Evaluation of the IP Assist initiative

The Office of Audit and Evaluation

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Copyright statement

The French version of this report, along with an accessible HTML version, can be found on the National Research Council of Canada's evaluation page.

This report was approved by the President of the National Research Council of Canada on February 10, 2025

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Initialisms and acronyms

BAI Business accelerator and incubator

CAGR Compound annual growth rate

CEA Client engagement advisor

CIPO Canadian Intellectual Property Office

CTO Contribution to organization

G&Cs Grants and contributions

GBA Plus Gender-based Analysis Plus

GTX Group of technical experts

IP Intellectual property

ISED Innovation, Science and Economic Development Canada

ITA Industrial technology advisor

NRC National Research Council of Canada

NRC IRAP National Research Council of Canada Industrial Research Assistance Program

OGD Other government department

SME Small and medium-sized enterprise

Introduction

The evaluation of the IP Assist initiative covered a 3-year period from fiscal year (FY) 2021-22 to 2023-24. IP Assist supported innovative Canadian businesses to increase their intellectual property (IP) awareness, develop IP strategies and act on priorities to protect and leverage IP. The initiative was implemented by the National Research Council of Canada Industrial Research Assistance Program (NRC IRAP). The evaluation was carried out in accordance with the NRC Department Evaluation Plan and the Treasury Board Policy on Results (2016). This evaluation was mandated by the Treasury Board Secretariat, and is the only evaluation of the initiative.

This report begins by providing a profile of the IP Assist initiative. Evaluation findings are then presented in 3 sections on the initiative's relevance, implementation and performance. Following the evaluation findings are lessons learned for future programming and appendices with supporting information.
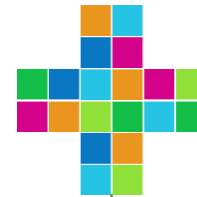
The following icons will be found throughout the report:

Information that is useful to know to help understand the findings.

This symbol indicates a quote that helps illustrate or support the main findings.

Information that supports equity, diversity, inclusion and Gender-based Analysis Plus (such as, factors that illustrate how diverse groups may experience policies, programs and initiatives).

Evaluation approach

Scope

The evaluation assessed the extent to which the initiative was responsive to a continuing need for IP support, was implemented efficiently and effectively, and achieved its expected outcomes.

Approach

This evaluation used a mixed-methods approach, incorporating qualitative and quantitative data from several lines of evidence. This allowed for triangulation of the evaluation findings. In addition, a Gender-based Analysis Plus (GBA Plus) lens was applied to the evaluation.

Methods

- Client survey (n=493)
- Interviews (n=44)
- Data review (administrative, financial, project and performance)
- Document review
- Case studies (n=3)

Evaluation questions

1. To what extent is there a continuing need for the IP support provided by the NRC IRAP IP Assist initiative?

2. To what extent has the NRC IRAP IP Assist initiative been delivered in an efficient and effective manner?

3. What progress has been made on the achievement of the NRC IRAP IP Assist initiative outcomes?

Appendix A details the evaluation's methodology and Appendix B identifies limitations and mitigation.

Profile

The IP Assist initiative was a 3-year, $75 million initiative launched in FY 2021-22 in alignment with Canada's national IP Strategy. Delivered by NRC IRAP and third-party implementers, the initiative supported innovative small and medium-sized enterprises (SMEs) with funding and advisory services to increase their IP awareness, develop enterprise-specific IP strategies, and act on priorities to protect and leverage IP.

Context

The 2018 Intellectual Property Strategy

In FY 2018-19, the Government of Canada launched an IP Strategy to help Canadian businesses, entrepreneurs and innovators understand, protect and access IP. Towards this, Innovation, Science and Economic Development Canada (ISED) was allocated $78.5 million over 5 years to deliver 5 initiatives:

- IP Centre of Expertise
- Indigenous IP Program
- IP Clinics Program
- Patent Collective Pilot Program
- ExploreIP

Pre-existing federal initiatives included the Canadian Intellectual Property Office (CIPO), which provides education services, and Global Affairs Canada's CanExport SMEs program, which supports international IP protection for Canadian SMEs.

The 2021 federal budget

Budget 2021 noted that Canadian IP offered huge growth opportunities and reinforced the federal government's commitment to the IP Strategy with additional support. The strategy laid a valuable foundation by increasing IP awareness and providing IP supports, but it was recognized that SMEs' ability to act was limited by the significant cost of obtaining professional IP advice.
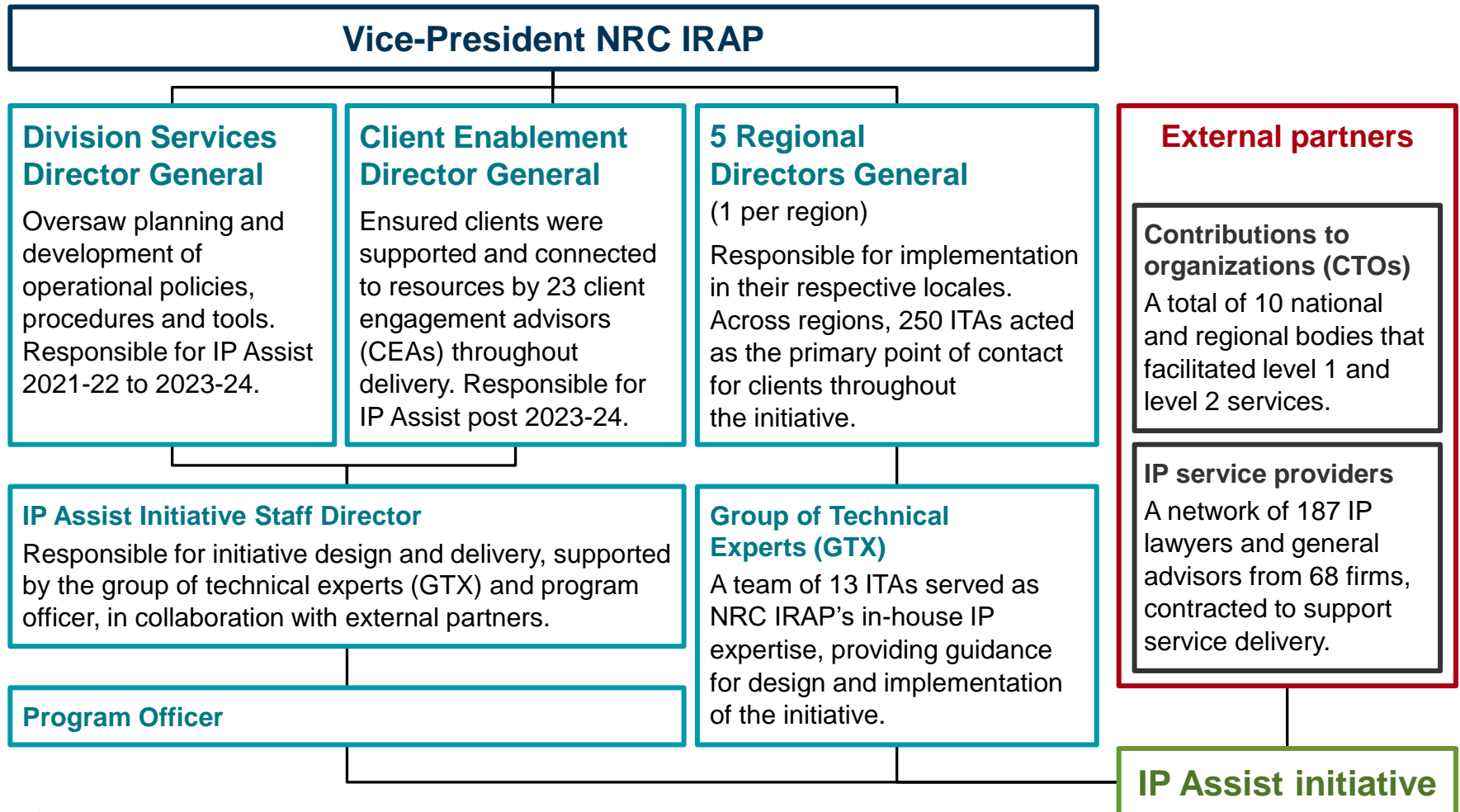
The budget allocated $75 million over 3 years starting in FY 2021-22 for NRC IRAP to deliver IP Assist and provide funding and advisory services for its SME clients. It also allocated $90 million over 3 years starting in FY 2022-23 for ISED to deliver ElevateIP. That initiative funds business accelerators and incubators (BAIs) who in turn provide innovative, early stage SMEs with access to IP services.

