



AUDIT OF INTELLECTUAL PROPERTY AND  
TECHNOLOGY TRANSFER  
AUDIT REPORT

PREPARED BY  
AUDIT AND EVALUATION DIRECTORATE

DECEMBER 2020



Agence spatiale  
canadienne Canadian Space  
Agency

Canada



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## 1.0 SUMMARY

### 1.1 AUDIT OBJECTIVE

The objective of this audit was to determine whether the management framework in place allows the Canadian Space Agency (CSA) to comply with the requirements of the Government of Canada's laws, regulations, policies, directives and strategic framework for intellectual property (IP).

### 1.2 AUDIT OPINION

In our opinion, the management framework in place allows CSA to comply with the requirements of the Government of Canada's laws, regulations, policies, directives and strategic framework for IP. Some opportunities for improvement were nonetheless identified in some areas.

### 1.3 STATEMENT OF ASSURANCE

As Chief Audit Executive, I am of the opinion that sufficient and appropriate audit procedures have been followed and evidence gathered to support the accuracy of the opinion provided in this report. This opinion is based on a comparison of the conditions, as they existed at the time of the audit, against pre-established audit criteria determined in consultation with the management. This opinion is only applicable to the particular entity being audited. The evidence was gathered in compliance with the Treasury Board (TB) policy, directives and standards for internal audits. The procedures followed are in accordance with the professional standards of the Institute of Internal Auditors. The evidence gathered is sufficient to convince senior management of the validity of the opinion derived from the internal audit.

### 1.4 SUMMARY OF FINDINGS

Our review showed that the IP mechanisms in place enable the CSA to comply with Government of Canada's laws, directives and guidelines. The CSA meets the requirements of the *Policy on Title to Intellectual Property Arising Under Crown Procurement Contracts* and the *Public Servants Inventions Act*. Furthermore, it applies the Government of Canada's *IP Strategic Framework for Science-Based Departments and Agencies (SBDA)* and takes into account the *Canadian Intellectual Property Strategy* as well as the practices of other federal departments and agencies in the development of its management framework. Finally, we found that targeted studies on CSA's technologies are being led to assess their potential commercial transferability.

We have, however, identified opportunities for improvement in terms of clarifying roles and responsibilities among the CSA's internal groups during the procurement contract award process and the CSA employee's awareness of copyright management when publishing or presenting scientific information outside of the CSA. Two recommendations are made to address the above and an action plan was developed by management.

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**Signature of the Chief Audit Executive**

**Audit team members**

Dany Fortin, Johanna Gailer, Fatima Raveen
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## 2.0 AUDIT REPORT

