GREATER MONTRÉAL: AN ARTIFICIAL INTELLIGENCE HUB
GREATER MONTRÉAL: AN ARTIFICIAL INTELLIGENCE HUB

TOP REASONS TO INVEST IN AI IN GREATER MONTRÉAL

A LABOR POOL OF HIGHLY QUALIFIED WORKERS

LOW OPERATING COSTS AND ATTRACTIVE INCENTIVES

A UNIQUE QUALITY OF LIFE

A STRATEGIC GEOGRAPHICAL LOCATION ACROSS THE AMERICAS

MONTRÉAL INTERNATIONAL: YOUR STRATEGIC PARTNER
EXECUTIVE SUMMARY
GREATER MONTRÉAL: AN ARTIFICIAL INTELLIGENCE HUB (AI)

THE #1 UNIVERSITY RESEARCH HUB IN CANADA

- 1st in Canada for university research funding
- Best student city in the world in 2017
- 11 university institutions
- More than 155,000 students
- Largest number of university researchers in Canada
- Two universities ranked among the top in the world: McGill University and Université de Montréal
- Montréal received 24% of the $900 M of the Canada First Research Excellence Fund
- The Institute for Data Valorisation (IVADO) was created to make Montréal a leader in Big Data and AI
- Montréal gets $100 M over 5 years for the creation of a Quebec AI cluster and $40 M for the Pan-Canadian Artificial Intelligence Strategy

WORLD LEADER IN AI AND DEEP LEARNING

- Montréal has the biggest and most prestigious group of deep learning researchers in the world (MILA)
- Montréal’s Yoshua Bengio is one of the founding fathers of the deep learning movement
- The Université de Montréal and McGill University have more than 250 researchers and doctoral students in fields related to artificial intelligence, the largest academic concentration in the world
- World-renown researchers in Computer Vision, Natural Language Processing, Automatic Speech Recognition, Reinforcement Learning and other Montréal fields of expertise complementary to AI, such as data science, operations research and medical imagery

KEY EVENTS AND MILESTONES IN MONTRÉAL

- Facebook, Samsung, DeepMind and Thales announced the opening of an AI lab in Montréal in 2017
- Google invests into the community and launches an AI focused research lab
- Microsoft Ventures invests in Element AI and Microsoft acquires Maluuba, a Montréal deep learning startup
- Element AI receives $137.5 M, the largest Series A funding round for an AI company in the world
- Montréal gets the majority of the Canada First Research Excellence Fund in 2016 of which $93.5 M is awarded to AI research through IVADO
- Grassroots organizations such as MTL Data, Data Driven MTL, MTL Machine Learning
- 125 technology focused Meetup groups connected to Startups and 45,000 members

ARTIFICIAL INTELLIGENCE IS EXPANDING AT LIGHTNING SPEED IN GREATER MONTRÉAL
EXECUTIVE SUMMARY
TOP REASONS TO INVEST IN AI IN GREATER MONTRÉAL

1. TALENT
   • Canada’s University Capital
   • Most bilingual and trilingual population in Canada
   • Qualified labour and student pool: close to 75,000 specialists related to AI and almost 9,000 university students in AI and Data related programs

2. COST ADVANTAGE
   • Competitive salaries
   • Tailor made incentives and government support
   • Most competitive operating costs in North America for an IT Business
   • Low mandatory benefit costs
   • Attractive tax treatment

3. QUALITY OF LIFE
   • Affordable cost of living: 40% less than in comparable metropolitan areas
   • Affordable housing: 25% less than in Toronto and 60% less than in San Francisco

4. STRATEGIC LOCATION
   • Government committed to AI and innovation
   • Mid-way between Silicon Valley and Europe
   • A 60-minute flight from Boston and New York City
GREATER MONTRÉAL: AN ARTIFICIAL INTELLIGENCE HUB
Artificial Intelligence (AI) is everywhere from translation services to virtual assistants. It has applications and use cases in almost every industry and is considered the next big technological shift.

One of the disciplines of AI is **machine learning**: the development of algorithms to learn from examples. Machine learning is a type of artificial intelligence that provides computers with the ability to learn without being explicitly programmed.

**Deep learning** is now the main technology behind AI and machine learning, and it currently dominates the IT market and it was discovered, in part, in Montréal.

