

Greater Montréal: A Hotspot for Data Hosting and Processing



The world's best economic promotion agency at your service





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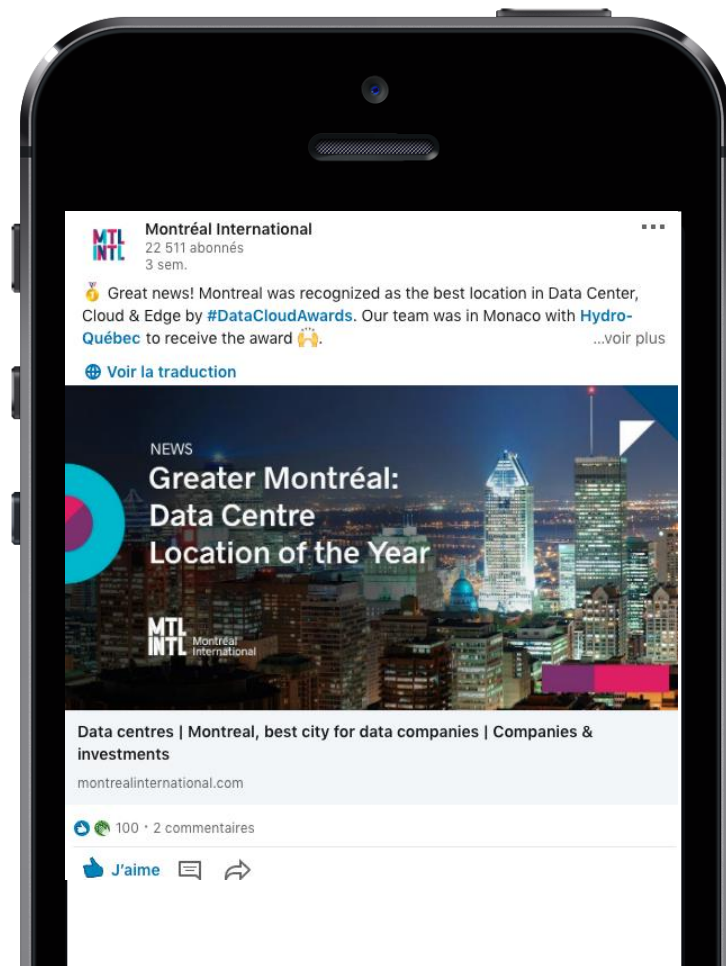
Montréal, the best place in the world to set up a data centre



In 2019, Greater Montréal was honored as the Data Centre Location of the Year by the 2019 Datacloud Global Awards.

All the buzz for Montréal can be explained by the many advantages it offers:

- **Renewable, clean and reliable energy**
- **Competitive rates**
- **Key technology hub**
- **Favorable business climate**



Greater Montréal: a hotspot for data hosting and processing

Greater Montréal is quickly emerging as one of North America's key data centre and cloud computing hubs

A strong competitive edge

- **Affordable, renewable, reliable energy:** abundant supply, a rock-solid power grid and electricity rates as low as **US¢3.21/kWh**.
- **Strategic location:** cooler northern climate, low natural hazard risk, direct connection to Europe via fibre-optic cable lines.
- A **modern, highly reliable telecommunications network** and a wide range of potential partners.
- A **country that is ranked as the safest location for data centres in America and sixth safest in the world** (Cushman & Wakefield Data Center Risk Index).

A vibrant ecosystem

- **Winner of the Data Centre Location of the Year** from the 2019 Datacloud Global Awards.
- **Winner of the Data Centres Specialism Award** from the Financial Times' fDi Strategy Awards 2019.
- **Greenest data centre location in North America and the world's lowest industrial power costs** according to 2021 Cushman & Wakefield Data Center Global Market Comparison.
- **High-profile investment projects** involving:
 - Industry giants like Google Cloud and Amazon Web Services.
 - Global leaders like Microsoft, Compass, Vantage, OVH and Cologix, and local players like Hypertec and eStruxture who have a strong foothold in the region.
- **Strong tech environment, a thriving big data hub and leading AI expertise.**

Key benefits

- **Generous, targeted government incentives** that make for a compelling business case.
- **Competitive salaries and low employer payroll taxes.**
- **An innovation hub that fosters constant interactions** between its leading universities and research centres, innovative industrial clusters, and cultural and arts organizations.
- **A skilled bilingual workforce** and a stable job market.
- **Exceptional quality of life** in a human-scale city that's a magnet for top-notch talent and a great place to live, work and create.

