

LEAN MANUFACTURING

TRANSLATING PHILOSOPHY IN TO REALITY

BY

S. DURAI RAJAN

DIRECTOR

KANZEN INSTITUTE ASIA PACIFIC

CHENNAI

drajan@kiap.in

www.kiap.in

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What is Lean Manufacturing?

Lean Manufacturing is an all encompassing **culture**, a behavior or mindset that focuses on the **Customer**.

Anything that the Customer does not perceive as Adding **Value** is considered **Waste**.

Lean Manufacturing seeks a **Continuous Flow** for all value-add process steps through the system by **Elimination of Waste**, thereby reducing the **Time to Customer**.

What is Lean Management?

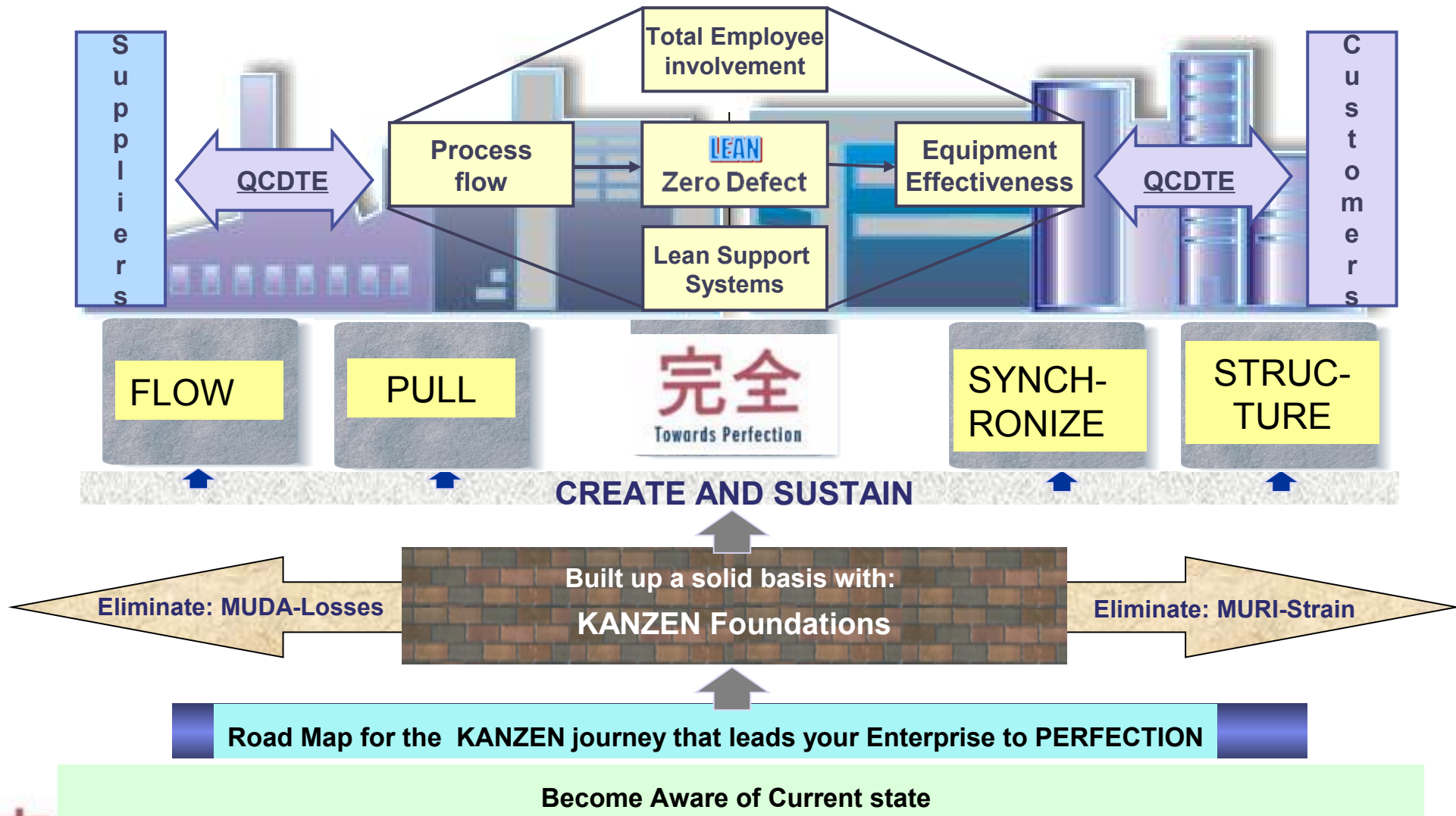
- Lean Management focuses on eliminating waste in processes
- Lean Management is about expanding capacity by reducing costs and shortening cycle times between order & ship date
- Lean Management is not about eliminating people – but improving the effectiveness of the people by enabling them to do only what is needed and important to the customer – both internal / external.
- It means doing only **“Value DELIVERED Work”** – a new paradigm.

