

## How to Improve Business Competitiveness through Kobetsu Kaizen (KK) Methodology of TPM

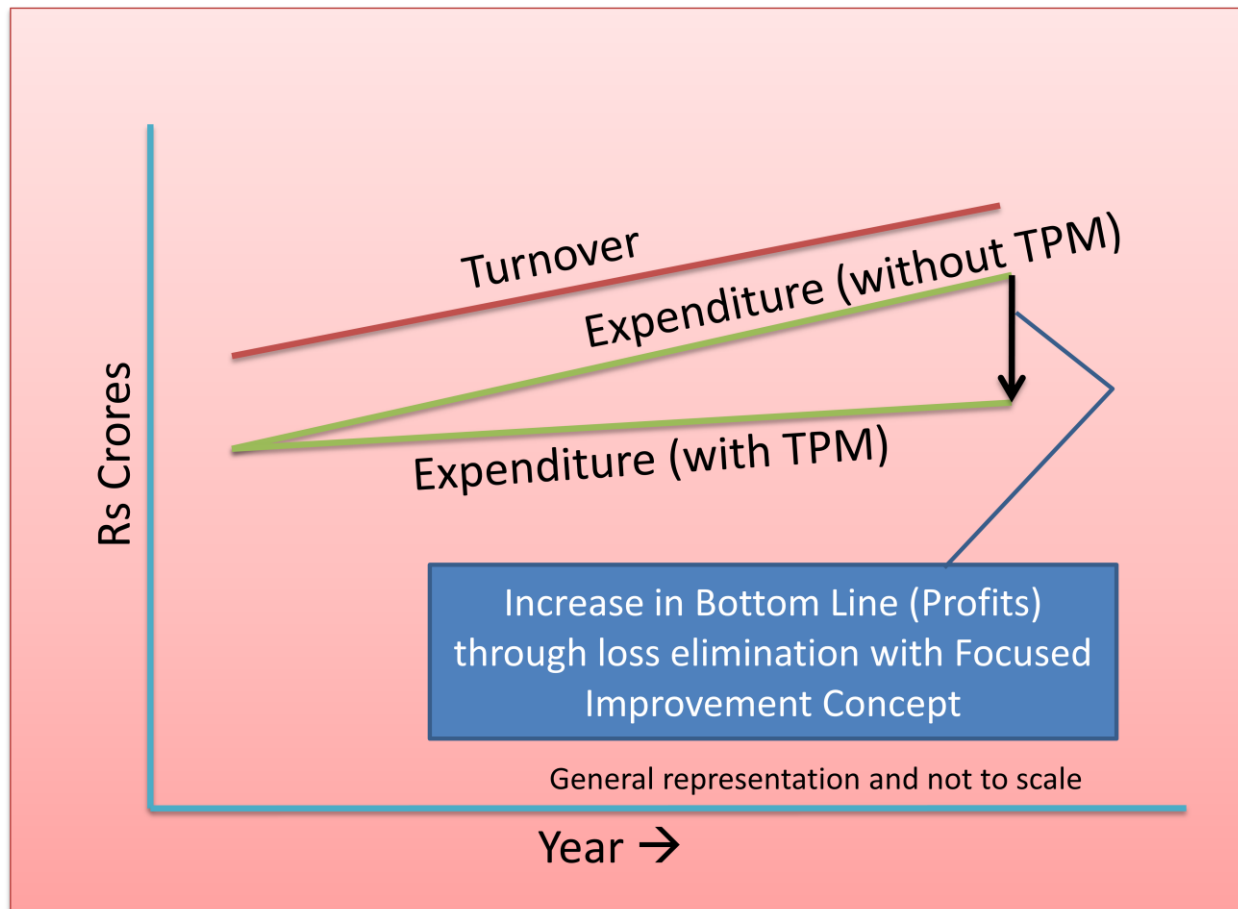
24-25 June 2019: Sartorius Stedim India Pvt Ltd, Bangalore

Before

Selling Price = Cost + Profit  
Productivity = Capacity - Loss

Now

Profit = Selling Price – Cost  
Productivity = Market Demand



## How to Improve Business Competitiveness through KK Methodology 24-25 June 2019: Sartorius Stedim India Pvt Ltd, Bangalore

Implementation of TPM in the true essence would increase financially both the top and the bottom line of any organisation. **One of the key essences of TPM is to eliminate the losses that are occurring in the organization there by incurring the bottom line.** The losses are of 2 types; first those that are measured like the breakdowns, Quality defects etc and the second like setup and change over, Minor stoppages, lesser resources utilization etc which are generally missed.

