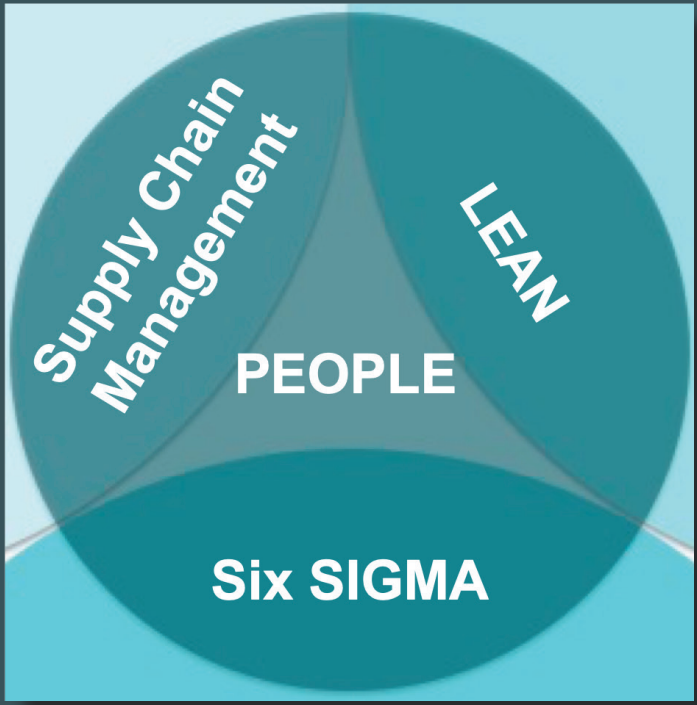


# *The Great LEAN 'Bake Off'*

**Dave Manning**
DM Integration Ltd

# THE GREAT LEAN ‘BAKE OFF’

by

DAVE MANNING

*‘I SEE NO SHIPS!’*

*"I am driven by the firm belief that the development of people is the most critical success factor for any business. It is my mission to bring about a fundamental change in the face of industry by pioneering 'Leadership Through Integration' of people, processes and systems.*

*"To achieve my mission I will draw from my 30 plus years' experience in manufacturing together with my drive for business excellence and lifelong passion for people and horses."*

**Dave Manning**


The purpose of this booklet is to kill once and for all the very non-constructive debate about whether companies should adopt a strategy of Lean/Six Sigma, Supply Chain Optimization or as is currently the 'vogue' Demand Driven MRP. My intention in doing this is to explain how rather than being mutually exclusive – Six Sigma, LEAN and Supply Chain Optimization are in fact symbiotic philosophies.

***Dave Manning***

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Dave studied computer science at Sheffield University before entering industry with British Steel at their River Don facility in Sheffield. He now looks back at that time as a defining moment in his career. Having been brought up in a very practical/farming background, he was fascinated by the process of industry, recognising that many of the common sense and practises of farming equally applied to business processes.

Having spent some time in the software industry, where he was involved in the development of planning and scheduling systems, the desire to be involved in the practical process of real business change lead him to join Rolls Royce and Bentley Cars. During his seven years at Rolls Royce he was responsible for the development

of manufacturing systems before becoming a prime mover in their supply chain/ERP implementation programme. This eventually lead to one of the Rolls Royce divisions achieving Class A against the Oliver Wight ABCD checklist.

In 1987 Dave left Rolls Royce to set up his own education and consulting company. He specialised in the integration of Planning and Control, Continuous Improvement and Change Management. He now focuses on the implementation of change through strategic alignment of the integrated Business Management process. Extended Supply Chain Management and Global Sales and Operations Planning are the particular expertise of Dave.

He has worked extensively in Asia, Africa, Russia, the Middle east, Europe, the USA, South America and of course the UK in a complete cross section of industries, which include chemical process, food, electronic, tobacco, engineering and automotive. Companies such as CAT, Abbott Laboratories, UCB, British American Tobacco, Philips, Hallmark Cards, TR Fastenings, MARS, JCB, Cadbury Schweppes, Perkins, Pladis, Henkel, Betty's and Taylors and Akzo Nobel have all been supported by Dave's unique style of education and consultancy.

Dave holds a BSc in computer sciences and a MBA from the University of Northern Washington, he is also a fellow of the Chartered Institute of

Logistics and Transportation. He has written many published articles on Business Excellence and is extremely sought after as a very entertaining and practical business educator and speaker.

