

Improvement Ideas Competition

Have you implemented an improvement in your company recently?

Toyota Handbook Excerpt: Our way of life is such that a day shall not pass that we have not made one small step of improvement

Ken Kreafler, Toyota Motors/University of Kentucky judged the best improvement idea submitted at the Symposium

1st Place

We changed the flow of work in our paint shop, which produced a savings of 50 minutes per week in man hours due to better utilisation of space.

All the members in this team were involved in this change. This team used problem solving in order to find out what the root cause of the problem was. This educated this team how to look at a process flow. They implemented all the changes themselves and use lean tools to substantiate their results. They measured their walking times for 3 months before the improvement and for 3 months afterwards. In this time they made further improvements to their process. They presented their new process flow to the management team. At the end of their presentation they talked about the future projects that they were going to work on, which is an improvement to this lean project.

This project showed that this team clearly understood what they were doing in terms of lean processes, with their implementation of problem solving and understanding the production flow of this department. They showed cost savings and made their jobs easier and more efficient. Through this they showed that they could save €10,000 in overall savings over a year. Not only did this team save money and time, they learned valuable lean problem solving techniques.

2nd Place

SMED: The changeover time on our Encore production line took 90 minutes with 19 people being idle and lost production time.

We engaged operators to come up with a solution. The key tasks (that were identified by operators) were 1) printing labels 2) material readiness to line 3) new lot set-up on system.

The operators organised themselves on who was going to do what and complete these tasks during the previous lot so that changeover time reduced to 0. Huge cost reductions and increased output achieved.

A problem with carton deployment to a high speed packing line was causing 180 minutes of downtime a week.

In 7 years of work with suppliers of both cartons and the machine manufacturing company a solution to eliminate the problem could not be found.

By involving a dedicated internal team and applying the 8-step problem process rigorously the problem has now been eliminated. In all, applying this methodology solved a seven year problem in 7 weeks. Cost of solution – 50 cents!

People entering warehouse without safety footwear. Why? To collect staff sales from the warehouse.

Issue: Half staff (200 people) on monthly basis collecting their purchase by walking through warehouse to far end of 300,000 sq ft facility. It became a social trip & took up supervisor time to open locked up storage.

Solution: Orders now delivered to 7 points in the facility by one person once per week taking 20 minutes.

Time saving: 2000 minutes v 80 minutes per month-96% reduction – and reduced injury risk within warehouse

Simple – being done for years

Developed a Just Do It (JDI) programme. Objective of programme is to engage all people at all levels in the company in identifying waste elimination/reduction ideas – only ideas implemented where a waste has been identified and removed and benefits realised and registered.

A simple process is now in place (greater than 14 months)

Cost savings in excess of 1.5million have been realised to date – lots of various types of waste removed

Sustainability is being achieved by integrating the targets for each team (and site) into the performance management infrastructure on site i.e. actual vs. expected targets are monitored – metrics are simple.

Implementation of lean tiered metrics from shop floor, through management to site and aligned to our division for operations.

This included 1. Metric appropriate for the tier 2. All metrics aligned up to the division 3. Metrics that can be influenced by the relevant tier 4. RCA where the tier fix what is within my sphere of influence, escalate bigger issues up the tiers 5. Scripted review for each tier with 100% adherence to review schedule. Reviews scheduled by shift-daily, weekly as appropriate 6. Attendance and role was defined for each review. IPO process was clear for each review i.e. purpose, process and outcome.

Level of review: Ops – Shift Leads – Ops Management – Site Director

Examples of results: Engagement, clarity of vision, alignment, better comms, remove waste and delivering the bottom line. Bottom line 23% reduction in energy usage in 2009. 19% reduction nRFT v 2006, 2007, 2008

Removal of individual based performance to team based structure.

We have introduced with enormous success **5 minute communication boards for 2-way communication in almost 60 different locations** – We used standard work to do this – We see a massive amount of new problems being identified, fixed & prevented. So simple but so effective!

Previously the supervisor was faced at the start of a shift with setting up their 6 assembly lines (each with 6 operators) for a pool of 50 operators to meet the schedule set by planning. This was very difficult, requiring the use of a skills training matrix as a basis for manning each line 1 with skilled operators, then line 2, 3 etc... It also required constant redrafting of the proposed lines as required skills gaps appeared.

Today, instead of the training matrix, the supervisor uses laminated strips of paper 1" X 6". There is one strip for each operator with his/her name and tasks certified on it. These are used to populate the lines one at a time and allows for the simple movement of an operator from one line to the next in a simple visual way.

We kicked off the Lean in the Office journey in 2009. One project was completed by a team under Quality Function – IQC: Incoming Quality Control.

This team has transferred the skill and tools of lean in manufacture into an office environment with facilitation from the Business Process Improvement team. The team developed day by hour metrics, core metrics, cross-training plan/metrics, capacity model, kaizen corner & monthly continuous improvement brainstorm session.

This project reduced cycle time by 60%, reduced backlog and sustained the result, increased technician versatility by 75% & savings of €890,000 annually applied and customized FIFO shelves.

This was the first time lean methodology and principle was applied in a quality function and everybody (total 20) in the IQC team was involved and contributed at least 1 improvement idea.

This implementation had a huge impact in the office floor and many were inspired by the team to start lean journeys in their area.