The IP Assist initiative

IP Assist included 3 service levels: Level 1, Awareness; Level 2, Strategy; Level 3, Action. The initiative was delivered by NRC IRAP industrial technology advisors (ITAs) with support from third-party implementers funded through grant and contribution (G&C) agreements and referred to as contribution to organization (CTO) clients. Additionally, NRC IRAP and CTOs contracted IP experts (service providers) to deliver professional IP services to SMEs. Figure 1 details all actors involved in the implementation.

Organizational structure[1]

Figure 1. Actors involved in the delivery of the IP Assist initiative

Vice-President NRC IRAP

Division Services Director General
Oversaw planning and development of operational policies, procedures and tools. Responsible for IP Assist 2021-22 to 2023-24.

Client Enablement Director General
Ensured clients were supported and connected to resources by 23 client engagement advisors (CEAs) throughout delivery. Responsible for IP Assist post 2023-24.

5 Regional Directors General
(1 per region)

Responsible for implementation in their respective locales. Across regions, 250 ITAs acted as the primary point of contact for clients throughout the initiative.

External partners

Contributions to organizations (CTOs)
A total of 10 national and regional bodies that facilitated level 1 and level 2 services.

IP service providers
A network of 187 IP lawyers and general advisors from 68 firms, contracted to support service delivery.

IP Assist Initiative Staff Director
Responsible for initiative design and delivery, supported by the group of technical experts (GTX) and program officer, in collaboration with external partners.

Group of Technical Experts (GTX)
A team of 13 ITAs served as NRC IRAP's in-house IP expertise, providing guidance for design and implementation of the initiative.

Program Officer

IP Assist initiative

[1]Counts accurate as of March 31, 2024.

IP Assist service: Level 1

Supporting increased IP awareness

NRC IRAP recognized that SMEs engaged in research and development need baseline IP knowledge.

Objective

Enable SMEs to better leverage and safeguard their innovations.

Target

Increase IP awareness among 9,000 firms.

Delivery

NRC IRAP delivered or directed SMEs to IP education and facilitated one-on-one sessions to address their specific needs.

Delivered by NRC IRAP: CEAs and ITAs shared IP information with SMEs as part of client intake and advisory services. Sessions were generally informal in structure. GTX members were consulted by CEAs and ITAs for guidance, or delivered the service themselves. The service was free to SMEs.

Delivered by third-party: CTOs contracted IP service providers to deliver one-on-one sessions with SMEs. Up to 3 hours in length, they included an introductory lecture and time for questions and answers. Service was free to SMEs but cost NRC IRAP approximately $1,000 per session in G&Cs funding to CTOs.

IP Assist service: Level 2

Supporting IP strategy development

NRC IRAP recognized innovative SMEs require professional services to develop their IP strategies.

Objective

Enable SMEs to develop IP strategies.

Target

Aid 1,500 firms in developing IP strategies.

Delivery

NRC IRAP or CTOs contracted IP service providers to support SMEs in developing a robust IP strategy, which included:

- a technology landscape (review of technology literature and published IP documents)
- a competitor landscape (review of IP in their market to identify competitors and potential collaborators)
- an action plan that defines SMEs' IP position, identifies gaps, and recommends and prioritizes actions

Led by NRC IRAP: ITAs funded SMEs through 'contribution to firm' projects to work with IP service providers in developing their strategy. This involved either a robust IP strategy (option 1) or landscape briefs without an action plan (option 2). SMEs received reimbursement of 75% of contractor fees and 80% of salary costs, up to a total 'contribution to firm' project cost of $25,000.

Facilitated by CTO: CTO matched firms with IP service providers to develop a robust IP strategy including landscape briefs (based on firms' needs). SMEs paid a $500 administration fee to the CTO and NRC IRAP covered the contractor invoice up to $18,000. However, there was no salary support provided by this mode.

IP Assist service: Level 3

Supporting actioning of IP priorities

NRC IRAP recognized that its portfolio clients have promising innovations and that taking action may be essential to protect its investment in their research and development.

Objective

Enable SMEs to execute priorities in their IP strategies.

Target

Support 300 firms to act on their IP strategies.

Delivery

NRC IRAP funded SMEs through 'contribution to firm' projects with defined activities and expected outputs. Eligible costs included actions to de-risk or enable IP protection but not costs for protection itself. Projects may have included contracting an IP service provider. Total value generally did not exceed $30,000.

Eligible costs
- Trademark clearance searches and patentability analyses
- Review of IP-related agreements (e.g., non-disclosure, partnership, and supplier agreements)
- Patentability analysis and IP audits
- Commercialization, out-licensing and branding strategies

Ineligible costs
- Costs to draft and file for IP protection (e.g., patent drafting and prosecution costs and patent office fees)
- Litigious matters and freedom-to-operate searches

Relevance

The evaluation identified continuing demand for IP support among Canadian SMEs. IP Assist was responsive to client needs and aligned well with government priorities, offering high-quality and valuable support within the IP ecosystem.

The introduction of other programs created beneficial synergies but also resulted in some potential duplication of efforts. In the absence of IP Assist, NRC IRAP clients would find it challenging to access alternative programs that provide comparable levels of funding and personalized support.

Client needs addressed

IP Assist responded to a need for IP services among innovative Canadian businesses by providing expert and customized support. The initiative also increased recognition of this need among NRC IRAP clients.

IP Assist met clients' needs with tailored support

IP Assist effectively addressed the needs of its clients:

- 85% percent of clients surveyed agreed that their needs were met
- Satisfaction rates were consistent over time and across equity groups (i.e., firms owned or led by women or members of visible minorities)
- Clients who received advanced levels of service were more likely to report that that their needs were met. Rates were highest for those who received level 2 (91%) and level 3 services (92%), compared to only level 1 (73%).

