

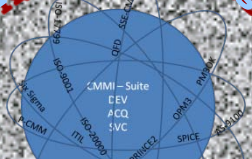
# Lesson Learned from Cross Constellations and Multi Models Process Improvement Initiatives

Kobi Vider – Picker

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[Kobi.Vider@hotmail.com](mailto:Kobi.Vider@hotmail.com)

+972522946676



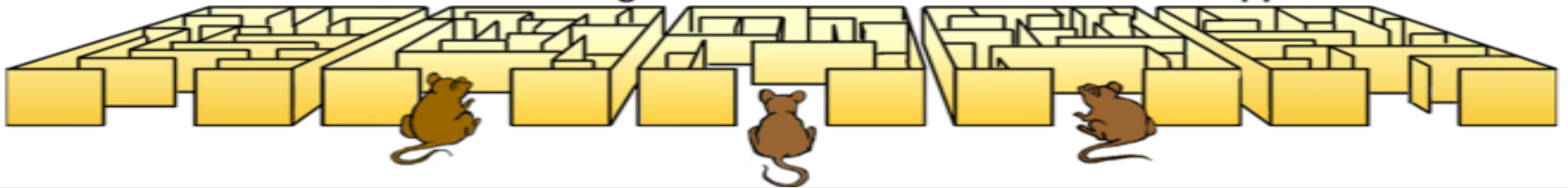
**R&D**

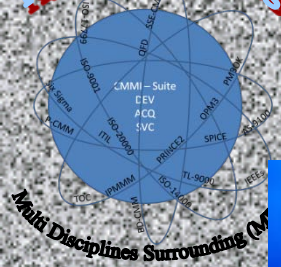
**Sales & Marketing**

**Finance**

**Manufacturing**

**Service & Support**





# Conceptual Structure and Elements



Dashboards and Infrastructure



Measurements Collection And Supporting Technologies

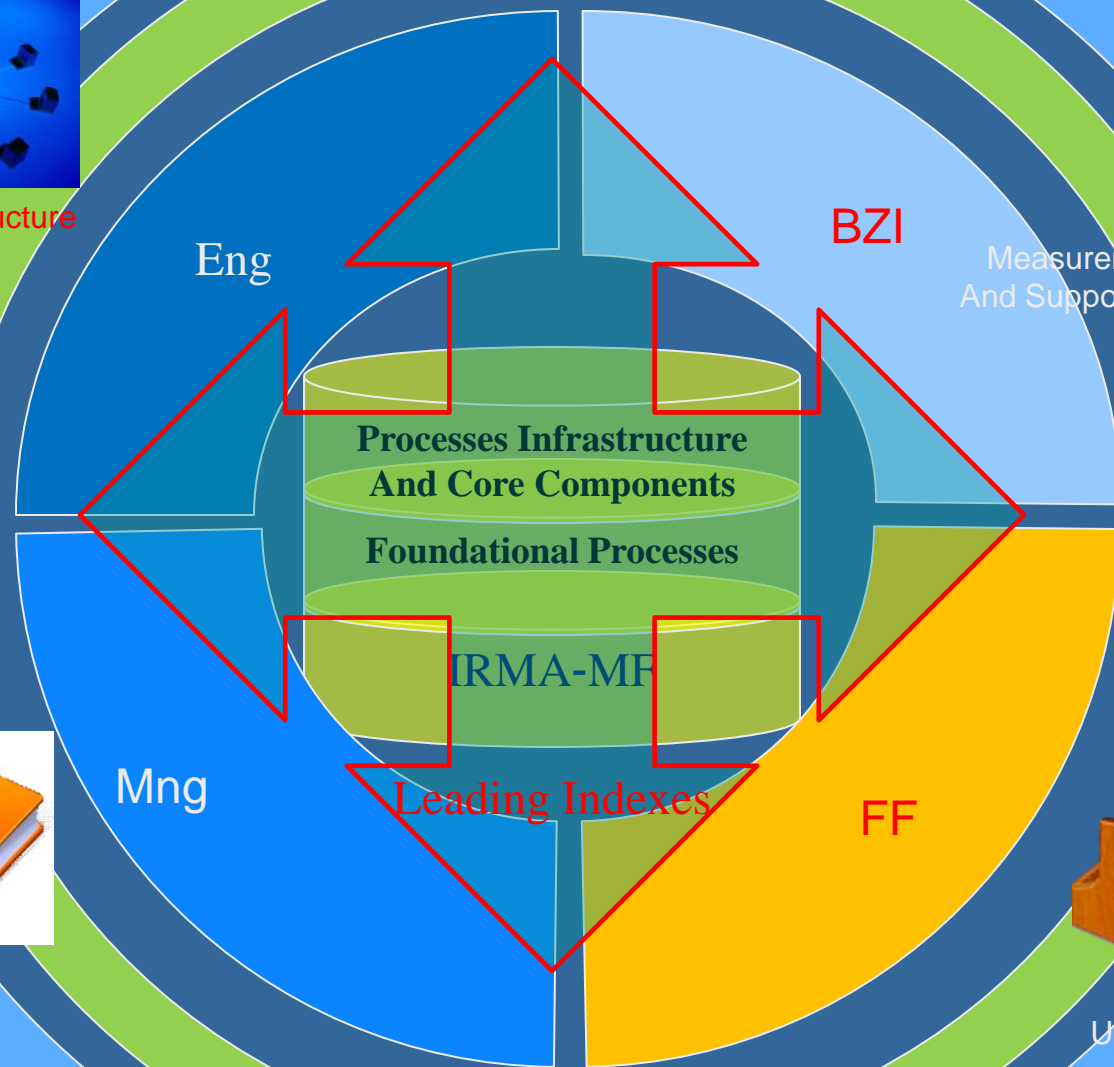


Standards Compliance Map



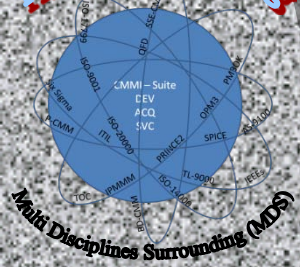
STORMI - BOK

HERMES



Unique Tool Box

IRMA-OMR



# Solution Architecture

## **Preface**

### **Part One – About the Model**

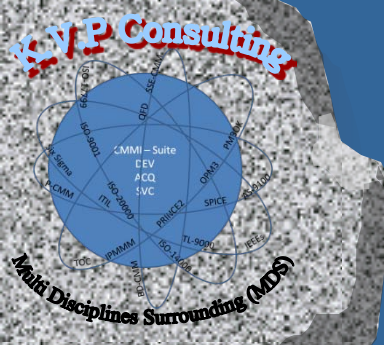
- 1. Introduction**
- 2. Model Components**
- 3. Working with the Model**
- 4. Relationships Among Areas**
- 5. Implementation Guidelines**
- 6. Interpretation Guidelines**

### **Part Two – Model Body**

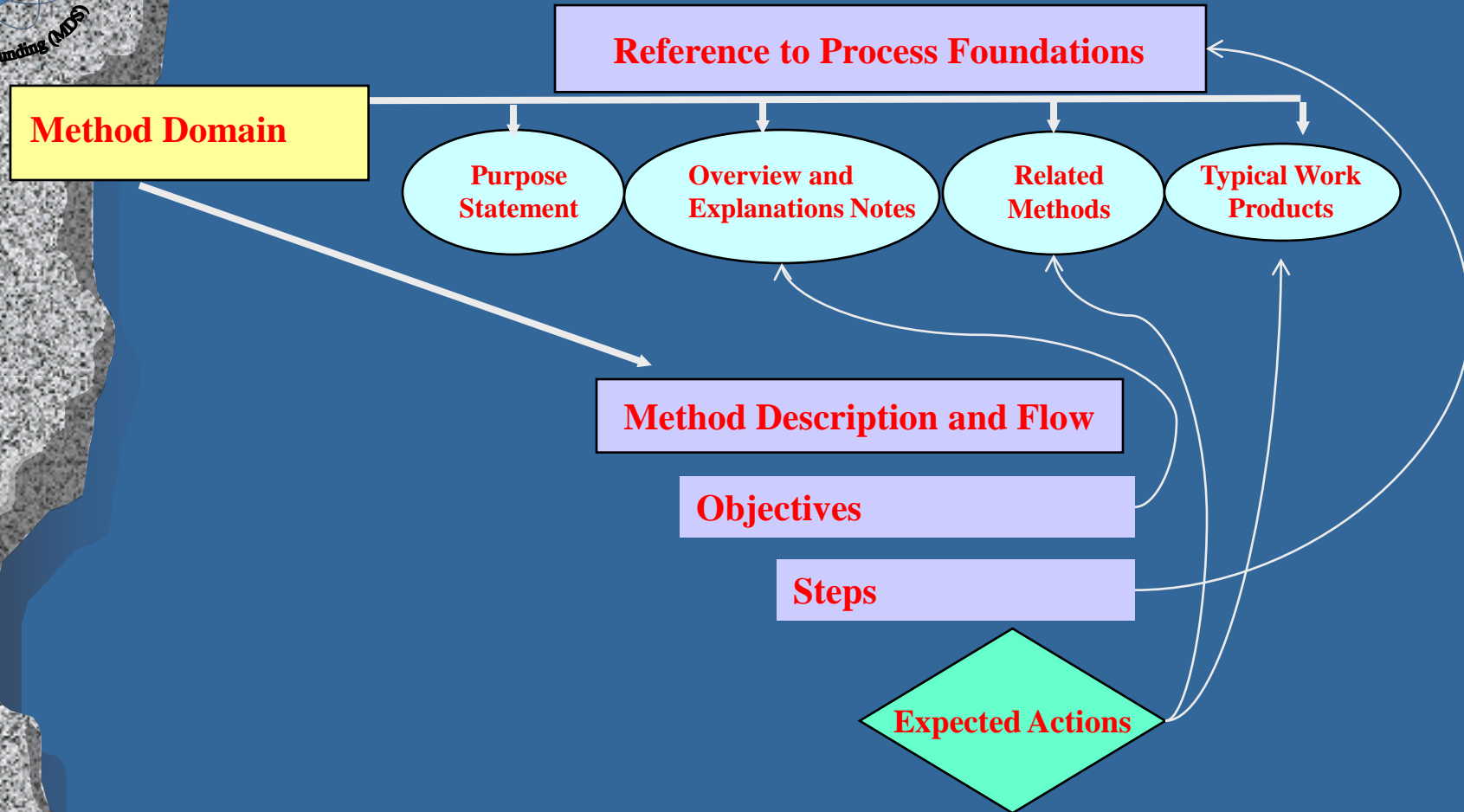
- 1. Volume #1 – Process Foundations**
- 2. Volume #2 – Foundation Processes**
- 3. Volume #3 – Delivery Processes**
- 4. Volume #4 – Support Processes**
- 5. Volume #5 – Skills Building Processes**
- 6. Volume #6– Process Improvement and Optimization Capabilities**

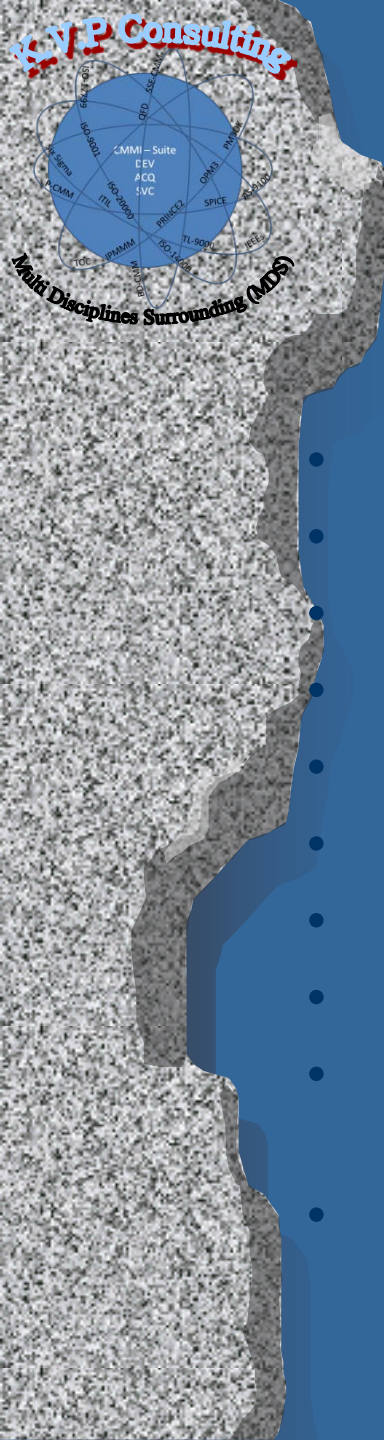
### **Part Three – The Appendices and Glossary**

