



A Siemens Company



Manufacturer's dashboard: Insights to drive ROI

Top 5 trends in operations and asset management affecting the manufacturing industry in 2023



With words like inflation, layoffs and recession appearing in every headline, it can feel like a precarious time to be in business. But for industries like manufacturing, uncertain times can be ripe with possibility.

For manufacturing plant owners and facilities or maintenance and operations (M&O) managers, the cards might seem stacked against your favor. Businesses everywhere are watching the bottom line closer than ever before, the labor market is constantly sputtering between hot and cold and there seems to be a new law or regulation each day for everything from sustainability to redesigned compliance measures.

It's a great time to be in manufacturing. No, really!

At a time when it feels like no one is showing their hand, the manufacturing industry has an opportunity to level up against the odds. Whether leveraging new funding opportunities, embracing global trends, or implementing new tools to bring this industry into the future, now is the perfect chance for manufacturers to raise bets—and it all trickles down to capturing asset data and doing something with what it reveals.

Ready to see what's on deck? We're taking a closer look at the top market trends facing the manufacturing industry, including:

- 1. IIJA and other funding**
- 2. Sustainability and rising energy costs**
- 3. Supply chain challenges**
- 4. The increasing complexity of assets**
- 5. Health and safety**



Trend 1: IIJA and other funding

When you think about the industries that shape the U.S. economy, manufacturing is a big player at the table. From domestic jobs to exported goods, there's a good reason why administration after administration tries to pass legislation to boost this industry—it's vital to the people who live and work here.

Dialing in to the IIJA

One of the biggest pushes from the federal government is the Infrastructure Investment and Jobs Act ([IIJA](#)), aka Bipartisan Infrastructure Law (BIL). Signed into law on November 15, 2021, the IIJA authorizes \$1.2 trillion for transportation and infrastructure spending, with \$550 billion directed toward “new” investments and programs. Funding from the IIJA is expansive, covering energy and power infrastructure, access to broadband internet, water infrastructure and more.

Manufacturing: It's what's (paying for) dinner

Insights from [McKinsey](#) revealed manufacturing accounts for \$2.3 trillion of GDP and employs about 12 million people supporting hundreds of local economies across the country. Additionally, manufacturing gets credit for the following:

- **11%** of the U.S. GDP
- **8%** of direct employment
- driving **20%** of U.S. capital investment
- **30%** of productivity growth
- **60%** of U.S. exports

Other opportunities for funds

Other recent U.S. legislation has also created incentives for local sourcing and manufacturing.

- **CHIPS and Science Act.** The [CHIPS and Science Act of 2022](#) provides the Department of Commerce with \$50 billion for a suite of programs to strengthen and revitalize the U.S. position in semiconductor research, development and manufacturing—while also investing in American workers.
- **Inflation Reduction Act.** The [Inflation Reduction Act of 2022](#) aims to curb inflation by reducing the deficit, lowering prescription drug prices and investing in domestic energy production while promoting clean energy.
- **Build America, Buy America Act.** Enacted as part of the IIJA, the [Build America Buy America Act](#) established a domestic content procurement preference for all federal financial assistance obligated for infrastructure projects after May 14, 2022.

The money is there if you know where to look—the key is leveraging your data to apply and qualify for government funding.

