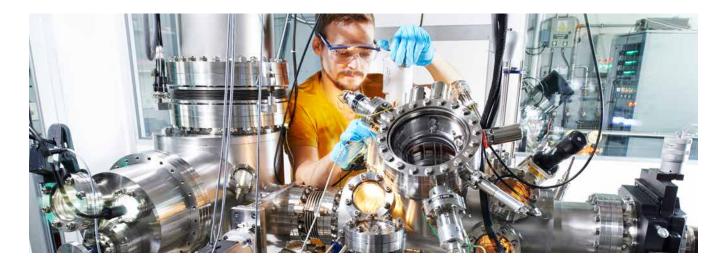
↔ SWITZERLAND GLOBAL ENTERPRISE



KEY FIGURES



Sources: WEF; IMD; WIPO; Federal Statistical Office, 2020

SWISS INNOVATION

AT A GLANCE

Switzerland's prosperity stems from its propensity for innovation. Swiss global corporations, as well as numerous small and medium enterprises, habitually strive to make improvements to their products, services and processes by investing heavily in research and development. This has meant that Swiss companies have been able to maintain their competitiveness over the last few years, despite the strong Swiss franc. This success is due, in part, to the presence of renowned research institutes and the ability to effectively turn research results into marketable products. Ideal conditions in the field of intellectual property and the availability of specialists in IP management also result in optimum conditions for protecting and harnessing innovation.

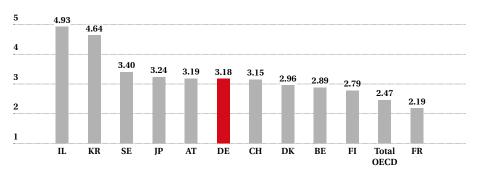
R&D Expenditure in Switzerland

Total CHF 15454 million at current prices, 2019

	Chemicals and pharmaceuticals	37%
	Other	19%
	MEM industry	14%
	Research and development	13%
	ICT (manufacturing and services)	11%
	High tech instruments	6%

Source: Federal Statistical Office, 2021

International rankings for gross domestic expenditure on R&D, 2019 As a percentage of GDP



OFFICIAL PROGRAM



Sources: OECD; BFS, 2020

RESEARCH AND DEVELOPMENT (R&D)

Scientific articles per 1 million inhabitants

- · Switzerland is home to excellent public fundamental research thanks to the presence of renowned universities boasting global networks (ETH Zurich and EPFL, as well as research institutions and cantonal universities). One measure of the output of research activities is the number of scientific publications in international journals. In terms of the number of inhabitants, Switzerland is at the top of the European regions and also in front of all East Asian regions. Switzerland also occupies a top position in terms of quality and citation frequency.
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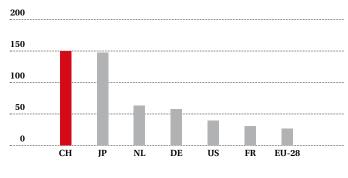
Source: SERI, 2020

Per year, 2014 - 2018

- · Switzerland is one of the countries that invest the most in R&D relative to GDP. Private companies contribute almost two-thirds of **R&D** expenditures. The strong involvement of the private sector is testament to the attractive conditions that exist for knowledge-intensive companies in Switzerland.
- · Switzerland is characterized by a high and efficient knowledge and technology transfer. The close collaboration between universities and companies is an important success factor for Swiss research and innovation.
- Swiss research and innovation is based on the high quality of the education system among other things. Thanks to the high reputation of its universities, Switzerland is attractive to students, postgraduates and researchers from abroad. Furthermore, the Swiss vocational training system ensures the high availability of qualified technical personnel (lab technicians, IT technicians, polymechanics, etc.), who play a key role in the advanced technology sectors. A third of the qualified Swiss personnel in the field of R&D are educated via this non-university approach.

· In terms of the number of patent applications per capita, Switzerland occupies a leading position worldwide. Worth mentioning is the strong international involvement of Switzerland. This is evidenced by the number of patents in international cooperation as well as patents registered by foreign companies in Switzerland. Switzerland's strengths lie in the fields of health technologies and biotechnology.

