Transition Support

A flexible approach to business improvement

- *Understanding management systems*

- *Identifying objectives and constraints*

- *Developing an integration strategy*

- *Selling the benefits*

- *Steps to integration*

- *Key attributes of integrated management*

- *Dealing with new demands*

INTEGRATED MANAGEMENT SYSTEMS

David Hoyle & John Thompson

EB016

Contents

Introduction

Increasingly, customers, regulatory bodies and the community pressure groups are demanding that organisations demonstrate responsible environmental performance, provide a safe working environment, provide quality products and services and demonstrate Corporate Social Responsibility (CSR). ISO 9000 has been around since 1987 but with the publication of ISO 14000 in 1996 there has been a growing desire to bring together Quality, Environment, Health and Safety Management Systems into one integrated system. There are in some people's imagination many more management systems than these and there are a growing number of standards in this field as illustrated by the following list of several management system standards taken from the BSI 2004 Catalogue.

- ISO 14001 on Environmental management systems
- OHSAS 18001 on Occupational health and safety management systems
- ISO 9000 on Quality management systems
- ISO/TS 16949 on Automotive quality management systems
- ISO 15161 on Food and drugs Industry management systems
- SA8000 Social accountability standard
- ISO 13485 on Management systems for the medical devices industry
- BS 7799 on Information security management systems
- BS ISO 15849 on Management systems for ships and marine technology
- PD ISO/TS 29001 on Management systems for the petroleum, petrochemical and natural gas industries

With each new standard a new specialism is born and so there is confusion as to what is being integrated as the man in Figure 1 illustrates– what are these things that we are being told need integrating?

There is a lot of information available on integrated management systems but much of it appears to spread ambiguous messages. The case for integration is based on the premise that organizations have separate systems with common elements that by eliminating duplication, efficiencies can be made. What we will show in this publication is that this premise is flawed and while there are efficiencies to be made, they come from a different source entirely.

Figure 1 Man with multiple systems!

To understand this argument the concepts and terminology need to be explained and prevailing misconceptions dispelled.

What is an integrated management system

When we first encounter the term *integrated management system* there is an implication that we can have disintegrated management systems. In the past when things didn't work the way we expected and there was no one to blame we blamed *the system.* This was probably an incoherent system – results might have been achieved only by strong leadership, closeness to the customer, and direct involvement with operations or a finger on the pulse. The *system* was in the head of the leader who made it work because it was not fragmented – the leader was in control. Leaders kept the values working even although they were not articulated, or documented, but everyone "knew" what they were. As organizations grew and other "stakeholders" materialised (with their attendant systems) it was more difficult to keep control and mistakes were made.

In general, organizations have only one management system but national standards have caused them to create what are perceived to be several separate systems. It's often the number of relationships rather than the size of the organization that determine the need to formalize the management system. Even a sole trader might need a formal management system if there are several relationships involved in supplying the product or service. One product, one customer, one-person business without suppliers do not need to formalize their systems.

So is an integrated management system merely the product of putting all the pieces back together again or is it making all the existing pieces work together more effectively? To answer this question we need to understand the meaning of the words when used in this context.

What is a system?

Generally, a system is a set of elements that interact to produce behaviour[1].

In physics, a system is a group of associated bodies moving under mutual gravitation as illustrated in Figure 2. The bodies cannot function independently outside the gravitational field.

Figure 2 Solar system

In physiology, a system is a set of organs in the body with a common structure or function as illustrated in Figure 3. Each organ exists to enable the body to survive but cannot function outside the body. There is mutual dependency.

In human psychology, a system is a collection of ideas, principles or components that function together to achieve a specific purpose[2]. A collection of components becomes a system when the components are connected together so as to cause a specific result. Hence a system is not a
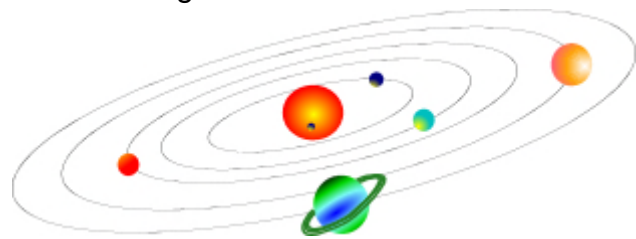

Figure 3 Human system

---

[1] Daniel Aronson, Overview of Systems Thinking (1996)

[2] This is not too dissimilar from W. Edwards Deming's definition in The New Economics (MIT 1994) in which a system is defined as "a network of interdependent components that work together to try to accomplish the aim of the system"

collection of any components; each component must have a distinct role in the achievement of the objective and these components do not function in isolation of the system. Simply throwing a bunch of random components into a box and closing the lid does not create a system, similarly putting a bunch of random procedures into a manual does not create a management system.

If you examine a conventional central heating system layout as illustrated in Figure 4 for example, all the components have a function but are connected together in a certain relationship so as to provide heat at a desired temperature on demand. Cut one of the wires and the system fails. Disconnect the source of power or water and the system fails. Enlarge the room and the existing system might not be capable of maintaining the desired conditions. Place a passive component alongside the system and it has no effect as there have to be connections that are energised. Place alongside components that emit energy that distort the magnetic field around the system and the system fails. Dead wires serve no purpose just as a business will derive no benefits from ineffective processes, procedures or people.
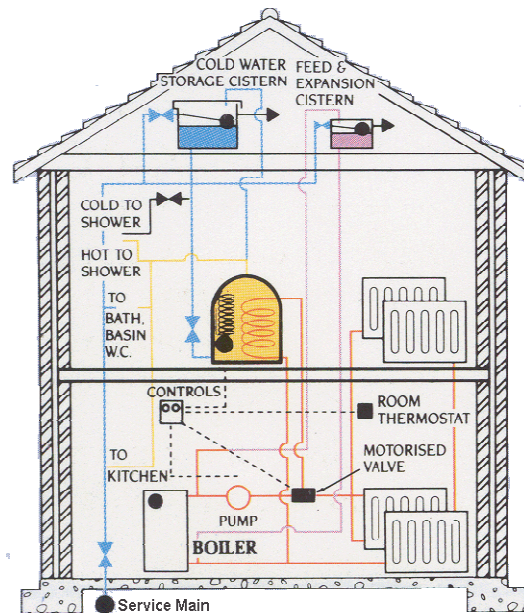
Figure 4 Central heating system

Think system and you will think of things that work together to achieve an objective or fulfil a purpose. Place that system inside another system and it becomes a component – like placing the engine management system inside the automobile, or an antenna system in a satellite system within a global positioning system.

The organization as a system

Formation of the organization

In an organizational context, the organization is a system because like other systems it's formed by joining components together and it has a purpose. This is not the same as viewing the organization as a system, which implies the organization can be viewed as something else that is different from its intended purpose. It is an arrangement of people and facilities that function together to fulfil a particular purpose or specific objectives – the focus of the system and the reason for its existence. In this context, the purpose and objectives are commonly referred to as its strategic objectives or its mission.

When two or more people get together and define and pursue a common purpose they form an organization. An organization cannot exist without any aim, objective or purpose. This aim or purpose may be formal or informal, written or simply exist in the minds of a small number of leaders but nonetheless it would be just as valid. The purpose precedes the arrangement of people and facilities, for how would one know what kind of people and facilities were needed unless the purpose had been determined?

Principle 1

Systems are formed when components function together to fulfil a purpose

Principle 2

Components of a system cannot perform the same function together as when isolated

Principle 3

Purpose precedes arrangements to fulfil it.

The utility within systems

Systems function on the utilitarian principle[3] which means judging each action by its utility, that is to say its usefulness in bringing about consequences of a certain kind. The consequences in the case of a system are its aims, purpose or objectives. Every action and decision taken by a component of the system should serve the aims, purpose or objectives of the system – to do otherwise puts that component in conflict or competition with other components or makes it superfluous resulting in system breakdown or destruction at worst and system inefficiency at best.

Principle 4

The force exerted by a component upon a system should always be consistent with the purpose of that system otherwise it may cause instability.

We can illustrate the organization system in several ways. The most common is as an organization chart similar to that in Figure 5. However, this only shows the positions that some of the people occupy. It does not show how the organization functions. One way of illustrating this is by a deployment flow chart as illustrated in Figure 6. However, this is not the only way and even this fails to show how organizations deal with their customers, suppliers, the community etc. In the same way that a single diagram cannot show how the human body functions, these diagrams or models can only provide a very limited view of an organization.
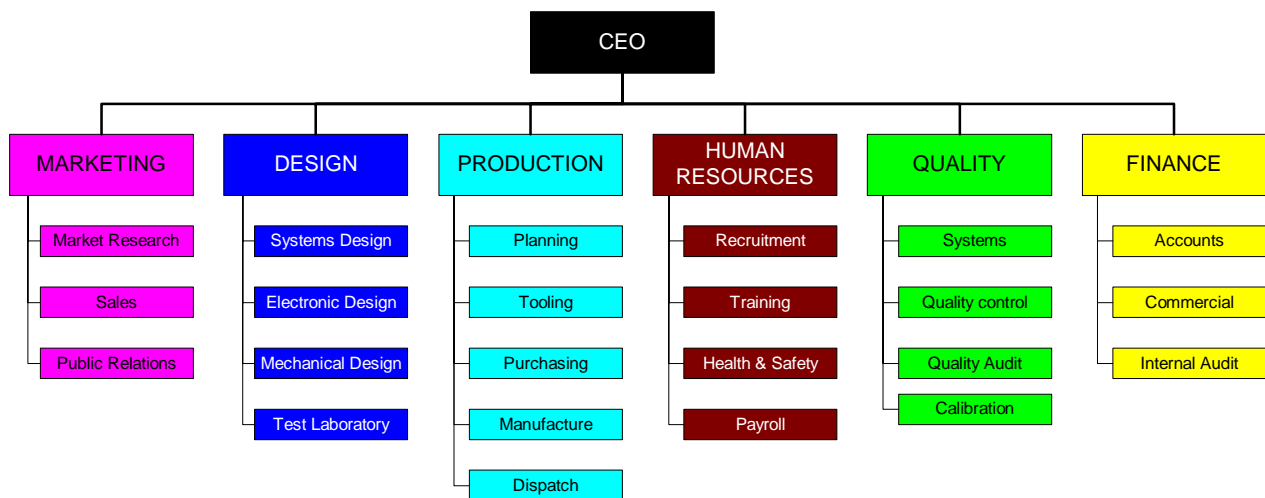
Figure 5 Typical Organization chart

Optimization

If each of the components has an aim but this is not aligned to the aims of the system and the performance of each component is optimised, the performance of the system may not be optimised. An example of this is where the Finance Manager chooses cash flow as the measure of his performance and as a consequence delays paying suppliers on time. This has a knock-on effect on production because in retaliation, the suppliers withhold further deliveries until outstanding invoices have been paid. Another example is where the Packer gets a deduction from his wages if there is a customer complaint because the Packer is the last person to check the product before delivery. As a consequence the Packer won't let anything through the gate until everything has been checked, including the most trivial of

Principle 5

Optimization or getting the best from your function's resources may not result in the organization getting the best from its total resources.

---

[3] Utilitarianism is a branch of philosophy founded by Jeremy Bentham, (1748-1832)

issues. A component left to its own devices will attempt to kill off other components in a competitive environment whether inside or outside an organization.

Sales	Production	Quality Control	Production

Register Order → Verify availability → OK

Renegotiate

No ← OK

Yes → Acknowledge

Load order → Machine → Inspect

Rework ← No ← OK → Yes

Assemble → Test

Rework ← No ← OK → Yes → Pack → Ship
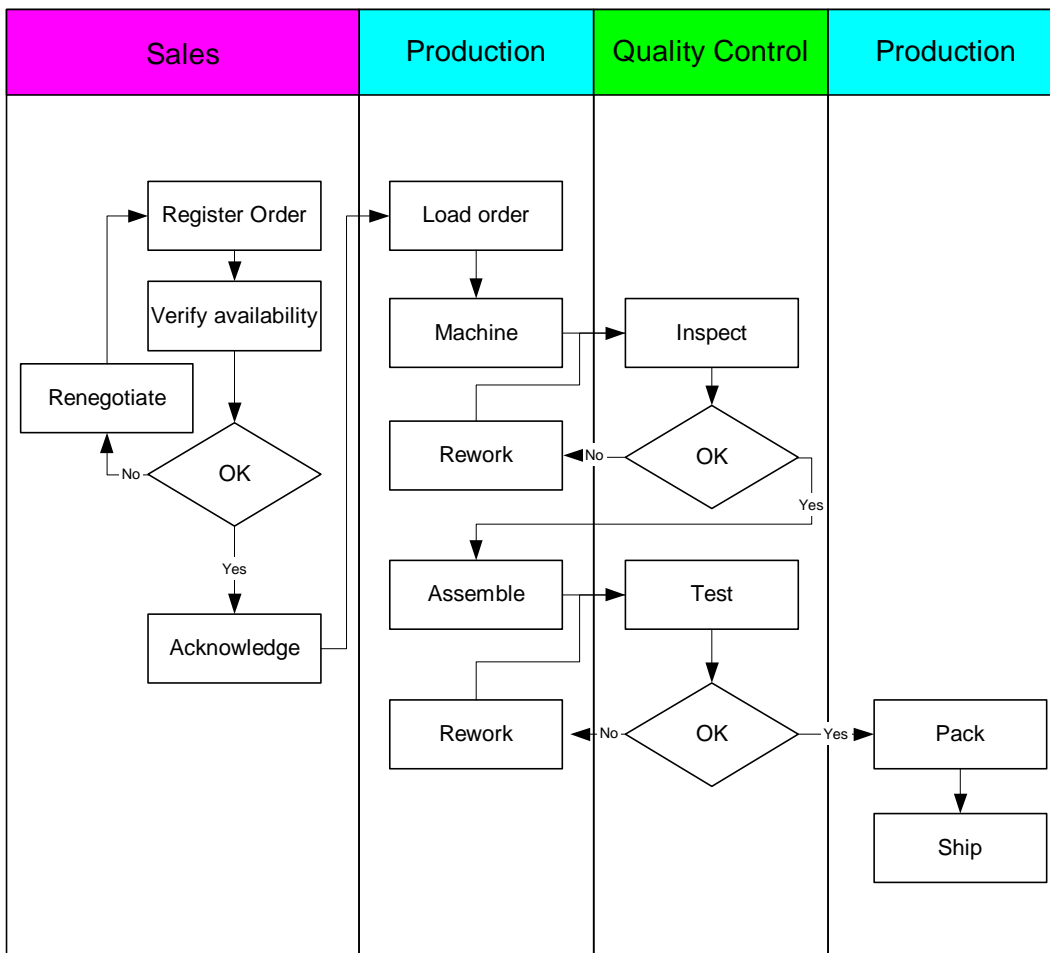
Figure 6 How the organization fulfils demand

When system performance is running at an optimum, the performance of its components may not necessarily be at an optimum. It is therefore incumbent upon managers to cooperate to achieve the organization's goals and not unilaterally change their objectives, practices or performance thus destabilizing the organization.