The evaluation found that IP Assist's unique value was its individualized support. Clients benefited from both tailored funding and the personalized advisory services offered by NRC IRAP staff, CTO clients, and vetted IP service providers. Clients also found IP Assist to be both cost-effective and accessible.

When IP Assist could not meet specific client needs due to eligibility NRC IRAP referred clients to other programming if possible. NRC IRAP excluded activities such as patent and trademark filings, litigious matters and freedom-to-operate searches, as their associated costs and scope could be much greater than eligible activities.

Initiative enhanced recognition of IP's value

Internal and external interviewees agreed that SMEs did not fully recognize their need for IP support before engaging with IP Assist. Some viewed the initiative as an overdue and crucial step toward protecting Canadian business assets developed with government support and enhancing Canada's global competitive advantage.

NRC IRAP staff and service providers noted significant client uptake, highlighting the initiative's role in removing cost barriers and reducing apprehension about contacting IP lawyers.

Complementarity with other programs

IP Assist's individualized support was complemented with other federal IP programs, with some overlap. NRC IRAP worked with other government departments to help SMEs navigate the IP support ecosystem.

Complementarity for clients' benefit

Other federal IP support programs complemented or were synergistic with IP Assist, for example:

- NRC IRAP leveraged the Canadian Intellectual Property Office's (CIPO) free online resources to deliver level 1 IP Assist services

- IP Assist clients could build on their domestic IP strategies and projects (levels 2 and 3) with help from Global Affairs Canada's CanExport SMEs program, which funded international strategy development, IP protection abroad and foreign market entry activities

- IP Assist clients could seek funding for ineligible activities from Innovation, Science and Economic Development Canada's (ISED) ElevateIP initiative. Some business accelerators and incubators (BAIs) funded by ISED to deliver ElevateIP also served as IP Assist CTOs, which facilitated SMEs' access to complementary support from the 2 initiatives.

Overlap of programming

There was some overlap with other federal programs:

- ElevateIP offered 3 tiers of service, similar in design to IP Assist. Some BAIs provided one-on-one support comparable to IP Assist level 1, though this varied by region. ElevateIP's tier 2 was most similar IP Assist's level 2 funding for strategy development, though funding levels and costs to clients varied by region.

- CIPO employs a team of regional IP advisors who provide one-on-one support akin to IP Assist level 1.

Inter-program coordination

NRC IRAP worked with other government departments (OGDs) throughout IP Assist implementation. Bilateral consultation between programs varied. Inter-program access by clients was not formally tracked by OGDs, though the evaluation confirmed some IP Assist clients accessed other programs. NRC IRAP and OGD staff agreed that greater coordination would have enhanced efficiency of their services and reduced overlap.

Continued demand for IP support

The evaluation found an ongoing demand for IP support among NRC IRAP clients and Canadian SMEs. Other federal IP support programs do not currently have capacity to absorb this demand.

Interest in maintaining IP Assist

NRC IRAP staff, external stakeholders and representatives of other programs broadly agreed on the ongoing SME demand for IP support programming. Most believed NRC IRAP could continue to be a suitable vehicle for delivering IP Assist specifically. Stakeholders recognized the combined value of advisory support from NRC IRAP staff and funding for tailored support from IP professionals, offered consistently across regions.

79%

of surveyed clients agreed that gaps may be created for Canadian SMEs without IP Assist.

Gaps for SMEs in absence of IP Assist

The evaluation found that without IP Assist funding, NRC IRAP clients and similarly advanced-stage SMEs would struggle to access comparable support. Other federal programs currently lack the capacity to absorb demand from NRC IRAP clients. Specific limitations include:

- CIPO's capacity for one-on-one support is limited to 1 or 2 IP advisors per region, compared to the 70 service providers contracted by IP Assist for level 1 services

- ElevateIP was intended for startups and less established firms. It is structured such that eligibility criteria for applicants excludes many NRC IRAP clients. Moreover, ElevateIP would be unable to take on IP Assist's clients as it was at capacity for FY 2024-25 as of mid-year in most regions, and scheduled to end in FY 2025-26.

Implementation

NRC IRAP effectively delivered an IP support program that stakeholders generally found excellent and valuable. However, there were opportunities to enhance delivery efficiency by improving stakeholder engagement, implementation tools and guidance, and better utilizing human and financial resources.

Client satisfaction

Clients were satisfied with the IP Assist initiative, praising the quality of training materials and deliverables, professionalism and knowledge of personnel, and timeliness of service delivery. The majority of clients would recommend IP Assist to others.
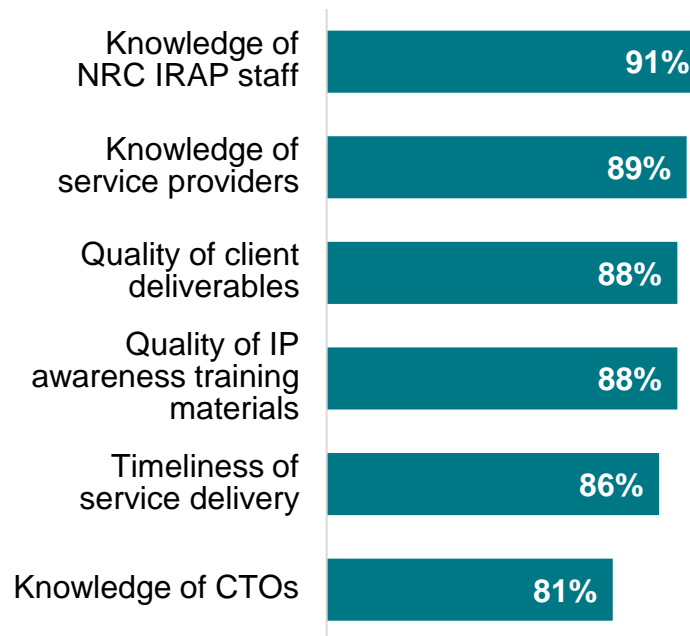
Clients recognized value of IP Assist

Overall, IP Assist clients recognized the value of the service they received. The majority of surveyed clients (82%) said they received significant value considering the time and money they invested (i.e., fees or co-investments).

Clients were overwhelmingly satisfied with the delivery of the initiative. According to the survey conducted by the evaluation team, clear majorities were satisfied with timeliness, quality of materials and the knowledge of personnel (refer to Figure 2). Satisfaction levels were consistent across regions, sectors and equity groups.

Survey findings were consistent with post-service assessments administered by NRC IRAP and CTOs, both of which asked clients to rate their likelihood to recommend IP Assist to others on a 10-point scale. All individual CTOs received high ratings, with an average rating of 9.2 among CTO clients. NRC IRAP clients were even more likely to recommend IP Assist, with an average rating of 9.7.

Figure 2. Client satisfaction with service attributes

Service attribute	Satisfaction
Knowledge of NRC IRAP staff	91%
Knowledge of service providers	89%
Quality of client deliverables	88%
Quality of IP awareness training materials	88%
Timeliness of service delivery	86%
Knowledge of CTOs	81%

Source: Client survey, n=493. Note that percentages represent those satisfied or very satisfied with each aspect of service.