Recently he has spent
18 years in Oliver Wight, 5 year with The Delos Partnership and now, his own company, DM Integration Limited (DMi).

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LEADERSHIP
through
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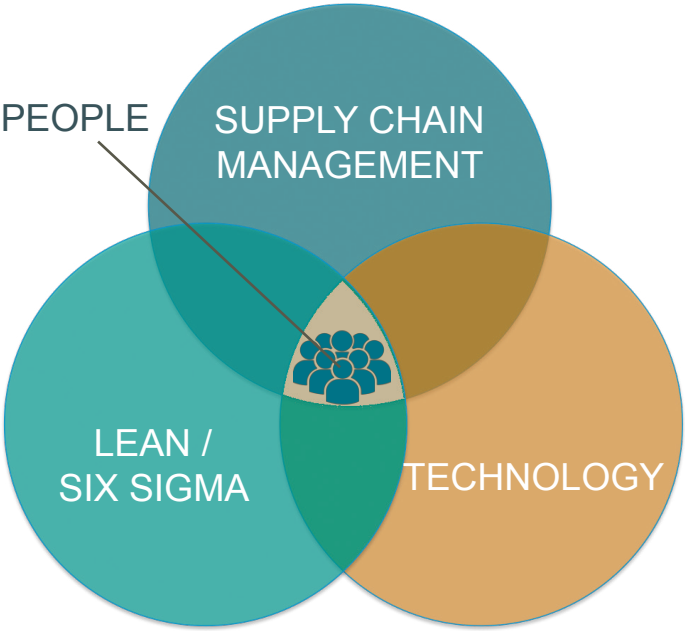
## Dispensing with Acronyms

'Industry 4.0' – the title alone is enough to trigger our 'gadget nerve'. To some people Industry 4.0 means the Cloud, Robotics, Cyber Space and touch/contactless everything. Visions of technology, computers and artificial intelligence spring to mine.

Is that what we really mean when we say Industry 4.0? I don't believe that technology is really the issue, in my opinion Industry 4.0 means the interaction of Supply Chain Management, LEAN/Six Sigma and technology to ensure that the business environment that we create develop and capitalize on the capabilities and talent of people to create a more competitive business environment.




These approaches are not independent, in fact they are symbiotic. In the past and even today we have seen these activities and approaches as independent methodologies. However it is becoming increasingly obvious that these three circles are overlapping and the 'sweet spot' is people. Only through this integration can Industry 4.0 and excellence be achieved.

One of the objectives of LEAN is work-in-process reduction of working capital. However a vital element to minimise work-in-process is to develop valid capacity plans which if of course a goal of supply chain optimization. It is also inconceivable to imagine how we can expect vendors/suppliers to reliably deliver with short lead times without stable visibility of future requirements that they can use to plan against. Integrated business planning (S&OP) provides that long range visibility. Shorter change over times (SMED) which is a key element of LEAN production paves the way for smaller lot sizes and hence greater flexibility, responsiveness and reduced costs which also helps to improve quality which is a key objective of Six Sigma. Nothing is achieved if we make small lot sizes of high quality product that customers don't buy. Integration of Product, Demand and Supply plans is essential to ensure that we produce customer requirements on time and for the ever reducing product life cycle.

The mission must be to be best in class producing the highest quality, greatest value and most flexible/ responsive supply for our customers. Separate initiatives for Supply Chain Management (ERP), LEAN and Six Sigma can only be detrimental to this mission. We need to unify not separate education programmes and projects to pull organisations together not push them apart.

The bottom line is that Industry 4.0 is not about getting technology to talk to technology but getting people to communicate and work in teams with people.

Integration means creating an integrated set of performance measures leading to an integrated set of behaviours.

