

2023 Manufacturing Predictions: 12 Trends in Production, Technology, & People

Predictions suggest technological and recruitment updates will make 2023 a promising year to be a manufacturer





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Challenging Conditions, Creative Solutions

With hallmark efforts in sustainability & booming tech expansions, manufacturers are planning for a year of resilience

Manufacturers continue to face the ripple effect of the COVID-19 pandemic. From supply chain backups to understaffing, it is clear that manufacturers would benefit from innovative solutions that could eliminate barriers to workplace success. Current predictions and manufacturing trends for 2023 point to some advancements in three key areas: production, technology, and people.

By exploring these trends and their impact on the manufacturing industry, you can better prepare for the year ahead. Let's take a closer look at 12 trends in manufacturing this year — and some of the organizations making 2022 predictions a reality in 2023.

SECTION 01

Production & the Future

A Sustainable State of Mind

Adopting sustainable practices may alleviate pressure from continued supply chain disruptions & ongoing effects of inflation

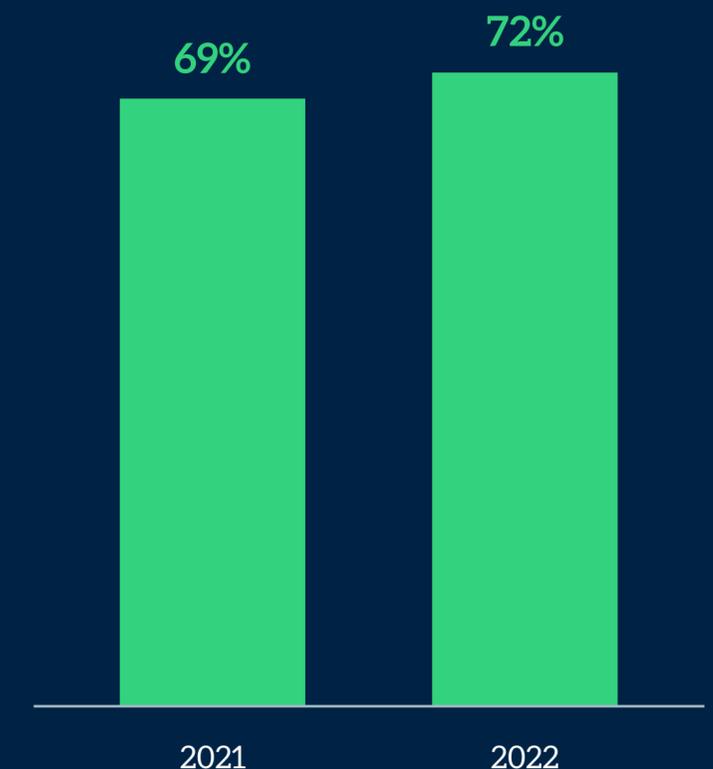
According to Enterprise Minnesota's [survey](#), 43% of manufacturers in Minnesota alone expect to face a recession in 2023 — but 85% of those same manufacturers are confident they will endure. These results indicate that while economic trust is low, manufacturers are prepared to implement new practices that will keep them ahead of any discouraging numbers.

One area within manufacturing where profound advancements are already taking place — and are projected to continue throughout 2023 — is the production work manufacturers are known for. Sustainability will be a driving force in lowering

costs and combating both inflation and fears of recession. Reshoring production will result in lower shipping expenditures, which remains a [top concern](#) for manufacturers. And anticipating further difficulties within the supply chain will help manufacturers avoid undesired slowdowns.

In this chapter, we'll take a closer look at four trends in production that will affect manufacturing in 2023.

Percentage of manufacturers who want workers to know their company has a great work environment



Source: ["The State of Manufacturing,"](#) November 2022, Enterprise Minnesota



TREND #1

Sustainability will become a priority for manufacturers

Every year, there are more reasons to incorporate sustainable practices into manufacturing production, and 2023 is no exception. Not only can sustainable practices lower production costs, but consumers want to buy sustainably produced products. Beyond profits, sustainability also helps manufacturers contribute to the good of the world — and humanitarian efforts can lead to greater job satisfaction, greater public perception, and a healthier environment for all.



For ways to incorporate sustainability into manufacturing production, consider the following examples:

- **3D printing:**

Through alternative sources, manufacturers can decrease their reliance on fossil fuels. [Sakuú](#), a startup based in California, creates batteries with 3D printing technology — leveraging sustainable practices with promising results.

