



SCAMPI Appraisals

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Objectives of this Session

- To demystify the SCAMPI appraisal process
- Provide an introduction to planning and conducting an appraisal
- Highlight some of the pitfalls commonly encountered

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What is an Appraisal?

- Start with a process reference model
- Follow a defined appraisal method
- Obtain senior management sponsorship
- Review use of process in the real world, not just a static review of a quality system
- Use suitably trained and experienced resources
- Aim to be as objective as possible

Why do appraisals?

- Establish an objective baseline for process improvement
- Measure progress towards process improvement goals
- Identify and prioritise actions

What makes a Standard CMMI Appraisal Method for Process Improvement (SCAMPI) appraisal

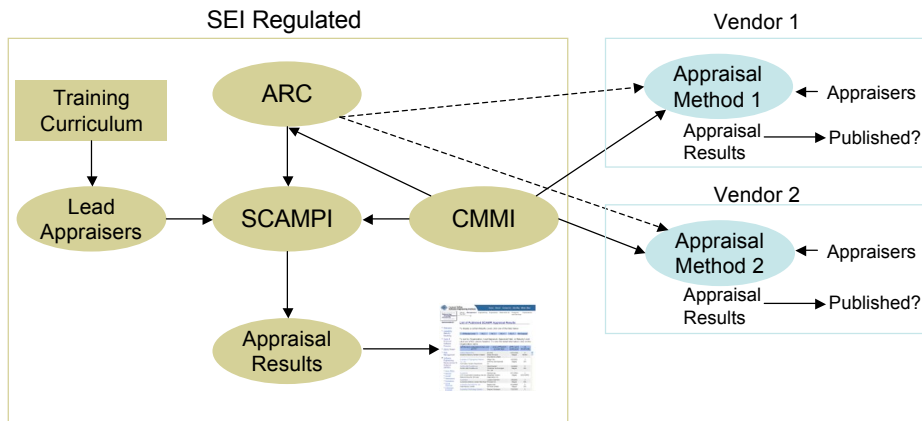
- Fully comprehensive appraisal method
- Complies with ARC (Appraisal Requirements for CMMI)
 - An evolution of CMM Appraisal Framework
 - Influenced by EIA/IS 731.2
 - Compatible with ISO/IEC 15504
- Is intended to be used with one of the CMMI models as a reference

Demystifying the SCAMPI appraisal process





Key Differences between SCAMPI and Other Appraisal Methods



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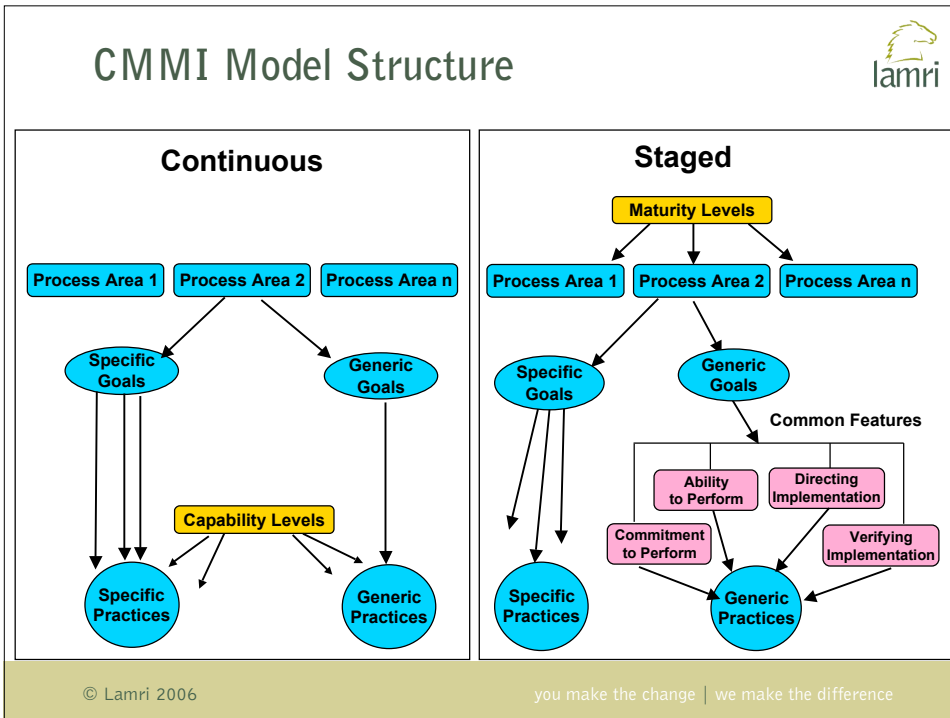


