

Outline of Presentation

5S versus Work Area Management

1. Understanding the Differences
2. Defining the Benefits
3. Impact on Sustainability
4. Making it Happen
5. Key Learnings



5S

5S is the name of a workplace organization method that uses a list of five Japanese words:

From Wikipedia, the free encyclopedia

‘a systematic method of industrial housekeeping and organisation for the workplace’

Japanese Words *		Meaning	Activity	Alternate English Words
S1	Seiri	Organisation	Clearing Up	Sort
S2	Seiton	Orderliness	Organising	Set in Order / Straighten
S3	Seiso	Cleanliness	Cleaning	Shine
S4	Seiketsu	Standardising	Standardising	Standardise
S5	Shitsuke	Self Discipline	Training & Discipline	Sustain

** Each word refers to a specific principle or set of established rules of organisation and housekeeping*

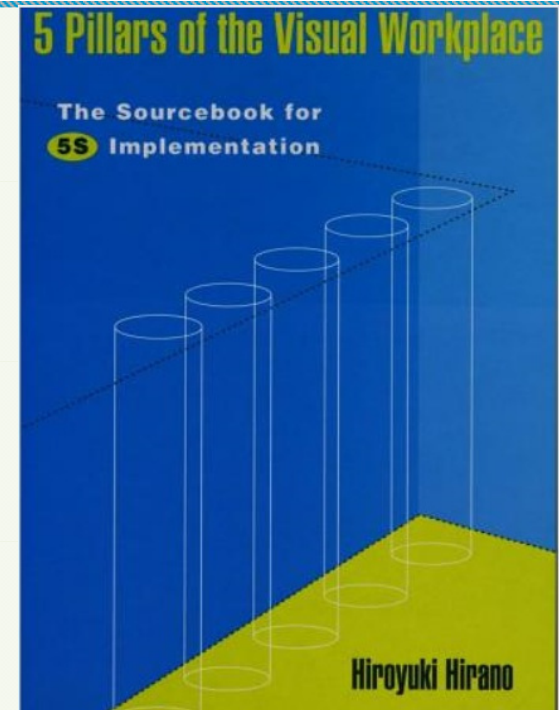
5S

5 Pillars of the Visual Workplace

The Sourcebook for 5S Implementation

Hiroiyuki Hirano

1990 Japan / 1995 USA



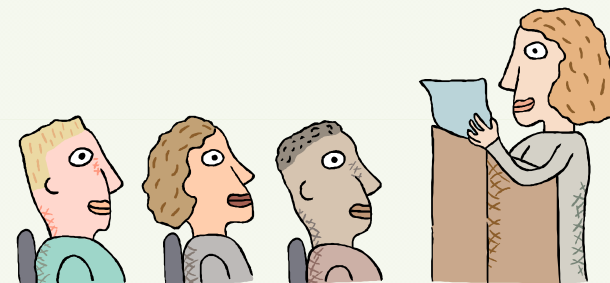
Behind all workplace successes and failures are the 5S's

*The 5S's are the foundation upon which we lay other
improvement-related blocks*

As such we find many sites commence their Lean improvements with 5S



Ask the Audience



Work Area Management

Work Area + Equipment = Workplace

**Work Area
Management**

+

**Operator
Equipment
Management**

=

**Perfect
Workplace**

*Zero Breakdowns
Zero Quality Problems
Zero Accidents or Incidents*

Supported by Cross-functional Teams

Work Area Management

Why split up the **Work Area** from the **Equipment**?

Learning:

If we make a mistake with the Work Area it normally doesn't stop Production

If we make a mistake with the Equipment it will often lead to a Production loss

*Hence 5S thinking applied to the Work Area is a good starting point to develop the **discipline** required to tackle the equipment*

Work Area Management

Benefits of starting with the Work Area first

Fixing up the Work Area can often be done by the people working in the area

Helps develop a greater understanding of some of the 7 wastes such as unnecessary motion & movement or excessive transporting

Fixing up the Equipment often requires a lot of Maintenance support

Other Challenges found in the Workplace

Apart from creating a workplace where everything is orderly, neat and tidy

There is also the need to:

- Establish the discipline to follow agreed standards within the workplace so that everything remains orderly, neat and tidy?
- Standardise Work within each crew and most importantly across shifts to identify problems at the earliest possible time?
- Improve communication across shifts to rapidly share learnings?

