Managing processes effectively

David Hoyle presents a new model for managing processes in the second of three articles

ISO 9001 is late to recognise that organisations are greatly influenced by the business environment surrounding them and any changes in that environment. However, it is possible to construct a model, as shown in figure 1 over the page, that marries together this observation in ISO 9001, Gharajedaghi's metaphor of uni-minded and multi-minded systems and the deduction from the definitions mentioned in last month's article that an organisation is a system of managed processes.

In this model the set of effectively managed processes (the organisation) is responding to the joint demands of the business environment and the stakeholders. It delivers outputs that produce satisfied stakeholders and the desirable outcomes expressed in clause 0.2 of ISO 9001. These interactions create circles of influence that extend outside the organisation into its operating environment.

However, were the organisation to ignore the business environment and the needs of its stakeholders it would have an ineffective system of managed processes. This would produce undesirable outputs that produce dissatisfied stakeholders and therefore create an undesirable outcome as illustrated in figure 2 over the page. In this cycle the organisation settles the customer complaint but does not change the system.
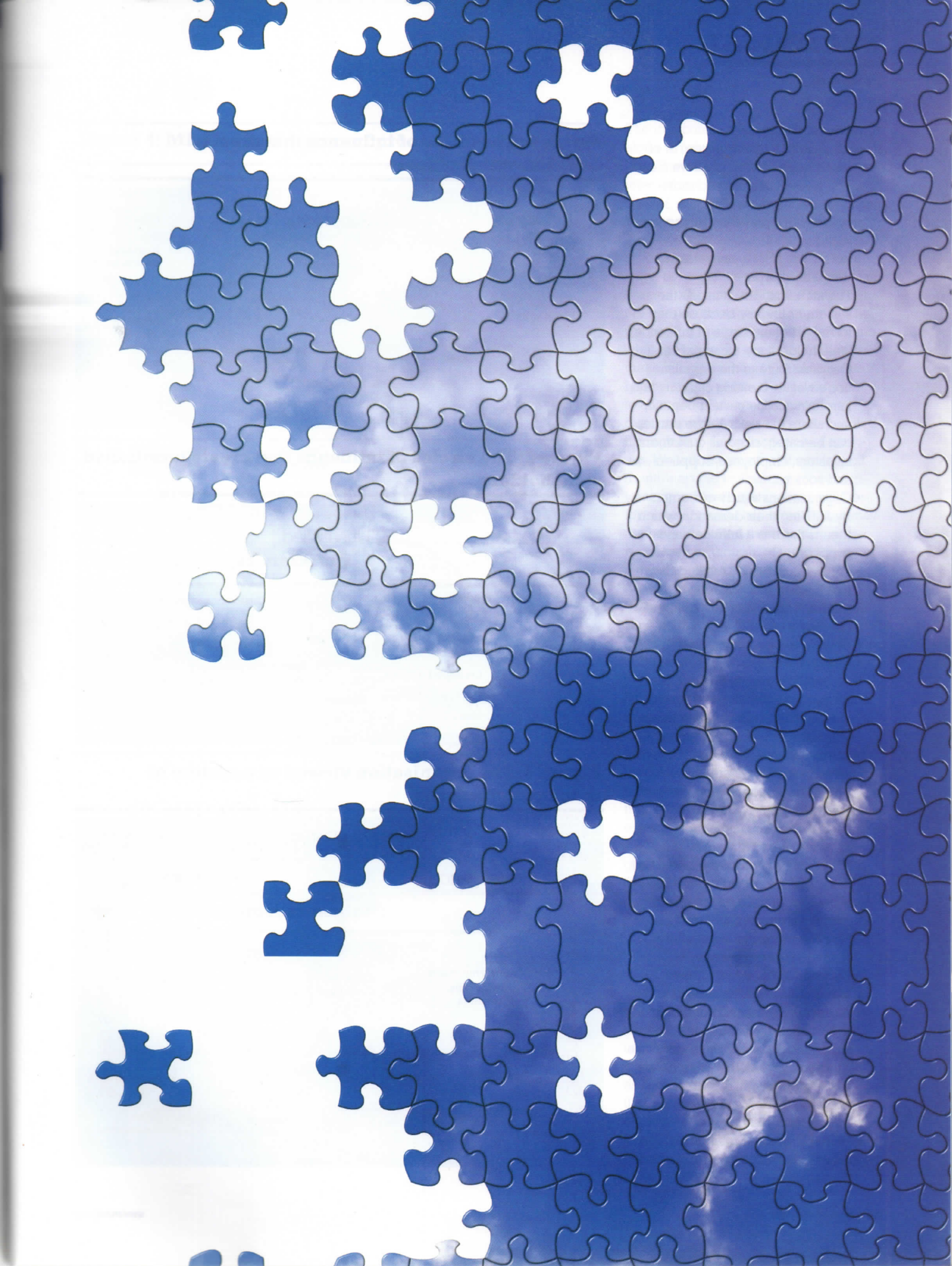
A new system model

If we drill down into this system of effectively managed processes we can produce a very different and more useful model, as shown in figure 3. (Compare with figure 2 in last month's article.)