SOME OF THE COMPANIES THAT MAKE MONTRÉAL’S ARTIFICIAL INTELLIGENCE ECOSYSTEM GREAT

**MACHINE LEARNING**
- Google
- mlldb.ai
- Maluuba
- Microsoft

**VOICE RECOGNITION**
- Nuance
- Plotly
- ApSTAT

**ENTERPRISE INTELLIGENCE**
- VIA Science
- Imagia
- Codens Medical Imaging

**IMAGE HEALTHCARE**
- Envision.AI
- Fluent.ai
- INRO
- Giro
- Landr

**FINANCE**
- iSentium
- Finn.ai

**COMPUTER VISION**
- Envision.AI

**TRANSPORTATION**
- JDA
- INRO
- Giro
- Landr

**MUSIC CREATION**
- iSentium
- Finn.ai

**AI AS A SERVICE**
- EAI

**EDUCATION**
- Frudite

**SUPPLY CHAIN**
- EAI
- JDA
- INRO
- Giro
- Landr

**SECURITY**
- Aerial

**MARKETING, SALES AND CUSTOMER SUPPORT**
- Heyday
- Fuzzy.ai
- Automat
- Smooch
- Seevibes
- Thirdshelf

**IMMIGRATION**
- Botler

**RESEARCH ASSISTANT**
- MIM
SAMPLE OF LEADING COMPANIES ACTIVE IN AI IN MONTREAL
Montréal has developed a concentration of expertise in the area of AI, largely thanks to the efforts of Université de Montréal’s professor Yoshua Bengio, head of the Montréal Institute for Learning Algorithms (MILA).

MILA also known as “Deep Learning Ground Zero”, where deep learning was born and, to this day, still has the involvement of one of the three globally recognized pioneers of deep learning.

MILA offers world-class capabilities in AI key Expertise: Deep Learning, Computer Vision, Automatic Speech Recognition, Natural Language Processing and Reinforcement Learning.

YOSHUA BENJIO
PhD in Computer Science from McGill University, 1991. He worked at the CIFAR research institute along side with Yann LeCun (now at Facebook) and Geoffrey Hinton (now at Google). He has collaborated with IBM to work on their super computer, Watson.

Full professor, Department of Computer Science and Operations Research, Canada Research Chair in Statistical Learning Algorithms. He is also the recipient of the CFREF Deep Learning Apogée grant and is now leading the science developed at both MILA and the Institute for Data Valorisation (IVADO) in Montréal.

Source: Recode, Welcome to the AI Conspiracy: The ‘Canadian Mafia’ Behind Tech’s Latest Craze, Deep learning -- the super-computing AI behind voice and image recognition -- is all the rage in Silicon Valley, July 2015: http://www.recode.net/2015/7/15/11614684/ai-conspiracy-the-scientists-behind-deep-learning
The Université de Montréal and McGill University together have 250 researchers (mainly doctoral students) related to artificial intelligence.

The largest academic concentration in the world and recognized since its beginnings in 2006.

Each year, more than 400 graduate students, 90% of whom are from top international universities, compete for one of the prized fellow positions at the MILA.

Source: IVADO

Source: MILA
MONTRÉAL ARTIFICIAL INTELLIGENCE RESEARCHERS
WORLD-CLASS CAPABILITIES

YOSHUA BENGIO is joined at MILA by numerous world-renowned colleagues: leading experts in Deep learning, computer vision, natural language processing and automatic speech recognition.

PASCAL VINCENT is an Associate Professor at MILA, Department of Computer Science and Operations Research (DIRO) at the University of Montreal. His research interests are centered around Deep learning and discovering fundamental computational principles that underlie the extraordinary capabilities to learn from the environment, understand it and adapt to it that characterize intelligence.

CHRISTOPHER PAL is an Associate Professor in the department of computer and software engineering at École Polytechnique de Montréal. He is specialized in Computer vision and pattern recognition, computational photography, natural language processing, statistical machine learning and applications to human computer interaction.

AARON COURVILLE is an Assistant Professor in the DIRO at the University of Montreal, and member of the LISA lab (LISA: Laboratoire d’Informatique des Systèmes Adaptatifs). Specialized in the development of deep learning models and methods, computer vision, natural language processing, audio signal processing and speech understanding.
McGill University is also home to Joelle Pineau and Doina Precup, 2 leading experts in the field of Reinforcement Learning.

**JOELLE PINEAU** is an Associate Professor at the School of Computer Science at McGill University, where she co-directs the Reasoning and Learning Lab. Her research centres on developing efficient algorithms for learning and decision-making in partially observable stochastic domains, and applying these algorithms to complex problems in robotics and health-care.

**DOINA PRECUP** is an associate professor in the School of Computer Science of McGill University. Her research interests are in the areas of artificial intelligence, machine learning and applications of these methods to real-world problems.

**Reasoning and Learning Lab**, co-directed by Professors Prakash Panangaden, Doina Precup, Joelle Pineau, and Jackie Chi Kit Cheung: Study of probabilistic systems. Current areas of interest include Markov processes, reinforcement learning and computational linguistics.
YOSHUA BENGIO is also IVADO’S Scientific Director, a unique partnership between academic researchers and industry professionals to create synergies between its three main areas of expertise: business intelligence, operations research and artificial intelligence.