Labour is very expensive – we need to get the most out of our people

Key Differences between 5S and Work Area Management

Work Area Management is 5S plus a strong focus on:

- Developing the discipline to follow standards
- Standardising Work within each crew and across shifts
- Improving communication across shifts

*As well as contributing to create synergistic Area Based Teams
so as to address:*

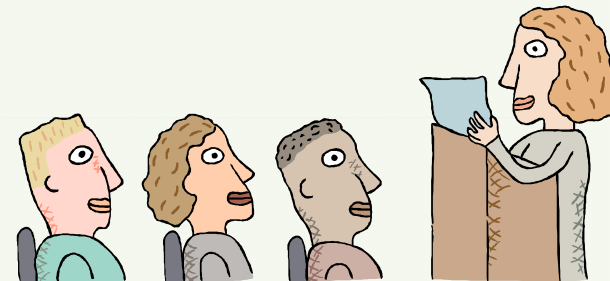
Labour is very expensive – we need to get the most out of our people

Impact on Sustainability

What is required to ensure sustainability?



Ask the Audience



Impact on Sustainability

What is required to ensure sustainability?

1. Ownership
2. Inductive Approach to Improvement
3. On-going Improvement with further challenges

Impact on Sustainability

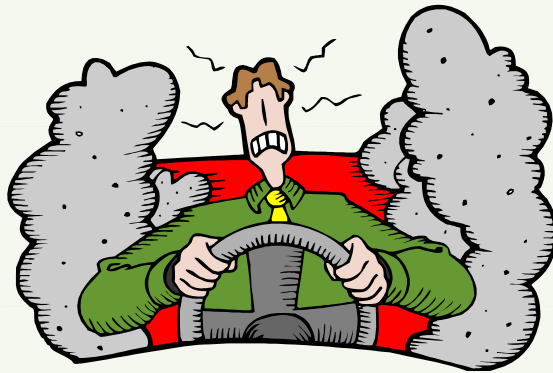
Simple Concept – but how do we apply it so it sustains?

It is about Ownership

Company Ute

vs

Managers Car



**Driven by everyone
Owned by no-one**



Perceived Ownership

Is there any difference in the running costs, performance and the resale value of these vehicles?

Impact on Sustainability

Simple Concept – but how do we apply it so its sustains?

It is about selecting the right approach

Deductive



Best Solution
↓
PUSH
Implementation

Inductive



Many Solutions
↓
PULL
Culture Change

2 Approaches to Health Improvement

Deductive approach to Health Improvement

You feel unwell so go to Doctor

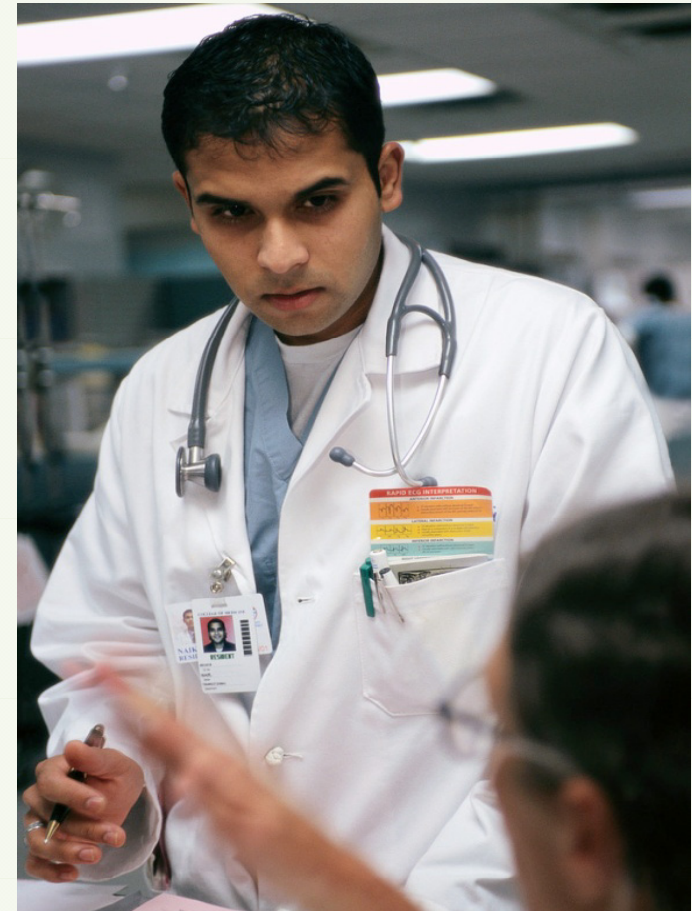
Doctor plays Detective (Deductive) and asks lots of questions

