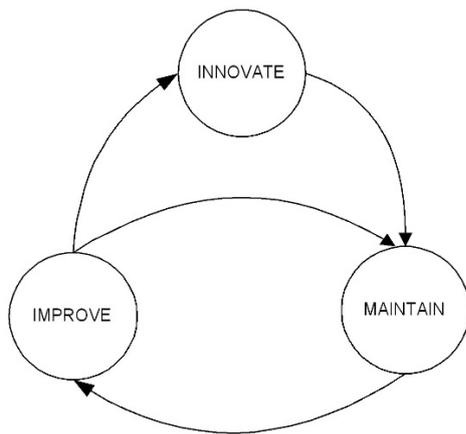


# Appendix E Beyond ISO 9001 Certification

### Preview

This Appendix is aimed at those managers who were involved in making the decision to pursue ISO 9001 certification.

After registration to ISO 9001, you have made a major achievement, but you may have just started on the road to a quality culture. Meeting the requirements at the assessment is like passing a school exam. You know the syllabus and could be asked any questions. You did your homework and you are fortunate that you could give the right answers to the questions. But passing the exam doesn't mean you have become educated. You weren't tested on the whole syllabus, only a sample. You could have failed if other questions had been asked. And so it is in the ISO 9001 assessment. ISO 9001 certification implies that you have the capability to satisfy the requirements of your current customers but this may not be sufficient to win business from your competitors. You will need to do three things. Maintain, Improve and Innovate. Maintain your standards, Improve on the efficiency and effectiveness with which you meet these standards and Innovate occasionally to set new standards. The MII cycle can be illustrated as shown in Figure 40-1. In this cycle routine activities should be moving between maintenance and improvement with periodic excursions into innovation when the routines have exhausted improvement potential.



**Figure 61.1 The MII Cycle**

In this Appendix we look at:

- The payback from the investment in a certified QMS
- The ongoing development of the system
- The type of improvement that arise from the requirements of ISO 9001
- The type of improvements that arise beyond the requirements of ISO 9001
- Extending the envelope beyond current perceptions of quality

### The pay back

The investment to achieve ISO 9001 certification may be considerable and therefore top management will be looking for the payback. When should you expect to reap the dividends? Well, it depends on the state of your organization before you started on the road to ISO 9001 certification. It was for this reason that we recommended you measure your performance in key areas before commencing quality system development (see Chapter 5). If you have done this and installed the necessary provisions to capture the relevant performance data, you will be able to detect when performance starts to improve. It is not unusual for performance to decline slightly during system

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development as effort is diverted to building an effective management system and more efficient means of collecting data emerge. It should therefore be expected that improvement will be slow on installing the system. If improvement is not attained by the first surveillance visit you will be noncompliant with the standard. However, the degree of improvement will vary depending on the level of performance at the start.

One of the most significant findings as a result of installing a QMS should be that performance becomes less erratic and less sensitive to changes in organization or customer requirements. A factor which will distort the picture is the effect of any new technology that you have introduced in the same period.

There will of course be short term gains such as:

- The decline in reactive management as the processes begin to be managed more effectively
- The decline in overtime as fewer products are found nonconforming before delivery
- The decline in design modifications as customer requirements are established before commencing design
- The increase in orders as customers apply selection policies based on ISO 9001.

If performance remains persistently poor even though you remain compliant with ISO 9001, it is a sign that the problem is much deeper rooted than can be detected by conventional auditing. What is often needed is a breakthrough in attitudes, management behaviour and staff motivation and a management system that adopts all the quality management principles.

### Continuing development

There may be many areas where development of the system needs to be completed. If your organization is one that is constantly changing to respond to market forces, QMS development never ceases. The initial assessment only took a sample of your operations to test for conformity against the standard. Subsequent audits will reveal more nonconformities and if you do not continue with the development of your system, these audits may find major nonconformities which if not corrected promptly, will lead to the withdrawal of your certificate.

It is important that you continue with any system development activities. Every policy and requirement of every process needs to be tested over the range of operations to which it applies. This may well yield opportunities for improvement which should be followed. Some work processes may have yet to be exercised such as contingency plans for recovery from disasters although where possible all processes should be validated even if by simulation.