Delivery model

The original IP Assist implementation plan overestimated NRC IRAP's internal capacity to deliver the initiative. As a result, a pivot to a hybrid model involving third parties was implemented. This new approach significantly improved delivery and supported the expansion of the initiative's overall reach.

Design overestimated NRC IRAP capacity

IP Assist was initially designed to be implemented primarily by industrial technology advisors (ITAs). The intention was for ITAs to deliver level 1 education services and then refer clients to service providers for levels 2 and 3. However, within a year, it became clear that this approach would be ineffective due to the ITAs' limited expertise in IP and their heavy workloads.

Moreover, the time and effort required to establish and deliver the initiative were underestimated by NRC IRAP. Interviewees indicated that some ITAs had knowledge gaps regarding client eligibility, service tracking and facilitating referrals to external resources. Staff acknowledged that the ITAs needed more training, as many were not well-equipped to deliver level 1 services or facilitate levels 2 or 3.

Hybrid model increased capacity

To address its capacity issues, NRC IRAP pivoted to a hybrid delivery model towards the end of FY 2021-22. This model leveraged both ITAs and third-party implementers (CTOs).

The pivot improved delivery, with CTOs creating a net positive effect. CTOs were engaged as intermediaries, connecting ITA-referred clients to IP service providers for both level 1 and 2 services. According to NRC IRAP staff, this approach proved more effective as it reduced the workload on ITAs and expanded IP Assist's reach by at least a thousand additional clients over 3 years.

Over time, ITAs did also increase their own IP competencies through informal training and information sharing by IP Assist staff and the group of technical experts (GTX) members, thus improving NRC IRAP's internal capacity.

Nonetheless, the evaluation identified a continued need for comprehensive training and IP resource materials, as some staff still had knowledge gaps post-FY 2023-24.

Client and stakeholder engagement

IP Assist engaged high-growth Canadian small and medium-sized enterprises (SMEs), including both existing and new NRC IRAP clients. Its reach among equity group-led SMEs matched that of NRC IRAP overall. Additionally, it engaged relevant stakeholders in the Canadian IP ecosystem to deliver the initiative.

Supporting high-growth SMEs

Using compound annual growth rate (CAGR) data collected by NRC IRAP, the evaluation demonstrated that the initiative reached its intended audience of high-growth SMEs. At the time of first accessing the initiative, IP Assist clients reported revenue growth 9% higher than other NRC IRAP clients (42% compared to 33%). Interviewees noted that NRC IRAP portfolio clients with high-growth potential were prioritized for IP Assist services. However, CAGR data collection lags by 2 years and was mainly available for year 1 clients.

Engaging new, innovative SMEs

Administrative data showed that IP Assist mostly served existing NRC IRAP clients but also acted as an entry point for new clients. Notably, 44% of IP Assist clients were new to NRC IRAP, having not received any funding or advisory services in the 5 years before the initiative's launch. This proportion increased over time, from 22% in FY 2021-22—when the initiative focused on existing, high-growth clients—to 62% in FY 2023-24.

Collaborating across the IP ecosystem

The evaluation confirmed that NRC IRAP successfully engaged relevant stakeholders to deliver IP Assist, including key actors within the Canadian IP ecosystem. IP Assist had contribution agreements with national and regional organizations to support its reach across all NRC IRAP regions (refer to Appendix C for a full list).

The initiative connected SMEs to a network of IP service providers, including lawyers and advisors from multiple firms, through CTOs or ITA referrals. Additionally, NRC IRAP liaised with other IP support initiatives and programs.

Reach among firms owned or led by members of equity groups was on par with the reach of NRC IRAP overall:

- 29% of IP Assist client firms were owned or led by women (28% overall)
- 26% were owned or led by members of visible minorities (23% overall)

Implementation guidance and tools

IP Assist delivery faced challenges due to a lack of timely and concrete guidance for NRC IRAP staff and third-party implementers, as well as issues with digital tools. While changes were made to address these issues, further improvements could have enhanced efficiency.

Insufficient guidance for implementers

IP Assist was launched with an informal action plan and varied guidance to third parties. This informal plan did not clearly outline the process for supporting or targeting clients. Additional guidelines were later added to the NRC IRAP Field Manual for client engagement advisors (CEAs) and ITAs, but only after implementation was underway. CTOs and service providers also described level 2 guidelines as insufficient and inconsistent.

NRC IRAP staff acknowledged that the initial lack of formal guidance likely deprived implementers of information critical for effective planning, impacting their ability to meet some performance targets. Stronger guidance may have mitigated some SMEs' low interest in IP support programming.

Moreover, had NRC IRAP set regional targets, it may have encouraged regional offices to include IP Assist in staff performance commitments. This would have ensured the prioritization of staff training and promotion of the initiative to their clients.

Software was familiar but had limitations

NRC IRAP staff had mixed views on the effectiveness of digital tools (i.e., software) used to deliver IP Assist. NRC IRAP's customer relationship management tool, SONAR, was used for tracking clients and services delivered. The NRC IRAP Innovation Portal was used to collect post-service assessments and final reports.

On one hand, by using familiar tools, NRC IRAP reduced the learning curve for staff accustomed to tracking engagement and creating projects. However, some staff found these tools were not suited for performance monitoring. For example, some found SONAR inefficient for tracking service delivery by level and others noted that the portal did not allow for aggregating outcomes data.

These issues hindered NRC IRAP's ability to quickly assess performance gaps and make necessary adjustments. Modifications were made in FY 2023-24 as part of overall SONAR upgrades, resolving some service tracking challenges.

Finances

> **NRC IRAP utilized less than half of the allocated grants and contributions funding for IP Assist, indicating that the 3-year launch and delivery timeframe was not sufficient for an initiative of this scale.**

Overall budget reduced in year 1

IP Assist was initially launched with a $74.8 million budget to be disbursed over 3 years, with 90% allocated for grants and contributions (G&Cs)[2] and 10% for operations and maintenance (O&M). The overall budget was subsequently reduced to $67.7 million, resulting in a revised G&Cs budget of $60.2 million.

Less than half of G&Cs were spent

From FY 2021-22 to 2023-24, NRC IRAP disbursed $27 million in G&Cs, under half its 3-year budget. To utilize the remaining funds, NRC IRAP intends to continue delivering the IP Assist initiative for an additional 3 years (refer to Figure 3).

NRC IRAP leadership recognized that 3 years was insufficient time to establish and deliver an initiative of this size. Ideally, similar initiatives would be implemented over a longer period, allowing sufficient time for development, promotion and scaling up.

[2]Some G&Cs were for cybersecurity programming that was delivered separately and outside the scope of this evaluation.

