

# ISSUE RESOLUTION & ESCALATION

## Training Pack

# Aims and Objectives

## **Target Audience :**

All Operations and Support Management Teams

## **Purpose of Module :**

To understand the need for a consistent root cause problem resolution process which encourages problem solving at every level.

To provide a framework for a common system to be utilised.

## **Aims & Objectives :**

- Explain basic Problem Solving
- Importance of PDCA
- To explain the common framework enough for the team to set one up unsupported

**Duration :** 1.5 hours

**Attendees :** 5-15

# Contents

- **Why do we need an Escalation Process?**
- **Common Approach to All Issues**
- **Problem Solving**
- **Operations Issue Escalation**
- **Change Process Issue Escalation**
- **Quality Issue Escalation**
- **How to Complete an Issues Sheet**
- **How to Complete an Escalation Strip**

Why do we Need an Escalation Process?

# Why do we need an Escalation Process?

## **WE HAVE**

- **No visibility of actions or ownership.**
- **No formal containment/customer protection.**
- **No monitor of countermeasure effectiveness.**
- **No indication of when issues are closed.**

## **WE WANT**

- **All issue escalation, across all functions and work streams to be addressed in a consistent/standardised manner.**

# Escalation

- **Escalation is a last resort.**
- **Prior to escalation there must be the capability and the capacity to attempt root cause problem solving.**
- **Ownership of the issue must be agreed at whatever level the issue is raised, e.g. by engineer at team level or by EGL at department level.**
- **Progress of issues should be formal review at daily or weekly sessions.**
- **Issues raised should not just be EXTERNAL, i.e. issues that are judged to be “someone else’s fault!”**
- **Communication of progress is critical, particularly to those who raise the issues initially (take them to see escalated strips if necessary).**

# Problem Solving

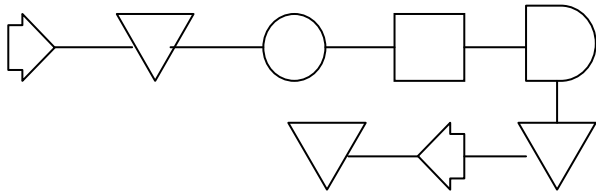


# Analysis of Problems

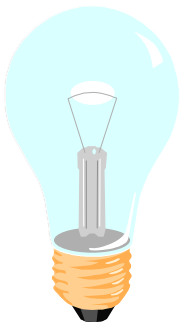
- **Qualitative tools**

- Tools which are used to obtain and structure ideas during the problem solving cycle

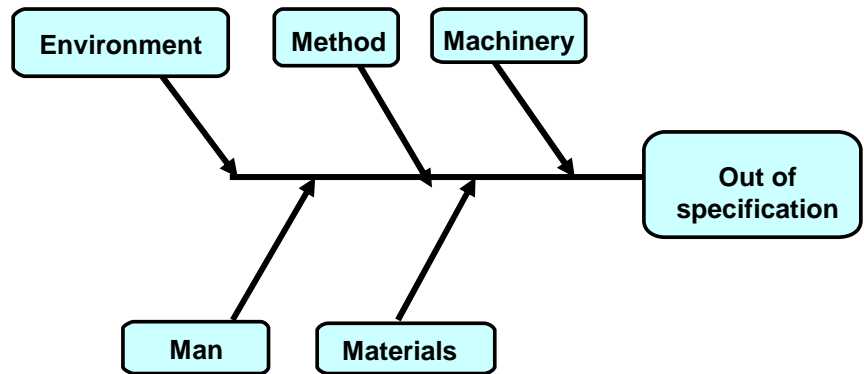
## Flow Chart



## Brain Storming !!!

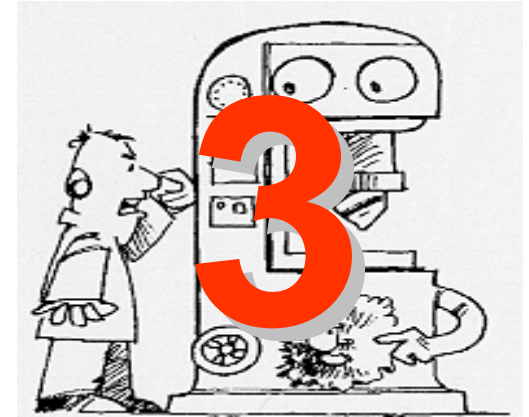
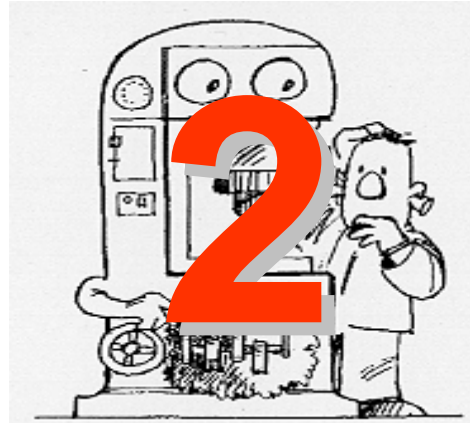
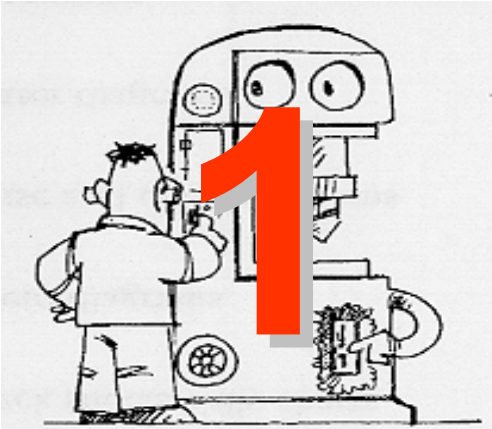


## Cause and Effect Diagram

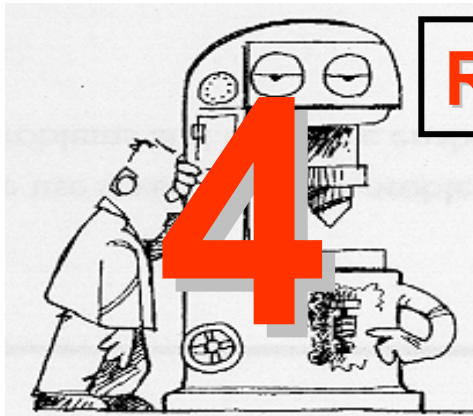


**5 x  
WHY**

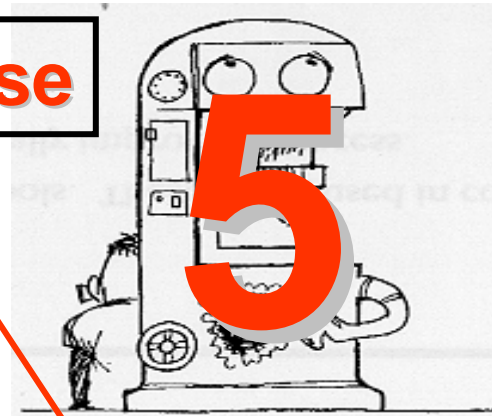
# 5 Why's Example



Q : **WHY** has machine stopped ?    Q : **WHY** overload trip ?    Q : **WHY** Insufficient oil ?  
A : Overload tripped out !    A : Insufficient oil on shaft !    A : Oil pump inefficient !



**Root-cause**



Q : **WHY** is pump not efficient ?  
A : Pump drive shaft worn !

Q : **WHY** is this shaft worn ?  
A : Oil filter blocked with swarf !