• More than 1,000 scientists (professors, professionals and students) with complementary areas of expertise
• #1 for publications worldwide
• Over 40 academic programs

IVADO researchers are affiliated with four internationally renowned research centres in artificial intelligence and deep learning, operations research, big data processing and statistics.
In recognition of Polytechnique Montréal’s advanced expertise in operations research and data science, the Government of Canada has appointed Professor Andrea Lodi, one of the world’s leading experts in the field, as the Canada Excellence Research Chair on big data and real-time decision-making.

The research chair combines three of Montréal’s key areas of academic excellence: operations research, artificial intelligence, and mathematical optimization. In Professor Lodi’s view, together these three disciplines bring big data into play through data analytics.

Professor Lodi is already working on several projects in partnership with the industry. His current projects focus on the health care sector and smart transportation.
ALGORITHMS TO BETTER INTERPRET MEDICAL IMAGES

Using advanced algorithms, Professor Ismail Ben Ayed is introducing a portion of medical knowledge in computer programs to facilitate the work of surgeons and radiologists. Professor Ben Ayed perfected a software program that is able to evaluate the ejection fraction of the heart. He also developed an algorithm that automatically annotates the bones of the spinal column. These two programs are already being used in hospitals.

Ismail Ben Ayed dreams of creating algorithms that can detect what is invisible to the naked eye, and thus predict diseases.

Research units at École de technologie supérieure (ÉTS) in medical imagery:
• LIVIA - Laboratory for Imagery Vision and Artificial Intelligence
• LIO – Imaging and orthopaedics research laboratory
• **Computer Research Institute of Montréal (CRIM)**
  - Develops innovative technologies and know-how in collaboration with its clients and partners for technology transfer to Quebec's leading businesses and organizations, helping to increase their productivity and competitiveness.
  - Three areas of expertise: advanced analytics, human–system interaction and interface, software science and technology

• **CEFRIO**
  - Helps businesses take advantage of digital technology and integrate ICT into their business strategies

• **Canada's Big Data Consortium**
  - Brings together industry, government and academia, including Concordia University
  - Works on a range of key issues related to big data and data analytics

• **Calcul Québec**
  - A group of Québec universities gathered around the latest computational computing in order to better serve innovation and carry out research in fields as varied as pharmacy, chemistry, study of new materials, telecommunications, transportation, Finance, aerodynamics, the environment, artificial intelligence, etc.

• **PROMPT**
  - Provides Quebec companies with ICT R&D funding solutions through partnerships with the institutional research community to increase their competitive advantage
Montréal receives 24% of the $900 M awarded to 13 postsecondary institutions in Canada from the Canada First Research Excellence Fund in 2016. $213 M goes to the Université de Montréal, HEC Montréal, Polytechnique Montréal and McGill University.

$93.5 M will go to artificial intelligence research and to IVADO, which has also raised $110 M from the private sector.

Investment breakdown by Canadian City - Canada First Research Excellence Fund Competition - 2016
STRATEGIC INVESTMENTS
SUPPORT FROM THE PROVINCIAL AND FEDERAL GOVERNMENTS

QUÉBEC’S 2017 BUDGET ANNOUNCED $100 M OVER THE NEXT 5 YEARS TO CREATE AN ARTIFICIAL INTELLIGENCE SUPER-CLUSTER WITH FIVE PRIORITY AREAS IDENTIFIED:

• attracting and retaining talent
• consolidating a critical mass of high-calibre researchers
• creating a business environment that supports the development and marketing of products and solutions resulting from scientific advancements
• business start-ups and access to venture capital in the field of artificial intelligence in Québec
• acceptability and social impact of artificial intelligence

CANADA’S FEDERAL BUDGET 2017 ANNOUNCED $160 M IN AI SPECIFIC FUNDING:

• $125 M to launch a Pan-Canadian Artificial Intelligence Strategy to retain, attract and increase the level of top academic talent in artificial intelligence and deep learning and promote collaboration between Canada’s main centres of expertise in Montreal, Toronto-Waterloo and Edmonton ($ 40 M goes to Montréal)
• $35 M over the next 5 years for the Canadian Institute for Advanced Research (CIFAR) into R&D programs which develop technology on AI and deep learning
Element AI is an artificial intelligence solutions provider that gives organizations unparalleled access to cutting-edge technology with a renowned faculty fellow network, the largest privately-owned Canadian artificial intelligence R&D lab, as well as a growing network of specialized business partners. The company has reached 100 employees and plans to create another 250 jobs over the next few months and hire the best researchers in the industry to support its growth.