Figure 3. Budgeted, actual and forecasted G&Cs
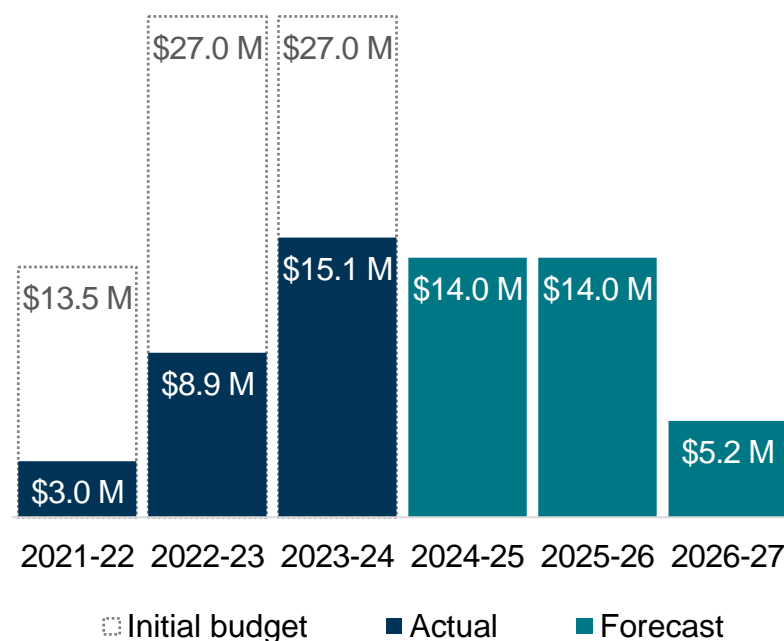
Source: NRC IRAP finance team.

Efficiency

Pivoting to the hybrid delivery approach helped IP Assist disburse more G&Cs funding within its planned 3-year implementation timeframe. It was not possible to calculate the initiative's efficiency as the internal costs to deliver IP Assist were not tracked separately from NRC IRAP's other program delivery costs.

Hybrid model accelerated spending, but improvements were possible

NRC IRAP staff reported that finances were initially adequate but became strained with the introduction of the third-party delivery model and increased demand for IP services among SME clients. By FY 2023-24 (year 3), CTOs had committed their entire annual budgets within the first 6 months of the fiscal year. CTOs confirmed this, indicating that demand for their services was outpacing their budgeted capacity, leading to some clients being put on waitlists.

This suggests that there may have been opportunity within the 3-year implementation period to disburse more of the budgeted G&Cs for IP Assist to SME clients. However, NRC IRAP exercised caution with the hybrid model and sought to validate CTOs' performance before scaling up budgets (refer to the Performance section).

IP Assist's efficiency could not be fully determined

A full assessment of IP Assist's utilization of financial resources was limited by a lack of data on actual O&M costs, which were not tracked by NRC IRAP. It was possible to assess the efficiency of external partners based on financial reporting from CTOs.

Of the $10.5 million in G&Cs administered by CTOs, 16% was allocated to their administrative overhead costs, including CTOs' in-house salary expenses to support the hybrid delivery model. According to NRC IRAP staff, this percentage was in line with the typical 15% average for service providers funded through contribution agreements.

Performance

NRC IRAP made progress towards achieving IP Assist outcomes. While reach targets were not met, the initiative effectively improved IP literacy among SME clients, enabling them to better manage and safeguard their IP. Accessing this support has positioned clients to better leverage their innovations to gain a competitive advantage. Although it is too early to measure the longer-term impacts on business growth, clients are optimistic about their future prospects, with some already benefiting from new market entry and expansion. The evaluation also found that the initiative fostered a newfound appreciation of IP among ITAs, ensuring ongoing benefits for NRC IRAP clients.

Initiative reach

IP Assist made some progress towards achieving its targeted reach. However, targets established by NRC IRAP were not fully met, largely due to assumptions made during the planning phase.

IP Assist reached half of overall target

IP Assist reached a total of 4,668 clients, representing over half its overall target for unique clients (9,000):

- 4,613 firms received level 1 services, facilitated by NRC IRAP (73%) or by contributions to organizations (CTOs) (27%). This reach was 51% of the overall target. Annual reach peaked at 1,895 clients in year 2 then decreased to 1,394 in year 3.

- 874 firms received funding for level 2 services, facilitated by NRC IRAP (55%) or CTOs (45%). This reach was 58% of the level 2 target (1,500). Reach did increase over time, from 75 level 2 clients in year 1 to 498 in year 3, as CTO facilitation increased delivery of this service level.

- 221 firms received NRC IRAP funding for level 3 projects. This reach was 74% of the level 3 target (300). In total, 253 level 3 projects were funded as some clients were funded for multiple projects. Annual reach increased from 15 projects in year 1 to 143 projects in year 3.

Factors inhibiting reach

The reach of IP Assist was somewhat limited by lower-than-planned spending on G&Cs. Overall, the variance form targets was the result of:

- assumptions made during the planning phase regarding the IP competencies of ITAs and client engagement advisors (CEAs), along with the delayed recognition of the need for CTOs to co-deliver the program and reach such a large number of SMEs

- the absence of a formal client engagement plan for NRC IRAP staff and third parties

NRC IRAP attributed the decline in reach of level 1 clients in year 3 to:

- reduced promotion of the initiative by staff
- competing choices for IP support, as more IP programs such as ElevateIP launched
- the progression of most existing portfolio clients through level 1 services, which reduced the pool of readily available clients

Reach expansion

NRC IRAP may have had opportunities to utilize more of its available funding within the 3-year period to expand the initiative's reach. However, NRC IRAP exercised caution, testing its co-delivery model with third parties in an increasingly crowded ecosystem of IP support programs.

Greater in-house IP expertise may have expanded reach

The evaluation found that by year 3, NRC IRAP was better utilizing human and financial resources relative to the available budget for IP Assist. However, there may have been opportunities to use the available funding to increase the reach of the initiative.

Delivery may have been enhanced by hiring more dedicated in-house IP experts, training existing ITAs and supplementing the initiative with additional administrative staff. NRC IRAP staff agreed that internal expertise was effectively utilized but ultimately mostly limited to the IP Assist director and the group of technical experts (GTX) members, which was insufficient for an initiative of this magnitude.

NRC IRAP partially attributed their inability to increase its capacity to a tight labour market for IP experts, which was not recognized when IP Assist was first planned.

NRC IRAP exercised caution before expanding reach with third parties

Available G&Cs may have been used to increase CTOs' budgets or engage more CTOs to further reduce staff workload and achieve reach targets. NRC IRAP exercised caution with the hybrid model, seeking to validate CTOs' performance in years 2 and 3 before scaling up their budgets.

Capacity issues may have also been affected by the launch of other IP support programs, which collectively increased demand on Canada's IP expert ecosystem. NRC IRAP sought to work with vetted IP service providers who understood their clientele, a challenge as the availability of third parties was already limited prior to the launch of initiatives such as IP Assist and ElevateIP.

Enhanced IP literacy

IP Assist enhanced IP literacy among SMEs. By dispelling misconceptions and highlighting the significance of IP, the initiative gave NRC IRAP clients the critical knowledge to avoid potentially costly business errors. Delivering the initiative helped staff gain a greater understanding of the importance of IP.

Substantive increases in IP literacy

IP Assist's primary outcome was increased IP literacy among clients, the objective of level 1 services. The client survey found:

- 72% of clients reported a significant increase in IP knowledge, which was affirmed by interviews as the initiative's primary outcome
- clients also reported they were more confident in making IP-related decisions (71%) and understood the processes to reduce risk (71%). Interviewees noted IP literacy helped SMEs to avoid costly business mistakes, such as unnecessary patent applications.
- 69% of clients better understood their IP path forward

IP literacy gains were significantly higher among clients from Quebec (e.g., 91% said their IP knowledge increased). Quebec NRC IRAP staff reported they provided level "1.5" services to some clients in FY 2023-24, supplementing education services with pre-strategy development support including prior patent searches, likely impacting IP literacy levels.

