



RETHINKING RESHORING:

A Guide for 2022

Introduction

If there's one thing a global pandemic has taught manufacturers and supply chain managers, it's that making products closer to consumers is critical to avoiding shortages and meeting rapidly shifting demand. The realization is helping drive a boom in manufacturing reshoring and foreign direct investment (FDI) in U.S. manufacturing, according to the Reshoring Initiative's [1H2021 Data Report](#). The report projects a 38% bump from 2020's already-stellar numbers for manufacturing job postings for 2021.

Is reshoring a priority for your company?

“ Companies are deciding that it's more profitable to produce in the market for the market than it is to produce somewhere else and ship to the market. ”



Harry Moser
President
Reshoring Initiative

Whether it's a U.S. company bringing manufacturing operations back home or a foreign company investing in domestic production, the impetus is the same. In each case, the company figures it makes more sense from the point of view of return on investment to manufacture goods in the actual market for which they are intended rather than make them overseas.



Besides the pandemic, longer-term trends are driving reshoring as well. Lower total costs, rising overseas wages, and newly affordable automation are also shifting the balance in favor of domestic over overseas manufacturing. The trend should only accelerate, providing opportunities for manufacturers to reap the benefits.

Three factors driving reshoring



Lower total costs



Rising overseas wages



Affordable automation

The Current State of Reshoring



According to Thomas' [2021 State of North American Manufacturing Annual Report](#), 83% of North American manufacturers say they're planning reshoring initiatives. That's a big jump from the 54% of manufacturers surveyed in March 2020. Let's take a closer look at what that means for the U.S. economy:

579,811: Number of manufacturing companies currently in the U.S.

481,243: Number of companies planning to add a new U.S. supplier

\$921,247: Average value of a new supplier contract

\$443 billion: Amount to be injected into the U.S. economy

How has your company's approach to reshoring shifted in the last few years?

Manufacturers Planning Reshoring Initiatives

2020



2021



The trend should continue to accelerate now that manufacturers have had time to realize the benefits.

Manufacturing initially went overseas to take advantage of lower production costs. Now, however, costs are rising everywhere at the same time that automation grows more affordable. Add to the mix increasing demand for made-in-U.S.A. products and extended supply chains strained to the breaking point, and reshoring or FDI makes sense for most manufacturers.

Overseas costs have steadily risen year over year driving a shift to reshoring even before the COVID-19 pandemic. Then the pandemic, with scrambled supply chains and rapid shifts in consumer demand, put the move on fast-forward.

Today, many manufacturers have realized that overseas production's total costs and risks may outweigh potential savings. According to Harry Moser, president of the Reshoring Initiative, the key to making an accurate assessment is to calculate the total cost of ownership for manufacturing (TCO), not just the most obvious costs such as labor and freight alone.

