

Management *action* notes



Value Management - The Best Practice Approach for Maximising Productivity, Performance & Value for Money

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Today's competitive environment requires organisations constantly to seek ways to maximise productivity, performance and value for money. Value management is a proven discipline used by many of the world's most successful organisations to remain competitive. Value management is a structured framework for reviewing any product, process, project or service. It enables those who have first-hand knowledge of the subject being studied to optimise value for money and performance through a series of analytical and creative workshops. Value management lies at the heart of the success of many world-class companies.

Benefits

Value management benefits include:

- ✓ Quantum increases in productivity
- ✓ Continuous improvement of quality and performance
- ✓ Enhanced competitiveness and profitability
- ✓ The elimination of waste.

Value management can be a powerful framework for integrating initiatives aimed at improving productivity and quality.

Audience

These notes are relevant to all directors and managers.

The series

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Value Management - The Best Practice Approach for Maximising Productivity, Performance & Value for Money

“Value management, value analysis and value engineering have been around for many years and offer major opportunities to improve performance in many areas of UK business, commerce and within the public sector.”

*Chris Voss
Professor of Operations
Management
London Business School*

Today's competitive environment requires organisations to constantly seek ways to maximise productivity, performance and value for their customers and stakeholders. Those that do not usually lose customers, market share and may ultimately go out of business.

Value management is a world-class approach used by a wide range of organisations to optimise performance, including:

- ✓ Automotive, aerospace and other manufacturing businesses
- ✓ Construction, infrastructure and transportation businesses
- ✓ Service businesses such as retail, catering and travel
- ✓ Central and local government, police, fire and healthcare.

Size is not important. Small to medium sized firms are particularly able to use value management to enhance their productivity and competitive position. Value management not only enables organisations to survive the competitive environment, but to thrive. It does this by bringing together and integrating the following key dimensions that affect improved performance.

1. Management style

A creative management style - committed to customer and stakeholder value, teamwork, innovation and change - lies at the core of value management. Management must ensure that the relationship between the costs of a product or service and its desired outcomes are understood and improved through an ongoing programme of studies.

2. Teamwork

Good teamwork is vital for value management studies, ensuring that improvements are in line with customer expectations. Studies involving suppliers and customers can also improve relationships, helping all sides meet their goals. Value management creates consensus.

3. Methods and tools

A range of methods and tools are used in value management studies. A 'Job Plan' keeps the team on track. Target-setting gives focus to improved performance. Some tools relate function and cost, and challenge the purpose of the product or service. Market research and other techniques are also used.

4. The competitive environment

Market trends and the threats and opportunities posed by competition need to be reflected in value management studies as do new

technologies, legislation and other factors. Internal resources also need to be included such as financial limitations, staff skills and training needs.

Surely we do this already?

Although your organisation may be doing some of these things some of the time, do you really have a fully-developed value management programme in place? Try answering the following questions about your value for money/productivity programme:

Your value for money/productivity programme	Yes	No
1. Is it visibly supported by senior management?	<input type="checkbox"/>	<input type="checkbox"/>
2. Does it generate a clear programme of studies?	<input type="checkbox"/>	<input type="checkbox"/>
3. Do studies involve structured team-based workshops?	<input type="checkbox"/>	<input type="checkbox"/>
4. Do studies employ a range of analytical tools?	<input type="checkbox"/>	<input type="checkbox"/>
5. Do they involve creative brainstorming?	<input type="checkbox"/>	<input type="checkbox"/>
6. Are your studies led by a qualified value practitioner?	<input type="checkbox"/>	<input type="checkbox"/>
7. Do studies follow a structured 'Job Plan'?	<input type="checkbox"/>	<input type="checkbox"/>
8. Are your customers involved in the process?	<input type="checkbox"/>	<input type="checkbox"/>
9. Are your key suppliers involved?	<input type="checkbox"/>	<input type="checkbox"/>
10. Are study teams achieving sustained improvements?	<input type="checkbox"/>	<input type="checkbox"/>

If the answer is 'no' to much of the above, value management should substantially enhance your organisation's performance.

Value Management Framework

The Value Management Framework, shown in Figure 1, is a model based on world-class best practice and provides guidance on how to secure and sustain best value for your customers and stakeholders.

The Framework calls for clear value management policies to support and reinforce the organisation's general management goals. This requires a programme of reviews of the products or services supplied to customers.

