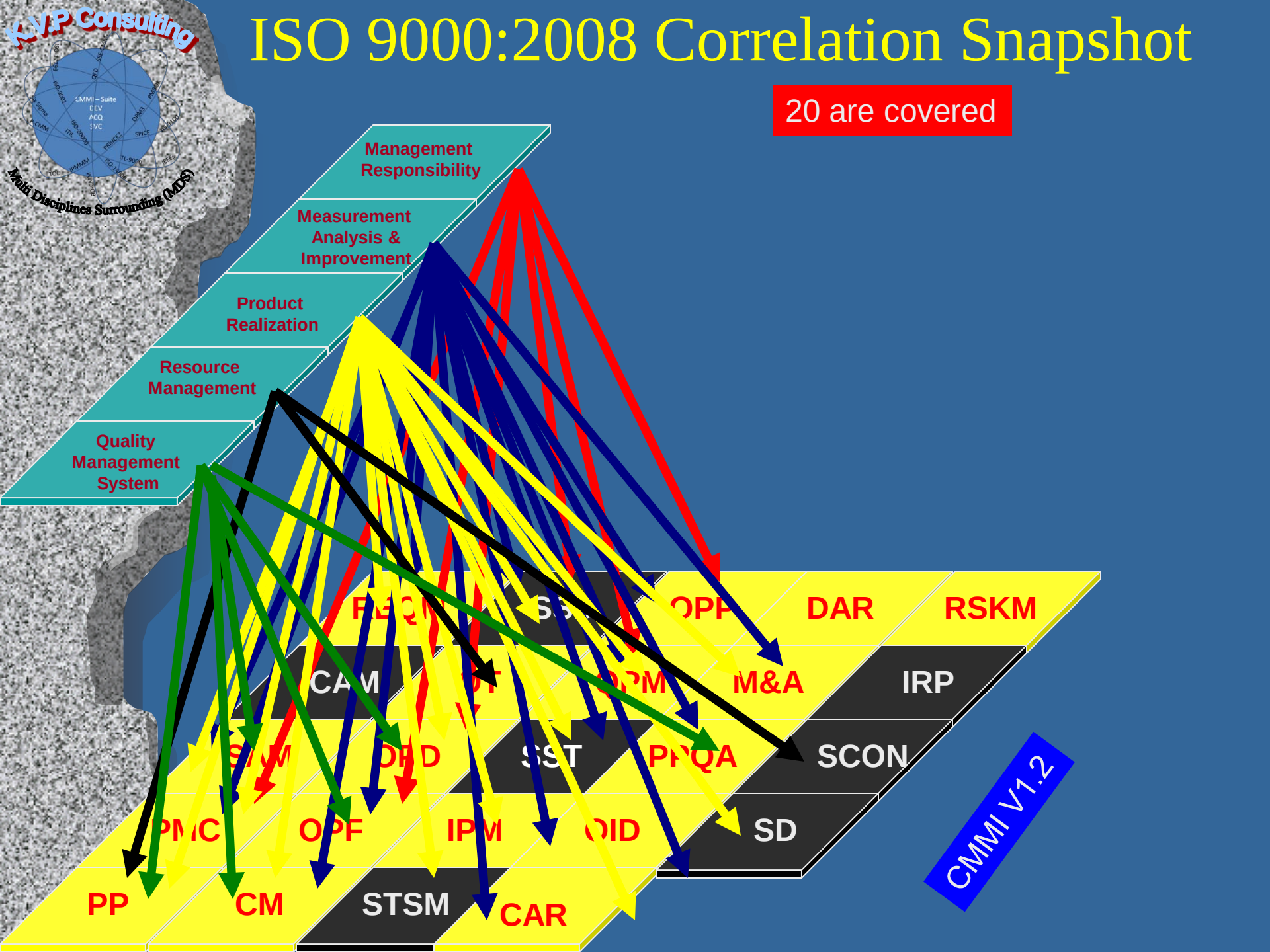
SAM OPD SST PPQA SCON

PMC OPF IPM OID SD

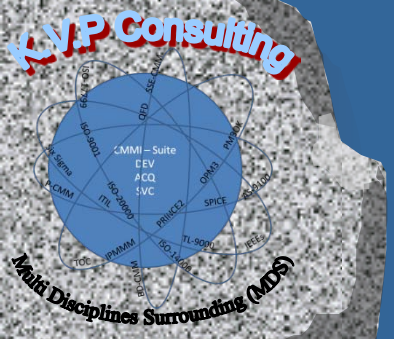
PP CM STSM CAR

CMMI V1.2

ISO 9000:2008 Correlation Snapshot



ITIL – CMMI Correlation Snapshot



Service Delivery

Financial Management for IT Services

Capacity Management

IT Service Continuity Management

Availability Management

Service Level Management

REQM

SSD

OPP

DAR

RSKM

CAM

OT

QPM

M&A

IRP

SAM

OPD

SST

PPQA

SCON

PMC

OPF

IPM

OID

SD

PP

CM

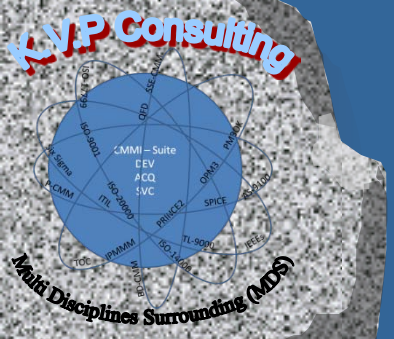
STSM

CAR

CMMI V1.2

ITIL – CMMI Correlation Snapshot

Service Support



The Service Desk

Incident Management

Problem Management

Configuration Management

Change Management

Release Management

EQM

SSD

OPF

DAR

RSKM

CAM

OT

QPM

M&A

IRP

SAM

OPD

SST

PPQA

SCON

PMC

CPE

IPM

OID

PP

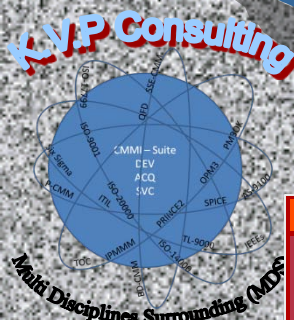
CM

STSM

CAR

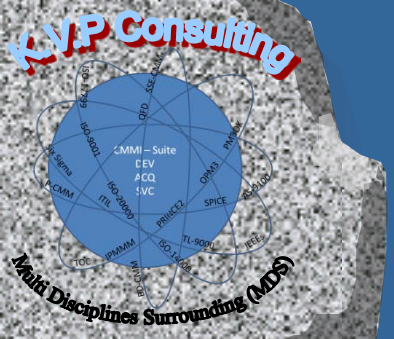
CMMI V1.2

CMMI Harmonization Process Tool



First Level Filtering (PA Level)

DEV	ACQ	SVC
Project Planning	Project Planning	Project Planning
Project Monitoring and Control	Project Monitoring and Control	Project Monitoring and Control
Process and Product Quality Assurance	Process and Product Quality Assurance	Process and Product Quality Assurance
Requirements Management	Requirements Management	Requirements Management
Configuration Management	Configuration Management	Configuration Management
Measurement and Analysis	Measurement and Analysis	Measurement and Analysis
Organizational Process Definition +IPPD	Organizational Process Definition	Organizational Process Definition
Organizational Process Focus	Organizational Process Focus	Organizational Process Focus
Organizational Training	Organizational Training	Organizational Training
Decision Analysis and Resolution	Decision Analysis and Resolution	Decision Analysis and Resolution
Integrated Project Management +IPPD	Integrated Project Management	Integrated Project Management
Risk Management	Risk Management	Risk Management
Quantitative Project Management	Quantitative Project Management	Quantitative Project Management
Organizational Process Performance	Organizational Process Performance	Organizational Process Performance
Causal Analysis and Resolution	Causal Analysis and Resolution	Causal Analysis and Resolution
Organizational Innovation and Deployment	Organizational Innovation and Deployment	Organizational Innovation and Deployment
Supplier Agreement Management		Supplier Agreement Management
Requirements Development	Acquisition Requirements Development	
Validation	Acquisition Validation	
Verification	Acquisition Verification	
Technical Solution	Solicitation and Supplier Agreement Development	Capacity and Availability Management
Product Integration	Agreement Management	Incident Resolution and Prevention
	Acquisition Technical Management	Service Continuity
		Service Delivery
		Service System Development
		Service System Transition
		Strategic Service Management



