The Sustainability of Lean Transformation
Manufacturing and Lean Manufacturing in the UK
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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, Dr John J Lucey presents a series of articles based on research which investigates the main enablers and inhibitors to the sustainability of major lean transformations.

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Chairman’s Column

This will be my last Chairman’s column as I will have completed five years as Chair when I stand down following the Institute’s AGM on October 10.

Like most Institutes, we have faced the challenge of reducing membership and an erosion in what were core areas for our membership. You will see that this journal focuses on the state of manufacturing in the UK and the current state of lean manufacturing in the UK. The manufacturing sector continues to reduce in size and the proportion of UK companies owned by foreign companies is much higher in the UK than in the rest of Europe. This is especially true in the utilities sector and is probably contributing to the soaring cost of household energy.

The IMS have faced this challenging period by adapting and, in essence, we have applied our own tools and techniques to the challenges we faced. These same challenges have driven other similar sized institutes into liquidation.

I would like to pay tribute to the hard working members of Council who have helped secure the survival of the IMS for the foreseeable future. This marks the end of a period of consolidation and rationalisation and the beginning of a new phase in the history of the IMS.

In spite of being regarded as the instigators of change and improvement, I have often detected a real resistance within our membership to enthusiastically embrace change and harness the latest technology. The speed of technological advancement can often be daunting, so it is vital to grasp the opportunity that it offers.

The IMS website is rapidly becoming our portal or ‘shop window’ to the world. We can reach members all over the world and engage in a meaningful two-way communication process. I hope to see the time when the majority of members access the journals online and we can make a saving on the ever increasing cost of postage. This obviously has environmental advantages, as well as a financial saving.

The rapidly developing world of China, India and Brazil and other low cost economies may offer the IMS some opportunities to use its traditional approaches to improving productivity. In marketing terms, the UK life cycle for our tools and techniques grew in the 1960s and 1970s, matured in the 1980s and 1990s, and declined thereafter. In comparison, the aforementioned developing countries are at the growth phase.

It is difficult to assess what this may mean to the IMS and we would clearly benefit from some analysis / research. The same may be true of South Africa and as I am going to be representing the IMS at the World Productivity Congress which commences on September 21, it will give me a chance to assess the potential for membership growth there. This topic is on the agenda for the next Council.

The invitation to the Chairman’s lunch, which was to be held prior to the next Council, has not been supported by a single member, consequently, it has been cancelled. By coincidence I have been passed a letter from Mr Mostyn Lewis in which he suggested that more members might attend the AGM if it was on a Saturday. As we would very much like to attract more members to the IMS, I have added this suggestion to the next Council agenda for discussion.

In conclusion, I intend to remain on Council and would like to wish my successor every success in his period of office.

John Lucey, Chairman

AGM Reminder

Please note that the AGM will be held on Friday October 10 at The George Hotel, Bird Street, Lichfield, Staffordshire WS13 6PR. The AGM will start at 11am.

Due to a lack of support, the Chairman’s lunch has been cancelled.

Vacancy on IMS Council

Dr Dennis Whitemore has tendered his resignation from Council, after many year’s service to the IMS, due to ill health.

Dennis has served the Institute in an exemplary manner and his book, Work Measurement, was regarded as a reference text on the subject and has been translated into several languages. We would like to wish Dennis and his wife Helen all the very best for the future.

If you are interested in being co-opted to Council, would you please apply, stating why you wish to be considered and attach an up to date CV. Applications should be sent or emailed to the Chairman at Brooke House and marked as private and confidential.

If you want to know what is involved in being on Council, please feel free to contact any existing Council member.
North West Region

Helmshore Visit
Some North West region members enjoyed a delightful visit to Helmshore Textile Museum on July 10. On arrival we were greeted by a reception group, who introduced us to our guide for the tour and directed us to meet restaurant staff, who took orders for sandwiches.

Numbers on this visit were increased by meeting up with members of Bolton Probus Club, of which Bob Fletcher is Liaison Officer. A worthwhile party was thus available for guide Terry to address and also demonstrate the running of cards and mules. Lack of space restricts a detailed report of the visit, but enough to recognise the expertise of our forbears in designing, manufacturing and operating textile machines. For example, the pair of mules were dated 1908.

The group viewed the river and pond which provided a power source for driving machines and the action of a wool filling plant. Then there was a break for lunch, which was, in the main, soup and sandwiches, which provided excellent fare.

Having viewed the wool treatment, the second part of the visit was the production of yarn, using as its material supply the waste made at other mills and from various processes. Waste is either hard or soft and needed breaking down by


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How do I do it?: Through a new series of ‘Open’ courses being run throughout the UK, by the MTM Association, to deliver the benefits of Predetermined Time Data to you, your staff and your organisation.

Where?: At a venue in Central England (although this may change if the majority of participants are located in other parts of the UK)

When?: The first course is scheduled for 13th October 2008

How long?: The course takes two weeks.

Training Fee: £950 (excluding VAT)

Result: A fully trained practitioner in the application of a world class Predetermined Time System (MTM2).
a fierce beating machine
to processing through an
opening and lap forming
machine – a scuttler corded
from the lap resulted in a
sliver being formed. Slivers
were coupled through a
coupler, which resulted in
several ends on a beam in
readiness for placing on the
mule.

Organisation of operators’
work and their skills were
discussed, as were the
machine technicalities. We
were made aware the end
product was spun cotton
yarn, using waste as its raw
material.

The final part of the
visit was spent viewing
some machines, models of
operators at work on various
textile machines and a
wonderful display, in picture
and written form. Seemingly,
much of the updating at the
museum was the result of a
recent refurbishment.

All visitors were united in
expressing their thanks for the
kindness and help provided by
the Helmshore staff.

Footnote: One of the
visiting group was an IMS
Fellow Member from the
Southern region, who was
warmly welcomed. Our
advertised meetings are open
to IMS members from any
region, but as some events
have number restrictions,
intending participants should
contact our secretary, Harry
Hogg, beforehand.

The Museum of Science
and Industry
The Summer issue of the
Journal contained profiles
of our board members, and
readers may have noticed
that most of them joined the
Institute (then the IWSP) in
the 1960s. Many of them still
retain an intense interest in
the products of industry, and
therefore the choice of venue
for our outing in early June
was well supported.

Manchester Museum of
Science and Industry is the
 guardian of much of our local
industrial heritage, and so
provided an ideal venue for a
visit by NW Region members,
many of whom were raised
when manufacturing was the
lifeblood of the nation.

Our visit started in the
Air and Space Hall, which
contains the largest collection
of aircraft in the North
West. Some of our members
had served in the RAF, and
eulogised over the aeroplanes
they had worked on or flown
in. The Lightning and the
Shackleton were produced in
the 1960s, when the region
was a hive of manufacturing.
Also shown in the hall were
examples of motor transport,
including a Crossley car and a
DOT motorcycle.

Then we moved into the
Power Hall, which houses
an impressive assembly of
working steam engines,
electrical machines and
locomotives. Adjacent to the
hall is Liverpool Road Station,
from which the world’s first
passenger service originated.

A working replica of one of
the earliest locos ‘the Planet’
is retained here, but what
draws much attention is the
half sectioned Beyer Peacock
engine of 1876, built for the
Isle of Man railway.

Another loco from the
same stable is the articulated
monster of 1926, built for
South Africa’s hilly regions,
which have sharp radius
bands. The middle section
boiler supplies steam to
separate drives on the front
and rear bogies via flexible
pipes.

Altogether a most
enlightening and interesting
visit.

"Some of our members had
served in the RAF, and eulogised
over the aeroplanes they had
worked on or flown in"

Website
We are indebted to Harry Hogg for his work in constructing
the website. It contains details about the Region Board and
items of topical interest. Visit the site at http://ims.northwest.
googlepages.com/.

Forthcoming event
There will be a visit to the Mormon Temple in Chorley on
Wednesday 8 October at 2.30pm. We will view the ancestry
investigation system and record department, but not the main
 temple. Numbers will be limited. For further information contact
G Yeomans on 01772 330933.

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Problems are uncovered

Debbie Knowlson founded Selective Covers Limited in Thirsk, North Yorkshire, in 1999, having identified a market opportunity. They manufacture and sell customised, high grade, waterproof covers for a vast range of applications, including covers for swimming pools, hot tubs, vehicles and trailers, garden furniture, banners and, on a larger scale, farm equipment, sports equipment, boats and other leisure industry applications.

The growing popularity of the product range created problems in both the manufacturing and administrative processes – only 25% of deliveries were made on time – so Selective Covers called in Business Link in York to identify the issues and diagnose the problems.

The experienced Business Link advisor was quick to identify the need to involve productivity improvement specialists Scott-Grant Limited to address the situation. Using this authorised consultant enabled the Manufacturing Advisory Service (MAS) for Yorkshire and The Humber to fund 50% of the costs – an important consideration for smaller companies.

Scott-Grant implemented a much leaner way of manufacturing, significantly altering flow and layout, streamlining communications and enabling the customised product to keep moving through the process. Now each operator takes responsibility for an individual customer order, cutting their own material for their job and continuing with all activities of manufacturing through to completion.

Enthusiastic and motivated staff

For each operator, there is job ownership, accountability and enthusiasm. “It’s a million times better because we have far more understanding of the job; there’s no stress now, no waiting for materials. Communications have improved in every aspect,” – the unanimous opinion from the shop floor.

The admin staff agreed with the team leader on the shop floor: “We’ve seen huge improvements. All the staff are happier and we all really

“As a result of the project, the company is now more profitable and capacity has increased by more than 50%”
Scott-Grant Case Study

Management Services
Autumn 2008

enjoy working as a team in a successful environment.”

Different from the fragmented approach in use before Scott-Grant’s involvement, the new method has more flexibility and makes manpower planning easier and more predictable. Significant improvements to the layout and systems were introduced which had further positive effect. The system now allows the profitability of each job to be known at the despatch point, and a KPI has been introduced to automatically track the year-to-date position for each of the product categories produced.

A new structured approach to job costing and generating quotations was introduced, so that a historic record of each quotation is made on its journey through manufacture to despatch to the customer, with all labour and materials used being recorded against that job.

As a result of the project, the company is now more profitable and capacity has increased by more than 50%.

Finance Manager was wrong!
The company’s Financial Manager was sceptical and didn’t believe the layout and method could be improved. She was delighted to concede however: “Expanding the operators’ jobs to include all aspects of the process has improved product flow, reduced manufacturing time and enhanced the variety of work for the operators.”

Managing Director Debbie Knowlson has been particularly impressed with Scott-Grant’s intervention. “Using lean techniques to overhaul the manufacturing system and improve product flow has meant that, even in the early part of the year, our customer deliveries were on time or even ahead of time for over 80% of our orders – and we continue to improve. “Our last three months show we have delivered 100% on time – or even early! The manufacturing throughput time has dramatically reduced from about three days to around one to two hours. Work is properly scheduled and there’s a much better understanding and control of the whole process.”

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.
Introduction: The sustainability of lean transformation

Introducing a series of articles based on the PhD of Dr John J Lucey, entitled ‘The sustainability of lean transformation’. The research was completed between 2002 and 2008, under the auspices of the Lean Engineering Research Centre (LERC) of Cardiff Business School. An abstract of the research is detailed below.

