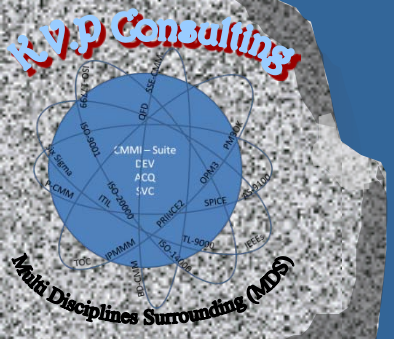
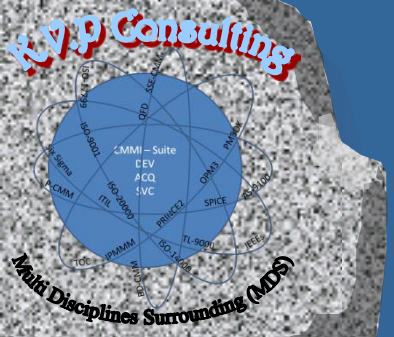


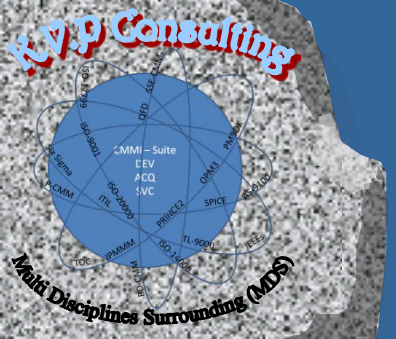
Leveraging Your Service Quality Using ITIL V3, ISO 20000 and CMMI-SVC

Monday Half-Day Tutorial



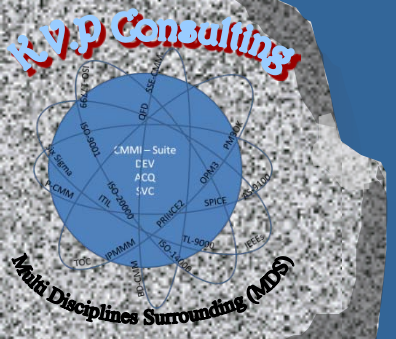
Definitions

- Service - Employment in duties or work for another



The Challenge

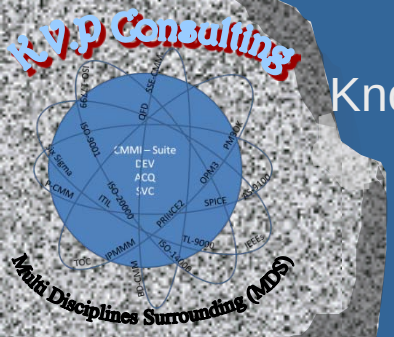
- This situation where organization is running a system lifecycle a matrix with internal or external contractors = service providers, with
  - separate quality management systems and with compliance to different standards (e.g. AS9100c) and qualification (e.g. MIL-STD 217) on different parts of the system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



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.


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.



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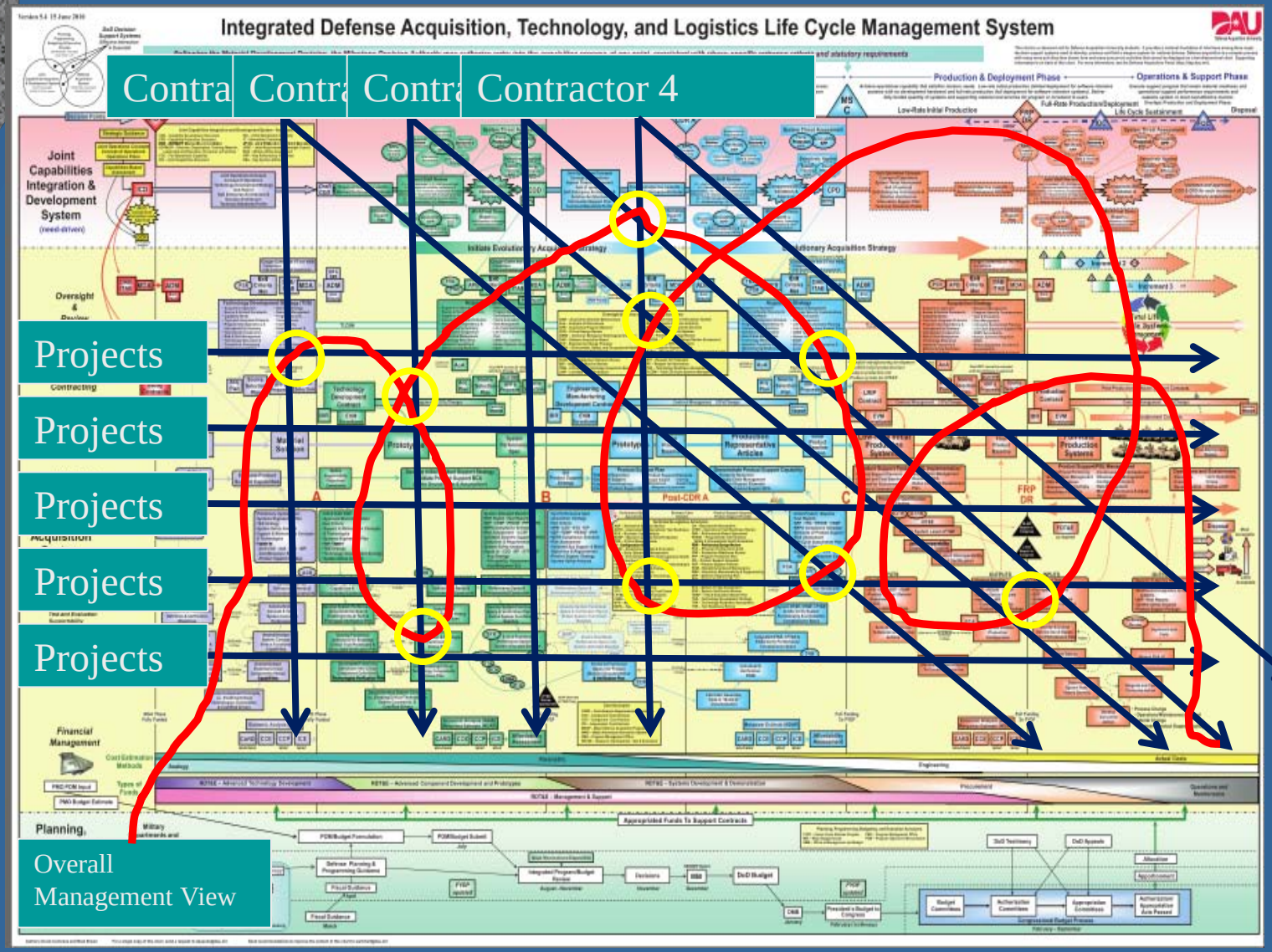
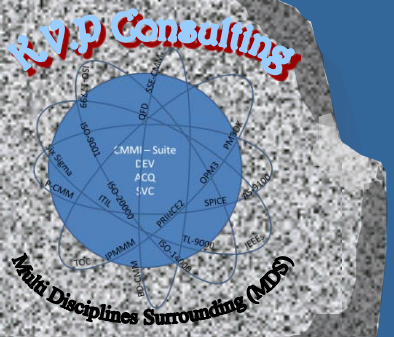
The Lifecycle Challenge





The Theory in the Models is Nice

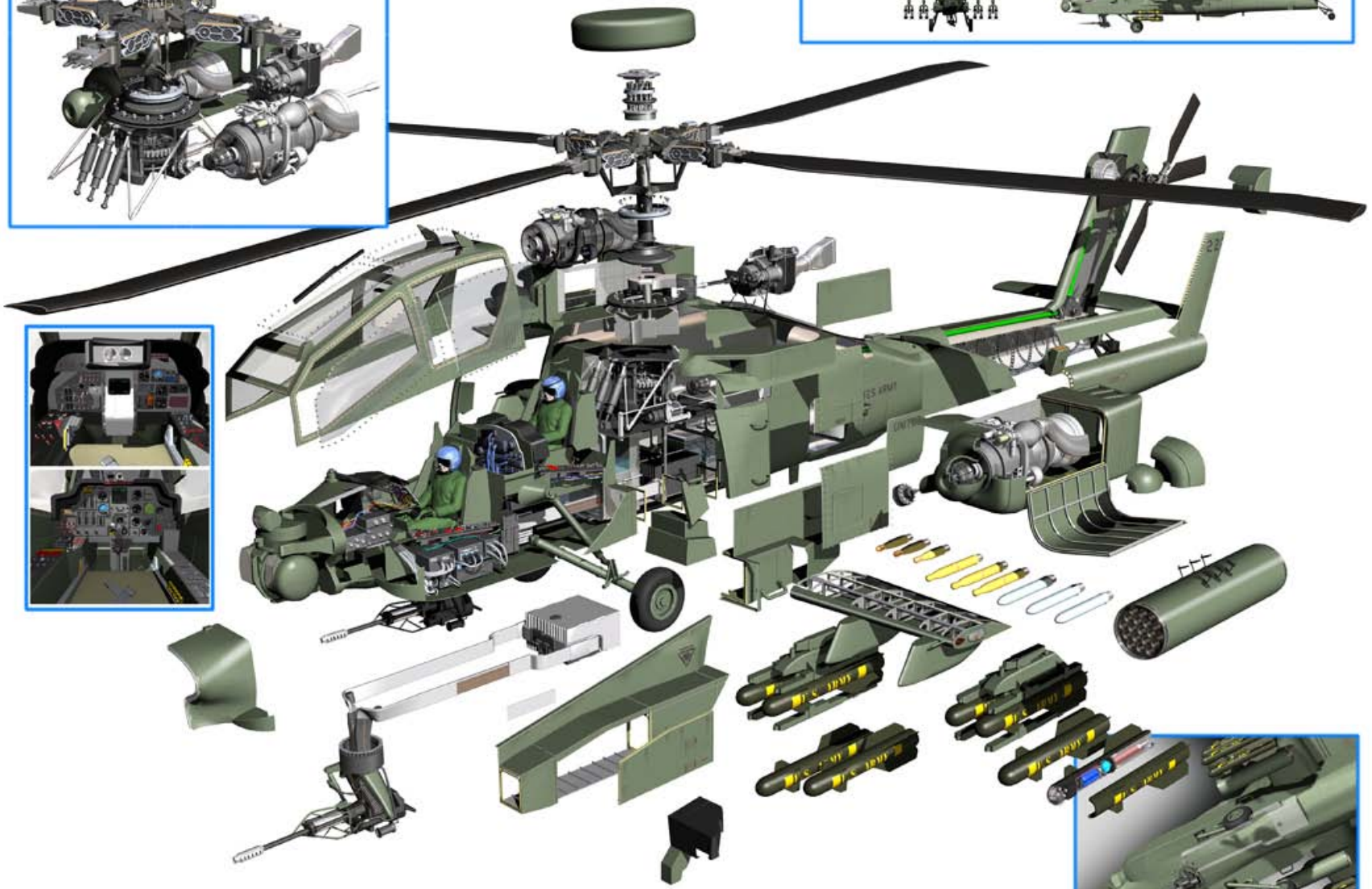
However

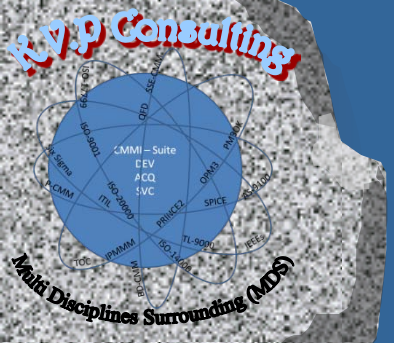
Real Life is More Complicated

Much More

R.V.P Consulting

Multi Disciplines Surrounding (MDS)

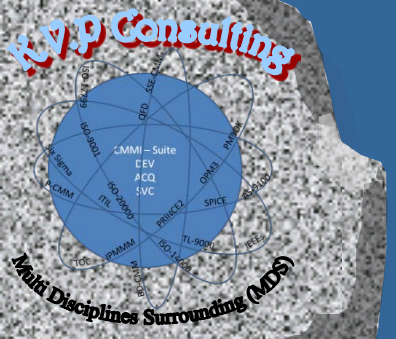




Common Failures - 1

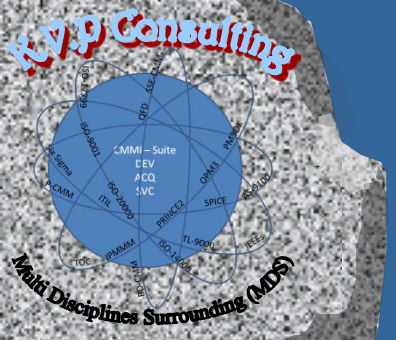
Organizational risk events are predominantly managerial, not technical.