Too much time being lost on meeting times due to room conflicts, walking distances, lateness etc... Use pre-installed MS Communicator to set up remote meetings with web cams and mics

Improvements:

- Less time away from work areas
- Reduced demand for meeting rooms
- Reduced meeting times – deal with facts
- Information at hand
- Right people in the right place at the right time

Production set to double with no increase in footprint and headcount allowed.

Implemented quality control system piloted across one value stream based on control charts to evaluate IKPI performance enabling

- MIC utilisation, effectiveness, yield
- Reduced cost per unit
- Standardised operation reducing cycle time
- Reduced equipment required
- Empowered workforce

Introduced process improvement sheets in electronic format as a way of documenting the weighing of materials. Reduced the requirement to have two operators at every weighing step & reduced the opportunity for error and improved quality in a risk-based way.

Our waste water treatment plant was using an average 75m³ of water per day to keep the biomass healthy and active. We had to pay €1.33 per m³ to the local water council and €1.65 per m³ to send it offsite (to be treated further). Paying an average of €2.98 for using water on site costing an average of €225 per day/€1,575 per week.

We now use water from surface water drains and recycle the water going off site back into the system, saving an average €80,000 per year. At a cost of €20,000 to install the pumping system to recycle the water initially.

Developed a simple coating application modification to eliminate a safety risk.

At a regional hospital we standardised outpatient booking systems to ensure fairness & equality of appointment systems.

We used:

- Problem Solving
- VSM
- Cells (central booking)
- Kanban systems for clinic set up etc

We reduced variation, validated waiting lists and increased capacity by 20%

Metal guides which allow for the easy no-effort stacking of top boards from pallets of cardboard. They were simple to make, easier for operators and eliminated the wasteful activity of one employee spending hours restacking & resorting (1 hour per day per line) Saving 51 X 8 hour shifts.

Used batch cards to eliminate verbal communications within the plant. The switchboard operator/receptionist does not have to constantly call operators/associates to contact each other.

An operator responsible for coating the balloon end of a catheter with a solution questioned the design of his equipment as he had to change out over 4 litres of solution every shift due to shelf life. He proposed reducing length of piping on equipment to reduce the amount of solution lost and time taken. Not a huge cost saving but has ensured that this operator feels empowered and others have the confidence to come forward with ideas.

Objective: Reduce water usage in the facility by 5% (while changeovers increase by 15% i.e. more cleaning)

Approach: Cross-functional team – technicians, 2 operations, engineer & team leader
DMAIC approach applied

Measurement systems of all H₂O streams on site established

Mass balance conducted

Communication drive to all water usage and system established for leak reporting – ideas generated by team included

1. Reduction in rinse times – validated - 15% saving
2. Reduction in back washing – frequency of reverse osmosis plant – validated
3. Reduction in cooling flow to homogeniser
4. Recycling water from waste water treatment plant to clean the incoming filters

Through mass balance discovered significant leak from water storage tank

Results:

- 15% reduction in water usage from the entire site. An annual saving of 4,500,000 litres of water
- Cost savings are small €20,000 pa – much more important is our reduction of the facility's impact on the environment
- Helped to drive DMAIC as an approach to continuous improvement within our culture
- Removed the waste water treatment plant as a restriction to future growth



Final – 18/3/2010

LAKE REGION MEDICAL LIMITED EMPLOYEES SCOOP ICBE NATIONAL BUSINESS EXCELLENCE AWARD

Lake Region Medical Limited employees Noel Hennessy, Nicola Merrigan, John Bolger and John O'Dwyer - today received the highly prestigious ICBE 2010 National Business Excellence Award (a sculpture by Patrick Campbell) from the Irish Centre for Business Excellence at a ceremony in Clonmel, Co Tipperary.

The award is given out annually for outstanding contribution to a key objective of the Centre – freely sharing knowledge and best practice among the members of the network.

The team is responsible for implementing Lake Region Medical Limited Operational Excellence strategy at the plants in New Ross, Co Wexford and Parkmore, Galway.

Under the team's guidance, cross functional teams, consisting of employees at all levels, look at end-to-end repeatable processes with a view to improving the customer experience, finding, fixing and stopping problems from returning permanently, standardizing processes, implementing total preventative maintenance, eliminating waste, reducing cost, increasing efficiencies and removing low or non value add activities. Lake Region Medical is now a 'must visit company' to learn and share best practice from the progress made to date at the plant.

The team has been a positive advocate of the ICBE core processes within Lake Region Medical Limited and in the South East Region. They assisted the Centre in establishing the Innovation & Lean Sigma Federation and are active on the steering group of the Innovation & Lean/Sigma Skillnet. They were instrumental in setting up the South East Lean Forum and Noel Hennessy has been its chairman during 2008/2009.

Members of the team have contributed to events organised by the Centre by sharing their experiences for the benefit of others and have arranged several visits to their plant for member companies to witness at first hand the tremendous progress made in implementing Lean Principles,

Speaking after receiving the award, Noel Hennessy said: "I am delighted to accept this award on behalf of myself, the team and Lake Region Medical Limited. It is a great honour for us and marks the contribution made by Lake Region Medical Limited as an organisation to the development and sharing of world class business management concepts and practices in both national and international members of ICBE."

The ICBE, a national promoter of Ireland's development as a knowledge economy, is a non profit network established in 1996 by leading companies on the island of Ireland. Through participation in the core processes of ICBE, members continually compare and measure their organisation's processes, share best practice and participate in networking events, communities of practice, research and training, education and development organised by the centre.