SCAMPI and the CMMI Model

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CMMI Model Structure



CMMI Model

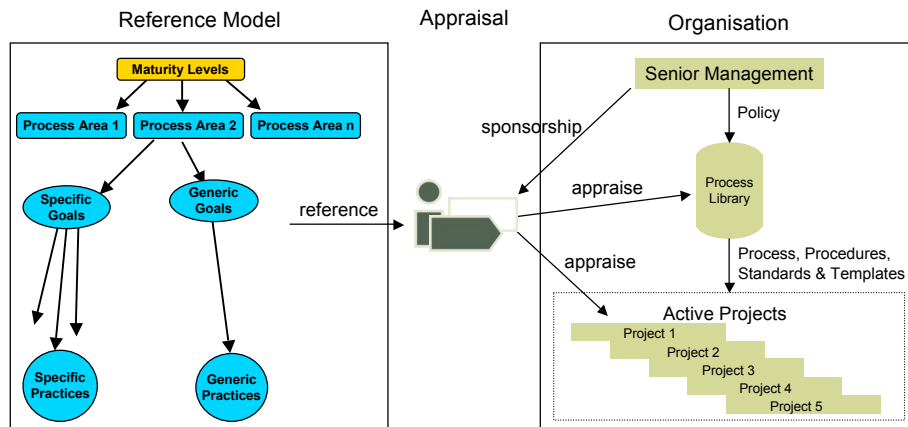


MATURITY LEVEL	PROCESS AREAS						
5- OPTIMISING	Organisational Innovation & Deployment	Causal Analysis & Resolution					
4- QUANTITATIVELY MANAGED	Organisational Process Performance	Quantitative Project Management					
3- DEFINED	Organisational Process Focus	Organisation Process Definition	Organisational Training	Organisational Environment For Integration	Integrated Teaming	Decision Analysis & Resolution	Integrated Supplier Management
	Technical Solution	Requirements Development	Product Integration	Validation	Verification	Risk Management	Integrated Project Management
2- MANAGED	Requirements Management	Project Planning	Project Monitoring & Control	Supplier Agreement Management	Measurement & Analysis	Process & Product Quality Assurance	Configuration Management

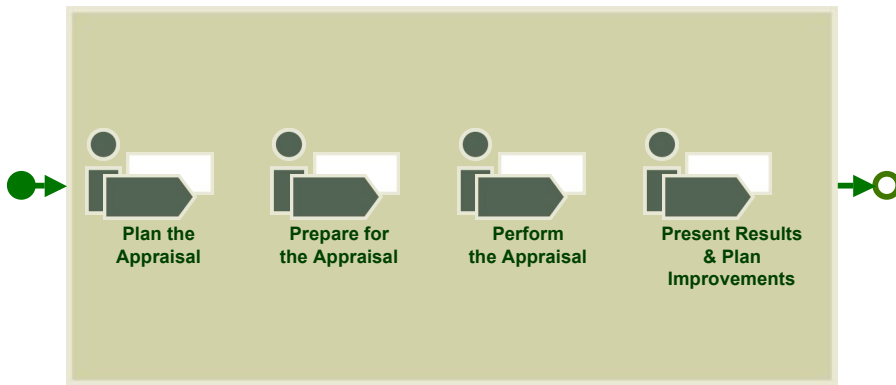
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Relationship between CMMI, SCAMPI and the Appraised Organisation



SCAMPI Overview

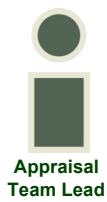


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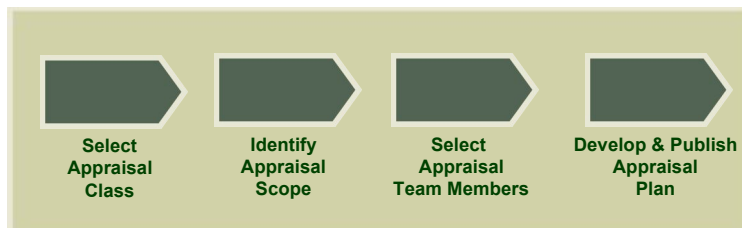
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Plan the Appraisal



Appraisal
Team Lead



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Choosing a Lead Appraiser

- Adequate experience and qualified for the Class of appraisal
- SEI partner organisation – an assurance of quality of the appraiser
- Able to empathise and communicate with your people, at all levels
- Experience with the model scope you have chosen
- Familiarity with your organisation/sector an advantage



Select Appraisal Class

- Three classes of appraisal – what's the difference?