- 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



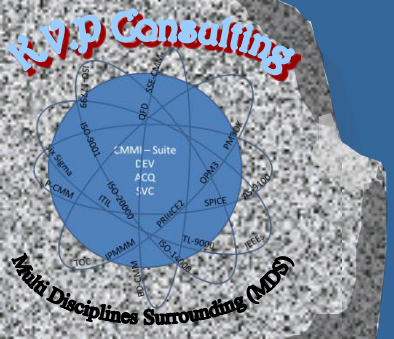
Common Failures - 2

- 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



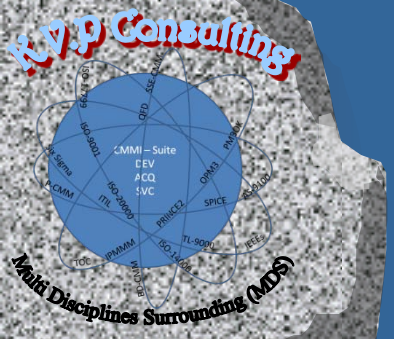
The Operational Need

- 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 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

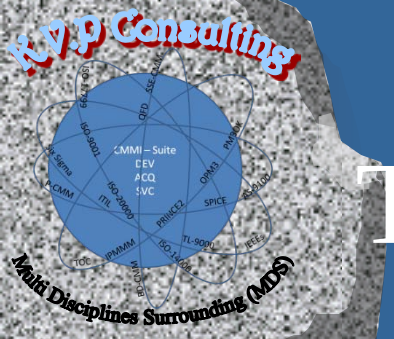


The Approach to the Solution Concept

- 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)

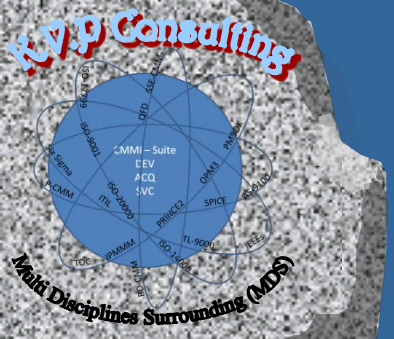
The Conceptual Solution

- 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



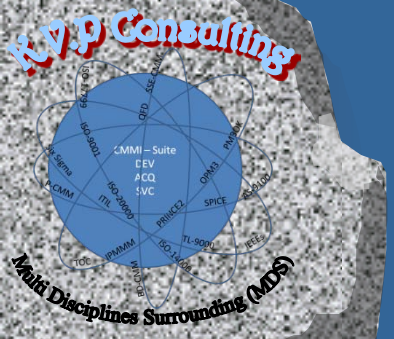
The Proposed Solution Concept

- 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

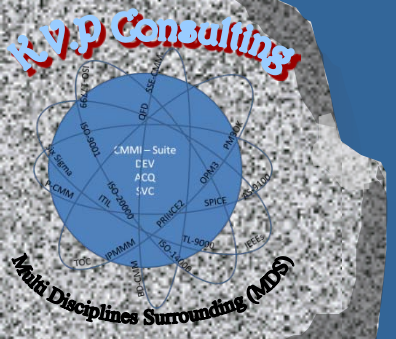


Process Improvement Effort Objectives

- 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
  - ITIL
  - ISO 20000
  - ISO 25999

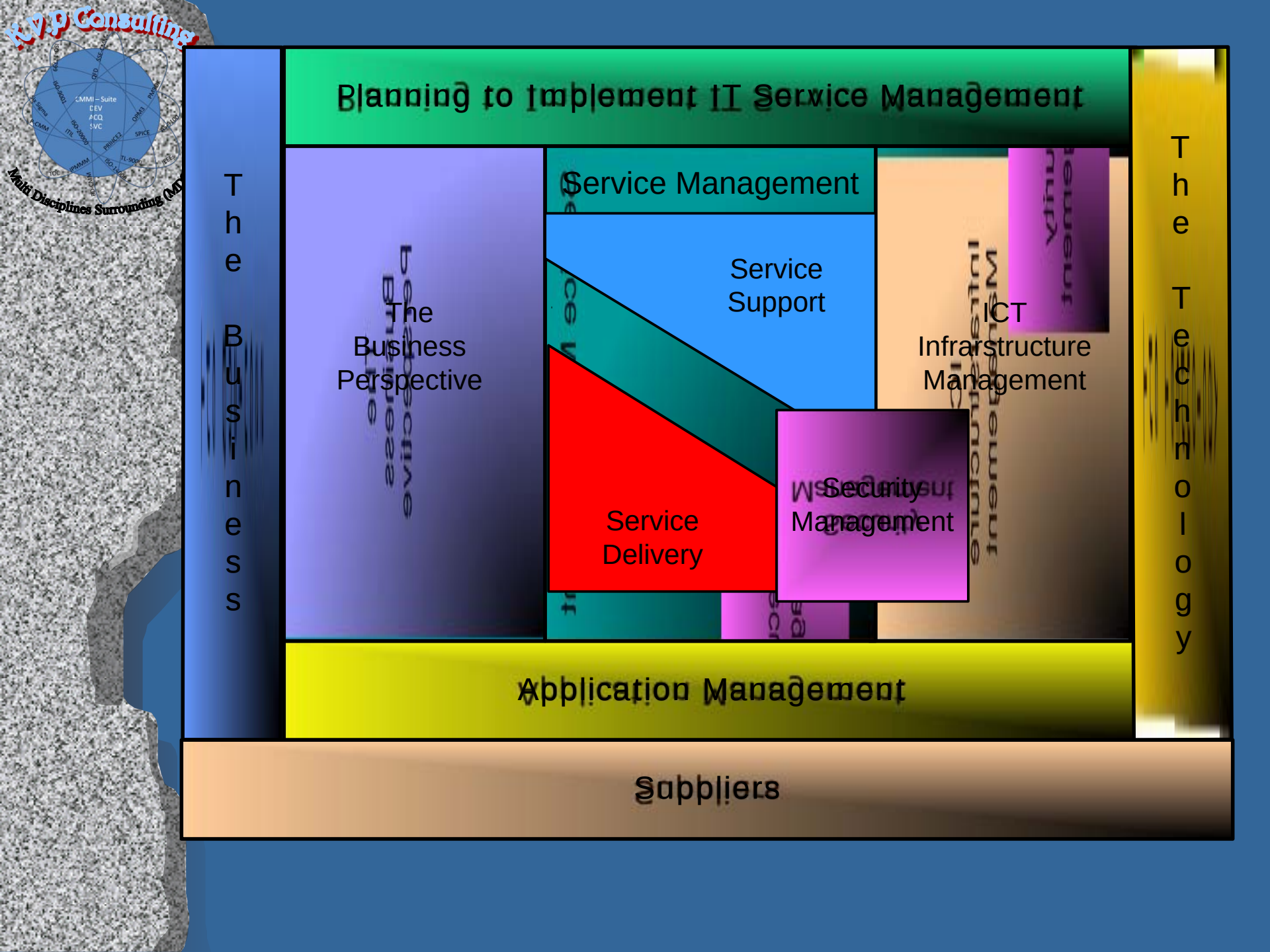


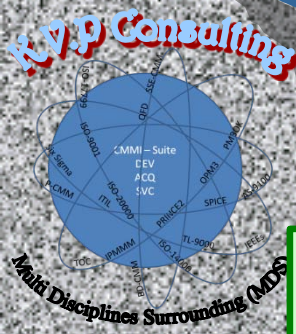
Mapping Sample



IT Infrastructure Library - ITIL

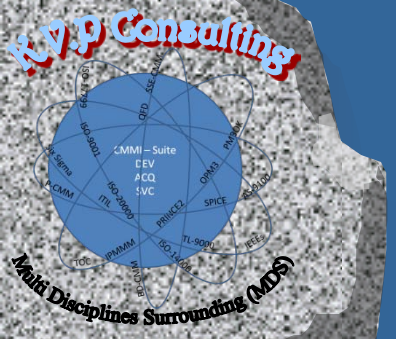
- Is “best practice” in IT Service Management, developed by OGC and supported by publications, qualifications and an international user group
- Assist organizations to develop a framework for IT Service Management and to certify the service managers
- Worldwide, most widely used best practice for IT Service Management
- Consists of a series of Core books giving guidance on the provision of quality IT services


Planning to Implement IT Service Management
The Business
Service Management
The Business Perspective
Service Support
Service Delivery
Security Management
ICT Infrarstructure Management
The Technology
Application Management
Suppliers



ITIL Processes & Function

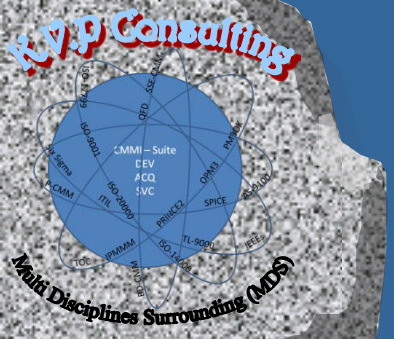
ITIL Processes	
Service Support	Service Delivery
Incident Management	Service Level Management
Problem Management	Availability Management
Change Management	Capacity Management
Release Management	IT Service Continuity Management
Configuration Management	Financial Management for IT Services
ITIL Functions	
Service Desk	



What is ISO 20000

ISO 20000 can be summarised as:

- A standard to promote the adoption of an integrated process approach for the effective delivery of managed services to meet business and customer requirements
- A set of “controls” against which an organization can be assessed for effective IT Service Management processes
- The ISO 20000 standard defines the requirements for an organization to deliver managed services of an acceptable quality for its customers



Structure of ISO 20000

The Standard is divided into two distinct parts:

- Part 1 - provides the requirements for IT service management to gain certification
- Part 2 - Code of Practice for Service Management
  - Provides guidance to internal auditors and assists service providers planning service improvements or preparing for audits against ISO 20000

ISO 20000 Processes

Management Systems	Management Responsibility, Documentation Requirements, Competences, Awareness & Training
Planning & Implementation	Plan, Implement, Monitor, Improve (Plan…. Do…. Check….. Act……)
Planning New Services	Planning & Implementing New or Changed Services

Service Delivery Processes

Capacity Management
Service Continuity & Availability Management

Service Level Management
Service Reporting

Information Security Management
Budgeting & Accounting for IT Services

Control Processes

Configuration Management
Change Management

Release Processes

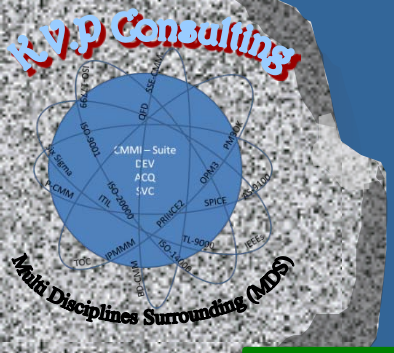
Release Management

Resolution Processes

Incident Management
Problem Management

Relationship Processes

Business Relationship Management
Supplier Management

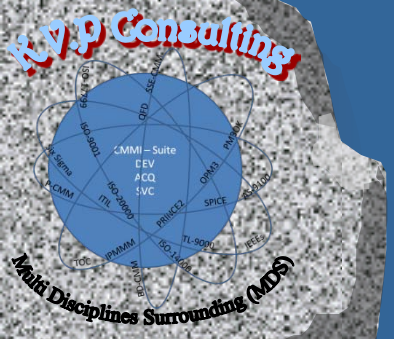


ITIL Service Support Processes & Functions

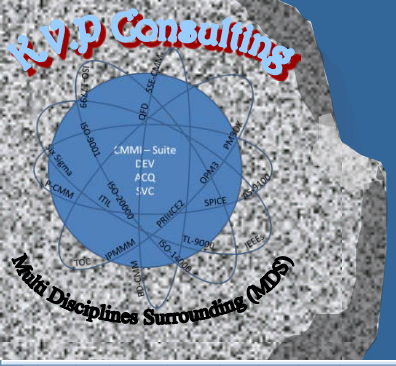
ISO 20000	ITIL
Resolution Processes	Incident Management
	Problem Management
Control Processes	Change Management
	Configuration Management
Release Process	Release Management
No formal Process	Service Desk

ITIL Service Delivery Processes

ISO 20000	ITIL
Service Level Management	Service Level Management
Service Reporting	
Business Relationship Management	
Supplier Management	
Service Continuity & Availability Management	IT Service Continuity Management
	Availability Management
Budgeting & Accounting for IT Services	Financial Management for IT Services
Capacity Management	Capacity Management
Information Security Management	No formal Process