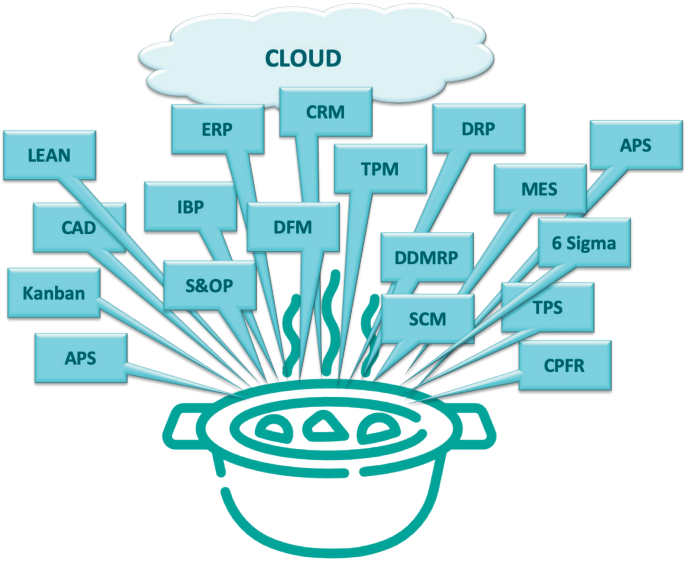



*Diagram: Alphabet Soup*

There are many confusions and misunderstanding surrounding LEAN and Six Sigma. One classic is that LEAN is synonymous with demand driven and KANBAN. In fact KANBAN is a simple execution process that relies heavily on planning. Another common misunderstanding is that Six Sigma is a project driven concept where in fact Six Sigma is the application of total quality (TQM) techniques that originate in the 50's/60's that focus upon the root cause identification and solving of quality issues and variability. The focus of LEAN, Six Sigma and JIT/TQ previously is more about the 'elimination of waste' where waste is defined as follows.

**WASTE**

**Is anything that the minimum amount of equipment, materials, space and employees' time which are ABSOLUTELY ESSENTIAL to ADDED VALUE in the eyes of the customer?**

There are 3 types of activity:-

- Value adding in the eyes of the customer
- None value adding, but necessary e.g. regularity
- None value adding and not necessary. ("We've always done it that way")

A good test of value added is to imagine putting a line item on the invoice that you send to the customer and imagine his reaction. If the reaction would be "Ok it seems reasonable for me to pay for that" then it is probably value adding. If the reaction would be "No way I'm not paying for that!" then its probably none value added and should be eliminated or reduced. It's a great test but I don't suggest you do it in practice, you might find a lot of customers wanting a price reduction. The best approach is to start with the none value added which are not necessary activity and stop them now. Then work on the none value but necessary activity and try to turn the necessary into unnecessary and then stop doing them. Finally turn to value added activity and look to see how these can be simplified and improved.

One example of the "we've always done it that way" was in the British Army. By looking to improve their efficiency they discovered that in the process of firing a field gun one of the team's role was to stand 20 yards from the gun while it was loaded and fired doing absolutely nothing! When they challenged why

this was happening they discovered that his job was to hold the horses away from the gun so that they didn't become frightened, a very sensible job when the guns were moved by horsepower. Of course the problem was that guns had not been moved by horses for more than 30 years but the horse holder role had remained. This sounds very stupid I know but be careful that you're not doing equally stupid things because "you've always done it that way".

The best example of turning necessary none value added activity into unnecessary and then stopping it comes from the Japanese automotive industry. When I was in the automotive industry back in the 70s and 80s all goods inward materials were inspected as part of the receiving process. This was none value added but absolutely necessary because we didn't trust our suppliers, why would we after all we chose them! However the Japanese automotive industry said 'if' (it's a big IF) we could trust our suppliers then why would we bother with goods inwards inspection. They then developed real

supplier partnerships through supplier development programmes and provided stable supplier schedules and plans which lead them to a point where they could trust their suppliers at which point they had turned a necessary none value adding activity into unnecessary and then stopped virtually all goods inward inspection which enabled 'Just in Time' line side deliveries and the famous Toyota Product System - TPS.

Clearly on a racing car, changing the wheels to new tyres helps the car go faster and so is a value added activity. Back in the 50s when the great Fangio came into the pits for new tyres it took more than 2 minutes, today when Lewis Hamilton shows up it takes less than 2 seconds! A perfect example of improving the value added activities.

The definitions above therefore applies to much more than just the factory; it can equally be applied to indirect activities.

