clear business
outcome

10 key manufacturing KPIs to monitor and improve ROI on your new ERP implementation

Table of contents

Introduction

A powerful ERP system like Epicor can help support today's manufacturing companies to monitor KPIs through real time analysis and reporting.

Which specific KPIs not only crucial to your industry, however, but also improve ROI on implementing a new ERP?

To answer this question, we have produced a free download of the 10 most crucial KPIs for companies operating within the manufacturing sector.

On Time Delivery (OTD)

Prior Planning Prevents Poor Performance

On-time delivery (OTD) is a critical indicator of how capable your company is in meeting customer demand in terms of delivery of product supplies. This should really matter to your business as products that are delivered 100% on time encourage customer retention as well as promoting trust and accountability for your company.

We have all heard the saying "prior planning prevents poor performance" and failing to meet your customers' requests can lead to all sorts of negative outcomes. Worst case scenario? You lose your customers to competitors. If you are seeing a pattern emerging of certain products being consistently delivered late to the customer, this could be a sign that your supply chain is not as efficient as it should be.
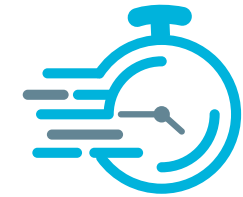
❯ How is this KPI measured?

FORMULA

$$\frac{O_d}{O_p} * 100$$

O_d = Orders produced / delivered on time

O_p = Total number of orders produced

❯ Who needs to monitor this?

Line Supervisor, Supply Chain Manager, Production Planner

clear business outcome

💡 CBO's Tip

Be the expert planner in your organisation!

Use the Epicor Planning and Scheduling solution to measure this KPI. This is a useful tool for day to day and long-term planning, which can highlight if you're making the right products at the right times.

Click here to discover more.

EPICOR®
Authorised Partner

Productivity

Are your targets deliverable, over ambitious or even under estimated?

This basically measures whether your factory's actual operating performance (i.e. machinery and working operatives) meets your forecasted volumes. Whether that be on a daily, weekly, monthly or quarterly basis. KPIs should be amended to meet the short term and long term needs of the business.

❯ How is this KPI measured?

FORMULA

$$\frac{P_a}{P_t} * 100$$

P_a = Actual production in units or volume over a period

P_t = Production target for that same period

❯ Who needs to monitor this?

Production Manager, Operations Manager

clear business outcome

CBO's Tip

You may need to question yourself how is the business currently forecasting production targets? The Epicor Planning and Scheduling software enables business to improve lead times as well as create more accurate decisions in terms of forecasting. Click here to discover more.

EPICOR
Authorised Partner

Manufacturing KPI

Scrap Level

What is your company's scrap factor?

Scrap is a gradual drain on money, time and resources. Whilst producing scrap within the manufacturing industry is inevitable and levels will vary from business to business, you should really aim for scrap level percentage versus total products produced to be low and preferably as close to zero as possible. This will really help your sales and profit margin.

❯ How is this KPI measured?

FORMULA
$\dfrac{S_t}{P_t} * 100$

S_t = Products scrapped in certain time period

P_t = Total products produced in time period

❯ Who needs to monitor this?

Operations Manager / Supervisor, Quality Assurance, Process improvement employees.

CBO's Tip

Keep track of your products' scrap factor and yield percentage in the bill of materials. Through our Quality Assurance System in ERP you can calculate the difference between projected scrap and actual scrap.

It also might be worth investing in CAD or CAE technology to reduce your scrap expenses.

EPICOR
Authorised Partner

Manufacturing Lead Time

How do your processes clock up?

Monitoring manufacturing lead time is a very useful KPI. It monitors and collects data of the total time taken to complete a production process from beginning to end, and opens insight into operating efficiency as well as identifying potential bottle necks within the production process.

❯ How is this KPI measured?

FORMULA
$T_p + T_m + T_i + T_q$

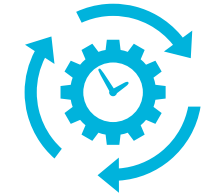T_p = Average production time

T_m = Total move time between production stages

T_i = Average inspection time

T_q = Average queue time

❯ Who needs to monitor this?

Operations Manager

CBO's Tip

Using Epicor's ERP Production Management module will help your business to plan orders logically.

This module includes a section on job management, which uses timesheet tracking across all the jobs on the system. Because Job Management records what happened, you can also measure and assess the actual costs versus estimated costs across materials, labour, overheads and subcontract operations.
Click here to discover more.

clear business outcome

EPICOR
Authorised Partner

Manufacturing KPI

Overall Equipment Effectiveness (OEE)

Is your machinery delivering the desired levels you want?

OEE is the gold standard for measuring manufacturing productivity. It identifies the percentage of total manufacturing time when machinery and assembly equipment is truly productive.

❯ How is this KPI measured?

FORMULA
OEE =   Availability x Performance x Quality

- Availability measures actual running time versus forecasted running time.

- Performance measures actual speed versus forecasted speed.

- Quality measures whether this has been a good production run or a bad production run. i.e. have there been any breakages or malfunctions leading to potential scrap?

❯ Who needs to monitor this?

