



# Lean Consumption and Lean Thinking in Practice

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# Two Revolutions

- **We are approaching the tipping point of two revolutions:-**
  - **A convenience revolution in retailing**
  - **A revolution in compressing supply chains**
- **The convergence of these two: -**
  - **Will take us beyond the achievements of ECR**
  - **Will create new opportunities for win-win-win cooperation between suppliers, retailers and consumers**
  - **Will open up new business models**
- **What can you do to join these revolutions?**



# The Supply Chain Revolution

- We struggled to apply lean to process industries
- But we now know how to go beyond: -
  - Faster changeovers, TPM and Six Sigma
  - And RFID and supply chain transparency
- How to break through from the world of: -
  - Batch production and planning based on EOQ
  - The curse of constant short term plan changes
  - Management preoccupied with fighting fires
  - Unnecessarily long supply chains
- To really create end-to-end flows in line with customer demand



# The Breakthrough

- Is not to start with low volume - **red products** – or with volatile or promoted products
- But to see where you can begin to flow quickly: -
  - With the 6% of your SKUs that account for 50% of your production – **green products**
- Doing this: -
  - Energises your employees
  - Simplifies your planning
  - Enables you to embark on the path to producing every product every week – EPEW
  - And beyond to twice a week or even EPED



# The Pathway

- For these **green products**: -
- Create a buffer stock to level orders
- Initially create a stable production plan with fixed volumes and a fixed sequence
- Directly link every step from dock-to-dock
- Track and eliminate root causes of interruptions
- As economies of repetition kick in
- Speed up the cycle and incorporate more products
- Eventually varying the volumes and the sequence to produce even more in line with demand



# The Consequences

- Everyone loves operations - record production volumes at lower costs
- Increased credibility with customers – near perfect on-time in-full deliveries
- Increased credibility with sales and marketing – faster response to their needs with less stock
- Increased credibility with suppliers to supply materials for **green products** EPEW or EPED
- Increased credibility with finance – freed up space and capacity at no additional capital costs
- What seems impossible is actually possible!
- Sceptical? You should be! Listen to an example

**FLOW!**

If you do what you have  
always done then you will  
always get what you have  
always got!

**We began a journey in  
2004, a journey towards  
becoming lean!**

**So we had a meeting to  
determine what to do next.**

# We wanted to....

- Improve efficiencies
- Reduce costs
- Improve customer service
- Reduce stock levels
- Increase capacity
- Minimise waste
- Improve morale



**Easy to say, but how to do  
it?!**

If you do what you have  
always done then you will  
always get what you have  
always got!

So we got a consultant....

And we said to our consultant that we  
wanted to be LEAN....

Our consultant said to us, what you really need to do is....

- Improve efficiencies
- Reduce costs
- Improve customer service
- Reduce stock levels
- Increase capacity
- Minimise waste
- Improve morale

We said to our consultant....

Excellent, you sound like our kind of a guy!

After 12 months and many hundreds of thousands of dollars later, our consultant said...

We are now at a point where we can definitely say how much benefit you will get if you...

