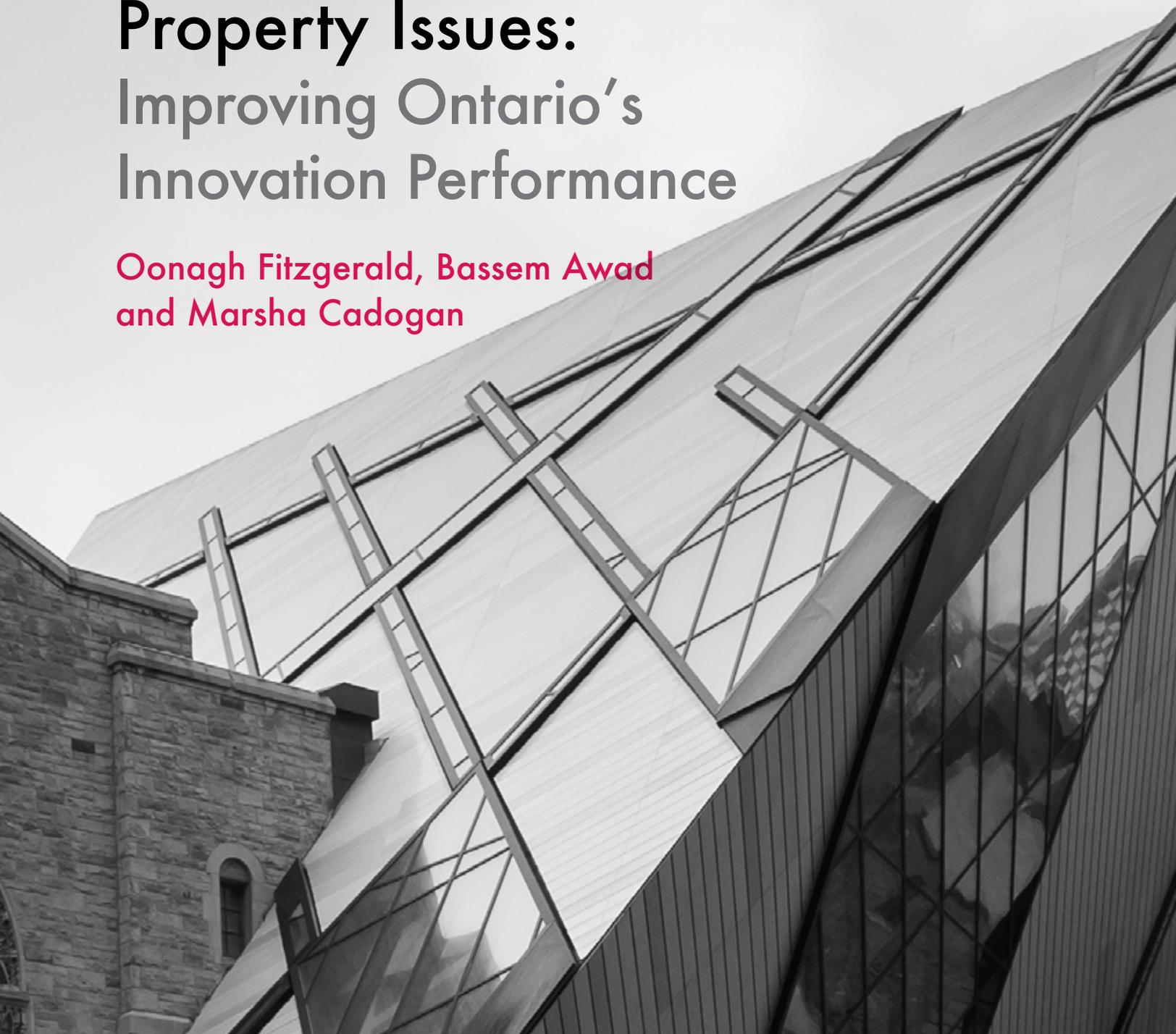

Centre for International
Governance Innovation

Conference Report – Toronto, Canada, September 8, 2016

Thinking Through Intellectual Property Issues: Improving Ontario's Innovation Performance

Oonagh Fitzgerald, Bassem Awad
and Marsha Cadogan



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CIGI Masthead

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About CIGI

We are the Centre for International Governance Innovation: an independent, non-partisan think tank with an objective and uniquely global perspective. Our research, opinions and public voice make a difference in today's world by bringing clarity and innovative thinking to global policy making. By working across disciplines and in partnership with the best peers and experts, we are the benchmark for influential research and trusted analysis.