**FOUNDERS**

JEAN-FRANÇOIS GAGNÉ  
NICOLAS CHAPADOS  
JEAN SÉBASTIEN COURNOYER  
YOSHUA BENGIO

**Solutions**

AI AS A SERVICE  
SOLUTIONS PORTFOLIO  
STARTUP FACTORY

**OCTOBER 2016**  
Launch of Element AI in Montréal

**DECEMBER 2016**  
Microsoft Ventures invests in Element AI

**JUNE 2017**  
Element AI receives $137.5 M, the largest Series A funding round for an AI company in the world
Alphabet, Google's parent company, announced in November 2016 the opening of a deep learning and AI research group in Montréal, linked to the Google Brain team in Mountain View, California.

It will be led by Hugo Larochelle, a leader within the deep learning community.

HUGO LAROCHELLE
Previously Research Scientist at Twitter Cortex, and Assistant Professor at the Université de Sherbrooke.

He spent 2 years in the Machine Learning Group at the University of Toronto, as a postdoctoral fellow under the supervision of Geoffrey Hinton, and obtained his PhD at the Université de Montréal, under the supervision of Yoshua Bengio.

GOOGLE expanded its academic support of deep learning at MILA in November 2016, renewing Yoshua Bengio’s Focused Research Award and offering Focused Research Awards to MILA faculty at University of Montréal and McGill University.

Google’s total donation to MILA $4.5 M over a period of 3 years.
ANOTHER WORLDWIDE LEADER SETS UP IN MONTRÉAL
MICROSOFT

FOLLOWING GOOGLE, MICROSOFT INVESTS IN GREATER MONTRÉAL’S BURGEONING AI ECOSYSTEM

• They acquired Montréal-based startup Maluuba in order to establish a world-class deep learning research and development team

• They plan to double the size of the existing team in Montreal within the next two years

• Microsoft also provided gifts for AI research of $6 M to the Université de Montréal and $1 M to McGill University

• Additionally, the first investment by Microsoft Ventures special fund dedicated to AI is in Montréal’s Element AI

“Microsoft is excited to engage with faculties, students and the broader tech community in Montreal, which is becoming a global hub for AI research and innovation.” Brad Smith, President of Microsoft.*

AI STANDS ON A STRONG INFORMATION AND COMMUNICATIONS TECHNOLOGIES INDUSTRY (ICT)

- Montréal's ICT industry counts about 91,000 highly-skilled employees across 5,000 organizations
- Ranked 8th in North America for ICT jobs concentration in 2015
- A leader among North America’s 20 biggest metropolitan areas: Ranked 1st for lowest ICT business operating costs in software development
- Broadly diversified industry:
  - Historical strength in telecommunications have led to a mobile and IoT hotbed
  - Creativity and technology combine to create the 5th world centre for video game production and main hub in Canada as well as the 4th global visual effects centre and one of the leading animation hubs
- TechnoMontréal is the ICT cluster of the Greater Montréal region
- Montréal is the Smart Community of the Year 2016 according to the Intelligent Community Forum

Sources:
MONTRÉAL’S BIG DATA SECTOR IS POWERED BY A VIBRANT ECOSYSTEM, SUPPORTED BY A ROBUST DATA INFRASTRUCTURE

- High data hosting capacity
- Highly specialized research expertise
- One of the highest levels of data security in the world
- Québec has at least 2,100 big data specialists (88% of whom work in Greater Montréal)
- Promising market opportunities abound:
  - numerous cloud players and hosting providers have built Tier 3+ data centres in the Montréal region in recent years (Bell, Cologix, Internap, SoftLayer, etc.)
  - University research, industry partners and venture capital funding all combine to drive the continued growth of this sector that has seen the emergence of local players, working together with leading international groups

Source: Big data profile in Québec, Montréal International and Québec International.
MONTRÉAL, A THRIVING STARTUP COMMUNITY

16TH WORLD EMERGING STARTUP HUB TO WATCH IN 2016:

• Up to 2,600 startups:
  • 22% hold at least one patent
  • 67% offer a product or service that meets the smart city market
• A pool of skilled talent: approximately 8,000 employees
• 125 Meetup groups connected to Startups and 45,000 members such as MTL Data, Data Driven MTL, MTL Machine Learning
• Coming soon, a startup hub dedicated to fintech

In the first half of 2016, the Québec investment landscape saw a surge in VC deals with $425 M invested over 75 deals, double the amount of dollars invested in the same period in 2015 (68%) where $253 M was invested over 76 deals.