Winning the hearts and minds of their staff is an important objective for progressive companies but the failure rate for lean transformations continues to be high. The research suggests that the barriers to the successful introduction of lean are in the ‘soft’ people issues, rather than the hard, lean techniques. The behaviour of shop floor staff, middle management and company culture is identified as the biggest single barrier. This study investigates the main enablers and inhibitors to the sustainability of major lean transformations and develops an index for the measurement of employee engagement.

The contribution made by this study is six fold. First, Lewin’s definition of behaviour was adapted to define employee engagement. So employee engagement (EE) is defined as a function (F) of the person (P), therefore EE = F (P, E).

Second, a survey questionnaire was developed and used to measure the level of employee engagement on a biannual basis in the main case firm from 2001 to 2005. An index has been developed and validated to measure employee engagement which can also be used as a diagnostic tool to identify the issues for low survey scores.

Third, using case studies and shop floor focus groups, it has been possible to identify a process for improving the level of employee engagement.

Fourth, operational ownership has been identified as a key element in the leading, rapid implementation and sustainability of major change.

Fifth, the concept of a ‘lean sustainability zone’ has been developed using the data from the main case firm and the four external companies. This concept identifies the threshold level of employee engagement required to commence a major lean transformation and the level required for it to be sustained.

Sixth, a long term lean sustainability model has been developed and refined to include operational ownership and the lean sustainability zone.

The series of articles will include the following topics:
- The changing face of manufacturing in the UK
- Why major lean transformations fail
- Action research case study in the importance of operational ownership
- Action research case study in ‘Building Employee Engagement’
- Developing a robust process for conducting an employee engagement survey
- The measurement of employee engagement in the main case firm and external validation
- The concept of ‘a lean sustainability zone’.

“This study investigates the main enablers and inhibitors to the sustainability of major lean transformations and develops an index for the measurement of employee engagement.”
The first part in Dr John J Lucey’s series of articles based on his PhD, entitled ‘The sustainability of lean transformation’.

Introduction

In the period 1980 to 2000, the (UK) manufacturing base has been steadily declining. At the outset, the Government argued that the reducing contribution made by manufacturing to the Gross Domestic Product (GDP) would be made up by the service sector. Table 1.1 indicates that this was not the case, as between 1980 and 2000 the deficit on goods moved from £1.3 billion to £30.4 billion, which is an enormous swing of £31.7 billion and was not made up by services.

The fears that the worsening trend would continue beyond 2000 have been realised but the scale of the deterioration should give cause for concern. During the period 2000 to 2005, manufacturing seems to have been in free fall with one after another high profile company closing, downsizing or relocating to a low cost economy.

In that period, the deficit on goods was more than double than in the previous 20 years and the deficit in the trade balance has trebled. In the same period, investment income has moved from £6.1 billion to £27.3 billion which is a staggering reversal of £33.4 billion. In the period 2000 to 2005, the decline of the manufacturing sector has accelerated due to increased competition from cheaper imports and the outsourcing to low cost economies. In 2004, manufacturing exports were £24.5 billion which was nearly two thirds of all the UK exports.

“The fears that the worsening trend would continue beyond 2000 have been realised but the scale of deterioration should give cause for concern”

Table 1.1 United Kingdom’s changing trade account (£bn)
Source: EEF, (2001), Manufacturing at the Crossroads, p6, analysis of National Statistics, with 2005 added by the researcher
Table 1.2 The size of the UK’s manufacturing sector
Source: ESRC, (2007), Manufacturing and Industrial Production in the UK, p1-2

Table 1.2 details the continual decline of UK manufacturing over the period 1995 to 2003. The Economic and Social Research Council (ESRC), (2007), report indicates that over the period 2001 to 2004, the investment in UK manufacturing as a proportion of total business investment has fallen from 14.7% to 12.3%. ESRC (2007) also states that the UK’s experience is similar to other OECD (Organisation for Economic Co-operation and Development) countries, with services now accounting for over 60% of total GDP in all OECD countries.

How does UK manufacturing fare when it comes to productivity? One of the most commonly cited measures of labour productivity is output per hour worked. According to ESRC (2007), the UK economy is 39% below the USA and 20% below France and Germany. Obviously, manufacturing contributes to this disadvantage. The revised estimates of productivity from the Office of National Statistics (2007), using GMP per worker, indicates that for 2005, the UK was behind the average of the G7 countries (Japan, Canada, Germany, UK, Italy, France and the USA). The figures indicate that the UK has similar national levels of productivity to those of Canada, Germany and Italy, but were 25% behind the USA.

While there is a difference between ESRC (2007) and the Office of National Statistics (2007), they both agree that the UK is behind the USA, albeit by differing amounts. Helper and Kleiner (2007) of the National Bureau of Economic Research (NBER), conducted a study of five US and five UK plants owned by the same company who produced automotive components. They concluded that the US plants were more productive and profitable than the UK plants and the value added per employee was 33% higher than the UK plants.

“Over a third of UK based firms are foreign owned, compared with just 20% in Germany and 12% in France”

Foreign ownership of UK companies and outsourcing
Recently, high profile manufacturers, such as Dyson and Raleigh, have moved production out of the UK to the Far East, which has created the impression that a number of other manufacturing companies may be about to desert Britain. While competition from low wage
countries does pose a serious threat to some companies, it is far from the whole story.

Girma and Holger (2004) described outsourcing as: “the contracting out of activities that were previously performed within a firm, to subcontractors outside the firm.” They conclude that cost savings were the main driver and foreign owned firms have a higher level of outsourcing than domestic companies. They go on to suggest that outsourcing is a positive means of increasing labour productivity. Oulton, (1990), found that foreign owned firms have substantially higher levels of productivity than domestically owned ones. He concludes that US ownership was found to raise productivity by 26% in manufacturing, which supports the findings of Girma and Holger.

The Engineering Employers’ Federation (EEF) (2002) asked companies what proportion of their production they expected to be located abroad over the next five years. Overall, the proportion of companies expecting to have at least some production taking place out of the UK is projected to rise from the current 34% to 49% by 2007. Overseas production, however, is generally expected to occupy only a minor share of total production, with only 17% of companies expecting more than half of their production to be abroad.

The interviews suggested that simple cost issues are far from the whole story behind moves abroad. Not surprisingly, cost driven moves are most common in industries where labour costs are a high proportion of total costs and where the commoditisation of their market means that competition on price is extremely fierce. In general, the shift being considered, or that has taken place already, is to Eastern Europe rather than China or the Pacific Rim. Countries such as Poland, Hungary and the Czech Republic have obvious location advantages for serving the major market of most UK companies where speed to market is important and where transport costs can be high. Eastern Europe is therefore likely to win over Asia and other parts of the world for companies whose main market continues to be Western Europe.

A similar question was asked in the Manufacturer Magazine’s (2005) Annual Manufacturing Report and the responses are detailed in Figure 1.1. It is clear that the 2002 EEF report was quite accurate, as the 2005 Annual Manufacturing Report considers it very likely that 4% of companies will move all their manufacturing by 2008. Twenty three per cent of companies are very likely to be moving part of their manufacturing operations to a low cost economy by 2008 and China remains the most popular country to relocate manufacturing operations to. Foreign owned British based companies are the most likely to relocate manufacturing facilities abroad.

The EEF (2004), in their final report on EU and UK manufacturing productivity, compared the foreign ownership of companies in the UK, Germany and France. They concluded that: “Foreign ownership of UK companies is greater than in either Germany or France. Over a third (34%) of UK based firms are foreign owned, compared with just 20% in Germany and 12% in France. In addition, UK based firms are much more likely to be owned from outside the European Union. For example, 21% of UK based firms are owned by companies from a combination of North America,

Figure 1.1 Companies who may move all or part of their manufacturing production to a low cost economy by 2008
Source: Annual Manufacturing Report 2005, p45
Eastern Europe and other parts of the world. The comparative figures for Germany are 10% and for France 6%.

“These figures reflect the UK’s attraction to outside investors. This brings with it the advantages of exposure to technological developments and different management approaches from abroad. However, there may also be downsides. For example, there are relatively few large UK owned firms. This country, therefore, lacks the manufacturing champions that protect a positive image of successful manufacturing. It may also hamper research and development, the bulk of which is carried out in the country of ownership,” (EEF, 2004, p11).

The Confederation of British Industry (CBI) was so concerned about the increase in foreign ownership that it initiated an investigation in 2006 to ascertain if British companies are too soft a target for foreign predators. The study, which follows a spate of acquisitions of UK businesses by overseas firms, comes amidst growing concern among business people and the public that Britain’s commercial assets are being snapped up too easily and cheaply.

Table 1.3 details the acquisitions announced from August 2005 to June 2006. While UK companies obviously acquire foreign companies, the balance is moving towards greater foreign ownership. The total of £60.9 billion in less than a year is very high but despite the growing opposition, few expect the sell-off of British companies to end.

<table>
<thead>
<tr>
<th>Acquisition target</th>
<th>Bidder</th>
<th>Value £ billions</th>
</tr>
</thead>
<tbody>
<tr>
<td>O2 telephone company</td>
<td>Telefonica, Spain</td>
<td>17.6</td>
</tr>
<tr>
<td>British Airports Authority</td>
<td>Ferrovial, Spain</td>
<td>15.6</td>
</tr>
<tr>
<td>British Oxygen Group</td>
<td>Linde Germany</td>
<td>8.9</td>
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<tr>
<td>Pacific &amp; Orient</td>
<td>Dubai Ports</td>
<td>4.6</td>
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<td>British Plaster Board</td>
<td>Saint- Gobain, France</td>
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<td>Exel</td>
<td>Deutsche Post, Germany</td>
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<tr>
<td>Hilton International</td>
<td>Hilton Hotels Corp. USA</td>
<td>3.3</td>
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<tr>
<td>Pilkington Group</td>
<td>Nippon Sheet Glass, Japan</td>
<td>2.4</td>
</tr>
<tr>
<td>Total of Bids</td>
<td></td>
<td>60.9</td>
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Table 1.3  UK companies acquired by foreigners since August 2005
Source: ESRC, (2007), Mergermarket, in the Sunday Times 25.06.2006, Business section, p12
soon. Indeed, investment bankers believe that Chinese companies using cheap financing from state owned banks could be the next buyers. A side effect of this situation is that it is becoming increasingly difficult to attract the top graduates in to manufacturing as it is seen as a dying sector of the UK economy. The Office for National Statistics’ (2007) news release stated that investors from outside the UK now owned 40% of the shares listed on the UK Stock Exchange which was a 12% increase on 2004.

Summary of manufacturing in the UK
The UK manufacturing sector continues to decline and the subsequent loss of exports has not been replaced by revenue from the service sector as the government had originally thought. At the same time, the ownership of UK companies by foreigners is increasing and UK companies are continuing to relocate some of their labour intensive operations to low cost economies. The cost of compensating employees who are made redundant when a company in the UK closes is one of the lowest in the European Union. So for multi-national companies with surplus capacity, the UK factories may be selected for closure. There is also a tendency for companies to consolidate research and development in their home country with the consequence that it is lost from the UK.

Evidence that foreign owned companies have markedly higher levels of productivity than domestic firms may increase the temptation to outsource production or become the driver for domestic firms to improve their levels of productivity in order to survive. In summary, the UK manufacturing sector continues to decline but, at the moment, it is still an important contributor to the UK trade account.