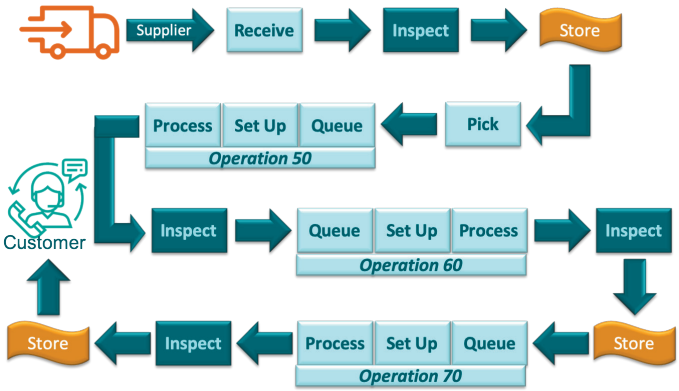
One of the consulting clients with whom I was working identified a particular problem with their order entry procedures. The facts were that from point of receipt the order was taking two days to be processed before it reached the factory. In fact, this was a make-to-stock environment, and the two days were before it reached the finished goods store to

start the picking process.

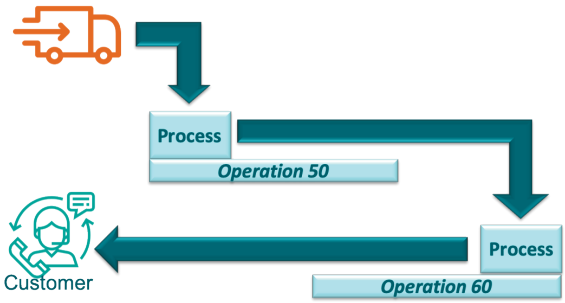
My client was not satisfied with this turn round of orders, and when they examined the process in detail, they found that the order passed through several different departments and was copied in triple duplicate. Many of the people and departments who were currently handling the paperwork were only doing so for historical reasons, and many had no idea why they were doing what they were doing!

By examining this process and cutting out all the unnecessary or repetitive steps, they were able to reduce the order processing lead time from two days to two hours! Now, that's what I call Lean.

## Lean the elimination of waste



# Eliminate waste: improve service and cost




LEAN has been given many labels – Just in Time (JIT), Short Cycle manufacturing, Time based competitiveness, continuous flow manufacturing. All of these methodologies have the same fundamental objective which is to simplify as many processes as possible and thereby eliminating as much none-value adding activity as possible from as many business processes as possible.

The scope of LEAN is therefore extremely widespread covering activities around the whole business. Even before the customer order is taken, the way the product or service and supply process is designed have a very significant influence on how easy the product or service is to supply. Typically 80% of the product cost is determined at the design stage, so no matter how cost effective the operational process is the real cost has already been determined.

LEAN's focus is on quality and process simplification through the better use of people's experience, ingenuity and intelligence.

*"The people and their individual hopes and skills are the greatest variable and the most important one"*

**Sir John Harvey Jones**

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People hold the key:

- We must unlock the people's potential
- Leaders must create an empowered environment
- We must create secure based leadership (distributed leadership) at all levels
- Integration, collaboration and teamwork must become the norm

Reduction of customer lead times, reduced change over times, greater flexibility and management responsiveness along with short product life cycles

and mass customization are all key objectives for a competitive supply chain of the future.

LEAN is not only a requirement for suppliers or just an inventory reduction programme it is a total business philosophy.

Let me pose a question --- In an environment that has less material, time, space – in other words less buffer and which needs to respond to customer demand and expectations more quickly, is planning more or less important?

Surely the answer is more important!

## Surely the Answer Is More Important!

If LEAN is a philosophy aimed at the execution process where is the planning process coming form?

The answer must be supply chain management and optimization. The goals of SCM/EPP are to help to plan 'what is needed, when and where it is needed'. The goals of LEAN are to ensure this is done as effectively as possible and ensure maximum customer service and satisfaction (internal and external customers). The process must embrace 'democracy in planning and autocracy in execution' hence plan adherence is vital for lean to be effective.


## SCM Themes

- Sales & Operations Plans/Integrated Business Planning
- Supply Chain Optimisation
- Valid capacity and Material Plans
- Integrated Financial Planning
- One 'Hymn Book' for all Functions
- Believable Supply Schedules
- On-time Deliveries to Customers
- On-time deliveries from Suppliers
- Future Visibility through the end to end Supply Chain
- Data Quality

- Item master Information
- Inventory Records
- Bills of Material
- Routings/Process Steps
- Valid dates
  - Customer Due dates
  - Production Due Dates
  - Supplier Schedule requirement Dates

What we can learn from the big boys!

