

Introduction

Software QA & Testing – Building World Class Capability

Introduction to Sogeti Software QA & Test Credentials

Sogeti Group is Europe's largest and leading provider of Independent Software QA & Testing Services with over 4,000+ testing professionals with Test Centres of excellence in Ireland, Europe and Asia, which have global industrialised test factory and lines. This is a dedicated and specialist business for the group where we have invested heavily in building global standards, methodologies, tools and organisational capabilities enabling our client to utilise Sogeti's skills to radically enhance performance.

There are 140 Sogeti Ireland professionals, of which approximately 60% are in the Software QA & Testing Business Unit. The success of Sogeti Ireland and the Group's test business is underpinned by its ability to provide complete solutions and services relating to software testing across the full Software Procurement and Development Life Cycle (SPDLC). At Sogeti, our people are considered thought leaders globally. In fact, in an increasing number of countries, our TMAP® and TPI® open methodologies are the recognised test standard. These methodologies also support our Industrialised testing services whether on site, on/off shore, or more importantly a Right Shore blend. Our QA & Test staff are career professionals who have chosen this specialised IT career path. The QA & Test team are bachelor's degree qualified or equivalent as a minimum and also hold a range of Test certifications around international test standards ISEB/ISTQB, and TMap®.

Whether our clients choose to operate to an international standard such as TMap®, CMMI, TMMI, ISO or a local standard of performance within their SPDLC, you will find that Sogeti professionals can work to those standards or accelerate internal capability to meet those standards.

Sogeti have strong partnerships with all the major tool providers. Our testing methodology TMAP®, for example, is available with Rational method composer and the key

elements such as Master Test Planning are available in Rational Quality Manager, Microsoft Visual Studio and HP Quality Centre. Also we have extensive experience with supporting a variety of other tools such as Jira and open source tools.

Not only do Sogeti as an organisation continually build and deliver its own world class capability, we bring our expertise to a apply this to projects or services we provide and more importantly for clients who wish to build their own capability. Sogeti can help clients accelerate their achievement of related business and operational goals.

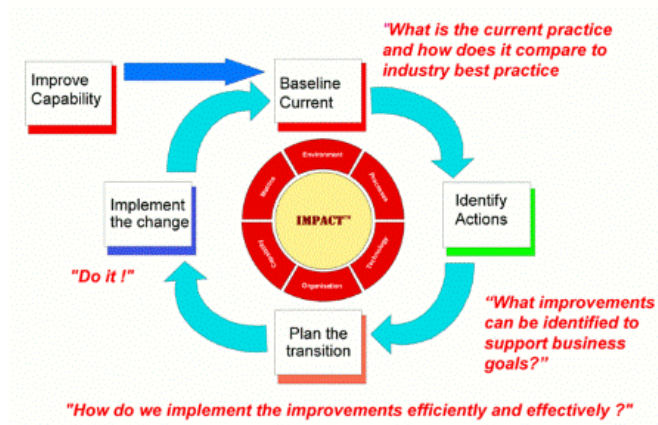
Sogeti Ireland has worked in collaboration with clients such as British Energy, British Airways, AIB & Intec.

IMPACT™ - Capability Module (Sogeti's Capability Building Methodology)

Through years of experience Sogeti have established that having a structured approach which is tailored to each individuals needs is the most effective way of ensuring the investment made by an organization delivers the expected impact on business and operational performance. It also helps our clients understand our approach and contribute to adapting the approach for their business and operations.

IMPACT™ is Sogeti's well-defined and structured methodology. It is designed to support organizational capability across the full Software Procurement and Development Lifecycle (SPDLC). It has been used to conduct assessments across a wide range of organisations and industry sectors including the public sector, and telecommunications, banking, insurance, energy and life sciences companies. The model below demonstrates the approach at the highest level.

Figure 1: IMPACT™



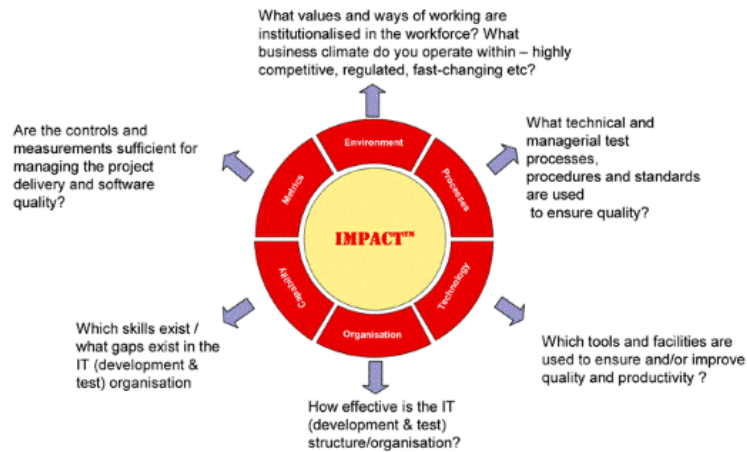
Where feasible, we recommend that a breadth of stakeholders be included in the assessment to include, for example, the IT manager, project office/project managers, business users, development manager, developers, test/QA managers, test leaders and testers.

