



Manufacturing KPIs eBook.

The KPIs every manufacturer should know and measure

Phocas.
Got data. Get results.

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Introduction.

The KPIs every manufacturer should know and measure


When it comes to achieving success in manufacturing, the industry is way beyond the idea that data matters.

Manufacturers and the decision makers that run them understand the value of data, so much so that industry analysts expect manufacturers to spend more than [\\$232 billion](#) globally on advanced analytics by 2021. The number of strategic systems and solutions generating and capturing information is growing as timely, accurate and relevant data influences faster and smarter decisions about nearly every aspect of a company's operations.

The physical and digital world are coming together quickly in the manufacturing environment, from intelligent ERP software and smart sensors to mobile technology and Internet of Things. A recent [report](#) published by Deloitte, Council on Competitiveness and Singularity University found:

“**Many leading 21st-century manufacturers are converging digital and physical worlds** in which sophisticated hardware combined with innovative software, sensors, and massive amounts of data and analytics is expected to produce smarter products, more efficient processes, and more closely connected customers, suppliers, and manufacturers.”

The challenge for many manufacturers continues to be turning the massive amounts of raw data into actionable insights. Decision makers that once based their actions on gut-feel or status quo are now turning to their corporate data to develop, justify and execute business strategy. There are no more excuses. Virtually every decision an organization makes can and should be influenced by the facts found in their business data.



Phocas demo

Click here to watch a demo of Phocas for manufacturing.



The Deloitte [report](#) stated, “Advanced analytics is the foundation of Manufacturing Intelligence, which provides manufacturers with contextual insight and intelligence based on data captured from machinery and processes across the plant floor. Discrete and process manufacturers are accelerating their adoption of advanced analytics to improve product quality, reduce production delays and improve time-to-market for new products,” among other benefits.

Your successes and failures are captured in departments and databases across your operations. They provide valuable insights that can shape the future direction of your business, but in order to get the right information to the right people, you need to ask some questions:

- 1 What do we need to know and measure?
- 2 What types of information do we need to make better decisions about our process, products, people and places?
- 3 What key performance indicators (KPIs) are important to our business?
- 4 Do we have the systems and solutions in place to capture the information we need?
- 5 Can we analyze the data once we have it?

The answers can become the competitive advantage you need to grow your business and maintain a successful modern manufacturing organization.



Like many manufacturers, you currently have more software solutions and equipment producing data than ever before. You know there is value in the data you are collecting, and you know your success rests, in part, on your ability to slice and dice the data to optimize your business.

Tracking and analyzing KPIs can be extremely difficult and tedious as your data sources grow, and particularly if you rely fully or partially on Excel spreadsheets for reporting. Business Intelligence software plays an increasingly more important role as data becomes the currency for change. BI serves as your single source of truth, providing a holistic view of your operations by combining data from all your sources into visually compelling charts, graphs, and tables that you can dive into. BI makes it easy to track your business-critical KPIs so you can confidently and profitably manage your business.

In this eBook, we will review several KPIs that are critical to manufacturers, from materials on-hand, stock and outstanding purchasing requests to inventory levels, slow-moving products, and delayed deliveries. As you access and analyze your data, and empower team members of all skill levels to use data, you can more effectively measure how well your business is performing. You will be better prepared with the insights you need to make the right strategic decisions, optimize your operations, improve your workforce management and productivity, and reduce waste.

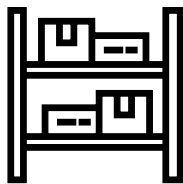
The KPIs.

Manufacturers are feeling the pressure to maximize efficiencies and reduce costs as global competition continues to press prices down.

These issues are amplified by ongoing instability in tariffs, taxes, and relationships between trading nations.

The combination of factors is resulting in smaller margins and constant scrutiny of business processes and the supply chain, from purchasing and production to marketing and fulfillment. This is why KPIs and metrics are so important to the modern business. Having data at your fingertips that you and your team can use will make it easier to track valuable data points so you can access reports, make real-time, educated decisions, and improve your manufacturing environment.

