Industry Canada Industrie Canada

Canadian ICT Sector Profile

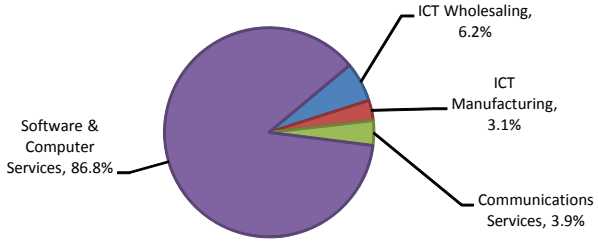
The ICT Sector consists mainly of small companies...

- About 33,300 companies comprise the Information and Communications Technologies (ICT) sector, of which 86.9% are in the software and computer services industries and 6.2% in the wholesaling industries.
- The number of large companies in the Canadian ICT sector is relatively small; in 2011, there were about 75 companies with more than 500 employees. Comparatively, there were over 28,300 companies with less than 10 employees, accounting for 85% of all the companies in the sector.
- Among the four sub-sectors, manufacturing stands out as the one with larger companies. In 2011, 16.4% of the manufacturing companies had more than 50 employees while for the whole ICT sector, this share was only 3.3%.

...and generates $155 billion in revenues.

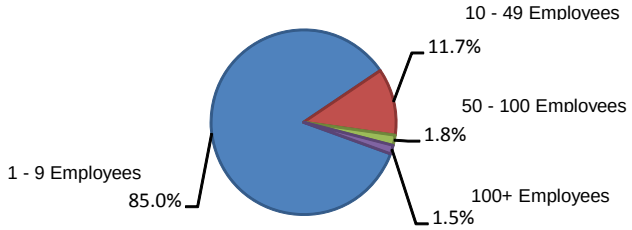
- Revenues in the ICT sector increased by 5.6% in 2011, led by the software and computer services industries which posted the fastest growth (7.3%). The three other sub-sectors also posted gains: the wholesaling industries grew by 6.0%; the manufacturing industries by 4.5% and the communications services industries by 4.3%.
- From 2007 to 2011, ICT sector revenues increased from $134 to $155 billion, a 16% increase. During this period, the ICT manufacturing industries declined by 21.9% while all the services industries posted gains: the software and computer services grew by 23.2%; the wholesaling industries by 21.2% and the communications services industries by 19.6%.
- Over the period, the share of the manufacturing industries in the total ICT sector revenues dropped from 12.0% to 8.1%.

Companies by ICT Sub-sector, 2011



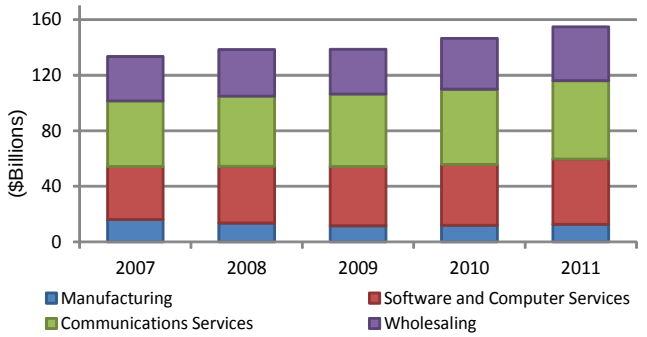
Source: Industry Canada, Canadian ICT Statistical Overview

Companies by Employee Size for Total ICT Sector, 2011



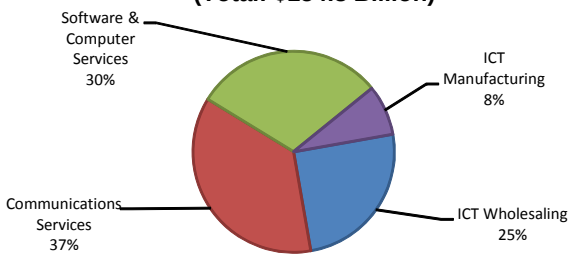
Source: Industry Canada, Canadian ICT Statistical Overview