What is Lean?

Lean is 'More and More with Less and Less'
Central theme of Lean is 'Waste Elimination'

- Less effort – More output
- Less rejection – More yield
- Less inventory – More flow
- Less thruput time – More orders
- Less delays – More customer satisfaction
- Less investment – More returns
- Less cost – More profits
- Less variations – More reliability

JOURNEY TOWARDS LEAN ... PERFECTION

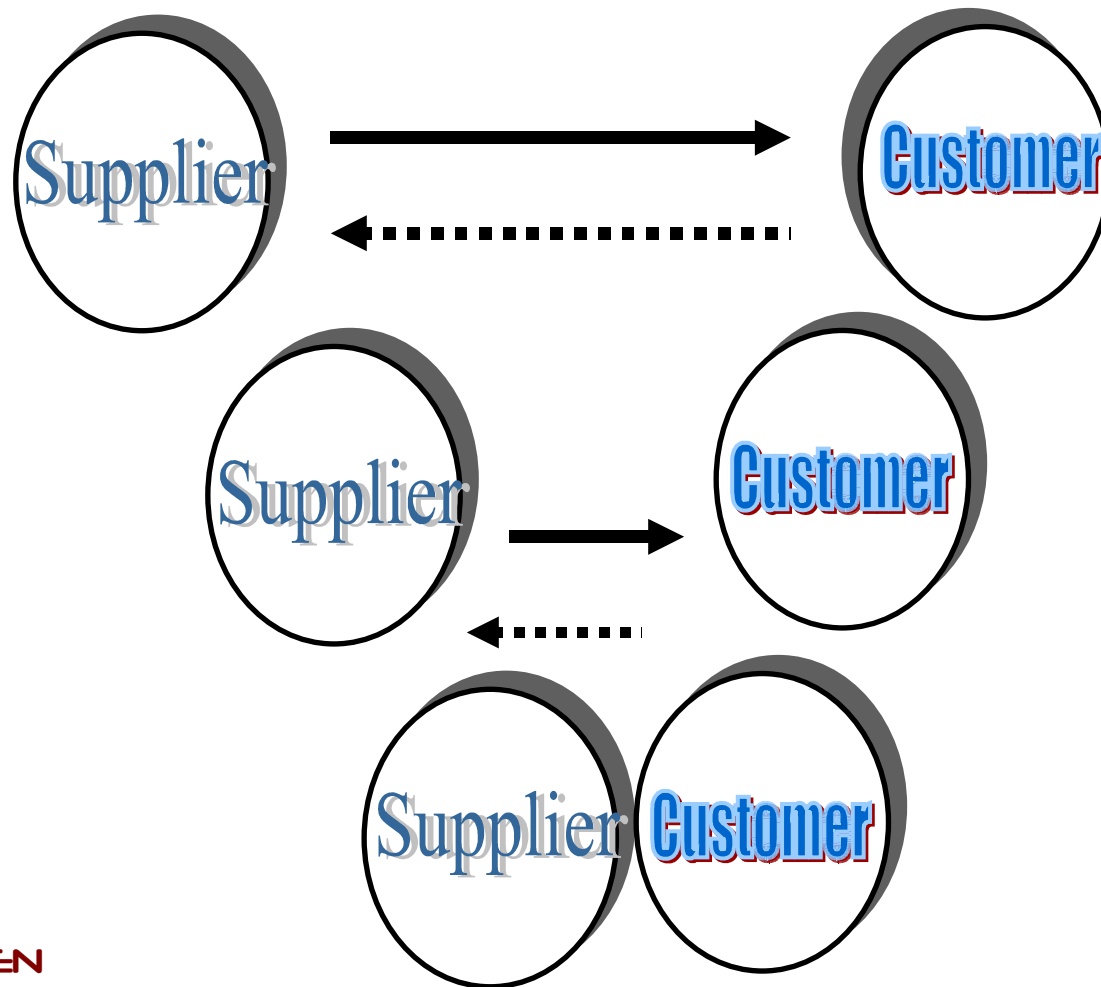


Lean Steps

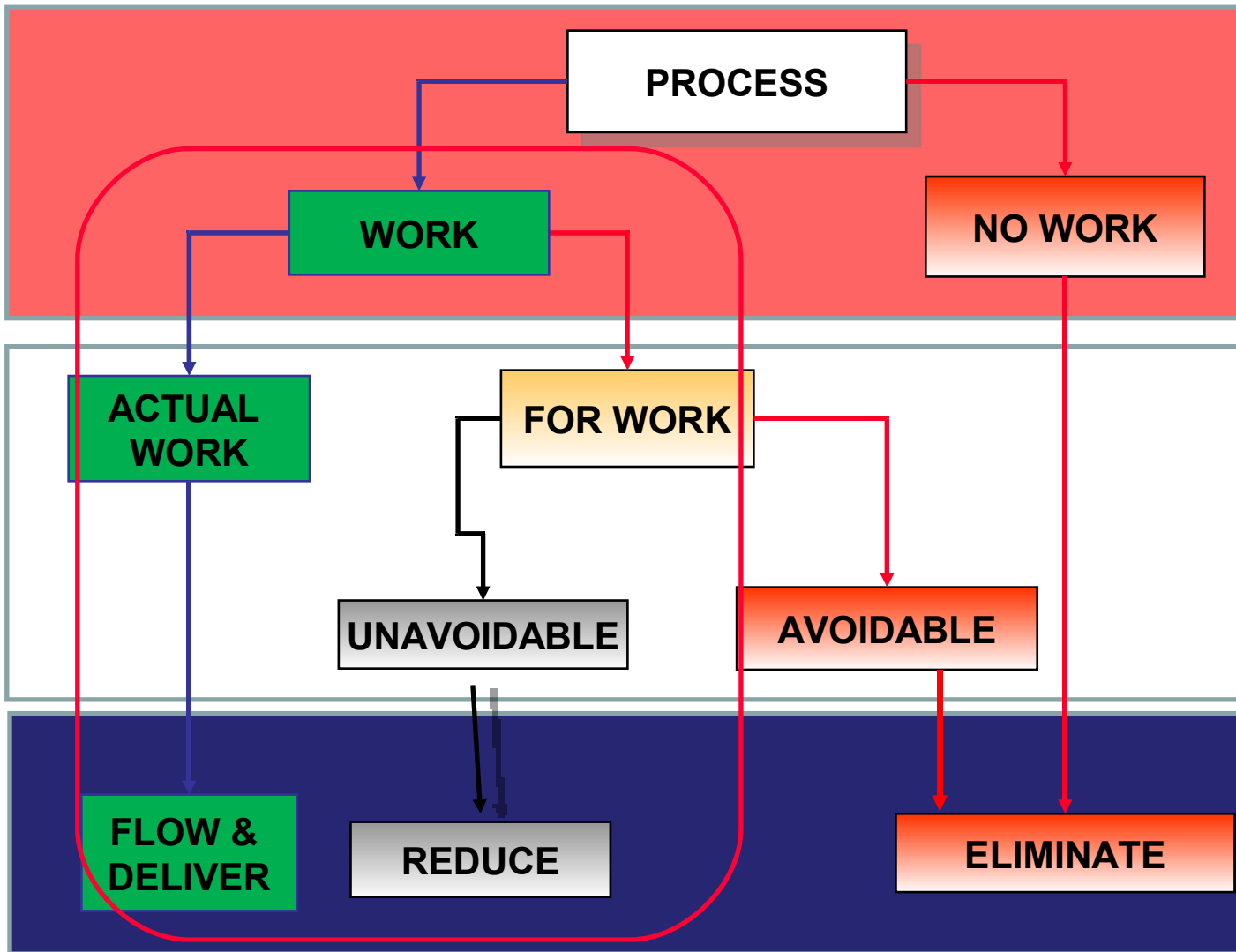
1. Define or specify value from the point of view of Customer
2. Identify the Value stream – sequence of processes
– e.g from raw materials to final customer -
3. Make Value Flow and Reduce Lead time
4. Produce only to satisfy the PULL
5. Synchronize all processes (Perfection)

Lean Steps - Create a flow

Bring Supplier and Customer Closer



WORK PROCESS – NEW PARADIGM



DESIGN

IMPLEMENTATION OF DESIGN

EXECUTION/OPERATION

STEPS TO LEAN STATE

1. Build the culture of continually changing and improving the processes and methods – eliminating/ reducing –
 - Wastes (*MUDA*);
 - Inconsistencies (*MURA*) and
 - Avoidable Strains (*MURI*)
2. Change the behavior of the organization – by digging deep into the causes for the Wastes, Inconsistencies and Strains and eliminate such causes – OBSERVE AND ACT AFFIRMATIVELY.
3. Remove hurdles in the journey in the form of chronic problems and uncertainties – thru our unique technique of ‘Differential Diagnosis’ – leading to “ZERO ERROR” - ACT TO PERFECT.
4. Synchronize the support and supply chain processes with throughput process to achieve PERFECTION

How to make LEAN a Reality?

The real POWER of LEAN can be achieved, only if we **fully engage** people's heads & hearts, in addition to their hands, to **create habits** that result in **Achievement** and **Fulfillment**.

