



# GOING GLOBAL

A GUIDE TO COMPETING IN A GLOBALIZED ECONOMY

# GOING GLOBAL

THE GLOBAL ECONOMY IS GOING THROUGH MAJOR TRANSFORMATION. FORCES SUCH AS THE RISE OF EMERGING MARKETS, AN AGING POPULATION, THE POWER OF DISRUPTIVE TECHNOLOGIES, AND GREATER GLOBAL CONNECTIVITY ARE DRIVING DEMAND FOR NEW PRODUCTS AND SERVICES AND CREATING NEW ECONOMIC OPPORTUNITIES.

WE ARE WELL-POSITIONED TO MEET THOSE DEMANDS AND CAPITALIZE ON NEW OPPORTUNITIES BY ALIGNING OUR TRADITIONAL ECONOMIC STRENGTHS WITH TECHNOLOGY-DRIVEN GLOBAL OPPORTUNITIES.

TO COMPETE TO WIN, WE MUST REASSESS OUR DEFINITION OF COMPETITIVENESS. IN ORDER TO DELIVER CLEAR RESULTS THAT ENHANCE OUR GLOBAL COMPETITIVENESS, GOVERNMENTS MUST:

- *ADOPT A GLOBAL MINDSET*
- *CREATE AN ENABLING ENVIRONMENT*
- *INVEST IN A GLOBALLY COMPETITIVE TALENT POOL*
- *FOSTER WORLD CLASS INNOVATION*

	WHERE WE ARE TODAY	2025 GOALS
FOREIGN DIRECT INVESTMENT (FDI)	ALBERTA IS 7 <sup>TH</sup> AMONG CANADIAN PROVINCES FOR INBOUND FDI  STOCK OF FOREIGN INVESTMENT GROWTH IN CANADA 2% ANNUALLY SINCE 2005	PROPEL ALBERTA INTO THE TOP THIRD OF CANADIAN PROVINCES FOR INBOUND FDI  ACHIEVE FOREIGN INVESTMENT GROWTH FOR CANADA ABOVE OECD AVERAGE (7%)
SMALL & MEDIUM-SIZED ENTERPRISES (SMES) EXPORTING	ONLY 12% OF CANADIAN SMES ARE EXPORTING	DOUBLE PERCENTAGE OF SMES EXPORTING

## **GLOBAL OPPORTUNITY | PAGES 2-11**

**A globalized economy | pages 2-3**

**The Edmonton Metropolitan Region's global value proposition | pages 4-7**

**The internationalization imperative | pages 8-9**

**Government's role | pages 10-11**

## **RECOMMENDATIONS**

### **ADOPT A GLOBAL MINDSET | PAGES 12-17**

*An all-of-government approach to internationalizing our economy and businesses focuses on reforming institutions and the data that drives decision-making.*

**Whole-of-government systemic and cultural shift | page 14**

**Data-driven decision making | page 14**

**A coordinated approach to investment and innovation attraction | page 17**

### **CREATE AN ENABLING ENVIRONMENT | PAGES 18-25**

*The enabling environment of global competitiveness includes using levers like infrastructure, taxation and regulation to enable economic growth and internationalization.*

**Economy-enabling physical and digital infrastructure | pages 20-21**

**Modernized taxation tools | pages 22-23**

**Growth-focused regulatory system | pages 24-25**

### **INVEST IN A GLOBALLY COMPETITIVE TALENT POOL | PAGES 26-35**

*Attract, develop and retain a more globally competitive, diverse and digitally-skilled workforce.*

**Fast-track foreign talent | pages 28-29**

**Retain international students | pages 30-31**

**Empower Indigenous Peoples | pages 32-33**

**Skills for the modern economy | pages 34-35**

### **FOSTER WORLD CLASS INNOVATION | PAGES 36-43**

*Foster public-private partnerships, accelerate commercialization and adoption of advanced technologies, integrate innovators with the global supply chain and showcase local innovations globally.*

**Scale for global growth | page 39**

**Speed to market | pages 40-41**

**Facilitate digitization and technology adoption | pages 42-43**

# A GLOBALIZED ECONOMY

CHANGING DYNAMICS ACROSS THE GLOBE – DRIVEN LARGELY BY TECHNOLOGY AND DEMOGRAPHICS – ARE TRANSFORMING DEMAND FOR PRODUCTS AND SERVICES AND GLOBAL VALUE CHAINS AT AN UNPRECEDENTED PACE AND SCALE.

# 1

## THE RISE OF EMERGING MARKETS



## RISING DEMAND FOR AGRI-FOOD & ENERGY

Middle class growth in emerging markets will drive an increase in protein consumption and demand for food produced in a safe and environmentally sustainable way.

Emerging markets will consume almost two-thirds of the world's manufactured goods by 2025. By 2030, developing countries are projected to account for more than half of all global consumptions.

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MIDDLE CLASS GROWTH IN EMERGING MARKETS 2010-2030:  
**3 BILLION PEOPLE**

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**BY 2050, GLOBAL DEMAND FOR AGRI-FOOD IS EXPECTED TO RISE BY 70%.**

**THE WORLD WILL NEED TO PRODUCE AS MUCH FOOD IN THE NEXT 45 YEARS AS IN THE PREVIOUS 10,000.**

**DEMAND FOR PLASTICS (USED FOR FOOD PRESERVATION, ELECTRONICS, HOUSEHOLD PRODUCTS): NEARLY DOUBLED SINCE 2000.**

**PETROCHEMICALS SET TO ACCOUNT FOR MORE THAN A THIRD OF THE GROWTH IN OIL DEMAND TO 2030, AND NEARLY HALF TO 2050.**



# 2

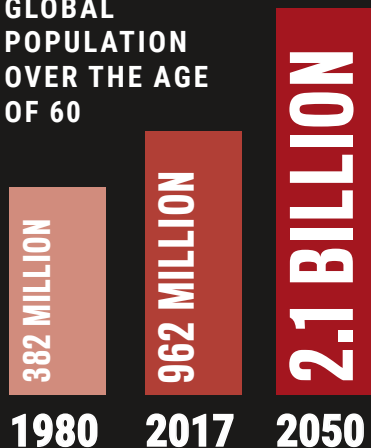
## AN AGING POPULATION



## INCREASED NEED FOR HEALTH INNOVATION

The global population is aging (even more so in developing countries), health care costs are rising, and chronic diseases are increasing in prevalence driving a demand for a more efficient delivery system for patients and practitioners.

GLOBAL POPULATION OVER THE AGE OF 60



GLOBAL DIGITAL HEALTH MARKET EXPECTED TO GROW FROM \$118 BILLION TO \$223.7 BILLION BY 2020, A COMPOUND ANNUAL GROWTH RATE OF 45%.

# 3

## THE POWER OF DISRUPTIVE TECHNOLOGIES



## PRODUCTIVITY AND ECONOMIC GROWTH OPPORTUNITIES

**AGRI-TECH** - MARKET VALUE OF SMART FARMING APPLICATIONS IS EXPECTED TO REACH \$23.14 BILLION BY 2022 GLOBALLY, RISING AT A COMPOUND ANNUAL GROWTH RATE OF 19.3% FROM 2017.

**LIFE SCIENCES** - ARTIFICIAL INTELLIGENCE (AI) AND MACHINE LEARNING APPLICATIONS IN HEALTH TECHNOLOGY VALUED AT \$1.4 BILLION IN 2016, WITH EXPECTED ANNUAL 40% GROWTH RATE TO REACH \$6.6 BILLION BY 2021.

**CLEAN TECH** - GLOBAL ACTIVITY IS ESTIMATED AT OVER \$1 TRILLION AND EXPECTED TO EXCEED \$2.5 TRILLION BY 2022.

**ADVANCED MANUFACTURING** - INTERNET OF THINGS (IOT) APPLICATIONS IN MANUFACTURING WILL GENERATE \$1.2-\$3.7 TRILLION OF GLOBAL ECONOMIC VALUE ANNUALLY BY 2025.

INDUSTRY 4.0 TECHNOLOGIES HAVE THE ABILITY TO BOOST THE PRODUCTIVITY OF THE WORLD'S FACTORIES BY 10-25%, ADDING 1-1.5% TO A NATION'S ANNUAL PRODUCTIVITY GROWTH.

# THE EDMONTON METROPOLITAN REGION'S GLOBAL VALUE PROPOSITION

NATIONALLY DISTINCTIVE - INNOVATIVE - GLOBALLY RELEVANT

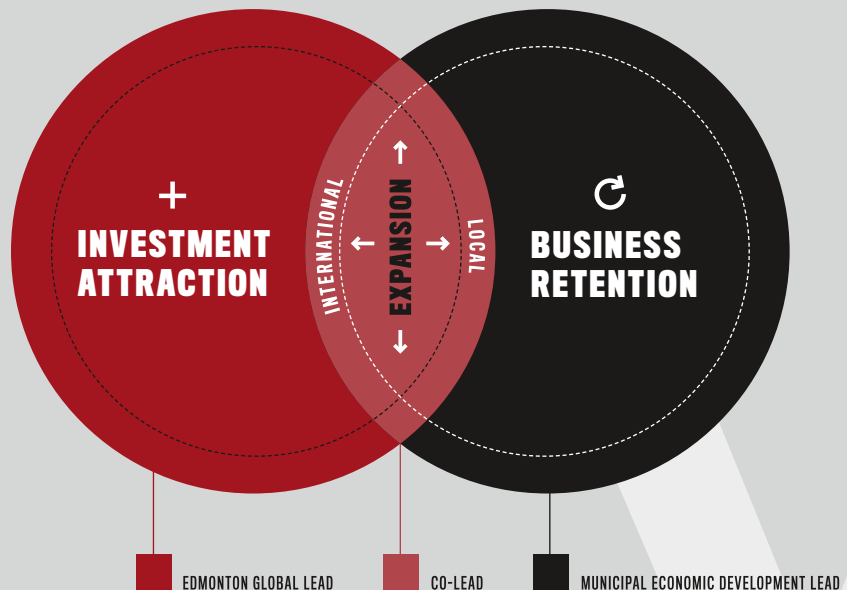
THE EDMONTON METROPOLITAN REGION POSSESSES UNDENIABLE POTENTIAL BOTH IN TERMS OF FORECAST POPULATION GROWTH AND BUSINESS INVESTMENT ACTIVITY.

The Edmonton Metropolitan Region is well-positioned to meet the increased demand from an emerging global middle class and aging population. Our global value proposition is at the intersection of traditional sector strengths and their technology-driven transformations.

MANUFACTURING / ADVANCED MANUFACTURING	HEALTH & LIFE SCIENCES	ENERGY & CLEAN TECH	FOOD & AGRICULTURE
METAL & MACHINE FABRICATION	DIGITAL HEALTH	PETROCHEMICAL PROCESSING	HEMP PROCESSING
ARTIFICIAL INTELLIGENCE & MACHINE LEARNING	APPLIED PHARMACEUTICAL INNOVATION	ENERGY SERVICING	FOOD & BEVERAGE PROCESSING
INDUSTRY 4.0 TECHNOLOGIES	ARTIFICIAL INTELLIGENCE & MACHINE LEARNING APPLICATIONS	ARTIFICIAL INTELLIGENCE & MACHINE LEARNING APPLICATIONS	AGRI-TECH & AI / MACHINE LEARNING APPLICATIONS FOR FOOD SAFETY
INTERNET OF THINGS APPLICATIONS IN MANUFACTURING	HEALTH DATA ANALYTICS	RENEWABLES & GEOTHERMAL	AGRI-FOOD PRODUCT INNOVATION

## Coopetition: Collaborating locally to compete globally

Edmonton Global was created by 15 municipalities to take the Edmonton Metropolitan Region's global value proposition to the world. We use a collaborative approach to investment attraction and export promotion that incorporates data analysis, insights from key private and public stakeholders, and broader market intelligence into a process that aligns local strengths with international market trends and opportunities.