> **Principle 6**
>
> All systems are subject to external influences that have a potential for causing a change in state

System influences

But just as the solar system or a command and control system can be adversely affected by an external force so powerful that it creates instability, an organization can be affected by the economic climate, competition, terrorists, regulations, fire, flood and earthquake all of which are external to it and have the power to destabilize it, even destroy it.

What is a management system?

So if the organization is to be managed as a system, what might a management system be? We believe we should approach the answer to this question from a different direction primarily because of the term's origin and the various uses and abuses of the term.

Is it a set of rules or controls?

The term 'management system' has acquired different meanings. The use of standards to define requirements for management systems has led to the belief that the standards themselves are management systems. This is illustrated on the BSI - Global Web site where a training course on "Implementing an Integrated Management System", is prefaced with the following "The business challenge today is to manage activities more holistically rather than the traditional approach of having ISO 9001, ISO 14001, OHSAS 18001 and other management systems as peripheral arrangements".

In reality ISO 9001, ISO 14001, OHSAS 18001 are documents not systems. To say that a management system is a set of documents would be like saying that a blue print for a car is the car itself. The documents may prescribe the system, but they are not the system.

Over two decades, ISO 9000 (aka BS 5750) has been responsible for creating a genre of "ISO derivatives" that has infiltrated much of daily life. It is characterised by a collection of "small issues" that the "establishment" resolves by promoting *standards* that require statements of "look-alike" policies, procedures, inspections and records, which in turn are externally inspected and conformance rewarded with certificates. From Childcare to University, Health, Safety and Environment, regulators such as the Office for Standards in Education (Ofsted), National Institute of Clinical Excellence (NICE) and Health and Safety Executive (HSE) impose constraints that, for the organization concerned, become the objective and compete with the real objectives of the enterprise.

The perception that a management system is a set of rules or controls has not been changed over recent years and is sustained by the recent observation in the IQA members' magazine. The IQA Human Factors Special Interest Group writes[4] that "It is not the system alone, be it a law, a model or a quality standard, that delivers the desired outcome. Systems and quality standards do not in themselves deliver outcomes, quality or business improvement", implying that people are still not seen as part of the system and that the system is a set of rules or controls.

Is it a set of documents?

Another way of looking at it is as a system of documentation. There is no doubt that when ISO 9000 was launched in 1987, organizations received the message that in order to meet this standards it was simply a case of documenting what you do, doing what you document and proving to external auditors that the documented system was in place. Throughout the world this resulted in look-alike documentation. All had a Quality Manual
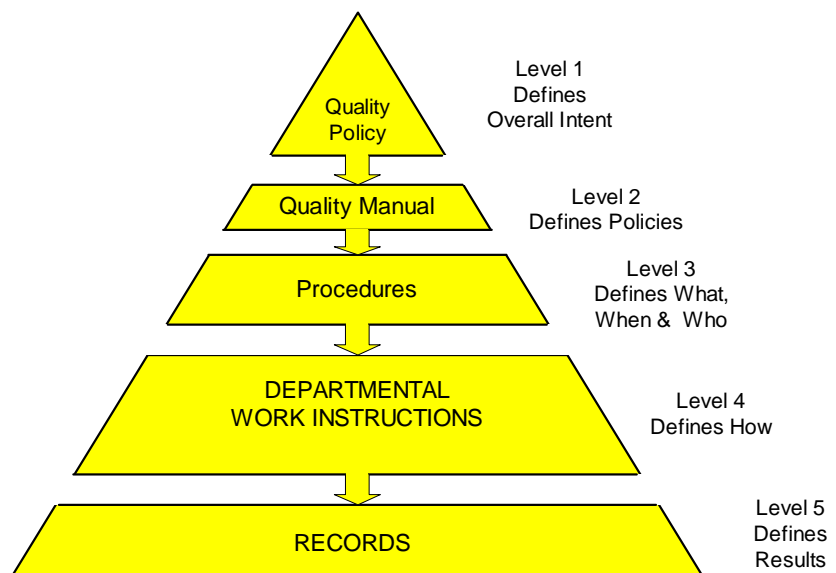

Figure 7 ISO 9000 System documentation structure

---

[4] The Quality Professional, July/August 2004, *The Institute of Quality Assurance*

(responding to the standard – many simply paraphrasing the requirements and no more). All had procedures, work instructions and files of records. It mirrored the pyramid illustrated in Figure 7 so often put forward as how the quality system should be structured. The procedures were documents that defined *who* had the responsibility for doing *what* and *when* with the *how* described in Work Instructions. These were often compiled into Departmental Procedure Manuals as illustrated in Figure 8. The Quality Procedures were sometimes procedures that were limited to the activities of the Quality Department but often they would include procedures written to meet specific requirements in ISO 9001 such as Nonconforming Material Control, Contract Review and Document Control etc.

For a set of documents to be a system they would need to have a common objective and be consistent and structured. The objective of such a system might be to obtain ISO 9001 certification. A manual that is logically structured around a set of principles or requirements with cross-references to supporting documents could create a structure that is consistent. The ISO 8402 definition of a quality system was the "organization structure, procedures, processes and resources needed to implement quality management". If it weren't for the inclusion of resources, the definition might imply that a quality system could be a collection of

Figure 8 Manuals galore

documents – i.e. the documents needed to implement quality management. So it is not hard to imagine that the quality system became synonymous with a set of manuals on a shelf in a manager's office. The misconception was fuelled further by:

♦ Auditors asking to look at the "quality system" implying that it's a set of documents

♦ Comments that it is a "nice little system" implying again that it's a set of documents

♦ Adverts for software that claim to provide an "electronic management system" implying that it's a tool

♦ Requests to update "the system" implying that it's documentation

♦ Reviews that are limited to nonconformities and document changes, implying that it's about following procedures

♦ The management representative or quality manager being responsible for 'the system' implying that other managers are not responsible for it.

♦ A statement that employees had to meet the requirements of the QMS, implying that it's a set of rules.

Is it a set of interacting elements?

The new definition in ISO 9000:2000 states that a management system is *"a set of interrelated or interacting elements to establish policy and objectives and to achieve those objectives".*

This definition is weak because it provides no clue as to the type of objectives referred to but the fact that it includes the phrase "to achieve those objectives" must make the system dynamic. It is weak also because there is no clue as to what these interacting elements might be. What might be implied is that these elements are documents rather than processes. Indeed, the objective might be simply to deploy communication policies to the workforce and therefore a set of hyperlinked documents posted on an Intranet

promulgating communication policies on this basis could be regarded as a management system. It's a set of documents and hence is interrelated. It's hyperlinked so it is interacting. It is structured into sections so it's got elements and it establishes communication policy and it achieves the communication objectives by being available to all through the intranet – but it is not the type of system that carries the title 'management system'. If the definition had included the phrase *management policy and objectives* it might have made more sense.

We defined a system as a collection of ideas, principles or components that function together to achieve a specific purpose. The nature of these ideas, principles or components will change depending upon the context. If we are thinking of a central heating system, the components will appear as hardware and software products. If we are thinking of an organic system, the components might be chemicals, molecules etc.

However, if we are thinking of a management system, what might the components be? The ISO 9000 definition uses the term 'elements' but this is rather vague except that these elements ought to produce behaviour. If we now ask upon what does the achievement of purpose depend, we would more than likely agree that it depends upon the right activities being carried out by competent people using capable resources but there is more to it than that.

Is it a set of processes?

Isaac Newton tells us that for every action there is an equal and opposite reaction, so when we bring together people, equipment and activities there will be a series of actions and reactions that cause a number of results. This is what we call *process*.

When we observe the human body illustrated in Figure 3, we see a collection of organs. This is merely a picture so it's not going to spring into life, but if we were looking at a live person it is possible to see not only the organs but also observe the processes at work: the digestive system, the respiratory system, the reproductive system, the nervous system etc.

When we create the central heating system of Figure 4 we bring together various components but until energised the system is dormant. When we open the valves, turn on the gas supply and light the boiler, the system springs into life and the processes begin to operate.

It therefore appears that in both the above cases, it is not the components themselves that form a system – simply connecting them together only connects the pathways or channels. The components need to be energized or triggered, blood needs to flow, water needs to pass through the pipes for any kind of result to be produced and that result is going to depend on how well each of the components performs its function. If the heater does not raise the temperature of the water to the required level, the radiators will not put out the heat required to raise the temperature in the room. If the heart does not pump the blood around the body, it will cease to function.

When we observe the people interacting within an organization, the outcome will not be simply the product of a person performing an activity using a tool. The activity does not take place in a vacuum –the environment in which the activity is

Principle 7

Systems function when the components are energised or triggered.

Principle 8

In a management system the components are dynamic processes that function together to fulfil system purpose.

Purpose & Objectives

The words 'objective' and 'purpose' are often interchangeable. The word purpose might be used to express a permanent state such as the reason for existence whereas the word objective might be used to express a transient state such as something that is aimed for. Things with a purpose are sometimes used by other things to achieve an objective. Things generally have only one purpose but may achieve multiple objectives.

performed influences the behaviour of the person and the impact of that person's actions upon others either directly or indirectly influences the results. By introducing the concept of processes, we capture all the forces that interact to generate results. The results from one process will be used by another process in order to deliver its outputs thereby making the system dynamic. A process is a set of interrelated activities, behaviours and resources that produce results. Therefore in order to accomplish a specific purpose we need to design and manage a series of processes to deliver results that will fulfil our purpose.

A management system will therefore comprise a set of interconnected and managed processes designed to function together to fulfil a specific purpose.

Multiple systems

The word 'management' in the term 'management system' is intended to tell us what type of system it is and as systems achieve objectives or fulfill a purpose, it becomes evident that management systems achieve management objectives just as clearly as security systems achieve security objectives, storage systems achieve storage objectives and communication systems achieve communication objectives.

But the word management can be applied to anything that needs to be managed so we get database management systems, information management systems, content management systems, learning management systems, identity management systems and of course environmental management systems and safety management systems. The objective in each case is management's objective for that aspect of performance (learning, identity, content, information, safety etc). It would therefore appear that the word qualifying the term 'management system' is the subject of the management system and hence the focus for the system's objectives. Therefore:

Principle 9

The name given to a management system should reflect the specific management objectives it aims to fulfil.

Principle 10

Multiple systems each serving separate objectives spawn disparate leaders and teams.