DMi article

SOMO Wrestling!

To the westerner sumo wrestling is a very strange sport. There is another Japanese export that Western manufacturing industry must also embrace if it is going to survive, and that is "SOMO" which is the strategy adopted by many Japanese companies of "sell one make one" and is just as strange to traditional Western thinking as the spectacle of two thirty stone men trying to push each other out of a very small circle in what appears to be an extremely painful manner. Similar to the real Sumo wrestling, introducing a SOMO strategy is not as simple as it first appears, there are a great many hidden implications and implied skills that all need a great deal of understanding if this process is going to be successful.

As the business world continues to shrink, the greatest challenge facing the supply chain industry is to gain and maintain a competitive edge in a global market place. In my experience this means providing a better service than the competition and at the same time managing costs in order to make a greater profit. Customer service can be defined in many ways but the areas that need to be focused on are:-

Dave Manning

A prime mover in getting a division of Rolls Royce to Class "A" in the 1980's, he has huge experience as an inspirational educator to many companies across many continents in how to bring change through implementing Integrated Business Leadership. Recently he has spent 18 years in Oliver Wight, 5 year with The Delos Partnership and now DM Integration Limited.

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## SOMO Wrestling

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As the business world continues to shrink, the greatest challenge facing the supply chain industry is to gain and maintain a competitive edge in a global market place. In my experience this means providing a better service than the competition and at the same time managing costs in order to make a greater profit. Customer service can be defined in many ways but the areas that need to be focused on are:

- High quality (Product and information)
- Response and delivery
- Value in the eyes of the customer

The issue of response says that we can not only respond to customer requirements very quickly, but also we are very flexible when those requirements change. In order to achieve this we need to look at supply chain lead times and examine the constraints that are obstacles to the reduction of those lead times. In many industries one of the major constraints to reducing lead time is the batch or lot size that is

defined for that product. Therefore is we are going to reduce the lead times one of the considerations is to examine what can be done to reduce the batch size to such a level that only what is actually required is manufactured. This of course implies that there are potentially many more change overs or set-ups and therefore a prerequisite to reducing batch size is to reduce the set-up time, so that it no longer represents a constraint and the number of change overs is a non-issue. The purpose of a set-up reduction programme is not to eliminate waste in order to reduce costs, (although this is a very positive by-product of the process) it is to enable the reduction of batch sizes and consequently lead times which allows greater flexibility.

If the reduction of lead time is vital to gain a competitive edge then we need to examine what elements make up that lead time and their relative contribution to the overall time. It is not unusual to find that less than 20% of lead time is actual process time leaving 80% or more consisting of queue time. Move/transport time, storage etc., all of which are non-value adding and hinder our ability to be responsive and to reduce costs. This 80% represent a massive opportunity to change the business in order to gain a competitive edge. Lets look at some of these elements:

- What are some of the valid reasons for having

queues?

1. Buffer against poor quality
2. Buffer against poor supply
3. Buffer against fluctuation in demand
4. Buffer against process breakdown
5. Buffer against unbalanced flow
6. Ability to “cherry pick” for production “efficiency”
7. Operator job security

If we are going to reduce queues (WIP) in the factory and therefore reduce overall lead times we need to address all of the above and not just to eliminate the queue time from the lead time in the system. The good news is that today there are tools and philosophies which help address all of the above constraints viz:

1. Improve reliability, internally and externally through the processes of Total Quality, in particular Six Sigma.
2. Provide better information to vendors through the integration of Integrated Business Planning/ S&OP/Master production Scheduling and Vendor Scheduling which provides the ability to enter

into partnership relationships thereby improving delivery performance.

3. Develop Master Supply Planning and Demand Management in order to protect the shop floor against fluctuations in demand from the market place.

4. Instigate a Preventative Maintenance Programme and plan machinery utilization at around 80% to increase the reliability of the process.

5. Reduce set-ups/change overs and consider cellular structures to improve flow through the manufacturing process.

6. Reduce set-ups/change overs to eliminate the need for selecting jobs in order to improve efficiency.

7. Provide quality data that is easily understood by the factory in order to provide visibility of future work.

- Is the factory always laid out so as to facilitate the quick flow of material and processes?

