Key Performance Indicators - KPI’s
**Target Audience:** Site Management to Team Leaders

**Purpose of Module:** To ensure employees have the skills to quantify impact, and provide timely direction for an individual's contribution (at all levels) towards achieving overall business goals.

**Aims & Objectives:**
- How to define & measure our given business goals
- Why have KPI’s
- How clarity of objectives improves motivation and delivers performance
- Standardised approaches to KPI’s
- How to translate and cascade KPI’s at all levels
- Explain links to Performance Management
Key Performance Indicators

Course Outline

• INTRODUCTION

• WHAT ARE KEY PERFORMANCE INDICATORS?

• CHARACTERISTICS OF A GOOD KPI

• EXAMPLES OF KPI’S

• THE KPI CASCADE PROCESS

• HOW TO CREATE AND MANAGE KPI’S

• SUMMARY
Introductions

- Name
- Department
- Length of service
- Knowledge of Key Performance Indicators
What are KPI’s
WHAT ARE KPI’s FOR?

- TO COMMUNICATE STATUS - ACTUAL v TARGET
  - PLANT LEVEL
  - BUSINESS LEVEL
  - WORK STATION LEVEL

- TO DRIVE IMPROVEMENT BY FACT NOT GUESSWORK

- TO HELP PRIORITISE IMPROVEMENT ACTIVITY

- A CONTINUAL HEALTH CHECK FOR THE BUSINESS

- TO CONNECT THE CUSTOMER TO THE PROCESS
Key Performance Indicators

ESSENTIAL

• IMPORTANT TO THE VIEWER

• VITAL - AFFECTS THE BUSINESS

• CUSTOMER FOCUSED

• DRIVES IMPROVEMENT
Key Performance Indicators

USEFUL

• CURRENT - UP TO DATE

• EASY TO UNDERSTAND

• IMPORTANT AND RELEVANT

• VIEWER CAN CONTRIBUTE
  • HAS A STAKE
  • CAN HAVE AN EFFECT (good and bad)
Key Performance Indicators

IMMEDIATE

- URGENCY / OWNERSHIP
- RESPONSIBILITIES DEFINED
- DYNAMIC IMPROVEMENT PLAN
- AUDIT PROCESS - ACTUAL V’s PLAN
- CLEAR OBJECTIVES
WHAT ARE KPI’s NOT?

- GROUP OF METRICS
  - NOT EVERYTHING WE MEASURE IS A KPI!

- STATISTICS
  - THESE CAN HELP DEFINE KPI’s

- WORK MEASUREMENT

- A TOOL FOR BLAME

- WALL PAPER
Characteristics of Good KPI

- **Dynamic**
  - Well managed - rotate vital few
  - Owned and operated by local team

- **Simple**
  - Easy to update - manual

- **Visual**
  - Located where easy to see
  - Changes jump out at viewer

- **Engaging**
  - Relevant - creates talking point

- **Standard Format**
  - Easy for outsider to understand

- **Feedback Recorded and Acted Upon**
Key Performance Indicators

Business KPI’s

- Safety Performance
- Quality Performance
- Cost Performance
- Delivery Performance
- People Performance
Examples

- Actual Performance Plotted Against Target
- Unambiguous Title
- Visual Indicator of Performance Trend
- Legend Easy To understand
- Target Improvement
Examples

RAG Colour Coding

- **RED**
  - Outside of target with no improvement or deteriorating trend.

- **AMBER**
  - Inside of target but with deteriorating trend.
  - Outside of target but with improving trend.

- **GREEN**
  - Inside of target with improving or level trend.
Examples
Examples

How are we doing against the plan? Are we on target?
Examples

What are we aiming for?

- Supplier 1
- Supplier 2
- Supplier 3
- Supplier 4
- Supplier 5
Examples
Examples
Performance Management Cascade

Step 1 - Team Leaders manage the Key Drivers of performance
• Are we fully manned to complete the workpackages?
• Is overtime under control?
• Are we hitting targets (Minutes to complete Operations)?

