

SUMMARY MEMO: CANADA25'S RESPONSE TO THE INNOVATION STRATEGY



Submission to Industry Canada's Innovation Secretariat, part 1 of 3

Submitted by Canada25
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Note: This memo is a summary response of Canada25's reactions and suggestions on the Innovation Strategy, highlighting the major areas of priority for the participants in Canada25 as outlined through our summer roundtables, national forum and the work of our innovation policy team. It also provides an overview of the activities Canada25 will undertake to move forward on its recommendations. For our specific response to the engagement kit and more information on our process, please contact us.

INTRODUCTION

Canada25 would like to thank Industry Canada for the opportunity to participate in the formation of the Innovation Strategy. In the apt words of the Government of Canada, innovation is everybody's business, and we agree that young Canadians have a particularly strong stake in ensuring that Canada continues to develop an environment that fosters innovation and leadership and enterprise.

Canada25 first advocated for the development of an innovative environment in its July 2001 report *A New Magnetic North: How Canada can Attract and Retain Young Talent*. Here, we argued that Canada needed to think broadly about innovation across all sectors of society: “*social innovation* to build a fair and equitable society; *economic innovation* to foster investment; policy innovation to solve the challenges of our demographic profile; and *cultural innovation* to strengthen our national pride,” and proposed initiatives on how this might happen.

In the year since the publication of that report, we have continued to engage young Canadians in debates on innovation, what it means, and how we can work to achieve a culture that begets challenging opportunities, and empowers individual Canadians to develop and utilize their skills and ideas. Our regional roundtables, national forum and virtual team brought together a diverse array of educated young Canadians who work in a broad number of industries and make their home in a variety of regions. In total, nearly 400 young Canadians participated in these processes, and by extension, to the ideas in this memo.

As a result of these conversations, three priority areas for action emerged. Under each action area, we have suggested several initiatives that could be undertaken by various stakeholders, including Canada25 itself. We conclude this memo by outlining the ways Canada25 will assist in developing and executing this strategy.

PRIORITIES FOR ACTION

Although we have highlighted a number of areas for action in our response to the *Achieving Excellence* paper, Canada25 believes that there are three major imperatives for Canada in the context of its innovation strategy. Specifically, we must focus on:

1. Developing a culture of innovation
2. Building a management class that can compete globally from a Canadian base
3. Elevating the role of our universities, and providing them the tools to succeed

Below we outline these three imperatives in more detail, and suggest specific initiatives that all sectors can take to meet our innovation targets, and succeed in the global knowledge economy.

1. Developing a culture of innovation

Across the country, young Canadians strongly believe that our traditional humility, both on a national and international stage, and our tendency to act cautiously presents one of the central challenges to successfully achieving the targets set out in Industry Canada's draft Innovation Strategy.

In fact, this was one of the key messages in our 2002 report, *A New Magnetic North*, where we defined a culture of innovation in the following way:

“A culture where all Canadians feel empowered to constantly find new methods of addressing and improving upon the challenges they face in their particular sphere of life, whether that be scientific research, business, politics, community affairs of any other realm. It also means that Canadians must feel confident that their communities will respect, support and promote ingenuity in its many facets. In short, we believe that Canada must strive to be a community of creative thinkers, one where new ideas and approaches are held in the highest regard.”

We need to develop a culture where our ability to generate ideas is second only to our ability to implement them, where we have a bias for risk and a healthy acceptance of failure, and a commitment to developing minds, not just skills. We need to invest in real networks between industry, universities and government, as well as among these institutions and individuals, and break down the traditional sectoral boundaries that have hindered innovation in the past.

More specifically, here are some initiatives that we believe will help instill a culture of innovation in Canadians:

- **Ensure a broad definition of innovation.** If innovation is only conceived and communicated as science and technology policy, we will lose the interest and commitment of the many Canadians who undertake leading-edge work in other industries and sectors. Ensuring the appropriate shift in mindset will require concentrated action across the country, and could be facilitated by:
 - a) Expanding grant eligibility under IRAP, or creating a new granting and/or recognition body, that supports non-science and technology innovation. For example, financial institutions who develop innovative debt financing mechanisms or derivative strategies that de-risk early stage investment could also be rewarded.
 - b) Creating ONE well-identified program that recognizes leading innovations in a number of fields, and celebrating the recipients nationally both through a ceremony, but also with strategic and financial support for their initiative so they can see their work implemented and rewarded in Canada.

