

Greater Montréal boosting innovative manufacturers

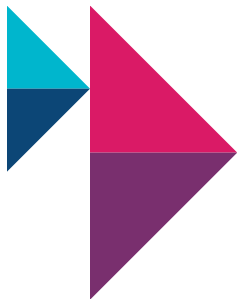


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Montréal International's
Personalized, Free and
Confidential Services

Why innovative manufacturing companies choose Montréal



Manufacturing is the **2nd largest** industry in Québec with 500,000 direct jobs



Major public incentives and cutting-edge technologies (5G, IoT, robotics, additive manufacturing) encourage companies to take advantage of Industry 4.0



A world-class hub in artificial intelligence



40,000 university students are enrolled in programs related to innovative manufacturing



The lowest electricity prices in North America for large-power users, at 99% of renewable energy



The **Canadian government chose Montréal as the headquarters for scale ai**, AI supply chain supercluster



Canada's university capital, \$1 billion+ in funding yearly dedicated to university research



An 18% cost advantage compared to most major metropolitan areas in Canada and the U.S. (2019), plus major **incentives for R&D and innovative manufacturing**



A collaborative environment for industrial automation—Montréal is home to major players, research centres and networks

01

Greater Montréal: A Leader in Innovative Manufacturing



Manufacturing in Québec: a core sector



\$2.4B

of governmental incentives
announced to support
innovative manufacturing
over 4 years (2020-2024)