Power of People-Centric Approach

ALIGN -

the **head** (Top Management) to a vision

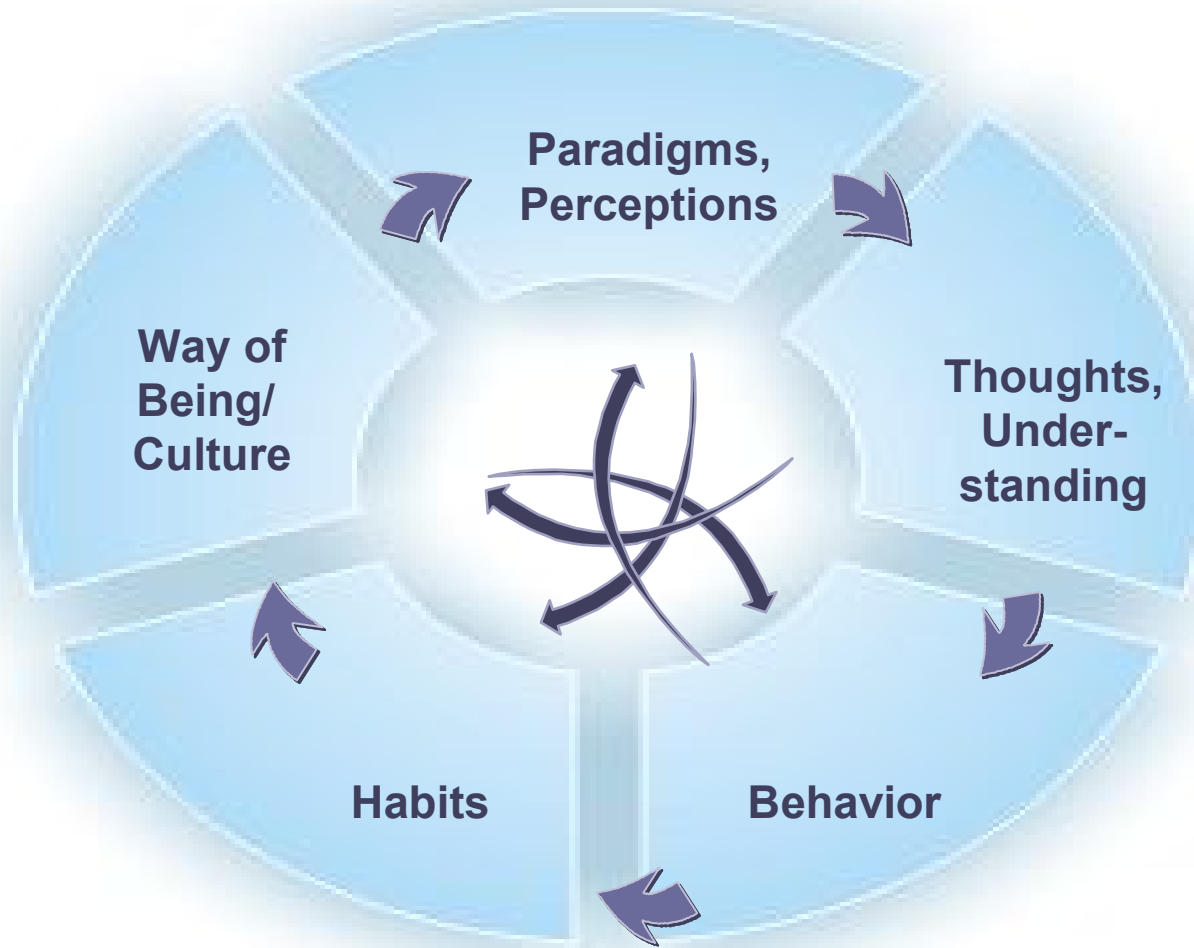
the **heart** (Senior & Middle Management)
through inspiration