The answer too often is that the factory's layout is cumbersome. One company that I visited a couple of years ago found that the average batch of material travelled seventeen miles through a fairly small

factory. Provide the opportunity to re-layout the factory (cellular and focused factory concepts) encouraging reduced through-put time for the product.

- Why do we purchase or make more than we need and then store the materials and products that are not needed?

Clearly it is possible that storage will be necessary for certain items. It is unlikely that for very expensive or hazardous materials that we will ever store them at the point of use. Often the bulk of materials in the stores is there as a buffer against poor supply or forecast accuracy. That material is often purchased in larger batches from the vendor, in the effort to obtain a "better price". This of course automatically increases inventory and as it is now in a storage area we need to look after it, count it, relocate it, issue it and maybe even lose or damage it. Quite apart from the obvious waste in these activities they all add to the lead time thereby reducing the opportunity to be more flexible. What world class companies do is work with their vendors in order to achieve more frequent deliveries of smaller quantities straight to the point of use. It is a myth to believe that this can only be achieved by the application of "clout" or purchasing power. The real secret is to encourage the vendors to follow a strategy

of Business Excellence in their own business and address all of the issues that we are considering as part of our own transformation improvements.

- Does inspection of product ensure higher quality or does it actually encourage people to be less concerned about quality?

The truth behind the existence of separate inspection operations is that we don't trust vendor or our own manufacturing process to produce high quality items every time. Consistent quality is a key ingredient in gaining a competitive edge. We need to recognise that we cannot inspect quality into the product, we must expect quality from the process. Indeed it should be the process which is monitored for reliability, not the items. This means that if we are going to increase the reliability of the process we need to provide people with the tools to collect data and monitor that process. These tools include Six Sigma and some of the problem solving techniques such as fishbone, diagrams, histograms, control charts and brainstorming. The truth is that inspection does not improve quality, all it does is increase lead time and add cost.

The challenge today is to examine what is necessary in order to allow us to move away from the traditional batch production towards flow production. Many things need to be addressed before we can

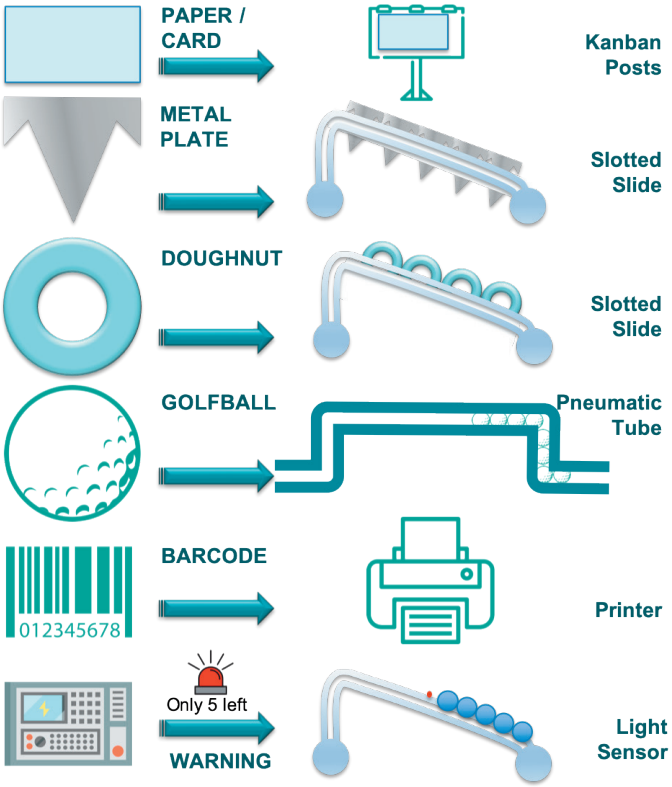
achieve expertise in the new SOMO game, but if manufacturing industry is to survive we need to gain competitive edge by becoming more responsive, achieving more consistent quality and providing greater value.

The time to start is now. The new Japan has developed in Eastern Europe and China/Asia. We need to hone our cutting edge very quickly. To quote Demming “Survival is not compulsory”.

As I mentioned previously the world of Lean is riddled with misunderstanding and myth, many people believe that Lean is all about KANBANs and KAIZEN.

KANBAN is actually a simple approach to informing the next operation of what is needed next. It is in fact a Japanese word meaning ‘sign post’ or ‘visual indicator’ and simply tells the factory that when they see this visual sign they need to produce more product. The sign can take many forms; it could be a piece of card, or an empty container, or a space on the floor, or even a light. Today electronic KANBANS are being used through bar-codes and scanners.