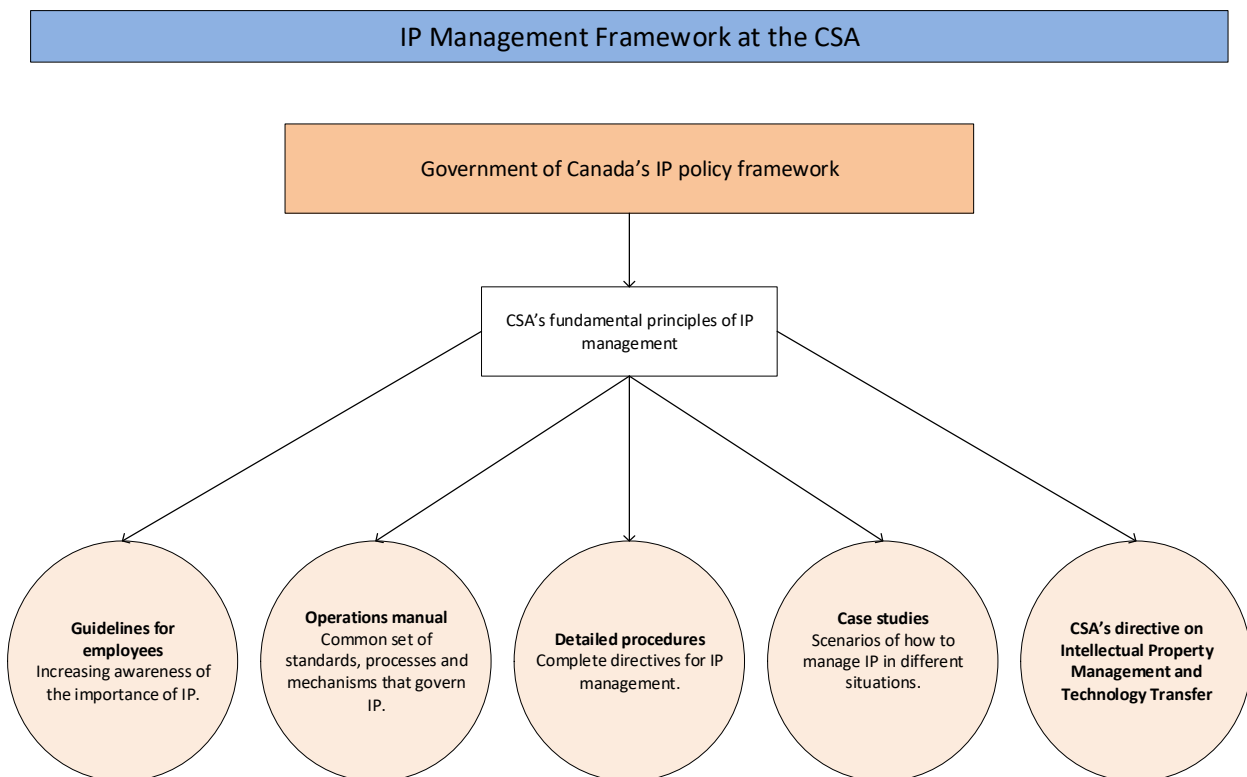
### 2.1 BACKGROUND

As a science-based department, the CSA develops and maintains a wide range of programs and activities that result in various outcomes that can be identified, protected, operated and disposed in accordance with the laws, policies, regulations and standards relating to IP. The outcomes may include but are not limited to: scientific and non-scientific publications or presentations, discoveries and inventions, technical and non-technical reports, industrial designs, software or source codes, databases, policy documents, speeches, photographs and videos, logos, websites and other digital media. The CSA also undertakes procurement activities and grants and contributions agreements that result in these kinds of outcomes.

To provide a framework for IP management, the Government of Canada has issued specific laws, policies and directives that the CSA refer to. More precisely, the Government of Canada's *IP Strategic Framework for SBDA*, the *Policy on Title to Intellectual Property Arising Under Crown Procurement Contracts*, the *Copyright Act*, the *Patent Act*, the *Trademarks Act*, the *Industrial Design Act* and the *Public Servants Inventions Act*.

The CSA has an Office of Intellectual Property Management and Technology Transfer (IPMTT) within its organization that, under the CSA's *Directive on Intellectual Property Management and Technology Transfer*, is a source of IP advice and support for employees. The Office of IPMTT has five employees, and reports to the Finance and Corporate Services Branch as of September 2020. Prior to this date, it reported to the Space Science and Technology directorate.

Here is an overview of the IP management framework at the CSA:



### 2.2 AUDIT OBJECTIVE, SCOPE AND APPROACH

#### OBJECTIVE

The objective of this audit was to determine whether the management framework in place allows the CSA to comply with the requirements of the Government of Canada's laws, regulations, policies, directives and strategic framework for IP.

#### SCOPE

The audit focused mainly on the existing processes for managing IP and technology transfer at the CSA from April 1, 2018, to September 30, 2020.

#### APPROACH

The audit criteria were established in accordance with best management practices as well as requirements of the laws, policies, regulations and guidelines issued by the CSA and central agencies. It should be noted that the objective and the audit criteria were discussed with management. The audit criteria are set out in [Appendix A](#). The audit involved various auditing processes, including interviews and the review of documents.

