

Fastest Growing Industries: Tech Industry

A guide for newcomers to British Columbia



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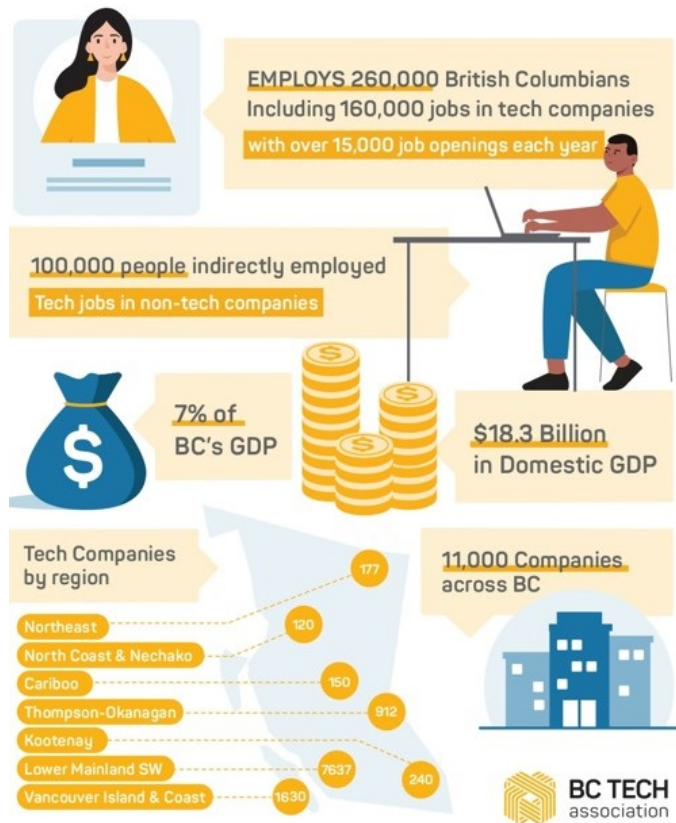
1. Overview of the Tech Industry

Introduction

BC’s technology sector hosts nearly 11,000 companies representing a broad range of sectors, with five subsectors including interactive and digital media, clean technology, life sciences, information and communication technology, and IT and engineering services.

A majority of those businesses are small to medium-sized enterprises employing fewer than 50 employees, with nearly 80% employing less than 10. There are only 22 companies in the BC tech community that employ at least 500 people.

BC'S TECH INDUSTRY



Source: <https://wearebctech.com/bcs-tech-industry/>

Revenue & GDP

BC’s high tech sector revenue rose 4.0% in 2019, to \$34.9 billion, the highest level ever recorded. Overall the growth was in the service sector, where revenues increased 4.8%. Within the service sector, the highest growth was in engineering

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services, where revenues jumped 13.5% while high tech manufacturing revenues fell 0.7%.

From 2018 to 2019 British Columbia's high technology sector GDP increased 4.2%, to around \$18.3 billion. This is higher than that of the

overall provincial GDP, which climbed 2.8%. The tech sector has outperformed the economy as a whole in every year in the last decade with the exception of 2015. The BC tech sector contributes more to the economy than traditional BC industries (e.g., forestry, mining, oil & gas). BC's high tech GDP represented over 12% of the Canadian total, ranking B.C. third in the country, following Quebec and Ontario.

TABLE A1: B.C. GDP, 2019 (CHAINED 2012 DOLLARS)

	\$ MILLION	% CHANGE 2018/2019
Manufacturing	1,769	6.5
Services	16,584	4.0
High Tech Total	18,348	4.2
B.C. Total	253,049	2.8

The service sector is responsible for generating the bulk of high technology GDP

Source: https://www2.gov.bc.ca/assets/gov/data/statistics/business-industry-trade/industry/tech_profile_report.pdf

Exports of Services and Commodities

B.C.'s exports of high tech services climbed 5.1% in 2019 to \$6.08 billion. There was growth of 2.5% in exports of computer-related services (total \$1.78 billion) and 3.8% in exports of professional, scientific and technical services (total \$2.28 billion). The largest growth was in exports of other high tech services (telecommunications, film production, etc.), which jumped 9.0% from 2018 to 2019 (total \$2.02 billion).

