INTRODUCTION TO HSE BENCHMARKING

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INTRODUCTION

Health, Safety and Environmental Protection Benchmarking is a planned process by which an organisation compares its health, safety and environmental processes and performance with others to learn how to:

- reduce the incidence of injury and ill-health;
- improve environmental protection and sustainability measures:
- improve compliance with regulations;
- reduce HSE-related costs;
- enhance Company reputation.

Benchmarking: To measure performance against those organisations acknowledged as leaders in their field.

Benchmarking is thought to have been conceived by mediaeval cobblers who marked a bench to ensure their customers received a consistent size of shoe. Later, UK Ordnance Survey created a national series of vertical datum reference points called benchmarks that are (for those without GPS!) still in use today. The concept of modern industrial benchmarking was pioneered in the USA by the *Xerox Corporation*, as the process of comparing their company against organisations who were recognised leaders in their industry. Their initial motivation was to counter the Japanese global competitive challenge of the 1970s.

The general industry understanding is that Benchmarking is a continuous, systematic process for evaluating the products, services, and work processes of organisations that are recognised as representing best practices, for the purpose of organisational improvement. Benchmarking is now applied to a wide variety of business systems and processes and is used in a qualitative (subjective) sense and, increasingly, in a quantitative way by the use of Performance Indicators.

Benchmarking is particularly useful as an improvement tool for business processes, and is now advocated as an HSE best practice.

BENCHMARKING PRINCIPLES

The search for best practices is relentless. As soon as one organisation is seen as best in class, then others will seek to at least match, but preferably exceed, their performance.

But, what do we mean by 'best practice'? Best Practice is a technique, method, process or activity that is generally accepted as being more effective at delivering a particular outcome than any other, when applied to a particular condition or circumstance. The idea is that with proper processes, checks, and testing, a desired outcome can be delivered with fewer problems and unforeseen complications. Best Practice can also be the most efficient (least effort) and effective (best result) way of accomplishing a

task, based on repeatable procedures that have proven themselves over time for a significant number of people. Best Practice is not *perfect practice* and will evolve to become better as improvements are developed.

Benchmarking is a structured process that allows us to learn from others. It focuses on *change* (for the better!) not just on *analysis*, and is generated externally from the process users. It attempts to answer such questions as:

- Why is there a need for change?
- What are we going to change?
- When are we going to change?
- What will we be the effect of the change?

Benchmarking is a method for improving a business process by first analysing our own process, then finding the reasons for better performance among other comparable processes and, finally, on the basis of the insight gained, redesigning our process.

In practical application, Benchmarking is a performance measurement tool used in conjunction with other improvement initiatives to measure comparative operating performance and identify and implement Industry Best Practices. Classification of Benchmarking falls into two main areas, *what* is being compared and against *whom* is the comparison being made.

Benchmarking is an important business improvement tool. Almost any process or activity of an organisation is a candidate for benchmarking and there are several different categories of what can be compared (Figure 1).

Strategic Benchmarking is the comparison of the strategic choices, decisions and dispositions made by other organisations, for the purpose of collecting and analysing information to improve one's own strategic planning and positioning.

Performance Benchmarking is the comparison of key indicators of performance, with the similar performance indicators of others. These measures might be a nationally defined target, or a target set by a professional advisory group, or a standard or target that has been established internally, usually by experienced professionals in the sector.

Process Benchmarking is the comparison of methods and practices for performing business processes, for the purpose of learning from the best how to improve our own processes. This demands the creation and subsequent awareness and support at the senior executive level, and establishing dedicated benchmarking resources.

