The Institute of Management Services is the primary body in the UK concerned with the promotion, practice and development of the range of methodologies and techniques for the improvement of productivity and quality, known collectively as ‘Management Services’. This embraces the disciplines of industrial engineering, work study, organisation and methods, systems analysis, and a wide range of management information and control techniques as illustrated in our Body of Knowledge.

The Institute acts as the qualifying body for the Management Services profession in the UK, focusing developments in practice and knowledge and acting as a forum for information exchange. This in turn enables our members who work under a variety of job titles across the whole of the UK economy, to make a more effective contribution to the well-being of their own organisation and to the nation’s economy as a whole.

In addition to creating and upholding professional standards for the practice of management services through the adoption of a code of ethics and the provision of a system of qualifying examinations, the Institute of Management Services collaborates with national and international professional bodies in similar fields.

The Institute is a member of, or represented on, a number of other bodies including the World Confederation of Productivity Science, the European Federation of Productivity Services, and the European Institute of Industrial Engineers.

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Write for your journal
Management Services needs good articles on improving productivity and related matters. Why not write one? You will receive help from the editorial team if you need it.

If you want to try your hand at writing a feature for Management Services, please submit an abstract (around 200 words) explaining what your feature is about, with intended word count. (Features should be between 1500 and 2000 words, although exceptions can be made.) Send your abstract to Melanie Armstrong, Editor, Management Services, Ewell House, Graveney Road, Faversham, Kent, ME13 8UP or email editorial@msjournal.org.uk

We also want your news and points of view about what appears in this journal. Something you disagree with? Tell us about it.
In this issue of Management Services…

Cover Story

In this edition, Joe Marshall, Simon Smith and Steve Buxton investigate the influences on organisational learning at two Strategic Business Units and examine the impact of learning on organisational performance.

Institute News

Student Of The Year
Scott-Grant Ltd, the Harry Mitchell College and Brian Cuthbert & Associates award prizes to the students of 2008

AGM Notice

Measuring And Improving Employee Engagement
The fifth part of Dr John J Lucey’s series of articles looks at the impact of a communications strategy and five step survey process on employee engagement.

The Service Economy
Dr John McManus examines the global growth of service industries

Can Energy Insulate From The Global Economic Slowdown?
David Floyd explores the importance of energy in the global business context

Work Allowances And Work-Rest Regimes
A discussion document by John Heap

Learning Organisations And Organisational Learning:
What have we learned?
By Joe Marshall, Simon Smith and Steve Buxton

Death In The Work Place
Alan Vincent outlines the implications of Corporate Manslaughter legislation
Since my last column, the British economy seems to have gone from bad to worse. We have had the Budget and statistics from the International Labour Organisation (ILO) measure indicate the biggest unemployment increase since 1991 – an increase of 177,000 in the three months leading up to February 2009, from the previous quarter. This took the jobless total to 2.1 million – the highest level since Labour came to power in 1997, according to the Office for National Statistics. Experts are even predicting that unemployment will reach three million by the end of the year. The Federation of Small Businesses estimates that around 120 small businesses are going bust each day.

What is certain is that the businesses that are disappearing and the jobs they generate will take years to replace. Sadly, these appalling unemployment figures will get much worse before they get better. Anyone who has suffered redundancy and unemployment will know the terrible effect this can have on a family.

Since the election of the Labour Government in 1997, Gordon Brown has repeatedly remarked on the need for increased productivity. In October 2000, speaking in London to the Confederation of British Industry, Gordon Brown urged employers, employees, investors and others to work together to address the productivity challenge. In spite of all his talk of productivity, the number of civil servants has risen drastically since Labour came to power.

For a number of reasons it has proved much harder to increase productivity in services than in manufacturing. Go to a car factory nowadays and the startling thing is that there seems to be hardly anyone there relative to the size of the building and the equipment. By contrast, offices are crammed with civil servants. If the Government is to repay the large amount of debt it is incurring, it must reduce expenditure and that means that productivity must increase if services are to be maintained at even existing levels.

As I reported in the last issue of the journal, the Institute Council of Management has set up a working party under the leadership of our Deputy Chairman Andrew Muir to undertake a strategic review of the Institute and come up with proposals to plan ahead for the next five or ten years. It is pleasing to report that the first part of this process is now complete and the working party presented an Interim Report for discussion at our May Council meeting. The strategic review group believe that the findings and recommendations in their report will enable a new product to be developed, two new markets to be explored and, if successful, provide the potential for the Institute to once again become a leader in the market place, increase its membership and, as a consequence, secure its long-term future.

In the spring journal nominations were invited for elections to Council. We have received four nominations for the four vacancies so it will not be necessary to hold elections.

I look forward to communicating with you again in our autumn journal and sincerely hope that you and your families enjoy the warm weather that hopefully we will have this summer.

David Blanchflower
An insight into the future
The North West Region are organising a visit to the Warburton's Bakery in Bolton on Wednesday 12 August. A guided tour will start at 2pm. Anyone wishing to attend should contact Ian Cooper on 01257 421383 or Keith Gowing on 0161 962 0367 for further details. Numbers are limited, so please book early.

Keith Gowing

Students who have gained their IMS Diploma Continued:
S T D Nilantha Sirisena
Wannaku Kumara
Pranal Perera
Mohan Abeysinghe
Pandula Algawaththaghe
Janaka Chaminda
Thewarapperuma
Mihindukulasuriya Fernando
Sudarshana Wickramaarachchi
Indika Nanayakkara Guruge
Gihan Rowell
Suresh Alagiyawanna
Chryshantha Peiris
Nalin Bandara
Chandana Narangoda
Liyanage


Chairman: R.W. Pearce (0114) 2481793
Secretary: D. Findon (0151) 4233175
Technical/Examinations/Membership: P.D. Horton (0182) 761424

The Association will be holding a business conference on Friday 23rd October 2009 at Springfield House, Grantham, further details of the event will be provided later in the year together with information about the speakers and lecture contents.

The Association Annual General Meeting will be held on 13 June 2009, at Tamworth, beginning at 10:30am, address details will be provided nearer the date, all MTM members will be advised separately.
Delegates from both the private and public sector were among the top students in 2008 for the Institute of Management Services Certificate, the recognised industry standard qualification for productivity professionals in the UK and abroad.

Gerry Parker, Head of Productivity Improvement at Hovis, Premier Foods, was declared Student of the Year in 2008 by Scott-Grant Ltd. Gerry attained the highest marks of all delegates on the four week course throughout the year.

Tying for a close second place were Steve Richardson from Jobcentre Plus in Sheffield, who leads the Productivity Analysis and Costing Team, and Lean Engineer Andrew March from Leyland Trucks in Lancashire.

They all came to Scott-Grant’s head office and training centre in Manchester to celebrate their success and thank the Scott-Grant lecturer Colin Moran. Gerry was presented with a certificate and cheque from IMS Chairman, David Blanchflower and, like Andrew and Steve, received a certificate and gifts from Scott-Grant’s Training Director Mike Seaman, followed by a celebratory lunch.

Andrew was accompanied by his manager, Sharlotte Bamber, who was particularly proud of Andrew’s success. She understood the quality of his achievement, having herself studied for the IMS Certificate at Scott-Grant ten years prior. She commented: “I for one appreciate just how hard Andrew must have studied to gain such high marks. This really is a significant achievement. Andrew is a dedicated worker and really deserves this success. I and the whole team are delighted for him.”

When Gerry came to Scott-Grant to study for the Productivity Foundation module of the IMS Certificate, she had been quite happy in the logistics department of Premier Foods. Talking with other delegates on the course, she decided that she would find more fulfilment in the manufacturing side of the business.

She completed the remaining three modules of the course and transferred to her present role. Gerry now travels around the country investigating manufacturing operations, assessing where improvements can be made to streamline operations and make the process more cost-effective and efficient. She came to celebrate with her former manager, Logistics Director David Hunt.

Steve Richardson worked as an accountant before he joined Jobcentre Plus and was intrigued to learn more about what his Work Study and Costing Team was involved in. He booked a place on the four week Certificate course and found it totally engrossing, especially the very powerful Lean module. Steve brought along one of his team, Chris Brown, who, like Sharlotte Bamber, had also studied with Scott-Grant some years prior.

Scott-Grant attracts delegates from a complete cross section of industry to study for the IMS Certificate. “We’re adding more courses to our open programme to respond to demand for this qualification,” said Scott-Grant’s Training Director Mike Seaman. “It’s encouraging that we’ve trained delegates from over 30 countries for this qualification.

“The four week course continues to grow in popularity because it teaches productivity improvement skills and Lean techniques that are at the foundation of industry and commerce.”

Scott-Grant Limited, Email: productivity@scott-grant.co.uk, Tel: 0161 234 2121.
The Harry Mitchell College

Malcolm Latham was chosen as the Harry Mitchell College Student of the Year 2007-2008 because of his hard work during the course, his practical approach to the subject matter and his high achievement in the Institute of Management Services Examinations.

Since his training, he has returned to his company and has been heavily involved in applying the knowledge he has gained in both timing and making improvements. The team he is an integral part of has made savings in the order of £300,000 for the company.

Outside of work, Malcolm enjoys family life and admits to doing DIY projects. He relaxes by taking long walks in the Peak District National Park.

Brian Cuthbert & Associates

Miranda Elliott was awarded the Brian Cuthbert & Associates Student of the Year prize. Miranda is employed as Wage Planning Manager at Asda Stores Ltd. As well as performing other roles within Asda, Miranda used to work as an Industrial Engineer (Retail). She has an MSc (Hons) in Management and Finance from Bath University and a BEng (Hons) in Mechanical Engineering with Design Materials and Manufacture. Brian Cuthbert has trained a number of staff from Asda to IMS Certificate level.

Brian Cuthbert, Email: cuthasst@talk21.com, Tel: 0113 268 9500.

The very best professional help

We are always keen to help members and any enquirers of the Institute in their quest for knowledge or assistance when it comes to productivity issues. We’d like to draw readers’ attention to the following solutions for help with Performance Rating, which is still an internationally used technique.

New rating films for professional analysts

We have explored the possibility of creating new rating films but found the costs quite prohibitive. We were advised by Scott-Grant Ltd, one of our accredited training providers, that they had recently produced a new and comprehensive series of 12 rating films on DVD and we have fortunately managed to secure access to them. The rating films show examples of real jobs being undertaken in the workplace and the industries include

- manufacturing
- electronics
- engineering
- distribution
- timber
- needle trade
- retail
- manual work
- warehousing
- high volume distribution

All the films are intended to develop the application skills of analysts. They are an invaluable means of professional development for re-calibrating and maintaining the rating accuracy of every professional analyst, to ensure that the high standards of the Institute are maintained.

Performance Rating explained

Scott-Grant have also produced “How do you rate?” – a practical, 35 minute DVD to explain clearly how to use Performance Rating when measuring work. We would encourage every industry to use this film if they want to improve productivity in their workplace. Although the subject matter is very serious, “How do you rate?” delivers its message in a relaxed and entertaining way. Above all it is designed to be informative, practical and memorable.

Within 20 minutes viewers will have the opportunity to assess performance in carrying out a simple task, using the criteria explained in the film.

Please contact Lynette at the Institute head office Tel 00 44 (0)1543 266909 for more details.
Institute of Management Services
CHARTER ROOM, THE GEORGE HOTEL, BIRD STREET, LICHFIELD, STAFFORDSHIRE WS13 6PR

Notice of Annual General Meeting

NOTICE IS HEREBY GIVEN of the forty fourth Annual General Meeting of the Institute to be held at Charter Room, The George Hotel, Bird Street, Lichfield, Staffordshire WS13 6PR on Friday 23 October 2009 at 11.00 am to conduct the following business.

1) To receive the Annual Report and Accounts
2) To confirm the following Bye-Law No 1/2009
   Membership subscription for 2010 shall be for Life Membership at a rate of £240.00 for all members. An annual membership fee of £125.00 will be available on request.
3) To re-appoint Leftley Rowe and Company as Auditors for the ensuing year.
4) To Note elections to Council.

By Order of Council of Management

6 June 2009

Harry Downes
Secretary

Institute of Management Services
FORM OF PROXY – FOR CORPORATE MEMBERS ONLY

I (full name)…………………………………………………of (full address)…………………………………………………………

…………………………………………………………………………………………………………………………………………………………

Membership Grade…………………………………… Membership No ………………………………………………………………

Hereby appoint D Blanchflower of ’Rose Cottage’ 2 Lady Anne Close, Scarisbrick, Ormskirk, Lancashire, L40 9PZ or failing him the Chairman of the meeting to vote for me and on my behalf in accordance with the directions, if any, given hereunder at the forty fourth Annual General Meeting of the Institute to be held at Charter Room The George Hotel, Bird Street, Lichfield, Staffordshire WS13 6PR on Friday 23 October 2009 at 11.00 am and at every adjournment thereof.