Scope

Sogeti's collaborative consulting methodology considers the following six key themes (see figure 2 below) during the review and evaluation:

- **Environment** – e.g. the business climate you operate within
- **Processes** – the software procurement and development lifecycle processes (especially for end-to-end testing)
- **Technology** – the technology that underpins your business applications and test environments
- **Organisation** – e.g. the capacity and structure of your organisation
- **Capability** – e.g. the skills and knowledge of your personnel
- **Metrics** – key measures your organisation uses to measure quality and critical success factors for business applications acceptance.

Figure 2: IMPACT™ Six Themes



Our well-defined and structured methodology is designed to minimise the intrusion and impact on day-to-day activities of your personnel and uncover findings in a rapid and efficient manner. Our consultants meet with stakeholders individually or in small teams (usually for 60 to 90 minutes each) and conduct structured assessment on all dimensions, which includes review of evidence (Process, records, metrics, artifacts and assets). Moreover, it is supported by a number of templates and tools that allow Sogeti's practitioners to prepare for the assessments quickly and capture findings and outcomes efficiently.

Having established the clients business and operational goals and reviewed the maturity of the QA and Test approach, coupled with individual and group needs analysis Sogeti prepare a proposed program of interventions drawing from our extensive set of QA & Test Assets and expertise for refinement with client sponsors:-

Intervention programs can include some or all of the following:-

1. Awareness programs for stakeholders (these sessions are targeted at increasing non core stakeholder awareness of best practices and industry benchmarks (Portfolio of 30 workshops)
2. Formal (certified or uncertified) training delivered by leading practitioners with extensive training and development expertise. (Portfolio of over 40 proven courses plus customisation as required)
3. Development workshops
4. Coaching and mentoring programs to facilitate capability development
5. Seeding teams with experienced practitioners to support skills development and skills transfer
6. Program and project assessment and reviews

Figure 3 Steps to make an IMPACT™



The 4 key steps to building software QA & Test Capability

Step 1: Business & Operational Goals

This is a key step where by the Sogeti tutor practitioner work with client sponsors and their team to establish the business and operational goals and targets both quantitative and qualitative for the capability building program. Key business drivers and contexts are established in order that tutor/practitioner can include any unique dynamics relating to the clients business for consideration when designing and tailoring the program. During this phase the approach to monitoring and reporting progress is agreed. **The deliverable for this step is a *Capability Program Project statement.*** (Estimate of effort 1-2 man days depending on scope)

Step 2: Benchmark Organisation & Needs Analysis

This step involves an assessment / evaluation of the current maturity and performance at some or all of the following levels Organisation, Group, Team and Individual. Depending on the agreed scope outlined in the project an efficient evaluation will take place drawing from the Sogeti IMPACT framework and Methodologies (TPI® , RPI™). **The deliverable for this Step is a *GAP analysis report (Skills & Capabilities), maturity model – benchmark,***

and draft option recommendations. (Estimate of effort 4-8 man days depending on scope)

Step 3: Design a program of interventions

In consultation with key stakeholders a program of activity/interventions will be designed and approved by sponsor and success KPI's finalized. A detailed plan will then be prepared drawing from Sogeti portfolio of standard courses, customization required, Sogeti awareness workshops, Sogeti subject matter expert project assignments to lead and carry our practical skills transfer. On the job coached and mentored assignments, and any other related intervention. The **deliverable for this step will include detailed plan and schedule, Class and Workshop syllabi, OJT assignments, mentoring/coaching plan, review points and KPIs** (Estimate of effort 4-8 man days depending on scope)

Step 4: Execute the capability building program

The assigned Capability build lead from Sogeti will working with client implement the agreed program, complete any test , reviews and co ordinate any certifications, monitor and measure KPI's and progress, identify and adapt program as circumstances change. The **Deliverable for this step will be completed program, KPI's such as courses/workshops complete, test results and certifications, agreed business and operational KPI performance, re benchmark as appropriate and updated maturity model.** (Estimate of effort can not be approximated until step 2 is completed, it depends on level of activity, customization and timing to ensure its non intrusive on client priorities)

Tutor Practitioners

Sogeti professionals assigned to capability building assignments are not only experienced practitioners but also experienced trainers, they work day to day on projects with clients thus maintaining strong focus on real world examples and developments. Several of our tutor practitioners are considered thought leaders in the industry and publish extensively along with speaking at international conferences and running conference tutorials. They fully understand every aspect of test and QA across the full software procurement and development life cycle.

Sample Biographies

Although there are some presentations which could be provided by multiple speakers, we can provide preferred speakers for the different topics. Here are some bios of our people:

Fran O'Hara, Principal & Tutor

Fran is Test Principal & Tutor with Sogeti Ireland. His focus is supporting organisations to measurably improve their software development and test processes using practices ranging from agile to CMMI. He is regular speaker at international quality related conferences and seminars. He co-founded Insight Test Services (now a part of Sogeti), and participates in industry forums/bodies such as SoftTest, ISTB, TMMI Foundation, Agile SPIN, etc. He is an ISEB/ISTQB tutor, a trained SEI CMM lead assessor and TickIT auditor, a fellow of the Irish Computer Society and co-founder of the Irish SIG in Software Testing - SoftTest.

