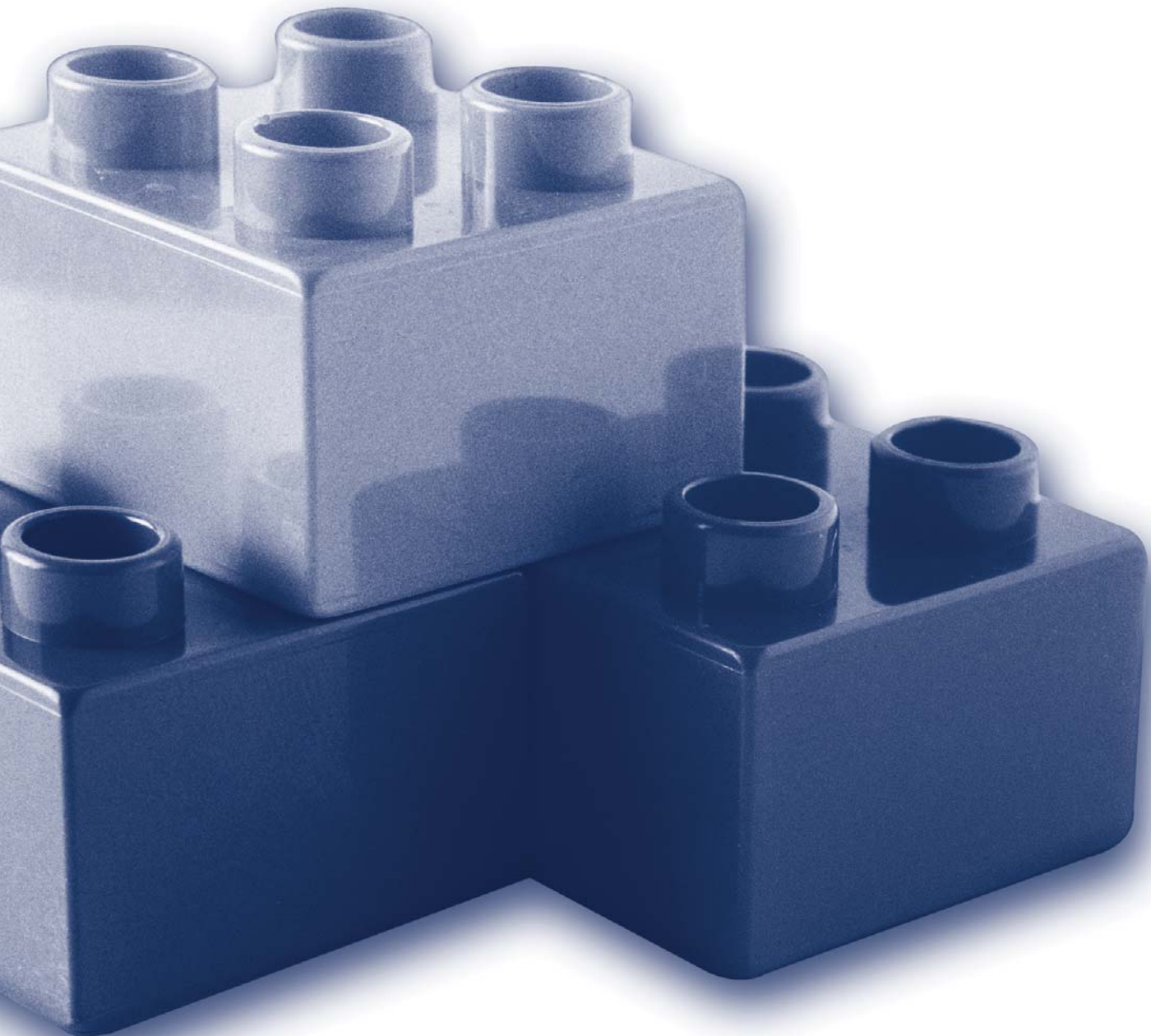


COMPANY OVERVIEW & TRAINING MODULES



zentec

Process Consulting
and Management



Leading through Continuous Improvement[©]

ABOUT US

Who We Are

The consultants at Zentec are practitioners who are versed in all aspects of a Lean System. They are trained in Lean Systems Philosophies by senior organisations such as Toyota Motor Manufacturing and other leading Lean companies. You are in contact with people who have comprehensive working knowledge of the operation of the system that you want to apply.