- **Reducing CO2 emissions:**

From simple solutions in logistics to sweeping reform at the structural level, manufacturers can limit CO2 emissions at all levels of the supply chain. [Grundfos](#) heralds this idea by involving industry students in competitions to identify ways to minimize their carbon footprints.

- **Sustainable packaging:**

A 2020 McKinsey [study](#) reveals 60% of consumers would pay more for products that have sustainable packaging. Investing in engineering research and development (R&D) can help manufacturers identify ways to incorporate this practice into daily production.





TREND #2

A slight increase in consumer spending will require greater manufacturing efforts

A Goldman Sachs [report](#) suggests that despite inflation, consumer spending may grow 1.5% in 2023. Increased revenue is a good start, but inflated material costs can slash profits early in the production cycle — which can put pressure on manufacturers. To keep up with demand, manufacturers may want to identify areas where they can cut costs without sacrificing production quality.



Frito-Lay's sustainability powerhouse

↓ 91%

Greenhouse gas reduction in direct fleet operations achieved through facility redesign

Source: "[Frito-Lay Transforms California Facility into Showcase for Sustainability](#)," January 2023, Frito-Lay





TREND #3

Food production will explore alternative proteins and food waste mitigation

Similar to their sustainability efforts, manufacturers in food production will seek optimization strategies to drive market value and eliminate unnecessary waste. According to a 2021 [study](#) by the Environmental Protection Agency (EPA), food waste in the United States (US) created greenhouse gas emissions equivalent to the emissions of 42 coal power plants. With this in mind, manufacturers bear a great responsibility — and opportunity — to adopt practices that prevent this number from climbing.

Additionally, as acceptance for cell-based proteins becomes more widespread, manufacturers are incorporating these options into production. The results are promising: by shifting to cell-based proteins, manufacturers can contribute to [reduced greenhouse gas emissions](#) with measurable results by 2030.



Internet of things (IoT) & manufacturing



↑ 17.4%

Projected growth of IoT market value in manufacturing

Source: "IoT in Manufacturing Global Market Report 2022, By Component, Vertical, Platform, Application," March 2022, Research & Markets

TREND #4

Manufacturers will create innovative solutions for supply chain pain points

Manufacturers continue to wrestle with negative industry impacts brought on by global events, from the COVID-19 pandemic to the war in Ukraine. A well-known difficulty in manufacturing today is ongoing complications within the supply chain. Whether borders close or routes are blocked, manufacturers must be prepared when supplies don't arrive on time.

Despite supply chain frustrations, manufacturers are implementing preventative solutions for 2023 that anticipate missed deliveries before they occur. A large portion of these solutions involve technological upgrades, which we'll cover in depth in the next chapter. For now, it's important to note that technology is shaping the supply chain's future, and manufacturers can embrace the control technology gives over their place in the chain.



SECTION 02

Technology Trends Shaping the Industry

A Digital Future for Manufacturing

With digitization, manufacturers are empowered to tackle supply chain disruptions — but cybersecurity systems will need support

While manufacturing is already a tech-focused industry, there remains room for improvement. With volatile market conditions, workers everywhere need additional support. But when manufacturers need to expedite R&D, locate a delayed shipment, or simplify the way they receive consumer feedback, they require refreshed technology that puts them back on track.

Technology trends within manufacturing for 2023 are vast, and these updates spell opportunity for manufacturers. Integrating servitization on the employee level, providing access to new software and features, identifying modular architectures for

technological integrations, and increasing focus on cybersecurity are all areas where technology will shape manufacturing this year. Investing in robust tech opportunities creates an easy path for retaining employees and developing new recruitment strategies that can onboard a crucial new workforce within manufacturing. If you're looking for the next big thing in manufacturing, you'll likely find it in technology.

We'll dive into five trends in this chapter, and spotlight some publications and organizations you may consider bookmarking for future reference.