# Analysis of Problems

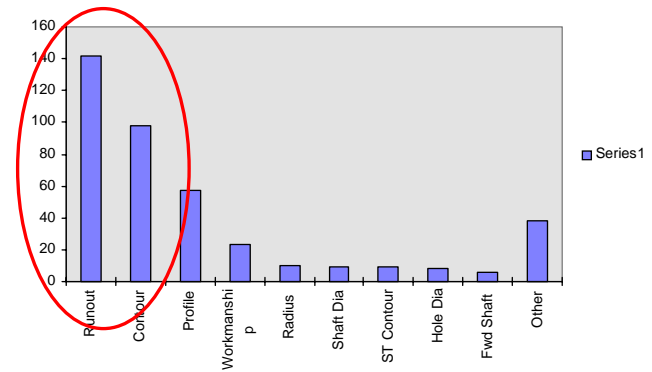
- **Quantitative Tools**

- Tools that are used to gather and analysis numerical data during the problem solving cycle.

## Check Sheets

Defects	Week No.					
Welding				###		
Grinding		###				
Cleaning					###	
Painting						
Packing	###					

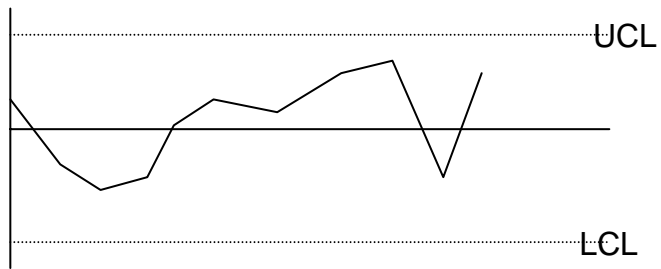
## Pareto



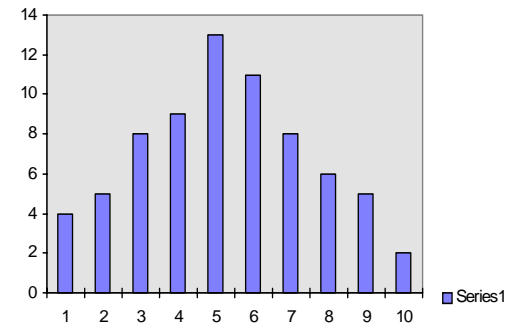
# Analysis of Problems

- Quantitative Tools

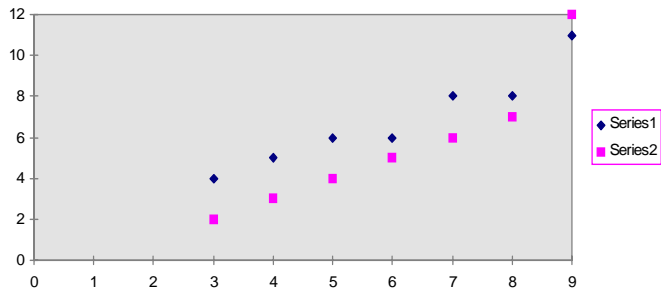
## Control Charts



## Histograms



## Scatter Diagram

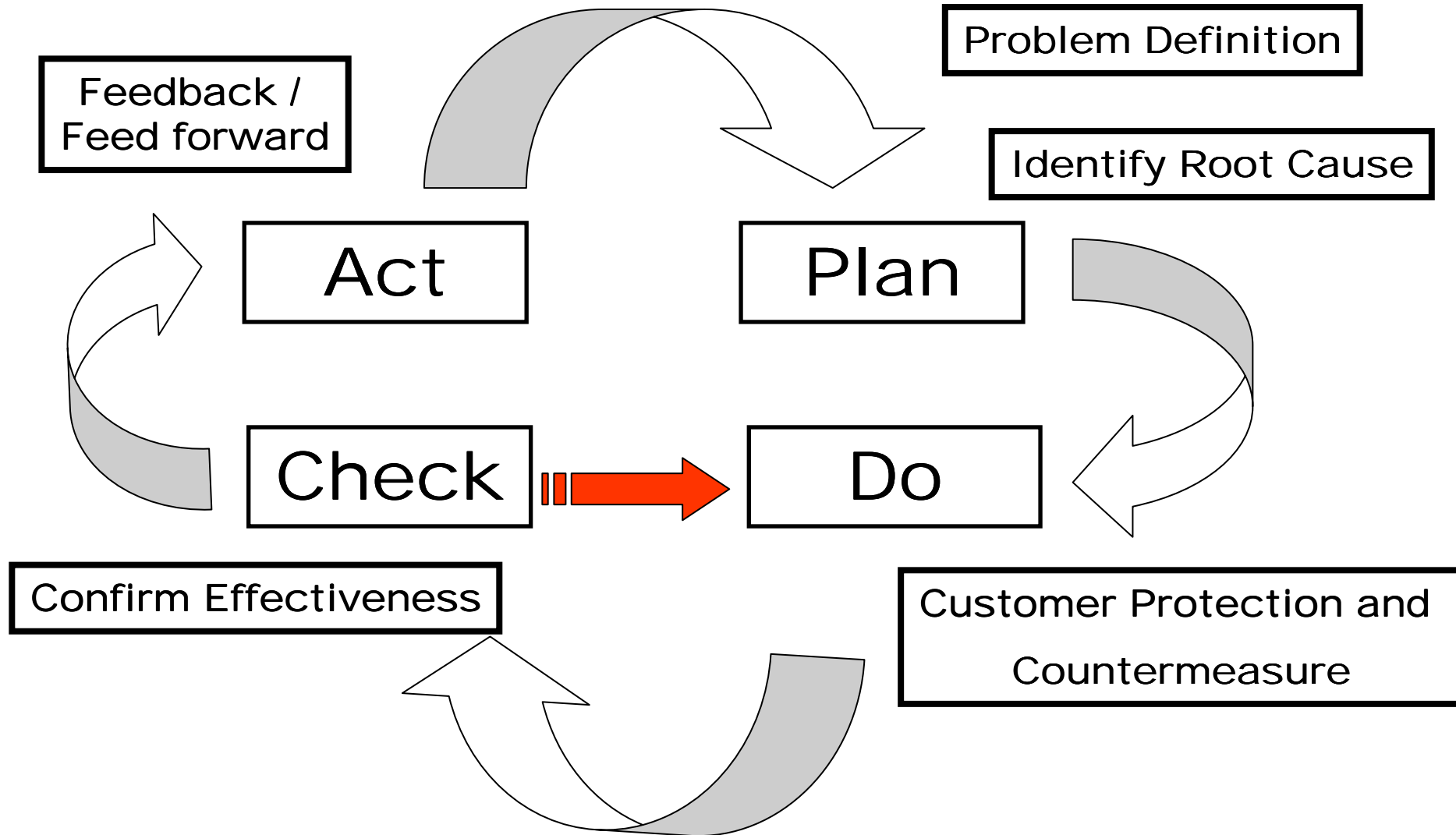


# Problem Solving

## The 5 Principles :-

- **Problem Definition**
- **Identify Root Cause**
- **Customer Protection and Countermeasure(s)**
- **Confirm Effectiveness of Countermeasure**
- **Feedback / Feed forward**

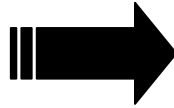
# Problem Solving Cycle



# Issue Escalation

# Issue Escalation

Issue First Raised ?



Issue Identified affecting Ops

Rank Issue

(if required)

**A** Rank

Impacts on next process

T/L, S/L

i.e. Chasing the part via phone, fax, feet or Andon and delivering it late

**B** Rank

Will not impact on next process

Protect Customer (Get Job Going)

A or B

Write on Team Issues Board

Monitor Occurrences (e.g. 4 weeks)

T/L

Occurrences (e.g. 5)

No

Sign-off board

Yes

Problem Solving lead at Team Level

Problem Solved by Team

Yes

Monitor

A P  
C D

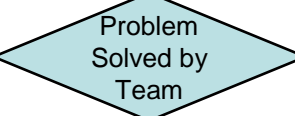
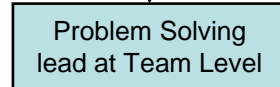
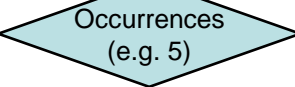
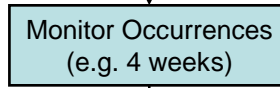
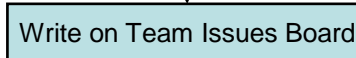
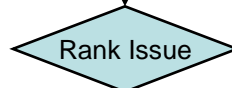
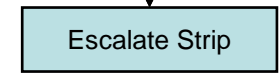
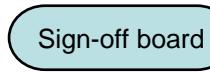
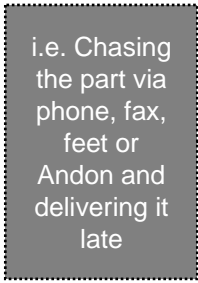
Sign-off board

Successful?