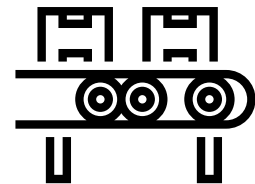
What you measure depends on what your business is trying to achieve, but there are several KPIs that every manufacturer should know and measure. Let's review six categories of KPIs:



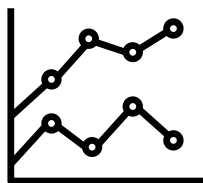
Inventory



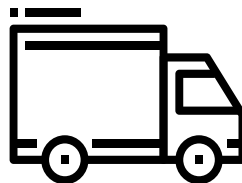
Purchasing



Production



Sales



Logistics and
distribution



Finance



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Inventory.

Your inventory is your single largest asset.

If managed well it can help you reduce costs and improve your cash flow.

An understanding of what you have in stock, what inventory is turning over quickly and what your lead times are for replenishing can help you avoid situations where you may not have enough product or production time to meet a customer's needs, or on the other end of the spectrum, you end up with a graveyard of dead stock.

Among the top KPIs to track for inventory are the following:

- 1 Stock on hand** – Knowing what you have on hand can help maximize your manufacturing effectiveness, as well as sales and purchasing. As you track customer and product performance, you can more accurately manage this metric and better plan inventory of raw materials so you can keep your production moving forward.
- 2 Inventory turnover** – Most manufacturers have made a significant investment in their inventory, so it's critical to monitor the frequency at which it turns over. Understanding this metric will make it easier for you to reduce the chances of carrying too much inventory that ties up cash and shelf space, or not enough stock so that you can't meet customer demands and seasonal trends. For businesses that have multiple locations, managing inventory turnover can have a significant impact on efficiencies, ensuring that production and storage are optimized to meet the needs based on the location of fulfillment centers and customers.
- 3 Inventory carry/storage/holding costs** – If you want to optimize your operations, then it's important to understand what it's costing you to maintain your current inventory. Factors include rent, utilities, workers' salaries, insurance and any decrease in value of stock as it remains in storage. Manufacturers need to understand the opportunity costs associated with warehousing products versus improving lead times or just-in-time delivery.

“Phocas has played an integral part in the management of our stock portfolio. As a distributor offering 6,000 products off-the-shelf, carrying adequate stock levels had proved difficult and expensive. With Phocas, we have been able to address this area of the business and our first pick KPI is now consistently above 97%.”

Derek Hoey - Distribution Director at Ash and Lacy Building Systems Ltd

Purchasing.

Purchasing KPIs are connected to a variety of areas of the business.

You need complete visibility into materials on-hand, stock, outstanding purchase requests and purchase orders, among other KPIs, so that you can optimize your timing to order materials and products.

- 1 Raw materials on hand** – What do you have in stock in terms of raw materials? Your ability to meet production demands and deadlines is dependent on the answer to this question. Using BI to track your purchases and monitor suppliers will make it easier to ensure you have the resources you need to meet production goals and customer expectations.
- 2 Outstanding purchasing requests** – Tracking outstanding purchase orders is both an internal measurement, as well as a supplier metric. You need to know what is on order or planned for delivery so that you can effectively manage future purchases. If suppliers send incorrect quantities, it is likely a reflection of their ability to meet your raw material needs.
- 3 On time delivery** – You likely work with dozens of suppliers, so it's important to monitor their ability to deliver goods at the requested time. If you find that certain suppliers are consistently out of stock of the materials you need, or regularly fail to meet your timelines, perhaps its time to pursue other supplier relationships. This may not be a difficult metric to track in your BI system, but the last thing you need is for your suppliers to delay your commitments to your customers.



Production.

A more reliable understanding of your business operations, down to the customer and product level, will allow you to make more accurate decisions on how and when to spend working capital, and better plan raw materials on hand to prevent delays in production.

Armed with data about customer buying habits, product growth, and branch success, you will be prepared with the information you need to optimize production, improve productivity and reduce wasted resources and time