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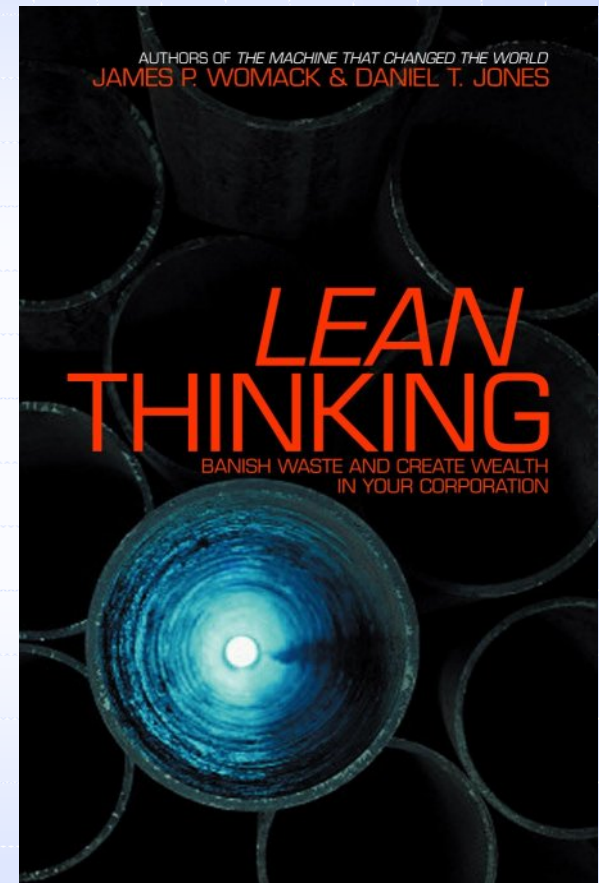
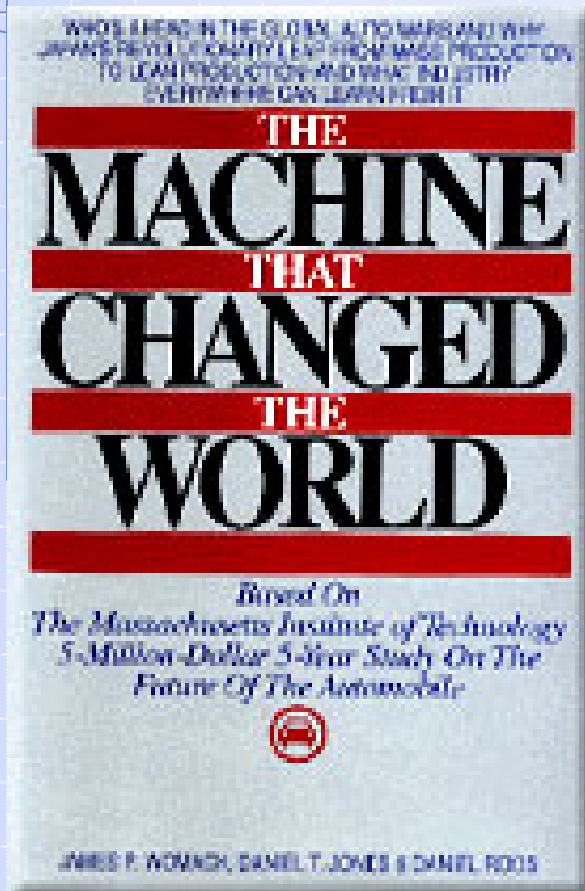
We are now at a point where we can definitely say how much benefit you will get if you...

- **Improve efficiencies**
- **Reduce costs**
- **Improve customer service**
- **Reduce stock levels**
- **Increase capacity**
- **Minimise waste**
- **Improve morale**

So we had another meeting and we said to ourselves...

**If you do what you have  
always done then you will  
always get what you have  
always got!**

