

Modern Management Systems explained – Do I need one? I am not a lab and maybe I don't make any calibrations, tests or measurements

In previous issues Trevor has concentrated on "labs", that is organisations making measurements, but the same principles apply to all organisations doing anything!

Most people have heard of ISO 9001 and firms use it, especially if they are supplying something to a bigger firm who make that a requirement. It can be applied to almost any activity and can give confidence in consistency of output.

This month, Trevor explains what a modern management system might look like. It is not necessary to be being interested in ISO 9001, or the ISO 17000 series that he usually deals with. We shall consider how you might organise yourselves to achieve the main requirements common to all such systems and the benefit that would bring.

What is a management system?

Everyone has one, whether it is documented or not. It is how you go about your business. Maybe you are a small organisation, perhaps with a strong boss, even an autocratic one who simply tells everyone what to do and watches closely. That is a management system, so is one held by a huge firm with loads and loads of often old or misleading overlapping documents that you know contain the requirements, but you can't see the wood for the trees, as one might say. Most organisations lie somewhere between these two extremes.

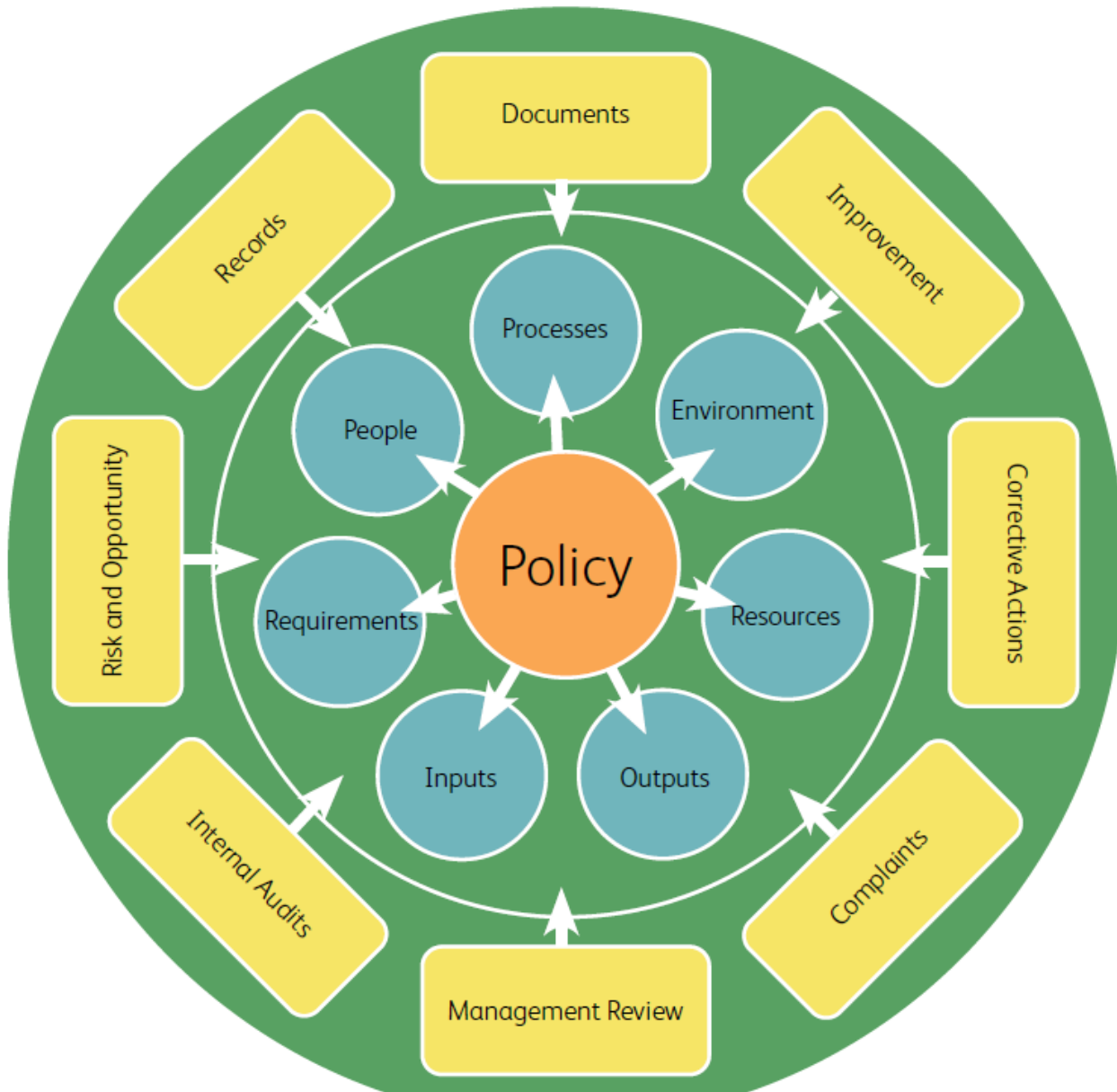
Let's consider a generic example, it does not matter what you make, sell or service. You will have customer (or your own) requirements, you will have people, resources, environments, inputs and outputs. The aim of the management system is to ensure requirements are met and outputs are suitable. For consistency, efficiency and profitability, you want to do this well and have an easy and relaxed life, maybe. You don't want complaints, bad outputs, re-working and reputational damage.

A documented management system

This is the solution but keep it simple. A modern simple system defines the aims of the organisation and describes in general terms how you go about achieving your aims. That is the top tier, often a "quality policy statement". at the start of a "manual" but these days may not be in that paper style of documentation. It could be a set of hyperlinked webpages for example. Computer controlled arrangements have many benefits, particularly in "document control" (keeping it secure, up to date and accessible by the people that need any information.