Our research programs focus on governance of the global economy, global security and politics, and international law in collaboration with a range of strategic partners and support from the Government of Canada, the Government of Ontario, as well as founder Jim Balsillie.

À propos du CIGI

Au Centre pour l'innovation dans la gouvernance internationale (CIGI), nous formons un groupe de réflexion indépendant et non partisan qui formule des points de vue objectifs dont la portée est notamment mondiale. Nos recherches, nos avis et l'opinion publique ont des effets réels sur le monde d'aujourd'hui en apportant autant de la clarté qu'une réflexion novatrice dans l'élaboration des politiques à l'échelle internationale. En raison des travaux accomplis en collaboration et en partenariat avec des pairs et des spécialistes interdisciplinaires des plus compétents, nous sommes devenus une référence grâce à l'influence de nos recherches et à la fiabilité de nos analyses.

Nos programmes de recherche ont trait à la gouvernance dans les domaines suivants : l'économie mondiale, la sécurité et les politiques mondiales, et le droit international, et nous les exécutons avec la collaboration de nombreux partenaires stratégiques et le soutien des gouvernements du Canada et de l'Ontario ainsi que du fondateur du CIGI, Jim Balsillie.

About the International Law Research Program

The International Law Research Program (ILRP) at CIGI is an integrated multidisciplinary research program that provides leading academics, government and private sector legal experts, as well as students from Canada and abroad, with the opportunity to contribute to advancements in international law. The ILRP strives to be the world's leading international law research program, with recognized impact on how international law is brought to bear on significant global issues. The program's mission is to connect knowledge, policy and practice to build the international law framework — the globalized rule of law — to support international governance of the future. Its founding belief is that better international governance, including a strengthened international law framework, can improve the lives of people everywhere, increase prosperity, ensure global sustainability, address inequality, safeguard human rights and promote a more secure world. The ILRP focuses on the areas of international law that are most important to global innovation, prosperity and sustainability: international economic law, international intellectual property law and international environmental law. In its research, the ILRP is attentive to the emerging interactions between international and transnational law, indigenous law and constitutional law.

About the Authors

Oonagh Fitzgerald is director of CIGI's ILRP, where she oversees its international economic law, environmental law, intellectual property law and innovation, and new indigenous law research agenda. She has extensive experience as a senior executive providing legal policy, advisory and litigation services and strategic leadership in international law, national security, public law, human rights and governance to several federal departments including Justice Canada, National Defence and the Canadian Forces, and the Privy Council Office.

Oonagh has taught at the University of Ottawa, as well as Carleton University, l'Institut international du droit de l'homme in Strasbourg and the International Institute of Humanitarian Law in San Remo. She has a B.A. (honours) of fine arts from York University, an LL.B. from Osgoode Hall Law School and was called to the Bar of Ontario in 1983. She holds an LL.M. from the University of Ottawa, an S.J.D. (Doctor of Juridical Science) from the University of Toronto and an M.B.A. from Queen's University.

Bassem Awad is deputy director of international intellectual property law and innovation, with CIGI's ILRP. In this role, Bassem provides strategic guidance and operations coordination and management of the thematic area.

Bassem, a specialist in intellectual property (IP) law, has served as a judge at the Appeal Court in Egypt. He also works as a head tutor for the Academy of the World Intellectual Property Organization and an instructor with the Institute for Training and Technical Co-operation at the World Trade Organization. He teaches advanced courses on IP rights at the Faculty of Law, Western University. He has also been working for several years as a consultant for the African Union and as a counselor at the Judicial Department of Abu Dhabi in the United Arab Emirates on IP topics.

Bassem holds Ph.D. and LL.M. degrees in IP from the University of Montpellier in France, and an LL.M. in international business law from l'Université Paris 1 Panthéon-Sorbonne. His research interests include copyright law, patent law, comparative IP and IP governance. He has published several papers on copyright and access to knowledge, patents and green energy technology innovation, biotechnology and IP, patents and access to

medicines, IP and consumer protection, IP in the digital environment and enforcement of IP rights.

Marsha Cadogan is a post-doctoral fellow with CIGI's ILRP. Her research at CIGI is focused on the interrelationship between geographical indications and trademark laws, as well as the global implications of geographical indications in preferential trade agreements.

Marsha's broader research interests are in IP rights and trade, and IP rights and development implications for emerging and developed economies. Marsha's research expertise is multi-jurisdictional and includes the IP jurisdictions of the European Union, the United States, Switzerland, Japan, Canada and the Caribbean.