# Many Kinds of Kanbans




## Message in a bottle

My favourite analogy with regards to the use of KABANs is the milk bottle. It is widely assumed that the Japanese invented this process, but in fact it is down to the British milkman! The way you traditionally tell your milkman how many bottles to leave tomorrow is to leave the number of empties you require to be replaced with full bottles on the doorstep. That is the milkman's signal; in other words his KANBAN. Of course the

milkman still has to plan how much milk to load on his float each day based on his forecast of your demand and actual customer schedules. If he did not do this planning, the chances of being able to execute that plan based on the doorstep signals would be down to luck rather than good management.

Of course just as with the analogy of the milkman, this process works most effectively when certain criteria are in place.
The 'pull' signal is obeyed. Only make the next item when authorised to do so by your customer (next operation).

- There is repetitive usage of few items
- There are small lot sizes
- Lead times are very short
- Quality is excellent
- The manufacturing flow is balanced
- Material planning is excellent

In other words by simplifying all the processes in order to achieve the above and by ensuring that materials supply is excellent, a simple tool such as KANBAN woks very well. Without the above its effect is less positive and could even lead to very poor customer service.

## Parallel Paths

Looking at the development of both LEAN/ Six Sigma and Supply Chain management/ERP philosophies which of course have had many labels MRPII, JIT, TQM it is interesting to see that they follow separate yet parallel paths. I wonder how different the world economic climate and balance of manufacturing base would be if, instead of spending large amounts of effort arguing which was the 'best' (ERP, LEAN, Six Sigma) the west had spent all of that effort integrating these concepts to provide outstanding customer satisfaction!

The historical development of Manufacturing resource Planning (ERP)

| | |
|---|---|
| BC 400 | Re-order point used by the Pharoahs |
| 1957 | Ted Museo developed a system that became known as Requirements Planning System (RPS) |
| 1958 | This system is installed at J I Case Wisconsin |
| 1959 | Joe Orlicky develops Material Requirements Planning (MRP1) |
| 1964 | IBM releases RPS |
| 1970s | Ollie Wight pioneers the evolution of MRP1 into closed-loop MRP and Manufacturing Resource Planning (MRPII) |
| 1980s | Sales and Operations Planning is developed from Production Planning |
| 1990s | ERP (APS) and SCM systems evolve from MRPII |
| 2000s | IBP (Integrated Business Planning) evolves from S&OP |

And Lean/Six Sigma

| | |
|---|---|
| 1950 | Dr Edward Deming introduces SQC (Statistical Quality Control) to Japanese industry |
| 1960 | Toyota production system implemented |
| 1964 | Phil Crosby develops the concept of zero defects that leads to TQM (Total Quality Management) |
| 1970 | Toyota trains its suppliers in JIT |
| 1975 | JIT spreads across Japanese companies |
| 1980 | The West studies Japanese companies |
| 1980 | Bill Smith introduces Motorola to Six Sigma |
| 1983 | Canada and Europe show interest |
| Since 1985 | Successful companies in the West: |

- JLR
- Black & Decker
- Hewlett Packard
- Knowles
- York International
- Formica
- Warner Lambert

| | |
|---|---|
| 1995 | Jack Welch makes Six Sigma central to his business strategy |

## Profile of a Farmers Boy

I grew up the son of a farmer in North Wales who had previously been a riding instructor in the Army which I'm sure is where my passion for horses originates. As well as being passionate about farming and the country side those early years on the farm were my first exposure to business as I observed my father work hard, as all farmers do, to make a living. My mother had come from a retail background and so when I was about 9, we moved from the farm to a retail business where my parents ran a couple of small grocery shops. This was my second exposure to business observing them again working hard, 'open all hours' but with a much more consumer and customer service focus. Still they needed to balance supply and demand with the right amount of stock and cash flow to make a profit. One of their suppliers was a small local privately-owned bakery who supplied bread, cakes and pies to my parents' shops. That gave me my third opportunity to learn about business and in this case my first exposure to manufacturing and supply chain which has turned out to be my career's focus. My job was to work in the bakery as the assistant to the Master Baker, so very much getting my hands dirty, or in this case hot! However, after an early morning shift in the bakery I loaded up the van and went on my delivery round. This was my first exposure to sales and customer relationship management, when I returned to the bakery at the end of my round it was also my first exposure to forecasting and stock control because I had to prepare the

forecast for the next nights production.

