

Planning For The Workforce Of Tomorrow Through Collaboration



BRIGHT IDEAS IN ECONOMIC DEVELOPMENT

SYNOPSIS

The City of Surrey is working with businesses, academic and industry groups on a strategy to enhance the skilled workforce in the advanced manufacturing and innovation economy sector.

LOCATION

Lower Mainland

POPULATION

553,475
(2017 Census)

ECONOMIC BASE

Clean tech,
health tech,
manufacturing,
agriculture,
transportation,
creative

INNOVATORS

Invest Surrey



THE BACKGROUND

Surrey's advanced manufacturing and innovation economy sector employs an estimated 24,000 full time workers. The City of Surrey, in partnership with [Simon Fraser University \(SFU\)](#) and [Kwantlen Polytechnic University \(KPU\)](#), worked with industry to explore the competitiveness factors of this sector and identified skilled worker shortages as a trending factor. With funding support through a [Labour Market Partnerships](#) grant, the partners have developed a strategy to build innovative talent that will grow next-generation manufacturing jobs in Surrey, and around the province.

IDENTIFYING AN OPPORTUNITY

In 2015, the City of Surrey led a roundtable discussion with SFU, KPU and seven major manufacturing businesses to discuss trends around economic development and labour market opportunities for the next two decades. This discussion pointed to a need for workers to have significantly



more relevant scientific, technical, and digital knowledge and skillsets in response to the growth of [Industry 4.0](#) automation and Internet of Things technology.

THE STRATEGY

Through a two-phase labour market insight study, the City of Surrey's [Invest Surrey](#) team, and its two university partners solicited feedback from 250 manufacturers. They found that

the current size of the advanced manufacturing and innovation economy workforce in Surrey could grow by as much as 134% over the next decade. The study identified that manufacturers struggle to hire production line workers, tradespeople, and technicians and engineers for advanced manufacturing systems. In response to the findings, the partners developed a [phased action plan](#) to address the skills gaps and labour shortages.



PHASE ONE of the action plan looks at strategies to increase the knowledge and availability of Industry 4.0 skills in Surrey manufacturing. Strategies currently underway include:

- Improve information sharing between manufacturers
- Conduct learning missions to other countries to increase the knowledge and adoption of Industry 4.0 practices
- Increase the use of co-op students and interns to gain access to skills at a reduced cost and give younger workers an opportunity to be exposed to advanced manufacturing techniques
- Study the feasibility of a Centre of Excellence for Advanced Manufacturing in Surrey.

In addition, there are ongoing discussions between KPU, SFU and Surrey manufacturers to provide short term training programs for workers and management. These will look to increase the availability of workers with the right skills to fill jobs in the manufacturing sector and equip operations and senior management staff with the skills and knowledge needed to thrive in Industry 4.0.

The next two phases of the action plan are currently in development and focus on medium to long term strategies to meet the needs of Industry 4.0.

SUCCESSSES

- By including the academic and business communities throughout the strategy development process and so building trust, industry champions who help drive up participation by stakeholders emerged, which is crucial for the ongoing success of the process
- Through new and strengthened partnerships with industry and regional education institutes the City of Surrey has been able to able to transform its economic development budget into an 18-month, impact driven project valuing over \$250,000.
- In parallel with the development of the Surrey Advanced Manufacturing Labour Market Strategy, SFU and KPU collaborated with Siemens to launch the Siemens Mechatronic Systems Certification Program. This program provides graduates with an internationally recognized industrial certificate from Siemens that will help them to pursue a career in automation and manufacturing.



PHASE TWO will look at increasing trades apprenticeships, attracting manufacturing businesses to Surrey, promoting on-the-job training through the Canada Job Grant program and increasing university-industry collaborations through federal government funding.

PHASE THREE will include a review of programs at SFU, KPU and the BC Institute of Technology to ensure they are relevant for Industry 4.0 needs, raising high school students' awareness of careers in the sector and investing in Surrey's infrastructure to continue to attract advanced manufacturing businesses.

LESSONS LEARNED

- **Be bold with the vision:** outlining a vision for how you see your community in ten years encourages decision makers and stakeholders to embrace and prepare for the future now.
- **Engage with industry, academia and government:** this is crucial to truly understanding where the opportunities for your community lie, and it leads to buy-in at the beginning of the process and the emergence of industry champions.
- **Establish strategic partnerships:** these will allow you to leverage knowledge, expertise and resources to deliver on impactful projects and initiatives.

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