We examined:

- The 16 procurement contracts that were granted exceptions so that the Crown could maintain the intellectual property rights (IPR) for the first three quarters of 2019-2020.
- 6 of the 39 procurement markets from which IP arose, but whose IPRs were left to the contractor.
  - Selection methodology:
    - Contracts with the highest monetary values
    - Distributed over the three first quarters of 2019-2020
- The process and procedure for the three public servant inventions reported for 2019-2020.
- The process of publishing/presenting scientific and technical information outside of the CSA.
- The process and procedure for issuing the two licences that were issued in 2019-2020.

## 2.3 FINDINGS, RECOMMENDATIONS AND MANAGEMENT REACTIONS

### Expected results:

In order to determine whether the management framework in place allows the CSA to comply with the requirements of the Government of Canada and the CSA’s laws, regulations, policies, directives and strategic framework for IP, we expected to find the five (5) following criteria:

- CSA alignment with the Government of Canada’s IP’s Strategic Framework for SBDA
- Clearly established roles and responsibilities with regard to IP management
- Clear processes are established for identifying and managing IP
- Employees are trained and made aware of IP issues and objectives
- Promotion of the CSA’s IP through a dissemination or a targeted deployment

### 2.3.1 Intellectual property Strategic Framework for SBDA

<b>Audit objective</b>	The objective of this audit was to determine whether the management framework in place allows the CSA to comply with the requirements of the Government of Canada and the CSA’s laws, regulations, policies, directives and strategic framework for IP.	
<b>FINDINGS</b>	Criterion 1	The CSA is aligned with the Government of Canada’s IP Strategic Framework for SBDA.
	Condition	<p><b>Conclusion on the criterion:</b></p> <p>Our audit revealed that the CSA is aligned with the Government of Canada’s IP Strategic Framework for SBDA.</p> <p><b><i>IP Strategic Framework for SBDA</i></b></p> <p>The Government of Canada has developed an IP Strategic Framework for SBDA. This strategic framework was developed to “help SBDA effectively and diligently manage their IP”<sup>1</sup>. It establishes the guiding principles and encourages departments to develop their own IP policy and guidelines. Furthermore, the Strategic framework refers to the implementation of the requirements of the <i>Policy on Title to Intellectual Property Arising Under Crown Procurement Contracts</i> for managing IP that arises from procurement activities.</p> <p><i>The CSA has developed a series of instruments for IP management and technology transfer.</i></p> <p>The CSA’s Office of IPMTT has created a comprehensive framework including IP management tools that supports the implementation of features for IP management and technology transfer in accordance with the <i>Canadian Space Agency Act</i>. This framework includes a directive, guidelines for employees, detailed procedures and case studies. Templates, checklists, forms and training materials were also developed to support the CSA.</p>

<sup>1</sup> Strategic Framework for SBDA



<p><b>Audit objective</b></p>	<p>The objective of this audit was to determine whether the management framework in place allows the CSA to comply with the requirements of the Government of Canada and the CSA’s laws, regulations, policies, directives and strategic framework for IP.</p>	
		<p>The CSA’s directive for IPMTT establishes the objectives and sets out the requirements/responsibilities for stakeholders as well as the delegations of authority in accordance with the <i>Canadian Space Agency Act</i> for the IP management process. Moreover, guidelines provide operational guidance to employees for implementation. Our assessment of these documents revealed that they are adequately aligned with the IP strategy for SBDA for managing the life cycle of IP, namely identifying, protecting, using and destroying IP. An operations manual also guides the CSA’s managers and employees to the tools available. It refers to the laws concerning IP, namely the <i>Patent Act</i>, <i>Trademarks Act</i> and, <i>Copyright Act</i>.</p> <p><i>The CSA is in compliance with the Policy on Title to Intellectual Property Arising Under Crown Procurement Contracts</i></p> <p>The CSA’s IP creation activities mainly arise under Crown procurement contracts. The CSA signs contracts with businesses and universities to develop concept studies, analyses, prototype manufacturing, payloads and special machinery. Accordingly, complying with the requirements of the <i>Policy on Title to Intellectual Property Arising Under Crown Procurement Contracts</i> (the Policy) is a key element of the CSA’s IP management activities and one of the main areas of interest for this audit.</p> <p>The Policy states that, by default, the contractor owns the rights to any foreground intellectual property arising from Crown procurement contracts, unless the Crown invokes one of the stated exceptions. Some of those exceptions include grounds of national security, eventual broadcasting to the public or the development of sub-systems integrated to a complete system at a later date before it can be transferred to the private sector for commercial use. If the contractor owns the rights to the foreground intellectual property, nothing prevents the Crown from using the IP under the quasi automatic granting of a royalty-free licence to use the IP or allow a third party to use it.</p> <p>According to information from the CSA’s website for the nine first months of 2019-2020, the CSA granted 287 procurement contracts above \$25,000. Among those, 55 of the procurement contracts generated IP. Of those 55, the CSA invoked exceptions so it could maintain the IPR on 16 occasions, which represents 29% of contracts that generated IP. The data for 2018-2019 were proportionally similar.</p> <p>To determine the extent to which the CSA complies with the policy, we reviewed all 16 procurement contracts for which the CSA</p>





