

TMMi[®] Maturity Assessment



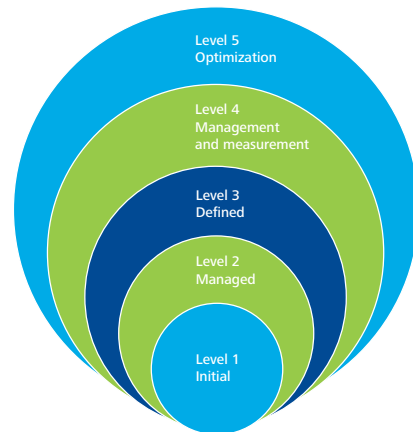
TMMi[®] Model

The TMMi (Test Maturity Model Integration) is an independent test maturity model developed by the TMMi Foundation. It is the de-facto industry standard for test improvement and assessment.

The TMMi has a complementary relationship with the CMMI (Capability Maturity Model Integration) framework. The TMMi also uses the concept of maturity levels for process evaluation and improvement. Both models have a staged view with an improvement roadmap based on maturity levels and focus on specific process areas in each level. Compared to CMMI, TMMi is more comprehensive and tailored for the domain of verification and validation.

There are 5 TMMi maturity levels:

- **Level 1 'initial'**: testing is a chaotic, undefined process and is often considered a part of debugging.
- **Level 2 'managed'**: testing becomes a managed process and is clearly separated from debugging.
- **Level 3 'defined'**: testing is no longer confined to a phase that follows coding. It is fully integrated into the development lifecycle and the associated milestones.
- **Level 4 'management and measurement'**: testing is a thoroughly defined, well-founded and measurable process.
- **Level 5 'optimization'**: testing in an organisation at this level is capable of continually improving its processes based on a quantitative understanding of statistically controlled processes.



Each level has a set of specific process areas, process area specific goals and generic goals. Specific and generic practices are important activities required to achieve specific or generic goals.

As an example, the **process areas** at TMMi level 2 are:



As an example, the **specific goals** for process area 'Test Policy and Strategy' at level 2 are:

SG 1 Establish a Test Policy

- SP 1.1 Define test goals
- SP 1.2 Define test policy
- SP 1.3 Distribute the test policy to stakeholders

SG 2 Establish a Test Strategy

- SP 2.1 Perform a generic product risk assessment
- SP 2.2 Define test strategy
- SP 2.3 Distribute the test strategy to stakeholders

SG 3 Establish Test Performance Indicators

- SP 3.1 Define test performance indicators
- SP 3.2 Deploy test performance indicators

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Our Service Offer

Deloitte offers **three types of test process improvement and assessment services:**

- Self-assessment
- Interview based
- Evidence based

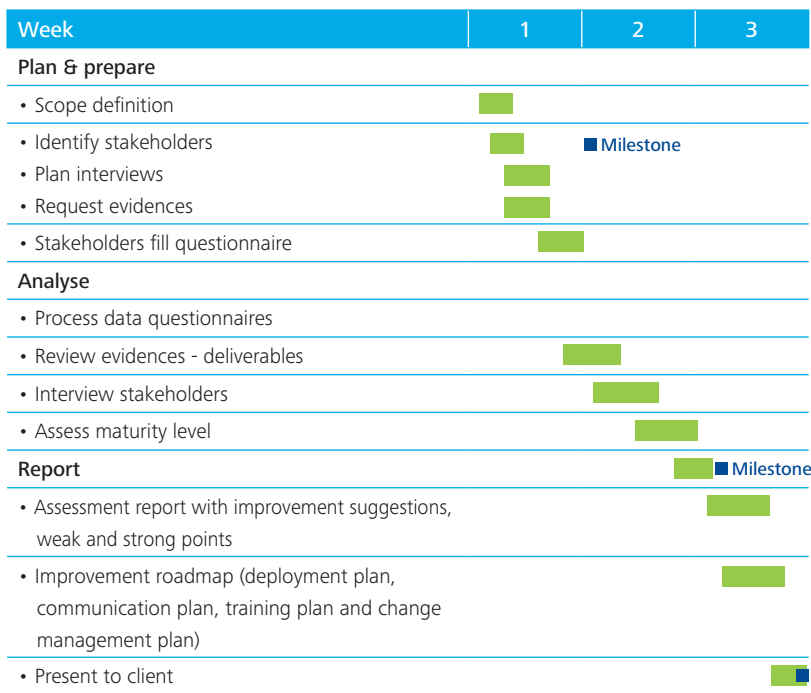


For all three service types, the main stakeholders such as project manager, test manager and sponsor fill in a questionnaire. In case of an interview based or evidence based assessment, our test process experts analyse the collected information. This analysis in combination with the tool based report serve as an input for a comprehensive test maturity assessment report. The report contains recommendations (interview based) or recommendations combined with an improvement roadmap (evidence based) required to reach the predefined target maturity level. Our test process expert will also review and inspect test process deliverables in case of an evidence based maturity assessment. We use our own TMMi assessment tool. It contains the questionnaire and specific algorithms as well as automated reports.

The TMMi model provides a framework which supports both the 'as is' assessment and the improvement path

A self-assessment will take a few hours for each participant and the evidence based assessment will take about 2 to 3 weeks.

The figure below demonstrates the planning and key activities for an evidence based assessment.



Key Benefits

- Improve the overall quality level of your assets and products
- Lower cost of quality and improved productivity of testing resources due to higher test process efficiency and effectiveness
- Testing becomes a repeatable and consistent process providing a basis for cumulative, long-term benefits to the organisation
- Benchmarking
- Accreditation (this is not a Deloitte Belgium service)
- A mature test process lowers the cost of defect detection and correction

A mature test process improves the overall product quality level and this at a lower cost due to increased process efficiency and productivity gains

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