500,000

direct jobs



2nd

largest industry in Québec



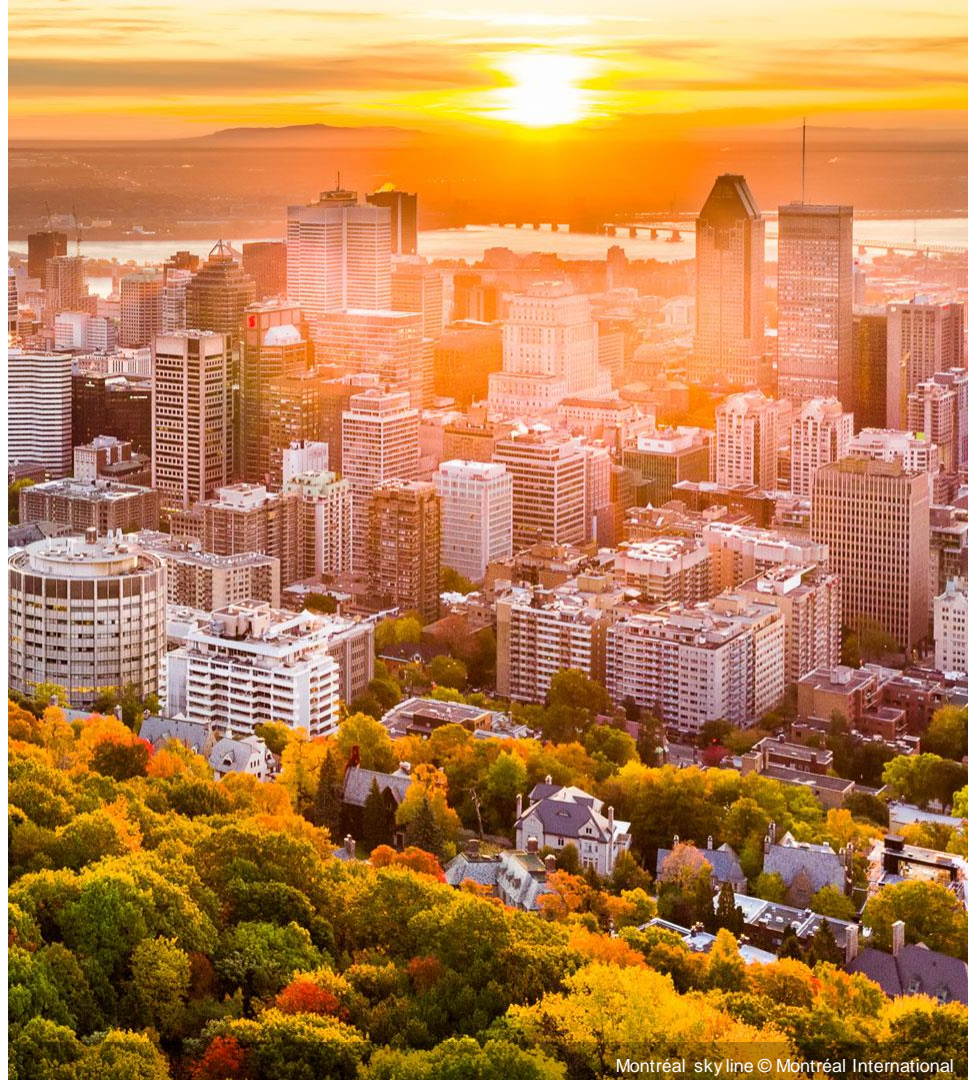
14%

of GDP



90%

of exports



Montréal, a hub for manufacturing companies in many sectors



Aerospace and smart transportation manufacturing

- 6,200+ companies
- 74,000+ jobs
- 80% of Québec aerospace production is exported
- 4th largest exporter of aircraft and helicopters in the world



Food processing

- 1,500+ companies
- \$17.2B+ value of shipments
- \$6.2B+ of GDP



Fashion manufacturing

- 1,800 companies in Québec
- Sales of \$8B
- 3rd largest North American fashion manufacturing hub

\$2.4B of funding for innovative manufacturers to foster their digital transformation

The Productivity innovation

initiative, launched by the Québec government and Investissement Québec encourages companies to focus on innovation in its various forms and on the adoption of technologies and processes such as digitization, automation, robotization and the use of AI

The logo for 'Productivité innovation' features the text in white on a dark blue background. A red gear icon is positioned between the words 'innovation' and 'n'.

Provincial strategies:

- Québec Digital Strategy
- Québec Research and Innovation Strategy

Cutting-edge technologies available to support the 4.0 manufacturer:

- IoT Platforms and Connectivity
- Sensing and Imaging
- Robotics
- Additive Manufacturing
- Supply Chain
- Etc.

Many companies provide equipment and services specialized in robotics and automation



NGen, strengthening the competitiveness of the manufacturing sector



- **Canada's advanced manufacturing supercluster** is a constellation of industrial companies and start-ups, researchers and investors and government-funded labs
- **\$76.8M investment** committed to innovation
- NGen matches manufacturing companies with new technologies to drive advanced manufacturing in Canada
- Funding streams for transformative, applied, collaborative and enduring projects are ranging from **\$50,000 to \$20M**



Montréal, a world-class AI hub to support innovative manufacturing

- **More than \$3 billion in AI investments** announced in Greater Montréal since 2016
- Home to major AI players and a thriving ecosystem





Scale AI, an asset for innovative manufacturing companies

- The Canadian government chose Montréal as the headquarters for **Scale AI**, Canada's AI supply chain supercluster
- **Scale AI** is dedicated to **building the next-generation supply chain and boosting industry performance by leveraging AI technologies**. These technologies will drive growth and innovation in retail, manufacturing, fashion and transport industries
- **Up to 40% of financing** of eligible costs for collaborative research projects in AI
- Scale AI provides **financial support to develop artificial and digital intelligence skills** and funds training for talent

SCALE AI

Manufacturing stands on a strong IT industry

- **179,000+ IT professionals** and **5,000+ companies** in Greater Montréal
- **Lowest operating costs in North America** for software development
- **A diverse industry:**



Top 3

best places to
invest in AI in
North America



#1

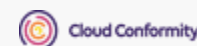
Largest VFX
and animation
hub in
Canada and
a VFX world
leader



Top 5

Highest
concentrations of
tech jobs among
Canadian and
U.S. metropolitan
areas

Sample of major IT companies located in Greater Montréal



ENCQOR 5G: unlocking technological promise through Canada's 5G corridor



- **\$400M** invested into Canada's **5G public-private ENCQOR project network** over the next five years starting in 2018
- The Canada-Québec-Ontario partnership establishes **the first Canadian pre-commercial corridor of 5G digital infrastructure** and provides a platform where SMEs can test ideas and technology
- ENCQOR offers **various calls for projects** and builds adoption projects, collaborative R&D projects, as well as **financed IT projects** (75 pre-commercial technology projects)



A booming startup ecosystem

- Canada is the most attractive country in the world for entrepreneurs according to the OECD
- **US\$1.7+ B in VC investments** since 2018 in Montréal
- **Six of the eight most active VCs** in Canada in 2019 are based in Greater Montréal
- **30+ incubators/accelerators**
- **45+ coworking spaces**



Source: OECD Indicators of Talent Attractiveness, 2019; "Global Ecosystem Report" 2018; Credo, "Montréal Startup Ecosystem Report", 2016; "Midterm Report" – Smart City, February 2017; Pw C Canada | CB Insights, Canadian Report "Money Tree", 2019.