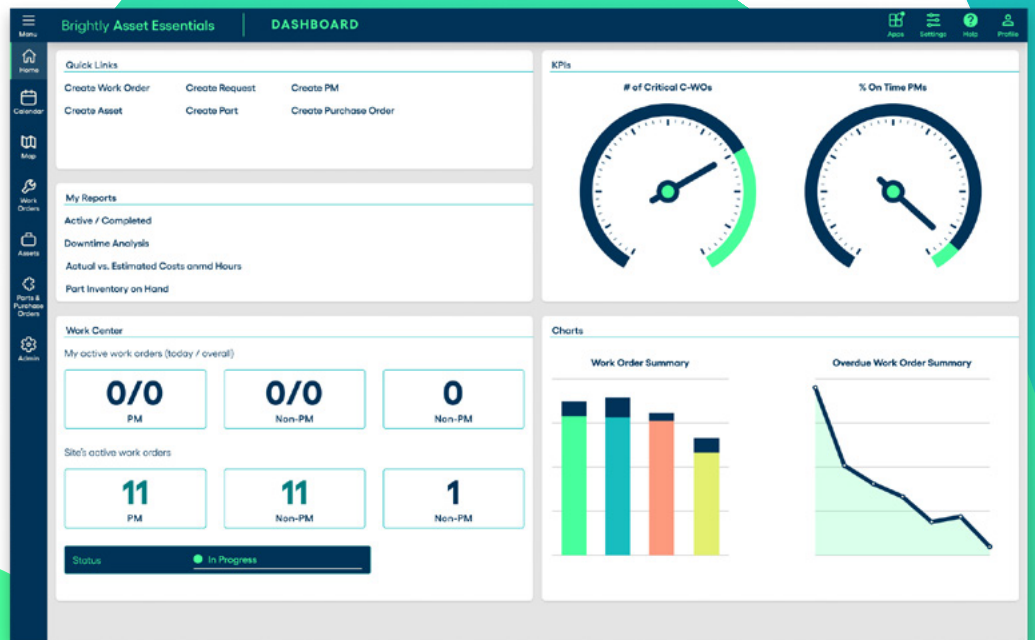
Take your game online

A [computerized maintenance management system \(CMMS\)](#) paired with an [energy management solution](#) enables companies to handle their energy and assets better. By using data, manufacturers can best take advantage of recent legislation and use the funding to improve their overall operations.

How to get a handle on assets

Brightly can help manufacturers get strategic asset management up-to-date to enable access to the data required to apply for IIJA grants. Solutions like [Brightly Asset Essentials™](#) offer visibility into the information needed to prepare orgs for the proper allocation and requesting of funds, such as through:

- Lifecycle costing
- ESG assessments
- Climate resiliency
- And many other evaluations



Trend 2: Sustainability and rising energy costs

In the United States, sustainability in manufacturing is still a long game as regulations and policies continue to evolve. Following global environmental, social and governance (ESG) trends, companies stateside will likely increasingly focus on sustainable manufacturing practices, such as reducing waste, improving energy efficiency and using renewable materials.

What sustainability means for manufacturing as an industry

For manufacturers, sustainability is a commodity. But with increasing government regulation and stakeholder demand, it won't be for long. As investors and stakeholders increasingly use ESG criteria to assess a company's long-term performance and risk profile, a shift toward sustainability can help businesses meet environmental goals and, just as significantly, realize cost savings.

How sustainable practices can create opportunity for manufacturers

Sustainability is more than switching out old machines with newer versions—it's about taking care of what you have so you don't have to unnecessarily replace or repair the assets you already have. Preventive and proactive maintenance can help ensure that what you have operates effectively for the long haul.

On top of running more efficiently, well-maintained assets consume less energy and create less waste. What's this mean for manufacturers? Well, if you have prematurely failing assets that are just ending up in landfills, your bottom line will suffer. And, it's bad for the environment—which also means your brand can suffer from negative perception—who wants to work with, live near or purchase goods from a company that is polluting or unnecessarily accumulating waste?

Quality and sustainability should also be symbiotic, especially as utility costs continue to skyrocket. If today's manufacturers can't afford the capital expense to discard products or assets, they certainly can't afford to replace them early. Why waste energy or create a product you might have to scrap or rework?

Additionally, though the manufacturing industry in the U.S. has yet to catch up to its global counterparts regarding sustainability initiatives, it will soon be necessary to ensure compliance with government and financial mandates.

Brightly can help you lay it all on the table

Operations professionals have always had to keep tabs on production, output and their bottom line. At Brightly, we are [driven by an undercurrent of sustainability](#). We help manufacturers shine a spotlight on consumption patterns to maximize energy conservation efforts while enabling M&O leaders to chart and report on progress and share in the success.

With [Brightly Energy Manager™](#), manufacturers can lower energy bills and gain tangible data on sustainability initiatives across your organization. Or, [Brightly Stream™](#) can help you meet ambitious energy, water and carbon targets with scalable ESG data software and expert services.