**So we called the guy that  
wrote the book!!!**



**And he said to us...**

If you do what you have  
always done then you will  
always get what you have  
always got!

**We said to our him....**

**Excellent, you sound like our kind of a guy!**

**When are you going to do something different?**

We had one week of training and guidance from the LEA and after 12 months of production we have completely revolutionised our performance...

Here is what we have learned.....

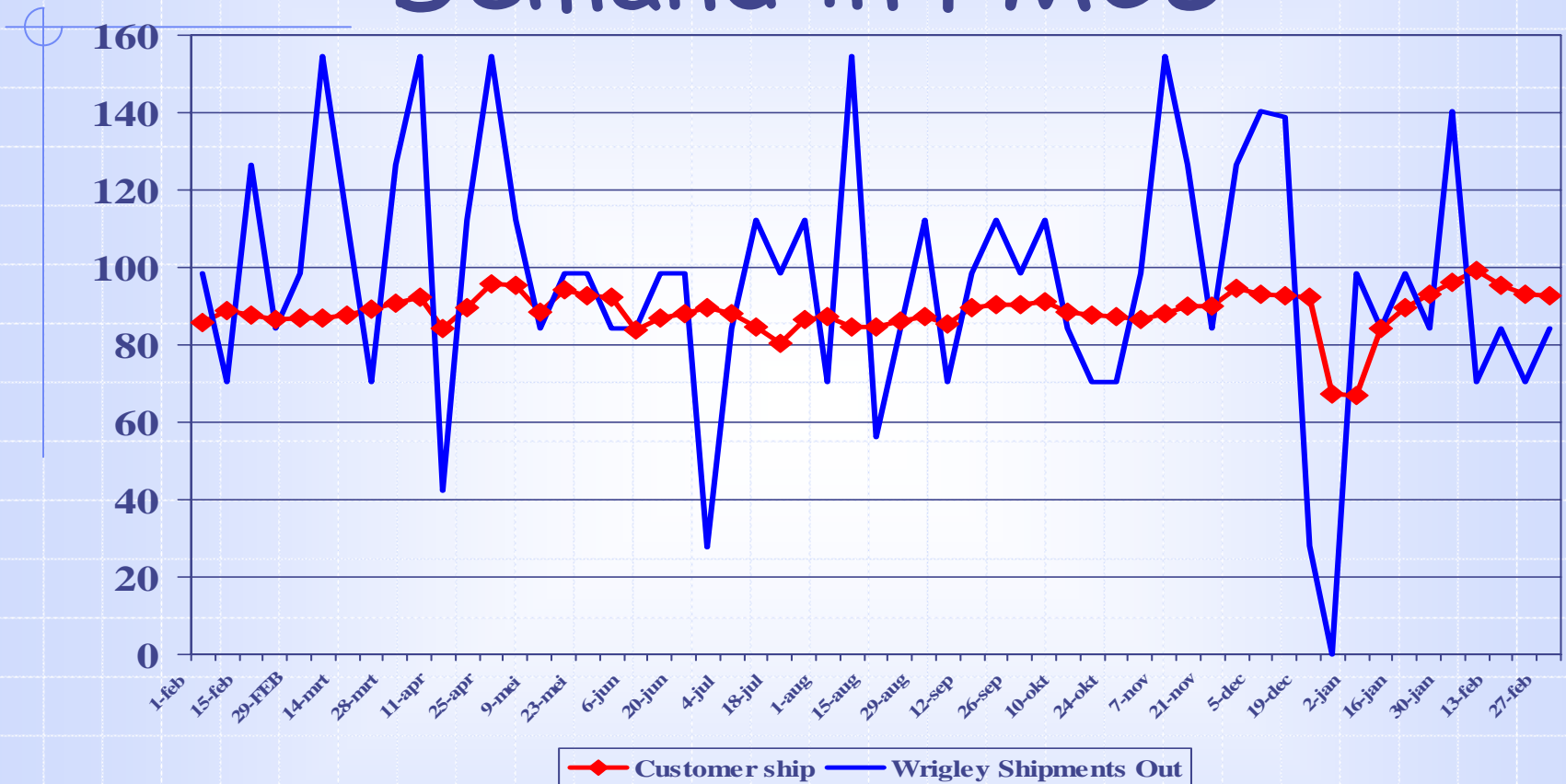
**MRP has prevented  
countless companies from  
being effective.**