RESOLUTION NO 2 FOR / AGAINST *
(Bye-Law No: 1/2009)

RESOLUTION NO 3 FOR / AGAINST *
(Appointment of Auditor)

*delete as applicable

as witness my hand the…………………………day of ……………………………………………………2009

Signed………………………………………………………………………

*This proxy form must be deposited at the head office of the Institute by not later than 10 am on Friday 25th September 2009.
The name of D Blanchflower has been inserted (or chairman of the meeting) to ensure that your vote is cast in the way you have indicated. You may however, insert another proxy holder if you wish who must be a corporate member of the Institute, but your vote will not be recorded if he or she is not present at the meeting.
The impact of a communications strategy and five step survey process on the improvement of employee engagement

Dr John J Lucey continues his series of articles by examining methods of measuring and improving employee engagement.

“The improvement in the self confidence of the two focus groups did wonders for the engagement of the whole department”

1. Background to phase three action research case study
In the last Journal (Spring 2009) the action research case study focused on the impact on employee engagement of allowing the department manager to step out of his operational role and concentrate exclusively on implementing the department’s 5S exercise. The findings from phase two of the research highlighted the need for a defined process for the issue and completion of the employee engagement survey and for the investigation of low or unexplainable results. All too often in large surveys the questionnaires are passed out for completion and employees are left to their own devices as to how they complete them or, in some cases, how they do not complete them.

In 2002, at the start of the Boots Manufacturing (BM) employee engagement survey, the questionnaires were distributed to the department managers who then passed them down to their team leaders for them to explain the objective of the survey to the members of their team. There was a great deal of variation in the way the 50+ team leaders actually handled the briefing, distribution and collection of the questionnaires. Within the team leader population there was also quite a variation in their own level of employee engagement.

As a management team, D10 (a Boots Manufacturing factory) wanted to have much more confidence in the results and the ability to make meaningful comparisons between

Dr John J Lucey
John started in Work Study with an engineering company and moved to a subsidiary of British Leyland before becoming Work Study Manager with an international armaments manufacturer. He was promoted to the position of Contracts Manager and in 1977 he gave up his job to do an MSc in Industrial Management at Loughborough University, where he won the award for best student.

He spent two years working as Manufacturing Manager in a military optics company in Singapore, before joining the Boots Company in 1984 as Industrial Engineering Manager. It was at this time that John joined the IMS Council and has served continuously since. He was Chairman from 2003 until 2008.

In 1989, he was appointed a Factory Manager with Boots Contracting, until his retirement in 2004. In 2002, John commenced part time research into the sustainability of Lean Manufacturing with Cardiff Business School and has published many papers. He was awarded his PhD in April 2008, while he was still Chairman of the Institute.
“The transformation was, as with most 5S exercises, quite extraordinary and audits were in place to ensure the new standards were measured”

Abbreviation Guide
B = Boots Manufacturing
D10 = A Boots Manufacturing Factory
LVC = Low Volume Cell
STM = Senior Team Member

To improve the consistency of the surveys, it was decided that a more standardised and disciplined approach to the distribution and completion of the questionnaires was required.

2. Phase three research objectives
1. To assess the benefits of a standardised approach for the communication, distribution, completion and collection of the employee engagement surveys.
2. To involve the staff in the development of the process for investigating low employee engagement scores and to encourage them to implement the resultant action plans.
3. To validate the new processes in a different department and measure the impact on the employee engagement score.
4. To use the research to test the concept of ‘a lean sustainability zone’.

3. Selection of production departments
In early 2003 the project to close the BM factory in Scotland had begun and equipment was to be transferred from Airdrie to a ‘lean low volume cell’ which was to be established in the D10 factory. Low volume cosmetic products were allocated to the Powders department.

Consequently, it was felt that this enlarged department would be an ideal candidate for the action research, as the manager was interested in the concept of employee engagement and was willing to actively participate.

3.1 The consultation phase
The starting point for the consultation process was the results of the January 2003 employee engagement survey which is detailed in Figure 1.1, and recorded a score of 3.91.

While the score was higher than the Toiletries starting score, the Powders manager felt that there were some issues in the department that needed airing, consequently the imminent 5S exercise was postponed.

Following the employee engagement survey in January 2003, it was agreed that the Powders/LVC (low Volume Cell) department would use a focus group approach to identify the underlying issues.

Figure 1.1: D10 Powders/LVC employee engagement survey – January 2003. Source: D10 employee engagement survey – January 2003

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Clearly, the main areas of concern were ‘team working’, ‘improving my job’ and ‘the working environment’. The issue surrounding the low scores were discussed in depth by the focus groups and the underlying reasons behind them were also discussed with the team leaders and line operators in the senior team member (STM) weekly meeting.

Following these discussions, an STM focus group was established for each of the two
shifts to examine the two main areas for discontent. The groups initially met every two weeks after the (STM) meeting and then every month in later stages to report back on progress. This process was briefed to the whole department at the weekly staff briefing.

4. Research findings – phase three – focus group case studies
Initially, the focus groups had quite a high degree of scepticism about the potential benefits of the process, particularly the working environment group who complained about the heat in summer but accepted from the start that the air-conditioning of the whole factory was not viable for technical, as well as financial, reasons. Notwithstanding that, a number of suggestions were made, agreed and acted upon and the results were briefed to the whole department.

The improvement in the self-confidence of the two focus groups did wonders for the engagement of the whole department. The focus group looking at ‘the working environment’ produced suggestions that were implemented and they are detailed below:
1. Chilled water dispensers around the packing areas.
2. Solar reflective external window dressings which allowed light, but not heat, through which would reduce the heat in summer.
3. The shrink-wrap machines were reinsulated to diminish the heat production.
4. New cleaning materials and utensils were purchased, including new vacuum cleaners for the powder lines.

The second focus group concentrated on the task of ‘improving my job’ and raised a number of issues concerned with the involvement of all the shop floor in ‘beneficial improvement activities’.

A positive result of using focus groups has been the improvement in the ‘team working’ section which indicated that the teams were working much better together. This was particularly the case in the shift handovers which were carried out much more smoothly. The biggest benefit to the department is one of feeling involved and listened to.

A number of purchases and improvements have been made on the back of recommendations from the focus groups and these have been used as signs that the department manager and his team were listening.

4.1 Results of the D10 Powders/Low Volume Cell (LVC) focus groups
The results of the August 2003 employee engagement survey is detailed in Figure 1.2. From January to August 2003, the level of engagement in the department employee engagement score increased by 5.1% from 3.91 to 4.15. In the areas of ‘working environment’ and ‘improving my job’, both sections have seen improvements in the scores.

As the manager of the Powders department was still in post in 2005, it was interesting to see if the improvement had been sustained. The most recent survey was taken in January 2005. The score of 4.43 (which is detailed in Figure 1.3) indicates that the level of employee engagement had improved from 4.15 to 4.43, which is very encouraging and shows that improvements following the 5S exercise had also been sustained.
4.2 Statistical significance of the increase in the employee engagement score

Following the use of focus groups for the investigation of low employee engagement scores, there was a 5.1% increase in the August 2003 Powders/LVC score from 3.95 to 4.15. A statistical analysis using the Bootstrap method was undertaken to establish if the increase was significant. The analysis used a 95% confidence level and the p value was 0.17, which indicates that the improvement was not statistically significant.

However, the improvement from January 2003 to January 2005 in the employee engagement score was 13.3%, which was statistically significant.

5. A five step process for the completion of the employee engagement survey

Based on the findings from the focus groups used in Powders/LVC, it was recommended and accepted that a more formal approach to the communication, delivery and completion of the survey and the subsequent survey results be adopted across all departments.

The five step approach that was designed is detailed below:

1. The department manager prepares a summary of the progress achieved since the last survey six months ago. At the weekly departmental meeting preceding the employee engagement survey, they then ask their team leaders to list the changes and improvements since the last survey. Experience has shown that the team leaders will not remember all the changes/improvements. The department manager then appraises the team leaders of the full range of changes. This also signals that the department manager is really on board and fully supports the survey.

2. Rather than just hand out the questionnaires, the team leaders should prepare a summary of the progress achieved since the last survey six months ago. At the weekly departmental briefing preceding the employee engagement survey, the team leaders should then ask their team to list the changes and improvements since the last employee engagement survey. This approach will encourage staff to take into account the progress made since the last employee engagement survey.

3. All staff are allowed 15 minutes to complete the questionnaire in a quiet area.

4. The results of the survey will be briefed to all staff and...
employee engagement, the shift managers and the team leaders implemented the process detailed in section 5. Figure 1.5 gives a breakdown of the January 2003 survey which produced an encouraging score of 3.74, which was an increase of 8.7%. Detailed examination of the results indicated that there were still problems in four sections of the survey, namely: ‘how staff felt about themselves’, ‘team working’, ‘improving my job’ and ‘the working environment’. Even though the employee engagement score had improved, it was felt not to be high enough to successfully complete a 5S exercise.

To address the issues, the three shift managers formed a focus group from each shift to discuss the areas of concern. Figure 1.6 gives a breakdown of the August 2003 survey which produced a score of 4.40, which was an increase of 10.7%. Detailed examination of the results indicated that there were still problems in four sections of the survey, namely: ‘how staff felt about themselves’, ‘team working’, ‘improving my job’ and ‘the working environment’.

In addition, quarterly presentations were made which indicated how the department was progressing against a range of key performance indicators (KPIs), as well as external comparators. Prior to the January 2003 employee engagement survey, the focus group in the Powders/LVC department was used together with a weekly and monthly briefing process which was designed to keep staff very well informed and involved in the BM lean ambition.

The Blow Moulding department of 60 staff is a stand alone unit working 24 hours per day on a three shift basis. The Blow Moulding department employee engagement survey score for July 2002 was 3.44, which was one of the lowest in the D10 group. Figure 1.4 gives a breakdown of the July 2002 employee engagement score.

The research at that point was indicating that a score as low as 3.44 may not be sufficient to successfully undertake a 5S exercise. Consequently, it was postponed. The lessons learned in the Powders/LVC department were used together with a weekly and monthly briefing process which was designed to keep staff very well informed and involved in the BM lean ambition.

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concern and compared notes. An action plan was produced to address the real concerns and staff were involved in the improvement projects, such as noise reduction, improving housekeeping and manual handling.

Following this exercise, it was decided to commence the 5S project with a good prospect of success. This assumption proved to be correct and the whole department was completed in eight weeks. The employee survey results for August 2003 are detailed in Figure 1.6.

The transformation was, as with most 5S exercises, quite extraordinary and audits were in place to ensure the new standards were measured. The score increased to 4.40 and was the highest score achieved by any production department in the whole of BM. The increase from July 2002 to August 2003 represented an increase of 27.9% and all the four concerns from the last survey were improved. The increase in the employee engagement score was statistically significant.

Feedback from staff was extremely positive. They felt involved in the development of the Blow Moulding, which they were encouraged to view as their own business. The issues that were tackled by the focus groups had been long standing and had, at last, been resolved. The overriding question was could this score be sustained when the department was not in the ‘limelight’?

As a matter of interest, the employee engagement score for January 2005 was checked and the process detailed in Section 5 was still in use. Figure 1.7 confirms that the score of 4.40 had been maintained and it was clear the ‘Hawthorne Effect’ (Mayo, 1933) was not a factor.

7. Comparison of case studies in Powders/LVC and Blow Moulding

In the case studies in Powders/LVC and Blow Moulding the use of focus groups to involve and engage the staff was instrumental in identifying, confronting and resolving the issues that were preventing the staff becoming sufficiently engaged for the change to be successfully transacted.

Figure 1.8 is a summary of the Powders/LVC and the Blow Moulding case study employee engagement improvements. The results are very encouraging as the Blow Moulding scores have improved from a base of 3.44 to a level of 4.40. The Powders/LVC have attained the same score of 4.40, but from a base of 3.91. Both departments have reached the lean sustainability zone and sustained it (this will be the subject of the final paper from the research).

8. Discussion of the research findings

The first objective was to assess the benefits of a standardised
approach to the delivery of the employee engagement survey. The process for the distribution and completion of the employment engagement questionnaire was developed in the Powders/LVC department after consulting with staff and junior managers in focus groups. The involvement of junior managers ensured that they displayed operational ownership and were totally behind this process.

The new five step process was received well by Powders/LVC and later by Blow Moulding staff, especially as they could see that their managers were taking it seriously. Initially, staff seemed to have a genuine problem recalling the changes that had taken place in the six months since the last employee engagement survey. It was interesting to note that any negative experiences seemed to be recalled easier and quicker than the positive ones and the fact that the positive events were covered by the manager certainly helped the staff to remember them.

It is possible that, in the past, when staff completed the employee engagement surveys, they had been completed in the production areas and the staff simply could not easily switch off and really think about the last six months. Giving staff time in a quiet area to complete their employee engagement questionnaire gave them the opportunity to discuss with other staff just what had happened in the last six months.