- **Provide opportunities for cross-disciplinary experience.** Members of Canada25 recognize that innovation is impeded by the traditional and sometimes arbitrary structures in which we live and work (be it geographical boundaries, professional disciplines, institutions or sectors of society). In most respects, these structures serve us well, however, we need to do more to cross-fertilize ideas and experience. Creating and entrenching links to ensure mobility and idea-sharing among the people who work in our universities, public and private sectors will help create and nurture new ideas, and help break down existing silos. Some ways to formalize this could include:
 - a) Providing opportunities or incentives for private sector employees to take positions in related government departments for six-month to one-year terms (perhaps it could be rewarded as part of the promotion path), or developing exchanges between senior management in government and private sector. Similarly, leaders in on-the-ground social service delivery should develop similar programs with public servants working in the same area.
 - b) Increasing availability of interdisciplinary courses or exchanges in universities, and making these courses a mandatory part of graduation.
 - c) Increasing opportunities for internships or for meaningful summer employment for university students (e.g. internships in start-ups for engineers).

- **Educate Canadians with a better understanding of the risk and reward balance.** Government and industry must do a better job of explaining and highlighting the balance between risk and reward to all players in the innovation chain, including individuals, communities, corporations and government. By educating Canadians on what we have to gain in success (wealth, experience, notoriety) as well as in defeat (experience, leadership abilities, improved changes for success in the future) we can begin to instill support for innovation in our populace. Education efforts could include:
 - a) Increasing support for entrepreneurship programs at high schools and universities that allow students to start their own business and experience, first-hand, how the risk-reward balance works.
 - b) Showcasing individuals, communities and companies who have managed the risk-reward balance well.

2. Building a management class that can compete globally from a Canadian base

In order to truly develop a workforce that can carry out Canada's innovation challenge globally, we need a population that is skilled in starting, working in and leading internationally-oriented companies, and with the confidence and know-how to engage in entrepreneurial activity inside and outside existing companies and institutions.

Thinking internationally is increasingly recognized as a key skill successful managers must possess. Recent surveys indicate that business executives believe that an in-depth knowledge of the world, cross-cultural skills and a global perspective enable innovation and leadership. Growing up with terms like "borderless world" as part of everyday vocabulary, and being raised by immigrants or in classrooms with new and first-generation Canadians, many of today's young people embrace mobility and recognize the value of international experience, and are anxious to expand this knowledge, and apply it in their professional lives.

Equipping our workforce with the necessary skills to become Canada's next generation of innovation leaders is a challenge that needs to be addressed collectively by government, academia and industry, and embraced by individual Canadians. Achieving this vision requires us to:

- **Develop a managerial class skill set and a commitment to life-long learning.** Innovation requires continual upgrading of skills throughout one's lifetime and a willingness to learn and grow among a population. Ensuring access to continuous learning and development opportunities, both in our educational institutions

and on-the-job and providing exposure to mentors and leaders will be crucial determinants to Canada's success as an innovative economy. Specific ways to do this could include:

- a) Encouraging intergenerational learning. Young workers believe they have a lot to learn from an older person's mentorship, and often seek these opportunities when looking for a job. Tax incentives or company policies could support arrangements where experienced leaders could ease into part-time work, enabling resources and time to mentor a younger counterpart.
 - b) Rolling out programs like the Martin Walmsley Fellowship for Technological Entrepreneurship (offered by the Ontario Centres of Excellence) to facilitate cross-functional educational experiences, and provide graduate students with an opportunity to try and incorporate a company or patent, and turn their research into business.
 - c) Creating a seminar series as a forum for mentorship. This type of continuing education program would wed the benefits of a formal course curriculum, created by an educational institution, with the contribution of different Canadian leaders, sharing the learning from their experiences.
 - d) Considering increased tax concessions for employers sponsoring continuing education for their employees.
- **Encourage "brain circulation."** We need to eradicate the terms "brain drain" and "brain gain" from our collective vocabularies and determine how Canada can best benefit from "brain circulation" – ensuring that more Canadians get international experience and that the nation benefits from the skills and experience of expatriates. This means creating more incentives for Canadians to study abroad, and developing structures that capture the experience and ideas of Canadian leaders who live abroad. The government can help by:
- a) Ensuring international educational opportunities are made more widely accessible. Small grants of a few thousand dollars would help offset the costs for students wanting to study abroad to gain international experience and bring it back to Canada. Alternatively, an increase in the amount available under Canada Student Loans for students wishing to borrow to study abroad would also make this opportunity available to more students who may otherwise have difficulty securing the funding to do so.
 - b) Stepping up recruitment efforts abroad at institutions with large Canadian student populations so that those who have gained international experience are aware of opportunities to bring that education and experience back to Canada.

- c) **Building a Congress of Canadian World Leaders** composed of expatriates in top positions abroad. This board could serve as a senior advisory body to Canadian governments and businesses to aid international outreach, and provide direct input into policy, trade or investment strategies.

- **Change our perception of immigrants.** Canada is rightfully proud of its history of welcoming immigrants into its communities, and today's young Canadians feel very positive about diversity. There is discomfort, however, with the sentiment that immigrants should be glad to be in Canada, and more preferable is a shift to one where we see it as an honour that such talented people would chose Canada as their home, and are willing to commit ourselves to ensuring their experience is as positive as possible. Steps to make this a reality could include:
 - a) Developing international benchmarking programs to aid the recognition of international universities and awarded degrees, as well as immigrants' professional designations and skill sets. Professional associations or industry groups should produce aptitude test to gauge the skills of immigrants, and aid them in the search for employment if they are qualified, or quickly identify what qualifications they lack so they can get the education they need in a timely fashion.
 - b) Identifying sectors or regions where shortages of skilled workers are expected, and use these as inputs into international student recruitment and immigrant recruitment. These opportunities should be advertised to potential new Canadians, as they provide excellent mechanisms to communicate areas of specialized opportunity. This could be particularly powerful in Atlantic Canada, and was strongly supported by the participants from that region.
 - c) Expanding the role of the private sector and the community at large in integrating immigrants into the workforce. For example, professional associations and individual companies could successfully introduce mentoring programs to help new Canadians bridge the skills gap quickly. Young Canadians with immigrant parents are uniquely positioned to help immigrants with a similar background bridge the cultural gap.
 - d) Offering graduates of any university a one-year work permit to work in Canada, with options for renewal. This will bring young people to the country and provide opportunities for Canada and its citizens to build relationships with citizens of other countries.

3. Elevating the role of our universities, and providing them the tools to succeed

Great countries need great universities. Universities are one of the key resources in which we need to invest if we are going to achieve our innovation goals as they are uniquely placed, perhaps more than any other institution, to aid our ability to meet them.

Universities contribute to the innovation environment in many ways; specifically, they

- a) Attract diverse and talented people from across Canada and around the world
- b) Foster innovation through research and research commercialization
- c) Create opportunities for intellectual and cultural development, both through degree studies, continuing education and community involvement, and are the right environments to cultivate inter-disciplinary study

It is concerning that at a time when so much of our economic growth comes from knowledge that we do not give our universities the resources they need to compete globally. To ensure that we enable our educational institutions to achieve their full potential, and continue to provide internationally competitive and accessible educational opportunities for Canadians, we must:

- **Invest in networks between industry, academia, governments and other stakeholders.** To sustain innovative research and to assist in its application and commercialization, we need to develop more formalized networks among the various players involved. Although networks are easy to talk about, they can be difficult to build and sustain. Some ways to do so could include:
 - a) Supporting, both financially and through government networks, the infrastructure and programs designed to facilitate interaction among parties in the innovation process. One large-scale example of this would be the Medical and Related Discovery District (MARS) in downtown Toronto.
 - b) Launching a cross-sector research study into innovation and cluster development in the Canadian context so we can better understand how to characterize and measure their application into Canadian geographies, industries and communities. Much cluster theory is developed outside of Canada, so it is imperative that we understand how it is the same or different in our regional context.
 - c) Facilitating partnerships between universities and industry to expand lab space and provide other resources for

graduate students to help support an increased graduate class size. For instance, the University of Waterloo's engineering department has benefited greatly from the Bell University Labs.