Benchmarking demands an external comparison but that does not mean we have to operate outside our own organisation. Internal Benchmarking is the comparison against the best within the same organisation or corporation. It could be comparison between departments, units, subsidiaries, or countries within the same company or organisation,

	Internal benchmarking	Competitor benchmarking	Functional benchmarking	Generic benchmarking
Performance Benchmarking	Important and necessary process, but do not show what performance is really possible	Gives external reference points. Good comparability of performance indicators	Useful for certain aspects, but comparability not always given	Low comparability of pure figures due to differences in processes and products
Process Benchmarking	Good place to start and learn about benchmarking, but no breakthrough ideas can be expected	Very useful, but legal and ethical limitations to sharing process information	Good way for finding new ideas, and less ethical and legal limitations than competitor benchmarking	Best way for finding breakthrough ideas and achieving fundamental improvement
Strategic benchmarking	Difficult to find clues on better strategies internally	Competitors are best partners to get ideas about strategies and planning	Not too useful because of differences in business sector	Not too useful because of differences in business sector

Figure 1. Characteristics of benchmarking types

often called benchmarking within own class. This is a simple cost-effective first step in the process but rarely delivers 'quantum leap' results. The most effective benchmarking is comparison against those similar organisations that operate within the same business sector. Competitive Benchmarking is the direct comparison of own performance/results against the best real competitors, i.e. those that manufacture a similar product or deliver a similar type of service.

Functional Benchmarking is the comparison of processes or functions against non-competitor organisations (e.g. customer, suppliers) that perform related tasks within the same technological area. The big advantage of functional benchmarking is that it is easier to identify willing partners, since the information supplied is not going to a direct competitor.

Generic Benchmarking is the comparison of own processes against the best processes around, regardless of industry or service. This type of benchmarking requires more creative effort and resources and is therefore more difficult to undertake.

HEALTH, SAFETY AND ENVIRONMENTAL BENCHMARKING

Organisations have a legal responsibility for the health and safety of everyone affected by their business, and for protecting the local and global environment. Additionally, an increasing number of companies now recognise a social responsibility for health and safety and environmental protection. Most prestigious organisations in the developed world accept that HSE is a fundamental component of their business and the costs of poor HSE performance are well understood. Therefore, effective health and safety practices pay for themselves and improve the organisation's reputation with customers, regulators and employees.

HSE benchmarking is a proven means of assessing the HSE performance of an organisation by comparing it with that of best practice companies. HSE improvement has many facets, but without commitment from the top, the necessary resources to make those improvements and generate a positive culture change will not be forthcoming. Benchmarking can have a significant influence on Corporate HSE Governance and thus act as a catalyst for change.

Responding to HSE incidents is essential, but preventing those incidents is, naturally, better for all stakeholders. Pro-active safety, including Process Safety Management principles and practice allows prediction of the most potentially serious incidents and determines way of minimising the impact. Organisations can benchmark their PSM processes and performance to identify and implement improvements.

Basically, the idea and methodologies of HSE benchmarking do not differ from any other benchmarking process; they just concentrate on those particular aspects of the business. We usually use the term 'HSE benchmarking' as referring to the identification and comparison of the HSE performance of different organisations. This involves analysing the processes, practices, and procedures that lead to superior HSE outcomes.

The scope of health and safety benchmarking should encompass all areas of an organisation's activities, since the business processes are often inter-related. Some examples of HSE processes that may be appropriate for benchmarking are given in Figure 2.

Candidate HSE Processes for Benchmarking

- Policy development
- Customer service
- Systems and procedures
- Business development
- Resource assessment
- Performance measurement and data management systems
- Energy management
- Sustainability management
- Emergency response systems
- · Education and training systems
- Auditing practices

Figure 2. Candidate HSE processes for benchmarking

DECIDING WHAT TO BENCHMARK

How often have we heard 'How can company XYZ do better than us?' Benchmarking can help to answer this question. As we have already seen, there is a wide scope and variety of areas to benchmark, so how do we decide which areas to tackle? Benchmarking Business Processes should concentrate on those aspects that are appropriate to the business output or outcome, efficiency and effectiveness, risks, resource demands and, of course, costs.

The most common types of HSE Benchmarking are associated with Performance and Processes. Most companies maintain statistics on HSE matters, and UK law demands rigorous record-keeping.

