

Automate ND

The North Dakota Development Fund received \$5,000,000 during the 67th Legislative Assembly Special Session in American Rescue Plan Act (ARPA) funding for a grant program. Automate ND was developed in response to the workforce shortage in North Dakota which was exacerbated by the COVID-19 pandemic. At that time, North Dakota had over 30,000 open jobs and the lowest unemployment rate in the country. Companies in ND are facing growing customer demand but lack the workforce to enable expansion and increased productivity. Automation can help increase the productivity per employee and allow companies to expand without hiring additional talent. Impacts of automation include increased company profit, higher wages for employees, improved employee satisfaction, and an increase in state GDP.

The Automate ND Grant Program was a pilot program that awarded grants of up to \$500,000 (1:1 match) to North Dakota Primary Sector Certified businesses (i.e., manufacturing, ag processing, etc.) for machinery, equipment, or software being purchased.

Initial data from the program's first round of funding reveals substantial cost savings, productivity gains, and workforce development benefits for participating manufacturers, positioning Automate ND as a vital component of the state's economic development strategy.

Key ROI Findings from Initial Funding Round

- **Significant State Investment Leverage:** The state's investment of \$4.9M in Automate ND grants was met with \$7.2M in private sector matching funds, covering \$12.1M in total automation project costs. According to the National Association of Manufacturers (NAM), every dollar invested in manufacturing generates a \$2.60 return in direct and indirect economic impacts. This results in an overall impact of \$31.5M dollars to North Dakota.
- **Substantial Labor Savings:** The 18 funded projects are projected to save 109,000 labor hours annually, translating to an estimated 52 full-time equivalent (FTE) positions. This efficiency gain allows manufacturers to reallocate resources to higher-value tasks, driving innovation and growth. Companies reported upskilling would result in a \$2-3/hr. increase.
- **Rapid Return on Investment:** Awardees report an average projected break-even time of just 24 months.
- **Productivity and Capacity Increases:** Companies projected an average productivity increase of 151% (Median 61%) with revenue increases ranging from \$360,000 to \$14.9M annually.
- **Positive Workforce Impacts:** Companies report that automation is facilitating upskilling and internal mobility, addressing labor shortages, improving recruitment and retention, reducing the need for demanding, repetitive labor, and supporting sustained business growth. Increased employee safety was a recurring theme, as well.

The \$5M ARPA funds awarded covered \$12.1M in automation projects. Total demand from all 42 applicants included over \$25M of equipment and would have required \$11.9M in state match. This was over a three-month application window. Due to this demand, we are proposing a \$25M line item in the Commerce budget to fund an automation program for the 24-month 2025-2026 biennium.

Applicants

- **Applicants:** 42
- **Applicant Cities:** 21
- **Applicant Total Project Cost:** 25M +
- **Total Request Amount:** \$11.9M

Awardees

- **Awardees:** 18
- **Awardee Cities:** 13
- **Awardee Total Project Cost:** 12.1M
- **Total Award Amount:** \$4.9M

Impacts

- **Projected Economic Impact:** \$31.5M
- **Hours Saved:** 109,000/yr
- **FTEs Reallocated:** 52
- **Projected Wage Increase:** \$2-3/hr
- **Productivity:** 151% avg. increase

Selected Testimonials:

- “In 2023, we had 6 accidents, 5 incidents, and 14 near-misses—8 involved material handling or forklift use. These incidents could have been avoided had an automated process been in place.” – Integrity Steel Supply, LLC
- “We’ve already started winning jobs because of this equipment.” –Malach Metal and Machining
- “Healthy companies create jobs,” and “Programs like Automate ND enable companies to upskill their existing employees, not replace them.” - Keith Lund, GFREDC
- During the PS Industries site visit, we learned that integrating the automation equipment “literally took 1.6 million pounds of steel out of our employees’ hands.” – PS Industries
- If not for the opportunity through Automate ND, “Five years from now, I’d probably still be talking about automating,” and “I lose sales every day because of lead time. It’s going to be a game-changer. We will be able to introduce new products and grow market share.” – Marv Haugen Enterprises, Inc.
- “Upgrading to automated tool loading in the Brake Press cell will significantly enhance the precision, repeatability, measurement, conformity validation speed, and overall quality of parts produced...This upgrade would remove manual measurement and conformity checks from the operator's responsibilities, ensuring standardized accuracy of quality checks across all shifts. Additionally, the Brake Press features numerous visual tools...which assists operators in ensuring that parts are bent correctly.” – Champ Metal Fabrication

The North Dakota Development Fund (NDDF) received \$5 million in American Rescue Plan Act (ARPA) funding during the 67th Legislative Assembly Special Session to create Automate ND, a grant program addressing workforce shortages by enabling companies to invest in automation equipment. This initiative helps companies increase productivity, improve working conditions, and drive revenue growth, all while contributing to North Dakota's economic expansion.