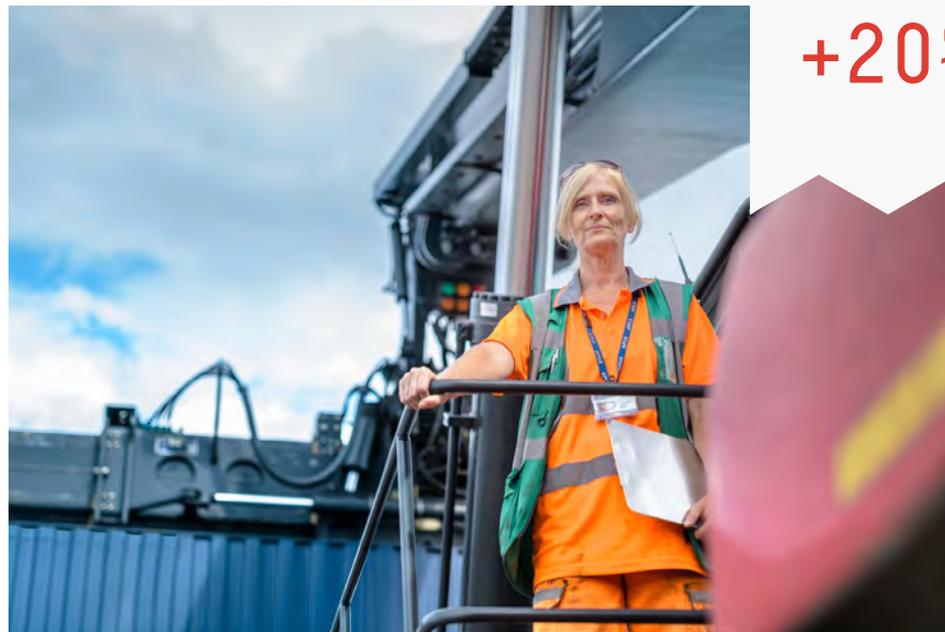
The Real Cost of Reshoring



According to the Reshoring Initiative, some 60% of manufacturers look solely at the most obvious costs. That's a mistake because it doesn't address the additional hidden costs, which can add up quickly.

Instead, companies should look beyond wages and other easy-to-parse costs and consider such costs as more expensive packaging designed for weeks-long ship voyages rather than relatively short trips by truck. Inventory carrying costs due to long lead times between manufacture and sale and delays due to miscommunications between engineering and manufacturing departments speaking different languages in different time zones also add to expenses.

Altogether, the Reshoring Initiative estimates that these hidden costs add an average of 20% to manufacturing costs. It's no wonder, then, that manufacturers cite TCO as their biggest consideration when considering reshoring, according to the Thomas report.



Do you consider
hidden costs
when offshoring?



Overhead



Balance sheet



Risks



Corporate strategy

+20%: % of hidden costs that make up the total cost of manufacturing¹

The Future of Reshoring is Automated



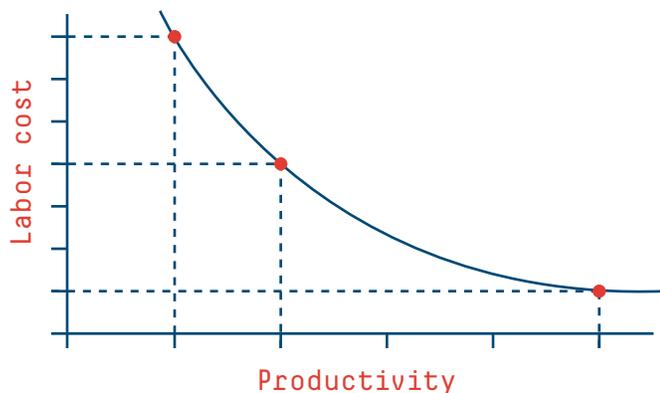
Because companies typically don't just lift and shift their operations from overseas to domestic factories, automation plays a vital role in bringing down TCO. Companies bringing production back to the markets they serve are rebuilding, allowing them to take advantage of advances in digital technologies that can deliver significant cost savings.

New approaches to automation can streamline production and increase flexibility without breaking the bank. While this newfound flexibility can enable manufacturers to meet growing demand for quality products, it also poses the challenge of having the proper tools to do so. This is where modular systems shine. Modular systems are the foundation of software-defined manufacturing and are fully customizable, easily upgradable, and quickly scalable systems that allow companies at all levels to employ automation.

You can think of software-defined manufacturing as similar to software-defined networking or other IT infrastructure. It brings a software-first approach to the factory floor that combines modular-software and hardware together in the cloud. This allows companies to scale production up or down quickly and to retool as needed, giving them the capabilities they need to find additional value in data, take advantage of continuous improvement, and leverage machine learning over time to better serve customers and keep costs under control.

What can automation do for you?