**Batch logic does not work in  
today's World.**

**Go to FLOW!!!**

**What is the matter with  
MRP and batches?**

# Demand in FMCG

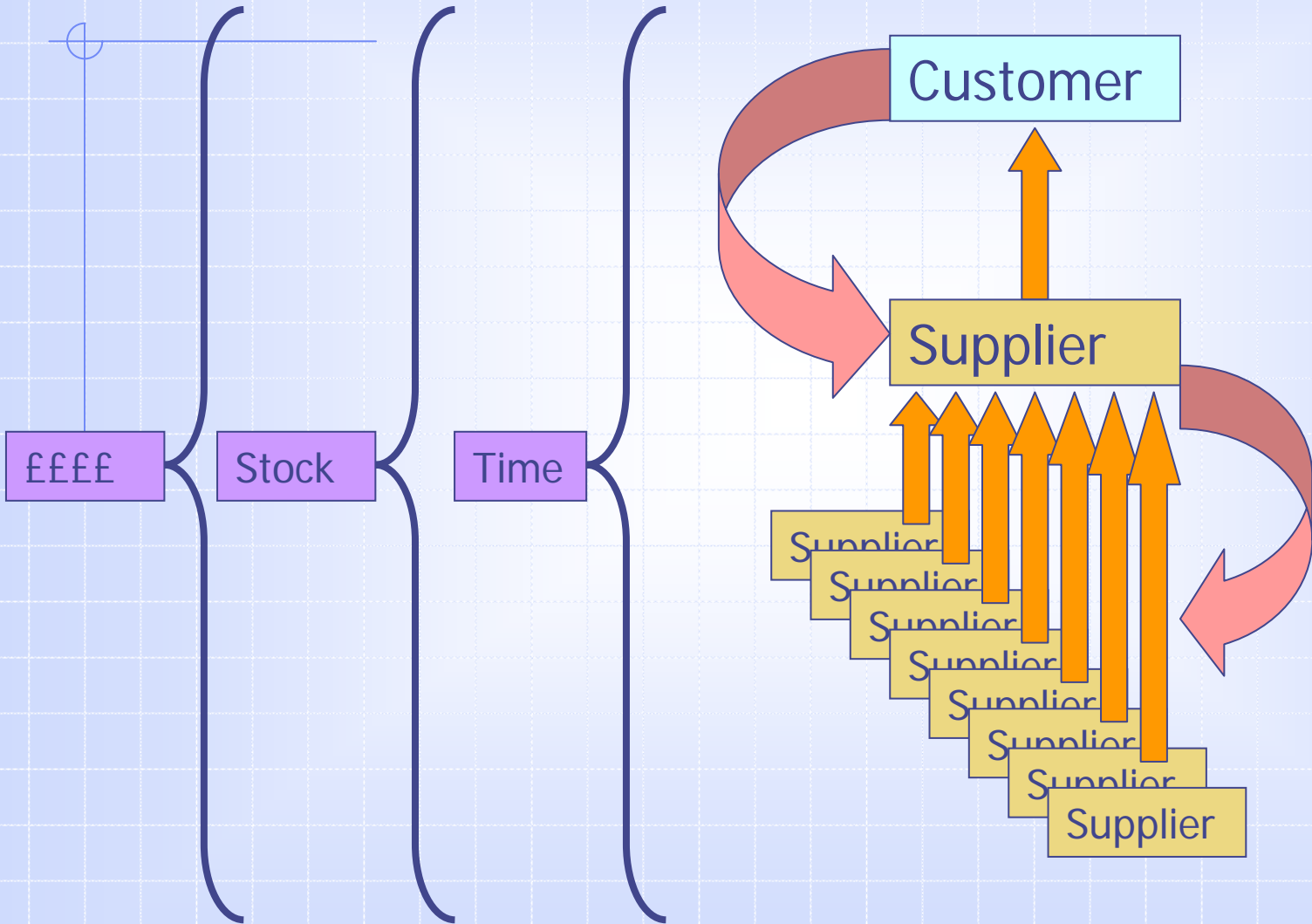


Consumer sales relatively flat (as is production output)

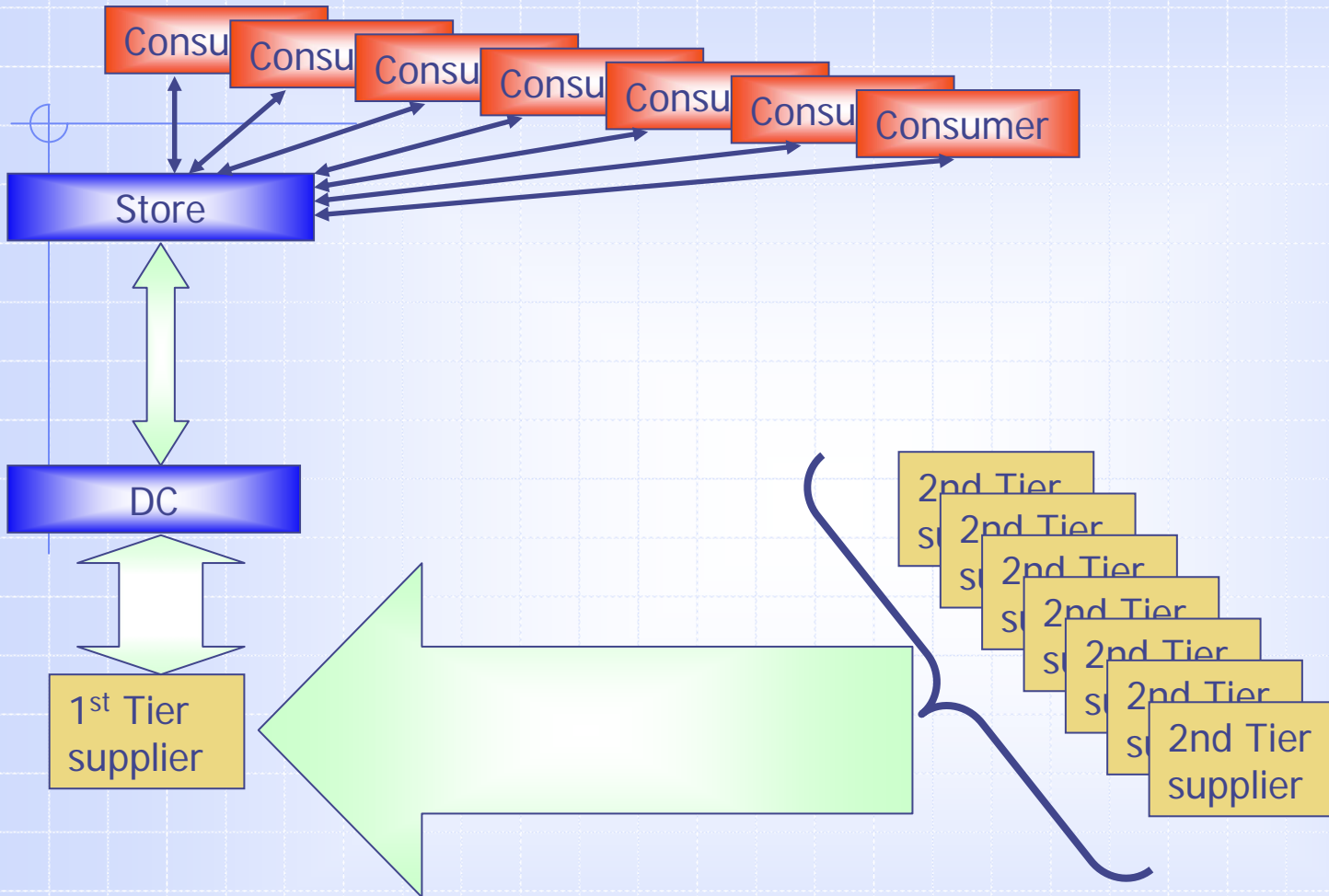
Internal Supply Chains add the variability