01

Why Montréal Fits your Data Centre needs



Renewable, reliable and affordable energy

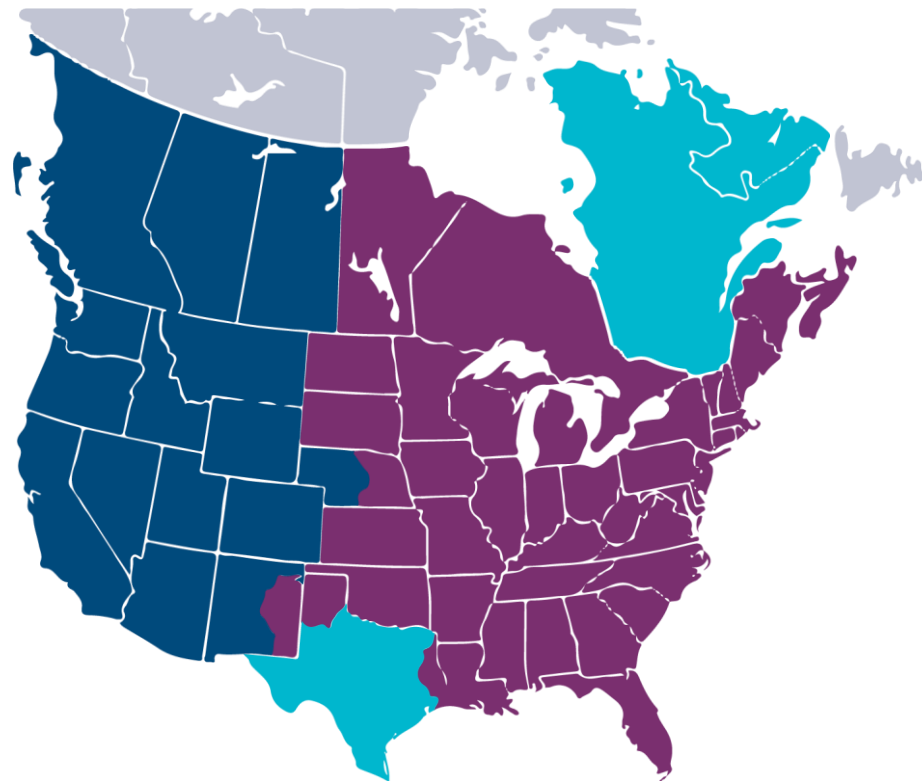
Québec generates 99.8% of its electricity through hydropower. That means **stable rates**, **low carbon emissions** and **no pollution rights to trade**.

- **Independent**, reinforced system
- 13 interconnections with neighbouring systems, **securing supply** through exchanges
- Compliance with **North American Electric Reliability Council** standards
- **A loop system** for major consumption centres
- **Isolated, independent** power transmission system

“We picked the area that we did because of the hydropower.”



Teresa Carlson, Vice President of Worldwide Public Sector, Amazon Web Services



- Synchronized systems – West
- Synchronized systems – Centre and East
- Other synchronized systems

The lowest electricity rates in North America

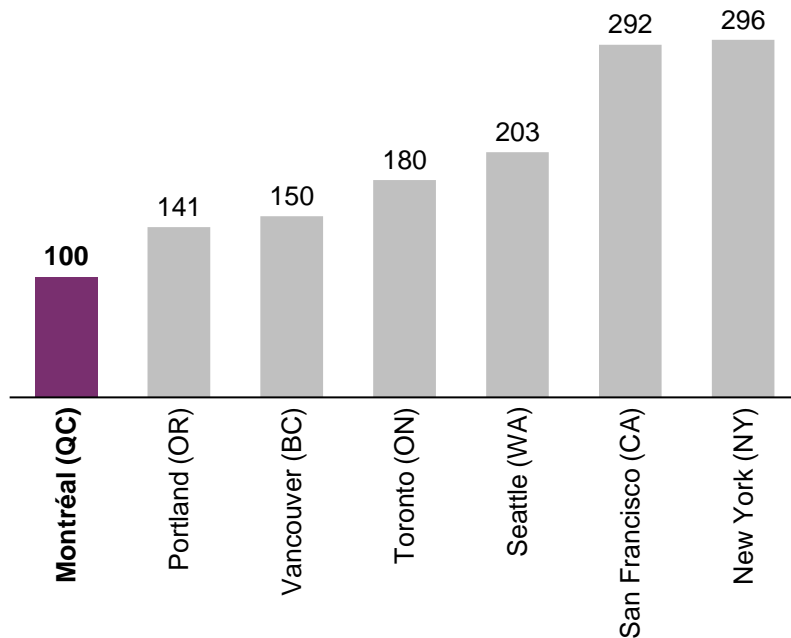


Thanks to its green, renewable and stable supply of **low-cost hydropower**, Greater Montréal boasts one of the lowest electricity rates in North America: **US¢3.21/kWh*** transmission and distribution included

* 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).



Comparative index of electricity rates
large-power customers



Consumption: 3,060,000 kWh/month |

Power demand: 5,000 kW |

Voltage: 25 kV

Source : Hydro-Québec, December 2021.

The perfect climate for your operations



Strategic location

In addition to being **strategically located**, Greater Montréal enjoys a cooler climate—like the rest of Canada—making it the perfect choice for innovative data centres that use ambient cooling.



