Industry Canada Industrie Canada

Canadian ICT Sector Profile

The ICT Sector consists mainly of small companies...

- About 31,500 companies comprise the Information and Communications Technologies (ICT) sector, of which 78.6% are in the software and computer services industries and 10.6% in the wholesaling industries. Within the software and computer services industries, over 94% of the companies specialize in computer systems design services.
- The number of large companies in the Canadian ICT sector is relatively small, in 2008, there were approximately 100 companies with more than 500 employees. Comparatively, there were about 25,800 companies with less than 10 employees, accounting for 82% of all the companies in the sector.
- Among the three ICT sub-sectors, the manufacturing sub-sector stands out as the one with larger companies. In 2008, more than 15% of the manufacturing companies had more than 50 employees while for the whole ICT sector, this share was only 4.2%.

...and generates over to $155† billion in revenues.

- Revenues in the ICT sector grew by 2.8% in 2008. The ICT services sub-sector grew by 3.7%, attributable to data processing (5.0%) and computer systems design (4.9%). Manufacutring revenues dropped by 1.0% in 2008, led by wired communications equipment (-11.0%). However, wireless communications equipment revenues grew in 2008 by 16.6%.
- Total revenues rose from $130.8 to $155.3 billion between 2002 and 2008, a 19% increase (or 2.9% annual growth). Depicted at right is a clear shift from ICT manufacturing towards ICT services (as a share of the total ICT sector). Since 2002, manufacturing revenues have declined by 7.0%, while services grew by 33.4%. In fact, between 2002 and 2008, the communications services and computer systems design industries accounted for 81.7% of growth in total sector revenues.

Information and Communications Technologies Sector*

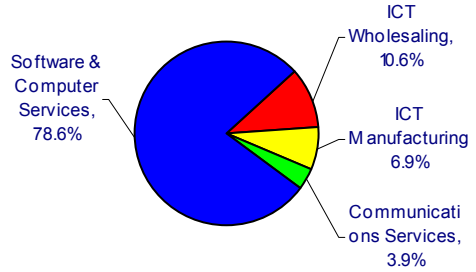
ICT Manufacturing:
- Computer and Peripheral Equipment Mfg
- Communications Equipment Mfg (including wired and wireless
- Electronic Component Mfg
- Audio and Video Equipment Mfg
- Instruments Mfg
- Communication Wire and Cable Mfg
- Commercial Industry Machinery Mfg

ICT Services:
- Software and Computer Services (software publishers, computer systems design, and data processing)
- Communications Services (telecommunications services, ISPs, Cable and Other Program Distribution)

ICT Wholesaling

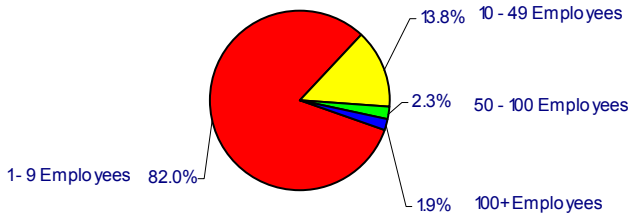
**Based on the North American Industry Classification System (NAICS).*

Companies by ICT Sub-sector, 2008



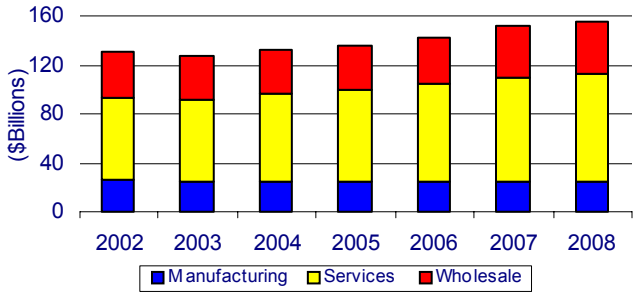
Source: Industry Canada, Canadian ICT Statistical Overview

