



AURP Canada: Budget Submission 2015

Research, Development, Innovation and Commercialization in Action

**Presentation to the House of Commons
Standing Committee on Finance**

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There are 1,400 companies in 26 research and technology parks in Canada. They **employ 65,000** people.

Canada's research and technology parks can help the government of Canada **increase national GDP by \$2.1 billion** per year.

EXECUTIVE SUMMARY

Canada's research and technology (R&T) parks are a vital component of a strong economy. They are well positioned to deliver greater economic value to Canada over the next five years than their current \$4.3 billion annual impact. The R&T parks can grow exponentially by leveraging strategic federal investment to accelerate economic growth. This will lead to significant economic outcomes for Canada, including a \$2.1-billion increase in total annual GDP and the creation of an additional 35,000 jobs.

In order to achieve these outcomes, R&T parks need to grow. We need to grow our infrastructure capacity and provide the right environment for the growth of small and medium enterprises who are active in research, development, innovation and commercialization.

Canadian R&T parks are locally-driven communities of innovation that link industry with government and academia. R&T park clients are among the most innovative and growth-oriented companies in Canada and an important source of job growth. These companies offer the best connections to academic institutions and the greatest insight on what is needed to drive applied research to market. The unique position of R&T parks provides the federal government with an opportunity to expand and build upon these key drivers for the Canadian economy.

Our membership is diverse and touches on every region and economic sector in Canada. Sectors of focus include biotechnology, life sciences, information and communications technology (ICT), electronics, energy, biochemical, environmental, and advanced manufacturing. Multinational companies located in the R&T parks include SAP, OpenText, Agfa, Agfa Healthcare, Schlumberger, IBM, GlaxoSmithKline, Roche, Syncrude, Thales, Bombardier, HP, and many others. Successful startups include Radian6, Valeant, HeadCount Corporation, Enflick, Teraxion, Ellisson Coating, and many others.

Canada's R&T parks are filling a gap in the ecosystem with an emphasis on export development, foreign direct investment (FDI) attraction and programming to help companies scale. In other words, we are trying to help companies within the parks get to the next level of commercialization. R&T parks fill a gap where other programming ends. With a network of 26 R&T parks throughout Canada, AURP Canada offers a national approach for programming and service delivery to the 1,400 companies that reside in the parks. With 75% of parks offering an accelerator or incubator as part of the park, we offer the full continuum of programming with infrastructure to support companies in both the early and later stages to ensure we maximize the long-term sustainable potential for new and expanding business ventures.

In order to achieve target economic outcomes (**increase GDP by \$2.1 billion and support 35,000 new jobs**), two components are needed: capital infrastructure investment and policy development.

The R&T parks propose the following recommendations for the federal government's consideration for the 2015 budget:

1. Establish an R&T Capital Infrastructure Fund – \$200 million (over five years).
2. Fund an Intellectual Property Matchmaking System Project Profile – \$1 million.
3. Review the taxation and regulatory framework as it applies to R&T parks.
4. Renew the Business Innovation Access Program (BIAP).
5. Integrate the R&T parks into Canada Global Markets Action Plan.

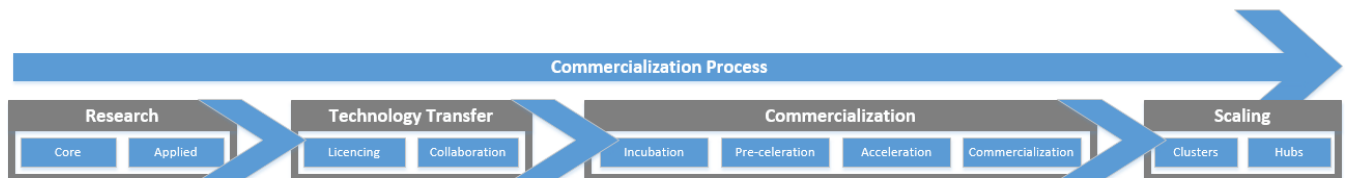
1. Budget 2015

The uncertain global economic environment and Canada’s negative trade balance represent a challenge and an opportunity for the Government of Canada to make strategic investments in research and innovation in this budget. The R&T parks can help Canada improve its global competitiveness and increase its access to global markets. From advanced manufacturing to new energy and environmental technologies, our members are at the forefront of the research and innovation agenda and are actively pursuing new investment in Canada.

2. Commercialization Process

The commercialization process consists of research, technology transfer, commercialization and scaling (see Figure 1). There are many organizations (mostly publicly-funded) that drive the early stages of the commercialization process. However, there are few groups focused on private-sector leveraging potential and scaling programming (after incubation and acceleration) to help grow sustainable enterprises.

