# Manufacturing resilience: What's driving reindustrialization in the United States?





# There is a new buzzword in the industrial sector, and that word is reindustrialization.

Reindustrialization refers to a country's strategic effort to revive and strengthen its industrial sector. Its principal aims are to create jobs, boost production, and reduce dependency on external sources.

Executives in the US and Europe have turned to reindustrialization to revitalize their industrial sectors after a steady, significant decline in manufacturing employment. Manufacturing in America, for example, has declined over the past half-century as the economy shifted to service-providing industries. According to the U.S. Bureau of Labor Statistics, American manufacturing employment peaked in 1979 at 19.6 million. In 2024, that employment number sits at around 12.9 million.

A combination of factors has driven this decline, including globalization and offshoring, an aging workforce, and the skills gap arising from the demands of operating modern technologies. Economic and geopolitical shocks have also exposed the fragility of global supply chains.

Capgemini's latest report <u>The</u> <u>resurgence of manufacturing:</u> <u>Reindustrialization strategies in</u> <u>Europe and the US</u>, explores some of the key strategies leaders are taking to drive reindustrialization, and how these efforts could impact innovation. Here, we take a look how these trends are unfolding across the US.

# 7 in 10

organizations identify supply chain resilience – defined as the ability to adapt and respond quickly to operational disruptions – as a leading driver of reindustrialization.

### Reindustrialization in the United States

US organizations recognize the importance of reindustrialization for economic resilience, job creation, and technological advancement. By revitalizing industrial sectors and optimizing supply chains, companies

can promote sustainable growth. At the same time, organizations must modernize existing manufacturing facilities and incorporate smart and advanced technologies to boost domestic industries.



### What's driving reindustrialization?

According to Capgemini research, there are multiple factors encouraging reindustrialization today.

# Supply chain resilience

The COVID-19 pandemic exposed the vulnerabilities of global supply chains, motivating many organizations to rethink production and sourcing strategies. In addition, disruptions in key geographies continue to contribute to sourcing and logistical uncertainties, blocking the movement of goods. Reindustrialization can bolster supply chain resilience, ensuring its stability and agility while managing associated costs.

### Economic and geopolitical concerns

Deindustrialization has led to job losses and damaged competitiveness, particularly in regions that, historically, were considered industrial hubs. These regions are responding with reindustrialization as a strategy to reclaim economic value and fortify competitiveness. Escalating geopolitical tensions such as US-China tensions, the war in Ukraine, and the European energy crisis have emphasized the risks of remote production. The need to ensure the security of supply domestically or with like-minded nations is a compelling driver of onshoring and nearshoring.

# Sustainability considerations of long supply chains

Organizations are re-evaluating and shortening supply chains and establishing domestic manufacturing facilities to mitigate biodiversity loss; improve supply chain resilience; and reduce transportation-related and other indirect carbon emissions, especially Scope 3.

### Government legislation and incentives

Government legislation and incentives have catalyzed the implementation of strategic frameworks and initiatives conducive to industrial growth and innovation. These policies often incorporate incentives for domestic production, streamlined regulatory processes, and targeted industrial investments, particularly in areas of national strategic importance, such as semiconductors, batteries, renewable energy, defense, and pharmaceuticals.

### US investment in reindustrialization

America's commitment to reindustrialization is expected to be sizeable. According to Capgemini research, cumulative investment over the next three years stands to increase, with a projected share of \$1.4 trillion.

Reindustrialization involves capital investment in equipment, technology, and skill-building. However, total cost of ownership (TCO), including factors like escalating wages, rising transportation costs, and import duties in conventional offshore manufacturing hubs, is gradually eroding the cost advantage.

This shift renders domestic manufacturing more competitive, especially when considering increased wages and salaries of production workers, machine operators, and manufacturing supervisors. Reshoring and nearshoring initiatives trim transportation and logistics costs, addressing shipping, customs, currency fluctuations, and lead times, while reducing indirect overhead costs related to supply chain management.

Domestic production can simplify and reduce the cost of product quality management. Local availability also has the potential to attract new customers. According to Capgemini research, almost half of executives (46 percent) acknowledge that customers will pay a premium for locally manufactured or sourced products.

### Reshoring and nearshoring

Reshoring and foreign direct investment (FDI) continue to bring jobs to America, with a record-breaking 364,000 jobs announced in 2022, up from 238,000 in 2021. New investments in American manufacturing by domestic and foreign companies surged after the <u>US Inflation Reduction Act (IRA)</u> and <u>CHIPS and Science Act</u> were passed.

According to the U.S. Census Bureau, there was an <u>80</u> percent surge in manufacturing construction spending in the country in the months leading up to March 2024. Capgemini research uncovered a parallel trend, with 52 percent of organizations opting for nearshoring.

# The US government has been actively encouraging and promoting domestic production. For example:

- The CHIPS and Science Act encourages localized semiconductor production for national security reasons.
- The Inflation Reduction Act (IRA) allocates \$60 billion for clean-energy production, including domestic production of solar panels, wind turbines, and batteries.
- The American Nuclear Infrastructure Act of 2021 aims to re-establish US global leadership in nuclear energy and revitalize the domestic nuclear energy supply chain infrastructure.
- For a vehicle to be sold tariff-free in the region, the United States-Mexico-Canada Agreement (USMCA) requires at least 75 percent of the vehicle's components be manufactured in North America.

# Reindustrialization and sustainability: A winning partnership

Manufacturing has a significant carbon footprint. A focus on sustainability during the reindustrialization process ensures that economic growth is balanced by environmental responsibilities.

