

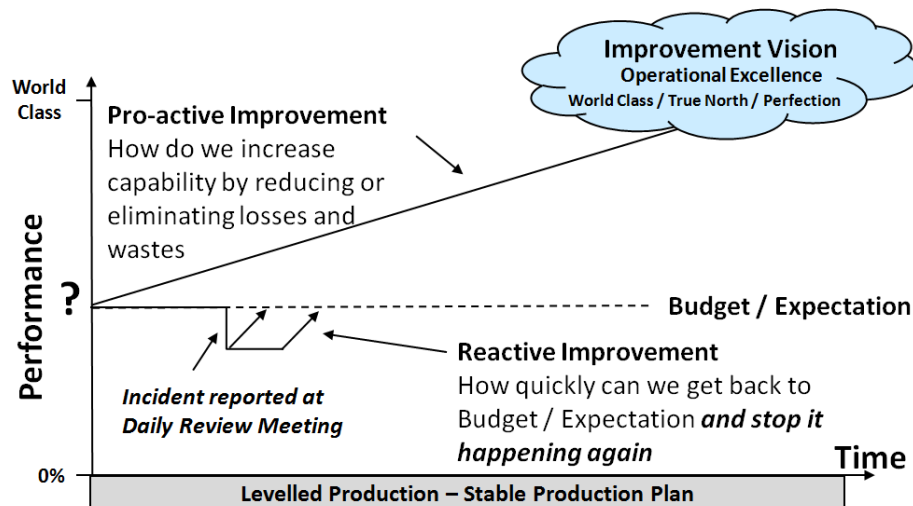
## The Need for Effective Reactive Improvement

To achieve Operational Excellence organisations need to be very good at both Reactive and Pro-active Improvement. Unfortunately many organisations get so focused on Pro-active Improvement through their Lean, Six Sigma, TPM, CI etc initiatives that they lose sight of the importance of effective Reactive Improvement.

### Types of Improvement

**Reactive** – ensure you achieve Budget / Expectation

**Pro-active** – take you above current Budget / Expectation



We often refer to Reactive Improvement as 'below the line' improvement as opposed to Pro-active Improvement which is 'above the line' improvement in relation to the daily budgeted performance expectation.

As Pro-active Improvement gains momentum and guides you closer towards Operational Excellence, then the need for Reactive Improvement should significantly reduce. However, as a Pro-active Improvement journey can take many years to achieve Operational Excellence, there is a strong argument for getting effective Reactive Improvement in place.

***When Pro-active Improvement is successful, then the need for Reactive Improvement should significantly reduce, however if Reactive Improvement or Stability is poor, you may struggle to find time for Pro-active Improvement. Hence effective Reactive Improvement is a great foundation for accelerating your Pro-active Improvement activities.***

## What is Effective Reactive Improvement?

Reactive Improvement is your ability to rapidly recover from an event or incident that stops you from achieving your budgeted or expected performance for the day and most importantly initiate corrective actions so that the event or incident will not re-occur anywhere across the organisation.

Reactive Improvement should be initiated whenever you fail to achieve expected performance based on agreed triggers eg greater than 60 minute downtime or rework event or greater than 5% quality loss. The triggers should be set to allow sufficient problems to be addressed within resource constraints. Obviously as the triggered problems become less you would reassess and tighten the triggers accordingly eg when 60 minute delays become less frequent you would reset the trigger to a lower figure like all delays greater than 30 minutes.

The key to effective Reactive Improvement is **discipline** through a very effective Daily Review Process supported by a standardised and robust Root Cause Analysis or Frontline Problem Solving process that is suitable for all people to be trained in, and used regularly, across the organisation.

### Daily Review Process

Most organisations have daily review meetings however far too often they are not effective. They start late or drag on for too long, they accept poor performance standards, they skip over below target performance by accepting 'work-a-round' corrective actions, they have no agreed triggers for initiating Frontline Problem Solving and follow-up to issues raised is often just done on an ad-hoc basis if done at all, with very poor monitoring or closure.