Centech, accelerating innovation in the manufacturing sector

Part of the top 20 university business incubators in the world by UBI Global 2019. Powered by *École de technologie supérieure* (ÉTS), Centech provides mentoring, coaching and financial support to companies

Centech offers a **Manufacturing 4.0 Acceleration Program** for young companies developing high-impact technological innovations

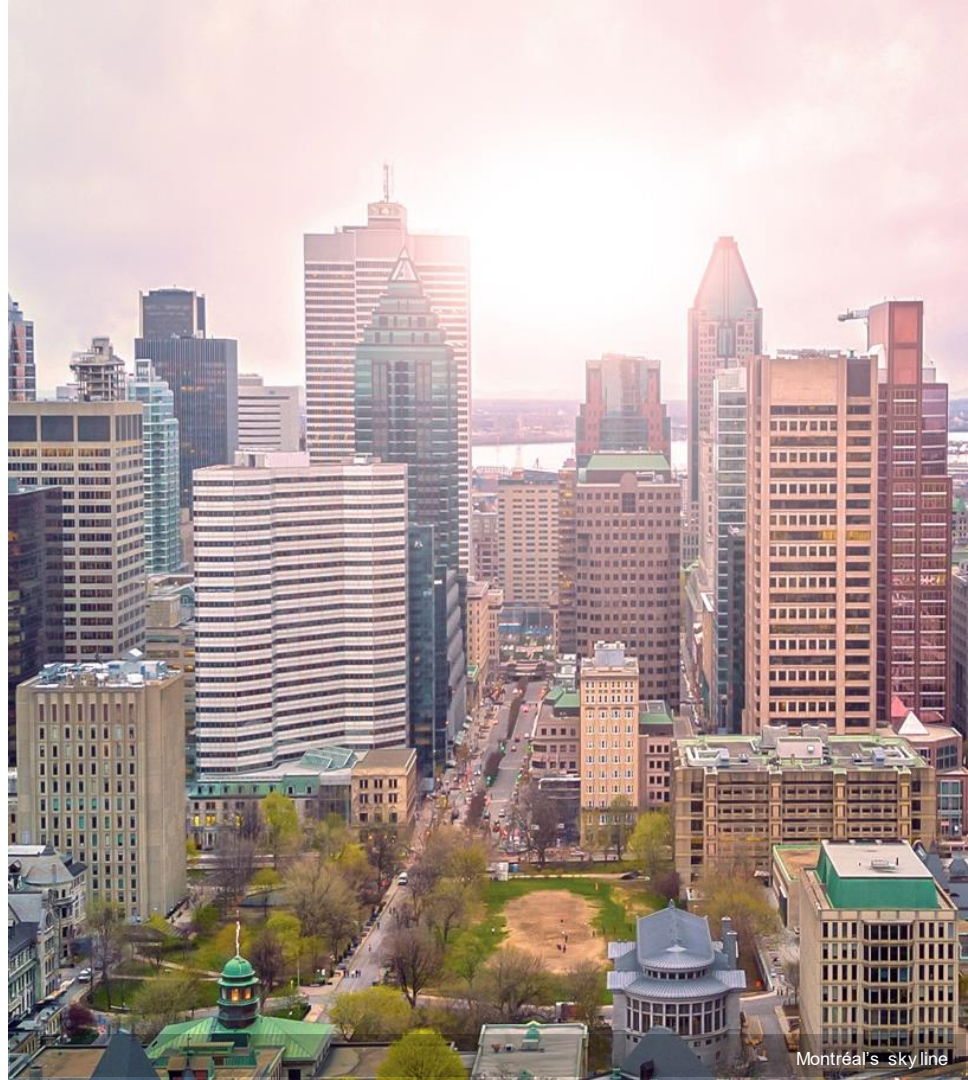


A strong representation of the manufacturing industry

Manufacturers and Exporters of Québec (MEQ) represents **1100 manufacturers in the province of Québec** offering various services and programs to tackle the different challenges of the industry



The Grouping of Industrial Automation Companies (REAI) aims to **foster collaboration between smart automation companies** to achieve projects in Québec



Montréal's skyline

A collaborative environment for industrial automation

Many research centers and networks in Greater Montréal are involved in different topics related to innovative manufacturing