the **hands** (Work force) to continual
improvement

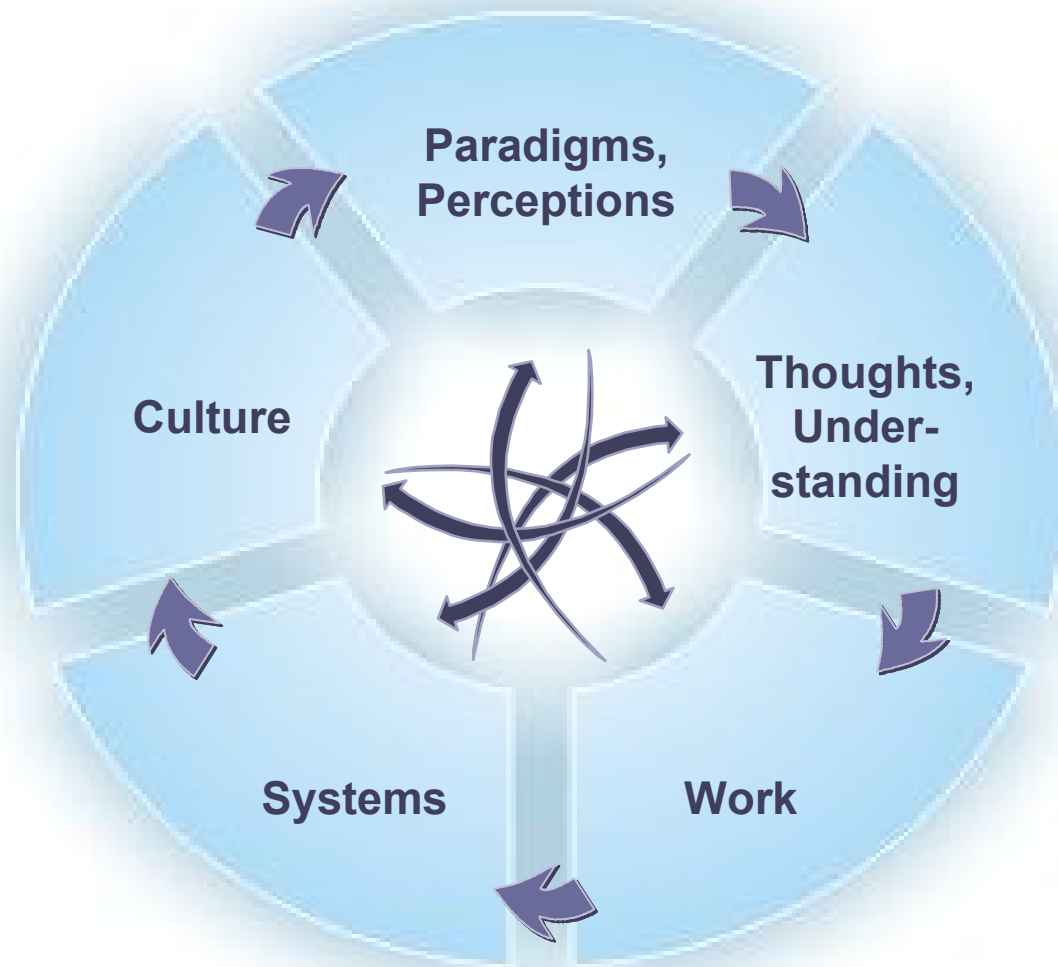
The results are ... extraordinary levels of

Trust, **FULFILLMENT** and **Performance**.