The Most Effective Practices to Ensure Contractors Qualification and Quality

Based on ~1600 tasks and projects analysis

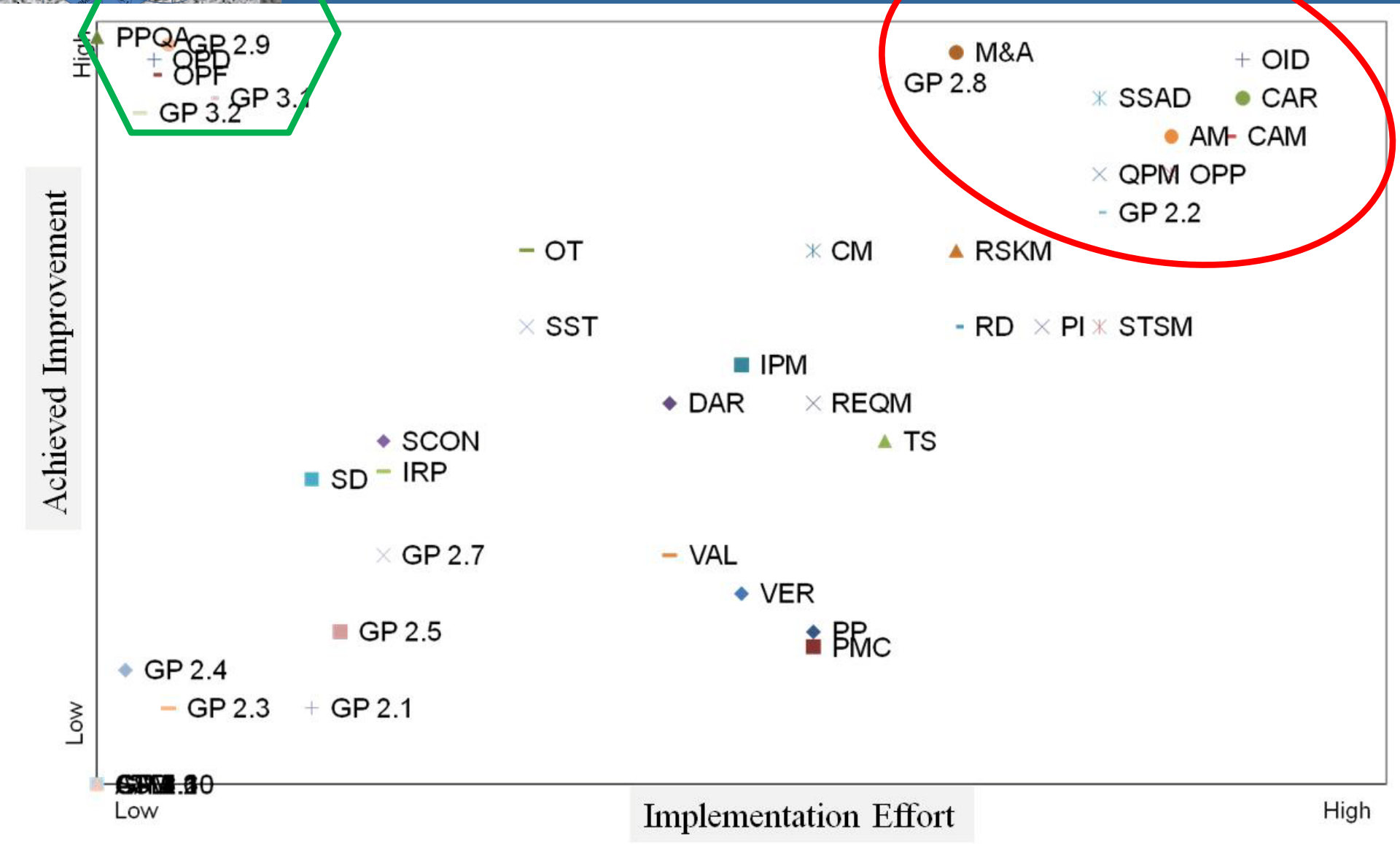
and

Presented with practical usage and implementation tips

Improvement vs. Implementation

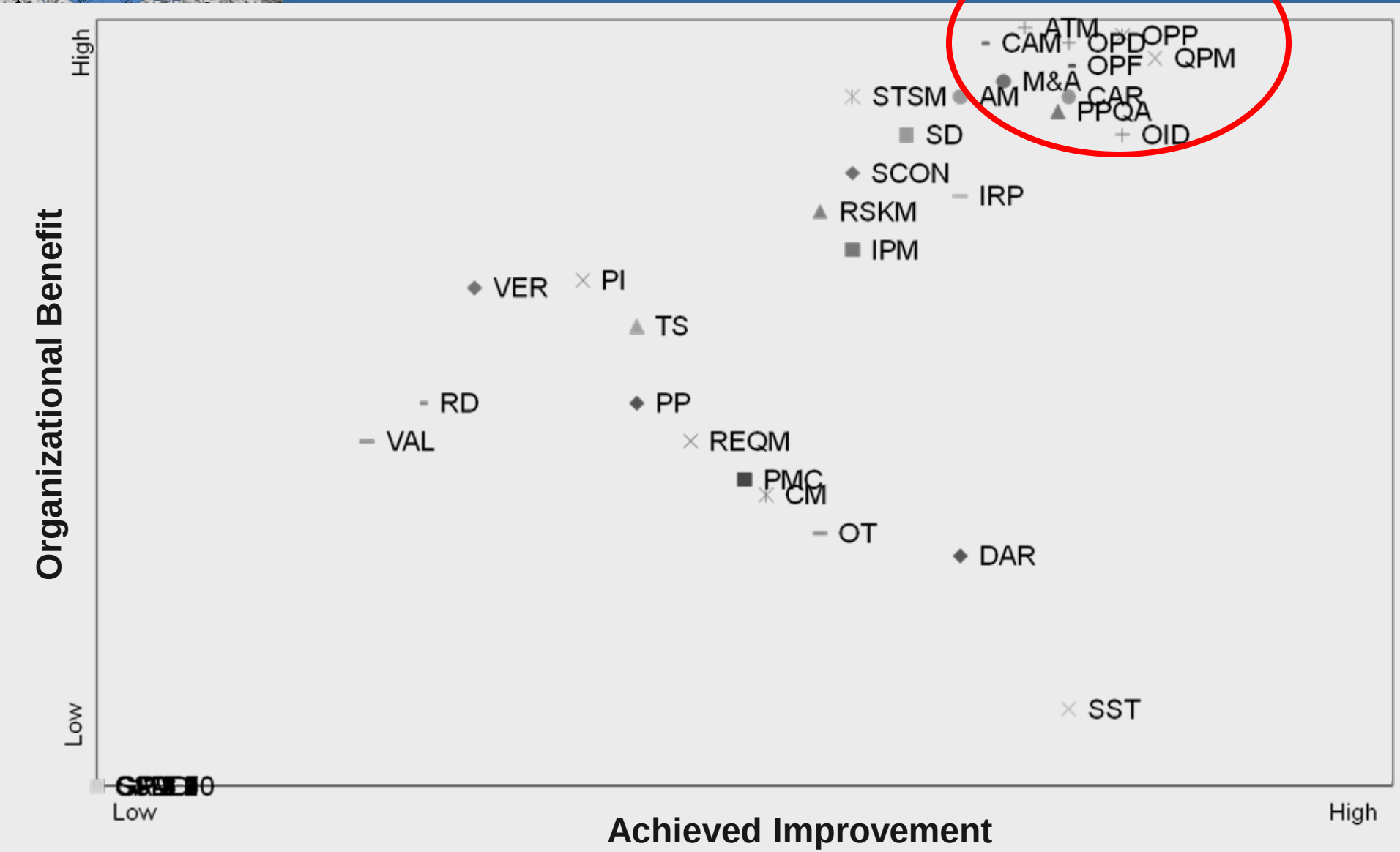
Process Improvements

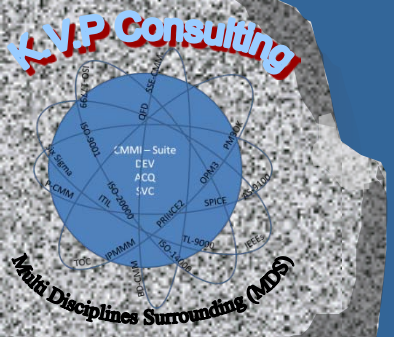
ROI



Improvement vs. Benefit

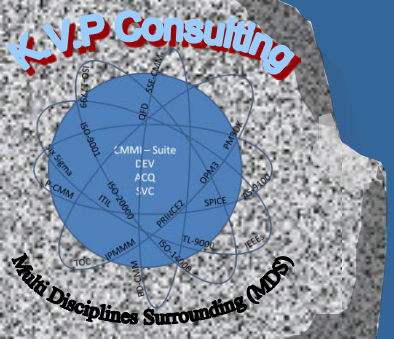
Add Value





Some of Our Suggestions

Don’t try this at Home without adult helping you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Questions