

Next Generation Manufacturing Canada | Pan Canadian Artificial Intelligence Strategy (PCAIS) Intellectual Property Plan

PCAIS Objectives

Next Generation Manufacturing Canada (NGen) is dedicated to positioning Canada as a global leader in advanced manufacturing by leveraging Canada’s technology and industrial strengths to accelerate the development, adoption, and scale-up of transformative capabilities through the PCAIS.

Its aim is to strengthen the competitiveness of Canada’s manufacturing sector, drive more innovation and investment in advanced manufacturing technologies in Canada, generate new commercial opportunities for Canadian companies in global markets, grow more large-scale world-leading Canadian enterprises, and develop a modern and inclusive workforce with the skills required to excel in advanced manufacturing today and in the future. By combining Canada’s manufacturing and technology strengths, and facilitating access to supporting infrastructure and services, the PCAIS aims to achieve exponential benefits for Canadian industry and the Canadian economy as a whole.

Intellectual Property Plan

NGen Canada’s Intellectual Property (IP) plan is a critical tool for accomplishing its mission and maximizing the full potential of the PCAIS for NGen members and for Canada as a whole.

For the purposes of this plan, IP includes all inventions, whether or not patented or patentable, all commercial and technical information, whether or not constituting trade secrets, and all copyrightable works, industrial designs, integrated circuit topographies, and trademarks (including distinguishing guises), whether or not registered or registrable.

NGen’s approach to IP focuses on diffusing know-how and, for small and medium-sized companies (SMEs) in particular, providing facilitated access to IP arising from funded projects (“Foreground IP”). The plan will endeavor to ensure that IP outcomes will enhance capacity for strategic IP management among SMEs, which will enable them to grow and be competitive on the global stage.

Foreground IP will be generated as a result of collaborative activities among project partners, involving companies of all sizes from a variety of manufacturing and technology sectors. NGen’s strategy will aim to ensure that IP created will be leveraged to catalyze commercialization and economic growth across the advanced manufacturing ecosystem.

- Assist in maximizing the benefits of Foreground IP likely to arise in funded projects;
- Develop and maintain NGen’s confidential Project IP Repository and IP Registry;
- Assist external members, and SMEs companies in particular, in accessing IP contained in the IP Repository;
- Help small and medium-sized companies participating in E&D projects access independent expertise and advice related to IP; and,
- Design and deliver programming to enhance the capacity of small and medium-sized E&D members to manage IP in support of business growth.

Conclusion

Ownership and control of intellectual property rights is a driver of economic prosperity and a key pillar of NGen’s approach to ecosystem development. Inherent in this is the need to balance the twin demands of protecting IP and facilitating greater access to IP. As the OECD notes, failing to protect “...inventions and creations would dilute the rewards for investing in innovation, thereby reducing the incentives for making such investments.”¹ ISED research shows that “SMEs holding formal IP are 60% more likely to be high-growth firms”.²

Real economic value in business is created as a result of the application of knowledge and new inventions to develop and commercialize goods and services. Manufacturing is an important anchor of value creation in this respect. The deployment of locally developed technologies, the support and the critical customer mass that NGen’s ecosystem would provide to smaller companies will enable the Canadian economy to capture more value in the process of technology commercialization.

With an emphasis on IP sharing from the outset of an NGen-supported project, and with the ongoing assistance of NGen’s IP manager, companies participating in funded projects will be encouraged to adopt a broader IP sharing model. Through NGen’s IP Registry, external member companies will have a mechanism to identify and access IP and state-of-the art infrastructure, facilitating the adoption of new technology that can be leveraged for scale-up across industries and supply chains. Further, identification of IP through the Registry will spur novel partnership opportunities and give rise to additional collaborative initiatives across Canada’s advanced manufacturing ecosystem.

The ability to enter into royalty/license agreements with fellow NGen members will allow companies to recoup some of the costs associated with investing in a project. This will provide a further incentive for

¹ OECD Report, “Enquiries into Intellectual Property’s Economic Impact”, 2015, <http://www.oecd.org/sti/ieconomy/KBC2-IP.Final.pdf>

² ISED (2014), Survey on Financing and Growth of Small and Medium Enterprises, cited in “Annual Report 2015-2016: Fuelling Global Innovation”, Canadian Intellectual Property Office, Industry Canada, https://www.ic.gc.ca/eic/site/cipointernet-internetopic.nsf/eng/h_wr04114.html

companies to make investments in projects that are both beneficial for themselves and of interest to the broader NGen membership.

Shared investments in business-led collaborative projects will help companies develop valuable IP that will support the transformation of their business models and catalyze investments in new technologies, enabling new capabilities and allowing Canadian firms to compete on a global scale.

Access to IP arising in NGen projects will provide smaller companies opportunities to combine and commercialize capabilities supporting their scale-up activities.

At the same time, MNEs (multinational enterprises) will be able to tap technologies that they might not otherwise have heard about, enabling dynamic improvements towards the next generation of advanced manufacturing processes and products, using technology from Canadian startups and SMEs, sustaining and growing the entire supply chain.

NGen's IP plan will reinforce efforts to make IP and investments in innovation sticky, leveraging geographic determinants of membership, encouraging firms to locate research, manufacturing and operational activities here, rather than abroad.

Exposure to fellow NGen members will also lead members to explore new commercial partnerships based on overlapping interests revealed through projects/infrastructure in the IP Registry. These second-order collisions will drive significant economic benefit for NGen's ecosystem, spurring investment and commercialization that might otherwise not have occurred.