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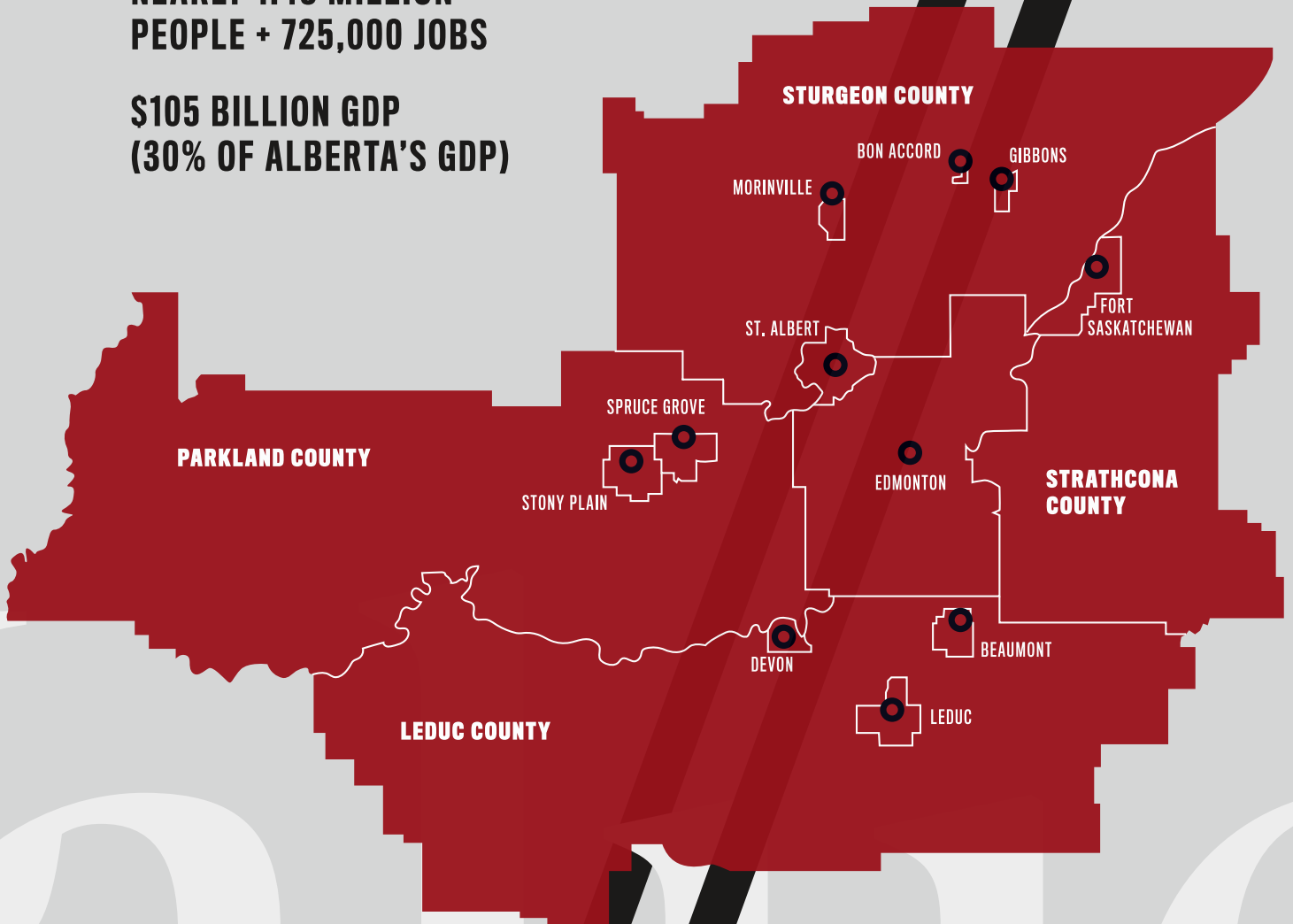
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# THE EDMONTON METROPOLITAN REGION:

**FIFTH MOST PROSPEROUS REGION IN CANADA**

**NEARLY 1.43 MILLION PEOPLE + 725,000 JOBS**

**\$105 BILLION GDP (30% OF ALBERTA'S GDP)**



A nighttime aerial photograph of a city, likely Vancouver, showing a complex highway interchange with multiple overpasses and ramps. The city lights are visible in the background, and a river or waterway is seen in the foreground. The sky is dark with some light clouds.

***“HAVING A PORT OR  
BORDER CROSSING DOES  
NOT MAKE A REGION  
GLOBAL. A PROACTIVE  
METRO STRATEGY  
TO STRENGTHEN  
INTERNATIONAL  
ECONOMIC CONNECTIONS  
AND COMPETITIVENESS  
IS NEEDED.”***

***~ THE BROOKINGS INSTITUTE***



# THE INTERNATIONALIZATION IMPERATIVE

***“THE EVIDENCE IS CLEAR THAT GREATER EXPORTS AND FOREIGN INVESTMENT ARE BENEFICIAL TO FIRMS, WORKERS AND METRO ECONOMIES. EVERY REGION CAN – AND MUST – BE GLOBAL IN ITS ORIENTATION TO TAKE ADVANTAGE OF THESE TRENDS, RATHER THAN BE TAKEN ADVANTAGE OF.”***

IN ORDER TO CAPITALIZE ON EMERGING GLOBAL OPPORTUNITIES, WE NEED TO INTERNATIONALIZE OUR ECONOMY AND BUSINESSES.

## **What is internationalization?**

For the economy, it's increasing linkages to, and involvement in, international markets through FDI attraction, trade, and export promotion.

For a business, it's taking steps to increase their footprint, or capture greater market share, by branching out into international markets.

## **Why is it important for Canada and Alberta?**

Canada's and Alberta's economies are heavily dependent on internationalization and the global economy because our market size is too small to sustain all domestic production. Essentially, we can grow our economy by going global.

***“THOSE COMPANIES THAT DON'T WORK IN INTERNATIONAL MARKETS BECOME LESS COMPETITIVE AND MORE VULNERABLE.”***

~ IESE BUSINESS SCHOOL, FORBES MAGAZINE

~ THE BROOKINGS INSTITUTE

**COUNTRIES WITH A LARGER NUMBER OF CONNECTIONS IN THE GLOBAL NETWORK OF FLOWS INCREASE THEIR GDP GROWTH BY UP TO 40% MORE THAN LESS-CONNECTED COUNTRIES DO. UP TO \$450 BILLION IS ADDED TO GLOBAL GDP GROWTH EACH YEAR BY GLOBAL NETWORK OF FLOWS.**

**FOREIGN INVESTMENT HAS PLAYED A SIGNIFICANT ROLE IN CANADA'S ECONOMY**

**2017 CANADA'S INWARD FDI STOCK WAS \$1.1 TRILLION USD OR 62.5% OF GDP.**

**APPROXIMATELY 1.9 MILLION CANADIANS WERE EMPLOYED BY FOREIGN MAJORITY-OWNED COMPANIES: NEARLY 12% OF ALL CANADIANS.**



## Benefits of Internationalization

To put the benefits in terms of simple numbers: when countries increase their level of globalization by 1%, their GDP growth rises by 10-15 basis points. That's a linkage we can't afford to ignore with our inbound FDI and our GDP growth steadily on the decline.



**INCREASE IN INBOUND FDI FROM 2% TO 6%  
= ~\$43 BILLION ADDED TO CANADA'S GDP**

# GOVERNMENT'S ROLE

CHALLENGE ORTHODOXIES ■ RE-EVALUATE COMPETITIVENESS  
■ SET AMBITIOUS GOALS

CONCERNS AND HOPES ABOUT INTERNATIONAL INVESTMENT REVOLVE IN MANY WAYS AROUND WHAT GOVERNMENTS MAY DO.

The reality of the globalized economy is that competitors are not all offering identical products under the same conditions. Governments play an integral role in setting the conditions, ensuring stability and predictability, leveling the playing field and capitalizing on competitive advantages.

This forces us to question our core assumptions around competitiveness and productivity, take close note of the shifting landscape and move quickly to adapt. Many of our institutions, policies and regulations are based on a 20th century economic model, which means in many respects we are barely keeping up with our global competitors, let alone leading them.

**We cannot compete in a 21st century data-driven globalized economy with a 20th century mindset.**

## **Global Competitiveness Principles for Governments:**

*Strive to regulate and operate at the speed of commerce, responding quickly to new and emerging global competitiveness trends*


*Strive to continuously reform and strengthen traditional policy levers*

*Have a strategy for promoting and enabling internationalization*

*Create a culture of innovation and entrepreneurship both within government and in the broader public sector*

*Know government's role and operate within it to avoid being in the business of business*





***“THE WINNERS IN THE NEW ERA OF  
GLOBALIZATION WILL BE THOSE WHO  
CAN REALLOCATE RESOURCES WHILE  
QUICKLY ADOPTING STRATEGIES AND  
POLICIES TO TAKE ADVANTAGE OF  
THE TRENDS.”***

*~ PUBLIC POLICY FORUM*

**ition**

# ADOPT A GLOBAL MINDSET

AN ALL-OF-GOVERNMENT APPROACH TO INTERNATIONALIZING OUR ECONOMY AND BUSINESSES FOCUSES ON REFORMING INSTITUTIONS AND THE DATA THAT DRIVES DECISION-MAKING.

**"COMPETITIVENESS RESIDES AT NO  
FIXED ADDRESS AND NEVER STOPS TO  
REST. IT IS A DYNAMIC PROCESS AND SO  
CANADA'S ABILITY TO CREATE GOODS AND  
SERVICES THE WORLD WANTS AND GET  
THEM TO MARKET AT ATTRACTIVE PRICES  
MUST BE CONTINUOUSLY RE-EVALUATED  
AGAINST CHANGING CIRCUMSTANCES AND  
THE SHIFTING CAPABILITIES OF OTHER  
NATIONS INTENT ON EATING OUR LUNCH."**

*~ A NEW NORTH STAR, PUBLIC POLICY FORUM*

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**WHAT WE HEARD FROM BUSINESS  
AND INVESTORS:**

*Some government and publicly-funded  
institutions are competing with business  
instead of supporting*

*Government programs are not market-driven  
or focused on scaling for global growth*

*Communication between government and  
business is poor*

*Everyone needs to disrupt their business  
model – including government*

# A WHOLE-OF-GOVERNMENT SYSTEMIC AND CULTURAL SHIFT

A NUMBER OF ALBERTA-BASED BUSINESSES HAVE INDICATED THEY ARE ACTIVELY BEING PROSPECTED BY SEVERAL STATES IN THE U.S. AS WELL AS SASKATCHEWAN. THE APPROACHES OF THOSE JURISDICTIONS HAVE SEVERAL THINGS IN COMMON THAT THEY EXPRESSED ALBERTA AND CANADA ARE MISSING:

*Responsive and communicative*

*Focused on growth*

*Welcoming to business*

*Collaborative*

Increasing internationalization of our economy and our businesses for sustained economic growth requires a culture shift across every ministry, department and government agency. It is about adopting a collective vision, mandate, and a laser focus on enabling growth and increasing global competitiveness.

**RECOMMENDATION 1:** THAT THE GOVERNMENT OF CANADA AND GOVERNMENT OF ALBERTA ENSURE ALL OF GOVERNMENT IS MORE FOCUSED ON WORKING WITH BUSINESSES AND ENABLING NEW INVESTMENT, ECONOMIC GROWTH, AND CREATING AN ENVIRONMENT WHERE RISK, CREATIVITY, AND EXPERIMENTATION ARE APPLAUDED AND REWARDED. ATTRIBUTE SPECIFIC MANDATES AND METRICS FOR MINISTRIES AND DEPARTMENTS FOCUSED ON COLLABORATION, INNOVATION AND ENABLING ECONOMIC GROWTH.

**“YOU CANNOT MANAGE THAT WHICH YOU DO NOT MEASURE.”**

~ JACK WELCH, FORMER CEO, GENERAL ELECTRIC

## DATA-DRIVEN DECISION MAKING

Competitiveness is a dynamic process and must be continuously re-evaluated against changing circumstances and the shifting capabilities of other nations. Nations around the world are constantly looking at new ways to give themselves a policy edge to enhance their global competitiveness to attract investment. Canada and Alberta must keep pace or be left behind. Data analytics can allow governments to allocate their resources for maximum effect.

**RECOMMENDATION 2:** THAT THE GOVERNMENT OF CANADA AND GOVERNMENT OF ALBERTA COMMISSION INDEPENDENT, SECTOR-BASED, GLOBAL COMPETITIVENESS REVIEWS OF THE PROVINCE AND COUNTRY REGULARLY, INCLUDING AN ECONOMIC IMPACT ANALYSIS OF GOVERNMENT PROGRAMS AND INITIATIVES AND AN ENVIRONMENTAL SCAN OF POLICY AND REGULATORY CHANGES IN COMPETING JURISDICTIONS. PUBLISH THE DETAILS AND USE THE DATA TO INFORM POLICY CHANGES TO INCREASE GLOBAL COMPETITIVENESS FOR INVESTMENT ATTRACTION AND ECONOMIC GROWTH.

CompuVision



## HTC VIVE

A pair of VR headsets with motion controllers, the HTC Vive is the most powerful virtual reality experience without needing a PC. It features 100-degree field of view, 120 FPS, and 3D audio for an immersive experience.

**What is HTC Vive?**  
A virtual reality headset that lets you experience a 3D world. It features 100-degree field of view, 120 FPS, and 3D audio for an immersive experience.

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## HOLO LENS

Microsoft's HoloLens is a mixed reality headset that lets you experience a 3D world. It features 120-degree field of view, 120 FPS, and 3D audio for an immersive experience.

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CompuVision



## DRONE

A small, portable drone with a camera, perfect for capturing aerial footage. It features a 1080p camera, 15 minutes of flight time, and a foldable design for easy portability.