This model displays several important features:

- The stakeholders sit inside the system boundary because they form part of the circle of influence. Stakeholders are those parties that contribute to the organisation's wealth-creating capacity and in return accrue certain benefits and share the risks. These parties can be categorised as customers, investors, employees, suppliers and society
- Organisations satisfy customers by fulfilling their demands, which means there is a fulfil demand process
- For demands to be fulfilled they first have to be created, which means there is a create demand process
- Both these processes need resources, which means that a resource management process is required that feeds the demand creation and fulfilment processes with capable resources when needed. Resources come from other stakeholders and are provided by suppliers, employees and investors
- All stakeholders in the model are now accounted for
- These three processes need to be designed and managed in such a way as to enable the organisation to fulfil its purpose or "mission". There is therefore a need for a manage mission process
- Success depends on understanding stakeholder needs and expectations and responding to their concerns. Intelligence and feedback gathered by the manage mission process, therefore needs to be promptly analysed and changes made to all processes to sustain success.

The model shows the relationship between the four key business processes.

Figure 1: The circle of influence that creates satisfied stakeholders
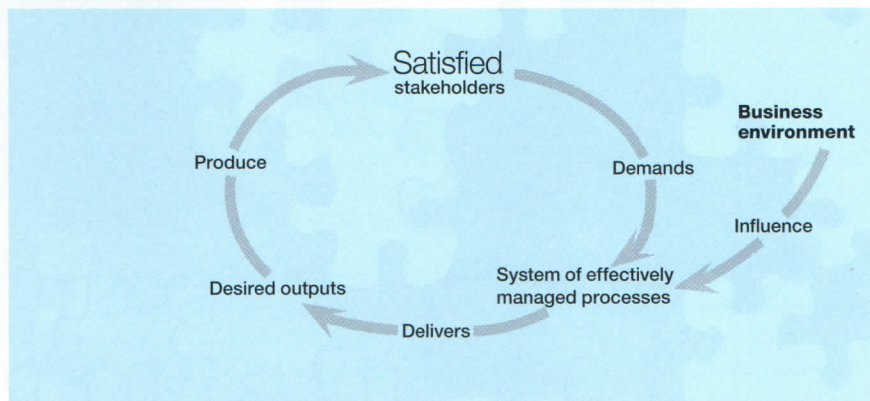

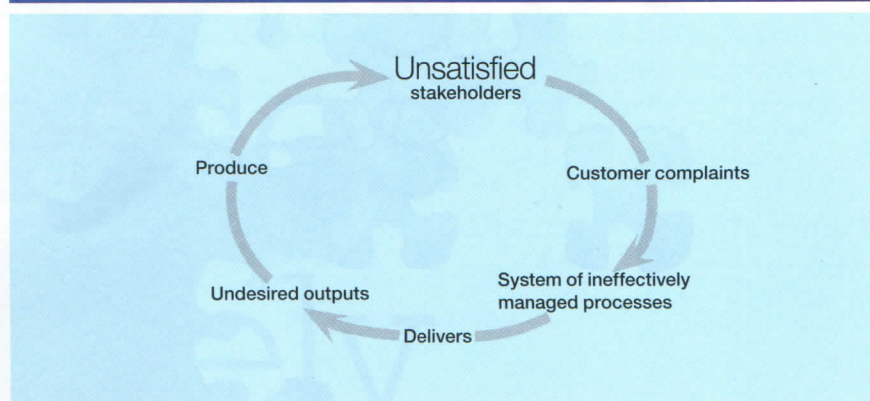### Figure 2: The circles of influence that create unsatisfied stakeholders