Sample of key investors in Greater Montréal:

• Real Ventures
• Fonds de solidarité FTQ
• Investissement Québec
• BDC Capital
• Fondaction CSN
• Cycle Capital Management
• iNovia Capital inc
• Desjardins Venture Capital
• Caisse de dépôt et placement du Québec
• Anges Québec
• Relay Ventures

TOP REASONS TO INVEST IN AI IN GREATER MONTRÉAL
2.1 A LABOR POOL OF HIGHLY QUALIFIED WORKERS

THANKS TO 11 UNIVERSITY INSTITUTIONS AND NUMEROUS COLLEGE AND VOCATIONAL TRAINING CENTERS, MONTRÉAL BOASTS A HIGHLY QUALIFIED WORKFORCE AND IS CANADA’S UNIVERSITY CAPITAL

- Ranks 1st in Canada for university research funding
- Best student city in the world according to the QS Best Student Cities 2017
- Largest number of university researchers in Canada
- More than 155,000 university students in 2014-2015
- 53,000 university graduates in 2014-2015
- Close to 23,000 international students in 2014-2015
- According to the Times Higher Education World University Rankings 2017, two universities ranked among the top in the world (McGill University and Université de Montréal)

THE MOST BILINGUAL AND TRILINGUAL METROPOLITAN AREA IN CANADA

- 2.3 millions residents speak English, that’s more than in Vancouver
- 54% of the population is bilingual (English and French), compared to less than 8% in Toronto and Vancouver
2.1 A LABOR POOL OF HIGHLY QUALIFIED WORKERS

ABOUT 9,000 UNIVERSITY STUDENTS ARE ENROLLED IN ARTIFICIAL INTELLIGENCE AND DATA RELATED PROGRAMS IN GREATER MONTRÉAL

<table>
<thead>
<tr>
<th>UNIVERSITY PROGRAMS RELATED TO AI</th>
<th>STUDENTS ENROLLED, 2015-2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>→ Computer sciences</td>
<td>6,194</td>
</tr>
<tr>
<td>→ Computer engineering and computer science</td>
<td>1,149</td>
</tr>
<tr>
<td>→ Mathematics</td>
<td>1,360</td>
</tr>
<tr>
<td>→ Applied mathematics</td>
<td>113</td>
</tr>
<tr>
<td>→ Probabilities and statistics</td>
<td>141</td>
</tr>
<tr>
<td>TOTAL</td>
<td>8,957</td>
</tr>
</tbody>
</table>

Source: Ministère de l'Éducation et de l'Enseignement supérieur, 2016, compilation Montréal International.
# 2.1 A Labor Pool of Highly Qualified Workers

## Close to 75,000 Specialists Related to AI Are Employed in Greater Montréal in 2016

<table>
<thead>
<tr>
<th>Jobs Related to AI</th>
<th>Employees in 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database Analysts and Data Administrators</td>
<td>31,700</td>
</tr>
<tr>
<td>Software Engineers and Designers</td>
<td>5,900</td>
</tr>
<tr>
<td>Computer Programmers</td>
<td>28,800</td>
</tr>
<tr>
<td>Computer Engineers</td>
<td>5,200</td>
</tr>
<tr>
<td>Mathematicians</td>
<td>1,700</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>73,300</strong></td>
</tr>
</tbody>
</table>

Montréal's workforce of 2 million workers is among North America's most dynamic yet presents a high degree of stability with turnover rates well below North American averages. The turnover rate for the ICT industry is 17.3%.

### Ease of Recruitment

According to Aon Hewitt*, Montréal ranks 3rd in North America in the lowest overall risk associated with recruiting, employing and relocating workers.

* Overall workforce risk includes relocation and expatriation; mergers, acquisitions and partnerships; absenteeism; employee health and well-being programs; internal relationships; employment in general; globalization; cultural differences; and talent sources.

2.2 LOW OPERATING COSTS AND ATTRACTIVE INCENTIVES

MOST COMPETITIVE COSTS IN NORTH AMERICA FOR IT BUSINESSES

TOTAL OPERATING COSTS FOR A SOFTWARE DEVELOPMENT BUSINESS
20 largest metropolitan areas in North America, 2016

RUNNING A SOFTWARE DEVELOPMENT BUSINESS COSTS LESS IN GREATER MONTRÉAL

• **1st rank:** The most competitive operating costs of North America’s 20 largest metropolitan areas
• **A cost advantage close to 28%** over the average of North America’s largest metropolitan areas

Total operating costs comprise: labor costs, facility costs, transportation costs, utility costs and taxes.