High tech goods exports increased in 2019:

The value of B.C.'s exports of high technology goods edged up 0.5% in 2019, to just under \$1.5 billion. The value of BC's high tech goods exports ranked the province third in the country behind Quebec and Ontario.

Source: Profile of the British Columbia Technology Sector: 2020 Edition

https://www2.gov.bc.ca/assets/gov/data/statistics/business-industry-trade/industry/tech_profile_report.pdf

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BC has a thriving startup tech sector, but small startups have struggled to scale up into medium sized companies. The 2020 Tech Report Card (<https://wearebctech.com/2020-bc-technology-report-card/>) found no growth at all in the number of medium-size tech companies with between 50-100 employees. Of the 11,000 tech companies in BC, 220 employ at least 100 people and only 22 employ at least 500 people. Companies with fewer than 50 employees can produce new ideas, products and solutions, and employment, but they cannot provide long-term economic strength and stability. They are not yet the anchor companies with 200+ employees that are vital to an economy. BC lacks a sustained, multi-year federal and provincial investment to provide the kinds of programs that help companies grow from small to medium-sized and from medium-sized to large.

Source: <https://wearebctech.com/scaleup-bc/>

Virtually all of the firms (92%) that employ more than 100 employees are located in the Mainland and Vancouver Island. Most Tech Industry firms are located in:

- Mainland/Southwest region – 68+% of total BC firms
- Vancouver Island and Coast – 15% of total BC firms
- Thompson & Okanagan region - 8% of total BC firms

DISTRIBUTION OF HIGH TECHNOLOGY BUSINESSES BY REGION, 2019



https://www2.gov.bc.ca/assets/gov/data/statistics/business-industry-trade/industry/tech_profile_report.pdf

For more information and profiles of specific Tech Industry companies in BC, see <http://bctechbase.com/#/dashboard>

Employment & Salaries

For the eighth consecutive year, employment in B.C.'s high tech sector reached a new high in 2019, rising 4.7% to 131,220 - the fourth straight year that growth in

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employment in the high tech sector exceeded that of overall provincial employment growth. The manufacturing and service sectors saw growth, with increases of 9.0% and 4.0% respectively. One of the largest areas of employment in BC tech is 'other computer and related services', growing 46% since 2013 to employ 32,060 people in 2018. In total, high tech employment has increased by close to 11% between 2015 and 2017, while graduate and undergraduate degrees in technology have increased by 12.6% over the same time period.

CBRE (Coldwell Banker) report, **Scoring Canadian Tech Talent report, 2020** rankings, show that **Vancouver** is third highest ranked Canadian city for tech talent (based on talent availability, quality of labour and cost competitiveness).

Vancouver's Ranking as Tech Talent Centre



<https://www.cbre.ca/en/research-and-reports/Canada-Scoring-Tech-Talent-2020>

Salaries:

Wages and salaries paid by British Columbia's high tech sector climbed 7.6%, to \$12.0 billion in 2019, the highest level ever recorded. The average weekly earnings of a tech worker in the province was \$1,760 in 2019, compared to \$1,000 per week for the average worker in the province as a whole. For service sector workers, tech workers earned almost double the average service sector wage (\$1,830 per week, compared to \$950). Across the Tech Industry, the growth in employment contributed to the rise in wages and salaries; there was also a 2.8% increment in average weekly earnings.