Trend 3: Supply chain challenges

Plunk in the middle of challenges and opportunities for the manufacturing industry is the supply chain. Though logistics have historically always been accompanied by unpredictability, today, we're seeing unprecedented levels forcing M&O leaders to dedicate more resources to managing the movement of supplies and products.

From everything taking longer to source and obtain to higher costs, if anything is causing your operations professionals grief, it's this.

Recent manufacturing survey data from [Deloitte](#) revealed that 80% of executives have experienced a "heavy" to "very heavy" impact of disruption on their supply chains over the past 12–18 months, with 72% believing the persistent shortage of critical materials and the ongoing disruptions present the biggest uncertainty for the industry in the coming year.

The case for getting to know your suppliers

For manufacturing organizations wanting to lean into the opportunity side of supply chain challenges, it starts in a place you might not consider: your relationships.

Whether looking to boost quality control, reduce overhead costs or improve risk mitigation, better collaboration with suppliers can mean optimized shipping—and a stronger cash flow. The key to giving your business increased agility while fostering those valuable relationships lies in gaining better visibility into your data and assets.

How can technology help manufacturers with the supply chain?

An asset management system that saves money through more efficient maintenance management and operations can give you the data you need to get ahead of supply chain math. Whether it's easily managing spare parts ordering and inventory by knowing what you have (and what you need and when you'll need it) or optimizing your business's workflows, smart tools can centralize operational information so you can make wise business decisions.

Technology can also help busy M&O teams with asset tracking to extend the life of machines through deeper data insights based on maintenance history for a total cost of ownership (TCO) analysis. Additionally, as supply chain uncertainties continue to prevail, gain visibility into asset health and leverage preventive maintenance to avoid emergency repair costs or extended downtime while you wait for parts.

Brightly can optimize your supply chain

Brightly understands how unplanned downtime can derail operations and affect manufacturing bottom lines. With an asset management system that makes your real-time data usable, your operations leaders can create maintenance strategies that keep you two steps ahead of supply chain challenges.

Our powerful solutions enable your manufacturing operations team to leverage centralized data to know the health of your most important assets, optimize workflows for better performance and increase uptime—all while maintaining high-quality standards.



Trend 4: Increasing complexity of assets

As pressure mounts to do more with less while reducing costs, the manufacturing industry is increasingly leaning into the Internet of Things (IoT) and other smart technologies to boost efficiency and productivity. While automation can help optimize processes and workflows for busy M&O teams, plant managers also need the right tools to help leverage real-time data and analytics.

With labor challenges sprinkled into the mix, now is the perfect time for manufacturing to lean into technology. As skilled laborers retire or leave the workforce, it's critical to capture institutional knowledge before it walks out the door. Capturing that info by say, recording a video of a particular process for future workers is just one of the many benefits of available tools, not to mention how newer generations prefer using technology where possible in their day-to-day jobs. (And luckily, there are solutions available that are as simple to use as a mobile device).

Your pocket advantage: Using technology to achieve OEE

For manufacturers measuring the productivity and efficiency of their assets, technology can help track key performance indicators (KPIs), such as overall equipment effectiveness (OEE). The right tools can help leaders gather holistic data on asset availability, performance and quality to identify where making improvements will offer the most impact.

Technology can deliver visibility into:

- **Availability:** By understanding current asset health, M&O managers can know what equipment is available, when is the best time to schedule maintenance and avoid costly unplanned downtime.
- **Performance:** Tracking performance enables teams to ensure assets are functioning optimally.
- **Quality:** Manufacturers with a close eye on the bottom line want to avoid defects, scrap, rework and other issues that affect the quality of the output.

By leveraging solutions that extract the metrics associated with availability, performance and quality metrics, manufacturing teams can make better decisions and optimize available assets.

The data to make great decisions

With more data comes more opportunities, so long as you know how to use it. For manufacturers, enterprise asset management (EAM) solutions can help operations leaders navigate the information coming from the shop floor. From equipment with embedded sensors to automated systems, an EAM solution can help manage assets by creating a centralized platform to track asset performance, maintenance history and other relevant data.