The importance of tech in manufacturing's future

40%

Of manufacturers say technological capability is critical to organizational growth

Source: "[Building The Resilient Organization: 2021 Deloitte Global Resilience Report](#)," January 2021, Deloitte





TREND #5

Digitization will create more opportunities to repair supply chain inconsistencies

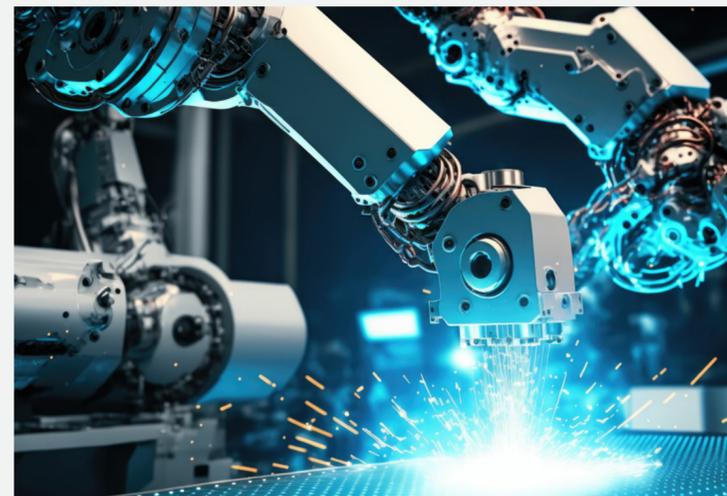
While a [study](#) by Accenture points out that newly implemented digitization strategies will take some time to show results — specifically in logistics — it remains vital for manufacturers to incorporate technology into supply chain practices that combat current disruptions and expedite deliveries. [Scheduling model synchronization](#), for example, can help manufacturers identify all production stages within the supply chain and pinpoint where specific material orders are at all times. This allows manufacturers to anticipate problems before they arise, creating ample time for planning alternative deliveries.



TREND #6

The manufacturing employee's digital experience will shape industry growth

An impressive 66% of organization executives across industries indicate in a Deloitte 2022 [survey](#) that digitization is already part of their information management resilience strategy, and an additional 28% indicate that digitization will become a priority in the next three years. These results confirm that technology leads industry development, and manufacturers are taking notice. Opting in to updated features and software put manufacturers ahead of the curve — and improve organizational efficiency, as well.





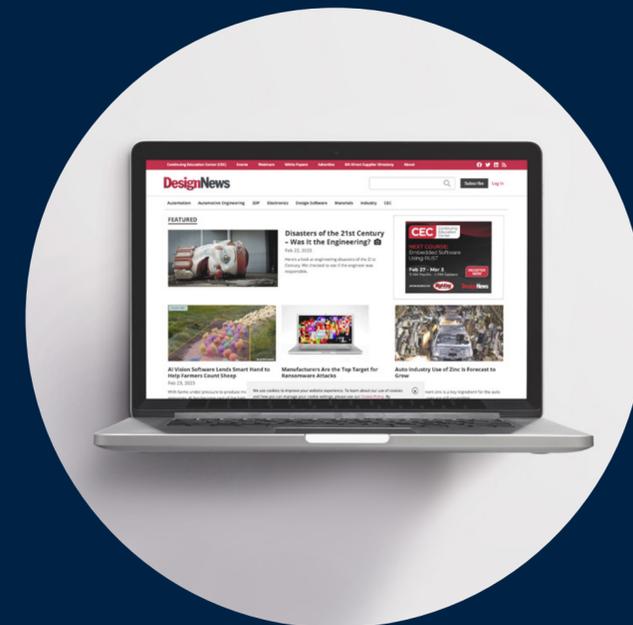
TREND #7

Modular information technology (IT) architectures will enable progressive change in the manufacturing digitization journey

Because IT integration will take time within the industry, manufacturers can expect to adopt [modular IT architectures](#) to address current needs for digitization. Modular architectures can operate independently, but also be connected to other modular architectures to develop an integrated, organization-wide system. Building this platform will set up manufacturers for success in the future.



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TREND #8

Servitization will simplify and streamline manufacturing processes

Subscription services are not only for consumers — manufacturers can also [utilize these systems](#). By deploying IoT technology, manufacturers can gather important data concerning the performance of machinery. This enables manufacturers to effectively utilize servitization systems: if the data show decreased efficiency, suppliers can complete repairs before machinery

is ever down. Similarly, software as a service (SaaS) providers may see an uptick in manufacturer utilization, as well.





TREND #9

Cybersecurity will become a top priority for manufacturers as technological integration becomes widespread

With the current underutilization of technology within some manufacturing sectors, manufacturers can expect a heightened focus on cybersecurity measures in 2023 — and beyond. SecurityScorecard found that a startling [48% of manufacturing companies](#) rated C or below on cybersecurity performance. While this number is concerning, it also identifies opportunities for current employees and for recruitment. Further technological integrations can fulfill many areas within the need for greater cybersecurity, but the real need lies in greater staffing — and an IT position may be attractive to potential applicants who would otherwise shy away from joining the manufacturing industry. We'll cover staffing trends for 2023 in the following section.

