

Outline of Presentation

Maintenance Excellence Management

1. Role of MEM in the Operations Excellence journey
2. Importance of Clear Vision & Strategy for Maintenance Excellence
3. Why Time Lost should be the initial 'driver' for MEM
4. Making it Happen
5. Key Learning

Before

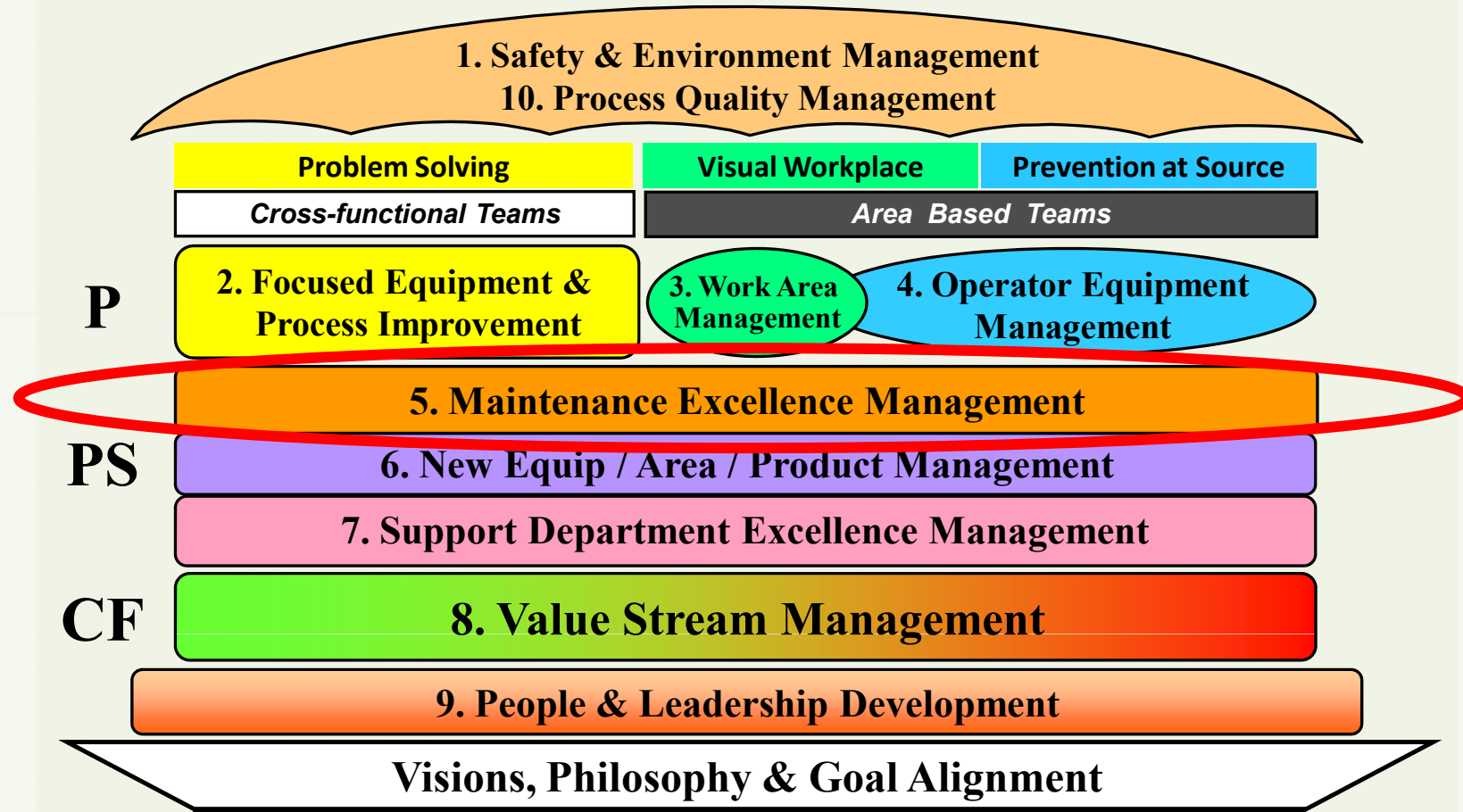


After



1. Role of MEM in the Operations Excellence journey

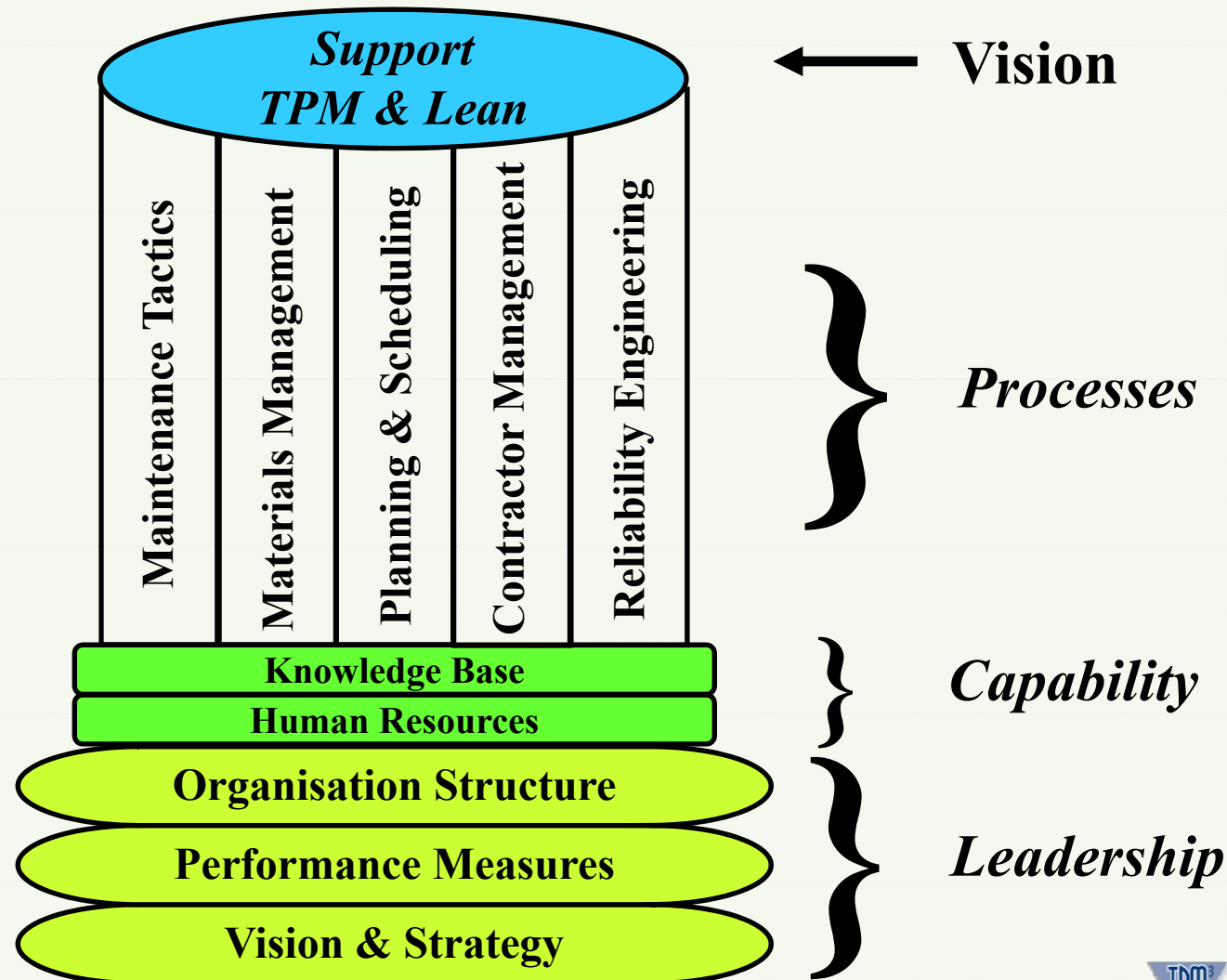
TPM³ Framework for TPM & Lean *incorporating 10 Improvement Activities supported by the Leadership Base*