- References**
- Acronyms**
- Glossary**



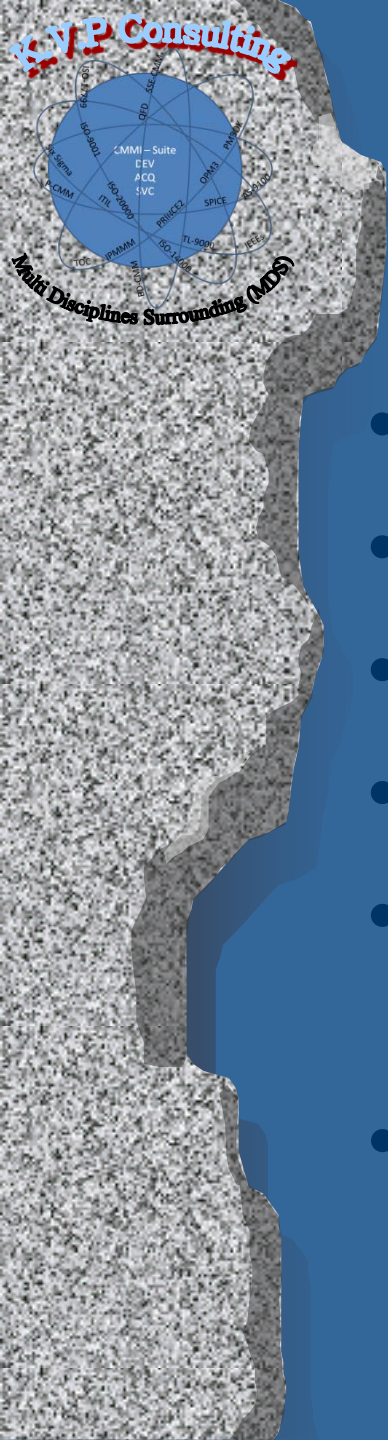
# Volume Chapter Structure





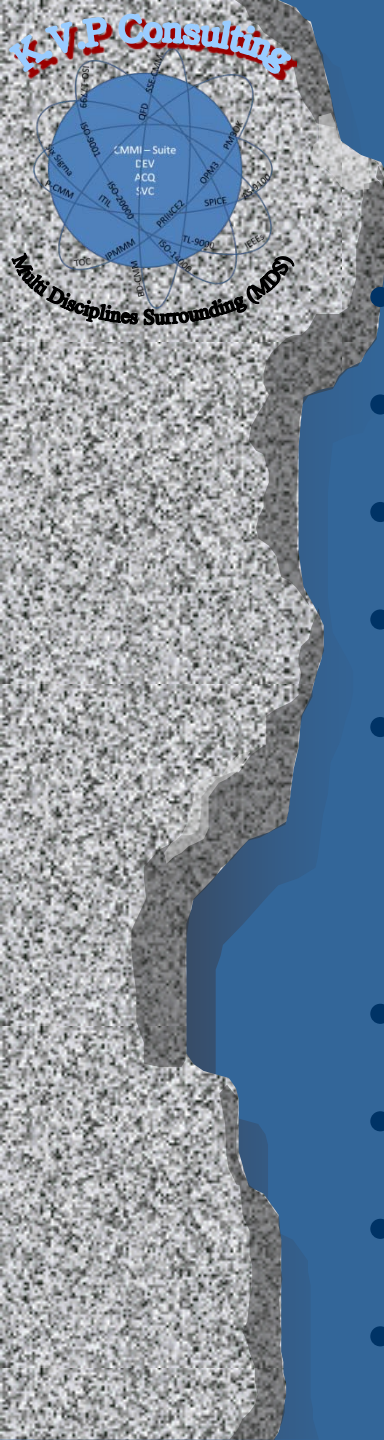
# Operational Processes KPI's

- Known Capability and Stable
- Defined Ingredients
- Known Critical Elements
- Meeting Objectives
- Controlled Interfaces
- Responsive / Modifiable
- Resilience / “Agile”
- Relevant ‘What If’s Scenarios
- Accepted Tolerance / Freedom Boundaries
- Predictable Outcomes
- Influence of Critical Elements on process output
- Process resources utilization ‘What If’s Scenarios
- Process elements capability
- Quantitative definition of process ingredients



# Agenda

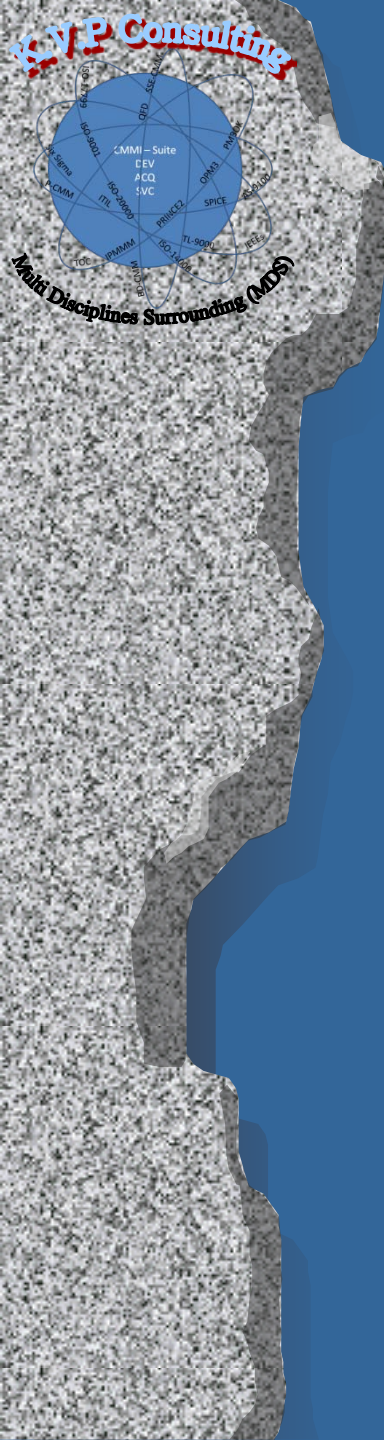
- Process flow
- Background
- First Level Filtering (PA Level)
- Second Level Filtering (Goal Level)
- How We Approach the Combination and Integration of the Common PAs
- Suggestions and Open Questions



# Process flow

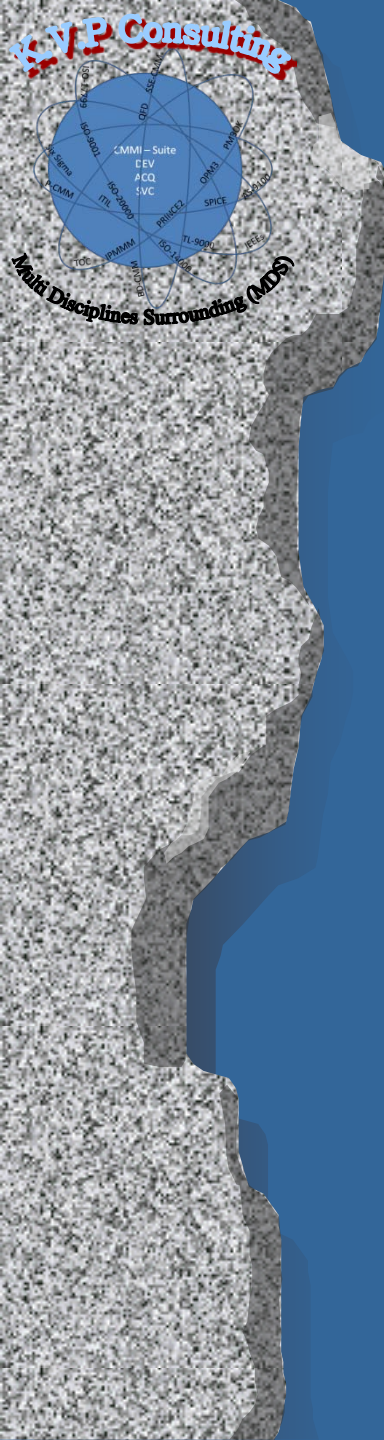
- Organizational Structure Review and Mapping
- Organizational Scope Planning
- Process Improvement Effort Objectives
- Supporting Quality Standards Scope
- Correlating the Organizational Mission and Responsibilities to the CMMIs Content and context
- Supporting Quality Standards Mapping
- CMMI Harmonization Process
- Conducting Detailed Gap Analysis
- Gap Analysis Result Segmentation





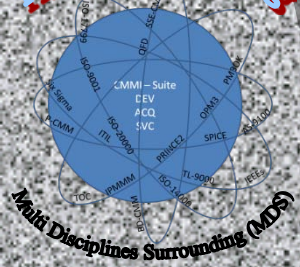
# Organizational Structure Review and Mapping

- Government Agency
- Structure and Size
  - 6 Senior Managers
  - ~250 Project / Program Managers
  - ~900 In-house Development, Service and Maintenance Personal
  - ~2000 External Contractors
  - Internal R&D Team
  - Internal Reliability and Performance Team



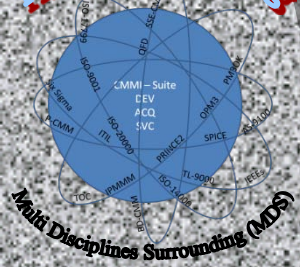
# Process Improvement Effort Objectives

- 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
- ACQ PMs / PMO
  - PMBOK
  - DoD 5000.01 & 5000.02
- Maintenance and Service
  - ISO 14000
  - OHAS 18000



# Additional Standards Elements

- ISO 9001-2008 = 216
- OHSAS 18001 = 132
- ISO 27001 = 126
- ISO 27002 = 134
- ISO 14001 = 139
- PMBOK 3<sup>rd</sup> = 804
- OPM3 = 1402
- DoD-AF V1.5 = 40
- ISO 20000 = 196
- ITIL V2.0 = 741
- Six Sigma = 148
- Baldrige = 127
- EFQM = 804

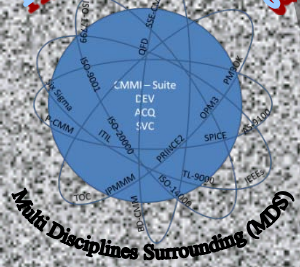
Total of

**5009**

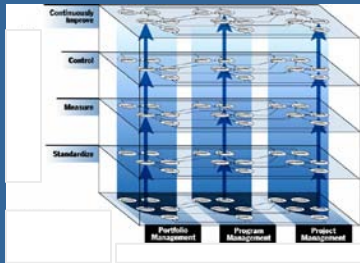
IS IT?

'Additional' Elements

- Not Counted
  - Domain Specific Regulations
  - LEAN
  - DoD-AF V2
  - SOA-MM



# Supporting Quality Standards Mapping



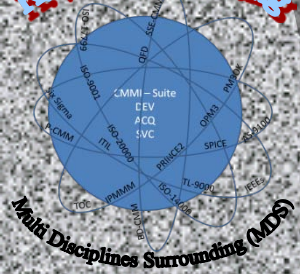
**SGMM**



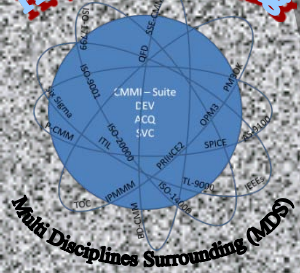
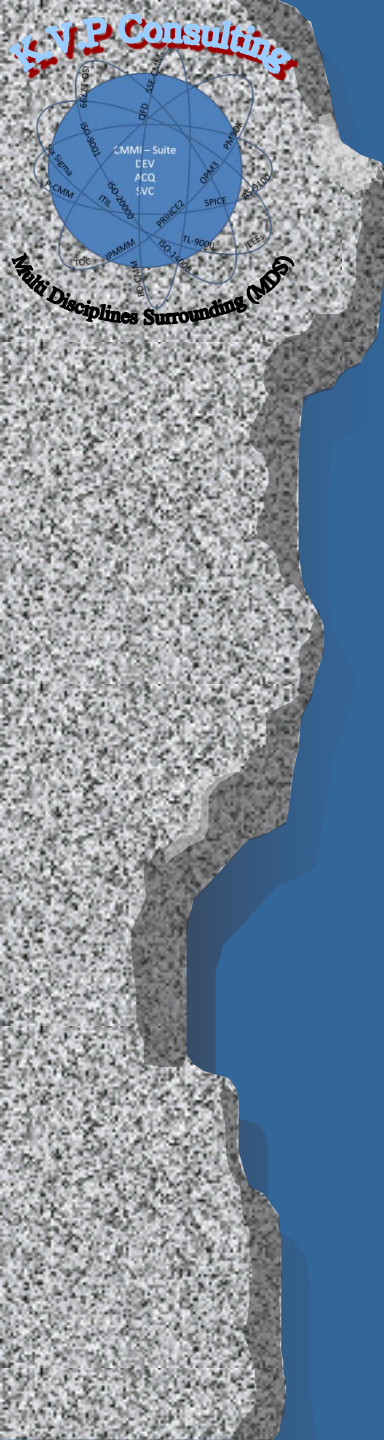
**Tool**