- Flow addresses these issues

# Ordering



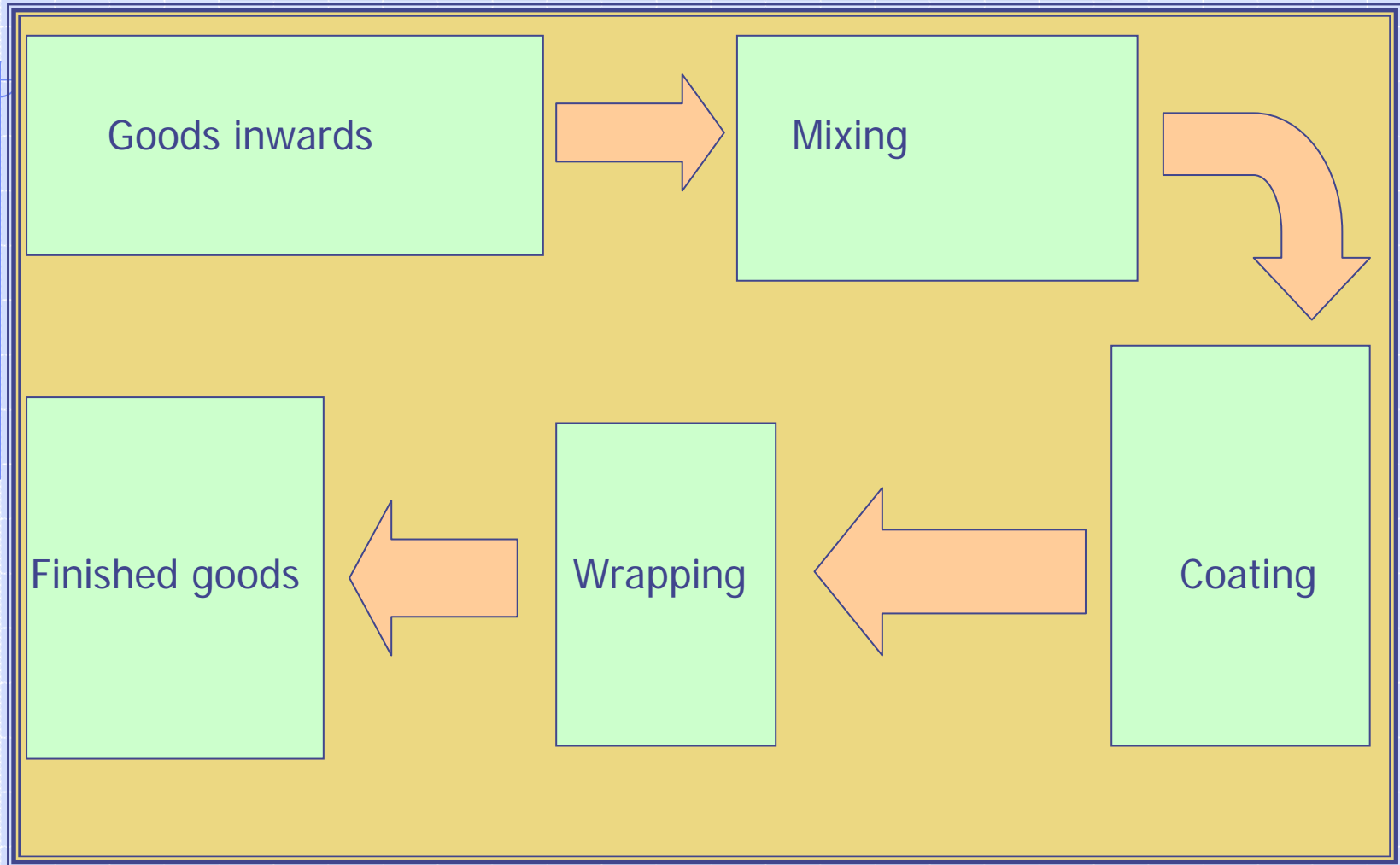
# Batch Size on our roads



What does FLOW mean to us?

