Bi-directional Mapping between CMMI and INCOSE SE Handbook

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Abstract

The complex normative context in the field of industrial areas like aerospace and defense require appropriate guidance to distinguish the purpose of the standards involved and specially the overlapping and borders among them.

The aim of this paper is to present a practical mapping between CMMI-DEV v1.2 (ML3) and INCOSE Systems Engineering Handbook v.3.1. Summaries with bi-directional mappings are provided as well as a detailed mapping.

Keywords: CMMI, INCOSE SE HB, ISO15288.

1. Introduction

Industry has a growing interest on standardization of those activities under the scope of the Systems Engineering discipline. Several initiatives have been put in place since late 60s from the Mil-Std-499 until last version of ISO/IEC15288:2008 [5] (see Fig. 1). In parallel to this international standardization mainstream, the International Council on Systems Engineering (INCOSE) has produced a handbook [3] conceived as the practical guidance reference for Systems Engineers.

In addition to these initiatives, the Software Engineering Institute (SEI) has promoted over the last decade the de facto standard CMMI [1][2] (Capability-Maturity Model for Integration) as a reference framework to be used by organizations developing systems (embedding or not software) to measure their maturity as productive entities. Although CMMI comes from the software world, this version "for integration" considers general aspects of production, regardless they systems apply particularly to software. This movement towards system's world makes CMMI an interesting complement of SE standards to cover those process management aspects these other standards are lacking.

In such a complex normative context it is always difficult to know which are the borders among norms and references, and therefore practical mappings

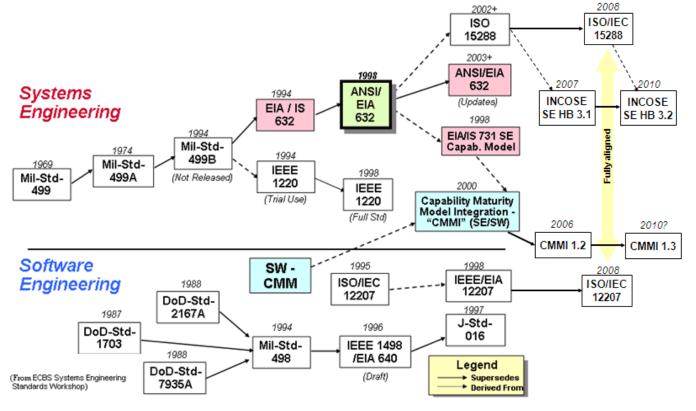


Figure 1. Systems and Software Engineering Standards.

are required to better understand their respective applicability and limits.

In this context, there are lots of mappings in the literature among CMMI and classical norms series (ISO 9XXX, ISO15504, etc.) But no or very few mappings are available between CMMI and INCOSE Handbook.

The main objective of this paper is to present a bidirectional mapping between CMMI for Development v1.2 (particularly, the specific practices required for Maturity Level 3) and the INCOSE Systems Engineering Handbook v3.1.

The two main questions aimed to be answered in the present paper are:

- 1. What is the amount of specific practices of the model CMMI (Maturity Level 3) covered by a quality system in line with the INCOSE handbook?
- 2. What is the amount of activities within the processes described in the INCOSE handbook covered by a quality system holding a CMMI ML3 accreditation?

This mapping is particularly useful for those organizations holding a quality system under INCOSE and aiming to achieve a maturity level, but can also be useful the other way round.

In addition to the mapping summary in both directions, a detailed mapping is provided in the annex, and those aspects not covered in one reference with respect to the other are also highlighted.

2. Assumptions

INCOSE SE HB v3.1 has no formal processstructure (like ISO12207 or ISO 15288). The handbook is organized in a documental way by processes and within each process there are no explicit subsections per activity. Activities are included in the process diagrams and described in a specific section with no additional breakdown.