Decreased labor costs + increased productivity



“ Modularization, which is being driven by end users, offers significant economic benefits both during the engineering and project phase and throughout the lifecycle of the plant or other industrial facility. ”



Larry O'Brien
ARC Advisory Group

Take the Next Step



The pandemic has accelerated reshoring and FDI. But the trend was already underway beforehand, as manufacturers faced rising labor costs overseas and found renewed competitiveness in automation – automation that’s helping bring jobs back home and made-in-U.S.A. products closer to the consumer.

Remember, rethinking reshoring means:

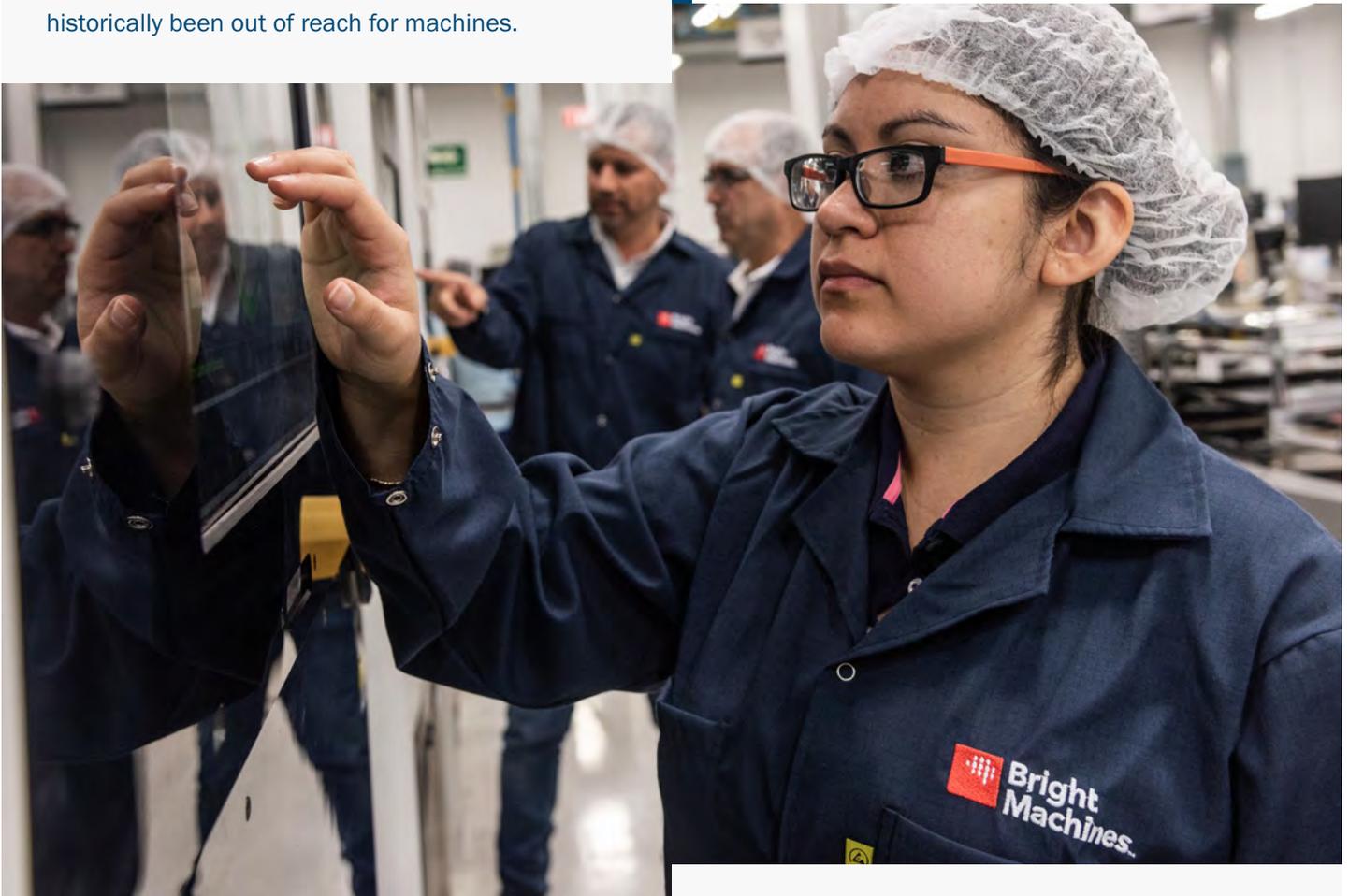
- ❑ Avoiding shortages and meeting rapidly shifting demands by making products closer to your consumers
- ❑ Boosting the local economy and meeting demand for made-in-USA products by adding U.S. suppliers
- ❑ Calculating total cost of ownership for offshoring to find your true production costs vs. potential savings
- ❑ Streamlining production and increasing flexibility with data and automation