<b>Audit objective</b>	The objective of this audit was to determine whether the management framework in place allows the CSA to comply with the requirements of the Government of Canada and the CSA's laws, regulations, policies, directives and strategic framework for IP.	
		<p>maintained IPR during the first three quarters of 2019-2020. Because these files are often complex and require particular expertise for identifying IP and determining the merit of the decisions, we requested and obtained assistance from the CSA's Office of IPMTT in reviewing certain aspects of the files.</p> <p>Following the review of the files and discussions with the stakeholders, we found that:</p> <ul style="list-style-type: none"> <li>• For 15 of the procurement contracts that were assessed, the CSA's decision to maintain the IPR was appropriate. In one of the assessed contracts, it was concluded that the IPR should have been left to the contractor.</li> <li>• The key contacts at the Office of IPMTT had initially been consulted during the decision-making process for 8 of the 16 procurement contracts that were assessed.</li> <li>• Very little documentation was available for the files under review to support the analyses made during the decision-making process when an exception is invoked and the CSA maintains the IPR. When some of the documents were available, they were communications with the Office of IPMTT, who served as advisors. A recommendation concerning this aspect is made in section 2.3.2 of this report.</li> </ul>
<b>RECOMMENDATION</b>	N/A	
<b>RESPONSIBILITY IDENTIFIED</b>	Organization	N/A
	Function	N/A
<b>MANAGEMENT RESPONSE</b>	N/A	
<b>MANAGEMENT ACTION PLAN</b>	Action plan details	Deadline
	N/A	N/A

## 2.3.2 Roles and responsibilities

<b>Audit objective</b>	The objective of this audit was to determine whether the management framework in place allows the CSA to comply with the requirements of the Government of Canada and the CSA's laws, regulations, policies, directives and strategic framework for IP.	
<b>FINDINGS</b>	Criterion 2	The roles and responsibilities for IP management are clearly established.
	Condition	<p><b>Conclusion on the criterion:</b></p> <p>Our audit revealed that, in general, the roles and responsibilities for IP management at the CSA are established. We are, however, of the opinion that some clarifications should be made with regard to certain responsibilities.</p> <p><b>Roles and responsibilities</b></p> <p>The roles and responsibilities regarding IP management at the CSA are defined for each of the stakeholders through several documents, namely the CSA's directive on IPMTT, guidelines and internal procedures documents.</p> <p>We are, however, of the opinion that certain roles and responsibilities could benefit from reminders, revisions or clarifications. Specifically:</p> <ul style="list-style-type: none"> <li>• The CSA's directive for IP management states that executives are responsible for notifying the Office of IPMTT and consulting it on activities and investments that involve IP (i.e. contracts, grants and contributions, and collaborative agreements). However, as stated in the findings in section 2.3.1 of this report, we found that, based on a sampling of 16 files, the Office of IPMTT was consulted for only 50% of files and it is not always informed when the CSA maintains IPR from procurement contracts. This situation may create issues with regard to respecting the default position of granting the IPR to contractors in accordance with the <i>Policy on Title to Intellectual Property Arising Under Crown Procurement Contracts</i>, in addition to failing to call upon the required expertise for decision making and maintaining a precise inventory of the IPR owned by the CSA.</li> <li>• The CSA's directive for IP states that the Finance Directorate – Procurement and Contract Administration Branch is responsible for “ensuring that the exceptions invoked under the Treasury Board (TB) Policy on <i>Title to IP Arising under Crown Procurement Contracts</i> are properly documented.” However, we were unable to find any clear indication concerning the documentation of exceptions and the decision-making process surrounding it. The analyses are not well documented for these files. The procurement agents who were met, from both the CSA and</li> </ul>

