ASSOCIATION OF UNIVERSITY RESEARCH PARKS
ASSOCIATION DES PARCS UNIVERSITAIRES DE RECHERCHE
CANADA

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LINKING INDUSTRY AND ACADEMIA COLLABORATIONS

through Ecosystem Coordination, Intellectual Property and International Trade

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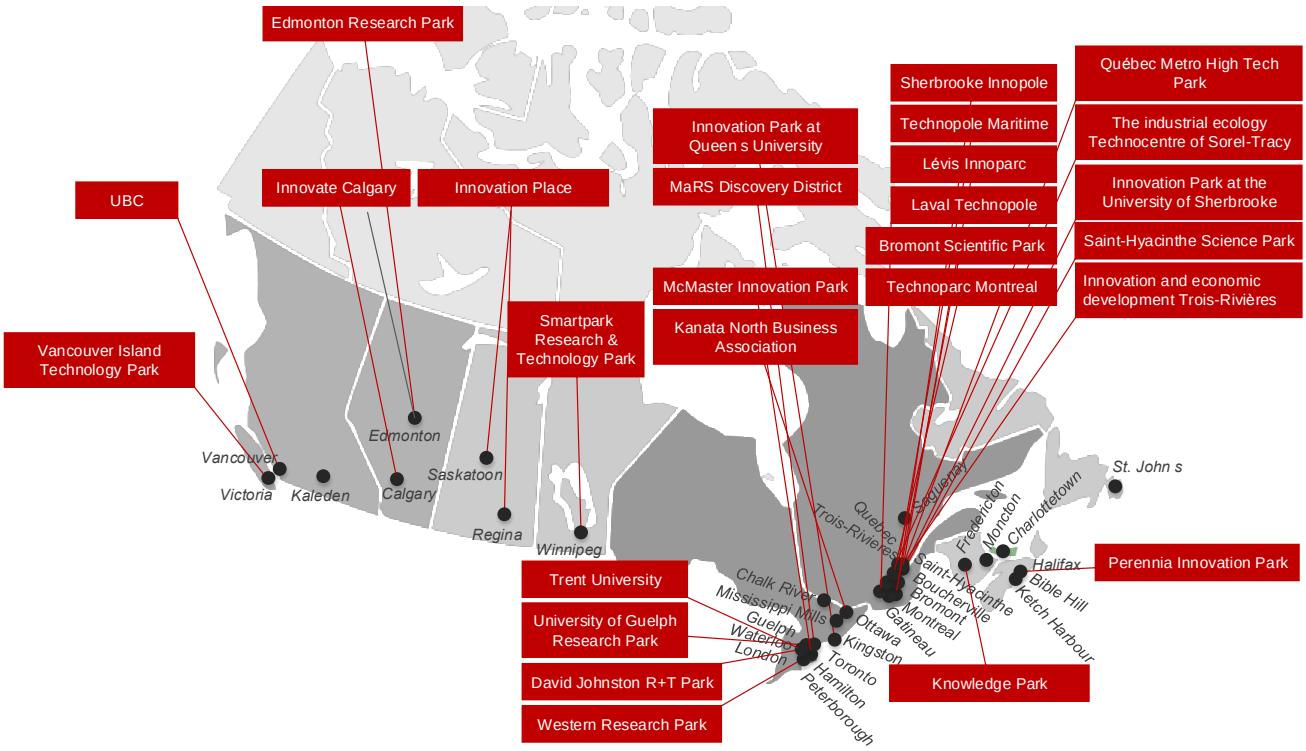
2. ABOUT AURP CANADA

The **Association of University Research Parks (AURP) Canada** is the national not-for-profit association that advocates on behalf of the 27 research and technology (R&T) parks and Innovation Districts across Canada. Our mission is simple – to support and drive the Canadian knowledge economy. Our parks currently house an estimated 1,400 companies, employ 65,000 knowledge-based workers and generate more than $4.3 billion in GDP annually.