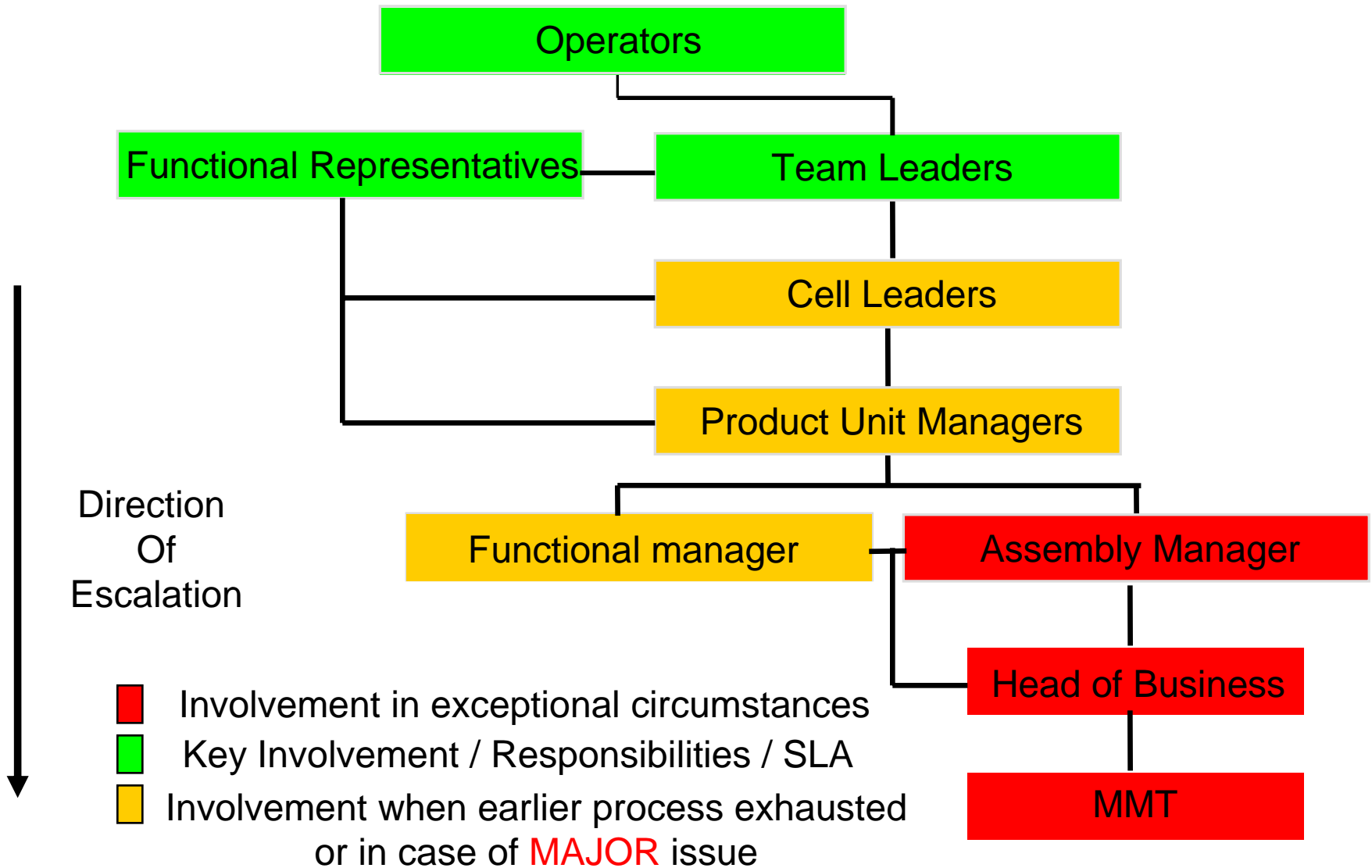
Yes

No  
(Re-Issue or Escalate?)

Escalate Strip



# Stakeholders Involved



# Stakeholders Process

**Operator**  
Raises Any issues to TL

**TL**  
Attempts to address himself firstly if unable raises to escalation sheet. Assigns support owner then calls them to attend board

- They are cause for ANDON signal
- There has been an accident or near miss on section
- There is a repeating cause of disruption
- The issues lead to a concession
- The issue leads to scrap/rework
- The issue impedes Program achievement

**Natural Work Group Function Rep**  
Accepts tel call & attends board with TL & assess issue. Signs sheet, accepts issue & enters countermeasure. Works to resolve issue, if not within remit gives issue back to TL

- If department has no responsibility for the issue hand issue back to production i.e. assigned to wrong area of support.
- Keep Department up to speed with resolution of issue, using status Quadrant on escalation sheet.

**CL**  
communicate any issues to current TL & ensure new ones are recorded during shift. Make sure natural work groups have signed for issues & ensure countermeasure is implemented and check current status. Contact function rep if no action taken to get addressed & invite to IPT to address

- Resolution is not progressing as planned
- A customer protection action must be relayed to opposite shift
- An owner has not visited the board during the shift
- A countermeasure has failed when monitored
- The issue has prevented productivity achievement for the shift
- There has been an accident or near miss on section

**Natural Work Group Function Head**  
Assume overall responsibility for countermeasure & resolution of issue. Attend HOB meeting & ensure review of any strip highlighting help is needed within any function is addressed.

- Attended weekly by HOB, Assembly Manager and Stakeholders from natural work groups.
- To present strips to senior team, seek support and accountability from them.
- Discuss aspects that are appropriate for senior level review.
- Record actions on strip and seek to ensure review of the Escalation strip outside of the meeting

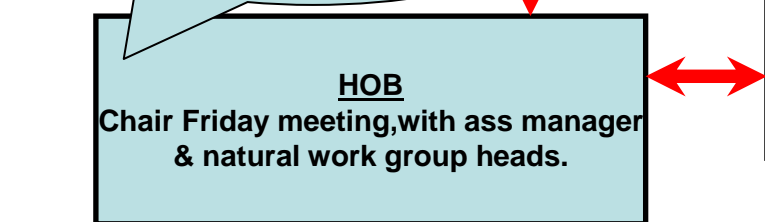
**Pum**  
Hold weekly review with function heads/ reps review resolution progress & identify where extra support is needed, tasking functions with this. Determine issues that need escalating to HOB strip meeting

- Counter measures have failed on more than one occasion.
- The issue owner has not visited the board during week
- Implementation dates have been missed on more than one occasion.
- More than 1 shifts productivity has been impeded by the issue.
- An accident has occurred on section.

**Assembly Manager**  
Review with pum and Escalate any strips to HOB meeting. Pin under department responsible on strip board. At meeting seeks review on strip outside meeting.

- An owner has not signed for the issue 2 weeks after it is raised.
- Counter measures have failed on three occasions.
- Timing to implement counter measures have failed on three occasions.
- The Natural Work Group does not have the resource to address the issue satisfactorily.
- At PUMs discretion as to severity of effects.