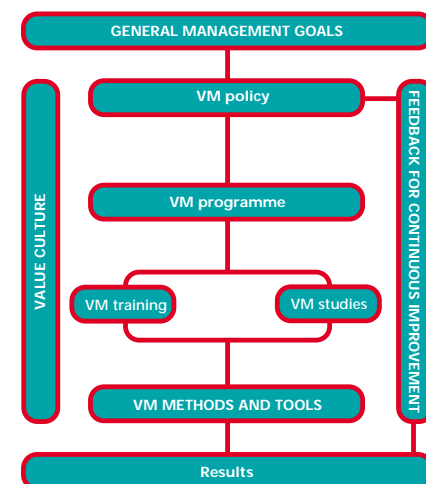
Training ensures the success of individual studies and a wider commitment to better value. Importance is placed on selecting the right methods and tools to suit the needs of particular studies.

Results are all-important and feedback demonstrates whether performance improvement targets have been met. Success also depends on a cultural climate that supports the processes of change and this too is addressed in the Framework.

Although some organisations use value management on an ad-hoc basis, the greatest benefits are usually obtained by using it throughout the organisation.

The main elements of the Value Management Framework are described on the following pages.

FIGURE 1
Value Management Framework



source: BS EN 12973:2000 standard on value management

Value management policy

Value management starts with top management who recognise and champion the need to develop a value policy in line with the organisation's mission, objectives and corporate and competitive strategies. Issues to be addressed include:

- ✓ Securing world class performance and productivity growth
- ✓ Re-equipping/retraining for new technologies and markets
- ✓ Pricing strategy for competitiveness and profitability
- ✓ Identifying major market trends and customer needs
- ✓ Increasing exports and developing overseas markets
- ✓ Developing new market opportunities
- ✓ Meeting public sector performance targets where required.

With a clear policy framework, the organisation is well equipped to develop and pursue a value management programme.

The earlier the better

"It is far better to introduce value management at the start of a project where it is a powerful proactive design tool. As the project progresses investment increases and there are fewer opportunities for improvements."

*Matthew Locke
Head of Value Management
Bovis Lend Lease*

Effective innovation and new product introduction are vital in today's markets. The earlier value management methods are applied, the greater the performance and cost benefits. Figure 2 shows how the potential for savings falls as time passes and how the cost of changes rise.

This is true for all sectors of the economy. New products and services that are inadequately designed and require change waste time and effort and also potentially damage an organisation's reputation.

Value management programme

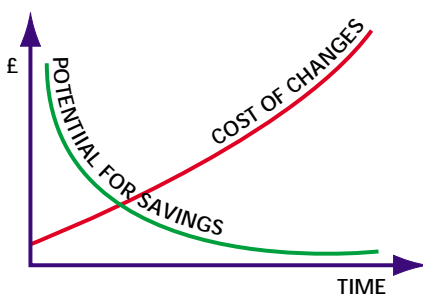
Value management is implemented through programmed reviews of products, processes, projects, services and functions to eliminate unnecessary cost and secure best value. Each project requires top management support and direction to ensure that study teams keep to time and target. A manager, sometimes called a value manager, ensures that:

- ✓ Suitable projects are included in a prioritised programme
- ✓ The terms of reference for projects or studies are clear
- ✓ Teams are selected to match the demands of each study
- ✓ Any training needs are identified and organised
- ✓ Expert facilitation skills are utilised
- ✓ Teams work to schedule and to agreed performance targets
- ✓ Findings are reported to management and targets are met
- ✓ Proposals are fully implemented and targets met.

Organisations of all sizes need to use expert facilitators - these can be internal or external. Targets for cost, productivity and quality improvement should be ambitious.

FIGURE 2

Value Management - the earlier the better



Value management studies and methods

A commonly used value management method is value analysis. When used at the design stage in industry and construction, the term value engineering can be used. Value analysis comprises:

- ✓ The 'Job Plan' - to keep studies on track
- ✓ Functional analysis and other tools - to analyse the product, project or service being studied and ensure that stakeholders' needs are met.

During a study, the team leader organises workshops at which the product, process, project or service is systematically explored, challenged and improvements 'brainstormed'.

The outcomes of studies are often substantial and far-reaching. Some organisations discover that they can improve quality and response and simultaneously reduce the cost of a product, process, project or service. Others discover that they are targeting the wrong market or that their product range or services need to be redefined.

There are also intangible benefits such as improved staff cost-awareness and improved commitment and motivation due to being involved in teamwork. Value management addresses unnecessary cost and usually saves that most precious commodity - *time*.

