



**KEY FIGURES**

**199,200**  
employees in ICT (2017)



**19.5**  
CHF billion  
export volume (2017)



**29.7**  
CHF billion  
in value creation (2015)



**5<sup>th</sup>**  
place in the World Digital  
Competitiveness Ranking  
(IMD)



Sources: ICTSwitzerland; IMD 2019

**SWITZERLAND:  
ICT BUSINESS LOCATION**

**AT A GLANCE**

Information and Communication Technology (ICT) is a key technology for the Swiss economy. ICT applications permeate the economic and social fabric of the country and are an important driver for improving productivity in many other industries. Switzerland is extremely well-placed in this respect thanks to the adaptability of its companies in relation to new ICT solutions and the extensive ICT skills of their employees. Top-class specialists undergo training in the talent pipeline of the Computer Science departments at the Swiss Federal Institute of Technology Zurich (ETHZ) and the EPF Lausanne (EPFL), the result of which contributes to a thriving startup and spin-off scene.

**Focus of activities**

ICT employees by subsector (total: 199,200), 2017

Subsector	%	Subsector	%
Software developers	29	IT infrastructure technicians	4
General IT workers	18	Database & network specialists	3
ICT executives	14	Telecommunications/electronics engineers	2
Systems analysts	8	Other ICT workers	2
Graphic and multimedia designers	7	Application programmers	2
Telecom infrastructure technicians	5	Web and multimedia developers	2
User support technicians	4		

Sources: ictSwitzerland; BFS SAKE, 2018

**ICT companies**

Selection of ICT companies active in Switzerland

- AdNovum
- Adobe
- Avaloq
- Cisco
- ELCA
- Genedata
- Google
- HP
- IBM

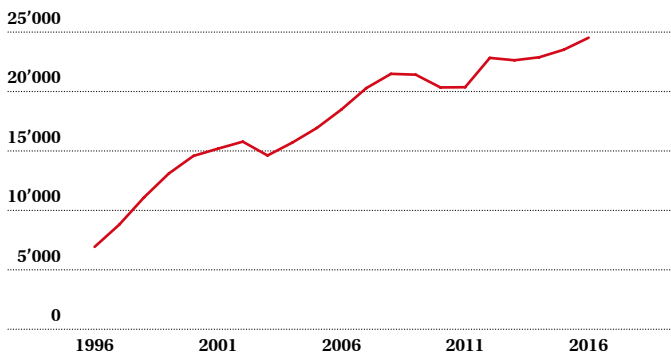
- Logitech
- Magnolia
- Microsoft
- Netcetera
- Noser Group
- SAP
- Swisscom
- Temenos
- Disney Research

## RESEARCH AND DEVELOPMENT (R+D)

- Thanks to the **Computer Science Departments** of ETH Zurich (ETHZ) and EPF Lausanne (EPFL), which are **among the world's best**, Switzerland has a considerable pool of talent (ETHZ ranked no. 6, EPFL ranked no. 18, according to the QS World University Rankings in 2020). A master's program in data science is now being offered at ETHZ. In a new interdisciplinary initiative, ETH researchers from the fields of mathematics, computer science and information technology are also increasingly dedicating themselves to the foundations of data science.
- In September 2019, the private research and training center **Schaffhausen Institute of Technology (SIT)** started operations in cooperation with renowned universities in the USA and Singapore. Nobel laureate in physics Konstantin Novoselov lends his weight to the private university as chairman of the advisory board. The SIT focuses on training and research in the areas of artificial intelligence, crypto architectures, new materials, quantum technology, software engineering and digital health.

### ICT investment in Switzerland, development

in CHF millions



Source: Federal Statistical Office, 2017

- Out of over 230 apprenticeship options, the **ICT apprenticeship** is one of the most popular in Switzerland. Apprenticeships are the pillar of the skilled worker system; more than 90% of ICT degrees are based on apprenticeships and vocational training. At WorldSkills 2017, the young ICT professionals won gold for Switzerland twice.
- The Swiss Federal Institute of Technology Zurich maintains **intensive research collaborations with global players in the IT sector**, with key research themes directly influencing its teaching program. Private research centers, such as the multiple Nobel Prize-winning **IBM Research Laboratory**, **Google's** European Research Center (its largest research location outside the USA) and the **Disney Research Lab** are also all located in Switzerland.

- The **Human Brain Project** is one of the European Commission's most important projects, in which information and communication technologies play an important role. The project is housed in the Campus Biotech. It is intended to coalesce all the knowledge about the **human brain** and reproduce it by means of interdisciplinary research and computer-based models and simulations. The EPF Lausanne has taken on a leading position for this project.
- In 2016, Switzerland submitted **33.8 ICT patent applications** per million inhabitants, putting it eighth among OECD countries.
- Private sector and state **ICT investments** in Switzerland increased from 6,932 to 24,527 million Swiss francs between 1996 and 2016. This corresponds to an average annual growth of 6.5%. In 2016, nearly three-quarters of investments went into software and databases, a good sixth into communications technology and the remaining investments into information technologies. The largest increase in investments since 1996 can be observed in communications technologies.