The comparison has been made under the assumption that process diagrams included in the HB can be interpreted as follows: Process X uses inputs, produces outputs and has some main activities inside. The activities in the diagrams are the basic elements to be compared. The rest of elements used in the HB have been considered as informative. From CMMI side the model elements used for comparison purpose are the specific practices (SPs). Generic practices have not been considered explicitly as their main role is to handle the institutionalization of SPs.

The percentage values provided in the comparisons represent the number of atomic elements in one reference covered in the other with respect to the total number of elements within the aggregated element (process in the HB or SPs in CMMI). It is also worth to mention that not all HB processes have counterparty in CMMI (e.g. Operation, Maintenance or Disposal). This partial mismatch is reasonable as long as both frameworks are conceived for different purposes.

The opposite statement is also true: CMMI considers additional aspects not taken into account in the HB (e.g. training, process improvement or measurement).

This mapping was performed against version 3.1 of SE Handbook. Version 3.2 [4] (published in January 2010) includes a high level mapping with CMMI for Development model not present in the previous version.

3. CMMI to INCOSE SE HB Mapping

As a general summary, an organization holding a quality system aligned with the INCOSE SE HB will cover about **60%** of the CMMI L3 specific practices. With respect to the CMMI L2 practices, the coverage is slightly better: 66%.

A first observation from this mapping is that there are very few CMMI process areas for which all the specific practices are covered in the HB (only Supplier Agreement and Technical Solution are fully covered). This fact contrasts with the opposite mapping, where most of the processes in the HB are fully covered by CMMI practices.

The results per process area can be summarized as follows (see Table 1):

- Measurement and Analysis (MA) is not covered at all. In fact, there is no explicit measurement process in the handbook. The HB is not oriented to process improvement but to process definition.
- In Organizational Training (OT) only 14% of the practices are covered. Therefore the HB does not focus particularly on skills improvement.
- The following process areas are located within the intermediate band (between 20% and 70%):
 - Project Planning (PP): 64%
 - Verification (VER): 63%
 - Organizational Process Focus (OPF): 56%
 - Process and Product Quality Assurance (PPQA): 50%
 - Risk Management (RSKM): 50%
 - Organizational Process Definition (OPD): 44%
 - Integrated Project Management (IPM): 43%
 - Requirements Development (RD): 40%
- IPM, OPD and OPF can be considered as very CMMI-oriented process areas, and therefore they are expected to be only partially covered by the HB, but it seems odd to find process areas such as RD, RSKM or PPQA in this band.

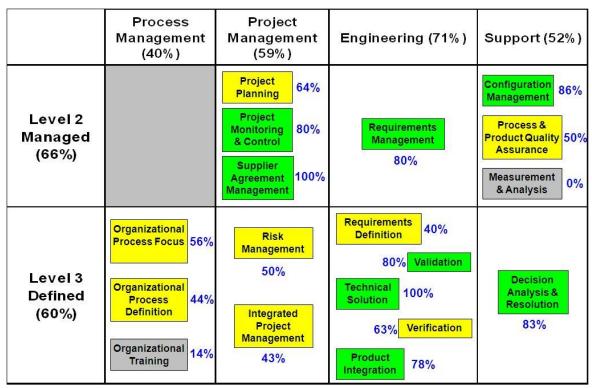


Table 1. CMMI to INCOSE SE HB Mapping.

- Although PP and VER show a relatively high coverage rate, they should be in the upper band due to their impact in the project performance.
- The main reason why VER is not in the upper band is the lack of peer reviews in the HB. A special emphasis is given to this verification technique in CMMI.
- Concerning PP, the reason for its lack of coverage is that CMMI requires reviewing and tracking the plans.
- The rest of process areas are largely covered by the HB, and the discrepancies are only attributable to the particularities of CMMI:
 - Configuration Management (CM): 86%
 - Decision Analysis & Resolution (DAR): 83%
 - Project Monitoring & Control (PMC): 80%
 - Requirements Management (RM): 80%
 - Validation (VAL): 80%
 - Product Integration (PI): 78%

It is also worth to highlight the aggregated coverage level per process area types:

- Process Management: 40%
- Project Management: 59%
- Engineering: 71%
- Support: 52 %

As expected, the better coverage rate corresponds to the technical process areas and the worst to the process definition and organizational process areas. High maturity process areas (Organizational Process Performance, Organizational Innovation & Deployment, Quantitative Project Management and Causal Analysis & Resolution) have been excluded from this analysis because they are very much concerned with the performance of an organization in contrast with the process orientation of the low maturity process areas.