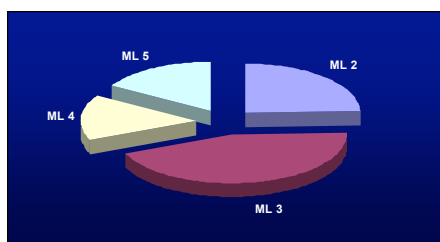
Characteristic	Class A	Class B	Class C
Amount of objective evidence	High	Medium	Low
Ratings generated	Yes	No	No
Resource needs	High	Medium	Low
Team Size	Large	Medium	Small

- But which class of appraisal is right for you?

Reasons for Selecting an Appraisal Class

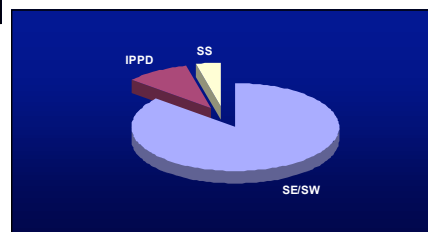
- Class C appraisal if:
 - The organisation has little or no process assets *or*
 - Need to check on progress
- Class B appraisal if:
 - The organisation has established processes but is new to the CMMI *or*
 - The organisation would benefit from experiencing the 'hot-house atmosphere' of a more formal appraisal *or*
 - Members of the organisation would benefit from getting their hands dirty on an appraisal team
- Class A appraisal if:
 - You need a formal rating

Identify Appraisal Scope – Model Scope

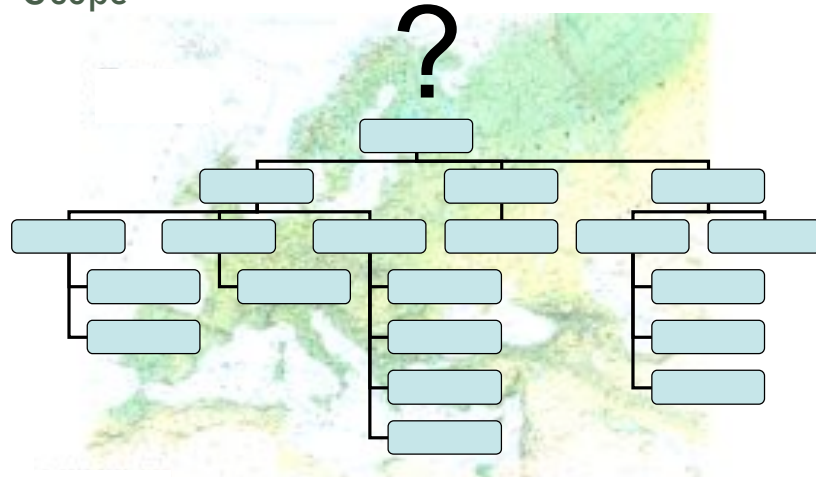


Which Maturity Levels?

Which Disciplines?



Identify Appraisal Scope – Organisational Scope



Identify Appraisal Scope - Instantiations

- A representative sample of the organisation's work
- Do not necessarily have to be individual projects
 - May be a product, a service or a programme of enhancements, for example
- If selecting projects, must consider where they are in their life cycle

Choosing Appraisal Team Members

- Team players
- Time available to dedicate to the appraisal
- With experience of the organisation
 - One team member needs to act as local coordinator
- An aptitude for process improvement



Develop Appraisal Plan – Appraisal Input

- A formal document that is agreed with the appraisal sponsor, and includes:
 - Objectives
 - Constraints
 - Scope
 - Outputs required

