Industry Industrie
Canada Canada

2014

Canadian ICT Sector Profile

Information and Communications Technologies Branch

Canada

Industry Structure

There are over 36,000 companies in the Canadian Information and Communications Technologies (ICT) sector. The large majority (over 32,000) fall within the software and computer services industries.

Companies by ICT Sub-sector, 2014
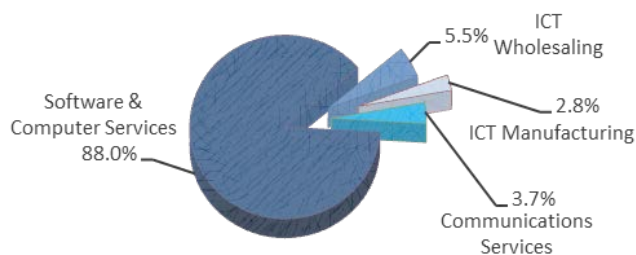
Source: ISED, Canadian ICT Statistical Overview

The ICT sector consists mainly of small companies, with over 31,000 of them employing fewer than 10 people. The number of large companies employing over 500 individuals is relatively small, accounting for approximately 120 firms, including subsidiaries of foreign multinational corporations.

Companies by Employee Size for Total ICT Sector, 2014

Source: ISED, Canadian ICT Statistical Overview

Manufacturing stands out as the sub-sector with larger companies. In 2014, 14.5% of ICT manufacturing companies had more than 50 employees, while across the whole ICT sector this share was only 3.1%.

ICT Sector Industries

ICT Manufacturing
- Computer and Peripheral Equipment
- Communications Equipment
- Electronic Components
- Audio and Video Equipment
- Magnetic and Optical Media

ICT Wholesaling

Software and Computer Services
- Software publishers
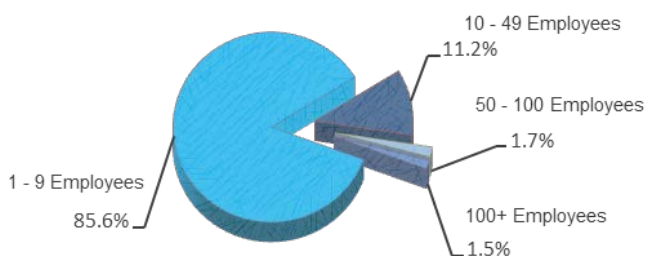- Computer systems design
- Data processing
- Electronic and precision equipment repair and maintenance

Communications Services
- Wireless Telecommunications Carriers
- Wired Telecommunications Carriers
- Cable and Other Program Distribution

Revenues

Revenues in the ICT sector increased by 5.9% in 2014, led by the software and computer services sub-sector (+8.1%). The wholesaling and communications services sub-sectors posted growth rates of 5.7% and 5.0%, respectively, while the manufacturing industries declined by 0.8%.

ICT Sub-sector Revenues, 2007-2014
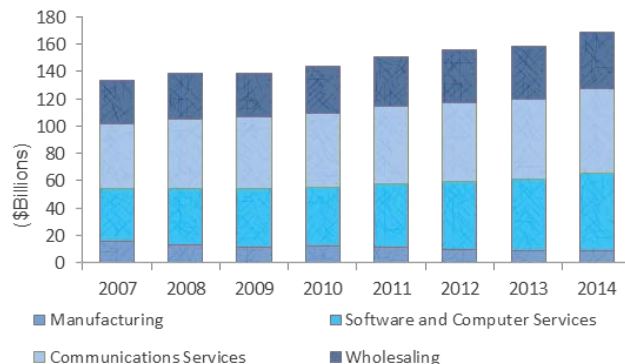
Source: ISED, Canadian ICT Statistical Overview

From 2007 to 2014, ICT sector revenues grew from $133.4 billion to $169.8 billion, a 27.2% increase. During this period, the ICT manufacturing industries declined by 47.0%. On the other hand, all of the services sub-sectors posted gains: the software and computer services, wholesaling, and the communications services sub-sectors increased by 48.8%, 33.0%, and 31.2% respectively.

Over the same period, manufacturing industries' revenue dropped from 12.0% to 5.0% of total ICT sector revenue.