**Kobetsu Kaizen** or the **Focused Improvement** pillar of TPM addresses both these types of losses with the activities that maximize the overall effectiveness of equipment, process and plant through uncompromising elimination of 16 types of losses and improvement of performance. Focused Improvement activity is a priority in the TPM development programme with activities performed by cross-functional team. These teams identify and design activities to eliminate/ minimize the 16 losses, which are carefully measured and evaluated.

### Definition of 16 Major losses

#### **A Seven major losses that impede overall equipment efficiency**

1	Failure losses (Breakdown)	Losses due to failures. Types of failures include sporadic function-stopping failures, and function-reduction failures in which the function of the equipment drops below normal levels.
2	Set up and adjustment losses	Stoppage losses that accompany set-up changeovers
3	Cutting blade change losses	Stoppage losses caused by changing the cutting blade due to breakage, or caused by changing the cutting blade when the service life of the grinding stone, cutter or bite has been reached.
4	Start-up losses	When starting production, the losses that arise until equipment start-up, running-in and production processing conditions stabilize.
5	Minor stoppage and idling losses	Losses that occur when the equipment temporarily stops or idles due to sensor actuation or jamming of the work. The equipment will operate normally through simple measures (removal of the work and resetting).
6	Speed losses	Losses due to actual operating speed falling below the designed speed of the equipment.
7	Defect & rework loss	Losses due to defects & reworking

#### **B Losses that impede equipment loading time**

8	Shutdown (SD) losses	Losses that arise from planned equipment stoppages at the production planning level in order to perform periodic inspection and statutory inspection
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#### **C Five Major losses that impede workers efficiency**

9	Management losses	Waiting losses that are caused by management, such as waiting for materials, waiting for a dolly, waiting for tools, waiting for instructions etc.
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10	Motion losses	Man-hour losses arising from differences in skills involved in etc.
11	Line organization losses	Idle time losses when waiting for multiple processes or multiple platforms.
12	Distribution losses	Distribution man-hour losses due to transport of materials, products (processed products) and dollies.
13	Measurement and adjustment losses	Work losses from frequent measurement and adjustment in order to prevent the occurrence and outflow of quality defects.

**D Three major losses that impede efficient use of production subsidiary resources**

14	Energy losses	Losses due to ineffective utilization of input energy (electric, gas, fuel oil, etc) in processing.
15	Die, jig and tool losses	Financial losses (expenses incurred in production, regarding re-riding, etc.) which occur with production or repairs of dies, jigs and tools due to aging beyond services life or breakage.
16	Yield losses	Material losses due to differences in the weight of the input materials and the weight of the quality products

The above losses are generally not understood in the industry and these losses grow over a period of time. A need has been identified **to disseminate the information on the methodology to eliminate/minimize these losses.** Responding to the need of building skills in this area, a seminar has been designed with emphasis given to impart knowledge to the participants through theory & a case study.

**The programme will start at 0900 hrs with registration and ends at 1730 hrs on both the days.**

**Kobetsu Kaizen (Focused Improvement) Seminar would cover:**

- ❖ Defining and understanding what is a loss
- ❖ Understanding the 16 losses of TPM
- ❖ Structured approach for eliminating/minimizing these losses
- ❖ Methodology for calculating Overall Equipment Efficiency (OEE)
- ❖ Loss Tree & Exercise
- ❖ Cost Tree & Exercise
- ❖ Cost Loss Matrix & Exercise
- ❖ Theme matrix & Exercise
- ❖ Kaizens registration
- ❖ Kaizen execution methodology & Exercise
- ❖ Industrial Engineering topics (IE)
- ❖ Concept of Ergonomics (Assembly work related methodologies)
- ❖ Concept of TAKT, TIME
- ❖ VA, NVA & IW

**Target Audience:** Manufacturing Heads, Quality Heads, Engineering Heads, Process Heads, Engineers, Senior Managers, and Managers from Manufacturing, Process, Engineering and Quality from the industries, Operators, Supervisors, Pillar Chairman's and TPM Coordinators. This is applicable to Non-TPM practicing companies also.

**Faculty:** Mr Scaria K, Counsellor, TPM Club India, CII-Institute of Quality

- Pre-registration and pre-payment is essential for participation. Delegate fee is nonrefundable, however, change in nomination is acceptable. NEFT/ RTGS should be done in advance.

Members / Non-members are requested to kindly depute the concerned officials to attend this very important Workshop. The brochure and nomination form is enclosed herewith for your perusal and to send nominations.

Best Regards,  
Abdul Wadood  
Principal Counselor & Head  
TPM Club India, CII IQ.

**For Registration/ more details please contact:**

Pavan Kumar/ ManiKumar  
CII IQ -TPM Club India  
Email: [tpm.mktg@cii.in](mailto:tpm.mktg@cii.in)  
**Mobile: +91 9164452244 / +91-9738227462.**