Minister of Innovation, Science and Economic Development



Ministre de l'Innovation, des Sciences et du Développement économique

Ottawa, Canada K1A 0H5

Mr. Charles Robert Clerk of the House of Commons Room 229-N, Centre Block House of Commons Ottawa, Ontario K1A 0A6

Dear Mr. Robert:

Pursuant to Standing Order 109 of the House of Commons, please find enclosed, in both official languages, two copies of the Government Response to the Standing Committee on Industry, Science and Technology's report entitled *Intellectual Property and Technology Transfer: Promoting Best Practices*.

This response should be referred to the Standing Committee on Industry, Science and Technology.

Sincerely,

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The Honourable Navdeep Bains, P.C., M.P.

Enclosures



Minister of Innovation, Science and Economic Development



Ministre de l'Innovation, des Sciences et du Développement économique

Ottawa, Canada K1A 0H5

Mr. Dan Ruimy, M.P.
Chair
Standing Committee on Industry, Science and Technology
131 Queen Street, 6th Floor
House of Commons
Ottawa, Ontario K1A 0A6

Dear Colleague:

Pursuant to Standing Order 109 of the House of Commons, I am very pleased to respond, on behalf of the Government of Canada, to the recommendations made by the Standing Committee on Industry, Science and Technology in its report entitled *Intellectual Property and Technology Transfer: Promoting Best Practices*, tabled in the House of Commons on November 23, 2017.

The government extends its thanks to the members of the Standing Committee for their careful study of this very important subject and the clarity with which the Committee's findings have been expressed. The government also wishes to thank the many Canadians who appeared as witnesses before the Committee or submitted briefs to it. Good policy is built from sound evidence and the government is fortunate to have the benefit of such considered insights drawn from the worlds of academe, business, and the civil service. These insights will be invaluable as the government continues its work to support innovation in Canada.

Canada can be proud of its world-leading scientists, engineers, innovators, and inventors. The government is committed to supporting these women and men in their important work and continues to invest in science and research. We appreciate the importance of transferring innovation from our post-secondary institutions to Canadian businesses. Technology transfer is a collaborative and mutually beneficial process, founded on partnerships, that brings together industry, post-secondary institutions (including students), small and medium-sized enterprises, and entrepreneurs. To further support this important collaboration, a number of significant initiatives, including the Innovation Superclusters Initiative, have recently been launched. The government also



recognizes the fundamental role played by the intellectual property (IP) system in encouraging and supporting innovation. From working to implement global IP treaties to providing IP agent-client privilege, Canada has taken significant steps in recent years to ensure that our IP system remains modern and effective. As part of these ongoing efforts, the government is actively examining new ways to ensure that our IP system supports technology transfer from our post-secondary institutions to the private sector. The government looks forward to building on the Committee's helpful recommendations in this regard, including as part of the upcoming National Intellectual Property Strategy, the development of which was announced in Budget 2017.

Please accept my best wishes.

Sincerely,

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The Honourable Navdeep Bains, P.C., M.P.

Enclosure

GOVERNMENT RESPONSE TO THE EIGHTH REPORT OF THE OF THE STANDING COMMITTEE ON INDUSTRY, SCIENCE AND TECHNOLOGY: INTELLECTUAL PROPERTY AND TECHNOLOGY TRANSFER: PROMOTING BEST PRACTICES

INTRODUCTION

Canada's universities and colleges are thriving centres of innovation, led by scientists, engineers, and researchers working in the vanguard of their fields. From artificial intelligence to biomedical research to next generation telecommunications (to name but a few), our post-secondary institutions are developing tomorrow's technologies today. While knowledge and technology transfer between post-secondary institutions and industry is occurring at an increasing rate, there is room to do even more and help transform promising ideas into successful Canadian businesses.