CMMI Calibration Process



CMMI-SVC V 1.2

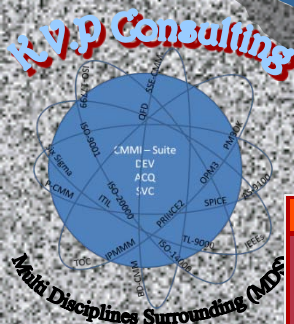
Con	Mat	Process	Process	Proc	SG N	SP N	Title
SVC	5	Process Man	Causal Anal CAR	Purpose			The purpose of Causal Analysis and Resolution (CAR) is to identify causes of defects and problems and take action to prevent them from occurring in the future
							Determine Causes of Defects and Problems
SVC	5	Process Man	Causal Anal CAR		1		Root causes of defects and problems are systematically determined
							Select Defects and Problems
SVC	5	Process Man	Causal Anal CAR		1	1.1	Select defects and problems for analysis
SVC	5	Process Man	Causal Anal CAR		1		1. Gather relevant defect and problem data
SVC	5	Process Man	Causal Anal CAR		1		2. Determine the defects and problems to be analyzed further
							Analyze Causes
SVC	5	Process Man	Causal Anal CAR		1	1.2	Perform causal analysis of selected defects and problems and propose actions to address them
SVC	5	Process Man	Causal Anal CAR		1	1.2	1. Conduct causal analysis with those responsible for performing the task
SVC	5	Process Man	Causal Anal CAR		1	1.2	2. Analyze selected defects and problems to determine their root causes
SVC	5	Process Man	Causal Anal CAR		1	1.2	3. Group selected defects and problems based on their root causes
SVC	5	Process Man	Causal Anal CAR		1	1.2	4. Propose and document actions to be taken to prevent the future occurrence of similar defects and problems
							Address Causes of Defects and Problems
SVC	5	Process Man	Causal Anal CAR		2		Root causes of defects and problems are systematically addressed to prevent their future occurrence
							Implement Action Proposals
SVC	5	Process Man	Causal Anal CAR		2	2.1	Implement selected action proposals developed in causal analysis
SVC	5	Process Man	Causal Anal CAR		2	2.1	1. Analyze action proposals and determine their priorities
SVC	5	Process Man	Causal Anal CAR		2	2.1	2. Select action proposals to be implemented
SVC	5	Process Man	Causal Anal CAR		2	2.1	3. Create action items for implementing the action proposals
SVC	5	Process Man	Causal Anal CAR		2	2.1	4. Identify and remove similar defects and problems that may exist in other processes and work products
SVC	5	Process Man	Causal Anal CAR		2	2.1	5. Identify and document improvement proposals for the organization's set of standard processes
							Evaluate the Effect of Changes
SVC	5	Process Man	Causal Anal CAR		2	2.2	Evaluate the effect of changes on process performance
SVC	5	Process Man	Causal Anal CAR		2	2.2	1. Measure the change in performance of the project's defined process or of subprocesses as appropriate
SVC	5	Process Man	Causal Anal CAR		2	2.2	2. Measure the capability of the project's defined process or of subprocesses as appropriate
							Record Data
SVC	5	Process Man	Causal Anal CAR		2	2.3	Record causal analysis and resolution data for use across the project and organization
SVC	2	Support	Configurati CM	Purpose			The purpose of Configuration Management (CM) is to establish and maintain the integrity of work products using configuration identification, configuration control, configuration status accounting, and configuration audits

CMMI-ACQ V 1.2

Con	Mat	Proc	Proc	Proc	SG N	SP Num	Title
ACQ	5	Sup	Cau	CAR			The purpose of Causal Analysis and Resolution (CAR) is to identify causes of defects and other problems and take action to prevent them from occurring in the future
							Determine Causes of Defects
ACQ	5	Sup	Cau	CAR	1	1	Root causes of defects and other problems are systematically determined
							Select Defect Data for Analysis
ACQ	5	Sup	Cau	CAR	1	1.1	Select defects and other problems for analysis
ACQ	5	Sup	Cau	CAR	1	1.1	1. Gather relevant defect or problem data
ACQ	5	Sup	Cau	CAR	1	1.1	2. Determine the defects and other problems to be analyzed further
							Analyze Causes
ACQ	5	Sup	Cau	CAR	1	1.2	Perform causal analysis of selected defects and other problems and propose actions to address them
ACQ	5	Sup	Cau	CAR	1	1.2	1. Conduct causal analysis with those responsible for performing the task.
ACQ	5	Sup	Cau	CAR	1	1.2	2. Analyze selected defects and other problems to determine their root causes
ACQ	5	Sup	Cau	CAR	1	1.2	3. Group selected defects and other problems based on their root causes
ACQ	5	Sup	Cau	CAR	1	1.2	4. Propose and document actions to be taken to prevent the future occurrence of similar defects or other problems
							Address Causes of Defects
ACQ	5	Sup	Cau	CAR	2	2	Root causes of defects and other problems are systematically addressed to prevent their future occurrence
							Implement Action Proposals
ACQ	5	Sup	Cau	CAR	2	2.1	Implement selected action proposals developed in causal analysis
ACQ	5	Sup	Cau	CAR	2	2.1	1. Analyze action proposals and determine their priorities
ACQ	5	Sup	Cau	CAR	2	2.1	2. Select action proposals to be implemented
ACQ	5	Sup	Cau	CAR	2	2.1	3. Create action items for implementing the action proposals
ACQ	5	Sup	Cau	CAR	2	2.1	4. Identify and remove similar defects that may exist in other processes and work products
ACQ	5	Sup	Cau	CAR	2	2.1	5. Identify and document improvement proposals for the organization's set of standard processes
							Evaluate the Effect of Changes
ACQ	5	Sup	Cau	CAR	2	2.2	Evaluate the effect of changes on process performance
ACQ	5	Sup	Cau	CAR	2	2.2	1. Measure the change in performance of the project's defined process or of subprocesses, as appropriate
ACQ	5	Sup	Cau	CAR	2	2.2	2. Measure the capability of the project's defined process or of subprocesses, as appropriate
							Record Data
ACQ	5	Sup	Cau	CAR	2	2.3	Record causal analysis and resolution data for use across the project and organization
ACQ	2	Sup	Con	CM			The purpose of Configuration Management (CM) is to establish and maintain the integrity of work products using configuration identification, configuration control, configuration status accounting, and configuration audits

CMMI-DEV V 1.2

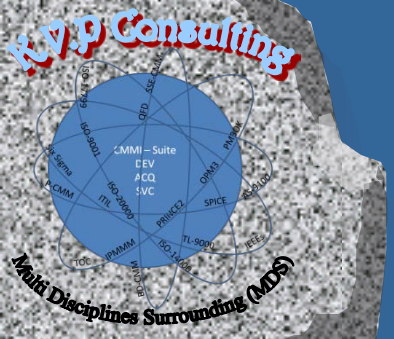
Con	Mat	Proc	Proc	Proc	SG	SP	Num	Title
DEV	5	Sup	Cau	CAR				The purpose of Causal Analysis and Resolution (CAR) is to identify causes of defects and problems and take action to prevent them from occurring in the future
								Root causes of defects and other problems are systematically det
DEV	5	Sup	Cau	CAR	1		1	A root cause is a source of a defect such that, if it is removed, th
								Select Defect Data for Analysis
DEV	5	Sup	Cau	CAR	1	1.1		Select the defects and other problems for analysis
DEV	5	Sup	Cau	CAR	1	1.1		Gather relevant defect or problem data
DEV	5	Sup	Cau	CAR	1	1.1		Determine which defects and other problems will be analyzed fu
								Analyze Causes
DEV	5	Sup	Cau	CAR	1	1.2		Perform causal analysis of selected defects and other problems a
DEV	5	Sup	Cau	CAR	1	1.2		Conduct causal analysis with the people who are responsible for
DEV	5	Sup	Cau	CAR	1	1.2		Analyze selected defects and other problems to determine their ro
DEV	5	Sup	Cau	CAR	1	1.2		Group the selected defects and other problems based on their ro
								Propose and document actions that need to be taken to prevent t
DEV	5	Sup	Cau	CAR	1	1.2		defects or other problems
								Address Causes of Defects
DEV	5	Sup	Cau	CAR	2	2		Root causes of defects and other problems are systematically add
								occurrence
								Implement the Action Proposals
DEV	5	Sup	Cau	CAR	2	2.1		Implement the selected action proposals that were developed in
DEV	5	Sup	Cau	CAR	2	2.1		1. Analyze the action proposals and determine their priorities
DEV	5	Sup	Cau	CAR	2	2.1		2. Select the action proposals that will be implemented
DEV	5	Sup	Cau	CAR	2	2.1		3. Create action items for implementing the action proposals
DEV	5	Sup	Cau	CAR	2	2.1		4. Identify and remove similar defects that may exist in other pro
DEV	5	Sup	Cau	CAR	2	2.1		5. Identify and document improvement proposals for the organiz
								Evaluate the Effect of Changes
DEV	5	Sup	Cau	CAR	2	2.2		Evaluate the effect of changes on process performance
DEV	5	Sup	Cau	CAR	2	2.2		1. Measure the change in the performance of the project's defined
DEV	5	Sup	Cau	CAR	2	2.2		2. Measure the capability of the project's defined process as appr
								Record Data
DEV	5	Sup	Cau	CAR	2	2.3		Record causal analysis and resolution data for use across the pro
DEV	2	Sup	Con	CM				The purpose of Configuration Management (CM) is to establish a products using configuration identification, configuration contro and configuration audits