### Share of ICT specialists in international comparison

in % of employees, 2016

Country	%
Finland	6.2
Sweden	5.6
Switzerland	5.0
United Kingdom	5.0
The Netherlands	4.5
Denmark	4.4
Ireland	4.3
Luxembourg	4.1
USA	4.1
Austria	3.8
OECD	3.7
Germany	3.6
France	3.1
Italy	2.8

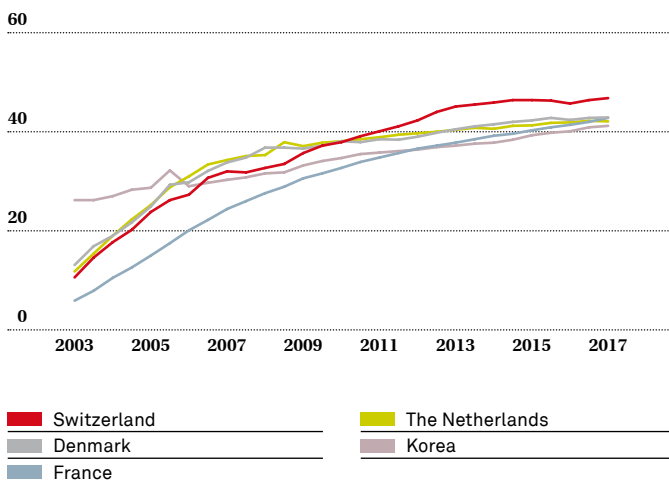
Sources: BFS; OECD 2018

- Rankings have shown Swiss companies to be more technology-friendly than those from other countries, as they introduce new technologies relatively quickly. Switzerland currently occupies **fifth place in the World Digital Competitiveness Ranking (IMD)**. The country performs particularly well in the 'knowledge' category, which defines a country's capacity to understand and learn new technologies and utilize them for digital transformation. Switzerland also attracts talented professionals from around the world and invests heavily in R+D.
- Only one-third of ICT employees work in traditional ICT companies. The remaining two-thirds are active in other sector, such as life sciences, finance, and precision goods.

## COSTS AND FINANCING

- In 2018, the ICT sector has replaced life sciences as the **largest Swiss venture capital sector**. Backers of Swiss ICT companies include some of the world's most famous VCs, such as Index Ventures and GV, the venture capital arm of Google's parent alphabet.
- The ICT landscape in Switzerland is characterized by ownerled, cash-flow financed, and highly specialized SMEs such as Abacus, Opacc, Elca, and Netcetera.
- The Swiss Innovation Agency (**Innosuisse**) specifically promotes cooperation between science and the market with innovation projects, networking, training and coaching. Innosuisse has an annual funding budget of around 200 million Swiss francs. The lion's share of this goes to supporting innovation projects.
- Startups and newly-established foreign companies are eligible for partial, or in some cases **complete, exemption from corporate and capital taxes** at cantonal level for a period of up to ten years.

**Subscribers to Broadband Internet Access**  
per 100 inhabitants



Source: Federal Statistical Office, 2018

- The increasing popularity of broadband technologies is crucial to the development of e-commerce, e-government and other applications. Switzerland is currently one of the leading countries in the OECD comparison. End of 2017, in terms of fixed broadband connections, the country came first in the OECD member states ahead of Denmark. Furthermore, 93% of Swiss households had Internet access in 2017. Switzerland was thus above the EU-28 average (87%).

## FRAMEWORK CONDITIONS AND MARKET ENTRY

- Companies have ready **access to skilled workers based outside of Europe**. If no suitable candidates can be found within Switzerland, the EU or the EFTA countries, a certain quota of computer scientists can be recruited from outside the EU (e.g. Asia or America).
- Switzerland has complete broadband and cellphone coverage. A stable power supply also ensures the secure operation of ICT infrastructure.
- The free trade agreements in place with the EU/EFTA and 40 other countries, including China and Japan, provide **access to the world's most important export markets**.
- Switzerland is one of the **top 10 exporters of ICT services**. The export volume of ICT goods and services has grown from around 14 billion Swiss francs in 2000 to 19.5 billion Swiss francs in 2015 – **twelve times more than the export of cheese and chocolate combined**. The continuously growing ICT service sector is the fifth most important service export group in Switzerland.
- Switzerland is considered a **magnet for international IT companies**. The high quality of life is another competitive factor contributing to Switzerland's global appeal as a business location for highly-qualified skilled workers.

## TESTIMONIAL



“It is critical that we, as a technology company, have access to both the domestic and foreign talent markets. The federal institutes of technology in Lausanne and Zurich contribute greatly to helping us achieve this, thanks to their world-renowned study programs. The free movement of people is of additional importance as it allows us to employ skilled workers from other EU countries. We also benefit from the presence of other major international companies in Switzerland, who also play their part in ensuring that the high quality of the local workforce is maintained.”