Furthermore, the feedback from the most recent employee engagement survey was received in a noticeably more positive manner, especially as questions from staff were actively encouraged. There was also a noticeable increase in interest in the department from the staff who had been involved in the focus groups which probed low or unexplainable employee engagement survey scores. Because they were becoming more involved, they were beginning to become much more interested in what the department was trying to achieve. This process was adopted by all the production departments in D10 as standard practice.

The second objective was to involve staff in the process of investigating low employee engagement scores. The feature of the employee engagement questionnaire, and the one that differentiates it from the Gallup twelve question survey, is that as well as getting an overall score, you get an individual score for each section. This makes it easier to pinpoint areas of concern and follow them up with focus groups to ascertain exactly what the issues are.

It was this kind of detail that helped the shift managers in Powders/LVC and Blow Moulding to identify and address the specific issues and then use the employee engagement survey to measure the improvement. The use of focus groups was a great success and enabled the issues identified by the employee engagement survey to be addressed in an open and transparent manner.

The third objective was to validate the five step process for the delivery of the employee engagement survey and the use of focus groups in another D10 department. To ensure that the action based research conducted in the Powders/LVC department was not the result of the ‘Hawthorne Effect’, which refers to the Hawthorne project conducted by Mayo (1933), at the Western Electric company in Chicago.

Mayo’s research concluded that if you study a group of people, the fact that you are studying them will produce an automatic improvement and when you leave they will revert to the original level of performance. The fact that the Powders/LVC and the Blow Moulding employee engagement scores had been sustained into 2005 indicates that the ‘Hawthorne Effect’ did not apply.

The fourth objective was to explore if the research data was sufficient to identify ‘the sustainability zone’. As already stated, this will be the subject of the final paper from the research.

9. Conclusions on the research findings

The five step process for the delivery of the employee engagement survey worked very well in the Powders/LVC department and was successfully validated in the Blow Moulding department. On this basis it can be accepted that it is a robust process that assists staff in accurately completing the biannual employee engagement survey.

The use of focus groups proved to be very successful in building trust between staff and management and resolving the issues surrounding low or unexplained employee engagement scores. The fact that members of the focus group and staff often suggested the remedial action and went on to implement it was very encouraging.

In both departments the ‘team working’ score noticeably improved as a direct result of involving staff in the focus groups. It is also consistent with Lewin’s (1951) findings that a change is more likely to be sustained if the group embrace it.

As the results of this action research have actually produced an improvement in both P (the person) and E (the environment), it could be argued that it confirms that the definition of employee engagement is robust.

References


“The fact that members of the focus group and staff often suggested the remedial action and went on to implement it was very encouraging”
The service economy

By Dr John McManus

“Service has fundamentally different characteristics from commodities and these differences have crucial implications for the way the service economy must be organised”

Introduction

The importance of service industries to the global economy is evident from the acquisitions that have been made in service markets. Strategic acquirers are actively seeking growth opportunities, primarily in financial services, technology, energy and utilities. Some of the key outcome indicators of the globalisation of an industry are: extent of cross border trade within an industry as a ratio of total worldwide production, extent of cross border investment as a ratio of total capital invested in that industry and proportion of industry revenue accounted for by firms competing in all major regions of the world. Whilst it is acknowledged that there is considerable variation across OECD countries in the extent to which they have experienced rapid development of high-growth service industries, using the relative ratios above we may assert that many of the OECD’s major producing nations (US, Japan, Germany, UK, France and Italy) have, in terms of cross border flows, significant investments in high value added industries, such as bio-engineering, information communication technology, pharmaceuticals and automotive technologies.

A service perspective on growth

Many of the firms that operate in these different market sectors are increasingly reliant on supply chains that embrace an element of physical commodities and tangible services. Both Dell and Wal-Mart are examples of companies that have pulled together production and service to leverage cost, quality and service. The rise in global services and service industries in the last decade might be described as spectacular.

Following the global depression of the early 1990s, many firms retracted and took a hard look at their core business. To quote Jack Welch: “... by the time I was made CEO, I knew that GE had to get as far away as it
could from any business that smelled like commodity and get as close as possible to the other end of the spectrum.” 1 Under Welch’s leadership, GE went on to invest heavily in financial services: GE Capital bought RCA which included NBC; and transferred resources into utilities and high valued service provision.

In the service economy there are new ground rules. Such ground rules included both barriers to entry and exit. Strong growth in services has also occurred in Canada and Australia, two countries with open economies and relatively few regulatory barriers. In contrast, growth in services has been slower in countries like Japan where the business environment has been less favourable to entry by newcomers and to risk-taking, and where extensive cross-holdings of shares and the strength of relationships have slowed industry restructuring.

Service has fundamentally different characteristics from commodities and these differences have crucial implications for the way the service economy must be organised. Unlike physical goods, many services have an intangible aspect about them which makes them difficult to copy (or pirate) and their consumption value is based on the intrinsic nature of the service being offered to the consumer.

The increasing importance played by technology within service industries, such as banking and financial services, is emphasised by the growing profits and shareholder returns. Within this industry, information and communication technology now enable people to participate in a growing number of service-related activities in real, or deferred, time, without having to be physically present. 2

Within many global and international service markets the convergence of e-commerce (and business-to-business) based on internet-standards is causing a fundamental shift in the way business operates by creating new markets and new market opportunities and, as a result, we are now living in a world where global-scale service companies exist for the first time. Global-scale service companies operate in industries such as education, consultancy, health, telecommunications, distribution, retailing, transportation, tourism, entertainment, banking and financial services.

Banking, for example, is a mature industry which is going through increasing market turbulence. The industry has long been subject to strong institutional control and has been protected by high entry barriers. Deregulation and the increasing importance of technology are leading to the deconstruction of entry barriers. One time scale economies are no longer a substantial barrier to entry for new entrants, since successful internet banking is grounded in flexible processes rather than mere economies of scale. 3

Service providers and the consumer markets
As markets change, so does the relationship between service providers and consumers, in ways that may have significant implications for economies of the present and future. Not only does technology allow providers to produce a single product, which is not mass-produced, it also allows a single product that is capable of being mass-consumed, either on a standardised or customised basis.

Such is the case with online internet access to dictionaries, encyclopaedias, newspapers, museum collections, etc. It will also be the case with key, basic operating software in the near future, as both Microsoft and Sun Microsystems have announced their intention to supplement distribution of packaged software with online versions.

The software industry has experienced exponential growth on the back of multi-media and home entertainment. In broad terms, three market classifications may be noted within the software industry. These are: suppliers of professional services (eg, EDS and Fujitsu), software products (eg, Microsoft, Oracle and Sybase), and integrated systems (eg, IBM and SAP). This broad structure has profoundly affected the shape of the software industry over the last 20 years. In terms of software sales, Microsoft is the leading player.

The information technology sector directly employs nine million people in high-wage, skilled jobs in more than 4000 firms around the world. It also supports 21 million more professional information technology workers in a range of industries, such as consultancy and systems integration. The information technology sector contributes over a trillion dollars a year to the global economy, which includes $420 billion from the information technology services sector; $330 billion
It could be argued that much of our current thinking of consumer behaviour has been focused on the question of what we know rather than what we should know.

Market liberalisation
As a consequence of economic liberalisation, many of the markets that were once the domain of very powerful countries, such as the US, Japan and Germany, have become more accessible. Free trade has become a reality within the major trading blocks of the EU, NAFTA, ASEAN and Mercosur. Low wage inflation and access to skilled labour from Eastern Europe and OECD countries, such as Turkey and Poland, are enabling countries like the UK to gain stronger competitive positions in many service related industries.

Deregulation, regulatory reform and liberalisation of many service markets and industries has created problems for the service industries (see Table 1). The software services industry, for example, remains chronically short of skilled manpower. In Europe alone, it is estimated that the industry is short of some half million skilled workers. Japan and the US are also severely short of computer service personnel. This shortage continues to provide good opportunities for countries such as India to take-up this slack and provide skilled people to fill the gap.

The international spread of the software services industry has not only resulted in capturing new markets, but also in providing opportunities to draw upon untapped pools of skilled workers. Although, 90% of the world’s exports in software are from the US and Europe, evidence would also suggest that outside the US, UK, and Japan, the new and emerging countries within the software industry are China, India and, to a lesser extent, Singapore and Malaysia.

Opportunities in services industries
According to Peter Drucker, there is only one valid definition of business purpose – that is to create a customer. Because it is the purpose to create a customer, any business enterprise has two – and only two – basic functions: (1) marketing and (2) innovation.

The general ethos of the marketing business process requires that all innovations be thought of as intended to help get and retain customers – in short, to make the firm more competitive. Some of the biggest opportunities for the cultivation and exercise of the marketing process exist today in the service sectors. As discussed, deregulation in many service industries and the increasing importance of technology are leading to huge innovations in e-commerce, e-business, education provision, and distribution.

More than ever before, some of the biggest opportunities for the cultivation of the marketing and customer interface exist within the service industries. Services have certain unique properties. They can usually be more easily and quickly redesigned and less expensively customised and remanufactured than can process or manufactured tangible products.

Consider how the convergence of new technologies has impacted on e-commerce led service activities. Leaving aside the issues around the Credit Crunch, recent new entrants within the international banking sector have taken advantage of technology by imposing new and disruptive ways of competing to existing incumbents. Those that manage the industry believe the power in the channel of retail financial services is already shifting to innovative new entrants able to offer a more attractive and efficient consumer banking interface.

It could be argued that much of our current thinking of consumer behaviour has been focused on the question of what we know rather than what we should know. Marketing and selling to a global consumer market where consumers come from diverse cultures with different tastes requires a locally-driven strategy that addresses the unique characteristics of the service consumers (refer to figure 2).

Future challenges
Growing demands for the availability of well educated and trained service personnel, and cost pressure from the market, as well as the complex processes in management, are fuelling the need for new skills for managers.
Sector | View on Reforms (based on OECD source information)
--- | ---
Business services | While business services are not as highly regulated as other services, some restrictions do exist, notably in the areas of engineering services, employee recruitment and education. In advertising, a remaining issue concerns the diverse regulations in countries governing the kinds of marketing and advertising which are allowed (including controls designed to protect health, uphold decency and protect privacy).

Distribution services | A wide range of regulations, including restrictions on large stores, opening hours and zoning, appear to have slowed structural change in the distribution sector. The regulations have sometimes affected the efficiency of the distribution system but mostly appear to have limited the range of services provided to consumers.

Financial services | Where it has occurred, regulatory reform in financial services, particularly greater competition, has resulted in increased productivity, lower costs and prices, and gains from improvements in the quality, variety and flexibility of financial instruments. Overall resource allocation has been improved and disruptions to financial flows from swings in macroeconomic conditions have been reduced, while countries have benefited from increased international capital mobility.

Network based content services | Reforms are needed to realise the potential of new services based on digital networks in three interrelated areas: i) general policy frameworks, including liberalisation of rules governing market structure, ownership and access, and protection of intellectual property rights; ii) regulatory institutions and procedures, particularly licensing policies and commercial codes of conduct; and iii) public support programmes, including efforts to promote domestic content.

Professional business services | Where restraints on the commercial aspects of professional practice have been relaxed, prices are lower and new services are appearing in response to consumer demand, while at the same time maintaining quality, performance standards and consumer protection through entry controls, licensing, etc. However, market access restrictions on foreign providers are limiting the ability of service providers to address the needs of clients that are expanding internationally.

Table 1: OECD Views on Regulatory Reform

“Service consumers expect consistent standards in all service encounters.”

With almost seven out of ten people employed within the global service industries, many service producers are increasingly under pressure to provide value-for-money and meet service consumer expectations. Service consumers expect consistent standards in all service encounters. The transmission of best practices from service producers to service personnel.

Responding to a growing demand for education and training services will require vision, investment and new business models. Although universities and other educational institutions have responded to some of the challenges within the service economy, there is still a wide gap between vocational and degree level qualifications. Managers working within the service industries wishing to augment their management credentials enrol on post graduate courses, such as the MBA, which although well respected, is strongly focused on an outdated strategic tool set. The goal should be to equip managers with skills in innovation and social responsibility. This entails changing business education, business models and finding new and innovative ways to measure productivity and growth.

Figure 2: Service Consumers v Service Producers
The way forward
The recent global crisis in financial services and other related commercial areas has come as a wake-up call to many involved in public and private sector industries, as organisations across the globe review their management structures and processes in light of significant and systemic organisation failures. Service producers and consumers have a lot to learn from one another. Management has always been important, but finding new ways to add and deliver value has never been more important. One way forward is to bring together those stakeholders who have a stake in the service economy and in the continuing professional development of those individuals who work within it.

Notes
The contributions of primary, secondary and tertiary activities to total value added have changed sharply over recent decades. Agriculture, fishing and forestry are now relatively small in almost all OECD countries. The share of manufacturing has also fallen in most countries, while services now account for well over 60% of total GDP in all OECD countries.

7 OECD (1997b), The OECD Report on Regulatory Reform, Paris

“Increasingly, professional institutions (such as the Institution of Management Services) are leading the way in developing new tools and techniques for professional service personnel”
Can an improvement in the energy market provide insulation from the global economic slowdown?