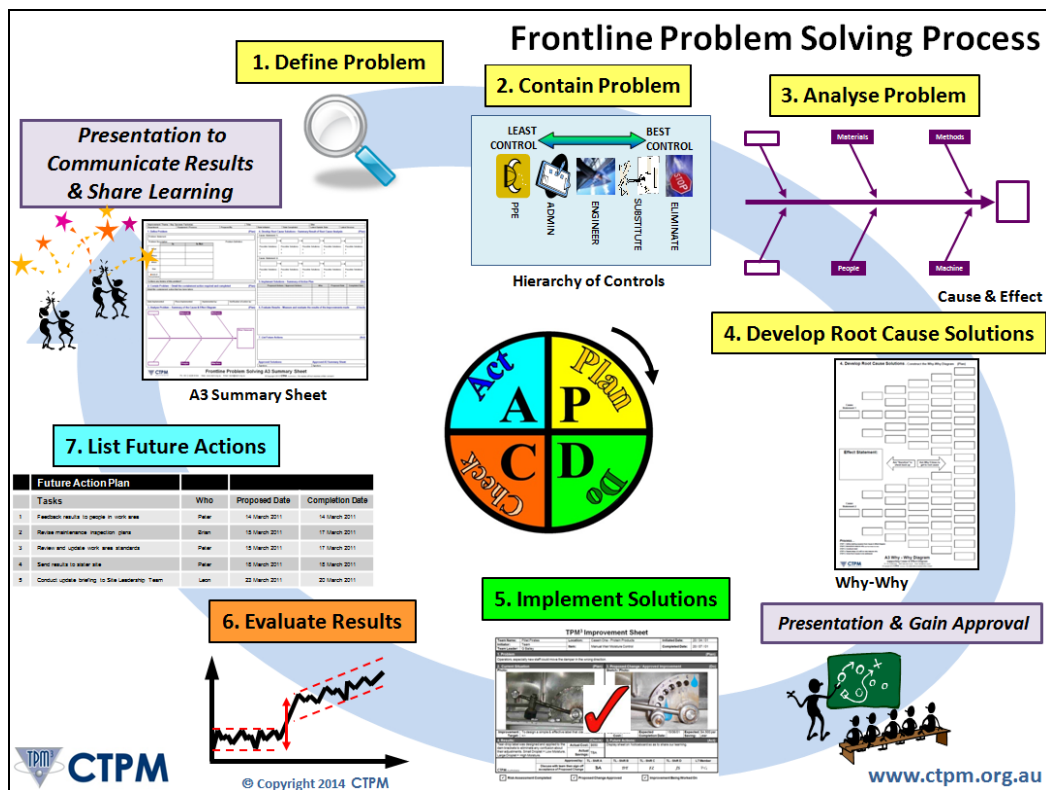
### What makes an effective Daily Review Meeting?

- Agenda displayed with clear timeframe for each agenda item;
- Current performance information is updated before the meeting by attendee responsible and displayed using visual prompts (eg black is expectation, red is bad, green is good);
- Stand up environment (no chairs as people think and respond quicker and more distinctly on their feet);
- Clock in room (visually controlling the time of meeting);
- Starting and finishing on time (allow people to leave after agreed finish time);
- Any deviation from expectation noted with solutions taken, or if issue has not been resolved, support is allocated to assist (to be resolved outside meeting);
- Triggers for activating a Frontline Problem Solving action are displayed and regularly updated;
- If a trigger for generating a Frontline Problem Solving A3 Summary Sheet is activated, then a Frontline Problem Solving action is allocated to a designated person with timeframe for reporting back (eg within 3 working days advise outcome of Step 4 – Develop Root Cause Solutions and proposed action plan); and
- Everyone leaves with clear expectations of how their reactive problems are going to be addressed along with the required performance for at least the next 24 hours.

### Frontline Problem Solving Process

There are many Root Cause Analysis problem solving processes in the marketplace however the key (as discovered by Toyota many years ago) is to find one that can be used by all people in an organisation rather than just a select few.

CTPM has developed a simple but highly effective 7 Step Frontline Problem Solving Process based on the use of Detailed Problem Definition, Cause & Effect Analysis and Why-Why Analysis that is now being successfully used by many organisations at all levels.



The key to introducing any new process into a workplace is developing an effective implementation process. Often attending a one-day or two-day workshop is a great way to be introduced to a new process, however to learn and gain confidence in a new process you need to successfully work through it at least 3 times. As such, apart from conducting public one-day workshops to introduce the Frontline Problem Solving process, CTPM now offers a very effective in-house **8 week Frontline Problem Solving Development Program** involving a one-day workshop for 3 teams of 5 followed by weekly 1-2 hour team meetings for each team to progressively work through at least 3 recent problems or incidents from their workplace (total of 9 recent problems or incidents) resulting in organisations reporting significant bottom-line gains as their people learn and apply Frontline Problem Solving.

