



SOGETI

**Sogeti's Test  
Management Approach:  
Structured testing  
according to TMap®**



**TMap® is a proven method of structured testing, based on extensive Sogeti research and user experience.**

In today's challenging business climate, organizations are focusing more and more on achieving maximum business value from their software. Consequently, rapid software delivery and consistent quality are ever more important, and the risks of inadequate software quality even greater.

### TMap® – a proven approach

Sogeti's world-leading structured Test Management Approach – TMap® – can help you deliver more complex, high quality software, faster so saving organizations both time and money. TMap provides a complete tool box for setting up and executing tests, including detailed and logical instruction to testers.

TMap is a proven method of structured testing, based on Sogeti research and user experience. It provides a complete and consistent, yet flexible approach, which is suitable for a wide variety organisations and industries and so has been selected as the standard test approach by many leading companies and institutes in Europe and the US.

### The benefits of structured testing

A structured test approach provides the following advantages:

- comprehensive insight into the risks associated with software quality
- transparent test process that is manageable in terms of time, cost and quality
- early warnings when product quality is insufficient and defects can occur
- shorter testing period in the total software development lifecycle
- re-use of test process deliverables (such as test scripts and test cases)
- consistency and standardization; everyone involved speaks the same test language.

### Four essentials of TMap

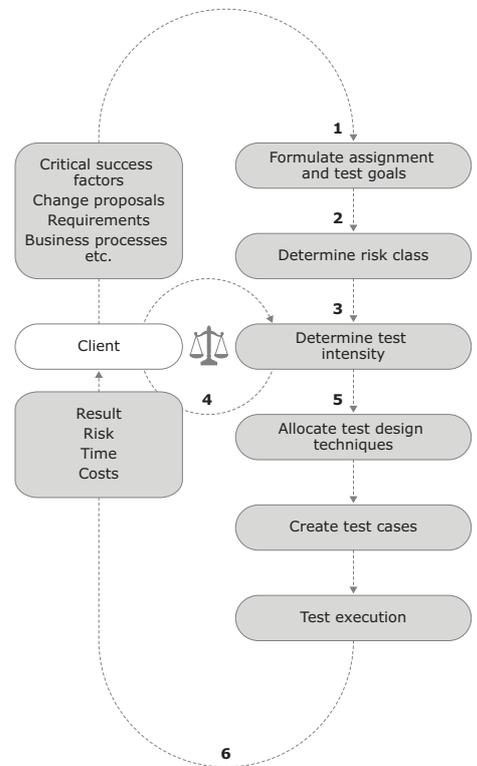
The TMap approach of structured testing can be summarized in four essential components:

- based on a Business Driven Test Management approach
- uses a structured test process
- utilizes a complete tool box
- is an adaptive test method.

### 1 Business Driven Test Management

Business Driven Test Management (BDTM) describes how to organize, manage and execute a test process. BDTM translates an organization's business goals into test goals, allowing a client more effective control over the test process and therefore the results of testing.

Based on rational and economic business considerations and identified risks, the **right** components are tested. Throughout, there is a strong focus on clear and effective client communication.



**Figure A: Business Driven Test Management**

The steps of BDTM form an iterative loop and are illustrated in Figure A above:

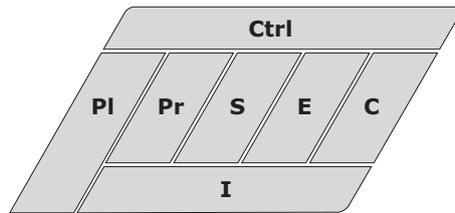
1. Formulate assignment and test goals.
2. Determine the risk class for each combination of characteristic and object part.
3. Determine whether a combination of characteristic and object part should be tested thoroughly or 'lightly'.
4. Estimate and plan test execution.
5. Allocate most appropriate test design techniques.
6. Throughout the test execution process, provide the client and other stakeholders with adequate insight into the test processes and test objects.

#### TMap®

- can help you to deliver more complex, high quality software, faster
- is the standard test methodology for many leading companies and institutes in Europe and the US.