David Floyd, Senior Lecturer at the University of Lincoln, looks at the reasons for the importance of energy in the global business context. He then focuses on the progress made so far in energy market liberalisation and reflects on future possibilities.

There is a need to ensure the success of energy policy in the global market. Liberalising the energy market is important for numerous reasons. Firstly, Europe needs to rapidly take measures to improve growth due to the financial crisis and its implications for more Government interference in policy making.

McGowan (2008) argues that energy liberalisation has been one of the most important objectives for the European Union over the last 20 years. The three pillars of EU energy policy include security of supply, competition and protection of the environment. Furthermore, energy liberalisation could help to secure the supply of energy, as well as reducing pressure on supply. Cheaper energy can also help the economy recover from a downturn, since it has been arguably attributed to the global downturn in the first place.

The EU also wishes to develop World beating technology in environmental technologies which further relies on an effective energy policy. The UK has proposed to cut environmental pollution by 80% by 2050 (The Times, October 17) and

“Prices can be reduced due to competition and more efficiency can be created as the best resources are allocated”
The EU has also signed the Kyoto protocol to reduce greenhouse gases by 8% by 2012 (El Agraa, 2008). It is also important to focus on energy efficiency as, even if the price of oil falls, which has occurred of late, lower use will eventually lead to higher prices.

Finally, gas prices remain high, since they did not rise as much as oil in the first place. The price of oil has recently fallen, from 147 dollars in July 2008 to around 80 dollars in October 2008. Government and the EU has usually issued a code, where energy prices can rise by the rate of inflation plus a couple of percent, however, in the summer of 2008 they made exception to this rule due to the steep rise in global fuel prices. This, indeed, became an oil price shock. It will be interesting to see if their rules are now followed due to the recent declining price of oil.

Opening the market
Opening up markets can bring great benefits according to Viner (1950). Prices can be reduced due to competition and more efficiency can be created as the best resources are allocated. There are also benefits from merger activity which may take place, EDF and Atomic Energy UK being a recent example. The larger firm can reduce its costs by means of bulk buying and sharing infrastructure.

However, there are limitations; effective regulation needs to take place to ensure safety. In addition, firms need to be privatised to create this competition. At present, there is much Government involvement. EDF, for example, is still mostly owned by the French Government. Floyd (2003) suggests that countries have been allowed to miss deadlines of separation of generation and transmission in the past. Economic nationalism still remains. Privatisation needs to result in continued EU nation ownership of the main companies to ensure security of supply as a key European objective.

There has been some success in opening up markets in Europe, though EU countries have had various progress, depending on the histories of member states. For example, in the car industry it is now much cheaper in real terms to buy a car in Europe. Tariffs have fallen when exporting and the EU has intervened in the market place for cars to break up exclusive dealership arrangements.

According to Table 1, the UK is one of the most open markets in energy. This is due to the fact that privatisation of the utilities has taken place since 1985, with the privatisation of British Telecom. The French, on the other hand, have delayed privatisation and still, to some extent, support the idea of public ownership and national champions. The French have also been able to postpone and delay directives aimed at opening up the market in the past.

There is also a trend for more economic nationalism in times of a slow down, as is the case today. The Italians have also been slow to open up; refusing, for example, to sell the airline Alitalia to a non-Italian firm. The Greek market has also been slow to open up and this has been reflected by little switching of suppliers for customers as shown in Table 1.

Regulation
There is a long way to go to achieve success in this domain.
Indeed, the creation of a small number of competing firms in only certain EU markets could result only in a movement away from natural monopolies to a number of oligopoly type firms. These firms may price fix to some extent and only compete a little on price. Firms switching supplier, for example, may find it costly to keep switching if prices only change slightly and firms then begin to match each other.

In addition, firms will lose some of the benefits attributed to large firms, such as cheaper bulk buying, when public monopolies are broken up. Cross border efficiency driven mergers need to take place to ensure we achieve the best solution from the deregulation process, rather than simply creating private monopolies (Bishop, 1998).

Firms may also complain of a lack of service, particularly as more is done on the internet these days. There needs to be some regulation but effective regulation, rather than red tape, is required. In the longer term, the EU needs to create a wider range of firms competing in a variety of niche markets in order to lead the way.

### Table 2: The world’s oil discoveries by decade

<table>
<thead>
<tr>
<th>Date</th>
<th>Billions of barrels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre 1930s</td>
<td>100</td>
</tr>
<tr>
<td>1930s</td>
<td>120</td>
</tr>
<tr>
<td>1940s</td>
<td>170</td>
</tr>
<tr>
<td>1950s</td>
<td>260</td>
</tr>
<tr>
<td>1960s</td>
<td>350</td>
</tr>
<tr>
<td>1970s</td>
<td>260</td>
</tr>
<tr>
<td>1980s</td>
<td>140</td>
</tr>
<tr>
<td>1990s</td>
<td>110</td>
</tr>
</tbody>
</table>

Table 1: Degree of market liberalisation in European Union September 2005

<table>
<thead>
<tr>
<th>%</th>
<th>Electricity</th>
<th>Gas</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>Denmark, Germany, Spain, Austria, Portugal, Finland, Sweden, UK, Ireland, Norway</td>
<td>Denmark, Germany, Italy, Austria, UK, Spain</td>
</tr>
<tr>
<td>80-99</td>
<td>Belgium, Luxembourg, Poland</td>
<td>Belgium, Estonia, Ireland, Slovenia, Luxembourg, Sweden</td>
</tr>
<tr>
<td>60-79</td>
<td>Greece, France, Italy, Latvia, Hungary, Slovenia, Slovakia, Czech Republic</td>
<td>France, Hungary, Poland, Slovakia</td>
</tr>
<tr>
<td>40-59</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>1-39</td>
<td>Estonia, Cyprus</td>
<td>Czech Republic</td>
</tr>
<tr>
<td>0</td>
<td>Malta</td>
<td>Greece, Latvia, Finland, Malta, Cyprus</td>
</tr>
</tbody>
</table>

As can be seen in Table 2, there has been a shortage of discovery of oil, relative to the predicted population growth. This shows how it is important for countries not to rely on one source of energy. Recent policy in the UK has focused on expanding nuclear energy. There has also been success with solar and wind power of late, where the UK is able to power 300,000 homes from wind power on the East coast and is becoming a world leader in this domain.

Gas and oil reserves have become increasingly difficult to extract and there has also been limited competition across European firms for north sea oil. Coal has also become more expensive to extract. Some reliance on global energy supplies has become inevitable.

### Potential for the future

The former UK energy watchdog chief stated that fuel bills, particularly gas and electricity, have the potential to fall by a third due to the recent fall in energy prices in October 2008. However, this will only occur if the EU energy market becomes more open and if the EU and UK competition policy regulators act to ensure prices fall and there is no price fixing.

The EU Competition Policy, according to Mercado (2008), allows firms to be fined 10% of their turnover if they are found to be price fixing. There is also a 40% limit on market share for a firm in the sector. Business and consumers have complained of poor service, as well as prices varying across member states. Storage capacity also varies across European countries but this may only partly explain price differentials.

### The political debate

There is also a political dimension to the energy debate (McGowan, 2008). This concerns the relationship of the EU with Russia. With the growth of China and India, there has been recent concern about energy security. This may also help to explain some of the French Government’s policy to achieve national sovereignty of energy policy by adopting much Government ownership of the sector.

However, in terms of energy production, the EU is reliant on both Russia...
“However, in terms of energy production, the EU is reliant on both Russia and the Middle East”

and the Middle East. The EU has competence in external trading relations and has bargaining power as a major trading bloc and is developing energy policies with countries further East. However, more could be done to improve relations with Russia as it accounts for 20% of our oil needs and 40% of gas needs.

In return for better security of supply and improved trade relations, the EU has offered Russian firms a limited number of opportunities in the distribution networks. Further work is being carried out with Turkey, a potential future member, in establishing effective pipelines (McGowan, 2008; and European Council, 2007).

Conclusion
Successful liberalisation of the energy markets in Europe is crucial for job creation. Success may lead to the encouragement of new energy efficient technologies, as well as making the EU more competitive in energy pricing. As has been shown, there is a long way to go to achieving full potential.

There is a role for the EU to play in ensuring the most effective market structures are then created from this deregulation process. The environment created should include a lower cost efficient system that draws on all country and firm based strengths. Equally important is to achieve opportunities for new technology and innovation for Europe, as well as maintaining security of supply and effectively dealing with the politics associated with this.

Historical development also has its part to play in explaining why a single European market for energy is difficult to achieve, as well as differences in storage capacity and differing rates of taxation. Effective regulation is also a factor that needs to be considered for success in opening up the European energy market. Efforts should therefore be made in all these key areas to ensure that Europe achieves its potential in becoming more competitive in this area.

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Introduction
A few months ago I was chatting with an old colleague about various aspects of our past careers and ways in which the tools, techniques, methodologies and approaches of management services and productivity improvement had changed. In most cases, underlying ‘principles’ have remained the same but things have been adapted to cope with changed circumstances or the changed environment.

When talking about the measurement of work, we ranged across various measurement techniques and approaches until we hit the subject of rest and relaxation allowances. We noted that little seems to have changed over the last 20 or 30 years in the way such allowances are assessed and applied. (In fact, I was personally involved in the last major look at this topic with the review undertaken in 1990 by the British Standards Institution Committee on Management Services which I chaired and which led to the publication of DD204:1991, Guide to determination of exposure limits, recovery times and relaxation times in work measurement.)

Since that time, the nature of ‘industry’ and ‘work’ has changed. There is little heavy manual work left; we have seen the growth of service industries; the population is healthier; working hours have reduced; working patterns have become more flexible. This paper – which resulted from that conversation – seeks to explore whether those changes in work and working patterns require us to look again at the way in which we calculate and apply rest and relaxation allowances.

Background
Within the field of work measurement, it is common (and good) practice to make allowances within the times assigned to work activities for

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This paper is published as a Draft for Discussion to stimulate debate and hopefully move towards a new consensus on how rest and recovery allowances should be applied and managed. John would welcome comments which can be sent via email to director@natprodcentre.com.
It is important for employees that such allowances are given in terms of maintaining their health and wellbeing. However, it is equally important for employers in that fatigue has implications for safety and for work performance.

The actual time allowed for rest and recovery is normally assessed using guidelines (preferably recommended by a body with appropriate stature to offer credibility) which ensure that the allowance is commensurate with the demands of the particular work being carried out.

Though this is rarer, such guidelines may also offer guidance on the pattern of work and rest (the work-rest regime) to be adopted under specific working conditions and forms of activity.

Most of the guidance available refers to what would broadly be considered as ‘normal’ working conditions. Where the conditions are particularly hazardous – such as in conditions of extreme heat – particular care must be taken. As a general rule, allowances should not be used to try to compensate for unsafe or unhealthy working conditions; these must be tackled directly through task or work re-design.

Where safety is particularly important, such as in driving, additional constraints or conditions may be added through legislation or particular sector-based guidelines. In all cases, it is the responsibility of employers to ensure that all such legislation and regulation is adhered to.

This discussion paper starts with the assumption that most organisations operate a systematic process of assessment for rest, relaxation and recovery allowances, working to guidelines agreed with employee organisations and seen as being ‘fair’ by all parties.

However, as we suggested in the introduction, the various sets of guidelines in use are generally quite old. It is worth examining whether changes in the nature of work, in working conditions, or in working practices render these existing guidelines as inappropriate for such changed circumstances.

It is hoped that this paper will spark a discussion that might lead to a new consensus on rest and relaxation allowances – that can be used by the current generation of work measurement and productivity analysts, much as the previous guidance served the last couple of generations for the world in which they operated.

Rest and relaxation allowances: a brief history

Research into the fatigue induced by work and the need for work breaks was first undertaken after World War I by the Industrial Fatigue Research Board in the UK (Murrell, 1971). This research led to an understanding that productivity was increased when workers were given short breaks in which they could recover from the fatiguing effects of their work.

“This research led to an understanding that productivity was increased when workers were given short breaks in which they could recover from the fatiguing effects of their work”
“As a general rule, allowances should not be used to try to compensate for unsafe or unhealthy working conditions; these must be tackled directly through task or work re-design.”

Rest or relaxation allowance is an allowance of time given to workers to allow them to attend to personal needs and to recover from fatigue caused by doing their job.

One of the authoritative publications on the subject of rest and relaxation allowances is the Introduction to Work Study, published by the International Labour Office in 1964. The guide to allowance levels published in this first edition of the book was created by PA consultants in the early 1960s.

Further guidance was offered by Russell Currie, a British pioneer of scientific management, in his book, The Measurement of Work, published in 1965. He suggested that an allowance of 10% was appropriate for ‘walking without load’, for clerical duties and for light bench work with other ‘benchmarks’ set at 2.5% intervals up to 20%.

Over the years a number of similar guides have been published but all of them are broadly consistent around an allowance of 10-15% being ‘normal’, with additional allowances being made for ‘severe’ working conditions or particularly heavy work.