02

A Deep and Growing Pool of Highly Qualified Talent



The best student city in the Americas and Canada's university capital

- **Canada's university capital:** 11 university institutions and 60 colleges
- **320,000 post-secondary students**, including more than **200,000 university students** and **35,500 international university students**
- **\$1+ billion in funding yearly dedicated to university research**
- **Best student city in the Americas:**



Best student city in the Americas

2019 QS Best Student Cities Rankings

1	Montréal
2	Toronto
3	Boston
4	Vancouver
5	New York



Dynamic research chairs & labs with a focus on innovative manufacturing



- Canada Research Chair in Precision Robotics
- GREPCI - Power Electronics and Industrial Control Research Group
- DYNAMO - Research Laboratory in Machine, Process and Structural Dynamics
- ÉTS Research Chair in Interactive Robotics
- LIPPS - Products, Processes and Systems Engineering Laboratory
- Innovation 4.0 Hub
- Siemens Industrial Chair on Industry 4.0 Technology Integration



- Chair in Automation Engineering



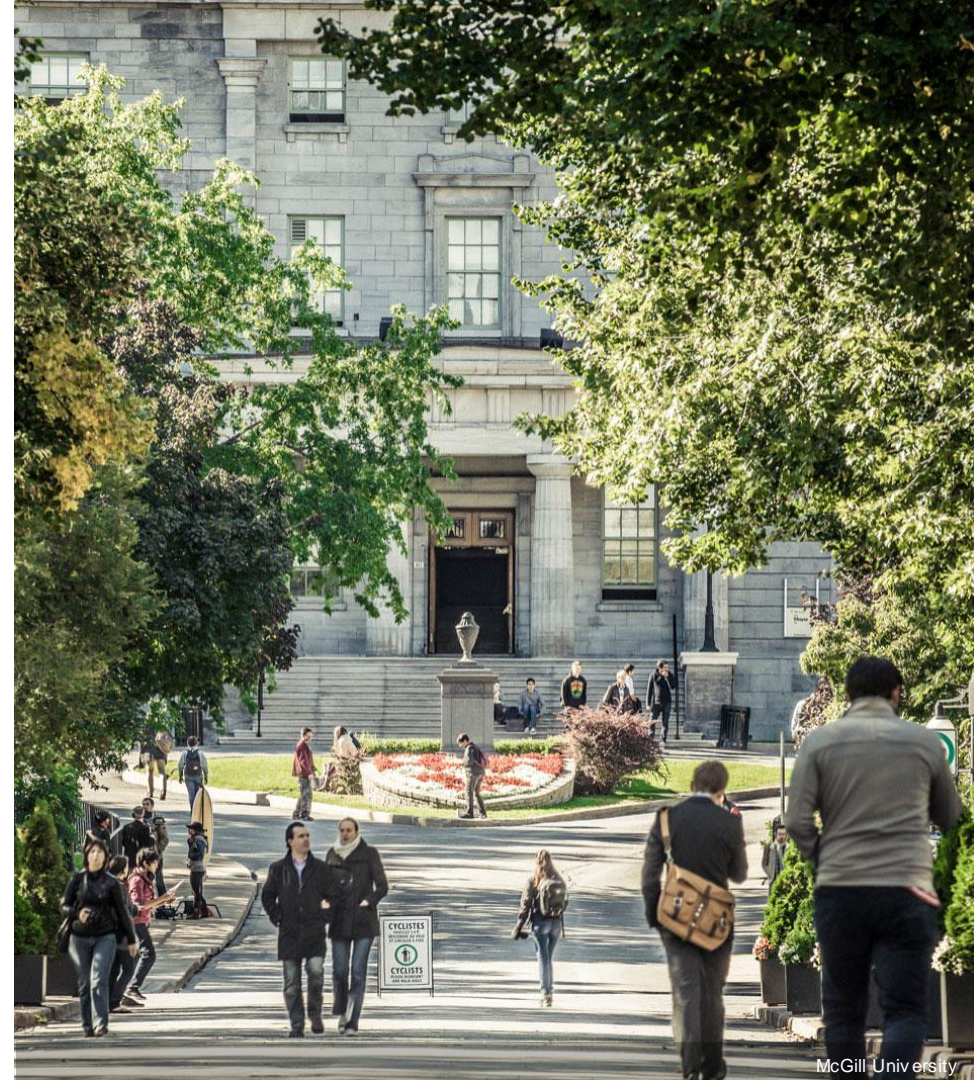
- Canada Research Chair in Distribution Management