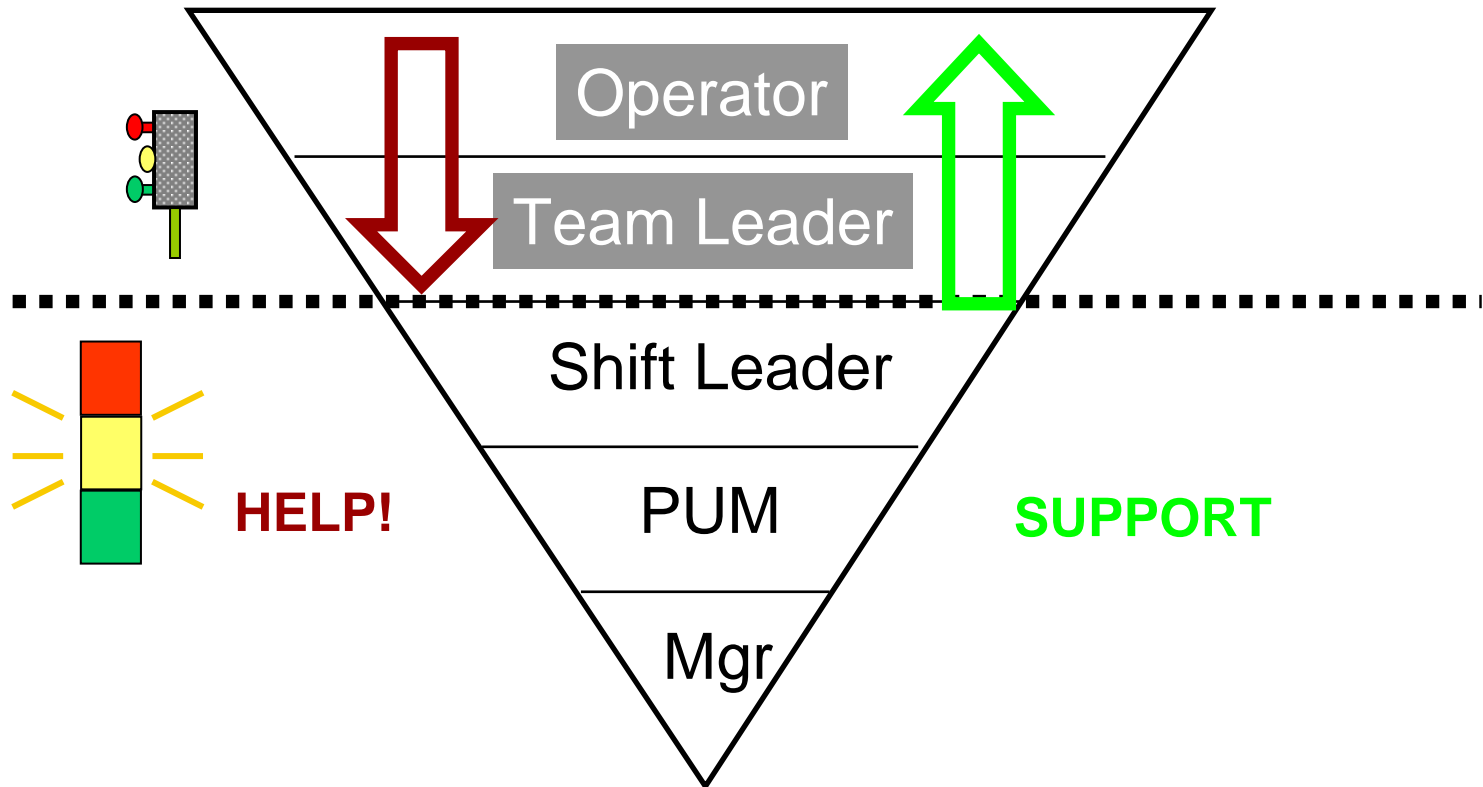
**HOB**  
Chair Friday meeting, with ass manager & natural work group heads.



# *Escalation process*

## **Stage 1**

Once an abnormality is identified it is escalated to the Team Leader to resolve it. The Issue is not escalated beyond this point until the Team Leader has tried everything in his power to resolve the issue. If TL cannot resolve it, then, and only then raise it to Shift Leader.

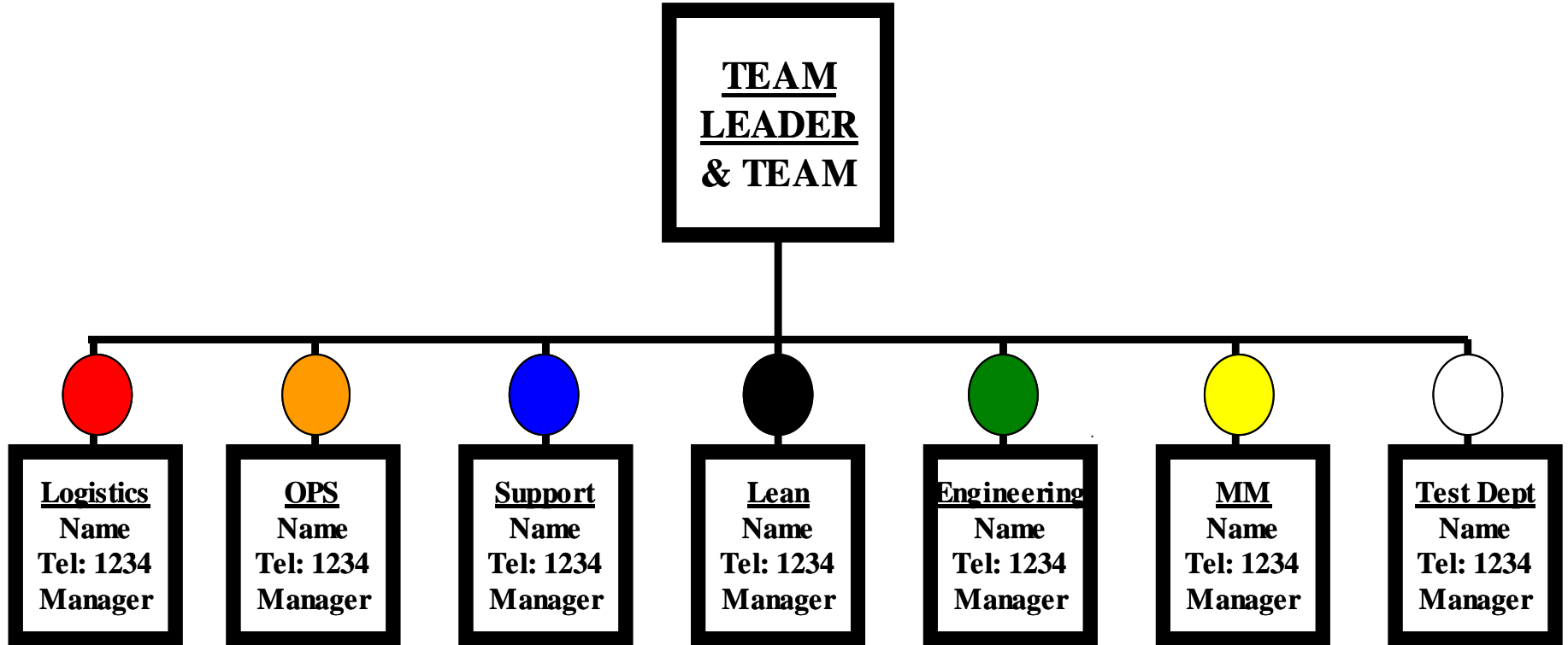


# Protecting the Customer

- **Agree with suppliers an agreed level of support (Service Level Agreements). Might include:-**
  - Response times.
  - Attendance at issue escalation meetings, i.e. IPT, Ops Reviews, etc.
- **Ensure expected levels of service are clearly communicated and visible, i.e. what is acceptable!**
- **Ensure an effective communications system, e.g. “hot lines”, radios, Andon Signals.**
- **Approach suppliers/support with a consistent system, i.e. agreed standards.**
- **Ensure the root cause is understood! Do not pass on issues that you could be unwittingly causing yourself....**