Source: Competitive Alternatives KPMG, April 2016
Exchange rate is C$1.29 per US$
2.2 LOW OPERATING COSTS AND ATTRACTIVE INCENTIVES

COMPETITIVE SALARIES IN AI AND ICT

MEDIAN ANNUAL SALARIES* (US$) FOR 5 TYPICAL PROFESSION

<table>
<thead>
<tr>
<th>Profession</th>
<th>Montréal</th>
<th>Toronto</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Scientist</td>
<td>$119,107</td>
<td>$121,422</td>
</tr>
<tr>
<td>Data Architect</td>
<td>$145,603</td>
<td>$148,433</td>
</tr>
<tr>
<td>Software Engineer</td>
<td>$125,924</td>
<td>$128,371</td>
</tr>
<tr>
<td>Computer Programmer</td>
<td>$88,773</td>
<td>$90,214</td>
</tr>
<tr>
<td>Computer Database Analyst</td>
<td>$98,500</td>
<td>$100,966</td>
</tr>
</tbody>
</table>

* Salaries based on 5 years of experience. Currency exchange based on the monthly average of December 2016: C$1.00 = US$0.7502
### 2.2 Low Operating Costs and Attractive Incentives

#### Low Mandatory Benefit Costs for Employers

**Examples of Mandatory Benefit Costs for Employers, 2017**

<table>
<thead>
<tr>
<th>GROSS ANNUAL SALARY</th>
<th>$ 50,000</th>
<th>$ 100,000</th>
<th>$ 125,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>→ Québec Pension Plan (employee: 5.4%; employer: 5.4%, max. $2,797.20)</td>
<td>$2,700.00</td>
<td>$2,797.20</td>
<td>$2,797.20</td>
</tr>
<tr>
<td>→ Québec Parental Insurance Plan (employee: 0.548%, employer: 0.767%, max. sal. of $72,500.00)</td>
<td>$383.05</td>
<td>$556.08</td>
<td>$556.08</td>
</tr>
<tr>
<td>→ Employment Insurance (employee: 1.27%, employer: 1.778%, max. sal. of $51,300.00)</td>
<td>$889.00</td>
<td>$912.11</td>
<td>$912.11</td>
</tr>
<tr>
<td>→ Health Services Fund (2.5% if global salary total less than $1M, max. 4.26%)</td>
<td>$1,250.00</td>
<td>$2,500.00</td>
<td>$3,125.00</td>
</tr>
<tr>
<td>→ Commission des normes du travail (labour standards board) (0.07%, max. sal. of $72,500.00)</td>
<td>$35.00</td>
<td>$50.75</td>
<td>$50.75</td>
</tr>
<tr>
<td>→ Commission de la santé et sécurité du travail (occupational health and safety board - 0.50% in service sector, max. sal. of $72,500.00)*</td>
<td>$250.00</td>
<td>$362.50</td>
<td>$362.50</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$5,507.05</strong></td>
<td><strong>$7,178.64</strong></td>
<td><strong>$7,803.64</strong></td>
</tr>
</tbody>
</table>

**Total cost** | **$55,507.05** | **$107,178.64** | **$132,803.64**

Notes: Vacation represent a minimum of 4% of salary pursuant to the Act respecting labour standards. 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 0.50% but the rate for an employer can vary from 0.23% to 18.87% depending on the sector.

Paid holidays (approx. 10 days or 4%) are included in gross salary.

## 2.2 LOW OPERATING COSTS AND ATTRACTIVE INCENTIVES

### R&D TAX CREDIT

**Scientific and Experimental Development (SR&ED) Tax Credit Program:**

- **15%** from the government of Canada, and **14%, refundable**, from the government of Québec

### SCENARIO 1 ($)

**Assumptions**

1. Private, foreign-controlled company, more than $75M assets
2. 20 eligible employees @ $50,000 / year
3. 100% of their work is related to eligible activities
4. Subcontractor: $200,000

<table>
<thead>
<tr>
<th></th>
<th>FEDERAL</th>
<th>QUÉBEC</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary</td>
<td>1,000,000</td>
<td>1,000,000</td>
<td>2,000,000</td>
</tr>
<tr>
<td>Replacement amount @ 55%</td>
<td></td>
<td>550,000</td>
<td></td>
</tr>
<tr>
<td>Subcontractors</td>
<td></td>
<td>160,000</td>
<td>100,000</td>
</tr>
<tr>
<td>Québec SR&amp;ED credit</td>
<td>-122,500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exclusion</td>
<td></td>
<td></td>
<td>225,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1,587,500</td>
<td>875,000</td>
</tr>
</tbody>
</table>

**Federal credit @ 15% and Québec credit @ 14%**

- **238,125**
- **122,500**
- **360,625**

**Notes:**

1. This model takes into consideration recent changes made to certain tax credits (2012, 2014 and 2015) and is thus valid as of fiscal 2015.
2. Only 80% of the amount paid to a subcontractor is eligible for a federal tax credit and 50% for a Québec tax credit.
3. For the purposes of calculating the combined rate of the credit, the tax credit from the government of Québec is applied against the federal tax credit.
4. For SMEs, (less than $50M assets), there is an SR&ED tax credit exclusion on the first $50K of R&D spending. For large companies and companies under foreign control, the exclusion applies on the first $225K of R&D spending.