Step 2 - Manager holds daily Team Leader review by work package
• Actions timely and focused
• Support given when needed

Stage 1 Jig Board

<table>
<thead>
<tr>
<th></th>
<th>Minutes to complete Op 1</th>
<th>Minutes to complete Op 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td></td>
<td></td>
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<tr>
<td>Feb</td>
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<td>Nov</td>
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<tr>
<td>Dec</td>
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</tbody>
</table>

Step 3 - Assembly Managers review Weekly Performance with Managers.
• Cost accountability introduced. Focus on shift by shift performance.
Step 4 - Head of Business reviews Weekly Performance
• Good informed debate resulting from upward cascade of Team Leaders’ performance
• Countermeasure plans if targets not being met

Step 5 – Senior Management Team reviews Monthly performance
• Senior level escalation plans

Performance Management Cascade
**Performance Management Cascade**

**Step 6 - Site Cost Performance consolidated. Manufacturing Director reviews Factory Manager Performance.**
- Forecasts of cost performance compiled to ensure corrective actions taken to achieve “Budget”.
- Risks & Opportunities monitoring and control.

![Summary - All Categories]

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**Summary - All Categories**

- **Monthly +/-1**
- **Forecast +/- to budget**
- **Cumulative budget**
- **Cumulative actual**

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0 20,000,000 40,000,000 60,000,000 80,000,000 100,000,000 120,000,000 140,000,000 160,000,000 180,000,000 200,000,000

-1,500,000 -1,000,000 -500,000 0 500,000 1,000,000 1,500,000

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

0 20,000,000 40,000,000 60,000,000 80,000,000 100,000,000 120,000,000 140,000,000 160,000,000 180,000,000 200,000,000

-1,500,000 -1,000,000 -500,000 0 500,000 1,000,000 1,500,000
What KPI’s do you think would be applicable to your area
How to Create and Manage KPI’s

- Identify Customers and Suppliers
- Form Improvement Teams
- Create Improvement Plan
- Collect Data
- Train Users
- Develop Format and Review Process
- Monitor Progress To Plan And Take Corrective Action
- Determine Performance Drivers
- Form Team
- Define Local Performance Indicators
- Score & Prioritise KEY Performance Indicators
- Identify owners and users

Continuous Improvement Cycle

PLAN

DO

CHECK

ACT
How to Create and Manage KPI’s

1. Identify Customers and Suppliers
2. Determine Performance Drivers
3. Form Team
4. Define Local Performance Indicators
5. Score & Prioritise KEY Performance Indicators
# How to Create and Manage KPI’s

## Define Local Performance Indicators

<table>
<thead>
<tr>
<th>Score &amp; Prioritise</th>
<th>Ease of recording data</th>
<th>Impact on business</th>
<th>Frequency of occurrence</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Snags/Concessions from Supplier</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>2. Snags/Concessions in Pre &amp; Post</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td>12.5</td>
</tr>
<tr>
<td>3. Tooling Availability</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>4. How are Customer Views of Pre &amp; Post Ops</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>5. No. of Overtime hrs</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>12.5</td>
</tr>
<tr>
<td>6. Lost Time (unplanned work)</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>7. Distance travelled per man</td>
<td>1</td>
<td>5</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>8. Materials handling (1st priority)</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>12.5</td>
</tr>
<tr>
<td>9. Schedule adherence: Start time</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>10. Delivery to site</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>11. Delivery to site</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td>12.5</td>
</tr>
<tr>
<td>12. Certification - concurrent with build</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td>12.5</td>
</tr>
<tr>
<td>13. As &amp; Supply delivery</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>15. Holiday planning</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>12.5</td>
</tr>
<tr>
<td>16. Overtime per person (avg)</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>17. Unplanned absence</td>
<td>2</td>
<td>5</td>
<td>4</td>
<td>12.5</td>
</tr>
<tr>
<td>18. No. of Outsourcing &amp; on for Pre &amp; Post</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>12.5</td>
</tr>
<tr>
<td>19.</td>
<td></td>
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<tr>
<td>20.</td>
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</tr>
</tbody>
</table>