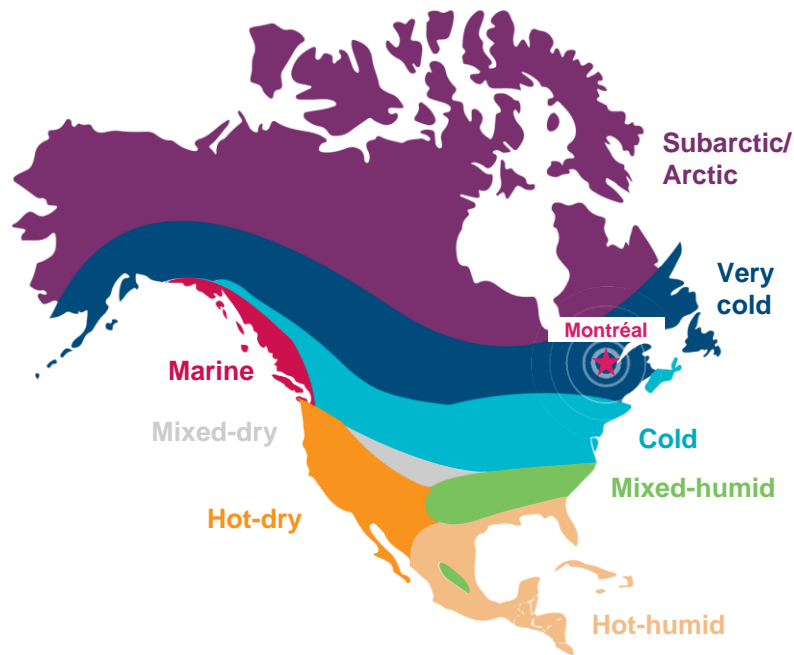
Lower temperatures = cost savings

The mean annual temperature for Montréal is 42.8°F (6.8°C), **minimizing** the need for cooling systems. With access to both ambient and water-cooled tower systems, **data centre companies can design smart, sustainable solutions enabling them to achieve significant cost savings.**



Water access

Many sites in the Greater Montréal area have **direct access to water mains** and some even have provisions for water storage that would **allow your company to innovate around rainwater and grey water recycling designs.**



A safe environment

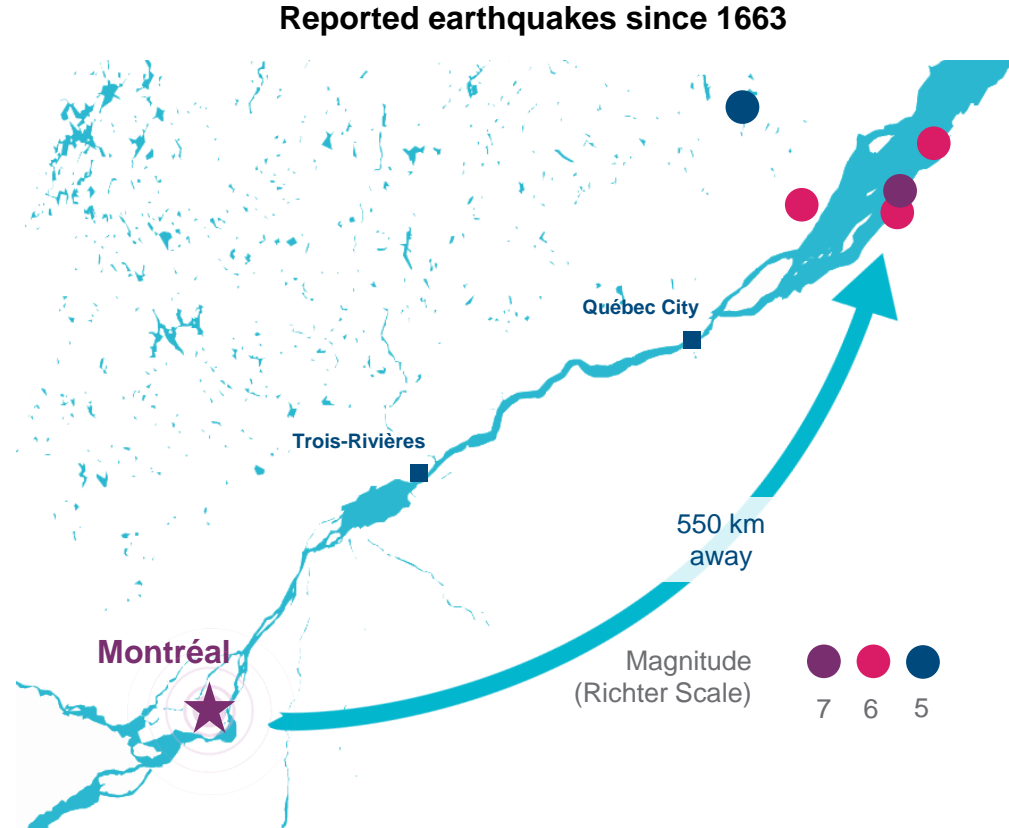
Low natural hazard risk

According to Public Safety Canada, the province of Québec has experienced about 120 hazardous events in the past 50 years, 50 of which directly affected the Greater Montréal area.

The most common disasters are floods. That said, **most Greater Montréal sites are over 100 feet above the maximum flood elevation, with stable soil and no environmental issues.**