Training

To obtain the long-term benefits of value management, it is advisable to acquire or develop appropriate expertise. The extent to which you train staff in-house or use external practitioners is a matter of choice and balance. Value management also calls for training to develop a value culture by involving:

- ✓ Senior managers responsible for value management
- ✓ The leaders of study teams who will use methods and tools
- ✓ Team members to enable them to participate effectively.

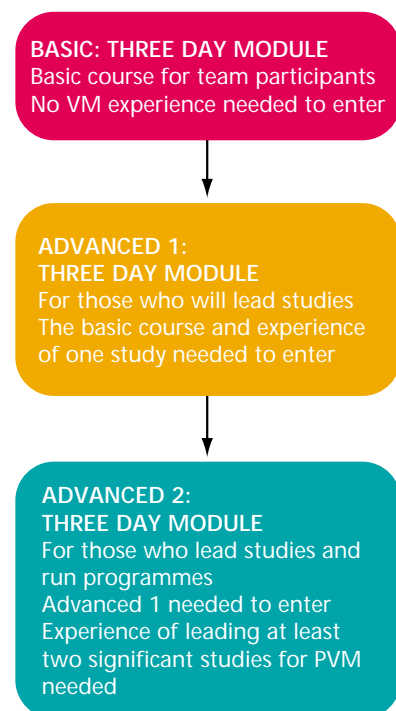
Training is often customised to meet specific project or study needs and typically consists of short presentations coupled with practical workshops. In addition to training, the professional development route for value practitioners who lead study teams and manage programmes typically takes the form of three-day training modules which can be integrated with live projects.

The UK is the first European Union member to fully implement a new European training and certification system for value management. This leads to the new 'Professional in Value Management' (PVM) qualification (see Figure 3). The Institute of Value Management accredits courses, trainers and PVM holders in the UK - see the back page for contact details.

"To me it (value management) is a fundamental building block for our future success. It is becoming embedded in our way of doing things and is becoming second nature"

*Bernie Davison
Operations & Manufacturing
General Manager
Calsonic*

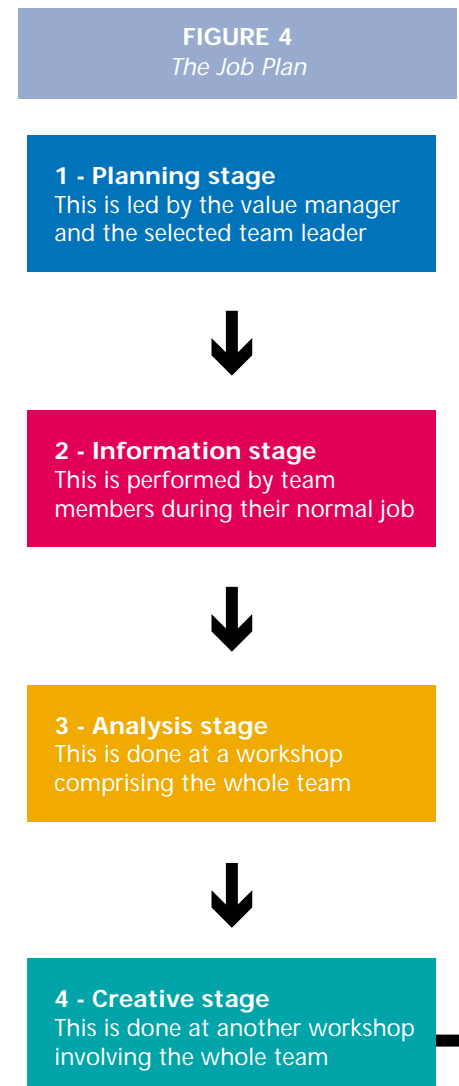
FIGURE 3
Training structure and route to Professional in Value Management