Three criteria can be used for selecting the process to benchmark: First, the process's impact on the organisation's Critical Success Factors (i.e. a limited number of factors that highly impact on the organisation's HSE performance). Second, the process's importance for the main functions of the organisation and third, processes that represent or impact obvious problem areas in the organisation.

Indicators that might be selected to provide a strategic overview of HSE performance might be derived from statistics or other measures covering such activities as:

- Occupational Health Policy, Plan, Procedures
- Employee Sickness Absence
- RIDDOR Policy, Plan, Procedures
- PSM Systems and Procedures
- COMAH Policy, Plan, Procedures
- COSSH Policy, Plan, Procedures
- PHA/HAZOP Policy, Plan, Procedures
- Environmental Incidents
- Sustainability Policy, Plan, Procedures
- Near Misses

The UK Health and Safety Executive maintains a database of Health and Safety performance information, known as the Corporate Health and Safety Performance Index (CHaSPI) (www.chaspi.info-exchange.com). This is a free, voluntary web-based framework for reporting occupational health and safety, providing a series of indicators of performance. It is designed to assist external stakeholders in assessing how well an organisation is managing its risks and responsibilities towards workers and the public and internally, it can be used as an indicator of performance and improvement in occupational health and safety management.

CHaSPI was conceived in response to research that had shown that there was a gap in guidance for external reporting of Health and Safety performance. It was established in 2005 with the intention that it would be flexible, would use a mix of generally recognised performance measures and that its specific questions would be in line with HSE guidance. CHaSPI offers a scored measure of how an organisation is performing in health and safety, acts as a common measure across sector boundaries and enables benchmarking against other organisations and sectors. It helps to provide those charged with Corporate Governance to focus on workplace Health and Safety and

also assists organisations in demonstrating their public commitment to HSE.

The Index considers five key H&S areas: Health and Safety Management, Occupational Health, Injury Rates, Serious Incidents Rates and Employee Sickness Absence Rates.

Whether it is through CHaSPI or some other vehicle, having a standard reporting framework aids in benchmarking and can provide a focus on HSE for an organisation and its stakeholders. It assists HSE professionals in monitoring and reporting performance indicators and allows senior management to keep themselves updated on the organisation's and industry's HSE performance.

BENCHMARKING TECHNIQUES

Benchmarking is a process i.e. a series of actions, steps, functions, or activities that bring about an end or a result, in this case, the identification and importation of best practices to improve performance. The objective of this knowledge is to learn how to design and operate processes in a much better way than is currently happening. Benchmarking can be divided into two parts; *Practices* – the methods that are used and *Metrics* – the quantified effect of implementing the practices.

The Benchmarking Wheel (Figure 3) indicates the various stages through which benchmarking develops. It is a wheel because the process does not stop with the improvements made.

There is no official standard for Benchmarking, but many organisations adopt an approach that involves a number of key stages.

STAGE ONE: SELECT THE PROCESS TO BE BENCHMARKED

The important point is that benchmarking addresses critical issues. Why this process? Is it really this process that is most important? The process must be properly defined and/or narrowed down to a more manageable scope so that Benchmarking can be effective. The process to be benchmarked must be decided upon in agreement and in common understanding between the parties involved.

The activities involved in this essential initial stage include interviewing key stakeholder groups to understand what is important to them with respect to HSE outcomes and clarify the key goals and objectives for the department in the overall company business plan. Then to analyse the major costs of the HSE function processes to the company and prioritise one or two high cost processes as areas for improvement. Finally to identify any specific improvements that the department hopes to achieve.