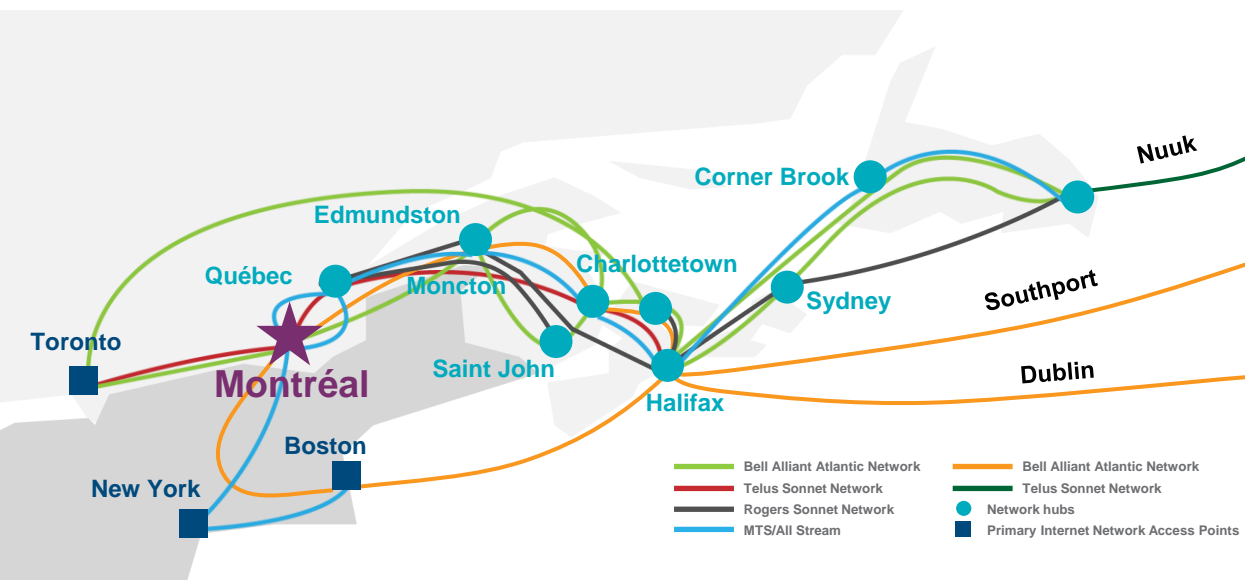
The metropolitan area is also located far from the ocean which limits the risks of hurricanes and major floods.

Québec is part of the stable interior of the North American Plate; major earthquakes are therefore unlikely.



Internet hub and gateway to Europe

Atlantic Canada fibre backbone networks



Greater Montréal: Eastern Canada's biggest internet hub and a gateway to Europe

Major telecommunications companies based in Greater Montréal, including international and North American service providers, offer IP transit and transport services in the region.

Many have a point of presence in Greater Montréal's main telecom hub located at 1250 René-Lévesque West.



A developed ecosystem of service providers

Local providers also offer modern telecommunications services, including:

- MEF Certified Ethernet Services (EPL/EVPL)
- Ethernet over MPLS
- Private Networks (IP VPN, IP MPLS)
- Wavelength Services
- Dark Fibre (lease and IRU)

Montréal is also home to the **Montréal Internet Exchange (QIX)**. Most national carriers and major content providers such as Google, Akamai and Microsoft peer at the exchange to enhance traffic flow and reduce end user costs.