- We have categorised all of our products into “green” or “red” stream.
- We produce a production plan every 6 weeks and we stick to it.
- Non production activities such as maintenance are part of the 6 week plan.
- We have changed the layout of our factory in a way that has reduced our cycle times.
- We have removed 70% of floor stock by replenishing production more often (every 20 minutes).

# Plymouth factory



How long would it take you  
to change the wheels on  
your car?

We do many more changeovers than we used to do and we plan to do twice as many again.

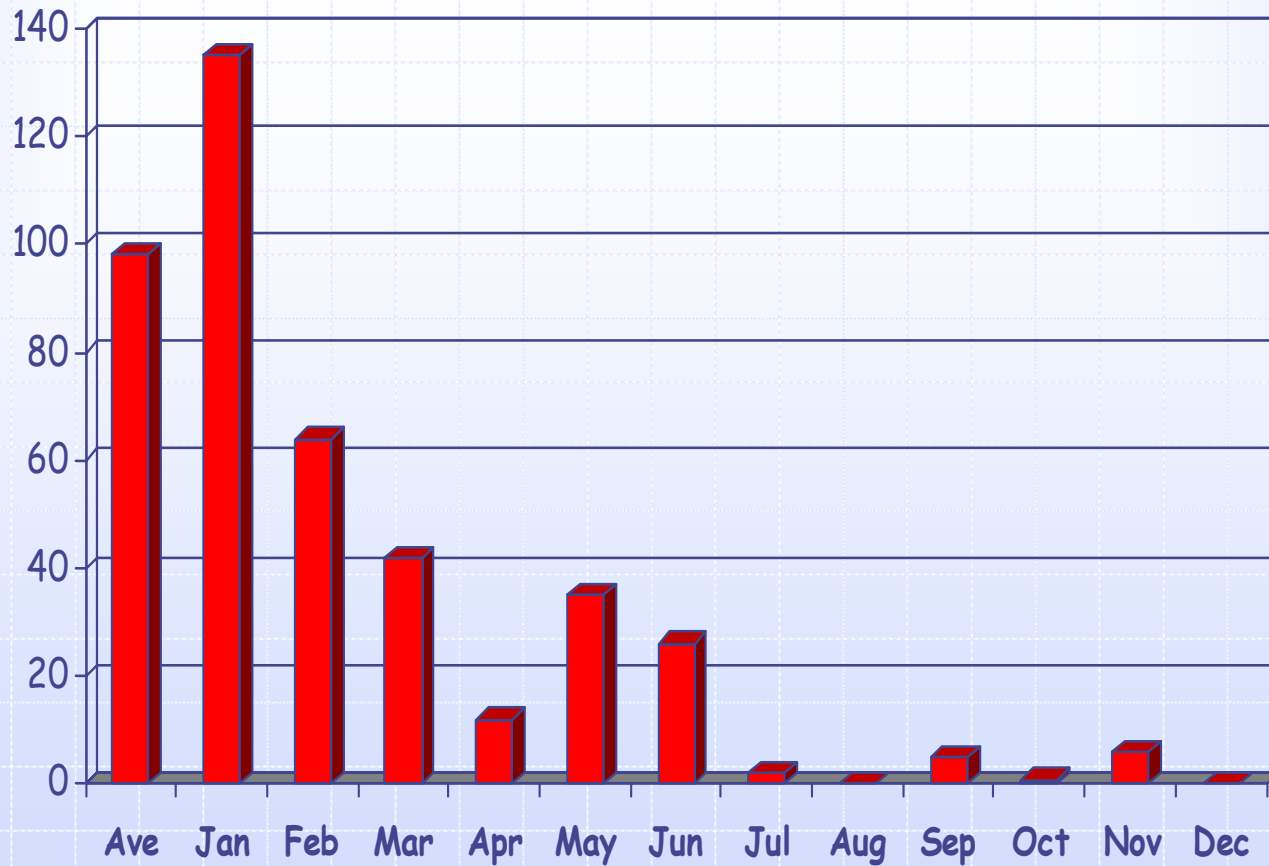
Our changeover time on our key piece of equipment has gone from an average of 90 mins to 7 mins.

## FLOW in Wrigley UK

- 90% of our products we run every week.
- The other 10% we run twice a week.
- We will produce 100% of our products twice a week this year.
- Every person on site has visibility of the production plan, our customers (internal) have the production plan and our suppliers have the production plan.
- We are working with our suppliers to get them to FLOW with us.
- We are working with our customers to do the same.