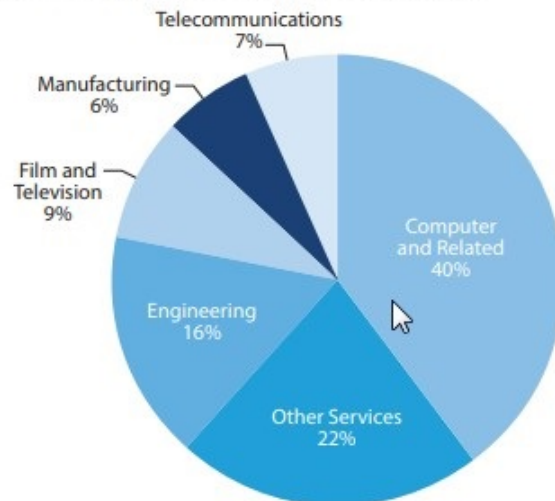
Key Sectors in BC's Tech Industry

The computer and related services industry group is the largest sector within B.C.'s high tech sector, making up 40% of the province's high tech businesses. Other services (22%) and engineering (16%) are the next two largest high tech industry groups

Other key subsectors include

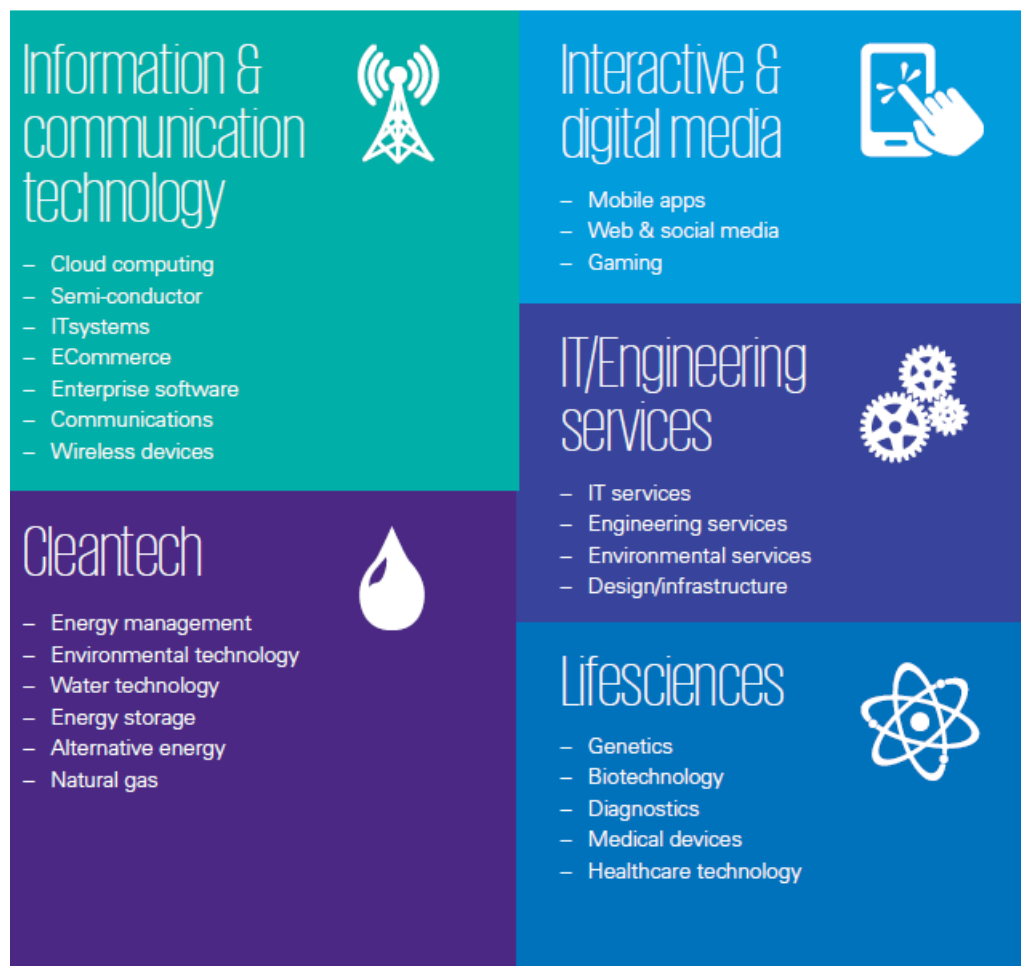
- Motion picture and video industries
- Digital Entertainment & Interactive (DE&I)
- Publishing industries