♦ A quality management system would be a set of interconnected and managed processes that function together to achieve management's objectives for quality

♦ An environmental management system would be a set of interconnected and managed processes that function together to achieve management's objectives for protecting the environment

♦ A health and safety management system would be a set of interconnected and managed processes that function together to achieve management's objectives for occupational health and safety

♦ A corporate governance management system would be a set of interconnected and managed processes that function together to achieve management's objectives for corporate governance

Whatever the objective we could develop a management system to achieve it, which might result in a free for all as illustrated in Figure 9. It follows therefore that if we want to focus on the whole organization, we should either refer to its management system as a *business* management system or an *enterprise* management system but we need to tread carefully. An Internet search will reveal that Enterprise Management Systems are software driven systems that speed up transactions between customer and supplier through the supply chain using the latest technology. Even an Internet search on Business Management Systems will produce a similar result although some of these do come up with ISO 9000 based management systems. It looks therefore that outside the world of ISO 9000 and its

derivatives, these terms are used for software solutions rather than a description of how the business is managed.
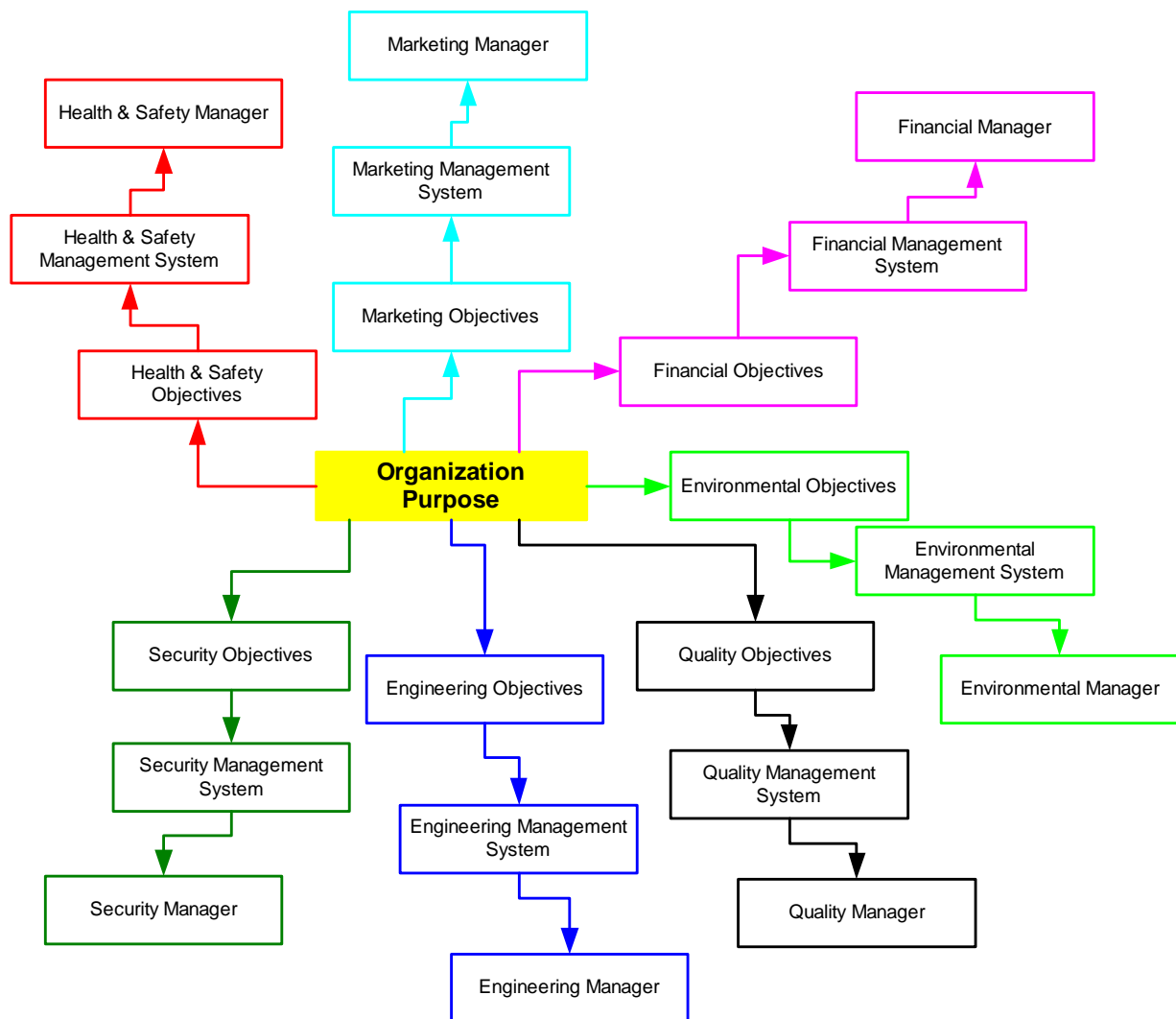
Figure 9 Multiple systems heading in different directions led by disparate teams

Towards a single system

It therefore becomes difficult to use any established terms to describe the set of interconnected processes that achieve the business objectives, because the most appropriate ones like 'business' and 'enterprise' have been hijacked by the software industry. But we will not be daunted by this because our logic is correct – the system that enables the business to achieve its objectives we will call a ***business management system***. The notion of qualifying terms to clarify purpose and scope is a good one and should be used more widely. Most quality management systems are limited in scope to products so should strictly be called product quality management systems. Likewise, quality control programmes are often limited to hardware product quality and do not embrace design and service, the quality of which is just as in need of control as product quality.

The business management system is a therefore a system for managing the business not a set of procedures for making widgets. It will deliver procedures to the places where they are needed. It will also deliver products but primarily the system is the enabler of business

results. If it were only concerned with producing product it would not be a management system but a production system. If it were only concerned with emissions it would be an emission control system. If it were only concerned with product safety it would be a product safety programme. These important systems and programmes are not the management system but are the product of the management system. It's all to do with context. The 'management system' that concerns us here should be thought of in the context of the business and its place in the business cycle as illustrated in Figure 7.

The business cycle shows that:

♦ Stakeholders place demands upon the organization and these are fundamental to the determination of its mission

♦ The organization's mission reflects what the organization is trying to do, where it is going and what principles will drive it towards satisfying stakeholder needs and expectations

♦ The organization accomplishes its mission through a set of interconnected processes that collectively form the business management system focused on the mission. In this respect each process will comprise the activities, resources and behaviours needed to produce the outputs necessary to deliver the desired results

Figure 7 Business cycle

♦ The business management system delivers the organization's results that delight the organization's stakeholders

♦ The stakeholders consider whether their needs continue to be satisfied and through one means or another, redefine the demands they place upon the organization.
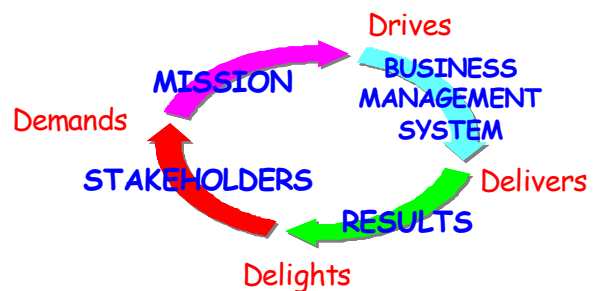
This approach to a business management system has implications because for some it is fundamentally different. For such a management system to achieve the organization's desired results it has to include more than a set of documents. It must include resources because all work needs to be resourced to deliver results – activities do not take place in a vacuum. It must also include behaviours because the attitudes, beliefs, motivation and other aspects of the organization's culture affects the way in which work is performed. Work can be performed quickly or slowly with enthusiasm or with a grudge, precisely or shoddily – it is a consequence of how people behave in given situations. Unlike machines, people are prone to emotions that impact their work.

> **Principle 10**
>
> The Business Management System is the summation of activities, resources & behaviours that enable delivery of business results

Demands, requirements, objectives and constraints

As we stated above, stakeholders have needs and expectations and place demands upon the organization. Traditionally these demands come in many forms, such as quality, price and delivery. In addition to demands for profit, health and safety, care of the environment and security of personal data and identity, these demands are increasingly including demands for ethically and fairly sourced and produced products. More recently there are demands for increased recognition of employee rights extended into work-life balance and

family considerations. We believe that demands fall into two categories; one that addresses the objective of the required product or service which we call *requirements* and another that addresses the conditions that impact the manner in which the required product or service is produced and provided which we call *constraints*.

The language we use differs depending upon whether we are addressing *demands*, *requirements*, *constraints* or *objectives*, the direction they are coming from and how they are responded to. Organizations *place* demands, *define* requirements, *impose* constraints and *set* objectives on their operations and their suppliers or have demands, requirements, and constraints placed or imposed upon them by their customers and other stakeholders. Organizations respond by declaring that demands have been *met*, requirements have been *fulfilled*, objectives have been *achieved* and constraints have been *satisfied*. If the direction or response is not clearly understood, what might be perceived and labelled as one of these turns out to be another and as a consequence inappropriate influence and priority is applied.

The fulfilment of *Requirements,* in fact Customer Requirements, will generate revenue that in turn will enable the organisation to fund its continuance. These will be the product and/or service performance characteristics required by the customer. The second category of demands; Constraints are demanded by both customers and the other stakeholders. The organisation needs to take these into account when fulfilling *Requirements*. The product or service may be able to fulfil the requirements without satisfying the constraints. However, in not satisfying the constraints the Stakeholders could censure the organisation that could stop the organisation continuing. For example, if the production of the product causes illegal pollution, the Environmental Regulatory authority will sanction or close the production facility. If the organisation treats its employees unfairly and against recognized agreed codes of practices or employment legislation, regulators and employees could litigate against the organisation and damage its reputation. In other words, *Requirements* define the true focus for the organisation and *Constraints* define parameters that can modify the focus and influence the organisation's process design.

Principle
Demands are either requirements to be met or constraints on how requirements are met.
Principle
Requirements and constraints are not mutually exclusive
Principle
Constraints don't generate revenue but do protect it
Principle
Allowing a constraint to become the overriding objective deflects attention away from the true purpose for which the organization was formed.
Principle
Constraints can only apply when related activities are being performed.

It could be said that fulfilling Customer Requirements is the only true *objective* because all other demands generate Constraints on the way the *objective* is to be met. If the objective was to supply freeze dried coffee to supermarkets, then generating a net profit of 15% using raw materials sourced only under Fair Trade agreements processed without using ozone depleting chemicals are all constraints and not objectives. In practice, however, organisations tend to set objectives based upon both requirements and constraints which often leads to the relationships between requirements and constraints being confused, and consequently the focus on the true objective being lost or forgotten. *Constraints* cannot exist independently without *Requirements*. If the revenue-generating requirement were to be removed, there would be no activity upon which to apply the constraint. In other words requirements and constraints are not mutually exclusive. If we do not have any oil platforms the safety regulations governing personnel working on oil platforms cannot be

applied. A less obvious example is a customer demand for completing a supplier approval questionnaire based on the elements of ISO 9000 where the product supplied is a book – sounds unbelievable but true.

Many constraints are expressed as objectives; for example, Motorola's Safety Objectives include the following:

Motorola seeks to provide a workplace that is free of occupational injuries and illnesses.

Over the past five years, Motorola reports that its global injury and illness rate has been significantly below both the U.S. manufacturing average and the U.S. electronics industry average. However we know that Motorola did not stop producing product in order to achieve this objective. What is more likely is that managers looked for ways of satisfying as many if not more customers whilst at the same time imposing constraints on those activities that impact employees health.

At Legal and General the environmental objectives are *to achieve continual improvement in the environmental performance of operational properties.*

Their targets include ensuring that less than 35% of waste produced at selected sites is disposed of directly to landfill. For Legal and General staff, this objective constrains what they do with waste.

In the case of Motorola, although the constraints are called objectives, the true objective is to create and satisfy customers under conditions that are *free of occupational injuries and illnesses* and in the case of Legal and General, it is to create and satisfy customers *while continually improving environmental performance.* In both cases the constraint has modified the description of the objective.

When organizations include among their objectives, external certification, cost reduction, energy conservation, safety and increase in profit, they face the difficult task of trying to balance these competing constraints. They then run the risk of dissatisfying their customers because they traded one off against the other. Whatever the demands are called by those who make them, they need to be placed in the right category so that they are treated appropriately. If increase in profit was an objective, this could be achieved easily by increasing the margin between cost and selling price. However, customers might not be willing to pay the increased price and go elsewhere thus reducing sales and consequently decreasing profit. Treating profit as a constraint rather than an objective causes the designers and producers to look for ways of reducing costs.

Customer is always right!

It might be argued that in theory the customer is always right therefore even if the customer makes a demand that cannot be satisfied without compromising corporate values, the organization has no option but to satisfy that demand. In reality organizations can choose not to accept demands that compromise their values or the constraints of other stakeholders particularly those concerning human safety.

The only true objective is that of satisfying customers because this generates revenue. All the rest are constraints because they don't generate revenue. However, other requirements are often termed objectives as the above examples show, but using the same label for two different types of requirements can result in some people or departments prioritizing actions inappropriately. They feel they ought to balance competing objectives when in reality it is not a balancing act. They do not reduce customer satisfaction to increase safety, environmental protection or profit. The organization has to satisfy its customers otherwise it would cease to exist but it needs to do so in a manner that satisfies all the other stakeholders as well - hence

the cliché "customer first". If it helps to bring about improvement in performance by labelling constraints as objectives, this is not a bad thing provided that people understand they are not trading–off customer satisfaction when doing so.