- d) Developing an intermediary that ensures clear communication between employers and educational institutions in areas where there are inconsistencies in the supply of skilled labour (such as geographical regions where focused economic development is important). Such a study could help industry and academia work together to ensure the proper supply of skilled labour for the region. This could be something that local Boards of Trade or Chambers of Commerce could undertake, in partnership with local educational institutions, and consider rolling up into a national report.
- **Exploit opportunities for interdisciplinary, multicultural education.** Creative, critical thinkers are crucial to our economic and social success, and our universities offer untapped opportunities to increase the diversity of experiences students can have while there. This can be facilitated by:
 - a) Expanding inter-disciplinary course offerings (where engineering and business, for example, are combined and taught by professors from both departments) and consider making credits in these classes a mandatory part of graduation.
 - b) Encouraging international exposure and exchange. Earlier in this memo we spoke of the importance of making international exchange accessible to more students. In the same way, we should increase international student recruitment (as many schools are already doing). Canadian universities offer an affordable, high quality North American education, and we can only benefit from bringing more international students to Canada. Foreign student recruitment would be aided by including Canada's top schools and departments in international rankings.
 - c) Bringing national and global leaders to our institutions for short bursts, be it to host an evening lecture, act as a scholar-in-residence, teach one course, or open a new building. Costs of this could be offset by a joint government/university/private sector grant. Providing exposure to leading thinkers and actors will help bring the world to Canada, and expose students to new ideas, perspectives, and potential mentoring opportunities.

- **Ensure availability of adequate resources so that universities can maintain their high standards of education.** It cannot be said enough times that our educational institutions require more financial support. The federal government can take the lead in several areas by:
 - a) Contemplating using large amounts of the infrastructure fund to support university innovation and service infrastructure (both laboratories and other classroom and facility requirements).
 - b) Displaying the public leadership that strives to conceptualize health care and education as crucial investments in our economy and society, rather than cost centres competing in the next budgetary round.
 - c) Creating, in partnership with the provinces and the universities, a strategic plan for the sector that integrates federal and provincial roles, and reduces funding uncertainty. This sends a strong message to researchers and citizens that we are committed to our universities.
 - d) Developing incentives to increase philanthropy to educational institutions, such as matching programs, or making charitable receipts for educational donations on par with those for political parties. Strong private sector support is required, both from individuals as well as corporations, as we cannot depend only on government and increased tuition to fund our institutions.
 - e) Providing increased resources to our graduate students (for example, we could establish “Graduate Student Hiring Grants” to enable young, up-and-coming professors to award fellowships to leading graduate students who may otherwise be unwilling to take a risk with a young professor, enabling our new academics to accelerate their careers, and in turn, the research opportunities they can offer.)
 - f) Addressing the issue of growing and sometimes excessive student debt at the undergraduate level as a means of getting more talented students to enter into graduate studies.

CANADA25’S COMMITMENT MOVING FORWARD

Like all groups in Canada interested in ensuring our country’s success in its innovation objectives, much work lies ahead for Canada25. Although we have used the engagement template to outline several areas where we would play a facilitating role in the implementation of this strategy, either with government or with other stakeholders, there are a few specific areas where Canada25 has

already begun to mobilize, areas that we believe will help pave the way forward in our areas of priority:

1. **Building innovative cities:** We are currently finalizing the recommendations from our summer research into how Canadian cities can attract talent and promote development. In addition to communicating these ideas to various stakeholders across the country, our local chapters will be determining the specific initiatives they will undertake to move forward on their recommendations in their hometowns. This will no doubt help in the achievement of Industry Canada's commitment to strengthening communities.
2. **Continuing the work of our innovation policy stream:** Not only will Canada25 remain engaged in the development of the Innovation Strategy through our work with HRDC, but our innovation team will also solicit broader feedback on this submission through its membership. Additionally, the innovation team will work with our national and chapter leadership to determine which priority areas and initiatives it will pursue, in conjunction with our cities work. Finally, we will continue to build on and communicate our ideas through articles and presentations, both within our membership, as well as in larger forums (such as the upcoming TD Forum on Canada's Standard of Living).
3. **Developing other policy streams of relevance:** In addition to its work on cities and innovation, Canada25 has plans to expand to focus on three to four policy streams on an ongoing basis, rather than holding an annual policy forum on one topic. This will involve ongoing idea generation, reaction to existing policy, and the development and implementation of initiatives that enable young Canadians to help create the sort of policy environment and communities that they hope for. While we are still deciding our specific focus, some topics will surely be relevant to the innovation agenda (e.g. under consultation with our members is a focus on "Canada and the World" which might help us in the development of image strategies and the setting of international policy focus, among other things.)
4. **Demonstrating active commitment to creating interdisciplinary opportunities:** Through our chapters and policy work, we will continue to bring together young Canadians from different professional and geographic backgrounds to work together on issues of shared concern. One of the objectives of Canada25 is to bring together young Canadians who are interested in Canada and its public development early in their lives, provide them with a shared experience, and empower them to think about their country and the role they play in its development regardless of the career they ultimately choose (be it inside or outside of government). This has the potential for long-term impact, as the young Canadians who

participate in Canada25 will gain the skills to bring a broader perspective to their own experiences, and the friends and contacts in different sectors and industries, and in different areas of the country and around the world, to facilitate the implementation of new ideas and initiatives.

5. **Continuing a willingness to work with government and other stakeholders** to provide feedback on any other areas of concern, to develop strategies for any of the ideas in our submission, or in the submission of others where our assistance could be helpful.

CONCLUSION

Since the publication of *A New Magnetic North* in July 2001, Canada25 has been committed to working with government, industry and other stakeholders to ensure that Canada becomes a more innovative economy, capable of capturing the opportunities available to us in the 21st century. Ensuring that we develop a broad culture of innovation that transcends all sectors of society, that we mentor and support the individuals who will ensure we remain active and competitive on the global stage, and that we enhance the role of our universities to enable them to reach their full potential are all inter-related objectives, and ones that will require a contentious commitment from all sectors of Canadian society to achieve.

We are optimistic about our potential to reach our collective goals. Canada25 remains dedicated to moving ahead on its recommendations, and on continuing to build its organization so that young Canadians remain involved in the development and implementation of important policy decisions, and in the shaping of their communities and their country. We would ask for and welcome any feedback, comments or questions at any time, and look forward to working with you and with other stakeholders in the future.

Footnote: What is Canada25?

Canada25 is a non-partisan organization with the vision of promoting a new definition of citizenship and the role of young Canadians in the development of Canada. We work to engage young Canadians living around the world in Canada's public policy debates. We hope to become an even stronger voice that encourages young people to share their concerns and propose solutions, and one that sparks new ideas and debate among Canada's leaders, business people, academics and citizens.

In the spring and summer of 2001, Canada25 convened a group of young Canadians to develop perspectives on how Canada can attract and retain young talent. The results of the delegates' work, published in July 2001 in a report entitled "*A New Magnetic North: How Canada can Attract and Retain Young Talent*," address the issue from a variety of sectors, including research and academia, arts, entrepreneurs, health, business, teaching and the public and voluntary sectors. The primary recommendations in this report surrounded the need for Canada to develop a culture of innovation that transcends all facets of our lives.

The interest generated from this report, both among young Canadians and from other stakeholders, has enabled Canada25 to engage in a number of activities, four of which contributed to the completion of this submission. The first was an attitude and opinion survey aimed at young Canadians to better understand their perspectives on Canada, its cities and their innovation potential; the second was a series of regional roundtables held across Canada and the US on how our cities can be better economic development engines and more vibrant places to live; the third was a national forum, held in Victoria, BC in late July, which summarized the roundtable work; and finally, Canada25's innovation policy team, which provided specific reactions and conducted more targeted research into Industry Canada's draft Innovation Paper.

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