



NEW FRONTIERS OF LEAN PRACTICE

Professor Daniel T Jones

**Chairman, Lean Enterprise Academy, UK
President, AME-UK**



Welcome

- To the largest gathering of lean missionaries in the world!
- **We are winning the battle of ideas!** There is now widespread agreement that process thinking or lean thinking is the way forward for manufacturing
- We now have to show it is the way forward for every other activity – including services & the public sector
- But we still have a long way to go in fully implementing lean in manufacturing
- We have only scratched the surface of what is possible in the wider economy!



Learning to See Waste

- The trigger for many of us was learning to see all the **waste** in our organisations
- So we went on Muda hunts, launched 5S exercises and found a lot of low hanging fruit!
- Later we learnt that dramatic **change** is possible through **point Kaizen** breakthrough events
- All of which is good preparation for the next step – learning how to connect all these improvements to produce real gains for the business and our customers



Learning to See Flow

- This involves learning to see our value stream – using value stream mapping
- And then to improve the **capability, availability, adequacy** and **flexibility** of each step
- So we can link them together so products can **flow** through the value stream when **pulled** by **levelled demand** from the customer
- This became known as **flow Kaizen**
- The **perfect process** would make and ship everything demanded by our customers every day
- But value streams do not operate in isolation

Learning to Support Flow



- In fact we have to reconfigure the key supporting processes that are shared by the product value streams
- In particular the flow of **materials** to and from the value stream, the flow of **orders** from customers to each pacemaker and the movement of **people** across value streams
- Indeed we are learning that the opportunities for removing waste from all the office processes is even greater than on the shop floor!
- All of which forms part of **system Kaizen**



Learning to See the Whole

- As we extend our horizons to include our upstream suppliers and downstream distribution channels
- We discover that the major constraint is the information flow, which is full of system driven noise and amplification
- And takes longer to change than the physical flow
- We now need to seriously turn our attention to developing new systems for coordinating flow across the whole value stream based on lean logic
- This just one element of **whole system Kaizen**



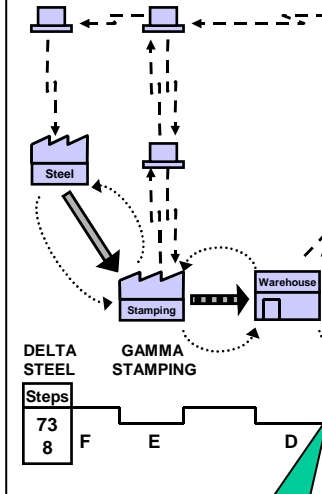
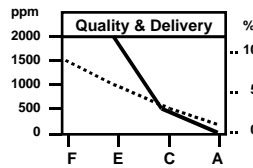
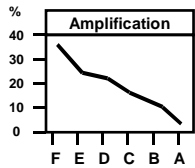
But

- All of this is working with today's products, processes, tools, plants and locations
- Yet the value you are offering to the customer and a majority of the costs are already defined before the product enters production
- So based on our lean experience, the next leap is to **correctly define value**, and design the next generation products and services based around a **compressed ideal state** value stream
- What is the power of value stream compression?
- How can we define customer value?

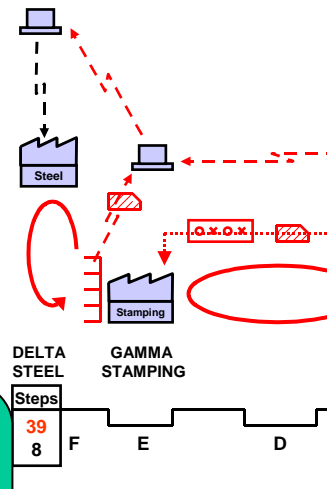
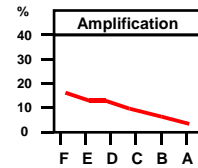


Time reduced from 24 to 3 days

Current State

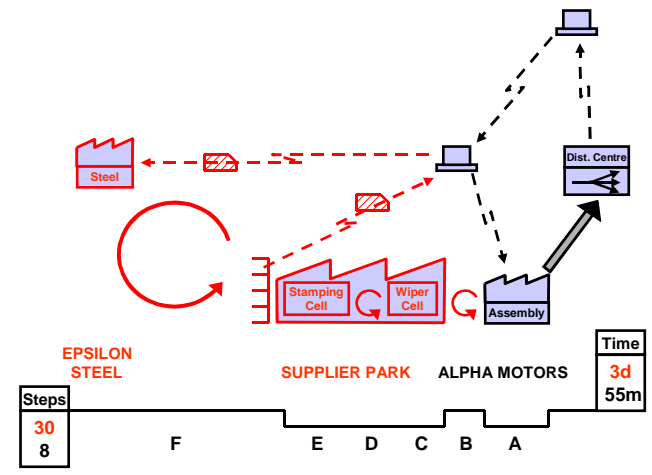
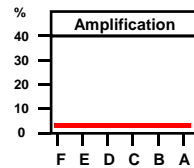


Future State 2 Flow and Pull between Plants



Time reduced from 44 to 24 days

Ideal State Value Stream Compression





Learning to See Value

- **Consumption is also a process** – of searching, obtaining, installing and using many products and services to solve consumer problems over time
- Managing consumption is increasingly frustrating, inefficient and time consuming
- Yet there are big win-win gains from working together with key customers to design, deliver and support exactly what they want, when and where they want it
- In return for feedback, foresight and levelled demand – which removes steps, time and cost for producers



But

- Who is going to manage this value stream transformation process?
- And what kind of organisation will be required?
- And what kind of business system can deliver this level of change?