References
Economic and Social Research Council, (2007), Manufacturing and Industrial Production in the UK Fact Sheet.
Sunday Times (25/06/2007), CBI probes foreign takeovers, Business Section, pp12.
The state of lean manufacturing in the UK 2001 to 2006

The second part of Dr John J Lucey’s series of articles.

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.
Background to lean
Shingo (1989) charted the history and development of the Toyota Production System (TPS), from its origins in 1949 when intermediate warehouses were eliminated, up to 1975 when the fixed-position stopping system on the assembly lines was introduced. Womack and Jones (1996) credit Taiichi Ohno as the father of TPS and Patriarch of Lean Operations. Taichi Ohno worked with Shigeo Shingo in developing the TPS. In Shingo (1989), the publisher describes the synergy between Dr Shingo, the teacher, and Mr Ohno, the manager, as the force that created the manufacturing revolution which has had such a profound effect on the way automobiles are produced.

Shingo (1989) simply describes the TPS as: “80% waste elimination, 15% production system and 5% kanban.” Wickens (1995) describes the motivation of Ohno and Shingo as their constant urge to eliminate waste of all types in all activities. In their comprehensive study of the world’s car manufacturers, Womack et al (1990) popularised the term lean production to highlight the elimination of ‘muda’, Japanese for waste. They state that: “Lean production is lean because it uses less of everything compared with mass production – half the human effort, half the manufacturing space, half the investment in tools, half the engineering hours to develop a new product in half the time. Also, it requires keeping less than half the inventory on site, fewer defects and produces a greater and ever growing variety of products.” (Womack et al, 1990, p13).

Taking the total elimination of muda as a theme, Womack and Jones (1996) have developed the mind set of ‘lean thinking’ that they describe as a powerful antidote to muda. It provides immediate feedback on efforts and approaches to convert muda into value. They describe lean thinking as: “A way to specify value, line up value-creating actions in the best sequence, conduct these activities without interruption whenever someone requests them, and perform them more and more with less and less – less human effort, less equipment, less time and less space – while coming closer and closer to providing customers with exactly what they want.” (Womack and Jones 1996, p15).

Introduction
It has been difficult to assess the number of firms who have or are about to embrace lean manufacturing in the UK. The Organisation for Economic Co-operation and Development (OECD), which has 30 member countries, conducts an annual Employment Outlook which reviews work practices from time to time. The OECD Employment Outlook (1999) reported on a survey undertaken in 1998 which reviewed the use of selected work organisation practices. The practices reviewed included job rotation or cross training, self-directed work teams, task forces, problem solving teams or quality circles, employee involvement with managers in business discussions and total quality management. Lean manufacturing was not included. As a matter of interest, they concluded that, not surprisingly, the reported incidence of flexible working practices differ from country to country.

The Annual Manufacturing Report (2002) asked which, if any, of the following initiatives have been a key business focus for your company during the last 12 months and which, if any, are planned priorities within the next 12 months? The results of the 2002 survey are detailed in Figure 1.1. Generally, activity levels have been very high in 2001-2002 and companies are set to continue change in 2002-2003 in order to improve their competitiveness.

Given this, we probably have to question the extent to which, for some companies, these represent really serious priorities and commitment, as opposed to a wish list. There can be no doubting the ambition of the UK manufacturing industry to continue to embrace change and improvement in key processes and activities and this is set to continue. It is interesting to note that 63% of companies planned to apply lean principles in 2003 and 54% expected to introduce significant change.

In the Annual Manufacturing Report (2005) the responses to the same questions are detailed in Figure 1.2. In the 2005 report, the emphasis on the supply chain is set to reduce in 2006, the exploitation of e-business opportunities is set to more than double in 2006, new product development is also set to increase in 2006, as is the application of lean techniques and change management activity. There

Figure 1.1 Key business initiatives 2002
seems to be evidence that companies are putting off key business initiatives until 2007. This leads us on to the current state of lean manufacturing in the United Kingdom.

Statistics about the use, the take up and the drivers of lean manufacturing are not readily available. In 2002, the Manufacturer magazine commissioned Coleman Parkes Research to carry out its first lean manufacturing survey and the survey has continued every year since. The first lean manufacturing survey was based on 100 interviews with production directors and managers in UK-based manufacturing companies and was undertaken in September 2002. All interviewees were screened to ensure that they were in a position to comment on the core issues in the questionnaire.

The completed interviews for the 2002 and 2006 lean surveys are detailed in Table 1.1. In the period 2002 to 2006, the number of companies taking part in the survey with up to 499 staff has almost trebled and companies with more than 500 staff have increased six fold.

<table>
<thead>
<tr>
<th>No of Employees</th>
<th>Sample Size 2002</th>
<th>% 2002</th>
<th>Sample Size 2006</th>
<th>% 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 99</td>
<td>26</td>
<td>26</td>
<td>86</td>
<td>26</td>
</tr>
<tr>
<td>100 – 249</td>
<td>33</td>
<td>33</td>
<td>89</td>
<td>27</td>
</tr>
<tr>
<td>250 – 499</td>
<td>30</td>
<td>30</td>
<td>86</td>
<td>27</td>
</tr>
<tr>
<td>500 +</td>
<td>11</td>
<td>11</td>
<td>69</td>
<td>21</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100</td>
<td>100</td>
<td>330</td>
<td>100</td>
</tr>
</tbody>
</table>

Perceived benefits of lean manufacturing

Generally, companies seek a number of key competitive advantages from a lean manufacturing approach and these are detailed in Figure 1.4. In 2002, cost reduction was the clear perceived benefit and was three times greater than the second highest benefit of better delivery times.

The picture in 2006 is somewhat different, as Figure 1.5 indicates. The reduction in costs has dropped from first place to third place while the removal of waste has climbed to second, which perhaps signals that there is a much better appreciation of lean tools and techniques.
The benefits that companies associate with the term lean manufacturing have certainly changed in the period 2002-2006. In 2002, the overwhelming benefit was perceived as a reduction in costs, followed by better lead times and increased efficiency. In 2006, the top three benefits were improved efficiency, removal of waste and reduced costs. It seems that as a company’s knowledge and understanding of lean improves, they begin to more fully appreciate that lean offers much more than an approach for just reducing costs.

Is your company a lean manufacturing company?

It is interesting to see what progress has been made to becoming a lean company over the period 2002-2006. Table 1.2 compares three responses from the 2002 and 2006 surveys. The results here are a little contradictory, as the number who claim to be very close to becoming lean was marginally down from 32% to 29% and the number who claim to be quite close to becoming lean was only 7%, which is a third of what it was in 2002. Maybe this is because companies do not fully appreciate that lean is a continuous philosophy, rather than a two or three year fix. After all, Toyota are still at it after 58 years! Companies who are a long way off becoming lean have remained at mid 60% level.

<table>
<thead>
<tr>
<th>Measurement of comparison</th>
<th>2002</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very close to becoming lean</td>
<td>32%</td>
<td>29%</td>
</tr>
<tr>
<td>Quite close to becoming lean</td>
<td>22%</td>
<td>7%</td>
</tr>
<tr>
<td>A long way off becoming lean</td>
<td>66%</td>
<td>64%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

The take up of lean manufacturing

The EEF survey (2001), Catching up with Uncle Sam, provides evidence on the extent of lean manufacturing in the UK and the barriers to its uptake. It shows that many firms are applying lean manufacturing across the whole of their business and reaping rewards in terms of improved performance. Yet there is a significant proportion of firms that have not undertaken any lean manufacturing and are therefore missing out on the benefits. The key results are detailed in Figure 1.6.

The six key conclusions were:
1. The take up of lean manufacturing in the UK is very much polarised, with a third of firms pursuing it across the whole organisation, while just over 40% are not undertaking any lean manufacturing at all.
2. Firms undertaking lean manufacturing do so for a number of reasons. The key goal is improving overall company performance in terms of productivity, efficiency, profitability and reducing costs.
3. Over 90% of firms undertaking lean manufacturing say it has been successful at achieving its goals.
4. The key barriers to a better take up of lean manufacturing in the UK are attitudes to change within the firm, lack of understanding of lean, shortage of the right lean skills at management, supervisor, workforce levels and cultural issues.

5. American owned firms are having greater success with lean manufacturing than UK owned firms because more of them are using the lean tools across the whole of their organisation and with greater intensity.

6. There is a clear link between the use of lean manufacturing and higher productivity.

Barriers to implementing lean manufacturing

Figure 1.7 details the main barriers in the 2002 Lean Manufacturing Survey. The main barriers to the adoption of lean principles were the culture of the company. Couple this with the attitude of the staff, which is taken to be negative towards the approach, and it is clear that people-based issues are a very significant and important aspect and cannot be ignored when looking to successfully implement lean manufacturing. Figure 1.7 clearly indicates that the lack of engagement of the workforce is still a fundamental barrier to a successful lean manufacturing transformation.

Figure 1.8 details the results of the 2006 survey and cites the top three barriers as investment costs, attitude of shop floor staff and attitude of middle management. Employee engagement is a combination of company culture, the working environment and the attitude of staff to their company.

While the results are broadly comparable with the 2002 survey, it is interesting to note that the engagement of staff has increased in importance and the engagement/attitude of middle management is the third highest barrier. This underlines the importance of the soft people side of lean to the implementation of major lean transformations.

Attitudes to lean manufacturing

Figure 1.9 is based on an earlier productivity survey by EEF/NOP in 2001 and details the main barriers to the successful take up of lean manufacturing. Attitudes to change within the company from both staff and management was clearly the biggest barrier and, once again, emphasises the importance of the engagement of staff in the change process. Just over a quarter of employers said it was due to a lack of lean skills within the management team.

Continued on page 22
## The Institute of Management Services

*(A company limited by guarantee)*

**Trustees’ report and financial statements**

**for the year ended 31 December 2007**

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<td>Trustees’ report</td>
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<td>VI–VIII</td>
</tr>
</tbody>
</table>
Legal and administrative information

Status
The Charity is a company limited by guarantee governed by the Companies Act 1985 and the Statement of Recommended Practice (SORP) “Accounting and Reporting by Charities” 2005. The Institute's objectives are regulated by the Company’s Memorandum and Articles dated 2 December 1964, and under these Memoranda, the Institute is constituted as an incorporated body.

The members of the company are the directors and the trustees. In the event of the charity being wound up, the liability in respect of the guarantee is limited to £1 per member of the charity.

Trustees
J J Lucey FMS (Chairman)
D Blanchflower Hon FMS
J Cutler (Appointer 05/10/07)
H Downes Hon FMS
J P Heap Hon FMS
D A Whitmore Hon FMS
R Bridges FMS
L V Rose FMS (Resigned 05/10/07)
G P Mansfield FMS

Secretaries
H Downes Hon FMS

Company number 832132
Charity number 288877

Registered office Brooke House, 24 Dam Street, Lichfield, Staffordshire WS13 6AA

Auditors
Leftley Rowe and Company, The Heights, 59-65 Lowlands Road, Harrow, Middlesex HA1 3AW

Bankers
The Royal Bank of Scotland Plc, 30-32 London Road, Enfield, Middlesex EN2 6DT

Chairman’s Statement 2007

It is pleasing to report that 2007 has once again been a very satisfying one for the Institute. We have continued to reap the benefits of outsourcing both our administration function and the production of our journal. The journal continues to be the leading UK publication dispensing knowledge relating to all aspects of productivity improvement. In 2007 we undertook a redesign of the journal, introducing a livelier format with greater use of colour to highlight the articles. The production and distribution format of four quarterly journals has met with universal approval from the membership. The journal continues to be made available to all members with hard copies being mailed to UK based members and overseas members having access to the journal via the Internet. Postal costs are predicted to increase sharply in the coming years but we intend to continue mailing UK based members with the journal. Past editions of the journal are also available on the website.

