

TMMi Assessment Method Application Requirements (TAMAR)

Release 1.0

Produced by the TMMi Foundation

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Revisions

This section summarizes the key revisions between version 2.0 and the current version of this document.

This section is provided for information only.

Section	Revision Notes from Version 2.0 to current version
1.1.1.3, 1.3.1.2, 3.2.6.2.1, 3.4.1.4, 3.4.3.5	Fixed typos
2.2.3.7.1, 2.2.3.10	Added reference to annex 1 regarding organizational scope
2.2.3.7.4	Added requirement and guidance regarding re-certification
2.2.3.9	Added notification method for formal assessments
2.2.3.10, 3.2.2.3, 3.5.2.3	Added requirement regarding representative scope
3.4.2	Revised guidance on application of percentage rating scale
3.4.2.6	Updated requirement to include rules for "NA" rating
3.4.3.5	Clarified rules on rating maturity levels and added reference to Annex 2
Glossary	Updated definition of Organizational Scope and Re-Certification, fixed typos
Annex 1	Added to clarify use of "NA" rating during formal assessments leading to certification
Annex 2	Updated rating examples and moved content to Annex 2
Annex 3	Added guidelines for re-accreditation of assessment methods
Annex 4	Added case study for assessment

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1 Executive Summary

1.1 Overview

1.1.1 Synopsis

- 1.1.1.1 The TMMi Assessment Method Application Requirements (TAMAR) defines the requirements considered essential to Assessment methods intended for use with the Test Maturity Model Integration [TMMi].
- 1.1.1.2 Such methods would be able to be accredited as authorized methods with the TMMi Foundation.
- 1.1.1.3 This document should be read in conjunction with
 - Test Maturity Model Integration [TMMi]
 - TMMi Data Submission Requirements [DSR]

1.1.2 Ownership

- 1.1.2.1 The Foundation has ownership of the Test Maturity Model Integration, the TMMi Data Submission Requirements and this document.

1.2 Scope

1.2.1 Items out of scope

- 1.2.1.1 The scope of this document does not extend to detailing any examples of accredited Methods.

1.3 Utilization of this document

1.3.1 Overview

- 1.3.1.1 There are two authorized Types of Assessment Methods, described as Formal and Informal.
 - 1.3.1.1.1 A Formal Assessment has a sufficient degree of rigor and corroboration which can result in a formal maturity rating against the model.
 - 1.3.1.1.2 An Informal assessment does not require any corroboration of sources and will not result in a formal maturity rating against the model.
- 1.3.1.2 The choice of which Type of Method is appropriate for a particular organization is dependent upon their requirements. This is because Assessments can be utilized for subtly different purposes throughout an organization's long-term strategy.

Guidance: Assessment methods may be used for internal process improvement; to establish the organization's maturity level; and for the purpose of selecting suppliers of particular services (e.g. by stating that any supplier dealt with must be certified as a TMMi Level 3 organization).

1.3.2 Assessment Method levels

- 1.3.2.1 Conformance with this document is hierarchical, and therefore methods which conform to the Formal Assessment criteria will also fulfill the requirements for Informal Assessments.

1.3.3 How to use TAMAR

- 1.3.3.1 Sections 2 and 3 of this document contain the specific requirements for TMMi Assessment Methods.
- 1.3.3.2 Section 4 provides an explanatory chart which summarizes the relevant compliance requirements for different Assessment Method types, i.e. Formal and Informal.
- 1.3.3.3 An Assessment Method should clearly demonstrate compliance with all relevant sections.

2 Assessment Types Examined

2.1 Overview

2.1.1 High-level Assessment Type overview

2.1.1.1 As previously stated in the preamble for this document, two Types of Assessment are defined.

2.1.1.2 All Assessment methods submitted for accreditation should fall into one of these two Types.

2.1.1.3 The following tables show the varying criteria that apply to each Type of Assessment.

2.1.1.3.1 For Formal Assessments, the criteria in the following table apply:

Assessment Team Leader	Assessment Team Size	Evidence Collected	Maturity Rating
Accredited Lead Assessor	At least 2	Staff interviews and documents required. Other types of corroborative evidence can also be used – e.g. questionnaires, customer surveys, etcetera (see section 2.2.3.7 for Organizational Scope requirements)	Verifiable benchmark rating of the organization (as defined in the scope of the Assessment) against TMMi is produced, with areas of strength and weakness identified in fine detail, and full gap analysis presented

Table 1: Formal Assessment Criteria

2.1.1.3.2 For Informal Assessments, the criteria in the following table apply:

Assessment Team Leader	Assessment Team Size	Evidence Collected	Maturity Rating
Experienced Assessor	At least 1	One type of non-corroborative evidence – e.g. staff interviews, documents, questionnaires, customer surveys, etcetera – is required	No rating against TMMi is produced. Utilized purely for ‘quick check’ Assessments to gain a rough understanding of an organizational area’s maturity level – thus useful for internal Assessments

Table 2: Informal Assessment Criteria

Note: For both Types of Assessment, the ‘Assessment Team Size’ includes the Assessment Team Leader.

2.1.2 Expanded Detail Regarding Collected Evidence

2.1.2.1 As seen in the tables in section 2.1.1, there are several types of instruments (evidence) which can be collected throughout an Assessment. This section expands upon what is meant by some of these but is not inclusive; other instruments may be identified.

2.1.2.1.1 Staff interviews, which are a mandatory part of Formal Assessments, are conducted by the Assessment Team, which makes a formal record of the information gathered from such sessions.

2.1.2.1.2 Documents may be supplied to the Assessment Team in support of Specific and Generic Key Practices. The Team will look at the structure, content and implementation/usage of the documents.

2.1.2.1.3 Evaluation Questionnaires are structured tools to gather evidence about Specific and Generic Key Practices from individuals within the organization being assessed.

2.1.2.1.4 Customer surveys may also be used as a form of corroborative evidence, although in this case the evidence will come from outside of the organization being assessed.

2.2 Assessment Type Detail

2.2.1 Outline

2.2.1.1 The tables in section 2.1.1 provide an overview of the differences between the Types of Assessment. This distinction is covered in more depth below.

2.2.2 General Summary of Common Elements to both Assessment Types

- 2.2.2.1 Certain elements are true of Assessments regardless of which Type of Assessment they fulfill.
- 2.2.2.2 The higher levels within the TMMi reference model [TMMi] contain the lower levels. Therefore, for example, to obtain a Level 3 achievement, all Level 2 practices and goals must also be fulfilled.

2.2.3 Formal Assessments

- 2.2.3.1 Formal Assessments must be led by an accredited Lead Assessor. Lead Assessor accreditation can only be achieved through the TMMi Foundation.
- 2.2.3.2 For a Formal Assessment, the Assessment Team must consist of a Lead Assessor (accredited as stated in the previous paragraph) and at least one other accredited Assessor.
- 2.2.3.3 Additional Assessment Team Members other than the Lead Assessor and first Assessment Team Member must be experienced as Assessors, but not necessarily accredited (but may be unaccredited trainee Assessors).
- 2.2.3.4 Formal Assessments require a higher level of proof and corroboration for the achievement of Specific and Generic Practices and Goals, Process Areas, and Maturity Levels within the TMMi than Informal Assessments do.
- 2.2.3.5 A wider variety of data from multiple sources must be gathered during a Formal Assessment.
 - 2.2.3.5.1 It is mandatory to collect data from staff interviews conducted by the Assessment Team and corroborate the information gathered in the interviews by gathering documents and other written materials.
 - 2.2.3.5.2 Other types of evidence (for example, Customer Surveys) may be gathered – which should corroborate each of the other data sources.
- 2.2.3.6 The data must be drawn from different, representative roles within different parts of the organization, in order to examine whether practices are institutionalized.
- 2.2.3.7 The Assessment Method shall require a defined mechanism for determining that sufficient data has been collected to cover the scope of the Formal assessment, according to the following minimum set of rules and outlined in Annex 1: Organizational Scope & Exclusion Criteria.
 - 2.2.3.7.1 A specific or generic practice has sufficient data coverage if corroborated objective evidence exists for the practice and is:
 - Adequate to understand the extent of implementation of the practice
 - Representative of the organizational unit
 - Representative of the life-cycle phases in use within the organizational unit as defined in Annex 1: Organizational Scope & Exclusion Criteria.
 - 2.2.3.7.2 A process area has sufficient data coverage if all of its specific and generic practices have sufficient data coverage.
 - 2.2.3.7.3 Specific and generic practices have sufficient data coverage if there is sufficient evidence to validate the consistency of the data for each of the practices.
 - 2.2.3.7.4 For formal assessments that are being conducted in order to re-certify an organization at the previously assessed Maturity Level or when moving from one Maturity Level to the next the Lead Assessor shall ensure that all requirements for the original assessment scope are still being satisfied.

Guidance: Once an organizational unit has been formally assessed and successfully achieved a certified level of process maturity against the TMMi model, the certificate is valid for a maximum 3 years. At the end of this period, the certificate lapses or the organization will need to be re-assessed to ensure the level of maturity is still valid and the certificate may be extended for a further 3 years. Similarly, when an organization has already been assessed at a lower TMMi maturity level and is now being assessed at a higher TMMi maturity level, the assessment for any higher TMMi maturity level needs to take the previously assessed process areas into account.

It is the responsibility of the Lead Assessor to demonstrate the implementation of previously assessed process areas continues to be satisfactorily implemented in accordance with the TMMi for the current assessment scope and context.

- 2.2.3.8 The results for a Formal Assessment will show strengths and weaknesses of an organization against TMMi in depth, presenting a full gap analysis.

Guidance: The assessment method procedures and outputs shall enable the Assessment Sponsor to identify the individual organizational strengths and weakness at practice level.

The assessment method procedures may additionally enable identification of strengths and weaknesses at sub-practice level.