Companies by Employee Size for Total ICT Sector, 2008



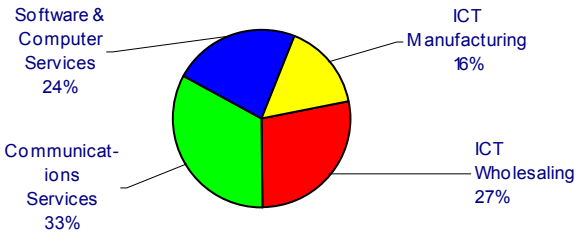
Source: Industry Canada, Canadian ICT Statistical Overview

ICT Sub-sector Revenues, 2002-2008



Source: Industry Canada, Canadian ICT Statistical Overview

Revenues by ICT Sub-sector, 2008 (Total: $155.3 Billion)



Source: Industry Canada, Canadian ICT Statistical Overview

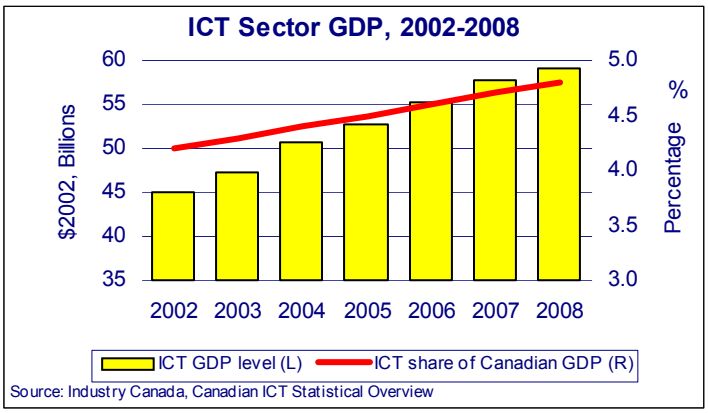
The ICT Sector makes a substantial contribution to the Canadian GDP...

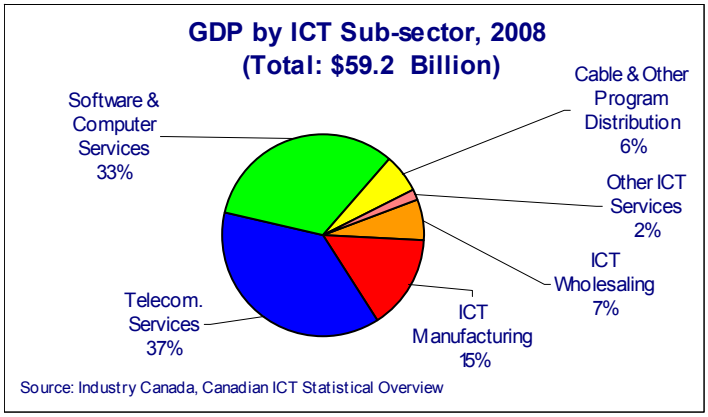
- The ICT sector contributed $59.2 billion to Canadian GDP (in 2002 constant dollars) in 2008 - accounting for 4.8% of Canadian output, up from 4.2% in 2002.
- In 2008, the ICT sector was a key driver of national growth with an increase of 2.7% in GDP. On average, annual growth in this sector has been 4.7% since 2002, almost twice as fast as the overall economy (2.4%). This faster growth also means that the ICT industries have accounted for 8.9% of the Canadian GDP growth since 2002.
- For a fourth consecutive year, the ICT manufacturing industries grew, up by 1.1% in 2008. A strong growth rate was observed in the wireless communications equipment (19.3%). Led by the computer systems design (3.8%), GDP in the ICT services industries increased by 2.9% in 2008. Continued growth in output was observed in the ICT wholesaling industries (9.6%) in 2008. Both the services and wholesaling sub-sectors have displayed continuous growth since 2003.

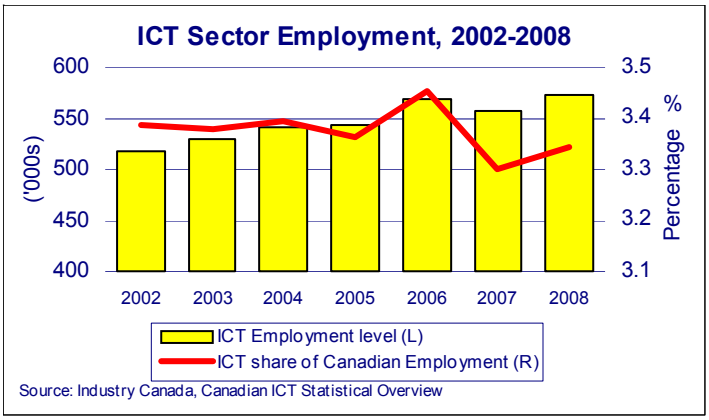
...and is a major source of jobs.