DISTRIBUTION OF B.C.'S HIGH TECH BUSINESSES, 2019



Source: https://www2.gov.bc.ca/assets/gov/data/statistics/business-industry-trade/industry/tech_profile_report.pdf

Key sectors BC's Tech Industry



Source: <https://wearebctech.com/2020-bc-technology-report-card/>

The Information & Communication Technology (ICT) Sector

The ICT sector in BC includes more than 5,500 companies and supports 68,000+ jobs working in software, cloud computing, information technology, Internet of Things (IoT), telecommunications and electronics manufacturing, virtual reality and augmented reality, digital security and artificial intelligence.

Some of the largest ICT companies in British Columbia include:

Absolute	ACL	Avigilon	Fujitsu
Software	Amazon	Fortinet	Global Relay

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Hootsuite

IBM

Intel

Sources:

Profile of the British Columbia Technology Sector: 2020 Edition

https://www2.gov.bc.ca/assets/gov/data/statistics/business-industry-trade/industry/tech_profile_report.pdf

Canada Scoring Tech Talent 2020

<https://www.cbre.ca/en/research-and-reports/Canada-Scoring-Tech-Talent-2020>

2020 British Columbia Technology Report Card: Tackling the Scale up challenge (KPMG)

<https://wearebctech.com/2020-bc-technology-report-card/>

British Columbia: a world class ICT hub

<https://www.britishcolumbia.ca/TradeBCPortal/media/Marketing/bc-ict-wireless-mit.pdf>

Vancouver Economic Commission, Focus on Technology

<http://www.vancouvereconomic.com/focus/technology/>

British Columbia: a world class ICT hub

<https://www.britishcolumbia.ca/TradeBCPortal/media/Marketing/bc-ict-wireless-mit.pdf>

Innovate BC – Venture Acceleration Network

BC Crown Agency <https://innovatebc.ca/>

- Delivers programs to help technology start-ups grow and create jobs in B.C.
- helps entrepreneurs accelerate the process of defining a proven business model based on a set methodology and best practices for growing technology companies; connects them with business experts and fellow entrepreneurs to speed up the growth of their company

BC Acceleration Network BCAN (Venture

Acceleration Program) <https://innovatebc.ca/what->

BC Acceleration Network

Region	Delivery Partner
Central Interior BC	Kamloops Innovation kamloopsinnovation.ca
Central/Northern Island, Sunshine Coast & Gulf Islands	Innovation Island innovationisland.ca
Greater Victoria	Victoria Innovation, Advanced Technology & Entrepreneurship Council viathec.com
Kootenays	Kootenay Association for Science & Technology kast.com
Lower Mainland & Fraser Valley	entrepreneurship@UBC start.entrepreneurship.ubc.ca
	Foresight Cleantech Accelerator Centre foresightcac.com
	New Ventures BC newventuresbc.com
	VentureLabs venturelabs.ca
Okanagan Valley	Accelerate Okanagan accelerateokanagan.com
North Central BC	Innovation Central Society innovationcentral.ca

<https://www.britishcolumbia.ca/TradeBCPortal/media/Marketing/bc-ict-wireless-mit.pdf>

[we-offer/connect-with-experts/venture-acceleration-program/](#)

- Support B.C. entrepreneurs and companies at all stages of growth, offering tools, resources and expert guidance
- For a list of BCAN venture acceleration partners, and industry & academic partners that Innovate BC works with, see:

<https://innovatebc.ca/about/who-we-partner-with/>

2. Occupations in the Tech Industry

Top ten occupations in High Technology Sector:

HIGH TECHNOLOGY WORKERS IN THE HIGH-TECHNOLOGY SECTOR, BY TOP TEN OCCUPATIONS,

HIGH TECHNOLOGY OCCUPATION CATEGORY	EMPLOYMENT	% OF TOTAL
COMPUTER PROGRAMMERS AND INTERACTIVE MEDIA DEVELOPERS	9,460	16.0
INFORMATION SYSTEMS ANALYSTS AND CONSULTANTS	7,250	12.2
SOFTWARE ENGINEERS AND DESIGNERS	6,845	11.6
CIVIL ENGINEERS	4,150	7.0
COMPUTER AND INFORMATION SYSTEMS MANAGERS	3,650	6.2
ELECTRICAL AND ELECTRONICS ENGINEERS	3,005	5.1
WEB DESIGNERS AND DEVELOPERS	2,730	4.6
COMPUTER NETWORK TECHNICIANS	2,710	4.6
MECHANICAL ENGINEERS	2,455	4.1
COMPUTER ENGINEERS (EXCEPT SOFTWARE ENGINEERS AND DESIGNERS)	1,490	2.5
TOTAL	59,225	73.9

Source: https://www2.gov.bc.ca/assets/gov/data/statistics/business-industry-trade/industry/tech_occupations.pdf

See *We are BC Tech.com*, <https://wearebctech.com/the-five-most-in-demand-tech-jobs-in-bc/> for profiles of some of the most in demand tech jobs, including:

- Information Systems Analyst and Consultants
- Computer Programmers and Interactive Media Developers
- Computer Network Technicians

See *WorkBC* (<https://www.workbc.ca/Jobs-Careers.aspx>) for profiles of all Tech Industry careers in BC.

Sources:

High Technology Occupations in British Columbia

https://www2.gov.bc.ca/assets/gov/data/statistics/business-industry-trade/industry/tech_occupations.pdf

BC Labour Market Outlook, 2019

<https://www.workbc.ca/Labour-Market-Industry/Labour-Market-Outlook.aspx>

Technology Sector Outlook

<https://www.workbc.ca/labour-market-industry/industry-and-sector-information/industry-and-sector-outlooks/technology.aspx>

Growing the Tech Talent Pool

<https://wearebctech.com/priorities/growing-the-tech-talent-pool/>

Career Spotlight – BC Tech Association

<https://wearebctech.com/career-spotlight/>

Five Most In-Demand Tech Jobs in BC – BC Tech Association

<https://wearebctech.com/the-five-most-in-demand-tech-jobs-in-bc/>

Tech Industry Talent Availability

Talent is a critical resource for the technology sector. Currently, BC technology firms source talent locally from new grads of BC tech programs, bring in talent through inter-provincial or international immigration, or retrain existing BC residents. Using tech degrees granted per capita as indicative of talent availability, BC's talent pool growth has increased by 9% between 2015 and 2017.

Talent sourcing and retention remain a critical priority, as does providing small to medium-sized companies with the domestic capital, R&D resources, and go-to market supports to reach their full potential.

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List of High Opportunity Occupations

TABLE 5.2 | HIGH OPPORTUNITY OCCUPATIONS | B.C. | 2019-2029

Occupation Title	Job Openings	Wage Rate Low	Wage Rate Median	Wage Rate High	Occupational Interest	Skills and Competencies (Top 3)	NOC
	2019 - 2029	2018	2018	2018			
Information systems analysts and consultants	7,600	\$26.15	\$38.97	\$54.95	Investigative, Conventional	Critical Thinking, Reading Comprehension, Active Listening	2171
Computer programmers and interactive media developers	6,290	\$20.00	\$35.19	\$51.10	Investigative, Conventional	Programming, Reading Comprehension, Critical Thinking	2174
Computer and information systems managers	4,720	\$26.44	\$43.27	\$67.69	Enterprising	Critical Thinking, Active Listening, Reading Comprehension	0213
Software engineers and designers	4,480	\$24.36	\$38.46	\$60.00	Investigative	Critical Thinking, Reading Comprehension, Active Listening	2173
Civil engineers	4,190	\$26.44	\$38.51	\$64.00	Investigative, Realistic	Reading Comprehension, Critical Thinking, Complex Problem Solving	2131
Computer network technicians	2,700	\$17.31	\$30.00	\$52.75	Realistic, Conventional	Critical Thinking, Reading Comprehension, Active Listening	2281
Electrical and electronics engineers	2,020	\$27.50	\$36.92	\$50.00	Investigative, Realistic	Critical Thinking, Reading Comprehension, Active Listening	2133
Web designers and developers	1,960	\$15.00	\$26.32	\$47.69	Artistic, Investigative, Conventional	Critical Thinking, Active Listening, Reading Comprehension	2175
Mechanical engineers	1,850	\$20.51	\$42.31	\$57.69	Investigative, Realistic	Critical Thinking, Reading Comprehension, Active Listening	2132
Computer engineers (except software engineers and designers)	1,020	\$19.00	\$47.69	\$64.78	Realistic, Investigative	Critical Thinking, Reading Comprehension, Active Listening	2147