- Engineering Design and Manufacturing Lab (EDML)
- Concordia Center for Composites (CONCOM)
- Electrochemical Green Engineering (EGE) Group



- Canada Research Chair on the Creation, Development and Commercialization of Innovation
- The Robotics Laboratory



More than 40,000 students are enrolled in university programs and more than 3,000 students are enrolled in college programs linked to innovative manufacturing

Innovative manufacturing university programs	Students enrolled 2018-2019	University graduates 2018
Energy	150	46
Industrial Design	266	54
Chemical Engineering	1,041	214
Production Management	1,112	375
Industrial and Administrative Engineering	2,489	639
Electrical, Electronics and Communications Engineering	3,374	759
Civil Engineering	4,856	1,359
Mechanical Engineering	5,150	1,198
Computer Sciences	9,381	1,719
Business Administration	13,202	4,765
Total – Greater Montréal	41,021	11,128



A pool of highly qualified employees

Manufacturing-related occupations in Greater Montréal

	Job Title	Number of experts
0911 –	Manufacturing Directors	15,800
2141 –	Industrial and Manufacturing Engineers	3,500
2132 –	Mechanical Engineers	6,000
2133 –	Electrical and Electronics Engineers	6,700
2232 –	Mechanical Engineering Technologists and Technicians	3,600
2233 –	Industrial Engineering and Manufacturing Technologists and Technicians	4,900
7231 –	Machinists and Machining and Tooling Inspectors	5,700
0213 –	Computer Systems Managers	10,000
9400 –	Machine Operators	23,900
Total – Greater Montréal		80,100



Canada's most bilingual and trilingual population



2.5 million residents speak English, that's 9% more than in Vancouver



55% of the population is bilingual (French and English), compared to 8% in Toronto and 7% in Vancouver



Almost 20% of the population is fluent in three or more languages, compared to 4% in Toronto and 3% in Vancouver

03

Attractive Operating Costs and Incentives

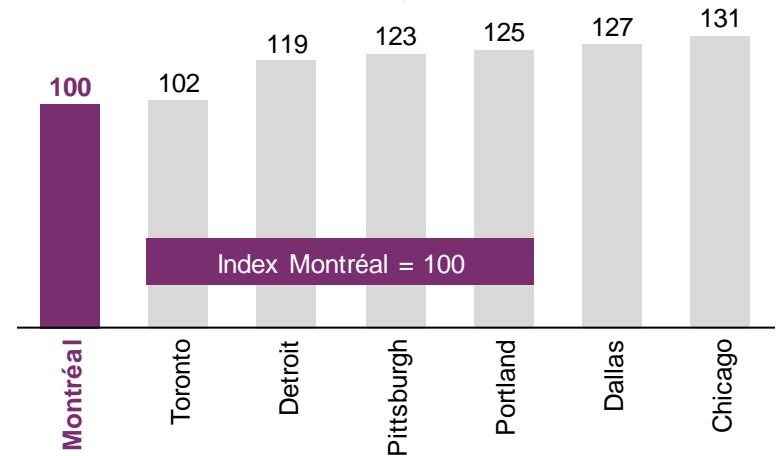




Competitive operating costs for manufacturing companies

- Montréal has a **18% cost advantage** compared to the other metropolitan areas in the U.S. and Canada.

Operating costs index for major manufacturing sector, 2019



Note: The annual operating cost calculations are based on labour, property and utility costs in US\$.

Source: fDi Benchmark, 2019.

Tailor-made incentives to support investment projects



Major and Innovative Projects

ESSOR Program

Support to major projects with refundable (interest-free and low interest loans) and non-refundable contributions. Investment projects with eligible expenditures of **\$250,000** or more to start a new business or expand (including modernizing) an existing business

Productivity innovation

Term loan of \$50,000 or more to finance the implementation of innovative projects

Development capital

Equity financing from **\$2M to \$100M** (productivity improvements, growth and equipment upgrades)

Major investment projects

Projects of \$100 million or more may qualify for a **tax holiday equivalent to a maximum of 15%** of the total eligible investment expenditures for 15 years



Tax credits for investments and R&D

SME in Action Program – Support for feasibility studies

Non-repayable contribution of up to **40% of eligible project expenses**, up to a maximum of \$100,000 per project