### 8 Week Root Cause Analysis Problem Solving Development Program based on 2 hour meetings each week for each team on the same day

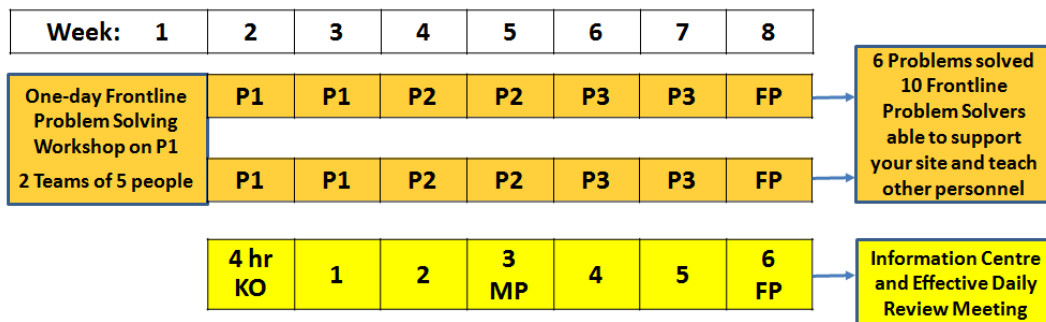
| Week:   | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8   |
|---|----|----|----|----|----|----|----|---|
| One-day Frontline Problem Solving Workshop on P1<br>3 Teams of 5 people | P1 | P1 | P2 | P2 | P3 | P3 | FP | 9 Problems Solved<br>15 Frontline Problem Solvers able to support your site and teach other personnel |
|   | P1 | P1 | P2 | P2 | P3 | P3 | FP |   |
|   | P1 | P1 | P2 | P2 | P3 | P3 | FP |   |

P1 = Problem 1; P2 = Problem 2; P3 = Problem 3; FP = 30 min Final Presentation

An alternative approach used by some sites is to use the same 8 week development approach, however for the first 8 weeks only have 2 teams of 5 working on frontline problem solving while another team of 5 works on developing a more effective daily review process.

## 8 Week Reactive Improvement Development Program

based on 2 hour meetings each week for each team on the same day



P1 = Problem 1; P2 = Problem 2; P3 = Problem 3; FP = 30 min Final Presentation

KO = Kick-off workshop; MP = 30 min Mid-way Presentation to management;

## Finding the Resources for Reactive Improvement

***The challenge for most organisations is how best to allocate limited resources to the required amount of Reactive Improvement***

An effective way to manage limited resources is to establish improvement policies that limit the amount of time allocated for Improvement. For example:

**Frontline Problem Solving:** Problem or Incident needs to have caused an agreed impact on performance. For example, triggers are set and when exceeded a person will be allocated to take responsibility for the Frontline Problem Solving process and report back within an agreed number of working days with proposed Root Cause Solutions and an Action Plan for approval. Basically the nominated person would play detective, visit the scene of the incident and question appropriate people etc. The typical policy for initially regulating the workload could be that a person can only be allocated 1 Frontline Problem at a time and that they have 3 working days to report back the proposed action plan. Obviously once the action plan is agreed, then realistic target dates can be set for the completion and final report back.

**Note:** The triggers would be progressively refined as fewer problems or incidents occur. For example, Toyota initiate a Frontline Problem Solving activity if they have a breakdown on their assembly line of *'greater than 2 minutes'*, whereas most organisations not advanced on their improvement journey may make their starting trigger as *'greater than 1 hour'*. They also allocate time each day for the people allocated to work on a Frontline Problem to have access to a competent facilitator who can assist them if required eg at 1.00pm each day for half-an-hour the facilitator is available in a training room with whiteboard to assist with the process or documenting the outcomes on an A3 Frontline Problem Solving Summary Sheet.

## Examples of Success

At a Food Processing Plant in NSW which established 3 teams of 5 people to work through the 8 week Frontline Problem Solving Development Program focusing on recent problems on their production lines, one of their teams solved a problem which saved the site over **\$110,000 annually**, not to mention the savings from the other problems addressed by the 3 teams.