4. INCOSE SE HB to CMMI Mapping

From the analysis performed, the main result extracted is that an organization with a CMMI accreditation of maturity level 3 covers **76%** of the activities included in the INCOSE SE handbook.

Taking into account this figure, it could be concluded that CMMI is wider than INCOSE HB, but it is also true that not all the processes in the HB are considered in CMMI.

Another interesting observation from the Table 2 is that most of handbook processes are fully covered by some practice of CMMI: 16 out of 25 processes.

The results per process type can be summarized as follows (see Table 2):

 Operation, Maintenance, Disposal and Supply are not treated in CMMI at all. The reason can be that these processes are typically related with the operation of a system once created. CMMI for Development is more focused in the production cycle, regardless the operation of the system.

	ID	INCOSE SE Process	Coverage by CMMI	CMMI PAs
	4.2	Stakeholder Requirements Definition	100%	RD, REQM, IPM
	4.3	Requirements Analysis	100%	RD
	4.4	Architectural Design	100%	TS
	4.5	Implementation	100%	TS, VER, PI
Technical	4.6	Integration	100%	PI
Processes	4.7	Verification	100%	VER
(64%)	4.8	Transition	100%	TS, PI, VAL
	4.9	Validation	100%	VAL, PMC
	4.10	Operation	0%	N/A
	4.11	Maintenance	0%	N/A
	4.12	Disposal	0%	N/A
	5.2	Project Planning	100%	PP
	5.3	Project Assessment	86%	PMC
Project	5.4	Control	100%	PMC
Processes	5.5	Decision-making	100%	DAR, IPM
(97%)	5.6	Risk Management	100%	RSKM, PMC
	5.7	Configuration Management	100%	СМ
	5.8	Information Management	100%	PP, PMC
	6.2	Enterprise Environment Management	83%	OPD, OPF
Enternrice and	6.3	Investment Management	83%	IPM, PMC
Enterprise and	6.4	SLC Processes Management	100%	OPD, OPF
Agreement	6.5	Resource Management	88%	IPM, PP, OT
Processes	6.6	Quality Management	100%	PPQA, OPD, OPF
(77%)	6.7	Acquisition	88%	IPM, SAM, VAL
	6.8	Supply	0%	N/A
		Average	76%	

Table 2. INCOSE SE HB to CMMI Mapping.

- The rest of technical processes are fully covered. Although no explicit process area exist in CMMI for transition activities, they are covered in several practices of the PAs Technical Solution, Product Integration and Validation.
- Concerning Project Processes of the HB, the comment is that only one aspect of the Project Assessment is not considered in CMMI: monitoring of new technologies. The rest of aspects are fully covered.
- Main discrepancies fall on the Enterprise and Agreement Processes of the HB. Although percentages are diverse, the discrepancy is just one activity per process. The overall figure has been calculated with respect to the total number of activities within each process:
 - Resource Management: 88%
 - Acquisition: 88%
 - Enterprise Environment Management: 83%
 - o Investment Management: 83%

Finally, it is interesting to remark that the coverage of the INCOSE SE HB by CMMI L3 is of **92%**, if the system operation aspects are excluded. This basically means that CMMI can be considered largely compatible with the system development part of the INCOSE SE HB.

5. Comparison with ISO15288

In Aerospace and Defense field, additional standards are required to be fulfilled in order to get systems certified for operation. Standards like SAE ARP4754 or RTCA DO-178B are some examples of such norms.