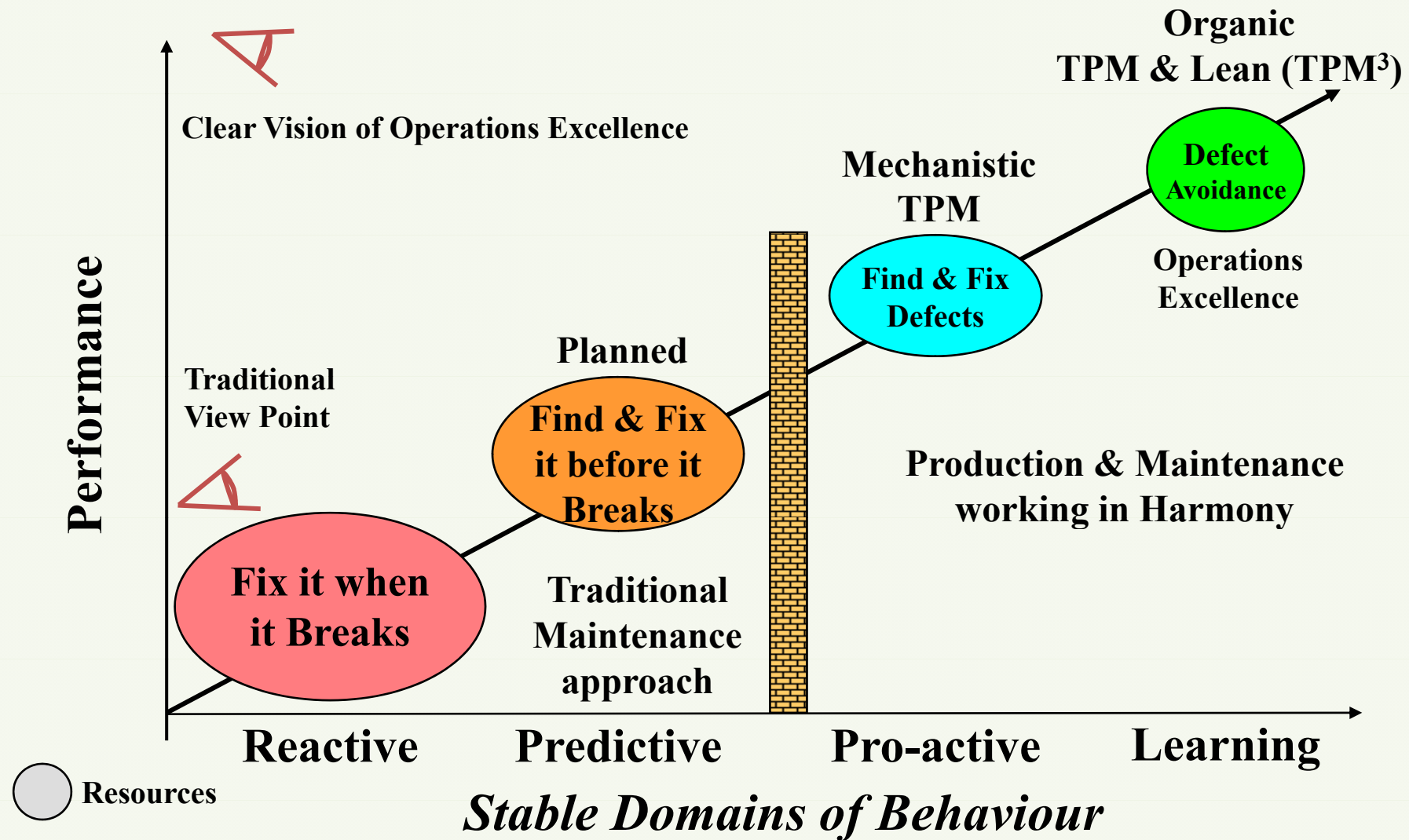
P = Production PS = Production Support CF = Customer Focus Activities