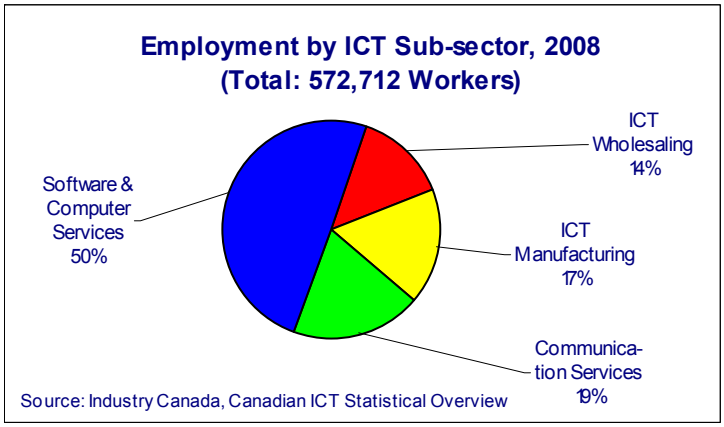
- After dropping for the first time in five years in 2007, ICT sector employment recovered in 2008, growing by 2.8%. Between 2002 and 2008, employment in the sector rose from 518,613 to more than 572,700†, an increase of 10.4%. In 2008, 3.3% of all Canadian workers were employed by the ICT sector.
- A large portion of the employment gains between 2002 and 2008 occurred in the software and computer services industries, where the number of workers increased by 25% or 53,800 workers. Overall, employment in the services industries increased by 16.2% between 2002 and 2008. On the other hand, employment declined by 3.3% in the manufacturing industries and grew by only 2.9% in the wholesaling industries over the same period.
- Reflecting structural changes that are happening in the ICT sector, the share of the manufacturing industries in total ICT sector employment declined from 19.5% in 2002 to 17.1% in 2008 while the share of the services industries increased from 65.8% to 69.2% over the same period. However, employment increased in wireless communications equipment industry where 5,500 employees were added to the workforce, a growth of 50.9%.

† 2008 employment totals,revenues and growth rates are based on estimates calculated by Industry Canada