Sources:

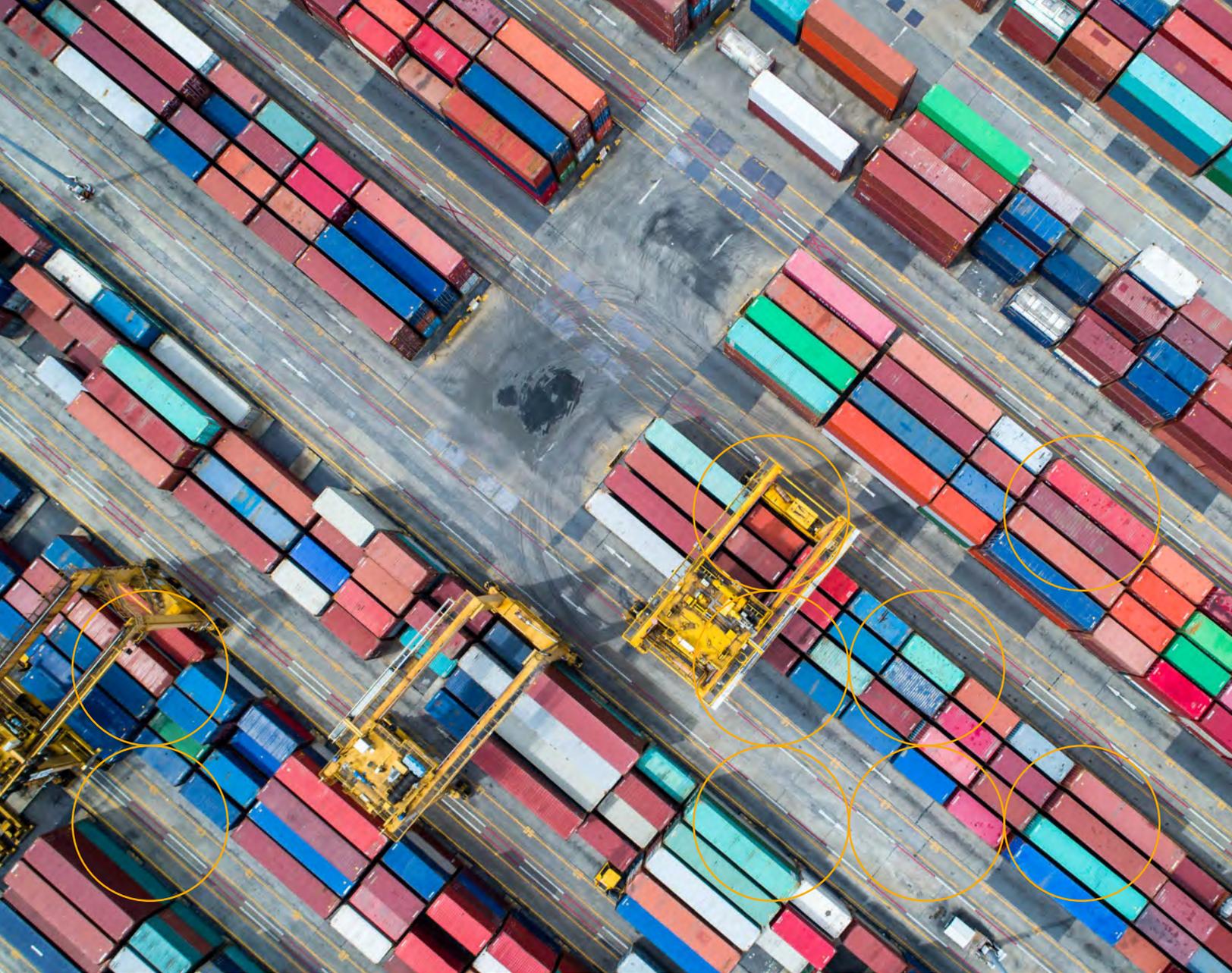
1. Impact of Using TCO Instead of Price, Reshoring Initiative, 2020.