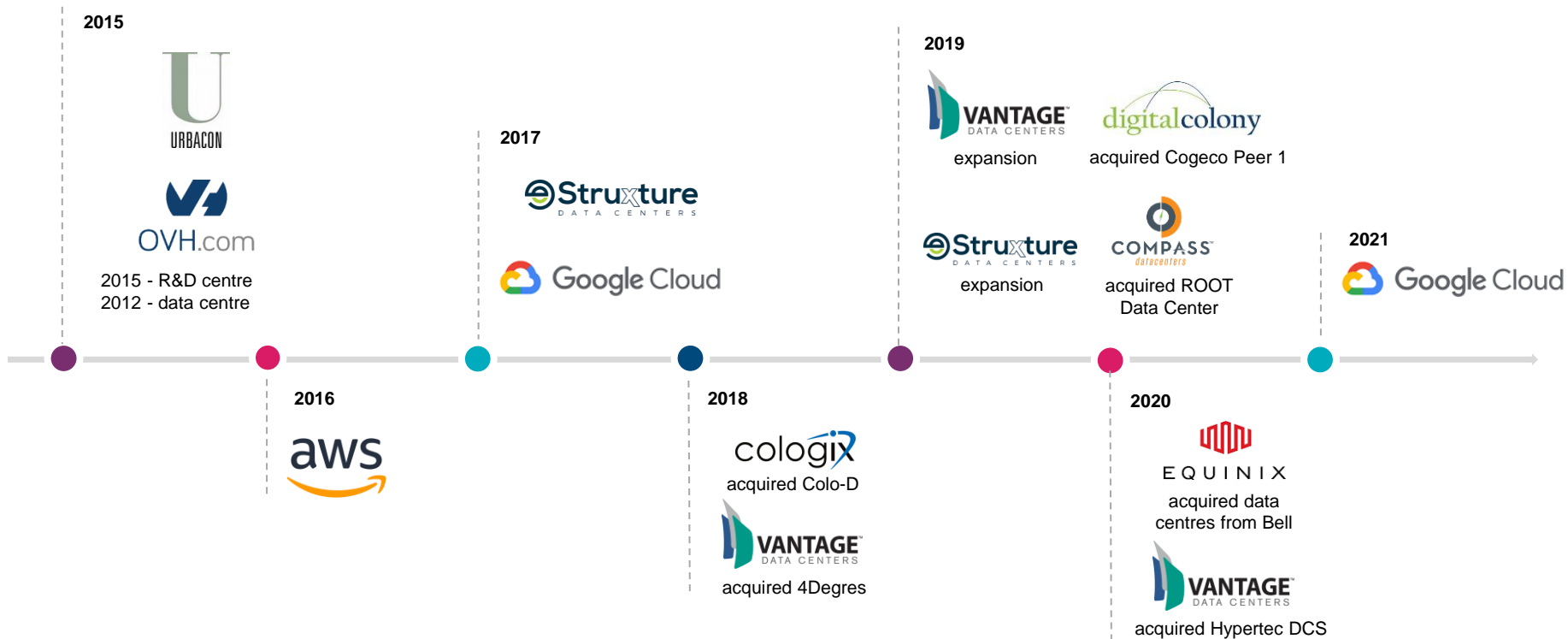
Extremely easy to deploy optical fiber

Most of Montréal's fibre-optic networks are installed in a conduit system owned and regulated by a single entity CSEM (Commission des Services Électriques de Montréal), a unique municipal body that oversees all operations and builds in city conduits. Such an arrangement greatly facilitates the different steps and reduces the risk of a network outage for all providers.

Other major providers

The logo for Bell, featuring the word "Bell" in a blue, sans-serif font.The logo for Rogers, featuring a red circular icon with a white dot inside, followed by the word "ROGERS" in a red, sans-serif font.The logo for zayo, featuring the word "zayo" in a bold, orange, sans-serif font.The logo for Telus, featuring a stylized green and purple "T" icon followed by the word "TELUS" in a purple, sans-serif font.The logo for fibre noire, featuring the words "fibre noire" in a green, sans-serif font.

High-profile investments in data centres



A vibrant business ecosystem

45+

Data centres
throughout
Québec, mostly in
Greater Montréal

95

Service providers

4

Network fabric and
innovative network
operating system
players

Google

aws

Bell

EQUINIX

VANTAGE
DATA CENTERS

SUNGARD
DATA CENTRE SERVICES

aptum

ThinkTel
A Division of Distributel

Struxture
DATA CENTERS

cologix

ORACLE

COMPASS
datacenters

DELL EMC

STREAM
DATA CENTERS

IBM

digitalcolony

CenturyLink™

OVH

INAP

Hypertec

ATMI
climate solutions

Microsoft Azure

zayo

ciena

VIDÉOTRON

NoviFlow

VERTIV™

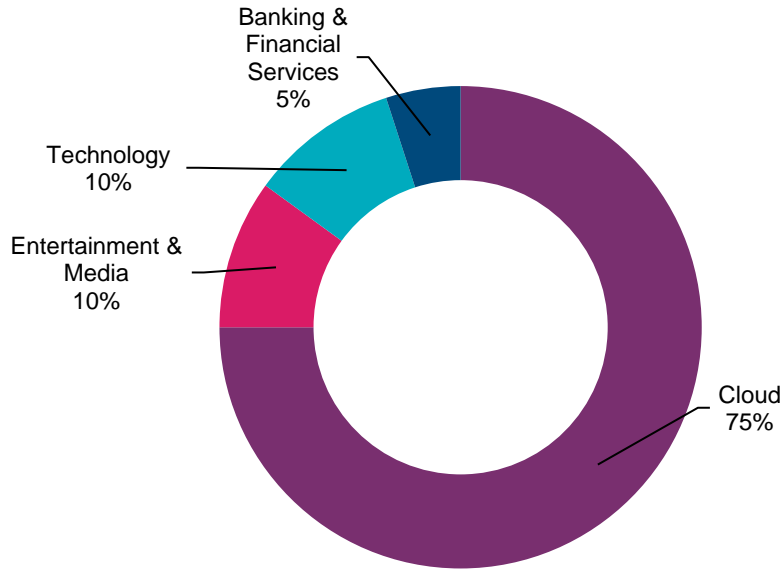
URBACON

kaloôm

A fast-growing market

Demand in Greater Montréal is mostly driven by cloud providers and technology firms along with the gaming, insurance, finance, IT, and health care sectors.

User Demand by Industry in Greater Montréal (2018)



Where leaders are already taking advantage of excess demand:

- Municipal, provincial and federal governments are pushing to outsource their IT workloads.
- Consumers and private organizations are increasingly turning to the cloud.
- Many equity research papers, like those published by JLL and Cloudscene, are forecasting high demand in Greater Montréal for the foreseeable future.

Data centres stands on a strong tech industry

- **160,000+ IT workers** and **7,000+ companies** in Greater Montréal
- **Lowest operating costs in North America** for software development, ahead of Toronto, Boston, New York and San Francisco
- **Broadly diversified industry:**



Top 5

video game development hubs in the world



1st

city in Canada and a world leader in digital creativity



Top 5

highest tech jobs concentrations among the largest metropolitan areas in Canada & the U.S.