The Government has carefully studied the Committee's report and its list of recommendations. As the Committee notes, technology transfer offices and the businesses that stand to benefit from access to the intellectual property (IP), talent, and expertise existing in post-secondary institutions have sometimes struggled to identify opportunities and to effectively exploit opportunities that do arise. This aligns with what the Government has heard from a range of stakeholders in consultations undertaken as a result of the announcement in Budget 2017 to develop a National Intellectual Property Strategy (IP Strategy) to ensure that Canadian firms have the awareness and incentive to strategically use IP to grow and compete. Specific needs around technology transfer are being considered as part of this larger initiative.

As the Committee's Report makes clear, there are a number of factors contributing to lower rates of technology transfer in Canada. Given the multifaceted nature of the problem, improving outcomes will require concerted effort on a number of fronts. Some of these efforts will fall to our provincial partners, who have jurisdiction over post-secondary institutions. Other efforts will fall to the private sector, which will ultimately have to decide whether to engage in technology transfer and on what terms. While recognizing these roles, there are further things the federal government can do to help support technology transfer. Much of this work is already underway and is described in the following pages. Other initiatives, such as the IP Strategy, are in development and will help further address concerns raised in the Report. The Government looks forward to unveiling these initiatives in the near future. In the interim, the Government is pleased to provide the following responses to the Committee's recommendations.

Recommendations 1 and 2:

"The Committee recommends that the Government of Canada require Statistics Canada to develop — in collaboration with a wide range of experts and stakeholders such as the

Canadian Intellectual Property Office, the Intellectual Property Institute of Canada, and the Association of University Technology Managers — a new set of indicators in order to provide comprehensive information on technology transfer between post-secondary institutions and the private sector."

"The Committee recommends that the Government of Canada require Statistics Canada to launch an annual survey on technology transfers between post-secondary institutions and the private sector based on the new indicators. The disclosure of the indicators could be made mandatory or incentivized."

Response:

The Government recognizes the importance of ensuring efficient technology transfer from postsecondary institutions to the private sector. Post-secondary institutions are an important part of the Canadian innovation ecosystem and strong co-operation between industries, universities, colleges, and other public research organizations is essential to make Canada a world-leading centre for innovation.

The Government of Canada agrees that the indicators used to assess the success of technology transfer in post-secondary institutions—number of invention disclosures, patents, licenses, start-ups, licensing revenue—might need to be broadened to adequately measure technology transfer. Further, these measures often undervalue or ignore the important contributions of Canadian colleges to technology transfer, as they typically do not seek to own the IP developed through their collaborations with industry. Indeed, in 2016-2017, Innovation, Science and Economic Development Canada (ISED) undertook a survey of nearly 80 Canadian university and college technology transfer and business liaison offices that included questions on how these offices are assessing their technology transfer activities. Results showed a marked difference between post-secondary institutions, with universities more likely to focus on number of patents and licenses, as well as start-ups created, and colleges more likely to focus on connecting students to outside partners and the number of external clients served.

The Government also recognizes the importance of engaging with key stakeholders and subject matter and technical experts in developing and collecting comprehensive information on technology transfer between post-secondary institutions and the private sector. Statistics Canada is recognized as a world-leading statistical office and has a long-standing history of putting in place consultation processes to inform its statistical programs and has an extensive network of advisory committees to support its work.

To this end, the Government will ask Statistics Canada to work with key stakeholders to determine the best means of developing and collecting a broad set of quality data on technology transfer from post-secondary institutions to the private sector. As part of this

assessment, Statistics Canada will actively reach out to the post-secondary community, in particular the Association of University Technology Managers (AUTM), the Canadian universities' technology transfer offices, and Universities Canada. As well, it will engage with the intellectual property community, in particular the Canadian Intellectual Property Office (CIPO) and Intellectual Property Institute of Canada (IPIC), and key departments and agencies such as ISED, the National Research Council (NRC), the Social Sciences and Humanities Research Council (SSHRC), the Natural Sciences and Engineering Research Council (NSERC), and the Canadian Institutes of Health Research (CIHR). Statistics Canada has a strong relationship with these stakeholders in collecting key information on research and development expenditures and more recently in resuming data collection of the University and College Academic Staff System (UCASS).

