

## **Patent Cooperation Treaty (PCT) Committee for Technical Cooperation**

**Thirtieth Session  
Geneva, May 8 to 12, 2017**

### **EXTENSION OF APPOINTMENT OF THE CANADIAN INTELLECTUAL PROPERTY OFFICE AS AN INTERNATIONAL SEARCHING AND PRELIMINARY EXAMINING AUTHORITY UNDER THE PCT**

*Document prepared by the International Bureau*

1. All of the existing International Authorities were appointed by the PCT Assembly for a period ending on December 31, 2017. In 2017, the Assembly will therefore need to make a decision on the extension of the appointment of each existing International Authority that wishes to seek an extension of its appointment, having first sought the advice of this Committee (see PCT Articles 16(3)(e) and 32(3)). Information concerning this process and the role of the Committee is set out in document PCT/CTC/30/INF/1.

2. On March 8, 2017, the Canadian Intellectual Property Office submitted its application to extend its appointment as an International Searching Authority and International Preliminary Examining Authority under the PCT. This application is reproduced in the Annex to this document.

3. *The Committee is invited to give its advice on this matter.*

[Annex follows]

APPLICATION OF THE CANADIAN INTELLECTUAL PROPERTY OFFICE  
FOR EXTENSION OF APPOINTMENT  
AS AN INTERNATIONAL SEARCHING AND  
PRELIMINARY EXAMINING AUTHORITY UNDER THE PCT

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**1 – GENERAL**

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**a. Name of national Office and Officers:**

**i. Name:**

The Canadian Intellectual Property Office (CIPO),  
A Special Operating Agency of  
Innovation, Science and Economic Development Canada  
Government of Canada

**ii. Contact related to the contents of this report:**

Elaine A. Hellyer, P.Eng.  
Program Manager – International (PCT-PPH)  
elaine.hellyer@canada.ca / Tel: 819-635-7725 / TTY: 1-866-694-8389

**b. Date on which application for appointment was received by the Director General:  
March 8, 2017**

**c. Session of the Assembly at which appointment is to be sought:**

CIPO's re-appointment as an International Authority will be sought at the Forty-Ninth (Twenty-first Ordinary) Session of the PCT Union Assembly in 2017.

**d. Expected date at which operation as ISA/IPEA could commence:**

CIPO will be able to operate as an ISA/IPEA on January 1, 2018, on the commencement date of our potential new agreement with the International Bureau.

**e. Existing ISA/IPEA(s) assisting in assessment of extent to which criteria met:**

In line with the Procedures for Appointment of International Authorities as agreed at the Forty-Sixth session of the PCT Union, CIPO has obtained the assistance of the Australian Patent Office (IP Australia), the Israel Patent Office (ILPO) and the Intellectual Property Office of the United Kingdom (UKIPO) in reviewing CIPO's submission. As well, CIPO provided a draft of its submission to the IB for assessment. All comments received were taken into consideration when formalizing CIPO's submission.

IP Australia, as a prequel to a pilot exercise carried out at the 2017 session of the meeting of the Quality Subgroup (QSG) reviewed CIPO's 2015 Quality Management System (QMS) report and provided feedback. The pilot at the QSG consisted of reviewing the QMS report of one other volunteer pilot Office and having our own 2016 QMS report reviewed in turn. A combined summary of the reviews from IP Australia and the Austrian Patent Office (APO) can be found in Article IX below.

CIPO continually seeks to improve itself with the aim of enabling our Examiners to exceed the minimum criteria. In part, this is accomplished via exchanges of information and suggestions concerning best practices with various other International Authorities. CIPO can bench-mark and self-assess, after these exchanges, the extent to which the criteria are being met or surpassed. As well, CIPO participates in collaborative efforts with International Authorities to support the continuous improvement of the PCT system as a whole for all Contracting States. The following are examples of CIPO's involvement in this regard:

- Conduct Quality Audits of national examination work with the Vancouver Group IPOs (UKIPO and IP Australia);
- Initiated the publication of Search Strategies;
- Agreement with the other Vancouver Group Offices (UK IPO and IP Australia) on the contents of our Search Strategies and promoting such;
- Initiated a proposal to implement standardized clauses into international work products;
- Manager of the QSG wiki “Standard Clauses” page;
- PCT-PPH proponent at the QSG with the ILPO;
- Participant in the Global Patent Prosecution Highway;
- Bilateral Patent Prosecution Highway Pilot Programs with Mexico, the EPO and Chile;
- Hosted Patent Examiners on sabbatical from the Japan Patent Office who researched CIPO’s PPH practices, Canada’s utility and jurisprudence-driven sound prediction standards and CIPO’s Quality Control system;
- Host biannual PCT Roundtables at which a representative from each of WIPO, the EPO and the United States Patent and Trademark Office participate;
- Discussions, via teleconferences, on quality with the European Patent Office (EPO);
- Shared best practices amongst patent examiners from other countries/regions at CIPO’s Canadian Patent Law and Examination Workshops; and
- Regularly contributes on the QSG wiki page and responds to all PCT Circulars.