- 2.2.3.9 The Assessment Method shall require the Assessment team to notify the TMMi Foundation in advance of the commencement of a Formal Assessment by informing the Accreditation Chair.
- 2.2.3.10 The Assessment Method shall require the Lead Assessor to provide full information (to be included in the Assessment DSR) to justify the scope for the assessment as being representative of the organizational entity under assessment. See Annex 1: Organizational Scope & Exclusion Criteria for details regarding scope selection for assessments.

2.2.4 Informal Assessments

- 2.2.4.1 Informal Assessments may be performed with less rigor than is required by for a Formal assessment.
- 2.2.4.2 This level of Assessment is designed as an initial indicative view and 'quick check' to see the current snapshot state of an organizational area's processes, rather than as a full and formalized evaluation.
- 2.2.4.3 Informal Assessments should be led by an experienced Assessor. However, the Assessor does not need to be formally accredited to perform the role.
- 2.2.4.4 The Assessment Team for an Informal Assessment can consist of a single person. This corresponds with the aim of Informal Assessments being quick, low-impact evaluations.
- 2.2.4.5 This form of Assessment allows an organization to form an indicative view on whether or not their current practices and procedures comply with the TMMi.
- 2.2.4.6 The only requirement for an Informal Assessment is for just one type of evidence to be supplied by the area being examined.

Guidance: There is a lower need to validate and verify evidence received, as that would not satisfy the main objective of this level of Assessment, which is of speed and low business impact, rather than high levels of rigor.

- 2.2.4.7 This means that, for this level of Assessment, any evidence should be accepted as it stands, and no attempt at corroboration will be made.

3 Assessment Method Requirements

3.1 Overview

3.1.1 Compliance

- 3.1.1.1 All Assessment Methods to be used with the TMMi reference model [TMMi] for the purpose of performing Assessments should comply with current published version of TAMAR (this document) which interprets the international standard ISO/IEC 15504-2 [ISO 15504] for TMMi Assessment Method requirements. Therefore, all TMMi Assessment Methods which comply with the requirements detailed within TAMAR will conform to ISO/IEC 15504-2 as interpreted.
- 3.1.1.2 A table containing cross-references between TAMAR and ISO/IEC 15504-2 is available in section 5 Correlation between TAMAR and ISO/IEC 15504-2.

3.1.2 Method

- 3.1.2.1 All Assessments must be conducted in accordance with a documented method.

Guidance: All assessment method processes, procedures shall be documented and the assessment method shall be accompanied by templates to be used in accordance with the documented method.

- 3.1.2.2 The documented method must be capable of meeting the purpose of the Assessment.

Guidance: The assessment method shall be capable of completing Formal and / or Informal Assessments against the TMMi reference model.

3.1.3 Terminology

- 3.1.3.1 The terminology as defined in section 3 of this document shall be used and interpreted such that all assessment and assessment findings may be consistently compared.

Guidance: For example, the terms (and the corresponding definitions): Not Achieved, Partially Achieved, Largely Achieved and Fully Achieved shall not be modified in the Assessment Method materials, because changes to these definitions could cause inconsistencies in assessment results.

3.2 Planning

3.2.1 Outline

- 3.2.1.1 A plan for the Assessment shall be formulated prior to its initiation.
- 3.2.1.2 The Assessment Plan will be formally documented.
- 3.2.1.3 The Assessment Plan will be distributed to, and agreed by, all key stakeholders.
- 3.2.1.3.1 As a minimum, the key stakeholders for an Assessment will include the Assessment Sponsor and the Assessment Team.
- 3.2.1.3.2 The Assessment Sponsor must appoint a User-side Assessment Organizer, to manage the Assessment in accordance with the documented Assessment Plan.

Guidance: The Assessment Sponsor and the Assessment Organizer can be the same person, if required.

- 3.2.1.3.3 Key stakeholders and others will be fully briefed as appropriate at commencement of the Assessment.
- 3.2.1.4 The Assessment Plan will include activities, resources, schedules, responsibilities, success criteria, and a description of the intended Assessment outputs.
- 3.2.1.5 The Assessment Plan will be formulated by the Assessment Team Leader through various inputs, detailed in the next section of this document.

3.2.2 Inputs (into Assessment Plan)

- 3.2.2.1 There are five main inputs to the Assessment Plan.
- 3.2.2.2 The first and primary input to the Assessment Plan is the purpose of the Assessment – that is, why the Assessment is being carried out. Once agreed, this will help to guide the goals and direction of the Assessment, as well as helping to guide some of the other inputs to the plan.
- 3.2.2.3 The second input to the Assessment Plan is the Scope. This defines how wide-ranging the Assessment is, which organizational elements have been included to ensure representative coverage, and what Type

of Assessment is being performed. See Annex 1: Organizational Scope & Exclusion Criteria for further details on assessment scope.

- 3.2.2.4 The third input to the Assessment Plan is the constraints. These should consider: the availability of key resources; the maximum duration of the Assessment; specific organizational areas to be excluded from the Assessment; and any confidentiality agreements in place that may control the release of information.
- 3.2.2.5 The fourth input to the Assessment Plan is the identity of the method that will be utilized during the Assessment to allow comparison of the organization with the TMMi.
- 3.2.2.6 The fifth input to the Assessment Plan is the Assessor Competence Criteria. This states the levels of competence required by the assessment team and verifies that the assessment team meets the minimum competency requirements. This is guided by the Type of Assessment being conducted.

3.2.3 Activities

- 3.2.3.1 The Assessment Plan shall detail various activities that are involved in the process of carrying out an Assessment. These activities will depend upon the Assessment Method being utilized by the Assessment Team.
- 3.2.3.2 The activities within the Method chosen should enable the Assessment Team to assess the organization (or part thereof) against TMMi, and to produce the required outcomes (see “Intended Assessment Outputs”, in section 3.2.8).

3.2.4 Resources

- 3.2.4.1 The Assessment Plan will contain a list of resources that are required for the Assessment to take place.
- 3.2.4.2 The resources will firstly include key people – for example, the Assessment Team Members, the Assessment Sponsor, the Assessment Organizer (if one exists), and the people to be interviewed.
- 3.2.4.3 The resources will secondly include items such as room bookings and other items that enable the Assessment to happen within the chosen timeframe.

3.2.5 Schedules

- 3.2.5.1 The schedule will form part of the Assessment Plan, which is finalized and agreed before the initiation of the Assessment.
- 3.2.5.2 The schedule should state the date, time, location, and attendee list for all planning meetings, interviews, data-gathering sessions, feedback sessions, and results presentations.

3.2.6 Responsibilities

- 3.2.6.1 There are three main roles within an Assessment, and these all have certain responsibilities attached.
- 3.2.6.2 The first role is that of Assessment Sponsor.
 - 3.2.6.2.1 The Assessment Sponsor is a person who is internal to the organization, which is being assessed, and who is providing resources and impetus for the Assessment to take place.
 - 3.2.6.2.2 The Assessment Sponsor is responsible for verifying that the Assessment Team Leader is competent to perform an assessment which conforms to the TMMi reference model [TMMi] and the documented assessment method.
 - 3.2.6.2.3 The Assessment Sponsor can choose to delegate part of their role to another person, such as the Assessment Organizer, if desired.
 - 3.2.6.2.4 The Assessment Sponsor (or nominated Assessment Organizer) is responsible for arranging the assessment schedule within the organization by coordinating internal resources.

Guidance: In practice, this can mean arranging interviews (by coordinating the locations, times and individual interviewees) to ensure that all required interviews can take place within the specified timeframe for the assessment.
 - 3.2.6.2.5 The Assessment Sponsor (or nominated Assessment Organizer) is the primary point of contact for the Assessment Team throughout the course of the Assessment.
 - 3.2.6.2.6 The Assessment Sponsor (or nominated Assessment Organizer) is responsible for receiving the Assessment results on behalf of the organization, or part thereof, being assessed.
 - 3.2.6.2.7 The Assessment Method shall recognize the Assessment Sponsor as the owner of the assessment data.

Guidance: The Assessment Sponsor must be made aware of and grant permission for: data to be collected; data to be maintained in secure storage; and data to be submitted confidentially to the TMMi Foundation.

Note: This does not imply that the Assessment Sponsor may request the source of the individual data items and thereby circumvent the assessment confidentiality procedures as described in section 3.3.1.

3.2.6.3 The second role is that of Assessment Team Leader.

3.2.6.3.1 The Assessment Team Leader will manage all aspects of the Assessment and is responsible for ensuring that the Assessment Team fulfills the objectives laid out for it throughout the course of the Assessment.

3.2.6.3.2 The Assessment Team Leader is present throughout all planning meetings.

3.2.6.3.3 The Assessment Team Leader participates in all Process Area rating reviews – alongside other Assessment Team Members, if there are any.

3.2.6.3.4 The Assessment Team Leader has input into all feedback sessions and results presentations.

3.2.6.3.5 The Assessment Team Leader presents the final results to the Assessment Sponsor (or nominated Assessment Organizer).

3.2.6.3.6 The Assessment Team Leader shall provide evaluation feedback on the performance of any participating Assessors (and trainee Assessors), documenting the activities completed and documenting the level of competence in completing each activity with respect to the TMMi Accredited Assessment Method being used.

Guidance: The Assessment Team Leader is not required to participate in all interviews, but should at least attend a sufficient number of interviews in order to assess the performance of the participating Assessors.

3.2.6.3.7 The Assessment Team Leader shall submit a detailed report on the results or findings of the assessment.

Guidance: The content of assessment reports shall comply with the requirements as defined in the TMMi Data Submission Requirements.

3.2.6.3.8 The Assessment Team Leader shall submit reports on any participating Assessors (and Trainee Assessors) to the TMMi Foundation, as evidence of experience supporting Assessor Accreditation applications.

Guidance: The content of assessor reports shall comply with the requirements as defined in the TMMi Data Submission Requirements.

Additional notes for each rated activity should be provided to the assessor to enable them to take specific improvement actions.