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CompuVision

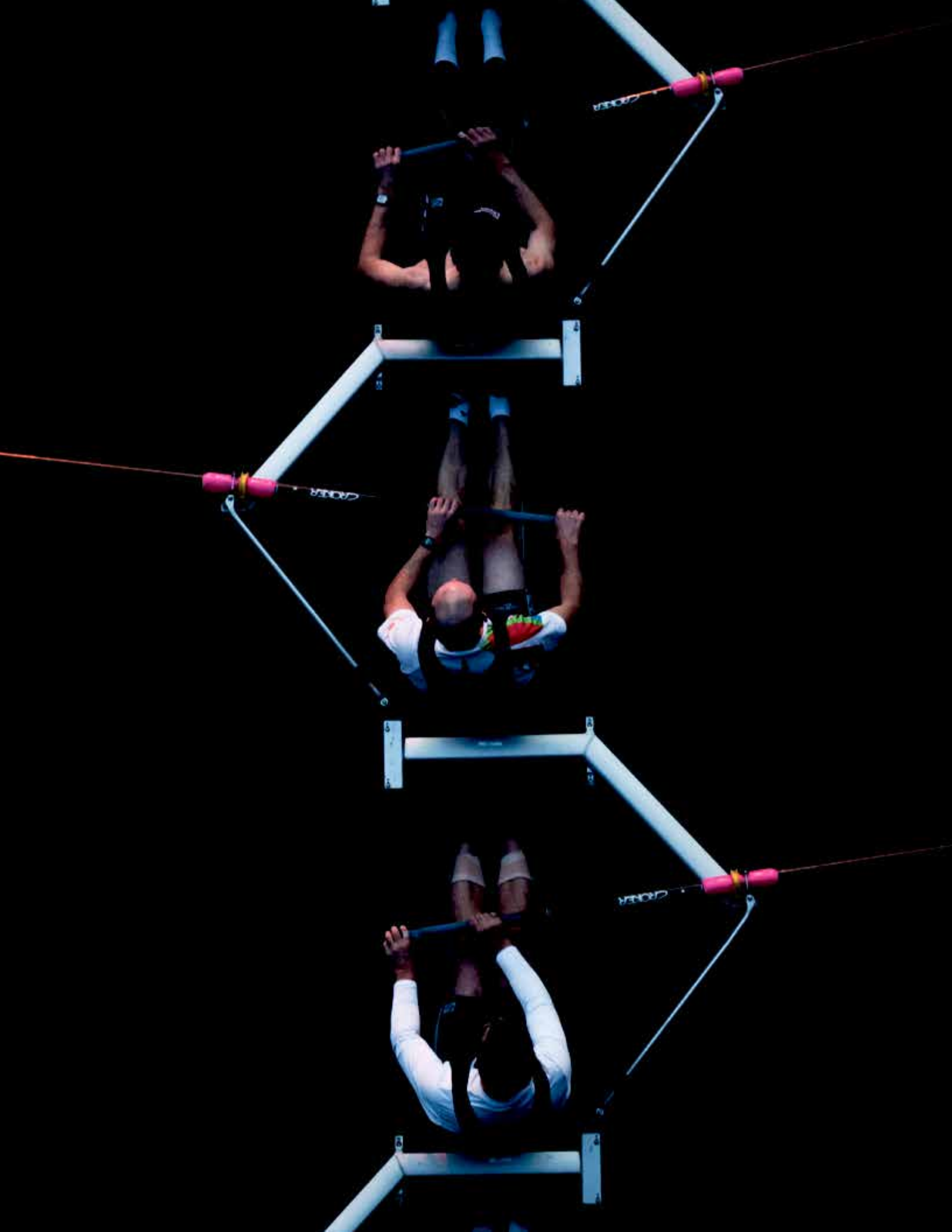


## HALO ROVER

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# A COORDINATED APPROACH TO INVESTMENT ATTRACTION

A CORE RECOMMENDATION FROM CEOs OF SUCCESSFUL CANADIAN FIRMS IS THAT ALL PLAYERS IN CANADA NEED TO RAISE THEIR GAME IN INVESTMENT ATTRACTION, LEARNING LESSONS FROM BEST-PRACTICE JURISDICTIONS STARTING WITH THE BEST IN CLASS.

**"BEST PRACTICE CAN BE DEFINED AS ALL THREE LEVELS OF GOVERNMENT WORKING IN A COORDINATED FASHION TO COMBINE A STRONG ANALYTICAL FOUNDATION WITH END-TO-END CUSTOMER SERVICE ORIENTATION."**

~ IVEY BUSINESS SCHOOL, WESTERN UNIVERSITY.

We need strong and effective partners at all levels of government working together to compete to win. Right now, investment attraction at the provincial level is fragmented across multiple ministries, despite the existence of a dedicated investment attraction agency (Invest Alberta). We need to refocus on a more efficient use of resources through a centralized structure equipped with the mandate and tools it needs to succeed.

**"CANADA HAS MUCH TO LEARN ABOUT HOW YOU WORK AS A TEAM, YOU THINK LIKE A BUSINESS AND YOU SIT DOWN AND HAVE A LEGAL AUTHORITY TO NEGOTIATE IN A MEANINGFUL WAY"**

~ FEEDBACK FROM AN INVESTOR WHO CHOSE TO LOCATE IN ANOTHER JURISDICTION

**RECOMMENDATION 3:** THAT THE GOVERNMENT OF ALBERTA REFORM FDI ATTRACTION AND EXPORT PROMOTION EFFORTS ACROSS ALL MINISTRIES TO PROVIDE COORDINATED END-TO-END INVESTOR CARE BASED ON GLOBAL BEST PRACTICES: GOVERNMENT-FUNDED, OPERATIONALLY INDEPENDENT, SUPPORT FROM THE HIGHEST POLITICAL LEVELS, EMPLOYMENT OF SECTORAL EXPERTS AND STRATEGIES BASED ON COMPETITIVE STRENGTHS, USE OF PRIVATE SECTOR AMBASSADORS AND INVOLVEMENT OF ALL RELEVANT PUBLIC AND PRIVATE SECTOR AGENCIES.



## INVEST HONG KONG

A PROACTIVE, STRATEGIC APPROACH TO SEEKING OUT POTENTIAL INVESTORS GLOBALLY

A COORDINATED EFFORT ACROSS HONG KONG GOVERNMENT ORGANIZATIONS TO STREAMLINE THE FLOW OF INFORMATION AND SERVICES, EASING ACCESS FOR INVESTORS

ONGOING PERFORMANCE ASSESSMENT OF FDI ATTRACTION EFFORTS



## SINGAPORE ECONOMIC DEVELOPMENT BOARD

INNOVATIVE, TARGETED AND COST-EFFICIENT WAYS TO ENGAGE THE PRIVATE SECTOR AND BREAK DOWN TWO-WAY INFORMATION BARRIERS BETWEEN BUSINESS AND GOVERNMENT

AN AGILE AND CUSTOMIZED RELATIONSHIP MANAGEMENT APPROACH

EXTENSIVE INDUSTRY KNOWLEDGE GENERATED BY IN-HOUSE INTELLIGENCE AND EXPERTISE SUPPORTS SMARTER TARGETING OF COMPANIES AND SECTORS



## UTAH GOVERNOR'S OFFICE OF ECONOMIC DEVELOPMENT

COMMON STRATEGIC VISION AND SHARED UNDERSTANDING OF END-TO-END ROLES

CLEAR PUBLISHED GUIDELINES AND TRANSPARENT PUBLIC ACCOUNTING FOR CORPORATE INCENTIVES



## PROMEXICO

HIGH-PROFILE, TARGETED AND DIRECT PARTICIPATION IN FDI ATTRACTION BY THE HIGHEST POLITICAL FIGURES WITH DETAILED ON-THE-GROUND SUPPORT AND FOLLOW-UP

STRATEGIC VALUE PROPOSITIONS ADVANCED BY A WELL-COORDINATED, COHESIVE TEAM OF KEY PARTNERS (GOVERNMENTS, SUPPLIERS, EDUCATION, INVESTMENT ATTRACTION OFFICIALS ETC)

# CREATE AN ENABLING ENVIRONMENT

THE ENABLING ENVIRONMENT OF GLOBAL COMPETITIVENESS INCLUDES USING LEVERS LIKE INFRASTRUCTURE, TAXATION AND REGULATION TO ENABLE ECONOMIC GROWTH AND INTERNATIONALIZATION.



**THERE ARE CERTAIN TABLE STAKES TO MAKING A JURISDICTION COMPETITIVE THAT CROSS ALL LEVELS OF GOVERNMENT AND THEY INCLUDE:**

- + INFRASTRUCTURE**
- + TAXATION**
- + REGULATION**

**ALL ARE NECESSARY. ONE IS NOT SUFFICIENT FOR GLOBAL COMPETITIVENESS.**

***“INFRASTRUCTURE IS TOO IMPORTANT TO THE COUNTRY’S ECONOMIC WELL-BEING TO BE POLITICIZED IN ELECTION CAMPAIGNS EVERY FOUR YEARS.”***

***~ AGRI-FOOD ECONOMIC STRATEGY TABLE***

The World Economic Forum’s Executive Opinion Survey lists that the most problematic factors for doing business in Canada are:

- 1. Inefficient government bureaucracy***
- 2. Tax rates***
- 3. Insufficient capacity to innovate***
- 4. Inadequate supply of infrastructure***
- 5. Tax regulations***
- 6. Policy instability***

# ECONOMY-ENABLING PHYSICAL AND DIGITAL INFRASTRUCTURE

HIGH-QUALITY INFRASTRUCTURE IS A SOURCE OF ECONOMIC COMPETITIVENESS, YET CANADA UNDERPERFORMS IN THIS AREA. WELL-DEVELOPED PHYSICAL AND DIGITAL INFRASTRUCTURES AFFECT PRODUCTIVITY DIRECTLY BY CONNECTING ECONOMIC AGENTS, REDUCING TRANSACTION COSTS, EASING THE EFFECTS OF DISTANCE AND TIME, FACILITATING THE FLOW OF INFORMATION, AND FACILITATING INTEGRATION OF MARKETS INTO GLOBAL VALUE CHAINS.

## WORLD ECONOMIC FORUM'S GLOBAL COMPETITIVENESS RANKINGS FOR CANADA

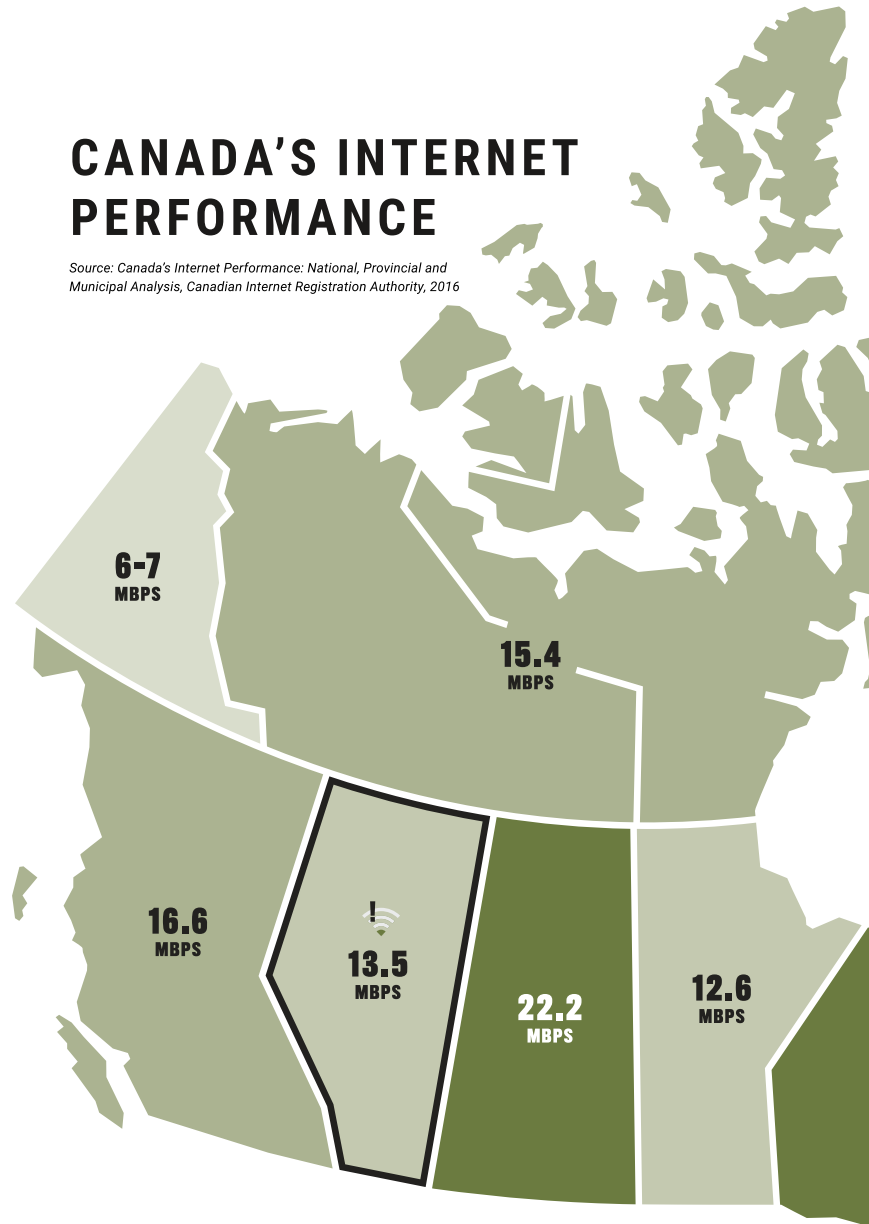
**22<sup>ND</sup>**  
ENABLING ENVIRONMENT