ICT Sub-sector Revenues, 2007-2011



Source: Industry Canada, Canadian ICT Statistical Overview

Revenues by ICT Sub-sector, 2011 (Total: $154.8 Billion)



Source: Industry Canada, Canadian ICT Statistical Overview

Information and Communications Technologies Sector*

(New definition, see page 4 for details)

ICT Manufacturing

- Computer and Peripheral Equipment Mfg
- Communications Equipment Mfg
- Electronic Component Mfg
- Audio and Video Equipment Mfg
- Mfg and Reproducing Magnetic and Optical Media

ICT Wholesaling

Software and Computer Services

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

Communications Services

- Telecommunications services
- Cable and other program distribution

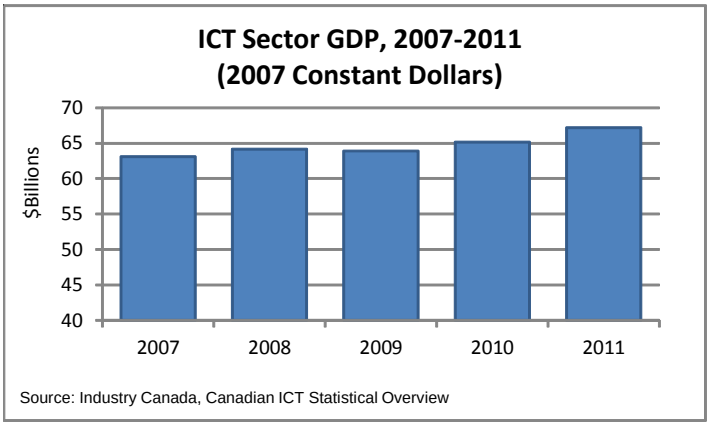
**Based on the North American Industry Classification System (NAICS).*

The ICT Sector makes a substantial contribution to the Canadian GDP...

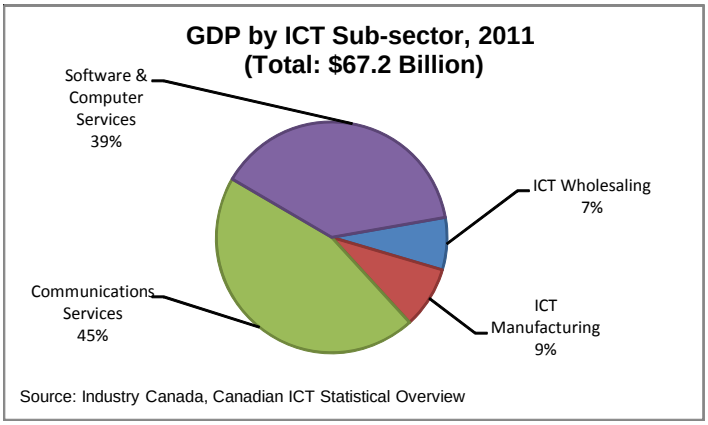
- The ICT sector contributed $67.2 billion to the Canadian GDP (in 2007 constant dollars) in 2011.
- The ICT sector outgrew the overall economy in 2011. The sector increased by 3.2% from 2010 compared to a 2.6% increase for the total Canadian economy. On average, annual growth in this sector has been 1.6% since 2007, compared to 0.9% for the overall economy. This faster growth also means that the ICT industries have accounted for 7.5% of the Canadian GDP growth since 2007.
- The manufacturing industries also had the highest growth in GDP in 2011, up 10.0% from 2010. This growth was led by the electronic components industry. The ICT wholesaling industries GDP also had strong growth, up 6.1%. GDP in the software and computer services industries increased by 2.8% in 2011, while the communications services industries increased by 1.7%.

...and is a major source of jobs.