During 2007 we updated our website and increased the amount of information available to both Institute members and non-members. It is planned to carry out a further full review of the website in 2008 and, if necessary, further upgrade the site.

In 2006 we transferred the Institute training videos to DVD format and are pleased that 2007 has seen a continued demand from companies to purchase these DVDs. These training videos have been a steady source of income to the Institute since they were first commissioned in the 1990s.

We commissioned a number of new training DVDs for use with the Institute's practical examinations and these have proved to be of great benefit to students studying for the IMS Certificate.

Our three national education providers, accredited to provide training courses leading to the award of the Institute's Certificate qualification, continue to provide a valuable service. These education providers, who all have a very long association with the Institute, provide a valuable service and also bring new members into the Institute.

Since the introduction of life membership in 2005, we have seen our membership numbers stabilise and continue to grow. It is our intention to do all we can to increase membership numbers in the coming years.

You will note from our accounts that the year-end financial statement for 2007, once again, illustrates the extremely healthy financial position of the Institute. Our total reserves are still in excess of £600,000, which bodes very well for the future viability of the Institute. We continue to be one of the most financially sound Professional Institutes in the UK.

Finally, may I thank my fellow members of Council and the region officers who all do so much to ensure that the Institute of Management Services remains a progressive professional body that fully meets its declared objective of spreading the concept of productivity improvement across the world.

John Lucey, Chairman
Trustees’ report for the year ended 31 December 2007

Charitable objects
The Institute has as its main objective the promotion of the science, technology, practice and profession of Management Services, which results in the advancement of the efficiency, productivity and satisfaction of human work.

Organisational structure
The Institute has eight Trustees who are elected by the membership in two groups of four. Elections are held prior to the Annual General Meeting, where the results of the ballot are counted. Elections are held in alternative years with the next elections taking place in 2009. The Board of Trustees meet three times a year in addition to the Annual General Meeting.

Review of activities and achievements
The Institute's main activity is the dissemination of knowledge and information on productivity improvement, both to its members and the public in general, in order to improve the financial viability of both companies and countries across the world. The increasing realisation of the role that productivity improvement can play in ensuring the economic well being of all, is an indicator of the success of the Institute over the past 60 years.

The Institute continues to reap the financial benefits of moving its administration base from Enfield to Lichfield in September 2001. During 2005, due to the lease expiring at Stowe House, the Institute relocated its head office to Brooke House, 24 Dam Street, Lichfield.

In 2005, the vast majority of existing Institute members availed themselves of the opportunity to take out life membership of the Institute. The additional income generated by the introduction of life membership has been invested and will serve to meet the Institute's financial needs into the future. In 2007 we saw the continuation of the steady increase in membership that had been evident in 2006. The move towards life membership has greatly reduced the administrative burden on the Institute and this has been reflected in a large reduction in operating costs and this is reflected in the 2007 accounts.

January 2005 saw the outsourcing of the Institute's Journal 'Management Services' and the Institute continues to benefit from reduced journal production costs. The membership continues to support the publication of a quarterly journal. The journal continues to be provided to overseas members via the Internet. Past issues of the journal are now available on the Institute's website, with the current issue only being available to Institute members via the use of a password.

In 2007, the Institute commissioned a new set of examination DVDs for use as part of the IMS Certificate Practical Examinations. The IMS training videos that were converted to DVDs in 2006 continue to sell and have been a steady source of income to the Institute since they were first produced in the 1990s.

The three national education providers accredited to provide courses leading to the award of the Institute's Certificate continue to provide a valuable service and also bring new members into the Institute.

Future aims and objectives
It is the intention of the Institute during 2007 and subsequent years to seek to increase membership numbers. Recruitment initiatives will include advertising in the professional journals of other Institutes.

Reserves
The Institute has a policy to maintain its reserves at a level that ensures the future financial viability of the Institute. That level is deemed to be one that equates to a minimum of one year’s expenditure; currently the Institute holds reserves that exceed this target level tenfold and, as such, is financially very sound. The funds of the charity are all unrestricted.

Investment powers, policy and performance
The Trust Deed authorises the trustees to make and hold investments using the general funds of the charity. The general improvement in the value of stocks and shares over the past year has resulted in growth in value of the Institute’s reserves held in this form of investment.

Risk review, governance and internal control
The major risks to which the charity is exposed, as identified by the trustees, have been reviewed and processes established to manage them.

Trusting responsibilities
The trustees are responsible for providing assurance that:
- the charity is operating efficiently and effectively;
- its assets are safeguarded against unauthorised use or disposition;
- proper records are maintained and financial information used within the charity or for publication is reliable;
- the charity complies with relevant laws and regulations.

The systems of internal control are designed to provide reasonable, but not absolute, assurance against material misstatement or loss. They include:
- a strategic plan and annual budget approved by the trustees;
- consideration by the trustees of the financial results, variance from budgets, non-financial performance indicators and benchmarking reviews;
- delegation of authority and segregation of duties;
- identification and management of risks.

Statement of trustees’ responsibilities
Company and charity law requires the trustees to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the charity and of the surplus or deficit of the charity for that period. In preparing those financial statements, the trustees are required to:
- select suitable accounting policies and then apply them consistently;
- make judgements and estimates that are reasonable and prudent;
- state whether applicable accounting standards and statements of recommended practice have been followed subject to any departures disclosed and explained in the financial statements; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the charity will continue in business.

The trustees have overall responsibility for ensuring that the charity has appropriate systems of control, financial and otherwise. They are also responsible for keeping proper accounting records which disclose with reasonable accuracy at any time, the financial position of the charity and enable them to ensure that the financial statements comply with the Companies Act 1985. They are also responsible for safeguarding the assets of the charity and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

Auditors
A resolution proposing that Leftley Rowe and Company be reappointed as auditors of the charity will be put to the Annual General Meeting. This report was approved by the trustees on 1 August 2008 and signed on its behalf by J J Lucey FMS (Chairman).
Independent auditor's report to the members of The Institute of Management Services

We have audited the financial statements of The Institute of Management Services for the year ended 31 December 2007 which comprise the statement of financial activities, the balance sheet and the related notes. These financial statements have been prepared under the accounting policies set out therein.

This report is made solely to the company's members, as a body, in accordance with Section 235 of the Companies Act 1985. Our audit work has been undertaken so that we might state to the company's members, those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Respective responsibilities of the trustees and auditors
The trustees' responsibilities for preparing the trustee's report and the financial statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice) are set out in the statement of trustees' responsibilities.

Our responsibility is to audit the financial statements in accordance with relevant legal and regulatory requirements and International Standards on Auditing (UK and Ireland).

We report to you our opinion as to whether the financial statements give a true and fair view and are properly prepared in accordance with the Companies Act 1985, and whether the information given in the trustees' report is consistent with the financial statements. We also report to you if, in our opinion, the charitable company has not kept proper accounting records, if we have not received all the information and explanations we require for our audit, or if information specified by law regarding trustee's remuneration and other transactions is not disclosed.

We read other information contained in the report, and consider whether it is consistent with the audited financial statements. We consider the implications for our report if we become aware of any apparent misstatements or material inconsistencies with the financial statements. Our responsibilities do not extend to any other information.

Basis of audit opinion
We conducted our audit in accordance with International Standards on Auditing (UK and Ireland) issued by the Auditing Practices Board. An audit includes examination, on a test basis, of evidence relevant to the amounts and disclosures in the financial statements. It also includes an assessment of the significant estimates and judgements made by the trustees in the preparation of the financial statements, and of whether the accounting policies are appropriate to the charitable company's circumstances, consistently applied and adequately disclosed.

We planned and performed our audit so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or other irregularity or error. In forming our opinion we also evaluated the overall adequacy of the presentation of information in the financial statements.

Opinion
In our opinion:

• the financial statements give a true and fair view, in accordance with United Kingdom Generally Accepted Accounting Practice, of the state of the charitable company's affairs as at 31 December 2007 and of its incoming resources and application of resources, including its income and expenditure, for the year then ended and have been properly prepared in accordance with the Companies Act 1985 and

• the information given in the trustees' report is consistent with the financial statements.

Leftley Rowe and Company
Chartered Accountants and
Registered Auditors

The Heights
59-65 Lowlands Road
Harrow
Middlesex
HA1 3AW
Statement of financial activities
For the year ended 31 December 2007

<table>
<thead>
<tr>
<th>Notes</th>
<th>Unrestricted funds</th>
<th>2007 Total</th>
<th>2006 Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>£</td>
<td>£</td>
<td>£</td>
</tr>
<tr>
<td><strong>Incoming resources</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subscription income</td>
<td>2</td>
<td>42,202</td>
<td>42,202</td>
</tr>
<tr>
<td>Activities in furtherance of the charity's objectives</td>
<td>3</td>
<td>24,650</td>
<td>24,650</td>
</tr>
<tr>
<td>Income from investments</td>
<td>4</td>
<td>29,063</td>
<td>29,063</td>
</tr>
<tr>
<td><strong>Total incoming resources</strong></td>
<td></td>
<td>95,915</td>
<td>95,915</td>
</tr>
<tr>
<td><strong>Charitable expenditure</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of activities in furtherance of the charity's objectives: Advertising &amp; journal costs</td>
<td>5</td>
<td>(35,070)</td>
<td>(35,070)</td>
</tr>
<tr>
<td>Examination costs</td>
<td>5</td>
<td>(223)</td>
<td>(223)</td>
</tr>
<tr>
<td>Support costs</td>
<td>6</td>
<td>(272)</td>
<td>(272)</td>
</tr>
<tr>
<td>Management and administration</td>
<td>7</td>
<td>(42,164)</td>
<td>(42,164)</td>
</tr>
<tr>
<td><strong>Total charitable expenditure</strong></td>
<td></td>
<td>(77,185)</td>
<td>(77,185)</td>
</tr>
<tr>
<td><strong>Net (outgoing) resources before gains and losses on revaluations and disposals</strong></td>
<td>8</td>
<td>(18,730)</td>
<td>(18,730)</td>
</tr>
<tr>
<td>Gains and losses on revaluations and disposals of investment assets</td>
<td></td>
<td>3,219</td>
<td>3,219</td>
</tr>
<tr>
<td><strong>Net movement in funds</strong></td>
<td></td>
<td>21,949</td>
<td>21,949</td>
</tr>
<tr>
<td><strong>Total funds brought forward</strong></td>
<td></td>
<td>397,025</td>
<td>397,025</td>
</tr>
<tr>
<td><strong>Total funds carried forward</strong></td>
<td></td>
<td>418,974</td>
<td>418,974</td>
</tr>
</tbody>
</table>

Balance sheet as at 31 December 2007

<table>
<thead>
<tr>
<th>Notes</th>
<th>2007</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>£</td>
<td>£</td>
</tr>
<tr>
<td>Fixed assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investments</td>
<td>10</td>
<td>152,575</td>
</tr>
<tr>
<td>Current assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Debtors</td>
<td>11</td>
<td>3,260</td>
</tr>
<tr>
<td>Cash at bank and in hand</td>
<td></td>
<td>486,312</td>
</tr>
<tr>
<td></td>
<td></td>
<td>489,572</td>
</tr>
<tr>
<td>Creditors: amounts falling due within one year</td>
<td>12</td>
<td>(48,700)</td>
</tr>
<tr>
<td><strong>Net current assets</strong></td>
<td></td>
<td>440,872</td>
</tr>
<tr>
<td><strong>Total assets less current liabilities</strong></td>
<td></td>
<td>593,447</td>
</tr>
<tr>
<td><strong>Accruals and deferred income</strong></td>
<td>13</td>
<td>(174,473)</td>
</tr>
<tr>
<td><strong>Net assets</strong></td>
<td></td>
<td>418,974</td>
</tr>
<tr>
<td><strong>Funds</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unrestricted funds</td>
<td>15</td>
<td>418,974</td>
</tr>
<tr>
<td></td>
<td></td>
<td>418,974</td>
</tr>
</tbody>
</table>

The financial statements are prepared in accordance with the special provisions of Part VII of the Companies Act 1985 relating to small companies.