The **Investment and Innovation tax credit (C3i)** contributing to at least **10% of the acquisition costs of manufacturing equipment, computer equipment and management software packages** for a maximum of \$100 million in eligible investment expenditures over 5 years, refundable for corporations whose assets and gross revenue do not exceed \$50 million

Canada's Scientific Research and Experimental Development (SR&ED) tax incentive

14% Québec's tax credit on salaries and subcontractor fees paid in Québec, fully refundable

15% Canada's tax credit on eligible activities and expenditures



Project Development

Project financing or Collective entrepreneurship financing

Financing covering up to **100% of project costs** (machines, buildings or equipments, expansion and exports)

The **ÉcoPerformance Program** aims to reduce greenhouse gas emissions and energy consumption of businesses by **financing projects or measures related to consumption and production** (two components: project analysis and project implementation)



100% amortization in the first year for certain capital investment: computer equipment, manufacturing and processing equipment, clean energy production equipment, and intellectual property

The most competitive salaries in the manufacturing industry

Median annual salaries* for nine typical professions in US\$

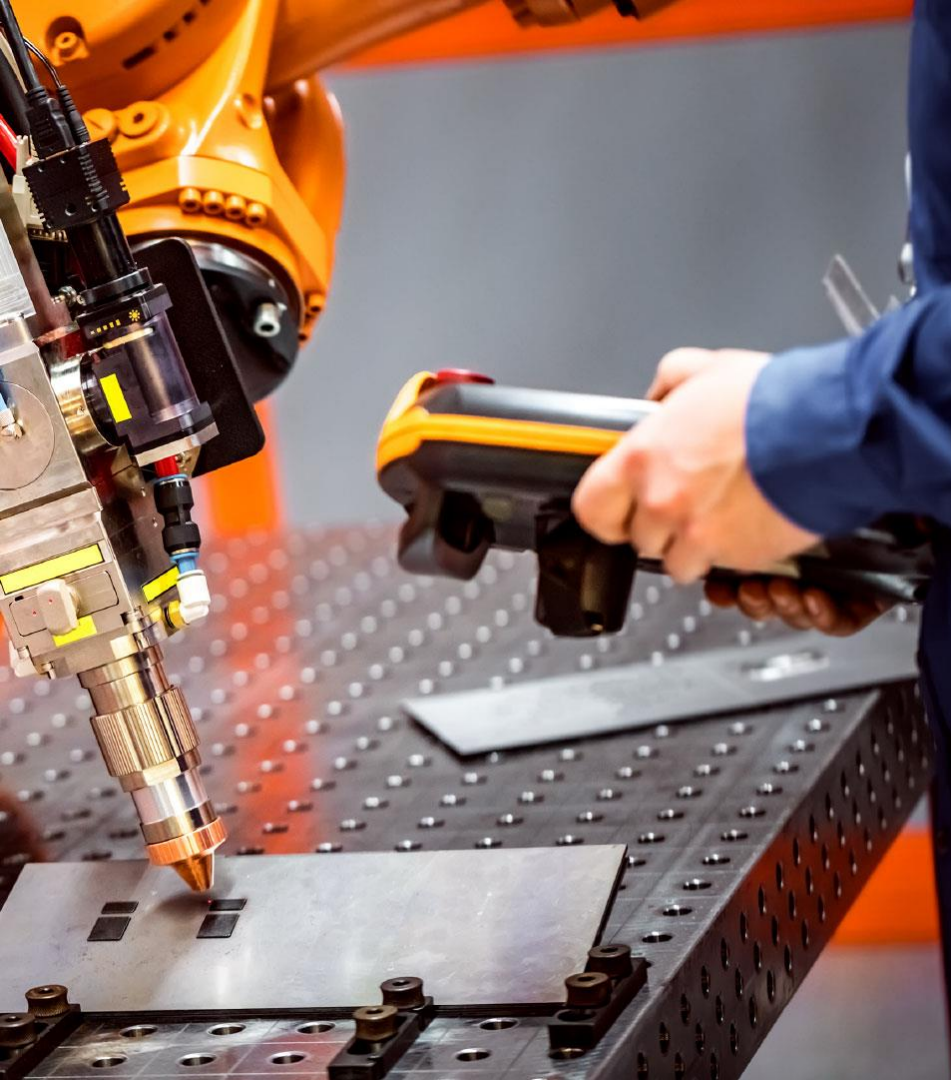
Selection of seven large metropolitan areas in North America, 2020