<b>Audit objective</b>	The objective of this audit was to determine whether the management framework in place allows the CSA to comply with the requirements of the Government of Canada and the CSA's laws, regulations, policies, directives and strategic framework for IP.	
		Public Services and Procurement Canada (PSPC), are of the opinion that the exceptions invoked and the analyses that support them should be validated by the Office of IPMTT before being sent to the procurement agents because, according to them, they do not have the in-depth expertise in IP that is required to do so. Because of this, the Office of IPMTT recently called on the advisory services from the IP Centre of Expertise established by Innovation, Science and Economic Development Canada (ISED) in 2019 in order to get outside opinions and be aligned with the practices of other federal departments.
<b>RECOMMENDATIONS</b>	1. Clarify the roles and responsibilities and set expectations regarding documentation of the analyses supporting the decision-making process for IP when exceptions are invoked for procurement contracts.	
<b>RESPONSIBILITY IDENTIFIED</b>	Organization	Finance and Corporate Services Branch
	Function	Head, IP Management and Technology Transfer
<b>MANAGEMENT RESPONSE</b>	We agree with the recommendation.	
<b>MANAGEMENT ACTION PLAN</b>	Action plan details	Deadline
	Hold consultations to identify the control mechanisms that need to be implemented when exceptions to the <i>Policy on Title to Intellectual Property Arising Under Crown Procurement Contracts</i> are invoked for investment projects that are subject to procurement activities. In cases where exceptions are invoked, those responsible for the project must consult the Office of IPMTT, justify and document the process in accordance with the procedure that will be implemented at the outcome of the consultations.	October 2021

### 2.3.3 Process

<b>Audit objective</b>	The objective of this audit was to determine whether the management framework in place allows the CSA to comply with the requirements of the Government of Canada and the CSA's laws, regulations, policies, directives and strategic framework for IP.	
<b>FINDINGS</b>	Criterion 3	Clear processes are established for identifying and managing IP.
	Condition	<b>Conclusion on the criterion:</b>



<p><b>Audit objective</b></p>	<p>The objective of this audit was to determine whether the management framework in place allows the CSA to comply with the requirements of the Government of Canada and the CSA’s laws, regulations, policies, directives and strategic framework for IP.</p>	
		<p>Our audit revealed that, in general, clear processes are established for managing IP that include identification, protection, use and destruction. A recommendation was, however, made regarding the process of publishing and presenting scientific and technical information.</p> <p><i>Process</i></p> <p>In accordance with the guidelines, the CSA’s Office of IPMTT developed procedures for each of the processes related to IP. For this audit, particular attention was paid to the processes related to procurement contracts, invention disclosures and the publication/presentation of scientific and technical information. We selected a few files to examine how the processes and procedures were applied.</p> <p><i>Procurement contracts</i></p> <p>Aside from the 16 aforementioned procurement contracts wherein the CSA maintained the IPR, we also assessed six contracts for which the IPR were left to the contractor as recommended in the Government of Canada’s Policy.</p> <p>The assessment of the management process for IP arising from procurement contracts revealed that some procedures were adequately developed and support IP management. The IPR are clearly indicated in the solicitation documents and in the contract. Furthermore, the exceptions that were invoked are included in Appendix A of the Policy.</p> <p>The Office of IPMTT developed a tool for helping managers establish appropriate IP protocols based on objectives. It provides instructions to employees for appropriate IP management. This tool includes a questionnaire that, depending on the procedure, must be sent to the Office of IPMTT, which will then verify the information, approve the document and record the information in a database. However, this tool is rarely used because it was never made official and publicized. Management’s action plan in response to Recommendation 1 in this report regarding the documentation of analyses supporting IP decisions should also include this aspect.</p> <p>Then, as part of this audit, the procurement contracts involving IP were identified on the CSA’s website as part of the proactive disclosure of contracts worth more than \$25,000 that is required of all federal government organizations. However, for 4 of the procurement contracts, it was stated that the CSA had maintained the IPR when in reality no IP had resulted from those contracts. Our assessment of those files showed that errors had been made when</p>