Through delivery of IP Assist, NRC IRAP staff also gained a deeper understanding of the importance of IP to support business innovation and growth. Several staff, including GTX members and other ITAs, highlighted this as a key unexpected outcome of the initiative.

"I do not think we would have thought about IP the same way. We would have missed an opportunity. We would not have thought about licensing."

—Ontario-based client

"We have learned a lot of surprising information we were not aware of."

—Pacific-based client

The survey found that IP literacy gains among firms led or owned by women or members of visible minorities were comparable to results among IP Assist overall.
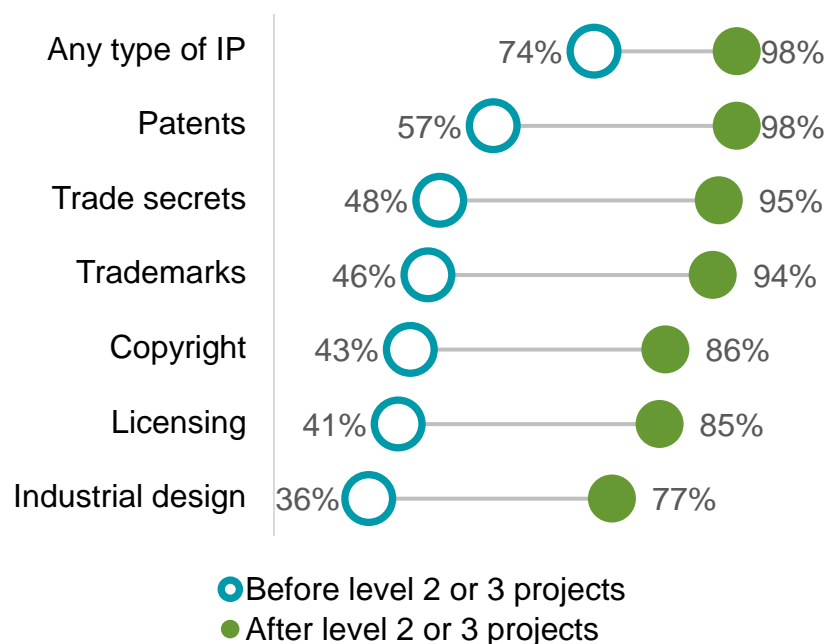
Familiarity with types of IP

IP Assist clients who received funding for level 2 and 3 services significantly improved their familiarity with various types of IP, building on their level 1 education and surpassing the target set by NRC IRAP.

IP familiarity target surpassed

NRC IRAP set a target that 95% of firms funded by IP Assist would consider themselves moderately to very familiar with at least 1 type of IP. To track progress, as part of its client reporting NRC IRAP asked level 2 and 3 clients their familiarity with 6 types of IP before and after receiving services, using a 5-point scale (with a rating of 3 defined as moderate familiarity). For clients that received both level 2 and 3 services, pre-level 2 ratings served as their baseline and post-level 3 ratings as their post-service result.

Overall, the share of funded firms reporting at least moderate familiarity with 1 type of IP or more increased from 74% pre-service to 98% post-service (refer to Figure 4). Surpassing its target, nearly all funded firms reported familiarity with patents, trade secrets and trademarks.

Figure 4. IP familiarity among funded firms

Type	Before level 2 or 3 projects	After level 2 or 3 projects
Any type of IP	74%	98%
Patents	57%	98%
Trade secrets	48%	95%
Trademarks	46%	94%
Copyright	43%	86%
Licensing	41%	85%
Industrial design	36%	77%

○ Before level 2 or 3 projects
● After level 2 or 3 projects

Source: NRC IRAP final reports, n=524.

IP strategies developed

IP Assist helped SMEs develop high-quality IP strategies, enabling better management, safeguarding and leveraging of IP assets, as well as strategic decision-making.

IP strategies empowered level 2 clients

The client survey found most level 2 clients (89%) successfully developed an IP strategy, a clear majority of whom considered them to be good or very good (refer to Figure 5). Level 2 clients who were unable to develop a strategy attributed this to their own limited capacity, competing priorities and insufficient funding.

Level 2 services empowered clients with the knowledge to act more strategically with IP:

- 78% gained increased visibility of the IP landscape
- 77% improved their ability to make IP-related decisions
- 74% better understood how to safeguard, manage and leverage their firm's IP

IP Assist personnel and partners described these clients as better prepared to manage their assets and make strategic decisions. Women and minority-led level 2 clients achieved comparable results to the overall group of level 2 recipients.

Figure 5. Quality of IP strategies developed by IP Assist level 2 clients

Very good	42%
Good	36%
Acceptable	9%
Poor	1%
Did not develop an IP strategy	11%
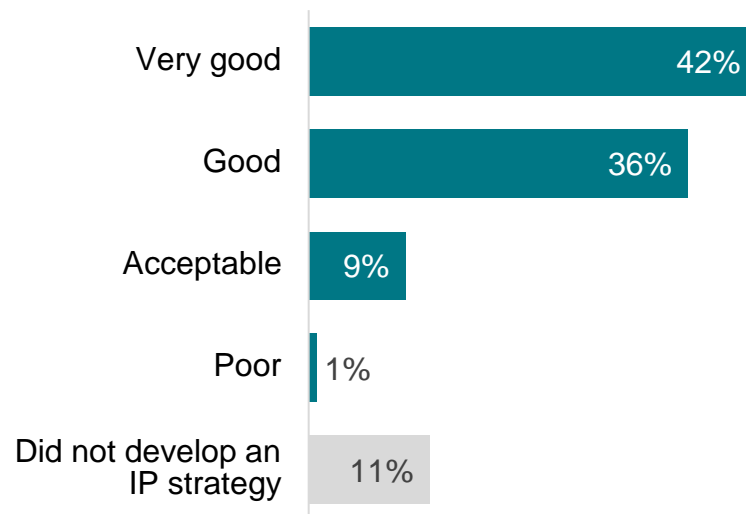
Source: Client survey, n=275. Only of those who reported receiving level 2 services were asked.