	Montréal	Toronto	Detroit	Chicago	Pittsburgh	Portland	Dallas
Machine Operator	\$32,461	\$35,038	\$47,086	\$43,507	\$40,622	\$43,755	\$39,043
Computer-Aided Machinist	\$36,847	\$39,342	\$51,099	\$49,265	\$46,175	\$49,422	\$44,932
Mechanical Engineering Technician	\$46,544	\$49,606	\$64,198	\$67,070	\$59,240	\$64,244	\$63,793
Industrial Engineering Technician	\$49,742	\$52,982	\$66,598	\$69,548	\$61,456	\$66,482	\$66,333
IT Systems Administrator	\$59,092	\$62,723	\$82,100	\$86,693	\$77,187	\$82,567	\$85,615
Industrial Engineer	\$61,304	\$65,010	\$90,663	\$92,074	\$84,129	\$88,266	\$92,461
Mechanical Engineer	\$66,925	\$70,793	\$99,375	\$100,673	\$92,503	\$96,614	\$102,012
Manager (production)	\$73,687	\$78,363	\$106,491	\$108,946	\$102,366	\$100,408	\$111,301
Electrical Engineer	\$68,199	\$72,100	\$102,568	\$103,818	\$95,582	\$99,687	\$105,511

* Salaries based on 5 years of experience. All industries.

Currency exchange based on the monthly average of June 2020: US\$1.00 = CA\$1.3550.

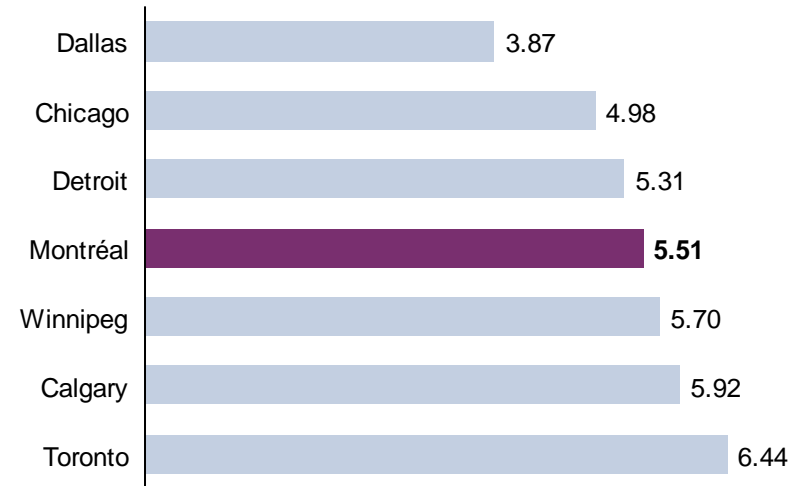
Source: Economic Research Institute Inc., July 2020.



Competitive rent for industrial space

Industrial spaces are available at highly competitive rates compared to most large cities in North America.

Average asking rent for industrial space (Manufacturing sector – US\$/sq.ft/yr)



Currency exchange based on the monthly average of June 2019:

US\$1.00 = CA\$1.3287.

Source: Cushman & Wakefield Industrial Office, Q1 2019.

Renewable, reliable and affordable electricity



1st place

in North America for the lowest
Electricity prices for large-power
customers

Total installed capacity
of **47 222 MW**



- With its rich renewable, green and stable supply of low-cost hydropower, Greater Montréal boasts one of the lowest electricity rates in North America:
CA\$3.98/kWh*

* Rate LG: large power with minimum billing demand of 5,000 kW, transmission and distribution included, for 120-kV supply with 95% load factor, and including the Economic Development Rate reduction (if eligible).



Carillon generating station © Hydro-Québec

- **Stable electricity rates:** Thanks to the collective wealth represented by our water resource, the rates are not subject to the volatility of oil and gas prices
- Hydro-Québec generates more than **99% of clean, renewable energy**
- The **quality** and **reliability** of the power grid are also two major advantages

Note: Estimations by Hydro-Québec are based on a monthly consumption of 10,000 kWh, a power demand of 40 kW and a 35% load factor.

Source: Hydro-Québec, 2019.

04

Montréal International's Personalized, Free and Confidential Services



Montréal International, a single point of access to a series of personalized, free and confidential services



**Long-term
strategic support**



**Economic data
and communication
services**



**Government
relations facilitation**



**Incentive programs
assistance**



**Foreign workers
immigration
assistance**



**International
recruiting solutions**



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