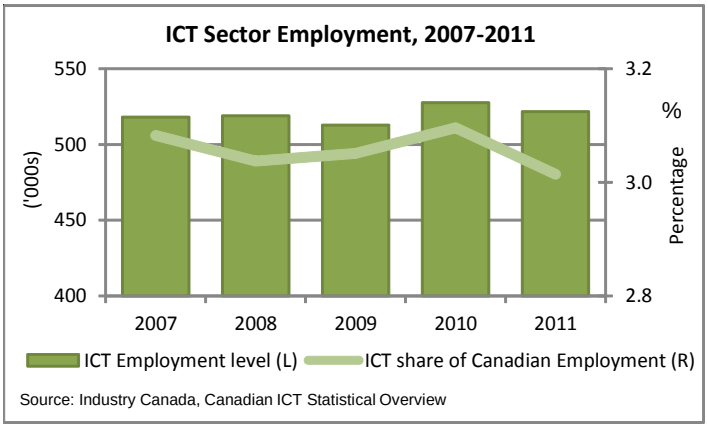
- The ICT sector accounts for 3.0% of total employment. However, employment in the ICT sector decreased 1.1% in 2011, amounting to 521,702.
- Employment decreased in three ICT sub-sectors in 2011. Employment in the wholesaling, manufacturing, and software and computer services industries dropped by 1.7%, 1.4%, and 1.8%, respectively. Meanwhile, employment in communications services increased by 1.2%.
- Reflecting structural changes that are happening in the ICT sector, the share of the manufacturing industries in total ICT sector employment has declined from 11.9% in 2007 to 9.1% in 2011, while the share of the software and computer services industries has increased from 54.4% to 58.2% over the same period of time.



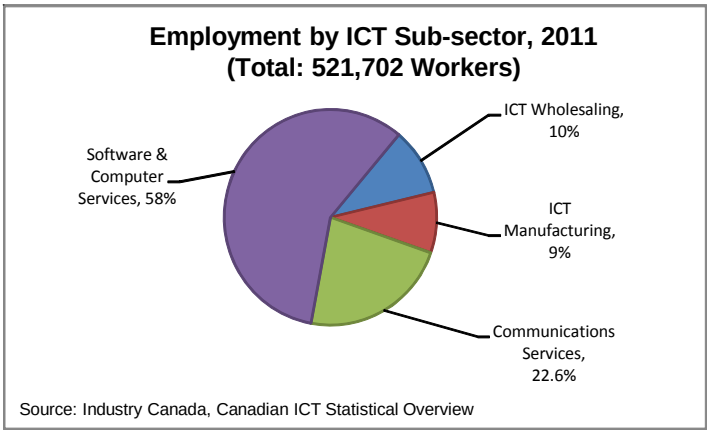
Source: Industry Canada, Canadian ICT Statistical Overview



Source: Industry Canada, Canadian ICT Statistical Overview



Source: Industry Canada, Canadian ICT Statistical Overview

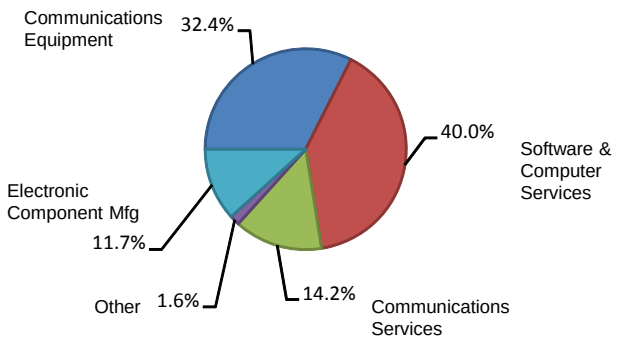


Source: Industry Canada, Canadian ICT Statistical Overview

ICT industries are the largest performers of private sector R&D...

- ICT sector R&D expenditures totalled $4.8 billion in 2011. After falling for three years in a row from 2008 to 2010, ICT sector R&D increased by 8.7% in 2011. R&D spending increased in all four sub-sectors; manufacturing (13.6%), communications services (11.2%), wholesaling (9.5%), and software and computer services (2.6%). The ICT sector continues to be the largest performer of R&D, accounting for 30.6% of all private sector R&D expenditures in Canada.
- At the industry level, the data processing (24.1%), communications equipment (21.4%), and communications services (11.2%) industries posted the largest increases in 2011, while the electronic components manufacturing industry (-2.9%) recorded the only decrease.
- From 2007 to 2011, R&D spending in the ICT industries has fallen by 11.9%. While spending has increased in the wholesaling (145%) and communications services (11.2%) industries, it has decreased in the manufacturing (-21%) and software and computer services (-17%) industries.