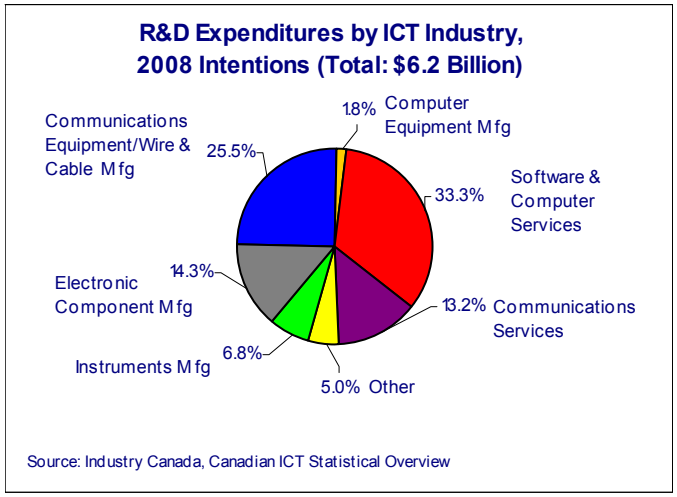






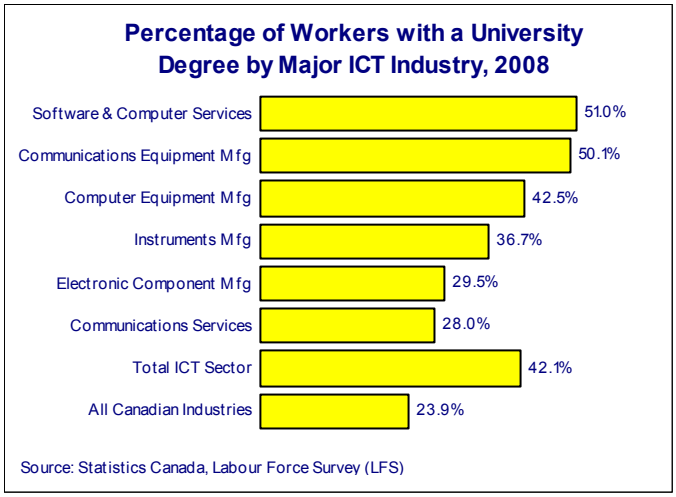
ICT industries are the largest performers of private sector R&D...

- R&D spending in the ICT sector steadily increased from 2002 to 2007 but declined by 0.4% in 2008 to 6.2 billion. This amount represents 38% of total Canadian private sector R&D expenditures.
- The ICT manufacturing sub-sector remains the largest spender on R&D, with a value of $3.2 billion, or 51% of ICT sector spending and 19% of total Canadian private sector R&D expenditures. Within this sub-sector, the communications equipment industries account for $1.6 billion of R&D expenditures. ICT services sub-sector has experienced a substantial growth in R&D spending over the course of last several years and 2008 value is $2.9 billion, or 46% of ICT sector spending and 18% of total Canadian private sector R&D expenditures.



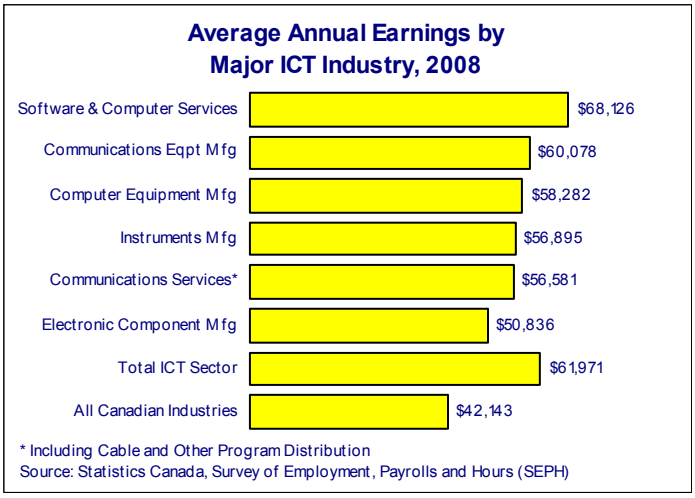
...and have a knowledge-intensive workforce...

- ICT sector employment is characterized by a highly educated workforce. In fact, 42.1% of workers had a university degree in 2008, compared to a national average of 23.9%.
- The top three industries that employ the largest share of university educated personnel are software and computer services (51%), communications equipment manufacturing (50%) and computer equipment (43%).



...that earns above-average wages.

- Employees in the ICT sector are also well compensated. These workers earned on average $61,971 in 2008, or 47% more than the economy-wide average of $42,143
- The highest earners in the sector are in the software and computer systems design industries. In fact, average earnings in these industries were $68,126 in 2008. Despite being the lowest paid workers ($50,836) in the ICT sector, employees in the electronic components industry still earned 20.6% more than the national average.