Figure 1



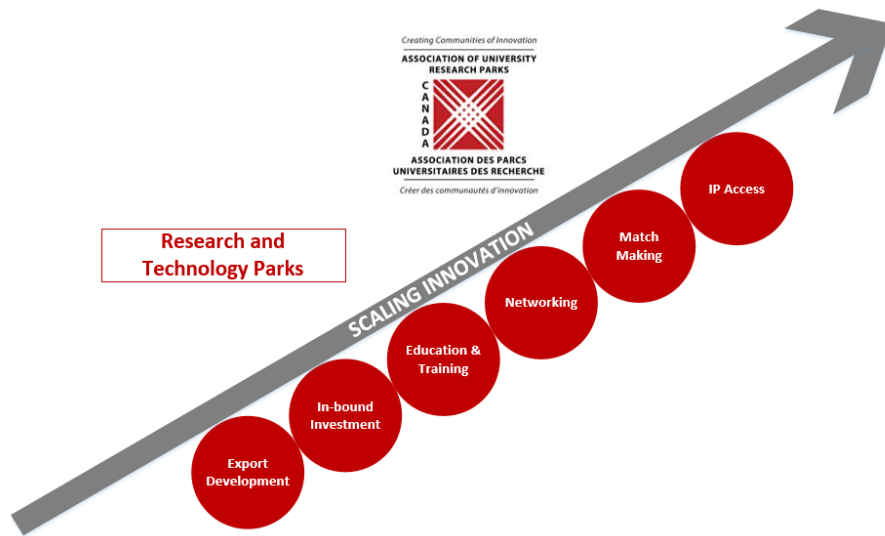
R&T parks play the greatest role in the scaling part of the commercialization process with their access to clusters, hubs and programs and services after incubation and acceleration activities are completed (see Figure 2). This follow-on programming provides a longer horizon for companies so they can grow more sustainable knowledge-based enterprises (**Please note**: not included in these diagrams are provincial and regional innovation intermediaries and enablers, who mostly provide support in the incubation, pre-acceleration and acceleration stages of the commercialization process).

Figure 2



Scaling programming under development and in the pilot phase within the R&T parks includes export development, in-bound investment, education and training, networking, matchmaking, and access to intellectual property (see Figure 3).

Figure 3



As previously noted, there are a number of innovation enablers supporting companies at various stages of the commercialization process. Figure 4 illustrates the positioning of these organizations within the commercialization process and their primary source of funds (public or private).

Figure 4



Supporting the growth and development of R&T parks will not only assist the parks and the 1,400 companies that reside in them, but it will also drive greater **productivity** among the national innovation enablers. By filling a gap in the ecosystem for follow-up scaling programming, it will provide a full continuum of support for companies supported by other innovation enablers in the earlier stages, increasing success rates and overall company sales, which ultimately results in an increase in total GDP and job creation. **Please note** that 75% of R&T parks house accelerators or incubators. Therefore, while the gap the R&T parks fill in the ecosystem is the scaling potential for companies, many R&T parks offer the full continuum of programming with infrastructure to support companies in both the early stage (through accelerators and incubators) and later stages (through graduation space and post-acceleration programming).

3. Canada’s R&T Parks

a) Economic Impact

There are 26 R&T parks in Canada housing approximately 1,400 companies. In May 2013, a national economic impact study was conducted on Canada’s R&T parks by PricewaterhouseCoopers. R&T parks were estimated to have a \$4.3-billion impact on annual GDP with 65,187 jobs across Canada (see Figure 5). By 2018, the impact is anticipated to increase to \$6.4 billion in annual GDP and almost 100,000 jobs. Strategic investment in the R&T parks can provide important economic results for Canada.

Figure 5

CURRENT	NEXT 5 YEARS
\$4.3 Billion in GDP	\$6.4 Billion in GDP
\$3.2 Billion in Salaries	\$4.8 Billion in Salaries
65,187 jobs	99,599 jobs
\$596 Million in tax revenue	\$903 Million in tax revenue

b) About the R&T Parks

Canadian R&T parks are locally-driven communities of innovation that link industry with government and academia. An R&T park typically has a master development plan, an incubation and/or acceleration centre, a collaboration agreement with an affiliated university, and a role in promoting technology-led economic development for the community or the region. They act as a tool that enables Canada to compete with the leading global economies.

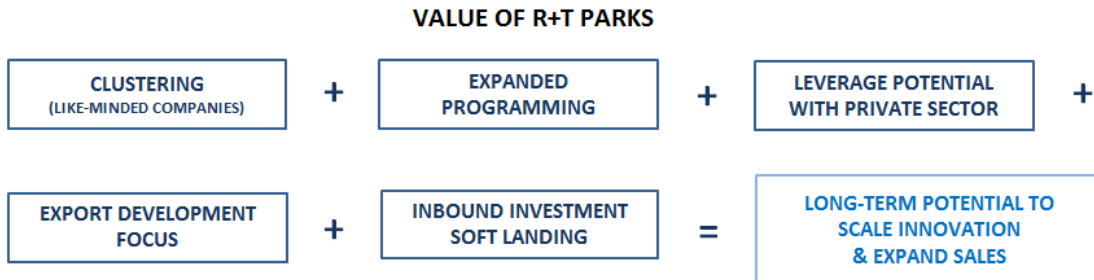
R&T park clients are among the most innovative and growth-oriented companies in Canada and an important source of job growth. Their unique position provides the federal government with an opportunity to expand and build upon this key economic driver for the Canadian economy. The location of R&T parks near universities means partner firms have regular opportunities to interact with faculty, research staff and students at Canada’s top universities involved in science, technology, engineering and mathematics. (See Figures 6 and 7 below for examples and illustration).