The certification body will conduct periodic audits to verify that you remain compliant with the requirements of ISO 9001. These audits only establish that you have retained the capability of meeting your customer's requirements and that the system is being implemented effectively. The audits are not intended to address standards other than the one against which you were certificated. However there several areas in which improvement is addressed in ISO 9001.

### Becoming more competitive and profitable

You don't have to have a successful or profitable business to gain ISO 9001 certification. You need a capable QMS but even with an ISO 9001 certification you might be losing customers. There are four key factors on where action can be taken to improve competitiveness and profitability.

### Reduction measures

In any organization, there is always too much of something (except profit!) and so there are usually ample opportunities for reduction. There follows some pointers to areas where reduction may yield considerable benefits.

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- Reduce complexity so that there are fewer ways of doing something, fewer interfaces and fewer things to go wrong.
- Reduce variation so that processes produce results of consistent quality.
- Reduce waste so that resource costs can be kept low.
- Reduce time through the process so that bottle-necks are avoided.
- Reduce error in products, services, documents, decisions and communication so that costs decline.
- Reduce job classifications so that you are not reliant on particular individuals.
- Reduce inspection so that costs decline.
- Reduce anti-quality attitudes which will jeopardize the programme.

### Increasing measures

For some factors any reduction would only make things worse and so you have to increase the amount of it to gain any benefit. Here are some which can yield considerable benefits.

- Increase utilization of material, machines, tools, equipment, personnel and facilities.
- Increase training of management and staff.
- Increase discipline and adherence to policy and practices.
- Increase tidiness and cleanliness.
- Increase availability and retrievability of information.
- Increase motivation of management and staff.

### Stabilizing measures

Before you had a QMS performance may have been erratic now it should be less erratic but you may need to apply further effort to make it stable. Aspects you can address are as follows:

- Stabilizing the controls so that less correction is needed to maintain quality standards.
- Stabilizing methods so that once a good method is found it is used throughout the organization
- Stabilizing materials so that the effects of variation in materials is reduced.
- Stabilizing suppliers so that you depend on fewer but more reliable suppliers.
- Stabilizing processes so that variation is predictable.
- Stabilizing the environment to reduce the effect that variations might have on operations.

### Keeping measures

Whilst the introduction of a formal QMS may have resulted in you throwing away many obsolete documents, there are several things you need to keep and they are not all documents. Here are some of the more important things to keep.

- Keep commitments to signal to the workforce that you are serious about quality.
- Keep records so that you don't have to rely on opinions.
- Keep measuring performance so that you know where you are at any time.

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- Keep analysing results so that you know what to fix, what is about to happen and what has happened.
- Keep auditing to determine the health of the organization.
- Keep questioning the status quo as nothing stands still.
- Keep reducing, increasing and stabilizing
- Keep maintaining, improving and innovating.

### **Improvement on price**

The price charged for products is a function of cost, profit and what the market will pay. Sometimes price is much higher than cost and in other cases only slightly higher.

In your particular business, it may be profitable to sell some products below cost in order to capture other business where you can make more profit. This will create a force to drive down costs. Remember that if you control change you control cost so the more stable your processes the less they cost. If you find that you cannot absorb increases in labour and raw material costs, then you may either have to look for alternative approved sources, alternative materials, alternative methods or consider alternative designs. By including price in the improvement formula, it will act as a driving force. You can offer price reductions to customers as a result of making your processes more efficient.

### **Improvement on timing**

With a developed QMS you can monitor the cycle time for each process and not just the production processes. Often the other processes are a source rich in cycle time improvements such as the time taken to change a document, a design, a policy etc. The time taken to place an order, arrange a training course, authorize budgets and expenditure etc. Reaction time is also important as in servicing, maintenance, customer support etc. You will collect masses of data, do the analysis, show that there is a problem to be solved. How long does it take to get management to react to a situation that requires their attention? There are priorities of course, but question these priorities if you believe they hinder continuous improvement.

### **Improvements in productivity**

Your general aim should be to improve product quality, increase productivity and reduce the cost of development and manufacture or service delivery. However, productivity is not easy to measure unless you have one product on one production line. With multiple products on multiple lines each at a different stage of maturity, it makes comparisons to detect changes in productivity difficult, if not impossible.