**Slides**



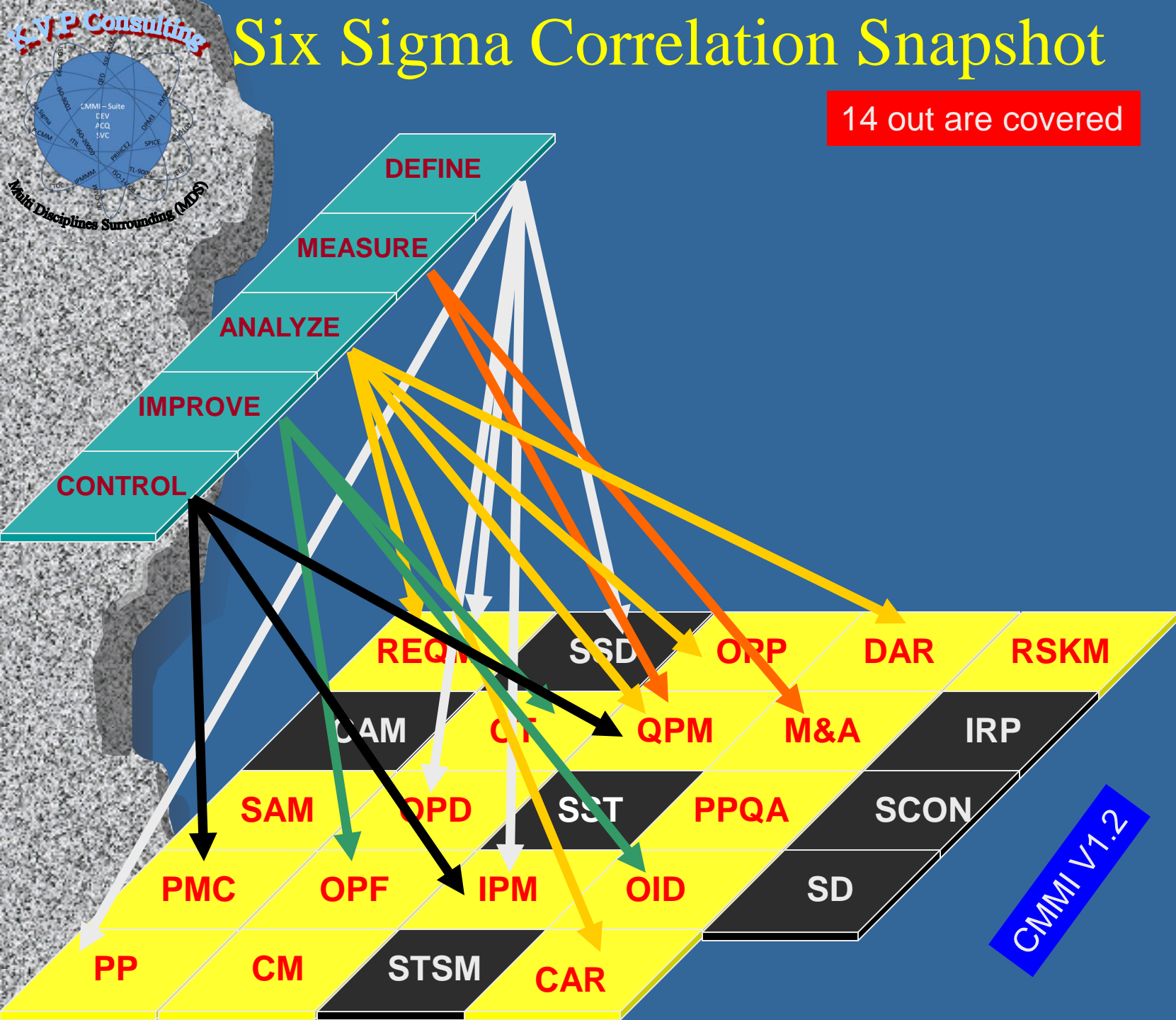
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R																																																																																									
<p>Strategy, Management, and Regulatory</p> <p>Black text = Requirements for this level Blue text = Descriptive characteristics or desired traits</p> <p>Vision, planning, decision making, strategy execution, discipline, regulatory, and investment</p> <div style="border: 2px solid black; width: 300px; height: 80px; margin-left: 10px;"></div>																																																																																																										
<p>SGMM Levels</p> <table border="1"> <thead> <tr> <th></th> <th></th> <th>PP</th> <th>PMC</th> <th>M&amp;A</th> <th>PPQA</th> <th>REQM</th> <th>SAM</th> <th>SD</th> <th>AM</th> <th style="background-color: red;">ARD</th> <th>SSAD</th> <th>DAR</th> <th>OPD</th> <th>OFF</th> <th>IPM</th> <th>OT</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Exploring &amp; Initiating</td> <td colspan="16">                     Developing first Smart Grid vision                      Support for experimentation                      Informal discussion with regulators                      Funding likely out of existing budget                 </td> </tr> <tr> <td>2</td> <td>Functional Investing</td> <td colspan="16">                     Integrated vision and acknowledgement                      Initial strategy and business plan approved                      Initial alignment of investments to vision                      Distinct Smart Grid Funding and budget created in collaboration with regulators and stakeholders                      Commitment to proof of concepts                      Identify Initial Smart Grid leader                 </td> </tr> <tr> <td>3</td> <td>Integrating Cross Functional</td> <td colspan="16">                     Completed Smart Grid strategy and business case incorporated into Corporate strategy                      Smart Grid governance model deployed                      Smart Grid leader(s) (with authority) ensure cross-LOB application                      Mandate/consensus with regulators to make and fund Smart Grid investments                      Corporate strategy expanded                 </td> </tr> <tr> <td>4</td> <td>Optimizing Enterprise Wide</td> <td colspan="16">                     Smart Grid is a core competency that drives strategy and influences Corporate direction                      External stakeholders share in strategy                      Willing to invest and divest, or engage in JV and IP sharing to execute strategy                 </td> </tr> </tbody> </table>																				PP	PMC	M&A	PPQA	REQM	SAM	SD	AM	ARD	SSAD	DAR	OPD	OFF	IPM	OT	1	Exploring & Initiating	Developing first Smart Grid vision Support for experimentation Informal discussion with regulators Funding likely out of existing budget																2	Functional Investing	Integrated vision and acknowledgement Initial strategy and business plan approved Initial alignment of investments to vision Distinct Smart Grid Funding and budget created in collaboration with regulators and stakeholders Commitment to proof of concepts Identify Initial Smart Grid leader																3	Integrating Cross Functional	Completed Smart Grid strategy and business case incorporated into Corporate strategy Smart Grid governance model deployed Smart Grid leader(s) (with authority) ensure cross-LOB application Mandate/consensus with regulators to make and fund Smart Grid investments Corporate strategy expanded																4	Optimizing Enterprise Wide	Smart Grid is a core competency that drives strategy and influences Corporate direction External stakeholders share in strategy Willing to invest and divest, or engage in JV and IP sharing to execute strategy															
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<p>Navigation: Strategy, Management   Organization, Structure   Technology   Societal &amp; Environmental   Grid Operations   Work &amp; Asset Management   Customer Management</p>																																																																																																										