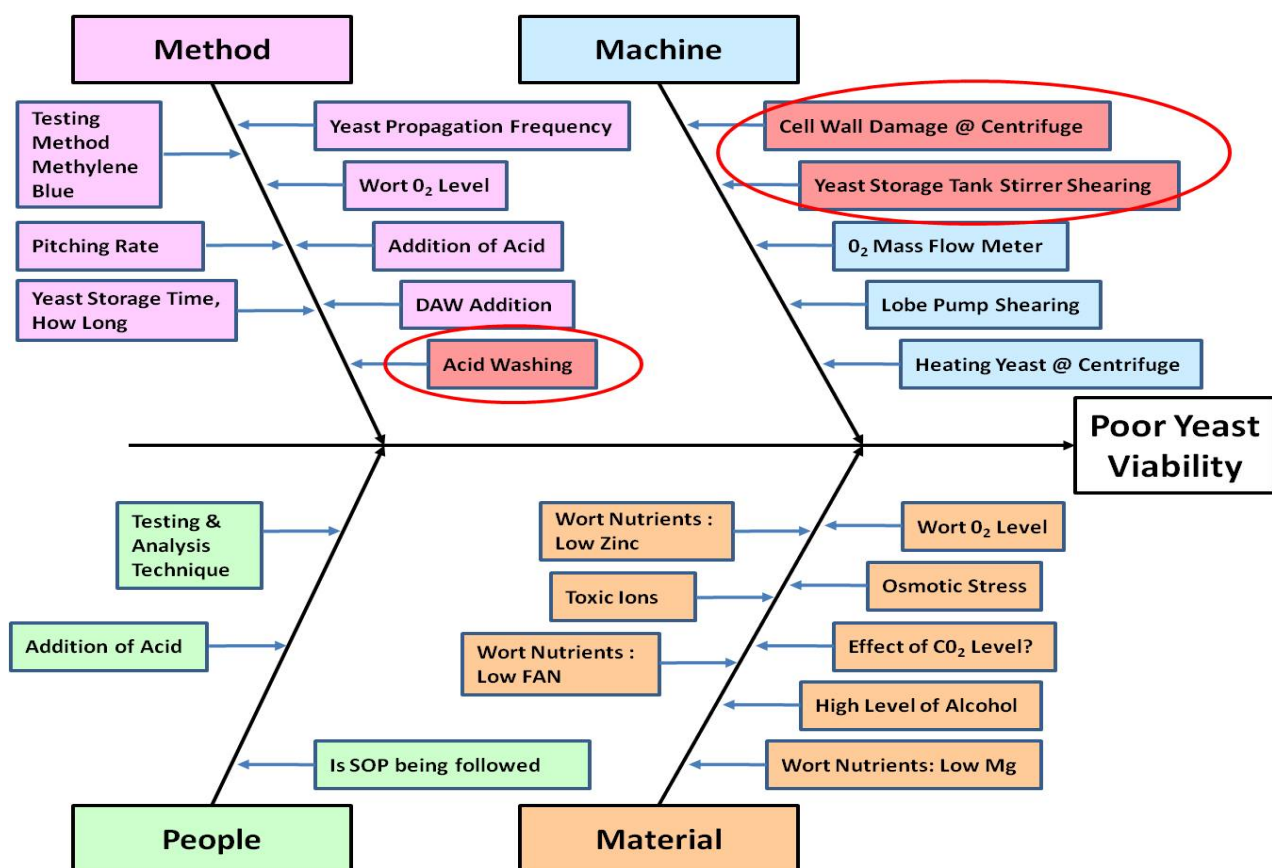
At a Winery in NSW which established 3 teams of 5 people to work through the 8 week Frontline Problem Solving Development Program focusing on recent problems on their bottling lines, were able to identify a number of root causes:

- Labelling problem that caused \$36,900 pa in losses;
- Falling bottles problem at the capper out-feed resulting in an 8% improvement in line efficiency;
- Glue leaking problem at the carton sealer saving 56 minutes per week in downtime; and
- Bottle crash problem on a line that was causing 42 hours downtime annually.

At a Brewery in SA following several incidents of brews being out of specification, they initiated a Frontline Problem Solving team to address yeast viability.

Using CTPM's 7 Step Frontline Problem Solving process, the team focused their energy on getting to the root cause of the problem once and for all. After correctly defining the problem, the team then developed a Cause & Effect diagram as shown in Figure 1, to help identify all the possible causes resulting in poor yeast viability.

**Figure 1 – Cause & Effect Diagram**



Once numerous experiments were conducted and data was analysed both in house and by acknowledge experts, such as the group from Brewing Research International in the UK, the team was then able to identify the following three contributing causes to poor Yeast Viability:

1. Yeast cell wall damage during centrifuging;
2. Shearing caused by the Yeast Storage Stirrer; and
3. Acid washing.

In the end the problem solving process not only identified the causes to the problem but also helped improve their knowledge of Yeast Viability and gain a better understanding of their Yeast Handling Process.

## **Key Learning**

***Unless the focus of your organisations improvement is the on-going development of your people, long term sustainability will become a significant issue.***

The best way to create an environment for the on-going Root Cause Analysis / Frontline Problem Solving development of your people is to have them, once properly trained through the 8 week development program, involved in Root Cause Analysis / Frontline Problem Solving at least 5% of their normal time each week while ever you have events or incidents that impact on achieving your daily performance expectations.

***For more information about CTPM's approach to Reactive Improvement, Daily Review Meetings or Frontline Problem Solving please contact Ross Kennedy at CTPM's Head Office on +61 4226 6184 or visit CTPM's web page at [www.ctpm.org.au](http://www.ctpm.org.au)***