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

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

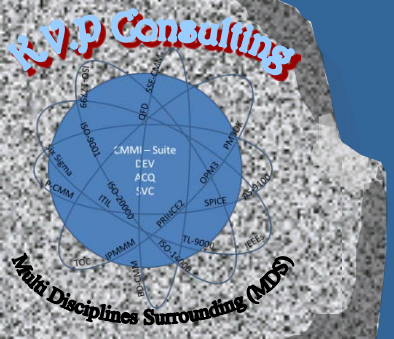
PMC OPF IPM OID SD

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

SSD

OPF

DAR

RSKM

OT

QPM

M&A

IRP

SCON

OPD

SST

IPM

OID

PP

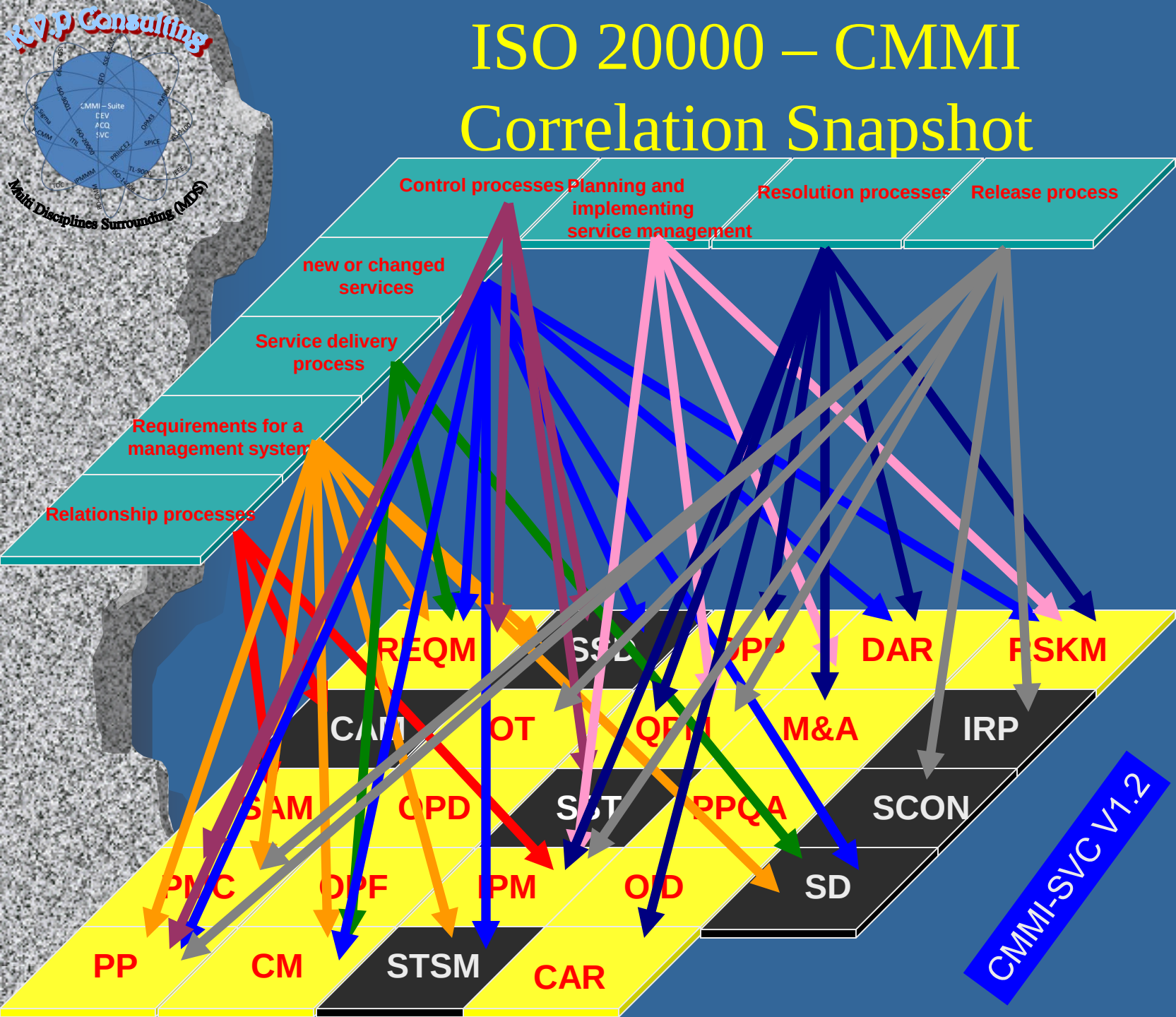
CM

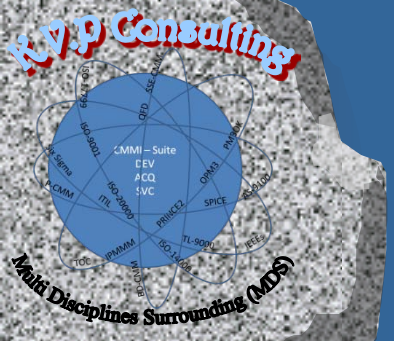
STSM

CAR

CMMI V1.2

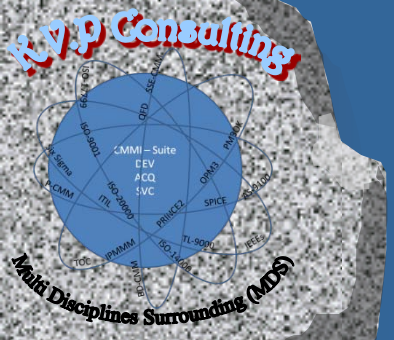
ISO 20000 – CMMI Correlation Snapshot





The Implementation

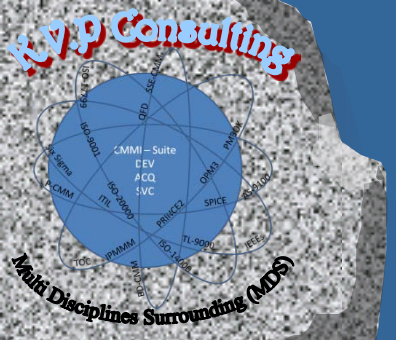
What we did



Our Organizations (Group) Structure

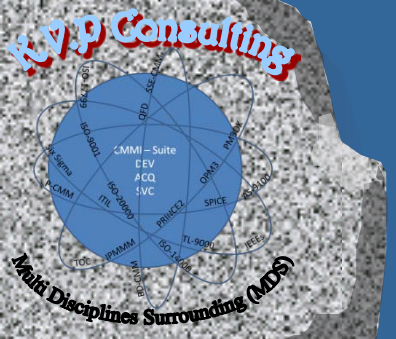
Business Objectives

- Prioritizes resources and projects based on cost-benefit considerations
- Manages the actual development process
- Systems must be designed for group-wide deployment
- Systems and functionality are reused across products, distribution channels, brands and markets
- Systems must optimize cross-organisational processes and make it possible to combine parts of the Group’s products into new products



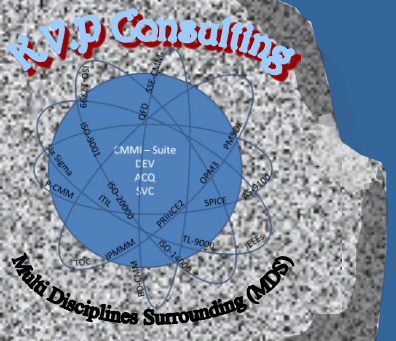
Business Objectives

- By reusing system elements, even across different technical platforms, significant efficiencies are gained in the development of systems
- Integrate third party systems into the whole system complex, regardless of the technical deployment platform
- Minimize the costs associated with the integration of applications and tools across systems and platforms
- Limited but adequate set of market leading technologies are used as standard tools



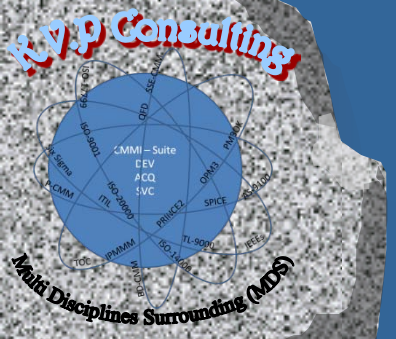
Business Objectives

- SyDLC and TCO must be implemented in such a way that the integrity of the business cannot be compromised
- level of security and operations must be high and financially sound
- Systems and platforms must have a high quality level, protecting the Group against errors, down time, security breaches and data loss
- Quality level must correspond with risks, consequences and not least the expectations of the customers



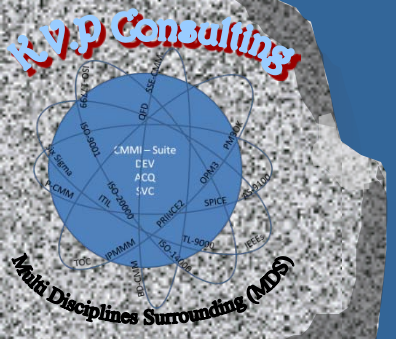
Business Objectives

- Systems must adhere to the agreed service levels and be delivered with the agreed functionality
- Simple and accessible user interfaces, adapted to the user's role or the customer's needs
- Access is given to the necessary functionality and information from the underlying business system based on consolidated data
- Systems must constantly support the chosen set of distribution channels and user interfaces, enabling the Group to meet the customer at any given point



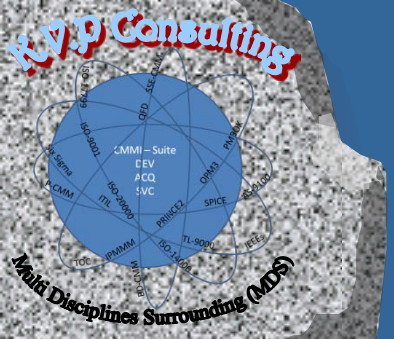
Business Objectives

- Knowledge about the customers and their behavior must be gathered in a structured way on each customer interaction, and related to the Group's products
- Integrated and customer-facing sales and advisory system ensures that products and services can be developed and deployed across business units, customer segments and distribution channels
- Reduce the Group's costs by optimizing the whole value chain



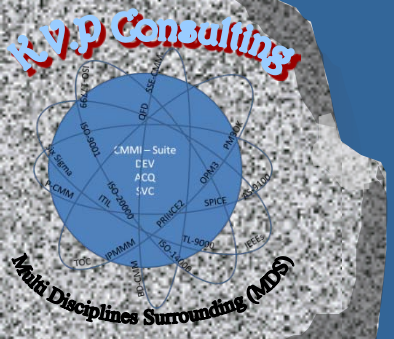
Business Objectives

- Costs associated with the rationalisation of processes must be minimal, enabling economically feasible automation of even small business processes
- Business procedures must be implemented direct as supported processes, guiding employees and customers through the activities with as little prior knowledge as possible, letting them concentrate on the products and actual business.
- Enables conversion of manual activities into automatic sequences without changing the basic design of the underlying processes.



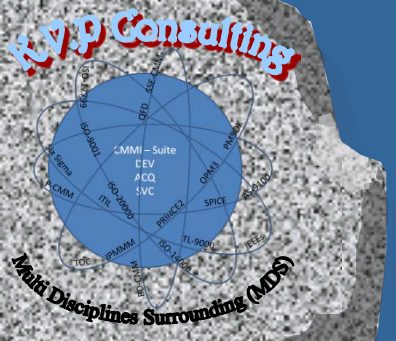
Business Objectives

- Combine activities efficiently and flexibly across distribution channels, partners, brands and markets, wherever this is desirable from a business point of view
- Systems must support the processes which gather, organize, share and analyse the entire knowledge platform that exists about customers, products, business initiatives, organization, employees, etc
- Information must be available at any time and anywhere to those it is meant for
- Group's management processes and pricing, they must be based on consolidated and sufficiently current data



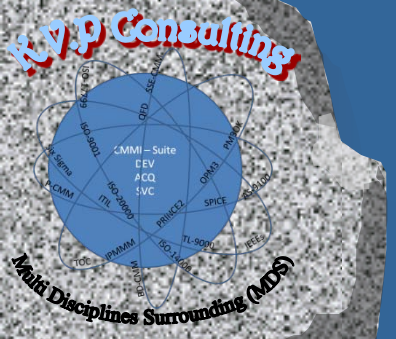
Business Objectives

- Increase flexibility gradually without compromising on efficiency and stability
- Diversity is handled systematically and efficiently by using an infrastructure, which efficiently integrates systems, processes and manual activities across platforms and technologies
- Infrastructure is provided to developers, freeing them from having to programe integration and flexibility into each system
- Use of market leading standards
- Design of system elements focusing on flexibility



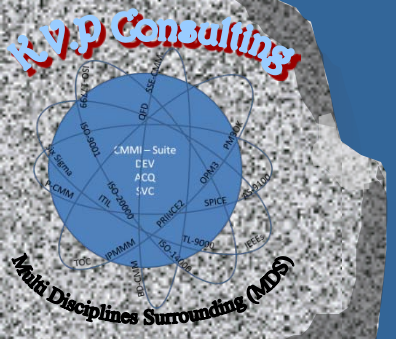
Business Objectives

- System elements must be designed to scale in line with business growth and expansion
- System elements must be capable of handling unexpected events
- Ensure that systems can continue normal operations with the least impact on the business
- Business continuity during normal operating conditions as well as in disaster-like situations
- Systems design must if possible take into account the changeability of externally controlled data and processes
- Readiness for change by implementing changes for the entire group



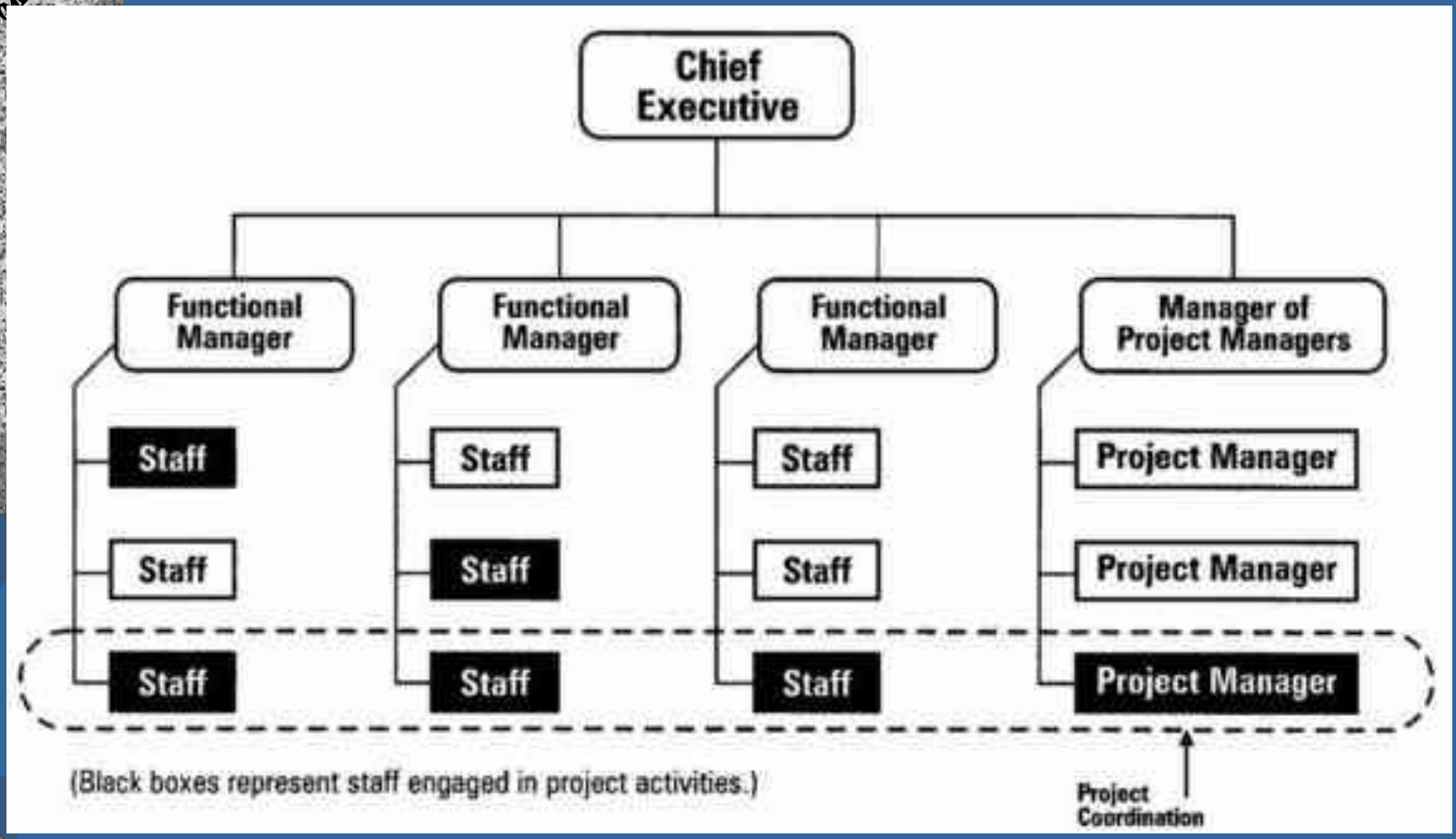
Business Objectives

- Resources can thus be reused in any other project or area in the Group in a simple and efficient way, thereby ensuring consolidation of both data and functionality
- It must be possible to combine scattered IT resources into complete systems, applications and actual business processes
- Infrastructure must handle the coupling dynamically and parameterized
- Selection of coupling method must not be based on a technology choice made by the developers



Business Objectives

- Infrastructure and development methods must as a minimum support a layering of systems into user interfaces, business logic and data
- Service levels must if possible be based on dynamic and flexible policies, which are directly definable in the operational environment
- Infrastructure must efficiently handle error detection and quality control of complete system
- Infrastructure must efficiently support the integration
- Architecture is an essential parameter when choosing a third-party system