In 1990, the British Standards Institution attempted to review ‘current knowledge’ relating to rest and recovery allowances to identify whether it was possible to create a ‘standard’ but found that the level of research in this area was insufficient to create any scientific basis for such a standard. Instead, the BSI (via a committee under the chairmanship of the author of this paper) produced a ‘Draft for Development’ in 1991 (BSI DD 204, 1991) – a kind of policy discussion paper offering information and further guidance but stopping well short of ‘standardisation’.

The fourth edition of the ILO’s Introduction to Work Study was published in 1992 and little had changed in the form of guidance offered. (The author was an adviser and contributor to this fourth edition.) The ILO re-confirmed their approach in offering guidance and confirmed that they were not suggesting the creation of ‘standards’ for such allowances.

Levels of allowances
Rest or recovery allowance is built into the ‘standard time’ for a job (the time that an average, qualified worker should take to carry out the job of work under normal conditions when suitably motivated) and the underlying assumption is that a the worker should be able to achieve this ‘standard performance’ as an average over a day or shift without becoming more than reasonably tired. The allowance for rest and recovery is calculated on that basis.

Rest or relaxation allowance is generally established as a percentage of the basic time for the job, and is derived by considering factors such as:

- Posture;
- Motions;
- Visual fatigue;
- Energy output;
- Personal needs;
- Thermal conditions;
- Atmospheric conditions;
- Other environmental influences.

Where work is consistent across the range of activities involved, the allowance may be simply added as a straight percentage of the basic time for the job; where work involves a variety of activities or working conditions, the allowance may be calculated and applied separately for each element of work.

Typically the allowance...
Allowance for the operator to attend to personal needs

Allowance to recover from fatigue

BASIC TIME

STANDARD TIME

(combining personal needs allowance and fatigue allowance) will be in the range of 10% to 15% of the basic time, such that each standard hour of work will include an allowance of between 5.5 and 7.8 minutes of rest or recovery time.

(In practice there may be other allowances added on top. One such allowance is a ‘contingency allowance’, which is applied to compensate for short, irregular interruptions to work. It may not be worth applying detailed measurement to such activities. One common approach is to undertake sampling over fairly lengthy periods and to assess the average percentage of working time consumed by such irregular activities – this percentage is then added to make a revised standard time. Some organisations also add a ‘policy allowance’ to meet particular local circumstances.)

Work–rest regimes

Once we have established that workers require an allowance of time for recovery from the effects of their work, we have to decide on how this recovery time should be structured and made available to the worker.

The only general regulation on this issue is that under the European Working Time Regulations, if a worker is required to work for more than six hours at a stretch, he or she is entitled to a rest break of 20 minutes. The break should be taken during the six-hour period and not at the beginning or end of it.

The exact time the breaks are taken is up to the employer to decide. Employers must make sure that workers can take their rest, but are not required to make sure they do take their rest (BERR).

However, one of the reasons that make it very difficult to establish ‘standards’ for allowances is that work varies very much from one activity to another – in terms of its demands, its rhythms and built-in pauses. Where the work includes natural rest or recovery periods (such as when an operator is waiting for a machine to complete its cycle), it can be argued that no relaxation allowance is required since the worker recovers from fatigue during this period (though a ‘personal needs’ allowance is still necessary).

Fatigue builds up, particularly when work is ‘uni-dimensional’ – when there is no opportunity to recover from the particular form of stress or fatigue brought on by the work. Thus, work which demands high levels of concentration can be extremely tiring, but work which demands short periods of intense concentration is not so. Therefore, work can have a form of inbuilt work-rest or fatigue-recovery cycle. Where this is not so, either some form of work-rest regime must be imposed (such as ‘regulation’, mandatory breaks from the work that is causing the stress or fatigue) or the worker must be able to select their own work-rest regime (within the overall rest allowance parameters assigned to the work).

Again, in some sectors or jobs – such as driving – specific regulations apply; in others, it is assumed that some form of ‘common sense’ will apply. Where, for example, a worker is part of a team or part of a wider process, a specific regime may have to be imposed to safeguard the effective working of the team or process.

Group rest breaks are common in many working situations and have the added advantage of permitting social contact, as well as recovery from fatigue. Where a worker operates as an individual, he/she might be allowed greater freedom in selecting his/her own break or recovery periods.

Since a recovery period may only be necessary because of some particular facet of a specific activity, it may be that an alternative form of work (which does not include the specific stress or fatigue element) can be carried out in the recovery period. This alternative work may well carry its own rest or relaxation allowance but this may be less than that of the original, primary activity. Indeed, in some countries, such as Japan and some Scandinavian countries, ‘pause gymnastics’ are used to help workers recover from the effects of sedentary work (Pragier, 1986).

"The only general regulation on this issue is that under the European Working Time Regulations, if a worker is required to work for more than six hours at a stretch, he or she is entitled to a rest break of 20 minutes"
Questions
The above summarises past and current thinking and practice relating to rest and relaxation allowances, and to associated work-rest regimes. Clearly what is available is a variety of guidance but little in the way of a ‘scientific’ basis for the establishment of an indisputable approach to this topic.

All of the published guides seem to be of a consensus that, for ‘normal’ work, allowances of 10-15% are appropriate for typical work carried out under ‘normal’ conditions. This ‘consensus’ seems to have been accepted by employers and workers (and their representatives) and ‘it works’.

However a number of questions remain. Six such questions are:
- Has the nature of work changed sufficiently over the last, say, 20 years to merit a change in the nature of the ‘basic’ allowance?
- Can simple fatigue-reducing measures be introduced into work situations and reduce the level of rest allowance that needs to be given?
- Is there a case for treating differently a job or work pattern that includes a variety of tasks which could be said to be mutually compensatory in terms of fatigue created?
- Is a rest/recovery period required at all for work periods below a specific threshold length? If so, is that threshold length the same for different types of work?
- Does the nature of the rest/recovery experience affect the level of fatigue or the period required to recover?

(Can rest/recovery be accelerated by ‘positive’ rest processes?)
- Can/should a rest period outside of the paid working period (such as an unpaid lunch break) be used as recovery time?

Research
In terms of the (changing) nature of work and the relationship to a basic rest/relaxation allowance, the limited research available, summarised in the BSI DD 204:1991, suggests that the basic allowance – established in that publication as 8.6% and including the allowance for personal needs – is a fundamental result of basic metabolism. This suggests that this figure is ‘about right’ – certainly ‘right’ enough to stand as the basis of any calculation of rest allowance.

In terms of the second question above, intuition seems to suggest that ‘yes’ would be an appropriate answer – fatigue-reducing measures can be introduced. Taking an extreme situation, if someone is working in severe working conditions that demand high levels of rest allowance, and we remove those conditions, clearly the need for those high levels of allowance would be removed. Does this apply in less extreme examples?

Research suggests that workers who stand for long periods to carry out their work tend to adopt an asymmetric posture about four times more often that they adopt a symmetric posture (Whistance et al, 1995). Changing of posture provides a relief mechanism and Whistance and colleagues suggest that footrests provided for standing workers reduce
muscular-skeletal stresses and fatigue.

Similarly, floor mats can be used to encourage the body to naturally and imperceptibly sway, encouraging subtle movement of the calves and leg muscles (King, 2002). Cham and Redfern (2001) reported that “floor mats characterized by increased elasticity, decreased energy absorption, and increased stiffness, resulted in less discomfort and fatigue.” Similarly, fatigue can be reduced by the use of ‘appropriate’ footwear.

Clearly, then, work and working conditions can be adjusted to alleviate and mitigate the fatigue brought upon by the work. This must mean that a reduced allowance to recover from fatigue is appropriate.

There is little published research in the area of work-rest regimes, though there are some useful studies which make a contribution to the debate, particularly for driving, which, as mentioned earlier, is a well-regulated area of work.

The Australian Government has sponsored research into the effects of work-rest regimes on the performance of drivers. The report CR 191: On-road evaluations of a regulated hours regime and an alternative compliance regime (Williamson et al, 2000) describes an evaluation of the first pilot Fatigue Management Programme allowed under the Queensland Department of Transport alternative compliance programme.

This involved the evaluation of an alternative work-rest schedule which differed from the regulated regime in that it allowed longer periods of active work without rest (six hours instead of five hours) and allowed the mandatory six hours of continuous rest to be taken in two parts instead of one.

Fatigue levels reported in the study were not particularly high at any time, but the study used reaction times as the basis for the assessment of performance and these showed a marked difference – being slower under this alternative work-rest regime than under the regulated version. This seems to suggest that the particular work-rest regime does indeed have an effect on performance.

Rate of recovery

In many fatigue situations, the rate of recovery is not constant over time; indeed in some situations it can be exponential (Konz & Johnson, 2000). This means that a worker recovers more quickly in the first few minutes of a rest break than in the later stages. If recovery is complete in 60 minutes, it would take only four minutes to drop from 100% fatigue to 75%; but it would take 42 minutes to drop from 25% fatigue to no fatigue (Konz & Johnson, 2000).

This suggests that a number of short breaks will be more effective than one longer break. There is also a form of ‘virtuous circle’, whereby more recovery takes place over a number of shorter breaks and less fatigue is caused by the fact that the working periods are shorter.

However, this is not a simple
“Clearly, then, work and working conditions can be adjusted to alleviate and mitigate the fatigue brought upon by the work”

or straightforward issue. Often there are multiple potentially harmful effects of work which respond differently to different work-rest regimes. For simple standing work, for example, fatigue – as seen above – responds well to a number of short breaks; leg-swelling, however, which is another effect of standing for long periods, takes longer periods of recovery and would respond better to a smaller number of longer rest breaks (Chester et al, 2002).

**Positive recovery**

Does the nature of the rest/recovery experience affect the level of fatigue or the period required to recover? (Can rest/recovery be accelerated by ‘positive’ rest processes?)

There is evidence to suggest that it is possible to create a ‘positive’ rest experience. A study of VDU (computer data input) operators suggests that discomfort ratings tended to be higher with passive pauses and operators tended to find pauses with activity more relaxing than passive pauses.

This was in a study comparing different types of pauses – active, passive and diverting – in three 30-minute work periods (Sundelin and Hagberg, 1989). Each pause lasted 15-20 seconds and operators were reminded to pause every six minutes with soft music. Results showed that the static muscular load was low and did not change with different kinds of pauses.

Swanson and Sauter (1992) studied the effect of frequent rest breaks with physical exercises on comfort and productivity in a repetitive VDU task. Breaks were taken for: (i) 30 seconds after ten minutes work (ii) three minutes after 50 minutes work and (iii) ten minutes after 100 minutes work, with a 45-minute lunch break. One group sat passively and the other did simple exercises.

There was no difference between the two break groups in discomfort or mood state. However, the decrease in keystroke rate across the workday was less pronounced in the exercise group than in the passive group. The authors suggested that this might indicate that exercise breaks stabilise performance over time. In order to do this, they need to be effectively integrated into the work schedule.

This is the reasoning behind the ‘pause gymnastics’ mentioned earlier – and why tired drivers often feel refreshed after a short walk, rather than a short sleep.

Unfortunately, there is little research as to what other factors might contribute to ‘positive recovery’ and thus attempts by employers to provide additional relaxation factors (such as access to television in rest rooms) must be regarded as helpful experiments rather than successful aids to fatigue reduction or recovery.

**Politics**

The final question about whether a rest period outside of the paid working period (such as an unpaid lunch break) can and/or should be used as recovery time is a ‘political’ question. Clearly, a worker will recover from fatigue during an unpaid lunch break.

Whether this is ‘fair’ (that the worker recovers from the fatigue induced by work in his/her own time) is outside of the scope of this paper and will be the subject of specific agreements between employers and employee representatives.

It seems the more we look at the research, the more complex the situation becomes. What perhaps is needed, then, is a guide to work-rest regimes similar to the guides used for the levels of rest allowances – a guide that is ‘informed by’ current knowledge and achieves some form of consensus that it ‘works’.

The criteria against which it should be judged as ‘working’ are:

- It meets all legal and regulatory parameters for work-rest regimes;
- It minimises, as far as possible, any short-term fatigue effects on the worker, especially those that might affect the safety of the worker or third-party personnel;
- It minimises, as far as possible, any longer-term fatigue effects on the worker;
- It recognises efforts by employers to reduce the fatigue induced by work;
- It maximises the potential of the worker to carry out productive work;
- It prevents the worker from feeling other than ‘reasonably’ tired.

Though it may be that in some circumstances these criteria are mutually incompatible, if a guide could be produced that (mostly) satisfied these criteria under ‘normal’ conditions, it would prove helpful in establishing a ‘fair’ approach to the provision of appropriate rest breaks.

What follows is an attempt to create such a guide – using a simple decision algorithm which builds on current practice and on the ‘current knowledge’ as expressed throughout this paper but is essentially based on my
personal experience and judgement. This is created as a basis for discussion, which will hopefully result in some form of consensus view that can be used as the basis of a published guide.