IP priorities actioned

Nearly all IP Assist clients receiving level 3 services acted upon priorities identified in their IP strategy.
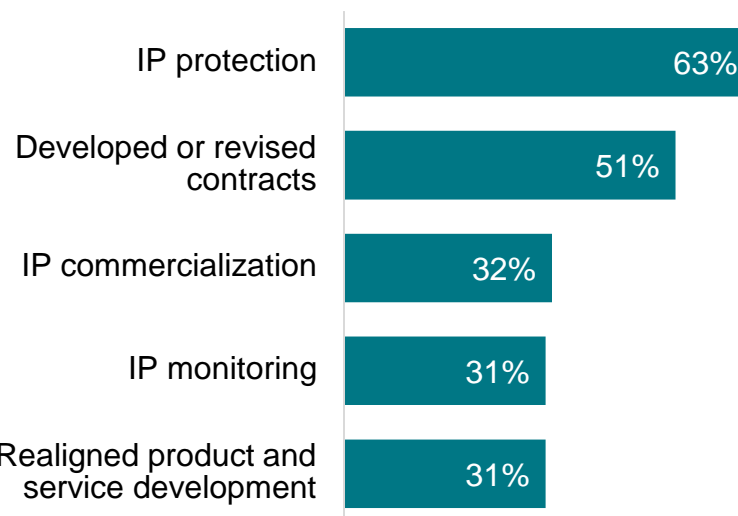
Level 3 clients took steps to protect IP

The client survey found that virtually all firms (96%) who reported receiving level 3 services executed IP-related actions. The nature of their actions varied, but 63% took steps towards IP protection (refer to Figure 6).

For example, a case study client in the transportation sector filed 3 patents as a result of prior IP Assist support, and stated that this would be instrumental in attracting investors. Additionally, 51% of clients developed or revised contracts. Interviewees described SMEs establishing non-disclosure agreements to safeguard their IP.

Most level 3 clients (84%) agreed that IP Assist would positively impact new product and service development, according to NRC IRAP final reports. Some internal and external interviewees said that SMEs developed technology with IP potential after identifying new opportunities through IP Assist-funded projects. For example, a case study client in the education sector was advised to develop an accreditation program with licensed content, in turn creating a new revenue stream.

Figure 6. Nature of actions executed by IP Assist level 3 clients

Action	Percentage
IP protection	63%
Developed or revised contracts	51%
IP commercialization	32%
IP monitoring	31%
Realigned product and service development	31%

Source: Client survey, n=101.

Business growth

The evaluation found that IP Assist clients were optimistic about future prospects, with some already experiencing some initial growth. However, it is too early to attribute revenue growth directly to the initiative.

SMEs better positioned for growth

Most IP Assist clients were optimistic that the initiative would positively impact their future business growth:

- 87% of clients surveyed agreed their firm is better positioned for revenue growth due to IP Assist
- according to the NRC IRAP final reports, 86% of level 2 and 3 clients found that IP Assist enabled them to secure additional investments in the future

These findings were further supported by client case studies and interviews. For example, case study clients said their increased IP understanding and protection made their firms more attractive to investors, facilitated new product development and sales, and generally increased their ability to leverage their IP in business dealings.

Additional growth-related outcomes included broad agreement that IP Assist supported new market entry and expansion for clients, with some reports of employment growth among IP Assist clients.

Too early to attribute revenue growth

NRC IRAP aimed to increase clients' business revenue by helping them leverage their IP. NRC IRAP targeted that IP Assist clients would experience revenue growth 5% greater than other NRC IRAP clients by the end of FY 2023-24.

However, the evaluation could not conduct a valid comparative analysis of client compound annual growth rates (CAGR) due to the following limitations:

- NRC IRAP client revenue data lags by 2 fiscal years, so relevant data was not available for most IP Assist clients
- Insufficient time had passed since most level 2 and 3 services were delivered. Per the Canadian Intellectual Property Office (CIPO), the average turnaround time from request for examination to patent grant is 2.5 years

With these time delays in mind, CAGR impacts may not be observable until approximately 5 years after the initiative's launch (FY 2025-26). Most interviewees agreed that it was too early to demonstrate broad revenue increases as a result of IP Assist.

Lessons learned

The Intellectual Property (IP) Assist evaluation identified lessons for future programming related to initiative design relative to existing resources, guidance for implementers, co-delivery and coordination with third parties, digital tools and timelines.

Lessons learned

The evaluation identified lessons learned for future initiatives. Due to the time-limited nature of the IP Assist initiative specifically, the evaluation has not made recommendations for NRC IRAP.

1. Delivery model

NRC IRAP's pivot to a hybrid delivery model with CTOs significantly enhanced the effectiveness and efficiency of IP Assist. This approach broadened client reach and reduced burden on ITAs without compromising service quality. CTOs were well-connected within the Canadian SME and IP ecosystem, allowing the program to reach potentially 1,000 additional clients rather than relying solely on ITAs. Moreover, clients who worked with CTOs reported comparable levels of satisfaction with the initiative to those that did not. This underscores the value of leveraging external expertise to complement internal resources, scale up an initiative and deliver it just as effectively.

2. Capacity assessment

Effective design of any new initiative requires a detailed assessment of in-house competencies and capacities. IP Assist faced challenges in its first year due to assumptions about ITAs' IP knowledge, their capacity to deliver the initiative in addition to existing services, and the time and effort required to establish a program of this magnitude.

These challenges impacted the program's ability to meet its reach targets. By understanding the starting point of in-house expertise, NRC IRAP can design more effective programs and develop better training materials and guidelines, ultimately leading to improved outcomes and more efficient use of resources.

3. Implementation guidance

Ensure detailed and uniform guidance is provided to all implementers from the outset, including clear processes for client engagement, targeted client numbers and mechanisms for connecting clients to experts. Relying on informal action plans and varied guidance can lead to confusion and hinder program effectiveness. Early and comprehensive guidelines are critical for effective planning and achieving targets, though guidance may evolve as initiatives mature.

Lessons learned (continued)

4. Interagency coordination

Should NRC IRAP continue IP Assist or launch another initiative where comparable programs exist, it would be prudent to explore formal coordination with other programs to enhance efficiency and mitigate duplication. A clear plan for coordinating with other IP support programs could lead to a more cost-effective and comprehensive service offering, benefiting more SME clients and potentially driving greater impacts on business growth and innovation.

Ideally, this would be directed by the lead organization responsible for the relevant strategy and overall subject area.

5. Timelines and targets

NRC IRAP should ensure new initiatives allocate sufficient time for launch and implementation, and set realistic targets. The evaluation found that 3 years was too short for a program of this scale to meet its targets, and that budget and performance targets did not reflect a realistic period of program "ramp up". Extending timelines or reducing targets could have been beneficial.

6. Performance monitoring

Leverage existing technology familiar to staff to minimize the learning curve, but ensure these tools are well-suited for efficiently tracking clients, services and financial expenditures, monitoring program results and making evidence-informed decisions. Making early modifications to client and project-tracking software is crucial and can enhance the ability to quickly assess program performance and make necessary adjustments.

Appendices

Appendix A: Methodology

Client survey

The Office of Audit and Evaluation surveyed IP Assist clients on their experience with the initiative, including satisfaction with NRC IRAP personnel and IP Assist delivery partners, business impacts, and ongoing need for the initiative. Clients were asked follow-up questions regarding IP strategies and actions based on self-reported levels of service. The survey had a margin of error of plus or minus 4%, 19 times out of 20.

The survey was conducted online in May 2024, with invitations emailed to a sample of 4,190 IP Assist clients. As the sample was developed in February 2024, prior to the end of FY 2023-24, it excluded 478 clients that were not yet entered into NRC IRAP's client database. Many of these clients received services facilitated by a CTO.

Initially, 586 (14%) clients responded. However, 93 respondents did not answer what levels of service they received and were thus excluded from analysis, resulting in a valid response rate of 12% (n=493). Per administrative data and survey comments, it is likely most of those excluded received only informal level 1 services from an NRC IRAP client engagement advisor (CEA) or ITA and were unable to recall which services they received when asked.