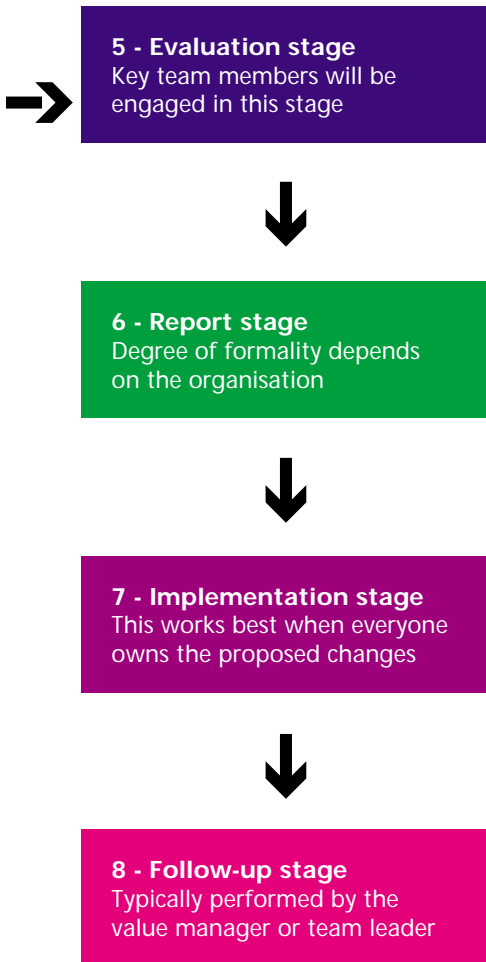


Methods and tools - the 'Job Plan'

The 'Job Plan' (see Figure 4) lies at the heart of value management studies and typically comprises the following stages.

1. *Planning Stage - planning the study*
 - ✓ What product/service/project/process are we exploring?
 - ✓ What are the key objectives of the study?
 - ✓ Who will lead the study and be on the team?
 - What about involving our customers/users/suppliers?
 - Is a qualified value practitioner involved in the study?
 - ✓ Is market research/customer consultation required?
 - ✓ What time-scale and milestones should we work towards?
 - ✓ What resources will be required?
 - ✓ What targets should we set the study team?
2. *Information Stage - gathering essential information*
 - ✓ How is this product or service produced, and by whom?
 - ✓ What are the sales/usage figures?
 - ✓ What customer/user complaints are there?
 - ✓ What are our costs/profits to the point of delivery?
 - ✓ What quality/productivity data do we have?
 - ✓ Who are our competitors and what are they doing?
 - ✓ Where can we find relevant benchmark information?
 - ✓ What is market research/user consultation telling us?
 - ✓ What supplier/supply chain information is needed?
3. *Analysis Stage - making sense of the information*
 - ✓ What are the functions of the subject of the study?
 - ✓ How much does each function cost?
 - ✓ Where, how and when are they integrated?
 - ✓ What are our customers/users telling us?
 - ✓ What do the major stakeholders think?
 - ✓ What are the market trends?
 - ✓ What have suppliers told us?
 - ✓ How do we compare with the competition?
 - ✓ What benchmarking needs to be done?
 - ✓ Is our thinking joined-up, do we revisit the study's scope?
4. *Creative Stage - brainstorming new ideas*
 - ✓ Is each element of the service/product actually needed?
 - ✓ Are costs proportionate to their usefulness?
 - ✓ How do we best meet user/customer needs?
 - ✓ Can we use alternative materials?
 - ✓ Are there alternative production/service delivery methods?
 - ✓ What alternative administrative processes are possible?
 - ✓ Make it in-house or buy it in, what is best?
 - ✓ Is there an adequate alternative supply?
 - ✓ Has another study topic come to light?





5. *Evaluation Stage - selecting the best ideas*
 - ✓ What are the best ideas that emerged?
 - ✓ What are the quantifiable benefits?
 - ✓ What risks do they entail?
 - ✓ Do they have 'champions' to see them to fruition?
 - ✓ Who do we need to involve in implementing them?
 - ✓ Will they meet agreed profit/performance targets?
 - ✓ Are there training implications?
 - ✓ Is capital expenditure required?
 - ✓ Have we fully planned implementation?
6. *Report Stage - where top management needs to approve*
 - ✓ Has a full business case been made for investment?
 - Have the benefits been fully identified?
 - Are all the costs fully identified?
 - Do we have the personnel to implement the project?
 - Have the risk factors been fully taken into account?
 - Is the financial analysis correct?
 - Have we included a project contingency?
 - ✓ Does the project meet the organisation's financial criteria?
 - ✓ What are the other implications of the changes?
7. *Implementation Stage - putting new ideas into practice*
 - ✓ Has implementation been planned in detail from the outset?
 - ✓ Who is responsible for implementing the changes?
 - ✓ Do they have the necessary skills and experience?
 - ✓ Have all stakeholders been brought on board?
 - ✓ Have drawings, contracts, specifications, etc. been updated?
 - ✓ Are suppliers on board with the changes?
 - ✓ Are cost budgets being met?
 - ✓ Have any potential surprises been identified and tackled?
 - ✓ Has senior management personally thanked participants?
8. *Follow-up Stage - auditing the final outcome*
 - ✓ Were all key study objectives met?
 - ✓ Did the implementation go to plan?
 - ✓ How do the customers view the changes?
 - ✓ What are the views of suppliers and staff?
 - ✓ What lessons have we learned for the future?
 - ✓ Has the study highlighted the need for other studies?
 - ✓ What was the impact on the bottom line?
 - ✓ What are the training implications for the organisation?
 - ✓ Have the results of the study been publicised?

