IOWA MANUFACTURING 4.0 PLAN

Iowa Manufacturing 4.0 Plan or “Industry 4.0” refers to the various ways in which technology is driving the ongoing digitization of manufacturing.

Manufacturing digitalization will transform how products are designed, fabricated, used and serviced. While companies understand the importance of embracing digital, they must determine how digital fits into business models and the best way to leverage these new technologies.

The Iowa Manufacturing 4.0 Plan will:
• Assess current trends and challenges facing Iowa manufacturers
• Examine existing policies and identify opportunities
• Help SMEs manage the digitalization changes to maintain a competitive advanced manufacturing sector
• Set state priorities and provide strategic guidance

Emerging digital technologies are currently being incorporated throughout the manufacturing value chain, resulting in a convergence of “smart” solutions aimed at driving increases in productivity and flexibility utilizing a new wave of technologies to fully automate production processes and decision making across the production life cycle.

The goal is to transition and maintain a vibrant manufacturing base through strategies that will drive competitiveness in the state’s manufacturing sector, including:
• Interconnectivity – generation of big data, machine to machine/machine to human communication
• Decision support – use of analytics for predictive action and autonomous decision making
• Customization and flexibility – ability to create highly tailored production runs with minimal downtime and waste
• Decentralization – outsource low-level tasks and decision making to machines and increase modular capabilities of production assets

The manufacturing industry is actively investing in the transition to Industry 4.0 Models.
• PwC survey from 2016 notes that U.S. companies planned to commit $907B annually to digital technologies – major investments continue to be made through present day
• Ability of regional manufacturing-driven economies to compete in global markets hinges on successful transition to new operations models – will face increasing costs and customer service pressures from first movers
KEY DRIVERS

Several key technology pillars are driving the convergence of manufacturing digitization around the concept of an adaptive and modular “smart factory.”

MANUFACTURING IS BIG IN IOWA

Manufacturing helps drive the Iowa economy and is a critical industry sector that impacts the state’s economic vitality. According to the Bureau of Economic Analysis, over 6,400 manufacturers contribute nearly $30 billion to Iowa’s economy, accounting for over 17% of the state GDP, placing Iowa seventh in the nation for manufacturing GDP.

• Approximately 4,142 manufacturing companies employ at least 10 to 1,000 employees
• Manufacturing sector’s 222,586 jobs accounted for 14% of Iowa’s total employment in 2018
• Manufacturing jobs support an additional 350,000 indirect jobs in other industries

• The average Iowa manufacturing job pays $60,257 per year; compared to the overall average state wage of $47,511 for all industries (2018)
• Manufacturing jobs account for 13.9 percent of total earnings in Iowa’s metro areas and 27.7% of total earnings in non-metro regions
• More than half (52.9%) of Iowa’s manufacturing jobs are in its non-metropolitan counties

Source: Bureau of Labor Statistics

LEARN MORE

To learn more about these initiatives, contact Jill Lippincott at jill.lippincott@iowaeda.com or call 515.348.6159.

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