

# TickIT International

The quarterly journal of the TickIT software quality certification scheme ISSN 1354-5884

## Contents

Editorial .....	Page 2
Time to Trigger a Transformation? .....	Page 3
<i>by Peter Fraser</i>	
NCC's Fast Track to Process Assessment .....	Page 9
Customer Satisfaction Measurement .....	Page 10
<i>by Stephen Hampshire</i>	
BSI 2003 Events April-July .....	Page 14
Internal Auditors Must 'Up' Their Game .....	Page 15
<i>by Ken Johnson</i>	



IT 2Q03

This quarter we return to two of your favourite subjects, process management and customer satisfaction. The process management article from Peter Fraser challenges some of the current thinking, and in particular some elements in ISO 9000/2000, and will make you reassess your views and maybe change them!

Customer satisfaction is an issue being addressed seriously by many for the first time as part of the 9000/2000 demands. It is important that we get it right and don't waste our scarce time and resources. It is also some time since we addressed the subject in these pages, so the article from Stephen Hampshire is a timely reminder for us.



*Mike Forrester*

There have been recent developments on the TickIT training front, with attention being focused on internal auditor training. Up until now, internal auditors have attended the full TickIT Auditor course and in doing so have been tutored in some aspects which are of little use – now they are being catered for specifically. Ken Johnson gives us the lowdown.

You will have seen the DTI and NCC sponsored scheme 'Towards Software Excellence' referred to in previous editions; it now enters a new phase – an update from Daniel Dresner.

**All copy and letters to be sent to the editor, at the following address:**

TickIT Office, BSI, 389 Chiswick High Road, London W4 4AL.

Tel +44 (0)20 8996 7427 / Fax +44 (0)20 8996 7429

email: [tickit@bsi-global.com](mailto:tickit@bsi-global.com)

**Copy on disk or email please – Copy should NOT be sent to the publisher**

**Copy Deadlines:**

December 23 for publication January 15

March 31 for publication April 15

June 30 for publication July 15

September 30 for publication October 15

**For advertising sales contact**

Tina Shorter, Firm Focus, Folia, Flowers Hill, Pangbourne, Berks RG8 7BD.

Tel +44 (0)118 984 3949 Fax +44 (0)118 984 2493

email: [tina.firmfocus@btinternet.com](mailto:tina.firmfocus@btinternet.com)



Published by Firm Focus on behalf of BSI April 2003



# Time to Trigger a Transformation?

Are your objectives clear – and what might influence how you achieve them?

by Peter Fraser

## Introduction

How often do you question ‘perceived wisdom’? Do you ever give even a passing thought to the assumptions you make? For example, have you used an external standard (such as ISO 9001:2000) as the basis for your management system structure? Do you believe that ‘just because it is ISO (such as flowcharting symbols) it must be best practice’?

Examples of misplaced faith abound. For example, you would expect that the leading UK assessment bodies would know that one of the key characteristics of a business process is that it typically involves a number of departments, yet a recent ISO 9001:2000 transition assessment report recommended that ‘*Process Owners need to be ... tasked with describing their Departmental Processes*’.

Again, I have seen the ‘traditional’ definition of a process (*‘a set of activities that transforms or converts inputs by adding value to create outputs ...’*) ‘explained’ as: *‘inputs are the things that we need in order to be able to carry out these activities – for example, equipment, supplies, budgets, people, ...’*. Are there really organizations which ‘convert’ their staff and computer systems? These are ‘resources’ – *‘... the things that we need in order to ...’*.

Perhaps the answer to such misconceptions is to add an initial ‘A’ or ‘Q’ (for ‘Assess’ or ‘Question’) to the much-quoted Deming ‘PDSA’ (Plan/Do/Study/Act) cycle.

In my early programming days (do you remember decimalization too?), I typically spent up to 75% of the development phase thinking rather than coding. I would assess the stated requirements, anticipate the yet-to-be discovered additional requirements, consider the implications for other programs within the suite, refer to similar requirements for which we had already produced solutions and anticipate further developments. Only then did I plan and design the structure of the program.

Early lessons were to learn from mistakes and to remember what worked – reusable code, standard sub-routines and so on – ensure consistency and reliability. So why not apply the same approach to management? Benchmarking against best practice is all very well, but you could perhaps achieve more by recognising and avoiding the worst practice (or at least the mistakes and misleading advice) of others (and of yourself).