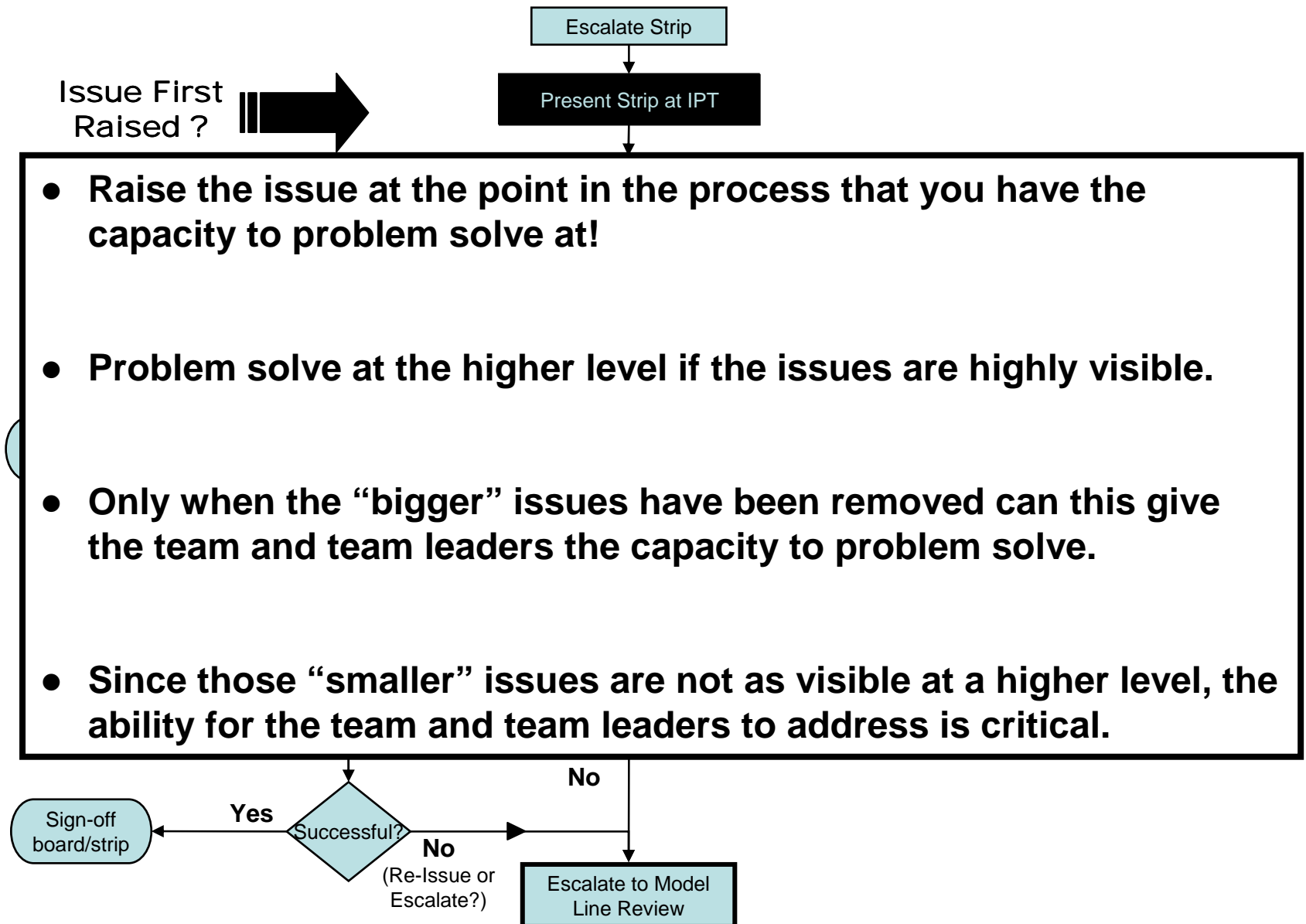
# Natural Workgroups

Fully supported by SLA's



Department contact/Representatives

# Issue Escalation



# Issue Resolution Sheet - Process



=Root Cause Identified



= Countermeasure Established



= Plan in Place, with Timing



= Countermeasure Implemented

## Issues Board

No.	DATE	ISSUE	CUSTOMER PROTECTION	COUNTERMEASURE	RAISED BY	WHO RESP			WHEN Monitor	SIGN OFF
						Name	Dept	Sign		

TEAM LEADER NUMBERS AND DATES THE ISSUE, THIS WILL BE SPECIFIC TO A UNIT

# Issue Resolution Sheet - Process



## Issues Board

No.	DATE	ISSUE	CUSTOMER PROTECTION	COUNTERMEASURE	RAISED BY	WHO RESP			WHEN Monitor	SIGN OFF
						Name	Dept	Sign		
					⊕					
					⊕					
					⊕					

THE ISSUE RAISER ENTERS HIS / HER NAME IN THE RAISED BY BOX

# Issue Resolution Sheet - Process





 = Root Cause Identified

 = Countermeasure Established

 = Plan in Place, with Timing

 = Countermeasure Implemented

## Issues Board

No.	DATE	ISSUE	CUSTOMER PROTECTION	COUNTERMEASURE	RAISED BY	WHO RESP			WHEN Monitor	SIGN OFF
						Name	Dept	Sign		
										
										
										
										

A CUSTOMER PROTECTION IS PUT IN PLACE BY THE TEAM LEADER, ALONG WITH THE NAME OF THE RESPONSIBLE PERSON

# Issue Resolution Sheet - Process





 = Root Cause Identified

 = Countermeasure Established

 = Plan in Place, with Timing

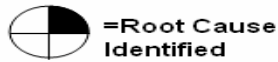
 = Countermeasure Implemented

## Issues Board

No.	DATE	ISSUE	CUSTOMER PROTECTION	COUNTERMEASURE	RAISED BY	WHO RESP			WHEN Monitor	SIGN OFF
						Name	Dept	Sign		
										
										
										
										

THE DEPARTMENT RESPONSIBLE IS IDENTIFIED WITH A NUMBER / COLOUR CODED CIRCLE

# Issue Resolution Sheet - Process



=Root Cause Identified



= Countermeasure Established



= Plan in Place, with Timing



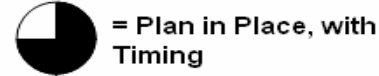
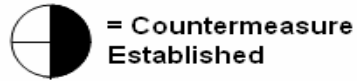
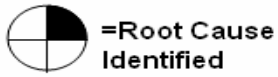
= Countermeasure Implemented

## Issues Board

No.	DATE	ISSUE	CUSTOMER PROTECTION	COUNTERMEASURE	RAISED BY	WHO RESP			WHEN Monitor	SIGN OFF
						Name	Dept	Sign		
					⊕					
					⊕					
					⊕					
					⊕					

THE PERSON RESPONSIBLE IS CALLED TO THE BOARD TO SIGN, ACKNOWLEDGING THE ISSUE AND ACCEPTING RESPONSIBILITY TO RESOLVE

# Issue Resolution Sheet - Process



## Issues Board

No.	DATE	ISSUE	CUSTOMER PROTECTION	COUNTERMEASURE	RAISED BY	WHO RESP			WHEN Monitor	SIGN OFF
						Name	Dept	Sign		
					⊕					
					⊕					
					⊕					

THE PERSON RESPONSIBLE ENTERS THE COUNTERMEASURE TO BE TAKEN. PROGRESS IS TRACKED USING THE STATUS QUADRANT

# Issue Resolution Sheet - Process



=Root Cause Identified



= Countermeasure Established



= Plan in Place, with Timing



= Countermeasure Implemented

Issues Board										
No.	DATE	ISSUE	CUSTOMER PROTECTION	COUNTERMEASURE	RAISED BY	WHO RESP			WHEN Monitor	SIGN OFF
						Name	Dept	Sign		
					⊕					
					⊕					
					⊕					
					⊕					

THE DATE THAT THE COUNTERMEASURE IS TO BE PUT IN PLACE IS ENTERED (OR UNIT No IF ITS AN ENGINEERING CHANGE)

# Issue Resolution Sheet - Process



=Root Cause Identified



= Countermeasure Established



= Plan in Place, with Timing



= Countermeasure Implemented

Issues Board										
No.	DATE	ISSUE	CUSTOMER PROTECTION	COUNTERMEASURE	RAISED BY	WHO RESP			WHEN Monitor	SIGN OFF
						Name	Dept	Sign		

