



KEY FIGURES



Source: Interpharma, 2018

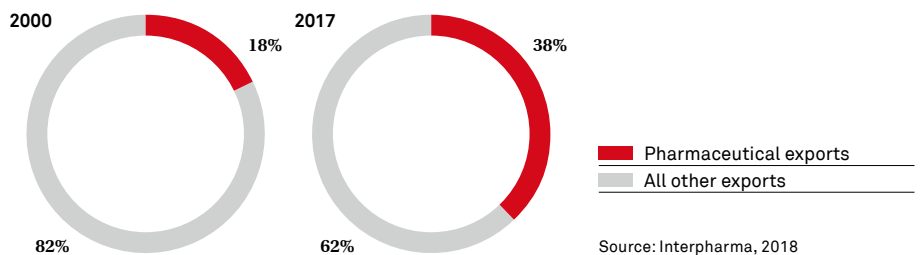
SWITZERLAND AS A PHARMA HUB

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.

Swiss Pharmaceutical Industry Exports

Share of overall exports (in %)



Top 10 Companies

By number of employees in Switzerland in 2017

Novartis	GlaxoSmithKline
Roche	Shire
Johnson & Johnson	Celgene
Merck	Merck Sharp & Dohme
Vifor Pharma	Takeda











Source: Interpharma, 2018

RESEARCH AND DEVELOPMENT (R+D)

- The availability of highly qualified scientists is excellent as a result of globally leading universities and financially sound, research-oriented pharmaceutical companies. Novartis employed around 23,000 scientists, doctors and other professionals in 2017 and reported a total of more than 200 projects in clinical development. Roche employed over 22,000 people in R&D in the same year.
- In 2017, Roche and Novartis together invested almost 16 billion Swiss francs, or around 21% of net sales, in research and development globally. In Switzerland, total investments in R&D by all pharmaceutical companies located in Switzerland and registered with industry association Interpharma amounted to around seven billion Swiss francs in 2017.

Global Innovation Index

The ten most innovative countries in the world

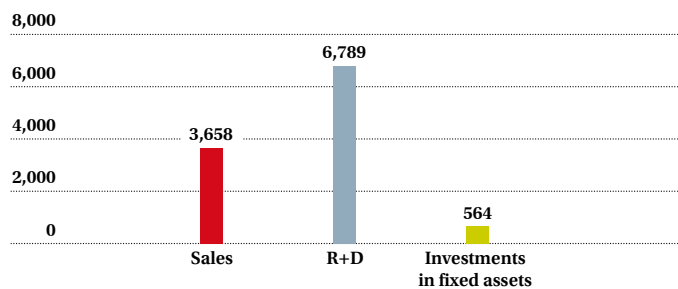
Country	Ranking
 Switzerland	1
 The Netherlands	2
 Sweden	3
 United Kingdom	4
 Singapore	5
 USA	6
 Finland	7
 Denmark	8
 Germany	9
 Ireland	10

Source: Global Innovation Index, 2018

- The ETH's Department for System Biology in Basel, which comprises 15 professors and 300 employees, will be moved to a new building by 2020 and is expected to grow to 500 employees. In 2017, there were 1094 people studying Life Sciences at Bachelor, Master or PhD levels at the EPFL. In the same year, there were 2,625 individuals studying life sciences and chemistry at universities of applied science.
- The Friedrich Miescher Institute in Basel devotes itself to fundamental biomedical research and employs 300 international members of staff.
- 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 Research

CHF million invested by 24 interpharma companies, 2017



Source: Interpharma, 2018

- 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.
- Efficient and straightforward application procedures are in place to protect intellectual property. Switzerland is one of the countries with the highest number of pharmaceutical patents per capita when compared with other countries. It also has an extensive range of specialists offering the best possible IP marketing (licensing, patent transactions or strategic partnerships).
- It takes around eleven months 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. A normal evaluation of a license application for human medicine with a new active substance costs CHF 70,000 (CHF 105,000 to expedite the procedure).
- 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.

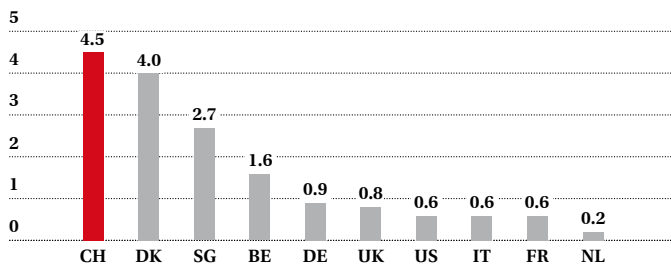
COSTS AND FINANCING

- Switzerland has by far the **most important stock exchanges** for life science companies in Europe. Around a third of the market capitalization on the SIX Swiss Exchange is attributable to life science companies. 40% of the capitalization of European life science companies can be found on the SIX.
- 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.