# Some Mapping Examples

# Six Sigma Correlation Snapshot

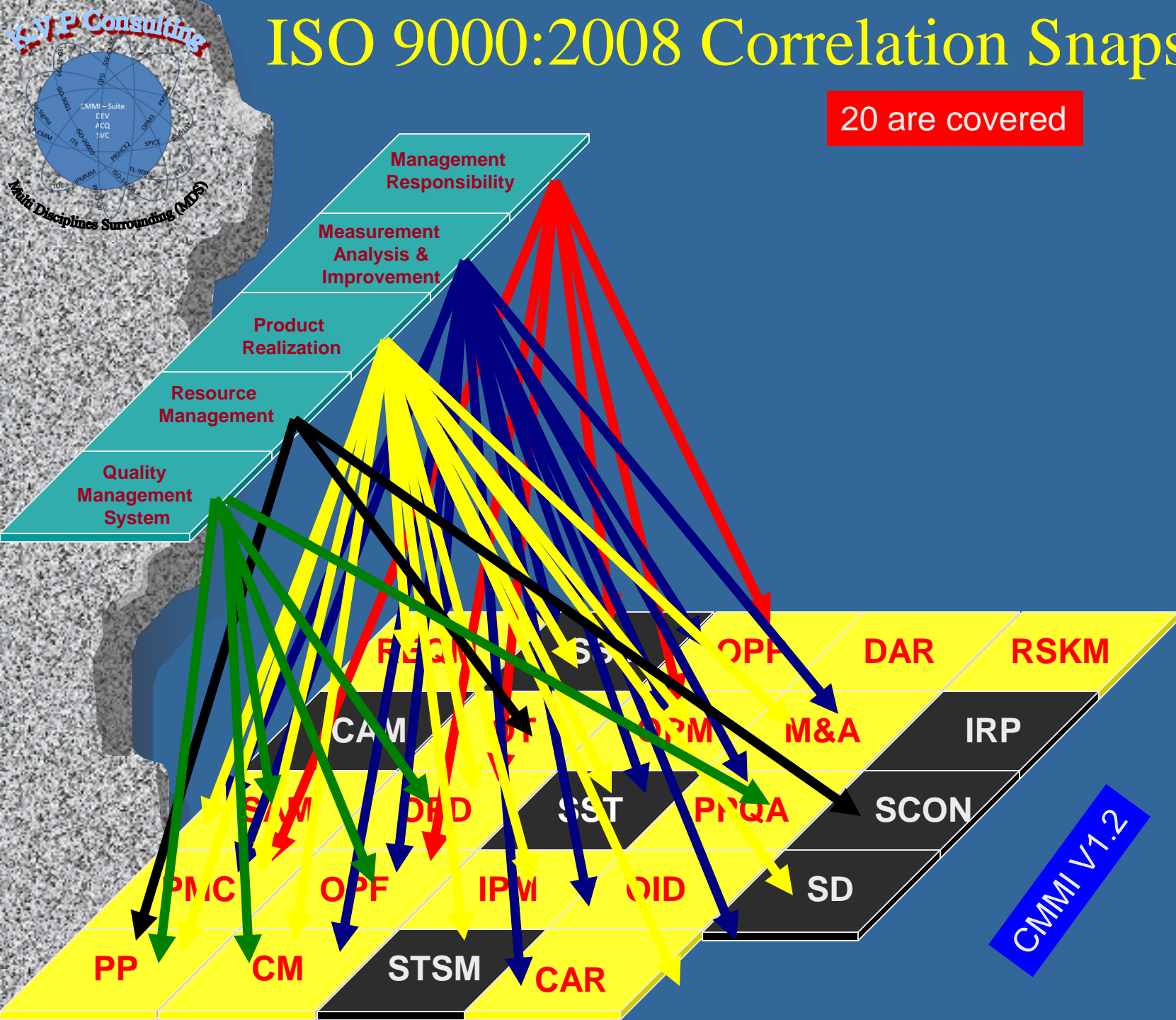
14 out are covered





# ISO 9000:2008 Correlation Snapshot

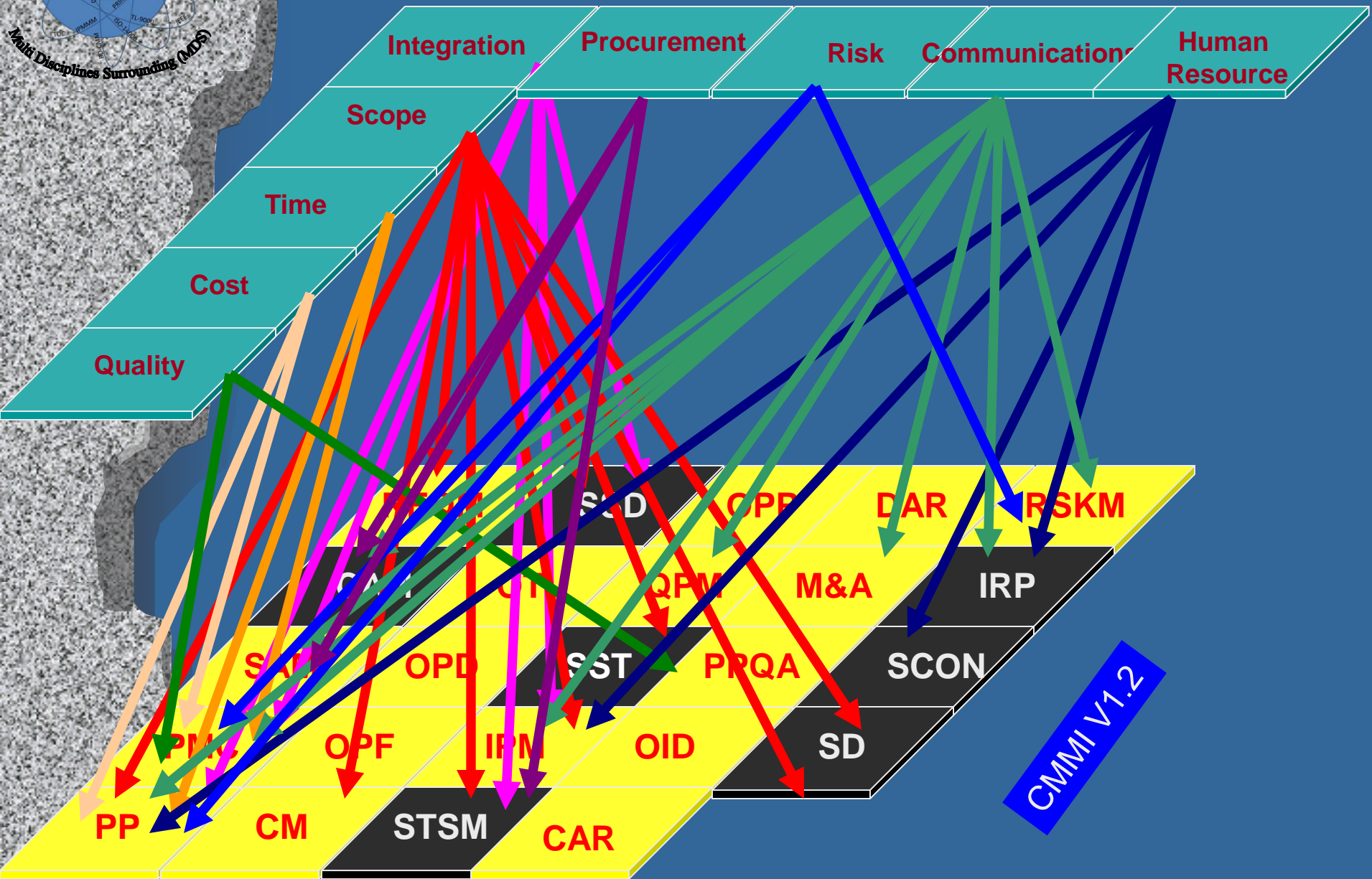
20 are covered



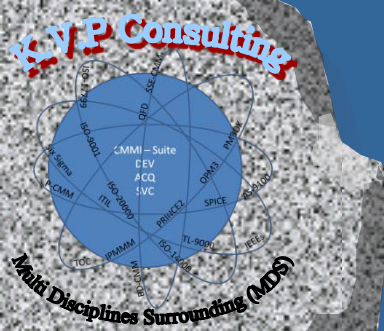
CMMI V1.2

# PMBOK Correlation Snapshot

15 PAs are covered

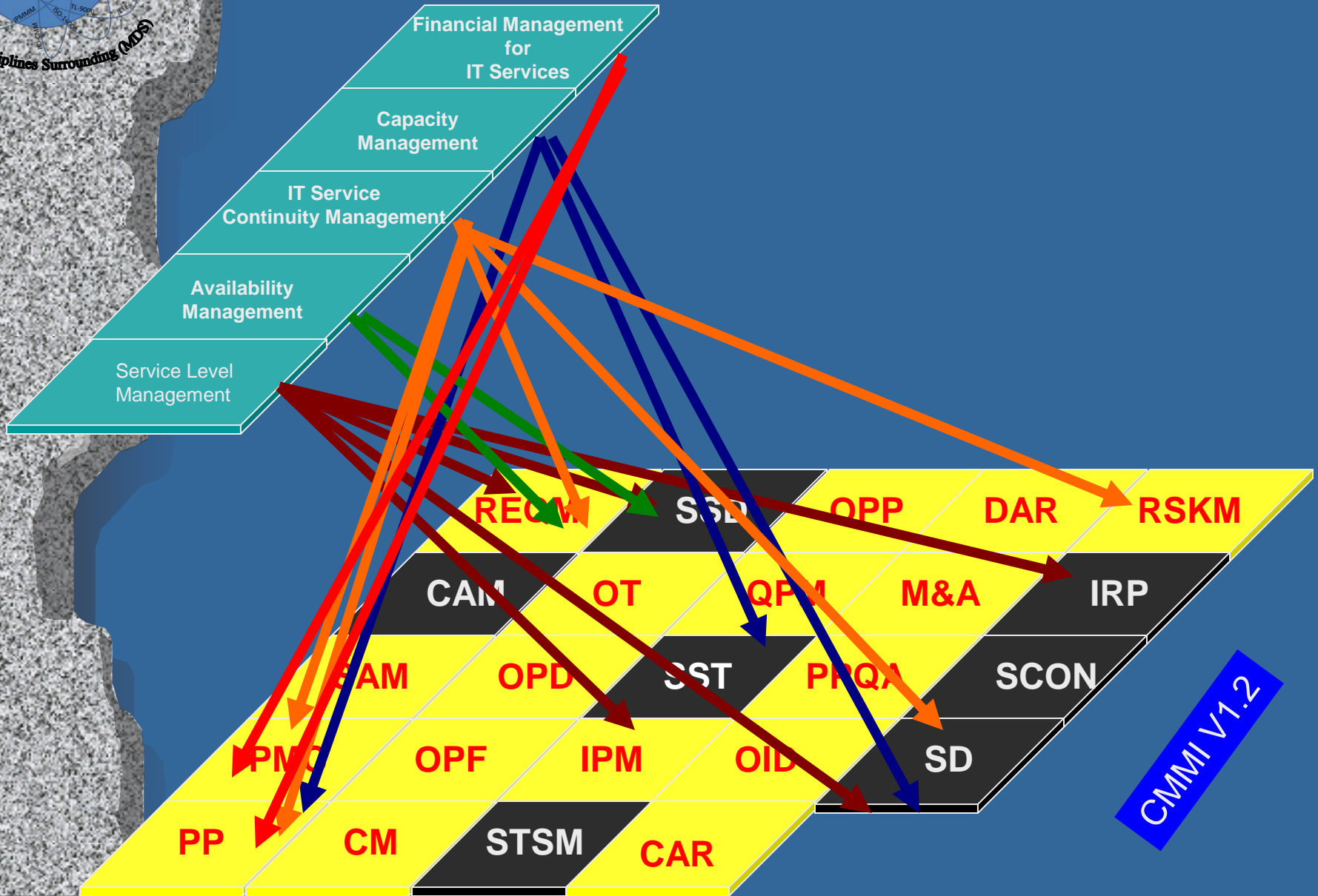


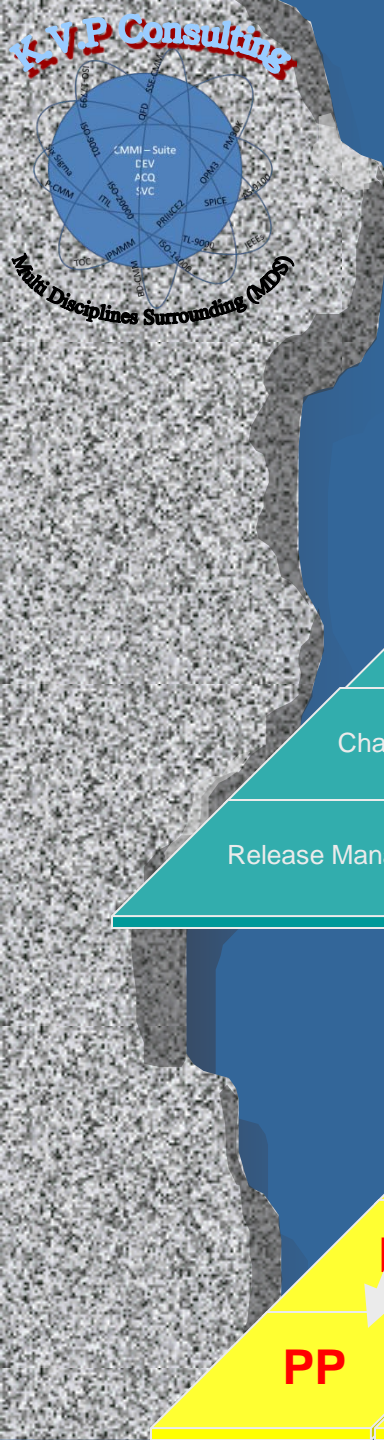
CMMI V1.2



# ITIL – CMMI Correlation Snapshot

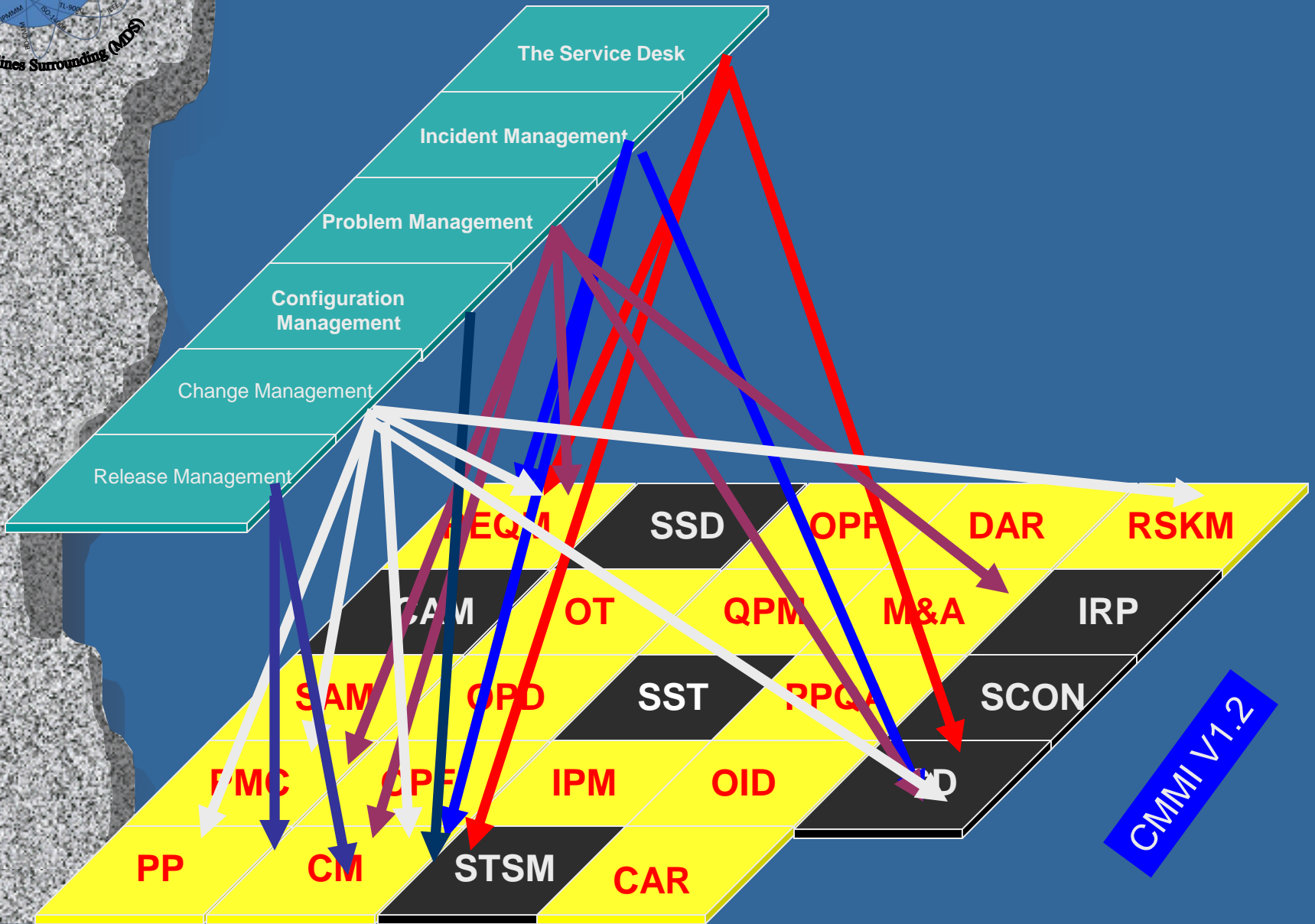
## Service Delivery



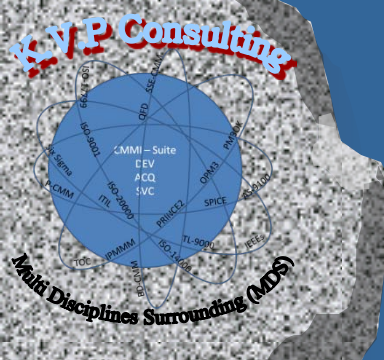


# ITIL – CMMI Correlation Snapshot

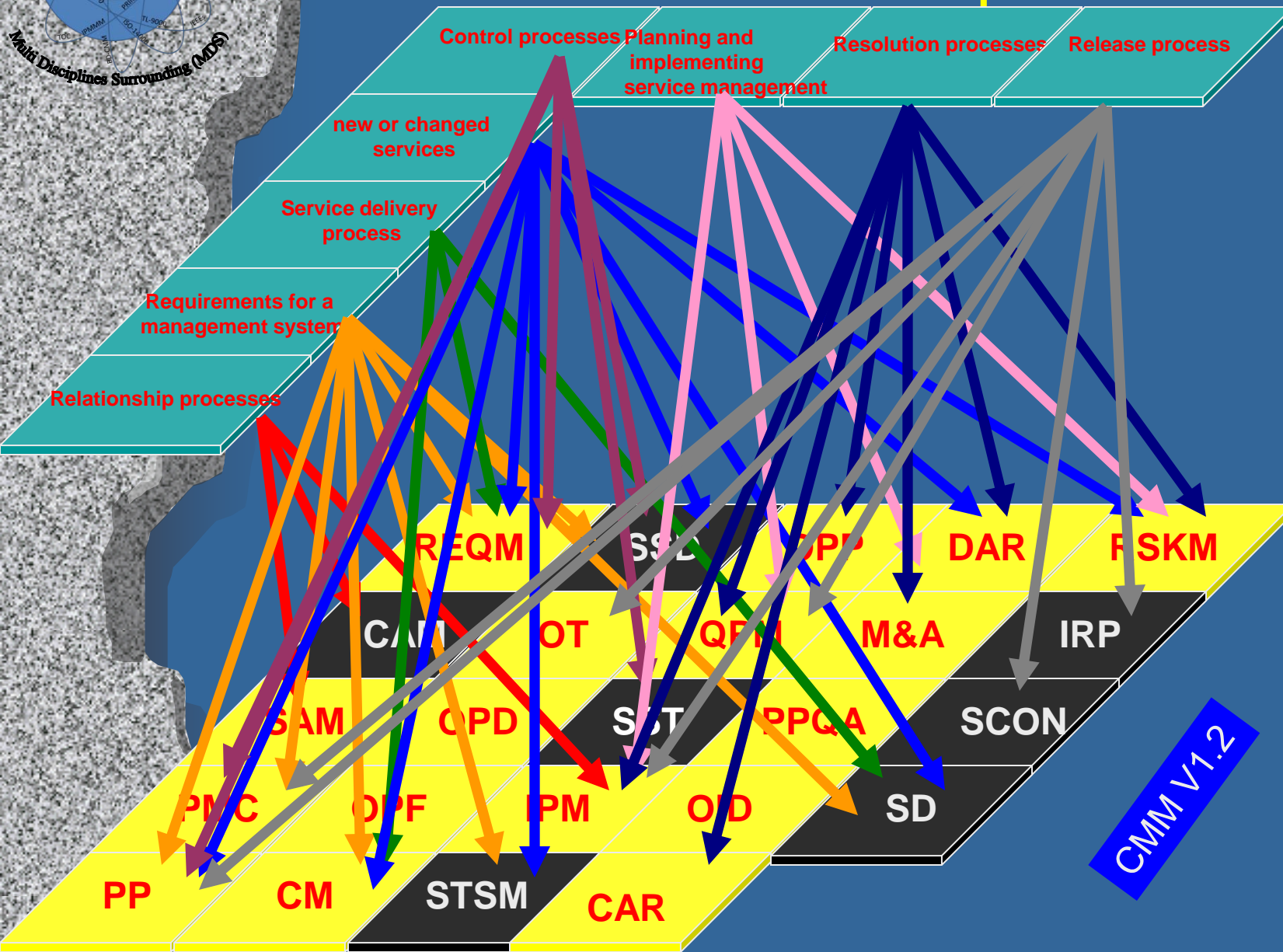
## Service Support



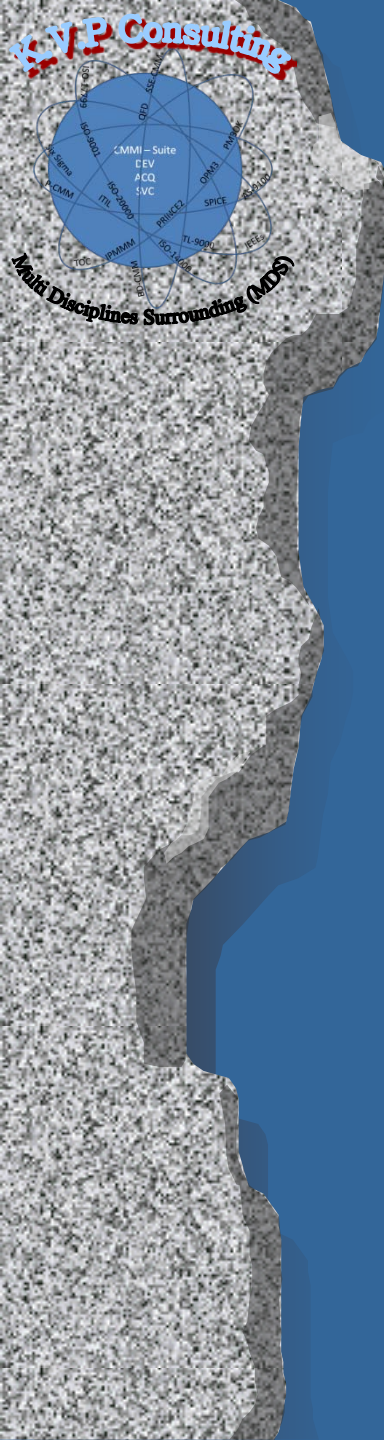
**CMMI V1.2**



# ISO 20000 – CMMI Correlation Snapshot



CMM V1.2

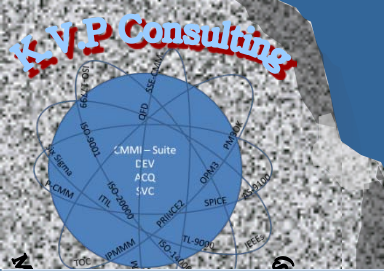


ISO 9001 2008
OHSAS 18001 2007
ISO9000-3
ISO IEC 27001 2005
ISO IEC 27002 (17799)
ISO 14001 2004
ISO 12207
ISO 13485
AS 9100
PMBOK 3rd
OPM3
PRINCE
PMMM
5-S
LEAN
LEAN for Development
Six Sigma 12 Steps
DMAIC Tool Kit
Six Sigma
DFSS
LEAN Six Sigma