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## 2 –SUBSTANTIVE CRITERIA: MINIMUM REQUIREMENTS FOR APPOINTMENT

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### 2.1 – SEARCH AND EXAMINATION CAPACITY

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***Rules 36.1(i) and 63.1(i): The national Office or intergovernmental organization must have at least 100 full-time employees with sufficient technical qualifications to carry out searches and examinations.***

**Employees qualified to carry out search and examination:**

CIPO has an established, strong examination corps composed of four technology-specific divisions. CIPO’s Examiners are comprised of both Patent Examination and Patent Classification Examiners, who all work on both national and international applications. CIPO is moving away from differentiating between the two jobs and some Examiners from each group have started examining in the other area. Any newly hired Examiners will work as both an Examination and Classification Examiner.

CIPO was established as a Special Operating Agency (SOA) and is completely funded by the fees it charges for the delivery of products and services. This flexibility has permitted CIPO to focus on service delivery and quality, taking into consideration evolving client needs (both domestically and abroad). CIPO uses a sophisticated forecasting model to aid in Management’s decision making process regarding the use and need of human resources.

Technical field	Number (full-time employee)	Average experience as examiners (years)				Breakdown of qualifications
		SG-04 Working Level	SG-05 Senior Examiner	SG-06 Section Head	Total across all levels	
Mechanical	100	9.1	9.8	10.2	9.3	*
Electrical/Electronic	112	7.3	8.6	8.9	7.6	*
Chemistry	118	9.2	10.9	12.8	9.7	*
Biotech	68	8.9	9.3	11.2	9.1	*
Total	398	8.6	9.8	10.7		

\* CIPO does not maintain a list of which degrees each of our examiners possess. Regardless, when recruiting there are minimum qualifications that candidates must meet. These minimum qualifications vary by discipline and are as follows:

- Mechanical: Bachelor's degree from a recognized post-secondary institution in mechanical engineering or some other acceptable degree in a related discipline with a strong foundation in mechanical engineering principles. For example, degrees in civil, aerospace, biomedical and mining engineering;
- Electrical/Electronic: Graduation from a recognized university with a Bachelor's degree in Electrical Engineering, Computer Engineering or Software Engineering (Computer Science degrees will not be accepted);
- Chemistry:
  - For Organic Chemistry: Graduation from a recognized post-secondary institution with an honours degree in Chemistry or other acceptable degree in a discipline related to the position;
  - For General Chemistry: Graduation with an honours degree from a recognized university in Chemical Engineering or in Chemistry or some other acceptable degree in a discipline related to the position; and
  - Biotechnology: Graduation from a recognized university with a Master's degree or Ph.D. in biochemistry or molecular biology or other related discipline.

When the degree is from an institution outside of Canada CIPO uses the services of two entities that certify degree equivalencies. These are the University of Toronto's Comparative Education Service (CES) Academic Credential Assessment Service and World Education Services (WES) Educational Credential Assessment (ECA) Service.

CIPO has two dedicated Examination Support Staff areas: one for national work and our receiving Office staff also act as support to Examiners for their international work. The latter group help ensure CIPO's international work products are transmitted on time. For more detailed information regarding our timeliness please refer to the most recent presentation (PCT Statistics) given by the International Bureau at the PCT Meeting of International Authorities in February 2017.

### **Training Programs**

A dedicated Program Manager - Training is responsible for all training programs for Patent Examiners. CIPO's current training regime for patent examiners consists of a two-year apprenticeship program where a newly hired examiner has a one-on-one relationship with a Senior Patent Examiner for on-the-job training. This is augmented by formal training in a variety of patent law and examination subjects, such as, amongst others: the Canadian Patent Act and Rules, jurisprudence, formal examination, substantive examination, novelty, inventive step, industrial applicability, patentable subject matter, unity, clarity, databases (Questel Orbit, etc.) and search techniques, classification systems (IPC, CPC), advanced patent prosecution, our workflow instructions and process mappings, and all in-house tools. Included in the training is one week of intensive International Search and Examination Authority (ISA/IPEA) related training which in part explains the differences between Canadian practice and what is necessitated by the Patent Cooperation Treaty. Examiners are assessed on their examination skills and their ability to work independently throughout the two-year period. While apprenticing the Examiner is on probation. At the end of the period a final assessment is made. As well, CIPO Examiners have access to language courses and can undertake WIPO and EPO distance learning courses.