Tailoring Options

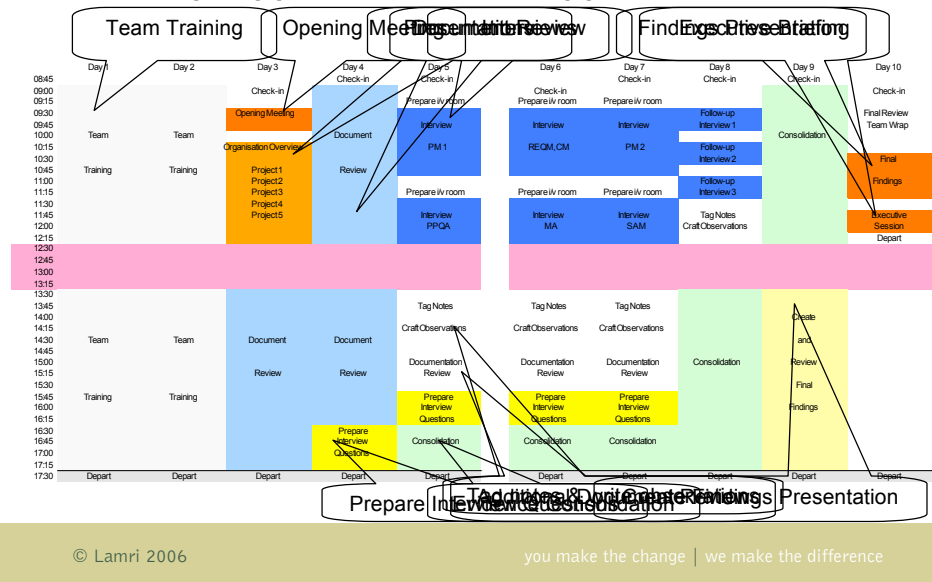
- Mini Teams
 - Allows parallel appraisal activities (document review and/or interviews)
 - Effective when at least 2 members of the team have SCAMPI experience
- Remote interviews
 - Telephone or video conference interviews can save travel time and costs
 - But beware potential risks
- Alternative means of gathering data
 - Questionnaires
 - Presentations

Develop Appraisal Plan – Estimating Effort

- Do not under estimate time for document review.
Allow for:
 - Unfamiliarity
 - Language
 - Scope – organisation & model
 - Documents that are not *where* they are supposed to be
 - Documents that are not *what* they are supposed to be
- Each interview will take between 30 and 90 minutes to conduct, plus approximately the same amount of time for tagging notes, recording observations and identifying further information needs

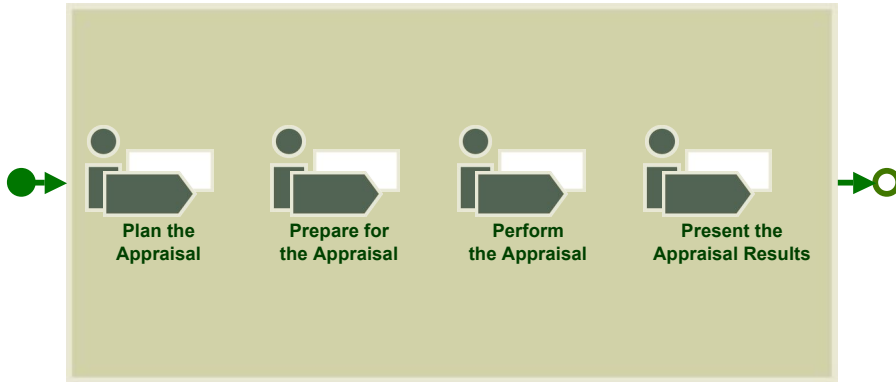


Develop Appraisal Plan – Appraisal Schedule



Develop Appraisal Plan - Data Gathering Plan

- Rigour and detail will vary according to the appraisal class
- For a Class A appraisal, the data gathering plan should define how you plan to obtain objective and face to face evidence for each practice/instantiation combination
 - For a Maturity Level 2 appraisal with 3 instantiations, there will be up to 750 pieces of evidence to review
- For a Class B/C appraisal, as a minimum, you must decide where you are going to seek evidence for the implementation of each process area in-scope