Operations Manager, Maintenance

clear business outcome

CBO's Tip

OEE is a great metric for identifying red flags as well as benchmarking progress. For example, if you have a machine that is performing poorly and its performance has been tracked continuously, this could indicate that it is time for maintenance or repair.

EPICOR.
Authorised Partner

Manufacturing KPI

Downtime

Expect the unexpected.

We can all nod our heads in agreement that downtime happens, whether that be planned or unplanned. As you will agree, unplanned downtime is what companies should be most concerned about as it is unexpected. We simply do not 'plan' for an unexpected malfunction or equipment failure or operator error. It is important, however, to monitor it and keep on top of it before it gets out of control.

❯ How is this KPI measured?

FORMULA
$\dfrac{M_{it}}{M_{ot}} * 100$

M_{it} = Total machine idle time in period

M_{ot} = Total time machine in operation in period

❯ Who needs to monitor this?

Operations Manager, Maintenance

clear business outcome

💡 CBO's Tip

Try the Epicor Maintenance Module to carry out scheduled maintenance to help with machine uptime.

EPICOR®

Authorised Partner

Inventory Turns – Raw Materials and Procurement

Are you over ordering on 'Just in Case' raw materials?

Ask yourself, how often does your company entirely sell and replace its inventory? If the answer is rarely or never, then this could mean that your business has a low turnover of stock indicating that there could be excess inventory. This is a dangerous mix as raw materials can become lost or unusable.

❯ How is this KPI measured?

FORMULA

$$\frac{\text{Cost of goods sold}}{\text{Average value of raw materials}} * 100$$

❯ Who needs to monitor this?

Procurement Manager, Warehouse Manager

CBO's Tip

Are you spending too much money on certain raw materials? It might be worth looking at your procurement process to review how efficient this is. Ask yourself what raw materials are currently classified as "Just in Case" but really need to be "Just in Time" as this could be a quick win to freeing up valuable money and space to other areas of the business.

clear business outcome

EPICOR
Authorised Partner

Inventory Turns – Finished Goods

Which products are making you the most money?

Most manufacturing businesses receive 80% of sales from 20% of their product lines, whilst the remaining potentially gather dust within the warehouse. Is your business overstocked or does it have a significant amount of legacy stock that is taking up valuable space and money?

❯ How is this KPI measured?

FORMULA
$$\frac{\text{Total cost of goods sold}}{\text{Average value of finished goods}} * 100$$

❯ Who needs to monitor this?

Operations Manager, Warehouse manager

CBO's Tip

Investing in Epicor's Material Requirements Planning system (MRP) is a useful module to balance supply and demand. MRP assesses the demand against the supply by looking at stock level, active jobs and purchase orders.
Click here to discover more.

clear business outcome

EPICOR®
Authorised Partner

11

Customer Returns

A happy customer is the best business strategy of all.

Receiving the occasional customer return should not set alarm bells ringing. If your company is seeing a big increase in returns of product lines, however, this may indicate deeper issues with the product such as batch contamination, breakages etc. If left unresolved, this could create a dint in your brand reputation as well as dissatisfied customers.

❯ How is this KPI measured?

FORMULA	
$$\frac{P_t}{U_t} * 100$$	P_t = Number of processed returns in time period, t
	U_t = Total number of units sold in time period, t

❯ Who needs to monitor this?

Operations Manager, Quality, Customer Services

CBO's Tip

Epicor CRM provides you with a complete 360° insight into each customer supplier or partner. This solution enables your business to deliver a more personalised experience to both new and existing customers. Click here to discover more.

EPICOR
Authorised Partner

Historical Sales Data Trends

Identify and anticipate future sales via historical data

Last but certainly not least, an ERP solution can help you identify and anticipate future sales peaks and troughs, as well as predict future buying behaviour from your customers. The data within your ERP software may also indicate fluctuating patterns that the business needs to take into consideration. For example weather conditions, price increase / decrease in raw materials . This goldmine of information lies in your historical and real-time data, thus enabling you to share credible trend data across your business.

clear business outcome
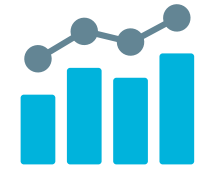
CBO's Tip

A strong sales team needs to be supported by software which is easy to use and improves efficiency and effectiveness without the need for endless admin and data management. Sales force automation (SFA) software can help you streamline your sales process from pipeline to order processing, allowing orders to be generated with as few steps as possible. This allows your sales team to focus on what they do best; building customer relationships.

Discover more

EPICOR

Authorised Partner

clear business OUTCOME

We are Clear Business Outcome
The Epicor People - over 300 years of combined experience

Helping manufacturing, engineering and distribution businesses streamline their processes through Epicor ERP

Licensing   **Consultancy**   **Support**

Authorised Partner and Reseller of Epicor

EPICOR®
Authorised Partner

Get in touch to discuss your next ERP project

🌐 clearbusinessoutcome.com   📞 0191 535 8215   ✉ info@clearbusinessoutcome.com

📘 ClearBusinessOutcome   🐦 @tweetcbo   💼 Clear Business Outcome