STAGE TWO: SELECT AND TRAIN THE TEAM

Benchmarking is not a single person activity and so a crossfunctional team must be created with representatives from key stakeholder contact groups. It is important to ensure that team members have a basic understanding of benchmarking tools and techniques as well as the processes being

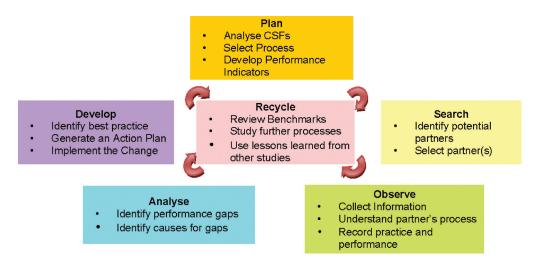


Figure 3. The benchmarking wheel

examined. Include both management and non-management representatives to give the team the advantage of different perspectives and select team members who are enthusiastic about improvement. It is useful to include a senior person, capable of authorising the implementation of changes.

STAGE THREE: SELECT THE RIGHT PARTNER

Benchmarking is about establishing an environment or network where it is accepted and legitimate to compare one against the other. Both parties must benefit from contacts that can be actively used for later studies. If benchmarking is new for the organisation, finding a suitable partner can be challenging, but a useful guideline is to consider organisations of similar size as our own as benchmarks for similar processes.

Finding a competitor to benchmark against is both threatening and beneficial to both parties. However, companies are often willing to share HSE information, where they would not consider sharing information on other business activities. This is because improvements in health, safety and environmental protection are seen as a benefit the community at large and not a threat to shareholder value.

STAGE FOUR: ANALYSE OUR PROCESS

It is extremely important to understand our own process. The process has to be defined in terms of inputs and

outputs and the resources involved in the process. Often, following this initial assessment, improvements can already be identified. The next task is to audit the processes. Use flowcharts to identify process components, measure inputs and outputs of the processes and use <u>factual</u> data such as incident statistics, time, costs, resources etc. to establish a baseline model that is appropriate for comparison. If the HSE performance and costs can be quantified in some realistic manner, this can be a sound basis for benchmarking.

This step is often the most difficult since it crosses many of the organisational boundaries and issues of cost, resource allocation and intra-company politics play a part. However, with tenacity, the learning process will reap its rewards.

STAGE FIVE: GATHER COMPARISON DATA

The data gathering step covers six main activities:

- Assessing the information needs and information sources
- Selecting a method for collecting data and information (Figure 4)
- 3. Performing data collection and debriefing
- 4. Sorting the collected information and data
- 5. Quality control the collected information and data
- 6. Normalising the data.

	Tools	Questionnaire	Interview	Direct Observation
Methods	Postal Investigation	X		
	Telephone	x	Х	
	Partner Visit	х	Х	Х

Figure 4. Information gathering methods and tools

STAGE SIX: ANALYSE GAPS

This step involves identifying differences in performance levels and then identifying causes for these differences. Basically, the tasks are to compare our company HSE data with "best practices" data, determine which variables are within our control for effecting change, identify the reasons for the gaps and clarify the benefits our company will gain by closing the gaps.

Gap analysis is a business assessment tool that allows an organisation to evaluate the gap between its actual and potential performance. It focuses on the efficiency of a company's current operations and how to make improvements to arrive at the company's desired state. The Gaps demonstrate that the partners do something that renders them able to perform better than ourselves (or vice-versa).

STAGE SEVEN: DEVELOP A PLAN FOR IMPROVEMENT

This step involves identifying options for closing the gaps, assessing the merits of these options and selecting the most effective option. Then documenting an action plan that contains the tasks to be undertaken, the person responsible for each task, when each task must be completed and who might need to be informed about the plan.

STAGE EIGHT: IMPLEMENT THE CHANGES

Change is usually unsettling for an organisation as it involves uncertainty. Therefore, develop a clear communication plan about the change implementation and be clear about the cooperation and approvals we require from others in our company. Be realistic in setting deadlines for implementation and issue regular progress reports to stakeholders. Be prepared to amend the plan as business conditions change and, when completed, ask our stakeholders to evaluate the results.