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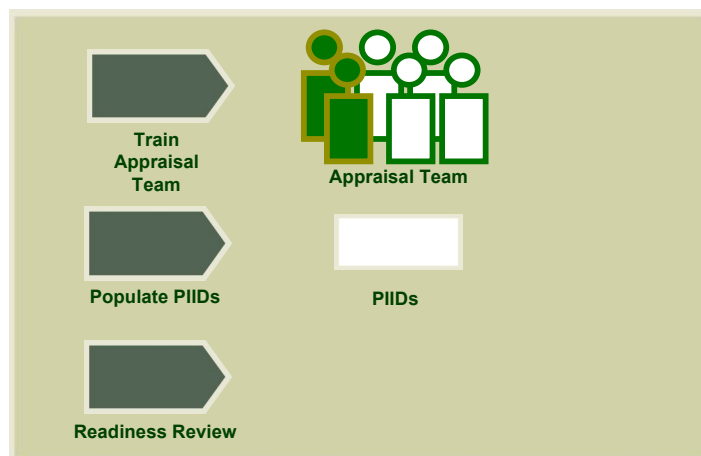
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Prepare for the Appraisal



Appraisal Team Lead



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Prepare for the Appraisal – Train Appraisal Team

- SEI provides lead appraisers with Class A and Class B/C appraisal team training packs
- Even if appraisal team members are experienced, training is still important to build an effective team
- Timing is flexible – training may take place at the start of the appraisal on-site period or before




Process Area

CMMI Practice Description

Guidance Notes

Typical Work Products



Prepare for the Appraisal – Populate PIIDs

Requirements Management				Organisational Process		Project	
Goal	Practices	Practices/Description	Characteristics	Typical Work Products	Reference	Char	Work/Product
SP1.1.1	Develop an understanding with the requirements providers on the meaning of the requirements.	Consider evidence of requirements at multiple levels (e.g. product and product component requirements).	Allocated Requirements Database + Review Report of Requirements + Commitments from affected groups on Allocated Requirements + Defined criteria for evaluation and acceptance of Requirements				
SP1.2.2	Obtain commitments to the requirements from the project participants.	- Ensure this is performed not only for the initial requirements set, but also for subsequent changes - Consider how commitments to requirements are obtained at multiple levels; this may involve different stakeholders at each level	Commitments from affected groups on allocated requirements + Documented agreement and commitment requirements scope for project activities.				
SP1.3.1	Manage changes to the requirements as they evolve during the project.	The scope of REGM is to identify and assess the impact of requirements changes, bubbles (including development and incorporation of revisions).	Requirements change request logs, with recorded commitment (e.g. signature) and estimates of impact. (See also SP1.2.2)				
SP1.4.2	Maintain bi-directional traceability among the requirements and the project plans and work products.	- Ensure that both vertical and horizontal traceability are included (e.g. across functions or interfaces) - Traceability of requirements to "project plans" - this may be more implicit than explicit, such as work packets that contain a number of requirements that are referenced in plans.	+ Requirements traceability matrix + Reports or database indicating traceability of requirements from project plans and work products, at each applicable level of system decomposition. + Unique requirements references use in other work products and plans.				
SP1.5.1	Identify inconsistencies between the project plans and work products and the requirements.	The scope of the REGM PIA is simply to identify, but not correct, requirements issues that must be resolved.	+ Documentation of detailed requirements inconsistencies including sources, conditions, rationales in meeting minutes, review records etc.				

Log evidence from organisational artifacts, eg processes & procedures
Characterise Log evidence from evidence from each instantiation of organisational artifacts

Why PIIDs are necessary

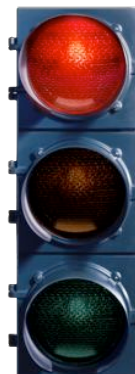
PIIDs require a lot of effort, but ...

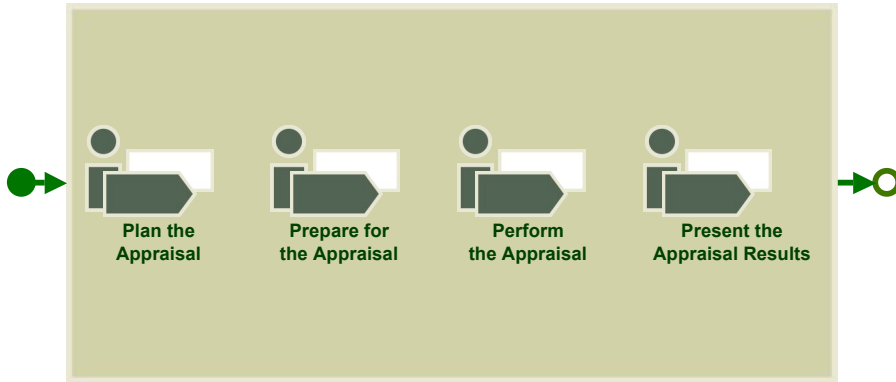
- Function as an inventory of the material to be reviewed in the appraisal
- Effort spent filling in PIIDs will be time saved during the appraisal on-site period
- A well populated PIID makes document review easier and more efficient
- The first time is the worst!