We can support in many capacities, from concepts to final products, through all disciplines. Through tailoring our process to meet your needs, we ensure that the end result of our combined efforts is a sustainable improvement to your operation.



As seasoned professionals we are experienced in helping companies to reduce cost through the elimination of 'waste'. This in turn increases productivity, on time delivery performance, inventory reduction, secures customer satisfaction and more.

We have applied these processes to many different market sectors from commerce to automotive, from high tech to heavy engineering. Our clients, whom we support on a global or local scale, are many and varied.

Our Expertise

We assist, coach and guide our clients in pursuit of the perfect operation. We could term the perfect operation as the 'Lean System' as is one that is free from non value-added activities. The more value add actions in the total supply chain, from order to delivery, then the more profitable the process is as a whole. The Lean system is aligned to the principles applied by leading Japanese companies such as Toyota and their Toyota Production System (TPS).

Most companies gain good results from the systems that they have in place but the competitive advantage is not necessarily realised. Vision, Flexibility and Adaptability are core skills that any business needs throughout the entire organisation. These may seem obvious statements but they are very high level ideas. We take these high level ideas and helps our clients to peel away the layers of superficial processes and see the real processes that are inside their business.

We help clients to understand the process before we consider the improvement points. Once an implementation phase is commissioned, the transparent process can be examined carefully in terms of Value Add / Non Value Add. A Lean System applies Lean Tools and Techniques to eliminate the Non Value Add (waste) elements of the system.

Lean Manufacturing

5S Focus

SMED

Kaizen

7 Wastes

Kanban

Lean Logistics

APPLICATION

Support Timing

The expertise and capabilities of Zentec can be applied at any point in the life of a business or product life cycle.

Significant savings, by application of Lean Tools, can be made through cost avoidance at the design and plant build stage through Lean Layout but significant savings can still be realised through the implementation of a Lean System at any point in time.

The major benefits of a Lean system are only fully realised when the whole organisation is Lean focussed.

Our support can be through consulting days or training provision. The training aspect of our business can be found in this brochure.

Action



We seek to support our clients business through the enhancement of their key resource - people. The more that a workforce is able to understand and apply the Lean Tools then the more rapid the transformation will be.

We show you how to apply the Lean techniques in a tried and tested manner. Initial theory training is followed by practical application at the worksite. After this 'Skill Transfer' our clients personnel go on to apply the same tools in other areas of the business.

Roadmap



Throughout the time that we are contracted we are in close contact with key client personnel to allow a full and clear understanding of the coached process. We will support and develop a clear roadmap of events that will facilitate the Lean transformation. We will continue to review our combined progress with respect to the roadmap to ensure the objectives are met and to surface issues that need to be addressed.

Through the skill transfer process the client can take the tools and apply them deeper into their organisation without the need for protracted consultant support.

We at Zentec always follow our rigorous and proven path for the implementation of a Lean System.

Training

We also offer training courses on all the Tools and Techniques of a Lean System. These training courses are not 'off the shelf' but tailored to suit the requirements of the client both in duration and content.

More detail about these courses can be found on our website and in this brochure.

PAYBACK

Return on Investment

A typical transformation to a Lean Organisation tends to be of the order of 1 to 3 years depending upon the size of the organisation. However, improvements begin to be made from the very early stages of the transformation project.

Substantial improvements can be made within a short timeframe that give lasting returns. These are not one-off inventory savings, but profitability increases that are there year on year.

As the understanding of lean grows within an organisation then the speed at which productivity gains are made also increases. The investment for the change is not necessarily large but will include both consultant and client personnel time.

The change process should not be underestimated as it will touch each and every corner of your organisation from the finance department right through to the despatch areas. All areas must become fully aligned if a true changeover to a Lean Organisation is to be achieved and the profitability gains to be realised.



Through a focus on eliminating the Non Value Add activities we will improve Quality, Productivity, On time Deliveries, Flexibility and more.

Additional Services

We are also able to offer a wide range of complementary services in addition to our consulting services through a wide range of associated companies.

Our aim is to provide our clients with a professional, timely, quality service



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TRAINING MODULES

Training Options

Training Options are a series of modules that can be combined together to suit your needs exactly. The modular concept gives you complete flexibility to build a training package to match your requirements.

Assemble the training modules you require and calculate the total delivery time. Contact us with your request and we will arrange for the delivery of the training either at your site or in an off site facility.

Training support of this nature helps you to focus on your business growth opportunities.