Having clarified the relationship between demands, requirements, constraints and objectives we can now illustrate this relationship as shown in Figure 8.
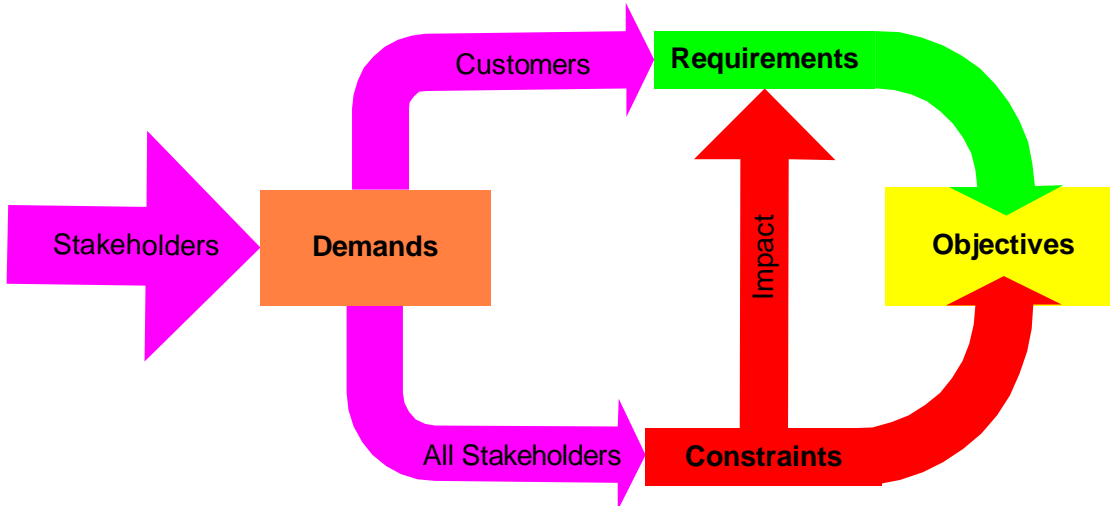

Figure 8 Business drivers and their relationships

If an organization perceives the various management system standards as separate 'objectives' to be achieved, it might easily develop (as many organizations do) a quality management system (QMS), an environmental management system (EMS), an occupational health and safety management system (OHSMS) and a security management system (SMS) to achieve these 'objectives'.

These systems would sit outside or overlay the organizational system that is focused on generating revenue from satisfying customers. They sit outside because they describe only the parts of the total organization that serve that specific objective and therefore cannot exist in isolation – they depend on the other parts of the organization to function effectively. This arrangement is illustrated in Figure 9. The direction of the arrows in the diagram is significant because it indicates the risk from not having all the objectives aligned with the true objective.
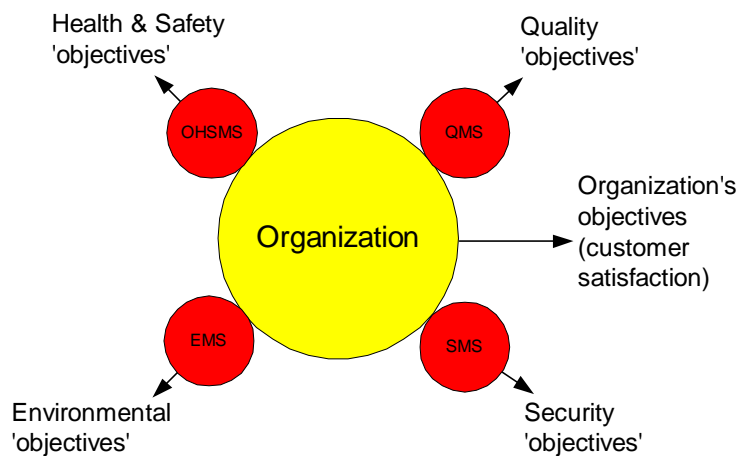
Figure 9 Separate management systems

The various standards, regulations and statutes imposed on the organization contain conditions that the organization is obliged to meet if it wants to do certain things (e.g. operate an oil rig in the North Sea) or be known for doing certain things, (e.g. be known for its commitment to quality). Compliance with some of these conditions might add value to the organization by improvement in practices such as reviewing product requirement before accepting an order or undertaking an environmental impacts assessment.

However, there are other conditions that dictate the way in which the organization operates that do not add value to the organization per sé but may serve the needs of society as a whole. In the management standards, several activities and results are required to be documented. For many organizations such documents are only needed to demonstrate to third parties that the organization has performed an activity required by the standard. For such organizations these documents do not add value. If they want the certificate and cannot justify to an external auditor why they should not produce them, they may have to be produced in order to be recommended for certification. This demarcation is illustrated in Figure 10. Demands that are constraints are shown in Red and those that add value by contributing to the organization's objectives are shown in Green. The direction of the arrows in the diagram is significant because it indicates that the constraints are acting upon the organization and influencing and supporting the achievement of the true objective.
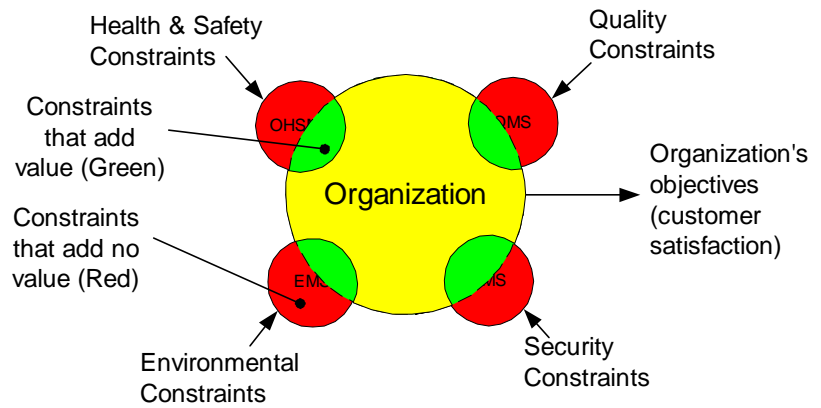

Figure 10 Constraints acting upon the organization

What is the purpose of a management system?

Organizations have only one purpose, one mission, one organizational structure and one system. There is no part of an organization that only serves quality and another serving only environment, safety or profit. For the organization to accomplish its mission it needs to deliver certain results. These might include profit, return on capital employed, customer satisfaction, market share sales revenue, new products, and conforming products. The identity and definition of these results arise from an analysis of

> **Principle**
>
> An organisations has only one purpose, one mission, one organizational structure therefore it's one system.

stakeholder needs and expectations. There are no other results that need to be achieved. These results are subsequently produced by a system of interconnected processes where processes are a set of interrelated activities, resources and behaviours. For processes to achieve desired results they need to be managed and in the context of business we can call this collection of processes a Business Management System (BMS). The purpose of the BMS is to enable the organization to achieve its objectives and satisfy the needs of its

stakeholders and as we stated previously, these needs are categorised as requirements and constraints. However, this is not to say that any BMS would enable an organization to satisfy its customers, its employees or safeguard the environment – it rather depends upon what those objectives and the particular constraints happen to be. For this reason every BMS will be different – there is no off-the-shelf solution. There could be a model that is populated with information that

> **Principle**
>
> The description is not the system just as the plan is not the house or an organization chart is not an organization

is acted upon in the same way that there are plans for various types of houses – each satisfying different client needs. But like the house plans, the BMS does not become a reality until it is resourced and those resources made operational.

Managing performance or risks – which is it?

The view of the UK Institute of Occupational Safety and Health (IOSH) is that quality, health, safety and environmental management systems are subsets of an all-embracing risk management system.[5] The decision of IOSH to focus on quality, environment, health and safety was made in part because all three are covered by at least a British Standard. So it seems that as other standards emerge, they are perceived in some quarters as tools to mitigate risks. Compliance with these standards may be perceived as constituting due diligence and hence providing a defence in a court of law. It is certainly true in the case of occupational health and safety and the environment that these issues are *constraints* on an organization and not the reason for being. There is therefore a need for organizations to manage the risk to health, safety and the environment caused by its operations. As a consequence organizations might conceive systems for managing these risks and therefore perceive them as separate management systems. It would therefore follow that quality management systems are also perceived as a subset of risk management where the risk concerned is one of customer dissatisfaction. ISO 9001 could be perceived as a series of conditions that need to be imposed to prevent failures that experience has shown led to poor product quality: why else introduce control over nonconforming material, control over documents, control over design, control over measuring equipment etc. if not to eliminate, reduce or control risk to product quality? ISO 9001 can therefore be perceived as a tool to mitigate risk to product quality.

> **Principle**
>
> Management system standards contain assessment criteria for determining an organization's capability to satisfy certain constraints. They do not specify how the constraints can be satisfied.

If you come from the perspective of managing risk, it is likely that you are more interested in preventing things from happening than making things happen because if nothing ever happens there is no risk. However, you cannot go through life avoiding risks; at sometime or other you have to do something positive, like get out of bed – at least it's the first step. Every subsequent step you take will propel you towards some objective – the reason why you wanted to get out of bed in the first place, assuming you didn't step on a scorpion! Once you set your objective you seek to identify and evaluate the activities necessary for you to achieve your objective. If you are feeling dizzy, you might wait awhile until you have regained your equilibrium. If you were staying in Arizona you might check whether there were scorpions under the bed before stepping out. However, if you were in London in the UK you would be unlikely to see scorpions outside the zoo, but you might need to check for other hazards particularly if on the previous night you attended a party. If you go through the steps you are going to take in your mind and ask yourself what could go wrong at each step, regardless of whether or not it is likely, you might identify so many obstacles along the way that you decide it is not worth getting out of bed, so you turn over and go back to sleep. This approach amounts to allowing the perceived risks to govern your life with each risk having the same probability of occurrence.

> **Principle**
>
> Risks can only arise from actions or decisions taken under relevant conditions or in relevant situations

If you come from the perspective of managing success, it is likely that you are more interested in making things happen, because the sooner things happen the sooner your goals will be reached. Having identified your objective, you will ask "What factors are

---

[5] IOSH policy on Integration of management systems (1998)

critical to achieving this objective?" and consequently determine the key activities and resources required to achieve it, allocate the responsibilities and provide leadership in getting those you have engaged to produce the outputs required. If you refuse to consider failure, you might overcome the obstacles in your way and achieve a successful outcome but the chances are that conditions will conspire to cause your failure unless you take steps to prevent their occurrence. In this respect you will ask, "What could cause us to fail to deliver this output?" You won't ask "What if?" because that might lead you to consider all manner of things however improbable. Looking for conditions that previous experience admits a certain probability of occurrence then eliminating, reducing or controlling them will ensure your success. You won't be looking for scorpions in London for instance but you might look out of the window to see if it's raining!

Through this light hearted story we observe that risk management is indeed a necessity but also that we can't get through life solely using risk management – it is simply one of the tools in our toolbox to enable us to achieve our goals. The primary tools should enable us to achieve our objectives. One finds the solution that fulfils the requirement and satisfies the constraints. There is no point satisfying the constraints and as a result failing to fulfil the requirement. Our primary goal is therefore to perform – to fulfil the requirement in a manner that satisfies the constraints. Only after we have determined how we are to achieve our objectives, can we use risk management techniques because the risks arise out of what we do.

> **Principle**
>
> The primary goal is to fulfil the requirement in a manner that satisfies the constraints – ignoring the constraints is not an option for survival.

What is integration?

Quite literally, to integrate means to combine parts into a whole, bringing parts together or amalgamating parts to make complete, to desegregate or to incorporate into a larger unit[6].

In the context of management, integration might be putting all the internal management practices into one system or bringing together separate disciplines to work on a problem, or joining the processes that serve a particular objective. Think of the opposite word; disintegrate. If something disintegrates it shatters into tiny pieces. However, it was once whole and therefore for something to be integrated it does not just sit next to the other components it has to be fixed to the others so as to make a whole. If the integrated whole is energized, all the parts will be energized or will provide a platform for the energized parts. There will be no part that does not have a function within the whole.

> **Principle**
>
> Integration combines parts to provide a function greater than the sum of the individual parts

In a concert hall, there is the orchestra and the audience. Both are groups of people. The orchestra can be said to be integrated – a whole. If a section of the orchestra is missing the orchestra cannot perform the piece they had intended. The audience is not integrated. It is simply a collection of individuals. If a few people fail to turn up for the concert, it has no effect on the audience. The audience can still perform its function even when numbers are reduced to single figures - hence the distinction between a 'collection of parts' and 'combination of parts'.

---

[6] Concise Oxford English Dictionary

What are we integrating?

If the organization is thought of as a system, the two terms would be synonymous and hence there would be no question about integration. However, because many do not see it that way and organizations are invariably not managed effectively, we need to address a number of perceptions.

Returning to the BSI - Global Web site to illustrate the integration possibilities, the course content is prefaced with the following "The business challenge today is to manage activities more holistically rather than the traditional approach of having ISO 9001, ISO 14001, OHSAS 18001 and other management systems as peripheral arrangements. In the past this has been problematical because of the structure of management system standards and the in-house barriers to such an approach. The recent changes published in ISO 9001:2000 and new ISO guidance has enabled many of these obstacles to be overcome."

The idea of managing activities more holistically suggests we might be *integrating management*. The notion that the structure of management system standards has been a barrier to integration suggests we might be *integrating standards* and the observation that there are ISO 9001, ISO 14001, OHSAS 18001 and other management systems suggests that we might be *integrating documentation*.

Another view is that organizations have a tendency to create functional silos or departments that focus only on departmental goals with the attendant disadvantages for the enterprise as a whole; therefore we might be *integrating functions*.

The foregoing discussion on risk management suggests that another view might be the *integration of risk management systems* particularly as QMS, EMS and OHSMS can be perceived as risk management system

What is it that we are combining, amalgamating, incorporating or making complete? This is the issue that sits at the centre of the argument.

Integrating standards

Are we integrating standards such as ISO 9001, ISO 14001 and OHSAS 18001? Is the goal to produce one management system standard as illustrated in Figure 11? There might be a case for integrating these standards but we really need to examine their purpose before we pursue this argument.