**25<sup>TH</sup>**  
INFRASTRUCTURE

**34<sup>TH</sup>**  
ICT ADOPTION

# CANADA'S INTERNET PERFORMANCE

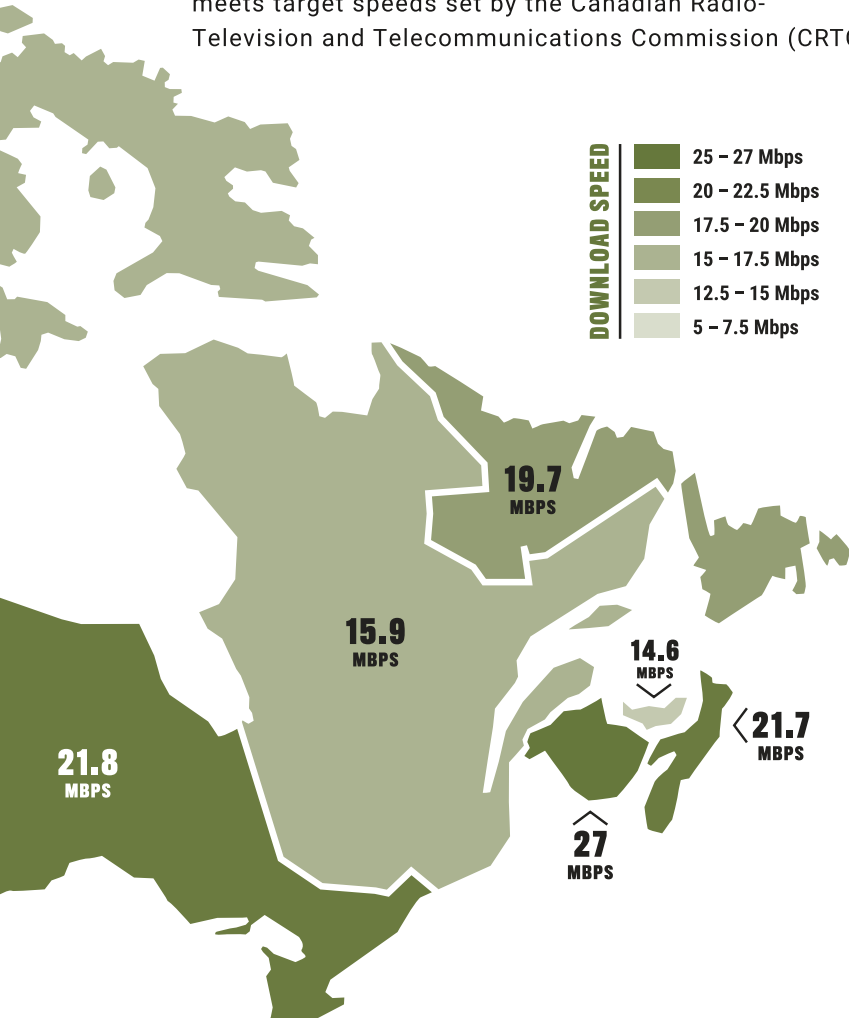
Source: Canada's Internet Performance: National, Provincial and Municipal Analysis, Canadian Internet Registration Authority, 2016



**RECOMMENDATION 4:** THAT THE GOVERNMENT OF CANADA AND GOVERNMENT OF ALBERTA TAKE A STRATEGIC APPROACH TO INFRASTRUCTURE PLANNING AND FUNDING WITH A COORDINATED 20-YEAR ECONOMY-ENABLING INFRASTRUCTURE PLAN THAT INCLUDES A ROLLING LIST OF HIGH-PRIORITY, SHORT-, MEDIUM- AND LONG-TERM INFRASTRUCTURE NEEDS (INCLUDING ONGOING MAINTENANCE) PUT THROUGH A COMPETITIVENESS FILTER TO PRIORITIZE PROJECTS THAT WILL ENHANCE OUR GLOBAL COMPETITIVENESS, PRODUCTIVITY, AND MARKET ACCESS.

The Canadian Internet Registration Authority (CIRA) released a report in April 2016 on “Canada’s Internet Performance: National, Provincial and Municipal Analysis”. With respect to download speed, Canada is ranked 21st globally. Within Canada, Alberta has the second slowest download speed and Edmonton is ranked 21st out of 25 Canadian Cities on the basis of internet speed, quality, and future-readiness.

Just 13% of Alberta communities have service that meets target speeds set by the Canadian Radio-Television and Telecommunications Commission (CRTC).



**RECOMMENDATION 5:** THAT THE GOVERNMENT OF CANADA AND GOVERNMENT OF ALBERTA LEVERAGE PUBLIC-PRIVATE FUNDING MECHANISMS TO INVEST IN THE REQUIRED INFRASTRUCTURE TO ACHIEVE 100% INTERNET COVERAGE ACROSS THE EDMONTON METROPOLITAN REGION BY 2025 - WITH UNLIMITED DATA AND A MINIMUM OF 100 MBPS DOWNLOAD SPEEDS AND 50 MBPS UPLOAD SPEEDS.

## WHAT OUR COMPETITORS ARE DOING



THE EU HAS RECENTLY UPDATED THEIR DIRECTIVE ON OPEN DATA AND PUBLIC SECTOR INFORMATION, CALLING ON MEMBER STATES TO MAKE GREATER EFFORTS TO IDENTIFY AND RELEASE HIGH-VALUE DATASETS WITH SIGNIFICANT COMMERCIAL POTENTIAL.



IN 2016 AUSTRALIA COMMISSIONED A MAJOR INDEPENDENT INQUIRY INTO HOW TO IMPROVE THE AVAILABILITY AND USE OF PRIVATE AND PUBLIC SECTOR DATA, LEADING TO SIGNIFICANT LEGISLATIVE REFORMS AFFECTING HOW CONSUMERS, BUSINESS, AND GOVERNMENT ACCESS AND SHARE DATA.

**“[DATA] IS THE 21ST CENTURY’S GREAT NEW RENEWABLE RESOURCE.”**

~ PETER HARRIS, CHAIR AUSTRALIA PRODUCTIVITY COMMISSION, AUTHOR DATA AVAILABILITY AND USE INQUIRY

Data is the fuel of the 21st century economy. It will increasingly become the primary source of economic competitiveness and a major creator of economic wealth. It makes up a growing share of global GDP, international trade and business investment. Statistics Canada estimates that Canada invested up to \$40 billion in data in 2018 alone – with nearly 80% coming from the private sector.

**RECOMMENDATION 6:** THAT THE GOVERNMENT OF CANADA AND GOVERNMENT OF ALBERTA PROMOTE PUBLIC-PRIVATE COLLABORATION TO POOL DATA ASSETS THROUGH OPEN BIG DATA LIBRARIES. FOR SENSITIVE DATA, CREATE DATA TRUSTS THAT USE AN INDEPENDENT INSTITUTION WITH TRUSTEES TO MAKE DECISIONS ABOUT HOW DATA IS COLLECTED, USED AND SHARED AND ENSURE COMPETITORS HAVE COMMON LEVELS OF ACCESS.

# MODERNIZED TAXATION TOOLS

A JURISDICTION'S TAX REGIME (INCLUDING ITS TAX MIX, RATES AND STRUCTURE) IS A KEY DETERMINANT OF ITS OVERALL ECONOMIC COMPETITIVENESS. ITS PURPOSE IS TO PROMOTE ECONOMIC DEVELOPMENT WHILE RAISING REVENUE FOR GOVERNMENT PRIORITIES. THE TAX CODE CAN MAKE OR BREAK A DOMESTIC ECONOMY, WHICH IS WHY MOST ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (OECD) COUNTRIES HAVE REFORMED THEIR CODES IN THE PAST FEW DECADES.



**THE UNITED STATES AND BELGIUM MOVED UP FOUR AND SIX PLACES RESPECTIVELY IN RANKINGS DUE TO THEIR COMPREHENSIVE TAX REFORM INITIATIVES. THE OECD HAS RECOMMENDED SEVERAL TIMES OVER THE PAST FEW YEARS THAT CANADA DO A COMPREHENSIVE REVIEW OF ITS TAXATION SYSTEM.**

**RECOMMENDATION 7:** THAT THE GOVERNMENT OF CANADA AND GOVERNMENT OF ALBERTA IMPLEMENT A MANDATED AND REGULARIZED REVIEW PROCESS THAT EVALUATES AND REFORMS DIFFERENT COMPONENTS OF THE TAX SYSTEM ANNUALLY BASED ON THE FINDINGS OF ECONOMIC IMPACT ANALYSIS AND GLOBAL COMPETITIVENESS REVIEWS (SEE RECOMMENDATION 2).

**THE TAX FOUNDATION RELEASED ITS INTERNATIONAL TAX COMPETITIVENESS INDEX (ITCI) FOR 2018, WHICH TAKES MORE THAN 40 TAX POLICY VARIABLES INTO CONSIDERATION.**

2018 INTERNATIONAL TAX COMPETITIVENESS INDEX RANKINGS

Overall Rank	Country	Corporate Tax Rank	International Tax Rules Rank
1	Estonia	1	6
2	Latvia	2	5
3	New Zealand	18	15
4	Luxembourg	21	1
5	Netherlands	19	3
6	Switzerland	6	8
7	Sweden	7	7
8	Australia	27	17
9	Czech Republic	8	9
10	Austria	15	13
11	Slovak Republic	10	27
12	Turkey	17	10
13	Hungary	3	2
14	Finland	5	18
15	Norway	13	14
16	Germany	24	11
17	Republic of Korea	28	31
18	Canada	22	22
19	Belgium	23	12
20	Ireland	4	21
21	Denmark	14	23
22	Slovenia	12	16
23	United Kingdom	16	4
24	United States	20	32
25	Iceland	11	20
26	Japan	35	25
27	Spain	26	19
28	Mexico	31	34
29	Greece	25	29
30	Israel	29	33
31	Chile	30	35
32	Portugal	33	28
33	Poland	9	30
34	Italy	32	26
35	France	34	24

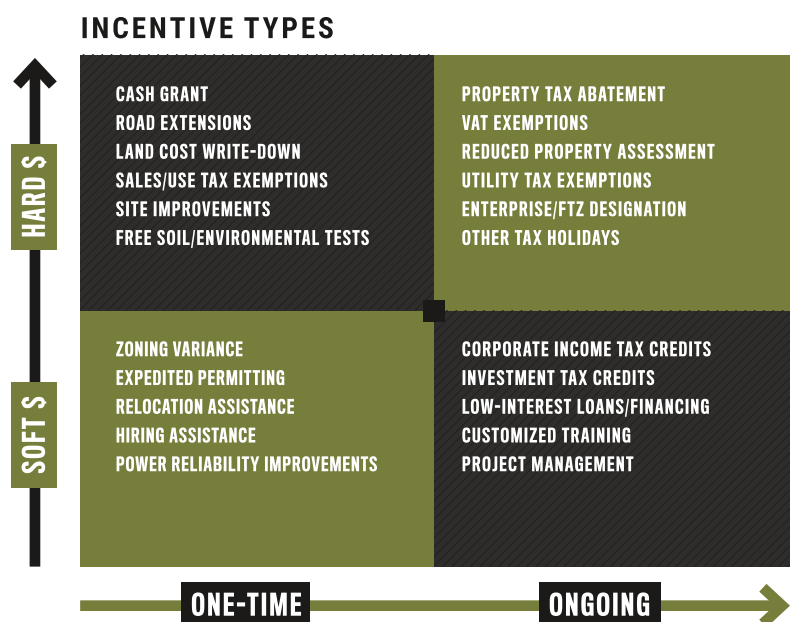
Source: Tax Foundation, 2018 International Tax Competitiveness Index, Table 1

When a company is building a business case for making an international investment decision, they narrow down the list of potential jurisdictions based on market size and market potential, talent availability, innovation networks, tax incentives and operational costs.

Competing jurisdictions globally have effectively deployed targeted performance-based tax incentives that serve to attract FDI as well as ensure broader community benefits. There is currently no specific incentive program or policy at the federal or provincial level in Alberta that is designed solely for the purpose of attracting or promoting FDI.

FDI incentives are not a panacea for global competitiveness. They should be targeted at sectors and opportunities where the jurisdiction already has an overall competitive advantage and used to level the playing field in an area where a jurisdiction might be weaker than its competitors. In Canada's and Alberta's cases, comparative weaknesses are cost of construction and labour as well as regulatory timelines. Incentives could be used to offset those weaknesses in sectors where we have an inherent advantage, like energy and agri-food.

**RECOMMENDATION 8: THAT THE GOVERNMENT OF CANADA AND GOVERNMENT OF ALBERTA EACH IMPLEMENT A BROAD-BASED TAX CREDIT, THAT CAN BE LEVERAGED TOGETHER TO FOCUS ON ATTRACTING FDI IN TARGET SECTORS. THE TAX CREDIT STRUCTURE SHOULD ALIGN WITH GLOBAL BEST PRACTICES: TRANSPARENT CRITERIA AND PROCESS, ONGOING INTAKE, AT LEAST SIX YEARS OF CERTAINTY TO ALIGN WITH CORPORATE PLANNING TIMELINES, PROCESSING AT THE SPEED OF COMMERCE, AND DETERMINED BY OPEN AND CLEARLY WEIGHTED CRITERIA.**



### INCENTIVE ACTIVITY BY PROVINCE

Province	Deals	Total Incentives (USD m)	Total Capex (USD m)	Incentives as % of Capex	Total Jobs
Ontario	518	2,081.40	16,068.00	13%	29,491
Quebec	345	2,555.80	12,517.00	20%	18,354
Nova Scotia	138	589.6	538	110%	15,686
New Brunswick	130	264.4	593	45%	9,132
Prince Edward Island	25	48.8	17	287%	705
Newfoundland & Labrador	8	28.1	392	7%	267
Manitoba	5	20.1	311	6%	471
Saskatchewan	4	6.4	203	3%	326
Alberta	4	381.6	4,595.00	8%	245
British Columbia	4	53.7	213	25%	4,050

Source: Incentives Monitor 2017

# GROWTH-FOCUSED REGULATORY SYSTEM

CANADA'S REGULATORY REGIME IS RELATIVELY MORE RESTRICTIVE TO FOREIGN BUSINESSES CONSIDERING NEW INVESTMENT OR TRADE IN CANADA. CANADA RANKED IN THE MIDDLE OF A 10-COUNTRY COMPARISON BY THE OECD, SIGNIFICANTLY BEHIND THE UNITED KINGDOM, AUSTRALIA, AND THE UNITED STATES.