The Government is currently engaging with technology transfer stakeholders, including AUTM, to explore possible options for devising appropriate metrics for technology transfer in the current Canadian context. From such discussions, AUTM agreed to host a special workshop on effective metrics for technology transfer at the next Canadian AUTM meeting, scheduled to take place in Halifax, Nova Scotia on June 25-27, 2018. This workshop will form a basis for further co-development of an appropriate set of metrics with Statistics Canada, AUTM, Tech-Access Canada, the IP community, university and college representatives, and other key federal government departments and agencies.

Finally, ISED is also engaging with Tech-Access Canada to undertake a case study in 2018 focused on NSERC-funded Technology Access Centres, to be reported in the Organization for Economic Cooperation and Development (OECD) project, *Assessing the Impacts of Knowledge Transfer and Policy*.

We are confident that this approach will allow the Government to find the most appropriate way to collect this important data and develop broad new indicators on technology transfer, either through federal means or through partnerships with appropriate stakeholders.

Recommendation 3:

"The Committee recommends that the Government of Canada facilitate access to information relevant to technology transfer for Canadian small and medium enterprises in order to promote collaborations between post-secondary institutions and the private sector, notably for the purpose of the commercialization of academic research."

Response:

The Government agrees with the Committee's recommendation and is working on a number of fronts to ensure that small and medium enterprises have access to the information needed to

collaborate more effectively with post-secondary institutions and to commercialize academic research. These efforts must begin by helping small and medium enterprises become more knowledgeable about IP and how it can be leveraged to drive growth. Similarly, technology transfer offices must find ways to more effectively and efficiently work with businesses that might be dissuaded by prolonged and costly negotiations. The Government is currently considering a number of ways it can assist in this regard.

The Canadian Intellectual Property Office (CIPO) is already playing an important role in facilitating access to information relevant to technology transfer. CIPO, through its IP Awareness and Education program, has developed a number of products and services delivered to Canadian businesses and post-secondary institutions. These products, which include case studies and commercialization tools, equip post-secondary institutions and small and medium enterprises to better leverage IP rights to open the door to new business partnerships and create opportunities for growth and new investments.

Recommendation 4:

"The Committee recommends that the Government of Canada establish and promote a database of intellectual property assets held by post-secondary institutions."

Response:

The Government believes there may be benefit to establishing and promoting a database of intellectual property assets held by post-secondary institutions and is currently evaluating the feasibility and likely benefits of such an initiative. Inclusion of other public sector intellectual property in such a database is also being contemplated. Voluntary online IP marketplaces established by Australia and Denmark have been examined with a view to establishing best practices. The goal is to determine whether a cost-effective system that supplements, rather than supplants, existing efforts to commercialize these resources can be developed. This work is ongoing.

Recommendation 5:

"The Committee recommends that the Government of Canada consider launching a pilot program designed to provide small businesses access to strategic intellectual property advice."

Response:

The Government believes that small businesses benefit from access to strategic intellectual property advice. Intellectual property strategies can help drive growth by ensuring that decisions around IP protection and commercialization are fully integrated into broader business

plans. There is a role for Government to play in helping firms access strategic intellectual property advice and CIPO has developed a suite of programs in this regard.

CIPO's IP Awareness and Education program supports the innovation system and the needs of small businesses. As part of this program, CIPO offers seminars, case studies and IP tools on a variety of topics, including on IP strategy. In partnership with leading Canadian business associations, CIPO has developed an IP strategy seminar that highlights how Canadian businesses can strategically use their IP to benefit their company. CIPO plans to enhance this seminar with additional IP strategy offerings, including an online IP strategy tool.

CIPO has a small team of IP advisors across the country who deliver CIPO's IP Awareness and Education programming and connect with innovators and businesses in sectors and regions that are known to be hotbeds of innovation. These IP advisors act as a source of information about IP for small and medium enterprises and entrepreneurs. Whether at events across Canada or by booking an appointment, CIPO's IP Advisors can assist small businesses in better understanding the value of IP and discuss strategic IP considerations.