Training efforts are not restricted to the education of new examiners. Experienced examiners are encouraged to keep abreast of technology developments in their field of specialty, by reviewing technical periodicals, attending conferences and taking part in industrial tours of

Canadian companies. There are also mandatory workshops, courses and presentations in examination, patents and IP related subjects, run several times a year, which they must attend.

More information can be found in the following two papers:

*The Canadian Patent Examiner Continuous Training Program*; De Vleeschauwer, M. World Patent Information, 39 (December) 2014, 73-78; and  
*The Canadian Patent Examiner Qualification Program*; De Vleeschauwer, M. World Patent Information, 35(3), 2013, 224-229.

***Rules 36.1(ii) and 63.1(ii): That Office or organization must have in its possession, or have access to, at least the minimum documentation referred to in Rule 34, properly arranged for search purposes, on paper, in microform or stored on electronic media.***

**Access to the minimum documentation for search purposes:**

(X) Full access

**Search systems:**

CIPO patent examiners are equipped with modern up-to-date workstations, including two 21" monitors and internet access. This permits access to our internal TechSource and InterApp systems (mainframe applications to handle National and International applications, respectively – both support workflow and storing of patent data), and provides patent examiners with the necessary facilities to conduct their search and examination functions and access all relevant documentation to perform their national and international work. Examiners who telework additionally receive a laptop and a docking station which enables them to remotely connect to the Office's network via the Government of Canada's Secure Remote Access (GC-SRA) (a virtual private network).

CIPO's internal TechSource system includes Canadian bibliographic data (from 1869 to present), text (abstract, claim and description of laid open Canadian patent documents from 1978 to present) and images of Canadian patent documents (from 1869 to present).

Externally, examiners have access to many publicly available and subscription based databases and facilities. A non-exhaustive list follows:

AGRICOLA  
American Chemical Society (ACS)  
BioOne Online Journals  
BIOSIS  
ChEMBL interface  
ChemSpider  
Chinese Traditional Medicine Database  
Derwent World Patent Index (DWPI)  
EBSCOhost  
Elsevier  
European Molecular Biology Laboratory - European Bioinformatics Institute (EMBL-EBI)  
Genomequest  
IEEE Xplore  
India's Traditional Knowledge Database  
JSTOR  
MEDLINE  
Nature and Nature Biotechnology  
PATENTSCOPE  
PubAg  
PubMed and PubMed Central Canada

Questel Orbit  
Science and Technical Information Network (STN)  
ScienceDirect  
Scientific American  
Springer  
Wiley Online Library  
WIPO CASE  
World Patent Information  
Various individual Office's databases of national applications (for example: Australia; Japan; United States; France; Korea; Turkey; EPO and Denmark to name a few)  
Various direct-access NPL databases as per WIPO's "Handbook on Industrial Property Information and Documentation" Part 4.2 (for example: "Science", Playthings, "Bioscience, Biotechnology and Biochemistry")

CIPO has an internal "The Library Discovery Tool" that gives Examiners access to full-text articles from multiple resources or to quickly order articles.

CIPO maintains internal webpages and a wiki where examiners can post sites of interest for searching. As well, CIPO has an established "Search Collaboration Workshop", in each Division, which gathers and disseminates searching best practices.

***Rules 36.1(iii) and 63.1(iii): That Office or organization must have a staff which is capable of searching and examining the required technical fields and which has the language facilities to understand at least those languages in which the minimum documentation referred to in Rule 34 is written or is translated.***

**Language(s) in which national applications may be filed and processed:**

International applications to CIPO as an International Authority may be filed in either English or French.

**Other languages in which large numbers of examiners are proficient:**

CIPO has Patent Examiners proficient in the following languages:

- Arabic (3)
- Bosnian (4)
- Chinese (11)
- Croatian (4)
- Dutch/Flemish (1)
- German (4)
- Greek (1)
- Hindi (3)
- Italian (4)
- Japanese (1)
- Montenegrin (2)
- Polish (6)
- Romanian (3)
- Russian (6)
- Sanskrit (1)
- Serbian (4)
- Serbo-Croat (3)
- Spanish (6) and
- Urdu (1).

**Services available to assist search or understanding of prior art in other languages:**

CIPO examiners have the following resources to assist in searching and understanding prior art in other languages:

- The Public Works and Government Services Canada-Translation Bureau, which provides translation services in over 100 languages and dialects
- WIPO Translate
- WIPO Pearl
- Google Translate
- Esp@cenet – Patent Translate (uses Google Translate)
- Questel Orbit – Translate feature (uses Google Translate)

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## **2.2 – QUALITY MANAGEMENT**

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***Rules 36.1(iv) and 63.1(iv): That Office or organization must have in place a quality management system and internal review arrangements in accordance with the common rules of international search***

**National and International Quality Management System:**

CIPO has had a formal international Quality Management System in place since 2007 and a formal National system since 2012. Before 2007 and 2012, respectively, quality control was undertaken by Examination Section Heads who were all former examiners with decades of experience.