The financial statements were approved by the Board on 1 August 2008 and signed on its behalf by

J J Lucey FMS (Chairman)

The notes on pages VI to VIII form an integral part of these financial statements.
Notes to the financial statements for the year ended 31 December 2007

1. **Accounting policies**

1.1. **Accounting convention**

The financial statements are prepared under the historical cost convention, with the exception of investments which are included at market value. The financial statements have been prepared in accordance with the Statement of Recommended Practice – ‘Accounting and Reporting by Charities: Statement of Recommended Practice’ (SORP 2005) issued in March 2005. The principal accounting policies adopted in the preparation of the financial statement are set out below. The charity has taken advantage of the exemption in FRS1 from the requirement to produce a cashflow statement because it is a small charity.

1.2. **Incoming resources**

Income from subscriptions, activities to further the charity's objects and investments are included in the year in which it is receivable.

1.3. **Resources expended**

Resources expended are recognised in the year in which they are incurred.

Support costs are those costs incurred directly in support of expenditure on the objects of the charity and include project management.

Management and administration costs are those incurred in connection with administration of the charity and compliance with constitutional and statutory requirements.

1.4. **Tangible fixed assets and depreciation**

Depreciation is provided at rates calculated to write off the cost less residual value of each asset over its expected useful life, as follows:

- Fixtures, fittings and equipment: -33% straight line p.a.

1.5. **Investments**

Fixed asset investments are stated at cost less provision for diminution in value.

1.6. **Irrecoverable VAT**

All resources expended are classified under activity headings that aggregate all costs related to the category. Irrecoverable VAT is charged against the category of resources expended for which it was incurred.

2. **Subscription income**

<table>
<thead>
<tr>
<th>2007</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>£</td>
<td>£</td>
</tr>
<tr>
<td>Membership subscriptions</td>
<td>42,202</td>
</tr>
</tbody>
</table>

3. **Activities in furtherance of the charity's objects**

<table>
<thead>
<tr>
<th>2007</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>£</td>
<td>£</td>
</tr>
<tr>
<td>Advertising revenue and journal subscription</td>
<td>11,646</td>
</tr>
<tr>
<td>Examination entry fees</td>
<td>2,969</td>
</tr>
<tr>
<td>General</td>
<td>8,897</td>
</tr>
<tr>
<td>Amounts from groups and branches</td>
<td>1,138</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>24,650</strong></td>
</tr>
</tbody>
</table>

4. **Investment income**

<table>
<thead>
<tr>
<th>2007</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>£</td>
<td>£</td>
</tr>
<tr>
<td>Listed investment income</td>
<td>28,890</td>
</tr>
<tr>
<td>Deposit interest</td>
<td>173</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>29,063</strong></td>
</tr>
</tbody>
</table>

5. **Costs of activities in furtherance of the objects of the charity**

<table>
<thead>
<tr>
<th>Advertising and journal subscription</th>
<th>Examinations</th>
</tr>
</thead>
<tbody>
<tr>
<td>£</td>
<td>£</td>
</tr>
<tr>
<td>Examination charges</td>
<td>223</td>
</tr>
<tr>
<td>Printing, postage and stationery</td>
<td>35,070</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>35,070</strong></td>
</tr>
</tbody>
</table>

6. **Support costs**

<table>
<thead>
<tr>
<th>2007</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>£</td>
<td>£</td>
</tr>
<tr>
<td>Membership expenses</td>
<td>278</td>
</tr>
<tr>
<td>Sponsorships and awards</td>
<td>550</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>272</strong></td>
</tr>
</tbody>
</table>
7. Management and administration

<table>
<thead>
<tr>
<th>2007</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>£</td>
<td>£</td>
</tr>
<tr>
<td>Committee meeting expenses</td>
<td>6,920</td>
</tr>
<tr>
<td>VAT irrecoverable</td>
<td>2,472</td>
</tr>
<tr>
<td>Insurance</td>
<td>1,113</td>
</tr>
<tr>
<td>Outsourced administration</td>
<td>22,264</td>
</tr>
<tr>
<td>Cleaning</td>
<td>(9)</td>
</tr>
<tr>
<td>Printing, postage and stationery</td>
<td>1,187</td>
</tr>
<tr>
<td>Computer costs</td>
<td>2,438</td>
</tr>
<tr>
<td>Legal and professional</td>
<td>65</td>
</tr>
<tr>
<td>Audit fees</td>
<td>2,637</td>
</tr>
<tr>
<td>Bad debts</td>
<td>(564)</td>
</tr>
<tr>
<td>General expenses</td>
<td>3,427</td>
</tr>
<tr>
<td>Depreciation and amortisation</td>
<td>-</td>
</tr>
<tr>
<td>Interest and charges</td>
<td>214</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>42,164</td>
</tr>
</tbody>
</table>

8. Operating deficit

<table>
<thead>
<tr>
<th>2007</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>£</td>
<td>£</td>
</tr>
<tr>
<td><strong>Operating gain/(deficit)</strong> is stated after charging:</td>
<td></td>
</tr>
<tr>
<td>Depreciation and other amounts written off tangible assets</td>
<td>-</td>
</tr>
<tr>
<td>Auditors’ remuneration</td>
<td>2,637</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
</tr>
</tbody>
</table>

9. Tangible fixed assets

<table>
<thead>
<tr>
<th>Fixtures, fittings and equipment</th>
<th>2007</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At 1 January 2007</td>
<td>171,764</td>
<td>171,764</td>
</tr>
<tr>
<td>At 31 December 2007</td>
<td>171,764</td>
<td>171,764</td>
</tr>
<tr>
<td><strong>Depreciation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At 1 January 2007</td>
<td>171,764</td>
<td>171,764</td>
</tr>
<tr>
<td>At 31 December 2006</td>
<td>171,764</td>
<td>171,764</td>
</tr>
<tr>
<td><strong>Net book values</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At 31 December 2007</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>At 31 December 2006</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

10. Fixed asset investments

<table>
<thead>
<tr>
<th>UK listed investments</th>
<th>2007</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost/valuation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At 1 January 2007</td>
<td>149,356</td>
<td>149,356</td>
</tr>
<tr>
<td>Additions</td>
<td>3,219</td>
<td>3,219</td>
</tr>
<tr>
<td>At 31 December 2007</td>
<td>152,575</td>
<td>152,575</td>
</tr>
<tr>
<td><strong>Market values</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At 31 December 2007</td>
<td>152,575</td>
<td>152,575</td>
</tr>
<tr>
<td>At 31 December 2006</td>
<td>149,356</td>
<td>149,356</td>
</tr>
<tr>
<td>Listed investments have a historical cost at the year end of £100,000 (2006:£100,000).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The listed investments consist of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2007</strong></td>
<td><strong>2006</strong></td>
<td></td>
</tr>
<tr>
<td>Chariguard UK Equity Fund</td>
<td>152,575</td>
<td>149,356</td>
</tr>
<tr>
<td>All investments are listed on a recognised Stock Exchange.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. Debtors

<table>
<thead>
<tr>
<th>2007</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>£</td>
<td>£</td>
</tr>
<tr>
<td>Trade debtors</td>
<td>2,804</td>
</tr>
<tr>
<td>Other debtors</td>
<td>47</td>
</tr>
<tr>
<td>Prepayments and accrued income</td>
<td>409</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3,260</td>
</tr>
</tbody>
</table>

12. Creditors: amounts falling due within one year

<table>
<thead>
<tr>
<th>2007</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>£</td>
<td>£</td>
</tr>
<tr>
<td>Trade creditors</td>
<td>4,360</td>
</tr>
<tr>
<td>Accruals and deferred income</td>
<td>44,340</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>48,700</td>
</tr>
</tbody>
</table>
### 13. Accruals and deferred income

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Advance subscriptions</strong></td>
<td>£</td>
<td>£</td>
</tr>
<tr>
<td>At 1 January 2007</td>
<td>203,311</td>
<td>219,195</td>
</tr>
<tr>
<td>Increase in year</td>
<td>-</td>
<td>12,954</td>
</tr>
<tr>
<td>Released in year</td>
<td>203,311</td>
<td>232,149</td>
</tr>
<tr>
<td>(28,838)</td>
<td>(28,838)</td>
<td></td>
</tr>
<tr>
<td>At 31 December 2007</td>
<td>174,473</td>
<td>203,311</td>
</tr>
</tbody>
</table>

Deferred income is comprised of lifetime-membership subscription receipts. Income will be released to the statement of financial activity over the estimated lifetime of members.

### 14. Analysis of net assets between funds

<table>
<thead>
<tr>
<th>Fund balances at 31 December 2007 as represented by:</th>
<th>Unrestricted funds</th>
<th>Total funds</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tangible fixed assets</strong></td>
<td>152,575</td>
<td>152,575</td>
</tr>
<tr>
<td><strong>Current assets</strong></td>
<td>489,572</td>
<td>489,572</td>
</tr>
<tr>
<td><strong>Current liabilities</strong></td>
<td>(48,700)</td>
<td>(48,700)</td>
</tr>
<tr>
<td><strong>Long-term liabilities</strong></td>
<td>(174,473)</td>
<td>(174,473)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>418,974</td>
<td>418,974</td>
</tr>
</tbody>
</table>

### 15. Unrestricted funds

<table>
<thead>
<tr>
<th></th>
<th>1 January 2007</th>
<th>Incoming</th>
<th>Outgoing</th>
<th>31 Dec 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General fund</strong></td>
<td>£</td>
<td>£</td>
<td>£</td>
<td>£</td>
</tr>
<tr>
<td></td>
<td>397,025</td>
<td>95,915</td>
<td>(73,966)</td>
<td>418,974</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>397,025</td>
<td>95,915</td>
<td>(73,966)</td>
<td>418,974</td>
</tr>
</tbody>
</table>

**Purposes of unrestricted funds**

The Institute has as its main objective the promotion of the science, technology, practice and profession of Management Services which results in the advancement of the efficiency, productivity and satisfaction of human work.

The purpose of the unrestricted funds is the dissemination of knowledge and information on productivity improvement, both to its members and the public in general, in order to improve the financial viability of both companies and countries across the world. The increasing realisation of the role that productivity improvement can play in ensuring the economic well-being of all is an indicator of the success of the Institute over the past 60 years.