The Automate ND program received overwhelming interest, with 42 projects across 21 communities requesting over \$11.8 million. We were able to fund 17 projects. To keep up with growing demand, it's vital that we recruit and retain a qualified workforce while also supporting automation investments. North Dakota has a history of innovation, and this program is another step in helping businesses stay at the forefront of innovation.

The awarded projects span various industries, including manufacturing, agriculture, and advanced technology, focusing on automating essential processes. Recipients include:

- **Precision Equipment Manufacturing, LLC** (Fargo) – \$97,386.79 for robotic welding and tooling equipment. This trailer manufacturer has been fabricating components in North Dakota for 20 years (total project cost: \$207,616.87).
- **Agri-Cover, Inc.** (Jamestown) – \$282,924.00 for robot arms and autonomous carts. Agri-Cover manufactures roll-up/hard covers for pickups, truck toppers, and pickup racks (total project cost: \$709,783.00).
- **Amber Waves, Inc.** (Richardton) – \$142,382.16 to automate a wash bay. Amber Waves specializes in hopper bottom grain bins (total project cost: \$348,814.32).
- **Marv Haugen Enterprises, Inc.** (Casselton) – \$267,862.50 for a robotic welding cell. This company manufactures over 100 types of telehandler, Skid-Steer, and wheel loader attachments (total project cost: \$553,095.00).
- **Northland Truss Systems, Inc.** (Abercrombie) – \$483,431.73 for an autonomous linear saw, jigging, and laser system. Northland Truss manufactures wood truss systems (total project cost: \$1,016,606.46).
- **ComDel Innovation, LLC** (Wahpeton) – \$500,000.00 for an autonomous mobile robot, automated cleaning equipment, and vision-guided robotics. ComDel is a contract manufacturer specializing in injection molding, metal stamping, and production machining (total project cost: \$1,064,894.95).
- **The Dairy Dozen** (Milner) – \$500,000.00 for a milking robot, automated manure collector, and automated feed pusher. This dairy operation is

undergoing facility and process improvements (total project cost: \$1,119,166.24).

- **YMI Industries, Inc.** (Grand Forks) – \$71,519.00 for an automatic bender and bar feeder. YMI provides precision machining services to OEM manufacturers and innovators (total project cost: \$155,538.00).
- **DR Millwork Company** (dakBUILT) (Kindred) – \$130,655.00 for a high-speed edge bander. This company provides custom woodwork and cabinetry (total project cost: \$272,510.00).
- **FlexTM, Inc.** (Wahpeton) – \$129,665.24 for a robotic welder. FlexTM supplies OEMs with complex weld assemblies and CNC machining (total project cost: \$314,393.12).
- **Integrity Steel Supply, LLC** (Mapleton) – \$500,000.00 for a robotic welder. Integrity Steel produces structural steel, joist, and deck systems (total project cost: \$1,622,450.00).
- **Malach USA, LLP** (Valley City) – \$500,000.00 for a robotic brake press. Malach is a metal and machining shop (total project cost: \$1,205,500.00).
- **Mid-Mac Marketing, Inc.** (MidMach) (Jamestown) – \$500,000.00 for three robotic welding cells. MidMach focuses on metal fabrication for the energy and agriculture sectors (total project cost: \$1,227,600.00).
- **Champ Industries USA, Inc.** (Fargo) – \$240,514.00 for an automated tool-loading brake press. Champ partners with OEMs and Tier One Suppliers in metal fabrication and assembly (total project cost: \$489,288.00).
- **Blue Flint Ethanol LLC** (Underwood) – \$28,500.00 to automate milling, liquefaction, and fermentation stages of ethanol production (total project cost: \$175,609.00).
- **PS Industries Incorporated (PSI)** (Grand Forks) – \$325,604.42 for an automated robotic press and CNC tube bender. PSI manufactures safety and fall-protection products for multiple industries, including the military and energy sectors (total project cost: \$757,381.00).
- **Wood Products, Inc. (dba American Woods)** (Grand Forks) – \$299,609.58 for automated material handling carts. American Woods manufactures residential furniture (total project cost: \$601,136.00).