R&D Expenditures by ICT Industry, 2011 (Total: $4.8 Billion)

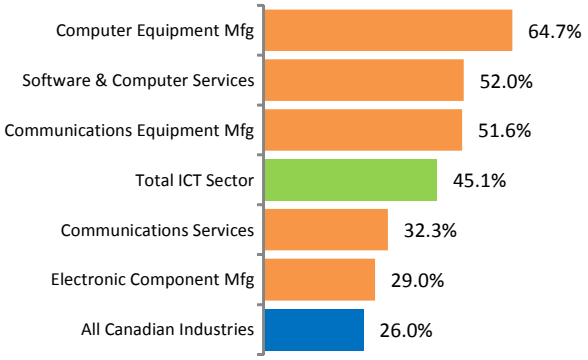


Source: Industry Canada, Canadian ICT Statistical Overview

...and have a knowledge-intensive workforce...

- ICT sector employment is characterized by a highly educated workforce. In fact, 45.1% of workers had a university degree in 2011, compared to a national average of 26.0%.
- The top three industries that employ the largest share of university educated personnel are computer equipment manufacturing (64.7%), software and computer services (52.0%), and communications equipment manufacturing (51.6%).

Percentage of Workers with a University Degree by Major ICT Industry, 2011

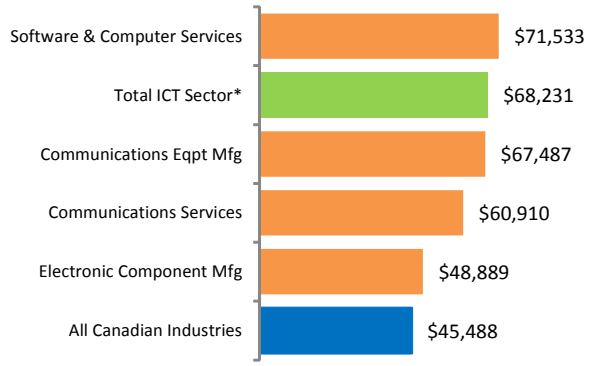


Source: Statistics Canada, Labour Force Survey (LFS)

...that earns above-average wages.

- Employees in the ICT sector are also well compensated. These workers earned on average $68,231 in 2011, or 50% more than the economy-wide average of $45,488.
- The highest earners in the sector work in the software and computer services industries. Average earnings in these industries were $71,533 in 2011. Despite being the lowest paid workers ($48,889) in the ICT sector, employees in the electronic components industry still earned 7% more than the national average in 2011.

Average Annual Earnings by Major ICT Industry, 2011



*NAICS 3341, 3343 & 3346 are excluded due to unreliable data
Source: Statistics Canada, Survey of Employment, Payrolls and Hours (SEPH)

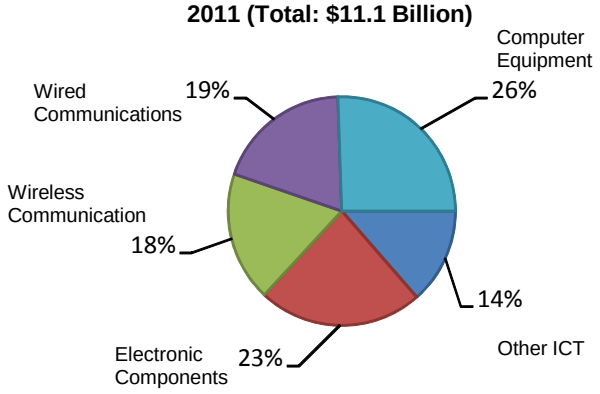
ICT manufacturing industries are export-oriented...