Figure 1: Canada's R&T Park Sites



3. INNOVATION AGENDA & AURP CANADA

The Federal government has set a bold vision for Canada's innovation ecosystem. Over the years, the Canadian government realized that despite many advantages – such as generous tax incentives, a strong fiscal position, a skilled and highly educated workforce, and a culturally diverse society – other countries are moving faster to support their extramural research. In fact, the Global Innovation Index recently ranked Canada 18th of 127 countries and economies around the world.[1]

Canada can do better: it is clear that **Canada needs to take decisive action to excel in the global innovation arena**. The recently released report, *Canada's Fundamental Science Review,* underscored the government's urgency to improve research competitiveness and highlights the innovation agenda, without inventing a completely new system or structure. There is a desire to capitalize on existing research and innovation infrastructure, but with the understanding that "significant reinvestment is required. This reinvestment should be undertaken on a multi-year basis, coupling predictability with better planning."

To that end, AURP Canada is enthusiastic to expand its role, supporting the Federal government in both its innovation agenda and in science and technology policy development, through:

a) **international partnership expansion;**
b) **an intellectual property program;**
c) **innovation ecosystem coordination; and**
d) **digital and physical infrastructure.**

A. INTERNATIONAL PARTNERSHIP EXPANSION

GOVERNMENT ACTIONS AND PRIORITIES

Currently, the Federal government wishes to **increase trade and attract job-creating investment to Canada**, focusing on implementing the Canada-European Union Comprehensive Economic and Trade Agreement (CETA),

[1] https://www.globalinnovationindex.org/analysis-indicator

expanding trade with large fast-growing markets (including Israel, Japan, Chile, China, and India) and deepening trade links with traditional partners such as the United States.

HOW AURP CANADA CAN HELP

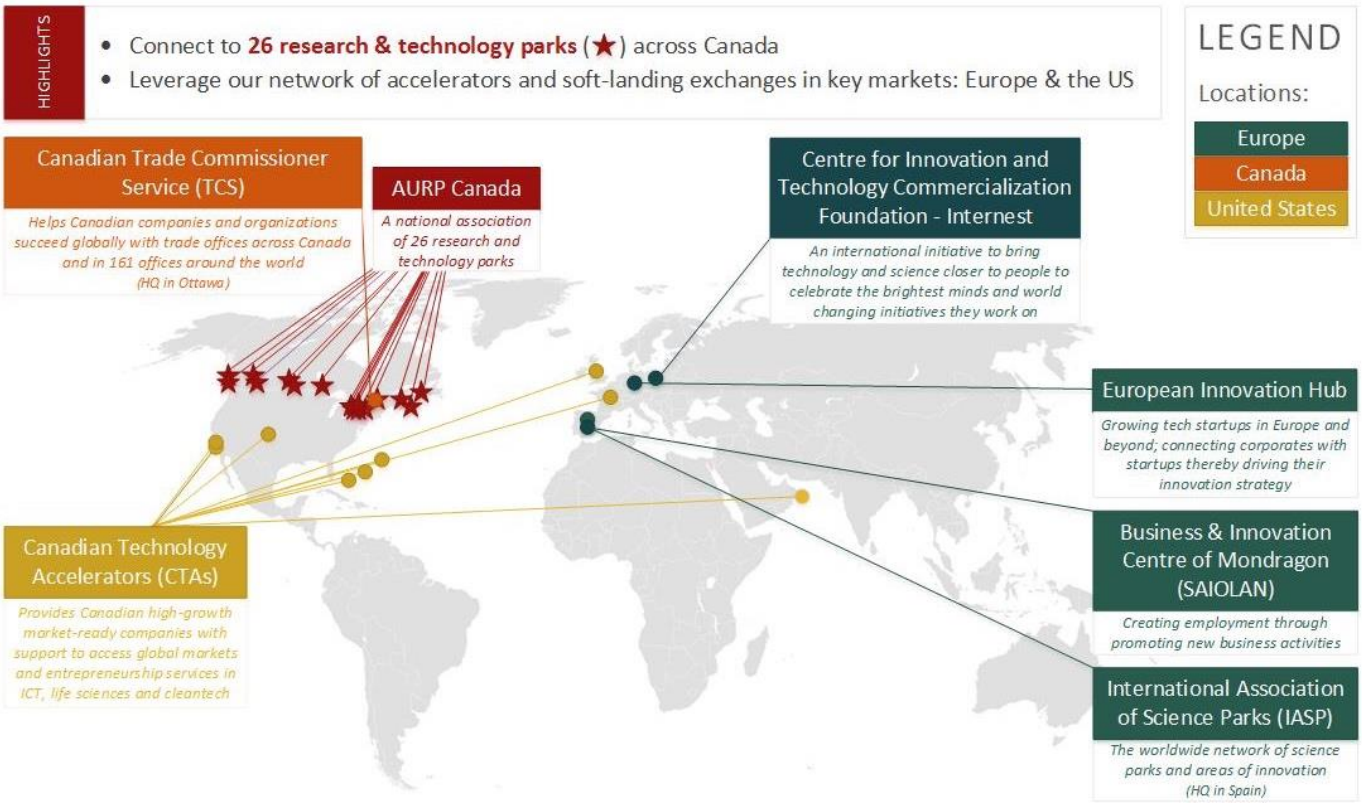
AURP Canada is integrated into a comprehensive network of global research partnerships, where nearly 50 per cent of companies located in Canadian parks are exporting and another 50 per cent are planning to export. AURP Canada has an international network that includes businesses, community groups, sister park partnerships and associations around the world. Furthermore, AURP Canada helps international stakeholders expand to Canada as a promoter of the attractiveness of Canada's innovation ecosystem, by highlighting Canada's advantageous policy and program support.