Revenues by ICT Sub-sector, 2014 (Total: $169.8 Billion)
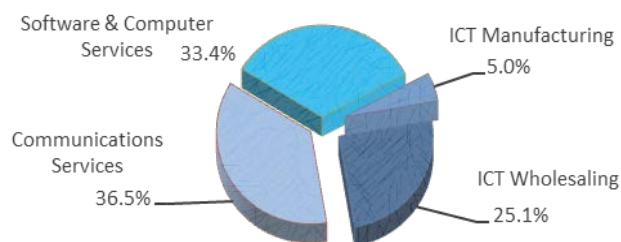
Source: ISED, Canadian ICT Statistical Overview

GDP Contribution

The ICT sector makes a substantial contribution to Canada's GDP. In 2014, the sector's GDP was $70.2 billion*, and accounted for 4.3% of national GDP.

GDP by ICT Sub-sector, 2014
(Total: $70.2 Billion)

Software & Computer Services 41.1%

ICT Wholesaling 9.6%

Communications Services 44.3%

ICT Manufacturing 5.0%

Source: ISED, Canadian ICT Statistical Overview

ICT sector growth was slightly ahead of the overall economy in 2014. The sector increased by 2.7%, compared to 2.5% for the total Canadian economy. Since 2007, the ICT sector has posted stronger growth than the total economy. On averag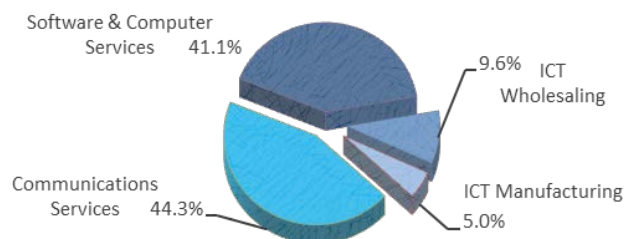e, annual growth in this sector has been 1.7%, compared to 1.5% for the overall economy. The ICT sector has accounted for 4.6% of Canadian GDP growth since 2007.

The software and computer services industries accounted for the highest growth in GDP in 2014, up 5.7%. The ICT wholesaling and communications services sub-sectors also increased, up 1.6% and 0.6%, respectively. Meanwhile, the manufacturing industries GDP decreased slightly, down 0.1%.

ICT Sector GDP, 2007-2014
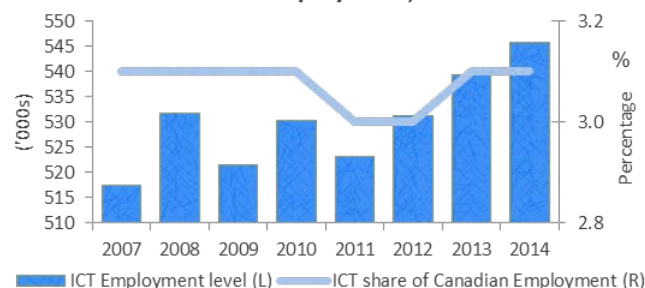### (2007 Constant Dollars)
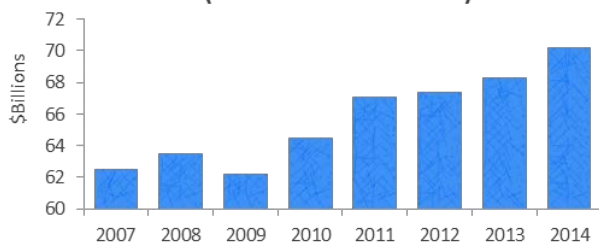
Source: ISED, Canadian ICT Statistical Overview

Employment

The ICT sector accounts for 3.1% of national employment. Employment in the ICT sector increased 1.2% in 2014, amounting to 545,800 jobs. This growth was twice as fast as for the overall economy (0.6%).

ICT Sector Employment, 2007-2014

ICT Employment level (L) — ICT share of Canadian Employment (R)

Source: ISED, Canadian ICT Statistical Overview

Employment decreased in two ICT sub-sectors in 2014. Employment in the manufacturing and communication services sub-sectors declined by 9.6%, and 3.4%, respectively. Meanwhile, employment in the software and computer services, and ICT wholesaling industries increased by 4.2%, and 0.8%, respectively.

Employment by ICT Sub-sector, 2014
(Total: 545,800 Workers)

Software & Computer Services 63.0%

ICT Wholesaling 9.8%

ICT Manufacturing 7.0%

Communications Services 20.2%
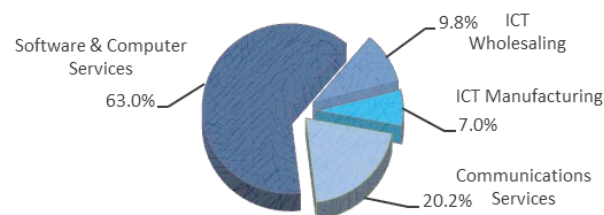
Source: ISED, Canadian ICT Statistical Overview

Reflecting a shift in the ICT sector from manufacturing to services, the share of manufacturing industries in total ICT sector employment declined by 4.3 percentage points from 2007 to 2014, while the share of software and computer services industries increased by 8.6 percentage points over the same period.