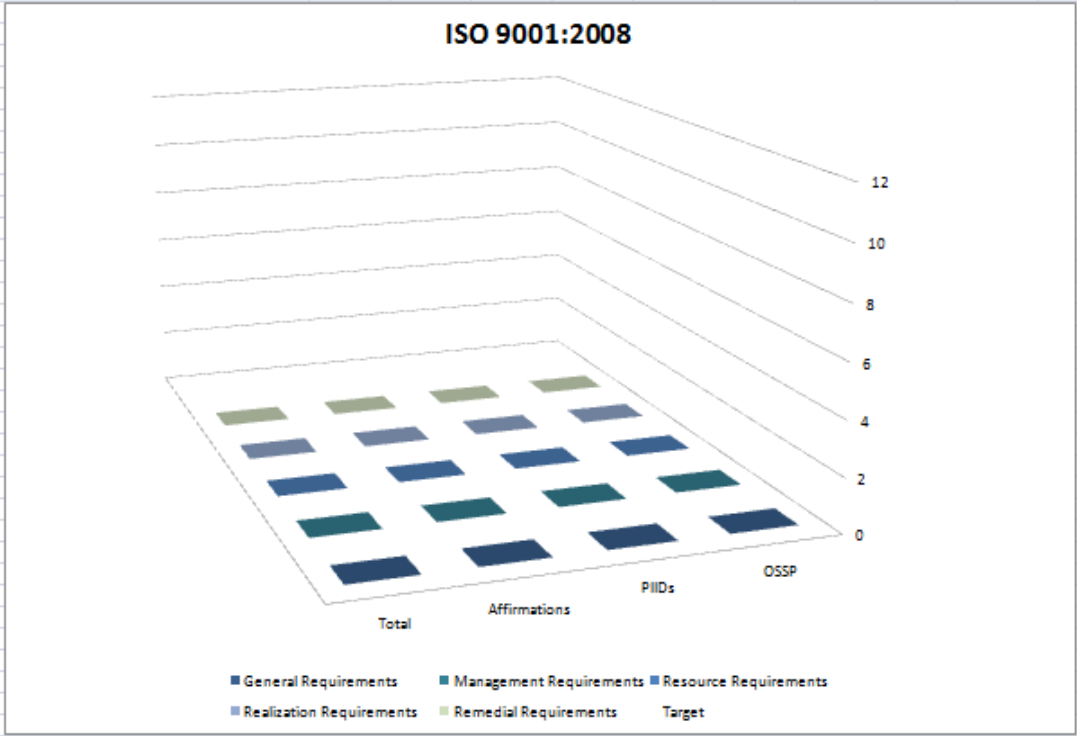
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ITIL V3.0
ISO 20000
Baldrige
EFQM
DoDAF v1.5
SOA MM
DoD 5000.01
DoD 5000.02
COBIT
SOX
Clinger Cohen
EIA 632
Safty



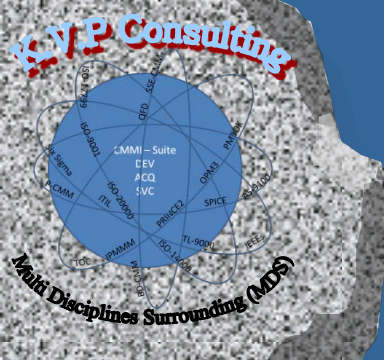
1	To Index											
2	Chapter	Section	Requirements			OSSP	PIIDs	Affirmations	Total	C		
3	4 General Requirements											
4		4.1 Develop Your Quality Management System (QMS)										
5			4.1.1	Establish your organization's QMS.		0.00	0.00	0.00	0.00			
6			4.1.2	Document your organization's QMS.		0.00	0.00	0.00	0.00			
7			4.1.3	Implement your organization's QMS.		0.00	0.00	0.00	0.00			
8			4.1.4	Maintain your organization's QMS.		0.00	0.00	0.00	0.00			
9			4.1.5	Improve your organization's QMS.		0.00	0.00	0.00	0.00			
10		4.2 Document Your Quality Management System (QMS)										
11			4.2.1 Manage Quality Management System Documents									
12			4.2.1.1	Develop documents for your organization's QMS.		0.00	0.00	0.00	0.00			
13			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			
14			4.2.2 Prepare Quality Management System Manual									
15			4.2.2.1	Establish a quality manual for your organization.		0.00	0.00	0.00	0.00			
16			4.2.2.2	Maintain your organization's quality manual.		0.00	0.00	0.00	0.00			
17			4.2.3 Control Quality Management System Documents									
18			4.2.3.1	Control your organization's QMS documents.		0.00	0.00	0.00	0.00			
19			4.2.3.2	Control documents that are used as QMS records.		0.00	0.00	0.00	0.00			
20			4.2.4 Establish Quality Management System Records									



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	<b>To Index</b>																	
2			OSSF	PIIDs	Affirmations	Total												
3			12	12	12	12												
4		<b>4 General Requirements</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>												
5		4.1 Develop Your Quality Management System (QMS)	0	0	0	0												
6		4.2 Document Your Quality Management System (QMS)	0	0	0	0												
7																		
8		<b>5 Management Requirements</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>												
9		5.1 Show Your Commitment to Quality	0	0	0	0												
10		5.2 Focus On Your Customers	0	0	0	0												
11		5.3 Support Your Quality Policy	0	0	0	0												
12		5.4 Carry Out Your QMS Planning	0	0	0	0												
13		5.5 Allocate QMS Responsibility and Authority	0	0	0	0												
14		5.6 Perform QMS Management Reviews	0	0	0	0												
15																		
16		<b>6 Resource Requirements</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>												
17		6.1 Provide Required QMS Resources	0	0	0	0												
18		6.2 Provide Competent QMS Personnel	0	0	0	0												
19		6.3 Provide Necessary Infrastructure	0	0	0	0												
20		6.4 Provide Suitable Work Environment	0	0	0	0												
21																		
22		<b>7 Realization Requirements</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>												
23		7.1 Control Product Realization Planning	0	0	0	0												
24		7.2 Control Customer-Related Processes	0	0	0	0												
25		7.3 Control Product Design and Development	0	0	0	0												
26		7.4 Control Purchasing and Purchased Products	0	0	0	0												
27		7.5 Control Production and Service Provision	0	0	0	0												
28		7.6 Control Monitoring and Measuring Equipment	0	0	0	0												
29																		
30		<b>8 Remedial Requirements</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>												
31		8.1 Establish Monitoring and Measurement Processes	0	0	0	0												
32		8.2 Carry Out Monitoring and Measurement Activities	0	0	0	0												
33		8.3 Identify and Control Nonconforming Products	0	0	0	0												
34		8.4 Collect and Analyze Quality Management Data	0	0	0	0												
35		8.5 Make Improvements and Take Remedial Actions	0	0	0	0												
36																		
37																		
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39																		
40																		



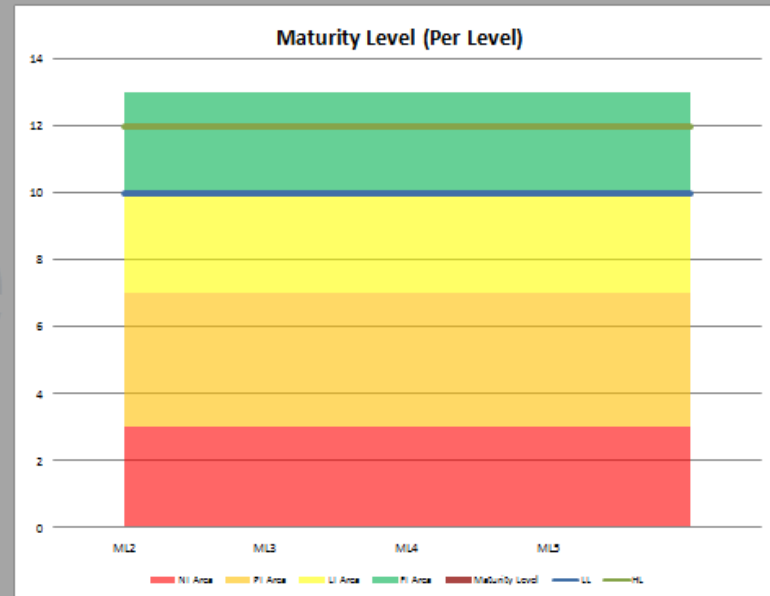
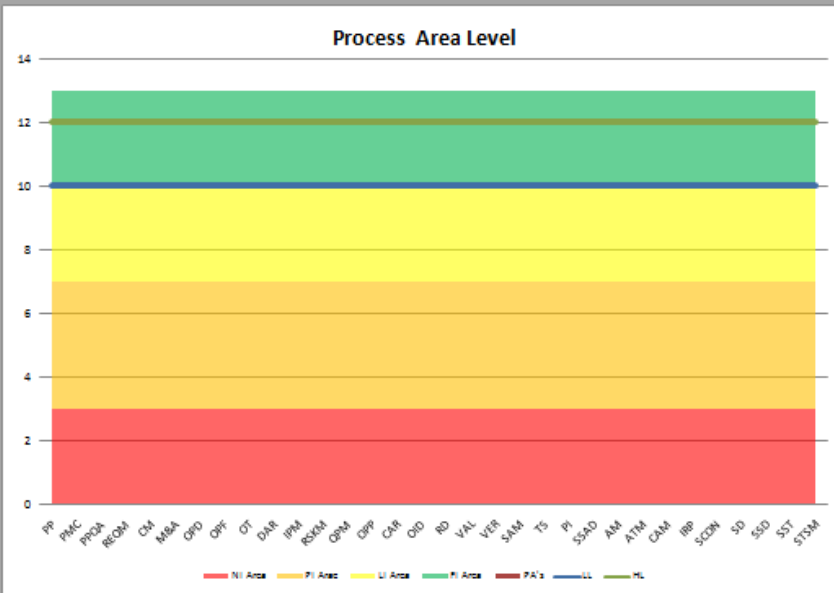


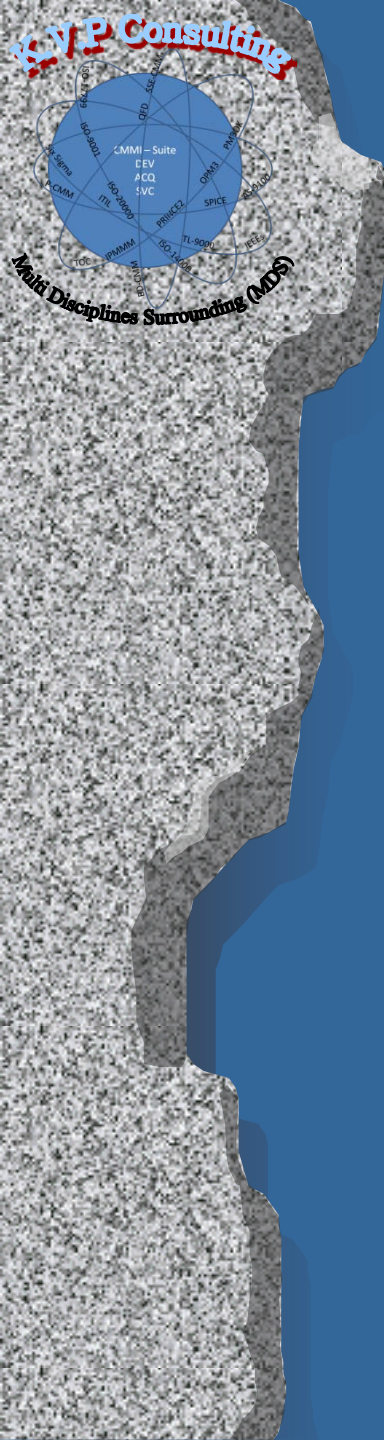


Process Level	
REGM	
PP	
PMC	
M&A	
PPQA	
CM	
SAM	
RD	
TS	VAL
PI	
VER	
VAL	
OPF	
OPD	
OT	
IPM	
RSKM	
DAR	
OPP	
OPM	
OID	
CA&R	

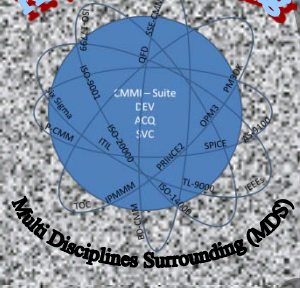
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orange	4*6	PI	4.00	6.00
yellow	7*9	LI	7.00	9.00
green	10*12	FI	10.00	12.00

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

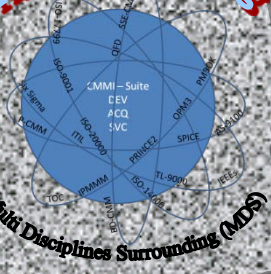
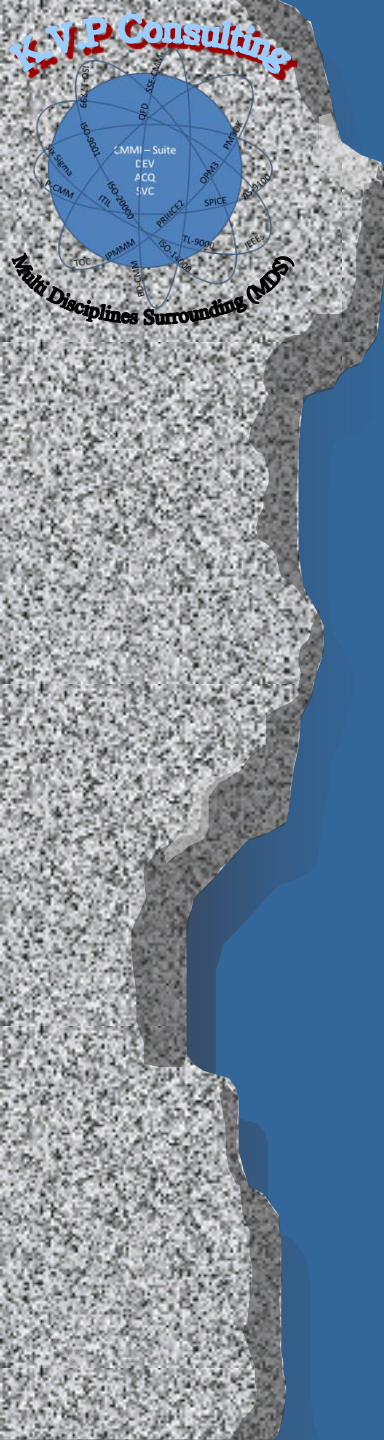