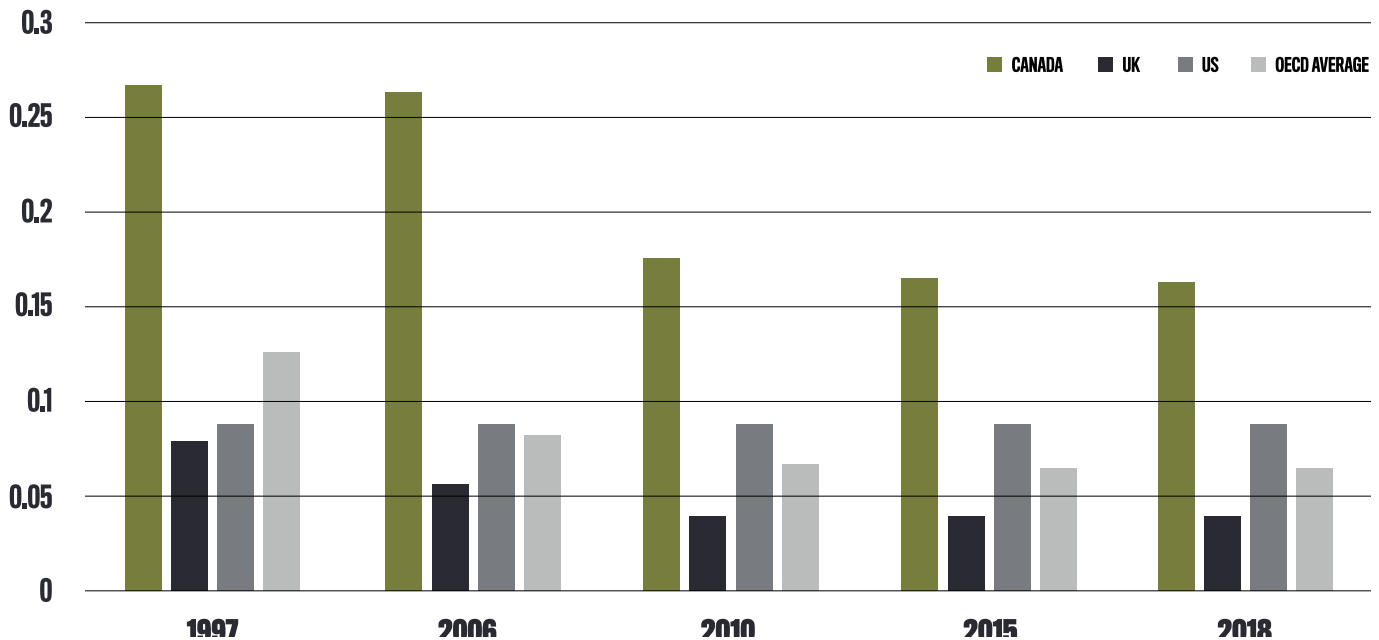


## WHAT OUR COMPETITORS ARE DOING

ARIZONA AND KENTUCKY RECENTLY CONTRACTED WITH A US-BASED SOFTWARE COMPANY TO BUILD AN INTERACTIVE DATABASE TO TRACK COST AND BENEFIT CONSIDERATIONS ACROSS THEIR REGULATORY AGENCIES.

### OVERALL INWARD FDI RESTRICTIVENESS

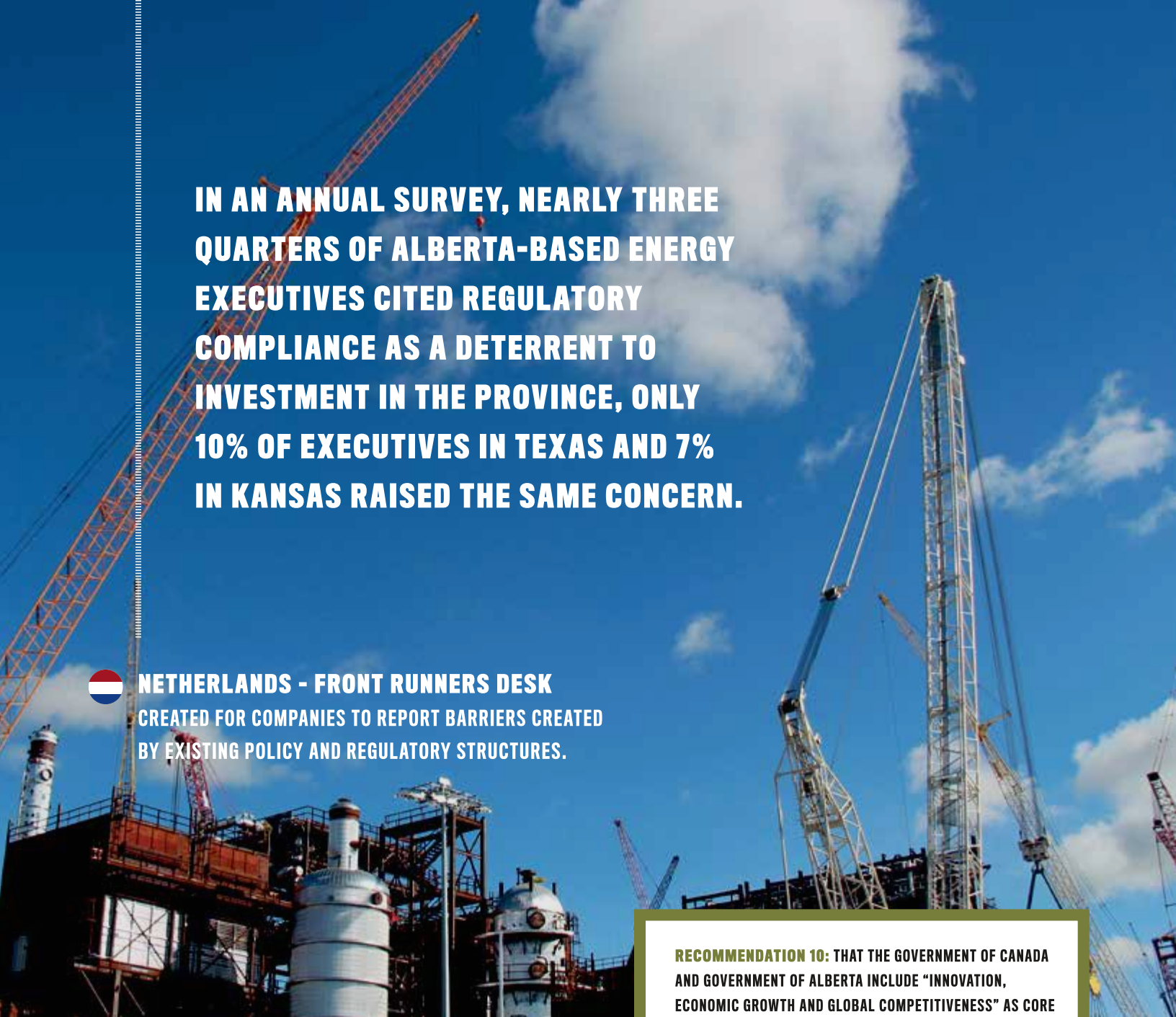
OECD REGULATORY RESTRICTIVENESS INDEX (ALL INDUSTRIES)



Regulatory differences and their resulting costs amount to an inefficiency tax on Canadian firms and investors trading globally. This indirect tax imposes undue costs on bilateral trade and provides an advantage to other jurisdictions – particularly U.S. states – competing for investment with Canadian provinces and territories.

**RECOMMENDATION 9:** THAT THE GOVERNMENT OF CANADA AND GOVERNMENT OF ALBERTA INCORPORATE THE OBJECTIVE OF REGULATORY HARMONIZATION WITH KEY COMPETITOR JURISDICTIONS INTO THE GOVERNMENT'S REGULATORY BUDGETING MODEL SO THAT DEPARTMENTS ARE CREDITED AND PENALIZED FOR REGULATORY CHANGES THAT CONVERGE OR DIVERGE WITH OTHER GLOBAL STANDARDS. INCLUDE A MECHANISM FOR REAL-TIME PUBLIC TRACKING ON THOSE KEY PERFORMANCE INDICATORS.





**IN AN ANNUAL SURVEY, NEARLY THREE  
QUARTERS OF ALBERTA-BASED ENERGY  
EXECUTIVES CITED REGULATORY  
COMPLIANCE AS A DETERRENT TO  
INVESTMENT IN THE PROVINCE, ONLY  
10% OF EXECUTIVES IN TEXAS AND 7%  
IN KANSAS RAISED THE SAME CONCERN.**



**NETHERLANDS - FRONT RUNNERS DESK  
CREATED FOR COMPANIES TO REPORT BARRIERS CREATED  
BY EXISTING POLICY AND REGULATORY STRUCTURES.**

Strong economies need strong businesses and strong trade, and that requires good relationships with policymakers. Businesses emphasize the importance of ongoing two-way communication with government around regulatory decision-making.

**IN 2019, THE GOVERNMENT OF  
ALBERTA CREATED AN ONLINE  
PORTAL FOR BUSINESS TO SUBMIT  
CHALLENGES OR IDEAS FOR THEIR  
RED TAPE REDUCTION INITIATIVE.**

**RECOMMENDATION 10: THAT THE GOVERNMENT OF CANADA AND GOVERNMENT OF ALBERTA INCLUDE “INNOVATION, ECONOMIC GROWTH AND GLOBAL COMPETITIVENESS” AS CORE CONSIDERATIONS IN THE MANDATE OF ALL REGULATORS.**

**RECOMMENDATION 11: THAT THE GOVERNMENT OF CANADA AND GOVERNMENT OF ALBERTA ESTABLISH A MECHANISM FOR INDUSTRY EXPERTS TO ADVISE REGULATORS ON AN ONGOING BASIS OF UNINTENDED IMPACTS OF REGULATIONS AND WAYS TO MITIGATE OR ELIMINATE THEM AND IDENTIFY OPPORTUNITIES TO ACHIEVE HEALTH AND SAFETY OUTCOMES AT THE LOWEST COST TO THE ECONOMY.**

# INVEST IN A GLOBALLY COMPETITIVE TALENT POOL

ATTRACT, DEVELOP AND RETAIN A MORE  
GLOBALLY COMPETITIVE, DIVERSE AND  
DIGITALLY-SKILLED WORKFORCE.



In a globalized economy where the application of innovation, creativity and ideas drives competitiveness, having a skilled talent pool is more important than ever. Canada's prosperity increasingly depends on intellectual capital, but our talent pool is struggling to keep pace with the needs of global employers, especially in the digital economy. Several employers flagged talent shortages in technical fields, such as computer science, data science and cyber security.

**THE MOST RECENT  
OUTLOOK FORECASTS A  
CUMULATIVE LABOUR  
SHORTAGE IN ALBERTA  
OF 49,000 WORKERS BY  
THE YEAR 2025.**

**FORECASTED LABOUR  
SHORTAGE OF MORE  
THAN 1,000 WORKERS BY  
2025 OF COMPUTER AND  
INFORMATION SYSTEMS  
PROFESSIONALS (NOC C07).**

# FAST-TRACK FOREIGN TALENT

CANADA'S IMMIGRATION SYSTEM CAN PROVIDE A HUGE COMPARATIVE ADVANTAGE IN BUILDING A GLOBALLY COMPETITIVE TALENT POOL. RESEARCH SHOWS FOREIGN STEM WORKERS GENERATE SIGNIFICANT SPILLOVER BENEFITS FOR DOMESTIC WORKERS.

## CANADIAN CITIES 1991-2006

- 1% INCREASE IN SHARE OF FOREIGN STEM WORKERS = WAGE INCREASE OF NON-STEM UNIVERSITY-EDUCATED CANADIAN WORKERS BY 2.8-6.4%
- SHARE OF FOREIGN STEM WORKERS IN TOTAL EMPLOYMENT INCREASED FROM 1.7% WHICH RAISED WAGES OF CANADIAN UNIVERSITY-EDUCATED BY 11%

The Alberta Opportunity Stream provides a pathway to Canadian permanent residence for foreign nationals working in Alberta and international graduates who have completed their studies at an approved Alberta post-secondary institution. However, a Canadian employer wishing to hire a foreign national must first receive government approval through a Labour Market Impact Assessment, which requires a Canadian government employee to determine that the hiring of a foreign national will have a positive or neutral effect on the Canadian labour market.

81<sup>ST</sup>

**CANADA RANKS 81<sup>ST</sup> GLOBALLY FOR EASE OF HIRING FOREIGN LABOUR ON THE WORLD ECONOMIC FORUM GLOBAL COMPETITIVENESS INDEX.**

**LOST EARNINGS DUE TO UNEMPLOYMENT OR UNDEREMPLOYMENT OF THOSE WITH INTERNATIONAL CREDENTIALS RANGES FROM \$13.4B TO \$17B ANNUALLY.**

**RECOMMENDATION 12A: THAT THE GOVERNMENT OF CANADA AND GOVERNMENT OF ALBERTA ELIMINATE THE REQUIREMENT FOR A LABOUR MARKET IMPACT ASSESSMENT THROUGH THE ALBERTA OPPORTUNITY STREAM.**

The Global Skills Strategy, launched two years ago, has provided businesses in Canada with a faster way of bringing in global talent in order to scale up and grow.



# AFTER TWO YEARS, THE GLOBAL SKILLS STRATEGY HAS BEEN ATTRIBUTED WITH AN INCREASE OF 40,000 PEOPLE IMMIGRATING TO CANADA, NEARLY 24,000 BEING HIGHLY SKILLED IN COMPUTER PROGRAMMING, INFORMATION SOFTWARE ANALYSIS AND COMPUTER ENGINEERING.