- 1 Demand forecasting** – Before you begin production, it's important to understand what your product demand is and will be. Accuracy matters because your forecast will impact almost every aspect of your operations. Running out of product will impact your ability to meet customer demand, while forecasting too high could result in overstock and deadstock that you may never sell. BI combines the necessary data into a single source of truth so you can monitor sales and customer buying habits to accurately forecast future demand.
- 2 Labor** – There are multiple KPIs involving your labor force that need to be monitored. Data can provide you deep insights into production downtime and uptime so you know if you are over or understaffed for your shifts. Your data can also help you track staff production efficiencies across shifts so you can better understand when additional training may be needed. As you monitor workers hours, you can also factor in labor as a percentage of cost. The lower the percentage the better your margins, which is a positive reflection of your ability to manage labor resources and the effectiveness of your team.
- 3 On time orders** – This KPI is a measure of your ability to complete orders on time. The success or failure of on-time orders is dependent on a variety of factors, from management of raw inventory to downtime and staff productivity. As you manage all of these data sets, you can identify where in the production process errors are happening. Are your suppliers getting raw materials to you in time? Is maintenance capable of managing equipment failures in a timely manner? Is there a shift that is underperforming and causing delays? Your ability to complete orders on time will create a positive impact on your customer's confidence in your business.



[Hotchkiss Air Supply](#) is the UK's leading independently owned provider of ventilation and air movement products with 10 branches throughout the UK and £1,500,000 worth of stock. Hotchkiss realized the company needed to focus on internal operations and cost savings rather than customer acquisition to drive business growth within an increasingly competitive market. Hotchkiss turned to Phocas to better measure labor, overheads, and materials and accurately analyze data to reduce costs and improve efficiencies. Phocas created a unique manufacturing database for Hotchkiss that met the company's full requirements. With better visibility of the metrics and data of the manufacturing department, Hotchkiss has reduced production overtime costs. As a result, Hotchkiss expects to see savings of at least £70k per annum.

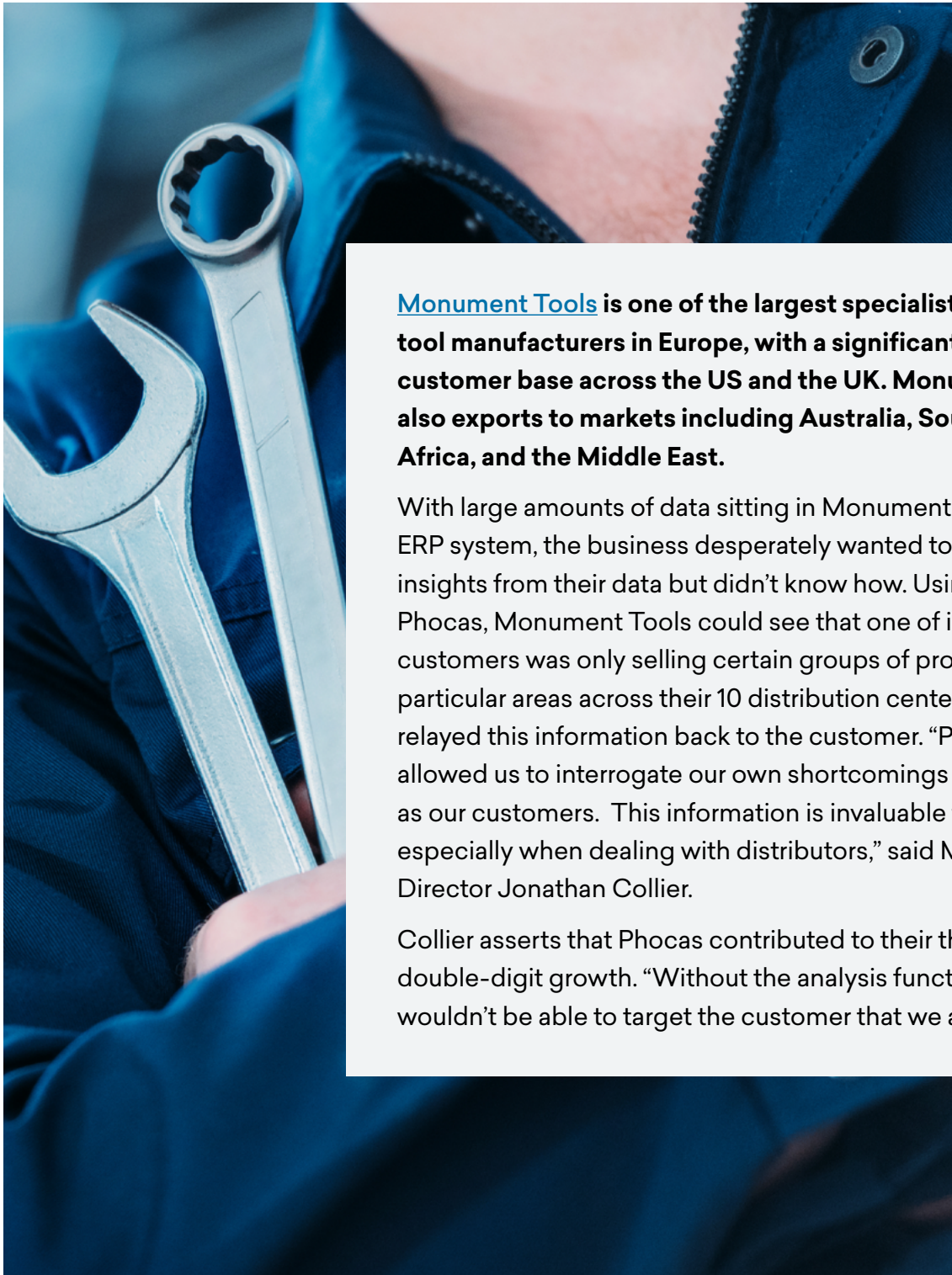
Sales.