Research productivity – a global comparison Number of triadic patents per million inhabitants in 2018



Source: Federal Statistical Office, 2021

- The Swiss Innovation Agency Innosuisse specifically promotes the transfer of knowledge and technology between companies and universities. It brings partners from these two areas together in applied research and development projects and provides assistance to startup coaching. Innosuisse funds half of the project if an innovator works with a Swiss institute.
- · As an important center of research, Switzerland attracts highly qualified foreign researchers. Several internationally important institutions are based here. For example, the European Organization for Nuclear Research CERN, the Paul Scherrer Institute (PSI) and the Swiss Center for Electronics and Microtechnology (CSEM). CSEM is a non-profit research and technology institution and is committed to both applied and industry-commisisoned R&D building a bridging function between the economy and science.
- 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) or the Disney Research Lab are all located in Switzerland. However, also ABB, Novartis, Roche, Hyundai Electric, Oracle, Biogen, Hewlett Packard Enterprise (HPE) and many more conduct their cutting-edge research from here, collaborating closely with nearby universities and research institutes.

FRAMEWORK CONDITIONS AND MARKET ENTRY

• The Swiss research and innovation system is generally rated as very effective in international comparison. In the Global Innovation Index (WIPO), Switzerland has ranked first for ten years. The country scores particularly well on framework conditions and educational indicators as well as publications and patents.

International Rankings for Innovation

Global Innovation Index, 2020

Country	Rank
+ Switzerland	1
Sweden	2
USA	3
🗮 United Kingdom	4
South Korea	5
The Netherlands	6
🛨 Finland	7
Singapore	8
Denmark	9
Germany	10

Source: World Intellectual Property Organization WIPO, Insead, 2021

- The Swiss legal system, being both stable and liberal, offers both **significant protection for intellectual property and a high degree of investment security for R&D activities**. As it ensures straightforward and affordable market entry for domestic and foreign partners, Switzerland is often selected as the setting for arbitral jurisdiction for international agreements.
- The **Swiss Made** label stands for quality, precision, safety and reliability attributes which contribute to buyers abroad being willing to pay higher prices for Swiss products. In order for a company's industrial product to earn the "Made in Switzer-land" label, at least 60% of the product's manufacturing costs (including R&D, material and production costs including costs for quality assurance and certification) must be incurred in Switzerland. In addition, the main production stage must take place in Switzerland (see also www.s-ge.com/swissness).
- Switzerland is a member of all important international IP treaties and IP organizations, such as the **European Patent** Office (EPO) and the World Intellectual Property Organization (WIPO), based in Geneva. Having access to these protection systems makes it possible to employ a central registration procedure without the need for a local representative in each individual country.
- Switzerland's **processes** for the protection of intellectual property are **simple and efficient**.

- Companies in Switzerland have easy **access to IP specialists** (e.g. patent attorneys). The multilingual nature of Switzerland also makes it easier to operate across national borders, for example in the EU region.
- In contrast to foreign business locations, such as Germany, in Switzerland there are no legal restrictions on the **transfer of intellectual property** (sales, licensing, franchising, security rights, etc.).
- In Switzerland, Swiss law (Art. 332 Swiss Code of Obligations) dictates that inventions and designs which an employee produces while performing his/her duties and fulfilling his/her contractual obligations belong to the employer and not – as in many other countries such as Germany and Austria – to the employee.

CURRENT DEVELOPMENTS

In 2019, the Swiss electorate voted in favor of the Federal Act on Tax Reform and Old-Age Insurance Financing ("STAF"). This tax reform ensures an internationally accepted corporate taxation system (see factsheet at www.s-ge.com/corporate-taxation). The STAF comprises the following core elements:

- **Patent box**: A patent box that is consistent with the OECD regulations provides for a special deduction for innovative companies amounting to a maximum of 90% of revenues from patents and comparable rights that are based on qualifying expenditure for research and development.
- Increased tax breaks for research and development expenditure: In addition, cantons can optionally grant an additional reduction of a maximum of 50% for research and development expenditure. Both innovative major companies as well as small and medium enterprises can benefit from this relief.
- **Relief Limit:** The maximum tax relief must not exceed 70% of profits, but the cantons are free to set a lower relief limit.