Examples of major companies located in Greater Montréal



A world-class hub in artificial intelligence

- **\$3+ billion in AI investments** in Greater Montréal since 2016
- The Canadian government chose Montréal as headquarters for **SCALE AI**, Canada's AI supply chain supercluster
- A community of more than 600 researchers and graduate students at Mila - the world's largest academic research lab in deep learning and reinforcement learning
- Sample of major players located in Greater Montréal:

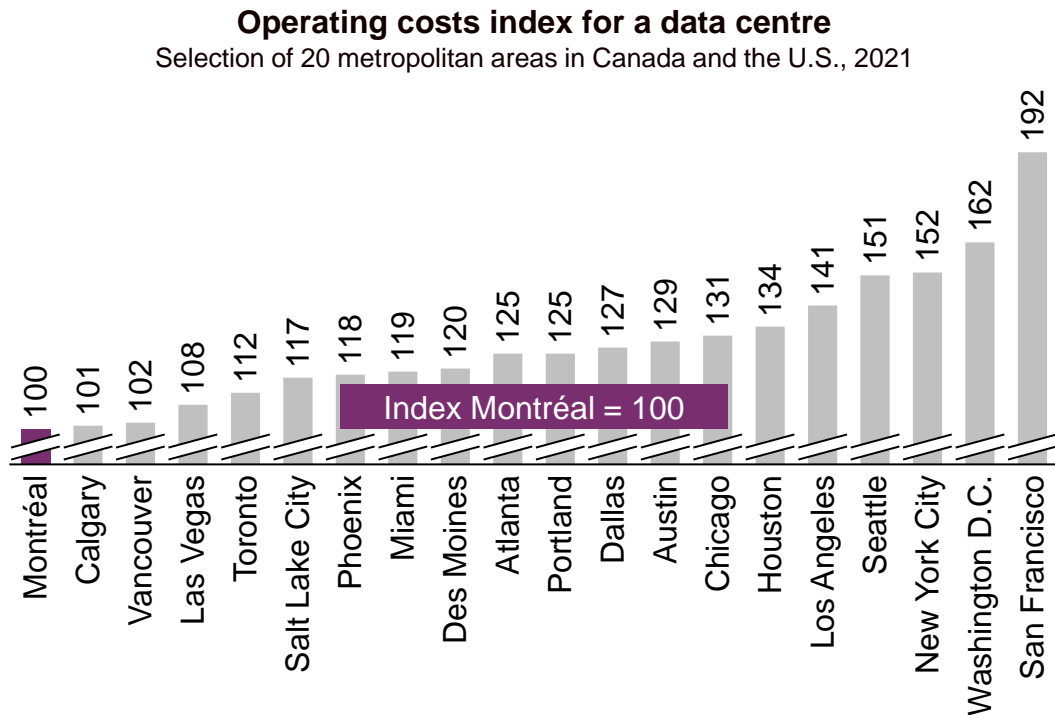


02

Montréal's Value Proposition



Operating a data centre costs less in Greater Montréal



22% cost advantage

compared to the average of a selection of 20 metropolitan areas in Canada and the U.S.

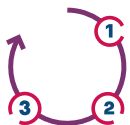
Attractive incentives: Major investment projects

The government of Québec has launched a major investment program to stimulate the economy and foster large-scale investment projects. Under the program, projects of \$100 million or more may qualify for a 15-year exemption from corporate income and employer health tax under certain conditions.



Eligibility
criteria

- Applicants must operate in one of the **following sectors** (NAICS code):
 - **Data processing and hosting**
 - **Manufacturing** (31–33)
 - **Wholesale trade** (41)
 - **Warehousing and storage**, particularly value-added distribution centres (4931)
- **The investment project must be worth at least \$100 million** and phased over 60 months or less
- The **tax exemption may not exceed 15% of the total eligible investment costs** calculated at the start of the exemption period
- The initial application must be submitted **before project kick-off**
- The deadline for submitting applications is **December 31, 2024**



Application
procedure

To apply under the major investment program, applicants must **submit a business plan** along with a **clear description of the project, investment details** and a **project timeline**.

Attractive incentives: Accelerating Sustainable Investment Program

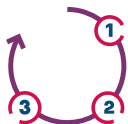
The program provides subsidies equal to the general property tax increase resulting from carrying out eligible work within Montreal urban agglomeration.



Eligibility
criteria

To be eligible, buildings must:

- Obtain a “sustainable” certification, for instance:
 - LEED
 - Living Building Challenge
 - BREEAM
 - HQE
 - etc.
- Be used for target economic activities, for instance data processing and hosting



Application
procedure

The base subsidy is equal to 100% of the general property tax increase resulting from carrying out eligible work for the first three years, to 80 % for the fourth year and to 60% for the fifth year

To submit an application, one must file an application form and attach both a copy of the land register evidencing that the owner of the building is the one submitting the application and of the building permit application identifying eligible work by December 31, 2021.

Attractive incentives: Québec tax credit for Research and Development (R&D)

The R&D tax credit is designed to boost research and development in Québec. The tax credit is refundable, meaning that companies can get a refund even if they have no tax liability. What's more, it can be combined with the federal R&D tax credit.



Program
benefits for
**Large canadian —
or foreign —
controlled
corporations**

The tax credit is **14% of R&D expenditures above the following exclusion thresholds:**

- **\$50,000** for corporations **with \$50 million or less in assets**
- **\$225,000** for corporations with assets **totaling \$75 million or more**
- An amount that increases linearly from \$50,000 to \$225,000 for companies with assets between \$50 million and \$75 million

Expenditures eligible for the R&D tax credit:

- **Wages of employees** who have worked directly on the project
- **50% of payments to arm's length contractors**
- **80% of total eligible R&D expenditures** incurred under research contracts with eligible **universities or research** centres
- **Payments to research consortiums**
- Expenditures incurred for **pre-competitive private partnership** research

Attractive incentives: Canada's tax credit for scientific research and experimental development

This program provides support to Canadian businesses that conduct research and development in Canada. Unlike the Québec R&D tax credit, this tax credit is not refundable. However, the unused balance can be carried back three years and forward 20 years. It may be combined with the R&D tax credit, the tax credit for the production of multimedia titles or the provincial tax credit for e-business development.