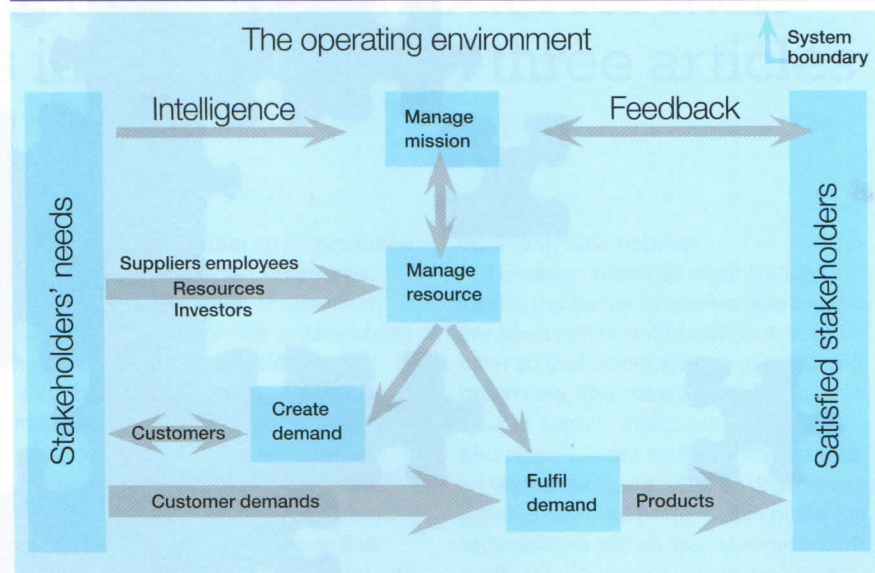### Figure 3: The organisation viewed as a system of managed processes
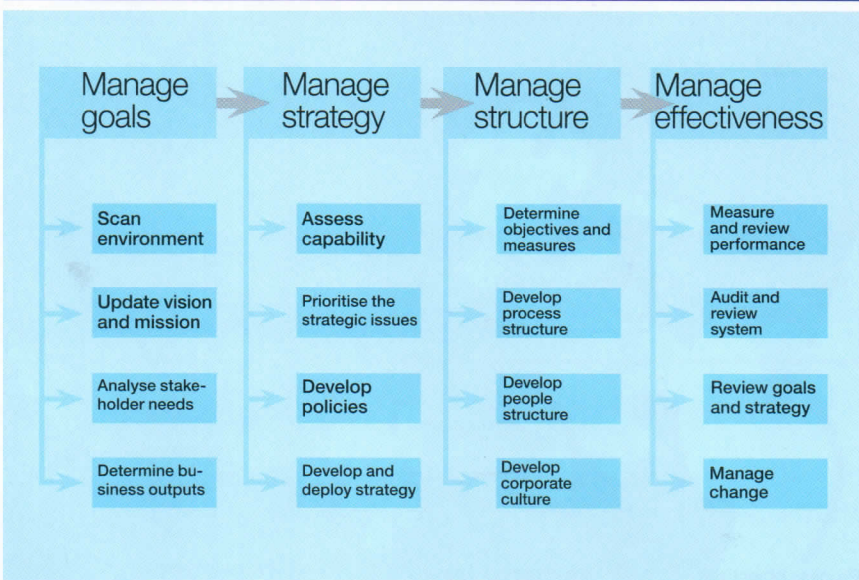
Figure 4: Mission management process overview

Manage goals	Manage strategy	Manage structure	Manage effectiveness
Scan environment	Assess capability	Determine objectives and measures	Measure and review performance
Update vision and mission	Prioritise the strategic issues	Develop process structure	Audit and review system
Analyse stake-holder needs	Develop policies	Develop people structure	Review goals and strategy
Determine business outputs	Develop and deploy strategy	Develop corporate culture	Manage change

Figure 5: A process hierarchy

Level 1 — Organisation (system)

Level 2 — Business process
- Mission management
- Resource management
- Demand creation
- **Demand fulfilment**

Level 3 — Work process
- Plan production
- **Produce production**
- Deliver product
- Support product

Level 4 — Activity
- Set-up machine
- **Make parts**
- Assemble parts
- Test parts