Beyond CIPO's efforts, the Government is looking at other ways to directly support businesses with their IP needs but recognizes that some types of advice are best delivered by the private sector. This advice is available but is often expensive, particularly for start-ups or firms with limited resources. To help small businesses access advice, the Government has reviewed existing programs for business to ensure that IP costs (including the cost of strategic IP advice) are an eligible expense. In most cases, IP costs were already an eligible expense in existing programs but evidence suggests that available funding is often spent on other priorities. This may change as businesses become more educated about the importance of intellectual property. Fostered collaborations between smaller companies and more sophisticated larger entities, such as those within the Innovation Superclusters Initiative, may help in this regard. The Government is also, in developing the IP Strategy, exploring other means of supporting small businesses to give due attention to IP considerations.

Recommendation 6:

"The Committee recommends that the Government of Canada study the opportunity to renew and expand funding allocated to programs supporting technology transfers between post-secondary institutions, (universities, colleges and polytechnics), and Canadian enterprises. This should include the possibility of renewing financing for the Intellectual Property Mobilization program."

Response:

The Government of Canada agrees with the Committee's recommendation to find and pursue increasingly more effective ways to support the partnerships between post-secondary institutions and Canadian enterprises that make for successful technology transfer. As such, we are engaging with stakeholders to identify and examine opportunities to increase the frequency and impact of these relationships.

The federal granting agencies manage a number of programs that connect industry with cutting-edge research and talent, including the Engage Grants and Idea to Innovation (I2I) Grants, as well as the Networks of Centres of Excellence (specifically the Business-Led Networks of Centres of Excellence and the Centres of Excellence for Commercialization and Research). Recognizing that the focus of colleges on industry-relevant applied research makes them a particularly attractive partner to small and medium enterprises, a number of grants are offered in support of college-industry collaboration. These include the Innovation Enhancement Grants and the Technology Access Centre (TAC) Grants, both of which are delivered through the NSERC-managed College and Community Innovation Program. As such, government programing recognizes the distinct roles both universities and colleges play in the innovation ecosystem.

Along with different approaches to research, it should be noted that approaches to intellectual property ownership differ between the college and university sectors, as well as between institutions in each sector. Despite an international trend toward institutional ownership policies, there remains no clear evidence that any one ownership model consistently leads to better outcomes. Each approach presents a mix of potential strengths and weaknesses which can be strongly influenced by institutional culture and other resources available within the community.

In 2016, the industry-driven collaborative research and development programing at NSERC was evaluated and found to have significant positive impacts on the competitiveness and productivity of industrial partners, including access to new markets. Technology Transfer Offices (TTOs) at universities and Research Offices at colleges play a vital role in linking research expertise to Canadian enterprises. While this sometimes means executing licenses with companies, the predominant technology transfer mechanism they support is via collaborative research projects. Companies often use NSERC partnership program projects to advance their technology readiness. At the start of the project, their technologies are typically at Technology Readiness Level (TRL) 3, while after the project they have advanced past TRL 5. Company personnel are actively involved in discussions to plan and conduct the funded project. They provide facilities for the academic research team, and often receive training from the researchers. Roughly one in five partnering companies hires students involved in the funded project.

One of NSERC's most popular programs for connecting SMEs and post-secondary institutions is Engage. On May 1, 2017, the Social Sciences and Humanities Research Council (SSHRC) launched its own version of the program, Partnership Engage Grants. The program, which supports one-year partnership projects from \$7000 up to \$25,000 between universities and Canadian partner organizations, including firms, will have four intakes annually, the first of which took place in November 2017. NSERC also offers Idea to Innovation (I2I) grants that support the commercialization of academic inventions, including funding support for filing patents. Its College grants (Innovation Enhancement, Applied R&D, College Engage, and Technology Access Centres) also allow funds to be used for a variety of technology transfer expenses. Going forward, any actions related to business innovation programs will be informed by the results of the horizontal review of federal business innovation and clean technology programs announced in Budget 2017. The aim of the review is the simplification of related programming so that it is more effective and client-centric.