Any additional notes should summarize the strengths and development areas overall and for each activity, i.e.: Planning, Evidence Gathering, Evidence Review, Assessment Reporting and Assessor Reporting. Evidence Gathering and Evidence Review notes may indicate a guideline proficiency rating for each process area, which the assessor participated in to highlight the assessor's strengths and weaknesses in their knowledge and interpretation of the TMMi reference model.

Example:

Overall Performance: Largely Proficient

Experienced in evidence gathering and review. Guidance required in interpreting some aspects of the TMMi reference model. More experience required in Planning and both Reporting activities.

Planning: Largely Proficient

Competent planner. Some guidance required to identify all required activities to complete the assessment.

Evidence Gathering: Fully Proficient

Proficient in gathering evidence for all Level 2 Process Areas.

Evidence Review: Largely Proficient

Some guidance required in interpretation of some aspects of the TMMi reference model.

2.1 Test Policy and Strategy – Largely Proficient, need to consider organizational context

2.2 Test Planning – Fully Proficient in interpretation

2.3 Test Monitoring and Control – Fully Proficient in interpretation

2.4 Test Design and Execution – Largely Proficient, need to consider organizational context

2.5 Test Environment – Fully Proficient in interpretation

Assessment Reporting: Largely Proficient

Further development required in summarizing assessment findings and interpretation of the TMMi reference model.

Assessor Reporting: Largely Proficient

Further development required to understand assessor competencies in detail. Proficient with support.

- 3.2.6.3.9 The Assessment Team Leader shall ensure that secure, confidential storage is provided for the archival of the assessment data and evidence for a minimum of three years.
- 3.2.6.4 The third role is that of Assessment Team Member.
- 3.2.6.4.1 The Assessment Team Member is present throughout planning meetings as appropriate.
- 3.2.6.4.2 The Assessment Team Member attends interview sessions as required, performing a role of either an interviewer, or as a scribe, or both.
- 3.2.6.4.3 Individual interview ratings for Specific and Generic Practices need to be decided by consensus of at least two Assessment Team Members (for Formal Assessments).
- 3.2.6.4.4 The Assessment Team Member participates in all Process Area rating reviews, alongside other Assessment Team Members (if there are any) based on the evidence.
- 3.2.6.4.5 The Assessment Team Member has input into all feedback sessions and results presentations.

3.2.7 Success Criteria

- 3.2.7.1 The success criteria for all Assessments will relate to the satisfactory fulfillment of the Assessment Plan, and the Assessment complying with this document to the required level (and thus complying with ISO/IEC 15504-2 as interpreted).

3.2.8 Intended Assessment Outputs

- 3.2.8.1 The Assessment Outputs must include a certain minimum set of data, regardless of which format the Outputs take, as described within the Method.
- 3.2.8.2 The Outputs must include: the Assessment date; the Assessment inputs; identification of all objective evidence gathered throughout the Assessment; identification of the documented Assessment process followed; and the set of process ratings or findings resulting from the Assessment.

Guidance: Process ratings apply to Formal Assessments and process findings (which are not rated) apply to Informal Assessments.

3.3 Data Management

3.3.1 Data Collection

- 3.3.1.1 Data used to help assess an organization, or part of an organization, against TMMi must be collected in a manner, such that:
- 3.3.1.1.1 The source of the all data is confidential
- 3.3.1.1.2 The data is non-attributable to any individual
- 3.3.1.2 There are various ways of collecting data for TMMi process Assessments. These include:
- Through the confidential submission of documents that concern a particular process;
 - Through confidentially interviewing people who define, utilize or are otherwise involved with a particular process;
 - Through the distribution and confidential collection of evaluation questionnaires, which are issued to people who are involved with a particular process;
 - Through confidentially surveying the customers of a particular organization.
- 3.3.1.3 The origin of any evidence collected and/or provided must be recorded to enable later verification of the Assessment results.

Guidance: The assessment method shall define a process (and a template) to ensure that the data used to determine each assessment result must be traceable. This process shall ensure that the source of the data is confidential and non-attributable to any individual.

3.3.2 Data Validation

- 3.3.2.1 All data collected must be able to be verified as objective evidence.

Guidance: The assessment method shall define a process for gathering and collating an objective set of evidence.

- 3.3.2.2 All data collected must be sufficient and representative for the purposes of the scope of the Assessment and shall meet the minimum requirements defined in Annex 1: Organizational Scope & Exclusion Criteria.

Guidance:

For Formal Assessments: Staff interviews and documents are required. Other types of corroborative evidence may also be used in support of evidence gathered from staff interviews and documents.

For Informal Assessments: Any single type of evidence, e.g. staff interviews, documents, questionnaires, customer surveys etcetera

The assessment method shall define a process for selecting sufficient samples of data to ensure that the data set is representative for the organization unit.

3.3.2.3 All data collected must be examined to check that it is consistent:

3.3.2.3.1 With each of the other sources of data

3.3.2.3.2 As a whole as evidence of the implementation for each practice.

Guidance: The assessment method shall define a process for cross checking each item of evidence gathered to determine if the data is consistent.

3.4 Process Component Rating

3.4.1 Overview

3.4.1.1 The level to which an organization achieves a particular process goal shall be measured using a scale which consists of the following levels: N (Not Achieved), P (Partially Achieved), L (Largely Achieved), and F (Fully Achieved).

3.4.1.2 Throughout the Assessment, the content of the TMMi reference model [TMMi] shall guide the Assessors as to the rating the organization (or part thereof) has achieved a particular goal or practice.

3.4.1.3 Throughout the Assessment, the rationale for decisions upon the rating an organization (or part thereof) achieves for a particular goal or practice shall be recorded.

Guidance: The assessment method shall specify specific procedures for determining process component ratings.

3.4.1.4 All process component ratings must be traceable to the particular objective evidence that was used to score that component rating.

Guidance: The assessment method shall clearly identify the procedures for cataloging evidence and provide template(s) to ensure that there is traceability between the evidence and the process area, goal and practice.

3.4.2 Process Component Rating Details

3.4.2.1 This section defines the process component rating criteria.

- The following ordinal scale and nominal ratings shall be applied

Ordinal Scale Ratings		
N	Not Achieved	0% to ≤15% achievement
P	Partially Achieved	>15% to ≤50% achievement
L	Largely Achieved	>50% to ≤85% achievement
F	Fully Achieved	>85% to 100% achievement
Nominal Ratings		
NA	Not Applicable	
NR	Not Rated	

- The ratings N, P, L and F are applicable to the four levels at which ratings can be applied, namely: Practices (Specific and Generic), Goals (Specific and Generic), Process Areas, and Maturity Levels).
The associated percentage achievement ratings are applicable to Practices (Specific and Generic) only.
- The ratings NA and NR are applicable in accordance with the rules below.

3.4.2.2 In order to score “N” (**Not Achieved**) in relation to a particular process component, there should be little or no evidence found of compliance with the TMMi.

3.4.2.2.1 Practices exhibit substantial weaknesses in implementation and/or institutionalization and no adequate alternative exists. The practice achievement is in the range of 0% to ≤15%.

3.4.2.2.2 Goals are characterized by supporting practices which exhibit substantial weaknesses in implementation and/or institutionalization and no adequate alternative practices exist.

3.4.2.2.3 Process Areas exhibit at least one Goal rated N.

3.4.2.2.4 Maturity Levels exhibit at least one Process Area rated N.

- 3.4.2.3 In order to score **“P” (Partially Achieved)** in relation to a particular process component, there should be some evidence found of compliance with the TMMi.
The practices and processes are incomplete, not widespread, or inconsistent in application or results.
- 3.4.2.3.1 Practices exhibit significant weaknesses in implementation and/or institutionalization or a limited alternative practice exists. The practice achievement is in the range of >15% to ≤50%.
- 3.4.2.3.2 Goals are characterized by supporting practices which exhibit significant weaknesses in implementation and/or institutionalization and limited alternative practices exist.
- 3.4.2.3.3 Process Areas exhibit at least one goal rated P and all other Goals rated F or L.
- 3.4.2.3.4 Maturity Levels exhibit at least one Process Area rated P and all other Process Areas rated F or L.
- 3.4.2.4 In order to score **“L” (Largely Achieved)** in relation to a particular process component, there should be significant evidence found of compliance with the TMMi.
The practices and processes are both systematic and widespread. However, there may still be some minor weaknesses in the distribution, application, or results of the practices and/or processes.
- 3.4.2.4.1 Practices exhibit only minor weaknesses in implementation and/or institutionalization with no significant negative impact on the intent of the practice or an appropriate alternative practice exists, which is exhibits only minor weaknesses with no significant negative impact on the intent of the practice. The practice achievement is in the range of >50% to ≤85%.
- 3.4.2.4.2 Goals are characterized by supporting practices which exhibit only minor weaknesses in implementation and/or institutionalization with no significant negative impact on the intent of the goal or appropriate alternative practice(s) exist, which is exhibit only minor weaknesses with no significant negative impact on the intent of the goal.
- 3.4.2.4.3 Process Areas exhibit at least one goal rated L and all other Goals rated F.
- 3.4.2.4.4 Maturity Levels exhibit at least on Process Area rated L and all other Process Areas rated F.
- 3.4.2.5 In order to score **“F” (Fully Achieved)** in relation to a particular process component, there should be consistent convincing evidence found of compliance with the TMMi.
The practices and processes are both systematic and widespread and there are no obvious weaknesses in the distribution, application, or results of the practices and processes.
- 3.4.2.5.1 Practices exhibit only trivial weaknesses (if any) in implementation and institutionalization or a wholly appropriate alternative practice exists. The practice achievement is in the range of >85% to 100%.
- 3.4.2.5.2 Goals are characterized by supporting practices which exhibit no weaknesses in implementation and institutionalization or a wholly appropriate alternative practice(s) exist with no negative impact on the intent of the goal.
- 3.4.2.5.3 Process Areas exhibit all Goals rated F.
- 3.4.2.5.4 Maturity Levels exhibit all Process Areas rated F.
- 3.4.2.6 **“NA” (Not Applicable)** to be used if a Process Area is not applicable in the context of the Organization and Organization Unit being assessed as defined according to the rules in Annex 1: Organizational Scope & Exclusion Criteria, and is therefore excluded from the results.
- Guidance: A Process Area is not applicable if there is no reasonable requirement for the practices comprising the process area to exist in the context of the organizational unit.
A Process Area is not rated NA because a key stakeholder has chosen to exclude it from the scope of the assessment.*
- 3.4.2.7 **“NR” (Not Rated)** to be used if the process component cannot be rated due to insufficient or inconsistent evidence or falls outside the scope of the assessment.
- Guidance: A Process Area which the sponsor has chosen or has agreed with the Lead Assessor for some reason to exclude from the scope of the assessment should be rated NR.*
- 3.4.2.7.1 Practices and Goals must be rated NR if: the Process Area falls outside the scope of the assessment; the assessors cannot reach consensus; or insufficient data has been gathered to enable the practice or goal to be rated.
- 3.4.2.7.2 Process Areas must be rated NR where a Process Area is deemed out of the scope of the assessment or where any supporting goal is rated NR
- 3.4.2.7.3 Maturity Levels must be rated NR where any supporting Process Area is rated NR.
- Guidance: The assessment method shall define a process for resolving issues where practices and goals are not rated to ensure that process area and maturity level ratings can be determined.*