### 16. Taxation

The charity’s activities fall within the exemptions afforded by the provisions of the Income and Corporation Taxes Act 1988. Accordingly, there is no taxation charge in these accounts.
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**Experienced productivity specialists**
Use some of our people to undertake a productivity improvement project for you on a project or contract basis - on an hourly or daily rate - for as long as required - as individuals or project teams.

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2. Productivity Analyst (choose Time Study, MOST® or PADS)
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4. Developing a Lean environment

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productivity@scott-grant.co.uk
Offices also in Motherwell and Hertfordshire
Large companies lead the way
Size also seems to matter, as large firms seem to be having more success with lean compared to small firms. Figure 1.10 shows the percentage of respondents undertaking or planning any form of lean activity by employment size and it is clear that a much higher proportion of large companies are applying lean to the whole or parts of their business.

Implementation and benefits of lean manufacturing
The method of implementing lean can have a major influence on its ultimate success. The high failure rate of major lean transformations would indicate that a number of companies have not given this aspect of lean sufficient thought. It is not unusual for the first attempt to stall and often external consultants who have experience of implementing lean are commissioned to assist. Some of the most successful companies have trained lean practitioners who act as internal consultants and subsequently move into line management roles where their lean knowledge can be utilised to the full. This approach, if continued for a number of years, will ensure that all line managers become lean practitioners and students of the change process.

Boots Manufacturing in Nottingham decided to internally select and train their own lean implementation team and called them ‘lean coaches’. After a period of two to three years, the lean coaches would return to a line management position and spearhead the implementation of lean.

The EEF (2001) report goes on to state that when the use of all the different lean tools is considered by company size, it is also apparent that a substantially higher proportion of large firms are using the lean tools than is the case for small firms. The intensity of use of lean manufacturing is also greater for large firms relative to small firms. Just over half of large firms that have undertaken lean manufacturing state that they have found it very successful, compared with only a quarter of small firms. It may be that large companies already have an infrastructure and a culture of continuous improvement which can be used as the platform to introduce lean manufacturing.
the use of a small dedicated team and the least popular approach (8%) was the use of a dedicated individual. Generally, the pace of implementation will increase with the number of people that are involved. and in some cases they have gone on to establish a joint benchmarking forum. Sixteen per cent of companies did not seek any help at all and 15% of companies used the Business Link.

Figure 1.11 Resources devoted to lean implementation
Source: Manufacturing Magazine – Lean Manufacturing Survey 2006, p27

Figure 1.12 identifies the sources of help that companies used in their lean implementation. The most popular method (41%) was the use of private specialist consultancies, while 32% of companies used the Department of Trade and Industry Manufacturing Advisory Service which is free and obviously cheaper than the specialist consultancies. Twenty three percent of companies sought the help of other manufacturers who have successfully implemented lean and in some cases they have gone on to establish a joint benchmarking forum. Sixteen per cent of companies did not seek any help at all and 15% of companies used the Business Link.

Figure 1.12 Sources of help with the lean implementation
Source: Manufacturing Magazine – Lean Manufacturing Survey 2006, p28

Financial benefits of lean manufacturing
Lean manufacturing is a philosophy that requires the upfront briefing and training of management and staff, therefore, there is often a delay between the start of lean and the evidence of the first savings. It is advisable to instigate some form of monitoring system that is capable of monitoring and measuring savings.

The 2006 Lean Manufacturing Survey reported that nine out of
ten respondents reported that they had reduced costs since implementing lean, 49% of companies had seen a major reduction in costs but almost a third of respondents were unable to quantify the benefits. Translated into hard cash, 45% of respondents made savings of at least £0.25 million since implementing lean manufacturing, while a quarter have saved more than £0.5 million. Exactly half have seen an improvement in efficiency and 40% have seen a reduction in delivery lead times. Figure 1.13 provides details of the magnitude of the savings.

The savings from the introduction of lean cover a wide area of company activities and Figure 1.14 gives an indication of areas of the company where the savings have been made and how much improvement has been made. For example, 44% of companies achieved a major improvement in costs, 52% of companies made a minor improvement in costs and 4% did not make any improvement at all. Overall, companies experienced a reduction of costs, increased efficiency, reduced lead times, reduced waste, increased profitability and lower stocks. There were softer benefits such as increased customer satisfaction, improved product quality and improved staff morale.

The sources of increased productivity are identified in Figure 1.15. The adoption of a lean continuous improvement process and the improvement of work flow and processes accounted for 54% of the productivity improvement. Over 31% of companies identified lean as the basis of their continuous improvement process.

Figure 1.13 Quantification of savings following the implementation of lean manufacturing
Source: Manufacturing Magazine – Lean Manufacturing Survey 2006, p31

Figure 1.14 Potential benefits and an indication of the improvement
Source: Manufacturing Magazine – Lean Manufacturing Survey 2006, p30

Figure 1.15 Source of improved productivity
Source: Manufacturing Magazine – Lean Manufacturing Survey 2006, p30
Conclusions on the current state of lean manufacturing in the UK
This research study commenced in late 2001 and concluded in late 2006, so it was almost perfectly synchronised with the annual lean manufacturing survey which the Manufacturer Magazine started in February 2002. Following Womack, Jones and Roos’ publication of ‘The Machine that Changed the World’ in 1990 and the Womack and Jones’ book ‘Lean Thinking’ in 1996, lean manufacturing has steadily become more popular as a stand alone supply chain philosophy.

The publication of the annual Lean Manufacturing Survey by the Manufacturer Magazine, which commenced in 2002 and has continued on an annual basis, has enabled the researcher to compare the state of lean manufacturing between 2002 and 2006, which covers the life of this research. The perceived benefits of lean have evolved from a basic desire to reduce costs, to a more systematic approach to becoming more competitive. In 2006, the top two perceived benefits were to improve efficiency and processes, and the removal of waste. Large companies are still the main adopters of lean manufacturing and this may, to some extent, be because they have the infrastructure, such as training programmes, in place to support it.

The barriers to the acceptance of lean have remained much the same over the period. Both the 2002 and the 2006 lean surveys flag up company culture and the attitude of staff as the main barriers. Together, these indicate that the level of staff engagement is not at a sufficiently high level for lean to be accepted or sustained. There are, however, some encouraging signs that the importance of the ‘soft side’ of lean is beginning to be more fully understood. Investment costs were also identified as a major barrier to lean implementation but it is not clear if this relates to capital investment, such as equipment, or revenue spend, such as training and consultancy.

There is evidence that companies are giving much more thought to the implementation of lean with the use of specialist consultants, internally trained lean coaches and help from government agencies. The benefits that the discipline of a lean manufacturing approach brings to improving competitiveness are beginning to be understood more fully by companies. Ninety per cent of companies reported that they had made tangible cost reductions, although one third reported that they were unable to quantify the benefits that had been achieved. In the 2006 Lean Manufacturing Survey the benefits identified were reduction in costs, increased efficiency, shorter lead times, reduced waste and increased profitability. Perhaps the most encouraging indication in the 2006 lean manufacturing survey is that lean is seen as the best approach to improving productivity. This progression in the process and application of lean is testament to the rapid rise in its use as one of the best vehicles for a robust continuous improvement process. The majority of manufacturers now appreciate that lean is important, if not essential, to the future prosperity and competitiveness of their companies. In conclusion, it is evident that much more is known about the impact that lean can make when properly applied.

References

500 memory
Decimal Minute Stopwatch
Stopwatch:
Triple display showing: split time, cumulative split time, continuously running cumulative time in 1/100th minute
Data Storage:
Up to 500 splits can be stored in memory.Split times are stored in segments.
Countdown timer and pacer functions
Stroke measurement
In this mode the duration of three strokes is taken and the stroke frequency (counts per minute) is calculated.
AST Limited 01530 411321.
Email: Sales@astopwatch.co.uk
Website: www.astopwatch.co.uk
All major credit cards accepted
Continuity is the key

Some business improvements involve a giant leap forward. An example of this would be the development of a revolutionary new product such as the bicycle or, more recently, the iPod or modern wind turbines to create green energy. However, of more importance to most businesses is ongoing small step improvement.

This case study shows how Leyland Trucks continually makes improvements to everything it does based on the Japanese principle of Kaizen.

Leyland Trucks manufactures trucks under the DAF brand in Leyland near Preston, Lancashire.

As well as production in the UK, DAF manufactures in Eindhoven in the Netherlands and Westerlo in Belgium. Leyland and DAF are both part of the North American company, PACCAR Inc.

In 2006 DAF’s three manufacturing plants in Europe, including that at Leyland, produced a record 56,700 trucks of between 7.5 and 44 tonnes (the heaviest vehicles on the road). One in every four trucks sold in the UK is by DAF. New truck registrations in Europe were almost 268,000 in 2006 and DAF currently has a 15% share of this European market.

The current business objective is to increase the market share to 20%. When a company wants to achieve its objective, it needs to have a plan to get there – this is termed the strategy.

DAF’s strategy for Leyland to achieve this objective has two main elements:

- continuous improvement
- increasing production capacity from 18,000 to 25,000 units.

Continuous improvement or Kaizen

The Japanese term ‘Kaizen’ means continuous improvement. It comes from the words ‘kai’ – continuous – and ‘zen’ – good or for the better. We use the term ‘Kaizen event’ for any action that is an improvement to an existing process.

Kaizen events usually involve bringing together operators, managers and the owners of a particular event to discuss possible improvements. A
The great thing about the Kaizen process is that people who really understand manufacturing at a nuts-and-bolts level can get involved.

There are a number of major reasons why Leyland Trucks practises continuous improvement:

- To meet the production and sales growth plans to meet customer demands for more reliable trucks;
- To stay ahead of the competition. For example, there is always a risk that rival manufacturers, eg, in China and other European countries, might merge (this happens when two companies join together). This could lead to a threat from these bigger competitors;
- To offset rising labour costs. Wage costs rise every year. Leyland is not able to raise prices because of competition, so any increase in wages has to be compensated for by more efficient production;
- To protect jobs in the UK. If operations at Leyland Trucks were considered inefficient, there would be a danger that senior managers at global headquarters might want to move production to
a location with lower wages.

**Setting and monitoring continuous improvement goals**

Businesses seek to ‘measure what is measurable’. These measures are usually set out in what are referred to as Key Performance Indicators (KPIs). In order to check on the success of continuous improvement, it is important to have a number of measures in place. In this way, the company can see where improvements have been made.

The measures that Leyland Trucks uses are clustered into a number of themes – these are areas of business results that are similar. For example, one theme is Health and Safety.

Useful measures under this theme are the number of accidents at work, and illness-related issues.

The main themes used are:

- On-time performance (meeting deadlines);
- Productivity (how much is produced from given resources in a certain time period);
- Quality (for example, the numbers of defects – ideally zero);
- Financial (for example, costs);
- Inventory (the quantity of stock held);
- Health and safety (reportable accidents, minor accidents);
- Continuous improvement (Six Sigma – see below).

One or more KPIs are used to measure each of these themes. For example, the measure of productivity calculates the number of labour hours required to manufacture each truck (known as ‘truck hours’).

All of this information is set out in figure 3, which is monitored each week. In the chart below, you can see examples of productivity-related KPIs for a week at the end of 2006.

In the first measure of this fictional example, the goal for truck hours for 2006 is 52. For the year to date, results are above the annual target. In the second, you can see that in 2005, each employee produced an average of 14.9 trucks per week. The goal for 2006 was to raise this to 15.6. For the year to date, the average truck production numbers are on target.