1. Role of MEM in the Operations Excellence journey

The 10 Elements of Maintenance Excellence



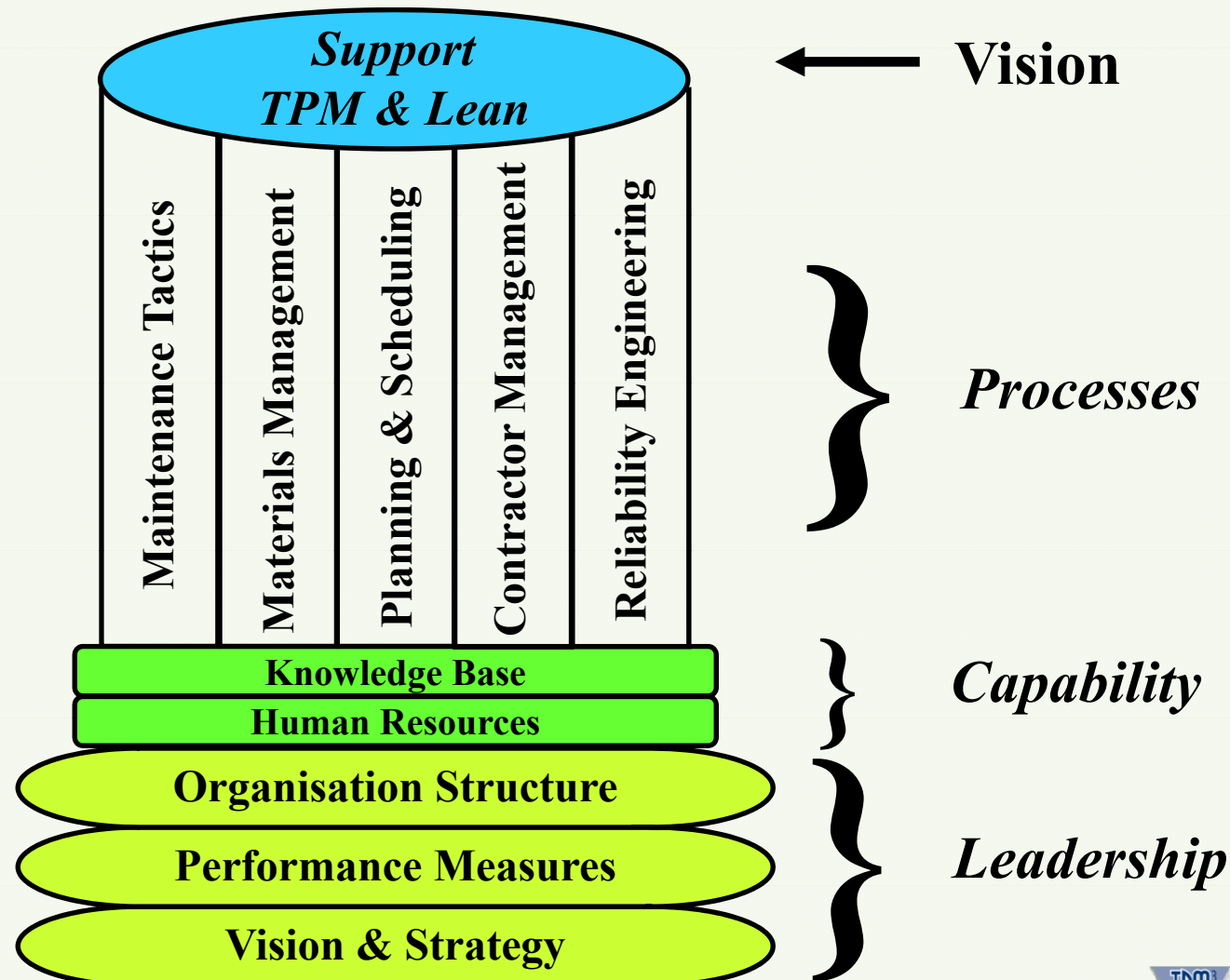
Operations Excellence requires striving for the Stable Domain of Defect Avoidance



Adapted from DuPont, The Manufacturing Game and Winston Ledet

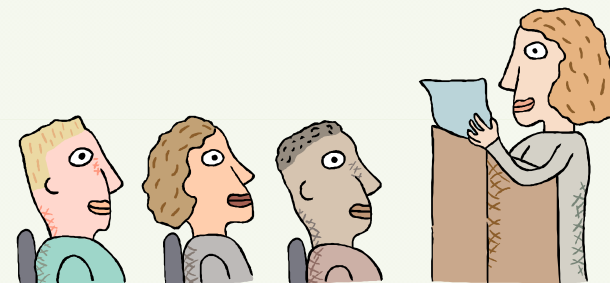
1. Role of MEM in the Operations Excellence journey

The 10 Elements of Maintenance Excellence





Ask the Audience



2. Importance of Clear Vision & Strategy for Maintenance Excellence

Vision:	What do we want to become, and by when?
Strategy:	How are we going to win / achieve our Vision?

Example Vision where Operators impact on Equip Performance

Within 5 years, be externally recognised as a maintenance department that is:

- Effectively supporting the site's journey to Operations Excellence by working with production and support departments to achieve all the world class targets for the site's Key Success Factors / Goal Aligned Performance Measures;
- Ensuring the optimum reliability, maintainability and process capability of all production plant & equipment;
- Maintaining all facilities so they are safe, legal and functional;
- Achieving at least an 80% score for each of the 10 elements on the Maintenance Excellence Management Self-Assessment Survey

2. Importance of Clear Vision & Strategy for Maintenance Excellence

Vision:	What do we want to become, and by when?
Strategy:	How are we going to win / achieve our Vision?