CIPO's QMS reports under Chapter 21 of the PCT International Search and Preliminary Examination Guidelines (found at PCT International Authority Quality Reports<sup>1</sup>) detail CIPO's international QMS and demonstrate CIPO's adherence to excellent quality standards.

CIPO's Patent Branch is in the process of certifying its end to end 'patent application to grant/international work product' processes for national and international patent examination under ISO 9001:2015. The stage 1 external audit was completed on December 9, 2016 and the stage 2 external audit is scheduled for March 6 to 8, 2017. This is Patent Branch's first time seeking formal certification. CIPO management is committed to continuous process and product improvement.

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## **3 – INTENDED SCOPE OF OPERATION**

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**Language(s) in which services would be offered:**

CIPO offers its clients services in English and French.

**State(s) or receiving Office(s) for which Authority would offer to be competent:**

CIPO is presently the competent Authority for:

- Antigua and Barbuda;
- Belize;
- Canada;
- Nigeria;
- Saint Vincent and the Grenadines; and
- Saudi Arabia.

CIPO also offers its services to any State regarded as a developing country in conformity with the established practice of the General Assembly of the United Nations.

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<sup>1</sup> Reports available on the WIPO website at <http://www.wipo.int/pct/en/quality/authorities.html>

CIPO would be open to considering requests to be a competent Authority for other receiving Offices that wish to have services provided in French.

**Limitations on scope of operation:**

CIPO does not have any limits on the scope of its operation except for which States it acts, and has offered to act, as a competent authority.

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#### **4 – STATEMENT OF MOTIVATION**

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As an ISA/IPEA, CIPO provides its client groups with greater access to the international patent system. CIPO offers Canadian applicants a more personalized experience, with a local Office and staff they are already familiar with who can serve them in the official language of their choice. Being located in Canada means Canadian applicants can pay in Canadian currency and are working within known time zone limits. These facilitate the prosecution of PCT international applications for Canadian applicants, enabling them to be more productive and competitive in the knowledge-based economy. CIPO's ISA/IPEA status reinforces its commitment to continued excellence in the areas of client relations and service delivery.

A bit broader geographically, CIPO's position as a mid-sized IA with a British-based legal background permits it to fill a gap in North and South America by offering pointed help to Offices in that region, most notably to those for which it acts as a competent IA. CIPO has provided technical assistance to most of the Caribbean countries via various WIPO PCT Seminars. The breadth and depth of assistance CIPO can provide and its ability to provide customized assistance in this region is something larger IAs in the region cannot offer.

CIPO participates in WIPO's International Cooperation for the Search and Examination of Inventions Program (ICSEI) offered to developing countries. CIPO's IA status, and in particular CIPO's ability to offer services in French, enables CIPO to provide the best quality searches, examination and assessments of novelty and inventive step of patent applications filed with Industrial Property Offices, which have no priority or for which no search reports have been established, that are forwarded to it under the ICSEI Program. CIPO is presently filling a void as it is the only Office to offer ICSEI services in French.

Traditionally an Office of second filing (79 per cent of applications filed at CIPO are via PCT national entry) CIPO experiences first-hand, and to a great extent, what other designated and elected Offices (DO/EO) experience. As a mid-sized IPO, CIPO understands and appreciates how DOs/EOs use the work of an IA and the importance of quality in an IA's work products due to the trust placed in them by DOs/EOs. Having lived their experiences CIPO is best placed to guide them and enables CIPO, when interacting with other mid-sized and smaller Offices, to offer practical advice. CIPO in turn uses this knowledge to ensure the concerns of smaller and mid-sized Offices are addressed in a fruitful manner to the betterment of the international IP regime for everyone's benefit.

CIPO, as an existing ISA/IPEA, presently benefits by having an increased influence in the PCT system as a whole. Actively participating, since 2004, at the Meeting of International Authorities (MIA) of the PCT and the Quality Subgroup of the MIA has enabled CIPO to constructively and collaboratively state and promote its positions, thus gaining a certain degree of leverage in the directional control of the PCT and increased respect for Canada's capabilities and contributions. Decisions made at those meetings impact the manner in which CIPO operates as an ISA/IPEA and directly affect our daily operations. CIPO's status as an IA also allows CIPO to keep abreast of developments undertaken by larger offices.