# CMMI Harmonization Process



CMMI-SVC V 1.2										CMMI-ACQ V 1.2										CMMI-DEV V 1.2									
Con	Mat	Process	Process	Proc	SO N	SP N	Titc			Con	Mat	Proc	Proc	SO N	SP N	Titc			Con	Mat	Proc	Proc	SO N	SP N	Titc				
<p>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.</p>										<p>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.</p>										<p>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.</p>									
SVC	S	Process	Mat	Causal Anal	CAR		Purpose			ACC	S	Sup	Cau	CAR					DEV	S	Sup	Cau	CAR						
<p>Determine Causes of Defects and Problems Root causes of defects and problems are systematically determined</p>										<p>Determine Causes of Defects Root causes of defects and other problems are systematically determined</p>										<p>Root causes of defects and other problems are systematically determined</p>									
SVC	S	Process	Mat	Causal Anal	CAR	1				ACC	S	Sup	Cau	CAR	1				DEV	S	Sup	Cau	CAR	1					
<p>Select Defects and Problems 1. Gather relevant defect and problem data</p>										<p>Select Defect Data for Analysis 1.1 Gather relevant defect or problem data</p>										<p>Select Defect Data for Analysis 1.1 Gather relevant defect or problem data</p>									
SVC	S	Process	Mat	Causal Anal	CAR	1	1.1			ACC	S	Sup	Cau	CAR	1	1.1			DEV	S	Sup	Cau	CAR	1	1.1				
SVC	S	Process	Mat	Causal Anal	CAR	1	2			ACC	S	Sup	Cau	CAR	1	1.1.2			DEV	S	Sup	Cau	CAR	1	1.1				
<p>Analyze Causes Perform causal analysis of selected defects and problems and propose actions to address them</p>										<p>Analyze Causes Perform causal analysis of selected defects and other problems and propose actions to address them</p>										<p>Analyze Causes Perform causal analysis of selected defects and other problems and propose actions to address them</p>									
SVC	S	Process	Mat	Causal Anal	CAR	1	1.2			ACC	S	Sup	Cau	CAR	1	1.2			DEV	S	Sup	Cau	CAR	1	1.2				
SVC	S	Process	Mat	Causal Anal	CAR	1	1.2.1			ACC	S	Sup	Cau	CAR	1	1.2.1			DEV	S	Sup	Cau	CAR	1	1.2				
SVC	S	Process	Mat	Causal Anal	CAR	1	1.2.2			ACC	S	Sup	Cau	CAR	1	1.2.2			DEV	S	Sup	Cau	CAR	1	1.2				
SVC	S	Process	Mat	Causal Anal	CAR	1	1.2.3			ACC	S	Sup	Cau	CAR	1	1.2.3			DEV	S	Sup	Cau	CAR	1	1.2				
SVC	S	Process	Mat	Causal Anal	CAR	1	1.2.4			ACC	S	Sup	Cau	CAR	1	1.2.4			DEV	S	Sup	Cau	CAR	1	1.2				
<p>Address Causes of Defects and Problems Root causes of defects and problems are systematically addressed to prevent their future occurrence</p>										<p>Address Causes of Defects Root causes of defects and other problems are systematically addressed to prevent their future occurrence</p>										<p>Address Causes of Defects Root causes of defects and other problems are systematically addressed to prevent their future occurrence</p>									
SVC	S	Process	Mat	Causal Anal	CAR	2				ACC	S	Sup	Cau	CAR	2				DEV	S	Sup	Cau	CAR	2					
<p>Implement Action Proposals Implement selected action proposals developed in causal analysis</p>										<p>Implement Action Proposals Implement selected action proposals developed in causal analysis</p>										<p>Implement the Action Proposals Implement the selected action proposals that were developed in causal analysis</p>									
SVC	S	Process	Mat	Causal Anal	CAR	2	2.1			ACC	S	Sup	Cau	CAR	2	2.1			DEV	S	Sup	Cau	CAR	2	2.1				
SVC	S	Process	Mat	Causal Anal	CAR	2	2.1.1			ACC	S	Sup	Cau	CAR	2	2.1.1			DEV	S	Sup	Cau	CAR	2	2.1.1				
SVC	S	Process	Mat	Causal Anal	CAR	2	2.1.2			ACC	S	Sup	Cau	CAR	2	2.1.2			DEV	S	Sup	Cau	CAR	2	2.1.1				
SVC	S	Process	Mat	Causal Anal	CAR	2	2.1.3			ACC	S	Sup	Cau	CAR	2	2.1.3			DEV	S	Sup	Cau	CAR	2	2.1.1				
SVC	S	Process	Mat	Causal Anal	CAR	2	2.1.4			ACC	S	Sup	Cau	CAR	2	2.1.4			DEV	S	Sup	Cau	CAR	2	2.1.1				
SVC	S	Process	Mat	Causal Anal	CAR	2	2.1.5			ACC	S	Sup	Cau	CAR	2	2.1.5			DEV	S	Sup	Cau	CAR	2	2.1.1				
<p>Evaluate the Effect of Changes Evaluate the effect of changes on process performance</p>										<p>Evaluate the Effect of Changes Evaluate the effect of changes on process performance</p>										<p>Evaluate the Effect of Changes Evaluate the effect of changes on process performance</p>									
SVC	S	Process	Mat	Causal Anal	CAR	2	2.2			ACC	S	Sup	Cau	CAR	2	2.2			DEV	S	Sup	Cau	CAR	2	2.2				
SVC	S	Process	Mat	Causal Anal	CAR	2	2.2.1			ACC	S	Sup	Cau	CAR	2	2.2.1			DEV	S	Sup	Cau	CAR	2	2.2.1				
SVC	S	Process	Mat	Causal Anal	CAR	2	2.2.2			ACC	S	Sup	Cau	CAR	2	2.2.2			DEV	S	Sup	Cau	CAR	2	2.2.1				
SVC	S	Process	Mat	Causal Anal	CAR	2	2.2.3			ACC	S	Sup	Cau	CAR	2	2.2.3			DEV	S	Sup	Cau	CAR	2	2.2.1				
<p>Record Data Record causal analysis and resolution data for use across the project and organization</p>										<p>Record Data Record causal analysis and resolution data for use across the project and organization</p>										<p>Record Data Record causal analysis and resolution data for use across the project and organization</p>									
SVC	S	Process	Mat	Causal Anal	CAR	2	2.3			ACC	S	Sup	Cau	CAR	2	2.3			DEV	S	Sup	Cau	CAR	2	2.3				
<p>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.</p>										<p>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.</p>										<p>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.</p>									
SVC	S	Support		Configurat	CM		Purpose			ACC	S	Sup	Con	CM				DEV	S	Sup	Con	CM							



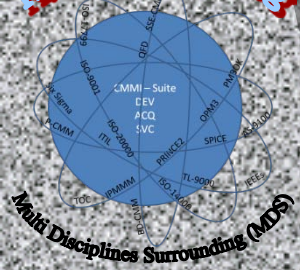
# CMMI Harmonization Process Tool



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
Disciplines Surrounding		
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

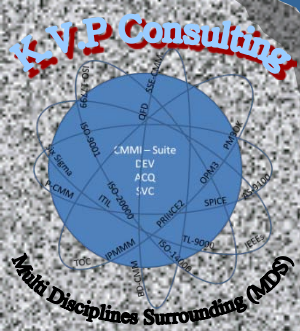
# First Level Filtering (PA Level)

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



## Second Level Filtering (Goal Level)

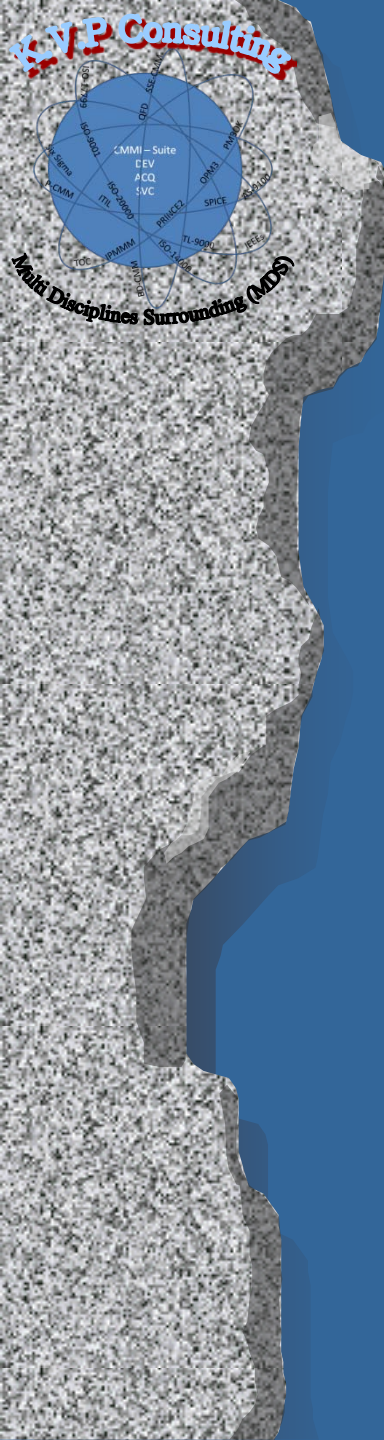
- Service System Development (SSD),  
SG 1 – Develop and Analyze Stakeholder Requirements  
can be found in Requirements Development
- Acquisition Technical Management (ATM),  
SG 1 – Evaluate Technical Solutions  
can be found in Technical Solution
- Acquisition Technical Management (ATM),  
SG 2 – Perform Interface Management  
can be found in Technical Solution and Product Integration



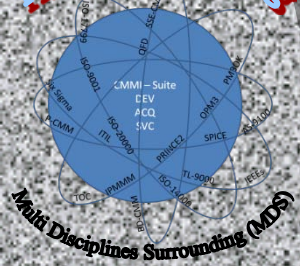
# Second Level Filtering (Goal Level)

- Service Continuity (SCON),  
SG 3 - Verify and Validate the Service Continuity Plan can be found in Verification and Validation
- Service System Development (SSD),  
SG 3 - Verify and Validate Service Systems can be found in Verification and Validation