STAGE NINE: ASSESS THE RESULTS

After the changes have been implemented and our 'better practices' have had time to bed in, we should assess the results. We will be expecting a major improvement in HSE performance so we should compare the pre- and post change performance using the indicators developed in Stage Four and recognise the achievement.

GETTING STARTED

Following the methodology suggested above, the benchmarking process can add real value to the HSE function. However, it is a daunting task to overcome corporate inertia and implement successful HSE Benchmarking.

The first step on the road to successful benchmarking is self-awareness. The fact that our organisation is even considering benchmarking is a major psychological shift in appreciating that there is room for improvement. So, conduct a complete HSE audit, identify the major non-conformances and devise the corresponding corrective actions. Review all available injury, ill health and

environmental incident data. Analyse the root causes of persistent non-conformance. This will identify potential process benchmarking candidates.

Next, establish performance indicators for those processes that have been identified. There are many aspects to this and some suggestions are given in Figure 5.

However, in developing performance indicators, be aware of the limitations of statistics. Accident and injury data are useful in determining real hazardous locations or processes but are not effective in predicting potentially hazardous locations or processes. The statistics form only part of the story, the 'tip of the iceberg' and therefore it is often difficult to determine root causes from the data available. Incident and near-miss reporting provides larger sample regimes and makes analysis more precise.

Do we need outside help? This will depend on a number of factors such as the maturity of our HSE organisation, commitment to the process, appreciation of the issues and available resources. A consultant can assist in many ways. He/she can guide us through the various steps and ensure that we use the methodology effectively. He can give impartial advice on the non-conformances identified and help us define realistic performance indicators. Additionally, a consultant also has access to a network of contacts that can identify suitable partners and has the independence to act as 'honest broker' in establishing a partnership.

FINDING SUITABLE PARTNERS

A partner is someone we benchmark ourselves against. This is a relationship freely entered into by both parties with the objective of mutual improvement in HSE performance. Partners can take several forms, but fall into two primary categories, Internal and External partners.

Internal Partners are those within our own organisation and typically include other departments within the organisation, other operating sites or other companies within a larger group. These can be easier to establish initially, but intra-company politics and rivalries are often destructive.

External partners are those organisations that are independent entities such as competitors, companies within same industry (e.g. customers/suppliers), companies from different industries or companies in a different geographical region. Competitors would likely be the most effective organisations for comparison, but the business development aspects would understandably make this more difficult to establish. Nevertheless, HSE is one area where competitors are often willing to collaborate to improve outcomes. The principal advantages and disadvantages of different types of partnerships are shown in Figure 6.

To find a suitable partner, first of all develop a list of criteria which an ideal benchmarking partner should satisfy e.g. geographical location, products produced, technology, size etc. Then, determine the key selection criteria in terms of 'musts' and 'wants'. Prepare a list of potential candidates from whatever sources are available, such as professional associations, Chambers of Commerce, industry

Indicator	Unit	Significance
HSE Management System	Number	HSE Management Systems are management tools for companies designed to help evaluate and improve HSE performance. Indicator of commitment to HSE.
Hazardous waste disposed	kilograms / product output	Hazardous waste by definition contains substances which are harmful to human health. Indicator of environmental protection
Reportable accidents	number / 100,000 employees	Accidents are an indicator for workplace safety.
Sickness	days / employee	Sickness levels are widely considered as an indicator for staff motivation and job satisfaction. High levels of sickness reduce productivity.
Complaints	number / 1000 units product output	Complaints are an indicator for certain local impacts of business operations, for example fires and alarms.
Cases of prosecution (take a legal action)	number / 1000 units product output	Prosecution suggests a serious breach of HSE legislation. Indicator of compliance.