Next column

## The ‘Process Approach’

To apply the ‘process approach’ advocated by ISO 9001:2000 effectively, you must adopt what can be a radically different (but entirely logical) view of your activities. This requires that you recognize, understand and manage your business processes. These processes already exist, because that is how day-to-day business operates – but many managers find it difficult to recognize their processes, never mind manage them.

Unfortunately, the language, presentation style and structure of the ISO 9000:2000 series of standards are such that any manager who does not have a thorough grasp of the basic concepts of process management will almost certainly be confused. And it is not only managers who are affected – external assessors, consultants, training organizations and other advisors suffer the same difficulties, and do not always realize that they are compounding the problem.

The effective management of an organization’s business processes also necessitates an appreciation of how a number of disparate influences can affect the performance, and even the design, of these processes. This requires a manager to see and understand the organization as a ‘system of processes’.

Managers (and staff) must change the ‘traditional’ view of how an organization operates and is managed. The focus on the flow of work has to be through and amongst departments and must ignore the artificial boundaries between departments. Perhaps this is an area where software companies should be at an advantage, since they regularly have to analyse a user’s processes before they are automated.

But a major source of confusion for many managers is ISO 9001:2000’s definition and use of the term ‘*process*’ itself, which is compounded by the different definition in ISO 9000:2000 (Fundamentals and Vocabulary).

## So What is a Process?

I find that the ‘traditional’ definition of a process is confusing at best, and ignores some essential elements that are key to successful process management. The definition seems to be rooted in the same manufacturing or continuous production process background associated with ISO 9000:1994, which caused the service sector such difficulty in interpretation. Forget



about ‘... *transforms an input by adding value to create an output.*’ In particular, forget about ‘*inputs*’ and ‘*transformations*’ – they are concepts that get more confusing the more people try to define or explain them. For example, ‘*an input is transformed but a resource is left intact*’ – but ‘*staff*’ and ‘*equipment*’ are then given as examples of both. Or ‘*a methodology is an input*’ – which implies that after you use it once, you’ve lost it (since it will have been ‘transformed’).

One of the key questions asked in process improvement initiatives (*‘does this step add value?’*) actually contradicts part of the definition ‘... *an input by adding value to create an output.* The implication of added value (or even of transformation) is no more justified than Integrated Management’s claim to ‘achieve optimum use of resources’. The intention is worthy, but by no means all processes have been defined efficiently or are managed well, nor are all staff aware of and focused on achieving the process objectives.

### With the Best of Intentions

I do not believe that most workers go to work with the intention of transforming anything – their objective is ‘to get the job done’ and perhaps ‘to do their bit’. Most people don’t ‘do’ transformations – and most if not all the steps in a typical process do not transform anything. And don’t get hung up (as many advisors do) on the idea that you must always find an ‘output’ from one process to create the ‘input’ for another. As an example of where the ‘*input – transformation – output*’ route can lead, I read the following in a UK assessment body’s newsletter at a client last week:

*‘All processes need to have measurable outputs which form the inputs needed by other processes. The organization should establish who uses the outputs and for what purpose. As these outputs drive continual improvement, it is a good idea to ask what improvement is driven by a specific output.’*

I question whether ‘*outputs drive continual improvement*’ – it is the attitude of management and staff, the company culture and the business environment which drive this. Information gathered from processes may be useful, but it is no more than a navigational aid to the ‘driver’. An improvement in a process will normally be made (and measured) in relation to other outcomes (rather than outputs) from

processes, such as cost and waste reduction.

The same article also contains examples of processes. One is ‘*recruit staff*’. The inputs listed include ‘*job adverts*’ (which to me is an output), ‘*employment laws*’ and ‘*selection process*’. I cannot see any benefit in trying to construe these as being ‘transformed’ – ‘employment law’ patently is not changed as a result of an organization recruiting staff, the ‘job advert’ stays on file for as long as you want to keep it. The ‘selection process’ is, if not an activity in the recruit staff process, at least a sub-process of it.

[What I did like is that the article also states ‘... *the aim (of a process approach) being compatibility between an organization’s business objectives and a management system which drives those objectives and measures progress towards their achievement.*’ The key should be to have processes whose objectives help to deliver the corporate objectives.]