**The results?**

# Customer Service



2004

Jul - Dec, we achieved a 99.97% fulfilment rate

- Improve efficiencies.....OEE up 12%
- Reduce costs.....Costs reduced by 10%
- Improve customer service.....Zero cross offs
- Reduce stock levels.....pallet spaces reduced by 30%
- Increase capacity.....40% more space in factory
- Minimise waste.....waste down by 60%
- Improve morale.....There will be a riot

# What next?

- Every Wrigley factory globally is moving to FLOW.
- Our innovation centre is adopting the same methodology in dealing with ideas!
- Our key suppliers are beginning to deliver JIT

If you do what you have  
always done then you will  
always get what you have  
always got!

Whether you believe you  
can do a thing or you  
believe you can't, you are  
right.

Henry Ford



# Many Stories

- **Wrigley is not the only such story**
- **Kimberley Clark and 3M are reporting very similar results from their lean journeys**
- **They are also rolling this out across their global operations and to their suppliers**
- **And there are many others already down this path**
- **The consequences for their competitors are serious and it will be difficult to catch their lead**
- **Our role has been as catalysts in launching them down their journeys – in five days!**
- **And writing up the method for others to follow!**



# A Potential Win-Win

- **Stable production and accelerating flow is the key to compressing upstream supply chains**
- **Reducing it from 200-300 days to 20-30 days**
- **Suppliers can do this on their own – and prosper**
- **But there is a huge win-win to be had by extending this flow all the way to the consumer**
- **The obstacle standing in the way is the noise in the orders coming from retailers – which they refuse to acknowledge**
- **And the fact that most retailers do not know or care how long the supplier's supply chains are**



# The Challenge

- We learnt about streamlining the physical supply chain in retailing – such as continuous store replenishment, taking responsibility for inbound logistics, cross docking and wheeled dollies
- For the most of the volume – **the green products** – we need to move away from forecast driven planning systems based on EOQ to demand driven flows of products adjusted to actual sales
- The challenge is to quantify the true costs up the supply chain of the extra inventories and capacity needed to cope with this noise and the costs of managing all this variability in both parties



# Let's Recognise

- Most store sales volume comes from a limited number of **green product** lines
- Most of the volume of these **green product** lines is stable and predictable – only a small percentage of the volume is volatile and unpredictable
- The point is not to get rid of **red products**
- But to stop planning every step for every product through production, logistics and distribution as if they were **red products!**
- Treat promotions as separate SKUs – **green** if their flows through the system are predictable - and **red** if they are not



# The Way Forward

- This flow logic ought to be reflected in retailer's planning systems: -
  - A **red** flow of produce to order products – for which it is not too expensive to hold stocks of materials so replenishment can be quick
  - A **green** flow that only needs capacity planning – otherwise it just flows in line with demand and is adjusted in real time by today's sales
- This is to key to unlocking the big win-win between retailers and their suppliers: –
  - **Stable orders in return for synchronised production**
- **Leading suppliers with EPEW capability are ready!**



# Retail Consequences

- **Rapid replenishment systems based on making and delivering little and often can actually serve every kind of format – at little extra cost**
- **This undermines the scale advantage of big box stores – full of slow moving products**
- **Convenience does not need to cost more**
- **Rapid replenishment also makes it possible to sell freshness in ambient products**
- **If fresh coffee and beer taste better then so does freshly made cornflakes and chocolate!**
- **The fresh products supply chain is the model**



# Time Poor Consumers

- Think about the consumer and their household as a mini business
- As a collection of **consumption processes** to solve their problems and meet their needs
- These consumption processes involve many steps, lots of choices and decisions and take more and more of our time
- The one thing consumers do not have more of is time
- Sometimes they are willing to trade time for a lower price – but increasingly reluctantly



# Consumption Processes

- Track your own consumption processes: -
- Getting a medical problem diagnosed and treated – involving 6 trips, 10 hours of my time, for 1.5 hours of value, over 31 weeks!
- Buying and installing a new computer from Dell – 11.5 hours of my time, two experts, over 7 days!
- Travelling to this conference – lots of queues, 2 plane trips, 7 hours travelling time (2 hours direct)
- The trip to the big box – with 80,000 SKUs – taking 3.5 hours door-to-door – and I still did not find what I was looking for!
- “Give me back my Saturday afternoon!”