Figure 5. Typical HSE performance indicators

	Internal	External	
Advantages	Easier to get at information and therefore cheaper. Improves consistency within a firm. Can help improve communication and information sharing.	With competitors Easy to identify potential partners. Can help your competitive edge. Use as a marketing feature if you are the 'benchmark'.	
	Easier to get management commitment. Good practice of technique before looking for an outside organisation.	Within the same industry Quite easy to identify potential partners. Often links already exist with potential partners. 'Speak the same language'. Share issues and concerns.	
		Different industry Potential for really innovative ideas. No competitor problems.	
Disadvantages Doesn't identify overall best Practice. Can be 'blinkered'.		With competitors Care needed with competition law. Some potential partners may be resistant.	
		Different industry Can be difficult to identify potential partners. Don't understand each others business processes.	

Figure 6. Advantages and disadvantages of different types of benchmarking partnership

organisations etc. Compare the candidates, using some type of weighted scoring system, and select the best-suited benchmarking partner(s). Generally, it is best to have more than one partner, the usual being between three and five

The next step is to establish contact with our proposed partner(s) and gain acceptance for their participation in the study. This is a very sensitive procedure and needs experience and good interpersonal skills. A poor approach could lead to loss of a potentially useful collaboration or, worse, serious alienation between the parties. It is vital that rapport is established, otherwise there will be a continuing barrier to effective benchmarking.

Once informal relations are settled then an agreement needs to be made to demonstrate our mutual commitment to the HSE Benchmarking process. Always have a formal written agreement that includes Terms of Reference and termination provisions. There is a European Benchmark Code of Conduct that is useful guidance in this respect (www.efq-m.org/en/PdfResources/Benchmarking Code of Conduct 2009.pdf).

WORKING WITH A PARTNER

It is essential that, first of all, we develop a basic working relationship. Be realistic – don't try to do too much in one go. When exchanging information we need to make sure it is genuinely comparable e.g. we may try to compare statistics, but if we record these data in different ways it will not be a valid comparison. Respect our partner; remember confidentiality and give and take equitably. During contact with partners, we should do our homework in advance, keep to agreed topics and show awareness of the Benchmarking Code of Conduct. Make sure we really understand what they do, how they do it and why it is better. This is the information we will need to learn.

The Terms of Reference in the Agreement are probably quite general so we may have to agree various responsibilities with our new partner. Decide what we want and identify who, how, when and possibly where we want it. Appoint a Project Manager to steward the process, especially partner relations, cost and progress against milestones. Agree a timeframe and a budget. Prepare a Responsibility, Accountability, Consultation, Information (RACI) matrix.

Share information about our own processes and, if asked, share the results of our benchmarking study. However, it is essential to ensure that information transfer is not commercially or security confidential. When visiting partners, we should observe good business protocol, friendly but formal. Be sure to thank our partner for sharing their knowledge.

Following the contacts with our partners, it is important to maintain the momentum generated by the benchmarking efforts within our own organisation. Hold regular review meetings about the study and monitor progress. Ensure actions are identified and completed on time and have a close out review of the study. Determine if more studies are necessary and appropriate for the partnership.

In benchmarking against a partner, there are some ethical and legal aspects that need to be considered. Benchmarking is not about getting as much information as possible from our partners, without giving anything in return, so we must treat our partners as we would wish them to treat us. Benchmarking is conducted in cooperation with others for the purpose of improvement, which in turn could distort competitive conditions and therefore, in some circumstances, benchmarking could be viewed by regulators as anti-competitive. On the other hand, there have been no known legal disputes on the use of benchmarking. In any event, we should avoid discussing any commercially sensitive issues. If there is any doubt whether an activity is legal or ethically justifiable, we must refrain from it.

IMPROVEMENT PROCESS

Because no one person knows everything, the idea behind benchmarking is *learning from others*; not slavishly copying their actions of others. We must ensure that:

- 1. Lessons learned are captured in an easily understood and easily accessed manner
- 2. The causes of the lessons are fully understood and agreed by concerned parties
- The knowledge gained is translated into value-adding action
- 4. The learning is communicated within the organisation

This learning must be translated into an improvement plan, recognising that the processes must be appropriate to our own organisation. When devising an HSE Improvement Action Plan, we should ensure that the actions are SMART (Specific, Measurable, Achievable, Realistic, Timely). Hold specific people accountable and get commitment from the action 'owner' on the implementation. Set 'time-certain' feedback periods.