To help domestic companies expand internationally, AURP Canada has launched two specific programs:

- **Foreign Direct Investment strategy:** In collaboration with Global Affairs, this program presents an opportunity to work with trade commissioners in Europe and North America to share the story of opportunities within Canada, and develop R&D partnerships in more than 160 cities worldwide.

- **Soft-Landing program:** This program integrates a collaborative approach with international accelerators and parks (e.g., in Europe, USA, and Brazil), to allow technology intensive multinationals and other foreign stakeholders to locate in one of AURP Canada's 27 R&T parks in urban centres across the country (see Figure 2).

Figure 2: **Examples of International Partnerships for Soft Landing Exchanges**



In addition, AURP Canada has identified two key projects that will further expand research, financial, and commercial collaborations between Canada and our international partners:

- **Soft Landing Program between AURP Canada and Fraunhofer Institutes:** AURP Canada is working on a pilot program to establish an exchange between the 67 Fraunhofer Institutes in Germany and the 27 R&T parks in Canada. European Union (Brussels) and Global Affairs Canada (Berlin) officials have been involved in this concept development with AURP Canada. We believe there is an opportunity for both a trade and investment program and can leverage our network to maximize results.

- **Development of an IP match-making program:** AURP Canada is creating a program to expedite connections through its domestic and international

network to increase the export activities of the 1,400 companies located in Canadian R&T parks. As each of the research parks specialize in providing supporting companies in specific high-tech sectors (e.g., ICT, clean tech, health and life sciences, advanced manufacturing, agri-tech), AURP Canada is able to match companies with stakeholders, resources, funding and programs.

B. INTELLECTUAL PROPERTY

GOVERNMENT ACTIONS AND PRIORITIES

Intellectual property (IP) fuels the creation of knowledge-based economies. By providing a legal infrastructure through which ideas can become products, **robust IP systems foster innovation leading to economic growth, scientific advancement, job creation, and sustained competitiveness in global markets**. The Federal government has recognized the importance of a well-functioning intellectual property (IP) regime to provide a framework that supports innovation across all sectors of the economy. To that end, the intention to develop a new, modern and robust IP Strategy was announced in Budget 2017, the **Intellectual Property (IP) Strategy 2017**.