Program
benefits for
**Large Canadian —
or foreign —
controlled
corporations**

The tax credit is 15% of R&D expenditures:

- wages of employees who have worked directly on the project
- 80% of fees paid to a non-arm's length sub-contractor
- payment made to an accredited association, university, college, research institute or other organization
- the cost of materials used for the project
- general expenses directly related to research activities

Hydro-Québec economic development rate

The Hydro-Québec economic development rate supports the commissioning of new equipment in promising growth sectors as part of an expansion of an existing facility or a new installation.

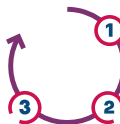


Eligibility
criteria

Hydro-Québec evaluates each project according to its **added value and economic spin-offs** for Québec and according to the following conditions:

- The **new equipment** must add **at least 1,000 kW** of demand to an existing facility.
 - For an **expansion project**, the expected power demand must **not be less than 20% of the existing demand**.
- The **facility's electricity costs** must account for **at least 10% of operating expenses**.
 - In the case of a data hosting facility, it must also present a significant value added for the Québec economy.
- The facility must **have significant potential for the net addition of new loads** within Québec.

The economic development rate provides an initial **20% reduction** applied to M, LG or L* rates until **March 31st, 2023**. Then, the reduction progressively decreases **by 5% per year** until **April 1st, 2027**.



Procedure

To sign up for the economic development rate, you must send Hydro-Québec a written request including a summary description of your planned facility or your expansion project, the scheduled commissioning date, estimates of the power demand and average energy consumption and an attestation that the economic development rate was one of the determining factors in your decision to build or expand a facility in Québec.

Note: *M: medium-power rate (maximum power demand exceeded 50kW at least once in the previous 12 billing periods;

LG: large-power rate (minimum billing demand is 5,000 kWh unless the contract is principally related to an industrial activity);

L: large-power rate (minimum billing demand is 5,000 kWh and is principally for an industrial activity).

Source: Hydro-Québec.

Full refund of provincial and federal sales taxes

Québec's automatic input tax refund and its federal equivalent make it more advantageous than sales tax exemption programs in the U.S.

The 9.975% Québec Sales Tax (**QST**) and the 5% Goods and Services Tax (**GST**) at the federal level, collected when goods and services are acquired, **are fully refundable on a monthly basis for businesses.**

Investment case scenario

Construction of a US\$115M data centre

Automatic qualification to Québec's input tax refund:

- No minimum investment threshold
- No timeline requirements
- No minimum job creation
- All CAPEX and OPEX included (ex. construction, equipment, cooling systems, power infrastructure, electricity, etc.)

	Québec	U.S. State
<u>CAPEX</u>		
Building	\$100,000,000	\$100,000,000
Servers and related equipment	\$14,000,000	\$14,000,000
Other equipment	\$1,000,000	\$1,000,000
<u>OPEX</u>		
Electricity and other expenditures	\$10,000,000	\$10,000,000
Total taxable expenditures	\$125,000,000	\$125,000,000
@ 14.975% (9.975% QST + 5% GST)	\$18,718,750	-
Illustrative U.S. State tax @ 7%	-	\$8,750,000
Input tax refund	(\$18,718,750)	<i>Depends on location (county)</i>

Advantageous salaries for employers in Data Centre

Data centre salaries median annual salary* (US\$) for five typical professions, 2021

	Montréal	Vancouver	Toronto	Portland	Houston	Boston	San Francisco
Data Centre Technician	\$44,687	\$47,809	\$47,970	\$54,871	\$55,850	\$60,023	\$64,175
Data Centre Specialist	\$51,497	\$54,855	\$55,200	\$64,009	\$67,685	\$70,514	\$75,570
Data Centre Security Specialist	\$54,681	\$59,827	\$58,925	\$60,968	\$61,733	\$68,479	\$82,985
Data Centre Critical Facilities Engineer	\$72,004	\$78,223	\$77,497	\$86,255	\$91,755	\$96,988	\$118,831
Data Centre Manager	\$86,118	\$92,681	\$92,854	\$101,363	\$115,068	\$120,928	\$144,301

* Salaries based on five years of experience, Data Processing, Hosting, and Related Services (NAICS 518210).

Currency exchange based on the monthly average of June 2021: US\$1.00 = CA\$1.2219.

Source: Economic Research Institute Inc., July 2021.