Prior to becoming a post-doctoral fellow, Marsha contributed to CIGI's ILRP as a research assistant, co-planning workshops and writing her forthcoming paper on influencing the global state of play through geographical indications. Marsha has a bachelor of science, economics and management from the University of the West Indies (Jamaica), an LL.B. from King's College at the University of London (England) and an LL.M. and a Ph.D. in law from Osgoode Hall Law School at York University. She is a member of the board for Canada's International Law Association and is also a barrister and solicitor with the Law Society of Upper Canada.

Executive Summary

The first round table organized by the International Law Research Program (ILRP) of the Centre for International Governance Innovation (CIGI) in collaboration with Ontario Ministry of Research, Innovation and Science (MRIS) aimed to consider the close connection between intellectual property (IP) rights and innovation, and how more strategic use and support of IP rights might contribute to an innovation agenda.¹

Four key problems pertaining to IP's crucial role in supporting innovation were discussed:

- weak IP literacy among Canadians;
- lack of access to affordable legal services to take products from the early stages of development to full-scale commercialization;
- weak collaboration between universities and businesses on leveraging of university-generated IP; and
- absence of a national IP strategy and coordinated governmental action.

The participants made the following recommendations about how to improve Ontario's innovation performance:

- increase IP literacy through existing and new entrepreneurship infrastructure;
- provide financial incentives to support legal services to early stage innovators; and
- create new mechanisms for collaboration among universities and industries.

The participants were keen to continue discussion on the issues raised and to develop a platform to share ideas about how to improve IP and innovation performance in Ontario and Canada. The round table

was conducted under the Chatham House Rule to encourage open discussion between stakeholders.²

Introduction

Knowledge, creativity and innovation drive scientific, economic and social development and are central to producing solutions to today's many challenges. Innovation performance is a crucial determinant of competitiveness and national progress in the knowledge-based economy. Innovation is the process of using ideas, typically in the form of IP, to offer new or improved products or services for the same or lower overall cost of production. While Canadians contribute significantly to advancing various new technologies, they are not adept at commercializing their ideas in the predatory global marketplace. Participating successfully in the IP-driven economy means optimizing the commercial and other spinoff benefits of inventions that occur in Canada.

It is against this background that CIGI's ILRP, in collaboration with the MRIS, hosted a half-day round table on September 8, 2016, with policy makers, academics and representatives of Canada's IP business sectors to identify the challenges facing Ontario's and Canada's IP system, and to brainstorm how IP could play a role in improving Canada's innovation performance.

The round table began with various critical perspectives on how Canada has yet to adopt a twenty-first century approach to IP and innovation. Participants then discussed four problematic aspects of Canada's approach to IP as a potential contributor to an innovation economy. Possible solutions were suggested by participants on pathways to success in IP education and literacy, developing locally relevant forms of IP, funding start-ups, encouraging the development of scale-ups, and equipping stakeholders with the right tools to function effectively in a rapidly evolving, legally and technologically sophisticated, global IP environment.

¹ The opinions expressed in this document are those of the authors at CIGI's ILRP and do not necessarily reflect the views of the Government of Ontario.

² Under the Chatham House Rule, those present, including media, "are free to use information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed." Participants are not obliged to speak, and there is no attribution of any participant's comments in any future report of the conference. See www.chathamhouse.org/about-us/chathamhouserule.

Challenges

- Canada has not aligned its approach to IP with its needs for survival and success in the global IP economy.
- Economic and trade policy has predominantly focused on tangible assets (that is, natural resources and manufacturing), whereas IP is concerned with identifying and capitalizing on domestic intangible assets.
- Canada's trade strategy has focused on creating jobs for economic growth rather than investing in people's creativity and innovation to foster its business development.
- Canadian innovation policy has relied too heavily on supporting the development of science and technology (S&T) and university research, ignoring the importance of IP commercialization: S&T policy is not the same as an innovation policy.
- Canada occupies a lamentable position in the global IP economy, being a net importer of IP and lacking an integrated strategic IP regime.

Interrelationship between IP and Innovation

Discussants explained the close connection between IP and innovation.