About Bright Machines

By bringing both “brains” and “brawn” together in an integrated, end-to-end solution, Bright Machines tackles the assembly and inspection manufacturing steps that require a degree of flexibility, adaptability, and dexterity that has historically been out of reach for machines.



Our intelligent automation solutions make reshoring easier by accelerating digital transformation at scale and elevating production in a market that has seen significant changes in global supply chains as manufacturers demand robust and resilient operations.



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RETHINKING RESHORING:

What It Means For Manufacturing in 2022



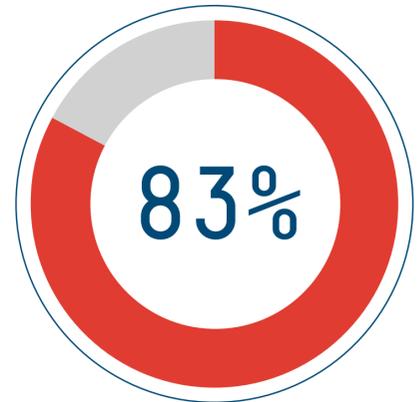
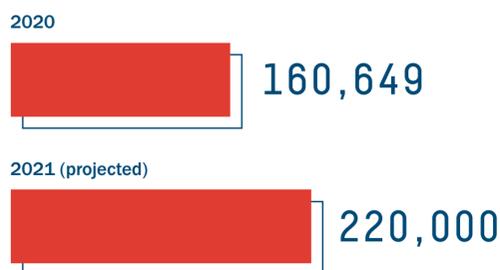
Broken supply chains, rising overseas wages, and newly affordable automation have sparked a boom in domestic manufacturing through reshoring and foreign direct investment (FDI). Here's where the trend is going and how you can get on board.

The Current State of Reshoring



The Reshoring Initiative projects a 38% bump in reshoring and FDI job postings in 2021.¹

Reshoring and FDI job postings



of North American manufacturers say they're planning reshoring initiatives.²

The Reshoring Advantage



Reshoring removes hidden costs such as more expensive packaging for long-distance shipping and inventory carrying costs due to long lead times. It also reduces the risk of miscommunication between engineers and plant managers speaking different languages in different time zones.

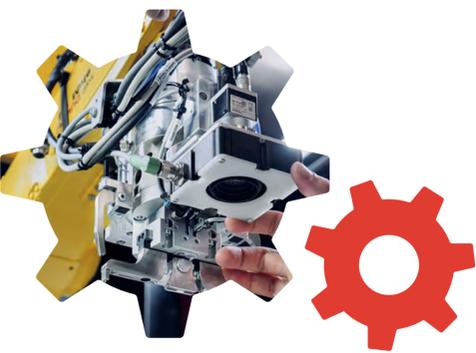
Estimating your total cost of ownership for manufacturing rather than considering only obvious costs such as wages can help you determine your reshoring return on investment.

Hidden costs:

- Overhead
- Balance sheet
- Risks
- Corporate Strategy

+20% hidden costs that make up the total cost of manufacturing overseas.³

The Future of Reshoring is Automated



“Modularization, which is being driven by end users, offers significant economic benefits both during the engineering and project phase and throughout the lifecycle of the plant or other industrial facility.”