Agreeing an Action Plan is only part of the process, it is useless if the plan is not implemented. If the actions are straightforward then they may be manageable in the normal course of business. However, if the actions are complex, with many cross-functional interfaces, it is useful to prepare an execution plan that identifies deliverables, resources needed, costs incurred and timetable. Because the HSE function has wide-ranging implications for all aspects of the business, it is often necessary to have such a plan for implementing new or amended HSE processes.

We have now benchmarked our process. We have learned from our partner and improved our process. However, this is just the beginning. Organisations should constantly strive for improvement and benchmark other processes. By continuous improvement we can truly become best-in-class.

CONCLUSION

In the process industries, because of the nature of the materials and technologies, HSE becomes paramount and needs a special focus on continuous improvement. It

HSE Benchmarking - what's in it for me?

- · Improved Health, Safety and Environmental outcomes
- Coherent HSE involvement in business
- Reduced injury and ill-health costs
- Reduced incident response costs
- Improved reputation. Held in high regard by industry and public
- Improved stakeholder satisfaction. Be seen to be striving to be 'best-in-class'
- Better Sustainability Management
- Improved supply chain relationships
- · Lower insurance premiums. Lower legal costs. Fewer compliance staff
- Knowing where you stand you may think you are better than average demonstrate it
- Avoid 'reinventing the wheel' learn from others' experience and pick up on good practices
- Better motivated workforce. Increased productivity. Lower staff turnover.
- Etc., etc.

Figure 7. Benefits of HSE benchmarking

should involve analysing and upgrading the processes, practices, and procedures that lead to superior HSE outcomes. Benchmarking is part of such improvement.

Here are some pointers to success. First of all, we need senior management commitment, support and resources – for all the steps involved. An open and participative approach to health, safety and environmental protection, including a willingness to share information with others within and outside our organisation is an essential prerequisite. Organisations must have the ability to identify their strengths and weaknesses and to compare data on a meaningful 'apples with apples' basis. We need to consider the practicalities of what we can achieve and should focus or attention on those processes that are most likely to benefit from improvement, those that contribute significantly to the organisations Critical Success Factors for HSE. Finally, we must do our homework – proper planning and preparation is vital.

Whilst Corporate Management might like to think that its organisation uses best practice, the inevitable questions they will ask are what will it cost? and how long will it take? Benchmarking is not a 'quick fix' and should be judged over the longer term. It is not heavy on resources but does require a trained, dedicated team. Typically, a single process review might require a total of 200 man days of effort. There will also be some additional costs if a consultant is assigned. Obviously, if several processes are analysed together, there will be economies of scale, but we should not

overreach ourselves, especially in the early stages. Regarding timescale, we must be realistic. To go through all the phases will require months, not days, of non-continuous effort. The implementation and assessment stages are likely to take longer to establish and it is important to ensure that there is a genuine improvement, or if not, why not?

A major challenge to HSE benchmarking is the difficulty in justifying the effort of a benchmarking study because the 'real' costs and expected benefits are difficult to demonstrate. HSE issues can be complex, and it is not always possible to allocate certain effects to certain specific measures. Also, psychologically, it is often difficult for Directors to accept that their company is not best-in-class, or anywhere near it. Benchmarking might be seen by some as having the negative effect of exposing management weaknesses rather than the more positive potential of performance improvement.

In the face of all these hurdles, why should we do HSE Benchmarking? The primary benefit is a performance improvement that leads to a reduction in HSE incidents. Additionally, there are considerably more benefits arising from HSE improvement, some of which are listed in Figure 7. There are potential reductions in compliance and other HSE-related costs, and an enhancement of the organisation's reputation.

The advantages of being seen as *best-in-class* have wide-reaching implications over most aspects of the business.