The quality systems of the organizations in this field must be compliant in addition with special regulations which include aspects related with the operation of the systems. Particularly the AQAP160 is a NATO norm, applicable at software level, which is composed by a combination of ISO12207, ISO9001 and specific military requirements, is largely compliant with ISO15288 requirements. The additional processes Supply, Operation, Maintenance and Disposal are present in this norm. Additionally, the Tailoring Process is used to instantiate the quality system to particular projects. One of the main differences between versions 3.2 and 3.1 of the INCOSE SE HB is the one-to-one mapping in their sections (see Table 3). The last version of the HB has in fact the same process structure than the ISO15288 (and the ISO12207 as well).

Table 3. ISO15288 vs. INCOSE SE HB v3.2

ISO/IEC 15288:2008 System Life Cycle Process	INCOSE SE Handbook v3.2 Section
6.1 Agreement Processes	
6.1.1 Acquisition Process	6.1 Acquisition Process
6.1.2 Supply Process	6.2 Supply Process
6.2 Organizational Project-	
Enabling Processes	
6.2.1 Life Cycle Model	7.1 Life Cycle Model
Management Process	Management Process
6.2.2 Infrastructure	7.2 Infrastructure
Management Process	Management Process
6.2.3 Project Portfolio	7.3 Project Portfolio
Management Process	Management Process
6.2.4 Human Resource	7.4 Human Resource
Management Process	Management Process
6.2.5 Quality Management	7.5 Quality Management
Process	Process
6.3 Project Processes	
6.3.1 Project Planning Process	5.1 Project Planning Process
6.3.2 Project Assessment and	5.2 Project Assessment and
Control Process	Control Process
6.3.3 Decision Management	5.3 Decision Management
Process	Process
6.3.4 Risk Management	5.4 Risk Management Process
Process	
6.3.5 Configuration	5.5 Configuration
Management Process	Management Process
6.3.6 Information	5.6 Information Management
Management Process	Process
6.3.7 Measurement Process	5.7 Measurement Process
6.4 Technical Processes	
6.4.1 Stakeholder	4.1 Stakeholder Requirements
Requirements Definition	Definition Process
Process	
6.4.2 Requirements Analysis	4.2 Requirements Analysis
Process	Process
6.4.3 Architectural Design	4.3 Architectural Design
Process	Process
6.4.4 Implementation Process	4.4 Implementation Process
6.4.5 Integration Process	4.5 Integration Process
6.4.6 Verification Process	4.6 Verification Process
6.4.7 Transition Process	4.7 Transition Process
6.4.8 Validation Process	4.8 Validation Process
6.4.9 Operation Process	4.9 Operation Process
6.4.10 Maintenance Process	4.10 Maintenance Process
6.4.11 Disposal Process	4.11 Disposal Process
A Tailoring Process	
A.2 Tailoring Process	8.1 Tailoring Process

6. Conclusions

The main conclusion obtained is that CMMI and INCOSE SE HB are not competing but complementary approaches.

The INCOSE handbook fully covers all the activities relevant from the perspective of the Systems

Engineer practitioner. It is not specially focused on process measurement or improvement.

On the other hand, CMMI is a reference framework for process improvement purposes.

A recommended approach could be to define a quality system according to the recommendations provided by the INCOSE HB and complement it with additional processes to cover the process improvement aspects. The alignment with CMMI is strongly recommended when a mature organization aims to improve its efficiency while creating their products. Nevertheless, CMMI can be counterproductive in very immature organizations as it involves many control activities which could make fail the whole productive process.

7. References

- Chrissis, M. B., Konrad, M., Shrum, S., "CMMI Second Edition: Guidelines for Process Integration and Product Improvement", Addison-Wesley, 2007.
- [2] CMMI® for Development, Version 1.2. SEI Technical Report, CMU/SEI-2006-TR-008, August 2006.
- [3] INCOSE Systems Engineering Handbook: A Guide for System Life Cycle Processes and Activities, v. 3.1, INCOSE-TP-2003-002-03.1, International Council on Systems Engineering, January 2007.
- [4] INCOSE Systems Engineering Handbook: A Guide for System Life Cycle Processes and Activities, v. 3.2, INCOSE-TP-2003-002-03.2, International Council on Systems Engineering, January 2010.
- [5] ISO/IEC 15288:2008, Systems and software engineering – System life cycle processes, Geneva: International Organization for Standardization, issued 1 February 2008.