Prepare for the Appraisal – Readiness Review

- Opportunity for Lead Appraiser to confirm that everything is ready for the appraisal
- Dependent on completed PIIDs, signed Appraisal Plan and Appraisal Input
- Should almost be a 'non-event'



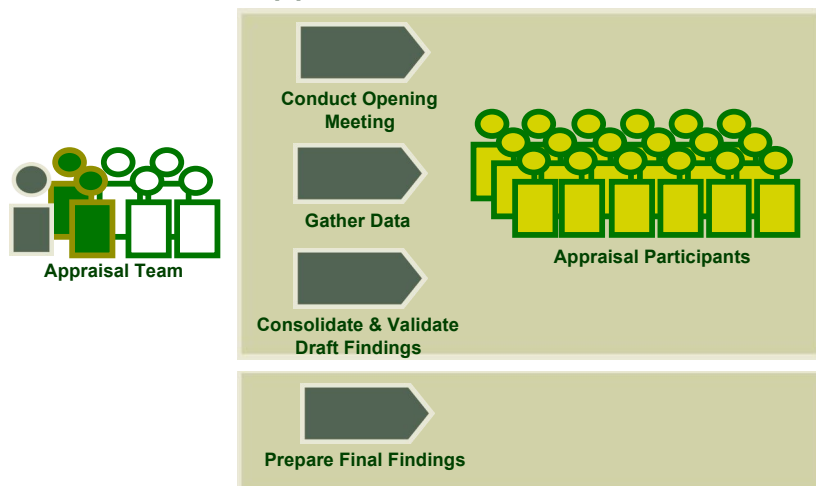


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Perform the Appraisal

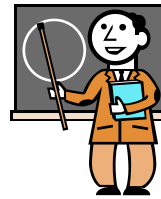


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Perform the Appraisal – Conduct Opening Meeting

- Important to orientate the participants
- Effective means to:
 - Demonstrate sponsor commitment
 - Introduce the appraisal team
 - Explain what will happen in appraisal interviews
 - Communicate the appraisal schedule



Perform the Appraisal – Gather Data: Document Review

- Extent of document review will depend on Class of appraisal
- Can be a tedious exercise
 - But easier with complete PIIDs
 - Electronic links to documents highly desirable
- Essential part of the SCAMPI method




Perform the Appraisal – Gather Data: Interviews

- Be aware of interview rules
 - All SCAMPI appraisal must include some interviews
 - At least 2 members of the appraisal team must be present for each interview
 - Cannot interview someone with their boss
 - Style should be non-confrontational
 - Confidentiality is always maintained
- Be clear about the purpose of each interview
 - In a baseline appraisal, interview may be main form of evidence gathering
 - Otherwise, purpose is to confirm implementation of practices indicated by the objective evidence found
- Accurate note taking is essential – the appraisal team should be prepared to write a lot of notes



Perform the Appraisal – Consolidation

- Characterise each practice for each instantiation level, using the appropriate scale according to the Class of Appraisal
 - Class A appraisal: Fully, Largely, Partially or Not Implemented
 - Class B/C appraisal: Red, Amber, Green
- Must document weaknesses for any practice not Fully Implemented / Green
- Must reach team consensus 



Perform the Appraisal – Prepare & Validate Draft Findings

- Usually only performed for Class A Appraisals, although this may also be useful on other classes of appraisal
- Findings, normally just the weaknesses, are played to representatives of the organisation to validate them
 - May be presented to all interviewees in a meeting, or
 - Can be presented to focus groups, each covering one or more process areas
- Feedback is actively encouraged – but no attempt is made to justify any of the findings