John McArdle, COO & Tutor

John is a principal consultant & tutor, along with being COO for Sogeti Ireland and has been involved in the software products and services industry for the past 20 years across a range of sectors including travel, telecommunications and utilities. During that period he has managed many large scale software development programmes for both in-house and external clients.

John is a regular contributor at regional IT forums on the topic of software quality management, distributed software development and outsourcing. He is an ISEB/ISTQB tutor and a trained ISO 9001/TickIT auditor.

Ken Brennock, Principal & Tutor

Ken's experience spans over 19 years, and he has worked in many companies in that time, both large multinationals and small indigenous companies, including Motorola, Iona,

Accuris and Macalla Software. He has been involved in testing his entire career, including hardware and software.

In Motorola Ken developed and tested software in a CMM level 3 environment, while also performing the role of Configuration Manager for the department. Since then he has set-up and managed a number of test teams and developed test processes for a number of companies. Focusing on processes that match the business needs. More recently Ken consults with Sogeti clients on how to improve their test and development process in particular technologies and automation across the full development life cycle. Ken is an ISEB accredited trainer and develops and presents a number of testing courses. He has worked using ISO and CMM and using many methodologies, Waterfall, RUP, XP and Agile.

Training Course Portfolio - Sample

- [Effective requirements gathering and management \(1 day\)](#)
- [Exploratory Testing Workshop \(1 day\)](#)
- [CMMI Overview \(1 day\)](#)
- [Agile Testing \(1 day\)](#)
- [Business & User Acceptance Testing \(2 days\)](#)
- [Professional Test Management \(3 days\) - A TMap Next Course](#)
- [ISTQB Foundation in Software Testing \(3 days\)](#)
- [ISTQB Advanced Test Analyst \(5 day\)](#)
- [ISTQB Advanced Test Manager \(5 day\)](#)
- [Test Automation for Managers \(1 day\)](#)
- [Test Automation Skills for Testers \(2 days\)](#)

Workshop Portfolio - Sample

[1. Developing the business case for Agile](#)

[2. From Here to Agile](#)

[3. Using SCRUM to improve your software development approach](#)

[4. Preparing a business case for investment in Application Lifecycle Management](#)

[Software QA & Testing](#)

[5. The Future of Testing using Agile Methodologies](#)

[6. Agile test strategies](#)

[7. Quality with Agile](#)

[8. Top ten tips to improve your testing process](#)

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9. Test Structures and Organisation (to centralise or decentralise that is the que	
10. Effective Test Process Improvement	.....
11. Improving your testing process using the Test Process Improvement (TPI®)	
12. Standards, Models and Methods supporting the professional tester	13.
14. Using measurement to improve professionalism in testing	.....
15. The Influential Test Team (based on the 'Eurostar 2007 Award winning Paper	
16. The role of Test in 3rd party Software Delivery	.....
17. Professionalism in Testing	.....
18. Test Automation Strategies – The Future of your organisation's Automation	
19. Web Based Testing	.....
20. Running test as a business within the business	.....
21. Preparing business cases for investment in test	.....
22. Developing the business case for Automation	.....
23. Risk-Based Testing	.....
24. Business/User Acceptance Testing	.....
25. Root Cause Analysis	.....
26. Cost effective Testing	.....
27. Early defect detection	.....
28. Improving requirements	.....

Benefits

Clients benefit from hundreds of man years experience in QA & Testing within the Sogeti Group & Sogeti Irelands. Not only are our tutor practitioners close to all latest best practice developments they are also contributing to these developments. The extensive IPR within Sogeti is setting standards across the world.

Our approach is both structured but pragmatic and links any program to business goals and any current business context.

As a result of any assessment, we would expect that some or all of the following benefits would be realised by your organisation:

- Baseline the current status of your SPDLC processes , skills and the maturity of the current organisation
- Identify opportunities to reduce cost or gain efficiencies by improving key SPDLC processes
- Identify how to improve metrics to provide better estimation of effort and monitoring of deliverables throughout the SPDLC lifecycle
- Identify the changes needed to allow continuous improvement to be established, to drive process improvement and help make it "a way of life" for your organisation
- Introduce the concept of standardised processes and documentation and centralised templates for all projects within your organisation

About the author

Declan Kavanagh DipEng, CDipAF, MBA

Declan Kavanagh is CEO of Sogeti Ireland. Prior to joining Sogeti, Declan co-founded Insight Test Services in 2003. Declan has had a highly successful career in most facets of the IT industry, including hardware, software, professional services and consulting. He has extensive experience in delivering and managing software and hardware development and associated quality assurance. He also has a particular interest in related areas such as regulatory compliance, outsourcing and managed services. Declan is also an experienced tutor, coach and mentor and provides strategic training and "C" level coaching and mentoring to Clients.

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About Sogeti

Sogeti is a leading provider of professional technology services, specialising in Application Management, Infrastructure Management, High Tech Engineering and Testing. Working closely with our clients we enable 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. For more information please visit www.sogeti.ie

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