



From Critical Minerals to EVs and Beyond:

How Universities are Powering the Future of Advanced Manufacturing

From critical minerals and electric vehicles to modular housing, robotics and more, Ontario's universities are partnering to help drive competition in advanced manufacturing, create jobs throughout Ontario's regions and attract investment to our province.

Ontario's universities are not just shaping the future; they are fueling it. Their impact resonates across industries, fostering growth, innovation and a bright future for advanced manufacturing in the province.

Here's a glimpse of their remarkable impact:

Growth in EV Jobs

Electric vehicle technology jobs are projected to grow at rate of **39%** annually. By 2030, an estimated **184,000** people will be employed in the industry—a 26-fold increase from 2020, according to Clean Energy Canada.

STEM Demand

In 2021-22, **38%** of Ontario university students were enrolled in STEM programs, up from **30%** in 2011-12, according to Council of Ontario Universities data. This surge in STEM education is shaping a highly skilled workforce equipped for the challenges of tomorrow and the jobs of the future.

Tech Talent Hubs

Toronto, Ottawa and Waterloo are ranked among North America's top tech talent markets, fostering innovation-driven industries. London also joins the league as one of the continent's promising up-and-coming markets, as per Coldwell Banker Richard Ellis' Scoring Tech Talent 2023 report. These results demonstrate the positive impacts Ontario's universities have on the development of local innovation-driven industries.

In-Demand Skills

Ontario will need **more than 233,000 jobs** in STEM that require a university degree from 2021-2030, encompassing electronics, manufacturing, mining and computer and mechanical engineering, as projected by Stoke Economics. Universities are key in meeting this demand.

Life Sciences Pioneers

More than **720** life sciences start-ups have emerged from Ontario's universities between 2017-2022, according to Council of Ontario Universities data. These companies are pioneers in advancing biomanufacturing, developing advanced medical technology and life-saving treatments.

Mining Sector Contribution

In 2022, Ontario's mining sector produced minerals worth **\$13.5 billion**, accounting for **22%** of Canada's total production value, according to the Ontario Mining Association. This supports the supply chain for advanced manufacturing, from resource extraction to materials refinement.

Auto-Related Expertise

11 Ontario universities offer auto-related research initiatives and training programs, according to Council of Ontario Universities data. They nurture skilled talent and pioneering innovations, attracting major investments from auto manufacturers to regions throughout the province.