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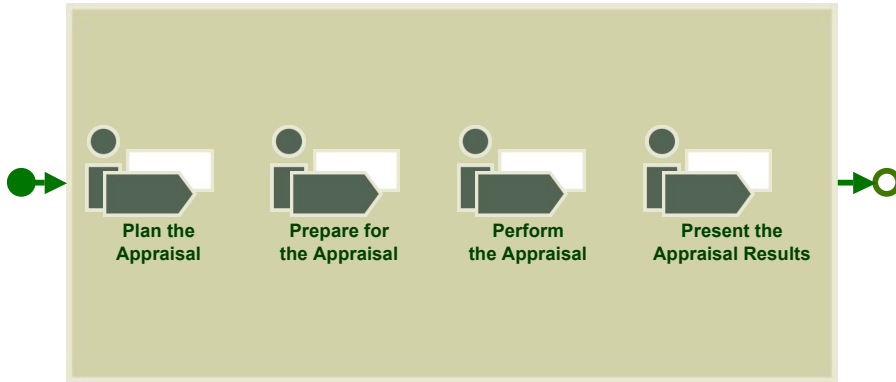


Perform the Appraisal – Prepare Final Findings

- Some form of final findings are required for all classes of appraisal
- Findings, both weaknesses and strengths (where noted) are documented
- Practice characterisation is aggregated at organisation level
- For a Class A appraisal only:
 - Practice characterisations are used to determine goal satisfaction
 - Goal satisfaction is used to determine Maturity Level or Capability Ratings

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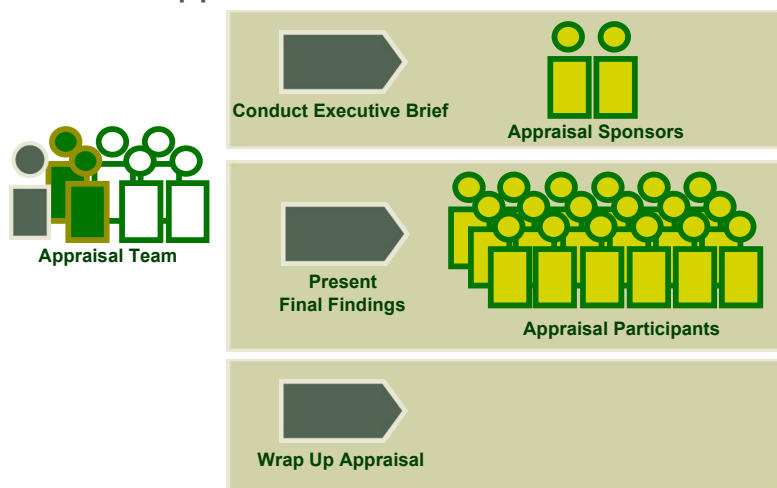


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Present Appraisal Results



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Present Appraisal Results – Conduct Executive Brief

- Optional step, usually only performed for a Class A Appraisal
- Sponsors may want opportunity to discuss the results of the appraisal in private
- May also be used to validate and fine tune any recommendations for next steps



Present Appraisal Results – Present Final Findings

- Present findings, normally by process area
- For a Class A appraisal only, present the maturity level rating achieved
- Celebrate!





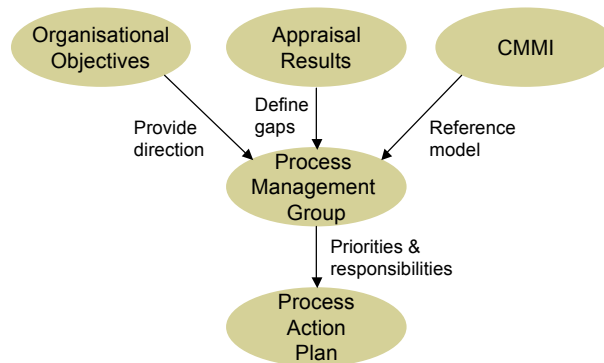
Present Appraisal Results – Wrap up

- Lead Appraiser should collect feedback from the appraisal team on how effective the appraisal process has been
- Lessons learnt may be valuable both for the lead appraiser and the organisation



Post Appraisal Planning

Post Appraisal Planning - Using the Appraisal Results



Post Appraisal Planning – Process Action Plan

Requirements Management

Goal	Practice	Practice Description	Follow Up Actions				
			Observation	Action	Effort Estimate (Days)	Work Package	Deliverable
			OU				
SG 1	SP 1.1	Develop an understanding with the requirements providers on the meaning of the requirements.	Appraisal finding	Action to address finding	Effort estimate	Work package	Deliverable eg process, procedure, template
	SP 1.2	Obtain commitment to the requirements from the project participants.					
	SP 1.3	Manage changes to the requirements as they evolve during the project.					



Any Questions?



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Panel Discussion

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