- IP protection imposes costs and benefits. The cost of using IP is borne by countries (such as Canada) that do not possess substantial commercialized IP and are net importers of foreign IP.
- Fostering local IP rights is essential: Canada needs to secure and maintain significant IP assets in order to generate additional revenue.
- Canadian economic and social development plans have not identified clear roles for government entities, private sector and academic institutions in the creation and deployment of IP.
- University students may know generally about IP, but lack the tools and capacity to interact with IP at the local, federal and international levels.

- Canada is good at publishing papers on scientific technologies, but not good at moving from a stage of knowledge development to knowledge mobilization for commercialized scientific technologies.
- Canada has not participated in or contributed IP to the development of technology standards, whereas countries such as China and Japan have used their IP in technology standard setting to become innovative leaders in technologies such as Blu-ray and VHS devices. Standards can support commercialization by increasing the quality and global market for IP-based products, but might create monopolies and tend to thwart competition and technological breakthroughs.

Key Problems/Pillars

The following four key problems pertaining to IP's crucial role in supporting innovation were discussed in depth:

Problem I: Weak IP literacy and insufficient IP education and training to meet the growing demand for specialized IP expertise

- IP education is a cornerstone of innovation, yet this is missing from Canada's innovation landscape. Canadians do not have a practical understanding of IP's relevance to their potential success in a knowledge economy.
- Entrepreneurs lack sufficient IP knowledge to operate globally. They spend too much on attracting talent, and too little on developing their IP portfolio.
- IP start-ups lack the IP knowledge and business savvy to manoeuvre in the local and global IP landscape. Multinational firms that are welcomed into Canada on the promise of local job creation may use this opportunity to buy up IP generated by domestic start-ups.
- Investors have reason to lack confidence in the level of IP knowledge of innovators.
- Lack of IP knowledge was illustrated by the example of recently minted Ph.D.s being unable to patent their research products because they

were not novel, something the researchers could have determined by prior art search before embarking on years of funded study.

- There is inconsistency in the degrees of integration between university tech transfer offices and the wider IP ecosystem.

Problem II: Lack of access to affordable legal services, especially at the earliest stages of the business venture

- There is no viable funding stream to support innovators in taking their IP from the research and development stage to commercialization.
- High-quality patent writing is crucially important: the technical writing involved in a patent filing is both intellectually difficult and costly. Lack of IP education affects the ability of start-ups to frame patent disclosures; broad disclosure claims can result in hefty legal bills for querying the sufficiency or insufficiency of the patent.
- Given the pressures and priorities of start-up founders, creative ways have to be devised to educate them on IP management.
- Initiatives to provide pro bono IP and business legal services have arisen in various locations in Ontario, in association with law schools or innovation hubs, but their existence remains tenuous, with governance structures being somewhat experimental and funding being temporary or ad hoc (for example, CIGI ILRP's collaborations with Communitech, the University of Windsor and IP Osgoode). IP legal clinics should be made available on a more extensive, systematic and sustainable basis, to ensure the quality of legal education for law students and legal service for clients, and compliance with the Law Society of Upper Canada rules.

Problem III: Systemic gaps in the technology transfer and commercialization process at universities and research institutions

- It was suggested that university research is not easily accessible for Canadians, that university IP licensing processes are bureaucratic and time consuming, and that research institutions are unclear when to obtain professional support.

- Government policy makers should recognize that engaging universities in a national S&T strategy is not the same as engaging them in a national IP and innovation strategy, and will not lead to the same results.
- Canadian entrepreneurs entering the global marketplace are not equipped to deal with the complexity of IP protection and could benefit from licensing university IP. Universities might benefit from rethinking their approach to the commercial use of scientific knowledge, given the increasing importance of IP in global business.

Problem IV: Absence of a national IP strategy and coordinated action of different levels of government

- National approaches to international trade negotiations do not necessarily contribute to the development of a robust domestic innovation economy.
- Until now there has been little targeting of sectors to develop Canada's comparative advantage.
- Governments tend to provide generic services for businesses with little targeting of specific needs or supporting of potential winners.
- Canadian research and development companies tend not to invest significantly in patents and demonstrate low awareness of how to use IP assets effectively.
- There is little to no coordination among local, provincial and federal jurisdictions and no concerted governmental effort to develop data relevant to IP and innovation.