8. Glossary

CM:	Configuration Management
CMMI:	Capability Maturity Model for Integration
DAR:	Decision Analysis & Resolution
HB:	Handbook
INCOSE:	International Council of Systems Engineering
IPM:	Integrated Project Management
MA:	Measurement and Analysis
OPD:	Organizational Process Definition
OPF:	Organizational Process Focus
OT:	Organizational Training
PA:	Process Area
PI:	Product Integration
PMC:	Project Monitoring & Control
PP:	Project Planning
PPQA:	Process and Product Quality Assurance
RD:	Requirements Development
RM:	Requirements Management
RSKM:	Risk Management
SAM:	Supplier Agreement Management
SE:	Systems Engineering
SEI:	Software Engineering Institute

- SP: Specific Practice
- TS: Technical Solution
- VAL: Validation
- VER: Verification

9. Annex

INCOSE SE HB v3.1 to CMMI-DEV v1.2 ML3 detailed mapping:

4.3 Requirements RD SP 1.1 – Elicit Needs 4.3 Requirements RD SP 1.2 – Develop the Customer Requirements Analysis Define Constraints RD SP 1.2 – Develop the Customer Requirements A.2 Stakeholder Resolve Requirements RD SP 1.1 – Establish Operational Concepts and Scenarios A.2 Stakeholder Resolve Requirements REQM SP 1.5 – Identify Operational Concepts and Scenarios Definition Confirm and record REQM SP 1.4 – Maintain Bidirectional Traceability of Requirements Define functional boundary Establish and maintain traceability architectural Constraints RD SP 3.2 – Establish a Definition of Required Functionality of Required Functionality A.3 Define performance Requirements RD SP 3.2 – Establish a Definition of Required Functionality Maintain traceability and baseline integrity RD SP 3.2 – Establish a Definition of Required Functionality Maintain traceability and baseline integrity RD SP 3.2 – Establish a Definition of Required Functionality Maintain traceability and baseline integrity RD SP 3.2 – Establish a Definition of Required Functionality Architectural Design Define logical architecture RD SP 3.2 – Establish a Definition of Required Functionality Architectural Design Define logical architecture RD SP 3.2 – Establish a Definition of Required F	d
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Realize the system element TS SP 3.1 – Implement th	uct
Realize the system element Design	
Design	he
4.5 Provide evidence of VER SP 2.2 – Conduct Pe	eer
PI SP 3.4 – Package and	
Package and store; supply Deliver the Product or	
Product Component	
PI SP 1 1 – Determine	
Define integration strategy Integration Sequence	
Schedule system elements PI SP 3.1 – Confirm	
and enabling systems per Readiness of Product	
A Classoration planned deliveries Components for Integration	
4.6 Integration Integrate system elements PI SP 3.2 – Assemble	
Product Components	
Record integration PI SP 2.1 – Review Interfa	on
information Descriptions for	on
Completeness	on
Define procedures for VER SP 1.3 – Establish	on
systems verification verification Procedures a	on
Criteria	on
4.7 Verification Create, maintain RVTM VER SP 3.2 - Analyze	on
Conduct Verification to	on
	on
demonstrate compliance with VER SP 3.1 - Perform	on