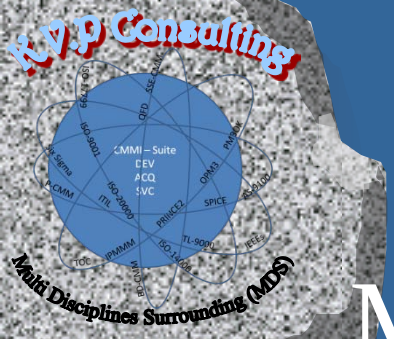


Organizational Size and Functions

- Senior manager
- 15 ‘Division’ managers
- ~80 Mid Level mangers
- ~X00 project / program / acquisition and line mangers
- X,000 working level staff relevant to the effort
- ~800 Quality related personal
- ~1000 ‘auditors’

Organizational Background Size and Functions

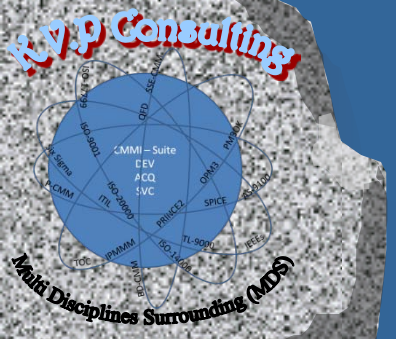
- Acquisition
- Project and program management
- In-house full development
- System integration
- Service units (i.e. IT, Civil Eng)
- HR
- Security (Information and data)
- Facilities and infrastructure
- In-house system engineering
- Maintenance and support
- Web centric operational architecture



Organizational Background
Main Related Quality Standards

- Internal Quality Standard
- EFQM
- CMMI Suite (SVC / ACQ / DEV)
- PMBOK & OPM3
- DoD 5000.01 & 5000.02
- ISO 14000
- OHAS 18000
- ITIL V 3
- ISO 20000
- ISO 27001 & 27002
- ISO 9001
- Other SEI technologies (RMM / P-CMM / TSP / PSP)

IT Quality Management Strategy



L6 Strategic Framework
EFQM / Baldrige

L5 Continuous process improvements (CMMI)

L4 Organizational (Cross Units) QMS Integration

L3 Automation (QMS Application)

L2 Processes & Implementation of best practices & standards (ITIL)

L1 Planning & Design of QMS (based on ITIL guidance and ISO9001:2000 preparation and certification)

Process Performance

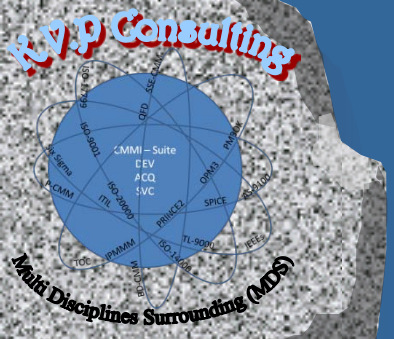
People & Performance (Culture change; individual & team metrics)

QMS = Quality Management System; ITIL = Information Technology Infrastructure Library; ; ISO = International Standards Organisation; CMMI = Capability Maturity Model Integration

Sample Improvement Targets

- Service reuse
- Improved perception and response time
- Interoperability
- Business agility.
- Service performance and its impact on the organization governance

IPT Structure



Group Level

Overarching IPT
'Division'
Program IPT

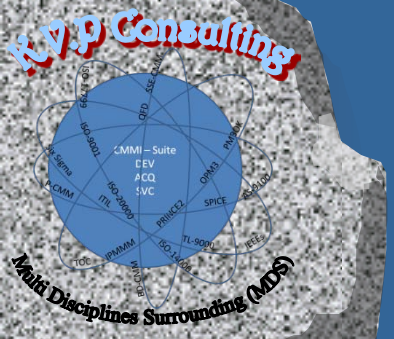
Test IPT

Cost Performance IPT

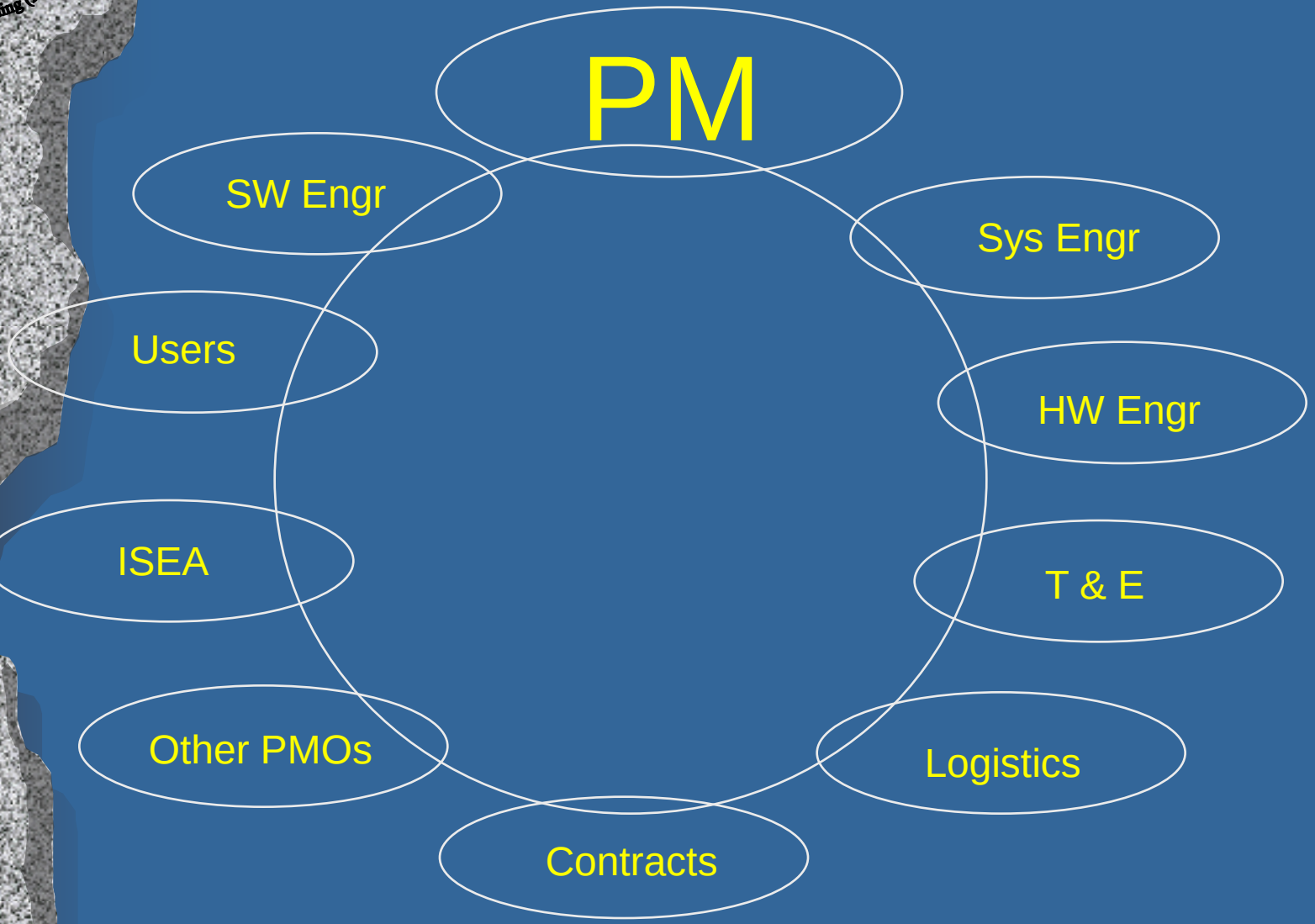
Contracting IPT

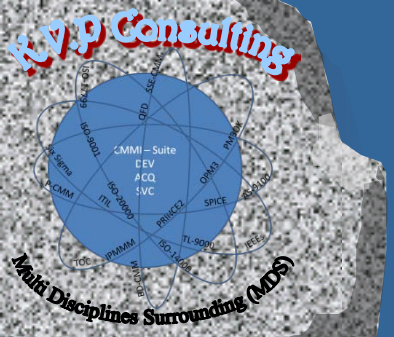
Other IPTs
(as needed)

Project / Task Management Environment

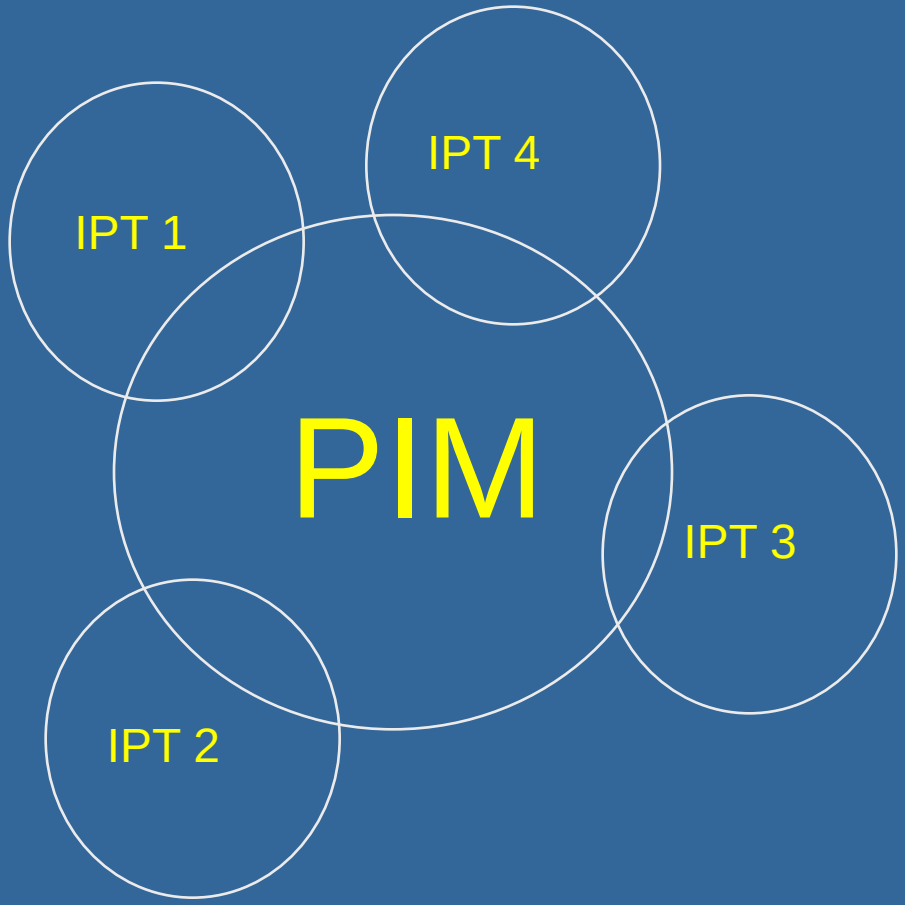


Project Team Structure,





Multiple Teams Task Force (Integration)



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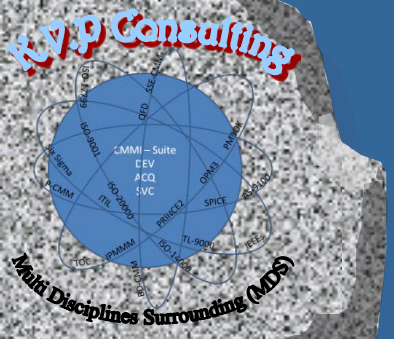
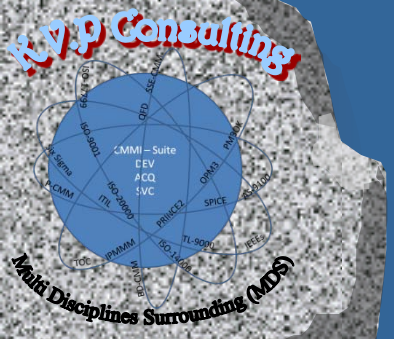