CIPO's Examiners benefit from their international examination work through a wider knowledge of the harmonization framework of the PCT. As well, being an IA strengthens the quality of Canadian search and examination through increased exposure to the PCT system and access to additional search tools. Examiners also benefit from the sharing and collaborative efforts resulting from CIPO's project with other IAs.

With respect to the PCT system as a whole, CIPO offers a uniquely Canadian perspective. Canada is a respected country and plays a role in many major political arenas, as can be seen in "International and Regional Organization Memberships" below. CIPO offers a balance between two extremes (larger and smaller Offices). CIPO is aware of the influences of other International Authorities and it carefully considers these when deciding on its positions while always keeping in mind what would be best for the PCT system as a whole. Since becoming an ISA/IPEA CIPO has championed the provision of full Search Strategies, the use of Standardized Clauses in Written Opinions and more recently the in-depth reviews of other Offices QMS Reports all with the aim of strengthening the PCT system and increasing the quality of the products stemming from it which in turn contributes to a growth in users' confidence. As a mid-sized IA, CIPO assumes an appropriate portion of the international workload burden.

Driven by the need to increase timeliness in the delivery of IP rights, decrease costs and reduce pendency in application inventories for all PCT users CIPO's IA status allows CIPO to engage in meaningful discussing and focus on practical efforts to enhance the value of the international search and examination under the PCT. Additionally, these efforts will lead to increased quality and enhanced transparency, which in turn will increase the level of trust among all PCT users. (see PCT Statistics presentation from the Twenty-Fourth Session of the Meeting of International Authorities).

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## 5 – APPLICANT STATE

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### Regional location



### Area

- Total 9,984,670 km<sup>2</sup> (3,854,085 mi<sup>2</sup>)

- Water (%) 8.92 (891,163 km<sup>2</sup> / 344,080 mi<sup>2</sup>)

#### **International and Regional Organization Memberships:**

Canada promotes commonly shared values such as equality, democracy, the rule of law, transparency and good governance through its participation in many international and regional organizations. Canada is a member, or observer, of at least seventy-eight organizations, among which include:

Asia Pacific Economic Cooperation (APEC)

Association of Southeast Asian Nations (ASEAN) (dialogue partner) and the ASEAN Regional Forum

Commonwealth of Nations

Development Banks (e.g. African, Asian, Caribbean, European and International Banks for Reconstruction and Development, Inter-American)

G-7

G-20

International Criminal Court

International Federation of Red Cross and Red Crescent Societies

International Indigenous Affairs

International Red Cross and Red Crescent Movement

Interpol

La Francophonie

North Atlantic Treaty Organization (NATO)

Organization for Economic Cooperation and Development (OECD)

Organization for Security and Co-operation in Europe (OSCE)

Permanent Court of Arbitration

United Nations

United Nations Conference on Trade and Development

United Nations Economic, Social, and Cultural Organization (UNESCO)

World Trade Organization

World Intellectual Property Organization

*Source: Global Affairs Canada (2017-02-29)*

**Population:** 36.29 million

*Source: (2016) Statistics Canada*

#### **GDP per capita:**

GDP (PPP) (Int\$) 2015

- Total \$1.584 trillion (16th)
- Per capita \$ 44,197 (23rd)

GDP (nominal) (USD) 2015

- Total \$1.551 trillion (10th)
- Per capita \$ 43,249 (16th)

*Source: World Bank*

#### **Estimated national R&D expenditure (% of GDP):**

According to Statistics Canada, Canada's gross domestic expenditures on research and development (GERD) were expected to be \$31.6 billion. Thus, gross domestic expenditures in R&D as a percentage of GDP, for 2015, in Canada was expected to be 1.99 per cent.

The business enterprise sector was expected to fund \$14.0 billion in 2015. This sector remains the largest funder of R&D in Canada, accounting for 44.4 per cent of total R&D funding.

The next largest funding sectors, higher education and federal government, are anticipated to represent 20.2 per cent and 19.6 per cent of total R&D funding in 2015 respectively.

The higher education sector is expected to increase R&D funding by 1.0 per cent to \$6.4 billion, while the federal government sector anticipates an increase of 1.8 per cent to \$6.2 billion.  
*Source: Statistics Canada 2014-09-23. (Retrieved January 29, 2017)*

**Number of research universities:**

Canada has 97 research universities situated across the country. There are: 8 in Alberta, 11 in British Columbia; 6 in Manitoba; 4 in New Brunswick; 9 in Nova Scotia; 1 in Newfoundland; 33 in Ontario; 1 in Prince Edward Island; 19 in Quebec and 6 in Saskatchewan. According to a 2016 report by the Organisation for Economic Co-operation and Development (OECD), Canada has the largest share, 55 per cent, of tertiary-educated adults of all the OECD countries. Canada also spends more per tertiary student than almost all the OECD countries. Annual expenditure per tertiary student by educational institutions for all services represented 51 per cent of per capita gross domestic product (GDP) in 2012.