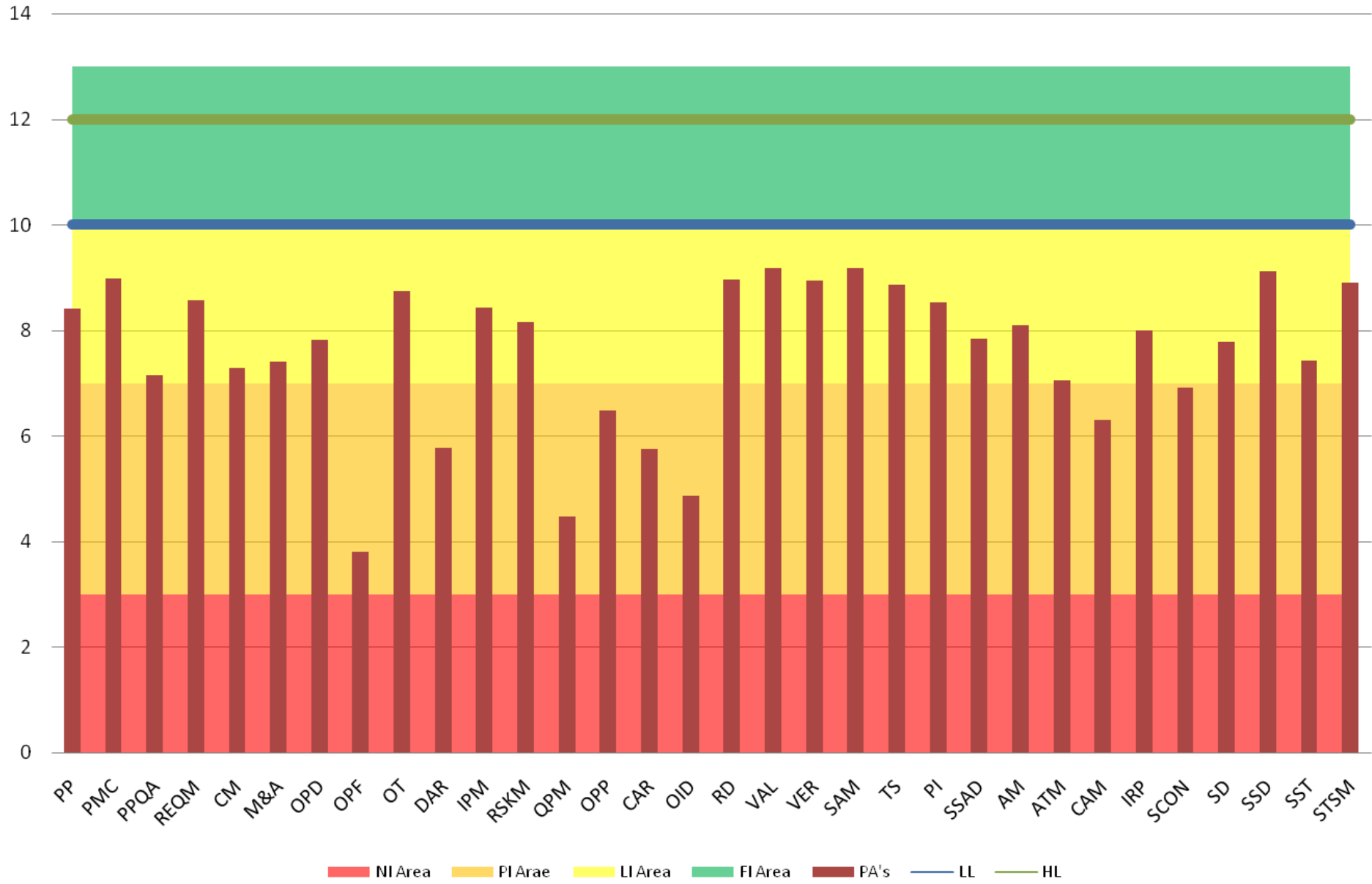
# Conducting Detailed Gap Analysis

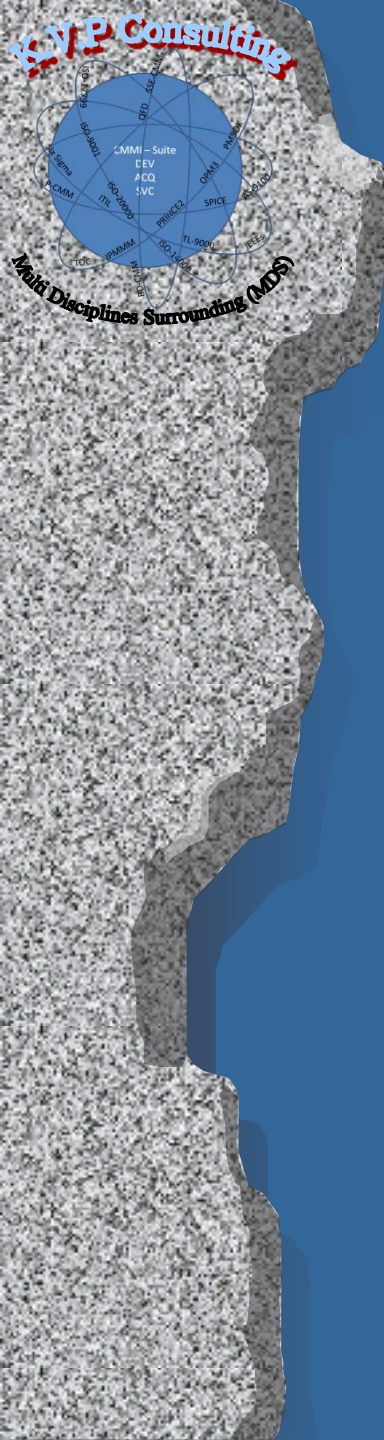


# Gap Analysis Model Scope

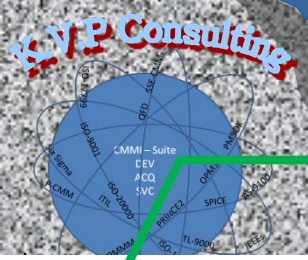
- 32 CMMI Process Areas
  - 75 CMMI Specific Goals
    - 249 CMMI Specific Practices
      - 1169 CMMI Specific Subpractices
  - 5 ‘Classic’ CMMI Generic Goals (Extended)
    - 17 ‘Classic’ CMMI Generic Practices (Extended)
      - 34 ‘Classic’ CMMI Generic Subpractices (Extended)
- Cross-referenced with the following additional standards elements

# Process Area Level





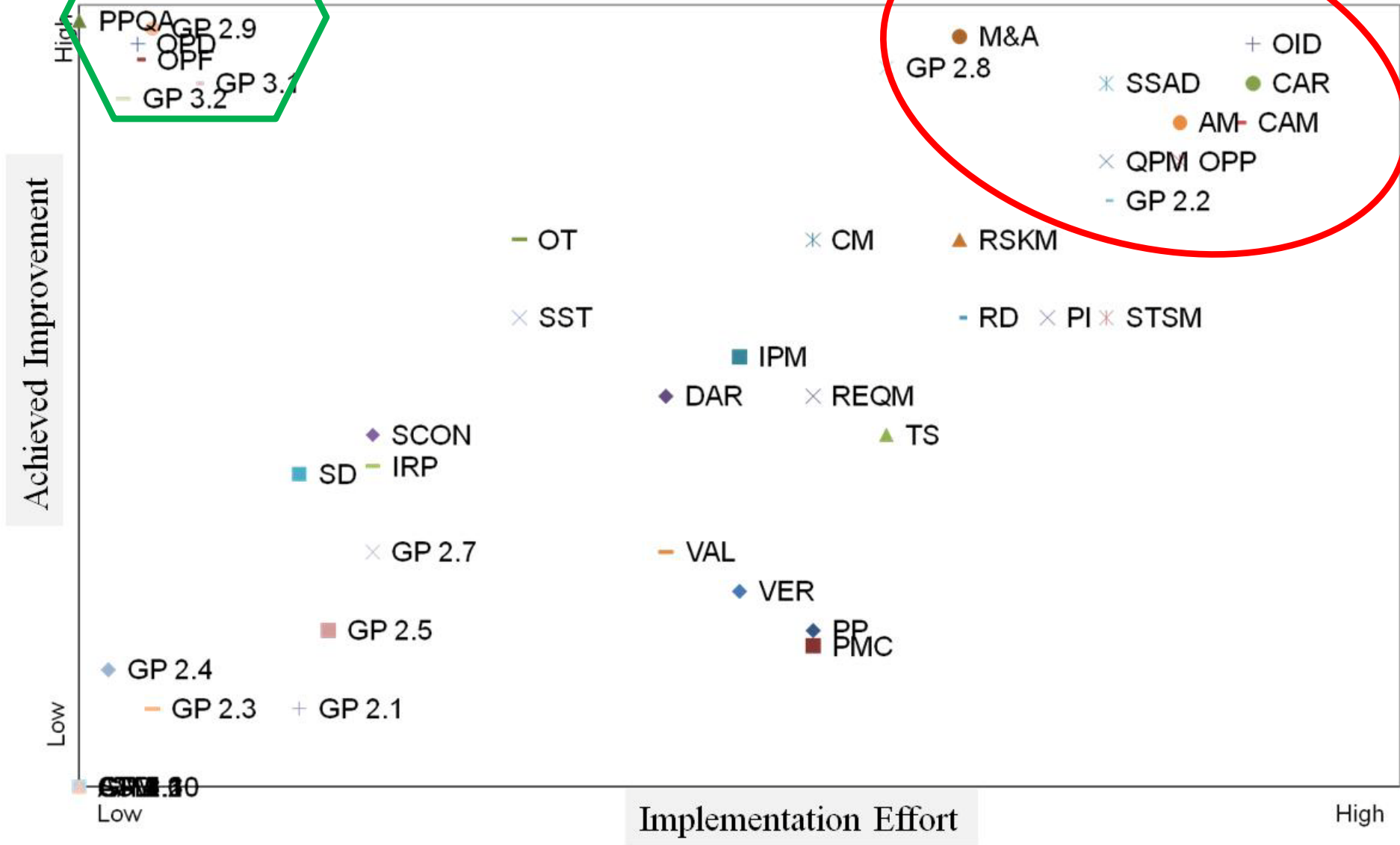
# Processing the Results



# Improvement vs. Implementation

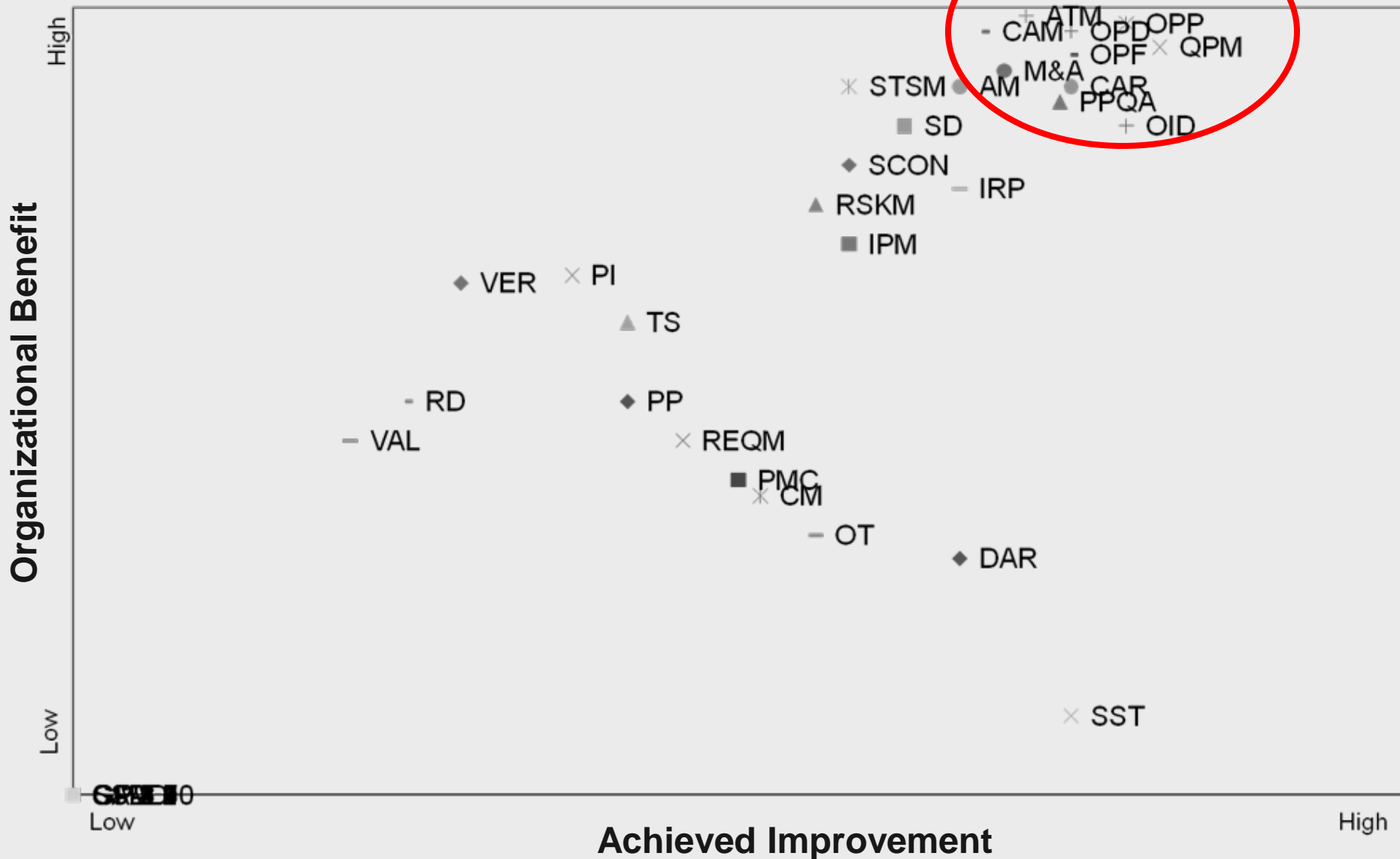
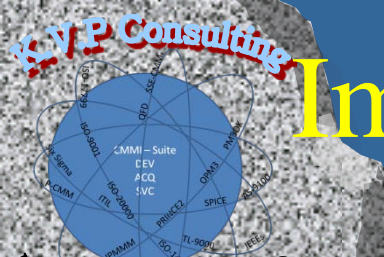
## Process Improvements

## ROI

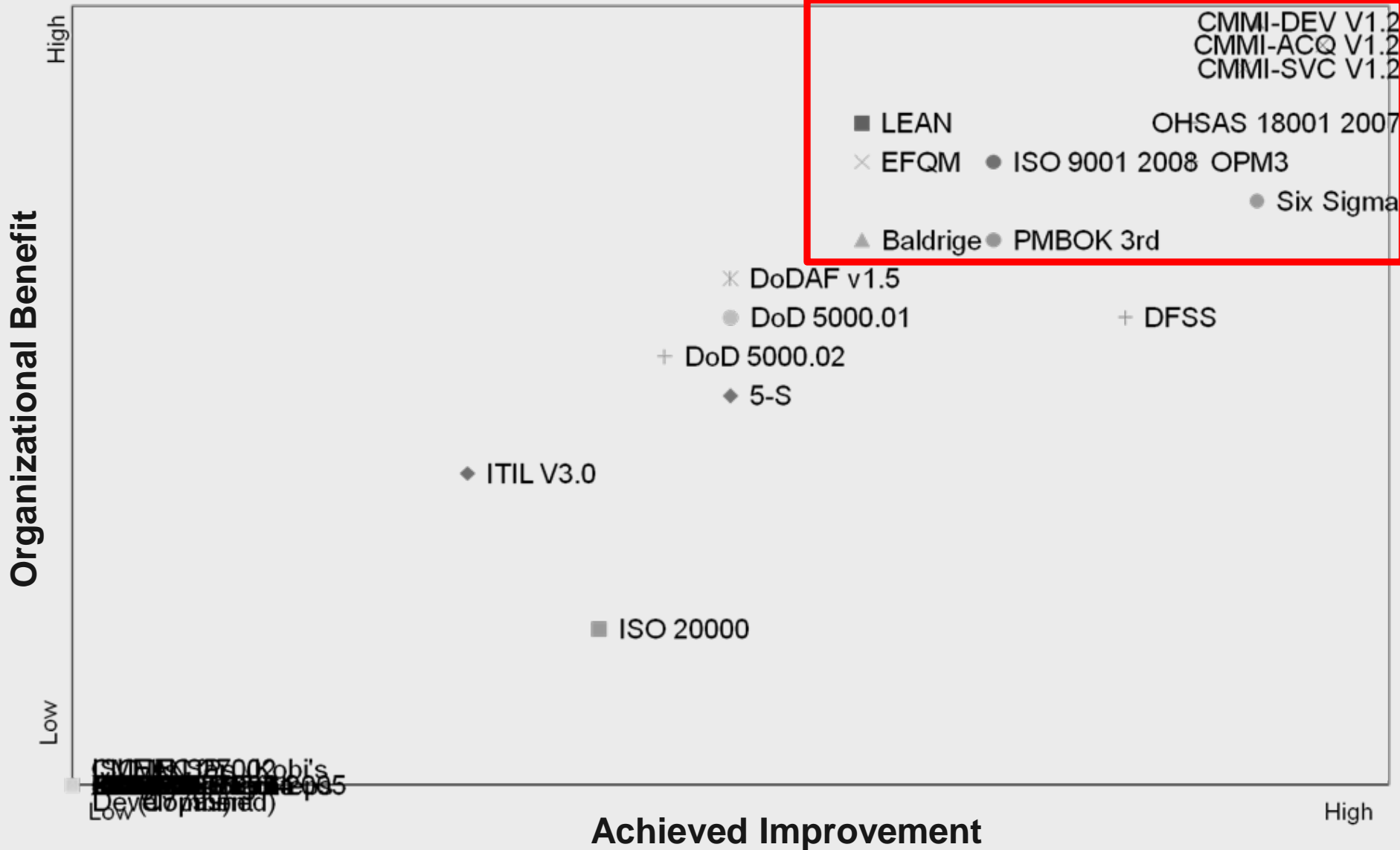
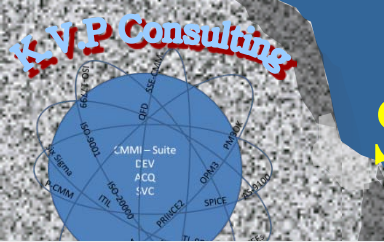