The Approach to the Solution Concept

- 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

Full Name	QA	IS	TW	PM (Delivery)	HD	PMO	DEV	PS	BA	SA	DBA	ALM	CM	IT	QA (Process)	MHA (MHH)	Process Group		
	Current Groups						R&D		System Analysis			Infrastructure			New Functional Groups				
Causal Analysis and Resolution	2	2					1	1	1	1	1					3		12	1
Configuration Management													3					3	1
Decision Analysis and Resolution	2	2		3		1	2											10	1
Integrated Project Management	1	1		3		2	2		2								3	14	2
Integrated Project Management -IPPD																		0	0
Measurement and Analysis	1	2					1	1	1	1	1					3		11	1
Organizational Innovation and Deployment																		0	0
Organizational Process Definition												3					3	6	2
Organizational Process Definition -IPPD																		0	0
Organizational Process Focus															3		3	6	2
Organizational Process Performance																3		3	1
Organizational Training																		0	0
Product Integration							3					3						6	2
Project Monitoring and Control				3														3	1
Project Planning	3			3														6	2
Process and Product Quality Assurance															3			3	1
Quantitative Project Management	3															3		6	2
Requirements Development							3		3	3								9	3
Requirements Management							3		3	3								9	3
Risk Management				3														3	1
Supplier Agreement Management																		0	0
Technical Solution							3				3	3						9	3
Validation	3																	3	1
Verification	3						3											6	2
Capacity and Availability Management														3				3	1
Incident Resolution and Prevention		3																3	1
Service Continuity		3												3				6	2
Service Delivery		3																3	1
Service System Development		3																3	1
Service System Transition		3																3	1
Strategic Service Management		3																3	1
	18	25	0	15	0	3	21	2	10	8	5	9	3	6	6	12	9		
GP 2.1 Establish an Organizational Policy	3																	3	
GP 2.2 Plan the Process																		0	
GP 2.3 Provide Resources																		0	
GP 2.4 Assign Responsibility																		0	
GP 2.5 Train People	3																	3	
GP 2.6 Manage Configurations																		0	
GP 2.7 Identify and Involve Relevant Stakeholders																		0	
GP 2.8 Monitor and Control the Process																		0	
GP 2.9 Objectively Evaluate Adherence																		0	
GP 2.10 Review Status with Higher Level Management																		0	
	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
GP 3.1 Establish a Defined Process	3																	3	
GP 3.2 Collect Improvement Information	3																	3	
	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
GP 4.1 Establish Quantitative Objectives for the Process																		0	
GP 4.2 Stabilize Subprocess Performance	3																	3	
	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
GP 5.1 Ensure Continuous Process Improvement																		0	
GP 5.2 Correct Root Causes of Problems	3																	3	
	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
CL5	36	25	0	15	0	3	21	2	10	8	5	9	3	6	6	12	9		
CL4	33	25	0	15	0	3	21	2	10	8	5	9	3	6	6	12	9		
CL3	30	25	0	15	0	3	21	2	10	8	5	9	3	6	6	12	9		
CL2	24	25	0	15	0	3	21	2	10	8	5	9	3	6	6	12	9		

Sheet1 Sheet2 Sheet3



The Gap analysis Phase

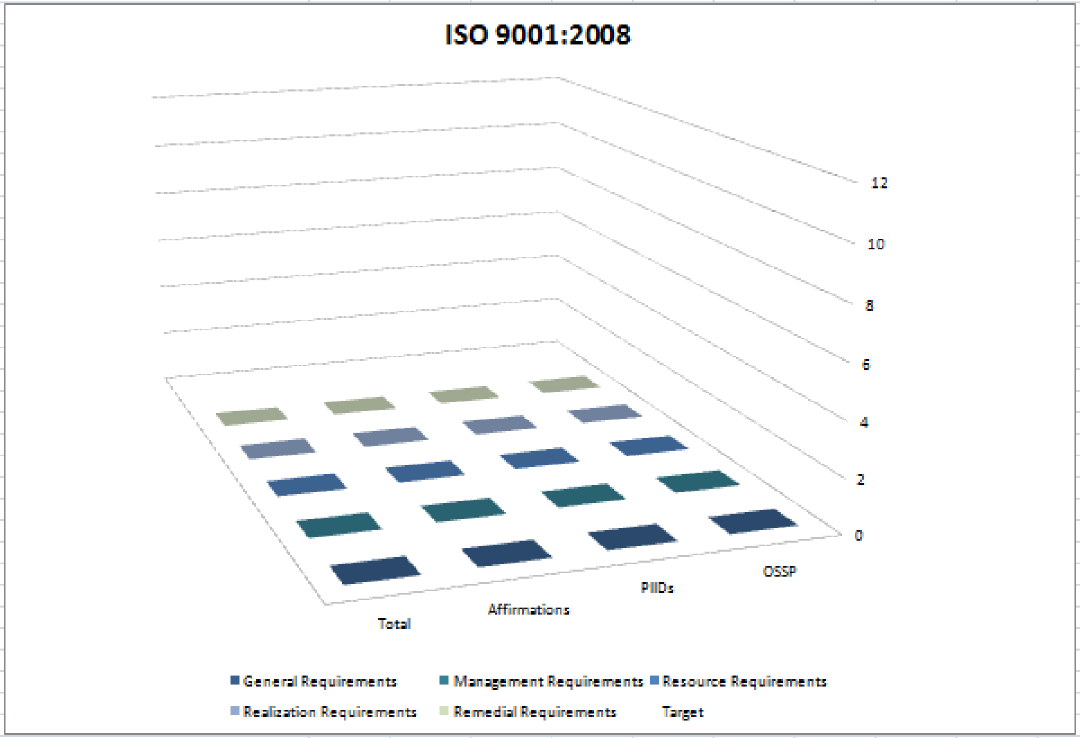
To Index

Chapter	Section			Requirements	OSSP	PIIDs	Affirmations	Total
4 General Requirements					0	0	0	0
	4.1 Develop Your Quality Management System (QMS)				0	0	0	0
		4.1.1		*Establish your organization's QMS*	0.00	0.00	0.00	0.00
		4.1.2		*Document* your organization's QMS.	0.00	0.00	0.00	0.00
		4.1.3		*Implement* your organization's QMS.	0.00	0.00	0.00	0.00
		4.1.4		*Maintain* your organization's QMS.	0.00	0.00	0.00	0.00
		4.1.5		*Improve* your organization's QMS.	0.00	0.00	0.00	0.00
	4.2 Document Your Quality Management System (QMS)				0	0	0	0
		4.2.1		*Manage Quality Management System Documents*	0	0	0	0
			4.2.1.1	Develop documents for your organization's QMS.	0.00	0.00	0.00	0.00
			4.2.1.2	Make sure that your organization's QMS documents respect and reflect what you do and how you do it.	0.00	0.00	0.00	0.00
		4.2.2		*Prepare Quality Management System Manual*	0	0	0	0
			4.2.2.1	Establish a quality manual for your organization.	0.00	0.00	0.00	0.00
			4.2.2.2	Maintain your organization's quality manual.	0.00	0.00	0.00	0.00
		4.2.3		*Control Quality Management System Documents*	0	0	0	0
			4.2.3.1	Control your organization's QMS documents.	0.00	0.00	0.00	0.00
			4.2.3.2	Control documents that are used as QMS records.	0.00	0.00	0.00	0.00
		4.2.4		*Establish Quality Management System Records*	0	0	0	0

R.V.P Consulting

To Index

		OSSP	PIIDs	Affirmations	Total
		12	12	12	12
4	**General Requirements**	**0**	**0**	**0**	**0**
4.1	Develop Your Quality Management System (QMS)	0	0	0	0
4.2	Document Your Quality Management System (QMS)	0	0	0	0
5	**Management Requirements**	**0**	**0**	**0**	**0**
5.1	Show Your Commitment to Quality	0	0	0	0
5.2	Focus On Your Customers	0	0	0	0
5.3	Support Your Quality Policy	0	0	0	0
5.4	Carry Out Your QMS Planning	0	0	0	0
5.5	Allocate QMS Responsibility and Authority	0	0	0	0
5.6	Perform QMS Management Reviews	0	0	0	0
6	**Resource Requirements**	**0**	**0**	**0**	**0**
6.1	Provide Required QMS Resources	0	0	0	0
6.2	Provide Competent QMS Personnel	0	0	0	0
6.3	Provide Necessary Infrastructure	0	0	0	0
6.4	Provide Suitable Work Environment	0	0	0	0
7	**Realization Requirements**	**0**	**0**	**0**	**0**
7.1	Control Product Realization Planning	0	0	0	0
7.2	Control Customer-Related Processes	0	0	0	0
7.3	Control Product Design and Development	0	0	0	0
7.4	Control Purchasing and Purchased Products	0	0	0	0
7.5	Control Production and Service Provision	0	0	0	0
7.6	Control Monitoring and Measuring Equipment	0	0	0	0
8	**Remedial Requirements**	**0**	**0**	**0**	**0**
8.1	Establish Monitoring and Measurement Processes	0	0	0	0
8.2	Carry Out Monitoring and Measurement Activities	0	0	0	0
8.3	Identify and Control Nonconforming Products	0	0	0	0
8.4	Collect and Analyze Quality Management Data	0	0	0	0
8.5	Make Improvements and Take Remedial Actions	0	0	0	0

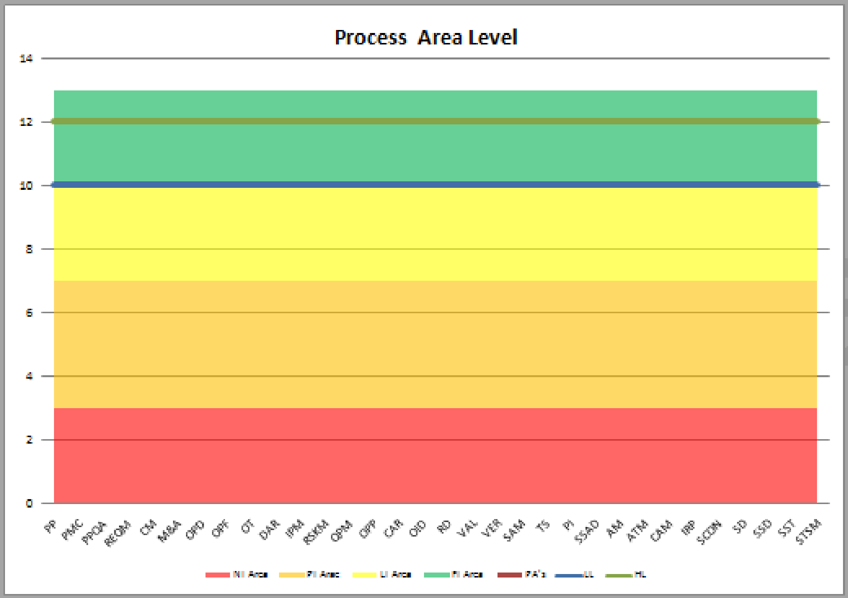


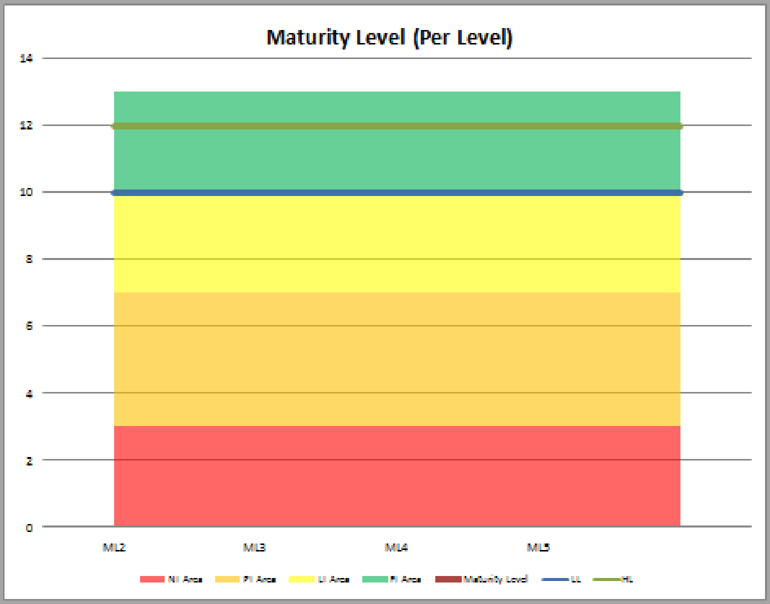
CMMIs SPs Kobi | CMMIs GPs | ISO 9001 2008 | ISO 9001 Sum | OHSAS 18001 2007 | OHSAS 18001 2007 Sum | ISO9000-3 | ISO9000-3 Sum | ISO IEC 2

Process	Level
REQM	
PP	
PMC	
M&A	
PPQA	
CM	
SAM	
RD	
TS	VAL
PI	
VER	
VAL	
OPF	
OPD	
OT	
IPM	
RSKM	
DAR	
OPP	
OPM	
OID	
CA&R	

Color	EV	Rating	LL	HL
red	1~3	NI	1.00	3.00
orange	4~6	PI	4.00	6.00
yellow	7~9	LI	7.00	9.00
green	10~12	FI	10.00	12.00

Maturity Level (Per Level)	
ML2	
ML3	
ML4	0.00
ML5	0.00





Definitions | Rating Guidelines | OSSP-ML_dashboard | OSSP-SP_dashboard | OSSP-CL_dashboard | OSSP-MLvsCL_dashboard | OSSP | CMMIs SPs Kobi | CMMIs GPs