Low mandatory benefit costs for employers

Examples of mandatory benefit costs for employers, 2021

Gross annual salary*	\$50,000	\$100,000	\$125,000
Québec Public Pension Plan (employee: 5.9%; employer: 5.9%, max. \$3,427.90)	2 743,50 \$	3 427,90 \$	3 427,90 \$
Québec Parental Insurance Plan (employee: 0.494%, employer: 0.692%, max. sal. of \$83,500)	346,00 \$	577,82 \$	577,82 \$
Employment Insurance (employee: 1.18%, employer: 1.65%, max. sal. of \$56,300)	826,00 \$	930,08 \$	930,08 \$
Health Services Fund (max. 4.26% if global salary total is more than \$6,5M)	2 130,00 \$	4 260,00 \$	5 325,00 \$
Commission des normes du travail (Labour standards board) (0.07%, max. sal. of \$83,500)	35,00 \$	58,45 \$	58,45 \$
Commission de la santé et sécurité du travail (Occupational health and safety board) (0.42% in service sector, max. sal. of \$83,500)**	210,00 \$	350,70 \$	350,70 \$
Workforce Skills Development and Recognition Fund - Québec Training Law 1% (1% of their total payroll in training for employers with total annual payroll over \$2M)	500,00 \$	1 000,00 \$	1 250,00 \$
Total benefit costs	6 790,50 \$	10 604,95 \$	11 919,95 \$
Total cost	56 790,50 \$	110 604,95 \$	136 919,95 \$
Total benefits in % of gross annual salary	13,58 %	10,60 %	9,54 %

Note: *Paid vacation represents a minimum of 4% of salary and is included in gross salary. Some rates apply up to a maximum insurable revenue.

**The rate for the service sector (65110 - *Bureau de courtage; bureau de services professionnels; bureau offrant des services de soutien administratif*) is 0.42%. The average premium rate in 2021 is \$1.77 per \$100 of payroll.

Source: Revenu Québec, 2021.

A large pool of university students enrolled in IT-related programs

Nearly **18,000**
enrolled in
IT-related programs
at universities located
in Greater Montréal

IT-related programs	University students enrolled in 2019-2020	University graduates, 2019
Computer Sciences	10,181	2,061
Electrical and Electronic Engineering	3,613	842
Computer Engineering	2,328	464
Mathematics	1,416	313
Applied Mathematics	203	51
Probabilities and Statistics	168	33
Total	17,909	3,763

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

- **Canada's university capital:** 15 university institutions and 60 colleges
- **320,000 post-secondary students**, including more than **200,000 university students** and **35,500 international university students**
- **1st in Canada for university research funding** with \$1.34+ billion yearly



Best student city in the Americas
tied with Boston

QS Best Student Cities Rankings
2022

1	Montréal tied with Boston
2	Toronto
3	New York
4	Vancouver
5	San Francisco

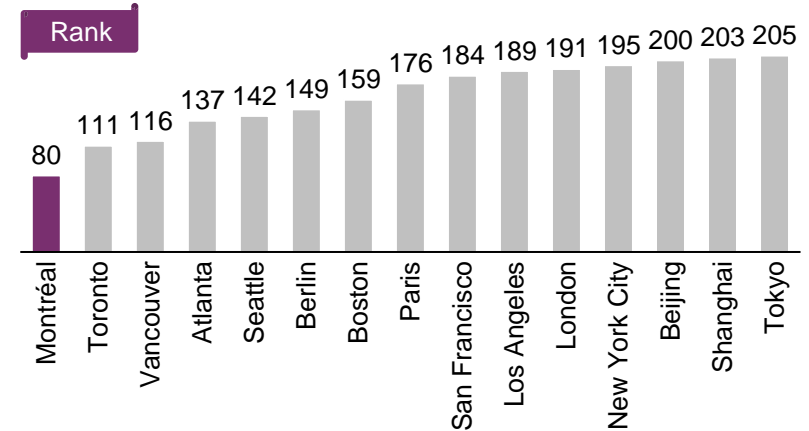




A low cost of living

Greater Montréal is **cheaper than almost all other large cities** in North America, Western Europe, China and Japan:

Mercer Cost of Living Index
World rank from least to most expensive*, 209 cities



Greater Montréal offers a higher purchasing power thanks to:

- **Cheap housing**
- **Low medical insurance costs**
- **Generous family allowances**
- **Affordable child care**

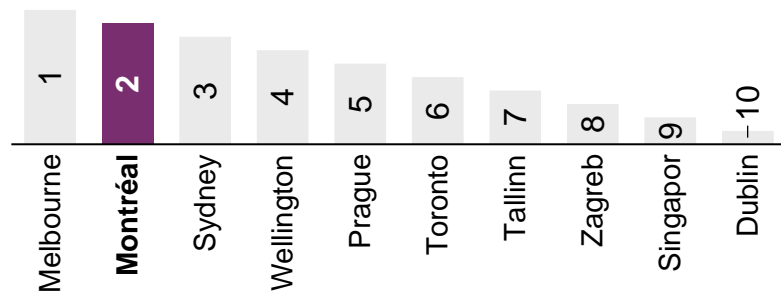
* Montréal International's analysis.

Source: Mercer, "Cost of Living Survey," 2021.

An exceptional quality of life

- Montréal is the **2nd best city in the world** for remote workers:

World ranking of the best cities for remote work, WorkMotion, 2021



- Lowest homicide rate** among the 20 largest metropolitan areas in Canada and the U.S.
- Universal healthcare**
- Lowest education tuition fees** in North America
- Vibrant cultural metropolis** with 100+ festivals and 70 museums



03

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 missions**



Contact us



Montréal
International

Montréal International
380 Saint-Antoine Street West
Suite 8000
Montréal, Québec H2Y 3X7

t +1 514-987-8191
www.montrealinternational.com

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