Your sales leaders need to monitor a variety of KPIs from individual salespersons' performance to product sales, active accounts and sales by locations.

You need the ability to aggregate all of your customer sales data in a single location and create visual, easy-to-read dashboards so you can quickly see what customers are buying, or perhaps more importantly, what they are not buying.

You can see what products are performing and underperforming and what accounts are active or need attention. As you keep track of what products your customers are buying and where, you can uncover trends and opportunities to introduce new and complementary products into their buying mix.

- 1 Sales performance by location** – Comparing sales by location allows you to track product performance to determine what branch, region or territory is receiving the biggest demand. Your sales performance data will reveal which locations need more attention, if additional product training is needed or where A/B promotions may have an impact on driving sales.
- 2 Product-level profitability** – Data-driven insights allow you to identify the true profitability and fully loaded contribution margin of each product line. This KPI can help you identify what products are contributing the most to your bottom line and help you make more educated business decisions about what products to stock, promote and cross-sell to increase sales. Customer level profitability is also a critical KPI to help your sales team determine where to focus their time and effort to improve customer engagement and drive additional sales.
- 3 Sales revenue** – While business revenue may be an obvious KPI, many companies focus their attention on profit margin rather than straight bottom line revenues. An understanding of big picture revenues, instead of only profit margin, can give your sales manager more insight into overall business performance and profitability. By calculating the profit ratio (divide net income by sales revenue) businesses can reveal how much of every dollar brought in by sales actually makes it to the bottom line.



[Monument Tools](#) is one of the largest specialist hand tool manufacturers in Europe, with a significant customer base across the US and the UK. Monument also exports to markets including Australia, South Africa, and the Middle East.

With large amounts of data sitting in Monument's ERP system, the business desperately wanted to draw insights from their data but didn't know how. Using Phocas, Monument Tools could see that one of its big UK customers was only selling certain groups of products in particular areas across their 10 distribution centers. They relayed this information back to the customer. "Phocas allowed us to interrogate our own shortcomings as well as our customers. This information is invaluable for us, especially when dealing with distributors," said Managing Director Jonathan Collier.

Collier asserts that Phocas contributed to their three-year double-digit growth. "Without the analysis function, we wouldn't be able to target the customer that we are."

Top tip.

Read our [manufacturing case studies](#) to learn from our customers how they use Phocas to improve sales.