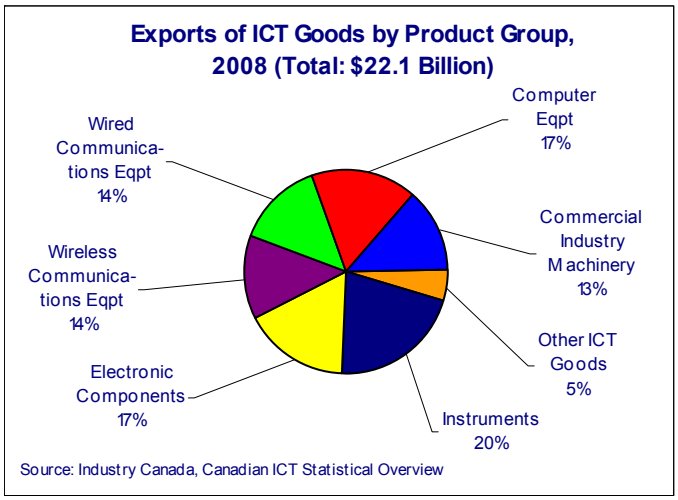


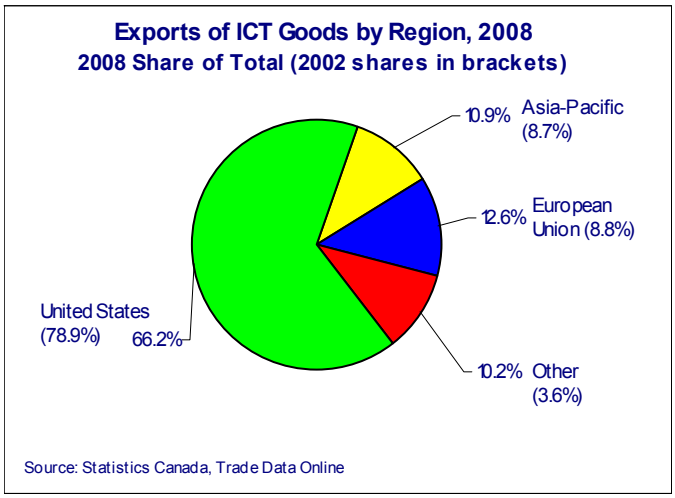
ICT manufacturing industries are highly export-oriented...

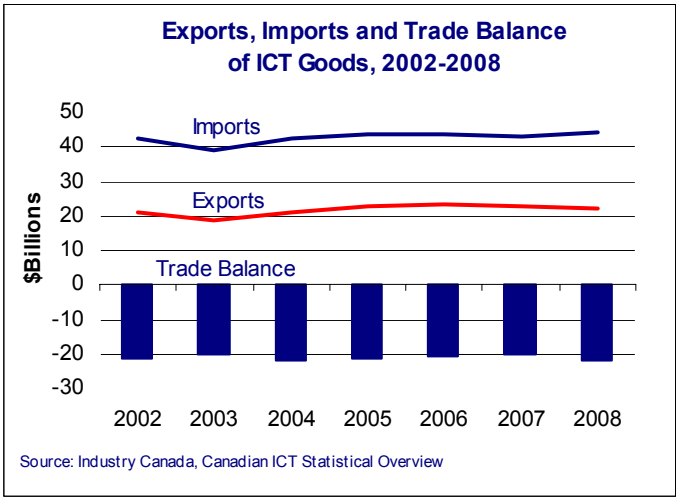
- The Canadian manufacturing sub-sector relies heavily on the export market. In fact, more than 70% of ICT products manufactured in Canada are exported.
- However, total ICT exports of goods decreased for the second consecutive year. In 2008, Canadian exports of ICT goods declined by 2.0%, to $22.1B.
- Exports decreased the most in wired communications equipment (-35%). The share of wired communications equipment in total ICT goods exports continues to decline dropping to 14.3% in 2008
- Shipments of ICT goods to the United States fell by 0.2% in 2008 to $14.7 billion, accounting for 66% of Canadian ICT goods exports. Shipments to the US have dropped noticeably since 2002, when they were $16.6 billion, and represented 79% of Canadian ICT goods exports.
- Shipments to the Asia-Pacific region in 2008 decreased by 12.2% to a total of $2.4 billion or 10.9% of Canada's exports of ICT goods (up from 8.7% in 2002). Exports to the European Union in 2008 decreased by 12.3% to a total of $2.8 billion or 12.6% of Canada's exports (compared to 8.8% in 2002).

...but Canada incurs a sizeable trade deficit in ICT goods

- Canada's trade deficit in ICT goods in 2008, valued at $22.1 billion, increased by 7.4%.
- Computer equipment alone accounted for 41% of the trade deficit observed in ICT goods in 2008, followed by audio and video equipment (24%), and electronic components (16%). In fact, computer equipment has been the largest contributor to the trade deficit since 2000. However, Canada recorded a surplus of $124 million for wired communications equipment.







Note to Readers: Some data reported in this article may be slightly different from data reported in previous publications as they include the latest revisions made by Statistics Canada to data previously published.