Process of Personal Change



Process of Business Change

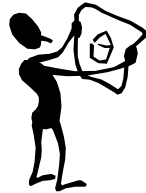


IN A WEEK OR LESS – A NEW WAY OF LIFE

2 Identify Waste



1. Observe the Process



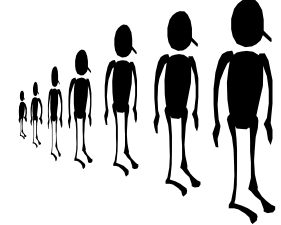
10. Do It Again



9. Celebrate



8. Make this the Standard

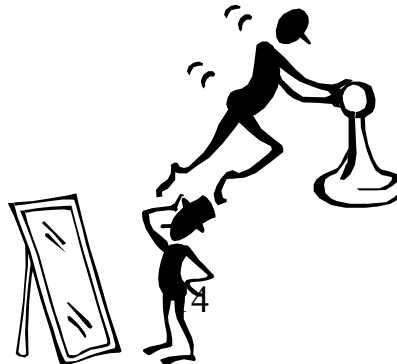


11. Move Towards Perfection

3 Plan Countermeasures



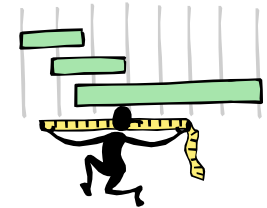
4 Reality Check



5. Make Changes

完全

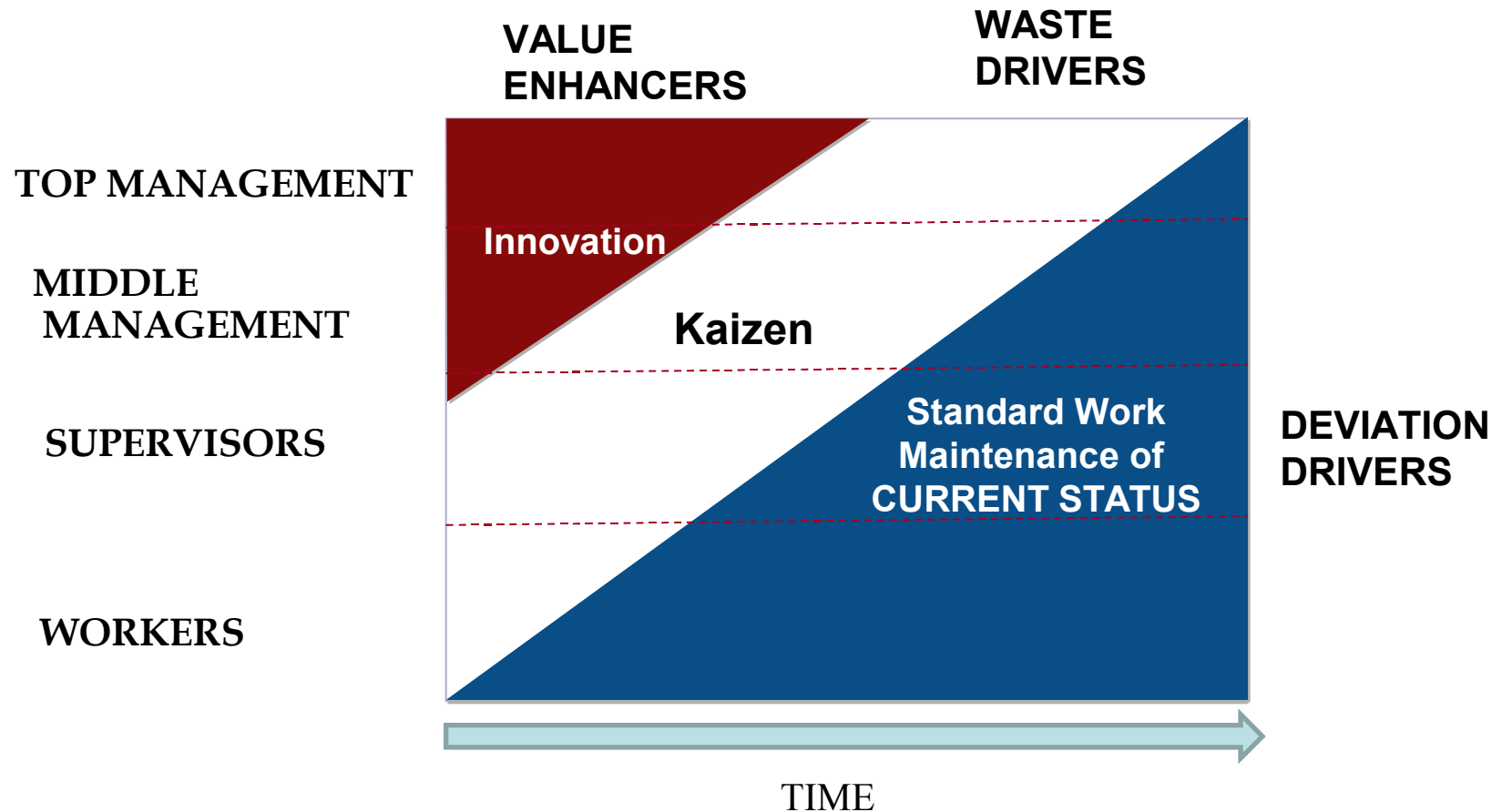
7. Measure Results



6 Analyze and Act against Potential Problems

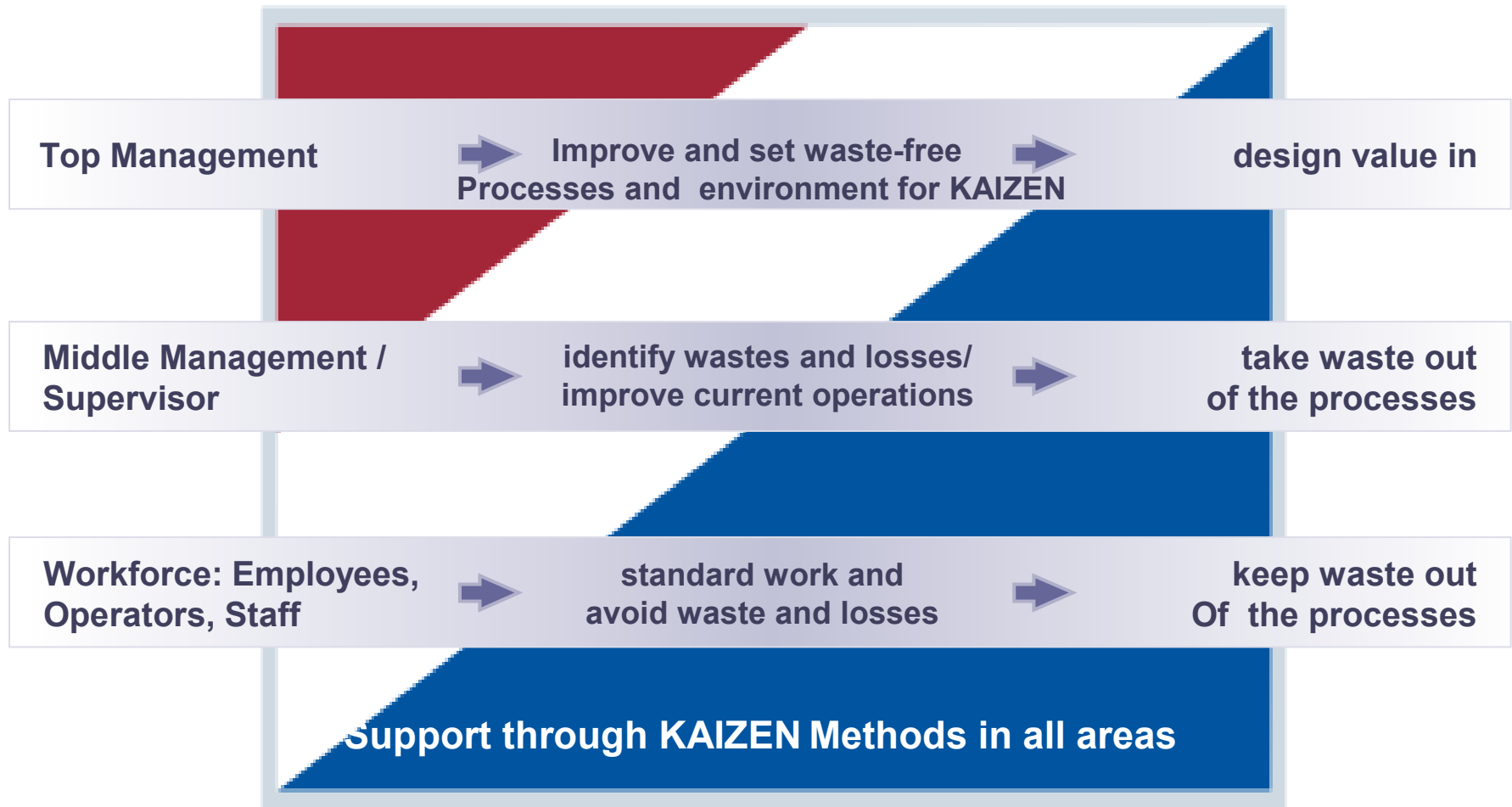