The principal way in which the Government helps to fund the costs associated with technology transfer between post-secondary institutions and enterprises is through the Research Support Fund (RSF), formerly known as the Indirect Costs Program. The RSF assists Canadian post-secondary institutions with the costs associated with managing their research enterprise, helping them to maintain a world-class research environment. One of the five categories of eligible expenditures is "Intellectual property and knowledge mobilization" and includes support for technology transfer offices, patent applications, technology licensing, administration of partnership agreements with industry, development of incubators, support for the creation of spin-off companies, and knowledge transfer tools, activities and outreach that are not eligible for funding under other federal programs. Based on data reported in the *Tenth-year Evaluation of the Indirect Costs Program* (2014), from 2008-09 to 2011-12, on average, the institutions funded by the program used 5% of their grants for intellectual property (or \$67 million over the four year period).The Government is continuing to closely examine the recommendations of Canada's Fundamental Science Review, which included a recommendation to gradually increase funding to the RSF.

The Government of Canada also acknowledges the Committee's important recognition of the value of such initiatives as the U.S. Small Business Innovation Research (SBIR) program. Announced in Budget 2017 and launched on December 14, 2017, Innovative Solutions Canada is a new program, inspired by the SBIR program, with over \$100 million dedicated to supporting the scale up and growth of Canada's innovators and entrepreneurs by having the federal government act as a first customer. Twenty participating federal departments and agencies will set aside a portion of funding to support the creation of innovative solutions by Canadian small businesses. Participating federal departments and agencies will issue public challenges designed around a desired outcome, rather than a known product or process specification, and

will be based on each department's mission and mandate. By funding proposed solutions, the program is supporting the development of early-stage, pre-commercial innovations. Program objectives include fostering greater industry-research collaboration and growing Canadian companies through support of early stage, pre-commercial research and development, late stage prototypes and accelerating commercialization.

Recommendation 7:

"The Committee recommends that the Government of Canada investigate new ways to support entrepreneurs and Canadian enterprises engaging in technology transfer activities with post-secondary institutions."

Response:

The Government is looking at new ways to support entrepreneurs and businesses in accessing intellectual property residing in post-secondary institutions. Previously described efforts to increase visibility of available post-secondary IP, to increase IP savviness in post-secondary institutions and small and medium enterprises, and to facilitate access to IP advice will all help support entrepreneurs in engaging in technology transfer activities.

Beyond these measures, the Government has launched a number of major initiatives that will support technology transfer between post-secondary institutions and the private sector. The \$1.26 billion Strategic Innovation Fund will help support entrepreneurs and Canadian enterprises engaged in technology transfer. One of the Fund's four streams is specifically directed to fostering collaboration between academia, non-profit organizations, and the private sector.

Similarly, the \$950 million Innovation Superclusters Initiative brings together SMEs and postsecondary institutions (along with larger, established firms) to spur innovation, generate new companies, and commercialize new products, processes and services. IP considerations are fully woven into the Initiative and applicants were required to submit an IP strategy that will support effective collaboration and commercialization. Technology transfer arising from the initiative will provide a valuable model going forward, both for firms benefitting under the program and firms looking to emulate successes under the program.

The Government will monitor outcomes from these initiatives and will look to build on successes to further support technology transfer activities.

Recommendation 8:

"The Committee recommends that the Government of Canada provide funding to promote formal collaborations between bridging organizations and the private sector. This could

include funding to proactively promote post-secondary institution technology and know-how to Canadian enterprises."

Response:

The Government recognizes the value in promoting formal collaborations between bridging organizations and the private sector. Further, the Government agrees with the Committee that encouraging the transfer of technology, talent, and expertise from post-secondary institutions to Canadian enterprises is an appropriate mechanism for increasing these collaborations. As such, there are several existing government programs available to bridging organizations, and that promote knowledge transfer from post-secondary institutions to the private sector. Those most directly related to advancing the collaboration desired through this recommendation by the Committee are those facilitated by NSERC, SSHRC, the Networks of Centres of Excellence (NCE) program, the Industrial Research Assistance Program (IRAP), and, in some instances, regional agencies.