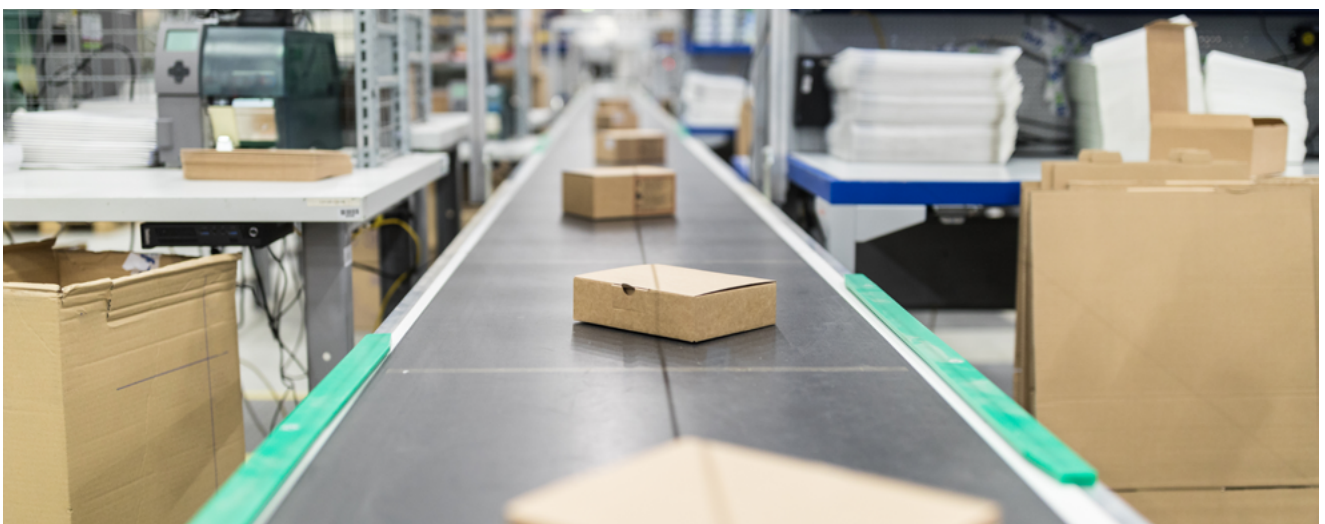
[READ CASE STUDIES](#)

Logistics and distribution.

Delayed or errant deliveries, as well as expired or damaged products, can create a number of challenges for you and your customers.

BI software can help you slice and dice logistics data from a variety of sources to identify trends and learn if products ship on time or why not, if shipments are complete, and which distribution partner is most reliable.

- 1 Delivery in full on time** – This is a fundamental measure when analyzing the performance of your supply chain, which main goal is to deliver products to customers when and where they need them, in the quantity and condition they ordered. This KPI can be used to measure the performance of your suppliers, identifying which partners are consistent with deliveries, and it can be used to help you promote your company's ability to meet delivery and product expectations. In many ways, it doesn't matter how good your product is if you can't get the product to the customer on time.
- 2 Order accuracy** – Order accuracy is another basic KPI that can have a significant impact on customer satisfaction. Delivering the right product, in the right quantity, to the right customer, is a reflection of a number of factors in your business, including staff productivity and training, supplier performance, warehouse layout, inventory management and logistics. When orders are incorrect, additional processes have to happen which diverts attention from fulfilling new orders and adding costs to correcting mistakes. Your data can help identify the department, suppliers, people, and processes that are contributing to order accuracy.




Finance.

Access to financial information is typically limited to your CFO or controllers, and reporting can be limited to static spreadsheets.

BI makes it easy to give access to relevant financial data to those who are responsible for budgets and purchasing, while also removing some of the burden from the finance team.

The ability to access and analyze financial statements alongside sales, materials and production data helps everyone stay focused on the bottom line. It can also facilitate deeper dives into the impact that specific areas of the business have on inventory, purchasing, production, sales, and supply chain across a variety of indicators, from products and people to partners and location.

