

# Research and development in Canadian industry: Intellectual property, 2020 (final)

Released at 8:30 a.m. Eastern time in *The Daily*, Monday, July 18, 2022

---

As important as research and development (R&D) is to the success of a business, so too is the protection of the products or services that it develops. Through protection, businesses are able to legally safeguard their work, which can lead to increased competitiveness and value for shareholders. It also affords businesses the opportunity to recoup R&D costs by commercializing their intangible property to generate returns through intellectual property (IP) sales, licensing agreements, and the provision of technical assistance to clients.

Intangible property refers to intangible assets, such as intellectual property (IP) for new inventions and technologies (patents, copyrights, trademarks, industrial design, and integrated circuit topography), software (custom and off-the-shelf) and databases, as well as other forms of technical knowledge, that provide marketable products or concepts and, ultimately, value to a business.

## Income generated by sales of intangible property rose sharply in 2020

Businesses who performed and/or funded R&D activities indicated that they received payments for (or sold) \$6.5 billion worth of intangible property, including IP, software and technological services, in 2020. This is a 49.5% increase over total sales from 2019 and the largest increase since 2014, when software was first included as a category. Software sales, which increased by 83.1% to make up more than three quarters of intangible property receipts, were largely responsible for the increase.

While sales increased, intangible property purchases by companies with R&D expenditures fell by 9.9% to \$1.7 billion in 2020, the fourth consecutive annual decrease. A 31.1% decline in domestic purchases from Canadian companies was behind the decrease, while imports of intangible property rose by 18.6%.

## COVID-19 pandemic led to a boom in software sales

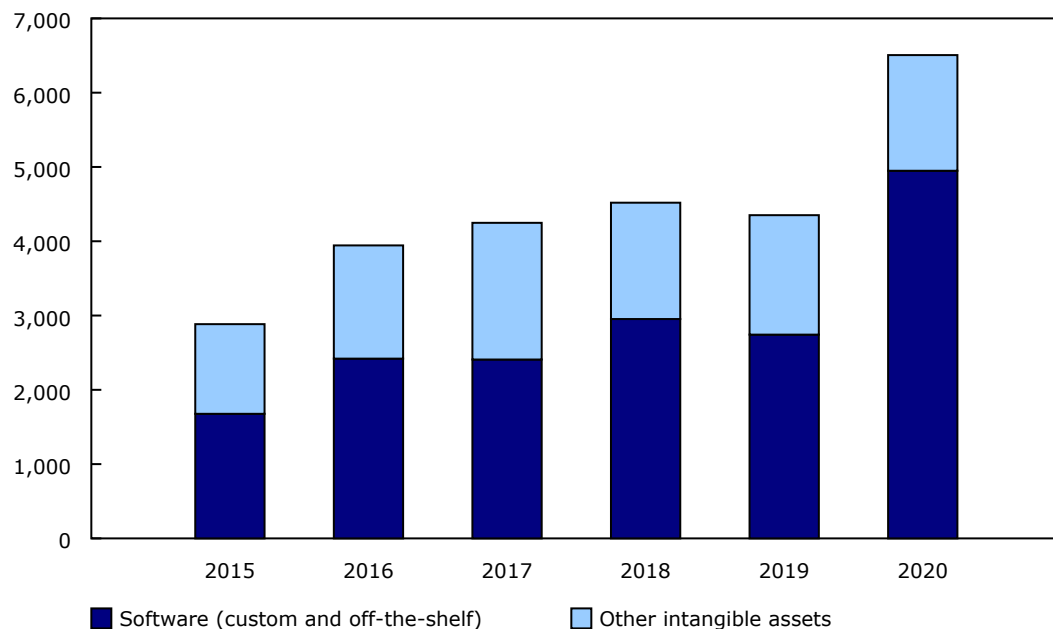
The COVID-19 pandemic had a profound impact on the profitability of businesses and the social interactions of people. An interesting phenomenon that emerged in 2020 was the increased dependency of people on the internet to conduct business, study and connect with loved ones. Software companies in Canada were well positioned to handle this increased demand, as evidenced by the fact that original software sales by R&D companies rose 81.0% to \$4.3 billion, while packaged or off-the-shelf software sales rose 76.7% to \$691 million.

In 2020, receipts from outside Canada almost doubled (+90.7%) as well, reaching \$3.7 billion and accounting for 75.2% of all software revenue. Receipts from within Canada increased 55.1% to \$1.2 billion and was attributed to unaffiliated organizations, as sales to affiliated organizations (parents, subsidiaries, etc.) declined by 10.0% to \$118 million.



**Chart 1**  
**Intangible Property Receipts, 2015 to 2020**

millions of dollars



Source(s): Table 27-10-0348-01.