Creating Value Stream Managers

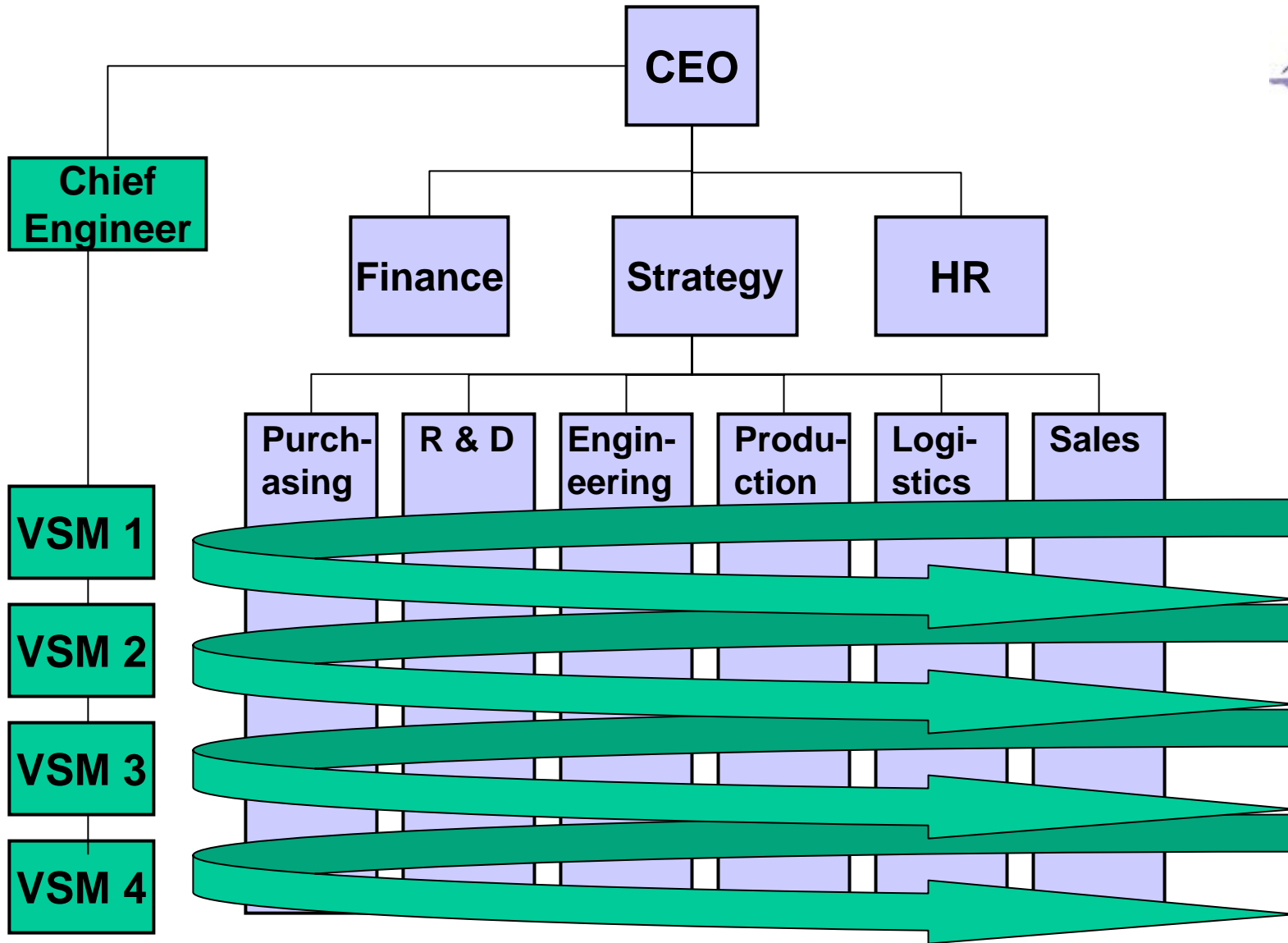


- Someone has to take responsibility for each value stream
 - for progressing from the current state to the future state and on towards the ideal state
 - for getting the support from each function to get there
 - using the value stream maps and the PDCA A3 problem solving cycle
- Follow Toyota's example – Chief Engineers with full responsibility for each product line – but with only a small staff and little formal authority!
- We might call them **Value Stream or Product Line managers**

Getting support from the Functions



- They will discover that the problems with each function are common across all value streams
- Together they can define their needs to the functions and work with them to solve these problems
- This gives the functions clear customer defined objectives and a direction to work towards, not just budgets and utilisation targets
- **Concentrate on improving the process and everything else will follow** – focus on other things and the price will not get better!



