Key Performance Indicators and Performance Management

If you do not measure, you cannot improve.
Key Performance Indicators (KPIs) create a basis for decision making and focus the team's efforts towards the critical areas for strategic and operational improvement.

Projected performance gains

Improved

- Almost any process will tend to improve when a team's efforts are focussed through the use of KPIs

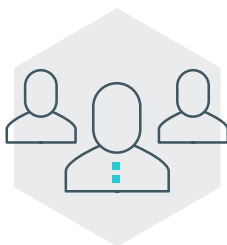## What investment is needed to understand the concept?

DIFFICULTY

Simple

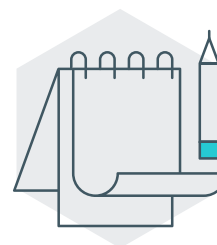Start by establishing a few key measures and ensure that you use them to drive actions.

ACTIVITY

Individual and Team

The measures are designed by and shared with the whole team, although gathering the data may be an individual activity.

EQUIPMENT

Data

You will need a means of communicating this, it can be a paper based system or online.

Explanation of the concept

For most operations and processes, there are a few key measures which can be used to bring processes under control and to improve performance. Operating without these measures could be compared to trying to drive a car at the correct speed without a speedometer.

Used correctly, KPIs will help an organisation to:

• Monitor performance of a process over time

• Use the intended measure to inform better decision making

• Provide evidence of achievement or progress towards a target

The crucial step is to identify a few key measures, which are relevant to the process, and can be used by the team to drive improvements. You will then link this to a daily, weekly and monthly system of quick, review meetings, to identify any issues and take action.

Typical measures could include:

Quality

• % Right First Time

• Defect rate

Cost

• Productivity per person per hour
  e.g. pieces produced per person per hour

• Efficiency measures, including Overall Equipment Effectiveness (OEE)

• Quantity of scrap for e.g. measured in kg or square metres

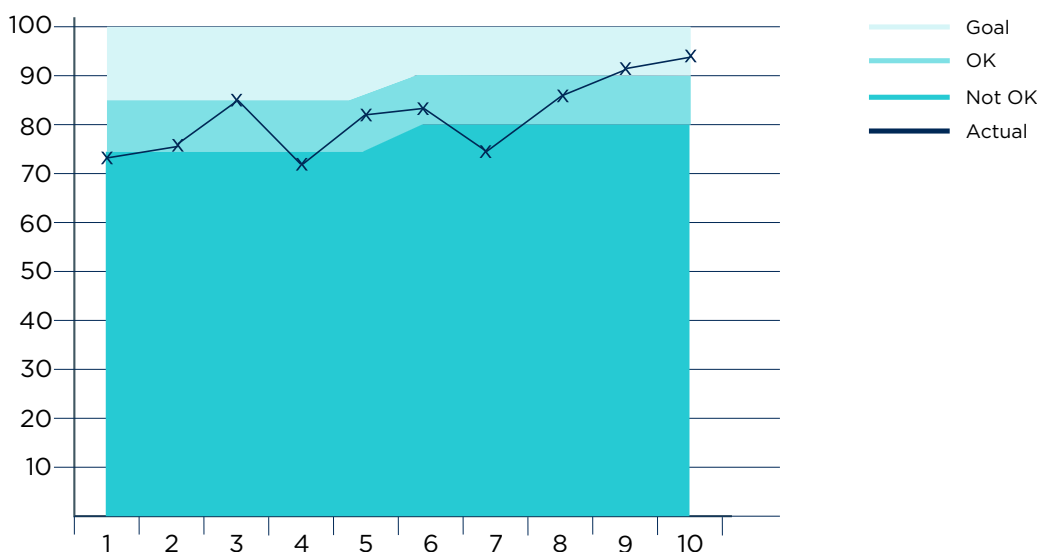• Machine downtime. This can also be further classified into causes of downtime

Delivery

• % On Time in Full (OTIF)

• % Adherence to Production Schedule

For any measure, it should be clear for the team what the performance vs target looks like, and what actions are to be taken:

Any board shows

• Relevant measure

• Team controls

• Target

• Actual

Example 1

Legend:
- Goal
- OK
- Not OK
- Actual

Explanation of the concept

Example 2

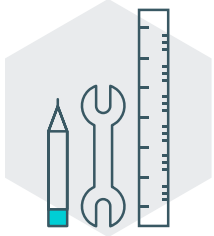| SAFETY ACTION								
DATE	TYPE	CONCERN	LOCATION	COUNTER MEASURE	RAISED BY	TARGET DATE	ACCIDENT REPORT NUMBER	STATUS

Example 3

The daily, weekly and monthly review process for any metrics should follow a standard agenda

- Review shift start
- Review last 24 hours
- Prioritise exceptions
- Challenge

- Agree issues & specifics
- "Today's weekly topic' (Mon-Fri)
- Next 24 hours
- AOB / "Go Look See"

Daily - Key items from yesterday

Key issues from today
- Staffing
- Processes

Daily trend data
- SQCDPE wid/mtd
- Relevent items
- Assess

Assign actions

Accountability for previous actions

Weekly - Key items from last week

Key issues for coming week

Weekly trend data
- SQCDPE wid/mtd
- Relevent items
- Assess "top 3"

Assign actions

Accountability for previous actions
- Rolling review of A3 plans

Monthly - Key items from last month

Key issues for coming month

Monthly trend data
- SQCDPE wid/mtd
- Relevent items
- Assess

Assign actions

Accountability for previous actions
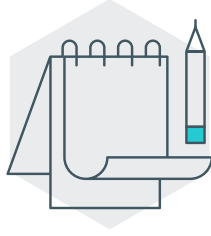- Rolling review of A3 plans

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For more advice, case studies and additional factsheets visit: **www.businessgrowthhub.com/manufacturing**

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What action should I take?

1.

Select a few key relevant measures with the team

2.

Start to measure
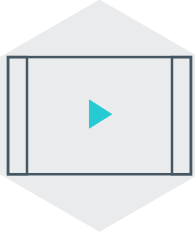
3.

Develop a daily review system

4.

Ensure that the measures can be used by the team to identify gaps and take action

5.

Reflect and learn from your efforts; be willing to adjust the measures that you are using to drive improvement more effectively.

Recommended resources

Daily Performance Meetings:
https://www.youtube.com/watch?v=yZvsqm4Jok8

Visual Management:
http://www.lean.org/Events/Registered/Webinars/IntegratingVisualManagement

DTI Publication – Quality Cost Delivery:
http://webarchive.nationalarchives.gov.uk/20050302023119/http://www.dti.gov.uk/bestpractice/assets/qcd.pdf

Mann, D. (2010). Creating a Lean Culture – Tools to Sustain Lean Conversions. 2nd Edition. CRC Press. ISBN 978-1-4398-1141-2 [especially Chapter 1,4,5]

GC Business Growth Hub Factsheet 07: Value Add and the 8 Wastes

GC Business Growth Hub Factsheet 13: Visual Management

GC Business Growth Hub Factsheet 20: Calculating and using the Overall Equipment Effectiveness (OEE) Measure

Glossary

Overall Equipment Effectiveness (OEE): A calculation which shows the rate of what a machine actually produced, over what it could theoretically could have produced in the same time period.

On Time In Full (OTIF): A measurement which demonstrates how often the customer gets what they ordered at the time they ordered it full.

Right first time: A measurement of how many of the activities in a process were correct the first time.

Defects: One of the 8 lean wastes.