However, there are ongoing delays in processing Labour Market Impact Assessment applications for some streams of the Temporary Foreign Worker Program, causing delays in sectors where we have ongoing labour shortages.

## CURRENT AVERAGE LABOUR MARKET IMPACT ASSESSMENT PROCESSING TIMES:

APPLICATION TYPE	DELAY
Global Talent Stream	10 business days
Agricultural stream	30 business days
Seasonal Agricultural Worker Program	15 business days
Permanent residence stream	40 business days
In-home caregivers	25 business days
High-wage stream	85 business days
Low-wage stream	128 business days

### RECOMMENDATION 12B:

THAT THE GOVERNMENT OF CANADA INVEST IN EXPANDING THE GLOBAL SKILLS STREAM AND IMPROVING PROCESSING TIMES BY 50% FOR APPLICATIONS BY 2025.



# RETAIN INTERNATIONAL STUDENTS

**“WE DO A REALLY GOOD JOB OF EDUCATING INDIVIDUALS WITH GLOBAL SKILLS BUT STRUGGLE TO RETAIN THEM.”**

~ BUSINESS ROUNDTABLE



### MANITOBA: INTERNATIONAL STUDENT ENTREPRENEUR PILOT

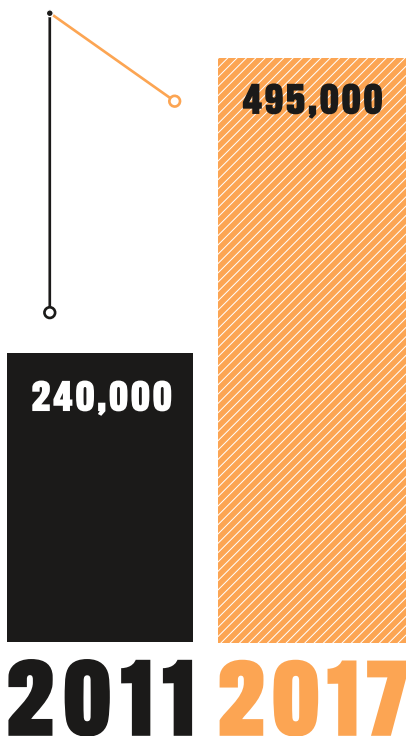
INTERNATIONAL STUDENTS WHO HAVE GRADUATED IN MANITOBA HAVE THE OPPORTUNITY TO PURSUE ENTREPRENEURSHIP RATHER THAN EMPLOYMENT BUT REQUIRE A BUSINESS PLAN AND MINIMUM OF \$13,000 LIQUID ASSETS FOR 6 MONTHS OR \$25,000 LIQUID ASSETS FOR 12 MONTHS.



### NOVA SCOTIA: STUDY AND STAY PROGRAM

HAS A 2024 TARGET ON RETAINING 10% OF INTERNATIONAL STUDENTS FOLLOWING THEIR GRADUATION. IN 2017 THEY WERE AT 9.4%, IN 2018, THEY REACHED 12.6% RETENTION. OF THE 36 STUDENTS IN THE FIRST COHORT IN 2016-17, 83% HAVE REMAINED IN NOVA SCOTIA, ACCORDING TO THE ASSOCIATION. 22 STUDENTS FROM THE SECOND COHORT OF 47 FOUND FULL-TIME EMPLOYMENT WITHIN A MONTH OF GRADUATING FROM THEIR STUDIES.

CANADIAN POST-SECONDARY INSTITUTIONS HAVE MADE GREAT STRIDES IN ATTRACTING INTERNATIONAL STUDENTS.



**IN 2017, ALBERTA WAS HOME TO 26,149 INTERNATIONAL STUDENTS WITH A VALID PERMIT.**

### RECOMMENDATION 13:

THAT THE GOVERNMENT OF CANADA AND GOVERNMENT OF ALBERTA WORK TOGETHER TO CREATE AN INTERNATIONAL STUDENT RETENTION PROGRAM ACROSS ALL ALBERTA-BASED POST-SECONDARY INSTITUTIONS TO FAST-TRACK WORK PERMITS AND IMMIGRATION FOR INTERNATIONAL STUDENTS IN STEM FIELDS WHO OBTAIN FULL TIME EMPLOYMENT OR PURSUE ENTREPRENEURSHIP IN ALBERTA.

**26,149**









# EMPOWER INDIGENOUS PEOPLES

Improving educational attainment for Indigenous Peoples on and off-reserve must be a key priority of any global skills strategy. Indigenous Peoples are the fastest-growing source of young workers that could boost our economy and improve the quality and size of our talent pool, but are underrepresented in the economy due to gaps in skills and educational attainment. Raising post-secondary rates and engaging more Indigenous Peoples in the economy could unlock an estimated \$7 billion in GDP.

**APPROXIMATELY 30% OF INDIGENOUS PEOPLES DO NOT HAVE A HIGH SCHOOL DIPLOMA AND ONLY 48% HAVE SOME POST-SECONDARY EDUCATION.**

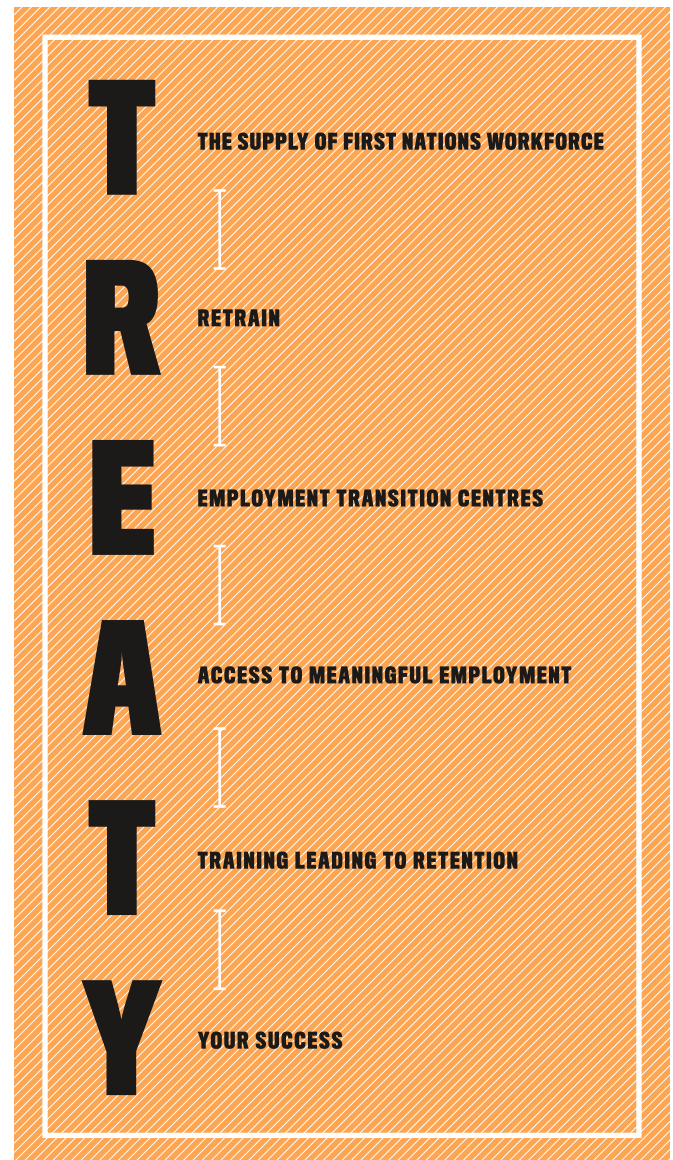
THE INDIGENOUS POPULATION IN THE EDMONTON METROPOLITAN REGION ARE CANADA'S SECOND-LARGEST URBAN INDIGENOUS POPULATION - AND ARE STILL GROWING.

**2001-2006:**  
**25% GROWTH**

**2006-2016:**  
**49.6% GROWTH**

**RECOMMENDATION 14:**  
THAT THE GOVERNMENT OF CANADA FUND INDIGENOUS-LED EDUCATION AT A RATE COMPARABLE TO AVERAGE PROVINCIAL PER PUPIL K-12 FUNDING AND CONTINUE TO DIRECT FUNDING TO INDIGENOUS-LED PROGRAMS THAT OFFER A TAILORED AND CULTURALLY APPROPRIATE APPROACH TO INDIGENOUS POST-SECONDARY EDUCATION AND EMPLOYMENT TRAINING.

## TRIBAL CHIEFS EMPLOYMENT & TRAINING SERVICES ASSOCIATION



THE TREATY MODEL, WHICH WAS NOMINATED FOR THE PREMIER'S AWARD OF EXCELLENCE, HAS THREE KEY OUTCOMES:

- INNOVATIONS IN SERVICE DELIVERY
- COLLABORATION AMONG PARTNERS
- COORDINATION OF SERVICES TO IMPROVE COST EFFECTIVENESS

## SKILLS FOR THE MODERN ECONOMY

Our education systems are not keeping pace with the global economy. 62% of Canadian businesses report difficulty finding talent with the right digital skills.

Companies are eager to work with post-secondary institutions and certification bodies to develop specific skill sets. There is currently no accreditation for data scientists in Canada and only one institution that offers certification in cyber-security. Professional certification helps employers recognize the skills of candidates and could be especially helpful for new Canadians who hold foreign credentials.

**ONLY 34% OF EMPLOYERS BELIEVE GRADUATING STUDENTS IN CANADA ARE “JOB READY”.**

**RECOMMENDATION 15:**

**THAT THE GOVERNMENT OF CANADA AND GOVERNMENT OF ALBERTA PARTNER TO COLLECT AND ANALYZE DATA ON LABOUR MARKET SUPPLY AND DEMAND ON AN ONGOING BASIS, AND MAKE THIS INFORMATION ELECTRONICALLY AVAILABLE IN REAL-TIME TO THE POST-SECONDARY AND K-12 EDUCATION INSTITUTIONS TO FACILITATE INFORMED AND MARKET-DRIVEN DECISIONS ABOUT PROGRAMMING, RESEARCH, AND CURRICULUM.**



**WORLD ECONOMIC FORUM RANKS CANADA 22<sup>ND</sup> ON SKILLS OF FUTURE WORKFORCE AND 20<sup>TH</sup> ON SKILLSET OF GRADUATES IN THE GLOBAL COMPETITIVENESS INDEX 2018.**

We need to ensure that students are graduating with the right skillsets to be ready for a globally integrated, data-driven economy. Work-integrated learning helps students gain real world experience and prepare for the job market; it also helps companies in traditional sectors compete for digital talent by exposing students to different career paths. We need to bring together post-secondary and industry leaders to help students prepare for the economic and skills challenges of the future.

**RECOMMENDATION 16:**

**THAT THE GOVERNMENT OF CANADA AND GOVERNMENT OF ALBERTA EXPAND CO-OP AND WORK INTEGRATED LEARNING PROGRAMS (SUCH AS THE STUDENT WORK PLACEMENT PROGRAM AND ALBERTA'S REGISTERED APPRENTICESHIP PROGRAM) AND OPEN THEM UP TO INTERNATIONAL STUDENTS.**



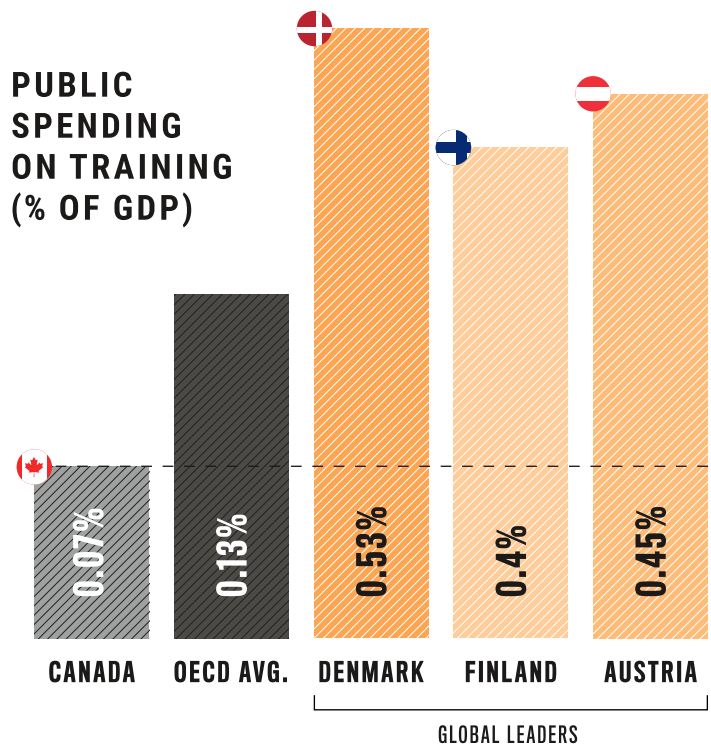
**“THERE IS A GAP AROUND EXPERIENTIAL ABILITY – GRADUATES ARE NOT JOB-READY. WE DON’T HAVE ENOUGH CO-OP PROGRAMS TO HELP THEM GET THAT EXPERIENCE.”**

*~ BUSINESS ROUNDTABLE*

Technology is changing so fast that people can no longer rely solely on what they learned in their formal education. One participant from a business roundtable said that workers need to update or relearn their skills every four or five years. But Canada’s performance on later career training and development is poor relative to peer countries.