An important KPI for continuous improvement is Six Sigma. This is a measure of quality that strives for near-perfection. To achieve Six Sigma, a process must produce no more than 3.4 defects per million opportunities. Six Sigma uses statistical tools and data as a base for analysis. It can be used to improve existing processes or develop new ones. It involves the systematic identification of defects and deficiencies within any product, system or process, with a view to eliminating them. A defect is anything that is outside customers’ expectations.

With its disciplined and...

<table>
<thead>
<tr>
<th>Productivity-related theme</th>
<th>Average per week in 2005</th>
<th>Goal for 2006</th>
<th>Average for Year to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Truck hours</td>
<td>53.7</td>
<td>52</td>
<td>52.4</td>
</tr>
<tr>
<td>Trucks per employee</td>
<td>14.9</td>
<td>15.6</td>
<td>15.6</td>
</tr>
</tbody>
</table>

"Leyland Trucks has clear targets for continuous improvement and clear processes for building teams and encouraging involvement"
logical approach, Six Sigma enables decision-takers in Leyland Trucks to improve their understanding of business and operational processes. This results in major cost savings and the development of best practices.

Leyland Trucks sets targets to create a vision for staff to work towards. In other words, it gives a clear picture of what can be achieved through high performance. In 2001, the Managing Director (MD) of Leyland set a visionary target for quality in the company based on a Quality Index. Quality relates to such areas as the number of breakdowns within 90 days and mechanical defects.

In 2001, the value of this index was running at 13.2. In order to drive a reduction in these breakdowns and defects, the MD set the visionary target of 5.0. Leyland has achieved this target.

Progress is benchmarked across PACCAR’s nine manufacturing plants. Leyland is well ahead of its ‘sister’ plants.

A culture for continuous improvement
The culture of an organisation is the typical pattern of behaviour and way of doing things. It is usually quite easy to get a feel for the culture of a company. For example, does the business look after customers?

The culture at Leyland Trucks is based on trust. It involves everyone in the continuous improvement process. The company’s culture relies on a set of values. A value is something that an organisation and its people believe in. Values determine the way we behave.

Leyland’s values support continuous improvement and include:
- Training for everyone – for example, identifying ways in which people can contribute to continuous improvement, such as by eliminating errors and waste;
- Team-building for Kaizen;
- Involving everyone from top to bottom in decision-making;
- Empowerment – giving responsibility and power to everyone in the organisation, encouraging them to make decisions and to take on responsibility for continuous improvement;
- Innovation – encouraging everyone to be prepared to think of, communicate and try out new ideas.

These values are translated into practical action – this is referred to as ‘living the values’. They are put into practice through:
- Day-to-day sharing of ideas between team members;
- Weekly briefings where team leaders inform members of new developments, issues, problems and successes;
- Quarterly newsletters for all employees;
- Teamwork sessions;
- Celebrating achievement of individuals and teams every three months;
- Whole-team sessions led by the managing director every six months.

Continuous improvement in action
Leyland Trucks has clear targets for continuous improvement and clear processes for building teams and encouraging involvement. Kaizen describes all those processes that involve Leyland’s people in day-to-day small step improvement.

A good example of this process occurred in May 2006 at the vehicle finishing part of the plant. This involved a High Impact Kaizen Event (HIKE) where six pairs of project leaders were chosen to work with employees in this area. Each member of the HIKE team wore a brightly coloured ‘high visibility jacket’ and they examined every area of work, talking to everyone on the section in an informal but systematic way. They encouraged everyone to identify work-based problems and possible solutions. Staff got together at working lunches to discuss work issues. Overall, the idea was to involve everyone so there would be no surprises. A senior manager was also on hand to work as a coach, helping and supporting the HIKE team.

The HIKE was an outstanding success because of the improvement culture at Leyland. At the end of the project the team leader stated that: “the culture at Leyland in terms of the pride that the employees take in being the best is unique. You only have to spend a week at Leyland to see why they are number one: the employees.”

More than 200 ideas for improvement were suggested by ground-level employees. The changes they suggested led to:
- A reduction in truck hours of over 17%;
- 20% reduction in line-side materials (inventories);
- 23% reduction in walking (the distance that employees had to cover to carry out their work – 57 miles per day in total).

At Leyland, over 10% of the 1000 workforce consists of qualified continuous improvement practitioners.

These people run and monitor progress through Six Sigma.

Conclusion
Continuous improvement helps a business to keep ahead. It is a process that involves all employees within an organisation and is based on a culture of trust and empowerment.

The results for Leyland Trucks in its full range of KPIs have been staggering. For example, in 2006, there have been:
- Multi-million pound savings resulting from Six Sigma;
- A rise in on-time delivery to over 95%;
- 10% reduction in mechanical defects per unit;
- 45% reduction in reportable injuries and 10% in minor injuries in the same period.

The important thing to remember about continuous improvement is that, as the process improves, the targets in the KPIs will also advance. This delivers an ongoing cycle of improvement.

"An important KPI for continuous improvement is Six Sigma”

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This means me

So did you change the way you think? If you carried out all of the exercises in steps two to five, you should at least have had a few doubts about things which managers have traditionally taken for granted. You may have gone further, you may be a committed systems thinker.

If so, this article will simply echo things you have discovered for yourself. For the uninitiated, this article will represent an affront to traditional management practice, so please don’t spread it around, we don’t want to upset people.

The central argument in this series has been that to achieve a quantum leap in performance, we have to be prepared to change the way we think. The major disease of 20th century organisations is in their design and management, and through this series I have encouraged you to take a different and better view of the design and management of work.

Fit for the future – the final part of a six part series introducing systems thinking, by John Seddon
In summary, this is a systems view. I didn’t invent it, I learned it from the work of W Edwards Deming, Shigeo Shingo, Taichi Ohno and others. These are the people who led a transformation in Japanese manufacturing in the 1950s – their ideas are still not understood by most British managers, yet when employed, they can have an enormous impact on performance.

“Where’s the proof?” I hear you ask. Let me give you just one example: The number of man hours Toyota takes to build a Lexus is LESS than the number of man hours a German luxury car maker takes in re-work at the end of the line – after the car is made! How does Toyota achieve this? Do their people work harder? Is it because they are Japanese?

No, neither of these; their secret is in the methods they use to design and manage work. Work is designed and managed according to systems principles. I often say to my clients: “It’s a good job you don’t make cars! For it would take 40 years to catch up with Toyota.” However, if you make nothing, if yours is a service organisation, these ideas can be implemented and the benefits achieved in a very short time.

In this, the final article in the series, I shall summarise the distinction between traditional management thinking and systems thinking and discuss some truths that systems thinkers know, which go against the grain of what most managers take for granted. As space is limited, I shall not give further examples; examples can be found in the previous articles in this series.

Standards are anathema to improvement
Just about every Government minister hails the value of standards. If only they knew the damage that results. Standards appeal, they are grist to the mill – ‘publish a standard, then publish performance against it’ is the simple, and simplistic, political cry. Yet this very behaviour undermines performance and worse, it engages people’s ingenuity against, rather than with, their systems.

If a standard is beyond a system’s capability, people distort the system or cheat – it is the only way to survive. If a standard is within the system’s capability, people relax. Moreover, they encourage others not to over-achieve lest the standard is increased.

We have seen all of these responses in our health services, police services and schools. They are not new phenomena – we have seen the same in our private sector organisations for years.

The minority of private sector organisations that have learned the error of these ways employ different and better measures – capability measures. Capability measures (see step three) make it easier to connect ends with means and hence make it easier to get the discussion on to method.

It is better to know what is predictable about the performance of any process or system than whether and how often it performs to a standard. The capability or predictability of performance is governed by the nature and extent of variation. Capability data leads managers to look

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<td><strong>Motivation of people</strong></td>
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Figure 1: Traditional versus systems thinking

Managing with productivity measures gets you less productivity
The cost accountants have had too much sway over the way our managers manage. The logic, as with standards, is plausible – if everyone makes budget, the organisation succeeds. But again, the focus becomes ‘make budget’ by fair means or foul. The focus ought to be on understanding the relationship between means and ends, something only capability measures facilitate.

People do what you count, not necessarily what counts. If you ‘count’ budget, standards, targets, activity and other ‘productivity’ measures, that’s what you’ll get, regardless of the impact on your system. If, on the other hand, you ‘count’ achievement of purpose, you’ll get better at what you exist to do. Measures of purpose are always ‘outside-in’ measures, not ‘top-down’ measures.

If you have measures that relate to purpose in the hands of the people who do the work, they will feel
able to experiment with method. At a stroke you will have a free brain with every worker – something traditionally designed and managed systems obviate. Motivation becomes intrinsic, people learn, people enthuse about what they change and improve, simply because measurement has been integrated with work, not separated from it.

Incentives get you less (not more)
Managers believe incentives have value in driving behaviour. They are wrong. This is not a matter of opinion. All the research evidence shows that incentives get you less work and, more importantly, they result in people attaching less value to their work. In America, for example, children have been given hamburger tokens as an incentive for reading books. When the tokens stop, so does the reading. What are the children learning? To not value reading.

What accounts for poor quality selling in so many sectors? Incentives. In the few organisations that have removed sales incentives, they have improved co-operation between salespeople, decreased sales force turnover, improved the quality of selling – hence improved customer satisfaction – and, above all, they have improved revenue.

Systems thinking is a better way to make the work work
We are witnessing a fundamental challenge to our beliefs about how to design and manage work. In my experience, this is not something that can be stirred by lectures and presentations, it is something you have to feel. As the American expression goes, “You have to be there”.

If you have followed the exercises in this series, you will have made a good start; you will have found for yourself the sub-optimisation caused by traditional methods of designing and managing work. I have found it is only this type of ‘hands-on’ experience that gets managers interested in the better way.

If you really want to get fit, if you really care about productivity and profit, I recommend you learn to take a systems view. It starts with you.

This series ‘Six steps to improving productivity’ is based on The Vanguard Guide to Understanding Your Organisation as a System, published by Vanguard Education.

Downloaded from www.lean-service.com – improve service and cut costs.

John Seddon is an occupational psychologist and management thinker credited with translating the Toyota Production System (TPS) for service organisations.

John is a visiting professor at the Lean Enterprise Research Centre, University of Cardiff. He is an entertaining, controversial and informed speaker. John’s latest book Systems Thinking in the Public Sector and other publications are available from the Vanguard website: www.lean-service.com or direct from Vanguard, Villiers House, 1 Nelson Street, Buckingham MK18 1BU.
Ideas and movements aimed at changing the business world come and go faster than magazines can report them and companies can adopt them. There have only been a few that have lasted more than a few years. What is it about movements and initiatives that determine whether they last or they just fade away?

There are probably many reasons worth exploring, but I will only say that while some movements are depleted as soon as they are implemented, others create a reinforcing pattern that builds on itself, becoming stronger and more ingrained... a pattern that is unaffected by changing desires in the marketplace; instead helping people deal with this change.

Where lean and organisational learning meet
Two movements that have lasted over time are lean, or lean manufacturing, and organisational learning. Lean, although it has continued to shift and morph, began as a concept that migrated from company to company in the 1950s, with historical roots well before that.

Organisational learning was born in the ’50s, began to get organised in the ’80s, and became the language of every business person after the 1990 release of ‘The Fifth Discipline’ by Peter Senge.