3.4.3 Determining Process Component Ratings

- 3.4.3.1 Each of the process components are rated according to the requirements in section 3.4.2.
- 3.4.3.2 The rating for each Practice shall be guided by the TMMi reference model [TMMi] and the procedures defined in the assessment method such that the assessment team achieves consensus on the Practice's rating.
- 3.4.3.3 The rating for each Goal shall be guided by the ratings for all of the supporting practices as defined in the TMMi reference model [TMMi] and the procedures defined in the assessment method such that the assessment team achieves consensus on the Goal's rating.

Guidance:

The assessment method shall clearly define the rating procedures for rating each Practice and Goal as guided by the TMMi reference model. E.g.: If a TMMi Specific Goal (SG) is supported by 3 Specific Practices (SP) then the rating for the SG shall be dependent on the ratings for the 3 SPs in accordance with the procedures defined in the assessment method.

- 3.4.3.4 The rating for each Process Area shall be equivalent to the lowest rating of the Specific and Generic Goals that support the Process Area.
- 3.4.3.5 The rating for each Maturity Level shall be equivalent to the lowest rating of the Process Areas that support the Maturity Level. A Maturity Level may be rated as achieved by the organization if all Process Areas in scope have been rated as either Largely Achieved or Fully Achieved. Furthermore higher maturity level cannot be achieved without lower levels also being achieved.

Guidance:

The assessment method shall clearly define the process for rating Process Areas and Maturity Levels. Note: The ratings for Process Area (PA) and Maturity Level are automatically determined by the ratings for each of the supporting Specific and Generic Goals, such that the lowest rating for the Goals determines the ratings for the PAs and the Maturity Level.

See Annex 2: Rating Process Areas and Maturity Levels for examples and further guidance.

3.5 Reporting & Outputs

3.5.1 Outline

- 3.5.1.1 All Assessment results shall be formally documented.
- 3.5.1.2 All Assessment results shall be made available to the Assessment Sponsor (or nominated Assessment Organizer).

3.5.2 Output Report Details

- 3.5.2.1 The Assessment Output Report must contain certain items.
- 3.5.2.2 Firstly, the date of the Assessment must be included in the Report.
- 3.5.2.3 Secondly, a list of the Assessment inputs gathered during the Planning stage of the Assessment must be included. This list shall include justification of the scope selected by the Assessment Lead in the Assessment Plan.
- 3.5.2.4 Thirdly, a list of the objective evidence gathered during the Data Collection stage of the Assessment must be included.
- 3.5.2.5 Fourthly, details of the Assessment method used to perform the Assessment must be included.
- 3.5.2.6 Fifthly, for Formal Assessments, an overall rating from the Assessment (as defined by the Scope at the start of the Assessment) must be included.
- 3.5.2.7 An Informal Assessment cannot give any formal rating from the Assessment (as defined by the Scope at the start of the Assessment) but should provide findings highlighting process strengths and weaknesses.

4 Formal and Informal Assessment Method Compliance Requirements

Formal Assessment Methods need to comply with all TAMAR Requirements, except where specifically stated otherwise. Informal Assessment Methods do not need to comply with the entirety of TAMAR.

The table below indicates which sections of this document Formal and Informal Assessment Methods must comply with.

TAMAR Section / Clause	Description	Formal	Informal
2.1.1.2	All Assessments are either formal or informal	Yes	Yes
2.1.1.3.1	Formal Assessment Criteria (table)	Yes	No
2.1.1.3.2	Informal Assessment Criteria (table)	No	Yes
2.1.2	Expanded detail regarding collected evidence	Yes	Yes
2.2.2	Common elements to both Assessment Types	Yes	Yes
2.2.3	Formal Assessment detail	Yes	No
2.2.4	Informal Assessment detail	No	Yes
3.1.1	Compliance requirements	Yes	Yes
3.1.2	General method requirements	Yes	Yes
3.1.3.1	Consistent use and interpretation of terminology	Yes	Yes
3.2.1.1	Plan is formulated prior to Assessment initiation	Yes	Yes
3.2.1.2	Plan is formally documented	Yes	No
3.2.1.3	Plan distributed to, and agreed by, all key stakeholders – plus stakeholder information	Yes	Yes
3.2.1.4	Assessment Plan contents	Yes	Yes
3.2.1.5	Plan will be formulated by various inputs	Yes	Yes
3.2.2.2	First input to Plan – Purpose	Yes	Yes
3.2.2.3	Second input to Plan – Scope	Yes	Yes
3.2.2.4	Third input to Plan – Constraints	Yes	No
3.2.2.5	Fourth input to Plan – Method	Yes	Yes
3.2.2.6	Fifth input to Plan – Assessor Competence Criteria	Yes	No
3.2.3.1	Assessment Plan activities overview – depend upon Method used	Yes	Yes
3.2.3.2	Activities should be capable of delivering the desired outputs	Yes	Yes
3.2.4.1	Plan will contain a list of resources	Yes	Yes
3.2.4.2	The resource list will include people	Yes	No
3.2.4.3	The resource list will include room bookings and similar	Yes	Yes
3.2.5.1	Plan will contain a schedule	Yes	Yes
3.2.5.2	Schedule should contain various items of detail	Yes	No
3.2.6.1	There are three main roles in an Assessment	Yes	Yes
3.2.6.2	First role is Sponsor	Yes	Yes
3.2.6.2.1	Sponsor is internal to organization and provides resources for the Assessment	Yes	Yes
3.2.6.2.2	Sponsor is responsible for verifying assessment team leader competency	Yes	Yes
3.2.6.2.3	Sponsor can delegate part of their role	Yes	Yes

TAMAR Section / Clause	Description	Formal	Informal
3.2.6.2.4	Sponsor is responsible for arranging assessment schedule within organization	Yes	Yes
3.2.6.2.5	Sponsor is primary point of contact for Assessment Team	Yes	Yes
3.2.6.2.6	Sponsor is responsible for receiving Assessment results	Yes	Yes
3.2.6.2.7	Sponsor is the owner of the Assessment data	Yes	Yes
3.2.6.3	Second role is Assessment Team Leader	Yes	Yes
3.2.6.3.1	Team Leader will manage all aspects of the Assessment	Yes	Yes
3.2.6.3.2	Team Leader is present in all planning meetings	Yes	No
3.2.6.3.3	Team Leader participates in all Process Area rating reviews	Yes	Yes
3.2.6.3.4	Team Leader has input into all feedback and results	Yes	No
3.2.6.3.5	Team Leader presents final results to Sponsor	Yes	Yes
3.2.6.3.6	Team Leader shall review performance of other Assessors	Yes	No
3.2.6.3.7	Team Leader shall submit a report on the Assessment results or findings	Yes	No
3.2.6.3.8	Team Leader shall submit reports on Assessors	Yes	No
3.2.6.3.9	Team Leader shall provide secure storage for assessment data	Yes	Yes
3.2.6.4	Third role is Assessment Team Member	Yes	Yes
3.2.6.4.1	Team Member is present as appropriate in all planning meetings	Yes	Yes
3.2.6.4.2	Team Member attends interviews as required	Yes	Yes
3.2.6.4.3	Team Members shall achieve consensus for individual interview ratings	Yes	No
3.2.6.4.4	Team Member participates in Process Area rating reviews	Yes	No
3.2.6.4.5	Team Member has input into feedback and results	Yes	No
3.2.7	Success Criteria for Assessment	Yes	Yes
3.2.8	Assessment outputs must contain certain minimum data set and data items	Yes	No
3.3.1.1	Data collection must be confidential and non-attributable	Yes	Yes
3.3.1.2	Examples of data collection methods	Yes	Yes
3.3.1.3	Origin of all evidence must be recorded	Yes	No
3.3.2.1	Data collected must be able to be verified as objective	Yes	No
3.3.2.2	Data collected must be sufficient for the purpose of the Assessment	Yes	Yes
3.3.2.3	Data collected must be examined to check consistency	Yes	No
3.4.1.1	Organization process goal ratings scale	Yes	No
3.4.1.2	TMMi defines guidance as to goal achievement	Yes	Yes
3.4.1.3	Decisions used to rate a particular goal are recorded	Yes	No
3.4.1.4	Any rating should be traceable to the relevant evidence	Yes	No