**RECOMMENDATION 17:**

THAT THE GOVERNMENT OF CANADA AND GOVERNMENT OF ALBERTA WORK WITH POST-SECONDARY INSTITUTIONS AND INDUSTRY TO DEVELOP LIFELONG LEARNING PROGRAMMING RELEVANT TO THE NEW ECONOMY AND DEVELOP A TAX CREDIT OR REBATE FOR EMPLOYERS WHO INVEST IN RESKILLING OR ONGOING LEARNING FOR THEIR EMPLOYEES.



# FOSTER WORLD CLASS INNOVATION

FOSTER PUBLIC-PRIVATE PARTNERSHIPS, ACCELERATE COMMERCIALIZATION AND ADOPTION OF ADVANCED TECHNOLOGIES, INTEGRATE INNOVATORS WITH THE GLOBAL SUPPLY CHAIN, AND SHOWCASE LOCAL INNOVATIONS GLOBALLY.

**CANADA RANKED 32ND FOR  
COMMERCIALIZATION ON WORLD  
ECONOMIC FORUM GLOBAL  
COMPETITIVENESS INDEX**

Innovation is not only required for traditional sectors to keep pace with the global economy, but it is in itself a sector and generator of wealth. Those jurisdictions not enabled for innovation will fall far behind in terms of GDP growth and overall economic prosperity and sustainability. Canada already has—it's time to catch up.

The goal is to create innovation assets (such as intellectual property, data and talent) and then export those assets once commercialized. Canada has a habit of divesting our innovation assets before they are commercialized, losing out on the potential to be first adopters of new technology, and grow companies to global scale. This is the result of a failure of innovation policy.

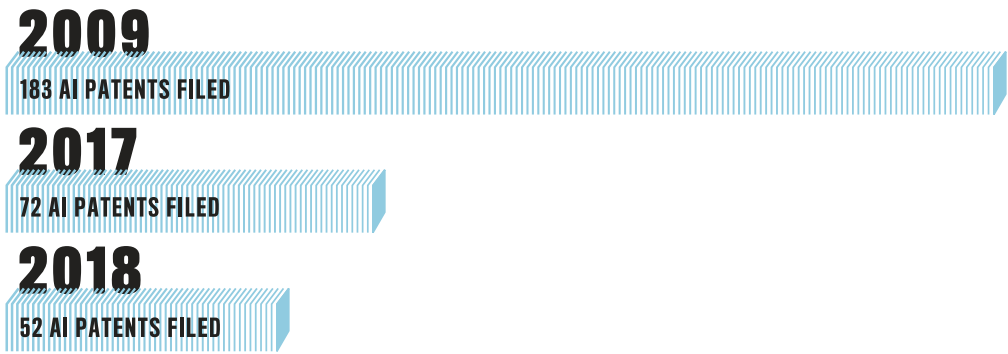
***“OUR AI (ARTIFICIAL  
INTELLIGENCE) LEADERSHIP  
NEEDS TO FOCUS ON  
COMMERCIALIZATION, NOT  
JUST RESEARCH”***

***~ DIGITAL INDUSTRIES ECONOMIC STRATEGY TABLE***

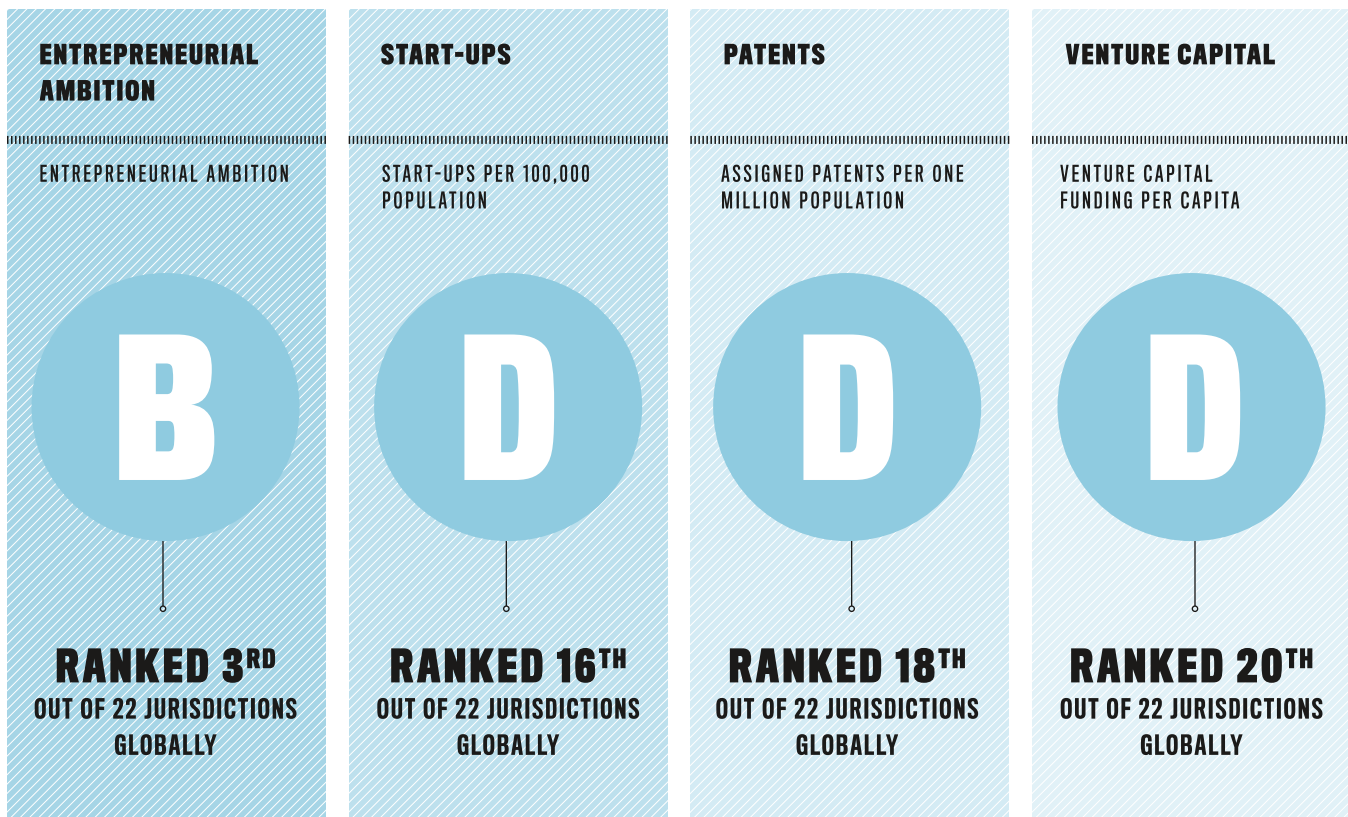
***“IT'S TIME TO FOSTER A  
HOMEGROWN ADVANTAGE BY  
COMMERCIALIZING OUR OWN  
INNOVATIONS.”***

***~ DIGITAL INDUSTRIES ECONOMIC STRATEGY TABLE REPORT***

Compared to our global competitors, we produce very little intellectual property. Canada is the only jurisdiction among the top 10 by Artificial intelligence patents filed to see a decrease in the number of patents applied for each year between 2016-2018.



**EDMONTON METROPOLITAN REGION BENCHMARKING – CONFERENCE BOARD OF CANADA**



ISRAEL, CONSIDERED THE WORLD'S "INNOVATION NATION", HAS ONE OF THE TOP INNOVATION ECOSYSTEMS FOR ENTREPRENEURS AND VENTURE CAPITALISTS. THEY VIEW INNOVATION AS THEIR NATURAL RESOURCE—A NATIONAL ASSET CRUCIAL TO ECONOMIC PROSPERITY. HIGH-TECH INDUSTRIES PROVIDE ABOUT ONE-THIRD OF ISRAEL'S EMPLOYMENT AND CONTRIBUTE MORE THAN HALF OF THE COUNTRY'S GDP. A HIGH NUMBER OF UNIVERSITY ACADEMIC ACHIEVEMENTS ARE COMMERCIALIZED.

# SCALE FOR GLOBAL GROWTH

Government supports for the innovation ecosystem often do not match up with the needs or realities of entrepreneurs. The nature of innovation and the restrictions around government programs are sometimes at odds to the point that they become unproductive.

As one entrepreneur put it: "the only industry these grants are supporting is the grant writer industry."

## RECOMMENDATION 18:

**THAT THE GOVERNMENT OF CANADA AND GOVERNMENT OF ALBERTA MODERNIZE INNOVATION GRANTS AND TAX CREDITS SO THAT THE CRITERIA ARE MORE IN LINE WITH THE KIND OF RESEARCH THAT CHARACTERIZES TODAY'S DIGITAL ERA, THE PROCESS IS MORE IN LINE WITH BUSINESS TIMELINES AND PRACTICES, AND THE FOCUS IS ON HELPING COMPANIES WITH HIGH-GROWTH AND EXPORT POTENTIAL SCALE UP.**



### Innovate UK

This pilot program is an initiative of the Enterprise Europe Network. It identifies firms with the potential for rapid growth and provides them with a "scale-up manager." The goal is to take the firm from £500,000 in annual revenue to £100 million.



### Australian Growth Service

Australian firms with high growth potential gain access to experienced advisers, as well as government programs, services, and funding. The Growth Service targets five key sectors: advanced manufacturing, food and agri-business, medical technologies and pharmaceuticals, mining equipment technology and services, and oil, gas, and energy resources.

## YEG INNOVATION COMPASS

**THE EDMONTON METROPOLITAN REGION'S TECH ENTREPRENEURS (THE TECH-INNOVATION ECOSYSTEM) WANTS GOVERNMENT TO THINK DIFFERENTLY ABOUT THE WAY IT SUPPORTS THE ECOSYSTEM:**

**RECONSIDER JOB CREATION AS THE DOMINANT METRIC TO MEASURE SUCCESS - FOCUS ON COMPANY AND REVENUE GROWTH INSTEAD**

**GENERALIZE THE DESIRED OUTCOMES FOR GRANTS (I.E. ASK FOR CLEAN ENERGY TECH RATHER THAN A SPECIFIC TYPE OF WIND TURBINE)**

**CONCENTRATE FUNDS CURRENTLY DISPERSED ACROSS A MYRIAD OF GOVERNMENT PROGRAMS INTO A SINGLE TAX CREDIT/INCENTIVE PROGRAM**

## SPEED TO MARKET

**“REGULATORY SANDBOXES ARE CONTROLLED 'SAFE SPACES' IN WHICH INNOVATIVE PRODUCTS, SERVICES, BUSINESS MODELS AND DELIVERY MECHANISMS CAN BE TESTED WITHOUT IMMEDIATELY BEING SUBJECT TO ALL OF THE REGULATORY REQUIREMENTS.”**

*~ EUROPEAN BANKING AUTHORITY, 2017*

Three main benefits of operating a regulatory sandbox:

***Reduced time-to-market at a potentially lower cost***

***Better access to capital***

***More innovative products reaching the market***

The Government of Canada committed in Budget 2019 to modernizing regulatory frameworks, which includes the use of regulatory sandboxes and pilot projects to better align regulatory frameworks with industry realities. The Federal Budget acknowledges that the regulatory approval system has not kept up with new medical technologies and processes and recommends establishing a regulatory sandbox for new and innovative medical products. Alberta Health Services (AHS) is the largest single health authority in the country and is headquartered in the Edmonton Metropolitan Region. The Government of Alberta is currently reviewing ways to improve services and increase efficiencies within AHS.

Alberta's strengths in AI, machine learning and nanotechnology combined with the desire to innovate within the Alberta health system, make the Edmonton Metropolitan Region a great candidate for a health technology regulatory sandbox.

### **RECOMMENDATION 19A:**

**THAT THE GOVERNMENT OF CANADA WORK WITH THE GOVERNMENT OF ALBERTA AND RELEVANT PUBLIC AND PRIVATE SECTOR STAKEHOLDERS TO IMPLEMENT A REGULATORY SANDBOX FOR NEW HEALTH TECHNOLOGY COMMERCIALIZATION AND ADOPTION WITHIN THE EDMONTON METROPOLITAN REGION TO ENABLE EARLY TESTING, VALIDATION AND IDEA-SHARING RELATED TO REGULATORY OPTIONS FOR EMERGING TECHNOLOGIES THAT WOULD INCREASE EFFICIENCY, REDUCE COSTS, AND HAVE HIGH EXPORT POTENTIAL.**







## WHAT OUR COMPETITORS ARE DOING

### FRANCE EXPERIMENTATION

SUPPORTS THE TESTING AND EVALUATION OF NEW TECHNOLOGIES IN REAL-WORLD CONDITIONS. IT CREATES A TRANSPARENT FRAMEWORK FOR EXPERIMENTING WITH EXISTING REGULATORY AND ADMINISTRATIVE PROCEDURES TO UNBLOCK TECHNOLOGY ADOPTION AND FURTHER DRIVE INNOVATION.

### UK ANTICIPATORY REGULATION

AN EMERGING METHOD OF REGULATION THAT IS PROACTIVE, ITERATIVE AND RESPONDS TO EVOLVING MARKETS. IT ENABLES AND SUPPORTS INNOVATION AROUND NEW TECHNOLOGIES OR BUSINESS MODELS IN A 'RESPONSIBLE' AND MORE INCLUSIVE WAY.

### ONTARIO ENERGY BOARD REGULATORY SANDBOX ON ENERGY (AS OF JAN 2019)

CALLED THE "INNOVATION SANDBOX", WHERE ENERGY SERVICE PROVIDERS CAN APPROACH THE OEB IN AN INFORMAL WAY TO GET RELIEF FROM REGULATORY RESTRICTIONS ON THEIR ABILITY TO PROVIDE INNOVATIVE PRODUCTS, SERVICES AND BUSINESS MODELS THAT CAN BENEFIT CUSTOMERS.