Example Strategy where Operators impact on Equip Performance

- A. Support Production to implement TPM & Lean (TPM³)
- B. Reduce Time Lost by Maintenance Personnel
- C. Improve the 10 Elements of Maintenance Excellence Mgmt

A. Support Production to implement TPM & Lean (TPM³)

TPM is about 'Prevention at Source' for Equipment

Eg: fix damaged grease lines rather than failed bearings

However Toyota was faced with 3 Challenges - How do we:

- Train the operators to know what to look for
- Change the equipment so it easy for operators to find the problems
- Create a maintenance support capability that can respond to small problems and issues identified by the operators

Hence TPM was developed based on a number of integrated activities

B. Reduce Time Lost by Maintenance Personnel

Analysing Time Lost by Maintenance Personnel

Based on last week (or a recent typical week)

Please estimate how much of your time gets lost for the week by the following:

#	Possible Causes for Time Lost	Hrs / Wk	Comments
1	Not being given a clear explanation of what has happened when called		
2	Tools not being immediately available when required		
3	Technical information not readily available when required		
4	Spare parts not immediately available or easy to access		
5	Maintenance consumables not immediately available or easy to access		
6	Slow retrieval of information from computer system or manual records		
7	Slow entering of information into computer system or manual records		
8	Lack of operator assistance at breakdowns		
9	Responding to incorrect process adjustments by operators		
10	Any other issues		
	Total Time Lost for the week:		
	Total Time Worked for the week:		
	% Time Lost for the week:		

B. Reduce Time Lost by Maintenance Personnel

Analysing Time Lost by Maintenance Personnel

Survey Results of all Maintenance Wages Personnel based on a typical recent week

	'Time Lost' Analysis (% Time Lost of a typical week)	Current	Vision
1	Not being given a clear explanation of what has happened when called	7.3%	
2	Tools not being immediately available when required	5.6%	
3	Technical information not readily available when required	2.4%	
4	Spare parts not immediately available or easy to access	3.9%	
5	Maintenance consumables not immediately available or easy to access	2.4%	
6	Slow retrieval of information from computer system or manual records	1.6%	
7	Slow entering of information into computer system or manual records	3.7%	
8	Lack of operator assistance at breakdowns	2.2%	
9	Responding to incorrect process adjustments by operators	4.1%	
10	Any other issues	2.3%	
	Totals	35.6%	

B. Reduce Time Lost by Maintenance Personnel

Analysing Time Lost by Maintenance Personnel

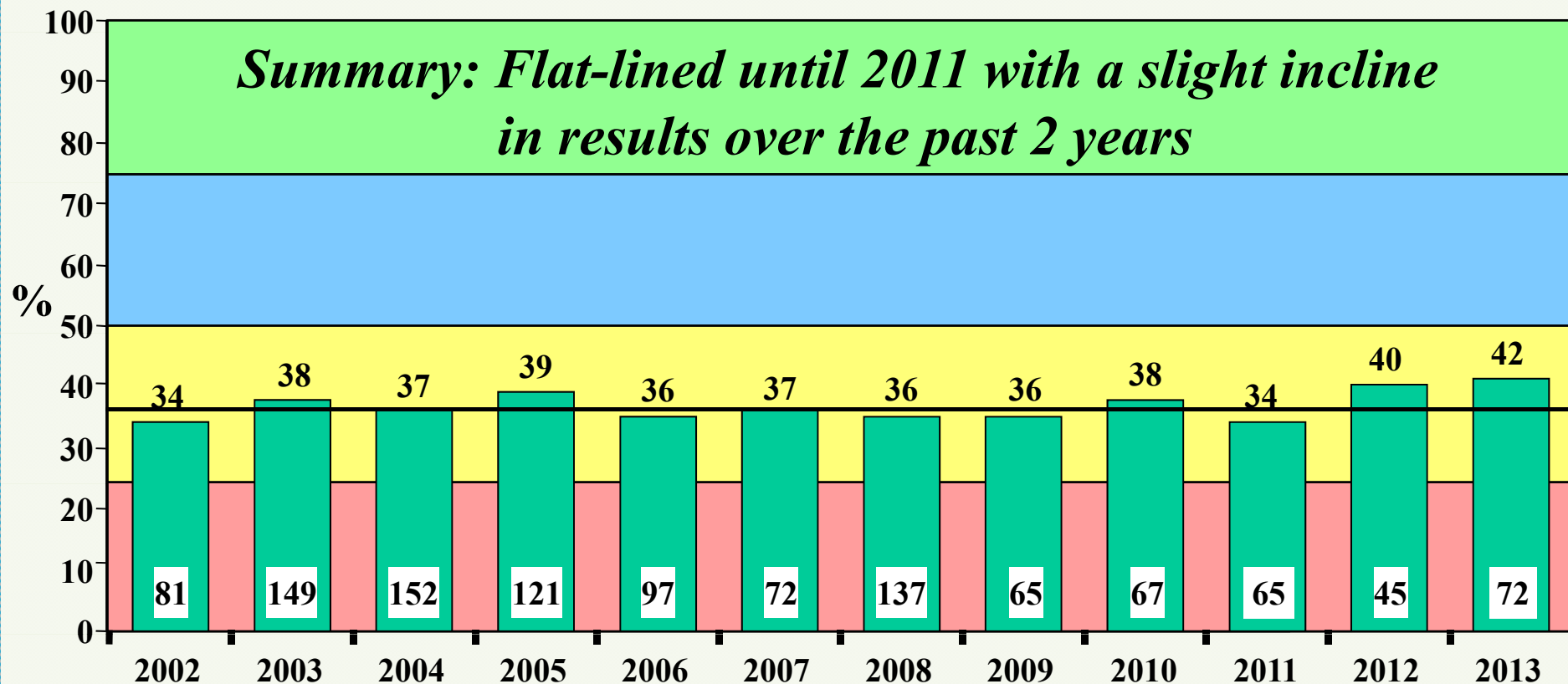
Survey Results of all Maintenance Wages Personnel based on a typical recent week