Gets tests done

Concludes – Got High Blood Pressure

Best Solution – take Tablet every day

Tells me I will have stroke if not taken
(Pushes solution onto me)



2 Approaches to Health Improvement

Inductive approach to Health Improvement

Have High Blood Pressure

Learn that this is caused by poor diet, smoking, too much alcohol, being overweight, lack of exercise

Realise can't just do one thing, need to address all causes

What's in it for me?

See benefit in not being on blood pressure tablets and having side effects

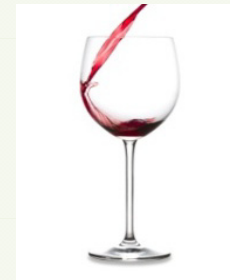
Want to stay healthy and enjoy the grand children



Good Diet



No Smoking



**Cut back
on Wine**



Lose Weight



**Regular
Exercise**

Impact on Sustainability

Simple Concept – but how do we apply it so it sustains?

It is about selecting the right approach

Inductive Approach – an on-going review of the workplace by everyone so as to identify, rectify and ultimately avoid anything that is not right recognising there are *Many Solutions*

Pull Culture Change – addressing the *what's in it for me* through *emotive questions*, that promote and encourage everyone to be responsible and accountable for workplace improvements.

However, you need to establish Ownership first!

Impact on Sustainability

Simple Concept – but how do we apply it so its sustains?

It is about selecting the right approach

Deductive

Problem Solving



Best Solution



PUSH

Implementation

Inductive

Visual Workplace

Prevention At Source



Many Solutions

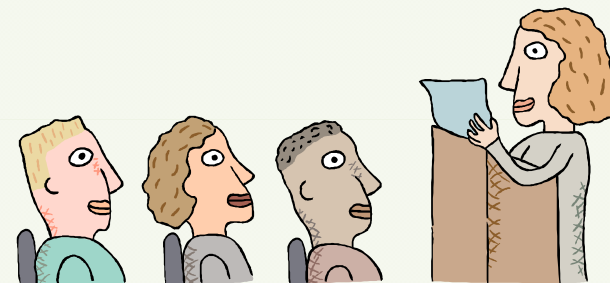


PULL

Culture Change



Ask the Audience



Impact on Sustainability

Simple Concept – but how do we apply it so it sustains?

It is about on-going improvement with further challenges

Link WAM or 5S to further improvement activities eg Operator Equipment Management which spans 2-3 years

Use 12-14 week cycles to re-invigorate improvement activities

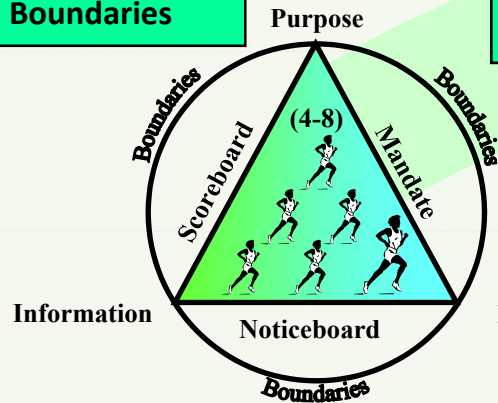
Ensure a robust team self evaluation process supported by a regular management compliance assessment

Making it Happen

Preparation for Work Area Management or 5S:

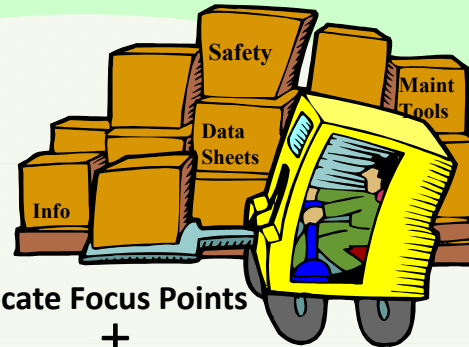
- Ensure there is regular time (suggest 1-2 hours per week or 2.5% – 5% per shift) available for improvement activity
- Establish flexible Area Based Teams (4-8) with designated Team Leaders with allocated Improvement Areas to ensure strong ownership
- Allocate designated support staff (Maintenance, Quality, Facilitation, Mentoring) to each Area Based Team
- Provide a prescriptive structured process for the teams to follow
- Allocate dedicated weekly time for the improvement activity eg 30 min meeting and 1.5 hr doing

1. Confirm Mandate & Boundaries



2. Form Team & Scope Activities

3. Clear-up Area



Allocate Focus Points

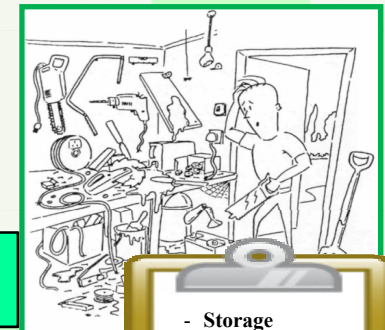
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Generate TPM³ Improvement Sheets

4. Identify Requirements for Area



5. Identify Place for Everything in Area



"A place for Everything & Everything in its place"

Work Area Management (WAM) Process

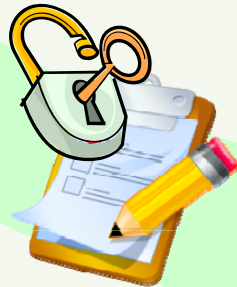
10. Communicate Results & Share Learnings