HOW AURP CANADA CAN HELP

AURP Canada believes there is an untapped opportunity for applying existing Canadian intellectual property for commercial use. There are **significant barriers to increasing commercially viable opportunities and growth in universities, the private sector and the Canadian economy,** including the perceived absence of pan-Canadian connection points between innovators and academic institutions, and the additional supports required for expedited intellectual property commercialization.

AURP Canada proposes a **National IP Inventory Mapping and Matchmaking Program** to develop a deeper understanding of the IP available in Canada throughout its academic institutions and federal departments. By building a database of current research and patents, opportunities and challenges would be identified, practically and at a policy level. The database will act as connection point between companies and institutions. It will also operate as a matchmaking system connecting the new Federal Innovation Agenda and

Innovation Portal, and spurring a greater percentage of technology transfer activities and industry–academia collaboration. (***Note***: a full discussion paper was submitted to the Standing Committee on Industry – INDU for consideration of this project).

Additional outcomes of the Inventory Mapping and Matchmaking program are expected to be increases in:

- heightened knowledge and marketing of new and existing IP across Canada;
- industry adoption and application of research conducted through the academic institutions;
- the number of patents executed in Canada; and
- the overall global advantage for Canada.

C. INNOVATION ECOSYSTEM COORDINATION

GOVERNMENT ACTIONS AND PRIORITIES

In the recent report, *Canada's Fundamental Science Review (2017),* the panel strongly felt that: "despite high levels of talent, expertise, and dedication on the part of those serving each agency, there is evidence to suggest that the **overall stewardship of the federal research ecosystem needs to be strengthened**. Coordination and collaboration among the four agencies is suboptimal, with variations in governance, administrative practices, and funding priorities within and across agencies that are not explicable either by disciplinary differences or by the needs of the relevant research communities." In addition, the **Advisory Panel on Federal Support for Fundamental Science Inclusive Innovation Agenda named six priority sectors as superclusters,** including advanced manufacturing, agri-food, clean technology, digital industries, health/bio-sciences and clean resources.[2]

It is clear there is a need and an opportunity to better coordinate the innovation ecosystem in Canada, especially within certain key sectors. With many organizations supporting companies in a variety of areas, strategy alignment, **consolidation of information, standardization, benchmarks and**

[2] http://www.budget.gc.ca/2017/docs/plan/chap-01-en.html

metrics are needed to maximize outcomes and potential impact to Canada.

HOW AURP CANADA CAN HELP

For the past ten years, AURP R&T parks have linked key stakeholders (government, academic and companies) in an effort to share ideas and resources that will spark growth of the knowledge industry sector and drive new innovations to the market. There are four main focus sectors: Biotechnology; Digital technology; Natural resources; and Clean technology; and sub-sectors: healthcare, agri-technology, industrials, and energy. These sectors and sub-sectors align with the priorities of the 2017 innovation agenda.

Since 2014, AURP Canada has piloted a **standardization program (see sample tables in Schedule A)**. We can leverage this program to support programs, such as the Canada Accelerator and Incubator Program and Start-up Visa program, within the federal ecosystem, to coordinate, track and measure funding criteria, project progression, and outcomes.

4. DIGITAL AND PHYSICAL INFRASTRUCTURE

Innovation infrastructure, including digital and physical infrastructure, is a critical component to supporting the growth and expansion of companies in order to fuel economic growth locally, regionally and nationally. Research and technology parks, accelerators and incubators and innovation districts are communities of innovation that house thousands of people working in science and technology across Canada.