<b>Audit objective</b>	The objective of this audit was to determine whether the management framework in place allows the CSA to comply with the requirements of the Government of Canada and the CSA's laws, regulations, policies, directives and strategic framework for IP.	
		<p>the data was entered into the SAP system. Given that this information is collected and analyzed by the central agencies, it is important to ensure its accuracy.</p> <p><i>Disclosure of inventions</i></p> <p>There is a clearly established process for disclosing inventions. More specifically, section 4 of the <i>Public Servants Inventions Act</i> states that: "Every public servant who makes an invention shall inform the appropriate minister of the invention and shall provide the minister with such information and documents with respect thereto as the minister requires; shall not file outside Canada an application for a patent in respect of the invention without the written consent of the appropriate minister; and shall, in any application in Canada for a patent in respect of the invention, disclose in his application that he is a public servant."<sup>2</sup> Section 2 of the <i>Public Servants Inventions Regulations</i> also addresses these elements. Our assessment of the CSA's procedure for disclosing inventions revealed that it is aligned with the elements stated in the Act and the Regulations.</p> <p>We assessed two files of public servant inventions from the CSA in 2019-2020 and found that the procedure for disclosing inventions was followed for all inventions. The appendices were completed and signed according to procedure. The documents are located in a folder in the electronic document management system under the IPMTT's document tree. We found that a study of the invention's patentability was performed for one case. For the other case, given that it was a script created for an online publication, there was no need for an assessment of its patentability, commercial potential or any licensing.</p> <p><i>Process for publishing/presenting scientific and technical information</i></p> <p>Some of the CSA's employees publish and present scientific and technical information outside of the organization either in journals, specialized magazines or scientific gatherings. These practices are regulated by the <i>Copyright Act</i>. It states, among other things, that "where any work is, or has been, prepared or published by or under the direction or control of Her Majesty or any government department, the copyright in the work shall, subject to any agreement with the author, belong to Her Majesty."<sup>3</sup></p> <p>The CSA published a procedure for publishing/presenting technical and scientific information stating that "copyrights for Scientific and Technical information (STI) created by employees belong to the Crown. The CSA does not relinquish copyrights, but may authorize a</p>

<sup>2</sup> Public Servants Inventions Act

<sup>3</sup> Copyright Act



<b>Audit objective</b>	The objective of this audit was to determine whether the management framework in place allows the CSA to comply with the requirements of the Government of Canada and the CSA's laws, regulations, policies, directives and strategic framework for IP.	
		<p>non-exclusive licence to publish." The procedure states that, in order to publish, an employee must obtain prior authorization signed by his manager using the correct form. The information is then shared with the Office of IPMTT, document management and the CSA's Larkin Kerwin-Library.</p> <p>According to the information we obtained, the SCOPUS database lists 36 STI publications by CSA employees for 2019-2020. However, only one documented prior authorization was reported at the Office of IPMTT for the same period. Even though the procedure is easily accessible to CSA employees on the intranet site, it does not appear to be systematically followed. It is possible that, in some cases, employees are granted authorization by their manager without it being documented or being reported to the Office of IPMTT. The lack of documented evidence concerning the application of the procedure and required controls represents a risk with regard to protecting the CSA's copyrights, hence the recommendation that follows.</p>
<b>RECOMMENDATIONS</b>	2. Ensure the procedure for publishing/presenting scientific and technical information is followed as required and that the documentation supporting its application is preserved.	
<b>RESPONSIBILITY IDENTIFIED</b>	Organization	Finance and Corporate Services Branch
	Function	Head, IP Management and Technology Transfer
<b>MANAGEMENT RESPONSE</b>	We agree with the recommendation.	
<b>MANAGEMENT ACTION PLAN</b>	Action plan details	Deadline
	Identify the publications/presentations found by the Library that are authorized under the procedure for publishing/presenting scientific and technical information in order to identify discrepancies and follow-up with the concerned sectors. Repeat this activity yearly to monitor progress.	October 2021