*In 2007 constant dollars

Research & Development

ICT industries are the largest performers of private sector R&D in Canada. In 2014, the ICT sector held a 31.1% share of all private sector R&D expenditures in Canada.

In 2014, ICT sector R&D expenditures totaled $4.9 billion, falling 1.3% from the previous year, largely due to a drop in the wholesaling industry which has experienced strong growth in recent years.
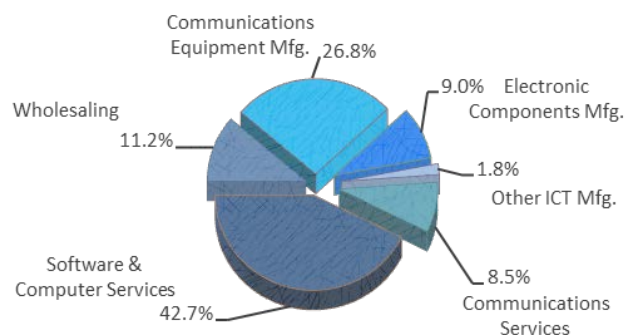
From 2007 to 2014, R&D spending in the ICT sector fell by 9.0%. While spending increased in wholesaling (+160%), and software and computer services (+3.3%), it decreased in the communication services (-40.5%), and manufacturing (-24.8%) industries.

R&D Expenditures by ICT Industry, 2014 (Total: $4.9 Billion)

Communications Equipment Mfg. 26.8%
Electronic Components Mfg. 9.0%
Wholesaling 11.2%
Other ICT Mfg. 1.8%
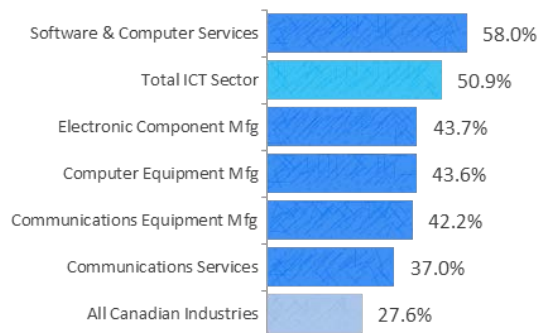Software & Computer Services 42.7%
Communications Services 8.5%

Source: ISED, Canadian ICT Statistical Overview

Education

The ICT sector is characterized by a knowledge-intensive workforce, with over half of its workers holding a university degree, compared to 27.6% within all Canadian industries.

The software and computer services sub-sector employs the largest proportion of university educated workers within the ICT sector.

Percentage of Workers with a University Degree by Major ICT Industry, 2014

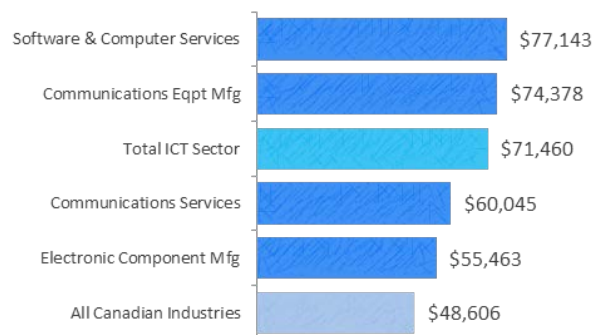| Industry	Percentage
Software & Computer Services	58.0%
Total ICT Sector	50.9%
Electronic Component Mfg	43.7%
Computer Equipment Mfg	43.6%
Communications Equipment Mfg	42.2%
Communications Services	37.0%
All Canadian Industries	27.6%

Source: Statistics Canada, Labour Force Survey (LFS)

Earnings

Employees in the ICT sector earn on average over $71,000 a year. In 2014, these workers earned 47% more than the economy-wide average, with the highest earners coming from the software and computer services industries.

Despite being the lowest paid workers in the ICT sector, employees in the electronic component industry still earned 14.1% more than the national average in 2014.

However, from 2007 to 2014, the average salary in the ICT sector grew at a slower pace than in the overall economy, up 16.6% and 18.7% respectively.