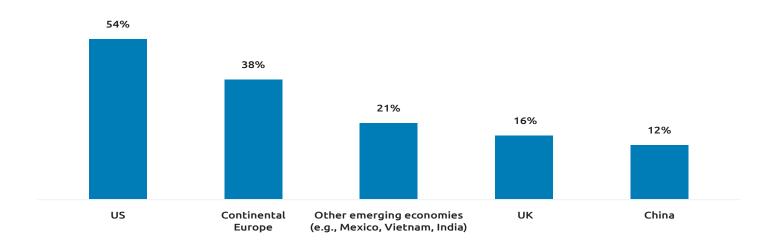
Reindustrialization efforts contribute to climate goals by fostering shorter and more sustainable supply chains. Decarbonization also serves as a catalyst for reindustrialization by spurring investments in climate technologies like low-carbon or renewable energy, and large-scale battery manufacturing facilities like gigafactories.

### Gigafactories as a catalyst for sustainability

Gigafactories are large-scale facilities that manufacture electrification and decarbonization technologies, like batteries for EVs and solar panels.

Gigafactories play a pivotal role in transitioning from internal combustion engines (ICEs) to electric vehicles (EV). As economies prioritize sustainable transportation, the production of EVs is rapidly escalating, with gigafactories playing a leading role in producing EV batteries at scale.

According to Capgemini research, 54 percent of leaders named the US as the top location for setting up gigafactories, for the automotive, battery manufacturing, and energy industries.



Percent of organizations' actual or intended locations for building one or more gigafactories

US investment in gigafactories continues to grow. In 2021, American <u>automakers announced a \$36</u> <u>billion investment</u> in building facilities dedicated to manufacturing EVs and batteries. In the first five months of 2022, automakers announced \$24 billion in EV-related investments, almost double the value announced in the same period of the preceding year.

Incentives from legislation like the IRA continue to capitalize on this momentum.

# Factors that make the US a favored location for gigafactories include the following.

# Tax credits and incentives from the Internal Revenue Service

The Advanced Manufacturing Production Tax Credit (AMPTC) and Advanced Energy Project Investment Tax Credit (AEPITC) have reduced the cost of manufacturing high-performance batteries 30 percent on average.

This has resulted in more gigafactory announcements in the US. American gigafactory capacity in the pipeline through 2030 has increased from around 700 GWh in July 2022 (prior to the IRA) to just over 1.2 terawatt-hours (TWh) as of July 2023.

# State-level incentives, preferential loans, and other forms of support

Many US states offer rebates and tax deductions to make the transition to electric vehicles more attractive, such as direct cash rebates upon purchasing an EV, waiving of sales tax or registration fees for EVs, allowing EVs to use high-occupancy vehicle (HOV) lanes, even with a single occupant, and discounts on monthly electricity bills.

### Consumer tax credits

Credits vary based on the battery capacity of the vehicle and gradually phase out as manufacturers reach a predetermined sales volume. Up to \$7,500 in tax credits are available for EVs with a battery capacity of at least 16 kWh. (The credit amount decreases with lower battery capacity.)

### Access to mineral resources

The International Energy Agency (IEA) predicts a substantial increase in global mineral demand by 2040, driven by EVs and battery storage. North America holds a significant advantage in this industry owing to its abundant mineral resources.

# Digital technology accelerates reindustrialization efforts

There is a commitment to increasing investment in digital technologies to support reindustrialization. Cappemini research reveals a prevailing optimism, with 68 percent of executives expressing confidence in reindustrialization as a driver of innovation and technical advancement. This positive outlook underscores a shared belief that integrating digital technologies into reindustrialization will also boost productivity (63 percent).

Artificial intelligence (AI) and machine learning (ML) promise to enhance decision-making processes, automation and robotics are expected to streamline operations and reduce labor costs, and cloud and data analytics will play pivotal roles in extracting meaningful insights at speed.

For example, Siemens is contributing to the <u>acceleration of additive manufacturing</u> (AM) in the US by supporting the local AM machine builder community and providing motion control, automation hardware, digitization software, and technology expertise. From its Charlotte Advanced Technology Collaboration Hub (CATCH), Siemens will offer an ecosystem platform for machine builders, machine users, and additive design engineers.

63%

of leaders plan to increase investments in digital technologies to boost productivity due to reindustrialization.

# New strategies shape the future of reindustrialization

Reindustrialization has emerged as a compelling response to a complex interplay of national dynamics, geopolitics, and technological advancements in the United States. Business leaders are redefining manufacturing for a more resilient and sustainable future, mobilizing strategic initiatives to fortify supply chains, foster economic growth, and drive innovation.

Increased investment in domestic manufacturing and nearshoring, digitalization, and sustainability emerge as pivotal driving forces for reindustrialization, igniting optimism for innovation and social and environmental stewardships.

Organizations are poised to navigate this transformative period with agility, but the journey ahead demands concrete action. By crafting clear business cases, nurturing collaborative partnerships, and harnessing government regulations and incentives, companies can accelerate the pace of reindustrialization and unlock its full potential.

To learn more about the future of reindustrialization, <u>check out the full report</u>.



# About Capgemini

Capgemini is a global business and technology transformation partner, helping organizations to accelerate their dual transition to a digital and sustainable world, while creating tangible impact for enterprises and society. It is a responsible and diverse group of 340,000 team members in more than 50 countries. With its strong over 55-year heritage, Capgemini is trusted by its clients to unlock the value of technology to address the entire breadth of their business needs. It delivers end-to-end services and solutions leveraging strengths from strategy and design to engineering, all fueled by its market leading capabilities in AI, cloud and data, combined with its deep industry expertise and partner ecosystem. The Group reported 2023 global revenues of €22.5 billion.

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