9. Self-Assess Achievements & Team Skills



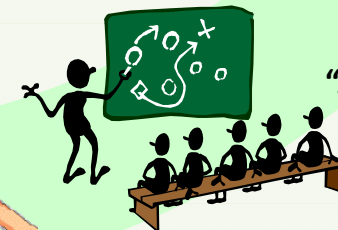
8. Set Standards & Procedures



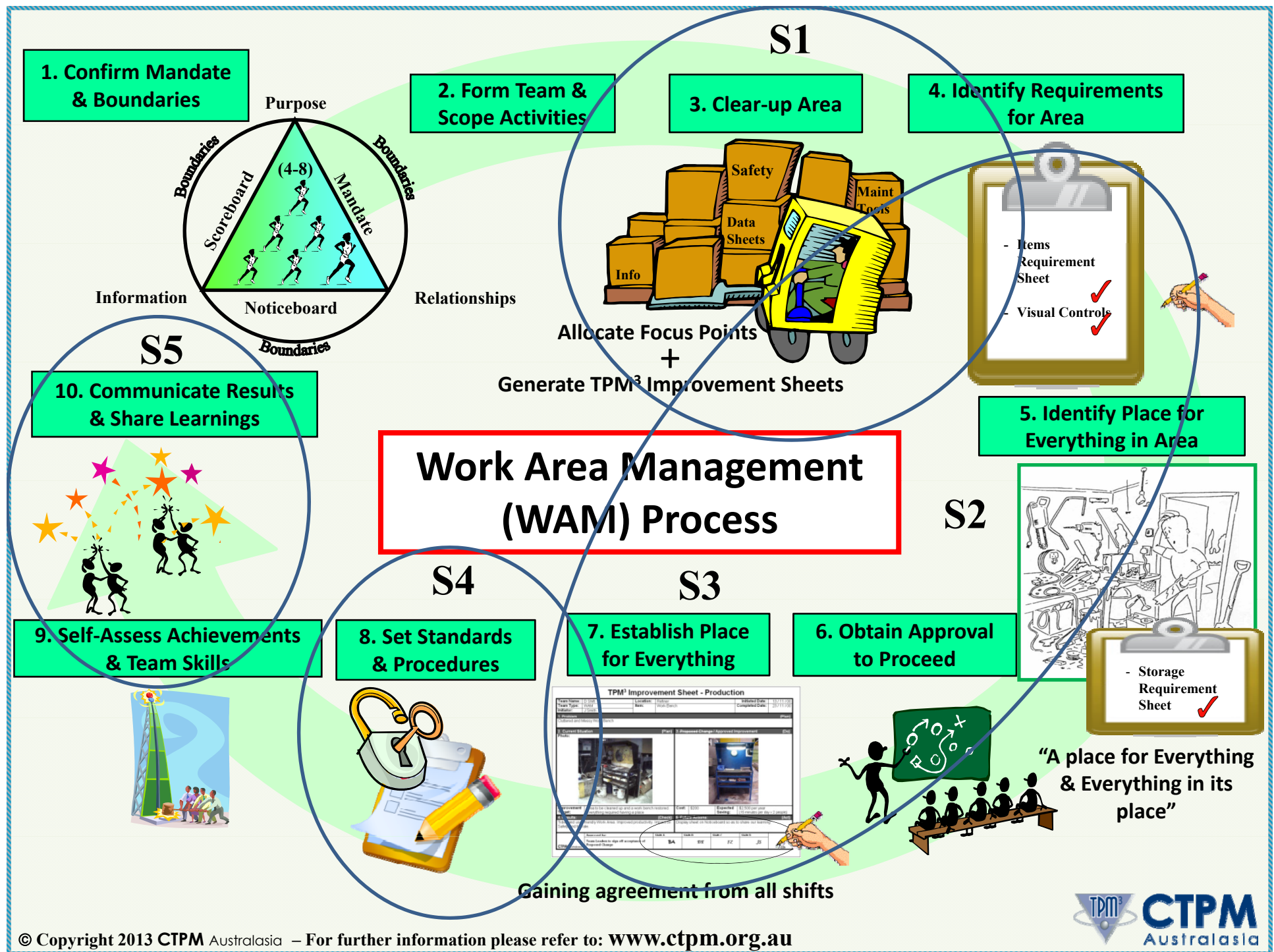
7. Establish Place for Everything

TPM ³ Improvement Sheet - Production			
Item Name	Location	Assigned Date	Completed Date
Item 1	Location 1	Assigned Date	Completed Date
Item 2	Location 2	Assigned Date	Completed Date
Item 3	Location 3	Assigned Date	Completed Date
Item 4	Location 4	Assigned Date	Completed Date
Item 5	Location 5	Assigned Date	Completed Date
Item 6	Location 6	Assigned Date	Completed Date
Item 7	Location 7	Assigned Date	Completed Date
Item 8	Location 8	Assigned Date	Completed Date
Item 9	Location 9	Assigned Date	Completed Date
Item 10	Location 10	Assigned Date	Completed Date

6. Obtain Approval to Proceed

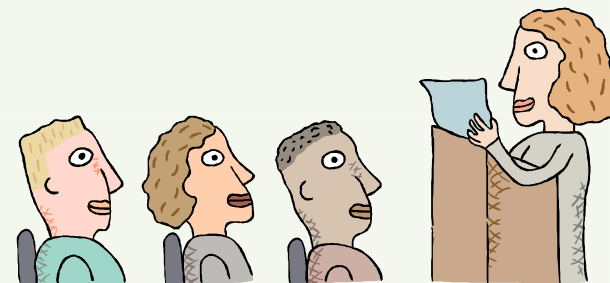


Gaining agreement from all shifts





Ask the Audience



TPM³ Improvement Sheet

Team Name:	Night Owls	Location:	Refiner	Initiated Date:	13 / 11 / 00
Team Type:	WAM	Item:	Work Bench	Completed Date:	
Initiator:	J Smith				

1. Problem (Plan)

Cluttered and Messy Work Bench

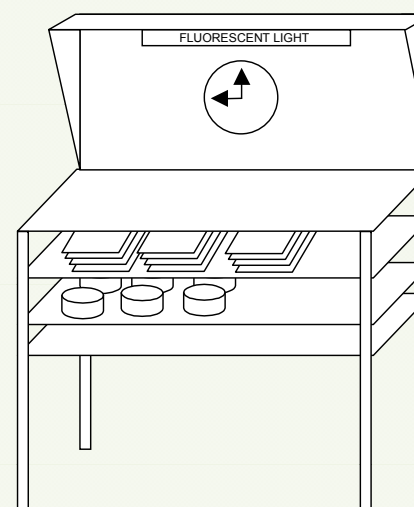
2. Current Situation (Plan)