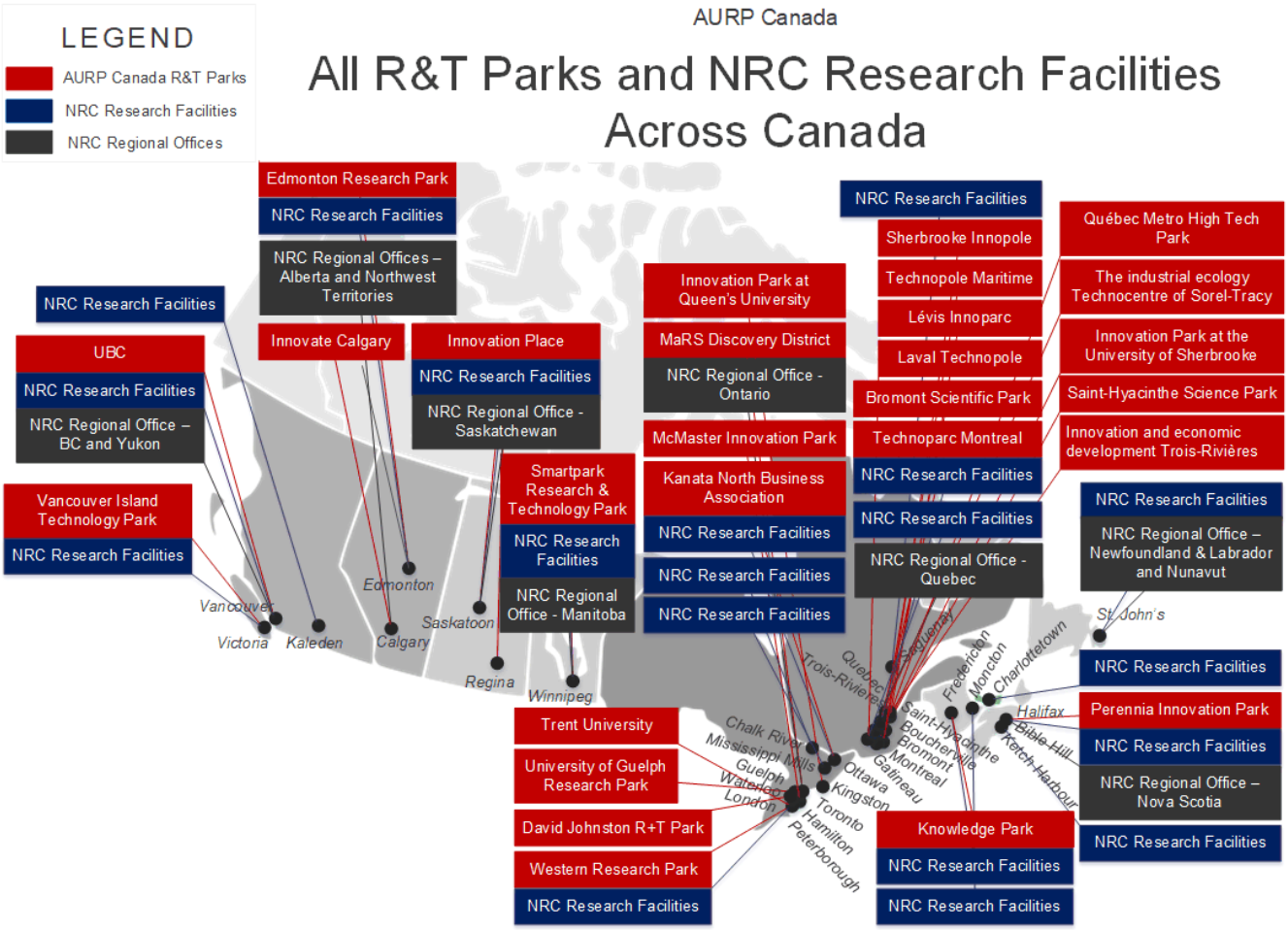
With significant efforts in place to build existing company capacity and bring in new companies from other regions, the R&T parks in Canada must be positioned to continue to expand the footprint in the clusters created in the various regions across the country. In order to accelerate this growth potential, clear direction and **access to seed funds to leverage private funding is needed. In fact, 72% of R&T parks in Canada have shovel-ready projects that can be mobilized over the next twelve months.**