What is most interesting about these two movements is their point of intersection. There are many companies that adhere to both lean and organisational learning, but view them as distinct, disconnected initiatives. Some companies link them together, but only in terms of their respective resource pools and budgets. Looking at the intersection of both movements, I believe there are ways to unlock the potential in both.

Lean has, in general, been misunderstood, narrowly focused and unsustainable. Organisational learning has often been limited to changed behaviour only during facilitation, meeting resistance to becoming part of the everyday corporation. The excitement about both movements comes from their tremendous potential. The frustration comes from that potential remaining unrealised.

In order to explore their intersection, we must return to one of the fundamental frameworks of organisational learning. Vision drives mental models, affects systemic structures, and determines patterns...
“Organisational learning has often been limited to changed behaviour only during facilitation, meeting resistance to becoming part of the everyday corporation”

of behaviour which result in the events that we see. This framework presents a hypothesis that there is greater leverage for change to closer to vision, and the further from reacting to events. Despite the lessons of this framework, there is still a dominant behaviour of reacting to events and living primarily at that level.

Many organisational learning change efforts reveal this framework in the spirit of creating ‘systems thinkers’. Upon examination, however, this is done without specific methods, tools or rules of HOW. The result is that people simply claim their own ‘good idea’ in the name of systems thinking, lending it false credibility. Therefore, while peoples’ eyes are opened to the possibility demonstrated within this framework, the change in performance or behaviour is often in word only.

Turning quickly to the realm of lean, lean transformation, lean manufacturing or whatever other derivative phrase you may use, almost every effort and almost all articles and teaching limit lean to a set of patterns and events. Events come mostly in the form of solutions such as andon systems, work cells, error-proofing or kanban. These solutions fit certain problems or needs, but only affect the events level of the company. By moving one step up in leverage, we can see patterns of behaviour that are expected through lean, such as continuous flow, just-in-time and continuous improvement. Lean improvement efforts across companies and industries begin and end at this level of the framework. This is so common across companies because events such as the application of a lean tool are so visible, it is hard not to focus your attention there.

For years, companies like Chrysler and General Motors would visit the birthplace of lean – Toyota – and walk through their plants looking for the answer to why Toyota was beating them in every category. They may see something like the andon cord, a simple cable strung overhead of the workers. When a worker had a problem, they would pull the cord, triggering music and an indicator light. A team leader would immediately show up to support the worker in resolving the problem.

Seeing this tool and knowing it was vastly different from how their plants operated, drew the attention of automotive executives, leading to a strong push to install the same andon cord in their plants. The effort failed, not because they misunderstood the tool, not because their workers were union members, not because their factories were older, but because the tool was out of place. There was something missing, and it wasn’t just other lean tools. The effort at transformation was missing an intangible element – if we’re to fix the problem we must make the intangible tangible.

The next level
If we make the leap suggested by the organisational learning framework, in Figure 1,
These rules have many purposes, but most simply, they provide the organisation guidance when designing or improving systems. For some, this helps explain the ‘why’ behind the tools. For others, the rules help create new tools or solutions. And still for others, it is the litmus test to evaluate and judge certain improvement ideas. These rules are a major contribution to the understanding of lean and help us move up one more step in the leverage hierarchy into systemic structures.

**“We must view value through the customers’ eyes and recognise everything else as waste”**
Lean and Organisational Learning

“A lean transformation that does not seek to develop a new set of principles in the organisation will suffer only temporary gains, and sometimes none at all”

Mental models of lean

The next rung on the hierarchy of leverage is mental models. Put most simply, mental models are the principles or beliefs upon which we think, make decisions and view the world. While the rules help us design better business systems, we also need mental models to help us with the people systems. In regards to lean, this is defined by five principles:

1. Directly observe work as activities, connections and flows
   This principle affects how we see the world. Do we seek to understand our current reality by looking at results and measures or do we seek a peek at the actual systems that drove that performance? We see the car in front of us but do not recognise the flow of traffic. We pay our bill without attention to the flow of information of which we are just one piece. The ability to see the systems behind the events is not a natural ability, but lean leaders must think in these terms and see the world through a different lens.

2. Systematic waste elimination
   We must view value through the customers’ eyes and recognise everything else as waste. The ability and relentless drive to eliminate waste on a daily basis is what sets lean systems thinkers apart. Combined with the first principles, this means digging below the surface to find the causes of waste and working to eliminate them. Recognising that waste will continue to re-enter our processes and organisations is important, as waste elimination must be a constant effort.

3. Establish high agreement of both what and how
   Every company seeks high agreement of the ‘whats’ (goals, objectives, measures, strategies), but only the best focus most of their energies at every level on defining a clear and common ‘how’ to execute these objectives. Having this mental model means that people value having a common process more than they value doing things whichever way they like. Without a common process, there is no platform on which to build continuous improvement and leverage to the collective creativity of the organisation.

4. Systematic problem solving
   Every individual needs to be engaged in structured problem solving by viewing problems as opportunities for improvement and by examining the root cause through systemic solutions, leveraging the four rules. Problems exist — it is our view of their importance and how we react to them that will make a difference. By redefining problems as gaps from our ideal state and high agreement, we seek to solve problems sooner and more frequently, rather than battle with them when they become large, looming and institutionalised.

5. Create a learning organisation
   This is an obvious link to organisational learning, but it does not represent everything that organisational learning is known to be. It is focused on building reflection into everything that is done. Reflection does not have to be complex, but requires, at least, pausing long enough to ask: “are our current thinking and systems getting to where we want to go?” This requires daily effort and frequent use of the question “why?”
Making the leap to lean mental models requires a very different kind of leadership and different approach to implementation than if you were just implementing tools. The importance of changing principles is under appreciated. The reason is that we can all live the principles we are told to live or want to live when times are good and challenges are few. It is only when a crisis or challenge hits that our true internal principles are surfaced.

Regardless of how strong a lean tool box is or how effective systems are, anyone with a set of mismatching principles can overcome them. Consider the scenario where you are in your car. You have all of the tools at your disposal – a working, easy-to-read speedometer, a clear windshield with an accurate view of the speed limit sign, a smooth accelerator pedal and even cruise control. Yet, despite all of these tools and a system which includes heavy penalties for not using the tools to your full advantage, if the principles of the driver are inconsistent with the correct use of those tools, there is very little chance we will find that individual on the low side of the speed limit.

In a lean transformation, this surfaces in two ways. First, there are some lean tools that support the pattern of ‘pull’ which simply means that activities, production or otherwise, are completed based on clear signals from the immediate customer and their needs, instead of triggered by a schedule, a forecast or someone driving local efficiencies. As a simple example, if an area manager doesn’t internalise the principles of high agreement and systematic waste elimination, she is not likely to adhere to those tools and will overproduce when faced with meeting a monthly target.

Second, the manager, without internalising the new principles, will not build on the tools already in place to take them to the next level, and she will continually need guidance and incentive to move the organisation forward.

A lean transformation that does not seek to develop a new set of principles in the organisation will suffer only temporary gains, and sometimes none at all. By internalising the principles, an organisation can cut its own swathe and not be dependent upon following others.

The ideal state
The last connection to the framework is the vision. Vision in a truly lean company is driven, on a daily basis, by the pursuit of the ideal state. You may use different words for your particular organisation or industry, but a generic ideal state is ‘delivering what the customer wants, when they want it, at the price they want, with zero waste and where everyone is safe.’

The pursuit of the ideal state is a common trait among the most consistently successful companies. This means that even when you have met your goal or even become best-in-class, you do not stop because you are driven by the never-ending quest for perfection. World-class is a common goal or vision for many companies, but often comes with the mistaken idea that the second you become number one, you can stop, or even let off the throttle.

At companies driven by the search for an ideal state, you don’t measure yourself against your competition, but against your ideal state which is a target that never moves and which everyone can align themselves around.

“Lean is more than just tools. Organisational learning is more than just frameworks and concept”

Putting the pieces together
Combining the framework from organisational learning with the understanding of what lean is really about, allows both initiatives to live in the organisation in a sustainable and effective manner and, more importantly, provides leaders in the organisation with a road map of how to transform their companies. This includes connecting tools that previously would not
Management Services
Autumn 2008

Lean and Organisational Learning

John Smith, Ross Controls’ Chief Operations Officer (COO), reflects on that stage: “It’s funny, at first, much of what we learned seemed like simple common sense. But we realised that implementing a common sense approach have been considered lean by linking them to vision, principles and systems.

Consider the example of Ross Controls, a company founded in 1921 as an international supplier of premium pneumatic valves and hydraulic controls. It started its lean efforts in its two plants (Michigan and Georgia) in a traditional manner – teaching and applying tools, implementing solutions as events and looking for patterns of how all the efforts fit together. Some things stuck and others did not. Progress was both painful and unfulfilling.

Their start was learning tools such as the 5S’s, which stand for Sift, Sweep, Sort, Sanitise and Sustain. 5S was used for cleaning up the place, which was not the primary purpose of 5S. Ross Controls was struggling, regardless of the tool or practice, with applying those tools on a consistent basis. Progress would come in a spurt, then fizzle out, or revert back to before the improvement ever happened. What would work in one area, wouldn’t in another.

company-wide could be quite complicated.” As Smith realised, one person’s common sense is another person’s impracticality, and the challenge of transformation became very, real.

Without learning a single new tool, Ross Controls embarked on a formal learning process to incorporate the principles, or mental models, and the system rules into its lean transformation efforts. “This is where we learned how to pass along to others what we had learned and how we thought,” comments Plant Manager Sue Reicher.

With the right thinking in place, predetermined tools were not the only method of improvement. Employees could use that thinking to find new creative ways to improve their operations and work environment. Reicher continues: “The majority of employees have bought into it. We’ve been able to instill the feeling that everyone is empowered to make changes and get things done without incorporating red tape. This is a major change for us. Before, required supervisory permission or change was dictated from upstream. Now we use the 60% rule – if you’re 60% confident something will work, try it.”

On top of adopting principles and system rules, COO Smith established a vision of progress towards the ideal state, regardless of what was happening with the customer, the competition or the economy. As a result of this vision, efforts were not

“The pursuit of the ideal state is a common trait among the most consistently successful companies”
Instead of searching for the next big idea, the next big fad, let's make work what we already know is effective. Then, when the next big idea does come along, we'll know how to adopt it and integrate it within our existing environment, using it to move us and our organisations forward, not backward.

Not many movements or ideas last more than a few years. Those ideas that do last longer likely have something more to them than first meets the eye. Organisational learning and lean both fall into this category. Instead of people inside organisations fighting about which idea is bigger and better, perhaps we should refocus that energy on integrating these concepts. Then, instead of diverting energy away from the organisation, we can put energy into building the organisation, and that energy can build great and sustainable companies.

For more information on the Lean Learning Centre, visit www.leanlearningcenter.com
With the advent of life membership we are attracting new members. There are still people who are engaged in management services who are not members and we would like them to join the Institute.

We can use our ‘direct entry’ route to fast track this and information is available from Brooke House.

We very much hope that our existing members will make potential members aware of this option.

- Actively promoting the IMS in your place of work
- Encourage colleagues at work as well as professional and social contacts to join the Institute
- Refer potential new members to the Journal as an example of what the IMS is about
- Remind potential members of the benefits of IMS membership, eg education system, regional structure, recognised professional qualification
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