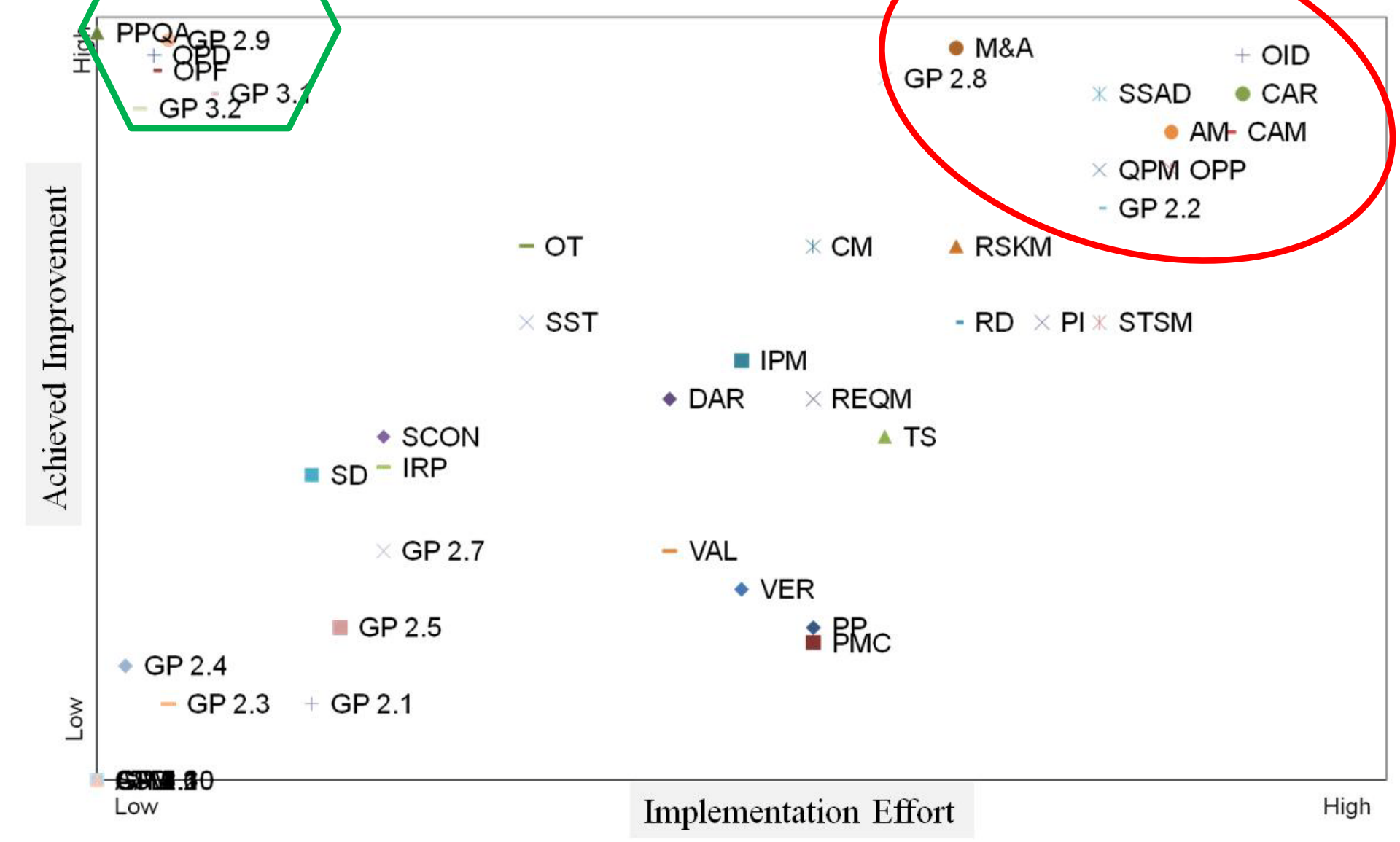
Main CMMI-SVC PA

- During the project we have used CMMI-SVC as a synchronisation mechanism to this quality and process improvement orchestra under its guidance and by using the other constellations and standards as well
- The main leading PA with the most benefits and use (in this project) are:

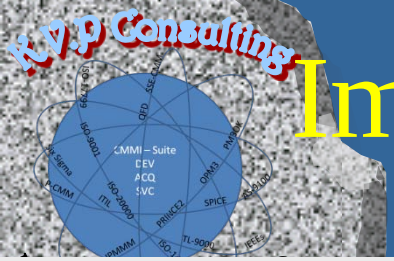
Improvement vs. Implementation

Process Improvements

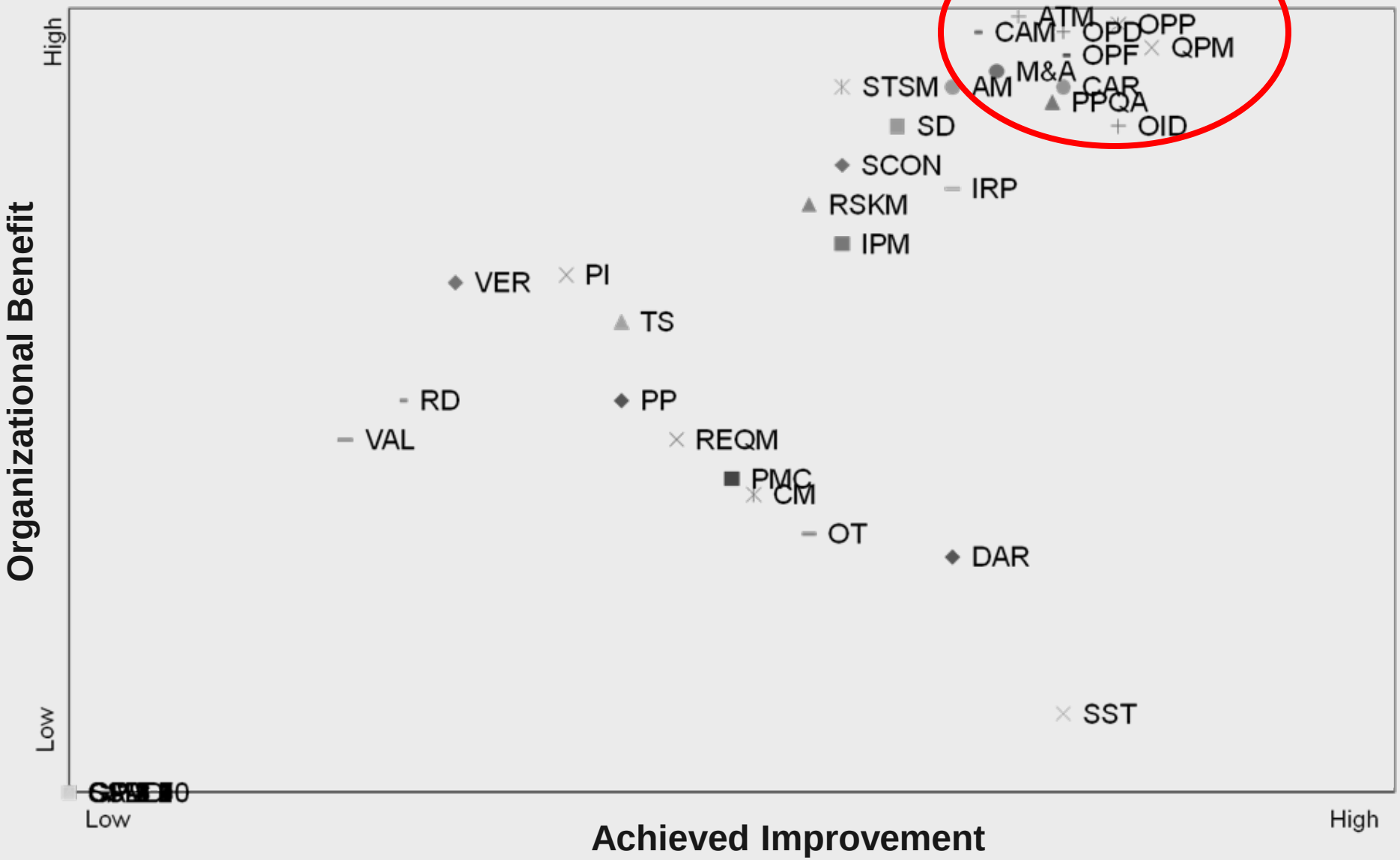
ROI

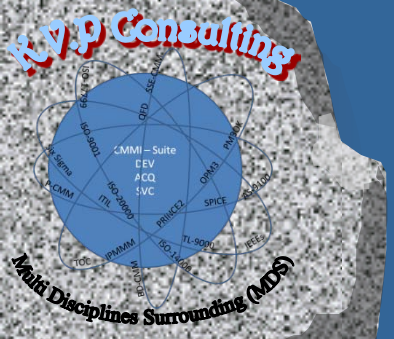


Improvement vs. Benefit



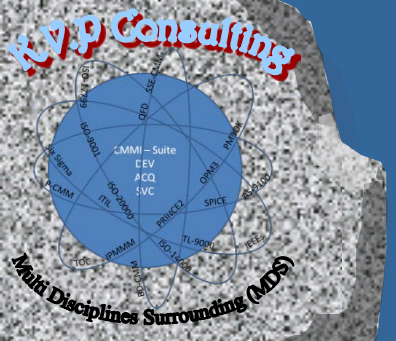
Add Value





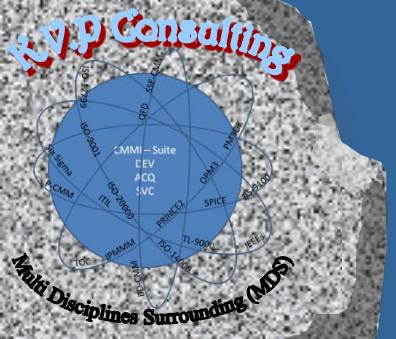
Main CMMI-SVC PA

- Strategic Service Management (STSM)
  - The purpose of Strategic Service Management (STSM) is to establish and maintain standard services in concert with strategic needs and plans.



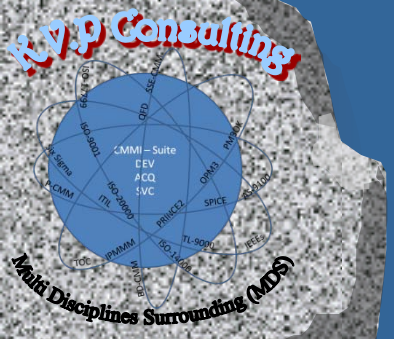
Main CMMI-SVC PA

- Service System Development (SSD)
  - The purpose of Service System Development (SSD) is to analyze, design, develop, integrate, verify, and validate service systems, including service system components, to satisfy existing or anticipated service agreements



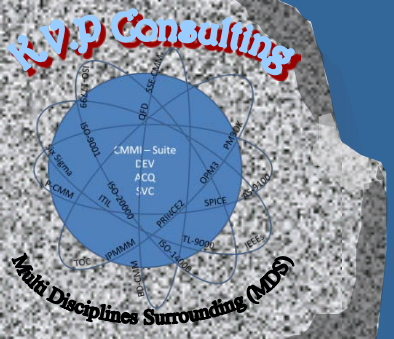
Main CMMI-SVC PA

- Capacity and Availability Management (CAM)
  - The purpose of Capacity and Availability Management (CAM) is to ensure effective service system performance and ensure that resources are provided and used effectively to support service requirements



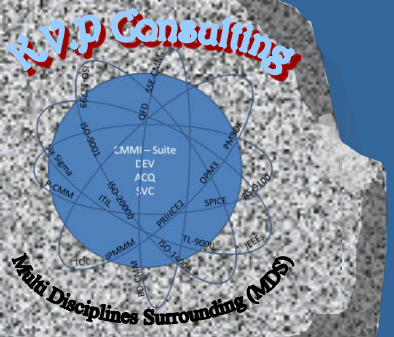
Main CMMI-SVC PA

- Decision Analysis and Resolution (DAR)
  - The purpose of Decision Analysis and Resolution (DAR) is to analyze possible decisions using a formal evaluation process that evaluates identified alternatives against established criteria



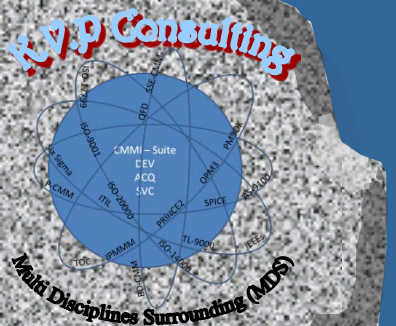
Main CMMI-SVC PA

- Integrated Project Management (IPM)
  - The purpose of Integrated Project Management (IPM) is to establish and manage the project and the involvement of relevant stakeholders according to an integrated and defined process that is tailored from the organization's set of standard processes



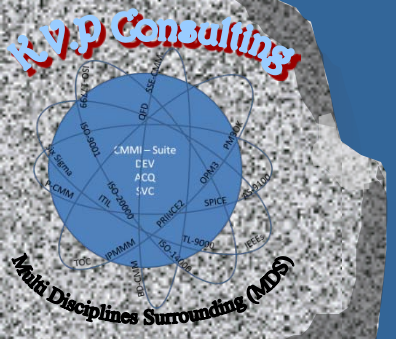
Main CMMI-SVC PA

- Incident Resolution and Prevention (IRP)
  - The purpose of Incident Resolution and Prevention (IRP) is to ensure timely and effective resolution of service incidents and prevention of service incidents as appropriate



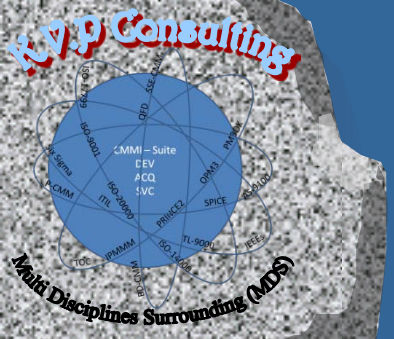
Main CMMI-SVC PA

- Organizational Process Performance (OPP)
  - The purpose of Organizational Process Performance (OPP) is to establish and maintain a quantitative understanding of the performance of the organization's set of standard processes in support of achieving quality and process-performance objectives, and to provide process-performance data, baselines, and models to quantitatively manage the organization's projects