In the three decades R&T parks have been established in Canada, the parks have leveraged various funding programs to support SEED investments needed to accelerate the growth of these innovation hubs. Regional development agencies such as ACOA, FedDev and WD have been key partners in most park development activities. While programs exist to support infrastructure such as CFI, Building Canada Fund (Innovation Component) and new programs currently under development by the federal government, the programs prohibit the parks from leveraging funding directly (developments must be sponsored by the municipal and provincial governments or academic institutions, which slows down the development process).

In addition to the need for a review of the policies for the various programs in order for the parks to directly access funding to support new digital and physical infrastructure, there is an opportunity to leverage existing national infrastructure. One example is the potential to align the evolving NRC mandate with that of AURP Canada and its parks. Both organizations have common goals and objectives and are co-located in various parks across the country (see Figure 3). **With the evolving mandate of NRC, there is an opportunity to further explore a partnership on innovation infrastructure** –

including shared spaces, merging of infrastructure assets and facilities and alignment for cluster and research focus.

Figure 3



5. THE ASK

AURP Canada has identified three projects to take place over a three-year period commencing April 1, 2018 to support the Federal Government and its innovation agenda (see Figure 4).

In Budget 2018, AURP Canada is seeking an investment of **$2.85 million from the federal government** to support these activities over the next three years. Additionally, AURP Canada is seeking support for digital and physical infrastructure policy development to ensure the growth and development of R&T parks and companies within them can be accelerated.

6. CONTACTS

We welcome the opportunity to review this discussion paper with you.

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PROJECT	DETAILS	SCOPE	ALIGNMENT WITH FEDERAL GOVERNMENT	STATUS	TIMELINES	2018	2019	2020
IP Matchmaking Program	A program to create greater connections between industry and academia to increase IP	Work with academic institutions in Canada through the park network to identity and catalogue IP.	ISED & Standing Committee on Industry	IP Discussion Presentation with INDU Committee June 12, 2017. Discussion Paper prepared and will be submitted by July 31, 2017	April 1, 2018 to March 31, 2021	$500,000	$500,000	$500,000
Soft Landing Exchange Program Development and Implementation	A program to support export expansion opportunities for Canadian companies in the European market.	Build program, support companies in exploring the European market.	International Trade	Working with European Union, Global Affairs and Fraunhofer to develop a program outline.	**Target Launch**: March 2, 2018. First Cohort: April 1, 2018	$300,000	$300,000	$300,000
Standards and Linkages Program	Coordination of the innovation support ecosystem to help measure and monitor progress, improve standardization, and create linkages between and outside of accelerators, incubators and research and technology parks in Canada.	Develop standardization. Conduct outreach. Catalogue information. Share with emerging accelerators, incubators and research parks.	ISED: CAIP Funding (potential renewal program)	ISED is working on a benchmarks and metrics platform. AURP Canada can assist in coordinating with participants and ISED to mobilize activities.	**Target:** April 1, 2018 to March 31, 2021	$150,000	$150,000	$150,000
Digital and Physical Infrastructure	Digital and physical infrastructure are a vital component of Canada's innovation ecosystem.	Funding path to be determined based on discussions with NRC and ISED.	NRC, ISED	Pilot projects with two R&T parks aligned with NRC campus locations. Shortlist Fall of 2017. Implementation first quarter of 2018.	**Target:** 2018	TBD	TBD	TBD
					TOTAL:	**$950,000**	**$950,000**	**$950,000**