### A Trigger for Action

I suggest that you concentrate instead on the following definition of a business process:

***‘a sequence of related tasks that is triggered by an event and which is intended to achieve an objective. It uses resources and is subject to influences.’***

The ‘trigger’ event can be an action (‘a customer gives you an order’) or a decision (‘we’ll carry out a management review next week’). Whatever it is, you are working towards achieving something as soon as the trigger event has started the process. This **objective(s)** will typically include the production of an **output** (a ‘product’ or ‘deliverable’ – something which is produced – which may well be related to the trigger event); but you may also need to allow for other **outcomes** or consequences (planned and unplanned). An output is ‘put out’, whereas an outcome ‘comes out’, not necessarily where (or when) you expect it to appear (see Figure 1).

In the traditional approach, you might list the ‘inputs’ to a procurement process as: a requisition form, an approved supplier list, a product catalogue, an accounts clerk and even a computer system. None of them is ‘transformed’. To me, the trigger is that someone identifies a need (by looking in an empty

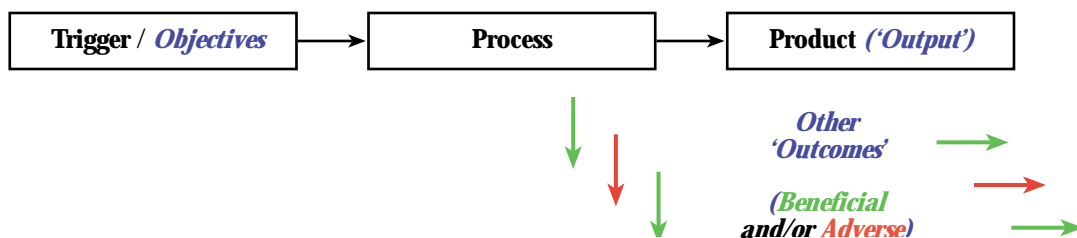


Figure 1: Outputs and Outcomes

Next column

bin, by reading a computer printout, by checking a stock level on a computer screen). That initiates an action – such as sending an email to the purchasing department or filling in a requisition form.

I do not find it helpful to be told that the ‘identification of need’ or the requisition has been ‘transformed’. The need was identified, it triggered something, it is now a past event, but the requisition is still on file. What is the benefit in looking for a ‘transformation’? When the requisition reaches the purchasing department (as a piece of paper or a computer generated request) that in turn triggers the raising of a purchase order. I contend that the requisition still exists (you can probably see it listed on a computer printout). It is not ‘transformed’ – it is the trigger for someone to generate a purchase order. And so it goes on.

### Resources and Influences

Along the way, you will almost certainly need **resources** – irrespective of whether they are consumed, ‘transformed’ or remain intact. The key point is that they must be available for the process to function (ISO 9001:2000 requires you to manage them).

You will also need to be aware of (and manage) the **influences** that may affect and shape how the process works (or even why it exists). Some of these you cannot control (such as legislation); others you may choose to apply (such as your policy on staff development) and others you should consider (such as the risk of the process not working as planned and the need to measure how efficient the process is). The need to achieve an objective is itself a key influence on the process.

Figure 2 shows the simple structure of any business process. The process is a sequence of steps that is initi-

ated by the trigger event, with the production of an output as the objective. The resources can be thought of as supporting or ‘shoring up’ the process from below, and the influences ‘bear down’ on it from above.

Drawing the picture is easy. What may not be so easy is:

- identifying the resources required,
- anticipating possible influences and their implications for the operation of the process,
- keeping the objectives in sight.

The resources required will typically include:

- people,
- equipment,
- forms,
- checklists,
- reference documents and other sources of information, some of which may be external to the organization; (it is surprising how many organizations do not have proper control over this).

Influences can include:

- the objective(s) of the process *and* of the organization,
- internal policies and values,
- external standards and legislation (can also be a resource),
- risks and critical success factors,
- the need (or desire) to measure performance,
- customer and other stakeholder requirements and expectations,
- assumptions, attitudes and prejudices,
- the need to make best use of available resources,
- the need to manage other outcomes from (that is, consequences of) the process.