Level 5 — Task
- Operation 1
- Operation 2
- Operation 3

Figure 6: Simple process model

Inputs → Resources

Plan production → Produce product → Deliver product → Support product

Outputs
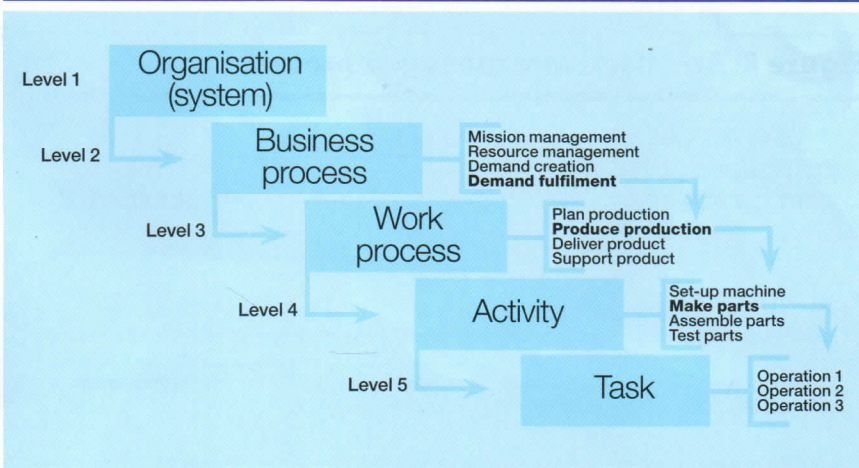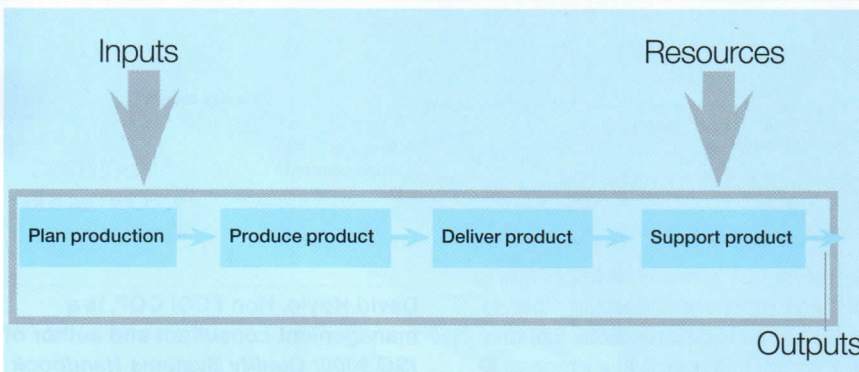

The interconnections are channels along which products or information flow. They are not intended to represent interactions.

Business processes

If we now model one of these business processes we can reveal the relationships between the various sub-processes. For example, figure 4 maps out the mission management process. The purpose of this process is to determine what the business needs to do, how to make it happen, how to establish if its happening as planned and if not how to change it. This resolves into four distinct work-processes, each executed through four discrete groups of activities. We will use some of these in next month's article to illustrate process interactions. Most organisations will perform the activities in the model but may not have identified them as discrete processes or thought of them as part of a mission management process.

A process hierarchy breaks down the system into levels and an example is given in figure 5. Many management system descriptions address levels four and five and fail to address levels one, two and three in any detail. The result is little recognition of the work needed to manage business and work processes.

If we now model the activities involved in a business process we can reveal the relationships between inputs, outputs and resources, as shown in figure 6. The inputs and resources can enter at any stage.

The model shows several distinguishing features that are contrary to the ISO 9000 model:
- The processes in the sequence are not interacting but are interrelated
- Inputs are not transformed but used
- Outputs are not transformed from inputs but created using resources.

The problem with the ISO definition is that it is inconsistent. The diagram that is shown on the ISO website (figure 1 in last month's article) presents inputs as requirements and resources. Also there are other words that can better express what we mean when referring to processes. For example, if someone's beliefs were changed then he or

she would be described as converted rather than transformed. Transform means change the form of or change into another shape, which is appropriate for making processes but is not appropriate for moving processes. In this case the appropriate term would be transfer or transport.

However, innovation processes create something from an idea rather than transform or convert something. It would therefore be less ambiguous if a process were defined simply as "a series of related activities that use resources to produce a result". The activities are related because they share a common objective but they are not necessarily interactive – there is no reciprocal action. In chemical processes substances might interact but with management processes, activities can cause action rather than interaction and are merely related by a common objective.

A managed process

If we now examine the activities involved in managing a business process we reveal another sequence, as shown in figure 7. Now the inputs are expressed as demands that include objectives for the output and constraints on how those objectives are to be achieved. The outputs therefore become satisfied demands. Process objectives and measures are included as well as process monitoring for determining if those objectives are being achieved. This is followed by process reviews that determine whether process improvement is necessary.