Average Annual Earnings by Major ICT Industry, 2014

Industry	Earnings
Software & Computer Services	$77,143
Communications Eqpt Mfg	$74,378
Total ICT Sector	$71,460
Communications Services	$60,045
Electronic Component Mfg	$55,463
All Canadian Industries	$48,606

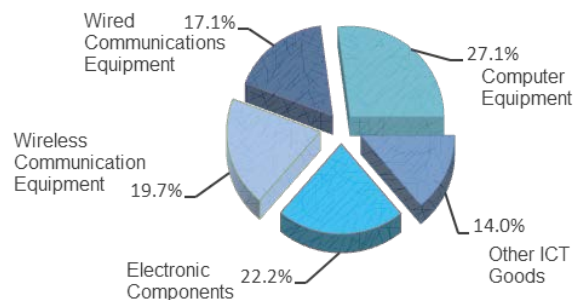Source: Statistics Canada, Survey of Employment, Payrolls and Hours (SEPH)

Exports

The Canadian ICT manufacturing sub-sector relies heavily on the export market. About 86.0% of ICT products manufactured in Canada were exported in 2014.

Canadian exports of ICT goods increased by 3.6% in 2014 to $10.5 billion. Increases in exports of wireless communications equipment (+12.3%), as well as computer and peripheral equipment (+11.0%), contributed the most to this growth.

However, between 2007 and 2014, exports of ICT goods dropped by 37.2%. Since 2007, exports of wired communications equipment (-63.1%) fell the most while exports of audio and video equipment (+13.9%) were the only to increase. Over this period, the share of wired communications equipment in total ICT goods exports dropped by 12 percentage points to 17.1%.
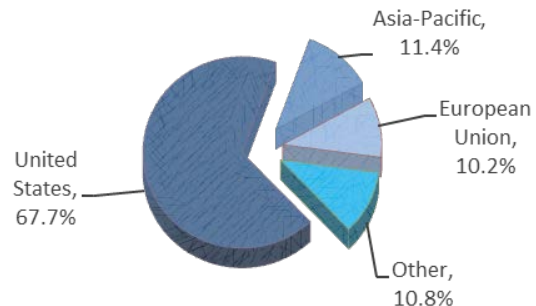
Exports of ICT Goods by Region, 2014
Share of Total ICT Goods Exports

Asia-Pacific, 11.4%
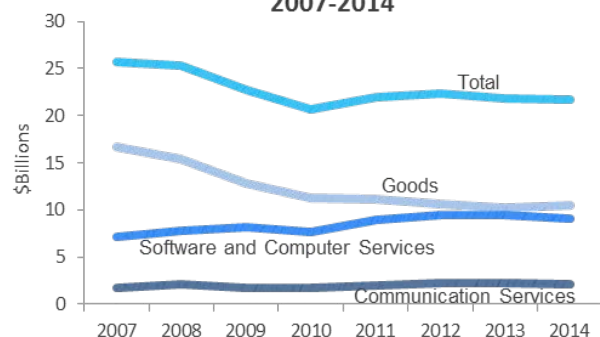European Union, 10.2%
United States, 67.7%
Other, 10.8%

Source: ISED, Trade Data Online

The ICT services industries are more domestically oriented. In 2014, exports of communications services declined by 3.1%, totaling $2.1 billion, while software and computer services dropped 1.3% to $9.1 billion. Exports accounted for 16.0% of software and computer services revenues, and less than 3.5% of communications services revenues.

Although ICT services exports declined in 2014, the long-term trend shows that exports of ICT services are catching up with exports of ICT goods. From 2007 to 2014, exports of software and computer services grew by 26.7%, while exports of communications services increased (+21.0%). However, the increase in exports of ICT services was not large enough to offset the decline in exports of ICT goods. Total exports of ICT goods and services decreased (-15.3%) during the period, although ICT exports of goods and services remained flat in 2014.

Exports of ICT Goods by Product Group, 2014 (Total: $10.5 Billion)

Wired Communications Equipment 17.1%
Computer Equipment 27.1%
Wireless Communication Equipment 19.7%
Electronic Components 22.2%
Other ICT Goods 14.0%

Source: ISED, Canadian ICT Statistical Overview

Exports of ICT goods to the United States increased by 4.2% in 2014, making up over two-thirds ($6.6 billion) of all ICT goods exported from Canada. However, exports to the US are still $4.6 billion lower than in 2007. Exports to the Asia-Pacific region increased by 13.0% in 2014, while exports to the European Union increased by 1.4%. Exports to all other countries accounted for $1.1 billion of Canadian ICT goods exports in 2014, down 7.2% from 2013.

Exports of ICT Goods and Services 2007-2014

Total
Goods
Software and Computer Services
Communication Services

Source: ISED, Canadian ICT Statistical Overview