- The Canadian ICT manufacturing sub-sector relies on the export market. About 58% of ICT products manufactured in Canada were exported in 2011.
- Canadian exports of ICT goods decreased by 1.0% in 2011 to $11.1 billion. Decreases in exports of wired communications equipment ($378 million) contributed the most to this decline.
- Exports of ICT goods dropped by 33.4% between 2007 and 2011. Since 2007, exports of wired communications equipment (-55.9%) fell the most while exports of audio and video equipment (21.4%) increased the most. Over this period, the share of wired communications equipment in total ICT goods exports dropped from 29.1% to 19.2%.
- Exports of ICT goods to the United States dropped by 2.3% in 2011 to $7.1 billion, accounting for 64.0% of Canadian ICT goods exports. Shipments to the US have dropped since 2007, when they were totalling $11.2 billion, and representing 67.0% of Canadian ICT goods exports. Shipments to the Asia-Pacific region increased 1.7% in 2011, totalling $1.2 billion or 10.8% of Canada's ICT goods exports. Since 2007, the share of shipments to the Asia-Pacific has decreased by 0.4 percentage points. Exports to the European Union increased by 7.9% in 2011 to a total of $1.4 billion or 12.9% of Canada's ICT exports. Exports to all other countries accounted for $1.4 billion, or 12.3% of Canadian ICT goods exports in 2011, up 4.4 percentage points since 2007.

...while ICT services industries are more domestically oriented

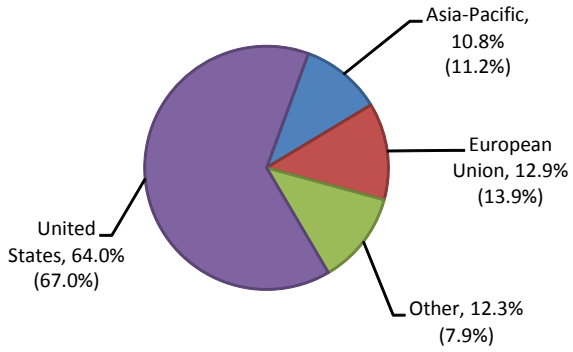
- Exports of ICT services have been trending up, growing by 7.6% from 2007 to 2011. However, the increase in exports of ICT services during the 2007-2011 period was not large enough to offset the decline in exports of ICT goods. Total ICT goods and services exports decreased by 19.1% during that same period.

Exports of ICT Goods by Product Group, 2011 (Total: $11.1 Billion)



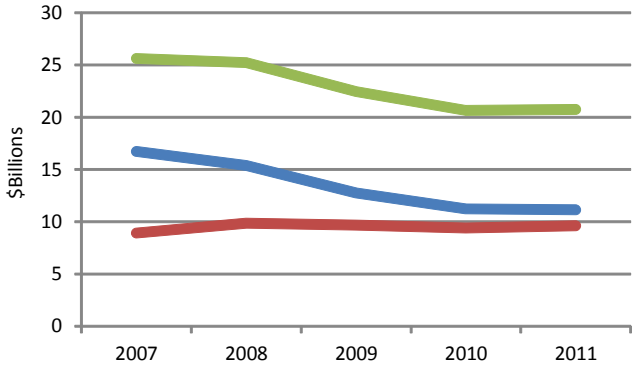
Source: Industry Canada, Canadian ICT Statistical Overview

Exports of ICT Goods by Region, 2011
2011 Share of Total (2007 shares in brackets)



Source: Industry Canada, Trade Data Online

Exports of ICT Goods and Services 2007-2011



Source: Industry Canada, Canadian ICT Statistical

IMPORTANT CHANGE IN DEFINITION

Previous editions of the ICT Sector Profile were based on the 1998 OECD definition of the ICT sector. Starting with this edition, the Profile is based on the 2006 OECD definition of the sector. The most notable change is the exclusion of the instrument manufacturing industries. For more details on the changes to the definition of the ICT sector, please refer to the OECD report "INFORMATION ECONOMY - SECTOR DEFINITION BASED ON THE INTERNATIONAL STANDARD INDUSTRY CLASSIFICATION (ISIC 4)".
http://www.oecd.org/sti/scienceandtechnologypolicy/38217340.pdf