Draft proposal for establishing rest allowances and identifying appropriate rest breaks

Note: As mentioned previously, the BSI Draft for Development (1991) suggests that the basic rest allowance, including the allowance to attend to personal needs, is 8.6% (and a derivation of this figure is given). However, the question remains as to whether this basic allowance is required for short work periods or shifts. The fact that mandatory rest breaks are not specified in the Working Time Directive for working periods of less than six hours suggests that, in such cases, the basic allowance may not be required.

The first stage is to identify the level of personal needs allowance and rest allowance that would be necessary to allow a worker to recover from the work if that work were carried out over a typical working day (and we are assuming that we are dealing with 'normal' work and that the level of such total allowance is likely to be in the range of 10-15%).

We then modify this figure by asking questions as follows:

Q Is the work ‘multi-dimensional’? ie, are there a number of tasks of different types that can help compensate for the fatigue created by each other, with no one work element covering more than 60% of total time? (Note: generally this means that elements of work have significantly different rest allowance percentages applied to them.)

← If so, multiply the rest allowance percentage by 0.9.

Q Is the work carried out under what could broadly be called ‘normal’ working conditions?

← If not, is the work carried out under what would generally be regarded as ‘extreme’ working conditions?

← If so, do not use this algorithm – this is not applicable to work carried out under extreme conditions?

Q Have specific fatigue-reducing aids been provided (footrests, adjustable seating, etc) and can these aids be used for more than 50% of the total working time?

← If so, multiply the rest allowance percentage by 0.9.

Q Is the revised rest allowance percentage less than 8.6%?

← If so, set the percentage at 8.6%.

Q Does the working period or shift extend over 4 hours?

← If not, multiply the rest allowance percentage by 0.5 (ie, reduce it by half)

This gives us a revised rest allowance percentage to be applied to the work (but remember that if there are changes to the conditions that caused the rest allowance to be changed from its initial value, than a re-assessment must be made.)

We can then offer some
simple guidance on the nature and length of rest periods and ways in which this percentage might be applied.

Firstly, it is useful to convert the modified rest allowance percentage to a number of ‘recovery minutes’, assuming the workers will work throughout the work/shift period at standard performance. If there are other allowances on top of the rest allowance (such as contingency or policy allowances) these should also be calculated as ‘other allowance minutes’.

So, for any working period – if a worker works at standard performance, the total working period consists of a number of minutes of:
- Operational capacity (essentially the total basic time over the working period/shift);
- Recovery minutes;
- Other allowance minutes.

Are there specific reasons (because of the integrity of the process or of team activity) why rest breaks need to be synchronised with those of other individuals or groups?

If so, are there specific, scheduled rest breaks (including meal breaks) considered to be part of the working day?

If so, reduce the number of recovery minutes by the length of these scheduled breaks. (Generally, multiple scheduled rest breaks should all be contained within a rest break window which runs from 20% of elapsed working period or shift time to 80% of elapsed shift time. A single scheduled rest break should be contained within a rest break window which runs from 30% to 70% of elapsed shift time.)

If not, create a schedule of breaks and reduce the number of recovery minutes by the length of these scheduled breaks.

Is the operational capacity greater than the basic working time (the working period/shift elapsed time less the other allowance time and less the total break time) because allowed rest breaks are more than the calculated recovery minutes? Note: this depends on whether breaks (especially lunch breaks) are considered to be part of the working period. Most often, lunch breaks are not.

If so, reduce the operational capacity to the basic working time.

Note: This process of ‘removing’ relaxation/recovery and other allowances from the standard time to leave a net ‘operational capacity’ means the throughput must be calculated by dividing operational capacity by the basic time for the job.

Scenario example
- Worker A works a 40 hour week, consisting of five equal days of eight hours from 9am to 5pm. Worker A is part of a work team and breaks are scheduled from 10:00 to 10:10, from 12:00 to 12:30 (for lunch) and from 15:00 to 15:10. All breaks are

“There is also a form of ‘virtuous circle’, whereby more recovery takes place over a number of shorter breaks and less fatigue is caused by the fact that the working periods are shorter”
part of the working day. The work is light and varied, carried out under normal conditions and the total personal needs and rest allowance has been calculated at 12%. There is also a contingency allowance of 3%.

- **Worker B** works on the same activities but works four x four hour shifts per week, each on a separate morning from 8am to 12pm. Worker B gets a scheduled break from 10:00 to 10:10.

- **Worker C** works for a different organisation and works broadly the same pattern as Worker A but the working day is 8:30am to 5pm and the lunch break is not considered part of the working shift period. The lunch period is ‘operator time’ and is not used by the organisation as recovery time.

We know (or find out after investigation) that:

The work is carried out under normal conditions.

→ No modification to rest allowance required.

The work is multi-dimensional.

→ The rest allowance percentage is multiplied by 0.9 to give a revised figure of (10.8 x 0.9) = 10.8%.

No specific fatigue-reducing aids have been employed.

→ No modification to rest allowance required.

The modified rest allowance is 8.6% or above.

→ No modification to rest allowance required.

Worker A has a shift which extends over four hours.

→ No modification to rest allowance required.

Worker B does not have a shift which extends over four hours.

→ The rest allowance percentage is multiplied by 0.5 to give a revised figure of (10.8 x 0.5) = 5.4%.

### Worker A

If Worker A works at standard performance over a full eight hour shift, the shift time includes:

- 420 minutes of working time = operational capacity;
- 46 minutes of rest/recovery time;
- 14 minutes of contingency (or other allowance) time.

Based on a rest allowance of 10.8%, total rest time provided within scheduled, paid breaks is 20 minutes.

An additional 26 minutes of recovery time remain.

Basic working time = working period/shift time less other allowance time less total break time = (480 - 14 - 10 - 26) = 420 minutes.

The operational capacity is less than this, so no modification to operational capacity is required.

### Worker B

If Worker B works at standard performance over a full four hour shift, the shift time includes:

- 221 minutes of working time;
- 2 minutes of rest/recovery time;
- 7 minutes of contingency (or other allowance) time.

Based on a rest allowance of 5.4%, total rest time provided within scheduled breaks is ten minutes.

An additional two minutes of recovery time remain.

Basic working time = working period/shift time less other allowance time less total break time = (240 - 7 - 10) = 223 minutes.

The operational capacity is less than this so no adjustment is necessary and operational capacity remains at 221 minutes.

### Worker C

If Worker C works at standard performance over a full eight hour shift (8.5 elapsed hours), the shift time includes:

- 420 minutes of working time;
- 46 minutes of rest/recovery time;
- 14 minutes of contingency (or other allowance) time.

Based on a rest allowance of 10.8%, total rest time provided within scheduled, paid breaks is 20 minutes.

An additional 26 minutes of recovery time remain.

Basic working time = working period/shift time less other allowance time less total break time = (480 - 14 - 20) = 446 minutes.

The operational capacity is less than this, so no modification to operational capacity is required.

### References

BERR: Department for Business, Enterprise & Regulatory Reform  
http://www.berr.gov.uk/whatwedo/employment/employment-legislation/employment-guidance/page28979.html#rest_breaks, British Standards Institution,  
DD 204:1991 Determination of exposure limits, recovery times and relaxation times in work measurement  
International Labour Office, (1992), Introduction to Work Measurement  
Ergonomics, 33/5.  
Organisational learning has been the subject of attention and research for a number of years, with a plethora of advice on how to become a ‘learning organisation’, adapt and survive and improve organisational performance. This paper sets out to examine the assumptions behind such advice by investigating a number of influences that may affect organisational learning at two Strategic Business Units (SBUs), operating in the UK, of two global companies, one American, one French.

Two in-depth studies were undertaken to identify the learning climate and capability (Pedler, 1999; O’Keeffe, 2002; Chen, 2005); the effects of different subcultures or communities in the same firm on learning (Schein, 1996); and the impact, if any, of learning on organisational performance (Tsang, 1997; Murray, 2002). The implications for global firms on learning and sharing knowledge across national, cultural and business boundaries were also investigated.

The research indicated that while learning practices and opportunities existed at both SBUs, a number of inhibiting factors were identified, including a mixed understanding of the drivers for improvement and learning; different and opposing perceptions of the current learning climate and capability; and the dysfunctional interactions of misaligned subcultures or communities. The study also found any link between learning and organisational performance unclear, and identified some of the difficulties of learning and knowledge-sharing across SBUs and the parent organisation.

The study suggests that collective learning in organisations...
Organisations and organisational learning: we learned?

is problematic and that the prescriptive literature on organisational learning and the learning organisation (i.e., that learning is organised, aggregated, controlled and apolitical) is an idealisation of real organisational life.

Introduction

The interest in and study of organisational learning after Cyert and March (1963) first used the term, started to increase in the early 1990s (Crossan and Guatto, 1996) and continued into the new century (Bapuji and Crossan, 2004). The key driver for this interest has been the belief that organisations are required to continually improve and adapt in the current competitive environment in order to survive and prosper. According to Goh and Richards (1997), these characteristics are promoted by organisational learning.

This paper sets out to explore the assumptions behind much of the literature and advice on organisational learning (OL) and the learning organisation (LO). We examine the evidence on the nature and prevalence of OL and LO at two case organisations, both strategic business units (SBUs) operating in the UK of two global companies, Lafarge SA (France) and Rockwood Electronic Materials (USA). The two studies were undertaken to identify the learning climate and capability (Pedler, 1999; O’Keeffe, 2002; Chen, 2005) at both SBUs; the effects on learning of different subcultures or communities in the same firm (Schein, 1996) at Rockwood Electronic Material (REM); and the perceived impact of learning on organisational performance at Lafarge Cement UK (Tsang, 1997; Murray, 2002).

Two of the authors were managers at each SBU where learning, through a number and variety of organisational initiatives over the years (e.g., Quality Management Systems, Continuous Improvement and Leadership Development programmes), has been something the organisations have actively promoted, investing considerable time and resources.

Learning climate and capability were examined by in-depth interviews across the process engineering function at Lafarge and survey methods across the whole site at REM. For this aspect of the study, a prescriptive/normative perspective of OL and LO was adopted (see Shipton, 2006). This served to underpin the research and capture organisational practices that could be considered as evidencing learning and elicit the views of organisation participants on the value and efficacy of such practices.

Schein’s work (1996) on the cultures of management and OL influenced the research at Rockwood to investigate the ‘alignment’ of management cultures or communities and its effect on OL. According to Schein, effective learning cannot take place if there is a ‘lack of alignment’ between the sub-cultures within the organisation.

The third area of enquiry undertaken at Lafarge and, arguably, one of the most important for an SBU and its parent is the premise that there is a positive relationship between OL and organisational performance. The interest here was the organisation’s learning capability and its impact, if any, on performance.

The paper will present the findings from the two case-studies and finally a discussion on the assumptions implicit in OL and LO and make suggestions for future research.

“Much of the academic and practitioner literature suggests that OL is a critical way to maintain competitive advantage in a competitive environment”
The research and literature on organisational learning (OL) is as vast as it is diverse. According to Shipton (2006), there is little common agreement about what organisational learning represents and the perspectives, interpretations and approaches taken vary from the prescriptive/normative to the explanatory/descriptive and from the individual to the organisational levels of learning.

The literature reviewed for this paper will focus on the research aims outlined earlier, namely, relating to learning climate and capability, the effects of sub-cultures or communities on learning and the links between organisational learning and firm performance. However, it is helpful to first introduce and explore some of the recurring themes and debates across the literature.

**Organisational Learning**

Much of the academic and practitioner literature suggests that OL is a critical way to maintain competitive advantage in a competitive environment and, as such, there is a significant quantity and variety of literature published. Lopez et al (2005) recognise that organisational learning is idiosyncratic and complex. This makes it difficult to imitate and transfer and, thus, offers a competitive advantage.

The existence of OL as a collective and shared process at the organisational level has been questioned (Douglas, 1986; Easterby-Smith et al, 2000). Douglas concedes that much of the learning that goes on in an individual’s head is influenced by others in the organisation but rejects the view that organisations, as collective entities, can learn. Easterby-Smith et al (2000) called this the ‘levels of learning’ debate and suggest that it is now accepted that learning occurs at different levels (see McDougall and Beattie, 1998; Mullholland et al, 2000; and Bontis et al, 2002). The literature reviewed shows that OL is a complex and multifaceted subject. A significant proportion of the literature can be classed as literature reviews or theoretical papers without empirical data.

**Literature**

The research and literature on organisational learning (OL) is as vast as it is diverse. According to Shipton (2006), there is little common agreement about what organisational learning represents and the perspectives, interpretations and approaches taken vary from the prescriptive/normative to the explanatory/descriptive and from the individual to the organisational levels of learning.

The literature reviewed for this paper will focus on the research aims outlined earlier, namely, relating to learning climate and capability, the effects of sub-cultures or communities on learning and the links between organisational learning and firm performance. However, it is helpful to first introduce and explore some of the recurring themes and debates across the literature.