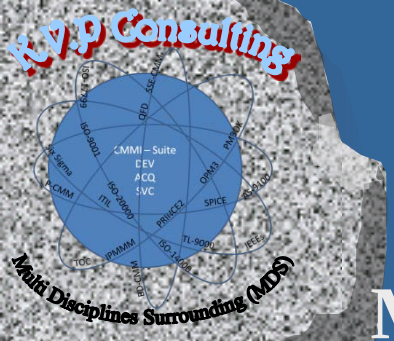
Main CMMI-SVC PA

- Service Continuity (SCON)
  - The purpose of Service Continuity (SCON) is to establish and maintain plans to ensure continuity of services during and following any significant disruption of normal operations
- Service Delivery (SD)
  - The purpose of Service Delivery (SD) is to deliver services in accordance with service agreements



Second Line of Use CMMI-SVC PA

- **Service System Transition (SST)**
  - **The purpose of Service System Transition (SST) is to deploy new or significantly changed service system components while managing their effect on ongoing service delivery**



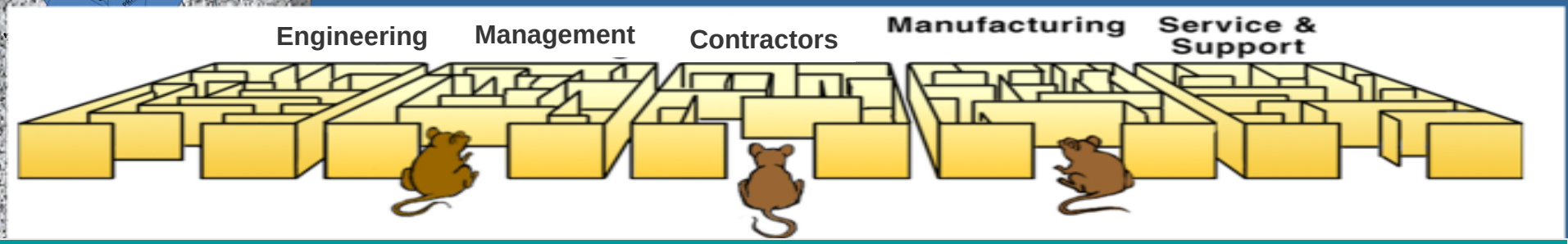
Results and Benefits

Methodology conclusions.

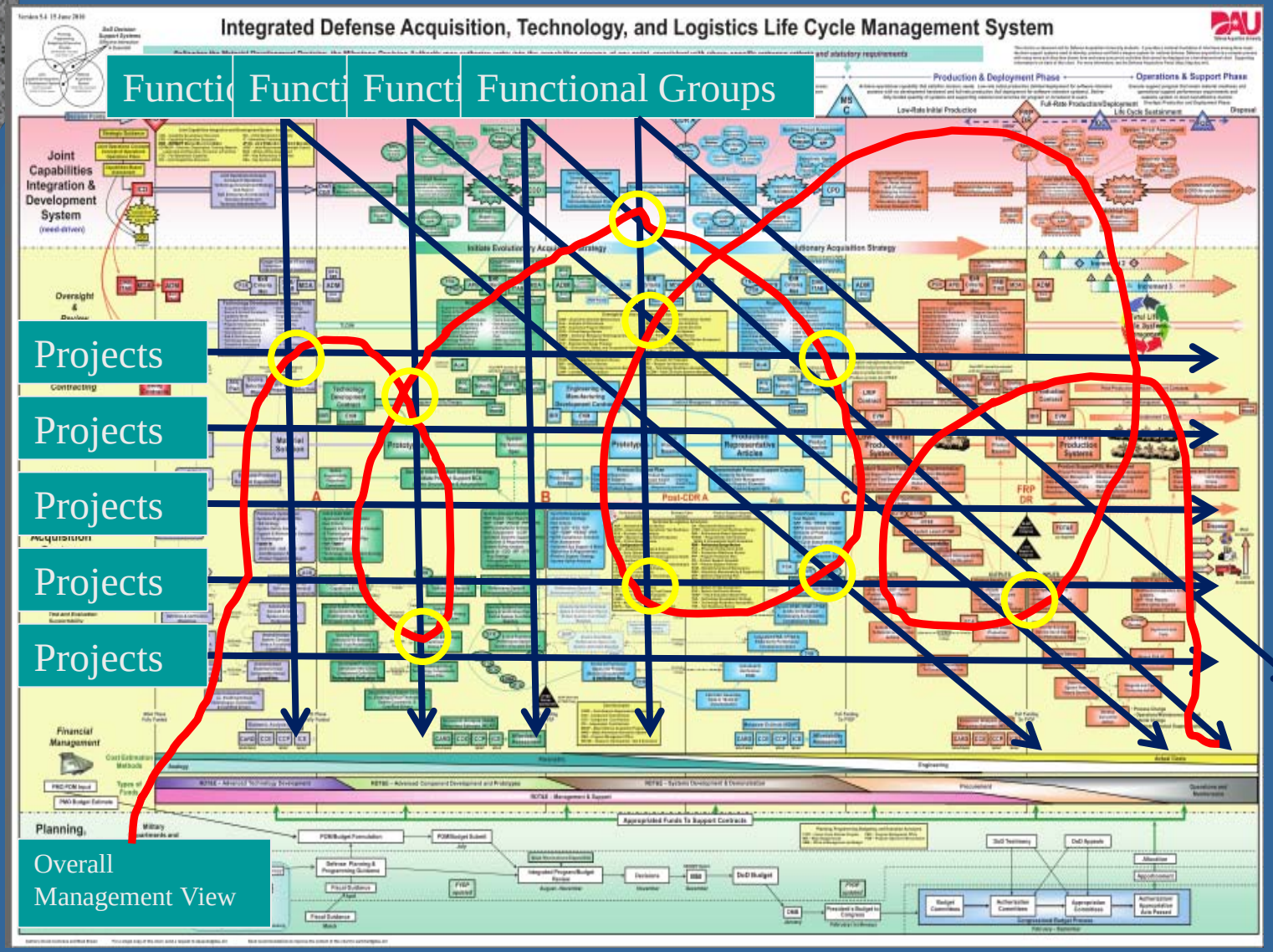
- Model formulation is complex, but evaluation is straightforward.
- Standard tools, and the mappings make it easy to integrate on domains.
- Method is better at capturing SMEs insights and project dynamics.
- Opportunity to further include additional domains

SME related conclusions (preliminary).

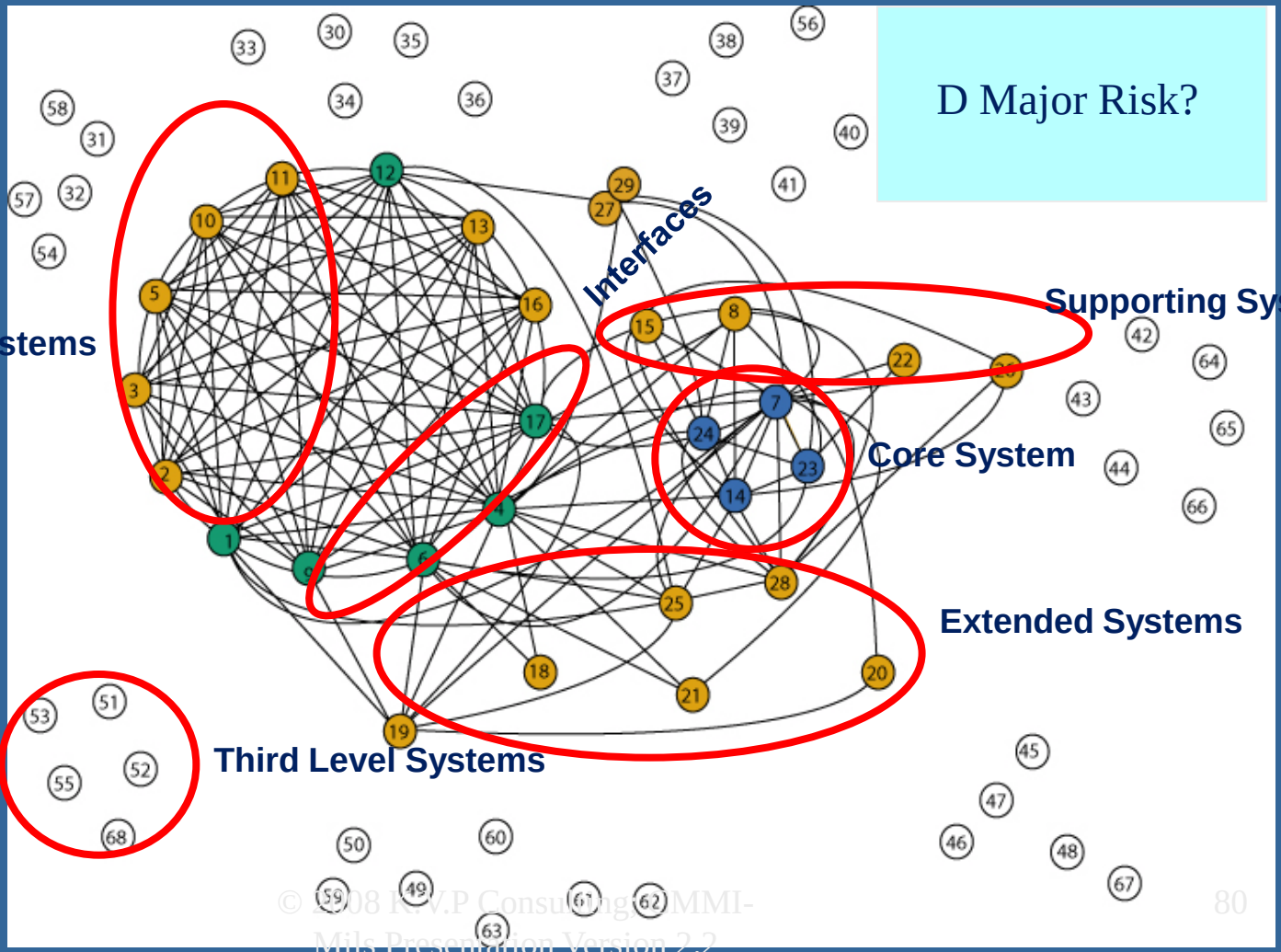
- Small units have better acceptance for quality activities
- Engineering related organizations have a good case for higher performances
- Critical dependency must be mapped in the OSSP.
- Benefits for organizations operating at volatile (uncertain) segments.

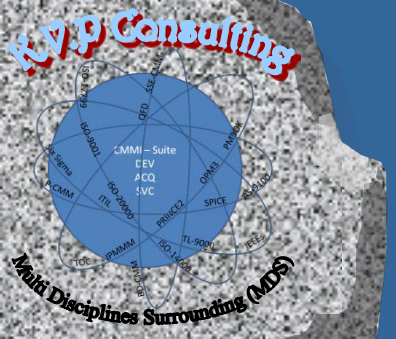

Engineering
Management
Contractors
Manufacturing
Service &
Support

Typical Lifecycle Description



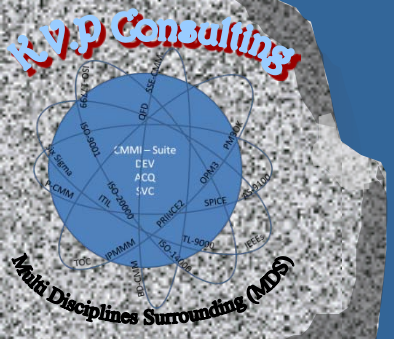
Military Combat Services Support Challenges in the Battlefield C4ISR Systems





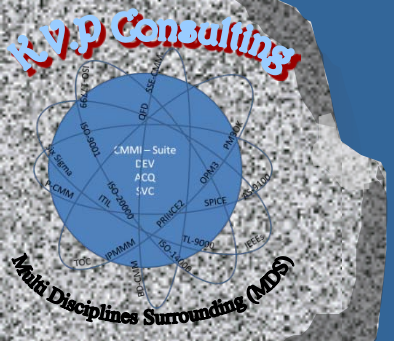
Future Plans

- Continue refinement of model.
  - Parameter ranges.
  - Roadmap involving multiple lifecycles and external activities.
  - Complete Validation and Verification.
- Integrate work and receive feed from other initiatives.
- Continue sharing with other domains



Discussion Points

- Performance data
- Cost of poor planning
- Quantifying the operational impact
- Effecting and effected stakeholders mapping
- Quantifying the impact of support planning on the development teams
- Appling this model on other domains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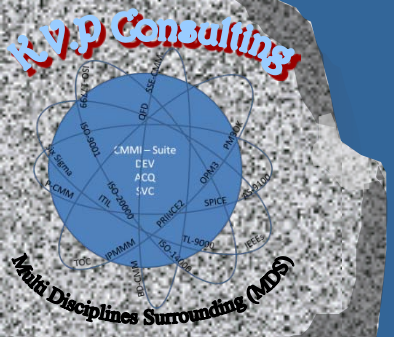
Multi Disciplines Surrounding (MDS)

Questions ?



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