Source: <https://www.workbc.ca/Labour-Market-Industry/Labour-Market-Outlook.aspx>

3. Finding Jobs in the Tech Industry

Online Job Postings

- **BCTechJobs.ca**
<https://www.bctechjobs.ca/>
- **Creative BC – career resources**
<http://www.creativebc.com/community/education-and-careers>

- **DigiBC – Digital Media + Wireless Association of BC**
http://www.digibc.org/jobs?current_page=1&sort_type=featured_recent&filter=%7B%7D&display_type=default
- **Playback Careers –(production, broadcasting and interactive media)**
<http://playbackonline.ca/careers/>
- **TechJobs.ca**
<http://www.techjobs.ca/en>
- **T-Net**
<http://www.bctechnology.com/jobs/search.cfm>
- **Vancouver Film School Job Board**
<https://www.myvfs.com/jobboard>
- **Vancouver Games Jobs**
<http://www.vancouvergamejobs.com/>
- **Vancouver’s VFX, Animation, & Games Job Board**
<http://vfxvancouver.com/>
- **Neuvoo**
<http://neuvoo.ca/en>
- **WorkBC**
<https://www.workbc.ca/Jobs-Careers/Find-Jobs/Jobs.aspx>
- **BC Jobs.ca**
<https://www.bcjobs.ca/> & <https://www.bcjobs.ca/technology-jobs>
- **Indeed.ca**
http://ca.indeed.com/advanced_search

Creating a List of Potential Employers

You can use directories to produce lists of employers in this industry in British Columbia. Contact them directly to find out if they’re hiring.

- **BC Tech Association**
<https://wearebctech.com/members/member-directory/>
- **BC Tech Association: BC Techbase**
<https://www.bctechbase.com/#/companies>

- **BCTechnology.com – startup & top IT employers**
<http://www.bctechnology.com/tech-careers.cfm>
- **Creative BC – Interactive & Digital Media Contacts**
<http://www.creativebc.com/industry-sectors/industry-contacts/interactive-and-digital-media>
- **Local Video Game Companies – Vancouver**
<http://gamejobhunter.com/blog/local-video-game-companies-vancouver/>

4. Additional Resources

Still looking for more information? Try looking at the following resources:

- **BC Tech Association**
<http://www.wearebctech.com/>
- **BCTechnology.com T-Net**
<http://www.bctechnology.com/>
- **DigiBC – Digital Media & Wireless Association of BC**
<https://www.digibc.org> & <https://www.digibc.org/cpages/careersincreativetech>
companies working in video game/interactive, animation, visual effects, and VR/MR/AR, mobile & wireless sectors
- **Creative BC** (independent non-profit BC government agency)
<http://www.creativebc.com/>
promotes the development of BC's motion picture, interactive and digital media, music and sound recording, and book and magazine publishing industries
- **Spark CG Computer Graphics Society**
<https://sparkcg.org/>
- **Vancouver Economic Commission: Technology**
<https://www.vancouvereconomic.com/focus/technology/>
- **British Columbia: Invest: Technology**
<https://www.britishcolumbia.ca/invest/industry-sectors/technology/>

Questions? Please ask the Information Staff at the Central Library or telephone 604-331-3603.

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Please note that the information in this guide is also available online through the Skilled Immigrant InfoCentre website at <http://skilledimmigrants.vpl.ca/>.