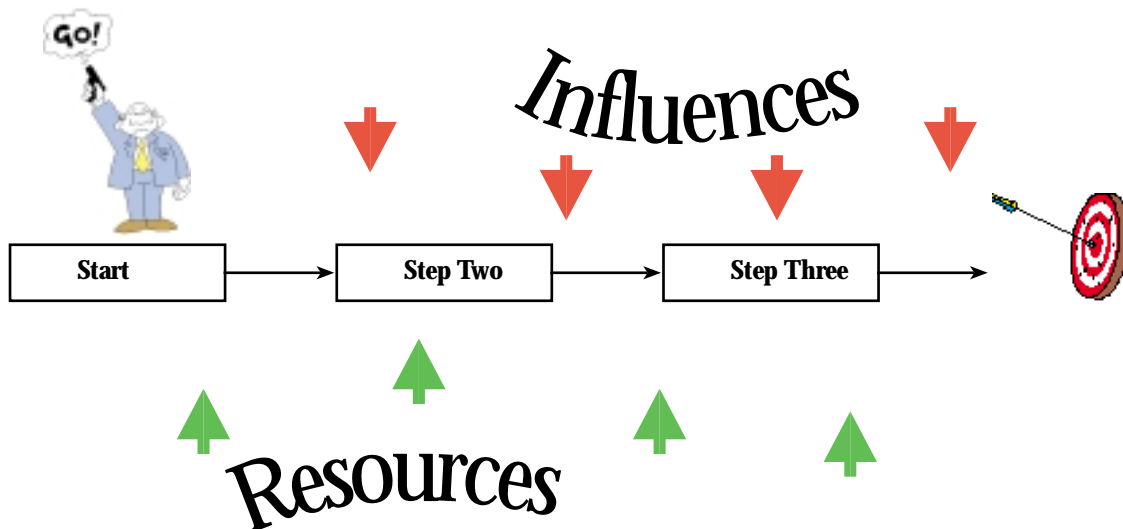


Figure 2: The Key Elements of a Business Process

Next column

Individual Instances Within the System

So – what is a **process**? It can be anything from ‘making a decision’ through ‘organising a meeting’ to ‘producing training materials’ and ‘tendering for work’. It can be ‘defining a process’ or ‘running a business’.

There is a common lack of appreciation that processes are dormant until triggered – they don’t ‘do’ anything; much as a sleeping dog doesn’t bark (or bite?) until you step on its tail. And a process is not a generic, uniform entity that is always the same. Each time a process operates, some of the elements will be different, or may not even exist. If you manufacture to order, the customer and requirements may be different – different staff and machinery may be involved and different suppliers and raw materials may be used. The trigger and the result (the order and the satisfaction of the order) may be the only ‘constants’. Each ‘journey’ through the process is a unique ‘instance’ of the process. It can be useful to think of each instance of a process as a separate ‘project’, to be managed individually.

And what is a **management system**? It is:

***‘the structure, processes and resources needed to establish policy and objectives and to achieve those objectives’.***

This definition includes (or alludes to) all the important elements of an organized approach to management. A ‘system’ is defined as a *‘set of interrelated or interacting elements, considered as a connected whole’* –

not very helpful, but vague enough not to cause any bother either. It is the elements of the management system that need to be considered in more detail. When you apply a ‘process approach’ to running your business, you need to:

- clarify your business objectives,
- specify how you will achieve them (your strategy and processes),
- recognize all the resource requirements and influences which may affect the business processes,
- manage them effectively.

It may help to think of a management system as a reflection of the business plan – the plan sets out what you intend to do over the next 12 months (say), and the system says how you will manage the doing of it.

***The ‘process of managing’ IS ‘managing the process’.***

Do one successfully and you will achieve the other – and you will also address the requirements of ISO 9001:2000 and EFQM.

How Do You Define a Process?

After you have identified a process (perhaps by identifying the trigger event and its corresponding objective), you should define:

- what is done (step by step),
- how it is done (if further explanation is needed),
- who is responsible for (and who else is involved in) each step,
- what resources are needed,