# Improvement vs. Benefit

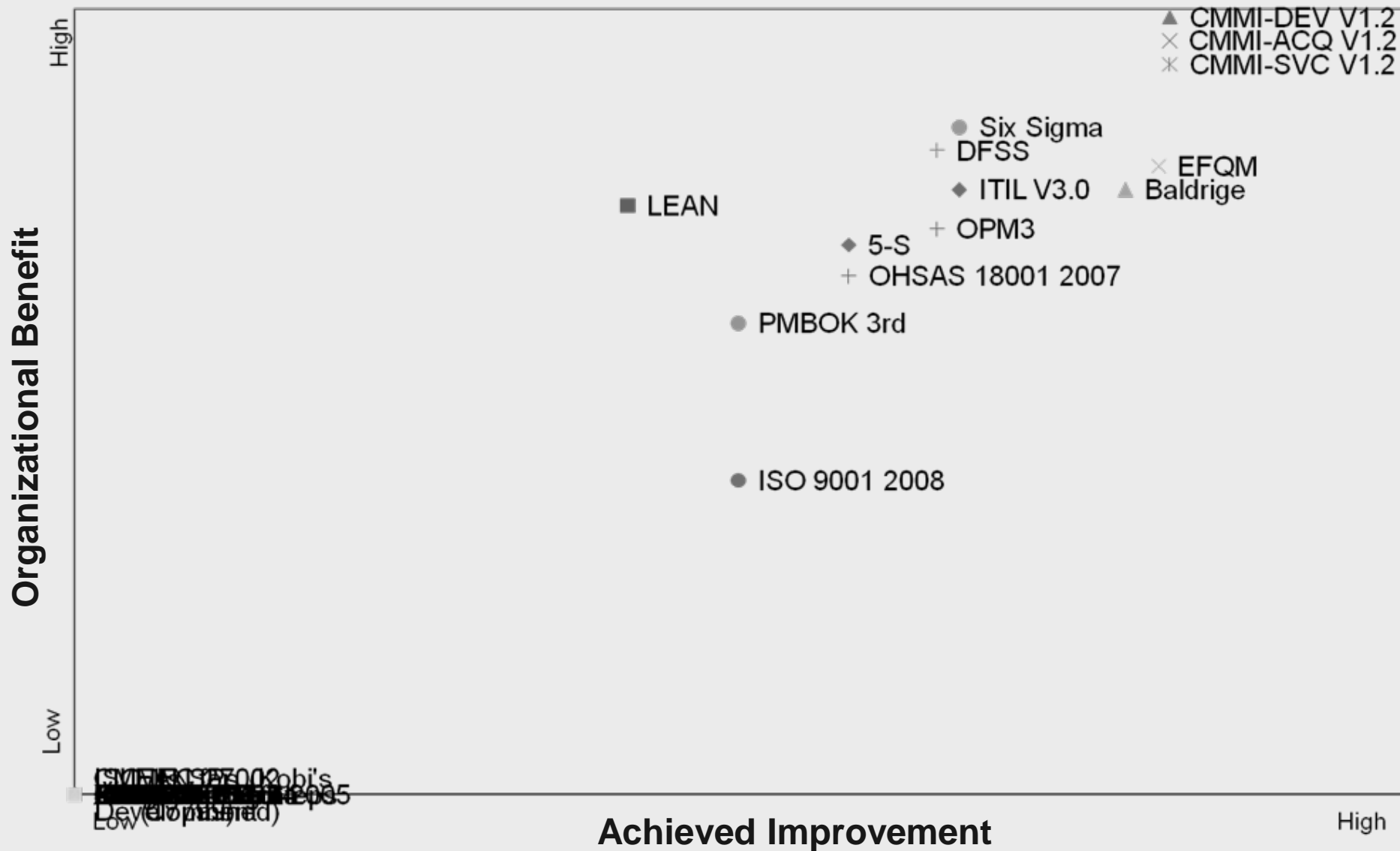
Add Value



# Standards Compliance to ORG Mission

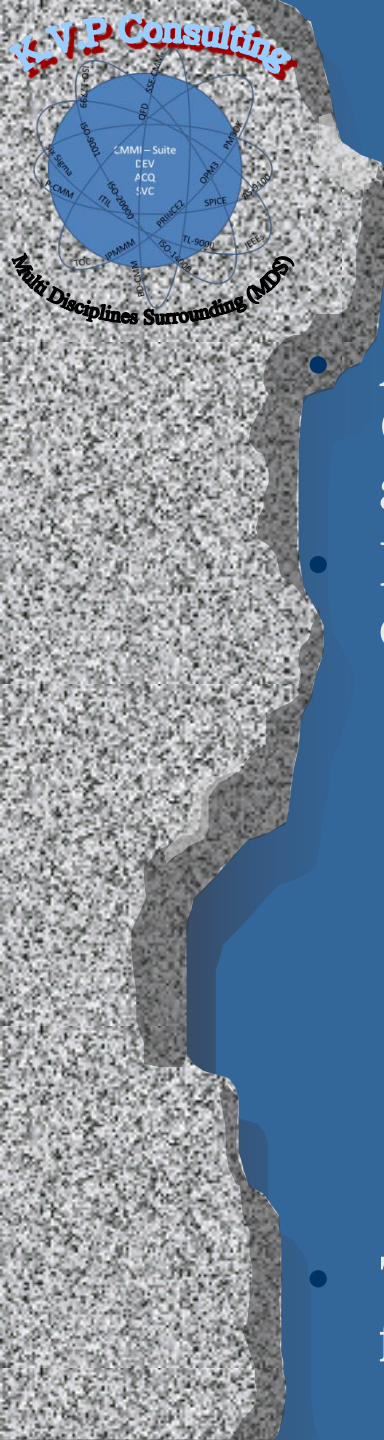


# Additional Standards Contribution









# Survival Quick guidelines

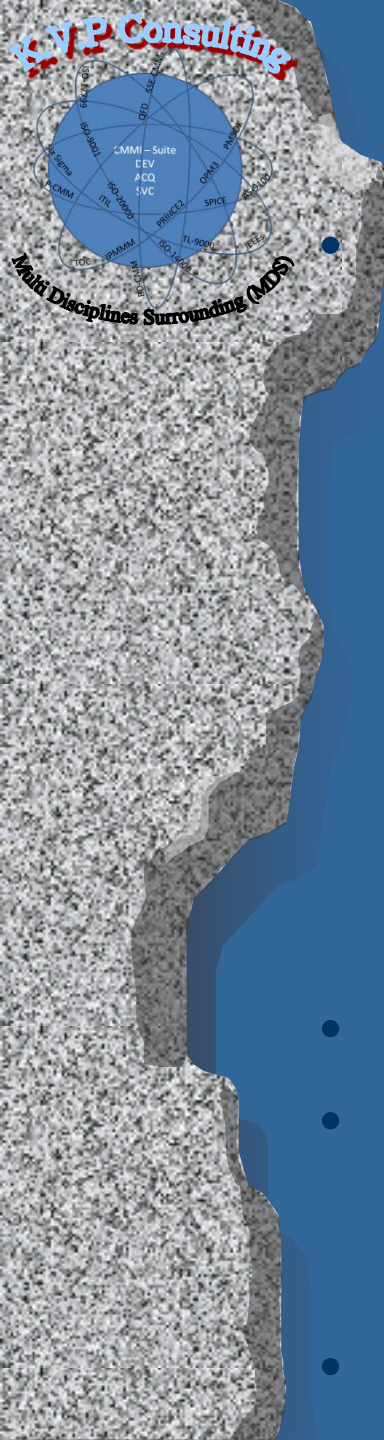
- A method to support multi appraisals in line with CMMI must be compatible with the Reference Model and discipline
- Requirements for Compatibility are expressed in terms of:
  - Purpose
    - Of combined models
    - Of going there
  - Scope
    - Of selected models
    - Of organization
  - Model elements and indicators
  - Mapping
    - Knowledge on....
  - Translation
- These requirements span various levels and model features

# Some of Our Suggestions

## Integration approach

- Capacity and Availability Management (CAM) place as unique PA?
- In CMU/SEI-93-TR-025 (SW-CMM V1.1) SPP KPA Activity 11: Estimates for the project's critical computer resources are derived according to a documented procedure
- Integrate SG 3 of Service Continuity (SCON), and Service System Development (SSD) to be part of Verification and Validation
- Integrate Acquisition Technical Management (ATM) to Technical Solution
- Integrate VER and AVER; VAL and AVAL
- Consider Security

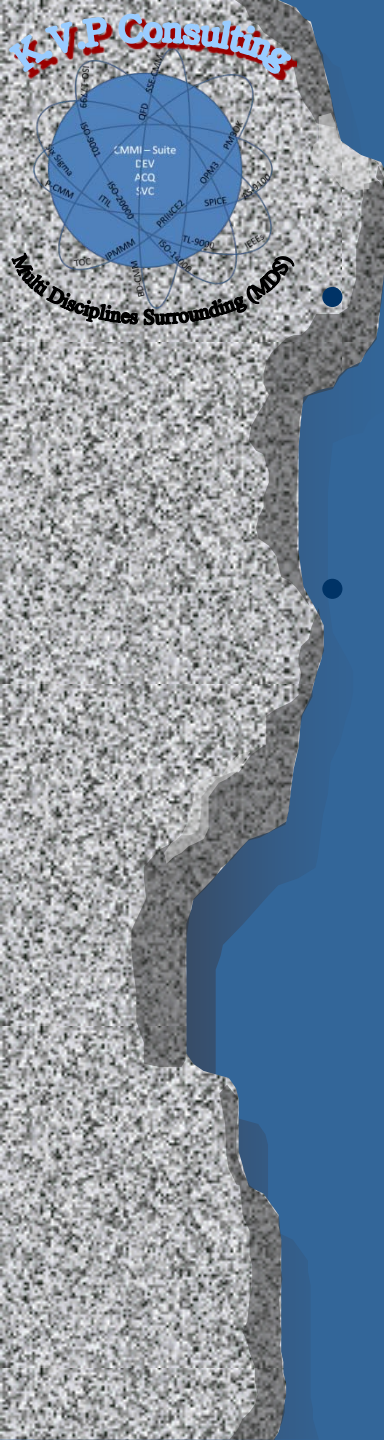




# Some of Our Future Discussions

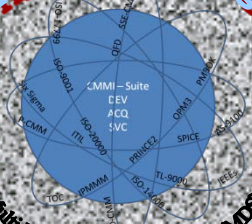
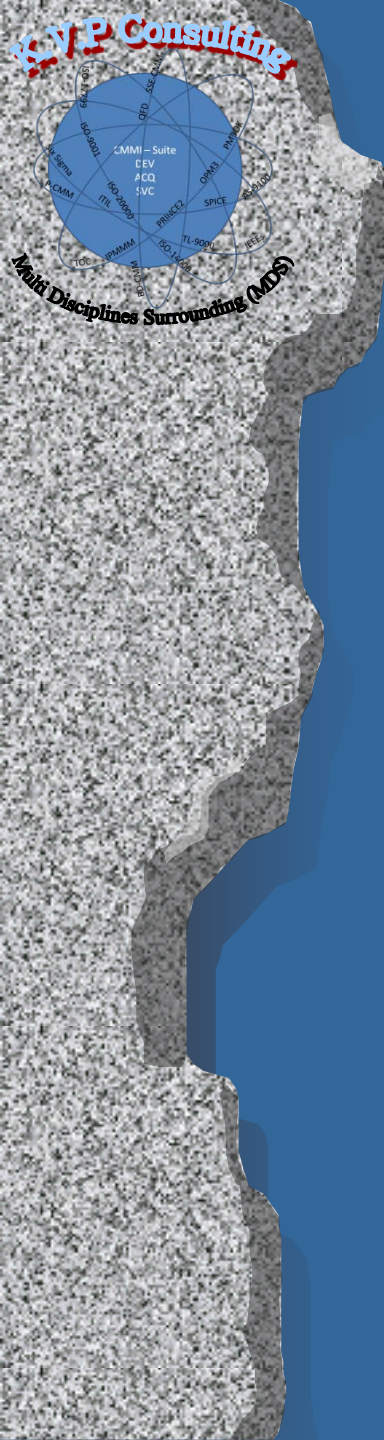
## Additional Generic Practice for Security as defined process

- Our suggestion: GP 3.3 Information Management and Security Control
  - *Place designated information entities and work products of the process and product under appropriate levels of classification and control*
  - *Including five subpractices*
    - *Identify*
    - *Analysis*
    - *Evaluate*
    - *Prepare plan*
    - *Execute and recover*
- Approach to P-CMM
- Approach to Resiliency Engineering Framework (REF) and Operationally Critical Threat, Asset, and Vulnerability Evaluation (OCTAVE)
- Approach Smart Grid at three levels



# Some of Our Future Discussions

- Cross constellation support team
  - Prerequisite knowledge
  - Team qualification / certifications
- Cross constellations Appraisal team
  - Team training
  - Team qualification / certifications
  - PIIDs
  - Structure of mini teams
  - Consensus process



# Questions