*Source: OECD (2016) "Canada", in Education at a Glance 2016: OECD Indicators, OECD Publishing, Paris [DOI: <http://dx.doi.org/10.1787/eag-2016-45-en>]*

Universities performed \$13 billion in R&D in 2014, accounting for 40 percent of total Canadian research and development. Canada's universities conduct \$1 billion in research for businesses and help build their competitive advantage. Universities conduct \$1.2 billion in research annually for the not-for-profit sector, which has nearly tripled since 2000.

*Source: Statistics Canada, Gross Domestic Expenditures on R&D in Canada, 2016*

Nearly 1,500 companies and government labs are located in 26 university research and technology parks. They employ about 65,000 people and generate \$4.3 billion in GDP.  
*Source: Association of University Research Parks Canada, National Economic Impact Study, 2013.*

Thirty-two universities are members of the Canadian Association of Business Incubators, a national association that supports the growth of new and early-stage businesses.

*Source: Canadian Association of Business Incubators, 2015.*

**Summary of national patent information network (for example patent libraries, technology and innovation support centers):**

CIPO has a growing nation-wide network of Business Development Officers (BDOs) providing customized IP awareness sessions and tailored guidance for academia, technology accelerators and small businesses. This includes educating clients on navigating national and international patent application processes. The BDOs work closely with regional partners at all levels of government to guide Canadians through IP-right acquisition.

In April 2017, CIPO will begin providing free, public seminars on a wide range of IP subjects across Canada with the aim of increasing IP awareness amongst SMEs. This awareness program will be structured to provide progressive levels of IP education and will include instruction on the benefits of and guidance on using international IP systems including the PCT and the PPH.

At the federal level the Ministry of Innovation, Science and Economic Development Canada (ISED) plays a primary role in Canada's Innovation Agenda which is among the highest priorities of the federal government. Several other federal ministries and agencies have mandates linked to the innovation agenda: National Sciences and Engineering Research Council of Canada (NSERC); Canada Business Network; Networks of Centres of Excellence (NCE) of Canada; and the Build in Canada Innovation Program.

At the provincial and territorial levels innovation 'hubs' and purpose-built networks provide direct support to Canadian businesses. Examples include: Western Innovation (WINN) Initiative

(Manitoba, Saskatchewan, Alberta, British Columbia); Aurora Research Institute — Services for researchers (Northwest Territories); New Brunswick Innovation Foundation; Innovacorp (Nova Scotia); Atlantic Technology Centre (Prince Edward Island); Centre de recherche industrielle du Québec (Quebec); Farm production services (Yukon); Ontario Centres of Excellence (Ontario); Strategic Investments Program (Nunavut) and Genesis Centre (Newfoundland and Labrador).

Canada's major population centres also host innovation hubs that are funded publically, through private sources, or combinations thereof. For example Invest Ottawa, TEC Edmonton, Centre d'entreprises et d'innovation de Montréal, Toronto Reference Library, Innovate Calgary and the BC Tech Innovation Hub in Vancouver provide physical space and expertise to local entrepreneurs at various stages in the innovation lifecycle, including direction in navigating the patent acquisition process.

#### **Major local industries:**

Canada's major local industries include: manufacturing, mining, the service industry, forestry and petroleum industries and the world's largest suppliers of agricultural products. The Canadian Prairies are one of the most important global producers of wheat, canola, and other grains.

Canada's Ministry of Natural Resources provides statistics regarding its major exports. Canada is a leading exporter of zinc, uranium, gold, nickel, aluminum, steel, iron ore, coking coal and lead; automobiles and aeronautic related products.

#### **Major trading partner States:**

In 2015, Canada's top merchandise trading partners by exports were the United States (76.7 per cent of total exports); China (3.9 per cent of total exports); and the United Kingdom (3.0 per cent of total exports). The same year, Canada's top merchandise trading partners by imports were the United States (53.3 per cent of total imports); China (12.3 per cent of total imports); and Mexico, (5.8 per cent of total exports). Top services trading partners for Canada in 2015 by exports and imports were the United States, the European Union, and Japan.

*Source: Canada's State of Trade: Trade and Investment Update - 2016*

#### **Other key information:**

Canada announced plans for its new inclusive Innovation Agenda on June 14, 2016. All Canadians were invited to provide input. To help Canadians adjust and thrive during a period of rapid change, and to ensure all Canadians benefit from a growing economy, Canadians' suggestions for the federal government were to focus on three priority areas:

- People: Identify ways for more Canadians to acquire the skills and experience that the global and digital economy demands.
- Technologies: Identify ways for Canada to harness emerging technologies that would create jobs and industries that never existed before, while reinvigorating established industries. You also urged Canada to focus on developing technologies which will drive the next great wave of innovation.
- Companies: Identify ways to encourage more Canadians to start and grow companies into globally competitive successes.