	'Time Lost' Analysis (% Time Lost of a typical week)	Current	Vision
1	Not being given a clear explanation of what has happened when called	7.3%	0.5%
2	Tools not being immediately available when required	5.6%	0.5%
3	Technical information not readily available when required	2.4%	0.5%
4	Spare parts not immediately available or easy to access	3.9%	0.5%
5	Maintenance consumables not immediately available or easy to access	2.4%	0.5%
6	Slow retrieval of information from computer system or manual records	1.6%	0.5%
7	Slow entering of information into computer system or manual records	3.7%	0.5%
8	Lack of operator assistance at breakdowns	2.2%	0.5%
9	Responding to incorrect process adjustments by operators	4.1%	0.5%
10	Any other issues	2.3%	0.5%
	Totals	35.6%	5.0%

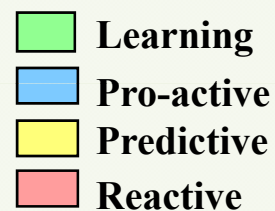
C. Improve the 10 Elements of Maintenance Excellence Mgmt

	1. Vision & Strategy	Innocence	0	1	2	3	4	5	6	7	8	9	10	Excellence
1	We have no documented Maintenance Mission Statement.													We have a documented Maintenance Mission Statement, which supports our site's Improvement Vision for Operations Excellence and is understood by all Maintenance personnel.
2	We have no documented Maintenance Key Success Factors.													We have documented our Maintenance Key Success Factors to support our site's Improvement Vision for Operations Excellence and are understood by all Maintenance personnel
3	We have no documented Maintenance Vision.													We have a documented Maintenance Vision, which supports our site's journey to Operations Excellence and is understood by all Maintenance personnel
4	We have no documented Maintenance Strategy supported by Goals and Action Plans													We have a documented Maintenance Strategy supported by Goals and Action Plans, which supports our sites journey to Operations Excellence and is understood by all Maintenance personnel
5	There is no defined role for Strategic Maintenance / Central Maintenance Group													Our Central Maintenance Group has a documented Strategic Maintenance role that is well understood by all personnel.
6	There is no defined role for Tactical Maintenance / Area Maintenance Groups													Our Area Maintenance Groups have a documented Tactical Maintenance role that is well understood by all personnel.
7	No guiding principles exist to support consistent behaviours of our maintenance personnel													All Maintenance groups have clearly documented and understood guiding principles to support consistent behaviours: eg. We will advise our customers (operators) of the work carried out on their plant & equipment
8	We have no understanding of the process capability of our equipment / machines													We ensure all equipment / machines are process capable rather than just being available when required.
9	Our focus is getting things done rather than trying to engage in formal on-going improvement													We formally improve on an ongoing basis the way we achieve our Preventive / Predictive / Periodic Maintenance Plan.
10	Our focus has nothing to do with trying to assist operators to care for their plant & equipment													We support operators to develop their frontline care abilities and greater understanding of the functioning of their equipment so they can assist us in preventing or diagnosing problems at the earliest possible time.
	Column Totals													
	X Rating	0	1	2	3	4	5	6	7	8	9	10		
	Column Scores													Total Score: / 100

12 Year Survey of the Maintenance Capability of Australian Industry (2002 - 2013)



Average: 37%



12 Year Survey – Maintenance Capability of Australian Industry

2008 Survey Results

Location of Workshops:

Perth, Brisbane, Adelaide, Sydney, Melbourne, Smithfield – NSW, Bomaderry – NSW, Launceston – TAS, Edinburgh – SA, Hobart – TAS, Sarina – QLD, Middle Swan – WA, and Asquith – NSW

Respondents of Survey:

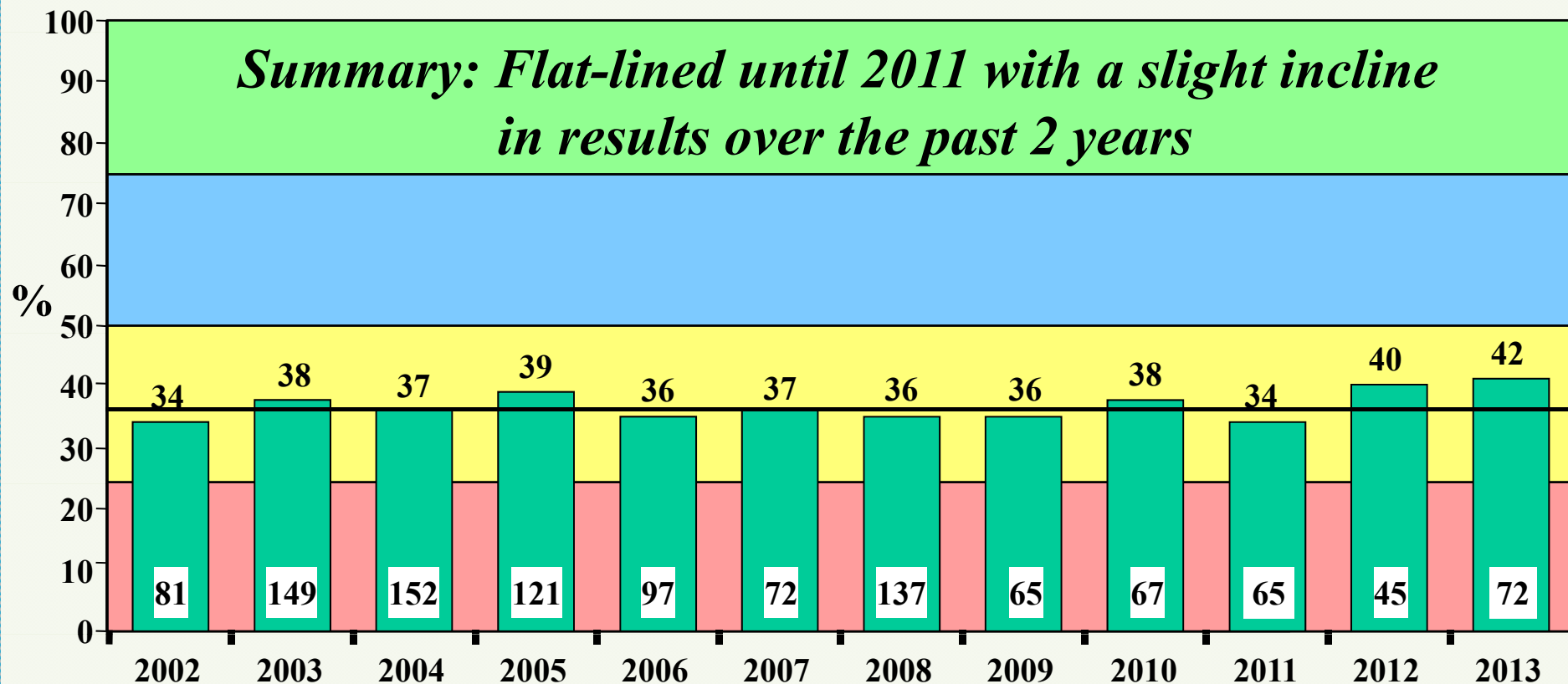
137 from 60 Companies covering 60 Sites

ACL Bearing Company
AGL Power Station
Amcor Fibre Packaging
Amcor Glass
Australian Bakels
Australian Paper – Shoalhaven Mill
BHP Billiton – Olympic Dam
B&D Doors
Boart Longyear – Asia Pacific
Boral Bricks
Boral Quarries
Botanical Resources Australia
Bradken Resources
Carter Holt Harvey – Cartons
Cochlear
Confoil Containers
Coogee Chemicals
Crane Copper Tube
CS Energy
CSR Ethanol

CSR Sugar
Devon Industries
Doral Fused Materials
Fielders Steel Roofing
Houston's Farm
Incat
James Hardie Building Products
Law Castings
Lion Nathan – Castlemaine Perkins
Mader International
McCain Foods
Memcor Australia
Midland Brick Company
National Foods
Noble Metal Processing Australia
Norske Skog
Nylex Automotive
Olex Cables
Phosphate Resources
Rio Tinto

Rondo Building Services
Saizeriya Australia
Sanitarium
SC Johnson & Sons
Simplot Australia
Smorgon Steel Reinforcing
SPC Ardmona
Speedibake
Sugar Australia
Swift Australia
Tasmania Timber Engineering
Tasmanian Alkaloids
Tassal Operations
Temco
Tenneco
Theiss QNP
The Wrigley Company
Tooheys Brewery
Willow Ware Australia
Wilson Transformer Co.