Technology & the manufacturing workforce



Of organization representatives survey respondents believe training existing employees in technological updates is important

Source: ["The social enterprise at work: Paradox as a path forward,"](#) February 2020, Deloitte

SECTION 03

People in Manufacturing

Employing Automation for a Growing Market

As more positions become available, manufacturers will experience and implement initiatives that prepare them for career success

The final three trends we'll explore here all suggest that manufacturers can expect greater job satisfaction in 2023. While unemployment rates continue to complicate all industries, manufacturers are rising to the challenge by achieving innovation through automation. The shift to a technological focus opens doors for new workers with backgrounds in varying disciplines. Job seekers who specialize in IT, finance, engineering, or even customer service should tune into the opportunities that manufacturing will provide and the incentives recruiters will employ to get talent on board. Economic trends will continue to pose unique challenges for the industry, but staffing initiatives may combat those negative effects.

Though measuring performance, gathering statistics, and reporting progress all contribute to the current and future success of the industry, it's important to remember that manufacturing is built by people. From R&D to logistics, the workers who conceptualize, develop, and deliver are the real force behind industry progress. Without their efforts, the impressive data that we celebrate would be impossible to achieve. Let's look at three predictions that suggest 2023 will be the year manufacturers reap the benefits of the work they've accomplished.

↑ 10%
manufacturing jobs

Were added in the United States
in January 2023





TREND #10

New manufacturing facilities — and initiatives — will create jobs

The construction of a new [Pallidus](#) manufacturing plant in South Carolina is [estimated](#) to create over 400 jobs in the local area. Additionally, a [study](#) by the Semiconductor Industry Association (SIA) reveals that efforts to expand semiconductor manufacturing within the US are projected to create 185,000 jobs by 2026. Implementing new technology often leads to automation, and for manufacturers, this means new, elevated positions that provide more opportunity — and more pay.

Thanks to advancements in technological manufacturing — and key investments from stakeholders — manufacturers will enjoy the prosperity of new employment opportunities that can enrich local communities.

 TREND #11

Economic conditions will continue to create resistance – but manufacturers are ahead of the game

A [survey](#) from the National Association of Manufacturers (NAM) shows that 65% of respondents anticipate continuing investments in new equipment and technology. While manufacturers predict recession for 2023, production and progress do not currently reflect slowdowns as a result of economic downturn. This display of resilience is a promising show for manufacturers of all organizational levels.

However, optimism is understandably guarded, as the same NAM survey shows almost 48% of respondents cite a weakened economy as their biggest challenge in 2022 Q4. As manufacturers plan for the coming months, many of them will make improvements to daily processes while still anticipating economic roadblocks.

↑ 3.4%

Projected manufacturing employee wage growth for 2023

Source: "[NAM Manufacturers' Outlook Survey](#)," January 2023, National Association of Manufacturers



 TREND #12

Manufacturing recruitment strategies will focus on improving the employee experience

With a [growing number](#) of available manufacturing jobs in the US alone, manufacturers are reframing the way they recruit new talent. Reconsidering flexibility and expanding employee benefits can entice new workers who might otherwise overlook the profession.

Additionally, manufacturers can use this opportunity to advance diversity, equity, and inclusion (DEI) efforts. According to the US Bureau of Labor Statistics, women comprised [less than 30%](#) of the entire manufacturing workforce in the US in 2022. By refocusing efforts to appeal to all potential employees, both current manufacturers — and future candidates — can enjoy a robust industry that celebrates inclusion and employee health and wellness.

An effective way to improve employee morale is equipping them with industry-leading knowledge that helps them succeed. Attending conferences and industry shows can strengthen connections between organizations and shed light on new trends. Adding conferences to your 2023 docket can not only unlock networking opportunities — it can empower manufacturers and their employees, as well.



The Bottom Line

Manufacturers will face several challenges as the year progresses. Inflation, recession, supply chain problems, and understaffing all pose concerns for the industry. But these challenges aren't holding manufacturers back. With continued pursuits of technological upgrades and guarded optimism, manufacturers hold the power to stake their claim as industry leaders. By preparing for the future and investing in their profession, manufacturers can anticipate success on the horizon.



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