Figure 4: **Summary of Proposed Projects for AURP Canada**

SCHEDULE A: SAMPLE R&T PARK PROGRAMMING

				AURP Canada Services																	
				Onsite access to support:											Links to:			Exporting Services:		
	Research Parks in Canada	AURP Canada Membership	Years in Operation (years)	IRAP	CECR	NCE	Testing & Prototyping Facilities	Laboratories	Tech Transfer Services	Accountants and Business Consulting	Web Design Services	Software Development Services	Marketing Services	Library Services	Trade Commissioner	Access to Concierge Service Program	Access to Building Canada Innovation	Part of the CANARIE/DAIR Program	Global Affairs Canada	Assistance in Linking to Global Markets	Other
WEST	Vancouver Island Technology		10-14					✓	✓					✓							
WEST	Discovery Parks Vancouver	✓	3-6				✓	✓	✓											✓	
WEST	Edmonton Research Park	✓	15+	✓			✓	✓													
WEST	Innovation Place	✓	15+	✓			✓	✓	✓	✓	✓	✓	✓					✓		✓	
WEST	Innovate Calgary		15+	✓			✓	✓	✓	✓				✓				✓		✓	
WEST	Manitoba's Smart Park	✓	10-14					✓		✓			✓								
ONTARIO	MaRS Discovery District	✓	10-14	✓			✓	✓		✓									✓	✓	
ONTARIO	David Johnston R+T Park	✓	10-14	✓	✓	✓		✓	✓					✓					✓	✓	
ONTARIO	McMaster Innovation Park	✓	1014	✓	✓		✓	✓	✓	✓	✓	✓	✓							✓	
ONTARIO	Innovation Park at Queen's University	✓	7-9	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓		✓		✓		✓	✓
ONTARIO	Kanata North Technology Park	✓	15+				✓	✓		✓	✓	✓	✓			✓	✓			✓	
ONTARIO	Western Research Parks	✓	15+	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓				✓	✓
ONTARIO	University of Guelph Research Park	✓	15+				✓	✓	✓	✓	✓	✓	✓								
EAST	Fredericton's Knowledge Park	✓	15+							✓						✓	✓	✓		✓	
EAST	Perennia Innovation Park	✓	15+				✓	✓												✓	

	Research Parks in Canada	AURP Canada Membership	Years in Operation (years)	Programs			
				Accelerator	Incubator	Mentorship	Coaching
WEST	Vancouver Island Technology	✓	10-14		✓	✓	
	Discovery Parks Vancouver	✓	3-6	✓	✓	✓	
	Edmonton Research Park	✓	15+		✓		
	Innovation Place	✓	15+		✓	✓	✓
	Innovate Calgary	✓	15+	✓	✓	✓	✓
	Manitoba's Smart Park		10-14		✓	✓	✓
ONTARIO	MaRS Discovery District	✓	10-14	✓	✓	✓	
	David Johnston R+T Park	✓	10-14	✓	✓	✓	✓
	McMaster Innovation Park	✓	10-14	✓	✓	✓	✓
	Innovation Park at Queen's University	✓	7-9	✓	✓	✓	✓
	Kanata North Technology Park	✓	15+	✓	✓	✓	✓
	Western Research Parks	✓	15+	✓	✓	✓	
	University of Guelph Research Park	✓	15+			✓	✓
EAST	Fredericton's Knowledge Park	✓	15+	✓	✓	✓	✓
	Perennia Innovation Park	✓	15+		✓	✓	✓