These standards contain management system requirements and are used contractually by purchasers as a means of obtaining confidence in the capability of their suppliers. They are also used by Certification Bodies as criteria for determining the capability of an organization's management system. On demonstrating conformity with the requirements of one of these standards to a Certification Body, an organization will receive a certificate. By having three standards, it provides organizations with a choice

Figure 11 Integrating standards

of certification. They may not need certification at all and therefore would not use any of these standards. They might only need certification to ISO 9001 and would therefore
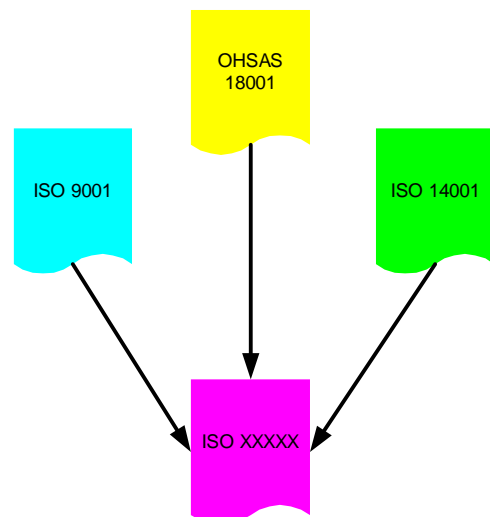
ignore the other two standards or they might need certification to all three standards and would therefore receive three certificates.

There is therefore a case for <u>not</u> integrating these standards as it provides organizations with a free choice. This is the situation when we perceive these standards as measurement tools.

If we perceive these standards as design tools the picture is completely different. Quality, environment, health and safety might be considered to be three aspects of management requiring three separate systems. If organizations respond to the standards with a manual and a series of procedures and work instructions, they might well have several systems of documentation and this presents another candidate for integration.

> **Principle**
>
> Management System Standards are criteria for assessing the capability of organizations to meet specified requirements not requirements to be achieved.

Integrating documentation

Before national standards for different types of management systems emerged, a company would have one system that had many functions. Some of these were documented and some were not. Often these were based upon departmental or functional practices. On paper it wasn't a system just a collection of practices. But in reality, there was a system that consisted of custom and practice. Most of it was not written down but it worked because of the skills, knowledge and working relationships the people developed and put into the business. Management style meant that it was quite fragile in some organizations and strong in others. Change the people, the processes or indeed anything and stability could not be guaranteed. Today's world is changing at a much faster rate than 50 years ago and hence we cannot rely on informal systems to reach our goals except in very small businesses.

Although all organizations had a management system or in other words, a system for managing the business, there was no consistency. Each department might or might not have defined its working practices and it was not until we started to formalize these practices in response to external standards such as ISO 9000 and ISO 14000 that they began to take shape as several different systems as illustrated in Figure 12.
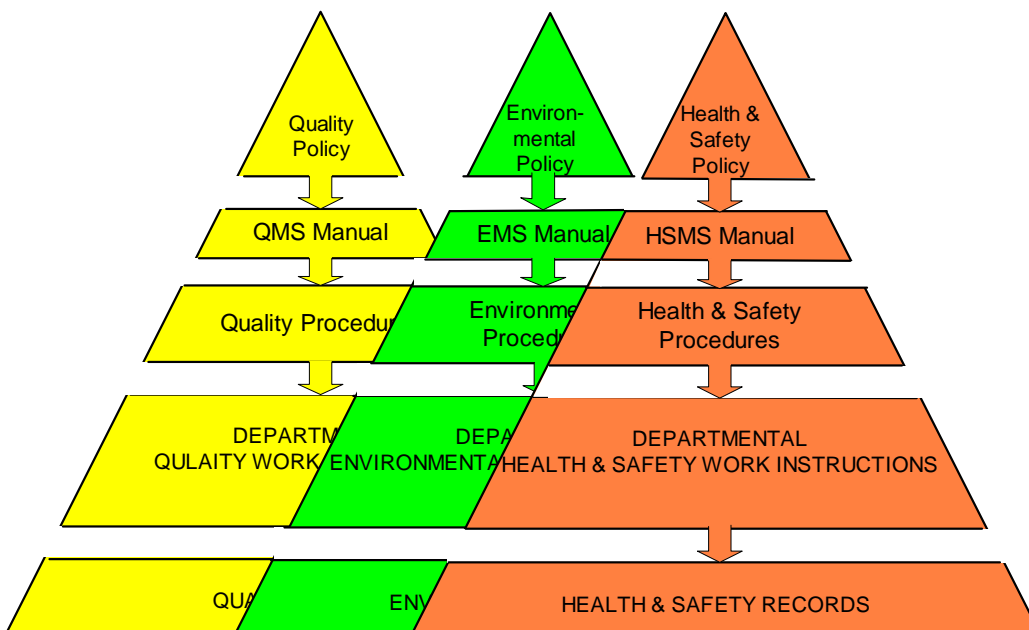

Figure 12 Separate systems of documentation

Getting companies to formalize their practices all in one go would not have been successful. There had to be good business reasons for formalizing a part of their practices yet alone all of them. Pressure from government procurement agencies and corporate purchasing came first and this resulted in an increase in Quality Management Systems being created and documented. This was followed by pressure from the environmental lobby, the Rio Conference, Kyoto etc that resulted in Environmental Management Systems. Although the Health and Safety legislation has been around for some time it was only after the authorities realized that imposing rules did not necessarily improve performance that the notion of Occupational health and safety systems came about. All of these systems have been driven by standards. Take away the standards and the 'systems' cease to exist. Had the movement been launched with one management system standard, organizations would have created one system. It was therefore the piecemeal publication of standards that led to the creation of separate systems.

Organizations have always had their own way of working so taking away the standards does not remove all formality in management. It might remove the motivation to define and document management practices which is why the systems created were systems of documentation rather than documented systems. They are characterised by manuals.

1. ISO 9001 hits the organization and a QMS Manual is produced in response

2. ISO 14001 hits the organization and a EMS Manual is produced in response

3. OHSAS 18001 hits the organization and a H & S Manual is produced in response

These manuals collect responses to the various requirements of these standards, with some duplication. In most cases these manuals describe only what the standard requires not what the organization does and how it does it. This perception is illustrated in Figure 13.
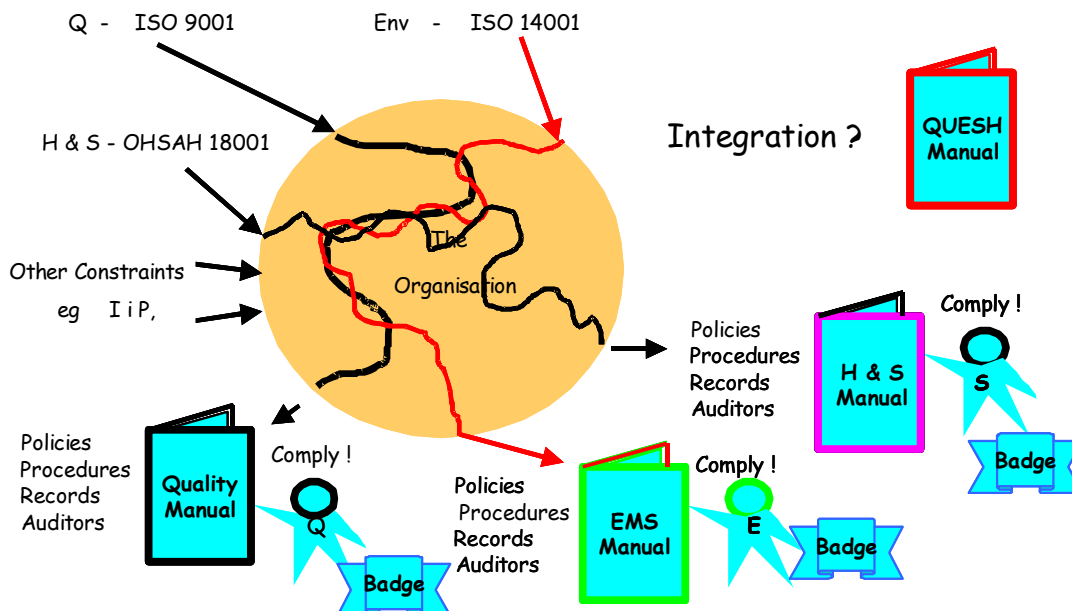

Figure 13 Integrating documents

If the manuals produced in response to the various standards are integrated to form one composite manual – there are perhaps savings in paper or storage and it may simplify navigation through the documents. For instance there are many common elements:

- ◆ Management responsibility
- ◆ Management review
- ◆ Corrective action
- ◆ Preventive action
- ◆ Internal Audit
- ◆ Document control
- ◆ Records control
- ◆ Resource management
- ◆ Continual improvement

This is not surprising as they are ISO 9000 derivatives. The procedures developed for dealing with these issues might well be common for quality, environmental, health, safety, security etc. but putting the financial system, the quality system, the environmental system etc into one book of policies and procedures is not integrating management systems – it is merely assembling the documentation that describes such systems in a more holistic manner and eliminating unnecessary duplication. Sometimes such action can be detrimental when it removes flexibility.

One of the claims made for adopting an Integrated Management System is that the numbers of procedures can be reduced by up to 50% - a great saving! But if the volume is no different as illustrated in Figure 14, the reduction in quantity has no beneficial impact.

Is that what all the fuss is about? Will reducing the number of procedures improve the bottom line? Will reducing the number of procedures increase the number of customers? Will reducing the number of procedures reduce variation in performance? It is very doubtful that it will do any of these. The only measurable change will be in the list of titles in a register of documents. If a centimetre of A4 paper can be stored in 1mb of disc space, most documented management systems can be stored on one CD ROM. It therefore appears absurd to use size as a measure of effectiveness. Who really cares how many documents there are or how big they are?

100% Procedures

50% reduction in the number of procedures
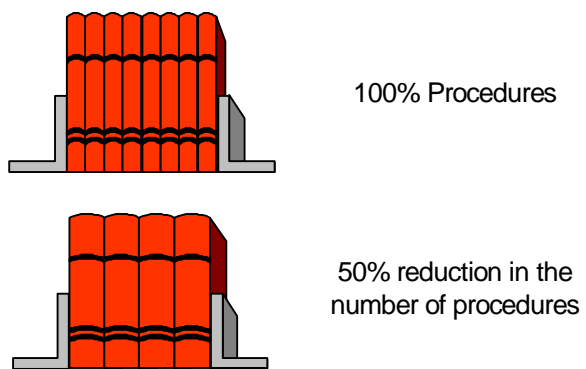
Figure 14 Procedure reduction

Some organizations have installed software packages that handle quality, safety and environmental documentation. Some of these software packages retain menus for quality, environment, health and safety so all they do is put the documents in one place. For these systems to be an integral part of the company's management system there have to be linkages so that you can't see the join. The categories of quality, environment, health and safety disappear. The notion of separate systems disappears; even the terms disappear so that it becomes the management system that covers quality, environment, health, safety, finance, security and everything else we do.

Integrating disciplines or functions

Putting the quality manager, safety manager and environmental manager in one office or one department is another possible solution to integration. It might reduce resources,

office space for example and it might improve communication between these people, but it is not system integration. This is bringing separate disciplines under one umbrella but it is not a function of the organization unless one conceives of it as corporate governance when in which case it might be considered a function because it makes a unique contribution to organizational performance.

There is no management system function in an organization. There might be a person or group of people whose primary concern is the maintenance and improvement of working practices. They might maintain the system descriptions as a means to convey best practice within the organization but these groups are not separate functions in the organization. Again if the management system is a risk management system, one might conceive of those people concerned with that system to be part of a corporate governance function.

Another example is a matrix organization where staff are loaned to a project manager responsible for the successful completion of the project. Although people come together to discuss common themes, issues etc, by returning to their *parent function* afterwards they can slip back into functional mode because the influence of team has been only temporary. Putting people together in a team and removing them from their parent function will have the advantage of removing influences from the parent function.

If one perceives health, safety, environment, quality and security etc to be disciplines it is conceivable that they might work together but whether the outcomes are integrated will largely depend how they are managed. In this context, health, safety, environment and security and quality are all constraints.

There is no separate quality function in an organization because quality is not a function but an outcome. There may well be people with the word 'quality' in their job title and they may work in a quality department but such people do not perform all activities necessary to produce products and service that satisfy customer requirements. They have a limited role and perform some of these activities, primarily those concerned with setting up systems that enable others to meet standards, verifying compliance with standards and coordinating improvement. If this is what is understood as 'quality' then as a discipline it can be combined with safety, health and environment. But if 'quality' is perceived as meeting requirements, (not simply product requirements), anybody and everybody in an organization is responsible for quality and has a role in its achievement and control.

Integrating risk management systems

As health and safety management systems as well as environmental management systems are risk management systems, joining risk management systems together can constitute an integrated (Risk) Management System. This is a view taken by IOSH[7] and therefore the Quality Management System, Security Management System and Information Technology Management Systems can also be integrated with the other risk management systems. But that is what it is, an integrated risk management system not an integrated management system.

In their policy on the integration of management systems, IOSH states clearly that on the subject of integration they are referring to the integration of such matters as organizational structures, strategic decision-making, resource allocation and the processes of auditing and reviewing performance. Regarding the integration of organization structures, there is no doubt that IOSH are addressing the separate disciplines of heath, safety, environment and quality rather than the wider aspect of the complete organization. On the integration of

---

[7] ibid

decision-making IOSH are referring to decisions concerning health, safety, quality and environment, where quality along with the other topics is perceived as a constraint. On resource allocation, IOSH are concerned about the proper allocation of resource to each discipline so that integration does not compromise safety, environment etc by resulting in fewer resources. Regarding auditing processes, there is no doubt IOSH are addressing the benefits from combined quality, health, safety and environmental audits. There is nothing in their arguments about organizational purpose and the processes needed for the organization to fulfil that purpose.