Creating a Lean Business System

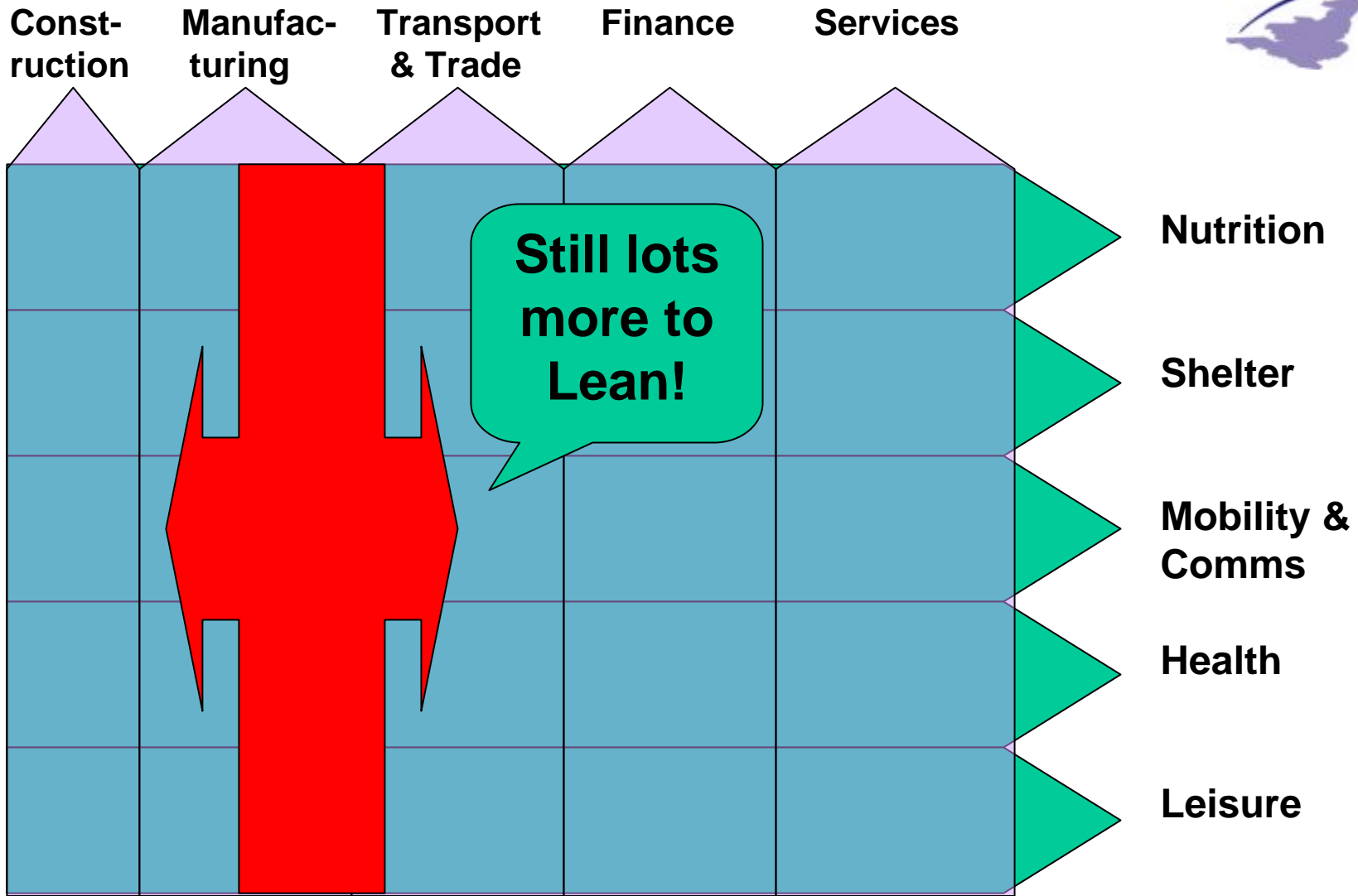


- The key elements of a Lean Business System are:-
 - How to define value correctly? Mapping the consumption and provision processes
 - What do the current value streams look like?
 - What should the value streams look like in the future?
 - What management support is needed to sustain leaner processes? A policy management process
 - What is going to make everyone else do the right thing for the customer?



Lean Business System

- Begins with the customer and works backwards up the process – rather than forwards from the existing assets
- It is a positive sum game to deliver better products and services with fewer inputs – and better value for shareholders and more secure jobs for employees
- Rather than a traditional zero-sum or negative-sum strategy game to get a larger share of the cake from your value stream partners and from your customers
- This might be easier to do – but the lean is the right thing to do





NEW FRONTIERS OF LEAN PRACTICE

Professor Daniel T Jones

**Chairman, Lean Enterprise Academy, UK
President, AME-UK**