		Amenities																
		Space:							Food:			Transpo		Other:				
	Research Parks in Canada	Security	Reception/Admin support	Meeting Rooms	Video Conferencing	Property Management	Convention Space/Event Areas	Hotels	Food Court	Commercial Restaurant/Coffee Shop	Catering Services	Free Parking	Access by public transportation	Fitness Facilities	Daycare	Massage Therapy	Group benefits and insurance	Access to Lawyers
WEST	Vancouver Island Technology	✓	✓	✓	✓	✓	✓			✓	✓			✓				
	Discovery Parks Vancouver	✓		✓	✓		✓		✓	✓			✓	✓				
	Edmonton Research Park				✓													
	Innovation Place	✓	✓	✓		✓	✓			✓	✓		✓	✓		✓		✓
	Innovate Calgary	✓		✓	✓		✓			✓	✓		✓					
	Manitoba's Smart Park	✓		✓	✓		✓			✓	✓	✓	✓	✓	✓			
ONTARIO	MaRS Discovery District			✓	✓		✓	✓	✓	✓	✓		✓					
	David Johnston R+T Park		✓	✓	✓	✓	✓					✓	✓		✓			✓
	McMaster Innovation Park	✓	✓	✓	✓	✓	✓	*	✓	✓	✓	*	✓	✓				✓
	Innovation Park at Queen's University	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓			✓	✓
	Kanata North Technology Park	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Western Research Parks	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓
	University of Guelph Research Park				✓	✓	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓
EAST	Fredericton's Knowledge Park	✓	✓	✓	✓				✓			✓	✓	✓	✓			✓
	Perennia Innovation Park																	

		Social Activities			
	Research Parks in Canada	Networking Events	Connection to alumni networks	International S&T Events and Linkages	Seminars and Boot Camps on Entrepreneurship
WEST	Vancouver Island Technology	✓			✓
	Discovery Parks Vancouver	✓		✓	✓
	Edmonton Research Park	✓			✓
	Innovation Place	✓			✓
	Innovate Calgary	✓			✓
	Manitoba's Smart Park	✓			✓
ONTARIO	MaRS Discovery District	✓			✓
	David Johnston R+T Park	✓	✓	✓	✓
	McMaster Innovation Park	✓	✓	✓	✓
	Innovation Park at Queen's University	✓		✓	✓
	Kanata North Technology Park	✓		✓	✓
	Western Research Parks	✓		✓	✓
	University of Guelph Research Park	✓	✓	✓	✓
EAST	Fredericton's Knowledge Park	✓			✓
	Perennia Innovation Park	✓			

		Scaling Innovation					
	Research Parks in Canada	Export development programming	In-bound investment programming (e.g. Start-up Visa)	Education and Training	Networking	Match making	Intellectual Property Access
WEST	Vancouver Island Technology			✓	✓	✓	
	Discovery Parks Vancouver						
	Edmonton Research Park						
	Innovation Place	✓		✓	✓	✓	✓
	Innovate Calgary	✓	✓	✓	✓	✓	✓
	Manitoba's Smart Park			✓	✓	✓	
ONTARIO	MaRS Discovery District			✓	✓	✓	
	David Johnston R+T Park			✓	✓	✓	✓
	McMaster Innovation Park				✓	✓	✓
	Innovation Park at Queen's University			✓	✓	✓	✓
	Kanata North Technology Park			✓	✓	✓	✓
	Western Research Parks	✓	✓		✓	✓	✓
	University of Guelph Research Park		✓	✓	✓		
EAST	Fredericton's Knowledge Park	✓	✓	✓	✓	✓	
	Perennia Innovation Park						

		University Engagement						
	Research Parks in Canada	Land owned by university	Division of department at university	Separate entity of university	Tech transfer formalized agreement	Access to Laboratories and Libraries	Park Admin formal outreach to researchers	Program btw researchers and park companies
WEST	Vancouver Island Technology						✓	✓
	Discovery Parks Vancouver							
	Edmonton Research Park	-	-	-	-	-	-	-
	Innovation Place	✓		✓				
	Innovate Calgary				✓	✓		
	Manitoba's Smart Park	✓						
ONTARIO	MaRS Discovery District							
	David Johnston R+T Park	✓	✓					
	McMaster Innovation Park	✓		✓		✓		
	Innovation Park at Queen's University	✓	✓			✓	✓	✓
	Kanata North Technology Park	✓					✓	
	Western Research Parks	✓		✓		✓		✓
	University of Guelph Research Park	✓	✓			✓		✓
EAST	Fredericton's Knowledge Park	✓		✓				✓
	Perennia Innovation Park							