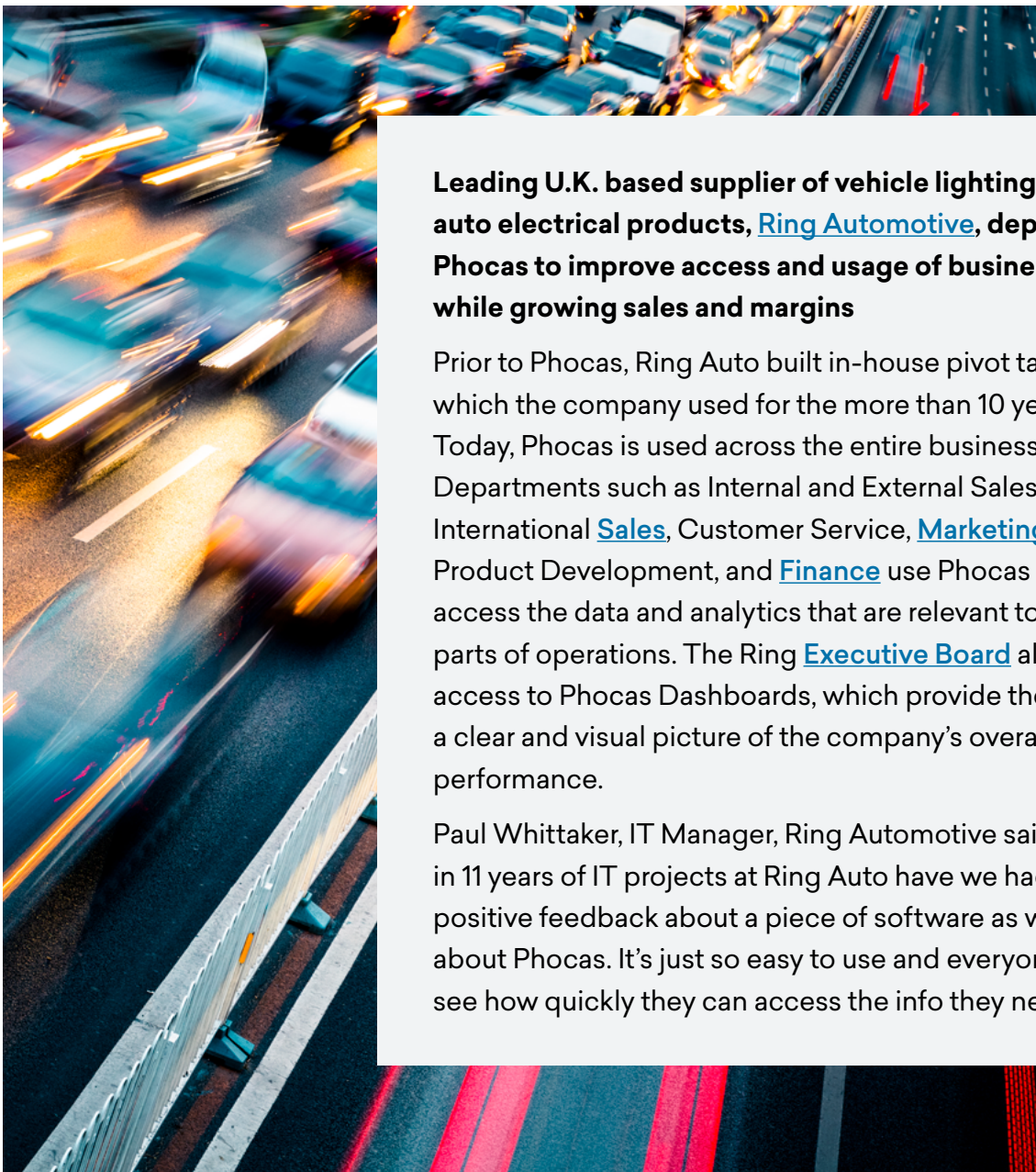
- 1 Revenue vs. forecast** – Most manufacturers establish revenue projections or financial targets. These forecasts can be set for a specific factory, across a region or for the entire business, and they can be set for a time period or sales team. They can also be established for a particular product or service within a specific industry. Tracking actual revenues against forecast figures will give you a better understanding of whether your financial targets were too aggressive, whether your various department may be underperforming, or whether you underestimated product demand. Producing accurate forecasts combined with quick and simple data analysis will help you identify issues that threaten your business, as well as opportunities that will increase revenues.
- 2 Profit margin** – Are you generating profit on every dollar that you generate? Depending on the stage of your business, if your profit margins are dropping, it could be signs of trouble. In addition to monitoring the overall profit margin of your business, it's important to keep track of your margins across individual products, product lines, customers and lines of business. As you use your data to consistently monitor profit margins across these various areas, you will be in a much better position to know how to address trends and adjust pricing as needed.



Phocas demo

Click here to watch a demo of Phocas for manufacturing.

- 3 Growth rate** – One of the most important questions you can ask of your business data is whether your business is growing. Your next steps are dependent on how you answer that question. What is the trajectory of your growth? Is the trend going in the right direction for the past year, three-years or five-years growth or beyond? While growth is a broad KPI you can track growth for specific products, salespeople, customers, departments, branches or geographic regions. With a central location for all your data, you can build a strategic, up-to-date, snapshot of your growth rate across all areas of your business. Armed with that information, you can make better decisions, and make the necessary adjustments to strategy, staffing, products that can reverse the trend or keep you headed in the right direction.