Key informant interviews

Individual and group interviews collected individuals' perspectives on the initiative's relevance, efficiency and performance. Interviewees were selected based on involvement with program delivery and to balance for regional distribution.

A total of 44 people were interviewed between May and July 2024:

- 25 internal interviewees including NRC IRAP senior management, program staff, ITAs and CEAs
- 19 external interviewees including CTOs, service providers and other IP support programs

Appendix A: Methodology (continued)

Data review

The data review drew on multiple datasets maintained using the NRC's SAP system for accounting and NRC IRAP's SONAR system for tracking client engagement and projects. Specific data included:

- administrative data used to track program participation by level and client characteristics
- financial data used for tracking disbursement of grants and contributions (G&Cs)
- performance data captured by NRC IRAP from its delivered level 2 and 3 services (n=607 clients)
- data captured by CTOs from their facilitated level 1 and 2 services (n=571 clients)

Document review

Internal and external documents were reviewed to provide context and to complement other lines of evidence in assessing relevance and performance. Internal documents included IP Assist initiation documents, field manuals for NRC IRAP staff and annual internal performance reports. External documents included publicly available documentation on the 2018 Intellectual Property Strategy, the 2021 federal budget and comparator programs.

Client case studies

The case studies focused on 3 IP Assist clients who received level 1, 2 and 3 services. Clients volunteered to participate via the survey and subjects were selected to represent a range of regions (i.e., Ontario, Quebec and Pacific), sectors, and firms led by women and members of visible minorities.

Subjects were interviewed about IP Assist's relevance, efficiency and effectiveness, as well as their experiences with CTOs, service providers and other IP support programs. Interviews were supplemented with project documentation and survey responses. Levels of service were confirmed with administrative data.

Appendix B: Limitations and mitigation

Methodological limitations and associated mitigations are described below.

Client survey issues

There were discrepancies between the levels of service reported by survey respondents and those recorded in NRC IRAP administrative data using SONAR, primarily underreporting of level 1 services.

In addition, margins of error for survey responses analyzed by region were higher, ranging from plus or minus 7% for Ontario to 12% for Atlantic, thus limiting regional comparisons.

Mitigation: Overall results for level 1 service questions (e.g., increase in knowledge) were used as all respondents were asked these questions, regardless of self-reported levels. Interviews affirmed that virtually all clients received some level 1 services.

Results for level 2 and 3 service questions (e.g., strategy quality) were analyzed based on self-reported levels. Comparisons by region were limited to instances where regional results were outside the margin of error.

Data availability and consistency

The evaluation team had challenges determining operations and maintenance (O&M) and client counts per service level.

It was not possible to fully assess initiative efficiency as NRC IRAP did not track O&M expenditures for IP Assist (i.e., dedicated staff or time spent by others).

Service levels were not consistently tracked by NRC IRAP staff due to limitations with information management software and complexity added by the hybrid delivery model.

Mitigation: Efficiency for services facilitated by CTOs was estimated using claims information, but it was not possible to estimate efficiency for services led by NRC IRAP. Service levels were ascertained by supplementing administrative data with details in CTO claims to obtain more accurate service counts.

Appendix B: Limitations and mitigation (continued)

Comparisons with other IP supports

Comparisons were made between IP Assist and 3 other federal IP support programs. Namely, education services offered by:

- CIPO
- Global Affairs Canada's CanExport SMEs program
- Innovation, Science and Economic Development Canada's ElevateIP program

Comparisons drew on interviews with 1 representative per program and publicly available documentation, and indirectly on other interviews (e.g., internal and external interviewees who had experience with other programs). However this did not include an analysis of performance data from these three programs, and thus the evaluation could not compare their performance relative to IP Assist.

Mitigation: Comparisons were limited to questions of audience overlap and ongoing need. They did not address whether comparable services from CIPO, CanExport SMEs or ElevateIP were more or less effective at increasing IP awareness, strategy or action.

Evaluation of business growth

IP Assist aimed to support clients in increasing their business revenue. However, the evaluation found it was too early to conduct a valid comparison of CAGR.

Mitigation: Other lines of evidence (i.e., survey results, interviews and case studies) were considered when looking at the topic of potential revenue growth.
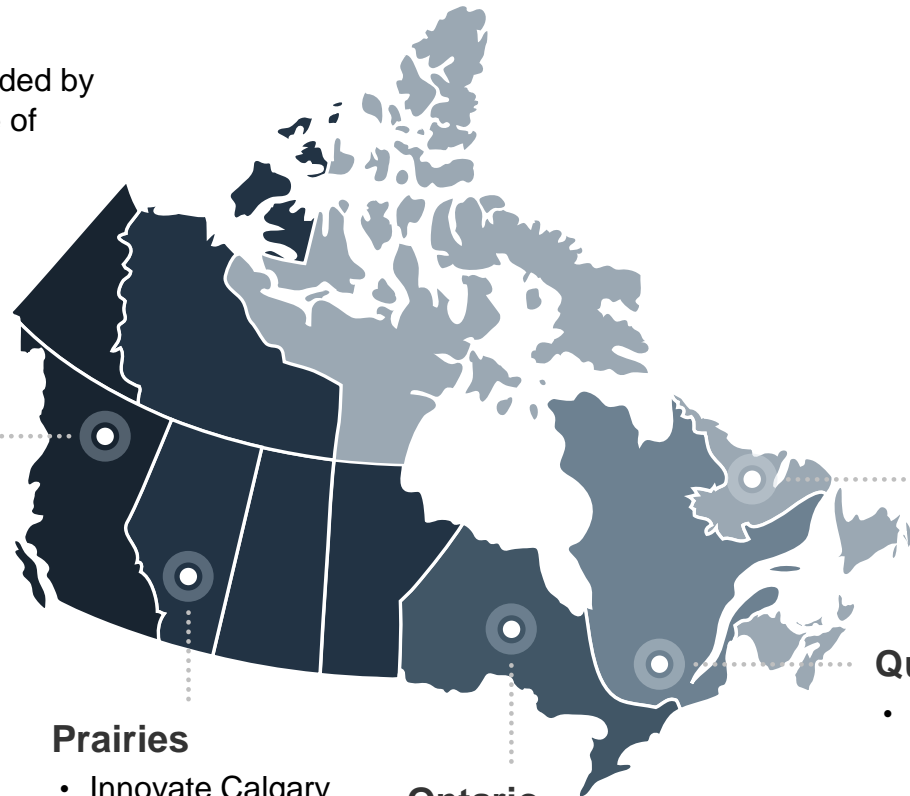
Appendix C: Delivery partners by region

IP Assist CTOs within respective NRC IRAP regions

National

Cross-regional support provided by Intellectual Property Institute of Canada (IPIC)

Pacific
- Innovate BC
- Simon Fraser University

Prairies
- Innovate Calgary
- North Forge

Ontario
- Innovation Factory
- Invest Ottawa
- MaRS

Atlantic
- Springboard Atlantic

Quebec
- L'Association pour le développement de la recherche et de l'innovation du Québec