### Sales of traditional forms of intangible property saw a slight decline

While software sales increased sharply in 2020, sales of other types of IP declined by 3.2% to \$1.6 billion. The largest contributing factor to this decline was a decrease in patent sales, which dropped by 28.8% to \$196 million. This marked the fourth consecutive decrease for patent sales.

Trademark sales also declined in 2020, falling 73.4% to \$50 million. In contrast, sales in the other technology and technical assistance category, the largest non-software category, rose by 13.7% to \$1.2 billion.

Of the major IP-selling industries, the wholesale trade sector led the decline with a 36.3% drop. This is consistent with the 8.2% decline in operating revenue that Canadian wholesalers saw in 2020, which was led by reductions in sales of petroleum and petroleum products and motors vehicles and motor vehicle parts and accessories.

### Research and development businesses purchased less intangible property in 2020

Total payments related to the use of intangible property by businesses with R&D expenditures declined 9.0% to \$1.7 billion in 2020. The decrease in spending was fairly evenly distributed across the types of intangible property, as all categories except databases (+12.8%) and copyrights (-0.0%) saw slight declines. The largest categories, trademarks and packaged software, both saw minor drops, with trademark spending falling 10.6% to \$397 million and packaged software spending decreasing 0.5% to \$397 million.

Internationally, imports of intangible property increased by 18.6% in 2020, reaching \$969 million. However, this increase was not enough to offset the 31.1% drop in spending from Canadian sources, which fell to \$703 million. The decline in domestic spending occurred in three of the four largest intangible property product categories: original software (-58.5%), patents (-53.2%), and other technology & technical assistance (-36.1%).

The decline in intangible property spending was particularly noticeable in the manufacturing sector, which spent 22.9% less than in 2019. The sector was hit particularly hard by COVID-19 restrictions, with Canadian manufacturing sales declining by 11.4% in 2020, mainly due to lockdowns and supply chain issues (table: 16-10-0047-01).

While domestic payments make up only 42.0% of all payments, more than three times as many businesses reported buying intangible property domestically than from foreign sources in 2020. On average, businesses that reported buying domestic IP spent roughly \$400,000 on the products, while businesses that bought from foreign sources spent almost \$1.5 million (custom extraction to obtain counts used to calculate averages).

### **Note to readers**

*The estimates do not represent all trade in intellectual property (IP) rights or informal technological assistance services in Canada.*

*These estimates of payments made and received for IP, software and technological assistance were derived from data collected from companies in the sample for the Annual Survey of Research and Development in Canadian Industry. Although the data come from a sample survey, the responses are self-representing and are not weighted for these particular variables given the volatile nature of IP-related activities. Therefore, the estimates represent IP commercial transactions only for the companies in Canada with research and development (R&D) activities that responded to the survey.*

*R&D-active businesses are companies in the sample for the Annual Survey of Research and Development in Canadian Industry that funded or performed R&D during the reference period or in the previous year.*

*Because of differences in the scope of surveyed enterprises, the data on international IP trade in this release are different and are not directly comparable with other Statistics Canada data on [international transactions in services](#).*

### **Intangible property**

*Newly created knowledge can be formally protected through registered IP instruments (patents; copyrights; trademarks; industrial designs; and integrated circuit topography designs). Other forms of intangible property include original software; packaged off-the-shelf software; databases with a useful life exceeding one year; and other technological assistance, industrial processes and know-how. Technology payments can be made to, or received from, affiliated or non-affiliated organizations within or outside Canada. These technology payments can be for IP licensing, consultation fees and one-time sales.*

*IP protection involves the disclosure and registration of an organization's ideas (often the result of R&D, such as new or improved products and processes) to confer legal rights on these disclosed ideas. This can facilitate their subsequent commercial exploitation through sales, licensing agreements and the provision of technological assistance to clients, while impeding others from unauthorized use.*

### **Affiliated**

*An organization that, directly or indirectly through one or more intermediaries' control, is controlled by, or is under common control with, another organization.*

### **Non-affiliated**

*An organization that does not control, is not controlled by and is not under common control with another organization, either directly or indirectly through one or more intermediaries.*

**Available tables:** [27-10-0348-01](#) and [27-10-0349-01](#).

**Definitions, data sources and methods:** survey number [4201](#).

The new interactive dashboard "[Characteristics of research and development in Canadian industry](#)" ([71-607-X](#)) is now available.

---

For more information, or to enquire about the concepts, methods or data quality of this release, contact us (toll-free 1-800-263-1136; 514-283-8300; [infostats@statcan.gc.ca](mailto:infostats@statcan.gc.ca)) or Media Relations ([statcan.mediahotline-ligneinfomedias.statcan@statcan.gc.ca](mailto:statcan.mediahotline-ligneinfomedias.statcan@statcan.gc.ca)).