KANZEN - Value Focused Management Paradigm

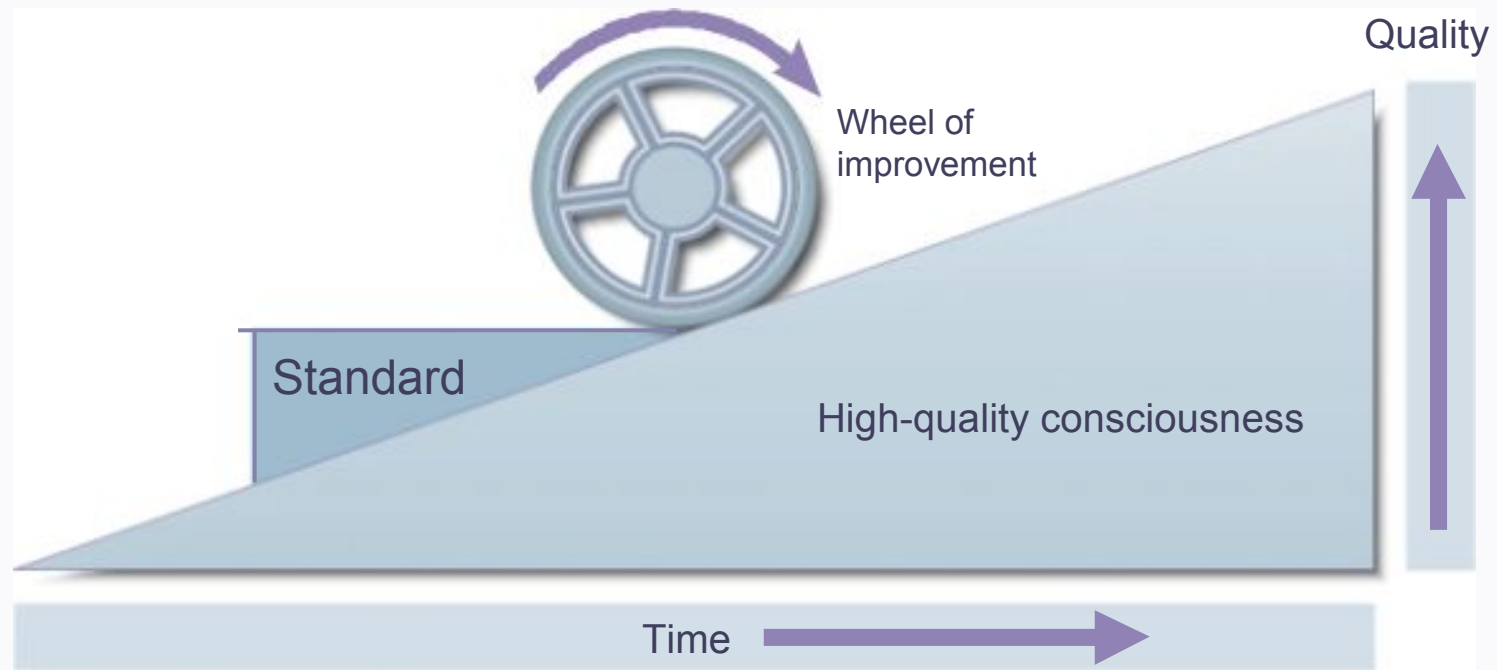


-Developed on MASA AKI IMAI's Kaizen Flag

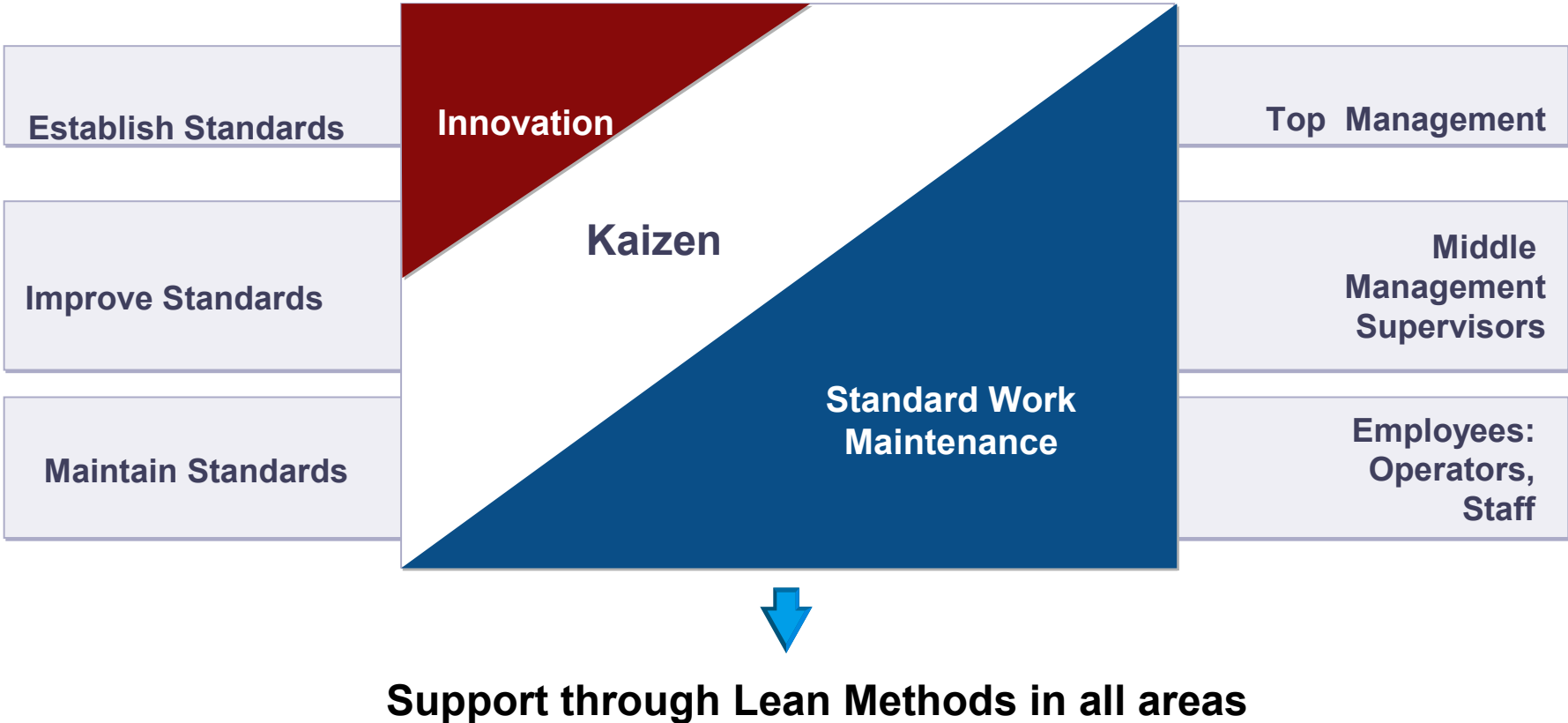
LEAN MANAGEMENT: STRUCTURE



STANDARDISATION



Standardisation - Roles and Responsibilities



**BEST WISHES for a
BRIGHT FUTURE.**

**Many thanks
for your attention**