HB Process	HB Activity	CMMI Specific Practice
IID I IOCE33	Prepare Installation	TS SP 3.2 - Develop Produc
	procedures	Support Documentation
	Prepare operational site	VAL SP 1.2 - Establish the
	Frepare operational site	Validation Environment
		PI SP 3.4 - Package and
4.8 Transition	Install the system	Deliver the Product or
	Acceptance	Product Component VAL SP 2.1 - Perform
	acknowledgement	Validation
	Document results;	VAL SP 2.2 - Analyze
	anomalies; recommendations	
	· · · · · · · · · · · · · · · · · · ·	VAL SP 1.3 - Establish
	Define validation procedures	Validation Procedures and
		Criteria
	Ensure system readiness	VAL SP 1.2 - Establish the
4.9.Validation	Demonstrate conformance to	Validation Environment
4.5 Valuation	stakeholder requirements	Validation
	Recommend corrective	PMC SP 2.2 - Take
	actions	Corrective Action
	Attain stakeholder	VAL SP 2.1 - Perform
	acceptance	Validation
	Maintain qualified staff	
	Execute concept of	
	operations	
	Obtain consumable materials	
4.10 Operation	Monitor operations; assess	
4.10 Operation	Determine appropriate	
	actions	
	Collect operator and	
	stakeholder satisfaction	
	feedback	
	Define maintenance strategy	
4.11	Define design constraints	
	imposed by maintenance	
	Implement maintenance and logistics	
Maintenance	Support procedures;	
	reporting	
	Perform Maintenance actions	•
	Maintain documentation	
	Define disposal strategy	
	Impose disposal constraints	
	on requirements	
	Deactivate the system	
4.12 Disposal	(element) Remove System (element)	
	from operational environment	
	Maintain archival	
	documentation of disposal;	
	residual hazards	
	Define Scope, Objectives,	PP SG 1 - Establish
	and Constraints	Estimates
	Define WBS, Work	PP SP 1.1 - Estimate the
5.2 Project	Packages, Schedules & Budgets	Scope of the Project
Planning		PP SP 2.7 - Establish the
	Prepare Project Plans	Project Plan
	Establish Project Structure,	PP SP 2.4 - Plan for Projec
	Roles & Responsibilities	Resources
	Analyze Project Status	PMC SP 1.1 - Monitor
		Project Planning Parameter
	Assess project team	PMC SG 1 - Monitor Projec
		Against Plan PMC SP 1.1 - Monitor
	Assess project performance	Project Planning Parameter
5.3 Project Assessment	Conduct management and	PMC SP 1.6 - Conduct
		Progress Reviews
	technical reviews	FIDURESS REVIEWS
		PMC SP 1.3 - Monitor
	Monitor critical tasks	
		PMC SP 1.3 - Monitor Project Risks
	Monitor critical tasks	PMC SP 1.3 - Monitor Project Risks PMC SP 2.1 - Analyze
	Monitor critical tasks Monitor new technologies Analyze deviations from plan	PMC SP 1.3 - Monitor Project Risks PMC SP 2.1 - Analyze Issues
	Monitor critical tasks Monitor new technologies Analyze deviations from plan Initiate corrective / preventive	PMC SP 1.3 - Monitor Project Risks PMC SP 2.1 - Analyze Issues PMC SP 2.2 - Take
	Monitor critical tasks Monitor new technologies Analyze deviations from plan Initiate corrective / preventive actions	PMC SP 1.3 - Monitor Project Risks PMC SP 2.1 - Analyze Issues PMC SP 2.2 - Take Corrective Action
5.4 Control	Monitor critical tasks Monitor new technologies Analyze deviations from plan Initiate corrective / preventive	PMC SP 1.3 - Monitor Project Risks PMC SP 2.1 - Analyze Issues PMC SP 2.2 - Take Corrective Action PMC SP 2.2 - Take
5.4 Control	Monitor critical tasks Monitor new technologies Analyze deviations from plan Initiate corrective / preventive actions Problem resolution	PMC SP 1.3 - Monitor Project Risks PMC SP 2.1 - Analyze Issues PMC SP 2.2 - Take Corrective Action
5.4 Control	Monitor critical tasks Monitor new technologies Analyze deviations from plan Initiate corrective / preventive actions Problem resolution Decision to proceed	PMC SP 1.3 - Monitor Project Risks PMC SP 2.1 - Analyze Issues PMC SP 2.2 - Take Corrective Action PMC SP 2.2 - Take Corrective PMC SP 2.3 - Manage Corrective Action
	Monitor critical tasks Monitor new technologies Analyze deviations from plan Initiate corrective / preventive actions Problem resolution Decision to proceed Define strategy; success	PMC SP 1.3 - Monitor Project Risks PMC SP 2.1 - Analyze Issues PMC SP 2.2 - Take Corrective Action PMC SP 2.2 - Take Corrective PMC SP 2.3 - Manage Corrective Action DAR SP 1.2 - Establish
5.5 Decision-	Monitor critical tasks Monitor new technologies Analyze deviations from plan Initiate corrective / preventive actions Problem resolution Decision to proceed Define strategy; success criteria	PMC SP 1.3 - Monitor Project Risks PMC SP 2.1 - Analyze Issues PMC SP 2.2 - Take Corrective Action PMC SP 2.2 - Take Corrective PMC SP 2.3 - Manage Corrective Action DAR SP 1.2 - Establish Evaluation Criteria
	Monitor critical tasks Monitor new technologies Analyze deviations from plan Initiate corrective / preventive actions Problem resolution Decision to proceed Define strategy; success	PMC SP 1.3 - Monitor Project Risks PMC SP 2.1 - Analyze Issues PMC SP 2.2 - Take Corrective Action PMC SP 2.2 - Take Corrective PMC SP 2.3 - Manage Corrective Action DAR SP 1.2 - Establish