### 2.3.4 Awareness and training

<b>Audit objective</b>	The objective of this audit was to determine whether the management framework in place allows the CSA to comply with the requirements of the Government of Canada and the CSA's laws, regulations, policies, directives and strategic framework for IP.	
<b>FINDINGS</b>	Criterion 4	Employees are trained and made aware of IP issues and objectives.
	Condition	<p><b>Conclusion on the criterion:</b></p> <p>Our audit revealed that, in general, employees are trained and made aware of IP issues and objectives. The Office of IPMTT provides many training and support to employees. However, as stated in recommendations 1 and 2 in the previous sections, increased awareness of IP management procedures for procurement contracts and publishing/presenting technical and scientific information would be beneficial.</p> <p><b>Awareness and training</b></p> <p>One of the responsibilities of the Office of IPMTT is to “support CSA employees in identifying existing IP and raising awareness on the importance of effective IP management through consulting services and training activities.”</p> <p>Following our assessment, we found that the Office of IPMTT spreads awareness to CSA employees using different methods. One course on “Basic Concepts on Intellectual Property” is offered on a regular basis, IP Café in which employees can ask questions about IP and, information on the subject is also available on the CSA's Intranet and website. Furthermore, the CSA's new employee welcoming guide refers employees to a section of the Intranet that covers IPMTT.</p> <p>Moreover, the Canada School of Public Service offers a course called “Intellectual Property” to all federal public servants. The main topics covered by this course are how to apply the <i>Policy on Title to Intellectual Property Arising Under Crown Procurement Contracts</i> and an explanation of different situations where questions of intellectual property may arise.</p> <p>However, as previously stated in this report, we found that the CSA's employees would benefit from increased awareness of the procedure for publishing/presenting scientific and technical information and the procedure for documenting IP activities during the procurement process.</p>
<b>RECOMMENDATION</b>	N/A	
	Organization	N/A

<b>Audit objective</b>	The objective of this audit was to determine whether the management framework in place allows the CSA to comply with the requirements of the Government of Canada and the CSA's laws, regulations, policies, directives and strategic framework for IP.	
<b>RESPONSIBILITY IDENTIFIED</b>	Function	N/A
<b>MANAGEMENT RESPONSE</b>	N/A	
<b>MANAGEMENT ACTION PLAN</b>	Action plan details	Deadline
	N/A	N/A

### 2.3.5 Technology transfer and commercialization








<b>Audit objective</b>	The objective of this audit was to determine whether the management framework in place allows the CSA to comply with the requirements of the Government of Canada and the CSA's laws, regulations, policies, directives and strategic framework for IP.	
<b>FINDINGS</b>	Criterion 5	The CSA's use of IP is promoted through a dissemination or a targeted deployment.
	Condition	<p><b>Conclusion on the criterion:</b></p> <p>We found that the Office of IPMTT performs targeted studies on the CSA's technologies to assess its potential transferability to commercialization. Furthermore, there are processes for managing the licences granted by the CSA and they are monitored to ensure the compliance.</p> <p>In order to determine whether the current methodology for promoting IP and technology transfer supports the effective implementation of the Space Strategy for Canada, the Office of IPMTT started a review and analysis of opportunities.</p> <p>We encourage management to continue their analysis on that subject to ensure that the methods in place are optimized to support the implementation of the Space Strategy for Canada.</p> <p><b>Commercialization and brokering studies</b></p> <p>The CSA has a portfolio of technologies that were developed as part of its various activities. These technologies are the result of public servants' inventions or IPR that were maintained by the CSA following procurement contracts.</p> <p>Before proceeding with technology transfer, the CSA carries out studies on the commercialization potential. These studies are carried out in two steps: assessing the market and verifying the interest of</p>