Practices vary depending on the industry and nature of the study. Service organisations may take several weeks with half-day workshops at key stages. Industrial studies may entail three-day workshops. Capital projects may require a series of studies at key points in the design process.

Methods and tools - analytical techniques

The deployment of a range of analytical methods and tools is the key to unlocking the benefits of value management. These are used within and alongside the 'Job Plan' and include the following:

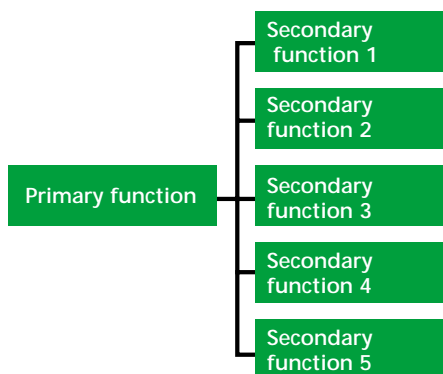
- ✓ Function cost - functional analysis helps identify the purpose and cost of the component elements of the study
- ✓ Value trees with attributes - these help determine the key design priorities for a new product, building or service and can be used with user focus groups
- ✓ Process mapping - used to analyse processes that produce products or deliver services
- ✓ Benchmarking - to ensure comparison with best practice and/or competitive products or services
- ✓ Failure Mode and Effect Analysis to improve the quality, reliability and safety of a product or process during development
- ✓ Market research - to ascertain the views of customers, users and stakeholders
- ✓ Risk analysis - to evaluate the risk of new proposals
- ✓ Life cycle costing - ensures that all lifetime costs and benefits are accounted for in projects

"The differences between the winner and loser in today's markets are often not great, but there are no prizes for being the runner up."

Alan Slipper
Manager
TMTS

FIGURE 5

Functional analysis hierachy



The choice of techniques to employ depends on the nature of the study. The more experienced the team is in the available techniques the better the results.

One of the most powerful groups of techniques is Functional Analysis (Figure 5, left) which is used in the majority of value management studies. In essence it involves breaking down the subject of the study into its basic elements or functions. Each of these is then costed and then submitted to critical scrutiny. Like other techniques, training and experience are required to make the most of Functional Analysis. The example illustrates the principle of arranging functions in a hierarchical structure.

Quality and value

Organisations well versed in quality management should not assume that value management is thereby addressed. Quality management and value management are complementary rather than interchangeable disciplines. The key approaches to quality comprise:

- ✓ Statistical process control - addresses process variations in production, service delivery and administration
- ✓ ISO 9000 and quality certification - the quality systems and processes of product and service delivery
- ✓ Investors in People - assesses training needs

- ✓ European Foundation for Quality Management (EFQM) Excellence Model® - assesses performance and diagnoses problem areas.

The Government supports these quality schemes, and supports the Charter Mark which was developed for public services. Companies working as public sector partners or contractors will know that the Government encourages public services to use one of four schemes: ISO 9000, Charter Mark, Investors in People or the EFQM Excellence Model®.

The Cabinet Office/DETR has reviewed these schemes (*Guide to Quality Schemes and Best Value*, Feb 2000 - see back page for details). While all play an important role, none are deemed able, by themselves, to deliver the improved performance sought from public services by the Best Value policy. Companies working with local councils, police or fire services may find themselves involved with the Best Value policy - in essence this is a broadly-based value management policy.

Competitive success requires that value management and quality management are used in concert, each drawing on the strengths of the other. Figure 6 shows how value management can be compared with the major disciplines of quality management.

At the strategic level the EFQM Excellence Model® broadly equates with the Value Management Framework found in the new BS EN 12973: 2000 standard. The EFQM Excellence Model® is useful to assess where you are and the Value Management Framework focuses on how to deliver the desired results.

