

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**

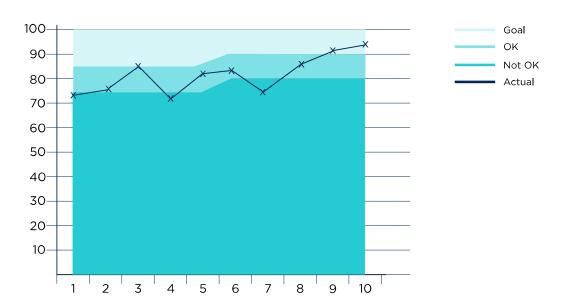
- % On Time in Full (OTIF)
- % Adherence to Production Schedule

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**



## **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

### 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.

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