TAMAR Section / Clause	Description	Formal	Informal
3.4.2.1	Measurements are applied to practices, goals, process areas and maturity levels	Yes	No
3.4.2.2	Description of scoring “N”	Yes	No
3.4.2.3	Description of scoring “P”	Yes	No
3.4.2.4	Description of scoring “L”	Yes	No
3.4.2.5	Description of scoring “F”	Yes	No
3.4.2.6	Description of scoring “NA”	Yes	No
3.4.2.7	Description of scoring “NR”	Yes	No
3.4.3.1	Process component rating requirement according the N, P, L, F, NA, NR	Yes	No
3.4.3.2	Practice rating requirements	Yes	No
3.4.3.3	Goal rating requirements	Yes	No
0	Process Area rating requirements	Yes	No
3.4.3.5	Maturity Level Rating requirements	Yes	No
3.5.1.1	Assessment Results must be formally documented	Yes	No
3.5.1.2	Assessment Results must be made available to the Sponsor	Yes	Yes
3.5.2.1	Output Report must contain certain items	Yes	Yes
3.5.2.2	Date of Assessment must be included in Output Report	Yes	Yes
3.5.2.3	List of Assessment inputs must be included in Output Report	Yes	Yes
3.5.2.4	List of objective evidence gathered must be included in the Output Report	Yes	No
3.5.2.5	Details of the Assessment Method used must be included in the Output Report	Yes	Yes
3.5.2.6	Overall rating from the Assessment must be included in the Output Report	Yes	No
3.5.2.7	Informal Assessment gives no formal rating for the Assessment	No	Yes

Table 3: Correlation between different Assessment Types and clauses of TAMAR

5 Correlation between TAMAR and ISO/IEC 15504-2

The following table shows how TAMAR (this document) correlates with the ISO/IEC 15504-2 standard [ISO 15504]. For further information, please refer to that standard.

ISO/IEC 15504-2 requirement(s)	TAMAR requirement(s)
4.2.1	3.1.2.1, 3.1.2.2
4.2.2a	3.1.3
4.2.2.a.1	3.2.2
4.2.2.a.2	3.2.3
4.2.2.a.3	3.2.4, 3.2.5
4.2.2.a.4	3.2.6
4.2.2.a.5	3.2.7
4.2.2.a.6	3.2.8
4.2.2.b	3.3
4.2.2.b.1	3.3.1
4.2.2.b.2	3.3.1
4.2.2.b.3	3.3.1
4.2.2.b.4	3.3.1
4.2.2.b.5	3.3.1
4.2.2.c.1	3.3.2.1
4.2.2.c.2	3.3.2.2
4.2.2.c.3	3.3.2.3
4.2.2.d.1	3.4.1.1, 3.4.1.3
4.2.2.d.2	3.4.1.2
4.2.2.d.3	3.4.1.3
4.2.2.d.4	3.4.1.4
4.2.2.d.5	3.4.1.3
4.2.2.e	3.5.1.1, 3.5.1.2, 3.5.2.1
4.3.1.a	3.2.6.2.2
4.3.1.b	3.2.6.2.3, 3.2.6.2.4, 3.2.6.2.5
4.3.1.c	3.2.6.2.3, 3.2.6.2.4, 3.2.6.2.5
4.3.2.a	3.2.6.3.1
4.3.2.b	3.2.6.3.1
4.3.2.c	3.2.6.3.1, 3.2.6.3.2
4.3.2.d	3.3.6.3.1, 3.2.6.3.6, 3.2.6.3.8
4.3.2.e	3.2.6.3.1
4.3.2.f	3.2.6.3.1, 3.2.6.3.6, 3.2.6.3.8
4.3.2.g	3.3.6.3.1, 3.2.6.3.5
4.3.2.h	3.2.6.3.1
4.3.3.a	3.2.6.4.1, 3.2.6.4.2, 3.2.6.4.4, 3.2.6.4.5
4.3.3.b	3.2.6.4.3
4.4.1	3.2.1.1, 3.2.2
4.4.2.a	3.2.6.2
4.4.2.b	3.2.2.2
4.4.2.c	3.2.2.3
4.4.2.d	3.2.2.5
4.4.2.e	3.2.2.4
4.4.2.f	3.1.2.2
4.4.2.g	3.2.2.6
4.4.2.h	3.2.2.6
4.4.2.i	3.2.2.6
4.4.2.j	3.2.8, 3.3.1, 3.3.2
4.4.3	3.2.2

ISO/IEC 15504-2 requirement(s)	TAMAR requirement(s)
4.5.1	3.5.1
4.5.2	3.5.2
5.7	3.4.2

Table 4: Correlation between TAMAR and ISO/IEC 15504-2

6 Glossary

Assessment	See Assessment
Assessment method	See Method
Assessment model	See Model
Assessment sponsor	See Sponsor
Assessment team	See Assessment Team
Assessment team leader	See Assessment Team Leader
Assessment team member	See Assessment Team Member
Assessor	See Assessor
assessment	The process by which an Organization is Assessed by an Assessment Team
assessment leader	See Assessment Team Leader
assessment method	See Method
assessment model	See Model
assessment organizer	This is a role which is either filled or delegated by the Assessment Sponsor. The purpose of the role is to organize the Assessment on the user-side (that is, within the Organization or Organizational Area being Assessed)
assessment sponsor	This is a person who is internal to the organization being assessed who is providing resources and impetus for the Assessment to take place
assessment team	The team of people conducting an Assessment, made up of Assessment Team Members
assessment team leader	The person who leads an Assessment. For a Formal Assessment, this must be an accredited and trained Lead Assessor
assessment team member(s)	One or more people who are part of the team conducting an Assessment. The Assessment Team Leader is also an Assessment Team Member. People who are Assessment Team Members are also known as Assessors
assessment type	Level of assessment rigor; either Formal or Informal
assessor(s)	One or more people who are carrying out an Assessment against an organization or a business unit or area within an organization. The title of Assessor refers to any member of the Assessment Team, whether they are a Lead Assessor or an Assessment Team Member.
delivery lifecycle model	Set of processes and procedures comprising different ways to deliver software. Common examples include Waterfall, V-Model, Iterative, RUP and Agile methods.
development methodology	See delivery model
development model	See delivery model
experienced assessor	Assessor with demonstrable working experience of undertaking formal evaluations against models (may be unaccredited Trainee Assessor).
formal assessment	This is the more rigorous of the two Types of Assessment, leading to a fully verifiable benchmark rating. Each process component must be corroborated by interview and artifact reviews, with the option to collect additional evidence
informal assessment	This is the less rigorous of the two Types of Assessment. Each process component is supported by one source only, which may not be validated
ISO/IEC 15504	“Information technology – Process Assessment: Part 2 – Performing an Assessment.” This is the International standard governing Assessment of processes within information technology organizations

lead Assessor	See Lead Assessor
lead assessor	A person who is accredited by the TMMi Foundation as competent to lead and participate in any Type of Assessment
method	A prescribed Process, Procedures and Tools for undertaking TMMi Assessments
model	A defined reference model of Maturity Levels, Process Areas and Specific and Generic Goals and Practices – referenced by Methods when assessing Processes
organization	This refers to either the entire business, or a distinct self-contained independently managed element within a wider corporate entity
organizational scope	The collection of projects and support functions that provides institutionalization of practices used within, and representative of, an organizational unit
organizational unit	The part of an organization that is the subject of an Assessment. An organizational unit deploys one or more processes that have a coherent process context and operates within a coherent set of business objectives. An organizational unit is typically part of a larger organization, although in a small organization, the organizational unit may be the whole organization. [Derived from CMMI model glossary, ISO 98b]
project	A planned initiative with a defined scope and timeline designed to achieve a concrete aim
project size	Magnitude of a project as measured in the resources it takes to accomplish this project. Typically measured in man-months, person days or hours of effort
Re-certification	Assessment being conducted to certify an organizational unit after an initial assessment has been successfully conducted at the same or a lower Maturity Level.
sponsor	See Assessment Sponsor
TAMAR	This is an acronym, which stands for TMMi Assessment Model Application Requirements
team size	Size of a group of individuals working as a team towards a common (project) goal, typically measured in full-time equivalents
test maturity model integration	The ‘Test Maturity Model Integration’ published by the TMMi Foundation
TMMi	See Test Maturity Model Integration
trainee assessor	This refers a person who may be inexperienced in Assessments, and thus is not yet accredited as a full Assessor
trainee Assessor	See Trainee Assessor
type of assessment	See Assessment Type

7 References

- [DSR] TMMi Data Submission Requirements (2014), *TMMi Data Submission Requirements (DSR) Release 1.0*, TMMi Foundation
- [ISO 15504] ISO 15504-2 (2003), *Software engineering – Process assessment – Part 2: Performing an assessment*, International Organization of Standardization
- [TMMi] Test Maturity Model Integration (2012), *Test Maturity Model Integration (TMMi) Release 1.0*, TMMi Foundation

1 Annex 1: Organizational Scope & Exclusion Criteria

1.1 Introduction

TAMAR provides the requirements of an assessment method. In order to undertake assessments (formal and informal), the organisational scope needs to be defined to ensure that the assessment results are representative of the organisational unit's processes.

This annex provides clarification to assist assessment providers in ensuring the defined scope of assessments will satisfy the requirements of TAMAR and that the selected projects are representative; defining what is acceptable as minimum requirements for projects, development methodologies etc. that should be included in the scope of assessments.

This annex also provides guidelines on exclusion of parts of the TMMi model as being "Not Applicable", defining clear guidance on how much of the TMMi model can be validly excluded from an assessment scope. If an organisational unit is to be certified, there is an expectation that the process elements are extensively defined and implemented to satisfy assessment providers that they follow good industry practices as defined in the model. While there may be elements that, within the context of the organisation being assessed, are validly "Not Applicable", it can be perceived to be easy to exclude too much of the requirements of the model in order to achieve the desired levels of maturity etc.

1.2 References

This annex provides clarification and guidance in respect of the following references within TAMAR:

2.2.3.7 The Assessment Method shall require a defined mechanism for determining that sufficient data has been collected to cover the scope of the Formal assessment, according to the following minimum set of rules and outlined in Annex 1: Organizational Scope & Exclusion Criteria.