The Canadian Government has already taken steps to shift the country toward an innovation-based economy. In the 2016 Budget, the Government committed:

- \$2 billion in the renewal and expansion of infrastructure at universities and colleges campuses across the country to promote research excellence and allow students, professors and researchers to work in close proximity with partners to turn discoveries into products and services. In the process, they will train for the high-quality, middle-class jobs of the future.
- Over \$1 billion to support the development of "clean technologies" that result in less pollution and more energy efficiency.

- \$800 million over four years to strengthen innovation networks and clusters. These investments are intended to catalyze private sector dynamism, bring a critical mass of stakeholders together and connect their ideas to the marketplace.

Source: *Innovation, Science and Economic Development Canada*

## 6 – PROFILE OF PATENT APPLICATIONS

### Number of international applications received as RO

These numbers are derived from CIPO's internal InterApp database and are based on the International Patent Classification symbol assigned to an application and which examination Division within CIPO examines that sub-group.

Year Technical Field	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
International applications, Chapter I Requests					
Mechanical	694	708	739	718	790
Electrical/electronic	818	833	738	701	582
Chemistry					
General Chemistry	193	224	275	219	222
Organic Chemistry	203	192	205	183	188
Biotech	153	139	145	148	159
Unassigned	76	82	49	22	13
<i>Total</i>	<i>2,137</i>	<i>2,178</i>	<i>2,151</i>	<i>1,991</i>	<i>1,954</i>
International applications, Chapter II Demands					
<i>Total</i>	<i>258</i>	<i>270</i>	<i>257</i>	<i>268</i>	<i>278</i>

### Timeliness of ISR and IPRP Transmissions (percentage transmitted on time based on Rules 42.1 and 69.2, respectively)

Data is from CIPO's internal InterApp database which differs from WIPO's statistics due to time zone differences and CIPO's export routine.

Year Report Type	2012	2013	2014	2015	2016
International Search Reports and Written Opinions					
	92%	94%	94%	95%	96%
International Preliminary Reports on Patentability					
	94%	95%	95%	94%	98%

### Number of national applications received – by technical field

These numbers are derived from CIPO's internal TechSource database and are based on the International Patent Classification symbol assigned to an application and which examination Division within CIPO examines that sub-group.

Year Technical Field	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Mechanical	10,043	10,916	10,845	11,253	13,615
Electrical					
Computer-related	5,786	5,973	6,018	5,433	5,848
Electrical/Physics	3,409	3,456	3,360	3,268	3,521
Chemistry	3,995	3,486	3,416	3,329	3,427
General Chemistry					
Organic Chemistry	5,386	5,259	5,137	5,258	3,715
Biotech	3,210	3,000	2,850	2,876	3,136
Miscellaneous	3,752	3,727	3,734	3,476	3,843
<i>Total</i>	<i>35,581</i>	<i>35,817</i>	<i>35,361</i>	<i>34,893</i>	<i>37,104</i>

### Number of national applications received – by route

These numbers are derived from CIPO's internal TechSource database.

Year Route	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
National first filing/internal priority	1,826	1,809	1,579	1,606	1,591
Paris priority	7,131	7,007	7,142	5,823	6,065
PCT national phase entry	26,624	27,001	26,640	27,464	29,448
<i>Total</i>	<i>35,581</i>	<i>35,817</i>	<i>35,361</i>	<i>34,893</i>	<i>37,104</i>

### Average time taken for national patent processing

Indicator	Measured from	Time in months	2011-	2012-	2013-	2014-	(as of 2016-12-31)
			2012	2013	2014	2015	
To search	n/a		As search and examination tasks are undertaken by the same examiner at the time, CIPO does not gather separate search statistics.				
To first examination	Request for examination	Varies by discipline, but on average:	<i>Not available</i>				10.4
		Mechanical					9.4
		Electrical/electronic					10.2
		Chemistry					
		General Chemistry					11.2
		Organic Chemistry					11.1
		Biotech	10.2				

To grant	Request for examination	Varies by discipline, but on average:	48.4	45.7	42.7	40.3	35.7
		Mechanical	<i>Not available</i>				28.3
		Electrical/electronic					42.1
		Chemistry					
		General Chemistry					33.5
		Organic Chemistry					31.5
		Biotech					58.4