## 2 Structured test process

TMap provides a full description of all aspects of the total test process lifecycle, comprising seven stages, from planning through to completion, described in Figure B.



Ctrl = Control  
PI = Planning  
Pr = Preparation  
S = Specification  
E = Execution  
C = Completion  
I = Setting up and maintaining infrastructure

### Figure B: TMap® Test Process

The *Planning* phase takes a comprehensive and coherent approach to ensure the test assignment is adequately executed, as detailed in the test plan.

The required test infrastructure to be used in the various TMap activities is defined in the *Setting up and maintaining infrastructure* phase.

The *Preparation* phase determines whether the written or unwritten software specifications are of sufficient quality to achieve a successful *Specification* and *Execution* of the tests.

The *Control* phase allows for the activities in the test plan to be monitored and adjusted as necessary.

The test assignment concludes in the *Completion* phase, which offers the opportunity to learn lessons from the experience gained in the project. Furthermore activities are executed in such a way that guarantees the re-use of the test products.

By breaking the test process down into a number of phases, activities and deliverables, it becomes both transparent and more manageable. This ensures the clear allocation of responsibilities of all disciplines involved.

## 3 Complete tool box

TMap supports the correct execution of a structured test process with a complete tool box, which provides an extensive set of checklists and guidelines for setting up and executing test activities:

- Techniques – How to test
- Infrastructure – Where to test and with which tools
- Organization – Who to carry out the testing.

TMap also includes more than 400 examples, tips and hints for efficient and successful testing, based on Sogeti's expertise. It takes into account new developments such as testing in permanent test organizations (with or without outsourcing), test environments and test tools.

## 4 Adaptive

TMap can be applied in all test situations and in combination with any system development methodology. TMap is designed to address differences in applications and offers you the flexibility to create a tailor-made test approach to meet the particular needs of your specific test assignment. TMap's adaptiveness can be summarised as follows:

- responds to a multitude of changes
- promotes the (re)use of products and processes
- encourages learning from user experience and keeps it within the organization
- allows you to 'try before you use'.

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## TMap – constantly adapting to market needs

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TMap has been the *de facto* standard for testing in Sogeti since 1996, and we have a complete portfolio of references available.

Our global R&D department continually develops, refines and maintains the TMap portfolio of products and services, reflecting the changing business and technological requirements of the market and specific demands of our clients.

Sogeti considers the exchange of knowledge and expertise is vital to keeping TMap up-to-date and relevant. We regularly publish our testing Thought Leadership and views on QA in the public domain.

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## TMap services

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We specialize in all test and quality assurance related activities. Examples of our TMap related services include:

- Managed Testing Services
- Test Management and Execution
- Test Engineering
- Specialized Testing
- Test Automation/Tool Support
- Training and coaching
- Test consultancy and Quality Assurance including assessment & improvement of test processes – TPI®
- High Tech Testing.

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## Contact

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To learn how Sogeti's Testing Solutions can help organizations achieve their testing and QA goals, please visit [www.sogeti.com](http://www.sogeti.com) or contact your local testing representative.

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## About Sogeti

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Sogeti is a world leader in innovative, business-driven quality assurance and testing services. As independent and objective testing specialists, our clients benefit from the identifiable results from our onshore and offshore cost-effective testing solutions: Managed Testing Services, TMap®-based project and program testing, and TPI® – test process improvement. As the largest testing service provider in Europe and USA, with over 2,500 test professionals and a further 5,000 application specialists with test experience, in 14 countries worldwide, we help organizations achieve their testing and QA goals.

Sogeti is a leading provider of professional technology services, specializing in Application Management, Infrastructure Management, High-Tech Engineering and Testing. Working closely with its clients, Sogeti enables them to leverage technological innovation and achieve maximum results. Sogeti brings together more than 20,000 professionals in 14 countries and is present in over 200 locations in Europe, the US and India. Sogeti is a wholly-owned subsidiary of Cap Gemini S.A., listed on the Paris Stock Exchange.

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Norway — Spain — Sweden — Switzerland — United Kingdom — United States