Integrating management

There are several forms of management. Functional management, project management, product management etc each of which makes a specific impact on the organization structure. In functional management, the structure is composed of functional groups, each making a unique contribution to the organization's goals but each being a collection of specialists e.g. sales, marketing, engineering, production, purchasing, quality etc. Under functional structures there also tend to be professional institutions or societies that support the specialism with the attendant disadvantage that there is sub-optimisation of performance. Each group strives to maximise its performance often at the expense of the performance of the whole. This results in those outside the organization claiming that it lacks 'joined up thinking'. One group issues directives that are contradicted by other groups. Another group carries out activities that are undone by the activities of other groups. A classic example is in maintaining a county's infrastructure. No sooner has a hole been filled in a road than another utility comes along to dig it up again – no joined up thinking!

With a project organization several specialists from line functions are seconded to the project to serve a project objective with the kind of division that suits the project not the functional structure. The work of the project team is centrally coordinated so you don't get people undoing work recently completed by other team members. Product management follows the same pattern and in both these cases the group serves the objectives of the group with the distinct advantage that there is no sub-optimisation of performance. If such a model could be made to work for the whole organization everyone would focus on the organization's goals.

The IQA definition of integrated management seems to sum it up.

 "Integrated Management is the understanding and effective direction of every aspect of an organization so that the needs and expectations of all stakeholders are equitably satisfied by the best use of all resources."

The clues in the definition are the words 'understanding' and 'direction'. Integrated management is not about changing the structure of the organization. There are performance advantages in grouping people together by speciality, discipline or common interest so there is no need to change this. Integrated management is about understanding and directing activities to achieve common objectives.

The classic approach is to deploy the organization's objectives to each functional group but this often results in some functions being allocated objectives that can only be achieved through the participation of other functions. Examples of this are financial objectives, quality objectives, environmental objectives, and safety objectives. Their achievement requires the collective participation of all employees, whereas, a product objective might only require the participation of those in the engineering and production function. Engineering has to design it like the customer wanted and production has to make it like designer designed it.

If we perceive that quality, health, safety, environment etc are objectives for which systems need to be established to achieve them as we illustrated in Figure 9, the integration the of these systems would result in an Integrated Management System (IMS) addressing all the objectives. This is illustrated in Figure 14 but it is still not a Business Management System or BMS.
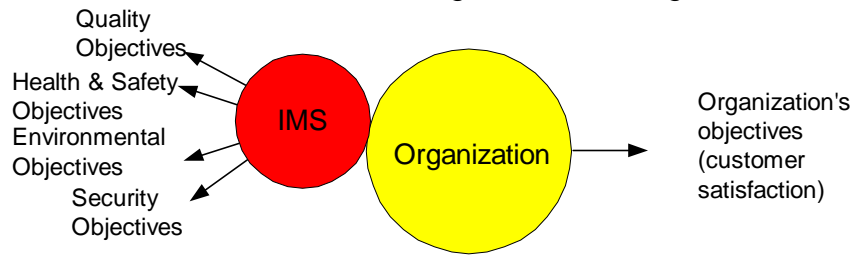

Figure 15 Integrated requirements

As with separate systems they sit outside the organization although they are now joined together to fulfil the requirements of the various standards. In figure 15 the IMS is a management system that comprises only those systems that are the subject of national or international standards such as QMS – ISO 9000, EMS – ISO 14000, OHSMS – OHSAS 18001, SMS - BS 7799. We call it an IMS because the standards caused disintegration and therefore putting the pieces back together might be termed integration. But what is being integrated are systems designed around measurement tools for gauging assurance. They are not design tools for designing enabling processes. However, it remains separate from the business because it excludes the result producing activities. It only includes the activities that satisfy the constraints.
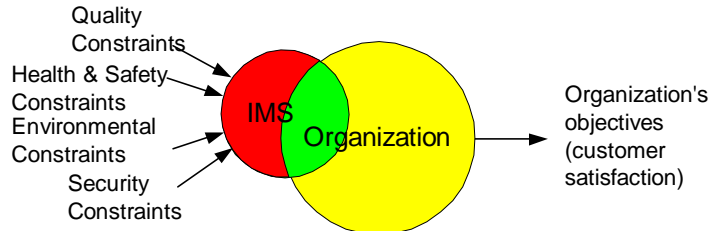
Figure 16 Integrated constraints

Recognizing that these 'requirements' are not objectives but constraints that comprise value adding and non-value adding 'requirements', the integration of these systems will therefore look like that illustrated in Figure 16. But, the red disc is much smaller than the yellow disc so even if all requirements added value there would still be some yellow showing. The IMS would not have eclipsed the Organization. The system therefore needs to be wider in scope.

If we now embrace all activities within an organization regardless of whether there are external standards governing their management we will eliminate the artificial boundaries created by these standards and once again treat the organization as a system. There will remain some constraints that add no value to the organization per sé but need to be satisfied if the organization desires to continue trading in its chosen markets. The net result is illustrated in Figure 17. The alignment of the arrows is significant because it shows that the constraints being filtered to align value adding constraints with the objectives.
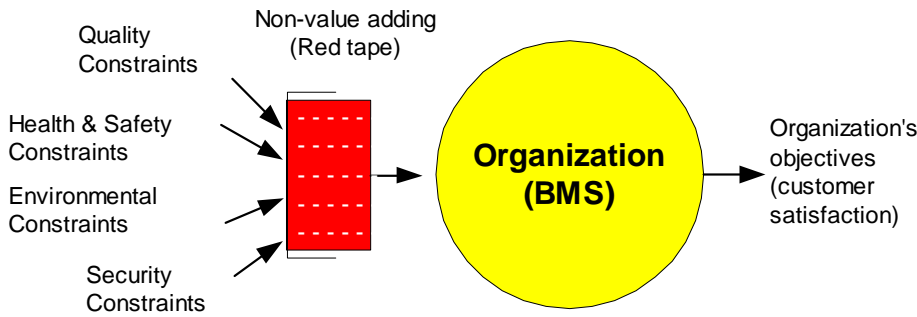
Figure 17 Fully integrated organization

The organization depicted in Figure 16 is a system that consists of a set of processes arranged in such a way as to deliver the organizations objectives day after day, year after year. *The organization is the BMS.* When the objectives need to change, the processes are configured in such a way that the need for change will be recognized and the processes reconfigured to achieve these new objectives. Instead of deploying objectives to functions, they are deployed to processes that are designed to achieve them. The activities that need to be carried out to achieve the objectives are assigned to people with the necessary competence and authority from which the roles are determined and people from the appropriate functions are assigned to perform these roles. Performance is reviewed against process objectives rather than functional objectives so that outputs are aligned and optimised not sub-optimised. This is the process approach to management, an approach that enables the organization to develop the capability to satisfy the needs and expectations of all its stakeholders.

Now we have a different perception of the organization we can redraw the Business Cycle of Figure 6 and depict it as shown in Figure 18. We can also depict the organization as a set of interconnected processes and illustrate this as shown in Figure 19.

Figure 18 Revised business cycle

Figure 19 Model of the organization as a system of processes

Summary

We have explored the meaning of the term "integrated management system" by examining the terms system, management system and integration. We found that:
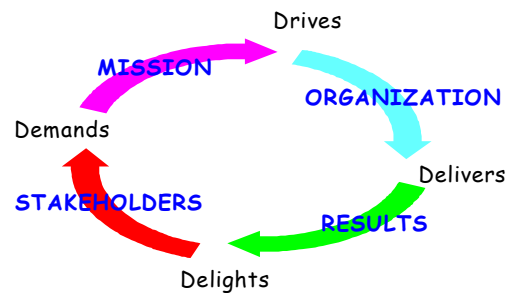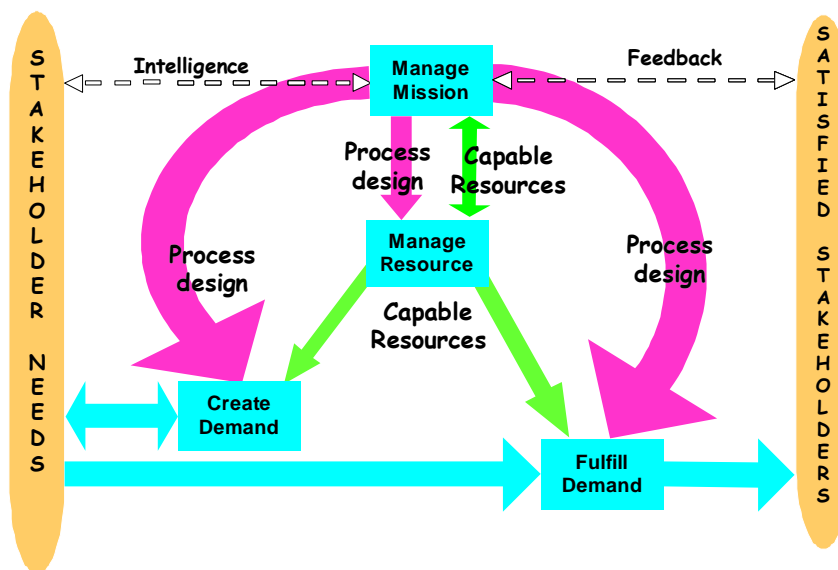
- a). The organization is a system

- b). A system is a collection of ideas, principles or components that function together to achieve a specific purpose.

- c). Management systems achieve management objectives

- d). The components in a management system are called processes.

- e). A process is a set of interrelated activities, behaviours and resources that achieve results.

- f). Processes are dynamic and the dynamics need to be managed for them to achieve the desired results, therefore:

  - i. A management system is a set of interconnected and managed processes that function together to achieve a specific management purpose or objective.

  - ii. There is only one principal purpose or objective in any organization and that is creating and retaining satisfied customers – all the other demands are constraints on how the principal objective is achieved. Therefore it can be argued that the QMS, EMS, OHSMS and other management systems etc cannot be regarded as independent systems anymore.

  - iii. When the objectives being aimed for are the organization's goals or business objectives a Business Management System is the set of interconnected and managed processes that function together to achieve an organization's goals or business objectives and is therefore an integrated management system.

  The term Integrated Management System or IMS, implies that the term *integrated* is being used as a noun rather than an adjective, which of course it is – it's a term describing a characteristic of a management system or organization and therefore when describing an integrated management system only the words management and system should have initial capital letters. To do otherwise would be like abbreviating an effective management system as EMS or an ineffective management system as IMS! It is clear that the use of the term Integrated Management System (IMS) only has meaning in the context where specific structures have been established solely for the purpose of satisfying separate and individual external standards such as ISO 9001 and ISO 14001 and there is a need to combine these structures together. Hence the term IMS is a misnomer.

  An integrated management system could more accurately be described as a set of interconnected and managed processes that function together to achieve an organization's goals or business objectives for which a better term would be a *business management system.*

  The *business management system* is synonymous with the organization because there is no organization that has been instigated other than to fulfil its purpose. This results in the conclusion that in designing and developing a business management system we are in effect designing and developing the organization.

What are the benefits of integration?

Although in the previous section we concluded that the term Integrated Management System was a misnomer people do in fact believe that there are benefits to be gained by integration. The illusion of integration can be dispelled by analysing the different approaches and revealing the advantages and disadvantages.

Benefits from integrating standards

If it's national or international standards that are being integrated, this should be left to the various external committees set up to do that job. However, if you sit on any of those committees here is some food for thought. As the standards in this field serve a common purpose there are likely to be some benefits of integrating the increasing number of standards.

- ◆ Improved understanding of the goals
- ◆ Reduction in the proliferation of standards
- ◆ Reduction in bureaucracy
- ◆ Permitting a flexible approach to certification

On the last point, if there was only one management system standard used for assessment and certification, the scope of registration could address not only the range of products and services provided also but the range of constraints the organization chooses to include within the scope of certification. Those interested in seeking only environmental certification could include environmental constraints. Those interested in seeking certification in environmental, health and safety could include environmental, health and safety constraints. Those interested in registering the whole organization would simply declare *all business constraints.*

Benefits from integrating documentation

If documentation is being integrated the benefits are small.

- ◆ There might be a reduction in the number of documents, procedures, instructions and forms that people use but no noticeable difference in the effectiveness of processes.
- ◆ There might also be a reduction in time spent in maintaining the documents because there are less of them.
- ◆ One benefit might be the flexibility it brings. Being able to integrate some bits and not others – for instance leaving out the financial practices but why would you want to do this?

Benefits from integrating functions

If functions are being integrated the benefits are probably greater than the above.

If the organization has established separate roles to manage its response to the various standards e.g. quality, environment, heath and safety, it might be tempted to merge these roles into one but it may not result in greater effectiveness. Merging quality, health, safety and environmental disciplines into one role might look simple but in practice you will be looking for someone with the combined competence of the three people they replace. The

net effect might be one role in place of three but with external support or support from other functions. A better solution might be to assign the quality, health, safety and environmental responsibilities to the process designers and appoint a BMS manager to facilitate change in the organization.

Benefits from integrating management

If management is being integrated, the benefits are far greater than all the other options.