MandOS Example 1 Planning and Organising		Managing Director	Board Members	Departmental Manager(s)	Process Owner	Member(s) of Staff	Process Ref: 1-05	Revision: 1.1	Revised: 15/02/03	Owner: Managing Director	Approver: Board Members
Define How You Operate and Manage							<input type="checkbox"/> Responsible	<input type="checkbox"/> Consulted	<input type="checkbox"/> Informed	<input type="checkbox"/> Assist	
Seq	Task Title						Task Description				
1.0	PREPARATION						ie why does the organisation exist? (eg "to promote best practice in business process management and to develop, market and support software to support this approach") [Refer To BP2002 - Business Plan]  • small number of top level steps ("process groups") (eg plan and organise / develop software / raise awareness / identify prospects / provide software / manage resources / review and improve) - then a small number of processes within each group. Structure your system accordingly.  Who & what may affect how the business operates, or may be affected by the way the business operates? eg: staff / shareholders / competitors / legislation / policies / risks / assumptions / company culture?  Physical. Staff and relationships - skills and knowledge - suppliers, sub-contractors. Allocate key responsibilities				
1.1	Clarify your (ie the organisation's) objectives	<input type="checkbox"/>	<input type="checkbox"/>								
1.2	Consider how you will meet these objectives	<input type="checkbox"/>	<input type="checkbox"/>								
1.3	Identify the influences on how you (intend to) operate	<input type="checkbox"/>	<input type="checkbox"/>								
1.4	Identify the resources required	<input type="checkbox"/>	<input type="checkbox"/>								

Figure 3: A Deployment Flowchart using the RACI Symbols

- what may influence the design and working of the process.

A flowchart is commonly used to define the sequence of tasks, the involvement of people (and organizations) and the use of documents and other sources of information. But remember that 'process mapping' is NOT process management – it is only an initial step after you have identified your processes. Mapping a process is a good way to discover how things are done now – but do not be surprised to find duplication, lack of clarity and contradictions. Major changes can come later – you need to understand the current process before you can improve it. This means being clear about the roles you are asking people to perform, so that you can ensure that the appropriate skills and training are available. [We use a variation of the oil industry's 'RACI' methodology – Responsible/Assists/Consulted/Informed – to identify role involvement – see Figure 3].

### Putting a System Together – Where to Start

Start at the top! Clarify why the organization exists. State the 'mission' (objective) or do the 'elevator test' (30 seconds to explain what the organization does/ why it exists). For example, your objective may be *'to develop, supply and support the most comprehensive and easy-to-use software for business process management'*.

Then define the policies you follow – the intentions and principles which provide a framework and guidance for what you want to achieve and how you will operate. For example: *'to establish a reputation for explaining the underlying principles clearly and simply – to identify and develop relationships with referrers and consultants who understand the approach and can promote the software – to produce high-class software which is easy to use and provides a practical method for an organization to define and communicate how it works...'*.

Specify what you will do to achieve your objectives and implement these policies (that is, list the operational processes). For example: *'plan and organize how you work – promote the organization – identify and contract with potential customers – develop software – install and support software – review progress and make improvements'*. You also need to ensure that you have and maintain the means to achieve the above. So your management system (and therefore your business operations) can be defined as a simple network of processes by recording:

- what you do and how you do it,
- what you need to manage (resources, people, influences) to ensure that these core processes are efficient,
- how you ensure that you comply with relevant standards and plans, and make improvements where possible.

*Next column*

Almost all organizations do the following:

*plan and organize,  
get and do work,  
manage resources (including people),  
review and improve.*

Typical processes within this structure might be:

#### Planning and Organising

- prepare a business plan,
- define policies and objectives and how you will implement them,
- define and manage operational processes,
- allocate top level responsibilities for key functions.

#### Getting and Doing Work

- develop a marketing strategy,
- design and develop new products,
- promote the business,
- find potential customers,
- tender/sell,
- initiate/manage/complete a project.

#### Managing Resources

- equipment/premises/finance/information /documents and records.

#### Managing People and Relationships

- staff, suppliers, agents and so on.

#### Reviewing and Improving

- review processes,
- fix problems and make improvements,
- review operations,
- review the business.

But you should realize that it may be perfectly appropriate for an organization to regard, say, 'getting and doing work' as a single process, without the need for subdivision. You should also recognize the danger of defining individual 'parcels of work' within a department, and then trying to build them into a system structure – the staff involved may not even be aware that processes exist. And 'preventive action' does not need to be a process – it should be part of your processes for designing and managing processes, tendering for work, planning a project and so on.

Structuring a system: our local Chamber of Commerce has a members' directory on its website. The first choice offered is a list of seventy or eighty business categories. If you have 20 minutes to spare, you may be able to find what you are looking for – I have never had the patience. A limited number of top level categories such as Professional Services / Food and Drink / Oil and Gas / Manufacturing would allow you to cut out five-sixths of the directory at a keystroke. You must make it easy for users find what they want.