NSERC provides funding directly to two types of bridging organizations: Technology Access Centres (TACs) and the tri-agency Centres of Excellence for Commercialization and Research (CECR), through the NCE Program. Additional tri-agency support for promoting formal collaborations is available through SSHRC. Six SSHRC funding opportunities can be accessed by bridging organizations that are classified as not-for-profits. These programs include: Partnership Grants, Partnership Development Grants, Partnership Engage Grants, Connection Grants, Knowledge Synthesis Grants, and the Research Support Fund.

TACs are specialized R&D centres affiliated with a Canadian college or cégep applied research office that helps local industry, especially SMEs, advance their products and processes. TACs focus on a specific technology area, typically based on regional needs or the research specialisation of the college with which it is associated. Services offered by TACs include: conducting research and development projects focused on company problems; offering specialized technical services and advice; and providing companies with training related to new types of equipment and processes. For example, researchers at the Food Innovation Research Studio (FIRSt) TAC at George Brown College worked with Nona Vegan Foods to increase the shelf life of Nona's Alfredo sauce, opening the door for bigger retailer contracts. TACs also connect companies to additional sources of advice, service, expertise and funding. The TAC grants are one of eight types of grants delivered through the NSERC-managed College and Community Innovation (CCI) program. In 2016, NSERC allocated \$7.2 million in funding for TAC grants as part of the CCI program core funding. The number of TACs has increased from 8 in 2010 (when the program launched) to 30 across Canada at present.

Programming geared towards advancing knowledge transfer and collaboration between postsecondary institutions and private sector organizations is also being addressed by the NCE Secretariat, notably through its CECR and Business-Led NCE (BL-NCE) programs. The Networks and Centres funded through the NCE programs engage in a range of research and development and commercialization activities, and also involve the training of students, technology transfer, and providing general assistance to SMEs. In 2016-17 alone, approximately \$29 million in funding was allocated to the CECR program, and \$11 million to the BL-NCE program. Over the last five fiscal years the two programs have been funded over \$185 million, and have leveraged over \$697 million in partner support. One example of success is the LOOKNorth CECR, which has advanced 34 technologies along the TRL continuum and commercialized 21 Canadian remote sensing products and services.

Run under the NRC, IRAP promotes greater technological collaboration between postsecondary institutions and Canadian SMEs through its Contribution to Organizations (CTO) program, which provides funding to institutions to aid in the development and provision of targeted research services that can be accessed by SMEs. Canadian post-secondary institutions are particularly important to the CTO, making up 21% of the organizations that have received IRAP funding in the last five fiscal years. As one example, in 2016-17 IRAP funded Niagara College Business School's Pi-Lab capacity to engage SMEs, provide business consulting services, and transfer relevant knowledge to SMEs' employees and the learning community.

Springboard Atlantic, to whom Atlantic Canada Opportunities Agency provided funding of \$9.2 million over 3 years on January 26 2017, is a non-profit network that helps 19 universities and colleges in Atlantic Canada transfer both knowledge and technology to the private sector. Springboard Atlantic connects entrepreneurs with researchers so ideas can be transformed into products and services that can be brought to market.

The Government will continue to promote collaboration between bridging organizations and the private sector as is advised by the Committee through this recommendation, including providing ongoing support for successful programming already underway. Actions will be informed by the results of the horizontal review of federal business innovation and clean technology programs announced in Budget 2017. The aim of the review is the simplification of related programming so that it is more effective and client-centric.

Recommendation 9:

"The Committee recommends that the Government of Canada collaborate with industry, post-secondary institutions and relevant stakeholders to create a "toolkit" for Canadian technology transfer. Such a toolkit would include flexible intellectual property licensing template agreements, along with guidance on intellectual property sharing strategies."

