



Making Common Sense Common

Key Learnings for a Successful TPM³ Journey

The Kawerau Site of Fletcher Challenge Forests is located in the Bay of Plenty in New Zealand, on the outskirts of a large Pinus-Radiata forest. The site has three production areas, Sawmill, Drymill and the Reman. This site had been involved with TPM³ since late 2001 with currently 20% of their 220 employees involved in TPM³.

Some three years ago we asked ourselves at Fletcher Challenge Forests (FCF) “How good is our Maintenance?” A Maintenance benchmarking and improvement project was initiated and we introduced OEE as a measure to understand the progress on the project, with the management of the project outsourced at that time to ABB. The ABB project was very successful in lifting OEE but it was clear that the next step had to be taken and owned by FCF and include more than just Maintenance, therefore the contract was concluded in March 2002.

One of the key values at FCF is a deliberate pursuit of continuous improvement. However, we were pretty busy and there was no formal process for operational continuous improvement. Also there was concerns about introducing a “flavour of the month” especially if it seemed similar to previous painful cost cutting exercises. TPM³ was therefore identified as the next logical step to continue with a formal process to not only improve maintenance, but to also roll out a formal continuous improvement approach to the rest of the site. It was introduced at three FCF sites on a volunteer basis in 2002.

How We Set it up

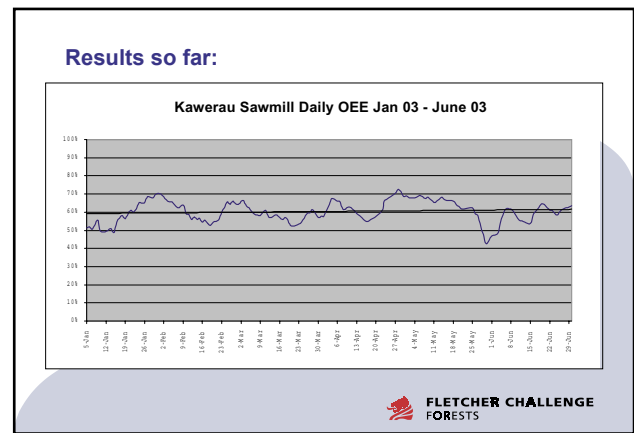
A number of challenges came up with the change over from ABB to TPM³. Although the principles were very closely aligned, the application and methodology was very different. The OEE measure was one of those challenges where the growth through the journey showed us that the measure had to be adapted (initially we had set the target at 100%!) and changed more than once to ensure it captured the efforts and results of the various teams involved with TPM³. This was at times confusing but more importantly, was a necessary development going into the TPM³ journey.

We made sure we had the resources available, with support from the Centre for TPM, secondary FCF support and TPM Co-ordinators at each of the three sites that had volunteered to accept the challenge. An internal network has been set up between all the site’s TPM Co-ordinators to ensure learnings are shared and there is support and backup for each other, and we have been actively involved in all the external network events arranged by the Centre for TPM (including hosting a networking event at Kawerau).

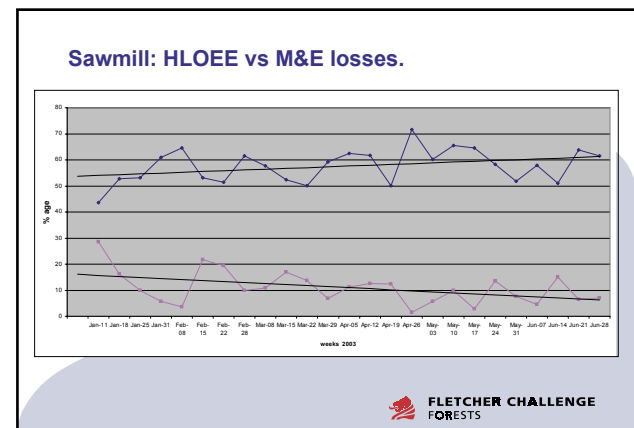
Internal Introduction to TPM³, Pillar and Instructor courses were arranged to save costs and to customise contents. Job security was paramount (due to the legacy of the previous cost-cutting exercise) and an OEE improvement bonus was introduced as a “WIIFM”—What’s in it for me!

Key Learnings from the Kawerau TPM³ Journey

We got a bit excited and had a lot of data—in fact we had truckloads—but not necessarily the right data and it was hard to get. It was difficult to quantify the bottom line benefits, especially with production dynamics moving the goal posts, even though we knew we were getting the results. For example the way we were measuring our corporate OEE showed a fairly flat result.