Larry O'Brien
ARC Advisory Group⁴

Data-driven automation can streamline production and increase flexibility with modular systems. These software-defined manufacturing systems are fully customizable, easily upgradable, and quickly scalable systems that allow companies to employ automation without breaking the bank.

Sources

- 1H2021 Data Report, Reshoring Initiative, 2021., 2. 2021 State of North American Manufacturing Annual Report, Thomas, 2021., 3. Impact of Using TCO Instead of Price, Reshoring Initiative, 2020., 4. Automation and Production from a Modular Perspective, Larry O'Brien, ARC Advisory Group



To learn how to take advantage of the reshoring boom, download our [free guide](#).

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RETHINKING RESHORING: Answers to the Top 5 Questions

With supply chains disrupted and customer demand shifting in response to new workplace and consumer realities, bringing production closer to customers makes sense for increasing numbers of manufacturers. In fact, more than 8 in 10 North American manufacturers plan to reshore in the near term.¹ Here are answers to five of the most-asked reshoring questions.

Why should reshoring be a priority?

1

Manufacturers moved production overseas to take advantage of lower production costs. But the calculus is changing because of long lead times caused by shipping delays, increasing freight costs, and greater awareness of the environmental toll of shipping goods long distances. Customer demand is also shifting toward domestically produced products. At the same time, newly affordable automation is bringing down domestic production costs.

How do I know if reshoring makes sense for my company?

2

Calculating your total cost of ownership (TCO) for your manufacturing process and all the other costs of getting products to customers will give you the best assessment of whether you can lower expenses by reshoring. Those costs include such factors as labor on- and offshore, shipping costs, more robust packaging required for longer distances, and inventory carrying costs needed for consistent delivery.

How do I calculate TCO?

3

Because calculating TCO can be tricky, we recommend starting with a dedicated TCO calculator for manufacturing. The Reshoring Initiative's [Total Cost of Ownership Estimator](#)[®] lets you compare 30 different line-item costs and risks based on your manufacturing data for each place and manufacturing source you're considering. Charts generated by the Estimator will give you the TCO for each location, along with five-year projections.²

How can automation help lower reshoring TCO?

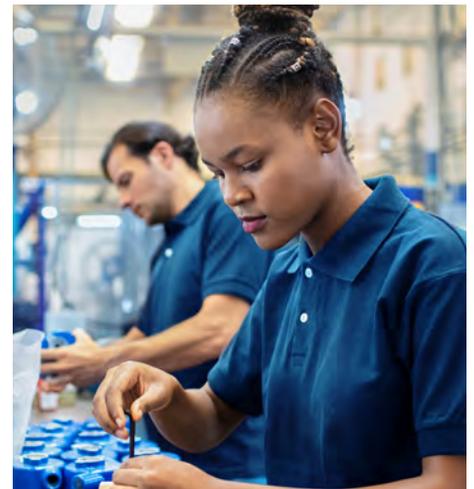
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With digital processes, engineers can model the entire manufacturing process from start to finish and make adjustments before build-out, shortening time to deployment by as much as 50%. Such modeling helps get you to revenue-generating production that much faster. Once built, modular, automated production lines let you scale up or down as needed — for example, to meet seasonal demand — while minimizing capital expenses.

How can I get the domestic talent I need to reshore?

5

Software-defined manufacturing lines decrease recruiting costs by enabling you to make do with fewer people in a tight labor market and pay them more without negatively affecting TCO. Plus, modern human-machine interfaces with easy-to-use, low- or no-code designs simplify hiring and training as they require fewer specialized skills — all of which can make you more competitive in a tight labor market.



Sources:

1. 2021 State of North American Manufacturing Annual Report, Thomas, 2021., 2. Total Cost of Ownership Estimator, Reshoring Initiative, accessed 2021.