Figure 6

EXAMPLES OF R&T PARKS

PARK	LOCATION	KEY FEATURES
David Johnston R&T Park	Waterloo, ON	Strong startup community, significant multinational investment in the community (including OpenText, SAP, Agfa Healthcare)
Edmonton Research Park	Edmonton, AB	Biotechnology Business Development Centre
McMaster Innovation Park	Hamilton, ON	CANMET Materials lab, new automotive research centre
Bromont Science Park	Bromont, QC	Focused on advanced microelectronics and robotics
Knowledge Park	Fredericton, NB	Focused on ICT, with anchor tenants such as Salesforce.com, Skillsoft, CGI, and Siemens
Discovery Parks	Vancouver, BC	Two million square feet of tech buildings (including LEED Platinum) with more than 150 tenant firms

Figure 7



c) The Opportunity

In June 2014, AURP Canada conducted a survey of its members to confirm their activities and development plans over the next seven years. Growth plans identified by the R&T parks include:

- 92% plan to build new infrastructure.
- 56 new buildings.
- 3.4 million new square feet in construction.
- \$620 million in new construction.
- \$153 million of knowledge-based infrastructure not including core buildings.
- 500 new companies being targeted.

Programs and special projects as part of the development plans of the R&T parks over the next seven years include:

- New programs for immigrants.
- Wireless network and connectivity within the parks.
- New lab facilities.
- Open innovation spaces.
- New cluster development in the areas of:
 - advanced manufacturing, simulation training, green data, orthopedics research, environmental, clean energy and engineering
- Big data collaboration centre.

What is the return on these investments?

- Increase GDP by \$2.1 billion annually.
- Increase knowledge-based jobs by 35,000.
- Stimulate the economy with \$550 million in new construction over the next five years – with 67% leveraged through private sector institutions, organizations and groups.
- Inclusion of 1,400 private-sector companies through the park network for policy discussion and renewal will help to respond to the needs of industry and maximize the investment of the federal government for policy development and tax and regulatory systems.

4. Our Recommendations

1. R&T Capital Infrastructure Fund – up to \$200 Million Over Five Years

At present, there is no funding mechanism to enhance research and development (R&D) collaboration between businesses, universities, not-for-profit organizations and government in one common location. We are proposing new investment in capital infrastructure for local and regional R&D by creating a five-year \$200-million R&T Capital Infrastructure Fund. The purpose of the fund is to enhance existing R&T park infrastructure to increase private-sector R&D and attract domestic and foreign investment, leading to improved global competitiveness for Canada. The fund would provide investments of up to \$20 million per project for one-third of total project costs. Projects will be completed within five years. Given there are R&T parks in the Atlantic, Western, Ontario and Quebec regions, it is expected the investment will support projects in all regions across the country.

The return for this investment: Increase GDP by **\$2.1 billion annually**, increase the number of knowledge-based jobs by nearly **35,000**.

2. Intellectual Property Matchmaking Pilot Project (Scope Development) – \$1 million

In the spirit of the Memorandum of Understanding executed in 2014 between AURP Canada and CANARIE to drive greater linkages between academia and industry, AURP Canada proposes the development of an Intellectual Property Matchmaking Pilot Project for the 2015 fiscal budget period. This will include the necessary research with academia, industry and key stakeholders to identify what solution will drive greater opportunities for Canadian intellectual property development and maximize technology transfer and potential deal flow for industry. Development of the scope for this project will feed into the 2016 fiscal budget with the intent of executing a three-to-five-year system commencing in 2016. AURP Canada will work with CANARIE and a third-party proponent to conduct the research, scope the program, and manage the project.

The return for this investment: Develop a solution for the long-standing issue of intellectual property identification and capitalization, create greater linkages between academia and industry.

3. Review the taxation and regulatory framework as it applies to R&T Parks to increase R&D

Given the R&T parks collaborate between the private sector, post-secondary institutions, and all levels of government, the government may wish to review the potential for an improved taxation and regulatory framework for R&T parks to accelerate their growth.

4. Renew BIAP to encourage companies to work closer together through the R&T parks

The BIAP pilot program provided \$20 million to small and medium-sized enterprises to help them access business services or technical assistance at Canada's learning institutions and publicly-funded research organizations to bring bigger and better innovations to market faster. The program is beneficial for R&T park clients and companies looking to locate in R&T parks. AURP Canada supports renewal of the program.

5. Integrate the R&T Parks into Canada's Global Markets Action Plan

The Global Markets Action Plan and the Trade Commissioner Service form an important undertaking by the federal government to increase Canadian trade and FDI. As part of our FDI and export development programs, the R&T parks are seeking their integration into the action plan and the services for increased FDI in R&T parks and improved trade with our economic partners.