"Quality schemes will not in themselves guarantee Best Value."
Guide to Quality Schemes and Best Value
 The Cabinet Office
 February 2000

FIGURE 6
Quality and value management compared

	Quality Management	Value Management
Strategic level	EFQM Excellence Model®	Value Management Framework
Systems/study level	Quality Assurance/ISO 9000	Value Analysis/Engineering
Practical tools level	Statistical Process Control	Function Analysis Methods
Underlying ethos	Doing the <i>thing right</i>	Doing the <i>right thing</i>

The key to success

The key to success is the development and maintenance of an effective value culture. This ensures customers get value for money and quality while simultaneously minimising the cost of delivery. An effective value culture requires:

- ✓ Senior management commitment
- ✓ A clear programme of studies
- ✓ Studies performed to the highest standard

- ✓ Recognition of staff achievement
- ✓ A willingness to challenge the status quo
- ✓ Focus on customer and stakeholder need
- ✓ Widespread belief in continuous improvement
- ✓ Investment in the use of methods and tools.

Today's markets increasingly call for a culture that encourages innovation and change, where empowerment and learning is embraced at all levels. The team methods of value management go a long way to encouraging a culture of innovation and change, but it also requires leadership from the top.

"We have used value engineering as one of a number of techniques in our new product development and manufacturing processes and have demonstrated benefit in several specific instances where it has been applied."

*David Rimmer
Head of Process Development
Pilkington Optronics*

Many organisations have evolved statements of core values to help meet their wider goals and aspirations. Some have developed statements of management style to ensure consistency between aspiration and everyday practice. Management style and corporate culture are not easily changed, but neither are they immutable. Change largely depends on the example and practices of top management rather than by what is said.

Value management can be a focus for such change and help the organisation develop the very ethos upon which successful value management depends. Success reinforces success, and early success with value management will come if it is planned and supported from the top. Soon value management will become part of the way of life of the organisation, changing thinking patterns and attitudes forever.

Certification to value management standards

The development of standards such as ISO 9000 and BS EN 12973: 2000 gives organisations the opportunity to gain external certification for their value management programmes. In essence this gives your organisation a structured way to work towards a high standard of value management. It can also show your customers that you are committed to value for money and certification can be specified in contracts, further increasing your competitive advantage. The standards available on value management comprise (see back page for details):

- ✓ BS EN 1325-1: 1997 Value management, value analysis, functional analysis vocabulary
- ✓ BS EN 12973: 2000 Value management.

There is also a BSI published document called:

- ✓ PD 6663: 2000 'Guide to the use of BS EN 12973: 2000'.

Reasons for using value management

Value management is benefiting organisations across a wide range of sectors. Many regard value management as a powerful competitive

weapon and do not publicise their use of it for obvious reasons.

However, known examples of recent usage include:

- ✓ Ongoing studies by a manufacturing company to reduce components costs year-on-year by 15% to 30%
- ✓ A major financial institution developing new ways of packaging financial products and improving business processes
- ✓ A blue chip organisation identifying the best ways of developing and implementing its e-business offering
- ✓ A large travel agency which improved internal processes and enhanced customer service
- ✓ The construction of luxury hotels to ensure that they are completed on time and to specification
- ✓ The strategic review by an international institution to meet the changing needs and requirements of its members
- ✓ A plant hire company increasing its utilisation, improving customer service and enhancing its use of information technology
- ✓ A large property company improving all aspects of its operations including utilisation and the management of staff
- ✓ A large hospital where clinical staff identified opportunities for significant service improvements and efficiency savings
- ✓ A car dealer who reduced vehicle repair costs and improved stock control.

“Innovation is our life blood and value engineering is central to this.”

*Emlyn Jones, Managing Director
IDB Ltd*

These examples typify the wide range of organisations benefiting from value management. Some of them have been doing so for many years and have derived substantial competitive benefit as a result. Your competitors may be among them.

If your competitors are using value management they will be more profitable, will be gaining market share, will enjoy improved productivity performance and - in the longer term - will squeeze your margins. Can you afford to ignore value management?

Conclusion

Value management will help raise your performance to world-class standards. It will release your staff's creativity and direct energy into improving the cost and quality of your products and services and increasing their relevance to customers. It builds teamwork and helps participants achieve consensus in decision making.

While there are core principles, there is no single right way of applying value management. Practice will vary according to your organisation's size, sector and the nature of the subject under study. It requires some investment in training and skills, but the benefits are continuous.

Where to go for help



Institute of Value Management

The Secretary, The Rosary, Madeley Court, Hemingford Grey,
Huntingdon, Cambridgeshire PE28 9DF

Telephone: 0870 9020905

Web site: www.ivm.org.uk



British Standards Institution

British standards can be obtained from:

BSI Customer Services, 389 Chiswick High Road, London W4 4AL

Telephone: 020 8996 9001



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Guide to Quality Schemes and Best Value - February 2000

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