## Score & Prioritise KEY Performance Indicators
How to Create and Manage KPI’s

1. Identify Customers and Suppliers
2. Form Team
3. Determine Performance Drivers
4. Define Local Performance Indicators
5. Identify Owners and Users
6. Score & Prioritise Key Performance Indicators
7. Develop Format and Review Process
Example

LOST HOURS (UNPLANNED WORK) PRE & POST

| Days | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|      | 28 | 29 | 30 | 31 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

Logistics: OSS A
Maintenance: MCC G
Engineering: MSE D
Handling: Shop Support E
Supplier: MCC G
TAC I
Quality: J
Tooling: K
Lean: L
Unplanned Absence: M

Owner: Blue Shift = TW
Red Shift = DJ

Location: X:\Broughton\A340-600\Lean Manufacturing\Stage 00\Std Documents\Lost Hours KPI
How to Create and Manage KPI’s

- Identify Customers and Suppliers
- Determine Performance Drivers
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- Score & Prioritise KEY Performance Indicators
- Identify Owners and Users
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5. Score & Prioritise KEY Performance Indicators
6. Identify Owners and Users
7. Develop Format and Review Process
8. Train Users
9. Collect Data
10. Create Improvement Plan

Additional steps:
- Identify Owners and Users
- Form Team
- Define Local Performance Indicators
- Score & Prioritise KEY Performance Indicators
- Develop Format and Review Process
- Train Users
- Collect Data
- Create Improvement Plan
How to Create and Manage KPI’s

- Identify Customers and Suppliers
- Determine Performance Drivers
- Form Team
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- Train Users
- Collect Data
- Create Improvement Plan
- Form Improvement Teams
- Monitor Progress To Plan And Take Corrective Action
# Typical KPI’s

<table>
<thead>
<tr>
<th><strong>KPI - examples</strong></th>
<th><strong>Target</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quality</strong></td>
<td></td>
</tr>
<tr>
<td>Defects</td>
<td>1 Defects per unit</td>
</tr>
<tr>
<td><em>(Defects per unit)</em></td>
<td></td>
</tr>
<tr>
<td>Errors</td>
<td>2 errors per unit</td>
</tr>
<tr>
<td><em>(errors per unit)</em></td>
<td></td>
</tr>
<tr>
<td><strong>Delivery</strong></td>
<td></td>
</tr>
<tr>
<td>Schedule adherence</td>
<td>0 delta (nil Hours behind or ahead of plan)</td>
</tr>
<tr>
<td><em>(Hours delta to plan)</em></td>
<td></td>
</tr>
<tr>
<td>Cycle Time</td>
<td>To be agreed</td>
</tr>
<tr>
<td><em>(Hours per Unit)</em></td>
<td></td>
</tr>
<tr>
<td><strong>Cost</strong></td>
<td></td>
</tr>
<tr>
<td>Manning</td>
<td>270 hours per unit</td>
</tr>
<tr>
<td><em>(man hours per set)</em></td>
<td></td>
</tr>
<tr>
<td><em>(Cost per unit)</em></td>
<td>£5,000 per unit</td>
</tr>
<tr>
<td><strong>People</strong></td>
<td></td>
</tr>
<tr>
<td>Skill Level</td>
<td>75% people trained to Practitioner Level</td>
</tr>
<tr>
<td>Training Hours</td>
<td>40 hrs per man per year</td>
</tr>
</tbody>
</table>

Key performance indicators need to be simple and focused
KPI’s

SUMMARY

• Direct relationship to business plan
• Communicates progress against plan
• Drives continuous improvement
• Visual - provokes a response
• Effective - simple and easy to understand
• Ownership - relates to everyone
• Up to date - dynamic management