So, the policy describes what you aim to achieve, and the rest of the system is that required to achieve those aims in your particular circumstances.

Consider the diagram below:



The policy statement in the centre **orange** circle is the starting point. Here you simply define what you aim to do and give pointers to where more may be found about the various things you do. If you intend to comply with a particular Standard, like ISO 17025 if you were a lab for example, you would mandate that here. This is often just a single page showing commitment.

The **blue** circles show the things you have or do that need to be controlled: This is all about who does what, with what, where and when! Depending on your business there may be very little to document on some of these points, but some may be important, difficult and requiring extensive documentation and implementation. Everything needs documenting only to the extent needed for consistency.

People: This involves the job requirements, training and authorisation for all people that could affect the outcomes of your business.

Processes: Instructions, guidance and information about how to do the work. The people will have been trained and authorised to follow these. Documented to the extent necessary for consistency.

Environment: Needs to be suitable and not a threat to the quality of the activities. May require controls.

Resources: What you need to have to do your work. This may be equipment, contractors, space, money. It has to be adequate for consistent outputs.

Outputs: The finished work. It needs to meet customer and/or your own requirements and be clearly prescribed, known and controlled.

Inputs: The things you need to achieve the outcomes. This may be a mixture of external resources, customer supplied items, data or whatever, according to what it is you do - known and controlled.

Requirements: This may be those in a documented Standard, customer requirements, regulator or legal requirements. To be known, understood and complied with.

Now, to achieve the above, consistently and to be able to demonstrate that you do, there are so called “management system features” which vary a little between the different standards but may be described generically as shown in the yellow boxes. These features hold the whole system together and serve to provide confidence in compliance with requirements in a demonstrable way that meets at least the intent of standards like ISO 9001.

Documents: The instructions, requirements, specifications that you need to do your work. These need to be identified and controlled such that the correct processes are followed. These may be changed in a controlled way over time. All versions, even when superseded shall be kept long enough to repeat the work or to audit them or to fulfil contractual requirements.

Records: These are the evidence of what has been done. They are recorded at the time and cannot be changed. If records are found to be incorrect, they may be corrected in a visible and traceable manner. Records shall be kept long enough to audit them and to meet contractual requirements.

Risk and Opportunity: This is a feature introduced into modern management systems so that an organisation may determine for itself where risks exist and where opportunities may be taken in the depth and breadth of meeting requirements. Modern standards specify outcomes, rather than tell you how to do something. This means that in your system important things will be a big deal, and things that don't matter need little attention. The regime for collecting and processing risk and opportunity should touch all the people and all the processes involved.

Internal Audits: A programme of examining your own conformity with your system. No-one shall audit their own work and the programme should cover everything over a period of time. Each audit is a sampling exercise and shall be scheduled in advance. Typically this has an annual cycle and takes a few hours each month.

Management Review: This is where the senior staff receive details of the organisation's activities and determine future actions. It will include review of the internal audits, complaints, customer feedback, growth or shrinkage of business and more. Typically annually, but more frequent when there are a lot of changes occurring.

Complaints: Nowadays defined as any expression of dissatisfaction from any source. Not all complaints will be valid but you need a system for handling them.

Corrective Actions: This system will process the outcome of complaints, assessments, internal audits and anything you yourselves find wrong in your business. A good system identifies required actions, assigns responsibility for completion, follows up, comparing with risk and opportunity data and ensures any changes have only a positive effect.

Improvement: Modern standards require a process to continuously try to improve your management system and hence your outcomes. The study of complaints, risk and opportunity data and audit results help inform how best to strive to improve. This should feature also in the management review.

In conclusion

Remember that this is not about generating a load of documentation just for other people to view. It is for you and facilitates the high quality of your work. We find that many organisations already have most of the documentation needed, but it is often unstructured, duplicated, or with gaps. The idea is that you could recruit a suitably qualified person who could then use your system and get the same results as existing staff. Many of the features in the circles and boxes will not require a lot of work. It will depend very much on what you are doing. The more complex the task the greater detail should be expected to achieve consistency. If you have a good effective system, the “management system” items in the boxes serve to protect the activities and features shown in the blue circles.

If you are a couple of people doing one thing then I would expect just a few pages in total for the whole document system plus, of course, your records of what has been done, both for the work and for the maintenance of the management system. If you are much larger, multinational or multidisciplinary with many staff, doing many different things then of course your system will be large and require sometimes dedicated staff to operate it.

These days, with the ability to use computers to serve a single source of information (avoiding issues concerning updating and validity) with different people able and authorised to operate different parts (giving people access only to that which they need for their work) and enter information accordingly, we see some very impressive slick operations from both small and large organisations.

There are huge benefits from having a simple effective management system along the lines described above. Done well, reworking, complaints and inefficiencies are minimised; staff satisfaction benefits from the sense of involvement in the internal audits and contributing to the risk and opportunity regime. It should follow that long term viability and profitability are maximised.

Trevor Thompson retired from The United Kingdom Accreditation Service after many years assessment and accreditation experience. He offers help on management system issues, measurement, testing and calibration as www.bestmeasurement.com operating in the UK, Europe and beyond. You may email him at questions@bestmeasurement.com and he is happy to answer readers' questions. Any interesting topics or requests may be covered in future issues of Precision. If you would like more information or have questions about anything covered this time, or in previous issues, please contact him.