UPON THE DATE ARRIVING, THE PERSON RESPONSIBLE COMPLETES THE TRACKER BOX FOR 5 UNITS GREEN – OK, RED – NOT OK

# Issue Resolution Sheet - Process



=Root Cause Identified



= Countermeasure Established



= Plan in Place, with Timing



= Countermeasure Implemented

Issues Board										
No.	DATE	ISSUE	CUSTOMER PROTECTION	COUNTERMEASURE	RAISED BY	WHO RESP			WHEN Monitor	SIGN OFF
						Name	Dept	Sign		

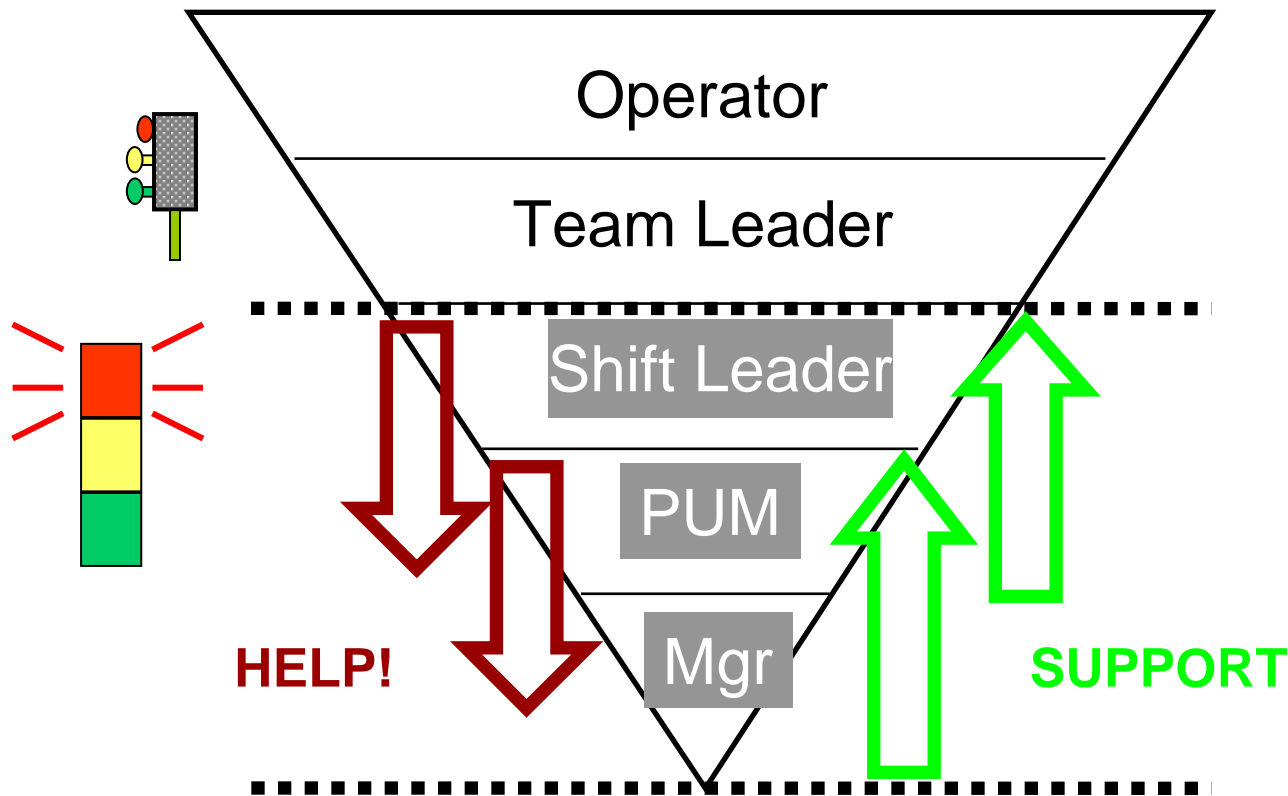
WHEN THE PERSON HAS SATISFACTORILY TRACKED 5 UNITS THEY COMPLETE THE SIGN OFF BOX TO STATE THE RESOLUTION WAS EFFECTIVE, AND HAS PROVED ROBUST

....if the countermeasure fails, the issue is re-raised using the old number, prefixed by R. (R is for REPEAT issue)

# Escalation process

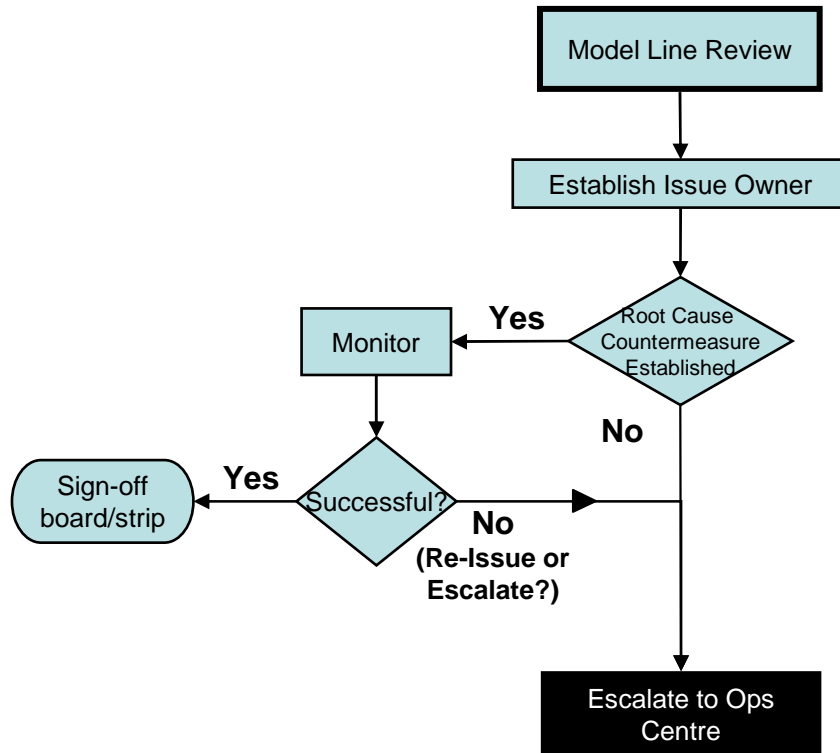
## Stage 2

Once all effort to solve the problem have been exhausted at Team Leader level, the problem is escalated to the highest level to avoid non completion of a Work package or avoidance of program slip.





# Issue Escalation



# Issue Escalation

Escalate to Ops Centre

Issue Escalation Strip										
No.	DATE	ISSUE	CUSTOMER PROTECTION	COUNTERMEASURES	RAISED BY	WHO RESP	WHEN	SIGN OFF		
						Name Dept. Sign	Monitor			
Date Raised on Issues Board ___ / ___ / ___				W / P Number				Issue No. _____		

Monday 10.00am MMTops Review

## Priority Issues :

- Prioritise and ask whether the Ops Review is the right vehicle
- Need ownership / champion
- Added to Issues & Actions Register, RAG status, etc.
- HOBs to ensure communication of status back to team level