♦ There will be clear & measurable business objectives, not simply wish lists or subjective statements of intent.

♦ These objectives will have been derived from the needs and expectations of all stakeholders, not simply the shareholders or customers.

♦ Processes will have been designed to achieve these objectives, not simply to satisfy the constraints of external standards.

♦ Functions will have a clear understanding of their role within these processes, not simply serve their discipline or profession.

♦ Functional objectives will be derived from process objectives not simply derived from business objectives or personal goals.

♦ There will be a common set of policies, values and principles that will guide the organization in achieving these objectives, not a disparate collection of beliefs and rituals that create conflict, set up silos and barriers.

♦ There will be connectivity between stakeholder needs, process objectives, activities, competences, measures and the business results, not independently derived objectives and activities.

♦ Decisions will be based on facts and assessed with respect to the needs and expectations of all stakeholders, not simply the aspirations of an individual, a particular department or function.

♦ Performance will be measured relative to the business objectives, not relative to whether procedures are followed.

♦ Inefficiencies will be removed by seeking better ways of achieving process objectives not arbitrarily cutting costs, shedding labour or closing factories.

♦ Effectiveness will be improved by continually questioning the purpose and objectives of activities, processes, products and their relevance against stakeholder needs and expectations, not simply improving activities for which there is no longer any demand.

Summary

From the foregoing it follows that:

♦ An effectively managed process is an integrated process

♦ An effective business management system is an integrated management system

♦ An effectively managed organization is one in which management is integrated.

In the introduction we suggested that the case for integration is based on the premise that organizations have separate systems with common elements and by eliminating duplication efficiencies can be made. It should be clear by now that this premise is flawed and that the efficiencies to be made come from managing the organization as a system of

interconnected processes and not from integrating standards, documentation, disciplines, functions or indeed other management systems. It should also be clear that the quest is not 'integration' but effective management, a key characteristic of which is that it is integrated.

Steps to integration

The starting point

If having got to this point in the book, you still think that building a BMS is simply about reducing the number of procedures, integrating standards, functions or risk management systems then perhaps you should go no further, start again and also read **Finding the right place to start** –EB005 from our e-bookshop. If, on the other hand, you know it will involve management changing the way they manage the business, then proceed.

Anyone contemplating an integrated business management system may already have two or more systems of documentation. They are likely to have a system based on ISO 9001:2000 and a system based on ISO 14001 and they may also have others.

Anyone not in this position would not be integrating systems but developing a business management system from scratch. The steps are not all that different except the perceptions differ and with existing systems of documentation, there is a lot of history, prejudice and bias to deal with.

It is often advised that the first step in improving any management system is to choose a model on which the improved system will be based. Therefore, if integrating quality, health, safety and environment you might be advised to choose ISO 9001, ISO 14001 or OHSAS 18001 as the base model: **we would strongly advise against doing anything like this**. These standards are NOT models for a management system. They are criteria for assessing the capability of organizations to meet specified requirements.

Stages of integration

Once there is a clear understanding that *integrated management* is what is wanted achieve, a team of two or three likeminded people and then:

1. Agree the objective and mobilize the *change management team*

2. Clarify the needs and expectations of the stakeholders.

3. Clarify organization purpose, mission and measures of success.

4. Identify, specify and design the processes needed to deliver outputs that will satisfy these stakeholders.

5. Determine competence, capabilities and capacities required to enable the processes to deliver the desired outputs.

6. Resource the processes within the organization.

7. Review performance, practices and objectives and undertake improvements that enable the organization to continually satisfy stakeholder needs and expectations.

There is no short cut. If the organization has a documented QMS, EMS, OHSMS, none of the 7 stages above can be omitted because it is likely that these systems arose from responding to specific standards rather than from an analysis of all business objectives and stakeholder needs and expectations. Where savings might arise is in determining how specific activities are performed. There are likely to be many existing procedures, instructions and forms that can be utilized. There is also likely to be risk assessment

relative to the environment impacts, health and safety hazards but no risk assessment relative to quality, security or other business objectives.

The type of effort is also different. When developing a QMS, EMS etc, procedure-writing skills were needed. To develop an effective BMS, business process design skills are needed which are different from manufacturing process design skills that are primarily technology based.

The time taken to develop a BMS is difficult to compare because it's comparing the time needed to produce procedures with the time needed to agree objectives, measures, risks and targets etc., – these are not comparable.

Step 1 Agreeing objectives and mobilizing the team

As with all organizational change the objectives and the success criteria need to be defined and agreed. The change may take some time to complete and at the end people will want to know if it's been worthwhile. It also helps to remind people occasionally what they are trying to achieve, why they are doing it and what the changed situation will look like if the objectives are achieved. The task is not simply to document what you do in a different way. Although there will be some documentation, that is not the end product. The end product is a better way of managing the organization i.e., achieving improved business performance.

As has already been said, a BMS consists of business processes and these cannot be identified and developed business effectively unless the basic principles of process management have been understood. These are outlined in *A Guide to Business Process Management* – EB011 from our e-bookshop.

The team will meet to explore their understanding of the business. It's not about changing the business or the organization, at least not to start with. Other managers including the Managing Director or CEO, CFO and other Executives will need to become involved in order to contribute, agree information and propose changes.

At the operational level, there might be significant changes in the manner in which activities are carried out. There will be some new activities to carry out with a greater emphasis on preventive rather than corrective action. For managers there will be a major change in the way decisions are made and performance is reviewed. The implementation effort therefore consists of the time taken by managers and staff to apply the principles of process management, and to cease working in isolation and start work as a member of a process team. It is the time taken to change a mind set, to start seeing all work as a process not simply as individual and sometimes arbitrary tasks.

Step 2 Clarifying the stakeholder needs

The organization will only accomplish its mission if it satisfies the needs and expectations of its stakeholders. It is only from determining what the stakeholders want that processes can be identified and process objectives determined.

There are three ways to determine stakeholder's needs and expectations.

♦ Observe

♦ Ask

♦ Predict

If the organization has been operating for some time it may have good information of its stakeholders' needs and expectations. Brainstorming sessions involving managers, customer facing employees and the customer will reveal the key factors that characterise stakeholder satisfaction. Start with the customers and identify the product features that provide the benefits they are seeking. Then address the service such as delivery and response. When all the customer needs are understood, the needs and expectations of employees, suppliers, shareholders and society, (which is represented by the regulators) should be identified.

Step 3 Clarifying organization purpose

It is not uncommon, when asking top management to define the objectives to find that they believe they are in business simply to make money. In reality making money is a by-product albeit a very necessary one of managing the operations effectively. If they manage there operations poorly they could lose money, generally other people's! It is therefore what they are trying to achieve that counts and many organizations refer to this as their vision, mission or goal. It does not matter too much what it is called provided it indicates what the organization wants to achieve in the short and long term.

Step 4 Designing the processes

Before designing processes they need to be identified – you can't design something until you know what it is you need to design. There are a number of techniques you can use to identify your processes. One way is to use the generic model of Figure 18 because everything an organization does can be resolved into these four basic processes. The next stage is to decompose or breakdown each process into its principal outputs and identify the activities that generate these outputs. Another way is to identify all the outputs and arrange these into groups that have a common purpose and then align these groups with one of the four basic processes. The next stage is to identify the activities that generate these outputs. The reason for not starting with the activities is that there needs to be a focus otherwise you will end up with a arbitrary collection of activities with no order or structure such as writing letters, filing reports, checking stocks, interviewing candidates. Processes produce outputs therefore it follows that to identify the processes we must look for the outputs being produced.

The Key Attributes of Integrated Management at the end of this book identifies the attributes that need to be built into the design of the organization's processes.

Step 5 Determining competence

When assessing the human resources needed it is necessary to determine the competence required to deliver the process objectives. Simply possessing the ability to operate a machine is not a mark of competence. Competence is concerned with demonstrating the ability to produce the desired results. The competent operator delivers results that achieve the process objectives. When identifying the competence needed, it is important to distinguish between competence and qualification. If a person has the appropriate education, training and skills to perform a job the person can be considered qualified. If a person demonstrates the ability to achieve the desired results the person can be considered competent.

You start by establishing what must be achieved (this is the output required) and then ask. "What must be done for this to be achieved?" These are the units of competence. For example, operations personnel would need to demonstrate the ability to:

- ♦ Understand and interpret technical specifications

- ♦ Set up equipment

- ♦ Operate the equipment so as to produce the required output

- ♦ Undertake accurate measurements

- ♦ Apply variation theory to the identification of problems

- ♦ Apply problem-solving methods to maintain control of the process.

Step 6 Resourcing the processes

When assessing physical resources it is necessary to determine the capability required to deliver the process outputs. For example, production equipment would need to be serviceable, safe and capable of producing the product features required within specified limits. Measuring equipment would need to be serviceable, safe and capable of measuring the required parameters accurately and precisely (i.e. calibrated). Lifting equipment would also need to be serviceable, safe and capable of carrying the load required.

The effort required to operate and maintain the BMS is the effort required to manage the organization. This is because the BMS is the set of interconnected and managed processes that function together to achieve the organization's goals. The effort required to maintain the BMS documentation is part of the effort concerned with improving business practices. The effort required for renewing equipment is part of the effort concerned with managing the organization's resources.

Step 7 Reviewing and improving performance

The validation effort required for a QMS involved internal and external audits and therefore if there are separate management systems for health, safety, security, environment it might be assumed that the total effort is simply a multiple. If validation requires conformity testing against a standard each time then the amount of effort can be significant.

However, taking a different approach, the BMS is validated against all the constraints including relevant external standards – a one off activity. The only recurring effort is the effort to determine whether the processes are achieving the required results, whether the processes are efficient and whether the results continue to be relevant to the stakeholders' needs. This is a different kind of effort. There is no need to validate the system against the constraints every time just as there is no need to put every guided missile through a design qualification programme. All that is needed in that case is a production test for consistency. However, because the components of the design of a management system are always changing – a test for consistency, efficiency and effectiveness is needed and this will not require an army of auditors – not if the system has been designed correctly and is being properly managed.

The process designers validate the process; the management team monitor performance and provide frequent reports. The manager or an independent auditor, if preferred, can then evaluate the processes for best practice – benchmarking, interviews or whatever technique is appropriate. Conformity auditors would target areas identified from the risk assessment as vulnerable to instability instead of wasting everyone's time by focusing on areas where there are no risks.

The external auditors need only examine the system once and then subsequently examine the result of the internal reviews.

Therefore having an integrated business management system reduces both internal and external validation costs and provides more useful results of business performance.

Successful outcome

It is clear that the conclusion from the review of step 7, will be that:

♦ There are clear & measurable business objectives

♦ These objectives have been derived from the needs and expectations of all stakeholders.

♦ Processes have been designed to achieve these objectives.

♦ Functions have a clear understanding of their role within these processes.

♦ Functional objectives have been derived from process objectives.

♦ There is a common set of policies, values and principles that guide the organization in achieving these objectives.

♦ There is connectivity between stakeholder needs, process objectives, activities, competences, measures and the business results.

♦ Decisions are based on facts and assessed with respect to the needs and expectations of all stakeholders.

♦ Performance is measured relative to the business objectives.

♦ Inefficiencies are removed by seeking better ways of achieving process objectives.

♦ Effectiveness is improved by continually questioning the purpose and objectives of activities, processes, products and their relevance against stakeholder needs and expectations.

The organization will exhibit the key attributes of integrated management summarised in the diagram below and amplified in the next section.
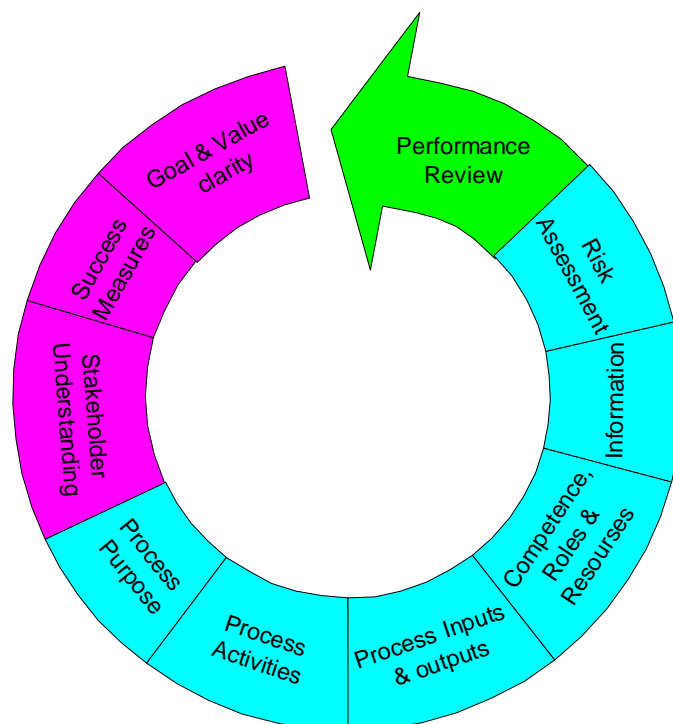
Key attributes of integrated management

An effective organization has a number of clearly defined attributes. What follows is a guide to organization development. The primary questions generate each attribute. The Rationale provides the reason for asking these questions. Secondary questions are provided when appropriate, sometimes rephrasing or amplifying the primary question to clarify understanding but not changing the intent. The examples are a typical manifestation of the attributes that result from asking the questions.