Response:

The Government has heard from stakeholders that model term sheets, template agreements, and strategy guides can be of value to some businesses. Based on evidence and analysis of previous efforts in this vein, the Government believes that template agreements and guidance documents can provide a useful starting point but must be tailored to suit the specific needs of the parties to an agreement. As such, the parties themselves, or industry associations and business groups that support their interests, are in the best position to develop these templates or guidance documents. The Government understands that several such templates or guidance documents that would help business become available, the Government will work to promote their availability to businesses that could benefit from them.

Recommendation 10:

"The Committee recommends that the Government of Canada continue to support education initiatives designed to improve intellectual property law among faculty and students in postsecondary institutions, including those in campus led incubators and accelerators."

Response:

While recognizing that education is a matter of provincial responsibility, the Government believes in the importance of supporting education initiatives to increase understanding of intellectual property law in post-secondary institutions. CIPO is playing a role in this regard. As part of its IP Awareness and Education program, CIPO is currently working with a number of Canadian post-secondary institutions and programs to provide both students and faculty with IP content to assist them in current and/or future business endeavors. This includes IP case studies designed specifically for post-secondary institutions, presentations on a variety of IP topics and support from CIPO's IP advisors. CIPO is also in the process of piloting a "patent examiner in residence" at Carleton University as a means of providing IP expertise within an academic setting.

CIPO's IP advisors support regional incubators and accelerators by way of CIPO's IP awareness and education program offerings. In addition, CIPO's IP advisors work closely with incubators and accelerators by holding office hours, some being co-located within those spaces, as well as delivering seminars, small group training activities, as well as one-on-one coaching with clients to further IP awareness and education.

The Government is also examining what it might do in the broader innovation ecosystem to foster development of the next generation of IP professionals and help provide assistance to businesses.

Recommendation 11:

"The Committee recommends that the Government of Canada extend the eligibility of Mitacs or similar programs to college and polytechnics students."

Response:

The Government recognizes that investment in science, technology and innovation is key to addressing Canada's social, environmental and economic challenges. In consultations to develop an Inclusive Innovation Agenda, many organizations stressed the importance of equipping more students across Canada with workplace-integrated learning opportunities to better prepare them to succeed in the workplace of tomorrow.

The Government views the attraction, training, retention and deployment of highly qualified personnel in the college sector as essential to strengthening research and innovation in Canada. As such, the Government is working with Mitacs on a pilot program that will include college students in Mitacs' work-integrated learning programming through an expansion of the parameters of the Accelerate program. The pilot will launch in the spring of 2018. Mitacs is an independent third-party organization that receives funding from the Government of Canada through a contribution agreement to deliver internships and fellowships. The organization manages its own programs and is not part of the Government of Canada.

Expanding Mitacs support to college and polytechnic students provides work-integrated learning opportunities to a wider set of Canadian students and recognizes the potential these students can bring to the research and innovation capabilities of firms. National and provincial surveys show that more work-integrated learning is beneficial for both college and university graduates, both in terms of securing full-time employment after graduation and in terms of earnings.

Recommendation 12:

"The Committee recommends that the Government of Canada explore methods of incentivizing the retention of Canadian produced intellectual property and know-how, from the technology transfer process through the start-up and scale-up of the enterprises applying the intellectual property or know-how."

Response:

The Government believes that the best way of retaining Canadian produced intellectual property and know-how is to assist Canadian entrepreneurs and businesses in growing their businesses in Canada. The Government provides such assistance through its full suite of services for business, including exciting new initiatives such as Innovative Solutions Canada and

the Accelerated Growth Service. Specific supports for IP needs are being assessed and considered as part of the IP Strategy.

Where possible, elements are also being included in government initiatives to incentivize retention of Canadian produced intellectual property and know-how. For example, the Innovation Superclusters Initiative required applicants to submit an IP strategy that maximizes benefits for Canada.

Beyond providing these services to business, the Government will explore whether there are more direct methods of incentivizing the retention of Canadian produced intellectual property and know-how. In doing so, the Government will be mindful of the fact that Canada is an open economy that benefits from the free flow of goods and services across its borders and efforts to retain IP in Canada should not undermine our commitment to openness.