



KEY FIGURES

47,500 employees



percent of gross value creation



CHF billion invested in R+D in Switzerland

97.6



CHF billion in pharmaceutical industry exports

Source: Interpharma, 2020

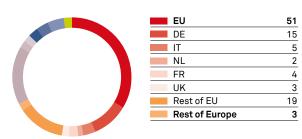
SWITZERLAND AS A PHARMA HUB

AT A GLANCE

More than a third of Swiss exports come from the pharmaceutical industry, making it a major contributor to the Swiss economy. Both multinational corporations, such as Roche and Novartis, and small- and medium-sized pharmaceutical companies have excellent infrastructures and skilled employees at their disposal in Switzerland. The cooperation between large and small companies and the proximity to research institutions offer an ideal environment for research and innovation and form the basis for a highly specialized production location. Switzerland's sophisticated healthcare system also offers ideal conditions as a test and sales market in which products can be launched.

Export of pharmaceutical products

Export volume 2019: CHF 97.6 billion (100%), equals 41% of all Swiss exports



US	24
Canada	3
South America	3
Japan	4
China	5
Rest of Asia	7
Other countries	3

Sources: Interpharma, 2020

Top 10 companies

By number of employees in Switzerland in 2018

Novartis	Shire
Roche	Merck Sharp & Dohme (MSD)
Johnson & Johnson	 Celgene
Merck	Biogen
Vifor Pharma	Takeda

OFFICIAL PROGRAM



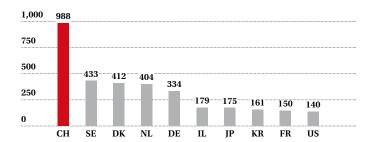
Source: Interpharma, 2019

RESEARCH AND DEVELOPMENT (R+D)

- Switzerland is the country with the largest export surplus of
 pharmaceutical products worldwide. However, it is not only an
 important production location but also an important research
 location. The availability of highly qualified scientists is excellent as a result of globally leading universities and financially
 sound, research-oriented pharmaceutical companies.
- The total investment in R+D of all pharmaceutical companies based here and registered with the Interpharma industry association in 2019 was approximately 7 billion Swiss francs. This is almost twice as much as their achieved sales in Switzerland, which underlines the importance of the location. In particular, the Swiss companies Novartis and Roche invested a lot in R+D.

Pharmaceutical patents at the European Patent Office

Patent applications per million inhabitants, 2019



Sources: European Patent Office; Interpharma, 2020

- As from 2022, all the research groups at the Department of Biosystems Science and Engineering of ETH Zurich will be united under one roof in Basel, in close proximity to important partners. This will enhance interaction with industry and medical research.
- The Friedrich Miescher Institute (FMI) in Basel devotes itself to fundamental biomedical research and employs 350 members of staff from 40 different nations.
- Switzerland Innovation is intended to contribute to securing the leading role of Switzerland as an innovation nation and thus maintaining its competitiveness. The Innovation Park was launched at the start of 2016 with the two hubs associated with the two Federal Institutes of Technology in Zurich and Lausanne, as well as the three network locations in Aargau, Basel and Biel.
- BaseLaunch (a healthcare acceleration program) aims to speed up development of healthcare start-ups and strengthen Basel as a life-science hub. Supporters of BaseLaunch include the healthcare partners Novartis Venture Fund, Johnson & Johnson Innovation, Pfizer, Roche and Roivant Sciences.

High level of investment in R+D

CHF million invested by registered Interpharma companies, 2019



Source: Interpharma, 2020

- The Schlieren-Zurich Bio-Technopark is an internationally important science park for the life sciences sector that employs over 1,000 people. Among other things, the Bio-Technopark received attention thanks to the successful sales of start-ups to large corporations and international companies such as Roche, Novartis, J&J, GSK, Pfizer, Thermo Fisher Scientific, Cell Medica, Sunstar and Heptares.
- In pharmaceutical research, an average of 48 patents per million inhabitants and year were registered from Switzerland between 2014 and 2018. That is about twice as many as in Denmark.
- Efficient and straightforward application procedures are in place to protect intellectual property. Switzerland also has an extensive range of specialists offering the best possible IP marketing (licensing, patent transactions or strategic partnerships).
- It takes around 330 days to obtain a license for a new pharmaceutical product from the Swiss Agency for Therapeutic Products Swissmedic (excluding time required by the company internally), making the Swiss registration procedure one of the fastest application procedures worldwide. At the request of the manufacturer or the distribution company, Swissmedic may also provide for an accelerated admission procedure ("fast track"), which usually takes around 140 days.
- The laboratory technicians in Switzerland tend to show longterm loyalty to their employers, meaning there is a low staff turnover rate – this is in contrast to the situation in the USA where the majority of researchers are not employed permanently and third-party funding is spent on projects. Staff turnover can lead to a loss of know-how.