Evaluate ongoing projects PMC SG 1 - Monitor Project Against Plan Establish processes for each SLC stage OPD SP 1.2 - Establish Lifecycle Model Descriptions 6.4 SLC Establish tailoring guidelines Identify appropriate methods & tools OPD SP 1.3 - Establish Work Guidelines 6.4 SLC Establish SLC process performance measures for Management OPD SP 1.4 - Establish the OPD SP 1.4 - Establish the Organization's Measurement Repository Monitor execution of SLC processes OPF SP 1.3 - Identify the Organization's Process Improvements Identify and implement improvements OPF SP 2.2 - Implement Processes Communicate enterprise SLC orojects OPF SP 3.2 - Deploy Standard Processes Collect resource needs from projects PMC SC 1 - Monitor Project Manage personnel to staff PM SP 3.2 - Establish the projects PM SP 3.2 - Establish the Integrated Team Structure Motivate staff 6.5 Resource Manage personnel to staff PM SP 3.2 - Establish the Integrated Team Structure Manage personnel to staff PM SP 3.2 - Establish the Integrated Team Structure Motivate staff Establish training needs and OT SP 1.1 - Establish the Strategic Training Needs	HB Process	HB Activity	CMMI Specific Practice
6.5 Resurement Make and record decision DAR SP 1.6 - Select Solutions 5.6 Risk Management Analyze and prioritize risk terms RSKM SP 2.2 - Valuate, categorize, and Prioritize Risks 5.6 Risk Management Analyze and prioritize risk terms RSKM SP 3.2 - Implement Risk Mitigation Plans 5.7 Specify strategy for each risk SM SP 3.2 - Implement term RSKM SP 3.2 - Implement Risks 5.7 Configuration management Configuration management configuration management Configuration Items 6.5 Information Generality items of configuration Items Configuration Management Records Configuration Management Records 5.8 Information Maintain baseline currency Ananagement PP SP 2.3 - Plan for Data Management 6.2 Enterprise Environment Management Per SP 2.3 - Plan for Data Management PP SP 2.3 - Plan for Data Management 6.2 Enterprise Environment Management Establish Business Area Plans PD SP 1.2 - Establish Standard Processes 6.3 Investment Management Standard Processes DF SP 2.3 - Anan for Data Management 6.4 SLC Communicate policies & procedures DF SP 1.1 - Establish trieria 6.4 SLC Standard Processes Standard Processes Specify reporting review Scolis (authority			IPM SP 2.1 - Manage
5.6 Risk Management Analyze and prioritize risk Analyze and prioritize risk Executive and Prioritize risk Analyze and prioritize risk Executive Action Specify strategy for each risk RSKM SP 3.2 - Implement Risk Mitgation Plans Communicate risk status and PMC SP 3.3 - Implement Risk Mitgation Plans Cornfiguration management Configuration Items Configuration management Assess and control changes Configuration Items Configuration Items Configuration Items Configuration Management Assess and control changes Configuration Management Assess and control changes Configuration Management Configuration Management Assess and control changes Configuration Management Assess and control changes Configuration Management Assess and control changes Configuration Management Records 5.8 Information Management Configuration Management Records 5.8 Information Management Define representations Management PS P2.3 - Plan for Data Management 5.8 Information Management Define representations Management PS P2.3 - Plan for Data Management 6.2 Enterprise Environment Management Define roles, responsibilities Define roles, responsibilities Communicate policies & procedures OPD SP 1.1 - Establish proceedures 6.3 Investment Management Standard Processes Standard Processes Define Projects (authority, procedures PM SP 2.2 - Manage Standard Processes 6.4 SLC Specify reporting, review schedule PM SP 1.1 - Establish the projects Defined Processes Standard Processes 6.4 SLC Establish tailoring guidelines Management PM SP 1.1 - Es		Make and record decision	DAR SP 1.6 - Select
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6.5 Resource Manage personnel to staff IPM SP 3.2 - Establish the Integrated Team Structure Motivate staff Establish training needs and Strategic Training Needs		Provide resource	PP SP 2.4 - Plan for Project
6.5 Resource Management Motivate staff Establish training needs and Schedule OT SP 1.1 - Establish the Strategic Training Needs			
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schedule Strategic Training Needs	wanagement	Motivate staff	
		schedule Manage non-personnel	PM SP 1.3 - Establish the
			Project's Work Environment