2.2.3.7.1 A specific or generic practice has sufficient data coverage if corroborated objective evidence exists for the practice and is:...

3.2.2.3 The second input to the Assessment Plan is the Scope. This defines how wide-ranging the Assessment is, which organizational elements have been included to ensure representative coverage, and what Type of Assessment is being performed. See Annex 1: Organizational Scope & Exclusion Criteria for further details on assessment scope.

3.3.2.2 All data collected must be sufficient and representative for the purposes of the scope of the Assessment and shall meet the minimum requirements defined in Annex 1: Organizational Scope & Exclusion Criteria.

3.5.2.6 Fifthly, for Formal Assessments, an overall rating from the Assessment (as defined by the Scope at the start of the Assessment) must be included.

6 Glossary: definition of "Organisational Scope"

1.3 Defining Organizational Scope

When undertaking the planning and preparation stages of an assessment, the range of different operating conditions under which the process is to be assessed must be reflected in the definition of the Organizational Unit. The main factors influencing the organisational scope are:

- Number of delivery models implemented
- Number of and different size of projects delivered in representative period before the assessment
- Number and size of teams

The numeric values of the parameters, defined above, shall reflect the day to day operation of the organizational unit and will identify the size and complexity of the organizational (and assessment) scope. For example, an organisational unit that is located over several sites, with several teams using differing delivery models will significantly increase the sample size for the assessment in relation to an organisational unit that is in a single location delivering 3 major projects per year in a single geographical location using one team only.

The assessment team will identify the scope of the organisational unit to be assessed in respect of the context. The following guidelines must be considered by the Assessment Lead when defining scope of the assessment:

1. A minimum of 1 project for each delivery model must be included in the scope of the assessment
2. The assessment team must consider the number of geographical locations. Projects from sufficient locations within the scope of the organisational unit being assessed must be included for the assessment team to be satisfied that all teams in all the geographical locations are following equivalent processes, procedures and practices (depending on the number of delivery models deployed). Organizational units

that are specific to customers in a particular geographical region should be assessed in separate formal assessments. Multi-site project teams delivering work to the same customer may be treated as one project team.

3. The organizational or customer domain needs to be considered for the respective operational unit to be assessed. A minimum of 1 project for each domain must be included for the assessment team to be satisfied that all team in the different organizational domains are following equivalent processes, procedures and practices. A domain can either be a group within the organizational unit (e.g. billing, eCommerce, Retail, Order Management) or the customer-facing group of the organizational unit (e.g. Property & Casualty, Life, Health, and Commercial insurance).
4. The mix of the size of projects also needs to be considered. A minimum of 1 project for each delivery model of each size must be included in scope of the assessment – these may be from different customer domains.
5. The number of projects delivered during the preceding 12 months before the assessment needs to be taken into account in order to determine the representative sample.
6. A minimum of 2 projects delivered within the last 12 months for each organizational unit in the assessment scope must be in scope of a formal assessment.

Notes: It is necessary to ensure that the number of projects within scope is statistically significant and representative. For example, if the organizational unit delivers a high number of small projects, the assessment team may include a larger number of projects in the assessment. Each major release of the same application should be considered as a separate project for sampling decisions.

7. It is sufficient to select 1 project delivered within the last 12 months for each development model and organizational unit.
8. Supporting artefacts must be collected from all projects identified as in scope of the assessment

Note: The eventual scope of the assessment will involve consideration of all of the above as they are inter-related and should not be applied in isolation.

Sample Size Formula:

Minimum Number of projects to be selected for each organizational unit in the scope of the assessment: The greater of (2 or [Sum of (Domains, Development Methods & Project Sizes) + Log10(Number of projects)])

The result of this computation is the minimum sample size to be considered as representative for an assessment. Any fractional numbers shall be subject to normal rounding rules (e.g. 5.49 shall become 5; 5.5 shall become 6). The Lead Assessor may define additional sampling factors, which shall be documented in the Assessment Plan, so long as the overall number of projects selected is not reduced. The assessment team must document the analysis and justification for the scope of the organizational unit assessment as part of the planning and preparation. The Sponsor may choose to reduce the scope of the assessment by reducing the number of organisation units in scope, for example by only including teams which deliver projects for a particular set of domains.

Examples:

Domains	Project Sizes	Development Methods	# of Projects	Sample Size
3	Medium	Traditional, Agile	31	7
1	Small	Agile	120	5
1	Large, Medium	Traditional	20	5
2	Large, Medium, Small	Traditional, Agile	75	9

1.4 Exclusion from Assessment Scope

This section is primarily applicable to formal assessments.

For an organizational unit to be formally assessed against the TMMi model there is a reasonable expectation that the organizational unit has demonstrated sufficient capability against all elements of the TMMi model for the process areas up to and including the identified maturity level. TAMAR provides rules and guidance (in section 3.4.2.6 and Annex 2: Rating Process Areas and Maturity Levels) stating that a Process Area may be rated as “NA” (Not Applicable). However, excluding too many of the Process Areas of the TMMi model can provide a misleading representation of the organisational unit’s capability and a rating of “NA” should therefore only be used sparingly if the relevant Process Area is genuinely not applicable in the organization’s context.

Therefore, the following rules shall apply:

1. At the Practice level there should be alternate practices that have been established, therefore “Not Applicable” shall not be used to rate either individual Practices or Goals provided that the alternate practices satisfy the requirements and the intent of the Goal.
2. A Process Area may not be rated as “Not Applicable” if the Sponsor and/or Lead Assessor exclude the Process Area from the scope of the assessment, Process Areas deemed to be out of the scope of the assessment shall be rated “NR”.
3. Where the Assessment Lead finds justifiable reasons why it is not appropriate to implement the set of practices for particular Process Area in the organization’s context, and provided that no more than a single Process Area within each Maturity Level is rated “Not Applicable”, , the Assessment Result shall then state the Maturity Level was attained with Exceptions to make this exception transparent. If more than one (1) Process Area within each Maturity Level is rated “Not Applicable”, then the Maturity Level is rated as “N”, i.e. “Not Achieved”
4. Overall, no more than two (2) Process Areas may be rated as “Not Applicable” within the scope of the assessment (except where the scope of the assessment is restricted to Maturity Level 2 where only one (1) Process Area may be rated as “Not Applicable”).

2 Annex 2: Rating Process Areas and Maturity Levels

This annex elaborates on how measurements are applied for process areas and maturity levels. This annex is intended to provide additional guidance, using examples, on how to complete the process of determining process area and maturity level ratings.

2.1 Rating Process Areas

Process Area ratings are equivalent to the lowest rating of the supporting generic and specific goals, as defined in section 3.4.3 Determining Process Component Ratings.

Note: The process area rating is “only as strong as the weakest link”, i.e. the process area will be rated at the lowest rating of the supporting goals.

For the process area to be:

- Fully Achieved - The goals associated with the process area are all rated as Fully Achieved
- Largely Achieved - The goals associated with the process areas are all either Fully or Largely Achieved, and at least one goal is only Largely Achieved
- Partially Achieved - The goals associated with the process area are all either Fully, Largely or Partially Achieved, and at least one goal is only Partially Achieved
- Not Achieved - The goals associated with the process area are all either Fully, Largely, Partially or Not Achieved and at least one goal is Not Achieved. Not Rated - Any supporting goal is Not Rated or the Process Area has been excluded from the scope of the assessment.
- Not Applicable - The process area is considered not applicable to the organizational unit by the Lead Assessor, i.e. there is no reason for this process area to be implemented or institutionalized. See Annex 1: Organizational Scope & Exclusion Criteria for rules regarding the usage of this rating.

Guidance: If a process area is in scope for an assessment, then all specific goals and specific practices should be in scope; otherwise the expected practices for the process area are likely to be only partially implemented.

Note that the generic goals and generic practices apply at different levels; therefore some may not be applicable depending on the scope of the assessment.

2.1.1 Example 1

Process Area Rating	Largely Achieved		L
Goal Ratings	Generic Goals	GG2 – Largely Achieved	L
		GG3 – Largely Achieved	L
	Specific Goals	SG1 – Fully Achieved	F
		SG2 – Fully Achieved	F
		SG3 – Fully Achieved	F

The lowest rating of the generic goals is “Largely Achieved” (for GG2 and GG3) and the lowest rating of specific goals is “Fully Achieved” (for SG1, SG2 and SG3).

The lowest rating of all the goals supporting the process area is “Largely Achieved”; therefore the overall rating for the process area is “Largely Achieved”.

2.1.2 Example 2

Process Area Rating	Partially Achieved		P
Goal Ratings	Generic Goals	GG2 – Largely Achieved	L
		GG3 – Largely Achieved	L
	Specific Goals	SG1 – Fully Achieved	F
		SG2 – Partially Achieved	P
		SG3 – Largely Achieved	L

The lowest rating of the generic goals is “Largely Achieved” (for GG2 and GG3) and the lowest rating of specific goals is “Partially Achieved” (for SG2).

The lowest rating of all the goals supporting the process area is “Partially Achieved”; therefore the overall rating for the process area is “Partially Achieved”.

2.1.3 Example 3

Process Area Rating		Not Rated	NR
Goal Ratings	Generic Goals	GG2 – Largely Achieved	L
		GG3 – Fully Achieved	F
	Specific Goals	SG1 – Fully Achieved	F
		SG2 – Partially Achieved	P
		SG3 – Not Rated	NR

The lowest rating of the generic goals is “Largely Achieved” (for GG2) and the lowest rating of specific goals is “Partially Achieved” (for SG2).

However, note that SG3 is “Not Rated”, therefore the process area cannot be rated and the overall status of the process area is “Not Rated”.

The assessment team would be required to reach agreement on the rating for SG3 and may possibly need to gather more data to reach consensus on the rating.

2.2 Rating Maturity Levels

Maturity Level ratings are equivalent to the lowest rating of the supporting process areas, as defined in section 3.4.3 Determining Process Component Ratings.