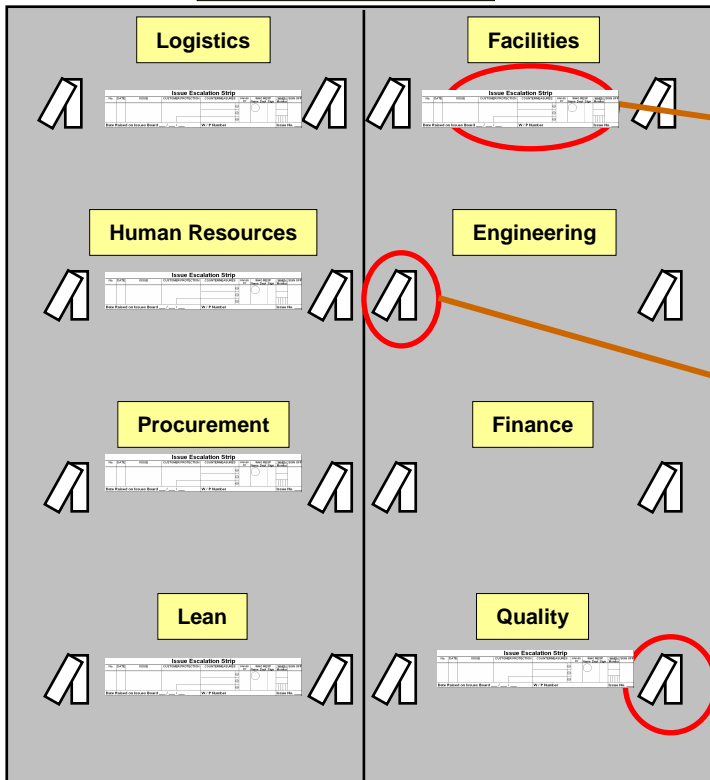
## Outstanding Issues :

- Are owned
- Still open as no countermeasure in place  
(issues at this level could be open for a number of months)

## Closed Issues ? :

- Countermeasure in place
- Being monitored for 5 Units before removed from board
- Closure of issues communicated back to Team level

## Issues Escalation





# Stakeholder responsibilities

The image shows an 'Issues Board' template. At the top, there are four status indicators: 1. Official Cause Identified (circle with checkmark), 2. Countermeasure Acknowledged (circle with checkmark), 3. Plan in Place, with Time (circle with checkmark), and 4. Countermeasure Implemented (circle with checkmark). The table has the following columns: No., DATE, ISSUE, CUSTOMER PROTECTION, COUNTERMEASURE, NUMBER, WHO DEEP, LABEL, and SHIFT OFF. The table is currently empty.

## Shift Leader;

- Ensures that issues from previous shifts are communicated to current T/L
- Ensures that new issues are recorded appropriately during shift
- Ensures that the natural work group owners have signed to accept issues by end of shift.
- Ensures that countermeasures due to be implemented during the current shift are checked for status
- Ensures that issues on monitor are assessed by the T/L on shift
- Reviews status of problems with the Team Leaders daily (5 mins before Pum Go & See)
- Assists teams with issue resolution
- Raises any escalated issues through daily IPT meeting



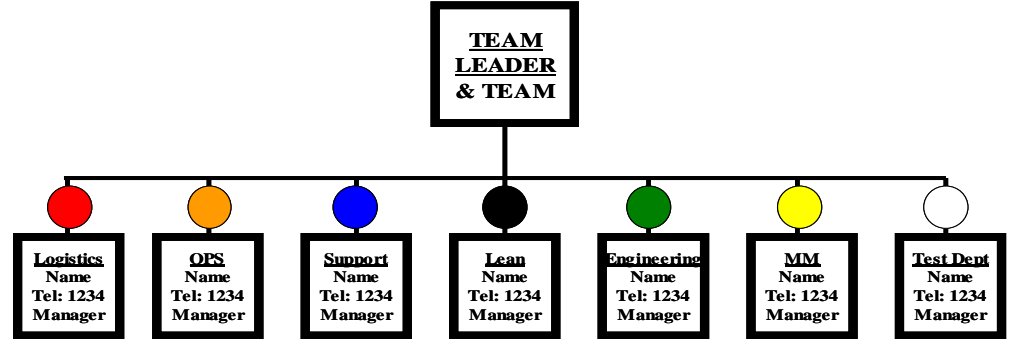
# *Stakeholder responsibilities*

## **The Assembly Manager/HOB**

*Thursday 10.30am*

- Attends weekly 'Strip Meeting' with Head Of Business for all stakeholders in the Natural Workgroup
- Presents 'Escalation Strips' to senior team
- Pins strip under the department responsible on the 'Strip Board'
- Seeks support and accountability from Senior Team
- Does not discuss individual issues, but aspects that are appropriate for senior level review
- Records actions on strip, and seeks review of the 'Escalation Strip' outside of the meeting
- If Non attendance/action take's place by support function then issue may be raised at MMT

# *Stakeholder responsibilities*



## Support Head/Representative of Function ;

- Ensures that a you respond to call to visit department Board in a timely manner I.e. within the shift.  
(or immediately if the issue is urgent)
- Be responsible for the issue by signing the sheet & accepting responsibility and customer protection action.
- Ensures that countermeasures due to be implemented during the current shift are checked for status.
- Reviews actions planned and checks progress with Customer as appropriate. Update the board during shift with customer.
- Rep/Head of function to attend weekly meeting with Pum for department (Friday 8.30am IPT)  
to address any issues with appropriate support where required.
- Head of function to attend weekly HOB meeting(Thursday 1.15pm) on specific Strip issues to discuss aspects that are appropriate for senior level review.

# *Escalation Criteria / process*

## **1. Issues are raised on the board when;**

- There has been an accident or near miss on section
- There is a repeating cause of disruption
- The issues lead to a Defect
- The issue leads to scrap/rework
- The issue impedes Program achievement

## **2. Issues are flagged to Shift leader when;**

- Resolution is not progressing as planned
- A customer protection action must be relayed to opposite shift
- An owner has not visited the board during the shift
- A countermeasure has failed when monitored
- The issue has prevented productivity achievement for the shift
- There has been an accident or near miss on section
- **All attempts to resolve have failed and action is required Urgently - FAST TRACK the issue**

# *Escalation Criteria / process Cont;*

## **3. Issues are raised to PUM Level When;**

- Counter measures have failed on more than one occasion.
- The issue owner has not visited the board during week.
- Implementation dates have been missed on more than one occasion.
- More than 1 shifts productivity has been impeded by the issue.
- An accident has occurred on section.
- **All attempts to resolve have failed and action is required Urgently - FAST TRACK the issue**

## **4. Issues are Now raised at Support Review**

- Support Stakeholders to address any issues Highlighted at this stage.