Speaking of data, as manufacturers acquire large volumes of data from assets, an EAM system can help with capturing, analyzing and reporting on this information to identify trends, detect issues early and ultimately, make more informed business decisions. An EAM system can also help manage preventive maintenance tasks to avoid equipment downtime or reduce the risk of unexpected failures.

The right EAM solution can enable your organization to leverage all of your asset data to operate with higher utilization, increased efficiency and reduced downtime—and benefits your bottom line.

Brightly keeps your organization in order

With more than two decades of experience helping maintenance and operations teams worldwide, [Brightly Smart Assets for Asset Essentials](#) helps manufacturing organizations leverage data to manage complex facilities and assets through automated and efficient workflow management.

Our cloud-based solutions are backed by experts who are always ready to partner with manufacturing leaders to ensure operations are at their most efficient, asset life cycles are extended and teams can be as productive as possible.

Trend 5: Health and safety

Operations teams deserve tools to help maintain workplace safety standards. Facilities management is a big job, especially in the wake of COVID-19. As M&O leaders continue to prioritize the health and safety of workers, they are also facing new regulatory requirements—it can be a lot!

Avoiding pitfalls on the manufacturing floor

With many moving parts, manufacturing is quite literally (or is it physically), a risky business. If managers track everything on paper or in disparate systems, it can be too easy to skip an inspection or miss a training opportunity. From improper maintenance to unskilled workers, ensuring nothing slips through—or on—the cracks is critical.

If only you could have a guaranteed ace up your sleeve...

Ways technology can help M&O leaders get dealt a better hand

It might not be the first thing you think of, but the trends with labor pose one of manufacturing's biggest health and safety challenges. As the workforce transitions from longtime operations professionals to younger generations without a background in trades, it's more critical than ever before to create, document and build procedures and policies into the day-to-day workflow of your operations department.

A CMMS can boost digital documentation for all aspects of manufacturing operations: work orders, equipment and asset conditions, safety manuals, utility use and more. This information can be leveraged in onboarding and training, helping save time getting new employees up to speed while enabling managers to ensure the safety of plant operations.

Smart tools can also help M&O leaders to track asset health, workflows and compliance data. Maintaining compliance is everything for manufacturers in specific areas, such as food and beverage.

Manufacturing in the food and beverage space is complex; it requires balancing efficient output with supporting high health standards and keeping sufficient records of past maintenance history. Asset management software helps curb maintenance costs while easily enabling managers to monitor and maintain safety standards—to stay ahead of inspections and audits.

Maximize your investment with Brightly

At Brightly, we're all in. We get that for manufacturers of all products, finding problems before they occur is critical to ensure a safe, well-maintained plant floor.

Whether you want to empower your operations leaders to document all work orders in one centralized location, generate reports for regulatory compliance or have the capability to schedule preventive maintenance to avoid asset failure and maintain a safe plant floor, our solutions can help improve risk management and compliance.



Lean on Brightly to get ahead

At Brightly, we're a partner, not a vendor. Our experts have deep experience across manufacturing—including food and beverage, oil and gas, metal, as well as rubber and plastic fabrication—so we get that no two organizations are the same.

We also understand what challenges manufacturers are up against. Whether you're trying to accomplish more with fewer resources, training the next generation of workers, or trying to keep operations as efficient, sustainable and profitable as possible, we are here for you.

Brightly has built a [suite of powerful solutions](#) to help your team work effectively. From leveraging sensors to work smarter, to tracking your carbon footprint and cutting utility waste, our software helps tackle problems and saves you time and money.

Ready to power up your manufacturing with Brightly?

[Connect with an expert today.](#)



About Brightly Software

Brightly, a Siemens company, is the global leader in intelligent asset management solutions, enables organizations to transform the performance of their assets. Brightly's sophisticated cloud-based platform leverages more than 20 years of data to deliver predictive insights that help users through the key phases of the entire asset lifecycle. More than 12,000 clients of every size worldwide depend on Brightly's complete suite of intuitive software – including CMMS, EAM, Strategic Asset Management, IoT Remote Monitoring, Sustainability and Community Engagement. Paired with award-winning training, support and consulting services, Brightly helps light the way to a bright future with smarter assets and sustainable communities. For more information, visit brightlysoftware.com

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