Before going to university in Sheffield to study Computer Science I spent the summer in Majorca selling tickets to boat trips and beach parties, now that was a ‘tough’ sell! But it taught me the importance of ‘people buy from people’ and that sales is about ‘asking for the order’, ‘not fearing rejection’ and ‘grunt work’!

After leaving university my business career really started, although looking back now the grounding that I had on the farm, in the shops, at the bakery and on the beach were all invaluable business lessons that have helped to shape my business values and beliefs.

My first ‘proper’ job was with British Steel at River Don in Sheffield. This is where my love of manufacturing really took root. Using my computer science background my first role was in the Manufacturing Systems Department, but I quickly learnt that the place to learn about manufacturing was in the factory so I spent a lot of time on the shop floor working with steel workers trying to see how we could combine our experiences to drive continuous improvement. I think my biggest lesson from that time was humility! The young graduate can’t try to ‘lord it’ over proud, skilled Yorkshire steelworkers! But if you can engage and relate to people, fantastic things can be achieved.

After a brief spell working in the IT industry developing

scheduling systems, I joined Rolls-Royce and Bentley Cars. Initially it was again in their manufacturing systems function but again the lure of manufacturing was too strong, and I ended up working with the Manufacturing Director on continuous improvement activities. In those days the car industry was a wonderful opportunity to see manufacturing and supply chain through all its processes. We machined components, built engines, painted bodies and assembled cars. The capacity and production planning, material planning and vendor scheduling processes were also very complex. This eventually led me to be part of the team who ran a 'transformation' project (that name hadn't been invented at that time) which redesigned all of the planning processes, implemented a new ERP (MRPII) system and most significantly brought about huge culture change. I was also privileged to work with one of the best leaders of people that I have come across. I believe it was working with the Manufacturing Director and in the transformation project that were the triggers for my interest for change management and leadership development.

Since leaving Rolls-Royce in 1987 to form my own supply chain and manufacturing consulting company I have had the opportunity to work with a complete cross section of industry sectors from heavy engineering to FMCG and the service sector, to date in all 5 continents and 72 countries. Companies have included global organisations such as BAT, Abbott International, PepsiCo and Mars as well as much smaller and privately-owned companies such as

II-wins Bakery, Panache Lingerie and ARCO along with organisations such as the NHS and the Defence Aviation Repair Agency (DARA).

I have been privileged to work with so many companies, in so many countries with so many fantastic people in a field that has turned in to a lifelong passion.

I now have the opportunity to further develop one aspect of my passions and through my involvement with Horses 4 Change Ltd I can truly make a difference in organisations and with individuals and help them develop sustainable change management and leadership capability.

I feel very privileged to have had a career and work life balance in a field that I feel so passionate about. The work with Horses 4 Change of course takes me full circle back to the interest that was initiated by my father back on the farm.

*"The more you open up to the course, the more you will benefit."*

**Roy Evans**
Unipart Rail

*"Be open with the team, and yourself, and you will take something from these amazing people and horses."*

**Mike McCreesh**
Coveris

*I think that it was the most important professional experience for me in 2018.*

**Patrycja Stas**
PepsiCo


**Tick the missing piece of the jigsaw:**

- ☐ Leadership
- ☐ Teamwork
- ☐ People

At **DMi & Horses4Change** we help you make **ALL** the pieces fit with our unique **Equine Assisted activities** for **leadership, personal and team development**.

DMi Integration through:

- **Education**
- **Coaching**
- **Implementation Design Dupport**
- **Consultancy**

DMi Implementation through:

- **Articles & White Papers**
- **Public 'Leading Edge' Workshops**
- **Tailored Workshops**
- **Bespoke Workshops**
- **One-to-One Mentoring**

DMi Leading Edge Workshops:

- **Integrated Business Planning**
- **Demand Planning & Sales Forecasting**
- **Supply Chain Optimisation**
- **ERP Implementation & Transformation**
- **Performance Measures & Critical Success Factors**
- **Leadership Development incorporating Change Management**
- **Team-building**


DM Integration Ltd

**LEADERSHIP** t h r o u g h **INTEGRATION**

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