Making up a Training Day

The training modules are listed below and a summary of each is shown on the following pages.

Each module has an approximate delivery time along side, so use the time for each you require to estimate the total delivery time.

Without any prior exposure to Lean, we recommend that any training undertaken is started with the Lean Overview. Delegates can see the purpose of the tool more clearly if they can, in the first instance, understand the 'big picture'.

Target Audience

Lean is a set of principles and tools that are applicable to all businesses. Those people responsible for returning cost savings in the areas under their control will find these modules to be very stimulating.

They are aimed at anyone with a desire to improve their business performance.

Training Manuals

All delegates are provided with a clear explanation of the subject matter. Additionally, each will receive a training manual that details all the delivery material that can be retained for future reference.

Training Modules

Lean Overview	1 Day	Metrics	1/2 Day
The 7 Wastes	1/2 Day	Total Productive Maintenance	
5S Focus and 5S Game	1/2 Day		1 Day
Standard Work	1/2 Day	Kanban	1/2 Day
Policy Deployment	1/2 Day	Quick Changeover (SMED)	
Lean External Logistics	1/2 Day		1/2 Day
Lean Internal Logistics	1/2 Day	Quality Tools and Practical	
Current State Mapping	1/2 Day	Problem Solving	1/2 Day
Kaizen	1/2 Day		

Lean Overview

1 Day

This module delivers a firm understanding of what Lean is really all about. All the tools of Lean will be explained individually and then brought together to show the interrelationship of each. Delegates will be able to understand the benefits of a Lean, flexible organisation through the application of the Lean Tools such as:

7 Wastes	In-station Process Control
5S and Visual Factory	Quality Control Tools
Current State Mapping	Flexible Manpower Systems
Error Proofing	Lean Logistics Systems
One Piece Flow	Quick Changeover (SMED)
Standard Work	Policy Deployment
Andon Systems	Work Group Organisation
Production Control	Lean Management Thinking
Kanban and Parts Ordering	Kaizen

7 Wastes

1/2 Day

The elimination of the 7 Wastes in the operating system is the main purpose of Lean. Training is given to explain, and show practically, what the seven categories of waste are and how can they be eliminated.

Additionally, a 'Waste Walk' can be made in the plant should training be made on a suitable site. The walk will allow the attendees to see examples of waste in their own environment and start the process of searching out the non value add activities.

5S Focus and 5S Game

1/2 Day

Training will be delivered in 5S (Sort, Set, Shine, Standardise and Sustain) to show the productivity improvements that can be made quickly through effective workplace organisation.

This module focuses on many aspects of Visual Control that assist in the rapid management of the work area.

The 5S game will emphasise the productivity improvements that can be achieved through successful application of 5S.

Standard Work

1/2 Day

The application of Standard Work in any environment is essential if a state of continuous improvement and low cost operating is to be sustained.

Standard Work is a tool which helps to identify the small elements of work that make up a process. These elements are shown in terms of time, technique, value add and non value add. The resulting balanced operation minimises resources and reduces costs.

Without the application of Standard Work then the desired outcome of reduced costs with higher quality will not be readily achieved. This tool could be described as one of those that are at the foundation of any Lean System within a Continuous Improvement Environment.

TRAINING MODULES

Policy Deployment

1/2 Day

A vital tool to align the core team of people to the objectives of the whole project. The policy deployment training gives a clear framework from which the project is able to grow and become part of the culture of the operation on site.

All trained personnel will be able to make, publish, monitor and communicate project progress in a clear and informative manner. A strong focus is placed on project management techniques that can be rolled out to all areas of business operations.

Lean External Logistics

1/2 Day

The module delivers the key principles of external logistics to the attendees. It gives a clear understanding of the differing roles and consideration points necessary to run an effective yet controlled operation. Included in the module are:

Route Planning	Parts Ordering
Route Operations	Supplier Interactions
Route Control	Time Windows
Dock Control	Risk Assessment and Recovery

Lean Internal Logistics

1/2 Day

The training is aimed to deliver the key principles of internal logistics to the attendees. The marriage of Internal to External logistics operations is essential. The Internal Logistics module is suitable for delivery on its own. It covers all handling aspects from offloading at the dock to the point of use including:

Material Flow - Detail explanation of delivery methods
Route Design - How to plan routings of deliveries
Capacity - Calculating space requirements
Manpower - Correct manning levels for operation
Controlling - How to keep the system healthy

Current State Mapping

1/2 Day

The objectives of the Current/Future State Mapping are to clarify the current processes to allow all parties to clearly understand the flow of material, times taken for tasks, frequency of tasks and flow of information.

