

Case Study

Sustaining Quality & Increasing Productivity



Software Measurement Services Ltd.

Consultancy and training in the management of Information Systems.

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The Starting Point

SMS was commissioned by a major Government Supplier to carry out an assessment of their software development activities. The Supplier's processes and project documentation were compared against industry best practice, rather than any specific model, and interviews with staff were conducted to gain an understanding of the current processes.

The objective was to set a benchmark from which to begin a focused improvement programme.

Although the original target was to improve software delivery, SMS and the client were quickly able to establish the need to widen this scope to address the broader management processes. Looking at software delivery in isolation would not get to the root of what SMS and the Supplier's senior executive had identified as the real issues.

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The Assessment Results

The assessment revealed a highly professional team who had delivered some very successful projects. Often, projects had to be delivered to tight timescales dictated by the terms of the contract. Despite this, quality was not compromised.

The staff interviewed were keen to see a move away from what was perceived as a "fire-fighting" style of working to a more sustainable approach.

The assessment also highlighted that the Supplier was at risk of failing the ISO9001:2000 re-certification, due in a few months time. It was therefore decided that the improvement programme must initially focus on retaining the ISO certification. The next stage would be to build on this work with a view to achieving CMMI Level 2/ Level 3 over the longer term.

SMS's Role

SMS was able to provide a highly experienced Principal Consultant specialising in both ISO 9001:2000 and CMMI to work alongside the internal team to act as guide, mentor and reviewer throughout the improvement project. Additional SMS resources were also made available to provide expertise as required e.g. Function Point Analysis.

A programme of projects to improve software development activities was initiated using the identified and prioritised assessment results. Working closely with the Supplier's staff, and with the active support of the senior management team, SMS began to roll out a strategy for implementation.

The Supplier's Role

A number of individual work-streams were set up to run alongside each other, each addressing one specific area for improvement. This approach gave the staff responsibility, accountability and ownership of the change programme. To ensure the processes could ultimately be integrated, the work streams met once a month and reported their results to the senior management sponsor on the Steering Group.

The Improvement Project Results

The Supplier achieved their primary objective of recertification to ISO 9001:2000 and TickIT. The auditor's executive summary remarked on the significant improvements which had been achieved in the management of software development in a very short timeframe.

Through the analysis of the process and production of a high level overview diagram, Development staff became more aware of the impact that their work had on others in the development lifecycle. SMS encouraged staff to move away from a tendency to work in isolated silos, each dealing solely with their own part of the project. This led to a more Integrated Teaming approach.

By facilitating internal communication and coherence, SMS introduced an ethos of change which has become embedded in the company culture.

Formal Reviews were introduced at defined points throughout the development lifecycle. This has enabled defects to be identified earlier in the lifecycle, decreasing the amount of re-work, shortening project timescales and reducing costs.

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Originally it was agreed with Management that up to 25% of staff effort could be allocated to the improvement programme. In fact the overall staff effort was around 4% of total effort, significantly less than was anticipated.

The Supplier's customers have responded very positively to the changes made to the processes, which has enhanced the Supplier's competitive position.

The Supplier is now in a position to take the improvement programme forwards.

The Benefits

As a result of this initiative there has been a significant change in the attitudes of both Staff and Management. They both have a better appreciation of their respective roles and responsibilities within the Organisation.

Not only have basic metrics been put in place; gaps and duplication have been identified and are being addressed and significant cost savings have already been achieved.

The Management System is being continuously improved and simplified to contain all the processes. The new approach is proving popular with staff and has attracted significant interest from customers.

The programme has put in place the building blocks for a continuing programme of improvement. It has documented the software development lifecycle for the first time, and given staff an understanding of where and how their contribution fits within the overall lifecycle.

The Next Steps

The next step is to build on what has been achieved with a view to achieving SEI accreditation at CMMI Level 2/3. It is also proposed to set a target of achieving ISO 20000 accreditation in the service parts of the business to continue to integrate all aspects of the business.