MARIANNE JANIK  
Country Manager of Microsoft Schweiz  
[www.microsoft.ch](http://www.microsoft.ch)

## CURRENT DEVELOPMENTS

- The Switzerland Future Fund project ([www.zukunftsfonds.ch](http://www.zukunftsfonds.ch)) provides for a fund to be established, by means of which pension funds can make part of their funds available to startup companies in Switzerland as venture capital. The aim is to encourage the creation of new companies and jobs in promising business sectors. The ICT industry would also benefit hugely from this.
- On 19 May 2019, the Swiss electorate adopted the Federal Law on Tax Reform and AHV Financing (TRAF). The adoption of the TRAF means that the **Swiss tax system has been modernized** and now offers companies an attractive tax environment in line with internationally established tax practices (see factsheet at [www.s-ge.com/corporate-taxation](http://www.s-ge.com/corporate-taxation)).
- **digitalswitzerland** is a Swiss-wide, multi-stakeholder initiative created from the shared vision of its over 150 members to strengthen **Switzerland's position as a leading digital innovation hub**. digitalswitzerland engages actively in promoting business-friendly measures in the fields of collaboration, know-how transfer, education, startup ecosystems and political framework conditions.
- The Federal Council wants Switzerland to exploit the opportunities of digitalization to the fullest. For this purpose, it adopted a **“Digital Switzerland” strategy** in 2018 for the next two years. Within the framework of this strategy the Federal Council will, among other things, establish a working group on the subject of artificial intelligence and support initiatives around smart cities.

## CONTACTS AND FURTHER INFORMATION

### Authorities and regulators

Federal Office of Communications  
[www.bakom.admin.ch](http://www.bakom.admin.ch)

Federal Office of Information  
Technology, Systems and Telecommunication  
[www.bit.admin.ch](http://www.bit.admin.ch)

Federal IT Steering Unit  
[www.isb.admin.ch](http://www.isb.admin.ch)

State Secretariat for Education,  
Research and Innovation  
[www.sbf.admin.ch](http://www.sbf.admin.ch)

Innosuisse - Swiss Innovation Agency  
[www.innosuisse.ch](http://www.innosuisse.ch)

Swiss Computer Science  
Conference  
[sik.ch](http://sik.ch)

### Associations and networks

[www.alpict.com](http://www.alpict.com)  
[www.asut.ch](http://www.asut.ch)  
[www.ated.ch](http://www.ated.ch)  
[www.biometrics-center.ch](http://www.biometrics-center.ch)  
[digitalimpact.ch](http://digitalimpact.ch)  
[digitalswitzerland.com](http://digitalswitzerland.com)  
[www.ech.ch](http://www.ech.ch)  
[www.epfl-innovationpark.ch](http://www.epfl-innovationpark.ch)  
[www.ictswitzerland.ch](http://www.ictswitzerland.ch)  
[www.idiap.ch](http://www.idiap.ch)  
[www.sgda.ch](http://www.sgda.ch)  
[sit.org](http://sit.org)  
[www.swico.ch](http://www.swico.ch)  
[www.swissict.ch](http://www.swissict.ch)  
[www.swissmadesoftware.org](http://www.swissmadesoftware.org)

### Innovation and startup promotion

[www.baselarea.swiss](http://www.baselarea.swiss)  
[www.investiere.ch](http://www.investiere.ch)  
[kickstart-innovation.com](http://kickstart-innovation.com)  
[www.masschallenge.org/programs-switzerland](http://www.masschallenge.org/programs-switzerland)  
[www.swissparks.ch](http://www.swissparks.ch)  
[www.swissstartupfactory.com](http://www.swissstartupfactory.com)  
[www.theark.ch](http://www.theark.ch)  
[ventures.swisscom.com](http://ventures.swisscom.com)  
[zurich.impacthub.ch](http://zurich.impacthub.ch)

### Publications

ICT foreign trade study 2017  
[www.ictswitzerland.ch](http://www.ictswitzerland.ch)

Swiss Venture Capital Report 2019  
[www.startupticker.ch](http://www.startupticker.ch)

### S-GE resources

Handbook for Investors  
[www.s-ge.com/handbookforinvestors](http://www.s-ge.com/handbookforinvestors)

More fact sheets on  
Switzerland as a business location  
[www.s-ge.com/factsheets](http://www.s-ge.com/factsheets)

### WE OFFER FREE CONSULTATION

Are you expanding in Europe and considering Switzerland as a business location for your company? Here, you can get free advice and support throughout the entire settlement process: We will connect you unbureaucratically with the cantonal business promotion agencies and provide you with expert contacts for matters such as taxes, real estate, etc.

Get in touch with us: [www.s-ge.com/invest](http://www.s-ge.com/invest)