Tsang (1997) and Chiva-Gómez (2004) identify literature as being prescriptive or descriptive. The former are mainly published by consultants and concentrate on telling organisations how to learn, whilst the latter are written by academics and study how organisation learning occurs. Tsang (1997) comments that prescriptive papers tend to lack scientific rigour while the descriptive papers, though rigorously researched, fail to offer practical advice. However,
it is possible to identify common themes to investigate organisational learning processes and capability.

The complexity and variety of organisational learning is highlighted by the many definitions found in the literature. Tsang (1997) identified that definitions of OL tend to involve cognitive and behavioural changes with a debate on whether real action to correct errors within accepted organisational rules. Double loop learning is said to occur when the organisation’s underlying shared mental models are examined and changed.

Edmondson and Moingeon (1999) identify two types of learning which require corresponding learning capabilities. Learning how is defined as learning to execute a routine without necessarily understanding why it works. Learning why requires diagnosing and understanding problems to allow alternative approaches to be developed.

Murray (2002) identifies adaptive and generative learning. The former is concerned with the firm adapting to environmental changes and the latter with new ways of looking at the world. Murray (2002) points out that recent empirical research in the New South Wales construction industry found that adaptive learning was more evident than generative learning.

The Learning Organisation
The concept of the learning organisation (LO) was made popular in the early 1990s by Senge (1990) and others (eg, Pedler, 1998; Garvin, 1993). The concept was that to survive and be successful, an organisation must become a ‘learning organisation’.

Apart from the number and variety of definitions of the LO on offer, Leitch et al (1996) and Easterby-Smith et al (2000) both discuss the confusion that the LO introduced into organisational learning research. However, Leitch et al (1996) suggest that: “the LO is an organisation that excels at collective learning”, whereas, “OL refers to the methods of collective learning.”

Tsang (1997) suggests a similar relationship, where OL is an activity undertaken by an organisation, whilst the LO is a type of company, ie, “…a learning organisation is one which is good at organisational learning.”
Organisational Learning is thought to improve organisational performance and a large proportion of the literature examine the processes, systems and factors that facilitate this. Much of this literature tends to be prescriptive with an ideal set of learning conditions. More recently, the literature has accepted that multiple formats exist to enable organisational learning and success.

Fiol and Lyles (1985) identified four contextual factors: cultural influences, organisation strategy, structure and the environment that affect the probability of learning occurring. Senge (1990), Garvin (1993), and Ulrich (1993) propose ways of building learning organisations and the skills required including: ‘systems thinking, personal mastery, and mental models’ (Senge); experimentation, systematic problem solving and transferring knowledge quickly and efficiently through the organisation (Garvin); and building commitment to learning (Ulrich).

Popper and Lipshitz (2000) take a cultural and structural approach to OL, where the mechanisms for learning are the structural and procedural arrangements that allow organisations to collect, analyse, store, disseminate and systematically use information that is relevant to performance. These authors propose that the culture must have a continuous learning perspective and without a strong leadership commitment to learning, the probability of institutionalising OL is low.

A number of authors (e.g., O’Keefe, 2002; Nevis, 1995; Huber, 1991) imply that for learning to occur, one ideal set of conditions for learning exist and there are steps in the learning process that must be followed.

Pedler et al (1999) suggest a ‘learning company’ must have a number of characteristics. They have designed a questionnaire as a diagnostic tool to investigate to what extent the organisation is a learning company and where are the gaps measured against their 11 learning company characteristics. While their learning company diagnostic offers a pragmatic method of measuring the current learning climate, Pedler et al recognise that their descriptive approach can be interpreted in different ways by organisations.

OL Effectiveness and Measurement

The relationship between OL and organisational performance is an issue that many prescriptive perspectives never seriously question (Ortenblad, 2002). Like many organisational interventions that appear to be good for the business, the quantification of the benefits depicted is often not undertaken.

According to Shipton (2006), there is little empirical work available to test the notion that there is a significant and positive relationship between adoption of practices to promote learning and competitive success. However, there is some research evidence claiming positive links between firm performance and OL (Tippins and Sohi, 2003; Lopez et al, 2005).

Using questionnaires, these studies have examined organisation level performance, i.e., profitability, return on investment (ROI) and sales growth and customer retention, albeit through indirect measures to protect confidentiality. Empirical studies still appear to have done little to clarify the link between individual level learning with organisational
Organisational Learning

“Empirical studies still appear to have done little to clarify the link between individual level learning with organisational level outcomes”

level outcomes and what lies within the ‘black box’ (Friedman et al, 2005).

Tsang (1997) points out the problems of assessing the impact of OL and the difficulties in establishing a cause and effect relationship.

A summary of the key constructs emerging from the literature reviewed so far is used in the design of our research tool at LCUK – see appendix.

Management cultures and OL

A number of authors reviewed here refer (directly and indirectly) to the cultural dimension of organisations and the influence on OL. The essence of OL as a collective process is the ‘sense making’ (Weick, 1995) or the ‘joint construction of meaning’ by those involved. The sharing and the dialogue process required can be a considerable impediment to OL because in any organisation there are competing ideologies or cultures.

Schein (1996) identifies three management cultures which he believes are present in every organisation and can impact on the capability to learn. Schein describes these cultures as the operator, engineering and executive cultures or communities. Each of these cultures has a set of shared assumptions about their roles, the business and what is important. The operator culture is essentially an internal culture but engineering and executive cultures have their roots outside the organisation in the wider occupational communities.

Operations managers focus on the production process and the people employed. Regardless of how carefully engineered the process is, its effective functioning will be determined by the quality of the operations performed, the ability of people to learn and adapt to unforeseen circumstances. According to Schein, engineers (systems designers and technocrats) are attracted to their professions because it is a technical process. They often belong to professional bodies and they prefer people-free solutions. The CEO and executive levels have a different educational background, tend to be preoccupied with financial survival and growth of the organisation. The assumptions are based on executives who have moved up the hierarchical ladder and with increased responsibility, it becomes harder to influence operational matters. Schein believes that managing from afar induces the need for impersonal control systems and routines to manage costs, etc. People tend to be viewed as a resource and regarded as costs, rather than human assets.

Dysfunctional interactions arise when the three cultures or communities are misaligned or in conflict and Schein argues that this has become acceptable or ‘normal’ in many organisations. As each culture devalues the concerns of the other cultures, there is less likelihood of looking for integrated solutions. The organisation’s ability to collectively learn is largely determined by the readiness of organisation participants to be open and share knowledge and concerns.

All three cultures are valid and a source of valuable learning. Schein concludes that the three cultures should not define reality for the others and until executives, engineers and operators realise that they use a different language, make different assumptions about what is important and come to accept that other cultures’ assumptions are valid, OL will continue to fail.

The nature of the business at REM and the sub-cultures observed over a number of years provided us with an opportunity to explore these communities in more depth and the likely effects on learning.

Research Methods

The research is based on two case study organisations. The choice of the organisations is based on the following. Firstly, both firms have global manufacturing operations and a considerable history in their respective manufacturing processes. They both have a level of sophisticated manufacturing processes and production management, quality systems and continuous improvement initiatives which increases the likelihood of learning systems and practices of one kind or another.

Secondly, the organisations are UK SBUs, both with foreign parents and with the potential to share knowledge across other SBUs (inter-organisational or global learning). Thirdly, two of the authors were ideally placed, as managers at the organisations, to undertake the research, access company records and documentation
“People tend to be viewed as a resource and regarded as costs, rather than human assets”

and the research participants. As ‘insiders’ this provides advantages for the research but also some potential drawbacks. Care was taken to ensure the conduct of the research ensured what Lincoln and Guba (1985) call ‘trustworthiness’ (plausibility, credibility, authenticity).

A mixed methodology was adopted for the research overall which pragmatically combined quantitative and qualitative methods in order to study the different but related dimensions of OL. The debate on researching OL has identified the value of both quantitative and qualitative methods, as well as the potential for middle ground research (Easterby-Smith, 2000).

At Lafarge, the Process Engineering function serves as the sampling frame to examine learning capability and the perceived impact on performance, by face-to-face interviews with members of the function. Process engineers are considered a critical group of employees whose role interacts with all operational functions and are considered as key staff in sustaining performance.

At Rockwood, a survey strategy using questionnaires across the whole SBU population (55) is employed to explore perceptions of the Quality Management System (QMS), learning climate and identify subcultures or communities.

Company policies, documents, systems and practices (eg, training programmes, knowledge databases) were reviewed and analysed in detail at both companies.

Research settings
Lafarge Cement UK (LCUK, formerly known as Blue Circle Cement UK) became part of the French-based Lafarge SA in 2001. Lafarge Cement UK has 40-50% by volume of the UK cement market. In recent years, performance at LCUK has varied and one of the strategic objectives is to sustain improvements in industrial performance and retain a competitive advantage in the market place.

OL is seen as potentially one way of achieving this aim. The ‘Leader for Tomorrow’ programme was launched in 2002 to demonstrate the ‘Lafarge way’ (product/service innovation, supportive environment, developing talents, training focused on performance improvement – Company Report).

Rockwood Electronic Materials (REM) Wafer Reclaim is an SBU within Rockwood Specialities Inc. It is one of five Wafer Reclaim sites based in the USA, France, Germany and the UK. Each site has different capabilities and capacities and are of different ages.

Wafer Reclaim is the process of reclaiming material from silicon chips. Over the years, the Wafer Reclaim group have increased their commitment to quality management systems, continually improved their ISO ratings and the adoption of TQM techniques. The restructuring of the UK site and QS 9000 was believed to be the first in the world for a Wafer Reclaim facility. Continuous Improvement is a philosophy adopted by the business and driven by the Quality Management System (QMS).

Data Collection and Analysis
LCUK
In-depth qualitative semi-structured interviews were carried out with seven process engineering staff from a total of 18 staff in the function. Questions were framed around a research tool developed from the literature review and designed to capture the key dimensions of facilitating factors and learning capability.

The researcher’s role as a process manager at LCUK enabled a knowledge and familiarity of the research setting (process engineering background, spoke the language, credibility with staff). While the interview process benefited from the closeness of the researcher, there remained
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a strong level of critical awareness and scrutiny. All interviews were tape-recorded and transcribed. Coding and thematic analysis similar to previous OL research studies (Naot et al, 2004; Andrews and Delahaye, 2000; Di Bella, 1996) revealed five domains of OL and is discussed later.

REM
All 55 staff of the REM site took part in a questionnaire survey to identify the learning climate on six of Pedler et al’s learning characteristics. Respondents’ views and understanding of the QMS were also elicited by the questionnaire and we explored the assumptions and beliefs held across different staff groups or management cultures (Schein, 1999).

The data from the questionnaire was entered into an Excel spreadsheet to enable formatting of results which represented each respondent’s mean score of Pedler’s ‘Learning Company’ characteristics. From this information, collective mean scores for the population were calculated for each learning characteristic to produce a satisfaction and dissatisfaction index. Using SPSS, we were also able to examine the data in terms of department, position, age and length of service. All other questions addressing the QMS and management cultures were entered directly into the SPSS data editor and analysed by inspection, frequency and grouping.

Findings
We now examine the findings of the research at each of the two organisations.

In both organisations, the management of production processes has reached a level of sophistication in both awareness of and commitment to improvement, development and learning. Both organisations employ a variety of means to do this (eg, quality management systems, TQM techniques, statistical process control (SPC), problem solving, QS9000, benchmarking, knowledge and information systems), indicating a strong desire for organisational learning.

LCUK
The interview data analysis was coded into five ‘themes of commonality’ or domains of OL, as follows: action initiators; action types; learning practices; organisational attitudes; and learning impact. Here we present a summary of the findings from each domain that address the main research aims.

Learning Practices and Capability
The analysis identified that OL practices and facilitating factors discussed in the literature exist within LCUK. Processes were discovered, including performance measurement, problem solving, knowledge transfer and individual learning, and that a team working approach was used as necessary.

All interviews described the internal and external drivers (action initiators) for OL and change by way of projects, investigations and actions as cost reduction or increased production. The majority of interviews also identified drivers based on safety requirements (eg, zero lost time accidents – LTAs), legislation (eg, Chrome directives) and customer response and product quality (eg, avoiding complaints and compensation).

The interview data and company policy and practice suggest that performance measurement and benchmarking are major factors in improvement within Lafarge SA and LCUK. All interviewees knew and used the official KPI system with the majority of actions and changes coming from regular performance measurement and benchmarking.

Reflection and assessment on these actions, an important part of learning, according to the literature, was less evident. Interviews and assessment data suggested this was informal and not routinely applied to specific actions. Unplanned and unpredictable incidents and accidents also trigger action for improvement to plant processes and the reduction of LTAs.

Whilst examples of innovative process improvement exist, most examples cited by interviewees appeared to be about improved utilisation of existing technologies and competencies. The main form of change and learning (action types) within LCUK is the improvement of existing systems, ie, adaptive learning, while the major aspect of learning capability suggested in the literature is experimentation and innovation, ie, generative learning (Murray, 2002). Evidence gathered in our study suggests that LCUK is not an innovative company but the low-tech nature of processes in the industry may explain this.