SWITZERLAND INNOVATION PARKS

Switzerland Innovation is a nation-wide network of six innovation parks that facilitates collaborations for established companies, startups, and universities to find solutions to some of the world's most pressing challenges. The network of ecosystems created by Switzerland Innovation fosters collaboration between academic partners and industry, which allows universities and innovative companies to jointly use their competencies for the development of marketable products and services.

Switzerland Innovation gives resident companies access to the expertise of world-leading universities, among them the Swiss federal institutes of technology ETH Zurich and EPFL. Resident companies benefit from technology transfer platforms, state-of-the-art infrastructure and a unique atmosphere, which foster the creation of their next best-selling products and services.

Innovation Focus Areas

Switzerland Innovation focuses on five innovation focus areas: health and life sciences, mobility and transportation, energy, the environment and natural resources, manufacturing and production, and computer and computational science.

Target Audience

The strategic position of Switzerland Innovation at the forefront of global research attracts many highly innovative businesses. The target audience include:

- Medium-sized and large technology-driven companies developing new marketable products, services, and processes.
- Established companies from high-tech industries with a high value-added ratio and a clear focus on research and development and innovation activities.
- · R&D teams of corporations and scale-up companies.

Services

A wide range of services and research infrastructure has been specifically designed to ensure the full potential and operational effectiveness of R&D staff and innovation cells at Switzerland Innovation. This includes, among others:

- Support for cooperation with world-class academic partners and easy access to the best talent and researchers.
- A network of thriving high-tech startups and spin-offs.
- Technology transfer platforms.
- Coaching, training and partnership services.
- Approximately 200,000 square meters of high-end laboratories, offices, conference rooms and co-working spaces; access to large research facilities such as the Swiss Light Source SLS, the free-electron X-ray laser SwissFEL and the SINQ neutron source.
- A business-friendly and politically stable environment; access to research funding from Switzerland and the EU; very high quality of life that is attractive to top talents and their families.

CONTACTS AND FURTHER INFORMATION

Authorities and regulators <u>State Secretariat for Education,</u> <u>Research and Innovation</u> <u>sbfi.admin.ch</u>

Innosuisse - Swiss Inovation Agency innosuisse.ch

External Network of Swiss Universities swissnex.org

Swiss Federal Institute of Intellectual Property ige.ch

World Intellectual Property Organization wipo.int

European Patent Office epo.org

Associations and networks csem.ch hslu.ch idee-suisse.ch myscience.ch swisstransitlab.com swissuniversities.ch swisswaterclimateforum.ch

Innovation and startup support

agire.ch baselarea.swiss hightechzentrum.ch research.swiss swissparks.ch switzerland-innovation.com technopark-allianz.ch technopark-luzern.ch

Switzerland Innovation

Switzerland Innovation Foundation switzerland-innovation.com > Switzerland Innovation Park Basel Area > Switzerland Innovation Park Biel/Bienne > Switzerland Innovation Park Innovaare > Switzerland Innovation Park Network West EPFL > Switzerland Innovation Park Ost (in German) > Switzerland Innovation Park Zurich

Publications

<u>Forschung und Innovation</u> in der Schweiz 2019 (in German) <u>sbfi.admin.ch</u>

Swiss International Cooperation in Research and Innovation sbfi.admin.ch

Die Schweizer Forschung und Innovation im internationalen Vergleich - Aktualisierte Indikatoren 2020 (in German and French) sbfi.admin.ch

Collection of Swiss Intellectual <u>Property Laws</u> (in German, French, and Italian) <u>admin.ch</u>

Swiss Venture Funding Map 2020

S-GE resources Handbook for Investors s-ge.com/handbookforin vestors

More fact sheets on Switzerland as a business location s-ge.com/factsheets

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