Leading U.K. based supplier of vehicle lighting and auto electrical products, [Ring Automotive](#), deployed Phocas to improve access and usage of business data while growing sales and margins

Prior to Phocas, Ring Auto built in-house pivot tables, which the company used for the more than 10 years. Today, Phocas is used across the entire business. Departments such as Internal and External Sales, International [Sales](#), Customer Service, [Marketing](#), New Product Development, and [Finance](#) use Phocas to access the data and analytics that are relevant to their parts of operations. The Ring [Executive Board](#) also has access to Phocas Dashboards, which provide them a clear and visual picture of the company's overall performance.

Paul Whittaker, IT Manager, Ring Automotive said, "Never in 11 years of IT projects at Ring Auto have we had such positive feedback about a piece of software as we've had about Phocas. It's just so easy to use and everyone can see how quickly they can access the info they need!"

Why manufacturers need BI?

These are just a few of the KPIs that manufacturers should know and measure, and as your business grows and evolves, the ability to collect, analyze and find value in your data becomes increasingly more difficult.

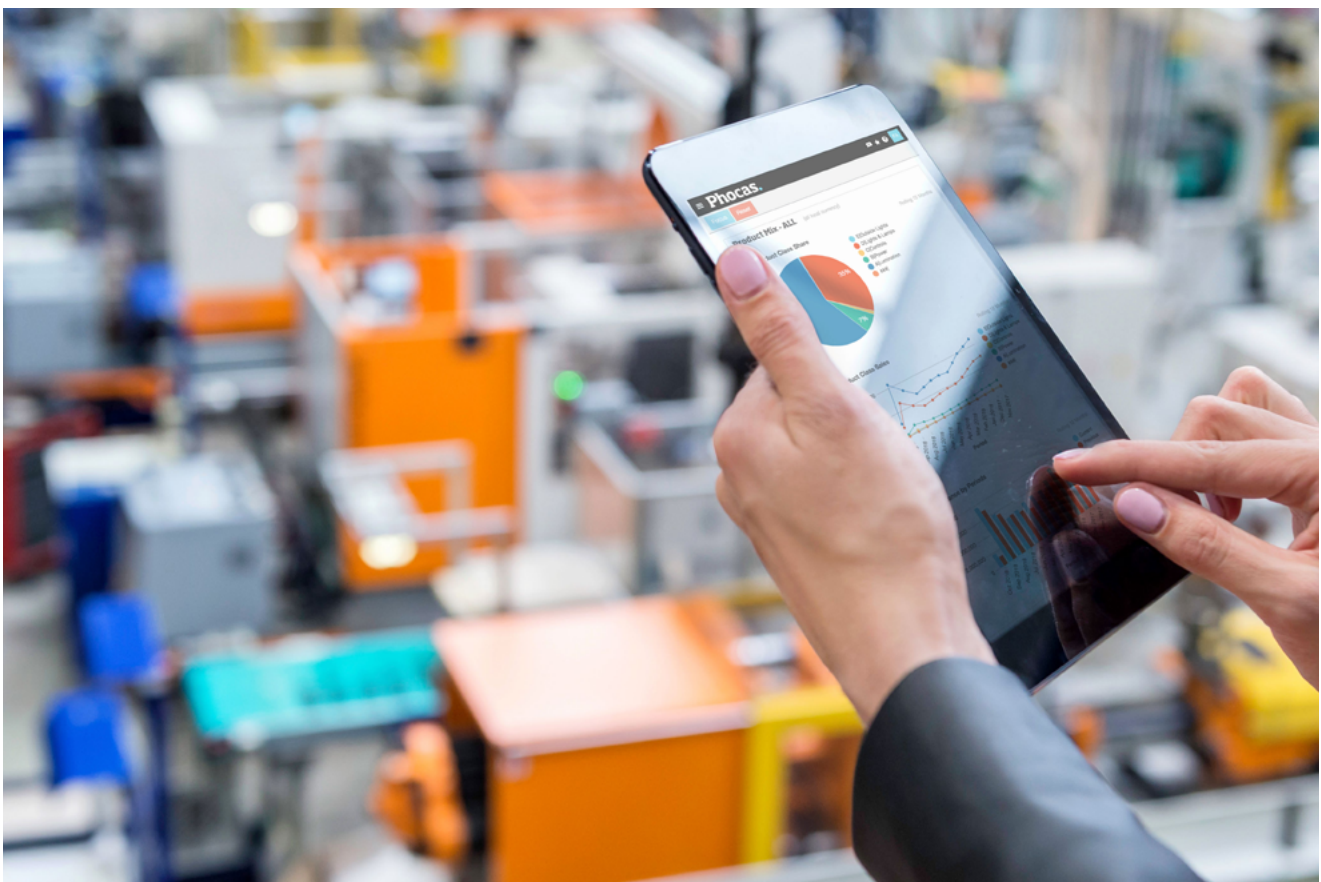
Data is exploding across the manufacturing environment with an increasing number of sources creating and storing information.