Note: The maturity level rating is “only as strong as the weakest link”, i.e. the maturity level will be rated at the lowest rating of the process areas.

For the maturity level to be:

- Fully Achieved - The process areas associated with the maturity level are all rated as Fully Achieved
- Largely Achieved - The process areas associated with the maturity levels are all either Fully or Largely Achieved, and at least one process area is only Largely Achieved
- Partially Achieved - The process areas associated with the maturity level are all either Fully, Largely or Partially Achieved, and at least one process area is only Partially Achieved
- Not Achieved - The process areas associated with the maturity level are all either Fully, Largely, Partially or Not Achieved, and at least one process area is Not Achieved
- Not Rated - Any supporting process area is Not Rated

2.2.1 Example 1

Maturity Level 2 Rating	Largely Achieved	L
Process Area Ratings	PA1 – Fully Achieved	F
	PA2 – Largely Achieved	L
	PA3 – Largely Achieved	L
	PA4 – Fully Achieved	F
	PA5 – Fully Achieved	F

The lowest rating of the process areas is “Largely Achieved” (for PA2 and PA3); therefore the overall rating for the maturity level is “Largely Achieved” and the organization is operating at TMMi Maturity Level 2.

2.2.2 Example 2

Maturity Level 2 Rating	Partially Achieved	P
Process Area Ratings	PA1 – Fully Achieved	F
	PA2 – Largely Achieved	L
	PA3 – Largely Achieved	L
	PA4 – Partially Achieved	P
	PA5 – Fully Achieved	F

The lowest rating of the process areas is “Partially Achieved” (for PA4); therefore the overall rating for the maturity level is “Partially Achieved” and the organization is operating at TMMi Maturity Level 1.

2.2.3 Example 3

Maturity Level 2 Rating	Largely Achieved	L
Process Area Ratings	PA1 – Fully Achieved	F
	PA2 – Fully Achieved	F
	PA3 – Largely Achieved	L
	PA4 – Fully Achieved	F
	PA5 – Not Applicable	NA

The lowest rating of the process areas is “Largely Achieved” (for PA3). However, note that PA5 is “Not Applicable” in the organization’s context and is therefore does not influence the result of the assessment.

Therefore the overall rating for the maturity level is “Largely Achieved” and the organization is operating at TMMi Maturity Level 2. An explanatory note stating why PA5 is deemed “Not Applicable” must be provided.

2.2.4 Example 4

Maturity Level 2 Rating	Largely Achieved	L
Process Area Ratings	PA1 – Fully Achieved	F
	PA2 – Largely Achieved	L
	PA3 – Largely Achieved	L
	PA4 – Fully Achieved	F
	PA5 – Fully Achieved	F
Maturity Level 3 Rating	Largely Achieved (<i>see note below</i>)	L
Process Area Ratings	PA1 – Fully Achieved	F
	PA2 – Fully Achieved	F
	PA3 – Fully Achieved	F
	PA4 – Fully Achieved	F
	PA5 – Fully Achieved	F

The lowest rating of the process areas at maturity level 2 is “Largely Achieved” (for PA2 and PA3). Therefore the overall rating for the maturity level 2 is “Largely Achieved”.

While the lowest rating of the process areas at level 3 is “Fully Achieved”, the overall rating for maturity level 3 is “Largely Achieved”, since the rating at maturity level 2 was “Largely Achieved”.

The organization unit has achieved maturity level 3 overall.

2.2.5 Example 5

Maturity Level 2 Rating	Partially Achieved	P
Process Area Ratings	PA1 – Fully Achieved	F
	PA2 – Largely Achieved	L
	PA3 – Partially Achieved	L
	PA4 – Fully Achieved	P
	PA5 – Fully Achieved	F
Maturity Level 3 Rating	Partially Achieved	P
Process Area Ratings	PA1 – Fully Achieved	F
	PA2 – Largely Achieved	L
	PA3 – Fully Achieved	F
	PA4 – Fully Achieved	F
	PA5 – Fully Achieved	F

The lowest rating of the process areas at maturity level 2 is “Partially Achieved” (for PA4). Therefore the overall rating for the maturity level 2 is “Partially Achieved”.

While the lowest rating of the process areas at level 3 is “Largely Achieved” (for PA2), the overall rating for maturity level 3 is “Partially Achieved”, since the rating at maturity level 2 was “Partially Achieved”.

The organization has achieved maturity level 1 overall.

3 Annex 3: Assessment Method Re-accreditation Guidelines

3.1 Introduction

Once an assessment method has been accredited by the TMMi Foundation, the accreditation is valid for a maximum of 3 years. In order to maintain the accreditation, it is a requirement that the assessment method is re-accredited to ensure that the assessment method is compliant with the requirements of the TMMi model, TAMAR and the DSR. However, in the event of a major release of the TMMi model, TAMAR or the DSR re-accreditation with the revised requirements may be required within 12 months by the TMMi Foundation (at its sole discretion) to retain accreditation.

It is necessary for the TMMi Foundation to ensure that all requirements of the TMMi model, TAMAR and DSR are still being satisfied. However, as the assessment method has already gone through the lengthy process of full formal evaluation previously, it may not be necessary to complete an exhaustive compliance review.

3.2 Re-submission Guidelines

A complete submission of all materials, including the assessment method processes, procedures, handbooks, training materials, supporting templates and reports is required to enable any aspect of compliance to be reviewed. This includes the TAMAR compliance matrix updated as required.

However, the assessment provider shall declare the following:

- All changes made to meet the revised requirements of the TMMi model, TAMAR and the DSR, declaring the release and version numbers for the purposes of compliance. The release and version numbers shall be current unless the latest publication date is less than 6 months in the past.
-
- All changes made at the assessment providers discretion based upon process or procedural improvements (derived from experience using the method)
- All changes made to supporting tools, providing screenshots or samples demonstrating the nature of the change and supporting documents (if necessary) to justify compliance to the requirements of the TMMi model, TAMAR and the DSR.

Note: In cases where re-accreditation is sought after less than 6 months of the latest publication date of a particular set of requirements, the re-accreditation may be delayed by a further 6 months, subject to approval by the TMMi Foundation Accreditation Chair.

In accordance with the configuration management practices the version numbers of the assessment method and all supporting materials shall be revised wherever changes are declared.

Failure to gain re-accreditation within the original period of accreditation may result in the loss of accredited service provider status for the assessment provider, all licensees and all assessors.

3.3 Procedure for Re-accreditation

3.3.1 Normal Accreditation Expiry

Where the assessment method accreditation is reaching its normal expiry date, the following procedure shall apply:

- The TMMi Foundation shall provide notice of the expiry.
- The Assessment Provider shall update the submission documenting all changes to the assessment method, including all supporting materials and tools, declaring the level of compliance (providing release and version numbers) with the TMMi model, TAMAR and the DSR.
- The Assessment Provider shall declare the supported assessment types.
- The Assessment Provider shall submit the revised application, including a complete set of documents, including the assessment method and all supporting materials containing all necessary changes to achieve compliance with the current releases and versions of all requirements.
- The TMMi Foundation shall at its sole discretion review all or part of the submitted materials to determine compliance.
- If the assessment method and supporting materials are found to be compliant, then re-accreditation shall be provided for a further 3 years.

- If the assessment method or the supporting materials are found to be deficient the assessment provider shall be given reasonable opportunity, as determined by the TMMi Foundation Accreditation Chair, to correct such deficiencies and re-apply for re-accreditation.

3.3.2 Major Requirements Releases

Where the assessment method accreditation is required due to a major release of any of the requirements (including the TMMi model, TAMAR or the DSR), the following procedure shall apply:

- The TMMi Foundation shall provide notice of the expiry detailing the publication of the major release(s) requiring re-accreditation.
- The Assessment Provider shall update the submission documenting all changes to the assessment method, including all supporting materials and tools, declaring the level of compliance (providing release and version numbers) with the TMMi model, TAMAR and the DSR.
- The Assessment Provider shall declare the supported assessment types.
- The Assessment Provider shall submit the revised application, including a complete set of documents, including the assessment method and all supporting materials containing all necessary changes to achieve compliance with
 - the major release(s) of requirements as published, and
 - the current releases and versions of all other requirements
- The TMMi Foundation shall at its sole discretion review all or part of the submitted materials to determine compliance.
- If the assessment method and supporting materials are found to be compliant, then re-accreditation shall be provided for a further 3 years.
- If the assessment method or the supporting materials are found to be deficient the assessment provider shall be given reasonable opportunity, as determined by the TMMi Foundation Accreditation Chair, to correct such deficiencies and re-apply for re-accreditation 12 (twelve) months of the notification of expiry.

3.3.3 Supporting Information

The Assessment Provider shall provide current information for the following:

- Current Registered Organization Name (and Trading Name, if different)
- Current Organization Address
- Main Contact
- Secondary Contact
- Financial Contact and Purchase Order Number
- Current Organizational Accreditations / Quality Marks

4 Annex 4: Assessment Case Study

4.1 Introduction

The purpose of the case study is to illustrate aspects of the application of the TAMAR rules as part of the assessment method.

The case study purposely does not cover all aspects of an assessment or all issues that may arise during an assessment, covering planning the scope of a (formal) assessment, selecting the sample of projects to be included in the assessment scope, evidence review to determine assessment ratings and the reporting of the findings.

4.2 Case Study Background

You-Buy-IT are launching the own brand software range and the marketing team would like to launch the new products with a price promise backed by high quality products. A new software division was created 18 months ago to achieve this vision working with the latest methods and tools in order to achieve this goal. The IT Director has determined a review of IT practices would be appropriate at this time in order assess capabilities of the new division and to establish a baseline for future improvements. If the results of the review are positive the marketing team are keen to include the independent certification of the IT processes in their marketing campaigns.

ABC Testing Services, a well respected and accredited TMMi Service Provider, has been engaged by a Mr James Smith, who is a senior manager reporting to the IT Director and responsible for internal development and testing services, to formally assess the Own Brand Software Delivery Division's test processes.