ATTRIBUTE	PRIMARY QUESTION	RATIONALE FOR QUESTION	SECONDARY QUESTIONS	TYPICAL EXAMPLES
Goal clarity	What are you trying to do?	To establish the purpose of the organization because an organization that has not defined its goals will under perform in everything it does.	What is the organization set up to accomplish? What does the organization want to be? What is the purpose of the organization? What are the aims of the organization?	Mission statement Vision and mission Purpose and mission Corporate goals Corporate objectives
	How do you ensure everyone understands these goals	To establish that everyone understands what the organization is trying because if they don't the organization will more than likely fail to reach its aspirations	How do you communicate the goals? How do people know what you are trying to do? How do you make sure everyone pulls in the same direction?	Effective leadership Team briefings Company Intranet Awareness bulletins Reinforcement after failure
Value clarity	What values govern organizational behaviour?	To focus attention on what influences the behaviour of the people	What policies have been established to guide the organization in accomplishing its goals? What are the corporate policies? What are the core values of the organization?	Supporting values Supporting policy statements Supporting beliefs Supporting culture
	How have these values been developed?	To establish that policies have been derived from the vision and mission not some arbitrary wish list	What is the process for establishing corporate policies?	Business planning process Strategic planning process

ATTRIBUTE	PRIMARY QUESTION	RATIONALE FOR QUESTION	SECONDARY QUESTIONS	TYPICAL EXAMPLES
	What measures are used to indicate successful application of these values?	To ensure effective implementation of policies through commonly agreed behaviours		Leadership and management role models
	How has the understanding of these policies been confirmed?	To provide confidence that management's policies are being implemented	Does the behaviour of employees align with the policies? How do you know people are adhering to the policies?	360 degree behavioural studies Customer and Employee surveys Internal Audit
Clear understanding of stakeholders needs and expectations	Who are your stakeholders	To establish that the organization knows who has material influence over the organization's well being because not knowing these will put the organization's survival at risk	Whose needs have to be satisfied for the organization to be successful? Who has a positive interest in your organization's performance? Who are the interested parties in the enterprise?	Owner Customers Employees Investors Suppliers Regulators Society
	What are the needs and expectations of your stakeholders relative to your goals?	To establish that the organization recognizes that although customers are the only stakeholder that brings in revenue, the others impose constraints that nonetheless have to be satisfied	What are the expectations of your customers and other interested parties? What are the relevant statutory and regulatory requirements that impact the organization's goals? How are these requirements identified?	Owners - Financial return Customers – product conformity Employees - Job security Investors – Increasing dividend Suppliers – Prompt payment Regulators – Compliance Society – Ethical conduct

ATTRIBUTE	PRIMARY QUESTION	RATIONALE FOR QUESTION	SECONDARY QUESTIONS	TYPICAL EXAMPLES
	How do you determine stakeholder needs and expectations?	To have confidence in the integrity of the result	What is it that stakeholders want from the organization?	Market research Technological research Customer focus groups Economic surveys Regulatory surveys Scanning trade press
	How is the organization alerted to changes in these requirements?	To establish that the organization recognises that stakeholder demands are constantly changing	How do you know when the demands and perceptions change? How often is the environment scanned for changes in these requirements?	As above + Standards update subscription service Periodic review Seminars
Measures of success	What measures are used to reveal whether the goals are being met?	To determine how the organization and the stakeholders judge whether the goals are being achieved and whether these are compatible with one another	What would success look like? What would you measure to indicate whether stakeholder needs are being satisfied?	Customer satisfaction Employee satisfaction Community satisfaction Regulatory compliance Market share Profitability
Process clarity	What affects your ability to satisfy your stakeholders?	To focus management attention on the factors upon which success depends	What factors are critical to the success of stakeholder satisfaction?	SWOT Analysis Productivity Cash flow Management style Process capability Communication skills Competence Innovation

ATTRIBUTE	PRIMARY QUESTION	RATIONALE FOR QUESTION	SECONDARY QUESTIONS	TYPICAL EXAMPLES
	What outputs do you have to deliver to satisfy your stakeholders?	To identify the tangible results that stakeholders will expect from the organization	What results do you have to achieve? What are stakeholders looking for?	Revenue that exceeds expenditure Zero defects A safety record lower than average for the industry Pay and career development Code of ethics
	What processes have been established to deliver these outputs?	To understand what the major components of the system are	How do you make it happen? How do you achieve these results?	Mission management Resource management Demand creation Demand fulfilment
Process purpose	What is the purpose of these processes?	To provide a clear understanding of the unique contribution each process makes towards achievement of the organization's goals	What is this process designed to achieve?	To determine the direction and keep the organization on course To provide the competency and capability to fulfil the organization's goals To create a demand for the organization's capability To fulfil the customer's demand
The identity of process key stages and their inputs and outputs	What are the key stages in the process for fulfilling its purpose?	To provide a clear understanding of the unique contribution each stage makes towards fulfilment of process purpose	What are the key activities of this process?	Mission management ♦ Research market ♦ Develop strategy ♦ Deploy business plan ♦ Review performance
	What inputs are required for each process stage?	To understand what inputs are necessary to produce the required outputs		Customer order Corporate objectives

ATTRIBUTE	PRIMARY QUESTION	RATIONALE FOR QUESTION	SECONDARY QUESTIONS	TYPICAL EXAMPLES
	What are the key outputs of each key stage?	To establish that the process delivers results compatible with the organization's goals	What constitutes success for this process stage?	Products Services Competent staff Customers
Actions and decisions necessary to deliver the outputs of each key stage	What activities are performed to convert the process inputs into the required outputs?	To allocate the appropriate resources (time. materials, people)	What transactions take place to produce the outputs?	Flow chart of actions Process descriptions
	What is required to establish the acceptability of stage inputs and outputs?	To establish confidence that specified requirement are met	How do we determine whether inputs and outputs conform to requirements?	Specifications, Service level agreements, Contracts, Validation, inspection, test, evaluation
Competence needed to operate and manage process	What competences are required to deliver process outputs?	To ensure that the people we will assign can deliver the expected results	What skills, knowledge and experience are necessary to produce the required results	A typical competence might be: Ability to perform market research to establish customer needs and expectations
	Which processes deliver these competences?	To know that the competences will be delivered when required	How do you ensure people of the right competence are supplied?	Human resource development process
	How are these competences identified?	To ensure that competences are linked to the outputs required from the processes	How do you determine training and development needs?	Competence analysis HR Planning
	How is competence assessed?	To have confidence in the continuing ability of people to deliver specific outputs	How do we assess the effectiveness of training?	Competence assessment procedure
	How is competence maintained?	To have confidence that any competence gaps are closed effectively	How do we train and develop our people?	Training Mentoring Education
Role clarity	How is the work required to operate and manage the processes organized?	To establish that we have the appropriate combination of competences to accomplish the objectives efficiently and effectively	How is work organized?	Organization chart Team matrix

ATTRIBUTE	PRIMARY QUESTION	RATIONALE FOR QUESTION	SECONDARY QUESTIONS	TYPICAL EXAMPLES
	What are the roles of the people charged with performing process activities and making process decisions?	To ensure that people understand what results they are required to achieve and what constraints are imposed on them in doing this	What is the authority and responsibility of those engaged in the process? Who does what?	Role descriptions Job descriptions Job profiles Process descriptions
Information needed to operate and manage process	What information is necessary for each process stage to be performed as planned?	To ensure that we are fully prepared to perform the activity required	What documents do you need to carry out this task? What information do you need to achieve the objective?	Plans Specifications Instructions Procedures Results
	Which processes deliver this information?	To know that the information will be delivered when required	How do you ensure the information required is available?	All
	How is the currency, validity and integrity of this information maintained?	Without current and accurate information we cannot be confident that current requirements will be met.	What controls do you have over the information you use?	Database validation Data security
Physical resources needed to operate and manage process	What physical resources are required to deliver process outputs?	To ensure that the resources we will select can deliver the expected results	What equipment is necessary to produce the required results How much time do we need to meet the requirements?	Facilities, plant, equipment, finance, time
	Which processes deliver these resources?	To know that the resources will be provided when required	How do you ensure equipment of the right capability is supplied?	Purchasing Facilities management Asset management Finance management Plant management
	How are these resources identified?	To ensure that resources are linked to the outputs required from the processes	How do you determine resource needs?	Business planning Resource planning
	How is the capability of these resources determined?	To have confidence in the continuing ability of resources to deliver particular outputs	How do we determine resource capability?	Equipment evaluation Budgetary control Cash flow management PERT

ATTRIBUTE	PRIMARY QUESTION	RATIONALE FOR QUESTION	SECONDARY QUESTIONS	TYPICAL EXAMPLES
	How is the capability of these resources maintained?	To have confidence that gaps in capability are closed effectively	How do you maintain the plant and equipment in the required condition?	Planned/preventive maintenance Condition monitoring
Risks to stakeholders managed	What factors affect the ability of the process to deliver the required outputs?	To ensure the process will deliver the required outputs under the anticipated operating conditions	How are the risks to meeting process requirements identified and evaluated?	Failure to deploy information to point of use Failure to recruit staff with the right attitude towards work Failure to target correct market segments
	How were these factors identified?	To ensure a soundly based approach to used that will produce consistent results and reduce variation	How do you perform risk assessment?	Failure Mode and Effects Analysis Hazards analysis Risk assessment HACCP HAZOP Environmental impact analysis
	What action has been taken to eliminate, reduce or control the identified failure modes	To ensure that the results of the analysis are used to make the process is more robust	How have the results of the failure analysis been reflected in the design of the process?	Re-design product Train people Install safety equipment Introduce mistake proofing Use different materials or facilities
Process performance reviewed	What specific measures are used to measure process performance?	Unless there are clearly defined and commonly agreed measures we cannot judge whether the process purpose is being fulfilled	How do you know that the process is fulfilling its purpose? What would success look like? What would you measure to indicate whether process is fulfilling its purpose?	Conforming product Delivery on-time Response time Throughput per employee Tenders won
	What methods of measurement are used?	To have confidence in the results to be reviewed	How do you measure performance? How do you determine compliance? How do you collect performance data?	Audit Inspection Test Data collection & analysis Simulation Demonstration

ATTRIBUTE	PRIMARY QUESTION	RATIONALE FOR QUESTION	SECONDARY QUESTIONS	TYPICAL EXAMPLES
	What targets have been set for each success measure?	To quantify the standard of performance required	What standards have been set? What level of performance is required?	100% conformity to spec 99% on time delivery 2 min response 33% of bids won
	How often are the measurements taken?	To assess variation in performance	How often is compliance checked? What is the frequency of measurement?	Quantity related (every lot, batch, shipment) Time related (Days, Weeks etc) Task related (before or after) Event related (exit interview, won bid)
	How is the integrity of measurement maintained?	To have confidence in the repeatability, reliability, accuracy and precision of the results	How do you know the results are accurate? How do we ensure the results are not biased?	Independent validation Blind testing Peer review Calibrated equipment
Process efficiency reviewed	How do you know it's the best way of doing it?	To ensure that most efficient methods are currently used	Can we do it better? Can we achieve the objective by doing it a different way? Are there better ways of achieving the same result?	Benchmarking Best practice review Internal audit Peer review Innovation review
	How do you know that the activities are being carried out as planned?	To have confidence that the planned activities generated the process results	Are we doing it the way we said we would do it? Are we implementing the prescribed policies and practices?	Sampling activities Internal audit Supervision
Process effectiveness reviewed	How do you know it's the right thing to do?	To ensure that the process outputs as measured are aligned with the organizational objectives	What actions are performed to verify that the purpose remain relevant to the organizations goals? Are the targets still valid? Are the measurement methods still valid?	Customer focus review Market research Business impact analysis Strategic review

ATTRIBUTE	PRIMARY QUESTION	RATIONALE FOR QUESTION	SECONDARY QUESTIONS	TYPICAL EXAMPLES
	How often do you check process effectiveness?	To be alert to changes in needs & expectations	When was the last time you asked the customer what they wanted? How frequently do you confirm your understanding of stakeholder expectations?	Key events schedule Business planning cycle Strategic review cycle

Dealing with new demands

When the organization is managing its processes effectively it is achieving its objectives and satisfying the known demands. When is organization is presented with a new or changed set of demands, the business management system must be reviewed in light of these demands. The system will have been designed to fulfil current demands, therefore when these change it should not be assumed that the system will continue to fulfil ever changing demands. A common failing when demands change is to identify the process or activity that is affected and then change it. Because the processes are part of a system, any change in one process or activity might change the behaviour of the system in unplanned and uncontrollable ways. It is therefore necessary to treat all external changes as having the potential to impact system behaviour and to assess the overall impact before proceeding to change any of the components within the system. The natural place where these changes would be reviews is in the mission management process rather than the demand fulfilment process (see Figure 19)

One such new demand might be the introduction of an International Corporate Social Responsibility Standard (CSR) that customers begin to include among the constraints they require their suppliers to satisfy. The organization might be tempted to treat this standard as an objective that requires a response such as the appointment of a CSR Manager, the creation of a CSR Manual and a set of CSR Procedures and Records, a CSR Department with CSR Auditors conducting CSR Audits to a CSR Audit Programme.

The theme of this publication should encourage a more effective approach to satisfying the new demands.