# *Escalation Criteria / process Cont;*

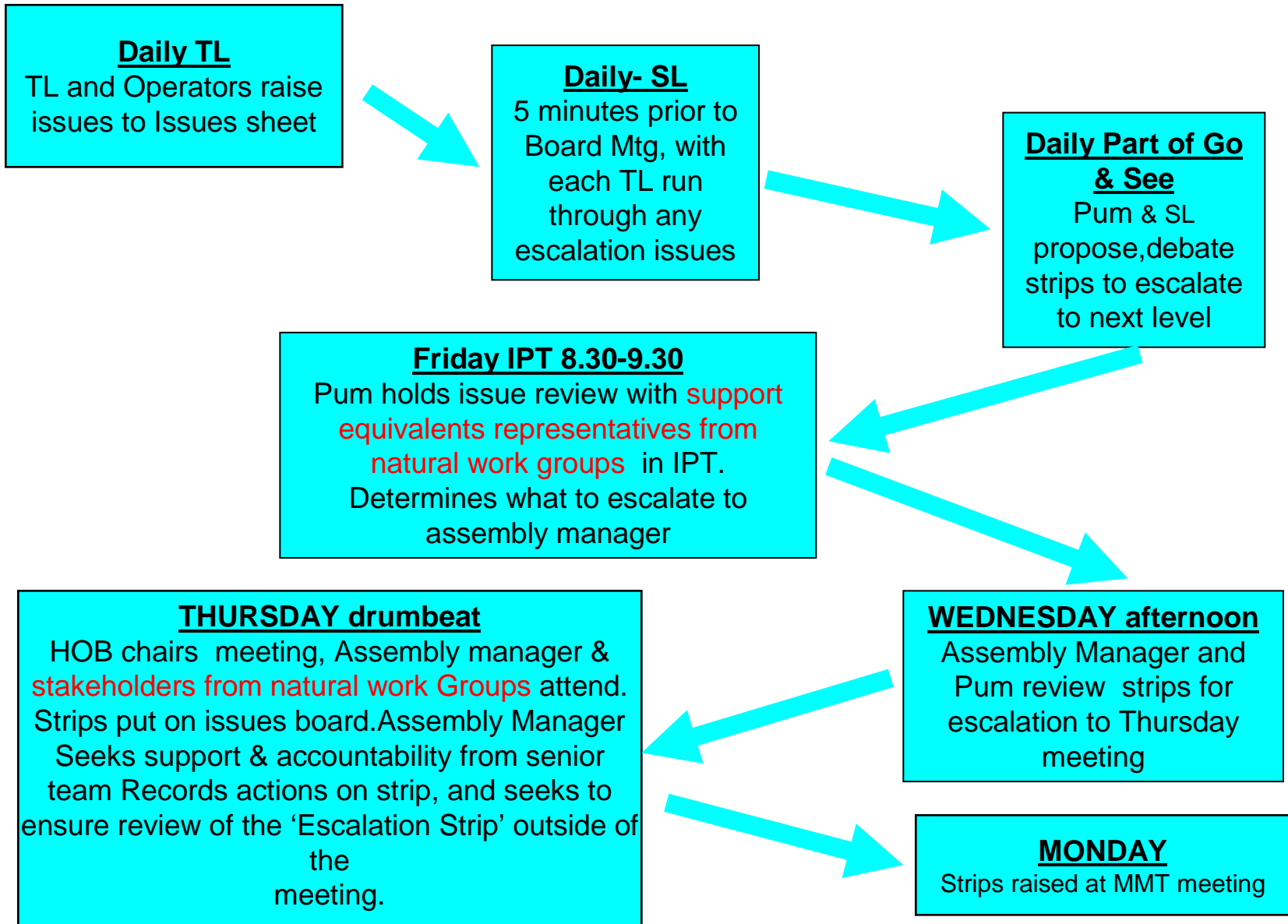
## **5. Issues are Escalated to Assembly Manager when;**

- An owner has not signed for the issue 2 weeks after it is raised.
- Counter measures have failed on three occasions.
- Timing to implement counter measures have failed on three occasions.
- The Natural Work Group does not have the resource to address the issue satisfactorily.
- **All attempts to resolve have failed and action is required Urgently - FAST TRACK the issue**

## **6. Head Of Business (strip) meeting ;**

- Attended weekly by HOB, Assembly Manager and Stakeholders from natural work groups.
- To present strips to senior team, seek support and accountability
- Discuss aspects that are appropriate for senior level review.
- Record actions on strip and seek to ensure review of the Escalation strip outside of the meeting.
- Failure of stakeholder to attend over an issue may cause issue to be raised at Manufacturing Management Team review.(MMT)

# Review Structure for Escalation



# **FAST TRACK Structure for Escalation**

- If an issue arises that requires **URGENT** attention and is obviously outside your scope of authority, raise it verbally with your immediate senior. Then raise it as an issue on the sheet for a follow up and to receive feedback.
- Common Sense **MUST** Prevail !
- If Joe Bloggs breaks his leg in the pit, you wouldn't just write it on the Issues sheet.
- Good verbal communication is essential, the issue escalation process does not replace this.





# How to Complete an Escalation Strip

# Escalation Strip

## Number and Rank

- Rank A, B, (if required)

## Date

- Date escalated strip produced

## Countermeasure

- Identified root cause and resulting countermeasure(s)

## Who Resp

- Who has taken ownership for the issue
- What function is responsible for the countermeasure
- Colour Code/Dept. No, etc.

## Sign Off

- Signed by the customer of the countermeasure
- Only after being monitored for agreed period

Issue Escalation Strip									
No.	DATE	ISSUE	CUSTOMER PROTECTION	COUNTERMEASURES	RAISED BY	WHO RESP		WHEN	SIGN OFF
						Name	Dept	Sign	Monitor
Date Raised on Issues Board					W / P Number		Issue No.		

## Issue

- Description of issue and its impact  
i.e. part not delivered on time

## W/P Number

- The number of the Workpackage where the issue originated

## Monitor

- Tracking the success of a countermeasure
- State unit being measured, i.e. Unit No., days, shifts, etc.
- Mark number of successful periods/Unit

## When

- Planned date for introduction of countermeasure

## Customer Protection

- What can be done to protect the QCDP until a root cause countermeasure is in place?
- What can be done to minimise the impact of an issue?
- What can be done to ensure that potential previous units are not affected?

## Date raised on Issues Board

- Date the issue was first logged, i.e. on team issues board.

## Raised By

- Who originally logged the issue on the Team Board

# Escalation Strip - Back

Ask Why 5 times

•Basic technique to identify the actual root cause

<b>WHY?</b>		<b>WHY?</b>		<b>WHY?</b>		<b>WHY?</b>		<b>WHY?</b>	
<b>Root Cause</b>									
<b>MSNs Checked :</b>									

Root Cause

•Root cause demonstrated through clear process

Customer Protection /  
Containment

•The Unit No. the defect was identified on and all current WIP checked for conformance to standards.

**NOTE:- USE AS A SUMMARY ONLY OF MORE COMPLEX PROBLEMS**

# *STAKEHOLDER REVIEWS*

## *ISSUE REVIEW*

**\_\_Issues are raised on the Escalation Sheet when;**

- **There has been an accident or near miss on section**
- **There is a repeating cause of disruption**
- **The issues lead to a Defect**
- **The issue leads to scrap/rework**
- **The issue impedes Program achievement**

**Frequency- As required**

**Attendance- Team Leader, Operator**

## **DAILY SL,TL REVIEW**

**Issues are flagged to Shift leader when;**

- **Resolution is not progressing as planned.**
- **A customer protection action must be relayed to opposite shift.**
- **An owner has not visited the board during the shift.**
- **A countermeasure has failed when monitored.**
- **The issue has prevented productivity achievement for the shift.**
- **There has been an accident or near miss on section.**

**Frequency- 7.45am Daily**

**Location- PMS Board / IPT meeting**

**Attendance- Shift Leader, Team Leader**

## *DAILY GO & SEE*

**Issues are raised to PUM Level When;**

- **Counter measures have failed on more than one occasion.**
- **The issue owner has not visited the board during week.**
- **Implementation dates have been missed on more than one occasion.**
- **More than 1 shifts productivity has been impeded by the issue.**
- **An accident has occurred on section.**

**Frequency- 7.50am Daily**

**Location- PMS Boards**

**Attendance- Pum, Shift Leader**

## *WEEKLY OPS/SUPPORT REVIEW*

- **Issues are Now raised at Support Review**
- **Support Stakeholders Reps to address any issues with appropriate support where required.**

**Frequency- Friday 8.30-9.30**

**Location- Review Office**

**Attendance- Pum, Shift Leader, Support Representative.**

## WEEKLY MANAGEMENT REVIEW

**Issues are Escalated to Assembly Manager when;**

- **An owner has not signed for the issue 2 weeks after it is raised.**
- **Counter measures have failed on three occasions.**
- **Timing to implement counter measures have failed on three occasions.**
- **The Natural Work Group does not have the resource to address the issue satisfactorily.**
- **At PUM's discretion as to severity of effects. \_\_\_\_\_**

**Frequency- Wednesday 10.30am**

**Location- conference room**

**Attendance- Pum, Assembly Manager**

## WEEKLY HOB REVIEW

### **Head Of Business (strip) meeting ;**

- **Attended weekly by HOB, Assembly Manager and Head Stakeholder from natural work groups.**
- **To present strips to senior team, seek support and accountability from them.**
- **Discuss aspects that are appropriate for senior level review.**
- **Record actions on strip and seek to ensure review of the Escalation strip outside of the meeting.**
- **Failure of stakeholder to attend over an issue may cause issue to be raised at MMT review.**

**Frequency- Thursday 1.15pm**

**Location- conference Room**

**Attendance- HOB, Assembly Manager, Head of Support Function**