<p><b>Audit objective</b></p>	<p>The objective of this audit was to determine whether the management framework in place allows the CSA to comply with the requirements of the Government of Canada and the CSA’s laws, regulations, policies, directives and strategic framework for IP.</p>	
		<p>the receptor firms. Then follows the brokering study, which aims to solicit potential receptors, in other words to find potential licensees.</p> <p>In 2017-2018, the Office of IPMTT contracted out an external study to review the potential transferability of the CSA’s portfolio of 190 technologies to target the efforts that would be required to promote them. This portfolio includes the technologies resulting from internal inventions and those developed by the space sector but for which the CSA maintained the IPR ownership.</p> <p>Concurrently to the review of the 190 technologies, the Office of IPMTT led a pilot project to assess the interest of those who received contributions from the Space Technology Development Program (STDP) in participating in studies to assess the commercial potential of the technologies that are developed. The results of the pilot project showed that the studies carried out met a business need because they revealed new potential markets of interest for businesses.</p> <p><i>Technology transfer in major projects</i></p> <p>Transferring technologies is a significant part of the CSA’s major projects, including the Canadarm and the RADARSAT Constellation Mission (RCM), whose commercial use was subject to provisions included in the licences granted by the CSA.</p> <p>Given the great significance of the socioeconomic effects resulting from these major projects, the CSA targeted the potential results of these major projects and implemented interdepartmental partnerships and industry awareness activities to promote technology transfer and commercialization. The Office of IPMTT supported these activities that were led by several groups, including the Space Exploration, Policy and Science and Space Technology branches.</p> <p><i>Licences</i></p> <p>The CSA transfers technology by issuing licences that are usually not exclusive. The procedure that was developed to manage the issuance of licences states that the selection of licensees is based on their ability to use the technology, their technical and research and development abilities, their management skills and financial resources.</p> <p>The CSA grants licences to businesses in two situations: (1) Following a contract under which IP arose, but for which the CSA maintained the IPR and (2) Following a public servant invention for which a due</p>

<b>Audit objective</b>	The objective of this audit was to determine whether the management framework in place allows the CSA to comply with the requirements of the Government of Canada and the CSA's laws, regulations, policies, directives and strategic framework for IP.	
		<p>diligence process was followed, including a study of its patentability, technical/commercial studies or procedures for finding licensees.</p> <p>At the time of the assessment of the licences on March 31, 2020, the CSA had 14 active licences, whereas it had 19 active licences on April 1, 2019. This difference is a result of some licences reaching the end of their terms during the year and other licences being issued.</p> <p>We found that two licences were issued in 2019-2020 as part of technology transfer activities. An assessment of these files revealed that the procedure for issuing licences was correctly applied. The documents were approved by the appropriate levels of authority and the Office of IPMTT played a key role in coordinating the various stakeholders. We also found that the Office of IPMTT monitored the licences granted to businesses and analyzed the results in relation to the socioeconomic impacts.</p>
<b>RECOMMENDATION</b>	N/A	
<b>RESPONSIBILITY IDENTIFIED</b>	Organization	N/A
	Function	N/A
<b>MANAGEMENT RESPONSE</b>	N/A	
<b>MANAGEMENT ACTION PLAN</b>	Action plan details	Deadline
	N/A	N/A

## APPENDIX A – TERMS OF REFERENCE

<b>Audit objective:</b>	The objective of this audit was to determine whether the management framework in place allows the CSA to comply with the requirements of the Government of Canada and the CSA’s laws, regulations, policies, directives and strategic framework for IP.	
<u><b>Audit criteria</b></u>	Criterion met Criterion partially met Criterion not met	  
<b>Criterion 1:</b>	The CSA is aligned with the Government of Canada’s IP strategy for SBDA.	
<b>Criterion 2:</b>	The roles and responsibilities for IP management are clearly established.	
<b>Criterion 3:</b>	Clear processes are established for identifying and managing IP.	
<b>Criterion 4:</b>	Employees are trained and made aware of IP issues and objectives.	
<b>Criterion 5:</b>	The CSA’s use of IP is promoted through a dissemination or a targeted deployment.	