The resulting transparent operational improvements can be readily identified at this mapping phase.

Current State Mapping gives the baseline to work from, and refer back to, that gives a clear understanding of quantifiable process improvements. The Future State gives the idea for the improved future worksite.

Total Productive Maintenance

1 Day

Total Productive Maintenance is about the keeping operating processes running at their optimum performance.

The TPM program introduces the 5 Pillars of TPM; autonomous maintenance, equipment improvement (inc. OEE), planned maintenance, maintenance prevention and training.

Preventative Maintenance

Preventative Maintenance seeks to cover both Planned and Predictive Maintenance. Support is given to bring the machine back to its basic condition and sustain this condition.

Equipment Improvement

Firstly the baseline needs to be established to understand the starting point of the TPM project. This is important as we must understand how much our effort has been worth and if the rollout is to be cost effective. Once tagged the area of the Six Big Losses can be addressed under the banner of OEE where the focus is on Availability, Productivity and Quality.

Autonomous Maintenance

Operator ownership of equipment is a key part of TPM and it is from the Preventative Maintenance (PM) work that the schedule of autonomous maintenance tasks will be built up.

Aspects of 5S, Work Standards and visual control are an important part of the operators actions too. The hand-over of tasks to the autonomous maintenance schedule from the PM task list must be done with a clear risk assessment and proper documented training.

Maintenance Prevention

The transfer of tasks from the maintenance department will free up time in the long term. This time needs to be allocated to necessary skill up, new process introduction and enhancement of the current processes to increase the reliability of those processes.

The mean time between failure of the process needs to be extended to the point where zero breakdowns are the norm.

Quick Changeover (SMED)

1/2 Day

The six steps of quick changeover are explained on a step by step basis.

Clear improvement ideas are given throughout the training that can be used directly in the production environment.

It is not uncommon to realise major practical benefits when these six steps are applied to any changeover. If changeovers are quick then the batch sizes are smaller, less stock is held, less storage is required and productivity increases because less down time is experienced.

Changeover times can be reduced by as much as 70% through the systematic application of this technique.

TRAINING MODULES

Kanban Operations

1/2 Day

Kanban operations can seem daunting if there is no understanding of basic inventory control and the required discipline involved. Kanban can be used to trigger the manufacture of components or withdraw stock from stores. In either case the discipline in operating the process is a key feature. The main elements of this module include:

Stock Profiles and the effects on errors

Types of Kanban and their application

Simple Kanban operation

Calculating the number of Kanban and reorder points

Kanban Data

Rules of a Kanban System

How to set up a Kanban system.

Kaizen

1/2 Day

Kaizen is, by definition, the process of continuous improvement through small sustainable steps.

Kaizen compliments the other tools of Lean and it is part of a whole rather than a stand-alone process. It allows further flexibility and productivity improvements with cost reductions by building on the Standard Work that has been implemented.

This module explains the steps of kaizen to allow a systematic approach to continuous improvement environment that goes on generating savings.

Metrics

1/2 Day

Metrics are collections and displays of operating performance.

There are many different measures that we can use but remember, we humans will usually work to whatever we are being measured upon so it is important that we set the correct metrics.

Although the measures we use are related to a particular point in time it is important that we set a relationship with previous points in time in order that we might be able to see 'trends' in the data. Some measures require that the trend is increasing whilst others require that it decreases for there to be a relative improvement in performance.

Practical Problem Solving and Quality Control Tools

1/2 Day

Without an understanding of how to identify the location of problems that are occurring in our processes it would be difficult to know what effective our efforts are at reducing them.

Identification of the problems is of utmost importance if we are to eliminate them for good. To that end we need to know how to use and apply the 7 QC Tools:

Flow Chart

Cause and Effect

Histogram

Check Sheets

Control Charts

Pareto Diagram

Scatter Diagram

Once each of the 7 QC Tools is explained in detail, and an example practised, then the Practical Problem Solving begins. This takes the form of a Storyboard layout that is easily replicated at the worksite to give a structured approach to problem solving. It is geared to ensuring that problems that are discovered are solved and remain so.

Bespoke training tailored to your needs that brings rapid skill transfer.

A high quality service focussing on maximum Value-Add.

Real time training by seasoned professionals.



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