## The Implications for ISO 9001:2000

First, a word of warning – do **not** use the ISO 9001:2000 standard as the basis for designing your system (see [www.mandos.co.uk/articles/ArticleQW3.PDF](http://www.mandos.co.uk/articles/ArticleQW3.PDF) for an article published in *Quality World* in December 2001 which explains why). The standard is designed for assessing a system **after** it has been developed and implemented. The aim should be to describe your system in a format and to a level of detail that is appropriate for and of benefit to the business.

Decide who is going to use the system – what level of knowledge do they have, and how will they use it? This will allow you to decide on the level of detail you need, and on the most appropriate medium (paper or electronic, or a combination of both).

Then define a simple system structure with a limited number of top-level processes (cf. above), broken down into sub-processes as necessary. Use a clear and logical numbering convention. Make reference to any processes that you outsource.

Allocate a process owner for each process. This person should be responsible for ensuring that the process works, for making sure that it is fixed if it goes wrong, and for seeking and implementing improvements. He or she should ensure that:

- required resources are available,
- competent staff are allocated to work in it,
- sufficient information is available to monitor how well the process is working and if it is achieving its objectives.

Create (or tidy up!) a document register. Define where documents, records and other sources of information are kept, how they should be used, how long they should be retained and who is responsible for them.

Each process listed should then be reviewed to ensure that:

- the objective(s) are clearly defined,
- suitable performance measures have been defined,

- appropriate records are maintained to provide evidence that the process has been followed.

As a guide, a typical SME (small or medium sized enterprises) will have no more than 25-35 processes (some will have far fewer). Remember that your objective should be to define how you operate in such a way that you can ensure that work is done as planned – do not be afraid to defend your system against criticism from any external assessor who makes a subjective interpretation of what the new standard means.

## The Sequence and Interaction of Your Processes

One area which would benefit from much closer consideration is the requirement to define the 'sequence and interaction' of processes. There is a widespread belief that drawing a simple diagram is sufficient, but this approach can indicate that management has not understood the essential concepts required for managing a 'business process'. Whilst it is true that a typical business has a small number of 'core' processes, and of other processes which support them, you are not giving a complete picture by merely listing 'sell – make – deliver – send the invoice' (for example) in sequence, with a few arrows to indicate that they are supported by 'manage equipment, manage suppliers and so on'.

The 'sell – make – deliver – invoice' relationship is not linear. Individual instances of the 'sell' process, for example, happen independently, each with a possible impact on the 'make', 'purchase' and 'promote' processes and, in many cases, on other instances of the 'sell' process itself. The 'make' process can affect the 'sell' process, the 'train staff' process can affect the 'sell' process, and so on.

A prime suspect for this confusion is the so-called 'model of a process based management system' in ISO 9001:2000. It is superficial and trivializes the complexity of process interactions. The relationships are too involved to sketch in this way. The key to under-

### MandOS Example

#### Process Groups

0 Introduction
1 Planning and Organising
2 Promotion and Communication
3 Service Delivery
4 Managing Resources
5 Managing People & Relationships
6 Reviewing and Improving

#### 1 Planning and Organising

Ref	Title
1-01	Prepare a Business Plan
1-02	Implement a Business Plan
1-03	Define Policies
1-04	Allocate Responsibilities
1-05	Define How You Operate and Manage
1-06	Comply with an External Standard

Draft

Info

Document Register

Figure 4: A System Structure That Works – short list of top-level process groups, with processes listed within a selected group

Next column

standing and managing the processes is to recognize that the performance of a number of other processes can be a key influence on a specific process.

So – use ISO 9001:2000 as a guide to refine your process definition and management, but understand and record them first. And if you look at the principles of the EFQM model, you will quickly realize that it, too, is ‘process management’ in another guise. The ‘enablers’ are resources and influences, the ‘results’ are measures of how well your objectives have been met and ‘processes’ lie at the heart of the model – and of your organization.

Peter Fraser is a founding director of *Mandos* ([www.mandos.co.uk](http://www.mandos.co.uk)), which was established to develop a model process-based management and operational system, training workshops and supporting software (*Prømanade*) for SMEs and to promote its understanding and use. The system and software are now used by a number of consultancy, training and software organizations (such as the Nimrod Software Team at RAF Kinloss), as well as by SMEs in a range of business sectors. In his earlier career he was Systems and Programming Manager for a Scottish bureau and software house and later a Managing Consultant for KPMG Management Consulting. He can be contacted at [pkfraser@mandos.co.uk](mailto:pkfraser@mandos.co.uk)