The competitive global landscape and the need for constant improvement mean your ability to aggregate and analyze data has never been more important, or more challenging. Data is important to everyone's role in the organization, so access to business-critical data at any time and from anywhere means everyone will be responsible for helping the business run leaner, increase margins and improve efficiencies. **Your success is tied to how well you use data to improve your business performance.**



BI software is your single source of truth ensuring everyone across the organization is looking at the same data and working towards the same goals. BI pulls data from your ERP, CRM, finance and other systems, and then turns the raw data into actionable intelligence. Your data must be accurate and timely and must represent a broad spectrum of your business so that your purchasing, production, sales, logistics and financial teams have a historical and current picture of your company's performance. A BI solution allows you to aggregate and query data, and then create reports so you can quickly reduce costs, identify new opportunities, [optimize sales](#) and marketing strategies, track and reduce waste and costly quality issues, and eliminate decisions based on emotions or gut-feel.

As your BI solution aggregates data, you have immediate access to evidence of what your customers are buying, what products are selling, what sales strategies are working, and where you can invest additional time and resources to improve results. **Your data is the validation you need to make more strategic decisions, compete more effectively, pursue opportunities for growth, and move your company forward.** You have the information you need to guide your next steps with a more complete, long-term view of your business, your customers, the market and your competition. Your data becomes your strategic advantage, helping you make smarter sales decisions, create better marketing and promotions, improve customer service, engage and educate executives, optimize inventory management and compile a more complete real-time picture of your financial situation.



Why Phocas Software?

Phocas is a trusted BI solution that was built from the ground up to be easy to learn and easy to use for team members of all skill levels.

Phocas improves the adoption of data analytics, giving everyone access to the information they need to do their jobs better.

As a cloud-based solution, Phocas ensures you are always connected to your data regardless of whether you're working from your desk, your phone or on a tablet as you walk the production floor. Phocas is always available giving you always-connected mobility that improves data access and worker productivity.

In addition to improving access to data for your entire team, Phocas delivers out-of-the-box connectivity, integrating multiple data sources, including your ERP system. Phocas is always up-to-date because it is constantly collecting data from systems and silos across your business. Raw information is converted into interactive graphs and charts displayed on a customizable dashboard, helping users quickly recognize new ways to improve operations, quality and productivity so you can find quickly find answers to pressing questions. Users can drill-down into grids, charts, and graphs to mine deeper insights for more effective decision-making and to get answers to unlimited questions.

Phocas goes further than traditional BI tools, allowing you to always dig deeper into the data and understand what is going on at the transactional level. Instead of gut-feel and emotion-based decisions, you have the evidence and validation you need to better manage your materials, purchasing, production, sales, and financials.



“Phocas is a window into my business. I can see our direction on a daily basis and change course as required. I use Phocas to develop business plans, strategies, identify strengths and weaknesses effectively and concisely. **Phocas is a tool I use every day and I would feel lost without it. It is the best business software I've used in a 20+ year career.**”

John Sandroussi - Logistics Manager Airco Fasteners

Get in touch.

Learn how Phocas can help you achieve your business goals.

Give us a call:

UK/Europe: +44 1865 364 103

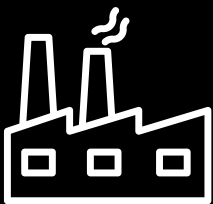
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Or email us directly:

Email: marketing@phocassoftware.com

Want to know more?



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Visit our [Phocas for manufacturing page](#)

Book a demo – <https://phoc.as/BookDemo>

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