There are three improvement processes that respond to the questions:

- Are we doing it right? Answers will change process capability by increasing conformity
- Can we do it better? Answers will change process efficiency by increasing resource utilisation
- Are we doing the right things? Answers will change process effectiveness by aligning objectives and measures with stakeholder needs.

We can add these to the model (see figure 8) and apply these concepts at each level in the process hierarchy.

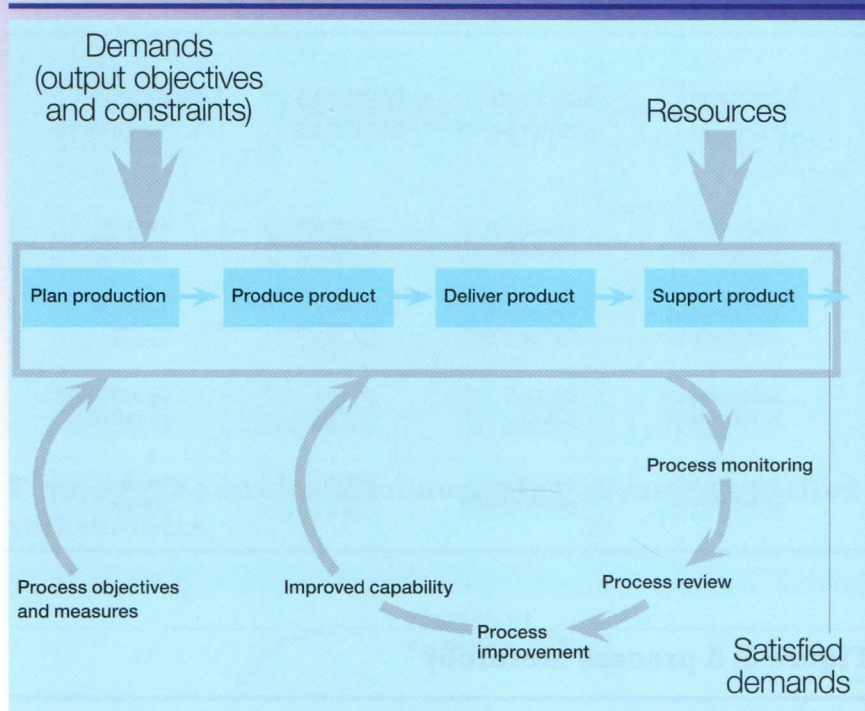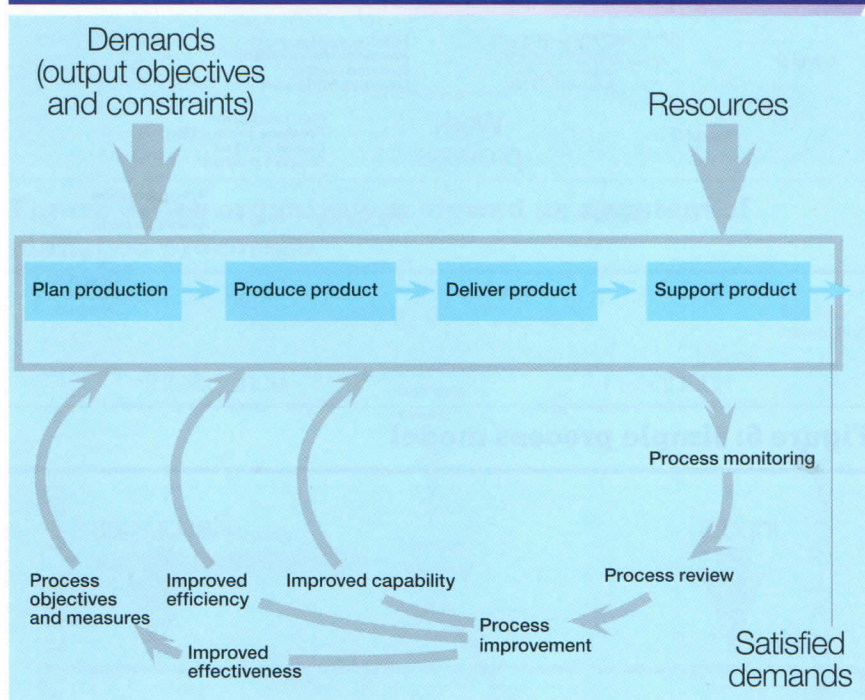In managing an organisation so as to meet the needs of all stakeholders, it therefore becomes more important to manage processes effectively than to focus on the transformations that may or may not take place in a process ⊙

Figure 7: A managed process

Figure 8: An effectively managed process

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