Recommendations

In order to guide the discussion of problems and gaps in Ontario's IP innovation performance toward consideration of positive action, participants were asked the following questions: How can the IP framework be made sufficiently nimble to address new and disruptive technologies in a knowledge-based economy? What policy approaches would be most effective in addressing the commercialization and IP challenges faced by scale-up and high-growth firms? What new, creative and successful models of IP governance could Ontario promote to accelerate ideas-to-market pathways in the context of increasingly open innovation systems? The following positive actions were suggested by one or more of the participants:

- Increase IP literacy through the existing and new entrepreneurship and innovation infrastructure. CIGI ILRP's massive open online course (MOOC) on the foundations of IP strategy is an example of such an initiative.
- Design academic curricula in the post-secondary sector to equip students with knowledge and experience related to IP rights.
- Introduce and encourage inventors to use prior art searching platforms to minimize duplicative work, misallocation of resources and time on work that is not novel.
- Establish a centralized online "one-stop" directory of key resources for easy access by IP-intensive start-ups and other interested business, government and academic stakeholders.
- Adopt an integrated and collaborative approach to foster innovation in Canada, i.e., open, collaborative and free innovation, and patent pledges.
- Link accelerators, university technology transfer offices and funders to attract and retain top talent and spur IP commercialization.
- Encourage university tech transfer offices to use simple, uniform agreements in IP licensing and to offer accommodative and affordable fee arrangements for start-up companies and early licensors.
- Educate all stakeholders on the relevance, modes of operation, effective commercialization and management pathways, global significance and challenges of an innovative IP system.
- Equip all relevant public and private stakeholders with scalable IP knowledge so they can effectively tackle existing and future challenges encountered in global IP markets.
- Determine where targeted government intervention through policy, law or funding could contribute to strengthening the innovation economy and take such action.
- Implement a funding system to create and sustain partnerships between start-ups, universities, government sectors and investors.
- Provide government collaborative grants to promote industry-academic partnerships.
- Establish participatory collaborations among provincial government, businesses, universities, innovation hubs and research institutions and Canada's Intellectual Property Office initiatives to start a new, results-oriented platform in the promotion of Canadian IP projects.
- Provide funding, IP education and strategic guidance to start-ups to commercialize, scale up and manage their IP locally, nationally and internationally.
- Develop a consultation process to assess and manage the impact of new trade agreements and other developments in international IP rights on the domestic IP and innovation ecosystem.
- Learn from what other countries have done in implementing national IP strategies to create, own and foster locally and globally relevant and valuable IP.

Further Work

The round table highlighted the weaknesses in Canada's approach to IP and identified numerous positive actions that would strengthen effective use of IP and align government, academic and private sector stakeholders for improved innovation performance. This initial conversation about how to construct a twenty-first century IP system that equips Canadian entrepreneurs to withstand challenge and flourish in the competitive global environment may ignite further reflection, consultation, research and action. To facilitate this, consideration will be given to developing a discussion platform to share ideas and insights about how to improve IP performance to build a strong and sustainable knowledge economy.

Agenda

September 8, 2016

8:30 a.m. – 1:00 p.m.

Ontario Investment and Trade Centre, 250 Yonge Street, 35th floor, Toronto

- | | |
|-----------------------|---|
| 8:30–9:00 a.m. | Coffee/networking |
| 9:00–9:05 a.m. | Opening remarks |
| 9:05–9:20 a.m. | The Need for Action <ul style="list-style-type: none">→ Key gaps and problems with IP in Canada→ The urgent need for a national IP strategy |
| 9:20–9:40 a.m. | IP and Innovation Landscape in the Global Economy — Canada in a Comparative Perspective |
| 9:40–10:00 a.m. | Diverging IP Needs for Specific Sectors (Focusing on Cleantech and Biomedical) |
| 10:00–10:15 a.m. | Break |
| 10:15–10:45 a.m. | Problem I: Weak IP literacy and insufficient IP education and training to meet the growing demand for specialized IP expertise |
| 10:45–11:15 a.m. | Problem II: Lack of access to affordable legal services, especially at the earliest stages of the business venture |
| 11:15–11:45 a.m. | Problem III: Systemic gaps in the technology transfer and commercialization process at universities and research institutions |
| 11:45 a.m.–12:15 p.m. | Problem IV: Absence of a national IP strategy and coordinated action of different levels of government |
| 12:15–1:00 p.m. | Working Lunch — Concluding Discussion (led by co-chairs) <ul style="list-style-type: none">→ How can the IP framework be made sufficiently nimble to address new and disruptive technologies in an ideas economy?→ Which policy approaches would be most effective in addressing the commercialization and IP challenges faced by scale-up and high-growth firms?→ What new, creative and successful models of IP governance could Ontario promote to accelerate ideas-to-market pathways in the context of increasingly open innovation systems? |

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