All interview questions explored learning practices of one kind or another. Most interviews contained references to problem solving and root cause analysis (RCA), the formal system used to investigate plant breakdowns, but the majority of approaches to problem solving cited were informal and developed through experience. Garvin (1993) and Naot et al (2004) describe the importance of systematic problem solving and investigation in OL.

All transcripts contain references to team working, another major OL facilitating

“The organisation’s ability to collectively learn is largely determined by the readiness of organisation participants to be open and share knowledge and concerns”
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Organisational response to failure, openness, trust and transparency improve information flow, solution development and thus OL

factor according to Senge (1990) and Chiva-Gomez (2004). Interviewees cited team working, as and when required, to resolve plant problems. All interviews contain references to organisational memory sources (people, archives, databases), another key factor in OL according to the literature.

However, knowledge from external sources appears to be under utilised. Replies to the questions on the use of external sources suggest that this is infrequent, with only one respondent saying they had. Transcripts confirm knowledge transfer and dissemination takes place and with willingness to share, but not as a regular operation. For example: “… I give a lot of feedback, if I’m asked…”

The infrastructure for knowledge transfer is available within LCUK (across seven plants in the UK) but dissemination appears to be infrequent. Dissemination between SBUs and the parent, Lafarge SA, was not evident from the interviews.

Strong individual learning practices exist, ie, training courses, appraisal, rotational placement and the consensus among interviewees was that LCUK was a good provider of individual training and development. This contribution to OL (Nevis et al, 1995; Pedler et al, 1999) suggests that Lafarge is attempting to build or maintain its intangible organisation memory.

Supporting cultural, policy and psychological aspects of OL (organisational attitudes) are considered to be essential factors to successful OL (Lipshtiz, 2002) and management support for new ideas at LCUK was expressed by interviewees as a positive factor.

Organisational response to failure, openness, trust and transparency improve development and thus OL, according to Nevis (1995), Chiva-Gomez (2004), and Naot et al (2004). However, all interviewees gave similar responses with regard to the question on this topic. For example: “… sort of grey area; … depends on your boss… people do penalise you for failing; … follow the Lafarge way and you’re OK…”

While the extent of a safe climate has not been determined here, the organisation’s response to failure, the need to demonstrate value before management support is given and the inferences about transparency quoted above, suggest the climate may be restrictive. Based on the evidence collected, LCUK was not a learning organisation as defined in the literature but, like many organisations, it does have practices and issues which affect learning capability (DiBella et al, 1996).

OL and Performance

The interview data on the links between OL and performance (learning impact) provide only limited evidence. Respondents did not know if OL was improving performance. They said that the learning practices found at LCUK ‘should’ improve performance, but they could not provide definite examples.

While no definite conclusions can be drawn, the respondents (process engineering staff, all well placed to observe and judge learning and improvement) found difficulty in quantitatively or qualitatively describing how their learning or the learning of others could promote organisational-level outcomes.

There are a number of problems researching the link between OL and performance. The literature reports on the failure to define an assessment method and Tsang (1997) and Murray (2002) discuss the difficulties of determining cause and effect.

Most of the prescriptive literature implies that there is a link between OL and performance and competitive success. The belief and faith in this link is a common one but without a great deal of evidence, according to Shipton (2006).

The limited amount of data collected in our study and the way in which we explored the impact of OL on performance gave no clear indication on the links but further supports a need to devise more robust methods of assessment if the claims in much of the literature are to be taken seriously.

Part two and a full list of references will appear in the next issue of the journal.

This paper also appears in The International Journal of Knowledge, Culture and Change Management, Volume 8, Number 5.
Death in the work place

Last year, the Government introduced an entirely new concept into Law – Corporate Manslaughter. Alan Vincent, Senior Partner at Vincents, explains what the legislation means for businesses.

Companies, partnerships and multi manager traders will all be affected, as will Government bodies, trusts, hospitals and trade unions. In fact, the new measures will effectively apply to any body which employs people to work on their behalf.

Background to the new legislation
Historically, the old law was personalised. The Government wanted Senior Managers to be responsible in Law for deaths caused by systematic failures. A successful prosecution needed to convince a jury that a senior manager or director was the ‘controlling mind’ within the organisation. Therefore the act, or omissions of this person, were grossly negligent and caused the death. They had to have done, or failed to do, something that was within their control. This act, or failure to act, would have amounted to gross negligence or to have...
contributed to the death. However, despite a plethora of leading cases on Corporate Manslaughter, which more often than not have brought about damning comments in the enquiry, no successful prosecution was ever brought against any senior manager in a corporation of any size, as shown in the Herald of Free Enterprise, Piper Alpha disaster, Southall and Hatfield Rail Crashes cases.

The only exception to this was Lyme Bay. In this case, children were allowed to canoe within Lyme Bay in bad and worsening weather conditions. This case involved only a small company, where the ‘controlling mind’ that caused the deaths could easily be identified. This resulted in a successful prosecution for Corporate Manslaughter and also a prison term.

The implications of the new legislation

Now, everyone has a ‘duty of care’ to their employees, and if a death is caused whilst in your employment and you are shown to be in breach of that duty of care, then potentially you expose yourself to a Corporate Manslaughter charge.

If in future there is a failure of health and safety systems which can be described as a ‘gross breach’ of that duty of care, and that systematic failure and breach of duty can be ascribed to ‘senior management’, then your organisation will be exposed to prosecution.

It is no longer necessary for the Prosecutor to point the finger at the particular senior manager or director. He need only show failure of management or organisation that equals a ‘gross breach’ of duty of care.

The act does not define who will be described as senior management, that will depend largely on the facts of each individual case and depend largely also upon the size and structure of the business that is involved and which is to be prosecuted.

In assessing ‘gross breach’, a jury will have to consider whether the evidence shows that the company’s conduct falls far below that which could reasonably have been expected of it. The factors that will be taken into account are:

- Did the company comply with HSE legislation and guidelines?
- How serious was the failure and was the injury caused by the failure the cause of death and was injury itself a real risk?
- What evidence is there of the attitude of the employer to health and safety systems, practices and regulations?
- Did the employer plan, deliver, monitor and review its health and safety procedures?

Health and safety clearly needs to be very high on the employer’s agenda that should be dealt with at the highest level of the employer’s firm.

Guidelines and attention to detail should be handed down from the board or from senior management, in order that an audit trail can be shown to prove that the employer takes health and safety as seriously as it is expected to.

It is no longer required to find a controlling or a directing mind, so it will be easier in future to prosecute employers for Corporate Manslaughter, but detractors would say that it also means that no individual can actually be sent to prison, as no individual will be prosecuted, it will be the employing organisation. It is being mooted that there should be huge fines inflicted for breach, causing Corporate Manslaughter, possibly as much as 10% of turnover.

Penalties under the New Act

The New Act has enforced new penalties on the defendant. Firstly, there will be an unlimited fine. The recommended level of fines has been set at between 5% and 10% of turnover, however in smaller businesses this may be more. In large organisations, fines in the multi-millions are expected to be the norm.

Secondly, remedial orders will allow the court to force a defendant organisation to remedy the systematic failures, which have been found to have caused or contributed towards the death.

The last penalty is publicity orders. The defendant may be ordered to publicise details of the conviction, including the amount of the fine levied upon it by the court.

Perceived positives and negatives

Perceived positives of the New Act:
- No longer need to identify a ‘controlling mind’;
- Systematic failure may now lead to a conviction;
- An aggregation of failures in management systems and procedures, which when taken together amount to a gross breach of duty, will be enough;
- The jury may consider attitudes, policies, systems or accepted practice when considering culpability;
- The jury is required to consider any relevant health and safety legislation and any lack of adherence to it by the defendant in considering culpability.

Perceived negatives of the New Act:
- Only fines/remedial/publicity orders are available
as punishment, not imprisonment;
- The Act still provides immunity for many Government Departments (deaths in Police custody included);
- DPP has to consent to a prosecution;
- No extra territorial cover, UK deaths only, not outside, even when caused by management failure inside the UK;
- There is still a senior management test involved;
- Many more contested trials expected.

How to avoid prosecution
In order to avoid prosecution, your organisation must ensure that there are the correct methods of health and safety in place. There are many HSE statistics that show the human and financial cost of failing to address health and safety.

It has been found that each year, more than 200 people are killed in the UK. This is not including work related road deaths. In 2006, due to occupational ill health and injury, 30 million working days were lost in the UK. This then resulted in an annual cost to society of £30 billion.

Many thousands of deaths each year can be attributed to occupational illness, including some cancers and respiratory diseases.

With all this in mind, Health and Safety Advisor, Bill Rogerson, on reviewing the legislation, and the HSE documentation in relation to Corporate Manslaughter, cites a plan of action for companies and institutions to avoid prosecution.

This is derived from the guidance produced by the Health & Safety Commission, HSE for Northern Ireland and Institute of Directors (IOD), which sets out an agenda for the effective leadership and implementation of health and safety. It is a joint initiative by the HSE and IOD and it is designed for use by all directors, governors, trustees, officers and their equivalents in the private, public and third sectors, and applies to organisations of all sizes.

Step 1: Plan
The board should set the direction for effective health and safety management and establish a health and safety policy that is much more than a document – it should be an integral part of an organisation’s culture, of its values and performance standards.

Your company should aim to control all possible risks to their employees, as all injuries, occupational ill health and incidents within the workplace are preventable. You should state your position on health and safety matters, including your compliance with legislation and the importance of health and safety to your organisation.

Your organisation must recognise that people are the most important asset. A fit, enthusiastic, competent and committed workforce is a major benefit. Also, your organisation should say how you select people, material and equipment. The majority of injuries and incidents are not caused by ‘careless workers’ but by failures of those who are in control. This is the responsibility of the management. So therefore, your company must specify who is responsible for making arrangements for identifying hazards and controlling the potential risks.

Step 2: Deliver
Delivery depends on an effective management system to ensure, as far as is reasonably practicable, the health and safety of employees, customers and members of the public.

Establishing and maintaining control is central to a management system. This can be achieved by getting the commitment of all employees to health and safety objectives. The main emphasis on the collective effort is to develop and maintain the systems of control. This begins by managers taking full responsibility. By doing this they are able to nominate a senior figure to co-ordinate and monitor the business; or appoint specialists as advisors. They are also able to delegate to the managers, therefore making them accountable.

Within the management system, your company should put in place systems for recruitment/selection of personnel, cover for absent employees, training/validation and the maintenance of knowledge to ensure that it is up-to-date.

Your company must have the co-operation and involvement of employees at all levels. This includes risk assessments, hazard reporting and near-miss reporting.

The company must have co-operation with the health and safety representatives and committees, as well as involvement of contractors (both ways). The buy-in with other companies is also vital, for instance in cases where there is multi-occupancy.

Your company should also aim to plan and set standards that are measurable, achievable and realistic. These should include setting objectives, identifying hazards, defining procedures, establishing safe systems of work, emergency procedures, controlling contractors and identifying who does what, when and with what results.

Step 3: Monitor
Monitoring and reporting is key to ensuring the proper working of an effective health and safety culture.

Management systems must allow the board to receive both specific and routine reports on the performance of the health and safety policy. The best form of monitoring is active measurement. This is where you spot the problems before they go wrong, and assess how well you are doing the things that you have said you will do.

Reactive measurement can be used after things go wrong, for example, injuries, damage and environmental effects. In order to effectively monitor and measure the performance of the management system, you need to know where you are now, where you want to be and what the difference is and why.

Step 4: Review
A formal boardroom review of health and safety performance is essential. It allows the board to establish whether the essential health and safety principles – strong and active leadership, worker involvement and assessment and review – have been embedded in the organisation.

“In large organisations, fines in the multi-millions are expected to be the norm”
The European Productivity Conference will be held in Grimsby in the United Kingdom from October 28th – 30th, 2009. The theme of the Conference is:

Enterprising Public and Private Sector Organisations: Learning from the Best

Introduction

The conference presentations and discussions will be firmly set in the context of the current global financial situation and will address issues of public policy, together with lessons from the public and private sectors about how organisations can position and develop themselves for survival and growth.

October 28th
Session 1
European Economic Productivity Think Tank

Will include a keynote presentation from a member of the UK government and a series of presentations from the national productivity organisations of UK, Germany, France, Finland, Slovakia, Turkey, Cyprus, Belgium addressing the problems facing governments, public policy bodies and commercial organisations.

October 29th
Sessions 2 & 3
Enterprising Activity and Organisations

Will present in two Tracks representing the private (Creating & Building Sustainable Wealth-Creating Enterprises) and public (Creating Enterprising Public Sector Organisations) ways in which organisations can improve their ability to survive, grow and prosper. Presenters will include the Chief Executives of public policy bodies, commercial organisations and support agencies.

October 30th
Session 4
So what do I do on Monday morning?

Will analyse the content of the conference and synthesise approaches to public policy and organisational activity that together, when filtered through a specific national or regional context, can ‘make a difference’ to productivity and economic performance.

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