Photo:



3. Proposed Change / Approved Improvement (Do)

Sketch / Photo:



Improvement Target: Area to be cleaned up and a work bench restored. Everything required having a place

Expected Cost: \$200

Expected Saving: \$2,500 per year
(15 minutes per day x 2 people)

4. Results: (Check)

Actual Cost:	
Actual Savings:	

5. Future Actions: (Act)

CTPM Australasia	Approved by:	TL - Shift A	TL - Shift B	TL - Shift C	TL - Shift D	LT Member
	Discuss with team then sign off acceptance of Proposed Change	BA	DE	FZ	JS	PG

Example of WAM Standard

Subject: Cleaning Equipment Location Standard

Area of Use / Location: Line 1 Up-ender West Side

Purpose: To ensure cleaning equipment is stored correctly for easy access



Cleaning Equipment not
returned to correct location



Cleaning Equipment Stored
Correctly



Date Created:		Created by:		Version:		Reference Number:	
Last Version Date:		Amended by:				Approved by:	

Training Record: Completed Training in this Procedure

Team Member Name	Team Member Signature	Trainer: T/L Signature	Team Member Name	Team Member Signature	Trainer: T/L Signature

Note: *If multi-shift situation then provision may be required to allow all Team Leaders from all shifts to sign-off agreement to the standard on behalf of their crews*

Example of a WAM Procedure

WAM Procedure - Extruder Area

Insert Diagram or Photo showing boundaries of Extruder Area and location of each task by number

#	WAM Tasks		Frequency	Responsibility	Standard Required
	What to do	How to do it	When to do it	Who to do it	
1	Check the 3 fire extinguishers are in place and charged	Check that pressure gauge is in green area	Start of Shift	Extruder Operator	Fire Ex Standard WAM - 001
2	Ensure Rubbish Bins are emptied and put back in correct place	Advise cleaner if not completed by 9.00am on Dayshift	First 2 hours of dayshift	Extruder Operator	Rubbish Bins Standard WAM - 002
3	Store Changeover Parts correctly on the 3 designated Racks	Place all parts on colour coded racks	Immediately after Changeover	Extruder Operator	CO Parts Standard WAM - 003
4	Put changeover tools away after use	Place tools on shadow board in correct location	Immediately after Changeover	Extruder Operator	CO Tools Standard WAM - 004
5	Empty start-up bins and put back in correct place	Advise forklift driver to replace	Immediately after Changeover	Extruder Operator	Start-up Bin Standard WAM - 005
6	Clean Floor Area	Vacuum then Mop Floor Area	If spillage occurs	Extruder Operator	Floor Area Standard WAM - 006
7	Complete WAM Compliance Checklist	Walk around area to verify everything is in its place	Last hour of shift	Extruder Operator	As per WAM standards in Area
8	Tidy Up Work Bench and put everything back in correct place	Leave in agreed standard	End of Shift	Extruder Operator	Bench Standard WAM - 007

Date Created:		Created by:		Version:		Reference Number:	
Last Version Date:		Amended by:				Approved by:	

Training Record: Completed Training in this Procedure

Team Member Name	Team Member Signature	Trainer: Team Leader Signature	Team Member Name	Team Member Signature	Trainer: Team Leader Signature

Key Learnings (1)



- 1. If necessary create regular weekly time for 5S or WAM through Cross-functional Team improvement activity**
- 2. Establish ownership in the workplace with properly structured Area Based Teams**
- 3. Use a structured stepped process spanning 12-14 week cycles**

Key Learnings (2)



4. If area being addressed requires a longer timeframe it is better to break the area up into milestones of 12-14 weeks and acknowledge and celebrate each milestone
5. Each team's activities should be broken up into 2 parts (determining what needs to be done, and doing it) with a mid-way presentation to gain agreement and a final presentation to capture learnings and acknowledge success
6. It is the responsibility of Site Management (Leadership Team) to ensure all teams are successful – they achieve their mandate

Conclusion

5S versus Work Area Management

The most successful sites are those that have fun making things happen



Question Time