### THE UK'S OFFICE OF GAS AND ELECTRICITY MARKETS

A 'ONE-STOP SHOP' OFFERING SUPPORT ON ENERGY REGULATION TO BUSINESSES LOOKING TO LAUNCH NEW PRODUCTS SERVICES OR BUSINESS MODELS.

The Edmonton Metropolitan Region is also home to Canada's largest hydrocarbon processing centre: Alberta's Industrial Heartland. This cluster, in combination with the research capabilities at NAIT and the University of Alberta, make the Edmonton Metropolitan Region a potential hotbed for new clean technology. However, the regulatory framework for testing new technology is confusing and prohibitive.

#### RECOMMENDATION 19B:

THAT THE GOVERNMENT OF ALBERTA WORK WITH INDUSTRY TO DEVELOP A CLEAN TECHNOLOGY REGULATORY SANDBOX IN THE EDMONTON METROPOLITAN REGION FOR TESTING, COMMERCIALIZING AND ADOPTION OF NEW TECHNOLOGIES FOR THE OIL AND GAS SECTOR THAT WOULD INCREASE EFFICIENCY, REDUCE COSTS, REDUCE CARBON INTENSITY AND EMISSIONS, AND HAVE HIGH EXPORT POTENTIAL.



# FACILITATE DIGITIZATION AND ADOPTION

Canada must rethink how to facilitate innovation and enable ecosystems that drive innovation and build greater capacity in technology-driven transformations of our traditional industries. Canadian companies struggle with innovation and technology adoption, which impacts the competitiveness of the companies and the productivity growth levels in our economy.

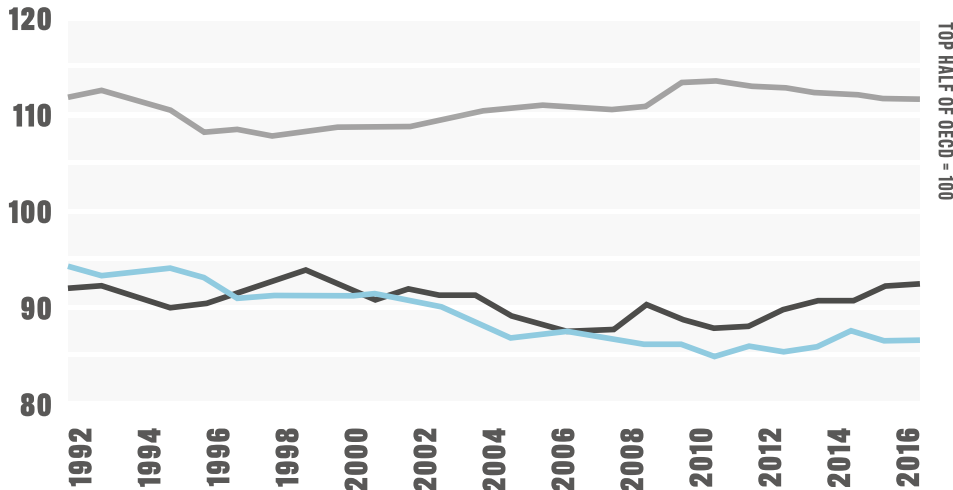
**22<sup>ND</sup>**

**CANADIAN FIRMS RANK 22<sup>ND</sup> IN OECD FOR FIRM-LEVEL TECHNOLOGY ABSORPTION.**

## CANADA'S LABOUR PRODUCTIVITY LAGS TOP PERFORMERS

UNITED STATES |  
CANADA |  
AUSTRALIA |

Source: Economic Policy Reforms: Going for Growth 2018, OECD



A recent BDC study found that only 19% of Canadian businesses are digitally advanced. This is a huge missed opportunity as digitally advanced companies are 62% more likely to have enjoyed higher sales growth than all other businesses over the past three years.

**“WE NEED TO STOP LOOKING TO GET THROUGH THE NEXT HUMP OR 5-10 YEARS AND LOOK AT FUNDAMENTALLY CHANGING AND DISRUPTING OUR BUSINESS MODELS TO TAKE US THROUGH THE NEXT 25-50 YEARS.”**

~ ENERGY & CLEANTECH ROUNDTABLE

**BDC FOUND THAT, OVER THE PAST THREE YEARS, DIGITALLY ADVANCED COMPANIES WERE MORE LIKELY TO HAVE:**

**HIGH SALES GROWTH (62%)**

**HIGH PROFIT GROWTH (52%)**

**EXPORTED (70%)**

**INNOVATED (329%)**

**SMALL AND MID-SIZED BUSINESSES WITH A HIGHER LEVEL OF DIGITAL MATURITY ENJOY HIGHER SALES AND PROFIT GROWTH, EXPORT MORE, AND INNOVATE MORE THAN THEIR PEERS.**

***“THERE NEEDS TO BE A REAL SENSE OF URGENCY. IN TERMS OF TECHNOLOGICAL READINESS AND DIGITAL COMPETITIVENESS, CANADA IS LANGUISHING BEHIND. BEING ABLE TO ADAPT IN A WORLD WHERE TECHNOLOGICAL BREAKTHROUGHS ARE HAPPENING AT AN UNPRECEDENTED PACE IS CRITICAL TO SUCCESS FOR CANADIAN BUSINESSES. TECHNOLOGIES ARE INCREASING EFFICIENCY, CUTTING COSTS AND IMPROVING COMPETITIVENESS FOR COMPANIES WILLING AND READY TO ADOPT THEM.”***

***~ TRENT BESTER, SENIOR VICE PRESIDENT,  
CONSULTING AT MNP***

The Digital Technology Adoption Pilot Program was a three-year program (2011-2014) to accelerate digital technology adoption in Canadian small-and medium-sized enterprises (SMEs). The program provided funding and advice to a select group of SMEs with the goal of boosting productivity and creating economic growth. Participants reported benefits including the creation of new full-time jobs, lower cost of holding inventory, and lower production costs.

***“BUSINESSES HAVE A FEAR OR TECHNOLOGY INSTEAD OF THE KNOWLEDGE THAT THEY NEED IT. THEIR THOUGHT BARRIER IS, ‘I DON’T KNOW WHAT I DON’T KNOW, AND I DON’T KNOW WHERE TO START.’”***

***~ ENERGY & CLEANTECH ROUNDTABLE***

**RECOMMENDATION 20:**

**THAT THE GOVERNMENT OF CANADA AND GOVERNMENT OF ALBERTA SUPPORT THE ESTABLISHMENT OF A DIGITIZATION AND TECHNOLOGY ADOPTION PROGRAM FOR ALBERTA BUSINESSES THAT IDENTIFIES COMPANIES WITH HIGH POTENTIAL FOR GROWTH AND EXPORT, AND ASSIGNS A CASE MANAGER TO HELP THEM ASSESS OPPORTUNITIES FOR DIGITIZATION AND TECHNOLOGY ADOPTION AND NAVIGATE IMPLEMENTATION THROUGH THE SUPPORT OF THEIR LOCAL INNOVATION ECOSYSTEM.**



# RECOMMENDATIONS



# ADOPT A GLOBAL MINDSET

## Whole-of-government systemic and cultural shift

*That the Government of Canada and Government of Alberta ensure all of government is more focused on working with businesses and enabling new investment, economic growth, and creating an environment where risk, creativity and experimentation are applauded and rewarded. Attribute specific mandates and metrics for ministries and departments focused on collaboration, innovation and enabling economic growth.*

## Data-driven decision making

*That the Government of Canada and Government of Alberta commission independent, sector-based, global competitiveness reviews of the province and country regularly, including an economic impact analysis of government programs and initiatives and an environmental scan of policy and regulatory changes in competing jurisdictions. Publish the details and use the data to inform policy changes to increase global competitiveness for investment attraction and economic growth.*

## A coordinated approach to investment attraction

*That the Government of Alberta reform FDI attraction and export promotion efforts across all ministries to provide coordinated end-to-end investor care based on global best practices: government-funded, operationally independent, support from the highest political levels, employment of sectoral experts and strategies based on competitive strengths, use of private sector ambassadors and involvement of all relevant public and private sector agencies.*

# CREATE AN ENABLING ENVIRONMENT

## Economy-enabling physical and digital infrastructure

*That the Government of Canada and Government of Alberta take a strategic approach to infrastructure planning and funding with a coordinated 20-year economy-enabling infrastructure plan that includes a rolling list of high-priority, short-, medium- and long-term infrastructure needs (including ongoing maintenance) put through a competitiveness filter to prioritize projects that will enhance our global competitiveness, productivity, and market access.*

*That the Government of Canada and Government of Alberta leverage public-private funding mechanisms to invest in the required infrastructure to achieve 100% internet coverage across the Edmonton Metropolitan Region by 2025 – with unlimited data and a minimum of 100 Mbps download speeds and 50 Mbps upload speeds.*

*That the Government of Canada and Government of Alberta promote public-private collaboration to pool data assets through open big data libraries. For sensitive data, create data trusts that use an independent institution with trustees to make decisions about how data is collected, used and shared and ensure competitors have common levels of access.*

## Modernized taxation tools

*That the Government of Canada and Government of Alberta implement a mandated and regularized review process that evaluates and reforms different components of the tax system annually based on the findings of economic impact analysis and global competitiveness reviews (see Recommendation 2).*

*That the Government of Alberta and Government of Canada each implement a broad-based tax credit, that can be leveraged together to focus on attracting anchor tenants in target sectors. The tax credit structure should align with global best practices: transparent criteria and process, ongoing intake, at least six years of certainty to align with corporate planning timelines, processing at the speed of commerce, and determined by open and clearly weighted criteria.*

## Growth-focused regulatory system

*That the Government of Canada and Government of Alberta incorporate the objective of regulatory harmonization with key competitor jurisdictions into the government's regulatory budgeting model so that departments are credited and penalized for regulatory changes that converge or diverge with other global standards. And include a mechanism for real-time public tracking on those key performance indicators.*

*That the Government of Canada and Government of Alberta include "innovation, economic growth and global competitiveness" as core considerations in the mandate of all regulators.*

*That the Government of Canada and Government of Alberta establish a mechanism for industry experts to advise regulators on an ongoing basis of unintended impacts of regulations and ways to mitigate or eliminate them and identify opportunities to achieve health and safety outcomes at the lowest cost to the economy.*



# INVEST IN A GLOBALLY COMPETITIVE TALENT POOL

## Fast-track foreign talent

**A)** *That the Government of Canada and Government of Alberta eliminate the requirement for a Labour Market Impact Assessment through the Alberta Opportunity Stream.*

**B)** *That the Government of Canada invest in expanding the Global Skills Stream and improving processing times by 50% for applications by 2025.*

## Retain international students

*That the Government of Canada and Government of Alberta work together to create an international student retention program across all Alberta-based universities to fast-track work permits and immigration for international students in STEM fields who obtain full time employment or pursue entrepreneurship in Alberta.*

## Empower Indigenous Peoples

*That the Government of Canada fund Indigenous-led education at a rate comparable to average provincial per pupil K-12 funding and continue to direct funding to Indigenous-led programs that offer a tailored and culturally appropriate approach to Indigenous post-secondary education and employment training.*

## Skills for the modern economy

*That the Government of Canada and Government of Alberta partner to collect and analyze data on labour market supply and demand on an ongoing basis and make this information electronically available in real-time to the post-secondary and K-12 education institutions to facilitate informed and market-driven decisions about programming, research, and curriculum.*

*That the Government of Canada and Government of Alberta expand co-op and work integrated learning programs (such as the Student Work Placement Program and Alberta's Registered Apprenticeship Program) and open them up to international students.*

*That the Government of Canada and the Government of Alberta work with post-secondary institutions and industry to develop lifelong learning programming relevant to the new economy and develop a tax credit or rebate for employers who invest in reskilling or ongoing learning for their employees.*

# FOSTER WORLD CLASS INNOVATION

## Scale for global growth

*That the Government of Canada and Government of Alberta modernize innovation grants and tax credits so that the criteria are more in line with the kind of research that characterizes today's digital era, the process is more in line with business timelines and practices, and the focus is on helping companies with high-growth and export potential scale up.*

## Speed to market

**A)** *That the Government of Canada work with the Government of Alberta and relevant public and private sector stakeholders to implement a regulatory sandbox for new health technology commercialization and adoption within the Edmonton Metropolitan Region to enable early testing, validation and idea-sharing related to regulatory options for emerging technologies that would increase efficiency, reduce costs, and have high export potential.*

**B)** *That the Government of Alberta work with industry to develop a clean technology regulatory sandbox in the Edmonton Metropolitan Region for testing, commercializing and adoption of new technologies for the oil and gas sector that would increase efficiency, reduce costs, reduce carbon intensity and emissions, and have high export potential.*

## Facilitate digitization and adoption

*That the Government of Canada and Government of Alberta support the establishment of a digitization and technology adoption program for Alberta businesses that identifies companies with high potential for growth and export, and assigns a case manager to help them assess opportunities for digitization and technology adoption and navigate implementation through the support of their local innovation ecosystem.*

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# THANK YOU.

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*Edmonton Global's 15 shareholder municipalities*

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*The Edmonton Metropolitan Region Board*

*Economic development agencies in the Edmonton Metropolitan Region*

*Over 150 regional businesses and organizations*

*Several public policy, economics, and international relations experts*

Thank you to all who participated and contributed.







▲ DANGER  
FALL FROM  
HEIGHTS  
↓  
KEEP OFF





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