You-Buy-IT having been working with a number of the testing and test support partners and have retained a consultancy team provided by ABC Testing Services to perform periodic informal assessments and implement continuous test process improvements.

4.3 Assessment Planning

Mr Smith, who will act as the Assessment Sponsor for the purpose of the TMMi Assessment having discussed and agreed the objectives of the assessment and considered the feedback from the continuous test improvement program has agreed that the assessment should cover TMMi maturity levels 2 and 3. He selects an accredited Assessment Provider, who nominates a Lead Assessor to plan and conduct this assessment. The Lead Assessor informs the TMMi Foundation Accreditation chair of the planned formal assessment.

The Lead Assessor completes initial analysis for the purposes of planning the assessment decides that it is important to discuss and agree how the process area Test Environment should be approached. The Own Brand Software Delivery Division uses cloud based testing environments, which must meet a set of standards defined and guaranteed in a master contract with an single supplier. Environments must be provisioned by the supplier within 4 hours of receiving a request, if there are any breaches in delivery or the environment standard SLAs the supplier is liable to pay a penalty for non-delivery. The Lead Assessor and the Sponsor debate this and finally agree that in the context of the Own Brand Software Delivery Division PA 2.5 Test Environment is deemed to be "not applicable" for the purposes of the assessment. The rationale for this is that the environment requirements are standardised, allowing automated builds to create a new environments on demand. Furthermore, all the division's software operates without the need to integrate with other systems, therefore test data management is not deemed to be a significant issue to manage. Test environment incidents are managed by the supplier in accordance with the contracted SLAs. The Lead Assessor notes this justification in the Assessment Plan.

The Lead Assessor has also determined that the Own Brand Software Delivery Division should be treated as a single operational domain. The division uses an Agile method for delivery of small projects and RUP for medium and large scale projects. Over the past 12 months the division completed 20 projects with a further 5 projects at advanced stages of testing and due to deliver in the next 8 weeks.

The Lead Assessor's reviews the analysis on the types and sizes of project teams noting that this correlates directly to the types and sizes of projects and the methods used and concludes that the team types and sizes need not be considered as an additional sampling factor. The Lead Assessor notes this in the Assessment Plan, too. The Lead Assessor determines that this is sufficient to determine the assessment sample size and applies the following calculation.

Minimum Number of projects to be selected for each organizational unit in the scope of the assessment: The greater of (2 or [Sum of (Domains, Development Methods & Project Sizes) + Log10(Number of projects)])

Substituting values for each of the parameters the Lead Assessor's calculation is: (1 domain + 2 development methods + 3 project sizes) + Log10(25 projects) = 6 + 1.39 which is rounded to 7.

The Lead Assessor agrees with the Sponsor that a minimum of 7 of the 25 projects should be included in scope to ensure that the assessment achieves sufficient coverage to be representative of the Brand Software Delivery Division's activities.

4.4 Evidence Review

Having completed interviews and gathered documents and other artifacts for each of the 9 process areas for each of the 7 projects in scope the assessment team must now reach consensus on the implementation and institutionalization of the practices and goals. The Lead Assessor reminds the assessment team that this is not a mathematical exercise where scores can be summed to calculate an average. The assessment team must review the evidence gathered to determine if the practices meet the requirements of the TMMi and reach consensus on the level of compliance with the TMMi requirements. The assessment team must also review the supporting practices for each goal and determine whether the intent of the goal has been satisfied in the context of the Own Brand Software Delivery Division operations and the objectives for the assessment. The assessment team may also need to consider which practices are relatively more important when considering the organization unit's context.

The evidence gathered from interviews and documented artifact reviews for PA 2.3 Test Monitoring and Control for specific practices 3.1, 3.2 and 3.3 suggests the following indicative ratings for each project, having taken the interview data and the reviews of the documented artifacts.

Project	Project 1	Project 2	Project 3	Project 4	Project 5	Project 6	Project 7
Type	Med RUP	Large RUP	Large RUP	Med RUP	Small Agile	Small Agile	Large RUP
SP 3.1	L	F	F	L	L	NR	F
SP 3.2	F	F	F	F	L	P	F
SP 3.3	L	F	L	L	L	NR	L

The assessment team review the data collected for consistency and tries to corroborate the information gathered. The team notes that the agile method used by projects 5 and 6 means that documentary evidence for these practices is limited and this has prevented the assessment team from reaching consensus on the indicative ratings for project 6.

If this is not resolved the assessment team would be unable to rate SP3.1 and SP3.3 and also SG3.

After debating this with the Lead Assessor the assessment team agree that the use of scrums, the output of sprint and project retrospectives, and the associated action plans are sufficient for the purposes of reaching consensus. The evidence for project 6 is re-reviewed and it is agreed that each of the 3 practices should be rated L for this project.

The revised indicative ratings for each project's practices are now as follows.

Project	Project 1	Project 2	Project 3	Project 4	Project 5	Project 6	Project 7
Type	Med RUP	Large RUP	Large RUP	Med RUP	Small Agile	Small Agile	Large RUP
SP 3.1	L	F	F	L	L	L	F
SP 3.2	F	F	F	F	L	L	F
SP 3.3	L	F	L	L	L	L	L

Having established a consistent set of data and agreed indicative ratings for each practice, the next step is to rate each of the specific practices overall, based on the indicative ratings for each project.

The assessment team must come to consensus to achieve rate the practices, it is not a mathematical exercise.

For SP3.1, projects 1, 4, 5 and 6 exhibit some minor weaknesses in the institutionalization of a common procedure for issue analysis. The team cannot initially agree that it is appropriate for the projects using RUP and Agile methods to have slightly different procedures in place, but taking the differences in the delivery approaches into account and the relative sizes of the projects the assessment team agree that the approach to issue management is wholly appropriate with respect to the intent of the practice and agree a rating of F for SP3.1, documenting the rationale for their decision, the practice strengths, the minor weaknesses and the cross references to the supporting data ensuring that it is consistent with the summarized findings.

For SP3.2 projects 5 and 6 exhibit some minor weaknesses and the assessment team quickly decide that this does not impact on the organization unit's overall capability to perform this practice and agrees to a rating of F for SP3.2, documenting the rationale for their decision, the practice strengths, the minor weaknesses and the cross references to the supporting data ensuring that it is consistent with the summarized findings.

For SP3.3 all projects, with the exception of project 2, exhibit minor weaknesses in the implementation of appropriate procedures with respect the definition of the practice in TMMi, each project, failing to consistently determine the effectiveness of the corrective actions. The assessment team quickly agree on a rating of L for SP3.3 documenting the rationale for their decision, the practice strengths, the minor weaknesses and the cross references to the supporting data ensuring that it is consistent with the summarized findings.

The assessment team, having reached consensus on the individual practices supporting SG3, proceed to the next step and start to discuss whether or the specific goal SG3 should be rated F or L.

The Lead Assessor reminds the assessment team that they must come to consensus to achieve rate the goal, it is not a mathematical exercise.

The team decide that the consistent minor weakness in SP3.3 it is appropriate to agree upon a rating of L for SG3 documenting the rationale for their decision, the goals strengths, the minor weaknesses and the cross references to the supporting interview and artifact data ensuring that it is consistent with the summarized findings. The Lead

Assessor notes that, provided that there are no other significant weaknesses in other areas, this will not prevent the Sponsor from achieving the objective achieving public certification of the organizational unit's maturity level. The assessment team complete the review of all the specific and generic goals for the Process Area before applying the Process Area rating rules.

Specific Goals	SG1	SG2	SG3
Ratings	F	F	L
Generic Goals	GG2	GG3	
Ratings	F	F	

The rules state the Process Area rating is effectively equivalent to the lowest rating of all the goals, therefore the rating for PA2.3 is "L" or "Largely Achieved".

Note that if the issues with the ratings for project 6 we left unresolved SG3 would be rated "NR" and PA2.3 would be rated "NR".

4.5 Assessment Reporting

Before submitting the final report to the Sponsor, the Lead Assessor presents the assessment findings to the Own Brand Software Delivery Division members who participated in the assessment, reasserting that the source of the data supporting the findings shall remain confidential. The participants are told what key strengths and weaknesses were identified for each goal for each process area in the scope of the assessment and offered an opportunity to feedback comments and queries about the findings as they are presented. Crucially the assessment team do not share the assessment ratings, but simply confirm that their findings are seen to be fair by the participants attending the presentation.

Confident that the assessment findings fairly reflect the projects' practices, the assessment team finalise the written assessment report to be presented to the Sponsor.

When writing up the assessment report, the assessment team confirm that based on the Process Area ratings below Maturity Level 2 is rated "L" or "Largely Achieved" and Maturity Level 3 is rated "L" or "Largely Achieved" due the minor weakness at Level 2, even although all the Process Areas at Level 3 were rated "F" or "Fully Achieved".

Process Area	PA2.1	PA2.2	PA2.3	PA2.4	PA2.5
Rating	F	F	F	L	NA
Process Area	PA3.1	PA3.2	PA3.3	PA3.4	PA3.5
Rating	F	F	F	F	F

The Lead Assessor ensures that the assessment reports includes the findings highlighting the key strengths and the key weaknesses with respect to the requirements of the TMMi and assessment report includes recommendations and proposals on options available to the Sponsor to address the process weaknesses.

The Lead Assessor also ensures that the justification for deeming PA2.5 to be "NA" or "Not Applicable" in the context of the organization unit's operations is clearly documented in the report and the assessment data submission to the TMMi Foundation.

Before submitting the assessment report to the Sponsor the Lead Assessor makes a final check that the requirements of the assessment method have been met and that the data submission to the TMMi Foundation is complete and correct.

The Lead Assessor submits the assessment report to the Sponsor, congratulating him on achieving Maturity Level 3 and reminds him that the results must still be accepted by the TMMi Foundation before a certificate is issued and the results are made public on the TMMi Foundation's website.