Product outputs					
	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Requests for examination	29,077	28,161	28,497	28,776	29,050
Disposals	36,211	37,682	38,533	36,370	37,820
Grants	20,624	21,529	23,482	23,746	25,088

### National backlogs

Measure	2011-2012	2012-2013	2013-2014	2014-2015	Number of applications (as of 2016-12-31)
All pending applications	n/a	n/a	n/a	n/a	177,710
Applications awaiting search (where relevant fees paid)	As search and examination tasks are undertaken by the same examiner at the same time there is no separate and specific data.				
Applications awaiting first examination (where relevant fees paid)	45,281	36,872	30,125	28,367	22,562

### Main Offices/States in which priority is claimed from national applications:

#### Main Countries of Origin Filed CIPO

Source: CIPO's 2014/2015 Annual Report

Countries	Patents
United States	17,129
Canada	4,812
Germany	2,374
Japan	1,903
France	1,876
Switzerland	1,476
United Kingdom	1,229
China	661
Netherlands	601
Italy	569

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## 7 – SUPPORT REQUIRED

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CIPO will need minimal support from the International Bureau over the next year to assist us in testing the use of ePCT for post-filed documents from applicants.

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## 8 – OTHER

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### About CIPO

*Source: CIPO's 2014/2015 Annual Report*

The Canadian Intellectual Property Office (CIPO), a Special Operating Agency (SOA) associated with Innovation, Science and Economic Development Canada, is responsible for the administration and processing of the greater part of intellectual property in Canada. CIPO's areas of activity include: Patents; Trademarks; Copyrights; Industrial designs; and Integrated circuit topographies.

### CIPO's History

*Source: Library and Archives Canada/Canadian Intellectual Property Office fonds/R9271-0-3-E*

1869	Patents, Trade Marks, and Industrial Design offices are established and attached to the Department of Agriculture.
1918	Jurisdiction over Patents, Trade Marks, Copyright, Industrial Design, and Timber Marks is assumed by the Department of Trade and Commerce.
1927	Patents, Trade Marks, Copyright, Industrial Design, and Timber Marks are transferred to the Department of the Secretary of State.
1966	For a brief period, the Office of the Registrar General exists as a separate government department and was responsible for Patents, Trade Marks, Copyright, Industrial Design, and Timber Marks.
1967	Office of the Registrar General is transferred to the new Department of Consumer and Corporate Affairs.
1973	The Bureau of Intellectual Property is established within the Department of Consumer and Corporate Affairs to "provide a coordinated approach to the Department's responsibilities for patents, copyrights, trademarks and industrial design."
1992	The Canadian Intellectual Property Office becomes a Special Operating Agency within the Department of Consumer and Corporate Affairs (CCA).
1994	The Department of Consumer and Corporate Affairs (CCA) is renamed Industry Canada.
2016	Industry Canada's mandate is updated and the department is renamed Innovation, Science and Economic Development Canada.

Canada became bound by the PCT on January 2, 1990. CIPO began operating an ISA/IPEA on July 26, 2004 and was re-appointed at the Thirty-Sixth (16th Ordinary) Session of the PCT Union Assembly in the fall of 2007. By May 2017 CIPO will have almost 13 years of experience as an ISA/IPEA under the PCT.

In conclusion, CIPO has demonstrated that it meets the requirements to function as an ISA/IPEA under the PCT on the basis of the following attributes:

- a highly qualified, competent and growing corps of patent examiners in all disciplines, possessing bilingual, sometimes multilingual capabilities;



- a modern and efficient automated patent processing system, supported by a forward-thinking and comprehensive IT infrastructure;
- a vast collection of patent documents and on-line resources which permit CIPO to meet the minimum documentation requirements;
- an organizational commitment to the pursuit of excellence in client relations and service delivery; and
- an examination capacity to manage the anticipated international workload and which is in a position to offer its services to applicants filing through other receiving Offices.

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## **9 – ASSESSMENT BY OTHER AUTHORITIES**

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The comments from the Authorities which reviewed our QMS reports are summarized as follows:

- Areas we did well in (all office comments combined)
  - Process mapping
  - Quality Control and Quality Audit approaches
  - Management commitment to our Quality Management System via regular Quality Steering Committee meetings
  - Employee Performance Management Agreement system (clear goals for all employees)
  - Training
  - Workload management via InterApp interface
  - Feedback response time (3 days is quite short compared to 15 days promised by other Offices)
- Areas for improvement (in general – no major issues, just more clarification needed on some topics)
  - Provide a branch organizational chart
  - Be more specific about ISO certification (not clear from report if we are certified or not)
  - Be clearer about what types of actions will be taken on delayed applications (be specific about examination and operations)
  - Be more specific about who approves quality policy / is it publically available
  - Be more clear about management review

[End of Annex and of document]