- Pre-seed and seed funding worth between CHF 30,000 – 150,000 are possible through national universities.
- In recent years, **value creation within the Swiss pharmaceutical industry** has continued to increase more significantly than in any other country.
- 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.

International comparison of value creation in the pharmaceutical industry, 2016

Percentage share of national GDP

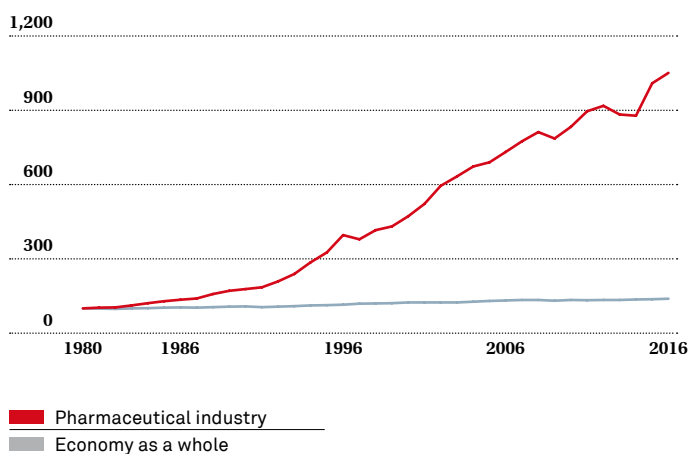


Source: BAK Economics, Polynomics; Interpharma, 2017

- The interim financial statement for the EU's 7th Framework Program for Research and Technological Development (2007 – 2013) exemplifies how competitive Swiss researchers are on an international level. Switzerland received around CHF 2,482 million (4.2%) in funding between 2007 and 2013. Initial comparison with Horizon 2020 data for 2014 – 2017 shows a share of 2.4% contributions received.
- SMEs which invest more than 10% of their turnover in research and development are eligible to receive financial support as part of the Eurostars support program. The budget provided until 2020 amounts to EUR 1.14 billion. Switzerland is funding projects with up to a maximum of EUR 500,000.

Labor Productivity in the Pharma Industry

CHF per full-time employee 1980-2016



Source: BAK Economics, Polynomics; Interpharma, 2017

- 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 EUR 200 million are saved annually for pharmaceutical and chemical exports to Germany, France, Austria and the United Kingdom alone. Switzerland also has the third most concentrated network of bilateral investment protection agreements after Germany and China.
- Mutual recognition of conformity and quality control leads to significant cost savings when trading with the EU, the EEA, the EFTA states and Canada. In the pharmaceutical industry alone, these savings amount to between 150 and 300 million Swiss francs per year.
- 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**.

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
CEO Helsinn Holding SA
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.
- Switzerland is currently in the process of modernizing its corporate tax system. The goal is to provide an attractive tax environment for companies and to ensure that taxation arrangements are in line with internationally established tax practices. The Swiss Federal Department of Finance (FDF) has already prepared a new proposal with tax proposal 17 (SV17). The reform is expected to come into effect no earlier than 2020. Until then, the current attractive tax regime will remain valid at national level.

CONTACTS AND FURTHER INFORMATION

Authorities and regulators

State Secretariat for Education,
Research and Innovation
www.sbf.admin.ch

Federal Office of Public Health
www.bag.admin.ch

Swiss Agency for Therapeutic
Products
www.swissmedic.ch

Swiss National Science Foundation
www.snf.ch

Innosuisse - Swiss Innovation Agency
www.innosuisse.ch

Institute of Intellectual Property
www.ige.ch

Associations and networks

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

Innovation and startup support

www.baselarea.swiss
www.baselaunch.ch
www.biovalley.ch
www.bio-technopark.ch
www.campusbiotech.ch
www.inkubator-basel.ch
www.investiere.ch
www.lifescience-zurich.ch
www.lsnb.ch
www.swissparks.ch
www.switzerland-innovation.com
www.technologiepark.ch
www.theark.ch

Financing

www.biomedvc.com
www.devigier.ch
www.hbmhealthcare.com
www.investiere.ch
www.newventuretec.com
www.nvfund.com
www.roche.com/venturefund.htm
www.seca.ch
www.six-swiss-exchange.com
www.versantventures.com

Publications

Importance of the pharmaceutical
industry in Switzerland
www.interpharma.ch > Fakten &
Statistiken > Pharma-Markt Schweiz
(in German)

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

Legislation regarding health
www.bag.admin.ch

S-GE resources

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

Information on the Swiss free trade
agreements
www.s-ge.com/fta

More fact sheets on Switzerland as a
business location:
www.s-ge.com/invest-sectors
www.s-ge.com/business-environment
www.s-ge.com/value-chain-analysis

This factsheet was produced with
the kind support of interpharma.

09/2018