HB Process	HB Activity	CMMI Specific Practice
	Allocate resources to	IPM SP 3.3 - Allocate
		Requirements to Integrated
	ongoing Projects	Teams
	Manage conflicts in project	IPM SP 2.3 - Resolve
	requests	Coordination Issues
	Establish enterprise quality	OPD SG1 - Establish
	management policies,	Organizational Process
	standards, procedures,	Assets
	goals, and objectives	
	Define Responsibilities and	OPD SG1 - Establish
	authority for quality	Organizational Process
	management	Assets
		PPQA SP 1.2 - Objectively
6.6 Quality	Assess customer satisfaction	
Management		Services
managomon	Evaluate Project Quality	PPQA SP 1.2 - Objectively
	Plans	Evaluate Work Products and
		Services
	Identify and implement	OPF SP 3.3 - Monitor
	improvements	Implementation
		PPQA SP 2.1 -
		Communicate and Ensure
	guidelines	Resolution of Noncompliance
	Establish an acquisition plan	IPM SP 1.4 - Integrate Plans SAM SP 1.1 - Determine
	Identify need in request for	
	proposal	Acquisition Type SAM SP 1.2 - Select
	Evaluation responses; select supplier Negotiate agreement	
		Suppliers SAM SP 1.3 - Establish
6.7 Acquisition		Supplier Agreements SAM SP 2.2 - Monitor
	Assess agreement execution	
		Selected Supplier Processes SAM SP 2.4 - Accept the
	Accept delivery of product or service	
		Acquired Product VAL SP 2.1 - Perform
	Determine compliance with agreement	VAL SP 2.1 - Perform
		Validation
	Render payment	
	Identify acquirer with request	
	Evaluate and respond to	
	request	
	Negotiate agreement	
6.8 Supply	Execute agreement (Project)	
	Deliver product or service	
	Transfer responsibility to	
	acquirer	
	Receive and acknowledge	
	payment	