COSTS AND FINANCING

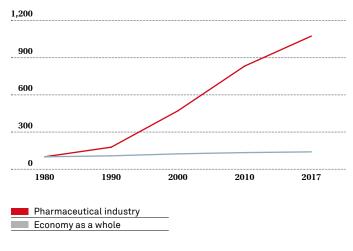
- The Swiss stock exchange is Europe's leading exchange for life sciences companies, representing around 40% of the European life sciences market capitalization across Europe's major stock exchanges. Switzerland's capital-rich investor base, strong banking system and its leading industry know-how make up the country's vibrant life sciences ecosystem. This enables companies to efficiently raise capital with the view to drive scientific discovery through to market launch.
- 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 the promotion of innovation projects.
- In recent years, value creation within the Swiss pharmaceutical industry has continued to increase more significantly than in any other country. It exceeds that of the Swiss economy by more than seven times.
- The companies registered with the industry association Interpharma, which had their head office in Switzerland in 2018, together achieved worldwide sales of more than 93.5 billion US dollars, which corresponds to a market share of around 8.9%. This illustrates the competitiveness of the Swiss pharmaceutical industry.
- Eurostars is a joint program with the EU. SMEs that invest more than 10% of their turnover in research and development are eligible to receive financial support as part of the Eurostars support program. As a general rule, there are two calls for tender per year. Switzerland is funding projects with up to a maximum of 500,000 euros.
- The Swiss life science industry has the highest level of productivity compared to other top international locations.
- First-class technology and innovation park infrastructure alongside research institutions such as Campus Biotech Geneva, EPFL Innovation Park Lausanne, the BioArk in Visp and in Monthey, Bio-Technopark Zurich, Technologiepark Basel, and Biopôle Lausanne – promote startups and spin-offs.
- 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.
- A reduced value added tax rate of 2.5% applies to chemical and pharmaceutical products.

FRAMEWORK CONDITIONS AND MARKET ENTRY

- Free trade agreements with the EU/EFTA and 40 other countries including China and Japan provide access to the most important export markets. Around 200 million euros are saved annually for pharmaceutical and chemical exports to Germany, France, Austria and the United Kingdom alone.
- Mutual recognition of conformity and quality control leads to significant cost savings when trading with the EU, the EEA, the EFTA states and Canada.
- Due to the international recognition of its high quality standards, Switzerland is well-suited to being a strategic test market ("early adopter market") for introducing new medical products.
- Unlike in some countries, biotech and gene tech licensing applications are regulated by a single central authority (Federal Coordination Center for Biotechnology). This guarantees minimal bureaucracy and simple procedures.

Labor productivity in the pharma industry

CHF per full-time employee 1980-2017



Sources: BAK Economics, Polynomics; Interpharma, 2019

TESTIMONIAL



"Helsinn follows an integrated licensing strategy that enables us to benefit from the network of international pharmaceutical companies located in Switzerland, as well as specialist local companies. Helsinn licenses new materials from these companies at an early stage and enhances them before marketing them. Switzerland is an

ideal location for us, with it being close to other pharmaceutical companies and top researchers with spin-off ideas, as well as leading research institutions and hospitals."

RICCARDO BRAGLIA
Helsinn Group Vice Chairmann and CEO
www.helsinn.com

CURRENT DEVELOPMENTS

- The aims of the master plan for **strengthening biomedical research and technology** are twofold: The Swiss Federation wants to provide the best possible basic conditions for biomedical research and technology and at the same time guarantee the public access to the achievements and products of biomedicine. For that purpose a total of 23 measures will be implemented in various areas by 2020.
- The Switzerland Future Fund project (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 pharmaceutical industry would also benefit from this.
- Bilateral agreements provide Swiss pharmaceutical companies with privileged access to the domestic and labor market within the EU as well as to EU research funding programs.
 Switzerland and the EU are currently engaged in negotiations aimed at maintaining the framework conditions for market access, research partnerships, and the recruitment of specialists.
- 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 fact sheet at www.s-ge.com/corporate-taxation).

CONTACTS AND FURTHER INFORMATION

Authorities and regulators

State Secretariat for Education, Research and Innovation sbfi.admin.ch

<u>Federal Office of Public Health</u> bag.admin.ch

Swiss Agency for Therapeutic
Products
swissmedic.ch

Federal Coordination Centre for Biotechnology bafu.admin.ch

<u>Innosuisse - Swiss Inovation Agency</u> <u>innosuisse.ch</u>

Swiss Federal Institute of Intellectual Property ige.ch

Associations and networks

bioalps.org
farmaindustriaticino.ch
gensuisse.ch
interpharma.ch
scienceindustries.ch
switt.ch
vips.ch

Innovation and startup support/ Financing

baselarea.swiss baselaunch.ch

biomedvc.com bio-technopark.ch

biovalley.ch campusbiotech.ch

devigier.ch

hbmhealthcare.com investiere.ch

lifescience-zurich.ch

nvfund.com

roche.com/venturefund.htm

seca.ch swissparks.ch

 $\underline{switzerland\text{-}innovation.com}$

technologiepark.ch theark.ch

versantventures.com

Publications

<u>Pharma-Markt Schweiz</u> <u>interpharma.ch</u>

Site Selection for Life Science Companies in Europe 2018 kpmg.com

S-GE resources

Handbook for Investors www.s-ge.com/ handbookforinvestors

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

This fact sheet was produced with the kind support of Interpharma.

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