12 Year Survey of the Maintenance Capability of Australian Industry (2002 - 2013)

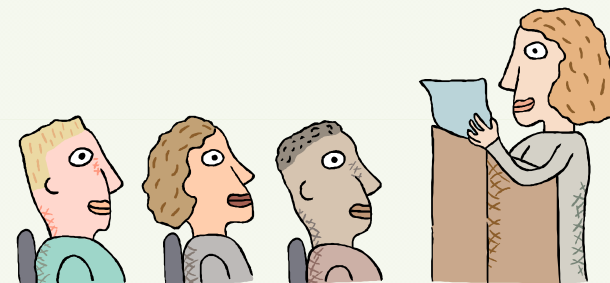


Average: 37%

- Learning
- Pro-active
- Predictive
- Reactive



Ask the Audience



3. Why Time Lost should be the initial 'driver' for MEM

- Addresses frustrations – 'what's in it for me'
- Rapidly frees up resources to support addressing equipment defects found by the operators as they progress Operator Equipment Management
- Developments the improvement skills of your people so they can tackle more challenging problems

4. Making it Happen

Getting Started on your Maintenance Excellence Management Journey

- Conduct one-day Maintenance Excellence Management (MEM) Awareness workshop* incorporating the Maintenance Self Assessment Survey (MSAS);
- Establish the Maintenance Excellence Leadership Team (MELT);
- Conduct MEM Introduction Strategy workshop (typically 4-5 hrs) for the MELT to review the MSAS results, set long term targets and plan for the first cycle of MEM activities.

**all Maintenance personnel including permanent contractors and all Site Leadership Team members*

5. Key Learning



- 1. Use Self-Assessment Tools to engage your Maintenance Personnel so they see the need for improvement**
- 2. Initially focus on Time Lost as any improvement will free up resources and remove frustrations**
- 3. Ensure all improvement teams are successful – remember success breeds success**
- 4. Use a structured stepped process with cycles spanning no longer than 12-14 weeks**

Final Messages

Unless the focus of your organisation's improvement journey is the on-going development of all your people through both Cross-functional Teams and Area Based Teams, your quest to achieve and sustain Operations Excellence will become a dream rather than reality.

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

How can we help?

www.ctpm.org.au

OPERATIONS EXCELLENCE "Live it, don't Dream it"

Getting TPM & Lean to Work

in an Australasian Workplace
covering Manufacturing, Process, Mining & Utilities

**Properly implemented...
TPM engages your people
LEAN transforms your business**

**Without engaged people, your
transformation will not sustain**

Have your improvement initiatives stalled or taking too long?
Are the road blocks to Operations Excellence just too great?
Are your Team Leaders ineffective and everyone else in the Leadership Chain managing down a level?

This Interactive 2-day Workshop will take the mystery out of integrating all the principles, tools, and concepts from TPM & Lean.

It will cut through all the confusion and provide an approach that sustains in an Australasian workplace environment.

Learn:

- How to engage your people and achieve significant sustained improvement
- A means to integrate your existing improvement activities into a proven pathway that ensures sustained results
- The subtleties of on-going improvement that differentiates the best from the average

Hear:

- Case Studies from sites that have made significant progress in their transformation to Operations Excellence

This workshop is based on over 15 years of hands-on refinement of what is now acknowledged as one of the most comprehensive strategic pathways and frameworks for Operations Excellence.

Presented by Ross Kennedy and the team from CTPM who are currently assisting over 30 sites throughout Australia, New Zealand, Thailand and Indonesia on their journey to Operations Excellence.

Melbourne VIC - 6 & 7 August 2014
Sydney NSW - 27 & 28 August 2014

"A lot was packed into 2 days and represented very good value for the time invested. The program is an ideal and motivational way to unify existing and new improvements and deliver measurable outcomes". Manufacturing Manager, Critairon Manufacturing NZ

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CONTINUOUS
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Question Time



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