# The Convenience Revolution

- Some retailers have woken up to this need
- They have rethought their relationship with their customers in terms of their **circumstances** rather than their attributes
- Rather than focus on one category of consumer with one type of format (Wal\*Mart)
- They serve different types of customers in their stores and have opened a range of formats to mirror their circumstances (Tesco)
- Capturing more of their spend and building a better understanding of what they want to buy, when and where



# The Pioneers

- It is significant that the pioneers of this convenience revolution were inspired by Toyota's example: -
  - Seven Eleven in Japan
  - Tesco in the UK and now in the USA
- In addition to rapid replenishment the key was to really know exactly who their customers are
- Lifestyle cluster analysis and home shopping data also tells them what they really wanted
- So they can custom rage each store
- But this is just the start of the convenience revolution



# The Next Steps

- As convenience store sales grow
- And internet sales cross the 10% threshold
- New possibilities open up to integrate home shopping with local stores
- Offering access to the full product range: -
  - By ordering on line or in the store
  - To be picked up from the local store or delivered to the home, office etc.
- Now turn these customers from **strangers to partners** who share their plans with you – as you continuously replenish their regular shopping



# Convenience Logistics

- They key to this is to pick local store and home shopping orders in local distribution centres
- And pick their orders from regional distribution centres, who pick up their orders from suppliers
- Each level needs to be linked by regular “milk round” delivery routes
- But who will run these local logistics routes to people’s homes – retailers, the post office, DHL?
- What else could you deliver and pick up on these “milk rounds”?



# The Win-Win-Win

- **Between retailers and customers: -**
  - **Convenient low cost replenishment as we plan ahead together as partners**
- **Between retailers and suppliers: -**
  - **Stable orders in return for synchronised production**
- **Adds up to a true win-win-win for all parties**
- **But there is no “one best way” to achieve this**
- **And the scope for innovation is huge**
- **What are you going to do about it?**

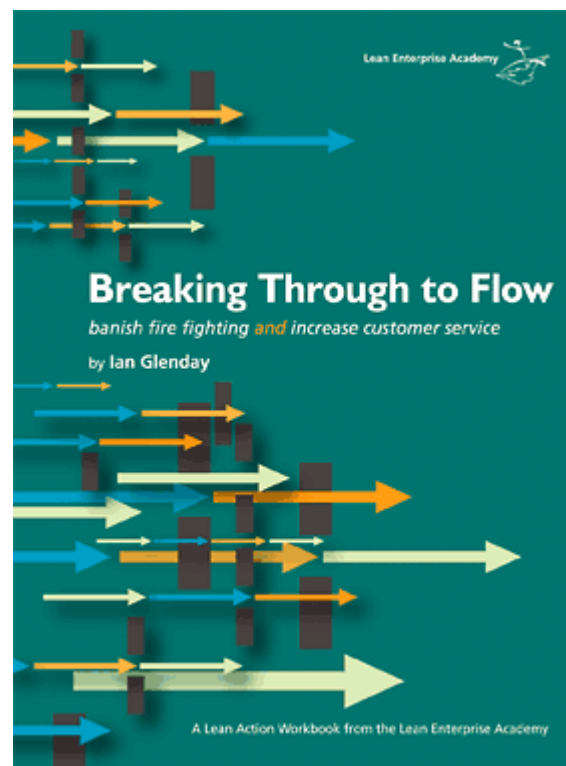
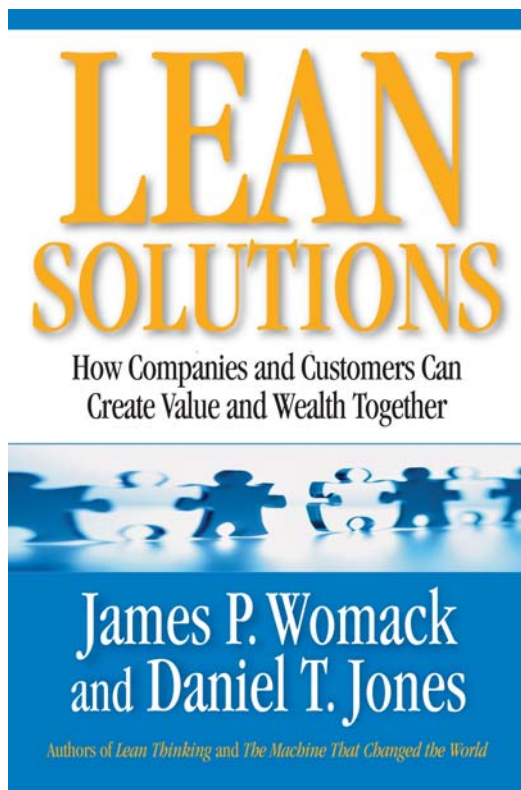


# Questions

- **Who are your customers and what are the different circumstances they find themselves in?**
- **How stable is real demand for your products – how noisy are your orders – how often do you change your plans – what does this cost?**
- **What is your throughput time – and how long is your end-to-end supply chain?**
- **Does 6% of your SKUs account for 50% of your volume?**
- **Which supply chain partners are ready to collaborate with you to create flow?**



# What to Read



**More articles on [www.leanuk.org](http://www.leanuk.org)**



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