**Source:** Ministry of Finance of Québec, 2015.

**Compilation:** Montréal International, 2015
2.2 LOW OPERATING COSTS AND ATTRACTIVE INCENTIVES
COMBINATION OF E-BUSINESS TAX CREDIT (CDAE) AND
THE SR&ED TAX CREDIT

REFUNDABLE TAX CREDIT FOR SR&ED AND E-BUSINESS:

- E-business covers up to 30%, including 24% refundable, of employee salaries up to $25 000 per job per year
- SR&ED covers 15% from the government of Canada, and 14%, refundable, from the government of Québec

### SCENARIO 2 ($)
Combination of the Québec refundable tax credit for the development of e-business (CDAE) and the federal scientific research and experimental development (SR&ED), 2015

<table>
<thead>
<tr>
<th>Assumptions¹</th>
<th>FEDERAL</th>
<th>QUÉBEC</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>→ Foreign-controlled private company</td>
<td>1,000,000</td>
<td>1,000,000</td>
<td>1,550,000</td>
</tr>
<tr>
<td>→ 20 eligible employees @ $50,000/year</td>
<td>550 000</td>
<td></td>
<td>1,000,000</td>
</tr>
<tr>
<td>→ 100% of their work is related to activities eligible for the CDAE and the SR&amp;ED tax credits</td>
<td>0</td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>FEDERAL</th>
<th>QUÉBEC</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>→ Salary</td>
<td>1,000,000</td>
<td>1,000,000</td>
<td>1,550,000</td>
</tr>
<tr>
<td>→ Replacement amount @ 55 %²</td>
<td>550 000</td>
<td></td>
<td>1,000,000</td>
</tr>
<tr>
<td>→ Québec CDAE credit³</td>
<td>0</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Federal credit @ 15% and Québec credit @ 24%⁴</td>
<td>232,500</td>
<td>240,000</td>
<td>472,500</td>
</tr>
<tr>
<td>Federal credit @ 15% and Québec credit @ 30%⁵</td>
<td>232,500</td>
<td>300,000</td>
<td>532,500</td>
</tr>
</tbody>
</table>

Notes:
1. This model takes into consideration recent changes made to certain tax credits (2012, 2014 and 2015) and is thus valid as of fiscal 2015.
2. Limited by other company expenditures.
3. The CDAE does not reduce the amount eligible for the federal SR&ED tax credit.
4. The corporate taxes paid are not sufficient to cover the 6% non-refundable part of the tax credit.
5. The corporate taxes paid are sufficient to fully cover the 6% non-refundable part of the tax credit.

Source: Ministry of Finance of Québec, 2015
Compilation: Montréal International, 2015
2.2 LOW OPERATING COSTS AND ATTRACTIVE INCENTIVES

OTHER MAJOR INCENTIVES

FINANCIAL ASSISTANCE FOR JOB CREATION AND TRAINING

• 25% of eligible costs for the implementation of a training program and 50% of costs incurred for the creation of a human resource department

TAX HOLIDAY FOR FOREIGN RESEARCHERS AND EXPERTS

Five-year Québec income tax exemption

• 0% of provincial income tax on salary for the 1st and 2nd year
• 25% for the 3rd year
• 50% for the 4th year
• 75% for the 5th year
2.2 LOW OPERATING COSTS AND ATTRACTIVE INCENTIVES
AN ATTRACTIVE TAX TREATMENT

A COMPETITIVE TAX BURDEN

One of the most competitive tax burden, all sectors combined, among the 20 largest metropolitan areas in North America

COMPARISON OF CORPORATE EFFECTIVE TAX RATE (%) for non-manufacturing companies
Selected Canadian provinces and U.S. States, 2016

Sources: Invest Québec and Raymond Chabot Grant Thornton, 2016
2.3 A UNIQUE QUALITY OF LIFE

AFFORDABLE COST OF LIVING, 40% LESS EXPENSIVE THAN IN COMPARABLE METROPOLITAN AREAS

COST OF LIVING (MONTREAL = 100)
Selection of metropolitan areas, 2014

Montréal 100
Toronto
Boston
Vancouver
San Francisco
Seattle
Chicago
Paris
New York
Londres

Source: The Economist Intelligence Unit, 2015.
2.3 A UNIQUE QUALITY OF LIFE

AFFORDABLE HOUSING, 25% LESS EXPENSIVE THAN IN TORONTO AND 60% LESS THAN IN SAN FRANCISCO

<table>
<thead>
<tr>
<th>City</th>
<th>Housing Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Montréal</td>
<td>100</td>
</tr>
<tr>
<td>Toronto</td>
<td>110</td>
</tr>
<tr>
<td>Chicago</td>
<td>120</td>
</tr>
<tr>
<td>Vancouver</td>
<td>200</td>
</tr>
<tr>
<td>Boston</td>
<td>220</td>
</tr>
<tr>
<td>Paris</td>
<td>300</td>
</tr>
<tr>
<td>San Francisco</td>
<td>400</td>
</tr>
<tr>
<td>New York</td>
<td>450</td>
</tr>
<tr>
<td>London</td>
<td>600</td>
</tr>
</tbody>
</table>

Source: The Economist Intelligence Unit; Prices & Earnings 2015, UBS.