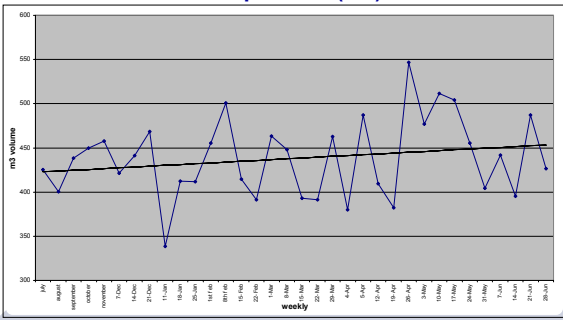


According to this graph we hadn’t achieved enough OEE gain to do WAM, which was a problem. But other measures were showing us major improvements!



Capacity increased by 13%

Sawmill: Production per shift (m3).



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The Leadership Team faced the challenge of putting our finger on the key issues and focusing the efforts there, due to the blockage of a lack of resources, especially in the maintenance area. We also had to ensure the gains we were getting were being locked in.

What we also discovered was that TPM³ is a great learning and team development tool. We were getting great buy in and lots of interest, with people volunteering for teams.

The Future

We want to be using an analytical rather than instinctive approach to our business; this means we need to further refine what OEE measures. TPM³ needs to be rolled out to the rest of the site, to engage everyone so continuous improvement is ingrained and the way we work. We want the culture to be one of “efficiency improvement” rather than “reduce cost”.

5 Key Lessons to Take Away

Leadership: You must identify and rectify application problems. Continually ask the question, “What are the issues?”

Training: Internal and external training underwrites success.

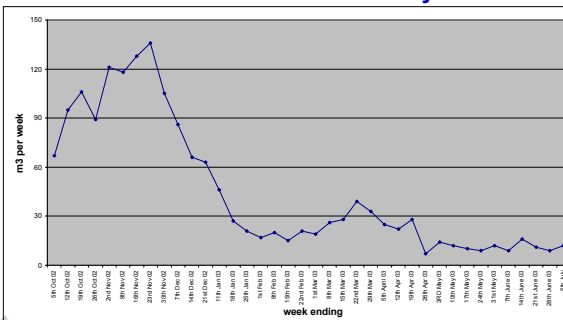
Implementation: Stay focused, be patient and retain composure.

Measurements: Measure the right things.

Culture: Turn the ‘Push’ into a ‘Pull’.

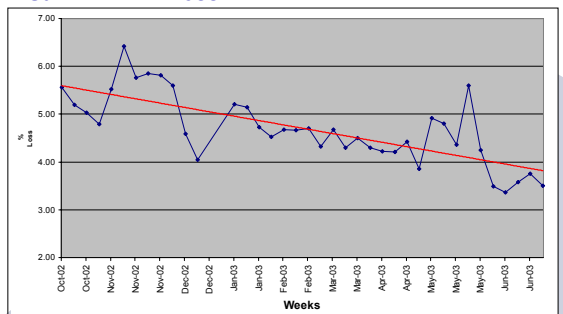
We have a long way to go, but what we have seen so far shows us an exciting opportunity ahead of us. And of course we plan to get our OEE to the level of World Best Practice!

Sawmill: Rework volumes reduced by 88%



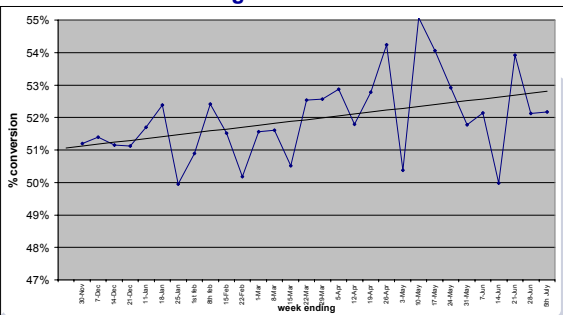
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Sawmill: Trim loss.



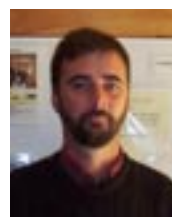
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Sawmill: Scanner log/lumber conversion.



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As we filtered through the data, developed analysis skills through the paretos and started to match losses to the team mandates, we realised how much we didn't know about our plant.



John became site manager at Fletcher Challenge Forests Kawerau in June 2002, prior to that he was the site manager at Fletcher Challenge Forests Rainbow Mountain Site for four years. John is the TPM Champion at Kawerau site and overall TPM Champion for FCF.