NORTH AMERICAN EFFICIENCY + EUROPEAN CHARM

• Greater Montréal offers workers and their families the best of two worlds
  • According to The Economist, Montréal is the 2nd best city in the world for living.
  • Amongst the main North American metropolitan areas, Montréal has the best domestic purchasing power in Canada, 3rd in North America.
2.3 A UNIQUE QUALITY OF LIFE
A WORLDWIDE RECOGNITION

- 3rd FRIENDLIEST CITY IN THE WORLD – Rough Guides, 2014
- UNESCO CITY OF DESIGN SINCE 2006
- TOP HOST CITY IN NORTH AMERICA FOR INTERNATIONAL ASSOCIATION EVENTS – Union of international associations (UIA), 2015
- MOST INNOVATIVE MEETINGS – C2MT – Bizbash, July 2014
- 3rd ON THE BEST SUMMER CITIES LIST – Lonely Planet, 2011
- BEST WINTER DESTINATIONS (National Geographic, December 2014)
- NUMBER ONE IN CANADA, 2nd IN NORTH AMERICA, ON THE INDEX OF BICYCLE-FRIENDLY CITIES – Copenhagenize, 2015
2.4 A STRATEGIC GEOGRAPHICAL LOCATION ACROSS THE AMERICAS

- **4 MILLION RESIDENTS (HALF OF QUÉBEC’S POPULATION)**
  - Territory of 1,600 square miles
  - $189 billion GDP in 2015 (half of Québec’s GDP)
  - A 60-minute flight from Boston and New York City
03
MONTREAL INTERNATIONAL: YOUR STRATEGIC PARTNER
MONTRÉAL INTERNATIONAL AT A GLANCE

A catalyst for foreign investors

The GREATER MONTRÉAL INVESTMENT PROMOTION agency – since 1996

A SINGLE POINT OF ACCESS to a series of personalized, free and confidential services

60 SPECIALISTS (economists, lawyers, communications,…) to assist you in setting up or expanding your business

This includes a group of TERRITORIAL (EU, Americas, Asia) and SECTORIAL EXPERTS (ICT - Life Sciences & Health Technologies - Aerospace)
### WE CAN ASSIST YOU THROUGH THE WHOLE PROCESS

<table>
<thead>
<tr>
<th>Exploratory phase</th>
<th>Project definition</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Navigate through the AI ecosystem</td>
<td>• Assist you to structure your project</td>
<td>• Assist with international mobility and talent acquisition</td>
</tr>
<tr>
<td>• Organize a tailored visit to Québec</td>
<td>• Identify available incentives if relevant</td>
<td>• Public announcement</td>
</tr>
<tr>
<td>• Outline the strategic options of the project</td>
<td>• Introduce you to the right partners</td>
<td>• « Aftercare »</td>
</tr>
</tbody>
</table>
LONG-TERM ACCOMPANYING STRATEGIC SUPPORT

- Take advantage of our expertise to realize your investments, tap into business opportunities and reach your objectives. Our solution-oriented project directors make it easy to access the resources you need to succeed.

ECONOMIC DATA AND COMMUNICATION

- Obtain comprehensive comparative data on the region’s economic environment (market, workforce, operating costs, taxes, etc.) that will enable you to carry out your business plans. Access our vast network of partners, including numerous decision-makers from government, economic, financial, university and scientific circles. Also, take advantage of our spin-off, communication and public relations services to strategically position your project.

GOVERNMENT RELATIONS

- You can benefit from our special relationship with many federal, provincial and municipal partners, as well as business and financial networks, universities and training and research centres.

TAX AND FINANCIAL INCENTIVES PROGRAMS

- Take advantage of government programs available to foreign firms that invest in Greater Montréal. Depending on the eligibility and nature of your project, our team will direct you toward the most beneficial financial and tax incentives and highlight available funding sources.

INDUSTRY EXPERTISE

- Draw on our expertise in Greater Montréal’s competitive clusters. You will have access to strategic advisors and to key information on all the growing industries in the area.

INTERNATIONAL MOBILITY

- Optimize the hiring and immigration processes for strategic foreign workers with our international mobility advisors’ recruiting and support activities.
INVEST SUCCESSFULLY IN GREATER MONTRÉAL

Mark Maclean
Director

Tel. : 1 (514) 987-9349
Cell. : 1 (514) 969-2976
mark.maclean@mtlintl.com